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NOTICE

"God's gift was that men should conceive of truth,
And yearn to gain it, catching at mistake
As midway help, 'till he reach fact indeed."

—*Browning.*

"It is of small importance to any of us whether we get liberty, but of the greatest that we deserve it."

—*Ruskin.*

VOL. XXII, PART I NO. 45

PROCEEDINGS

NOVEMBER 15, 1935

BROADENING THE MARKET FOR CASUALTY INSURANCE

PRESIDENTIAL ADDRESS BY WINFIELD W. GREENE

Before we were yet a nation, American skippers were already building world trade,—not clinging timidly, or stubbornly, to the familiar shore line between Boston and Savannah, but boldly scouring the seven oceans, seeking relentlessly to profit by bringing together the products and the desires of mankind.

Exploration and discovery must ever precede the exploitation of new territory: and so you are invited to join me in a quest for new markets, or a broader market, for our business. Our ultimate destination is as indeterminate as that of that great civilizer, the Yankee trader, who started out for wherever he might turn an honest dollar with a deckload of lumber, a holdful of New England rum, and some few chests of gaudy but inexpensive trinkets under the after hatch; but our immediate object is to discover the sources of that mighty, mystic, muddy stream, the broad river of American casualty insurance.

* * * * * * * * *

Casualty insurance stems from the machine. In some of its branches, such as the power plant and the automobile lines, this relation is direct and obvious. For most other casualty forms the causal connection is just as definite, though somewhat less apparent.

The bonding and burglary lines protect mainly cash, bank balances, securities, and contractual rights. They cover tangible

property only to a minor extent. The present tremendous volume of intangible wealth could hardly have been accumulated except through the intensive use of the machine.

Workmen's compensation is another case in point. Formerly the greater part of all labor was performed on farms in the service of a family which, with its many children, its other dependent relatives, and its collateral branches living nearby, constituted a sizable and rather well-knit clan. The family, or at least the clan, was usually able to take care of its injured members; since food, shelter, and clothing were mostly home grown or home fabricated, and the incidental variety of tasks included duties which even the maimed could perform. In the coming of the machine, not only has the clan as an employer been supplanted by the corporation; it has been disrupted as a social organism, and split into smaller units each consisting of an individual plus his immediate family, if any. Now the family has neither responsibility for nor capability of liquidating work accidents; hence the creation of a monetary liability on the part of the corporate employer, and the need for insurance to cover it.

We would expect, then, to be able to discern considerable correlation between the growth of our business, and the increase in the use of machines. Chart "A" is an attempt to justify this expectation. On this chart the year to year trend of the countrywide casualty premiums of New York licensed companies for the twenty-five years ended in 1934 is compared with the progress of the below-named factors, all of which are also countrywide, or virtually so, and all of which reflect the use of energy other than human or animal power.

1. Yearly supply of energy from mineral fuels and water power (excess over per capita standard of 1871-75).
2. Manufacturing Payrolls.
3. Value of Construction Contracts Awarded (only from 1922 on).
4. Number of Automobiles in Use (Registered).

Some of the figures had to be adjusted in order to bring the curves close enough together to permit comparison. For example, the automobile registration line reflects hundreds of thou-

sands of cars × 3. Therefore on this chart, and on the other charts I shall show you, only trends are significant. The sources of the figures are the usual ones.

This chart reflects the well-known steep increase in casualty premiums from $85,000,000 in 1910 to $811,000,000 in 1929; the drop to $602,000,000 in 1933; and the rebound to $662,000,000 in 1934.

Now as "Cook's Man" of this cruise, may I point out the following?

1. Since 1910 there have taken place the enactment and subsequent liberalization of the workmen's compensation laws, and a general increase in the claim-mindedness of our citizens and other denizens. Accordingly, much of this premium increase reflects a heightening of loss cost and rate level rather than a real rise in business. Making allowance for this increase in cost and rate levels would swing the casualty premium trend into a position more nearly parallel to the average trend of the other factors, which individually are by no means in step with each other.
2. The casualty business appears to be less dependent upon manufacturing than some of us may have imagined. The manufacturing payroll (and for that matter, the wholesale value of manufactured goods produced) has never since the 1921-22 depression regained the post-war level.
3. The construction business was a heavy sustaining factor from 1922 to 1926, but this, too, flattened out in 1927 and 1928, starting its nose dive in 1929, a full year ahead of most other factors.
4. The yearly energy supply which for some years prior to 1929 was growing only slightly faster than the population offers no explanation for the spectacular rise of the casualty business.
5. The respective trends of casualty premiums and of the number of motor cars in use are fairly close most of the way. By all odds, they represent the nearest agreement of the chart. Now John Doe carries liability and property damage on the family car not to protect the car, which may be old and comparatively worthless, but to protect his estate; that is to safeguard his other property and his income from legal attachment or other dissipation: and it is for the same reason that he keeps up his accident insurance, his burglary insurance, the compensation policy that covers his cook and his handy man, etc., etc.

Study of this chart suggests that the immediate source of casualty premiums is not the machine itself, but the intangible property structure which the machine has erected. How closely, then, does the trend of casualty premium volume follow that of commercial banking balances and transactions? The answer appears in Chart "B," where the casualty premium curve is compared with that of

Bank Clearings
National Bank Deposits and
National Bank Loans.

It would take a banker to account for certain idiosyncrasies of these last named figures, but even a banker should agree that our premium curve follows the above banking figures more closely than it does any of the energy factors on Chart "A," even including "Automobiles Registered." Casualty premiums continued to soar long after manufacturing had reached a dead level,—and they were still trending upwards for a year after construction had begun its steep toboggan slide; on the other hand the casualty business went up with bank balances and bank clearings and it followed them down as closely as the lamb followed Mary.

The banks and the casualty companies perform distinct but closely related services. They appear to be responsive to much the same influences.

Let us see if this apparent relation stands up when we examine premium growth by lines for the period 1924-34.

It should hold, if at all, in fidelity, surety and burglary, for these are largely concerned with financial rather than industrial factors. Chart "C" supports our theory rather well. The parallelism is there. The premium curve for these lines since 1924 certainly resembles that for National Bank Deposits rather closely,—more than it does the trend of the contracting business and quite as much as it does the trend of manufacturing payrolls.

Chart "D" confirms what we would expect, namely that automobile premium volume follows the number of cars registered, at an interval. Nevertheless even here the relation to banking is not refuted. Automobiles registered follows National Bank Deposits with a slight lag, and the three curves just mentioned resemble each other considerably. The automobile premium vol-

ume is not very responsive to yearly variations in automobile production.

Compensation premiums (Chart "E") appear to follow bank clearings much more closely than they do either construction or manufacturing, doubtless because the compensation line reflects activity in all forms of enterprise, as does bank clearings.

A thorough and comprehensive study of this immediate subject is far and away beyond the scope of this paper. Such an investigation might establish controls which would be of substantial advantage to our business. Meanwhile, this limited survey points to the following as useful temporary barometers of the volume trends to be expected.

Automobile Lines:
(1) Automobiles Registered
(2) Bank Deposits

Bonding and Burglary Lines:
(1) Bank Deposits

Workmen's Compensation:
(1) Bank Clearings.

* * * * * * * * *

Are we making full use of the known sources of casualty business? I venture to say we are not, even though the casualty premium curve looks better than most business trends right now.

Ours is a young business. The increase to date has been largely due to mere capillary attraction. What happens from now on depends more on our efforts.

Economists differ as to the proper extent and type of government regulation, but they all agree that the economic life blood must be permitted to flow through the veins of the body politic. I sometimes wonder if we of the casualty business are not prone to swathe the limbs of our infant industry in such a welter of protective bandages as to threaten its circulation altogether. The responsibility for many of these restrictions seems to be so evenly divided between the home offices, the producers and the insurance departments that no one feels responsible.

In the matter of coverages, for example, it seems to me that rigidity has been overdone. The accident business appears to be

taking on new life and hope under its valued policy program, yet any deviation from the generally accepted standard still is anathema in the liability and compensation field. Granting that no company should be permitted to offer any contract at less than a demonstrably safe rate, why shouldn't a company be permitted to write a restricted contract at a proper differential, provided the assured is good for the difference in limits—and regardless of the assured's financial ability where insurance is not compulsory and is not now being carried by the majority of risks?

Possibly it was the Medes and the Persians who fixed the minimum amount of automobile liability insurance at $5/10,000. The majority of automobile operators are not good for this amount and do not buy insurance. Just what has been accomplished by this idealistic minimum? Would it not be better that the injured recover a few hundred dollars than that he recover nothing? Do we know that these low limit policies could not be written at a profit? As regards the well-to-do automobile owner, why do we not consider cutting the cover at the lower end, by offering a substantial rate cut in return for an equally sizable deductible? Perhaps during our discussion of automobile liability rating this afternoon someone will tell me why this has not been tried.

Speaking of deductibles, I am now inclined to think that our traditional prohibition of them in the compensation business is all wrong. From direct observation of self-insured I would say that when the assured spends his own money he becomes interested in accident prevention as he seldom is otherwise and the experience consequently improves. Of course state authority should require financial responsibility proportionate to the size of the deductible. Incidentally too stingy a rate discount in consideration of the deductible would be self-defeating, assuming, of course, that the plan is offered in good faith.

Two other concepts that have hurt our business are the multiple line fetish and the watertight compartment plan of charter powers.

The idea of having to give service in all states on all lines has proven costly for many companies and deadly for some. The casualty business as at present divided up is much too thin for most companies in most states. The volume of our business is such as to severely limit the number of successful multiple line

companies. Most would do well to specialize in a comparatively few lines, obtaining their volume through an intensive cultivation of a limited area.

It is pleasing to note that the charter powers of insurance companies is a matter once more attracting considerable attention. I invite your attention to a treatise upon this subject delivered to the National Convention of Insurance Commissioners by our own Mr. Clarence W. Hobbs on August 21, 1923. Mr. Hobbs pointed out the lack of logic in the present arbitrary and non-uniform distinctions between the three classes of insurance companies. The system of permitting one company to transact all classes of insurance business, unquestionably successful in Great Britain, may or may not be appropriate to American conditions, but at least there would seem to be no compelling reason why one company with adequate resources should not be permitted to transact all lines but life. Such a change if adopted generally by the several states would not only enable both fire and casualty companies, multiple line or otherwise, to serve the insurance public more efficiently and economically: it would stimulate our business through the elimination of vexing uncertainty and costly litigation, simplify the financial structure of numerous company groups, and remove serious discrimination that now exists as between the companies of different states. The importance of this subject is intensified by the restrictions imposed by certain states upon the ownership of insurance stocks by insurance companies, and by the new Federal Tax upon intercompany dividends.

This memorandum of our legal and psychical inhibitions might be considerably enlarged. I hope someone will find time shortly to do the job properly.

* * * * * * * * *

Eventually, rigidities in price cannot be sustained against the pressure of the law of supply and demand. Public opinion will support governmental price control only to the extent that it assures that a lower price is based on honest costs. It will not support permanently a program dedicated to the perpetuation of costs which might be reduced through practicable improvements

in organization and in operating procedure. In the long run, therefore, the casualty business is no less subject to economic law than is any other business. Further, the casualty business is particularly dependent upon general business activity. Therefore, it is worth while, on two counts, to consider recent general economic history.

Economists attribute the recent depression to failure of "effective demand,"—purchasing power to most of us. I have already referred to the fact that during the boom years of the twenties there was no striking rise in the volume of goods manufactured, which, with aggregate factory wages, remained fairly constant. Corporate profits, on the other hand, increased handsomely, presumably because of technological improvements. The wage earner's share of the value added to goods by manufacture dropped several points. Workmen as well as other citizens were buying stocks instead of clothing, furniture, homes; and the entire paper structure eventually collapsed for lack of a sound foundation of buying power.

Probably most will agree with the above as an approximate description of what happened between 1922 and the fall of 1929. There is less agreement as to how to prevent another debacle. Our best hope lies, I believe, not in a further extension and elaboration of governmental control, essential though such control is within proper limits, but rather in more and more open-minded thinking upon economic problems upon the part of all of us, and ultimately in the sportsmanship and resourcefulness of the American people.

Speaking of resourcefulness, some industries have not waited for the millenium. Instead of asking for controlled prices, they have tried to learn how to make a profit at the available price level.

Notable among such industries is automobile manufacturing. In 1920 the average wholesale passenger car price was $950. By 1929 it had dropped to $622 and last year it was $532—and I ask you, have the cars improved?

Here is an industry that does not disdain to direct its aim deliberately at the low price market. It builds cars which its own employees can afford to own.

The building industry is in line for a similar revolution. Im-

provements in heating, insulation, ventilation, building materials, household electrical devices, etc., etc., suggest the scientifically yet artistically designed small house consisting of pre-fabricated units assembled on the site. In this direction, not in the scrapping of the machine, lies the way to set the wage earners of America to work building their own homes and incidentally a sounder future for themselves and for the nation.

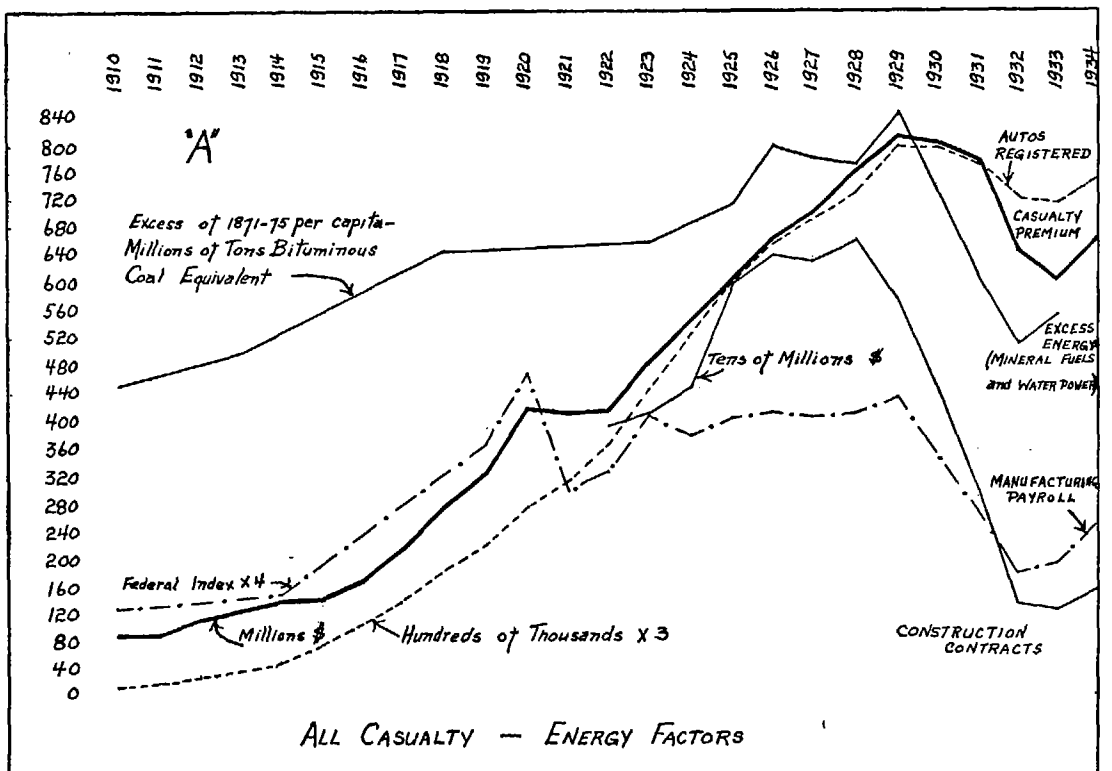
If we are to avoid a perennial choice between the dole and "boon doggling," production must in major part consist of sound, attractive goods intended for consumption by the common man at a price he can and will pay. The casualty business, too, must be largely directed toward a wholesome development of the smaller units of coverage. Those casualty insurance institutions that are forewarned of this tendency will profit accordingly.

* * * * * * * * *

Our exploratory voyage is over. Perhaps you feel I haven't even taken you over the harbor bar; or you may consider you've been transported through unwholesome exotic regions unfit for civilized habitation. At any rate, like most marine explorers we have not been very thorough,—we have paused here and there just long enough to catch a few strange kinds of fish, then—up with the anchor and away! I need not assure you, therefore, that this mighty, mystic, muddy stream, this broad river of American casualty insurance we've been exploring, is not fished out; indeed systematic exploitation of the stream has hardly begun.

And speaking of fishing, I would like to quote from Edmund Burke's classic warning to Parliament against underestimating the Americans, when he said, "Look at the manner in which the people of New England have of late carried on the whale fishery. . . . There is no climate that is not a witness to their toils. Neither the perseverance of Holland, nor the activity of France, nor the dexterous and firm sagacity of English enterprise ever carried this perilous mode of hard industry to the extent to which it has been pushed by these people . . . , who are still but in the gristle and not yet hardened to the bone of manhood."

Evidently Mr. Burke expected great things of us. I have a feeling that when we get our dander up, his expectations will be justified.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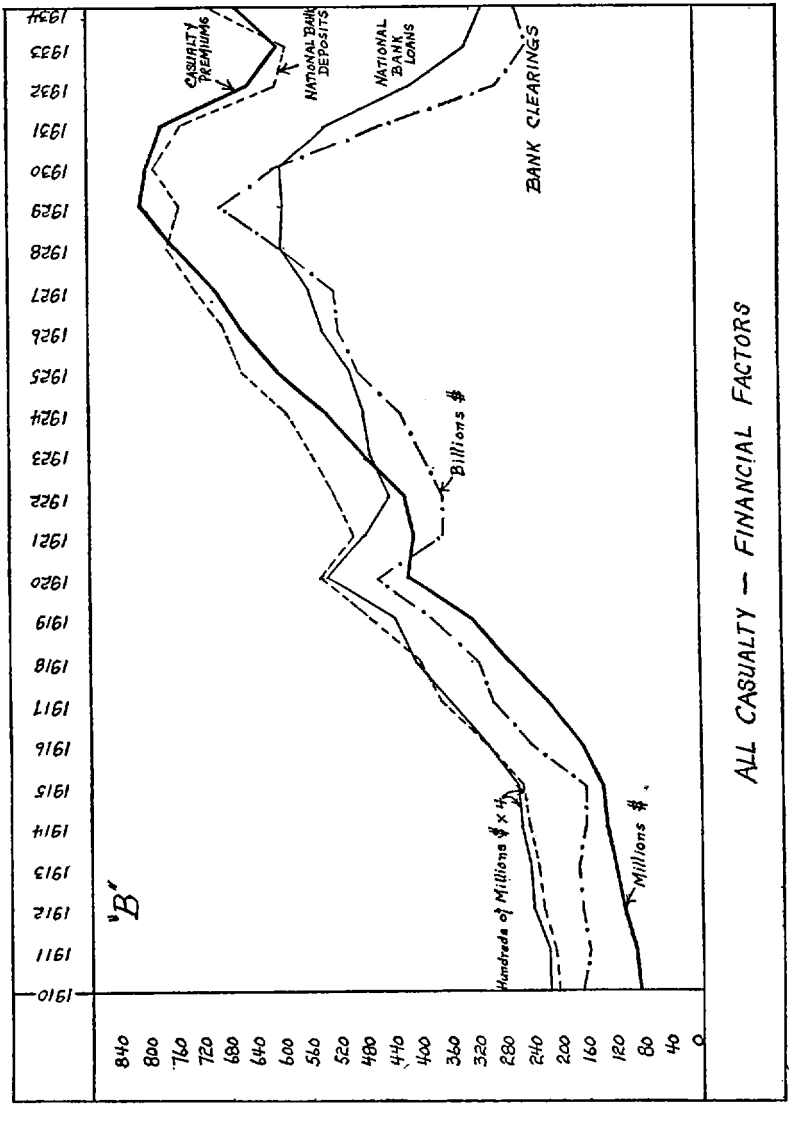
360
320
280
240
200
160
120
80
40
0
"A"
Excess of 1871-75 per capita-
Millions of Tons Bituminous
Coal Equivalent
AUTOS REGISTERED
CASUALTY PREMIUM
EXCESS ENERGY (MINERAL FUELS and WATER POWER)
Tens of Millions $
MANUFACTURING PAYROLL
Federal Index X4
Millions $
Hundreds of Thousands X 3
CONSTRUCTION CONTRACTS
ALL CASUALTY — ENERGY FACTORS


ALL CASUALTY — FINANCIAL FACTORS
"B"
CASUALTY PREMIUMS
NATIONAL BANK DEPOSITS
NATIONAL BANK LOANS
BANK CLEARINGS
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Hundreds of Millions $ x 4
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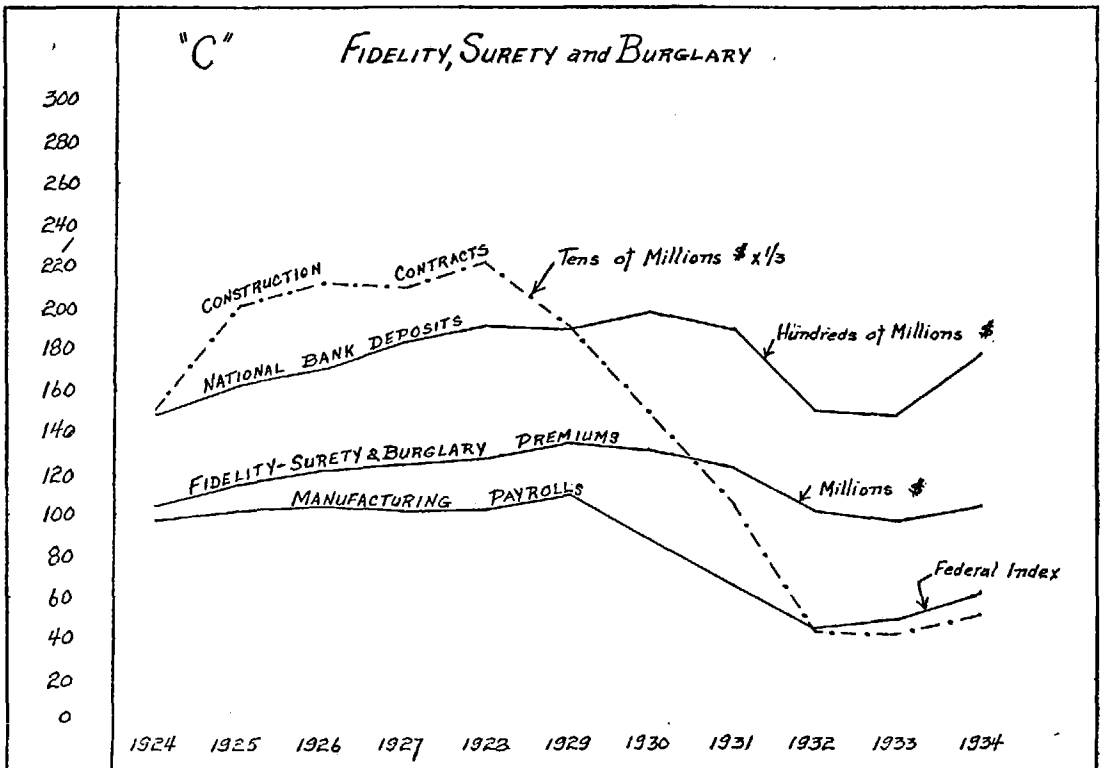
"C"
FIDELITY, SURETY and BURGLARY
300
280
260
240
220
200
180
160
140
120
100
80
60
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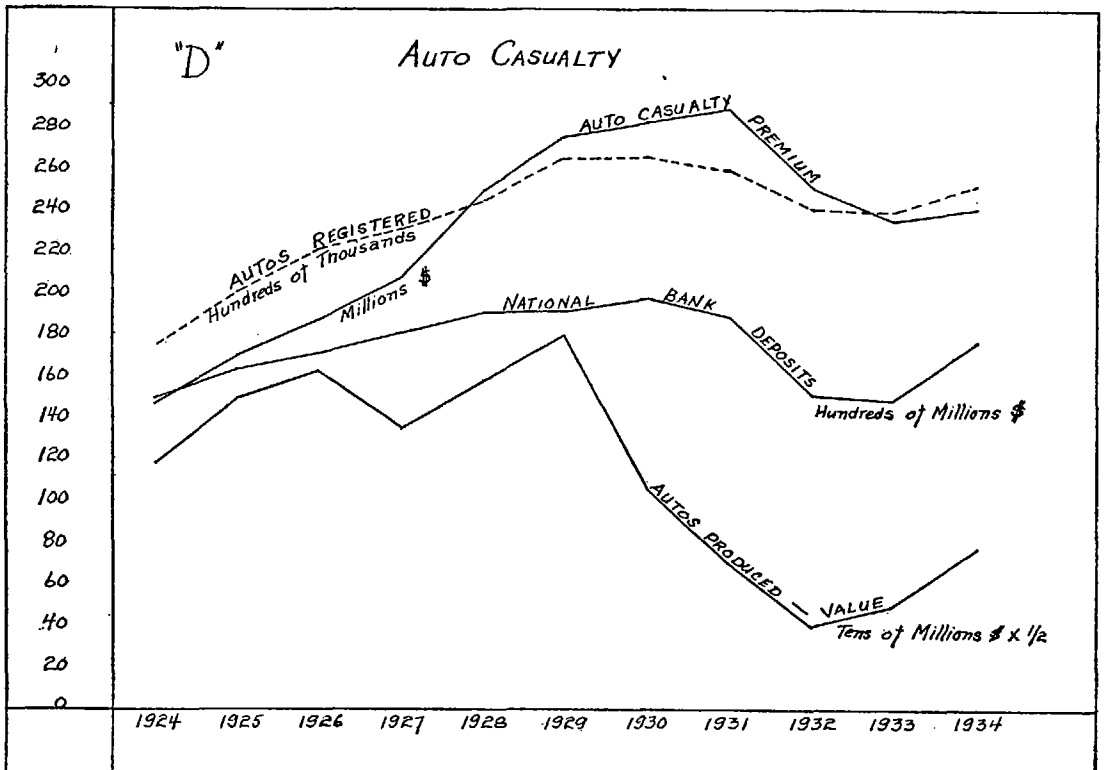
20
0
CONSTRUCTION CONTRACTS
Tens of Millions $ x 1/3
NATIONAL BANK DEPOSITS
Hundreds of Millions $
FIDELITY-SURETY & BURGLARY PREMIUMS
Millions $
MANUFACTURING PAYROLLS
Federal Index
1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934


"D"
AUTO CASUALTY
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AUTO CASUALTY PREMIUM
AUTOS REGISTERED
Hundreds of Thousands
Millions $
NATIONAL BANK DEPOSITS
Hundreds of Millions $
AUTOS PRODUCED — VALUE
Tens of Millions $ X 1/2
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1925
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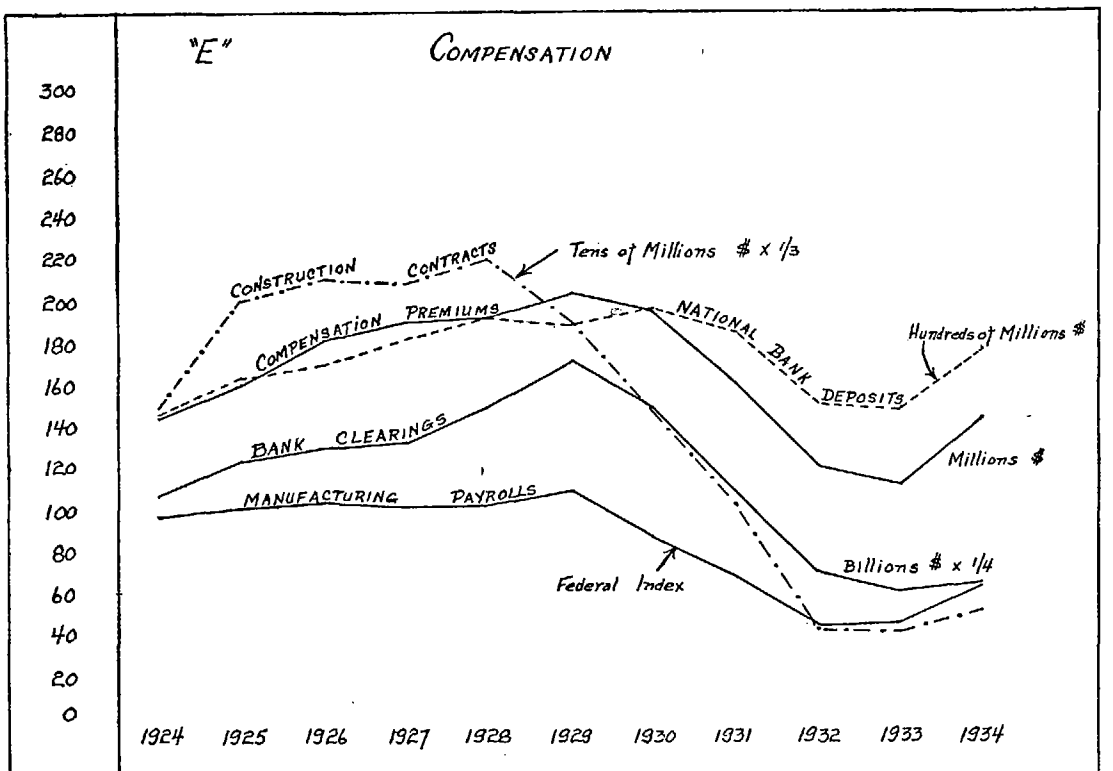
1929
1930
1931
1932
1933
1934


"E"
COMPENSATION
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120
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CONSTRUCTION CONTRACTS
Tens of Millions $ x 1/3
COMPENSATION PREMIUMS
NATIONAL BANK DEPOSITS
Hundreds of Millions $
BANK CLEARINGS
Millions $
MANUFACTURING PAYROLLS
Billions $ x 1/4
Federal Index
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934

DISTRIBUTION OF INSPECTION COST BY LINE OF INSURANCE

BY

HARRY V. WAITE

The task of assigning the expenses of a multiple-line insurance company to line of insurance is not an easy one. Where the expenses are incurred in the home office, it is possible to make a series of tests closely allied to those carried on in a physical laboratory and reach results which can be defended with considerable confidence. But where the expenses are incurred through the field at points widely separated and where a considerable proportion of the salaried force involved is on the road, the problem of satisfactory distribution to line of insurance becomes intensified.

Possibly the difficulties in the way of correct distribution are greatest for the two service departments of a casualty company, viz., Inspection and Claim Adjustment. Therefore, this paper which is devoted to the distribution of inspection expense by line of insurance deals with what has proved to be one of the most difficult expense problems confronting companies writing casualty insurance.

As the cost of making an inspection varies materially by line of insurance, some method must be devised to determine just what the difference is in cost per inspection by line. There seems to be no reliable method other than a time study which requires all inspectors and clerks to keep records of the time devoted to each line of insurance over a given period.

In planning a time study it is well to keep in mind the necessity of securing expense analysis data with as little report work by the inspector in the field as possible. The cost of the inspection department, especially during these times, is under close scrutiny and it is, therefore, important that the inspectors spend as much of their time as possible in making actual physical inspections and as little time as possible in report writing, particularly upon that part of report work which is used only for the distribution of expense.

In order that the inspectors shall not have to keep records of

their time for a longer period than is necessary, it is well to look over past records in order to make sure that a period is selected for a time study sufficient to make certain that an adequate number of inspections will be made for some of the minor lines of insurance. The period of the time study should also be sufficient to include seasonal inspections made on some lines of insurance.

Most companies require their inspectors to submit to the home office daily or weekly reports of their activities. These reports usually show the number of inspections and the line of insurance, as well as the inspection branch office, location of risk, etc. If these reports are amplified so as to include the number of minutes required to make the various kinds of inspections, the basic data necessary for the allocation of inspection costs by line are obtainable.

Appendix "A" is a copy of the inspector's time study report used in The Travelers Companies. These weekly reports were completed by the inspectors for the months of June and July, 1934, and added little extra work in the field. The last six columns of this report—office, travel, inspection, writing report, call and unassignable—expressed in terms of minutes, were added for the period of the time study to the weekly report previously used by the inspector for expense analysis. Strictly from an expense by line viewpoint, however, two subdivisions of time—(1) Travel Time and (2) All Other—would have been sufficient. The other subdivisions of time were included so that the cost of the various operations by line of insurance could be obtained. It was felt that if perhaps some of the above operations for some lines of insurance were more expensive than was necessary, and if the actual cost of these various operations could be brought to the attention of the proper officials, something might be done to reduce the cost. For example, if it were found that the average cost for all lines of insurance for writing a report was $2.00 and that the cost for line "A" was $6.00, which seems excessive when the average premium is considered, the amount of information on the inspection report for line "A" might be reduced without sacrificing any important underwriting information, thereby reducing the cost of this report.

It is possible to produce for each line of insurance and, if thought advisable, for various divisions within a line, the percent-

age of time spent on the various operations. As an example of how this record looks, the following exhibit is shown:

	% OF TIME						
Line of Insurance	Office	Travel	Inspection	Report	Call	Un-assigned	Total
"A"	5%	23%	53%	11%	2%	6%	100%

From the above exhibit it is possible to tell at a glance just how the inspector spends his time for each line of insurance. The advantage of this record is that it draws attention to variations between lines of insurance in the percentages for the various duties with the possibility that corrections in requirements may be made so as to reduce expense. For example, if the average percentage of total time for all lines of insurance for office work is 20% and for line "B" it is 40%, an investigation of the amount of office work required for line "B" might result in shorter methods, thereby reducing the cost of office work for this line of insurance. Another important result obtained from this record is that it directs attention to the large percentage of time spent in travel for some lines of insurance, occasioned by special trips made for inspections where all travel time from the inspection office to the risk and back to the office again is chargeable to this line of insurance.

A brief description of just what is included under the various headings of the inspector's weekly report and time sheet (Appendix "A") will make this subject seem less complicated. Some of the information called for is self-explanatory and is not discussed. The narrow columns on the right under the headings, "line," "kind" and "type," are for the use of the code clerk at the home office.

Line

In this column are shown the major lines of insurance as follows:

Compensation
Public Liability
General Liability
Elevators
Theatres
Teams
Garage
Fleet
Plate Glass
Burglary
Aircraft
Fire
Boiler
Machinery
Marine
No Line

KIND AND TYPE

In these columns is entered information which will produce results that will permit the break-down of costs within line of insurance to the following subdivisions:

Line	*Kind*	*Type*
Compensation	Industrial	*No. of Employees
	Contracting	Calls
	Stevedoring	
	All Other	
Fleet Risks	Service	*No. of Cars
	Trailing	Calls
	Observation	
Fire	Rate Analysis	Inspection
	General Fire	Bureau Call
	All Other	Agency Call
		Call—All Other
Boiler	Fire Tube	Internal
	Water Tube	External
	Cast Iron Sectional	Calls
	Piping	
	Refrigerating System	
	Unfired Vessels	
	Shop Inspections	
	Use & Occupancy	
	Special Mechanical Service	
	All Other	
Machinery	Engines	Running
	Compressors & Pumps	Static
	Turbines	Calls
	Electrical Units	
	Use & Occupancy	
	Special Mechanical Service	
	All Other	

Line	*Type*	*Code*
Compensation	No. of Employees	1-5
		6-10
		11-25
		26-100
		101-500
		Over 500

* No. of Employees or Cars.

Line	*Type*	*Code*
Fleet Risks	No. of Cars	1-5
		6-10
		11-25
		26-100
		Over 100

By use of the above number groups it is possible to make a rough compilation of inspection costs by size of risk, for the several lines. Although the use of the actual premium in place of the number of employees and number of cars would give more accurate results, it has been found that the inspector can obtain the number of employees and the number of cars without much difficulty, while the actual premium can be obtained for some lines only after audit and then only with a considerable amount of work.

NUMBER

In this column is entered the number of units of inspections for each line of insurance. For Boiler, Machinery and Elevator the number of inspections is the number of objects inspected, while for other lines the number of inspections is the number of risks inspected. For example, if an inspector visits a plant and makes a compensation inspection and two internal water tube boiler inspections, Compensation would be charged with one inspection and Boiler with two. The reason for this is that for a compensation inspection the unit is always a risk inspected whereas the number of units for boiler insurance is determined by the number and type of boilers at the risk.

OFFICE

In this column is entered the time taken up by routine work and in preparing to make inspections, including correspondence and conferences.

TRAVEL

The time consumed in travel is entered in this column. For the first risk inspected during the day the time entered is that which is consumed in travel to the risk. In case of subsequent inspections the time entered is the time consumed in travel from the first risk to the second, from the second risk to the third, and so on throughout the day.

Travel time where more than one inspection is made at a single risk is divided equally among the major lines of insurance on the theory that the travel salary and travel expenses are just as important for one line of insurance as for another. If a compensation industrial inspection and three internal boiler inspections are made at the time of a visit to a plant and thirty minutes are consumed in travel, fifteen minutes would be charged to compensation industrial inspections and fifteen minutes to boiler inspections.

Inspections

In this column the number of minutes shown is the number of minutes between the time of arriving at the risk and the time of leaving. Where two or more lines of insurance are inspected at the same risk, the time charged to each line is the actual time spent in making the inspection for each line.

Report Writing

A "report" is any written or typed report, whether or not on a prepared form, for the home office, the manager, etc., or for submission to any state or municipal authority. Letters, specially prepared analyses or accident prevention programs sent to an assured are to be considered as correspondence and the time spent preparing and writing them is to be included in the column "Office."

Call

When a call is made on an assured, agent, bureau, etc., and no inspection is made, the number of minutes consumed at the place of call is entered in this column.

Unassignable

In this column are entered in some cases minutes which cannot be assigned to the various duties but can be assigned to line of insurance and in other cases unassignable time which cannot be assigned either to class of duty or to line of insurance. It is important that Unassignable Time be kept down to a minimum

because it is possible for the inspector correctly to assign the greater part of his time A reasonable percentage of Unassignable Time for this type of time study is from 5% to 10%. From a cost analysis viewpoint Unassignable Time which cannot be charged to a line of insurance might be omitted as it has no effect upon the final percentage by line of insurance.

There is, however, an advantage to be gained from the inclusion of Unassignable Time in that it makes possible a rough check of the activities of the inspectors in the hours supposed to be given daily to inspections or related duties during the period of the time study.

Length of Working Day

The number of hours or minutes per day to be reported in the inspector's weekly report is not limited in any way. If an inspector works ten or twelve hours on certain days during the time study period he reports his time on that basis. In connection with a previous time study a working day was fixed at eight hours with the result that if an inspector worked more or less hours per day, it was necessary for him to apportion his time up or down to equal eight hours. As the actual time per inspection by line is an important factor in gaging the activity of the inspector his time should be so reported.

Allocation of Time by Clerks

Appendix "B" is the time sheet for the field clerks of the Inspection Department. For the convenience of the home office these time sheets are submitted on a daily basis. No attempt is made to divide clerical time other than by line of insurance with the exception of fire insurance where rate analysis requires considerably more clerical work than other fire inspections. The columns showing the number of minutes between "8:30 and 9," "9 and 10," etc., are shown in this report for the convenience of the inspection clerks in the field. When these reports reach the home office the minutes are totalled by line of insurance only.

Home Office

In studying the duties of the home office personnel it was found that the work was fairly well divided by line of insurance. Groups of clerks were found to work on one line of insurance only. Some were found to work on two or three lines, etc. The subdivision of the salaries of these clerks by line of insurance follows that of the field clerks. General inspection officials and supervisors are assigned to line of insurance on an overhead of field and home office combined.

Punch Card System

The punch card system is ideal for transferring in detail from the inspection weekly reports the information contained in these reports. The tabulation of complete results can be made in very small groups, if thought advisable, without excessive cost.

Appendix "C" is a copy of the Inspection Time Study Punch Card. It will be noted that the 80-column card has been used, although the 45-column card would have been sufficient. The reason for this is that the 80-column equipment is now standard in the company. In making up a punch card for the time study it was found that the punch card already in use by the Inspection Department could be enlarged to take care of the various time elements shown on the weekly inspection report. The last six columns containing number of minutes were added to the present card by means of imprinting. This method saved the cost of new electrotypes necessary in the make-up of a new punch card.

It is believed that the fields on this punch card will be found self-explanatory. It will be noted that there are two dates—date punched and date reported. The date punched is a gang-punch operation and is used by the punching department for their convenience and information. The report date is the date on which the inspection was actually made. As stated above, the inspector's reports are on a weekly basis and are sometimes not received at the home office until the following month. In gaging the activities of the inspector in the field, comparisons are made, based on the number of inspections in previous years or months

so that it is necessary to tabulate monthly records on the basis of the actual month of inspection rather than on the basis of the month punched.

Tabulation of Time Study Punch Cards

For the two months' time study period 90,000 cards were punched and tabulated. The total units of exposure were 64,000, i.e., inspections, objects and calls.

In tabulating the Inspection Time Study punch cards the procedure outlined below was followed:

Sort each line of insurance by
each kind by
each type.

Tabulate each line, kind and type to show number of inspections, number of calls, number of objects, travel time, office work, inspection, writing reports, calls and unassignable. In order to obtain the number of calls it was necessary to use a card count because in some cases, particularly on fire insurance, an inspection and a bureau call are made on the same inspection. Therefore, all cards punched with time in the "Call" field were sorted out and a card count made in order to produce the number of calls. It would seem that an additional field on this punch card to be used as a count for calls would be an improvement. The number of inspections was obtained, of course, by using the "number of objects" field as an adding field.

It is advisable to make a complete tabulation by line, kind and type so that it will not be necessary to make a new time study for some minor change in procedure. For example, in the near future the information on the inspection report for a particular line of insurance might be reduced 50% by a direct order from the home office. If the average time for writing reports per inspection is not obtained on the first basic tabulation, difficulty will be experienced in giving proper credit in cost to this line for the economy effected without a further time study.

There is also the added advantage that changes in distribution of business within lines of insurance will be recognized if averages are developed by kind and type instead of by line of insurance only. Using boiler insurance as an example, an increase in the

year 1935 over the year 1934 in the total number of boiler inspections might be due to a large increase in heating boiler inspections and a decrease in power boiler inspections. As the average number of minutes required to complete a heating boiler inspection is much smaller than that for a power boiler inspection, a reduction in total boiler inspection cost might be warranted but would not be recognized if averages were not developed by type of boiler.

It will be noted that no attempt was made to tabulate results on other than a countrywide basis. The main purpose of this study was to produce the average number of minutes required to make the various kinds of inspections and the larger the statistical sample obtained, the more reliable the average. Fortunately, by computing the average number of minutes required to make an inspection for any line of insurance the average cost in dollars and cents was easily obtained because the same inspectors work on all lines of insurance. This was not the case in a claim department time study where it was found that high salaried adjusters or investigators worked principally on certain lines of insurance and lower salaried men on other lines.

After the expense analysis tabulation has been completed and control figures established on a countrywide basis, a second record is drawn off by office. This record is used by the officer in charge of the inspection department to compare by office the length of time consumed per inspection by line of insurance for the various duties of the inspector. It is also possible further to subdivide, if found necessary, the average time of any office to individual inspector.

The establishment of the average time or cost per inspection for some lines of insurance among the various coverages such as Public Liability and Property Damage, does not seem possible by the use of time study methods. In most cases it is not possible for the inspector when making an inspection where these coverages are involved to tell when he is inspecting for one coverage and when for the other, so that some arbitrary method must be used for the division of costs between these coverages. The premium method in such cases seems to be the most satisfactory because it at least produces results which follow the inspection loading in the premiums for each coverage.

YEAR-END DISTRIBUTION OF EXPENSE

The number of inspections and calls for the twelve months' period ending October 31 for each line, kind and type, together with the Time Study averages, are used for each calendar year to distribute inspection cost by line of insurance. This is necessary because the number of inspections for a January to December calendar year is not obtainable until after the accounting books of the company have been closed. The substitution of the months of November and December of the previous year for the same months of the current year has a very small effect on any line of insurance in any one year and over a period of years this method will, of course, on the average produce correct results.

The 12 months' number of inspections for each line, kind and type, multiplied by the average number of minutes required to complete an inspection for each line, kind and type, as developed during the time study period, will produce the total number of minutes worked for each line of insurance. The ratio that the number of minutes for each line of insurance bears to the total number of minutes for all lines of insurance is the percentage of inspection field cost chargeable to each line of insurance.

The clerical punch cards should be tabulated separately, because unassignable time requires treatment for clerks different from that for inspectors. In pro-rating unassignable clerical time to line of insurance, an overhead of inspectors' assignable time, excluding travel and inspection time, seems to be the proper basis.

The traveling expense of the inspector is assigned by line of insurance on the basis of the number of inspections, together with the average travel time by line, by use of the above method.

Salaries and expenses of home office inspection employees are charged by line of insurance on separate percentages developed from a study of this department as mentioned in a previous paragraph.

It is possible for the sake of simplicity to make a composite percentage of field salaries and expenses and field and home office traveling expense so that one set of percentages can be applied to total inspection cost to produce the cost for each line of insurance.

For the final division of expense the attached condensed tabulation (Appendix D) is set up from the cards punched during

the Time Study period. This exhibit produces the average number of minutes required to make the average inspection under the various subdivisions for each line of insurance.

The following items of expense are chargeable to inspections:

Inspection Department

Salaries
Travel
Rent
Telephone
Telegraph
Postage
Printing and Stationery
State or City Boiler Certificate Fees
Expert Mechanical Service (Income)

Home office inspection department salaries and expenses are for this department only. No attempt has been made to charge a part of the general officers' salaries and expenses to the inspection department.

Home office inspection postage is determined by a count of outgoing mail in the mail department during a sufficient period of time to produce reliable results. Field inspection postage and telephone charges are obtained also by means of time studies at convenient periods.

In order that the general ledger of the company can be kept on a condensed basis, inspection costs are shown as one item—"Inspections." A sub-ledger is kept, however, which shows inspection costs by account (salaries, rents, etc.) for each line of insurance divided between home office and field. As expense schedules are changed only once a year, the sub-ledger shows the actual amount of money which has been charged to each line and account so that the proper cross entries can be made between lines. This sub-ledger also shows items which are directly chargeable to one line of insurance, such as boiler certificate fees, so that these items will not be apportioned to all lines on a year-end adjustment.

The average time required to make the various kinds of inspections developed from the 1934 time study was compared with that of a similar study made in 1931 for a five months' period for each line of insurance. This comparison showed that there

had been no marked change in averages for any line of insurance, proving that, unless some very radical change in inspection procedure (which might affect only certain lines of insurance) was made in the future, the 1934 averages should be good for some time to come. When the changes in industrial activity within the last few years are considered, particularly for compensation insurance, the results of this comparison are remarkable.

No averages or costs per inspection by line of insurance are submitted with this paper because the amount of money spent for inspections is governed by company policy and must of necessity vary by company. There is also the additional point that the distribution of business by location and line of insurance would vary by company to such an extent that the average inspection cost developed by one company would be of little, if any, value to other companies. It is possible, however, to compare inspection and bureau costs per dollar of earned premiums by line of insurance for stock companies in the New York Casualty Experience Exhibit compiled by the National Bureau of Casualty and Surety Underwriters. As bureau assessments are readily assignable by line of insurance and as these assessments per dollar of premium should not vary greatly by company, it can be seen that inspection costs, excluding bureau costs, can be obtained by company for comparative purposes from this Exhibit.

(APPENDIX "A")

ALL TIME IN MINUTES

CODE CLERK: F / V

SUPV. ENG. | DIST. SUPV. ENG.

ENGINEERING AND INSPECTION DIVISION
INSPECTORS WEEKLY REPORT AND TIME SHEET
/ To / 198 Sheet No.

NAME

DISTRICT

DATE	NAME OF ASSURED, APPLICANT, FIRM OR PERSON CALLED UPON	APPLICANT TRAINING M.O.UNDR. B.O.UNDR.	A T H O B O		LOCATION (TOWN OR CITY)	LINE		KIND		NO EMP. NO CARS TYPE	No.	OFFICE—ROUTINE-PREPARING TO MAKE INSPECTION, ETC.	TRAVEL	INSPECTION	WRITING REPORT	CALL	UNASSIGNABLE

DAILY TIME SHEET FOR CLERKS

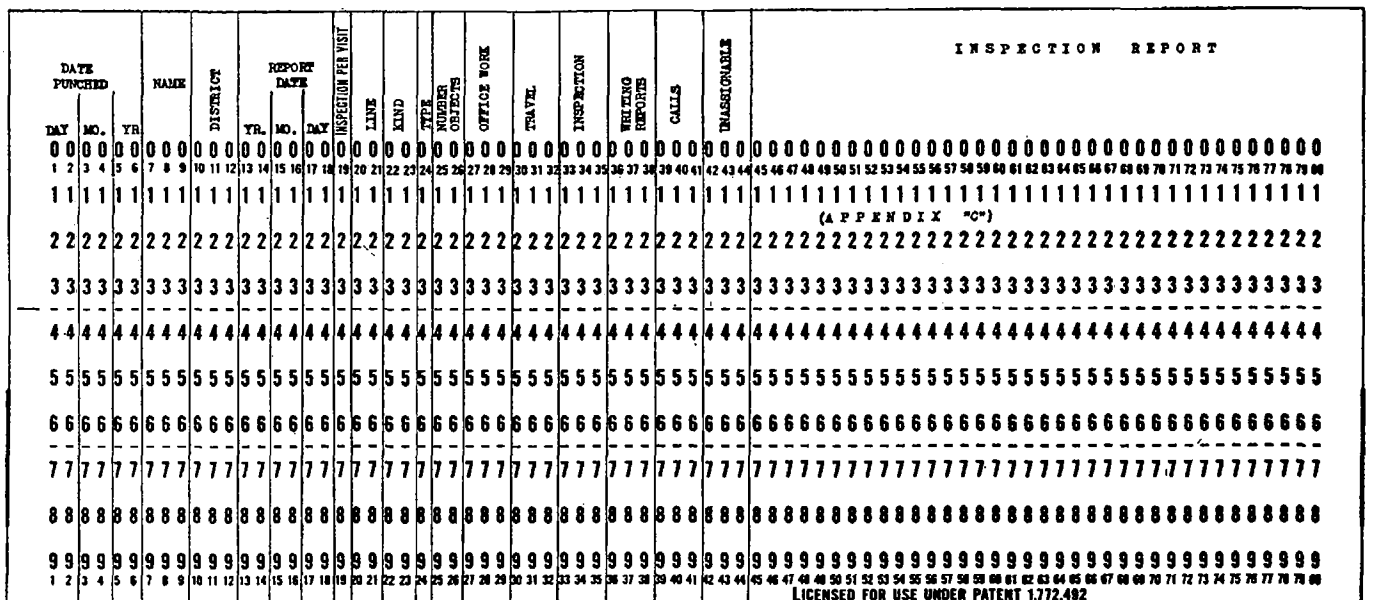
Name of Clerk_____ Office_____ Date_____
On which work is done

LINE OF INSURANCE	NUMBER OF MINUTES BETWEEN HOURS OF										DO NOT WRITE IN THESE COLUMNS	
	8:30—9	9—10	10—11	11—12	12—1	1—2	2—3	3—4	4—5	5—6		
Compensation												01–00
Public Liability												02–00
General Liability												04–00
Elevator												05–00
Theatre												06–00
Teams												07–00
Garage												08–00
Fleet												10–00
Plate Glass												13–00
Burglary												14–00
Aircraft												15–00
Fire—Rate Analysis												16–01
Fire—All Others												16–03
General Fire												16–04
Boiler												17–00
Machinery												18–00
Marine												22–00
Unassignable												30–00

INSTRUCTIONS

1. To be submitted by every clerk in an Inspection Division Branch Office.
2. To be submitted every working day during Time Study period.
3. To be submitted for each working day when absent from duty.

APPENDIX ("C")


DATE PUNCHED
DAY
MO.
YR
NAME
DISTRICT
REPORT DATE
YR.
MO.
DAY
INSPECTION PER VISIT
LINE
KIND
TYPE
NUMBER OUTLETS
OFFICE WORK
TRAVEL
INSPECTION
WELDING REPORTS
CALLS
UNASSIGNABLE
INSPECTION REPORT
(APPENDIX "C")
LICENSED FOR USE UNDER PATENT 1,772,492

INSPECTION TIME STUDY—JUNE AND JULY 1934—ALL OFFICES—SHEET NO. 1

KIND	TYPE	NO. INSP. OR CALLS	OFFICE	TRAVEL	INSP.	REPORT	CALL	TOTAL	UNASSIG.	TOTAL
INDUSTRIAL	1 2 3 4 5 6 Calls Total									
CONTR.	1 2 3 4 5 6 Calls Total									
STEV.	—									
A. O.	1 2 3 4 5 6 Calls Total									
TOTAL										
UNASSG.	No. Kind or Type	———	———	———	———	———	———	———		

SOCIAL INSURANCE AND THE CONSTITUTION

BY

CLARENCE W. HOBBS

"The legislators of that day," says Plato,* commenting on the institutions of the ancient Dorians, "when they equalized property, escaped the great accusation which generally arises in legislation, if a person attempts to disturb the possession of land, or to get rid of debts: because he sees that without this there can never be any real equality. Now, in general, when the legislator attempts to make a new settlement of such matters, everyone meets him with the cry 'That he is not to disturb vested interests'—declaring with imprecations that he is introducing agrarian law and abolition of debts, until a man is at his wits' end." Thus ancient is the controversy between the reformer and those upon whose toes he treads; between proprietary interests and the Brain Trust.

The cause of Social Insurance has become something more than a philosophy. It was a recognized feature of the social economy of many European nations while still condemned in this country as socialistic. The introduction of workmen's compensation marked the beginning of social insurance in this country: though after that beginning essays on the other types were sporadic, voluntary or experimental. Within the past few years, however, legislative ventures in this field have become more numerous, culminating in the current year with a veritable eruption of legislation. Chief and most important of this is the Social Security Act, passed by Congress and approved on August fourteenth, and a group of state unemployment compensation acts passed in close relation therewith.

The Social Security Act has a number of phases. It is aimed partly to encourage by Federal appropriation and grant the institution of state social welfare plans, and to induce the bringing of these plans up to certain standards. It provides this form of assistance for state old age benefit plans, and plans for unemployment compensation, aid to dependent children, maternal and child welfare, public health work and aid to the blind. The most strik-

* Laws, Book III.

ing features, however, are its essays directly or indirectly to establish a national system of old age service pensions for private industry, and a national system of unemployment compensation insurance.

The system of industrial service pensions is set up directly as a Federal system. Taxes are levied upon the wages of employees and upon the payroll of employers to supply revenue towards the establishment of an "Old Age Reserve Account," from which ultimately monthly payments will be made to employees who have attained the age limit. The two taxes start at 1% for the first taxable year (1937) and are graduated upwards over a twelve year period to a maximum of 3%. Payment of benefits begins at the end of a five year period.

The system of unemployment compensation insurance is set up only by indirection as a Federal system. An excise tax is provided, beginning at 1% for the first taxable year (1936) and graduated upwards over a three year period to a maximum of 3%. This tax is covered into the Federal treasury: but the act provides no unemployment compensation benefits. If a state passes an unemployment insurance act, approved by the Social Security Board as meeting the conditions laid down in the Social Security Act, prominent among which are requirements that tax collections should be paid into a Federal unemployment fund, and that state agencies shall be set up for the disbursement of benefits, employers of that state may receive credits against the Federal tax based on the taxes paid to the state under such approved act: but not in excess of 90% of the Federal tax.

In anticipation of, or in consequence of this act, unemployment compensation acts have been passed in Alabama, California, District of Columbia, Massachusetts, New Hampshire, New York, Oregon, Utah and Washington. Wisconsin had an act already in force.

Social Insurance is therefore, so to speak, at our very thresholds. Now comes the trial envisioned by the quotation at the beginning of this paper. Social Insurance is, so far as it goes, a levelling device, designed to put one class of the community in a position of improved economic status, necessarily at the expense of another class. Entirely apart from the desirability of the end sought, the question remains, how does the accomplishment of

this by legislative fiat fit in with the economic and social ideals embodied in our constitutions, state and federal.

The Athenians of old had a special type of legal process, the *graphe paranomon,* a prosecution which might be made by any citizen against one who proposed an unconstitutional law. It is perhaps as well for our legislators that our practice goes no further than the comparatively mild processes of our courts designed to test the constitutionality of the laws themselves.

The Old Age Assistance Provisions of the Social Security Act

The constitutionality of these provisions depends on considerations involved in a service pension act, passed upon during the current year by the Supreme Court, in the case of *Railroad Retirement Board v. Alton R. Co., 55 S. Ct. 758.*

This case involved the so-called Railroad Retirement Act. (Act of June 27, 1934, c. 868, 48 Stat. 1283, 45 U. S. C. A. secs. 201-214). This act established a compulsory retirement and pension system, applicable to all carriers subject to the Interstate Commerce Act. Carriers and present and future employees were required to contribute to a fund, to be set up in the United States treasury. Annuities were provided for employees beginning at age 65 (or in certain cases at age 70) or beginning at any time between ages 51-68 upon the completion of thirty years of service.

This act was declared unconstitutional, the court dividing five to four. Certain features of the act were apparently agreed by all to be unconstitutional. The dissent came upon the decision of the majority that the act was unconstitutional for fundamental reasons. These reasons are of interest, not only because of their application to the legislation now under consideration, but because of their bearing upon the whole social insurance problem.

(a) The compulsory fund feature was found to involve a denial of "due process of law" under the Fifth Amendment to the constitution.

The court calls attention to the fact that all carriers are lumped together and assessed at a uniform rate of contribution, irrespective of the pension requirements of their individual employees. Also that under the plan, solvent carriers are assessed

to pay pensions to employees of insolvent carriers. To this, the court says:

> "There is no warrant for taking the property or money of one and transferring it to another without compensation, whether the object of the transfer be to build up the equipment of the transferee, or to pension its employees."

This part of the decision rendered it necessary either to overrule or to distinguish certain other cases involving compulsory state insurance funds. These the court sought to distinguish as follows:

Noble State Bank v. Haskell, 219 U. S. 104. This case sustained the constitutionality of a state law requiring state banks to contribute a uniform percentage of these deposits to a state guaranty fund, for the purpose of making good losses to the depositors of banks which failed. This case, the court now states, was decided on the ground that the ulterior public advantage might justify the taking of a comparatively insignificant amount of private property for what in its immediate purpose is a private use: and on the further ground that there may be cases other than those of taxation in which the share of each part in the benefit of a scheme of mutual protection is sufficient compensation for the correlative burden which it is compelled to assume. These grounds, the court says, distinguish the case from that under consideration.

Mountain Timber Co. v. Washington, 243 U. S. 219. This case sustained the constitutionality of the Washington Compensation Act, involving a compulsory state fund. The court distinguishes the case from the present on the ground that the act, by its system of maintaining separate accounts for each class of industry, clearly recognized the difference in drain or burden on the Fund, arising from different industries and sought to equate that burden in accordance with the risk. The claim of the employer that the statute failed of equitable apportionment as between the constituted classes, the court said lacked proof. In case of the act now in issue, no attempt at equitable apportionment of the burden by classification or otherwise was made, all carriers being assessed irrespective of their individual conditions.

Thornton v. Duffy, 254 U. S. 361. This case sustained the con-

stitutionality of the Ohio Compensation Act, also involving a compulsory fund. The court states that the question decided was merely the constitutional justification of the self-insurance feature.

The minority of the court did not agree with these distinctions. The merits of the distinctions, however, are less of present consequence than the fact that the court indicated that the power of the state to set up a compulsory insurance plan is not unlimited. Certainly there is much inherent justice in the position that an act which brings employers or others within a compulsory insurance scheme should not be arbitrary, but maintain due measure of equity in its groupings and in its method of assessment. If lack of equity is manifest on the face of the act or can be proven by evidence, there would seem to be the possibility that it may be found lacking in due process of law.

(b) The act was held not to be, in purpose or effect, a regulation of interstate commerce under the constitution. The court stated that the grant of pensions had nothing to do with the operation of the railroads, but merely conferred a social benefit upon their employees at their expense. The justification urged, that it tended to improve morale and to foster a contented mind among employees was held not valid. On the latter point the court says:

> "If that question be answered in the affirmative, obviously there is no limit to the field of so-called regulation. The catalogue of means and actions which might be imposed upon an employer in any business, tending to the satisfaction and comfort of his employees, seems endless. Provisions for medical attendance and nursing, for clothing, for food, for housing, for the education of children, and a hundred other matters, might with equal propriety be urged as tending to relieve the employee of mental strain and worry."

As to improved morale, the court (on page 763) utters the following black heresy against much current legislative thought:

> "Assurance of security it truly gives: but, quite as truly, if 'morale' is intended to connote efficiency, loyalty and continuance of service, the surest way to destroy it in any privately owned business is to substitute legislative largess for private bounty, and thus transfer the drive for pensions to the halls of Congress, and transmute loyalty to employer to gratitude to the legislature."

The court then goes on to an extremely significant distinction between the pension act and the workmen's compensation acts. It points out that in case of injuries to employees the law had already recognized the principle of "respondeat superior," and that it was clearly within the legislative power to modify and enlarge that principle in order to meet conditions which rendered the old remedy inadequate: and that furthermore the effect of the legislation, in that it increased the incentive for the prevention of accidents, had a direct and proximate relation to a proper regulation of the industry. The pension act, however, "seeks to attach to the relation of employer and employee a new incident, without reference to any existing obligation or legal liability, solely in the interest of the employee, with no regard to the conduct of the business, or its safety and efficiency, but purely for social ends."

There is a deal of good hard sense in this line of argument. There is no great question that the main object of this type of social insurance program is to better the economic condition of the employee at the expense of his employer, and that the benefit derived by the employer from the process is, to say the least, highly hypothetical. Further, the fact that the employee grows old has no relation whatever to his employment. It would happen whether he were employed or not. There is considerable justification for the court's position that this is no regulation of industry. It is merely removing money from A for the benefit of B, and the doing of it leaves conditions in the business neither better nor worse.

The court's distinction between the principle of the pension act and the workmen's compensation acts would, however, be more convincing if the latter had not been carried far beyond their original design, partly by express legislative addition of new incidents, partly by interpretation. The Supreme Court of Wisconsin has taken occasion to state that the act of the state as it stands is so much broader than the act upheld as constitutional that an entirely different constitutional justification is needed. In another case, (*Mobile and Ohio R. Co. v. Industrial Commission, 28 Fed. 2nd 228*) the court felt impelled to state "The act is not to be considered as a substitute for disability and old age compensation." The compensation acts have, as the

minority opinion recites, come to embrace incidents very difficult to justify as mere enlargements of the principle "respondeat superior." They are, in fact, affirmative additions of liabilities for which there is not even the germ to be found in the common law. But one bad practice should not be urged to justify another. It does not follow that all the excrescences which have been annexed to the compensation acts are constitutional.

This decision is interesting as indicating that there are limits to the power of the legislature to attach novel incidents to the long-suffering status of master and servant. The majority and the minority opinions are interesting as expressions of two schools of thought. To the one, there is such a thing as natural justice beyond which even the legislature may not go under the guise of regulation: to the other there is no natural justice, merely the all-powerful legislative will.

This decision has been set forth at some length, because of its exceeding interest, and because of its very obvious application to the old age assistance features of the Social Security Act. The general outlines of the pension plan in that act follow the same general outlines of those in the Railroad Retirement Act. Taxes are levied on all employees and all employers; and while these taxes are not specifically appropriated to the "Old Age Reserve Account," there can be no reasonable doubt that they are levied to enable that account to be set up. The tax rates are uniform as to all: not varied in case of either employer or employee on the very natural basis of attained age. Congress has by fiat annexed a new incident to the relation of master and servant for purely social purposes. So far the two cases go practically on all-fours. There is to be sure one vital distinction. Under article 1, section 8 of the Constitution, Congress has explicit authority to regulate interstate commerce. It has no such explicit authority to regulate business generally throughout the United States. *A fortiori,* therefore, if the Railroad Retirement Act is unconstitutional, the pension provisions of the Social Security Act must be: and there is indeed abundant ground for declaring it unconstitutional without consideration of the issues entering into the decision on the Railroad Retirement Act.

The Unemployment Provisions of the Social Security Act

These provisions present a situation differing from that presented by the Old Age Assistance Provisions. Here Congress does not undertake directly to annex a new incident to the relation of master and servant. No unemployment benefits are directly provided. The act merely provides for a heavy excise tax on payrolls of employers, which is covered into the Federal treasury, but does not come out in the form of benefits to employees. The Social Security Board, established by the act is authorized to approve State unemployment insurance acts which provide for the collection of similar taxes, and for their payment into the unemployment fund: which provide for the making of payments of unemployment benefits through the medium of state-appointed agencies: and which meet certain other tests. Once an act is approved, tax payments under that act may be credited against the Federal tax up to 90% of the latter: and there is provision for credit, not in excess of that amount in cases where for certain named reasons the employer may be taxed at a rate less than the maximum state tax. The Federal tax serves as an inducement to all states to levy unemployment taxes, as nearly as possible up to the standard set by the Federal tax. Thus the Federal government acts primarily as a tax collector, and justifies its action presumably under its authority to levy taxes.

This power, conferred by article 1, section 8 of the constitution, is very broadly stated:

> "To levy and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defence and general welfare of the United States: but all duties, imposts and excises shall be uniform throughout the United States."

It has been argued, long ere the present day, that the phrase "general welfare" is broad enough to vest the United States with a general regulatory power. This, however, is unfounded, and was so held by the makers of the Constitution. Madison in The Federalist, No. XLI, says "For what purpose could the enumeration of particular powers be inserted if these and all others were meant to be included in the preceding general power? Nothing is more natural or common than first to use a general phrase, and then to explain and qualify it by a recital of particulars."

The phrase, therefore, has been held to confer no power to legislate, but merely to define and limit the power to tax.

U. S. v. Boyer, 85 F. 425, 432
Story on the Constitution, secs. 907, 908.

Recent theories to the contrary notwithstanding, Congress is a body of limited powers, exercising only those expressly conferred. All others, under the terms of the Tenth Amendment, are reserved to the States.

The power to raise revenue for governmental purposes is so vital that the Supreme Court has held in a long series of cases that it will not interfere with the taxing power merely because it might deem the incidence of the tax oppressive or destructive.

Veazie Bank v. Fenno, 8 Wall 533.
McCrary v. U. S., 195 U. S. 27
Schick v. U. S., 195 U. S. 65
Flint v. Stone Tracy Co., 220 U. S. 107
U. S. v. Doremus, 249 U. S. 86.

Nonetheless, the employment of the taxing power by Congress is subject to a limit. It cannot use those powers for the purpose of effecting by indirection what it cannot do directly. The Supreme Court has not hesitated to declare unconstitutional a tax law, when it appeared on the face of the law that the purpose was to enforce a regulation which Congress could not make directly.

Child Labor Tax Case, 259 U. S. 20
Hill v. Wallace, 259 U. S. 44

The latter of these cases comes measurably near the situation under the present act. The law in question imposed a tax on contracts of grain for future delivery: but granted exemption to such contracts as were made on Boards of Trade designated as contract markets by the Secretary of Agriculture. Similarly under the present act, the tax is not an excise pure and simple. It sets up an elaborate administrative and financial machinery, and the aim of the act clearly goes beyond a mere revenue measure. It cannot reasonably be doubted that the intent is that all states shall pass unemployment compensation acts approved by a Federal board. A state which fails to pass such a

law subjects its employers to a heavy financial drain, and with no return in the shape of benefits. This is a species of duress, designed to compel states to do something which Congress could not do directly.

It may be questioned whether such a tax is "uniform throughout the United States." There is, to be sure, the precedent of the Federal inheritance tax, which permitted credits for inheritance taxes paid states, and which was held constitutional.

State of Florida v. Mellon, 273 U. S. 12

There is also a question whether this is a tax for the "general welfare." On the face of the act the tax is either for an illegal purpose or for no purpose at all.

Despite the absence of benefit provisions, therefore, grave questions exist as to the constitutionality of the unemployment provisions of the Social Security Act, aimed as it is at the establishment of a system of regulation of private industry, away and beyond the authority of Congress to effect, unaided and directly.

The State Unemployment Acts

The issues in these acts under the Federal Constitution appear to be substantially the same as those involved in the decision on the Railway Retirement Act, except that the issues would be framed under the Fourteenth Amendment instead of the Fifth.

All these acts involve the imposition by legislative fiat upon the relation of master and servant of a new incident, for the benefit of the employee and at the expense of the employer: an incident which has no background of recognized legal duty, and which is motivated entirely by desire to confer a privilege on the employee. The argument of the majority opinion would seem to apply here. This is not regulation under the police power. It is taking of property for private use without compensation.

The point as to the compulsory fund feature, is, however, different. The fund involves a curiously involved relation between the states and the national government. Also, the funds do provide a means for varying the tax. There are in most plans provisions for a differential based on experience, though this is not operative until after some years. There are provisions for credit for guarantees of employment, and for the setting up of accounts for

single employers or groups of employers: though these are less common than the first. In one way or another, differentials can ultimately be established, and this may suffice to cure the manifest injustice of lumping under a flat charge the employer whose establishment is fairly stable and regular with the employer whose establishment exhibits marked fluctuations in matter of employment; the employer whose relations with his employees have a high degree of continuity, and the employer who has a considerable labor turnover.

In addition, the lack of unanimity of the Supreme Court makes it difficult to predict what that honorable body would decide on an act involving a different set-up of facts.

The same points can be raised, however, under provisions of state constitutions, which are, more or less, comparable with the Federal guarantees. The New York constitution, it may be noted, was in case of the Workmen's Compensation Act more narrowly interpreted than the Federal, and here and elsewhere special constitutional powers had to be provided. In addition to constitutional guarantees of property and contract, the state power of taxation is also involved. Authority must be found too for entering into the curious copartnership with the National Government.

It may be added that the question of the constitutionality of the Social Security Act, while not directly affecting the constitutionality of the state acts, will undoubtedly have its effect upon them. The acts passed in conjunction with the Social Security Act are so closely allied with it that they would require to be redrafted in order to operate if it were declared unconstitutional. In addition, several were conditioned by their terms to take effect after the passage of the Federal Act: several would by their terms suspend operations if the Federal Act were declared unconstitutional. Two are conditional upon the approval of the acts by the Social Security Board as a basis for credits against the Federal tax. These conditions raise constitutional questions also, if the state constitution has been interpreted to forbid a delegation of legislative authority.

Smithberger v. Banning, 262 N. W. 492

"Natural Justice"

In the foregoing discussion, the purpose was not to argue upon the merits of Social insurance, but to discuss the naked point whether the acts as drafted fitted into the governmental system established under the constitutions, State and Federal. Of that, it is submitted, there is at least a strong doubt, though the issue cannot be regarded as concluded until finally passed on by a court of last resort.

The acts of Congress and of state legislatures during the past few years appear destined to afford one of the most interesting chapters in the constitutional history of the United States. It may fairly be stated that an endeavor has been made to break with the past, and to carry legislation beyond the bounds heretofore regarded as settled. This was done partly on the theory that the emergency might be found to justify it: partly on the theory that, as,

"New occasions teach new duties:
time makes ancient good uncouth,"

so the interpretation of constitutional provisions might be enlarged to meet the need of reforms which Congress and the legislatures were apparently convinced were urgently needed. There has been, indeed, a spirit evident in official circles that the Constitution need not be taken too seriously.

This, it is now apparent, is not entirely the view of the Supreme Court. There is still a law of the land, and whatever differences may exist among judges upon matters of interpretation, there appears no rational doubt as to the Court's desire to enforce the Constitution in accordance with letter and spirit, and not to go beyond a fair construction of the honored document as it is. If changes are needed, they must be, not by judicial construction, but by amendment.

A decision that the Social Security Act and the allied state legislation are unconstitutional would not necessarily close the matter. Constitutional amendments could be drafted, and while it is not at all likely that any one would venture deliberately to set up a non-constitutional government, that solution of the question is not absolutely impossible. The trouble about the latter, however, is that a non-constitutional government might quite as easily prove reactionary as progressive. The trouble about the

former is, that at best it is a slow process, and the somewhat light hearted spirit of dealing with the constitution which has prevailed has already awakened a notable opposition to constitutional changes.

It is not out of place to set the constitution for the time being and for purposes of discussion, out of the picture, and approach the legislation in question from the standpoint of "Natural Justice." There is such a thing—the Supreme Court has said so. We may differ in our concepts of what it is: but those concepts differ more in detail than in general principle. Not being profound philosophers, we do not go back to abstract principles and move from these to the concrete. We start in with the same background—an organized society which recognizes rights of property and of contract, and which agrees generally that while the legislature may deprive individuals of their property by the taxation method, that taxation should be for purposes essentially public and not primarily for the enrichment of other individuals: and that while the legislature may impose burdens on property, those burdens should be in the nature of a public use, and not primarily for the benefit of other individuals.

That the secondary result of either taxation or regulation will be the benefit of individuals is inevitable, and so long as the public purpose or the public use is evident, and so long as there is a real reason why the burden should be put upon the particular individual or the particular class, there is no logical objection. On the other hand if the burden is arbitrarily imposed, with no reason other than that the state has seen fit to do it, there is a lack of natural justice.

To this it may be objected that the state cannot always observe due measure of equity: and that taxes or police regulations have always in them some elements of arbitrariness. The state must have revenue, and get it from the sources whence it can most readily be obtained. The state must determine a policy of regulation, and cannot be confined within the limits of any one theory as to what is reasonable. So long as purely public purposes are concerned, these objections may be admitted to have weight. But when the purpose is not purely public but ministers strikingly to private interests, it seems just that the state should observe a measure of equity in removing property from A and transferring

it to B, and be prepared to demonstrate that the burden is properly placed on A's shoulders.

The social insurances all involve a transfer of money or its equivalent to B, meaning thereby an entire class of beneficiaries. The moneys transferred must come from somewhere—either out of the general revenues of the state, or out of a particular class which is specifically charged with the burden.

The equity of a system of old age pensions or of unemployment benefits is based upon the theory, not unreasonable by any means, that the state owes a certain duty to its citizens who are for one reason or another unable to care for themselves. That is at the bottom of the laws for poor relief. To be sure the social insurance measures under consideration go beyond mere poor relief. Instead of a mere subsistence allowance granted in case of need, is substituted a benefit paid more or less irrespective of need, and calculated by a uniform statutory scale. A right to such benefits is made an incident of the status of a class.

The legislation in question limits the class of possible beneficiaries to persons employed, and charges the cost upon the employer, or rather upon the employer as a class.

In case of workmen's compensation, the same thing is done. But there a real connection exists between the casualty which entitles the employee to the benefit and the circumstance of his employment. Had he not been in employment, he would not have suffered that particular casualty. The employment has a proximate connection with its time, place and cause, though doubtless there may be and frequently are other contributing elements entirely outside the employment. There is then a real reason that can be alleged for saddling A the employer with the burden for the benefit of B the employee.

In case of the benefits of a system of old age pensions and unemployment benefits, this connection is lacking. The fact that the employee grows old has nothing to do with his employment. The fact that he is employed up to a certain date has no particular relation to the fact that thereafter he is unable to obtain employment. A has some reason to say to the state, why should this be my burden? I have given B employment, true. That employment has benefited me, but has also benefited him and the state. He has thereby earned a living and been prevented

from becoming a public charge. The employment I have furnished has not hastened his career towards the disability of old age, and it has kept him from falling into the ranks of the unemployed. What have I done to justify the imposition upon me of the burden of supporting him for the balance of his life or of carrying him through a period of unemployment which entails quite as many hardships upon me as upon him? If it seems fit to the state to grant him these benefits as matter of right, they should be paid out of the state's general revenue as a public burden, thereby saddling some measure of the cost upon those who have done nothing for him, rather than heaping it all upon one who has done something for him.

Not an impossible position by any means. But the advocates of the scheme have their replies ready and waiting. They say—

(1) That A has not treated B fairly: that he should have paid him a wage which would have been adequate to preserve his economic position, and would represent a more equitable share of the profits of the common enterprise.

(2) That B has given to the common enterprise an asset never properly paid for: that just as the employer sets aside a reserve for depreciation of plant and machinery, so he should set aside a reserve for depreciation of the human assets in his employ.

(3) That progressive employers have admitted this duty by establishing voluntary systems for old age benefits and unemployment relief.

(4) That the soundness of the state demands a greater equality of economic advantage: and that the employer by contributing to an act of social justice increases his own economic security.

(5) That he also gains in point of an increased morale and efficiency in his working force.

To this A will reply:

(1) That B is entitled to bargain with him for wages, individually or collectively: that while the state or nation cannot under the decisions of the Supreme Court insist on a minimum wage, yet state and nation can and do bring pressure to bear upon him in that direction. Furthermore, that the wage scale, if not directly connected with profits, is not directly connected with losses either: and that in business losses are by no means unknown, profits by no means a certainty.

(2) That to call B an associate in a common enterprise is justifiable only in case of an employment of long duration: that a good part of labor comes and goes at its own sweet will, recognizing no permanent relationship: and that in case of transitory relationships depreciation reserves are no more called for than in case of material passing through the processes of manufacture.

(3) That voluntary benefit systems are for the direct purposes of encouraging permanent relations and avoiding the loss entailed by a large labor turnover: and that the systems set up by the state do not operate towards these ends.

(4) That the employees and all other persons in the community are quite as much interested in the stability of the state as is the employer, and therefore should participate equitably in any plan conceived for that end.

(5) See opinion of the majority in *Railroad Retirement Board v. Alton R. Co.*

The discussion would not end here, but need be carried no further. It may be admitted that unemployment is to some degree proximately connected with the way business is carried on. There is inevitably a constant replacement of those who are old or unfit: a constant process of improving the efficiency of the organization and of increasing its mechanization which sets adrift a certain amount of labor. For so much a certain responsibility of business can be plausibly argued. Responsibility for unemployment due to changes in business activity, which is a more pregnant source of unemployment than any other, can hardly be laid to the charge of business. Business would much prefer to operate evenly, and could, if permitted, reach agreements as to prices, production and trade practices which would tend toward this result. But to such agreements the anti-trust laws, state and national, furnish a barrier. The policy of such laws is not here argued: it is sufficient to note that the public policy contemplates an economic system essentially competitive, and not controlled by combinations of private interests. With such a system, the alternation of periods of activity and depression, of over-production and of under-production is inevitable.

It may be noted that the National program of the last few years has contained features looking towards a control of production and of prices: but a part of this program has already fared

hardly at the hands of the Supreme Court, and a constitutional test on another important part is impending. Whether done by industry itself or by the nation, the essential results are much the same—a maintenance of artificial price levels, a checking of competition, and a crystallization of the present system, weeding out the weaker and less progressive units and making it very hard for new units to be formed.

The above considerations have a deal to do with the justice of the Social Security Act, if the principles laid down earlier, which are roughly the principles of the Federal Constitution, are to be taken as a fair statement of justice. The old maxim of the common law, *sic utere tuo ut alienum non laedas,* which lies at the basis of the rule of *respondeat superior* is sufficient justification for grant of compensation for any disability which has proximate relation to the use of one's own property. It justifies the principle of the workmen's compensation acts. It does not justify the principle of the service pension, and gives a very doubtful justification to the provisions for unemployment compensation. These require the establishment of another principle, going practically to the extent that one should use his property for the benefit of all in any way associated with the operation of that property to protect them against the consequences of disabilities irrespective of whether those disabilities have any causal connection with the association or not. This, it is submitted, is not generally accepted as a principle of justice. It is at most an ethical rule, and not applicable by any means to all associations, but only to such as are permanent, and entail faithful service and friendly relations. To broaden this out and to make it hard and fast rule of law requires a justification not yet given.

This justification is important, not merely because of its bearing upon the question whether the act as passed conforms to the Federal Constitution or not. The Constitution is not the last word on the subject of justice. A new formula may be required to meet the views of the day, and to serve as the basis for a new social harmony. Our present economic structure, and the framework of rights as embodied in the constitution are alike far from perfect. Whatever change is made, needs, however, its justification. A state which lays down so crude a rule as that A's property may be taken for B's use if the state feels B needs it strikes

a blow at the very foundation of private property. There should be a real reason to justify both the taking and the giving.

It is very likely that the polity of the future may be more eloquent of duties than of rights, and be more greatly concerned with the welfare of society as a whole than with the welfare of individuals. Such a polity entails a great and notable change in our viewpoints, and it is doubtful if such a polity can be achieved without a conciliation of many conflicting viewpoints into a common harmony. With regard to this matter of social insurance it is tolerably obvious that the Social Security Act is on the statute books without such a conciliation. It has trampled upon such efforts as have been made by employers and employees to effect a private conciliation. It has made no attempt to lay the burden where it belongs, assessing in case of old age assistance the entire burden upon employer and employee, in case of unemployment benefit upon the employer only. As a consequence, the act stands, not as a monument of mutual assent, but as a battle monument marking the attainment of an objective by one side in a social warfare. As such, its permanence depends upon the maintenance in power of the winning side: and the law of retribution renders this on the whole unlikely. A permanent solution of the problem must be based upon peace and harmony, and a general acquiescence in its essential justice.

OCCUPATIONAL DISEASE COVER IN NEW YORK

BY
ARTHUR G. SMITH

INTRODUCTION

It is well known to everyone who has any connection with the business of Workmen's Compensation Insurance in New York State that, effective September 1, 1935, the New York Workmen's Compensation Law was extended so as to provide compensation for all occupational diseases. Prior to that date most of the recognized occupational diseases had been compensated under a definite schedule of 27 paragraphs describing the several diseases and the processes in which they might be contracted. By the amendment of September 1st, a new paragraph 28 was added extending the Law to include "any and all occupational diseases" in "any and all employments enumerated" in the Law as hazardous employments. The only limitation on this extension of the Act is a provision that it does not "apply to any case of occupational disease in which the last injurious exposure to the hazards of the disease occurred prior to September first, nineteen hundred thirty-five."

MISCELLANEOUS OCCUPATIONAL DISEASES

By far the most important disease brought under the Act by this amendment is silicosis which, with other dust diseases of the respiratory tract, will be discussed later. In addition to such diseases, however, the effect of the amendment is to make possible numerous claims for compensation on account of diseases alleged to have been contracted in the claimant's employment and due to such employment. Only actual experience with the law in its present form and its administration will demonstrate whether compensation for such diseases will amount to a substantial part of the total cost. The lack of limitations under paragraph 28 and the absence of a definition of occupational disease to the effect that it shall be characteristic of the employment and peculiar and incident to the work of the employee leaves the precise extent of paragraph 28 in doubt and its scope

will therefore have to be developed gradually through decisions on individual claims arising under it. Under the circumstances, there is little or no sound basis for an evaluation of the cost of the miscellaneous diseases, but the consensus of opinion of the committees of the Compensation Insurance Rating Board which dealt with the question was that the increased cost would be about 1%. Accordingly in the last rate revision a general charge of 1% subject to a minimum of .01 and a maximum of .05 was added to the rate for each Manual classification. It should be noted that this charge was included in the rates which became effective July 1, 1935 although the law amendment was not effective until September 1, 1935. This was done to avoid the necessity of endorsing every policy with increased rates on September 1 after already having amended all rates as of July 1. It was justified by the fact that another amendment, establishing security funds, was retroactive in its effect, which more than offset the apparent overcharge on account of occupational diseases for the two month period. The 1% included in the rates is a general charge to cover the miscellaneous occupational diseases covered under paragraph 28 and was adopted and approved with the distinct understanding that classes with serious occupational disease exposure (especially on account of dust diseases) would be subject to additional charges after September 1.

Dust Disease Bill

As already stated, dust diseases come within the provisions of paragraph 28. However, it is well to set down the fact that at the same session of the Legislature another bill, applicable only to dust diseases incurred in certain enumerated occupations, was passed by both houses and sent to the Governor for approval. This bill was to take effect immediately upon signature. It defined dust diseases and separated them into two stages; provided a definite and limited scale of benefits for disability or death, as well as a change of employment benefit for employees suffering from dust disease in the first stage, but permitted such an employee to continue in his dusty occupation if he waived his right to full compensation and agreed to accept reduced benefits in the event of disability thereafter. It also would have estab-

lished a plan for the diagnosis and determination of disability of claimants by special medical examiners and review of their findings by expert consultants. In addition it would have required the annual medical examination of all employees in the enumerated occupations subject to a harmful dust hazard.

The possibility of approval of this bill by the Governor was viewed with considerable apprehension by casualty insurance companies and various plans of handling the situation were proposed and thoroughly discussed. It was held by some that the immediate liability imposed on the employer by this bill was uninsurable. Silicosis is a disease of slow development, usually requiring years of exposure to dusty conditions before a man is disabled. Nevertheless the employer would be made liable for the disability even though the exposure subsequent to the effective date of the bill was very small as compared with prior exposure and much too short in itself to cause silicosis. In effect, therefore, the bill was retroactive in its application, providing compensation for a condition largely due to events which had already taken place. Furthermore, the compulsory medical examination of all employees, by making affected men conscious of their condition, would tend to precipitate the filing of claims if it did not serve to destroy employee morale entirely. Although this accrued liability was regarded as uninsurable, it was recognized that under the policy contract and the law the insurance carrier was forced to assume it as well as all other liability under the Compensation Act. Consequently it was proposed to devise a method whereby the assured would agree to indemnify the carrier for payments on account of the accrued liability, guaranteeing such indemnification by depositing a sum equal to the estimated cost of probable claims as determined by medical examination of all exposed employees. Another plan suggested involved spreading the cost over industries involved without attempting to make each employer pay his precise cost. This plan contemplated requiring an initial deposit by the employer consisting of a single premium for each employee exposed to a dust hazard enumerated in the law. Initially this single premium was to be based on the average expectation of loss per employee exposed in the particular industry but it was to be adjusted to a limited degree after the actual condition of the men had been

determined by the official medical examination. Thus, an employer with a large proportion of employees affected would pay a high premium for his accrued liability while one whose employees had no evidence of silicosis would pay a relatively low premium although he would not be relieved of all premium payments on this account. Under any plan the possibility of risks shifting from one carrier to another raised additional problems, to solve which the formation of a pool, composed of all carriers, to insure the liability under the dust disease bill was suggested. This idea was discarded when it appeared that many carriers did not favor such action. Still another plan involved spreading the estimated cost of the accrued liability over a period of several years so that the burden imposed upon employers by the Law would not be so tremendous in the first year. It was felt, however, that this scheme might very well place an intolerable load upon the carriers in view of the possibility of employers going out of business, leaving the State or even transferring from one insurance carrier to another.

In view of the opposition to this bill a conference was called by Industrial Commissioner Andrews on May 13th, at which representatives of labor and industry as well as insurance companies were present. At this conference the viewpoint of the carriers was presented by Mr. Leon S. Senior, General Manager of the Compensation Insurance Rating Board, who expounded the main objections to the bill and presented a schedule of proposed insurance charges for the accrued liability as well as future liability. Samples of these charges follow:

Code No.	Classification	For Accrued Liability Per Capita	For Future Liability Per $100 of Payroll
1741	Silica Grinding	$1,250	10.00
1803	Stone Cutting or Polishing..	1,125	9.00
3081	Foundries—iron	500	4.00
4053	Potteries	375	3.00
4114	Glassware Mfg.	150	1.20

These rates and per capita charges were to be applied in addition to the basic rates covering accidental injuries and miscellaneous occupational diseases. The per capita charges include a 20% loading while the payroll rates include a standard 40%

loading. These charges and rates were based upon a study made by Associate Actuary Kormes of the Compensation Insurance Rating Board of the report of the Massachusetts Special Industrial Disease Commission, and a scale of relativity founded largely on the relativity for occupational disease rates under Paragraph One (b). They were never actually adopted by the Board.

Mr. Senior also pointed out that while shock losses during the first year under the bill would be very great and perhaps beyond the employer's capacity to pay, thus causing them to shut down in many cases with consequent increase in unemployment, nevertheless veto of the bill would also leave industry in an unenviable position because in the long run the costs under the "All Inclusive" Act which had already been signed would be even greater. He therefore urged rewriting the bill before the "All Inclusive" Act became law on September 1, making a number of recommendations toward producing a workable piece of legislation. It is now a matter of history that the bill was vetoed by the Governor shortly after this conference but that no action was taken to replace it prior to September 1.

Dust Diseases under September 1st Amendment

It is obvious that many of the objections raised against the dust disease bill apply with equal force against the "All Inclusive" bill which became law. It also is retroactive in its effect and imposes a heavy burden on employers because of past occurrences. The issue of accrued liability still exists. However, since the Law does not require official medical examinations of all employees and certification of disability where found, it is probable that claims under the existing law will not be abnormally precipitated but will arise only when an employee actually becomes unable to carry on at his usual work. For this reason, although numerous individuals still asserted that the accrued liability was uninsurable, it did not seem to be quite so acute a problem as under the dust disease bill. Once again various schemes of cover were discussed by the committees of the Board but they finally simmered down to two, which were finally adopted. One of these, officially known as Plan I, contemplates the assumption of practically the entire liability by the carrier.

The premium for dust disease cover is based on a flat rate per $100 of payroll applied in the regular way. However, in addition to this premium, the plan requires the employer to pay to the carrier $300 for each claim due to disability lasting four months or longer or death resulting from injury to the respiratory tract. This charge, by requiring the assured to contribute to the cost of each serious dust disease claim, is designed to deter employers from discharging employees and thus precipitating claims. While originally intended as an additional premium over and above that produced by the payroll rate, this claim charge is now definitely not a premium charge but rather salvage.

The other plan, designated as Plan II, was based on the assumption that on the average it takes about seven years exposure for disability from silicosis to develop and that the accrued liability in the twelve months immediately subsequent to September 1, 1935 would therefore represent six-sevenths of the cost of each claim. Since this accrued liability is held to be uninsurable, the plan provides that six-sevenths of the cost of each claim, but subject to a fixed limit, shall be borne by the employer while the remaining one-seventh as well as any excess of the six-sevenths above the limit is assumed by the carrier. For its portion of the liability the carrier charges a premium based upon a flat rate per $100 of payroll. In order to guarantee payment of his proportionate share the employer is required to pay in advance a deposit fund based on a stated amount per capita, which fund is held in trust by the carrier and adjusted on the basis of claims actually incurred. If it becomes inadequate to cover the employer's share of claims reported, an additional deposit may be required. Of course, under the policy, the carrier is liable for the entire amount; therefore, the assured's contribution to each claim is again in the nature of salvage. Under this plan, if an employer has no claims chargeable to a particular period, he will ultimately receive back the entire deposit fund. This plan contemplates further that during the twelve months beginning September 1, 1936, after the law has been in effect for one year, the employer's share will be five-sevenths and the carrier's two-sevenths, and so on each year until the entire liability is undertaken by the carrier. The payroll rate will increase and the per capita charge will decrease correspondingly.

Except in the case of risks where the raw materials, processes or products producing a dust hazard are not present, one or the other of these plans must be applied to every risk subject to any of a list of about 90 classifications which were selected by the Safety Engineering Committee of the Board as involving a serious dust hazard, as well as to the foundry portion of any risk, however classified. The special occupational disease rates for these classes vary under both plans in accordance with a scale of relativity in which the dust hazard of Silica Grinding is taken as the maximum, represented by a weight of 100 in the scale. The weights for other classifications where there is a lower concentration of dust or where the proportion of employees within the classification who are exposed to the dust hazard is smaller than in the case of silica grinding, are correspondingly lower. This scale of weights was adopted by the Safety Engineering Committee and, in the absence of any reliable or sufficient statistical data, rests in part on the similar scale of weights developed by the National Council some years ago and in part on the combined judgment and engineering experience of the members of that committee. In establishing the actual rates the scale of weights was applied to the rate for the foundry classifications, which were selected as being representative of dusty industries, the weight for which was placed at 40. In effect, therefore, the foundry rates determined the rate level for the entire list of classes.

Rate Levels

There was, of course, no reliable data available to serve as a basis for rates. Consequently, the Actuarial Committee was forced to rely to a considerable extent on assumptions and judgment. The rate for occupational disease common law liability for the foundry classes which had been adopted effective July 1, 1935 was $4.00, and it was felt that the cost under the Compensation Law would be considerably higher. In the discussion of the subject occupational disease rates for foundries as high as $12.00 were suggested but a rate of $8.00 coupled with the provision for a claim charge of $300, as already explained, was finally adopted as a basis. This rate may be considered to repre-

sent the dust disease cost in foundries on the assumption that on the average there will be the equivalent of one serious case per annum per 100 employees; that the average cost of such case will be $7,500 (approximately the average D. & P. T. value in New York); and that the average annual payroll per employee will be $1500, thus:

$$\frac{7500-300}{150{,}000} \times 100 = 4.80 \text{ pure premium, equivalent to the rate of } \$8.00.$$

When this proposal was submitted to the Governing Committee it was found unacceptable to some members, chiefly because it made no provision for accrued liability and the subject was accordingly referred back to the Actuarial Committee for further study, as a result of which Plan II, already described, was evolved. The rates and per capita charges under this plan for the basic class, foundries, were developed from the following assumptions:

Average period of development of disability from silicosis: 7 years.

Frequency: equivalent of 2 serious cases per annum per 100 employees.

Average cost per serious case: $7,400.

Average annual payroll for employee: $1,500.

On these assumptions the total cost per 100 employees per annum would be $14,800 of which six-sevenths, or $12,686 is to be borne by the employer. The per capita charge to establish the deposit fund which serves to guarantee the employer's contribution is therefore $\frac{\$12{,}686}{100}$ or $127. The remaining $2,114, to be borne by the carrier, produces a pure premium of $1.41, or a rate of $2.35 when loaded with the standard 40% for expenses. It is to be noted that no expense loading was put on the per capita charges because they were to serve simply as a deposit fund which ultimately would be returned in full if no claims arose. Furthermore, although the employer's contribution on any case was to be limited to $6,343, his share of the average value, no specific provision was made in the payroll rate for the excess above such limit. In other words, unless the claim frequency proved to be less than 2% the payroll rates would be inadequate.

Examples of the rates filed with the Insurance Department, based on the above foundry rates, follow:

Code No.	Classification	Plan I Rate	Plan II	
			Rate	Per Capita
1741	Silica Grinding	20.00	5.87	317
1803	Stone Cutting or Polishing..	18.00	5.29	285
3081	Foundries—iron	8.00	2.35	127
4053	Potteries	7.00	2.06	111
4114	Glassware Mfg.	3.00	.88	48

Action of Insurance Department

These rates were not approved by the Superintendent of Insurance, who did, however, approve a reduced scale of rates. In the first place the expense loading under Plan I was reduced from 40% to 20% on the ground that "the expenses that are not required in a fixed ratio to the premium should be adjusted to a comparable basis in both plans," and the loading should be based upon the proportion of the rate representing the hazard of future exposure. Second, it was held that since the plan provided for increasing the rates where the hazard was abnormal and since the proposed rate of $8.00 was assumed to represent the average, the basic rate would therefore be applied to risks where the hazard was less than normal and should consequently be reduced 20%. Third, the average value of a serious case was reduced to $7,250 from which was deducted the claim charge of $300. Taking these changes into consideration a basic rate of $4.63 for foundries under Plan I was approved, calculated as follows:

$$\frac{7250-300}{150{,}000} \times 100 \times .80 \times \frac{1}{.80} = 4.63$$

In connection with Plan II the Superintendent disapproved the assumption of a greater claim frequency than under Plan I and therefore reduced the per capita charges 50% to correspond to a frequency of one serious claim per 100 employees. The average cost per case, however, was left at $7,400 and not reduced to $7,250 as in the case of Plan I. The payroll rate of $2.35 for foundries was reduced 20% for the same reason that the Plan I rate was similarly reduced. That portion of the payroll rate which was due to the assumption of greater claim frequency was not disturbed but was approved on different grounds, namely, as

a proper loading to cover losses in excess of the amount upon which the assured contributes.

In connection with these changes the Superintendent stated that the adjustment in the expense loadings resulted in an allowance for acquisition and field supervision of 4% under Plan I and 10% under Plan II.

The application of the scale of weights for the various classifications involved to the rates and per capita charge for foundries as approved produced the specific occupational disease rates and per capita charges which became effective September 1, 1935.

Future Problems

The question of coverage for and rating of the occupational dust disease hazard is by no means solved at the present time. Objections that several of the rates are too high are being received from many employers. On the other hand, private carriers generally seem reluctant to carry risks having serious dust hazards at the approved rates. The possibilities of a form of schedule rating for foundries and other industries have not been sufficiently explored; and the relativity of rates for the several classifications will undoubtedly require considerable correction as reliable information becomes available. Above all will be the necessity of determining the true cost of covering this hazard as actual experience under the amended law develops.

GROUP RATE LEVELS IN WORKMEN'S COMPENSATION INSURANCE

BY

M. H. MC CONNELL, JR.

Prior to the introduction of group rate levels into the Workmen's Compensation rate making plan, there was no necessity for calculating the change in rates by industry group. Whenever a test of proposed rates was made, it was deemed sufficient to make a test of the aggregate change in rates. Although such tests did not reveal it, the average rate changes for the individual industry groups must have departed considerably from the average rate change of all groups combined, as a result of varying relativity among individual classifications. Since the introduction of group rate levels into rate making, attention has been focussed on the rate changes by industry group. The question naturally arises how much do group rate levels alter the rate changes by industry group?

In the attached tables an attempt has been made to measure statistically the effect of group rate levels upon the 1934 rate revisions. For this purpose only states in which the 1934 Program was adopted have been used. Since the 1934 Program included the principle of group rate levels, the problem is to find what the group rate changes in these states would have been, if rates had been keyed to a single rate level. A brief review of the effect of group rate levels upon rate making procedure will serve to pave the way for a solution.

The fundamental rate making formula for classifications with 100% local credibility is:—

$$\text{Manual rate} = \left\{ \frac{\text{Serious losses} \times \text{indemnity projection factor}}{\text{Payroll}} + \frac{\text{Non-Serious losses} \times \text{indemnity projection factor}}{\text{Payroll}} + \frac{\text{Medical losses} \times \text{medical projection factor}}{\text{Payroll}} \right\} \times \text{rate multiplier}$$

For such classifications the only effect of group rate levels is to change the projection factors in the above formula. Instead of

having one set of projection factors to be applied to all classifications, separate projection factors are calculated for each of the following industry groups: Manufacturing, Contracting and All Other.

For this purpose indemnity and medical policy year loss ratios must be calculated for each industry group. It is likewise necessary to calculate separate indemnity and medical rate level loss ratios for each industry group. For industry groups having $1,000,000 of premium or more during the rate level period, the rate level is determined entirely by group experience. For industry groups which have less than $1,000,000 of premium, the rate level loss ratio is obtained by formula-rating the group loss ratio against the loss ratio of all groups combined for the group rate level period. In the process, the group loss ratio is weighted by the ratio of the group premium to $1,000,000. The loss ratio so determined is split between indemnity and medical on the basis of group experience. A correction factor is then applied to the group rate level loss ratios to produce the desired over-all rate level loss ratio. The over-all rate level loss ratio is calculated the same way as it always has been. The rate level period for the groups is generally one year longer than the over-all rate level period, subject to a maximum of three years. Henceforth in this article "rate level period" means the over-all rate level period. If the rate period for groups is meant it is designated as "group rate level period."

Having determined the group rate level loss ratios and policy year loss ratios, it is a simple matter to calculate group projection factors. From this point on the rate revision proceeds in the usual manner, but care must be exercised to insure the projection of all losses by their appropriate factors.

In addition to the change in projection factors there is, for classifications whose rates are not determined entirely by local experience, another change caused by group rate levels. With a single rate level, reversion factors are so calculated that the national experience used will just equal, in total, the state experience which it replaces. With group rate levels, it is necessary to balance the eliminated state experience with the national experience not only in total, but also by industry group, if the desired group increases are to be realized. This is accomplished

by calculating separate reversion factors for each industry group. Reversion factors are simply correction factors designed to make the national experience balance the eliminated state experience in total. The theory of reversion factors is exactly the same as before the introduction of group rate levels and has been thoroughly explained by Messrs. Roeber and Greene in their article "The 'Permanent' Rate Making Method Adopted by the National Council on Compensation Insurance" published in Volume XII of the Casualty Actuarial Society *Proceedings*.

The other factors included in the rating structure are not changed by keying to group rate levels.* Furthermore, actual losses and payroll, the starting point of all rate revisions, cannot be affected by group rate levels. It is evident then, that the effect of group rate levels is brought into the rates solely through the projection factors and reversion factors. With this in mind, we can estimate the effect of group rate levels by modifying losses first by projection factors and reversion factors applicable to group rate levels, and then by projection factors and reversion factors applicable to a single rate level. A comparison of the results should show the effect of keying to group rate levels. The two methods should produce approximately the same results in the aggregate, but for the three industry groups, the results will in all probability be different. These differences represent the effect of keying to group rate levels.

Exhibit I shows the results of such a comparison for a number of states. Column (1) shows the changes in rates actually approved in these states as a result of the 1934 rate revisions. Column (2) shows the results that would have been obtained by keying to a single rate level. Column (3) shows the results that would have been obtained by keying to a single rate level, but with the national experience balanced against the eliminated state experience by industry group. The differences between columns (1) and (3) are entirely due to changing the projection factors, but the differences between columns (1) and (2) are due to the combined effect of changing both the projection factors and the reversion factors. It should be noted that in every instance the

* Other factors at present included in the rating structure are, the expense multiplier, the correction for off-balance, and the contingency factor. They are the same for all classifications, and are not affected by group rate levels.

total change is the same for all three columns, showing that the methods all produce the same results in the aggregate.

The details of the calculation are more easily explained by means of an actual example. The complete calculations for the District of Columbia are shown in Exhibits II to IV. Exhibit II is divided into two parts, Part "A" showing the projection of District of Columbia experience by group projection factors, and Part "B" showing the same calculation using average projection factors based on the experience of all groups combined. The first three columns of Parts A and B, showing premiums and losses are identical. Columns (4) and (5) of Part A show the policy year loss ratios for indemnity and medical respectively. The figures shown in the parentheses of these columns are the rate level loss ratios. The indemnity and medical projection factors shown in columns (6) and (7) are obtained by dividing the rate level loss ratios by the policy year loss ratios. In columns (8) and (9) the losses have been extended by these projection factors. In columns (6) and (7) of Part B the same losses have been extended by the average projection factors of all groups combined. The calculation of these factors is shown under "All Groups" in columns (6) and (7) of Part A. The factors are repeated, for convenience, in columns (4) and (5) of Part B. The total losses converted to rate level by the two methods are shown in column (10) of Part A and column (8) of Part B. The corresponding loss ratios are shown in column (11) of each part—for Part B they are the upper figures of each pair. It might be mentioned that for Part A these ratios are the rate level loss ratios, as they should be. The resulting increases are shown in columns (12) of both Parts, and are obtained by dividing the loss ratios in columns (11) by the allowable loss ratio. These are the figures shown in columns (1) and (3) of Exhibit I —column (1) showing the figures from Part A and column (3) the figures from Part B.

Thus far the effect of national experience has been neglected. As previously explained, the national experience will just balance the eliminated state experience for each industry group when group rate levels are used. Consequently Part A, which is based on group rate levels, will not have to be adjusted for national experience. However, when rates are keyed to a single rate level

the national experience will not balance out by industry group, so an adjustment for the effect of national experience must be included in Part B. The amount of this adjustment is shown in column (9), and is added to the losses in column (8) to obtain the total losses on rate level, adjusted for the effect of national experience. The corresponding loss ratios and increases are shown in columns (11) and (12)—the lower figures of each pair. These are the figures shown in column (2) of Exhibit I. These figures approximate the results that would have been realized by keying to a single rate level.

The adjustment for national experience and the reversion factors are calculated in Exhibit IV. In columns (3), (5) and (7) are shown the District of Columbia serious, non-serious, and medical losses (all on Rate Level), grouped according to the local credibility indicated in column (2). The corresponding national experience is shown in columns (4), (6) and (8). The national experience is obtained by extending the District of Columbia payrolls by the national pure premiums. The resulting products are assigned to the same credibility groups to which the corresponding District of Columbia losses have been assigned. The amount of District of Columbia losses to be eliminated are calculated on lines (f), (l) and (r) of columns (3), (5) and (7). The national experience which will replace these eliminated losses is calculated on the same lines in columns (4), (6) and (8). Correction factors applicable to this national experience, to make it balance the eliminated local experience, are calculated in columns (9), (10) and (11). These factors are simply the ratios of the eliminated local experience to the national experience, and are known as reversion factors. These are the factors which should be used with group rate levels.

The eliminated District of Columbia experience and the substituted national experience are totaled for all groups on line (s). The District of Columbia experience has been put on rate level by group projection factors. Before calculating reversion factors for a single rate level, the experience should be placed on rate level by "All Group" projection factors, but this was not done because both sets of projection factors are supposed to produce the same effect over all. This introduces an error into the calculation for we cannot be sure that the two sets of projection fac-

tors will have the same effect on eliminated experience, even for all groups combined. That such an error would be large seems unlikely, and has been neglected for practical considerations. With this for an excuse, the reversion factors calculated on line (s) have been used as equivalent to the reversion applicable to a single rate level.

At the bottom of Exhibit IV the national experience has been converted to District of Columbia level by means of these factors. The converted experience is shown by industry group in columns (3), (6) and (9). The corresponding District of Columbia experience is shown in columns (4), (7) and (10). The excess of national experience over District of Columbia experience is shown on line (y). This excess is used as the "correction for national experience" shown in column (9) of Exhibit II, Part B.

Exhibit III is devoted to the calculation of the group rate level loss ratios. The first 5 columns showing premiums and losses and the corresponding loss ratios for 1930, 1931 and 1932 are taken from the first 5 columns of Exhibit II, Part A, line (f). The total loss ratios shown in column (6) are the sums of the indemnity and medical loss ratios. The amount of credibility granted each industry group is shown in column (7). In column (8) the industry group loss ratios are formula rated with the total loss ratio, according to the credibility indicated in column (7). The formula loss ratios are split into indemnity and medical in columns (9) and (10), the splits being based solely on group experience. Averages of these loss ratios weighted by the premiums of the rate level period are shown on line (d). The actual calculation of the average is made in columns (11), (12), and (13). In columns (14) and (15) the group formula loss ratios are multiplied by the quotient of rate level loss ratio for all groups combined over the average formula loss ratio, thereby forcing a balance with the desired rate level over all. The total rate level loss ratios are shown by group in column (16), and the corresponding required changes in rates are calculated in column (17). That these required changes are actually realized by projecting to group rate levels is shown by Exhibit II—Part A, column (12).

So much for the calculation of the tables. Let us now consider the results. As was to be expected, the change in rates by indus-

try group varies from the average change for all groups, in every state, even when rates are keyed to a single rate level. This is, no doubt, due to variations in relativity for individual classifications. At first glance it would seem that relativity would vary directly with the ratio of losses to payroll when rates are keyed to a single rate level, for then losses and payrolls are the only variables in the rate-making formula. This is not strictly true, however. In the first place amendment factors, though the same for all classifications, are applied separately by policy year and by kind of injury. Hence they will not have the same effect upon all classifications, unless the distribution of losses is substantially the same for all classifications, both by policy year and by kind of benefit. The chance for such an occurrence seems rather slight when it is recalled that five years of experience are used, and that there are six different kinds of benefits.

Furthermore, projection factors like amendment factors, will hardly affect all classifications alike, and for the same reason. They are also applied separately by policy year and kind of benefit, though for this purpose losses are only divided into two kinds of benefit, indemnity and medical.

Still, in all probability, it would not be far from the truth to assume that amendment factors and projection factors have little effect upon relativity under a single rate level. The very fact that their effect is dependent upon a varying distribution of losses would seem to indicate this. The classes most likely to have a freak distribution of losses are classes with a limited volume of experience, and for such classes the rates are determined mostly by national experience, with the result that factors applied to local experience are of little importance.

Nevertheless, there is one thing that has an important bearing upon relativity, namely national experience. The relativity prevailing among the national pure premiums* will doubtless be considerably different from the relativity prevailing among local pure premiums. Consequently the use of national experience will disturb the relativity established by local experience, especially since national experience is introduced in varying amounts for different classes, and for some classes not at all.

* Relativity for national pure premiums is also determined by the ratio of losses to payroll, but for the experience of all states combined.

In this connection it should be mentioned that the importance of national experience decreases as the volume of local experience increases. Applied to individual classifications this means, that as the importance of a classification increases the importance of national experience decreases. In review, then, it would seem safe to say that when rates are keyed to a single rate level the most important forces acting upon relativity are national experience and local loss costs (as expressed by the ratio of losses to payroll). Furthermore, the relativity of important classes is governed chiefly by local loss costs, because national experience is of little consequence for such classes.

Let us now consider how this situation is affected by the introduction of group rate levels. Since it is not intended to alter the aggregate change in rates by keying to group rate levels, it must be the intention to change relativity in some way. How this is done is explained by our main proposition, that the effect of group rate levels is brought into the rates through the projection factors and reversion factors. By keying to group rate levels another variable is introduced into the fundamental rate making formula; for group rate level projection factors vary by industry group. Another variable is also introduced into the calculation of the national pure premiums, because keying to group rate levels requires separate sets of reversion factors for each industry group. These two new variables are the instruments by means of which relativity is changed.

Since the same projection factors and reversion factors are used for all classifications in the same industry group, relativity among classifications in the same group ought to be about the same as under a single rate level. In other words, the industry groups are raised or lowered as a whole, leaving the relativity within substantially the same as before. To be sure, the relativity of all classes within a group is changed in relation to all classes outside the group. Some idea of the extent of such changes can be obtained by noting the effect of group rate levels upon the group rate changes in Exhibit I.

Whether rates are keyed to group rate levels, or to a single rate level, the element of a classification rate which depends upon the ratio of classification losses to classification payrolls is the same. It might be expected, therefore, that there would be a

certain correspondence between the average rate changes for the several classification groups, produced by the two methods. The use of a single rate level will produce average rate changes for the groups, some above and some below the average. Using group rate levels the same groups should be expected to exhibit changes in the same direction, though most likely by somewhat different amounts than under the former method. Whichever method is used there should be no change in direction, merely a change in degree. Such a relation is shown in a general way by the figures in Exhibit I.

Furthermore, since group rate levels are commonly supposed to be more responsive to variations in loss cost (by industry group) than a single rate level, we should expect rate changes would fluctuate more violently (by industry group) when rates are keyed to a group rate level, than when a single rate level is used. Strangely enough, the figures do not exhibit a disposition toward such a tendency. In fact they seem to display the opposite tendency in not a few instances.

A great deal of the fluctuation under a single rate level may be attributed to national experience. Since the national experience is not balanced out except in total, there is almost sure to be a surplus or a deficit in each industry group. For example, we saw from Exhibit IV that there was a deficit of $45,615.00 for Contracting, and a surplus of $30,076.00 for All Other, in the District of Columbia, due to national experience. These surpluses and deficits naturally cause departures from the changes required by local experience. Sometimes these departures from local indications nullify the changes indicated by local experience; at other times they accentuate the changes indicated by local experience. It is probably the latter occurrence which causes the violent fluctuations noted in column (2) of Exhibit I.

When rates are keyed to group rate levels, national experience is balanced out by group, so there are, for a group as a whole, no departures from the changes indicated by local experience. When national experience is also balanced out by group under a single rate level, the relation between the results of the two methods of keying to rate level are more nearly in accord with our *a priori* views on the subject. For then the rate changes produced by a single rate level seem to fluctuate less violently by

industry group than do the changes produced by group rate levels. Column (3) shows the results of balancing the national experience by group when a single rate level is used. These figures correspond more closely to the figures in column (1).

It also seems natural to suppose that if the rate level loss ratio of a group is higher than the average over all rate level loss ratio the rates for the industry group will be increased by substituting group rate levels for a single rate level. This expectation, however, is not fulfilled by our tables, for in a number of states the largest figure in column (1) is exceeded by the corresponding figure in column (2).* From our previous discussion it should be clear that national experience is partly responsible for this situation. Nevertheless, even with the effect of national experience removed, as in column (3), the largest group increase for group rate levels is less, in some instances, than the corresponding increase for a single rate level. This is because the average overall projection factors may, at times, exceed the group projection factors for the group with the highest group rate level loss ratio. This does not seem so strange when it is recalled that projection factors are measures of trend, and as such depend upon the relative, rather than the absolute, size of the loss ratios.

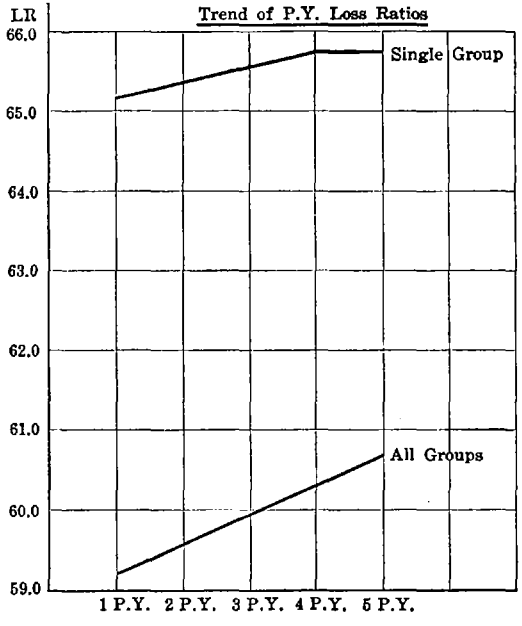
To illustrate this point the following example has been assumed:—

	Policy Year	(1)	(2)	(3)	(4)
		Policy Year Average Loss Ratio		Projection Factors	
		Single Group	All Groups Combined	Single Group	All Groups Combined
				(1f) ÷ (1)	(2f) ÷ (2)
(a)	1st	65.3	59.4	.1005	1.020
(b)	2nd	65.4	59.7	.1003	1.015
(c)	3rd	65.5	60.0	.1002	1.010
(d)	4th	65.6	60.3	.1000	1.005
(e)	5th	65.6	60.6	.1000	1.000
(f)	Rate Level	65.6 (Last 2 yrs.)	60.6 (Last yr.)		

Here is a group which has consistently had a higher loss ratio than the average of all groups combined, and yet the projection factors for the group are consistently lower than the projection

* When group rates are used the highest group rate level loss ratio produces the highest increase.

factors for all groups combined. Graphically the situation may be depicted as follows:



If in a case such as this, there should also happen to be a substantial surplus of national experience for the group, it is evident that the increase for the group would be much greater under a single rate level than under group rate levels. Perhaps such a possibility was anticipated in 1933 when group rate levels were adopted. In 1933, however, the insurance carriers were harassed by high loss ratios and inadequate rates, so it seems likely that group rate levels were adopted in the hope of securing the greatest possible relief where the inadequacy in rates was most acute. It was generally recognized that the application of group rate levels would cause the industry group with the highest loss ratio to receive the greatest increase in rates, but the possibility of securing an even greater increase for such a group by keying to a single rate level may have been overlooked.

At any rate if it should ever be deemed desirable to make sure that, for industry groups whose loss ratios exceed the average,

the rates will not be less than the corresponding rates resulting from the application of a single rate level, all that need be done is to modify the present procedure by the following rules:—

(To be applied only to industry groups whose rate level loss ratios exceed the loss ratio for all groups combined.)

1. Whenever the average projection factors for all groups combined (indemnity or medical) exceed the group projection factors, substitute the average projection factors for the group factors. Apply correction factors to the other industry groups to produce desired rate level over all.
2. Whenever a reversion factor (Serious, Non-serious or Medical) for all groups combined exceeds the corresponding group reversion factor, substitute the average reversion factor for the group factor. Apply correction factors to the corresponding reversion factors of other industry groups, so that in total the national experience will balance the state experience to be eliminated.

The application of these rules would guarantee that no group whose rate level loss ratio exceeded the average would lose by keying to group rate levels.

In the author's opinion no modification of the present rate making method is necessary in this respect. It seems perfectly justifiable to allow an industry to determine its own rate level provided the volume of exposure is sufficient. For this purpose an exposure of $1,000,000 of premium for the group rate level period (the present requirement) ought to be sufficient, especially since $1,500,000 of premium is supposed to be enough exposure for the rate level of a whole state. Since the group rate level is partly determined by the total rate level when there is less than $1,000,000 of exposure for a group, and since the influence of the total rate level is increased as the exposure decreases, there is a safeguard against violent fluctuations in rates due to inadequate exposure. At the same time the maximum responsiveness is granted to local experience. A departure from group indications would not seem to be justified merely because a larger increase could be obtained by keying to a single rate level.

An individual classification which developed $1,000,000 of premium for the rate level period would be almost certain to be self-rated, whether rates are keyed to group rate levels or not.

For example, the All Other group in the District of Columbia develops $2,687,032 of premium for the group rate level period and $4,600,368 of premium from 1928 to 1932. If all this experience had been concentrated in a single classification, it would undoubtedly have been self-rated. The $2,690,087 of losses on rate level, column (8), Exhibit II-B, without any national experience, would have been used to determine the rate. Yet because this is the experience of a group of classes, instead of a single class, it would be augmented by $30,076 of national experience, column (9), if rates were keyed to a single rate level. If group rate levels are used the national experience will balance out for the group as a whole and rates will be keyed to the $2,690,087 of local losses, just as if it were a single class. It would seem then, that in this instance at least, group rate levels produce more equitable results.

Prior to the introduction of group rate levels, an industry group was in much the same position as an individual class, except that an individual class, if large enough would be self-rated; whereas an industry group, however large, would never be self-rated, except by accident. Group rate levels permit a group with sufficient exposure to become self-rated.

Before concluding it should be mentioned that all tests and comparisons in this paper have been made on a five year basis. This is contrary to the accepted practice of making tests of rate changes on the basis of rate level years only. In the author's opinion a test should include all the years used in the calculation, for algebraically there is no reason to expect the test to check out with the required on any other basis. However, it is hardly worth while to discuss the matter because there is scarcely any difference between the results of using all five years or rate level years only. This is evidenced by the fact that tests based on rate level years usually come very close to the required, which five year tests ought to hit exactly.

The foregoing discussion may be summarized as follows:—

1. There was considerable variation in the average change in rates by industry group, even before group rate levels were adopted.
2. Since it is not intended to alter the over-all change in rates by keying to group rate levels, it must be intended to readjust relativity in some way.

3. The effect of group rate levels is brought into the rates through projection factors and reversion factors. This has the effect of changing relativity between classifications in different industry groups without changing relativity very much between classifications in the same industry group.
4. As a corollary to (3) it may be stated that it is possible for the industry group with the highest rate level loss ratio to receive a bigger increase in rates when a single rate level is used than when group rate levels are used. This is explained by the fact that the group projection factors and/or reversion factors for such a group might be less than the corresponding factors based on the experience of all groups combined.

EXHIBIT I

COMPARISON OF RATE CHANGES PRODUCED BY GROUP AND SINGLE RATE LEVELS BASED ON EXPERIENCE USED IN 1934 RATE REVISIONS

	ALABAMA			CONNECTICUT		
	(1)	(2)	(3)	(1)	(2)	(3)
		SINGLE RATE LEVEL			SINGLE RATE LEVEL	
	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted
Manufacturing	1.074	1.096	1.110	.995	1.115	1.049
Contracting	1.203	1.074	1.182	.997	.906	.948
All Others	1.122	1.158	1.063	.941	.878	.915
All Groups	1.110	1.110	1.110	.972	.972	.972

	DISTRICT OF COLUMBIA			INDIANA		
	(1)	(2)	(3)	(1)	(2)	(3)
		SINGLE RATE LEVEL			SINGLE RATE LEVEL	
	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted
Manufacturing	1.000	1.067	1.045	1.037	1.139	1.096
Contracting	1.152	1.098	1.121	1.071	.877	.950
All Others	.998	1.019	1.009	1.057	1.045	1.056
All Groups	1.055	1.055	1.055	1.052	1.052	1.052

	IOWA			KANSAS		
	(1)	(2)	(3)	(1)	(2)	(3)
		SINGLE RATE LEVEL			SINGLE RATE LEVEL	
	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted
Manufacturing	.905	.993	.947	1.020	1.029	.983
Contracting	1.046	1.126	1.102	1.180	.960	1.059
All Others	.975	.896	.935	.912	1.059	.998
All Groups	.967	.967	.967	1.017	1.017	1.017

	KENTUCKY			LOUISIANA		
	(1)	(2)	(3)	(1)	(2)	(3)
		SINGLE RATE LEVEL			SINGLE RATE LEVEL	
	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted
Manufacturing	1.110	1.167	1.139	.936	1.117	1.016
Contracting	1.127	1.082	1.115	.965	.793	.889
All Others	1.127	1.111	1.111	.970	1.024	.997
All Groups	1.122	1.122	1.122	.962	.962	.962

EXHIBIT I (Cont'd)

COMPARISON OF RATE CHANGES PRODUCED BY GROUP AND SINGLE RATE LEVELS BASED ON EXPERIENCE USED IN 1934 RATE REVISIONS

	MARYLAND			MISSOURI		
	(1)	(2)	(3)	(1)	(2)	(3)
		SINGLE RATE LEVEL			SINGLE RATE LEVEL	
	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted
Manufacturing	.916	1.008	.979	1.051	1.255	1.162
Contracting	.950	.793	.850	1.064	.924	.993
All Other	.861	.896	.874	1.036	1.013	1.015
All Groups	.902	.902	.902	1.047	1.047	1.047

	MONTANA			NEBRASKA		
	(1)	(2)	(3)	(1)	(2)	(3)
		SINGLE RATE LEVEL			SINGLE RATE LEVEL	
	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted
Manufacturing	1.130	1.108	1.184	1.090	1.020	1.018
Contracting	1.094	1.228	1.117	1.066	1.046	1.095
All Other	1.049	1.107	1.023	1.009	1.041	1.023
All Groups	1.073	1.073	1.073	1.039	1.039	1.039

	RHODE ISLAND			VERMONT		
	(1)	(2)	(3)	(1)	(2)	(3)
		SINGLE RATE LEVEL			SINGLE RATE LEVEL	
	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted	Group Rate Levels	Nat. Exper. Adjusted	Nat. Exper. Unadjusted
Manufacturing	.970	.974	.955	.964	.944	.950
Contracting	1.068	.877	1.052	1.020	1.017	1.017
All Other	.930	1.040	.951	.954	.977	.969
All Groups	.972	.972	.972	.972	.972	.972

EXHIBIT II—PART A

PROJECTION TO RATE LEVEL BY GROUP PROJECTION FACTORS — DISTRICT OF COLUMBIA

Policy Year	(1) Manual Premiums	(2) Losses on 1-3-29 Law Level: Indemnity	(3) Losses on 1-3-29 Law Level: Medical	(4) Loss Ratio: Indemnity	(5) Loss Ratio: Medical	(6) Projection Factor: Indemnity	(7) Projection Factor: Medical	(8) Losses on Rate Level: Indemnity	(9) Losses on Rate Level: Medical	(10) Losses on Rate Level: Total	(11) Loss Ratio	(12) Increase
MANUFACTURING												
				(2) ÷ (1)	(3) ÷ (1)	(4g) ÷ (4)	(5g) ÷ (5)	(2) × (6)	(3) × (7)	(8) + (9)	(10) ÷ (1)	(11) ÷ 58.0 = Allowable L.R.
(a) 1928	255500	73076	36891	28.6	14.4	1.101	1.840	80457	67879			
(b) 1929	256250	81682	45018	31.9	17.6	.987	1.506	80620	67797			
(c) 1930	252486	96237	68576	38.1	27.2	.827	.974	79588	66793			
(d) 1931	228279	50402	40975	22.1	17.9	1.425	1.480	71823	60643			
(e) 1932	199198	57609	39619	28.9	19.9	1.090	1.332	62794	52773			
(f) 1930-32	679963	204248	149170	30.0	21.9							
(g) 1928-32	1191713	359006	231079	(31.5)*	(26.5)*			375282	315885	691167	58.0	1.000
CONTRACTING												
(a) 1928	698991	219425	84106	31.4	12.0	1.379	1.958	302587	164680			
(b) 1929	770263	256975	111835	33.4	14.5	1.296	1.621	333040	181285			
(c) 1930	707139	246773	114899	34.9	16.2	1.241	1.451	306245	166718			
(d) 1931	645400	271710	114294	42.1	17.7	1.092	1.328	279590	151782			
(e) 1932	618311	314827	165429	50.9	26.8	.851	.877	267918	145081			
(f) 1930-32	1970850	833310	394622	42.3	20.0							
(g) 1928-32	3440104	1309710	590563	(43.3)*	(23.5)*			1489380	809546	2298926	66.8	1.152
ALL OTHERS												
(a) 1928	952091	221596	145194	23.3	15.3	1.361	1.712	301592	248572			
(b) 1929	961245	246175	182078	25.6	18.9	1.238	1.386	304765	252360			
(c) 1930	935211	291712	197650	31.2	21.1	1.016	1.242	296379	245481			
(d) 1931	941725	341592	193742	36.3	20.6	.873	1.272	298210	246440			
(e) 1932	810096	199354	206994	24.6	25.6	1.289	1.023	256967	211755			
(f) 1930-32	2687032	832658	598386	31.0	22.3							
(g) 1928-32	4600368	1300429	925658	(31.7)*	(26.2)*			1457913	1204608	2662521	57.9	.998
ALL GROUPS COMBINED												
(a) 1928	1906582	514097	266191	27.0	14.0	1.330	1.807					
(b) 1929	1987758	584832	338931	29.4	17.1	1.221	1.480					
(c) 1930	1894836	634722	381125	33.5	20.1	1.072	1.259					
(d) 1931	1815404	663704	349011	36.6	19.2	.981	1.318					
(e) 1932	1627605	571790	412042	35.1	25.3	1.023	1.000					
(f) 1930-32	5337845	1870216	1142178	35.0	21.4							
(g) 1928-32	9232185	2969145	1747300	(35.9)*	(25.3)*					5652614	61.2	1.055

*From Exhibit III—Indemnity from column (14) and Medical from column (15).

EXHIBIT II—PART B

PROJECTION TO RATE LEVEL BY AVERAGE PROJECTION FACTORS — DISTRICT OF COLUMBIA

Policy Year	(1) Manual Premiums	(2) Losses on 1-3-29 Law Level: Indemnity	(3) Losses on 1-3-29 Law Level: Medical	(4) Projection Factor: Indemnity	(5) Projection Factor: Medical	(6) Losses on Rate Level: Indemnity	(7) Losses on Rate Level: Medical	(8) Losses on Rate Level: Total	(9) Correction for Nat'l Experience	(10) Losses on Rate Level Corrected for Nat'l	(11) Loss Ratio	(12) Increase
MANUFACTURING												
(a) 1928	255500	73076	36891	*	*	(2)×(4)	(3)×(5)	(6)+(7)	from line (y) Exhibit IV	(8)+(9)	(8)÷(1) or (10)÷(1)	(11)÷58.0 = Allowable L.R.
(b) 1929	256250	81682	45018	1.330	1.807	97191	66662					
(c) 1930	252486	96237	68576	1.221	1.480	99734	66627					
(d) 1931	228279	50402	40975	1.072	1.259	103166	86337					
(e) 1932	199198	57609	39619	.981	1.318	49444	54005					
(f) 1930-32	679963	204248	149170	1.023	1.000	58934	39619					
(g) 1928-32	1191713	359006	231079								60.6	1.045
						408469	313250	721719	16308	738027	61.9	1.067
CONTRACTING												
(a) 1928	698991	219425	84106	1.330	1.807	291835	151980					
(b) 1929	770263	256975	111835	1.221	1.480	313766	165516					
(c) 1930	707139	246773	114899	1.072	1.259	264541	144658					
(d) 1931	645400	271710	114294	.981	1.318	266548	150639					
(e) 1932	618311	314827	165429	1.023	1.000	322068	165429					
(f) 1930-32	1970850	833310	394622								65.0	1.121
(g) 1928-32	3440104	1309710	590563			1458758	778222	2236980	−45615	2191365	63.7	1.098
ALL OTHERS												
(a) 1928	952091	221596	145194	1.330	1.807	294723	262366					
(b) 1929	961245	246175	182078	1.221	1.480	300580	269475					
(c) 1930	935211	291712	197650	1.072	1.259	312715	248841					
(d) 1931	941725	341592	193742	.981	1.318	335102	255352					
(e) 1932	810096	199354	206994	1.023	1.000	203939	206994					
(f) 1930-32	2687032	832658	598386								58.5	1.009
(g) 1928-32	4600368	1300429	925658			1447059	1243028	2690087	30076	2720163	59.1	1.019
ALL GROUPS COMBINED												
(a) 1928	1906582	514097	266191									
(b) 1929	1987758	584832	338931									
(c) 1930	1894836	634722	381125									
(d) 1931	1815404	663704	349011									
(e) 1932	1627605	571790	412042									
(f) 1930-32	5337845	1870216	1142178								61.2	1.055
(g) 1928-32	9232185	2969145	1747300					5648786	769	5649555	61.2	1.055

*From projection factors for "All Groups Combined" shown in columns (6) and (7) of Part A.

EXHIBIT III

CALCULATION OF GROUP RATE LEVEL LOSS RATIOS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		INCURRED LOSSES		LOSS RATIOS				FORMULA LOSS RATIOS		
Group	P.Y. 1930-31-32 Premiums at 12-31-33 Manual Level	Indemnity On 1-3-29 Law Level	Medical on 1-3-29 Law Level	Indem. (2) ÷ (1)	Med. (3) ÷ (1)	Total (4) + (5)	Group Cred.	Total (6)×(7)+(6d)×[1.−(7)]	Indem. (8)×(4) / (6)	Med. (8)×(5) / (6)
(a) Mfg.	679963	204248	149170	30.0	21.9	51.9	.68	53.3	30.8	22.5
(b) Cont.	1970850	833310	394622	42.3	20.0	62.3	1.00	62.3	42.3	20.0
(c) A. O.	2687032	832658	598386	31.0	22.3	53.3	1.00	53.3	31.0	22.3
	(a)+(b)+(c)	(a)+(b)+(c)	(a)+(b)+(c)	(2) ÷ (1)	(3) ÷ (1)	(4)+(5)	X X X	X X X X	(12d) ÷ (11d)	(13d) ÷ (11d)
(d) All	5337845	1870216	1142178	35.0	21.4	56.4			35.1	21.5

	(11)	(12)	(13)	(14)		(15)	(16)	(17)
		FORM. EXPECTED LOSSES		RATE LEVEL—LOSS RATIOS				
Group	Rate Level Yrs. P. Y. 1931-32 Premiums at 12-31-33 Manual Level	Indemnity (11)×(9)	Medical (11)×(10)	Indemnity (9)×(14d) / (9d)	Medical (10)×(15d) / (10d)	Total (14) ÷ (15)		Change in Rates (16) ÷ 58.0 (Allowable Loss Ratio)
(a) Mfg.	427477	131663	96182	31.5	26.5	58.0		1.000
(b) Cont.	1263711	534550	252742	43.3	23.5	66.8		1.152
(c) A. O.	1751821	543065	390656	31.7	26.2	57.9		.998
	(a)+(b)+(c)	(a)+(b)+(c)	(a)+(b)+(c)	RATE LEVEL—L. R.'s OVER ALL				
(d) All	3443009	1209278	739580	35.9	25.3	61.2		1.055

Form used by National Council on Compensation Insurance.

EXHIBIT IV

District of Columbia Reversion Factors

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		Serious		Non-Serious		Medical		Reversion Factors		
Cred. Group	Local Cred.	D. C. Losses on Manual Rate Level	National Experience	D. C. Losses on Manual Rate Level	National Experience	D. C. Losses on Manual Rate Level	National Experience	Ser.	N. S.	Med.
MANUFACTURING										
(a) I	1.00	——	——	——	——	112217	94902			
(b) II	.75	——	——	48012	98787	——	——			
(c) III	.50	——	——	22694	45659	19354	14553			
(d) IV	.25	——	——	44819	63194	64926	52120			
(e) V	.00	168603	289878	99792	192107	126644	91044			
		(3)×{1.00−(2)}	(4)×{1.00−(2)}	(5)×{1.00−(2)}	(6)×{1.00−(2)}	(7)×{1.00−(2)}	(8)×{1.00−(2)}	(3f)÷(4f)	(5f)÷(6f)	(7f)÷(8f)
(f)		168603	289878	156756	287029	185016	137411	.582	.546	1.346
CONTRACTING										
(g) I	1.00	——	——	459026	762662	548371	429207			
(h) II	.75	252278	386253	109282	221404	72629	63113			
(i) III	.50	——	——	61817	145586	34997	31801			
(j) IV	.25	152120	372866	59838	68917	100001	52442			
(k) V	.00	340615	472766	89108	126318	72114	44881			
		(3)×{1.00−(2)}	(4)×{1.00−(2)}	(5)×{1.00−(2)}	(6)×{1.00−(2)}	(7)×{1.00−(2)}	(8)×{1.00−(2)}	(3L)÷(4L)	(5L)÷(6L)	(7L)÷(8L)
(L)		517775	848979	192216	306150	182771	115891	.610	.628	1.577
ALL OTHERS										
(m) I	1.00	——	——	440001	760499	912059	699735			
(n) II	.75	——	——	58687	100002	31695	20392			
(o) III	.50	171076	266496	106614	162238	40871	40353			
(p) IV	.25	182333	272941	88786	165131	145170	111820			
(q) V	.00	299174	521169	144527	257629	102621	89987			
		(3)×{1.00−(2)}	(4)×{1.00−(2)}	(5)×{1.00−(2)}	(6)×{1.00−(2)}	(7)×{1.00−(2)}	(8)×{1.00−(2)}	(3r)÷(4r)	(5r)÷(6r)	(7r)÷(8r)
(r)		521462	859123	279095	487597	239858	199127	.607	.572	1.205
ALL GROUPS										
s=f+L+r		1207840	1997980	628067	1080776	607645	452429	(3s)÷(4s) .605	(5s)÷(6s) .581	(7s)÷(8s) 1.343

EXHIBIT IV (Cont'd)

District of Columbia Reversion Factors

Correction for National Experience When Converted to State Level by "All Group" Conversion Factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Manufacturing			Contracting			All Others		
	Reversion Factor	Nat'l. Experience	Nat'l. on D. of C. Level	D. of C. Experience	Nat'l. Experience	Nat'l. on D. of C. Level	D. of C. Experience	Nat'l. Experience	Nat'l. on D. of C. Level	D. of C. Experience
			(1)×(2)			(1)×(5)			(1)×(8)	
(t) Serious	.605	289878	175376	168603	848979	513632	517775	859123	519769	521462
(u) Non-Serious	.581	287029	166764	156756	306150	177873	192216	487597	283294	279095
(v) Medical	1.343	137411	184543	185016	115891	155642	182771	199127	267428	239858
(w) Total			526683	510375		847147	892762		1070491	1040415
(x) Eliminated D.C.			510375			892762			1040415	
(y) Ex. Nat. (w) − (x)			16308			−45615			30076	

THE EXPERIENCE RATING PLAN AS APPLIED TO WORKMEN'S COMPENSATION RISKS

BY

MARK KORMES

PART II.

INTRODUCTION

While in the first part of the paper we have described the historical background and development of the rules and methods of experience rating, in this second part we shall concern ourselves with the principles and theory underlying the calculations of the various factors and tables contained in the present plan. This subject should be of particular interest to the members of this Society as well as the insurance public at large since the tables, rating values and factors as printed in the plan are more or less a mystery to those who are not directly engaged in their preparation or who do not serve on committees having jurisdiction in this matter.

It becomes immediately apparent that because the variations between the plans applicable in the various states[1] are but of minor significance it will be sufficient for the purpose of this portion of the paper to study the subject for a single state. The procedure developed for such a single state will apply, *mutatis mutandis*, to all other states. The choice of the State of New York for basis of our illustration is justifiable not only because it exhibits the largest number of experience rated risks[2] but also

(1) Except states whose plans are described in the chapter on "Other States" in the first part of the paper—see *Proceedings*, Vol. XXI, pp. 106 to 114.

(2) There are approximately 20,000 risks subject to experience rating in New York. These risks develop an annual premium of approximately $40,000,000.

because it possesses certain refinements not present in the rating plans of other states. There is also the added advantage that the recent law amendments passed by the New York Legislature give opportunity to illustrate the effect of such legislative action on the structure of the rating plan. The numerical values used in the subsequent calculations are taken from the revision of experience rating values and tables coincident with the July 1, 1935 revision of the New York Compensation Rates.[3]

The Fundamental Formula—Off-Balance of the Plan

As stated in Part I of this paper,[4] the final modification (credit or debit) is calculated from the formula

$$M = \frac{L - E}{E} \tag{1}$$

or in words

$$\text{Modification} = \frac{\text{Adjusted Losses} - \text{Expected Losses}}{\text{Expected Losses}} \tag{1a}$$

In order, therefore, to realize the entire premium as reflected by the manual rates, it is necessary that for all rated risks the modification be equal in the aggregate to zero. This happens when loss of premium because of credits is offset entirely by gain in premium because of charges. Under such circumstances we speak of the plan as being in balance, and all of the calculations of the various factors are based on the premise that the plan is in balance. From equation (1) it is apparent that the necessary and sufficient conditions for such a balance is that adjusted losses be equal to expected losses. Since adjusted losses are defined by the equation[5]

$$L = E + z\,(A - E) \tag{2}$$

---

(3) The necessity of revising rating values annually becomes quite apparent in view of the fact that the experience period changes annually. The necessity of revising the values and tables with each rate revision is demonstrated by the details of calculations shown on the following pages.

(4) See *Proceedings,* Vol. XXI, p. 102.

(5) For the sake of simplicity all reference to normal and excess splits is omitted. It may be seen readily that the conclusions of this part apply to each portion of the losses with equal force.

and since in order to have a balanced plan it is necessary that

$$L = E \tag{3}$$

we have

$$E + z\,(A - E) = E \tag{4}$$

or

$$z\,(A - E) = 0 \tag{5}$$

In order that equation (5) be satisfied it is necessary that the expression in parenthesis shall be equal to zero, since z, or the credibility, is positive ($0 < z \leqq 1$). We thus reduce our necessary and sufficient condition for a balanced plan to the requirement that the modified actual losses equal the expected losses for the business as a whole: or,

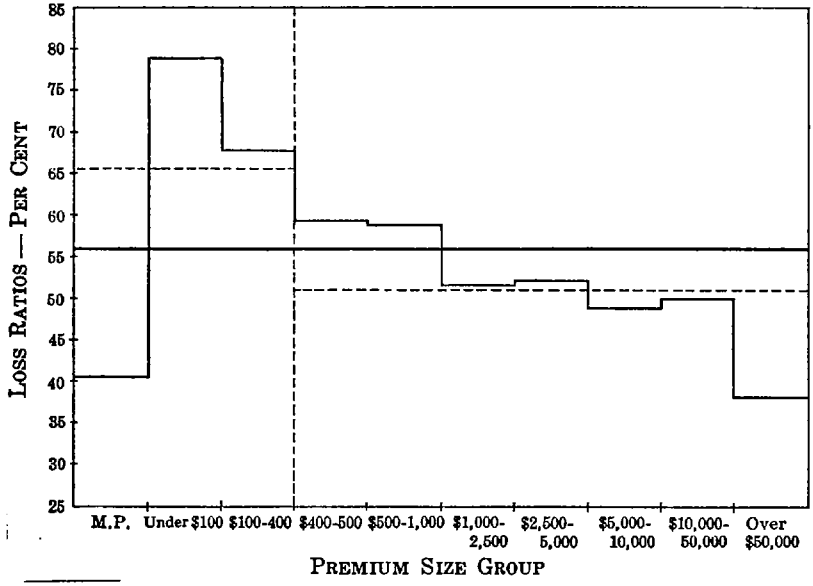
$$A = E \tag{6}$$

It will be shown in the following pages that the calculation of the various factors is performed in a manner which satisfies the above fundamentally necessary condition (6).

While the calculation of the experience rating tables and values is based on the above theory and should, therefore, produce a perfectly balanced plan, there are several considerations which in actual practice result in a preponderance of credits over debits, a situation which is referred to as the off-balance of the experience rating plan. The most important reason for the existence of such an off-balance lies in the fact that there exists a difference in loss costs by size of risk. Small risks which do not qualify for experience rating produce, as a group, a considerably higher loss ratio than the large risks. The larger the size of risk the lower the group loss ratio. Since manual rates (and manual rates are merely expected losses loaded for expenses) are based on the experience of all risks and reflect the average loss ratio, the risks subject to experience rating, which, as a group, have a lower loss ratio than the average, will necessarily produce a net credit from the manual level. This situation may best be visualized from the graph shown below representing the results for policy year 1932. The loss ratios used in this histogram are based on manual premiums.[6]

[6] In this connection see also paper by C. J. Haugh, Jr., entitled "Recent Developments With Respect to the Distribution of Workmen's Compensation Costs," *Proceedings*, Vol. XIV, p. 262.

NEW YORK LOSS RATIOS AT MANUAL RATES BY PREMIUM SIZE GROUPS BASED ON EXPERIENCE FOR POLICY YEAR 1932



NOTE: Dotted vertical line divides risks which were subject to experience rating from those which were not. Dotted horizontal lines indicate the corresponding loss ratios for each of these two groups while the heavy horizontal line represents the loss ratio for the business as a whole.

The other important factor which tends to produce an off-balance lies in the rules of the experience rating plan pertaining to definition of new risks and requiring the rating "in personam" rather than "in rem." The "new" risk in actual practice is very frequently established where a charge would result on the basis of the experience of the old risk, but very seldom where the old experience produces a substantial credit. Again, if it is found advantageous, certain hitherto unrelated entities may be combined, and the resulting higher credibility together with good experience increases the credit of the "new" entity.

The first off-balance producing factor has been taken care of to some extent in the manual rate structure by the introduction of loss constants and offsetting reductions; the second has been taken care of partially in the rating plan itself by the introduction therein of a loss correction factor of 1.05. This increase of actual

losses by 5% serves not only to remove part of the off-balance but also to correct an underestimate in the incurred losses, more than half of which are reported and used in the rating at an early stage of development. The results of ratings in several states for the most recent policy years are shown in Table I.

TABLE I

RESULTS OF EXPERIENCE AND SCHEDULE RATINGS
(Massachusetts, New Jersey, New York and Virginia)

State	Policy Year	Number of Risks	Manual Premium*	Subject Premium*	Schedule Mod. %	Experience Mod. %	Total Mod. %
Mass.	1930	9,209	46,717,260	46,367,724	99.3	93.2	92.5
	1931	4,545	24,336,761	24,088,542	99.0	94.4	93.3
	1932	10,319	48,154,261	47,924,021	99.5	94.3	93.8
	1933	4,271	27,851,213	27,629,595	99.2	95.1	94.3
	1934	4,986	39,638,669	39,422,989	99.4	93.6	93.0
N. J.**	1930	4,250	49,272,943	48,758,111	99.0	97.2	96.2
	1931	4,388	57,132,330	56,424,117	98.8	96.4	95.2
	1932	4,370	64,877,118	64,116,883	98.8	94.8	93.6
	1933	4,204	62,429,251	61,659,857	98.8	93.0	91.8
	1934	3,499	56,672,654	56,018,701	98.8	91.4	90.2
N. Y.	1930	17,467	105,789,671	105,353,483	99.6	93.9	93.5
	1931	17,314	104,776,364	104,121,703	99.4	92.7	92.1
	1932	19,726	117,183,741	116,219,790	99.2	93.4	92.6
	1933	16,646	112,322,982	111,027,857	98.8	91.9	90.7
	1934†	22,465	135,094,651	133,447,779	98.8	90.6	89.4
Va.	1930	1,088	1,422,402	1,393,823	98.0	99.1	97.1
	1931	1,108	1,410,045	1,385,456	98.3	100.8	99.1
	1932	1,238	1,785,220	1,748,269	97.9	98.7	96.7
	1933	1,263	1,772,534	1,738,163	98.1	97.8	95.9
	1934	1,173	1,555,807	1,523,621	98.0	96.0	94.0

* Based on payrolls of the experience period.
** Premiums subject for this state are on an unweighted basis, weights are used in the other states.
† Includes first six months of policy year 1935.

Calculation of Payroll and Loss Modification Factors

In order to conform with the principle that modified actual losses must equal the expected losses, it is necessary to apply to the expected losses factors which will bring them to the level of the modified actual losses. Expected losses are obtained by taking 60.5% of the manual premiums and the manual premiums are obtained by extending the payrolls of the experience period by

the latest manual rates. It was found more expedient in actual rating practice to adjust the payrolls prior to the calculation of manual premiums and, therefore, since the entire adjustment of expected losses is performed on the payrolls, the payroll factors must represent the difference between the level of the expected losses underlying the latest manual rates and the losses of the experience period. This is done by comparing the individual policy year loss ratios with the rate level loss ratio. In such a comparison the policy year loss ratios are calculated on the basis of collectible manual rates in effect prior to the revision, because the adopted loss ratio is calculated on the level of rates existing prior to the rate revision, and, therefore, in taking the ratio of loss ratios the premiums cancel out and we achieve the comparison of expected losses underlying the adopted rate level

TABLE II

ADJUSTMENT OF PREMIUMS AT 7-1-1934 MANUAL RATES TO COLLECTIBLE LEVEL

Industry Group	Policy Year	(1) Premiums at 7-1-1934 Manual Rates*	(2) Off-Setting Factor**	(3) Premiums on 7-1-1934 Collectible Level (1) ÷ (2)
Manufacturing	1930	20,676,111	.979	21,119,623
	1931	15,976,388	.979	16,319,089
	1932	11,878,777	.979	12,133,582
Contracting	1930	19,897,376	.973	20,449,513
	1931	15,279,508	.973	15,703,503
	1932	8,471,791	.973	8,706,877
All Other	1930	31,432,488	1.027	30,606,123
	1931	28,566,294	1.027	27,815,281
	1932	23,722,744	1.027	23,099,069
Stevedoring	1930	938,448	.975	962,511
	1931	671,910	.975	689,138
	1932	514,387	.975	527,576
All Groups	1930	..	..	73,137,770
	1931	..	..	60,527,011
	1932	..	..	44,467,104

* Obtained by extending the payrolls for each classification as reported under the Unit Plan by the appropriate printed manual rate.

** Due to the introduction of loss constants it became necessary to offset the rates for each industry group so as to reproduce the same premium which would accrue if there were no loss constants. Thus the amounts in column (3) represent the full collectible premium.

with the losses of each of the policy years of the experience period.[7]

Tables II and III show the actual calculations underlying the New York plan for ratings effective July 1, 1935 and thereafter.

TABLE III

CALCULATION OF COLLECTIBLE LOSS RATIOS AND PAYROLL MODIFICATION FACTORS

Policy Year	(1) Premiums on 7-1-1934 Collectible Level (From Table II)	(2) Losses on 7-1-1935 Law Level*	(3) Loss Ratio (2) ÷ (1)	(4) Rate Level Loss Ratio†	(5) Unweighted Payroll Modification Factors (3) ÷ (4)	(6) Policy Year Weights	(7) Weighted Payroll Factors (5) × (6)
1930	73,137,770	36,119,681	49.4	64.7	.764	.25	.19
1931	60,527,011	32,231,219	53.3	64.7	.824	.50	.41
1932	44,467,104	24,318,327	54.7	64.7	.845	.75	.63
1933	..	..	55.9**	64.7	.864	1.00	.86

* Losses as actually reported under the Unit Plan adjusted only for the effect of law amendments.

** This loss ratio was arrived at in the following manner:

1. The 1933 policy year loss ratio underlying the change in rate level as reported, that is, as of 24 months 54.4
2. The above loss ratio is on the basis of full rates and hence on basis of 60% permissible. In order to exclude expense constants which are excluded from column (1), it must be divided by .992 (offset for expense constants in rates) thus giving 54.9
3. In order to reflect law amendments it must be further multiplied by the factor of 1.018 representing the average effect of such amendments and we obtain 55.9

† Obtained by applying to the permissible loss ratio of 60.5% the factor of 1.069 representing the amount of the rate level increase inclusive of law amendments.

From Table III it is apparent that the payroll factors represent merely reversion factors of the expected losses underlying the manual rates which will apply during the forthcoming policy term to the level of losses of the experience years used in the rating of the risk. It will be noted, however, that the losses of the experience period have been adjusted for the effect of law amendments. This is done in order to permit the application of law amendment factors to the losses of individual risks as a

(7) It should be noted that this method contains an inaccuracy since it assumes a uniform payroll volume and distribution among the classifications. Some assumption must, however, be made, inasmuch as the actual distribution of payrolls for the policy year taken as a basis for the rate level is not available. Since the actual variations in payroll distribution, taking the business as a whole, are not serious enough to offset the total premium volume, the method produces reasonable and satisfactory results.

portion of the loss modification process. Such a procedure is logical since it permits of measuring the departure of the individual risk experience from the class average on the level of latest benefits and thus of reflecting the loss probabilities in the light of conditions which will confront the carrier during the forthcoming policy term.

Thus far we have not made any mention of the split of expected losses into normal and excess portions. Such a split is performed after the calculation of total expected losses from modified payrolls. The split is based on the assumption of a normal indemnity loss of $1,250 and a normal medical loss of $100 (see in this connection *Proceedings*, Vol. XXI, page 98). The actual experience of the several policy years is first tabulated by size of loss and the indemnity cases costing in excess of $1,250 are split into normal and excess portions. From such an analysis, excess ratios, that is, ratios of excess losses to total losses, are determined separately for Major, Minor and Temporary injuries. Since Death and Permanent Total cases are used at average values the calculation of excess and normal portions is based on the number of cases.[8] The medical losses are taken as 75% normal and 25% excess.[9]

Tables IV and V show the details of the calculation of average excess ratios. Such excess ratios are then applied separately to each of the three portions of the pure premiums, viz.: serious, non-serious and medical and the resulting total excess pure premium is then compared with the pure premium underlying the latest rate for a given classification. In this manner there are derived the ratios for individual classifications appearing in Table B of the Experience Rating Plan. These excess ratios are applied to the subject premium for each classification, effecting a split of the subject premium into "excess" and "normal" components. The application of the expected loss factor, or .605, to the subject premium produces the so-called *excess* expected losses and the remainder represents the *normal* expected losses.[10]

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(8) In this connection see a later portion of this paper.

(9) This is based on a special investigation conducted by the National Council.

(10) See columns (39), (40), (42) and (43) of the experience rating blank, Exhibit I-B.

TABLE IV

NEW YORK NORMAL AND EXCESS LOSSES

Policy Years 1930, 1931 and 1932

Policy Year	(1) Kind of Injury	(2) Total Losses Incurred	(3) Law Amendment Factor*	(4) Losses on 7-1-1935 Law Level (2) × (3)	(5) Excess Ratio **	(6) Excess Portion of Excess Losses (4) × (5)
1930	Major	4,763,919	1.037	4,940,184	65.7	3,245,701
1931	Major	4,052,570	1.037	4,202,515	64.4	2,706,420
1932	Major	2,799,103	1.037	2,902,670	58.4	1,695,159
Total						7,647,280
1930	Minor	6,752,796	1.038	7,009,402	13.4	939,260
1931	Minor	5,694,444	1.038	5,910,833	12.6	744,765
1932	Minor	4,554,146	1.038	4,727,204	8.2	387,631
Total						2,071,656
1930	Temporary	7,557,879	1.027	7,761,942	7.9	613,193
1931	Temporary	7,139,573	1.027	7,332,341	8.5	623,249
1932	Temporary	5,203,463	1.027	5,343,957	6.0	320,637
Total						1,557,079

* The reader is referred to a very comprehensive paper on the subject of law amendments by J. J. Smick, entitled "A Statistical Analysis of the Benefit Provisions of the Compensation Acts," *Proceedings*, Vol. XXI, pp. 257. Other less recent papers on the subject are by O. E. Outwater, "The American Accident Table," *Proceedings*, Vol. VII, and by A. H. Mowbray, "Legal Limits of Weekly Compensation in Their Bearing on Rate Making for Workmen's Compensation Insurance," *Proceedings*, Vol. IX.

** Based on actual analysis of incurred losses in excess of $1,250.

TABLE V

CALCULATION OF AVERAGE EXCESS FACTORS
(Based on Experience of Policy Years 1930 to 1932 Inclusive)

Kind of Injury	Source	(1) Total Losses Incurred†	(2) Excess Portion of Excess Losses	(3) Normal Losses (1)—(2)	(4) Normal Ratio (3) ÷ (1)	(5) Excess Ratio (2) ÷ (1)
Death & Permanent Total	*	14,718,600	12,232,350	2,486,250	..	..
Major Permanent Partial	Table IV	12,045,369	7,647,280	4,398,089	..	..
Serious	..	26,763,969	19,879,630	6,884,339	.257	.743
Minor Permanent Partial	Table IV	17,647,439	2,071,656	15,575,783	..	..
Temporary Total	Table IV	20,438,240	1,557,079	18,881,161	..	..
Non-Serious	..	38,085,679	3,628,735	34,456,944	.905	.095
Medical	**	28,403,248	7,100,812	21,302,436	.750	.250
Total	..	93,252,896	30,609,177	62,643,719	.672	.328

* Calculated by multiplying the number of Death and Permanent Total cases (1,989) by the average value ($7,400) for column (1) and by the excess value ($6,150) for column (2). (See Table VIII and text following).

** The split of 75% for normal and 25% for excess is based on a special investigation conducted by the National Council.

Having thus converted the expected losses to the loss level of the experience period adjusted for the effect of law amendments, it remains that the actual losses of each individual risk during the period be adjusted for law amendments. The calculation of average normal and excess amendment factors is shown in Table VI.

TABLE VI

Calculation of Average Normal and Excess Amendment Factors

Policy Year	Kind of Injury	(1) Normal Losses*	(2) Excess Portion of Excess Losses*	(3) Law Amendment Factors	Losses Excluding Law Amendments (4) Normal (1) ÷ (3)	Losses Excluding Law Amendments (5) Excess (2) ÷ (3)	(6) Average Normal Factor (1) ÷ (4)	(7) Average Excess Factor (2) ÷ (5)
1930	Major	1,694,483	3,245,701	1.037	1,634,024	3,129,895	..	..
	Minor	6,070,142	939,260	1.038	5,847,921	904,875	..	..
	Temporary	7,148,749	613,193	1.027	6,960,807	597,072	..	..
	Total	14,913,374	4,798,154	..	14,442,752	4,631,842	1.033	1.036
1931	Major	1,496,095	2,706,420	1.037	1,442,715	2,609,855	..	..
	Minor	5,166,068	744,765	1.038	4,976,944	717,500	..	..
	Temporary	6,709,092	623,249	1.027	6,532,709	606,864	..	..
	Total	13,371,255	4,074,434	..	12,952,368	3,934,219	1.032	1.036
1932	Major	1,207,511	1,695,159	1.037	1,164,427	1,634,676	..	..
	Minor	4,339,573	387,631	1.038	4,180,706	373,440	..	..
	Temporary	5,023,320	320,637	1.027	4,891,256	312,207	..	..
	Total	10,570,404	2,403,427	..	10,236,389	2,320,323	1.033	1.036

* Based on Table IV.

In addition to law amendment factors, the loss modification factors contain also the correction factor of 1.05 for excess off-balance and under-development of losses mentioned in the previous chapter of this paper. Table VII shows the calculation of loss modification factors.

TABLE VII

CALCULATION OF LOSS MODIFICATION FACTORS

Policy Year	Law Amendment Factors: Indemnity (1) Normal*	Law Amendment Factors: Indemnity (2) Excess*	Law Amendment Factors (3) Medical	(4) Correction Factor**	(5) Weights	Weighted Modification Factors (6) Normal (1)×(4)×(5)	Weighted Modification Factors (7) Excess (2)×(4)×(5)	Weighted Modification Factors (8) Medical (3)×(4)×(5)
1930	1.033	1.036	1.000	1.050	.25	.27	.27	.26
1931	1.033	1.036	1.000	1.050	.50	.54	.54	.53
1932	1.033	1.036	1.000	1.050	.75	.81	.82	.79
1933	1.033	1.036	1.000	1.050	1.00	1.08	1.09	1.05

* These factors are based on the results shown in Table VI. The normal factor was taken at 1.033 and the excess factor at 1.036. These factors were assumed to apply to policy year 1933.

** This factor is explained in the text of the paper.

Calculation of Average Values and Credibility

The rules of the plan require the use of average values for death and permanent total disability cases, which average values also represent the maximum amount at which any case (other than Death or Permanent Total) may enter the experience rating. The establishment of this rule was motivated by the fact that the cost of these types of cases varies so notably, because of difference in the wages and age of the injured person or, in death cases, in the matter of dependents, that the inclusion of each case at its actual value would introduce into the rating of the risk too great an element of fluctuation as between risks of similar hazard and size. The law requires that rates and rating plans be reasonable and it would certainly not seem reasonable to impose varying charges upon risks of essentially the same hazard and size merely because the victim of the accident, in the case of one risk, was a single person without dependents, or in the case of another had dependents living in a foreign country, or finally, in the case of still another, had several dependents living in the United States. The rating plan is an instrument designed primarily not to measure differences in past

costs but to predict differences in future costs on the basis of past experience. Due to this prospective nature of the plan it is more essential to stress the frequency of serious cases, the fact that such cases have occurred, rather than the cost of such cases.[11]

The last but not the least reason for the use of average values is the fact that the cost of Death and Permanent Total cases, as available for rating purposes, consists mainly of present values of future payments, which are based on average mortality and remarriage tables. The use of full reserves on cases which are completely liquidated soon after the loss passes out of the experience period at a fraction of the original reserve or which are settled by a lump sum payment would, undoubtedly, create misgivings among the insured public and supervisory officials.

As regards the calculation of the average values themselves, such calculation is based on the experience of the several policy years used for rating. The losses incurred are merely adjusted for law amendments. The details of the calculation are shown in Table VIII below:

TABLE VIII

CALCULATION OF AVERAGE VALUE OF DEATH AND PERMANENT TOTAL CASES

Kind of Injury	Policy Year	(1) Number of Cases	(2) Losses Incurred	(3) Law Amendment Factor	(4) Losses Incurred on 7-1-1935 Law Level (2) × (3)	(5) Average Value
Death	1930	721	4,826,286	1.010	4,874,549	..
	1931	636	4,092,929	1.010	4,133,858	..
	1932	508	3,043,279	1.009	3,070,669	..
Permanent Total	1930	60	1,063,215	1.020	1,084.479	..
	1931	44	641,501	1.033	662,671	..
	1932	20	288,779	1.069	308,705	..
TOTAL	..	1,989	13,955,989	..	14,134,931	7,107

The value of $7,107 as calculated above is usually rounded upwards because of the desirability to have as little variation

(11) The limitation of the cost of catastrophes to twice the amount of the average value is a further illustration of the fact that the plan does not intend to recover for unforeseen and unusual events which are of very rare occurrence.

in average values from year to year as is reasonable and compatible with sound judgment; also in view of the fact that if the value thus rounded be excessive the excess portion will serve to offset the cost of excess major, minor and temporary cases which develop ultimately into Death and Permanent Total cases but which are not reported as such in early valuation. In this particular case the average value was rounded to $7,400 which amount has been used for several years past. Of this average value $1,250 is considered as the normal portion and the remainder, or $6,150, as the excess portion. Inasmuch as the average law amendment factor entering into the calculation of loss modification factors (see Table VII) was 1.033 for normal and 1.036 for excess losses, the normal and excess average values given above must be divided by these factors, since they already include law amendments, and the application of the loss modification factors would duplicate this adjustment. Thus we arrive at the final average normal value of $1,215 (rounded) and the final average excess value of $5,915 (rounded).

There remains yet one element of the rating plan, the description of which, although most important, has been relegated to the end. As stated in Part I of the paper, the theory of credibility and the formulæ

$$z_n = \frac{P_n}{P_n + K_n} \text{ and } z_e = \frac{P_e}{P_e + K_e} \qquad (7)$$

were developed a long time ago and there are excellent papers dealing with this phase of the Rating Plan.[12] In this paper it is merely the task of the author to explain how the values K_n and K_e are determined so as to satisfy the requirements of the plan. For the purpose of the demonstration we shall denote[13] the expected loss ratio by E, the normal average Death and Permanent Total value by V_n, the excess average Death and Permanent Total value by V_e and the premium subject by P. Since the plan provides that the average annual charge resulting from a normal loss (including $100 medical) shall not exceed 15% and from an excess loss such charge shall not exceed 5%,

[12] See Whitney, loc. cit.; and Michelbacher, loc. cit.

[13] The system of notation is based on Carlson's "Suggestions for a Standard System of Notation in Casualty Actuarial Work," *Proceedings*, Vol. XX, p. 264.

it is necessary that the credibility constant be so calculated that the maximum normal loss does not enter into the rating at a value greater than 15% and the maximum excess cost at value greater than 5% of the total expected losses. This expressed in symbols would give as maximum values:

$$V_n \cdot z_n = \frac{15}{100}\ EP \tag{8}$$

$$V_e \cdot z_e = \frac{5}{100}\ EP \tag{8a}$$

Hence we find that

$$z_n = \frac{15\ EP}{100\ V_n} \tag{9}$$

$$z_e = \frac{5\ EP}{100\ V_e} \tag{9a}$$

On the other hand from (7) we find that

$$K_n = P_n \left(\frac{1}{z_n} - 1 \right) \tag{10}$$

$$K_e = P_e \left(\frac{1}{z_e} - 1 \right) \tag{10a}$$

Substituting in (10) and (10a) the values of z_n and z_e from (9) and (9a) respectively, we obtain the required formulæ for calculating the K values:

$$K_n = P_n \left(\frac{100\ V_n}{15\ EP} - 1 \right) \tag{11}$$

$$K_e = P_e \left(\frac{100\ V_e}{5\ EP} - 1 \right) \tag{11a}$$

The above formulæ are general and may be used for any set of provisions in the various plans depending upon the selection of the premium subject and the allowable charges on such premium subject. The choice of the premium subject and the allowable charges on account of a single accident determines the so-called swing in the modification.[13a] The average normal and excess values as well as the expected loss ratio depend upon the state for which "K" values are to be determined.

[13a] See Appendix IV for a discussion of certain practical aspects of credibility arising out of the rise of policy year weights.

The actual calculation of the "K" values for the State of New York is shown in Table IX below:

TABLE IX

CALCULATION OF "K" VALUES

(a) Calculation of K_n

1. P = Subject Premium*	$1,000
2. P_n = Normal Subject Premium = $P \times .672$**	672
3. V_n = Normal Indemnity Loss + $100 Medical	1,350
4. E = Expected Loss Ratio	.605
5. $K_n = P_n\left(\frac{100\,V_n}{15EP} - 1\right) = 672\left(\frac{1,350}{150 \times .605} - 1\right)$	9,327
6. Recommended Value of K_n (5 rounded)	9,350

(b) Calculation of K_e

1. P = Subject Premium*	$1,000
2. P_e = Excess Subject Premium = $P \times .328$**	328
3. V_e = Excess Indemnity Loss (Average Value)	6,150
4. E = Expected Loss Ratio	.605
5. $K_e = P_e\left(\frac{100\,V_e}{5EP} - 1\right) = 328\left(\frac{6,150}{50 \times .605} - 1\right)$	66,358
6. Recommended Value of K_e (5 rounded)	66,500

* As required by the provisions of the plan relative to the determination of "K" values.

** See Table V.

Originally, when credibility was introduced into the rating plan, "z" values were calculated separately for each risk using the K values and the formulæ directly. It was later realized, however, that if the credibility value was to be calculated to three decimal places only and rounded to the nearest five, it would be easily possible to construct tables showing such "z" values at intervals of five thousandths. From these tables the values of "z" could be found for a given premium subject by taking the value corresponding to the nearest higher premium subject which appears in the table. It is obvious that separate tables are necessary for normal and excess credibility values. For the sake of completeness it may be well to outline briefly the

method of construction of these tables which are printed in the rating plan under the caption "Table E." Let us consider again the formula:

$$z = \frac{P}{P + K} \tag{12}$$

Solving for P we obtain

$$P = K \frac{z}{1 - z} \tag{13}$$

Hence:

$$\frac{P}{K} = \frac{z}{1 - z} \tag{14}$$

If in (14) we substitute for "z" the value of $z + .0005$ we obtain

$$\frac{P}{K} = \frac{z + .0005}{.9995 - z} \tag{15}$$

The formula (15) permits the calculation of the ratio $\frac{P}{K}$ for all values of "z" at intervals of one thousandth whereby the value of the ratio will be the greatest possible value for a given "z" since in the calculation we are increasing each value of "z" by five ten-thousandths and, therefore, any ratio exceeding that calculated from (15) for a given "z" value will correspond to the next higher "z" value if credibility values are rounded to the nearest one thousandth. Inasmuch as the right hand side of the equation (15) does not depend on K it is easy to see that tables of ratios P/K need be constructed only once and for each revision of the rating plan multiplied by the new "K" values to produce the required subject premiums for a given "z". Since for practical purposes it was decided to limit Table "E" to intervals of five thousandths the values appearing therein are obtained from the table of the ratios P/K by using the midpoints of the intervals. This is necessary because of the convention of rounding values to multiples of five thousandths.

The calculations of P_n and P_e corresponding to the consecutive values of z_n and z_e as they appear in Table "E" of the Plan are very simple as may be seen from the illustration of the calculation of three such values shown in Table X below. It should be remembered in this connection that credibility values for normal subject premiums of over $60,000 up to $120,000 and excess sub-

ject premiums of over $80,000 up to $160,000 are calculated by straight line interpolation, between z_n for $60,000 or z_e for $80,000 and unity.[14]

TABLE X

Sample of Calculation of P_n and P_e from ratios P/K
For the Revision of Rating Values Effective 7-1-1935

z	(1) P/K*	(2) K_n	(3) K_e	(4) Value of z in Table E	(5) Value of P_n in Table E ** (1) × (2)	(6) Value of P_e in Table E ** (1) × (3)
.310	.450326					
.311	.452432					
.312	.454545			.310	4,249	30,227
.313	.456664					
.314	.458789					
.315	.460920					
.316	.463057	$9,350	$66,500			
.317	.465201			.315	4,349	30,935
.318	.467351					
.319	.469507					
.320	.471670					
.321	.473839					
.322	.476014			.320	4,450	31,654

* Based on formula (15.)
** In this calculation all decimal places are disregarded entirely.

Special Problems

In the previous chapters we have described what may be termed the standard procedure of the calculation of rating values. The very fact that workmen's compensation insurance must be responsive not only to varying business conditions but also to changing provisions of the law as respects certain phases thereof suggests that there must be some modifications of this standard procedure in connection with specific coverages or in emergency situations.

As examples of such departures let us consider the experience rating of vessel risks or risks subject to the provisions of the U. S. Longshoremen's and Harborworkers' Compensation Act. The difference in the amount of settlements under the admiralty law and under the provisions of the Federal act necessitate

(14) See *Proceedings*, Vol. XXI, P. 102.

different average death and permanent total values. The indemnity loss modification factors for maritime risks contain a special factor of 1.12 which constitutes a loading for excessive claim expenses because of court costs. The correction factor for excess off-balance (1.05) is not used for these groups of risks because the results of ratings have not shown any appreciable off-balance. Certain classifications subject to the Federal act are affected by agreements as to wages and compensation benefits while other classifications in the same group are not affected by such agreements. Hence two sets of payroll factors are necessary to give cognizance to this situation. Payroll factors for risks subject to the Federal act are calculated from pure premiums rather than from loss ratios. While vessel, dredging and marine wrecking risks are subject to the standard credibility constants, special credibility constants are calculated for risks subject to the U. S. Longshoremen's and Harborworkers' Act.

Even for risks subject to the State act the standard procedure is subjected to various adjustments depending on changes in the method of rate level determination. As we have seen in connection with calculation of loss modification factors the rate level is of primary importance in the process of bringing about an equivalence between expected and actual adjusted losses. If, for example, the rate level contemplates a projection of medical losses to a future anticipated level of losses it becomes necessary to reflect such a projection in the medical loss modification factors and to eliminate it from the payroll factors.

The above remarks are intended merely to indicate the numerous problems arising in connection with the preparation of experience rating values. It would serve no useful purpose to outline in detail each method used in connection with any particular situation. As the problems arise the actuary must use some ingenuity towards finding a solution which will satisfy the basic principles underlying the experience rating plan.

Conclusion

The author hopes that his attempt at a clarification of the principles and processes underlying the construction of the experience rating plan does not fall short of the goal and that it will help the student to familiarize himself with this phase of

workmen's compensation ratemaking. It would be gratifying to think that it will permit the actuary, underwriter or other company executive harassed with inquiries from brokers and assureds, to consult its pages for an elementary (it is hoped!) explanation of a particular question relating to the Experience Rating Plan.

APPENDIX III.

Some Remarks on the Technique of Experience Rating

A paper dealing with experience rating would not be complete if it did not clarify certain details involved in the actual procedure. Exhibits I and II are reproductions of the blank used by the New York Compensation Insurance Rating Board in connection with actual ratings of full medical and ex-medical risks respectively. Exhibit I-A shows the method of compiling the loss experience.[15] Table I is composed of two parts; the first serves for a summary of all losses other than Death, Permanent Total or cases involving excess costs, such cases being shown individually in Part II where they are split into their normal and excess portions. Table II is used for the calculation of modified actual losses. Exhibit I-B shows the reverse side of the rating sheet. The actual payrolls are compiled in columns 26 to 32 inclusive. Payroll factors are shown underneath and are applied to each classification for each year. The totals of modified payrolls for each classification are entered in column 34 and the process of calculating expected losses is carried on in columns 35 to 40 inclusive. The final process of applying credibility and calculating the risk modification is completed in columns 41 to 50. Column 51 is calculated for the convenience of the carriers and clerks engaged in the preparation of rate cards.

Exhibit II shows the reverse side of the rating sheet used for an Ex-medical policy, the front side being identical with that shown on Exhibit I-A. It will be noted that this blank differs from Exhibit I-B in that it has several additional columns, viz.: col. 39, 40 and 45. The ex-medical factors which are inserted in

[15] This was done previously by the carriers but since the introduction of the Unit Statistical Plan, the information is abstracted from Unit Reports.

column 39 are taken from Table "B." They are calculated for each classification by the use of the following formula:

$$\text{Ex-Medical Ratio} = \frac{.6 \times \text{Medical Pure Premium}}{\text{Total Pure Premium}}$$

Since the total pure premium represents 60% of the rate it can be readily recognized that the ex-medical ratio represents actually the ratios of the medical pure cost to the rate and, therefore, their application to the rates results in the removal of the medical pure premium only. The retention of the full expense loading in ex-medical policies is justifiable by the fact that the loss investigation and administration expenses are in no way reduced by the fact that the carrier is not responsible for medical losses and the slight margin due to excessive acquisition and tax expense loading will be available for such medical payments in case the carrier finds it necessary to call in a specialist or to transfer the care of the injured to another physician in order to decrease the extent of disability. This method of calculating the ex-medical ratios serves to explain the factor of 1.33 appearing in column 40. The ex-medical reduction shown in this column should represent the ex-medical premium since it will be subjected to the expected loss factor in subsequent calculations (column 46). Since the ex-medical reduction represents the medical pure premiums it should be loaded for expenses by dividing it by .6 (full expense loading). Since, however, the only expenses which will decrease on an ex-medical policy are those pertaining to acquisition and taxes or twenty percent it would not be proper to deduct the full premiums corresponding to the medical pure premium. For this reason twenty percent of the premium at full rates is considered as corresponding to the expenses excluding acquisition and taxes and not subject to reduction. Therefore, a further modification of the full medical premium is made by taking only eighty percent thereof. Thus we arrive at the factor of 1.33 as the ratio of .8 and .6. In column 46 there appears the symbol *"E"* which stands for the expected loss factor of .605 in the present plan. The symbol *"B"* appearing in column 52 represents the correction factor for the off-balance of the rating plan and is not used so far as New York and most of the other states are concerned.[16]

[16] It is still used in North Carolina, Texas and Wisconsin.

APPENDIX IV

Effect of Weights and Credibility on the Results of the Rating

The provisions of the Plan relative to the calculation of credibility constants are very frequently misunderstood in actual practice. This is due primarily to the fact that the provision "over the experience rating period" is either overlooked or misunderstood. Thus, for example, complaints and inquiries are made of rating organizations as to why on a small risk the presence of a death case should produce a charge higher than the 20% provided for in the rules.

It must be remembered that in New York the system of weights is such that the experience of the latest year influences the rating to the extent of 40% because it receives a weight of unity. The experience of the previous year receives only a relative weight of 30% and the experience of the earlier years receives relative weights of only 20% and 10% respectively. Thus the occurrence of a death case in the first year of rating results in an experience charge of considerably more than 20% and such charge is reduced each year thereafter until after four years it disappears entirely. In order to illustrate this situation, the reader is referred to Exhibit III. In the preparation of this exhibit it was assumed that the risk's actual modified losses equalled the risk's expected losses and, therefore, the risks with the various premium sizes shown in the exhibit would receive manual rates. It was furthermore assumed that there is a constant annual payroll and no change in manual rates during the four years of rating. This assumption was necessary in order to illustrate the theoretical results from the application of the plan. Under such conditions it was then assumed that there occurred a single fatal case for which the average value would amount to $7,400 and where the medical loss was $100. This loss, loaded for expenses, would require a premium of approximately $12,400. It can be readily seen from Exhibit III that in connection with a risk developing an annual premium of $500 the charges vary from 30.6% of the annual pre-

mium in the first year to 7.3% in the fourth year of rating but that the total modification for the experience period is 19.2%.* The additional premium accruing to the benefit of the carrier over the four year period would be only $384 as compared with the $12,400 needed to cover the cost and expenses of an average fatal case. Even in connection with a risk producing an annual premium of $25,000, the insurance carrier would receive in additional charges over a four year period, only $5,325. Only the risk which is fully self-rated, that is, which receives unity normal and excess credibility, will permit the carrier to realize the full cost of the claim; but it may be seen from the exhibit that such risks must produce approximately $120,000 in annual premium.

For the completeness of the discussion, there is also attached Exhibit IV in which there is shown the effect of a situation where the experience of the risk is such that the actual modified losses are exceeded by the expected losses by $1,250 for the normal portion and by $500 for the excess portion. Here again it will be seen that the credits accruing to small risks over a four year period are considerably less than the amount of the indicated loss departure and that only a risk receiving full credibility would recover in credits an amount corresponding to the difference between modified actual losses and expected losses loaded for expenses.

This exhibit also illustrates that the amount of normal losses and a portion of expenses is recoverable much sooner with the increase in the size of the annual premium than the amount of excess loss and expense loading therefor. This is due to the fact that full normal credibility is assigned to a risk which develops a normal premium subject of approximately $30,000 a year whereas an additional $40,000 of excess premium subject is needed for full excess credibility.

* The premium subject in this case is $2,000. If we used $1,000 the total modification would have been exactly 20.0%.

EXHIBIT I-A

New York **Compensation Insurance Rating Board** File No. _____

EXPERIENCE RATING SHEET

FOR BOARD USE ONLY		
Year	Co.	Card No.

Name of Employer _____

Location of plants or operations _____

Adjusted Rates Effective from Rating Anniversary _____ 19____

STATEMENT OF INCURRED LOSSES (PAID AND OUTSTANDING)

TABLE I - PART I

Loss Summary Excluding D. & P. T. and Excess Cases

Year of Issue					
(1) Indemnity					
(2) Medical					

INSTRUCTIONS

Report entire loss data of risk in TABLE I if D. & P. T. or excess indemnity or excess medical cases are involved. If there are no such cases post loss data direct to TABLE II. If extra sheets are required to report excess cases insert on last line of TABLE I - Part II, "See Additional Sheet".

TABLE I - PART II

All Cases Involving Excess Indemnity or Excess Medical (Include D. & P. T. Cases at Appropriate Average Values)

(3) Year of Issue	(4) Claim Number	(5) Date of Accident	(6) Nature of Injury Give brief description of nature and extent	INCURRED LOSS Indemnity (7) Normal	Indemnity (8) Excess	Medical (9) Normal	Medical (10) Excess

TABLE II

Summary of All Loss Data

(11) Year of Issue	NORMAL INDEMNITY (12) Loss	(13) Factor Table A	(14) Mod. Loss (12) x (13)	NORMAL MEDICAL (15) Loss	(16) Factor Table A	(17) Mod. Loss (15) x (16)	EXCESS INDEMNITY (18) Loss	(19) Factor Table A	(20) Mod. Loss (18) x (19)	EXCESS MEDICAL (21) Loss	(22) Factor Table A	(23) Mod. Loss (21) x (22)
19												
19												
19												
19												
19												
24. Total Modified Normal Loss (14)+(17)							25. Total Modified Excess Loss (20)+(23)					

Form 160K-50M-10-1-34
C. I. R. B. of N. Y.

No. Sheets Sheet

EXHIBIT I–B

CLASSIFICATION		AUDITED PAYROLL (BY LOCATION) FOR EACH TERM OF INSURANCE				
(26) Code No.	(27) Manual Wording	(28) From / To	(29) From / To	(30) From / To	(31) From / To	(32) From / To
		IF NOT INSURED FOR MEDICAL MARK APPROPRIATE COLUMN "EX-MEDICAL"				
(a) TOTALS						
PAYROLL MODIFICATION FACTORS (Table A)						

(33) Code No.	(34) Total Weighted Payroll	(35) Manual Rate	(36) Total Premium at Manual Rates [(34) x (35) ÷ 100]	(37) Schedule Rate	(38) Total Subject Premium (Including Catastrophe) [(36) x (37) ÷ 100]	(39) Excess Partial Premium Ratio-See Table B	(40) Excess Subject Premium (38) x (39)	(41) Adjusted Rate (37) x (35) or (40) x (37)
(a) TOTALS		X X		X X		X X		X X

DIVISION OF LOSS	(41) Modified Loss: Normal (Item 24) / Excess (Item 25)	(42) Subject Premium: Excess (Item 40a) / Total = (38a) − [34a x .0001]	(43) Expected Loss (42) x .605	(44) Unweighted Premium (42) x [(28a + 29a + 30a + 31a + 32a) ÷ 34a]	(45) "Z" — See Table E for Z_n and Z_e Values	(46) (41) x (45)	(47) (43) x [1. − (45)]	(48) Adjusted Loss (46) + (47)	(49) Final Modification % [((48) ÷ (43)) x 100]	(50) Charge or Credit %
(a) Normal									X X X	X X
(b) Excess									X X X	X X
(c) Total					X X					

Rater

Date

Checker

Date

Compiler

Date

EXHIBIT II

CLASSIFICATION		AUDITED PAYROLL FOR EACH TERM OF INSURANCE				
(26) Code No.	(27) Manual Wording	(28) From To	(29) From To	(30) From To	(31) From To	(32) From To
(a) Totals						
Payroll Modification Factors (Table "A")						

(33) Code No.	(34) Total Modified Payroll	(35) Manual Rate	(36) Total Premium at manual rates [(34)x(35)÷100]	(37) Schedule Rate	(38) Total Subject Premium (Including Catastrophe) [(34)x(37)÷100]	(39) Ex-medical Factors	(40) Ex-medical Reduction (38)x(39)x1.35	(41) Excess Partial Premium Ratio-See Table D	(42) Full excess Subject Premium (38)x(41)	(54) Adjusted rate (52)x(35) or (52)x(37)
(a) Totals		x x		x x		x x		x x		x x

RATING PROCEDURE

Division of Loss	(43) Modified Loss: Normal (Item 24) / Excess (Item 25)	(44) Full Subject Premium: Excess (Item 42a) / Total = (38 a) - [(34a) x .0001]	(45) Ex. Med. Subject Premium: Excess (42a) - [(40a) x ("D")] / Total (44c) - (40a)	(46) Expected Loss (45) x ____ ("E")	(47) Unweighted Premium (34) x ____ * ; * $\left(\frac{28a+29a+30a+31a+32a}{34a}\right)$	(48) "Z" ("P" from Col. (47))	(49) (43)x(48)	(50) (46)x[L-(48)]	(51) Adjusted Loss (49)+(50)	(52) Final Modification (51)÷[(46)x ____ ("B")]	(53) Charge or Credit %
(a) Normal										x x x	x x x
(b) Excess										x x x	x x x
(c) Total						x x					

EXHIBIT III
Charges accruing from one fatal case

Year of Rating	SIZE OF ANNUAL PREMIUM							
	500	1,250	2,500	6,250	12,500	25,000	45,000	120,000
1st	+ 30.6% $153	+ 25.1% $314	+ 22.1% $553	+ 16.3% $1,019	+ 11.9% $1,488	+ 8.5% $2,125	+ 6.2% $2,790	+ 4.1% $4,920
2nd	+ 23.0% $115	+ 18.9% $236	+ 16.6% $415	+ 12.2% $768	+ 8.9% $1,113	+ 6.4% $1,600	+ 4.7% $2,115	+ 3.1% $3,720
3rd	+ 15.4% $77	+ 12.6% $158	+ 11.1% $278	+ 8.1% $506	+ 6.0% $750	+ 4.3% $1,075	+ 3.1% $1,395	+ 2.1% $2,520
4th	+ 7.8% $39	+ 6.3% $79	+ 5.5% $138	+ 4.1% $256	+ 3.0% $375	+ 2.1% $525	+ 1.5% $675	+ 1.0% $1,200
TOTAL	+ 19.2% $384	+ 15.7% $787	+ 13.8% $1,384	+ 13.5% $2,544	+ 7.5% $3,726	+ 5.3% $5,325	+ 3.9% $6,975	+ 2.6% $12,360

EXHIBIT IV

Credits resulting from the absence of a normal loss of $1,250 and an excess loss of $500

Year of Rating	SIZE OF ANNUAL PREMIUM							
	500	1,250	2,500	6,250	12,500	25,000	45,000	120,000
1st	— 18.6% $93	— 17.7% $221	— 14.3% $358	— 9.0% $563	— 5.7% $713	— 3.3% $825	— 2.2% $990	— 1.0% $1,200
2nd	— 18.6% $93	— 13.2% $165	— 10.8% $270	— 6.8% $425	— 4.3% $538	— 2.5% $625	— 1.6% $720	— 0.7% $840
3rd	— 18.6% $93	— 8.9% $111	— 7.2% $180	— 4.5% $281	— 2.8% $350	— 1.7% $425	— 1.1% $495	— 0.5% $600
4th	— 5.3% $27	— 4.4% $55	— 3.6% $90	— 2.3% $144	— 1.4% $175	— 0.8% $200	— 0.5% $225	— 0.2% $240
TOTAL	— 15.3% $306	— 11.0% $552	— 9.0% $898	— 5.7% $1,413	— 3.6% $1,776	— 2.1% $2,075	— 1.4% $2,430	— 0.6% $2,880

ABSTRACT OF THE DISCUSSION OF PAPERS READ AT THE PREVIOUS MEETING

ACCIDENT AND HEALTH INSURANCE PAPERS PRESENTED AT THE MAY, 1935 MEETING

VOLUME XXI, PAGES 235, 291, 303

WRITTEN DISCUSSION

MR. J. M. POWELL:

It is certainly gratifying to men in the accident and health business to see three papers on that subject presented at one meeting of this Society.

Mr. Miller in his paper has gone back to the origin of non-cancellable health and accident insurance in this country and, therefore, his paper should be of particular value to students of that subject.

In his reference to reasons for unsatisfactory experience with life indemnity coverage, particularly as it relates to disability benefits in connection with life insurance policies, I believe sufficient importance has not been given to the lack of proper discrimination in underwriting principles between life insurance and the disability feature. In life insurance companies there was a tendency for a number of years to treat a risk who was acceptable for life insurance as acceptable also for disability benefits.

Mr. Miller also ventures the opinion that to write similar policies, one as cancellable and the other as non-cancellable will result in adverse selection. By this, no doubt he feels that the poor risk will take the non-cancellable policy and the better risk will take the cancellable form to get the benefit of a reduced premium. In our own experience under similar policies, the loss ratio under the cancellable form has been somewhat less favorable than under the non-cancellable form. This, however, may be due to the fact that many border-line risks have been issued the cancellable form of policy and not permitted to have the non-cancellable form. It is perhaps unfortunate that the life indemnity coverage has proved so unfavorable. Without doubt, such coverage meets an economic

need, but it also brings with it such problems of administration, and, in the line of present experience, requires such high premiums to be charged that the benefit to the honest applicant is not worth the premium required.

In Mr. Hart's paper, he has clearly shown the effects of too great liberalization and the steps which have been taken to place the commercial accident and health business on a more satisfactory basis.

Under the report on health insurance published by the Bureau of Personal Accident and Health Underwriters, to which Mr. Hart refers, much information can be obtained as regards the best principles to be followed and the mistakes to be avoided in the writing of health insurance. One of the most outstanding facts is the unfavorable experience on the higher amounts. This is particularly noticeable as brought out by Mr. Crane in his paper, as, of course, reinsurance deals almost entirely with the larger amounts.

For many years, a number of leading underwriters have considered that health insurance could not be written at a profit. This view, however, is open to a decided difference of opinion, for many companies that restrict their limits to the smaller amounts are at the present time showing favorable results. Competition is usually a desirable factor for any line of business and accident and health insurance is no exception. However, companies should learn from past experience that the introduction of unsound principles should be avoided regardless of competition.

RECENT DEVELOPMENTS IN COMMERCIAL ACCIDENT AND HEALTH INSURANCE—WARD VAN BUREN HART

VOLUME XXI, PAGE 291

WRITTEN DISCUSSION

MR. MAURICE L. FURNIVALL:

This is an excellent paper for a student of casualty insurance who has no direct personal connection with the accident and health end of the business. It covers its subject completely and yet concisely.

Being so concise the paper gives us the opportunity in discussing

it to add minor items here and there and to enlarge on some of its features.

In listing the main coverages of the typical accident policy one was omitted which we feel was of sufficient importance to have been mentioned. It is that portion of the policy which is commonly called "elective benefits." These are benefits which a claimant may elect to receive in lieu of weekly indemnity on account of certain specified injuries. In the table which shows the allocation of the total rate to the separate benefits provided by an accident policy, the rate for the elective benefit is included in "total disability."

Mr. Hart's paper discusses the unfavorable experience on accident insurance in recent years, and gives several reasons for it. It is true, as he says, that all too often accident insurance was treated merely as a side line by some casualty companies, being used as a feeder for other lines of insurance. Then he goes on to say that because investments were profitable, little attention was paid to the rates for which the accident contracts were sold and so underwriting losses were incurred. Granted, the rates were inadequate; but the treating of the line as intrinsically unimportant and the neglect to apply strict underwriting principles also should be blamed for some of the rather startling loss ratios. Had the rates been at their present levels the business so handled still would have produced unbearable losses.

The increase in deaths due to the automobile hazards has had an important effect. The type of person to whom accident insurance is sold (about 80% are in the preferred class or are professional men who are classified higher than preferred) is the type which has driven automobiles for a good many years. Mr. Hart says that recent accident experience shows that 30% of the death losses have been due to the automobile hazard which fifteen years ago was negligible. We must take exception to this statement. It is necessary to go back more than twenty years to find the time when automobile deaths were negligible. As long as fifteen years ago, automobile deaths accounted for almost 30% of the accidental deaths among accident policyholders, and the percentage has increased since then.

Mr. Hart points out that bureau experience compiled for policy years 1931 and 1932 would indicate that the rates charged for the

death benefit portion of an accident policy are still inadequate if we did not realize that 1931 and 1932 were abnormal years.

Accident policies, of course, are not intended to provide benefits on account of deaths from suicide. However, we all know that suicides are often difficult to prove, and hence many accidental death claims are doubtless paid on account of them. The experience on life insurance death claims shows that at the peak, which occurred in 1932, of what might be called the epidemic of suicides, over 10% of the number of claims and over 15% of the amount of claims were definitely attributed to this cause. These percentages were more than double those of normal years. We have some figures on accidental death claims, based, it is true, on rather a small exposure, which show that compared to the death rate of the late 1920's, there was an increase of 19.5% for 1931, and 20.5% for 1932. Since 1932, the rate has dropped sufficiently to indicate that these were abnormal years.

The two most important things that have happened to accident insurance in recent years are the standardization of contracts and rates and the introduction of the medical reimbursement feature.

Mr. Hart's paper covers the Bureau's work and its results very completely. Of course there are many details of the work in connection with the rates and the compilation of the experience which he could have brought out had he wished. We agree with his idea that they are not essential in a paper of this kind. However, we should like to mention the treatment of outstanding claims in the Bureau's experience.

The experience for a policy year is closed as of June 30 in the second following year. As of that date, all companies submit a list of their outstanding claims, which are valued by the statistical committee of the Bureau. The committee accepts the companies' estimates on claims which are in litigation or on policies which have a limit on the indemnity paying period. All other claims are valued on the basis of Cammack's Table for Disabled Lives. These values in terms of days of disability are added to the days of disability reported by the companies as paid for up to June 30.

As we have seen, competition for business which had been reasonably profitable prompted the inclusion of more and more coverage in the contracts without commensurate increase in rates, until for the purpose of attracting new business the line was brought to

the point where the companies which achieved their goals only increased their underwriting losses.

What was really wanted was a new idea to spur the sale of a type of insurance which we might say had fallen into the doldrums of familiarity. For if there is any line of insurance which is sold rather than bought it is accident insurance.

Fortunately just at the time when the companies decided something had to be done to put the business on a sound basis, the medical reimbursement feature was being introduced. As a result the agents had something new to offer. It took the sting away from having to go out and sell less for the same amount, for they had something additional to sell which the public really wanted. The field of prospects was enlarged to include, besides the man, all the members of his family between the ages of 18 and 64.

So it has come about in the last few years that accident insurance has been put on as sound a basis as it ever enjoyed and in addition the scope of its coverage has been broadened, and its field of operations widened.

AUTHOR'S REVIEW OF DISCUSSION

MR. WARD VAN BUREN HART:

Fortunately, Mr. Furnivall caught the omission in the paper of any reference to "elective benefits." This benefit is so prevalent that for ordinary rate making purposes it is convenient to merge the experience on it with that of the total disability. Although it is possible to tabulate the claims paid under the "elective benefit" and compare them with the exposure or earned premiums, the result obviously does not measure the cost of the benefit, since most of the claims would have been paid under the total disability clause if the "elective benefit" had not been included in the policy. The credit which might be given in rate making for elimination of the "elective benefit," while existent, would probably be too small to measure.

We also have the situation of a policy with "elective benefits" for specified injuries included but with no weekly indemnity, so that they cease to be elective, to use a somewhat Irish expression. In such a policy this benefit is usually known as the "specific

benefit." Today the most common combination is found in a policy providing dismemberment, "specific benefit," and medical reimbursement, with or without death benefit. In such a case the claims paid for the "specific benefit" constitute a real element of cost and naturally are considerably more than the corresponding cost in the weekly indemnity policy, where the claims are in lieu of weekly indemnity.

Incidentally, the dismemberment benefit is, to a certain extent, an elective feature. The policies of most companies provide that in event of loss of two feet, two hands, or two eyes, the policyholder may immediately elect total disability benefits for life. An examination of the claims of most companies would reveal that the claimant preferred utilizing this prima facie evidence of permanent disability to receiving the direct dismemberment benefit. However, in the case of less serious dismemberments, such as the loss of one hand, the clause would only be elective to the extent that the claimant could demonstrate actual total disability. This might be possible under the older type of policy using the "his occupation" language but would be much less likely under the newer "any occupation" language. On the other hand, if the policy covered death and dismemberment only, he would receive the direct dismemberment benefit, whether the loss was of one or two members.

COMMERCIAL ACCIDENT AND HEALTH INSURANCE FROM THE STANDPOINT OF THE REINSURANCE COMPANY— HOWARD G. CRANE

VOLUME XXI, PAGE 303

WRITTEN DISCUSSION

MR. ARMAND SOMMER:

Mr. Crane's article on Commercial Accident and Health Reinsurance is of real interest to the accident and health fraternity as it is one of the very few papers commenting on the very important subject of accident and health reinsurance. Although, as Mr. Crane points out, the amount of commercial accident and health written by casualty reinsurance companies was only slightly

in excess of two million dollars, nevertheless, this reinsurance is, under present conditions, a very vital part of every company's accident and health program.

It would be interesting to speculate on the changes which would be necessary in the accident and health field providing there were no reinsuring facilities. While at first glance such a contingency would appear to be very disastrous to the accident and health business, perhaps the changes necessitated by lack of reinsurance facilities are exactly the remedial measures necessary in the accident and health business. Under present methods of commercial accident and health business, principal sums or weekly indemnities are written in excess of the shock loss that a company can absorb. These policies result in reinsurance. If no reinsurance were available a certain amount of large indemnities on particular individuals might be written by spreading the risk among several companies, but there is little doubt that the aggregate amount of this business would be greatly reduced. Although these larger indemnities are reinsured over the net retention, the accident and health business would be far better off without the larger risks. Even assuming a company were psychologically able to shrug its shoulders on underwriting large cases with the thought that the reinsuring company absorbs the excess coverage and that, regardless of experience on the accident and health business, the reinsuring company was profiting sufficiently on other casualty lines so that the reinsurance would be secure, a company cannot lose sight of the fact that their own hazard is much greater due to the larger policy. This fact is, of course, the essential life saver of the reinsuring company in the accident and health field.

Most companies are, of course, sincere in wanting to give the reinsuring company a profit but irrespective of this consideration, in cold dollars and cents, it is very necessary that the originating company carefully underwrite every case which is reinsured. The very fact of the policy being large enough to reinsure necessitates careful, searching underwriting. The liability underwriter or the executive who is not versed in the accident and health business is often impatient and somewhat annoyed at the accident and health department that won't take a jumbo line on a man of unquestioned financial strength. Many of us have often heard the argument that the man in question is the best risk in the world

and there is no reason why we can't play an important part in his $200,000 principal sum and $2,000 monthly indemnity program, especially since the reinsurance company takes care of our excess liability.

There are two chief reasons why we can't participate in this type of case. Many natural deaths and prolonged illnesses have an element of the accidental, and if a large amount of money is at stake, a legal fight will frequently ensue. In addition, whenever you get beyond the bare subsistence level or at least a comfortable living pension, you are courting conscious or unconscious moral hazard. For this reason, regardless of reinsurance facilities, the companies are carefully abstaining from jumbo lines.

Mr. Crane elaborates somewhat on the fact that the reinsuring companies are willingly taking a loss on accident and health due to profits on liability and other reinsured lines from the originating company. This, perhaps, presents a rather vicious circle in which the other casualty departments are not entirely virtuous. Let us attempt to divide accident and health reinsurance experience into two parts, considering the source of the business.

1. Those companies having accident and health departments run separately and not dominated by other casualty lines.
2. Those accident and health departments which are in the final analysis merely a service line for the company dominated, and to some extent, administered by casualty officials not especially versed in the accident and health lines.

The reinsuring companies would, I am confident, find that in class (1) the experience would be satisfactory, while in class (2) the results would be disastrous, all of which might tend to prove that where the accident and health departments are primarily service departments for liability agents it is only fitting that the liability departments help absorb reinsuring losses. The point of this line of reasoning is that a careful study should show that the accident and health business, if properly managed, will stand on its own feet reinsurance-wise.

Mr. Crane has no comment on the very interesting feature of facultative reinsurance in the accident and health business. Although a few years ago facultative reinsurance could be placed fairly freely in the larger centers, particularly in New York City, to-day there is almost no facultative market. Of course, faculta-

tive reinsurance in the accident and health field is a thankless and hazardous line. Generally speaking, those companies who can underwrite profitably have treaties to take care of all cases except the more drastic ones, and those particular cases are just the ones that any company wants to avoid.

AUTHOR'S REVIEW OF DISCUSSION

MR. HOWARD G. CRANE:

I wish to thank Mr. Sommer for his review of my paper. In general I am in agreement with his comments.

I did not, however, intend to convey the impression that reinsurance companies are willingly taking losses on accident and health business due to profits from liability and other lines. It is true that underwriting losses on accident and health reinsurance have grown to be more or less the expected result, but I believe the reinsurers are taking these not willingly, but with reluctance.

Mr. Sommer expresses the opinion that as respects companies whose accident and health departments are run separately and not dominated by other casualty departments, the reinsuring companies would find the experience satisfactory. I agree that from such companies accident and health reinsurance is likely to be more satisfactory than from companies transacting accident and health business more or less as a service line. However, I feel sure that even companies whose accident and health departments are free from outside interference experience a greater than average loss frequency on large policies, so that it is difficult for a reinsurer to realize a profit unless it has the benefit of a differential of several points in its ceding commission allowance. It has been the experience of the company with which I am associated that even with companies specializing in accident and health it is difficult to arrange a treaty on a profitable basis.

As for companies whose accident and health departments are primarily service departments for liability agents, there may be some justification for the liability departments helping to absorb accident and health reinsurance underwriting losses, although I believe it would be much more sound for each department to stand on its own feet as respects reinsurance.

I am glad that Mr. Sommer has referred to facultative reinsurance, since, for the sake of completeness, it might have been well

had I touched upon this in my paper. In my opinion, reinsurance of accident and health business on a facultative basis is uneconomical and can never satisfactorily fill the needs of a direct writing company. Facultative reinsurance to any material extent can only be placed at the expense of considerable time and effort on the part of the accident and health underwriter. On the other hand, as Mr. Sommer points out, if reinsurance is sought only on those cases where reinsurance is most essential, it will be difficult to find a company willing to accept the reinsurance since these will be just the cases that any company wants to avoid.

A STATISTICAL ANALYSIS OF THE BENEFIT PROVISIONS OF THE COMPENSATION ACTS—J. J. SMICK

VOLUME XXI, PAGE 257

WRITTEN DISCUSSION

MR. N. M. VALERIUS:

In Part I of this paper are presented calculations of the benefits of the various compensation acts in the United States along somewhat new lines. In the administration of the compensation system, comparisons based on similar calculations are often made, but the emphasis is on the comparative loss cost to industry or carriers, whereas in comparisons drawn from Mr. Smick's work the emphasis will be on the relation between the benefits afforded under the various state acts as they affect the worker or his dependents.

This subject is of social interest and not specifically or primarily of insurance interest. It is, however, the obverse aspect of loss cost and, while the object is somewhat different, Mr. Smick has used in his calculations the same method that has been time-honored by twenty years of use in the business for law differential calculations. In explaining the calculation of his results, Mr. Smick has accordingly contributed an exposition of the practice in the calculation of compensation law differentials (except for medical benefits). He has also given some comparisons of the theoretical results produced and data of experience. These two matters occupy Part II and Part III of the paper.

There has not been published before in the *Proceedings* or elsewhere, I believe, a presentation of the actual process of calculation in spite of the fact that there is a considerable literature on acci-

dent tables and law differentials. To students of workmen's compensation insurance technique, Mr. Smick's paper is welcome for this reason and the comparison of results with experience is also interesting and valuable and goes far to justify the method of law differentials. The main objective of the paper, the results in Table 1 and the general discussion are, of course, of wider interest.

Part I of the paper discusses the method and unit of measure for the determination of average benefits. It rejects experience for two reasons: it is not available in sufficient volume in detail in all states and it would bring in other factors than the benefit provisions. It should be remarked, however, that Mr. Smick wishes to take into consideration one of the most important of the other factors, the different wage levels in the states, in his evaluation of the benefits. In the larger states, in the more well-defined subdivisions of injury, it would seem the experience might give more accurate absolute indications but for comparative purposes the same basis throughout may be best. As to the unit of measure, the conclusion is that the comparison of benefits should be made not in monetary amounts but in terms of units of weekly wages as best measuring the relation of the compensation to the injury. The argument for this is ably presented. The reduction of all monetary benefits, even including medical, to equivalent units of weekly wages is originally the common measure devised by casualty insurance actuaries for relative cost calculations, suggested by the fact that benefits are most often stated in terms of weekly wages. Mr. Smick suggests that the same unit is the best measure of the absolute benefits from a social point of view.

It seems to me there may be one theoretical inconsistency in the bodily adoption for this purpose of the regular method underlying the law differentials. As will be noted from Tables 9 and 10, all benefits are commuted to a value-at-inception basis except those payable for less than 52 week terms. There can be no doubt that this is appropriate for the original purpose of indicating the premium required but its appropriateness when considering the benefit to the worker and his dependents is less certain.

While advocating the importance, in the determination of the liberality of any act, of the wage level upon which the act operates, Mr. Smick would probably not take issue with the practice in the compensation business of calculating law differentials be-

tween states on the basis of one average wage distribution. When questions as to the underlying reasons for different levels of compensation rates in different states, and similar questions, arise, these differentials segregate the relative effects of the laws, other conditions average, which seems a useful concept.

Table 1 presents Mr. Smick's conclusions as to the values with emphasis on the columns headed "Equivalent Duration in Weeks." Taking the last column, the states may be arranged as follows from most liberal to least liberal with respect to indemnity provisions, the states bracketed having the same value in the table:

Arizona	Maryland	California	Oklahoma
New York	Missouri	Pennsylvania	Iowa
North Dakota	Ohio	Idaho	Rhode Island
Dist. of Columbia	Oregon	Indiana	Tennessee
Wisconsin	Maine	Kansas	Alabama
Nevada	Nebraska	South Dakota	Colorado
Washington	New Jersey	Connecticut	Georgia
Minnesota	Massachusetts	Kentucky	New Hampshire
West Virginia	Illinois	Virginia	Delaware
North Carolina	Michigan	Louisiana	New Mexico
	Texas	Florida	Vermont
	Utah	Montana	
		Wyoming	

It is important to bear in mind that Table 1 and the above ranking are not the result of law valuations alone on uniform assumptions but reflect the laws operating at the wage levels in the respective states with other conditions assumed uniform. The results shown in Table 1 are limited to periods when the wage levels are like those used. Mr. Smick emphasizes the effect of wage scale on Page 263 and in Tables 2 and 3 and Graph II. If, however, the relativities or differentials between states are considered, the results are probably much more stable because the states tend to maintain their relative wage positions, going up and down together under the same economic influences, and the effect in numerator and denominator of the ratios offset each other more or less. As an example take Delaware and the District of Columbia, which have the same average wage, $21.00, in Table 1. The ratio of the benefits in weeks is .54. Suppose the average wage to have risen to $28.37 in each state. The ratio, see Table 2, is now .53 so the old differential is less than 2% in error whereas the former Delaware absolute value has become 12% in error and the District of Columbia value 11% in error.

Relativities are in all probability more indicative than the values themselves, because errors in the theoretical method, if any, are likely to offset each other, to some extent, in the members of a ratio. Mr. Smick mentions this point on Page 285, but it must not be understood to confirm the calculations underlying any of the values given in weeks or dollars. The offsetting effect will occur only when comparisons are made between acts.

None of the tables or the derived ranking given here can be used for comparisons of compensation act loss cost since the very important factor of medical benefits and cost has been disregarded entirely. The summary of medical benefits in Table V conveys well the status of the acts in liberality of medical provisions for the injured but is of small assistance in arriving at indexes. As medical cost composes on the average somewhere near a third of the total loss cost, it is evident that the error in disregarding it might be extremely large.

The reviewer regrets that Mr. Smick treated the medical benefits so cursorily. The problem of a theoretical estimate of medical costs has been dealt with, although a method as satisfactory as that for indemnity benefits has not been and probably cannot be established. In the early years of compensation it was necessary to make medical benefit estimates for rate-making purposes and the following system was devised. For various states the proportion of medical to indemnity benefits in the experience was known. Applying these ratios to the total number of weeks' compensation in accident table evaluations of the state acts, the medical cost for these states was expressed in units of weeks' wages for use with tabular evaluations of any acts with similar medical provisions. From the thus-calculated theoretical values of various medical provisions, final values were selected for certain medical provisions and others were filled in by a process of interpolation. The table for medical cost is given below:

UNIT = 1,000 WEEKS' WAGES

Time Limit	LIMIT IN AMOUNT							
	$25	$50	$75	$100	$150	$200	$500	Unlimited
2 weeks	80	100	112	120	126	130	135	138
3 weeks	94	114	128	137	145	151	158	162
4 weeks	105	124	140	150	161	167	175	180
8 weeks	122	140	156	166	177	185	194	200
13 weeks	135	152	167	177	188	195	204	210
Unlimited	145	162	175	185	196	204	214	225

This table gave the theoretical medical cost in weeks' wages for the 100,000 accidents of the American Accident Table. It was based on experience of policy years 1915 and 1916 and was first used for some of the rate revisions of 1918. Later, because of the increased tendency among carriers to disregard the limitations in injury cases requiring medical attention beyond the statutory provisions, the values below the unlimited were increased by some portion of the difference to reflect relative loss cost in practice.

Certain comments follow, from a reading of Part II and tables. A comparison of the American Accident Table as published in Vol. VII of the *Proceedings* with the present application shows certain discrepancies. Does this mean that the Accident Table should be revised in these particulars? In the published table, the durations of temporary total in permanent partial cases invite a treatment like that for the other pure temporary total cases. In the application, the 3,788 cases have been used as having average durations of 20 weeks for the Major and 5 weeks for the Minor cases. Also the Loss of Use cases are taken at values 90% of total loss cases instead of the tabular 55%. It would be desirable that all the material for a valuation of an act by the American Table, such as the commutation tables for Temporary Total cases referred to, were available. The work tables for Part II are very attractively reproduced; only the annuity symbols in Table 9 may be complained of. Finally, this Part constitutes a valuable reference, illustrating the actual calculation underlying law differentials.

The data of Part III seem to indicate that, for the serious cases, tabular evaluations on the American Table may be given considerable credence in themselves but how much may be given to evalutions of other kinds and all kinds together is still uncertain. It is unsafe to go beyond the accepted application, that is, to produce estimates of relativity between laws.

In conclusion, the writer wishes to call attention to the tremendous amount of thought and work underlying the establishment of statistical results such as those presented. If a general criticism may be made of this valuable paper, it is felt that the Statistical Analysis of the Benefit Provisions as at May 1, 1935, might have been stressed less and the methods of such analysis more.

MR. MARK KORMES:

In these days of sweeping changes in social legislation every thinking individual reflects and inquires as to the cost of the benefits so lavishly bestowed upon classes which are afflicted with the various evils inherent in the present industrial and social system. For this reason not only members of the Society but also the general public will welcome Mr. Smick's contribution to these *Proceedings* since although limited to Workmen's Compensation it acquaints the reader with the method of evaluating costs of benefit provisions of the various State acts.

Mr. Smick very properly begins with pointing out the difficulties involved in the evaluation of the differences as between the acts of the various states and concludes that a comparison is meaningless unless all the benefit provisions are brought to a common denominator. By clear reasoning process he leads the reader to the realization that the best suitable basis of comparison is found by expressing the benefits in terms of duration using as a unit the weeks of wages. Tables 1 and 2, which show both the theoretical average cost per case and the equivalent theoretical durations for several types of injuries as well as for all types of disability, illustrate that while monetary amounts may be higher the equivalent durations are not necessarily so.

The compilation of these tables involved a tremendous amount of work and I feel that I express the sentiments of the membership of the Society in thanking Mr. Smick for the painstaking and laborious task which he undertook in the preparation of this paper.

While Tables 1, 2 and 3 are purely theoretical and are designed to show the difference in the various theoretical estimates depending upon the basis of wages chosen, Table 4 shows the actual results for a number of years and a number of states. Inasmuch as these actual averages are not really comparable with the theoretical figures, it seems to me that the proper place for Table 4 would be after Table 16. Table 16 is based on the experience of ten states and it would be, therefore, interesting to see how close the average of these ten states compares with the average of a larger number of states.

In the second part Mr. Smick gives the details involved in the calculation of the cost of the various types of injuries and also the calculation of the effect of a change in the scale of benefits.

While in Part 3 the author demonstrates the remarkable closeness of actual incurred averages to the averages established by theoretical means, I believe that it may be well to stress at this juncture that the greatest importance of theoretical calculation of benefits, as far as Compensation is concerned, lies in the fact that they permit the calculation of the effect of a change in benefits. The rates for compensation insurance are made on the basis of past experience to apply in the future and it is, therefore, very important to be in a position to adjust the past experience for such changes in the law as have taken place between the time when the experience has developed and the time for which the new rates will apply. The theoretical calculation of the cost of two different benefit provisions for a given type of injury may not represent the cost of each benefit accurately but it will represent, with a great degree of accuracy, the amount of change since the average theoretical benefit under two different provisions is calculated on the same assumptions and in the same manner and, therefore, in taking the ratio of the two average theoretical values the assumptions may be said to cancel out.

In his paper Mr. Smick has not gone into details as regards the evaluation of temporary total disabilities or medical provisions. I feel that it would be of sufficient interest to the student of the subject to have some information on the manner of these calculations beyond the brief note appearing under explanations to Table 10 on page 282. Mr. Smick refers there to commutation columns. Below is shown in fragmentary form a reproduction of such commutation columns as well as the formulae for the calculation of the cost of benefits for states which have a retroactive waiting period as well as those where the waiting period is not retroactive.

AMERICAN ACCIDENT TABLE

Commutation Columns

Temporary Total Disability

(1) x Number of Days of Disability	(2) n_x Number of Cases	(3) $N_x = \sum_{\omega}^{x} n_x$ Number of Cases Lasting x Days or More	(4) $M_x = M_\omega + \sum_{180}^{x} N_x$ No. of Days of Disability Caused by the xth Day and Succeeding Days
1	8,823	95,388	1,670,945
2	8,086	86,565	1,575,557
3	7,282	78,479	1,488,992
4	6,014	71,197	1,410,513
5	5,255	65,183	1,339,316
6	4,606	59,928	1,274,133
7	4,817	55,322	1,214,205
8	3,090	50,505	1,158,883
35	518	11,772	454,681
36	430	11,254	442,909
37	412	10,824	431,655
49	236	7,967	355,740
50	202	6,657	318,651
51	197	6,455	311,994
180	6	586	48,740
181	5	580	48,154
182	6	575	47,574
ω = over 6 mos.*	569	569	46,999*
Total	95,388	..	..

* Average duration 37.8 weeks, hence equivalent to 150,557 days. In order to eliminate the first 182 days, we must deduct 103,558 days (= 569 × 182).

If we denote the cost of Temporary Disability expressed in weeks of wages for an act having a waiting period of w days which is retroactive in r days by $C_{w:r}$ and the rate of compensation by R we can easily find that:

$$C_{w:r} = \frac{R}{7} \cdot (M_{w+1} + wN_{r+1}) \qquad (1)$$

If the waiting period is not retroactive we have

$$C_w = \frac{R}{7} \cdot M_{w+1} \qquad (2)$$

It will be of interest to show an illustration of the use of the above tables and formulae and I have chosen for an example the evaluation of the New York Assembly Bill No. 1740, Introductory No. 1594 which became law as of July 1st, 1935. This bill changes the retroactive feature of the waiting period from 49 days to 35 days. Below is shown the calculation of the effect of this amendment:

(1) Cost in Weeks' Wages — 7-day waiting period retroactive at 49 days*.....	114,865
(2) Cost in Weeks' Wages — 7-day waiting period retroactive at 35 days*.....	117,932
(3) Indicated increase in temporary total benefits (2) ÷ (1)	1.027

* Calculated by the use of formula (1).

EFFECT OVER ALL

Kind of Benefit	(1) Policy Year 1932 Losses Incurred	(2) Indicated Increase (Line 3 above)	(3) Losses Adjusted for Amendment (1) × (2)	(4) Over All Effect (3) ÷ (1)
Temporary Total...	5,446,727	1.027	5,593,789	..
All Other.....	19,460,721	1.000	19,460,721	..
Total of All Losses.	24,907,448	..	25,054,510	1.006

As regards medical benefits, I am not surprised that Mr. Smick has limited himself to a summary of benefits provided by the various states shown in Table 5. At the present time we do not know of any scientific method to evaluate the cost of medical provisions nor do we have statistics in a form which would lend itself to an interpretation and investigation of this character. It may be noted, however, from the New York experience shown below that the medical cost has developed from insignificant beginnings into a very substantial portion of the compensation benefit and at the present time it constitutes approximately 20% of the rate:

Policy Year	(1) Medical Loss Ratio on Actual Basis	(2) Medical Loss Ratio on 7/1/34 Level	(3) Ratio of Medical to Total Losses	(4) Ratio of Medical to Indemnity Losses
1917	8.5	5.0	16.4	19.7
1918	7.9	4.9	14.3	16.7
1919	9.3	5.8	17.7	21.5
1920	10.0	6.4	20.5	25.9
1921	13.0	8.5	23.0	29.9
1922	15.2	9.9	23.3	30.4
1923	16.0	10.0	23.0	29.9
1924	16.0	9.8	23.7	31.0
1925	14.6	10.2	24.6	32.7
1926	14.6	10.7	25.2	33.7
1927	15.1	11.1	25.7	34.6
1928	16.5	11.6	25.5	34.3
1929	18.1	12.5	26.8	36.6
1930	19.4	13.4	28.8	40.5
1931	19.6	15.7	31.3	45.6
1932	19.8	17.3	32.5	48.1
1933	19.3	17.5	33.4	50.1

Last, but not least, a few words should be said about the difficulties encountered by the actuary when legislation is passed providing benefits, for the evaluation of which there is no statistical basis available. As an illustration, I would like to cite the recent New York law amendments with reference to medical care and occupational disease. The first of these changes removes the control of medical treatment from the carriers and employers by giving the employee an unrestricted choice of physician. It further provides for the establishment of a minimum scale of fees. The evaluation of a change of this type is well nigh impossible. It depends upon so many unknown factors that no actuary could venture even to guess its probable effect, although the general concurrence of opinion is that it will tend towards still higher costs of medical benefits. In this connection I would like to add that the National Convention of Insurance Commissioners is perturbed about the rise in medical costs and has instructed the National Council to collect statistics which would throw some light on the cause of this increase. The National Council is now perfecting a plan of reporting individual medical claims which is designed in the main to yield statistical data which would permit to analyze the costs of medical treatment as well as the corresponding durations of disability not only by various locations but

also by the type of doctors, that is, whether the treatments were given by the physicians controlled by the carriers or others.

As regards the occupational disease amendment of the New York law which makes all and any occupational disease compensable after September 1, 1935, the actuaries were again faced with a problem of making estimates of the cost without any available statistical information as to the incidence of claims. On the basis of investigations conducted by special commissions (as, for example, the Massachusetts Legislative Commission and the U. S. Dept. of Health) and based on the literature developed in connection with the cost of certain occupational diseases in foreign countries, the actuaries were forced to make a judgment estimate of the incidence and average cost of the diseases referred commonly to as dust diseases and make rates on the basis of such assumptions. For further details, the reader is referred to a paper on this subject by A. G. Smith.*

From the above remarks it may be very well seen that although Mr. Smick's paper gives one an impression that the manner of calculating law benefits is a completely worked out procedure along scientific and mathematical lines, actually there are a great number of important problems for which at the present time there is no set theoretical procedure.

I hope, therefore, by these notes to arouse sufficient interest in the problem in the younger generation of actuaries who, as time progresses, will have the opportunity to conduct original research and evolve schemes for a scientific evaluation of such benefits.

AUTHOR'S REVIEW OF DISCUSSIONS

MR. J. J. SMICK:

Messrs. Kormes and Valerius have been kind enough to review and discuss this paper. Although they suggest possible improvements and additions, they seem to be in agreement with the author on one of the main points stressed in the paper; namely, that the better basis of determining relative benefits is by means of durations and not monetary costs.

Mr. Valerius, in his discussion, has gone into some detail on this

* Page 50 of this volume.

subject. He points out that in actuarial work, it has long been customary to use week's wages in the calculations. This usually has been the aggregate of the present values of the durations provided by law, as applied to the distribution of the American Accident Table, and only in unusual instances has it been in units which would also reflect the wage scale and monetary limits underlying compensation benefits. The author is inclined to agree with Mr. Valerius that in many instances it may be advisable to continue calculating law differentials on a common wage for all states. In making comparisons of benefit scales, this procedure is subject to criticism. The important consideration in such comparisons is the degree to which benefits are a substitute for the loss of income. The use of a common wage basis in determining durations, or of monetary amounts, is therefore not a justifiable procedure for constructing tables showing the relative liberality of benefit provisions. Law differentials were originally calculated in connection with rate-making methods. The primary purpose was to convert experience incurred on the basis of one law to the benefit level of another so that the experience could be combined for rate-making. Their use for comparisons of liberality of benefit provisions was of second importance. There are in use a number of such tables and many charts and graphs based on such calculations. Although correct to use for many purposes, they are a poor basis to use as a comparison for relative liberality of benefit provisions, or for determining advisable changes in compensation acts.

As Mr. Valerius states, the results exhibited in the tables are limited to periods when the wage levels are like those used. He further points out that the relativities between states are fairly stable when the values are based on either the same low or high wage. It was this condition that was partly responsible for the presentation of Table II, based on a high average wage of $28.37. Even with reviving industrial activity this level will not be reached for some time, and interpolation between the values shown in Table I which in every instance are based upon a lower wage scale and those on Table II will give reasonably accurate results. If it is desired to have more exact results, the values may be recalculated, on the basis of the procedure outlined in Part II of the paper.

It is the author's opinion that the importance of medical indices

is greatly overestimated. There is not as much variation in the medical benefit provisions of the Compensation Act as in the indemnity benefit. Almost all of the states provide medical benefits unlimited in duration and monetary cost, as shown in Table 5. About 10 states limit medical benefits in both amount and duration, an additional 7 limit the amount while 3 limit the duration. In actual practice these limitations are usually disregarded and medical benefits over and above these limits are provided to the injured workman if it is felt that such additional treatment is warranted. Furthermore, whenever revisions of benefits are contemplated, unless the medical benefits are by law or in practice unlimited, almost the first benefits to be amended are the medical provisions, and consequently, it may be expected that uniformity may sooner or later be reached.

Irrespective of the value of such indices, the author feels that the outline Mr. Kormes gives of future possibilities based on new statistical data, and the description and table Mr. Valerius presents of a procedure that was devised when there was greater variation in medical benefits, are of value and serve to round out the material presented in the article. Modifications of the table presented by Mr. Valerius are still in use and are especially helpful when changes in medical benefits are contemplated in legislative proceedings. It is, however, inadvisable to use this table in comparing benefits of one state with those of another. Mr. Kormes shows that the proportion of medical cost to indemnity, in New York, has risen from 30% to 50% in the years 1922 to 1933. During this period the law provided medical benefits unlimited in amount and duration. In a state with a law limiting benefits, the cost will not rise as rapidly and a comparison which may be valid on the basis of 1922 cost may be incorrect for 1933, although the legal benefit provisions of the two states have not changed.

Both Mr. Valerius and Mr. Kormes regret the omission of some of the tables and auxiliary data used in the calculations. Possibly it might have been advantageous to include this additional information, but the author, at the time the paper was submitted, felt that he had included so many tables, that additional ones, used only as auxiliaries, had better be omitted.

In addition to the points included in the discussions, it seems desirable to add the following note:

It has been pointed out to me by Dr. I. M. Rubinow that a brief historical outline of the development of the method of evaluation of the cost of benefit provisions of the Compensation Acts should have been included in the paper. At the time that the paper was submitted, it was felt desirable, in order to keep what seemed to be a long article within reasonable limits, to free it from digressions and not to include matter not considered absolutely essential to the text. At this time, however, a brief historical review may not be amiss.

In the decade 1910 to 1920, as the movement for the enactment of compensation statutes gained momentum, it became increasingly important to establish a method of estimating the cost of benefit provisions. Two factors in particular forced the development of a scientific procedure; one was the desire to have estimates of the probable cost and comparative value of benefit provisions and the cost of changes in such provisions, and the other, probably the more important, was the need of a procedure that would allow for the use of the experience incurred on the basis of one law to be used in determining rates for insurance under another law.

The first issues of the proceedings of the Casualty Actuarial Society, Volumes 1 to 10, present many articles and discussions dealing with the early aspects of the theoretical procedure and particularly its use and application in rate-making. Nearly all of the leading statisticians and actuaries of the period at one time or another contributed something to the subject, either as members of Committees, or by means of articles and discussions. To mention only a few of the names, there were E. H. Downey, S. B. Black, G. F. Michelbacher, I. M. Rubinow, A. H. Mowbray, B. D. Flynn, H. F. Ryan, S. H. Wolfe, among others.

A rather full and complete discussion of the use of law differentials is presented by Dr. I. M. Rubinow in the article "Scientific Methods of Computing Compensation Rates," *Proceedings*, Volume I, and "The Theory and Practice of Law Differentials," Volume IV, as well as in an article by G. F. Michelbacher, "The Theory of Law Differentials," Volume III.

Dr. Rubinow, in his article in Volume IV, mentions an earlier determination of law differentials, without the aid of an accident table, made by Dr. E. H. Downey and Mr. S. Bruce Black using

as a basis, "A common laborer, earning $2.00 a day, aged 30, with a wife aged 28 and four children aged 2, 6, 8 and 10."

One of the important contributions made by Dr. Rubinow to the scientific procedure was his Standard Accident Table. This was probably the first accident table that was constructed and had wide application, and references are constantly made to it in the early articles on rate-making. It was used principally in computing law differentials, factors to translate experience to a basic law level for the purpose of combining data for rate-making purposes.

The gradual accumulation of experience made the use of law differentials less necessary and shifted the emphasis for law differentials to experience differentials. At the same time the accumulated experience was used as the basis of a new accident table, based on American statistics, the "American Accident Table." Dr. Rubinow's table was based largely on European statistics. A discussion and comparison of the two tables is contained in the article "American Accident Table," by Miss Outwater, in *Proceedings*, Volume VII.

Technical methods also developed and particularly the calculations connected with the wage data. The method presented in Mr. Mowbray's paper, "Legal Limits of Weekly Compensation in their Bearing on Rate-Making for Workmen's Compensation Insurance," Volume IX, was a great stride forward. A more recent paper by Mr. Dorweiler "On Variations in Compensation Losses with Changes in Wage Levels," Volume XVIII, develops the subject still further.

The above rather sketchy outline traces the general development of the method and statistical tables used in estimating the cost of benefit provisions.

INFORMAL DISCUSSION

Automobile Liability Insurance

MR. S. D. PINNEY:

One of the major problems, if not the most important one, confronting casualty insurance companies in this country at the present time is that presented by the Automobile Liability line, particularly as respects the writing of Private Passenger cars. The relatively small proportion of insured automobiles is a challenge to the casualty companies and in addition the companies are confronted with the prospect of an increasing loss ratio on the business which is insured.

The proportion of insured cars has decreased materially from the level prevailing in 1930. Statistics show that for the state of New York the volume as measured by number of car years written shows a decrease of 31.4% for all carriers for policy year 1934 as compared with 1930. Statistics for other states show similar trends, in some cases even more severe than in New York.

Undoubtedly, the depression has played a major part in reducing the number of insured cars. Furthermore, private passenger public liability manual rates have been increased since January 1, 1930 an average of 21.6% for the country as a whole excluding Massachusetts. In addition, the merit rating plan was withdrawn in January, 1932, and this had the effect of increasing the collectible rate level approximately 8%, in addition to the average change in manual rates. Whereas these increases were partially offset by a reduction in the charges for excess policy limits which became effective in January, 1932, it is estimated that the net effect of these various revisions has been to produce an increase of approximately 25% in the average cost of private passenger public liability insurance during the period when the income of prospective purchasers was drastically reduced. This combination of circumstances has caused many drivers to forego carrying public liability insurance and it will require constant study on the part of the casualty insurance carriers to devise ways and means of bringing these people back into the ranks of insured risks.

Various plans have been discussed during the past several years. Certain of these have been designed to make the payment of premiums less painful to the assured, such as the various methods

of paying premiums on the instalment basis. Whereas, undoubtedly this has helped to hold certain business, the effect has been rather less than was originally anticipated.

It has been suggested from time to time that private passenger cars should be written under three-year term policies, the argument being that in this manner there would be a saving in expenses which could be reflected in the premiums charged. However, when consideration is given to the possibility of rate revisions as well as the frequent changes made by the assured, it is evident that there are valid objections to writing the business on a three-year basis. Furthermore, it is doubtful if the writing of policies on this basis would attract an appreciable number of assureds, due to the necessity for collecting 50% of the three-year premium in advance the first year.

The experiment of merit rating ended in failure, due not only to the fact that approximately 80% of all risks were entitled to the 10% credit provided under the plan, but also because a large proportion of the remaining 20% were given the credit more or less illegitimately. It was evident that the plan could not produce satisfactory results from the standpoint of the companies unless it were possible to collect substantial penalty charges from those risks which experienced losses.

An approach to the problem has been to restrict the coverage in various ways in order to reduce the cost. In this connection, it must be borne in mind that most people who take out automobile liability insurance wish to be adequately covered, and therefore any restriction of coverage cannot go beyond a reasonable point.

In this connection, it has been proposed by some that what is needed is a deductible form of coverage. It is claimed that with such coverage the assured would be more careful, since he would be liable for a certain initial portion of the claim. However, statistics show that relatively small rate discounts can be given for any deductible amount which would appear reasonable to the assured. For example, a $100 deductible public liability coverage would permit a discount of only 12.5% in the rate. If public liability and property damage coverage were combined and the deductible amount were to be applied to any claims, either bodily injury or property damage, somewhat higher discounts could be allowed; for example, a $100 deductible applied to bodily injury

and property damage coverage combined would allow a discount of approximately 25%.

The difficulty with deductible coverage, however, lies in the fact that most persons would rather pay the full rates and obtain full coverage than save the small amount in dollars represented by the premium discount and take over the responsibility for the initial portion of the claim.

Furthermore, from the standpoint of the carriers, deductible coverage presents difficulties as regards claim administration. Many claims are not settled for a period of years, and it would be difficult for the carrier to collect from the assured his portion of the claim. Also, there would undoubtedly be cases where the assured claimed that he did not understand the type of coverage he was purchasing and the carrier would have difficulty in receiving reimbursement from the assured.

Attention has been focussed recently on the proportion of losses due to guest claims. Recent statistical tabulations have shown that approximately 16% of the losses are due to claims falling in this category. It has been claimed by some that it would be a reasonable restriction in coverage to provide that guest claims should be eliminated, with a resultant rate reduction of approximately 15%. Undoubtedly, there should be a restriction in the coverage as respects claims due to so-called family guests; that is, claims brought by relatives or members of the assured's immediate family. Many of such claims undoubtedly would not be brought against the assured if the car owner did not carry insurance. However, statistics show that the rates could be reduced only 2% or possibly 2.5% on account of eliminating family guest claim coverage. Nevertheless, it is felt that family guest claim coverage should be eliminated in any event, since such coverage constitutes an undesirable moral hazard.

There is considerable question, however, as to the desirability of restricting the coverage to eliminate guest claims other than family guest claims. It is felt that there would be an adverse selection against the carriers, with the result that in a few years it would be found necessary to materially increase the rates for risks which were written on a full-coverage basis. Also, there would be the danger that many assureds would be sold the restricted form of coverage without fully understanding that the

coverage had been sold strictly on that basis, and the carriers would experience considerable difficulty with such cases in the event of claims brought by guests.

Another approach to the problem has been the suggestion that the present omnibus coverage basis should be eliminated and the individual assured should be educated to the desirability of confining the operation and use of his car to himself. It has been argued that where it is necessary for members of the assured's family to operate the car, each individual operator should be either insured by a separate policy or at least charged a rate for such coverage. One suggestion has been that for risks involving only one or two operators the manual rate would apply, but where there were additional operators there should be various surcharges imposed. Each operator so insured would be named in the policy. In the event of an accident caused by an operator who had not been specifically covered in the policy there would be no liability on the part of the insurance carrier.

There are certain objections to this plan of coverage. In the first place, unless some discount were given to the risks involving one or two operators, it is evident that the cost of insurance would not be reduced but would be increased. Furthermore, the bulk of the risks would probably fall in the average group, by which are meant cases with one or two operators, and the result would be that if a discount were to be given to such risks it would be necessary to charge a substantially higher rate to the small number of risks with more than two operators in order to balance these credits. There is no experience available which would show the differentials which would be made in the rates for varying number of operators per car. It would be difficult to administer such a plan, since there would be too many opportunities for disagreement between the carrier and the assured as to whether he were fully covered in the event of an accident. There would be difficulties experienced in the case of part-time operators, such as students home for vacation, where it would be argued that the full additional charge should not be made. It would be difficult for the company to check up on the number of operators of the assured's car, and there might also be difficulty in determining who was operating the car in the event of an accident. It is feared that under such a plan there would be too much opportunity for

manipulation, similar to that experienced in connection with the merit rating plan.

Another way of popularizing automobile insurance would be to liberalize the coverage without increasing the rates, but it is evident from a study of the trend of the experience in the past few years that there is no margin left in the rates for any such liberalization. It is true that several years ago the property damage standard policy limit was increased from $1,000 to $5,000, and also in certain states the coverage was amended as respects the minimum age of operators covered under the policy, in order to conform with the law in such states. The extension of the property damage policy limit had little effect in writing an increased volume of business, and it is doubtful if the liberalization as respects minimum age of operators should have been made without imposing an additional premium charge.

A review of the private passenger public liability rates charged throughout the country, as well as the trend of experience, indicates that the present system of classification and rating by make-of-car symbol groups (W, X and Y) has outlived its usefulness and either should be revised or completely abandoned. In many rate territories the manual rates for W and X cars are the same, and there is only a slightly higher differential in the rate for the Y cars. In many cases the experience produces a higher pure premium for the W cars than for the X cars and in a number of territories the pure premiums indicated for the W cars and the X cars are higher than those shown for the Y cars. For several years the public liability rates charged in New York City and New York City Suburban have been the same for all cars. For all other territories in New York State the rates for W and X cars at present are the same, with only slightly higher rate differentials for the Y cars. Whereas it is true that this situation does not obtain to the same degree in all territories throughout the country, there is nevertheless strong evidence that the trend is in this direction, and we may ultimately expect to see the elimination of differentials between the present W, X and Y rate groups. It may be argued that what is needed is a revamping of the composition of each rate group. In other words, if the experience were kept by make of car, it would be possible to reassign such experience to different rate groups and set up rate differentials accordingly.

There is some question, however, as to whether this constitutes the real answer to the problem. With the improvements which have been made and which may be expected to continue in the future as respects the mechanical development of the lower-priced cars, coupled with the tendency in recent years for persons of means to purchase lower-priced cars, the old argument that higher claim costs might be expected to result from the operation of the higher-priced cars is rapidly becoming a false premise upon which to set up insurance rates.

It is now recognized that the factors which have considerably more bearing than the make of car, insofar as the production of claims is concerned, are such items as the individual characteristics of the operator; the use to which the car is put; annual mileage; and driving and legal conditions in the territory in which the car is principally operated. Territorial rate differentials are, of course, of fundamental importance and should be maintained. The use of mileage as a basis for classification and rates involves several fundamental objections. In the first place, no practical means has been developed for guaranteeing an accurate reporting of the mileage itself. Whereas it might be mechanically possible to develop a tamper-proof mileage meter, the carriers would still be confronted with the necessity for obtaining accurate reports of such meter readings. In view of the relatively low average premium, the carriers could hardly afford to have a salaried representative audit such reports. Furthermore, there is the objection that if mileage were used as a basis for determining rates we would probably find that the great majority of assureds would fall in the normal or average group of drivers with annual mileage of 12,000 miles or less. Only the small minority would show excess mileage, and consequently if we were to give reduced rates to the normal group it would be necessary to impose substantial surcharges in the case of the small minority. Here again we would have a situation somewhat analogous to that which obtained in connection with the merit rating plan.

The ideal system of classification rating of private passenger cars would be one which adequately measured the individual characteristics of the operator. Unfortunately, no such ideal system is possible, and consequently the problem confronting the carriers is to find a substitute which in a practical manner will

come as close to the ideal as possible. Certain companies have advocated and are using an occupational classification system in the writing of private passenger automobile insurance. It may be that there is more to this than appears to be justifiable upon off-hand consideration. In any event, this should be given careful and thorough consideration by the casualty companies as promptly as possible to resolve these doubts. It has been claimed that the use of an occupational classification system in the writing of automobile private passenger insurance would be analogous to the classification system used in connection with accident insurance. There is, of course, the fundamental difference that automobile liability insurance involves third-party liability coverage, whereas under accident insurance the assured is also the beneficiary of any claim payments. However, it is possible that upon thorough investigation there may be found a consistent differential in the experience according to occupational classes, and therefore it is felt that the carriers should immediately make provision for revising the Automobile Statistical Plan so as to include codes for occupation of the assured.

It would be necessary under such a system to provide for a signed application from each assured, similar to that required in connection with accident insurance. The purpose of such a signed application would be to bring out the information necessary for proper rating of the assured, but it could be argued that it would be a simple matter for an assured to misrepresent the facts in order to secure a lower rating. This feature would require careful consideration in connection with any such plan of occupational rating. It would be interesting to obtain the experience of various companies writing accident insurance as respects this particular point.

The foregoing remarks have been confined entirely to the field of private passenger public liability rates. It is felt that if the casualty companies can solve the problems presented by this particular group of business, which comprises approximately 70% of the total automobile public liability premium volume, they will have progressed a long way toward the ultimate goal of increasing the proportion of insured cars, and it is to be hoped that such an increase may be brought about without sacrificing underwriting profits.

MR. H. J. GINSBURGH:

Our President mentioned this morning in his address the possible desirability of including deductible and excess features in automobile liability insurance. He was developing his subject, I think, along the line of opening up markets for coverages which at present are not generally available. He believes that there is a reservoir of possible buyers existing who do not wish to meet present price requirements, and that we as insurance carriers ought to try to fit our coverage to that market.

I agree with him in general, that it is possible to write certain forms of coverage in automobile liability insurance which will satisfy a given market and which can be underwritten profitably. However, I am not certain that the deductible and excess forms will meet the requirements set by our President.

It does not seem to me to be sound underwriting to write the deductible form of cover generally for the type of clientele which is looking for a less expensive form of protection, i.e., at a premium less than the generally accepted standard of charges. Obviously, such a form of insurance should be written only for a financially responsible insured. Even then the settlement of claims will often lead to controversy and dissatisfaction.

Excess coverage, over sizable limits, might be a desirable form to offer to responsible individuals who feel they can well afford to take the chance of several thousand dollars of loss, but who would like protection for the unusually large claim.

Another suggestion is the offering of limits lower than the present standard $5,000-$10,000. The amount of the discount from 5/10 rates which could safely be given for limits of, say, $2,500-$5,000 would not be enough, in my opinion, to make an appeal to the market mentioned this morning. By far the greatest part of the total loss is made up of the smaller claims. The average claim cost is somewhere in the neighborhood of $300. Unless the nuisance claim is entirely eliminated, it is difficult to see how a marked price reduction appeal can be made by dropping the limits of coverage from the present standard.

One of the ever-present problems in the consideration of automobile liability rates is the question of the probable trend in cost. From the experience of some of the larger states it would appear that the depression did not have a particularly marked effect on

claim frequency. The depression did affect the average claim cost, especially in the rural districts. A reversal in these territories is already becoming apparent. With an increasing claim frequency and an increasing claim cost, the result is obvious.

Those who have reviewed experience on the line know of the continually downward trend shown by property damage pure premiums. It was expected, a year or more ago, that as the country came out of the depression there would be a sharp reversal of that trend. It was thought that rising wage and price levels would have a sharp effect, increasing the cost of repairs both for labor and parts. The latest available compiled experience, however, does not as yet show that effect.

Would it be desirable to look again into the question of offering a complete liability cover, with a single rate including the cost of both bodily injury liability and property damage liability? It is the desire of most underwriters always to write the complete cover including property damage as well as bodily injury, and generally that desire is met. It is interesting, though, to see the difference, territory by territory and state by state, in the proportion of cars having the two coverages compared with those having bodily injury liability only. Whether making the combined coverage the standard form, with a single rate, would be a desirable step at the present time, is hard to say. It would have the advantage that, from the sales viewpoint, it might look better, if bodily injury liability costs were to rise and property damage liability costs were to be stationary or to go down, to make a single rate. Changes in the component elements might thus offset each other, and the insured, continuing to get complete coverage would not have forced on his attention a large rate increase.

The automobile liability lines of insurance have been moving more and more into the field of social insurance. The passage of the Massachusetts Compulsory Act and of numerous financial responsibility acts, have imparted a social tinge to the problems of this part of our business. With this development, more attention has come to be given to the regulation or control of rates for automobile liability insurance. There is a tendency for supervisory authorities to require that rate schedules be filed by the carriers, and adhered to. From such a requirement, it is not a very great step to much closer regulation. It would seem, there-

fore, that it is incumbent upon us to develop a consistent and sound method of making automobile liability rates, one upon which we can stand and which we can offer to supervisory authorities as producing rates fair both to the carriers and to the insuring public.

MR. AMBROSE RYDER:*

Mr. Chairman, Ladies and Gentlemen: With your permission I shall devote myself to a review of certain problems that are of interest to automobile casualty men. It is not my intention to propose any solutions to these problems.

How to rate each automobile is still the big problem of the day. Instead of rating the car we would very much prefer to rate the man at the wheel, because it is he, not the car, that causes the accident. But how is it going to be possible to measure the accident producing possibilities of the man at the wheel and relate these measurements to premium variations, when the company knows practically nothing about the man at the wheel and very often does not know even his name? Even if the company does have the needed information, who is going to decide what the yardsticks shall be for measuring accident proclivities and how these yardsticks shall be applied?

One of the yardsticks would be the age of the driver. I think anyone of experience will agree that he is a better driver at the age of forty than he was at the age of twenty. Perhaps he is no more skillful at forty than at twenty, but certainly he is more considerate and less inclined to take chances. On the other hand, there are people at the age of twenty who are better than others at the age of forty, so the age yardstick is not the only one to take into consideration.

The past accident record is a well known factor, but here again there are two sides to the question. Statistics seem to prove that history repeats itself and that the man who has had accidents in the past is more likely to continue to have them than the man who has not had accidents in the past. On the other hand, there is always the argument that the man who has had a bad scare as a result of a close shave in the past is more inclined to be careful in

* Mr. Ryder spoke by invitation.

the future than another man who has been lucky enough not to have had any accidents. So take your choice.

Likewise, the driver who has had plenty of traffic violations and other police records is not considered as good a risk as the driver whose past record is clear. I do not think there will be any arguments to the contrary, because generally speaking, the man who has evidenced a proclivity for getting into trouble is the type of man who is most apt to get into trouble in the future.

The next question is whether a driver is a better risk because he reacts one-fifth of a second quicker than the average. Various devices have been on the market for testing the reaction times to danger signals. I think these are all very interesting and may possibly prove of value, but generally speaking the person who is quick on the trigger and who reacts very promptly is probably a less desirable risk than the more phlegmatic person who likes to think things over two or three times before he decides to do anything. The latter type will not react as quickly to the sudden danger that presents itself to his oncoming car but on the other hand neither will he be so likely to allow himself to get into a position where any sudden danger will arise that will require a one-tenth of a second reaction. Give me my choice and I will take the man who is not so quick on the trigger in everything he does in life.

If the individual driver is going to be measured for his reactions to danger, it is even more important that he should be measured for his willingness to keep away from danger. In other words, although courage is a splendid attribute in its place, its place is not at the wheel of an automobile. The timid soul is a much better risk than the daring young man who has the courage to drive his car at 90 miles per hour on a slippery road. The best type of risk, therefore, is the person who is really afraid to take unnecessary chances.

Mileage is also an important factor. Theoretically, it is a good yardstick but in actual practice there are many problems to overcome. The man who drives 20,000 miles a year is not necessarily four times as apt to have an automobile accident as the man who drives only 5,000 miles a year; but is he not perhaps 50 per cent more apt to have an accident—other things being equal?

The engineers have made it very difficult for the automobile

underwriters because each improvement in the speed and riding comforts of the car contributes to accident frequency and severity. Engineers have been able to put speed into the automobile faster than the educators and state authorities have been able to put safety-mindedness into the drivers of those automobiles. A man no sooner gets educated to a 35-mile-per-hour speed than the engineers hand him a car that goes 50 miles per hour in perfect comfort. By the time he gets used to 50 miles, they have boosted the speed to 75, and so it goes.

Speed has been stressed a great deal, but riding comfort contributes almost as much to "sudden death" as speed. It is the smooth riding of the modern car at high speeds that gives everyone in the car a false feeling of security. If the car would only rattle and bounce to the real discomfort of the occupants whenever the speed exceeded 50 miles an hour, each occupant would be visibly impressed with the dangers that lurk in high-speed travel. This discomfort would not necessarily deter the driver from driving at a high speed but it would add to his alertness and thereby decrease the accident rate.

The engineers also make it difficult for the underwriters by building magnificent highways and boulevards. Theoretically the accident rate should decrease with each improvement in highways but just the opposite seems to be true. The best risk in the United States today is a 15-year-old rattletrap driven over tortuous, winding, mountainous, dirt roads, in the hands of an old conservative mossback.

Getting away for a moment from the man at the wheel, another very interesting problem for some bright mind to solve is how to eliminate sharp differences in rates between car owners on two sides of a territorial line. Everyone knows that the average automobile owner on one side of the street is certainly not twice as bad as the average on the opposite side, and yet we have a few territorial demarcations where the rates on one side are twice as high as the rates on the other side. True, the actual experience shows that the average car owner in the one territory should pay twice as much as the average in the adjacent territory but some way should be found to taper off large territorial differences on a more equitable basis.

There are, of course, many other rating and underwriting prob-

lems of equal interest to the ones mentioned above, but I think I have mentioned enough to give the casualty-minded plenty to think about.

MR. W. N. MAGOUN:

In order to acquire a clear understanding of any subject, as for example, automobile rate making, it is necessary to discuss not only the general rules but also the exceptions. This is my excuse for confining my remarks to Massachusetts conditions. As you all know, they create a decided exception in the making of automobile rates, yet I believe they are of sufficient interest to warrant a brief discussion.

The Massachusetts Compulsory Motor Vehicle Insurance Law, which became effective in the year 1927, applies to the operation, maintenance, control or use of motor vehicles upon the "ways" of the Commonwealth. Rates for liability insurance under that statute are fixed by the Commissioner of Insurance.

It accordingly has been necessary for the purchaser of automobile liability insurance, who desired to buy such insurance to cover anywhere in the United States and Canada, to purchase also so-called Extra-Territorial coverage, the rates for which are not fixed by the Commissioner. Thus two sets of rates have been necessary in Massachusetts from 1927 to 1935 inclusive.

This year the Massachusetts Legislature has enacted a law, applicable in 1936, excluding from coverage under the compulsory statute, a "guest occupant," defined as—

> any person, other than an employee of the owner or registrant of a motor vehicle or of a person responsible for its operation with the owner's or registrant's express or implied consent, being in or upon, entering or leaving the same, except a passenger for hire in the case of a motor vehicle registered as a taxicab or otherwise for carrying passengers for hire.

At first reading this sounded fairly simple, although obviously indicating the necessity for another set of rates. It immediately became apparent, however, that if guest occupant coverage was to be segregated in the case of a motor vehicle "on the ways," a similar segregation would be required in the case of a motor vehicle "off the ways." Thus both the Statutory and the Extra-Territorial coverage are broken into two parts, and four sets of rates are necessary.

I say "sets" of rates advisedly, for while private passenger cars are the most important type, guest occupants may be found not only in other types of automobiles but even in connection with motorcycles. Hence guest-occupant rates are needed for all the classes for which statutory rates are fixed, except in the case of public automobiles registered for carrying passengers for hire.

Fortunately the Massachusetts Automobile Liability Statistical Plan has provided for reporting "type-of-claimant" data, commencing with the year 1933.

Accordingly, the Massachusetts Automobile Bureau had two years' experience available which, while far from being conclusive, was a lot better than nothing. I was interested in the figures pertaining to guest-occupant losses presented by Mr. Pinney, and noted that they were quite different from the Massachusetts figures.

For private passenger cars for the two years 1933 and 1934, out of total losses incurred of $26,117,057, guest-occupant losses were $2,198,929 or approximately 8.4 per cent in Massachusetts.

With much smaller exposures the percentages of the guest-occupant losses in other classes were—

Commercial Cars	4.8 per cent
Driverless Cars	20.5 per cent
Motorcycles	18.9 per cent

While admittedly these figures were not of sufficient volume to justify much credibility, they were utilized in the determination of rates for guest-occupant coverage in the various classes.

We found that not only the rates but a considerable part of the rules of the Massachusetts Automobile Manual had to be revised, and also that a new policy form had to be prepared.

The 1936 policy will provide coverage for bodily injury liability-statutory, to which may be added one or more of the following divisions of the "Supplementary-to-Statutory" coverage.

Division 1. Guest Occupant upon the Ways of Massachusetts. A person who is a guest occupant of the motor vehicle while upon the ways of the Commonwealth of Massachusetts.

Division 2. Guest Occupant off the Ways of Massachusetts. A person who is a guest occupant of the motor vehicle while off the ways of the Commonwealth of Massachusetts.

Division 3. Not Guest Occupant. A person who is not a guest occupant of the motor vehicle either while upon or off the ways of the Commonwealth of Massachusetts.

The new Massachusetts Automobile Manual, which will be distributed in a few days, will contain a new section relating to the supplementary coverages.

The rate sheets will show three sets of rates for the respective supplementary coverages, under abbreviated captions.

In the case of public automobiles registered for carrying passengers for hire, only the statutory-coverage rate, and a single supplementary-coverage rate are needed, as a passenger for hire is not a guest occupant, as defined.

It is important that both the seller and the purchaser of the supplementary coverages in Massachusetts should clearly understand the application of the liability limits.

All rates and minimum premiums for supplementary coverages are based upon limits of $5,000 each person and, subject to that limit for each person, $10,000 each accident. If one or more supplementary coverages, based upon such limits, are provided, the limits applicable to such supplementary coverages are not in addition to the limits applicable to statutory coverage but for the combined statutory and supplementary coverages the total limits are $5,000 each person and, subject to that limit for each person, $10,000 each accident.

The new Commissioner of Insurance in Massachusetts, Hon. Francis J. DeCelles, is showing a great interest in automobile insurance. This meeting gives me an opportunity to tell you—the company men interested in the actuarial and statistical problems of the business—some of the things the Commissioner has in mind.

He has intimated that he will want—

(a) An analysis of cases in which the insurance company is entitled to reimbursement (whether such right is exercised or not);
(b) A separate reporting of all claims known as "loading and unloading";
(c) Details pertaining to allocated claim expense, and
(d) A reporting of statutory premiums, incurred losses, and loss ratio for each company within each town.

The Commissioner has also indicated that he is interested in automobile fleet rating. He has asked the Massachusetts Automobile Bureau to study the subject, and the Bureau has established a sub-committee for the purpose.

This subject is difficult enough in itself, but when you stop to consider the exceptional conditions in Massachusetts, where we shall have four coverages in various combinations, and in respect of which the Commissioner of Insurance fixes and establishes the rates for some but not for others, it is apparent that the preparation of an equitable and satisfactory rating plan for fleets is not too simple a task.

If I have presumed to take up your valuable time, over what may seem to be purely local problems, I hope, as I said at the beginning, that it has been justified on the ground that full knowledge of any subject requires consideration of the exceptions as well as the general principles.

PRESIDENT GREENE:

In talking to you today, I referred to the possibility of issuing automobile liability coverage for less than the customary minimum limits of $5,000/$10,000. At least one of the speakers has expressed some skepticism as to the practicability of such a plan. As a matter of fact, on the Pacific Coast such a low-limit form of coverage is now being given a trial. A few months ago I had the pleasure of talking to a gentleman, who, I believe, originated this cover. In his state, one of the Northwestern Pacific states, only approximately 20 per cent of all cars were insured. He had his company make an investigation of the percentage of cars involved in serious accidents that were insured, and he concluded that whereas 80 per cent of all cars were uninsured, perhaps 60 per cent of the cars that had accidents were covered by insurance. (The percentages which I have given are not accurate, and are not necessarily those which were quoted to me last spring, but they serve to convey the approximate general situation.) That seemed to mean that there was a great number of uninsured cars in the state that would be good risks, and this conclusion suggested the so-called "one-five-one" policy which is a direct bid for this hitherto uninsured business. "One-five-one" means liability limits of $1,000/$5,000, and a property damage limit of $1,000. This cover is being sold at a considerable reduction from the aggregate premium charge for the usual minimum combination of $5,000/$10,000 for public liability and $5,000 for

property damage; and the particular company to which I am referring seems to feel that the reduction in rates is justified. In this connection, it has been pointed out that if the limit per person is $1,000 your situation as respects the settlement of claims is much easier than the customary one. We all know the part that the plaintiff's attorney plays in the settlement of liability cases. Not many of the "big shot" attorneys will bother with claims where the top limit is $1,000. Instead of concealing the limits the idea is to show the policy to the claims attorney. After he has inspected the policy the attorney for the claimant is frequently willing to accept considerably less than the policy limit if a prompt settlement is made, an attitude far different from that which prevails where there is an opportunity to "go gunning" for $5,000 or more. This new type of coverage may prove to be of real value to the business, and for this reason, I feel that its progress should be watched closely.

I entirely agree with the thought that where you have a deductible form of policy its use should be limited to those who are financially responsible, and, if you will remember, I confined my suggestion of this morning to the well-to-do assured.

REVIEWS OF PUBLICATIONS

CLARENCE A. KULP, BOOK REVIEW EDITOR

The Control of Competition in Fire Insurance. William H. Wandel. Art Printing Company, Lancaster, Pa., 1935. Pp. 161.

When, as has been recently reported, the president of the National Association of Insurance Agents declares that, unless current problems are met courageously and promptly, the fire and casualty business is on the verge of the greatest commission and rate war in history, a careful disinterested study of past efforts to control such situations should be of great interest to all engaged in the business.

Such a study is presented in the little book before us, a doctoral thesis written at Columbia University. The author describes it as a study in business self-government. He has carefully delimited his field. He has not attempted to evaluate underwriting associations as a whole, but to consider the effectiveness of the efforts of associations of stock fire insurance underwriters to control rates and commissions. He has likewise omitted from consideration state efforts at control, though perforce he has had to consider the effect of state activity or interference as it influenced or interfered with the efforts of the associations.

After an introductory chapter dealing with the nature of competition in insurance in which are pointed out the two major aspects of rate-cutting and the payment of excess commissions, and the adverse effect of these on the public and the consequent need of control, the author gives an historical sketch of underwriters' associations in fire insurance.

He then proceeds to a consideration in the third chapter of the effort at control of rates. He observes that initially rates were made by local agents and that the first efforts at control were through local associations. He calls attention to the fact that such associations were formed as early as 1819, when the Salamander Society was formed in New York to control rates in that city, but he does not give much attention to such organizations, confining his attention to efforts at control over larger areas, national and sectional. He notes that while some sectional organizations were formed before 1877, when the National Board of Fire

Underwriters gave up the effort to control rates and commissions, and there was a short revival of the effort at national control in the early eighties by the United Fire Underwriters in America, the history of the rate-control movement breaks basically into three periods. The first, during which the effort was at national control, ended in 1877; the second, when the effort was at sectional control, ran from then until 1931 (and even to the present day); the third from the formation of the Insurance Executives Association in 1931 through which details are left to sectional organizations but an effort is made again to bring to bear a national viewpoint, mainly on the commission problem. Dr. Wandel sees as the greatest difficulty in rate control "the lack of a sound basis of rates that could be applied to the individual risk," only partly remedied by schedule rating, due to the absence of statistical justification of its elements.

He then passes to consideration of the efforts at control of commissions. Noting that the problem is inextricably bound up with that of rate control he suggests that it is essentially different in certain respects.

> There is no determinable proper basis for the compensation of agents, and the bidding for agents is between the companies without the benefit of intermediary bodies. Thus the power to control rests solely with the companies themselves and upon their own honor or the effectiveness of whatever devices are employed to enforce the rules.
>
> The importance of the commission problem is somewhat due to its dynamic character, to the fact that the agency system as such has been and is growing. It is not only that the problem is not transient or is ever-present as a fixed condition; it is that it has been for some years an increasingly pressing one. There is as yet no noticeable decline in the agency forces nor in acquisition costs.

That the last statement is mild indeed is demonstrated by citation of the ratio of net commissions to premiums from 1860 to 1930 showing a continuous increase from 11.32% to 26.75%.

The remainder of this chapter is a carefully documented account of the persistent adoption, first by the National Board and later by sectional organizations, of resolutions and rules to limit commissions which were as persistently broken. The principal difficulties are pointed out as: (1) non-board competition, (2) lack of

effective enforceable penalties, (3) "compensation other than agreed, paid to agents indirectly for the purpose of circumventing the rules," (4) definition and classification of agents, (5) contingent and graded commissions.

Dr. Wandel notes that "the story of the control of commissions by sectional associations which followed the National Board and the United Fire Underwriters is one of *a struggle which continues to date.*" [Italics mine] May we hope for fire and casualty insurance that some writer of the future will not have to make the same dismal comment!

In the fifth chapter the author discusses Problems of Control "not as culled from elaborate analysis," but "as they have in the past been found to exist." The chapter does not make pleasant reading for one who believes business should be able to govern itself.

The next chapter on Relationship to the State is somewhat of an antidote for it makes clear that mistaken state policies certainly have aggravated the problem and that fortunately our state authorities are slowly seeing the light and changing front.

Throughout, this historical part of the study is well documented by citations of the records of meetings of various associations and other contemporaneous statements of those closely in touch with the problem and the efforts made to control.

In the last chapter, Conclusions, the author first lists what he considers the successes and the failures of the associations and the place of state action. Some of his conclusions which seem sound to the undersigned should furnish food, unpalatable though it may be, for the most careful thought of those most closely concerned.

As successes he lists:

(1) The triumph of the idea of association, uniformity and control.
(2) The transfer of power to make rates from the local agents to the companies.

In the other column:

(1) Failure to secure affiliation of all companies, leaving outside companies having sufficient power to disturb and to a large extent negate the efforts of the associations.
(2) The continued existence of the problem of discipline.
(3) The unblocked paths to the circumvention of the rules.

Among the conclusions likely to raise most controversy are:

> The most obvious way to meet those difficulties in the control of rates and commissions created by a system of middle-men is to have the companies deal direct with their assureds. Some progress along this line has been made by the Interstate Underwriters Board and by a rather slow and feeble extension of company branch offices. The most serious threat to the agency system does not lie in the action of stock company but in the existence of mutual insurance. This threat makes it absolutely mandatory for the stock fire insurance to reduce their expenses. And it is upon the agents that the chief burden of the cut must fall.
>
> If the state sets up some regulatory machinery to assure that the acquisition cost rules of the various stock company organizations are enforced, such action will undoubtedly strengthen the stock companies to the extent that it reduces expense items. Such reductions may only serve to delay the day when the real issue between stock and mutual insurance, between the agency system and direct writing, must be settled. It may, however, also so stabilize the stock company expenses as to encourage efforts to reduce them and gradually eliminate the features of the agency system that make competition with the mutuals so difficult.

A. H. MOWBRAY.

Creating Safer Communities. An Outline of Procedure for a Community Traffic Safety Program and Survey. National Bureau of Casualty and Surety Underwriters, New York City. Pamphlet, pp. 25. 1935 (?).

This booklet of 23 pages might well be entitled A Handbook for Local Committees on Traffic Safety, since it describes in detail just what to do to organize a safety campaign in any city. It is an ideal handbook for the use of any individual or group who becomes aroused over the number of automobile accidents in his city and wants to do something about it.

The plan set forth is based on the experience of the National Bureau of Casualty and Surety Underwriters in assisting in organizing such campaigns. The pamphlet takes up in detail every step in a successful plan, beginning with the preliminary meeting of a number of safety-minded individuals, the choice of chairman and secretary, the securing of support of city officials and the formation of a traffic survey committee. It also itemizes the duties of each

of the five committees to be set up: accident facts, law enforcement, engineering, safety education and traffic regulations.

The authors evidently feel that it is of great importance to picture the results of the traffic survey in such a way as to convey the story to the average citizen easily. This pamphlet goes into great detail in picturing with charts and graphs the committee's findings.

A. L. KIRKPATRICK.

The Employment Exchange Service of Great Britain. T. S. Chegwidden and G. Myrddin-Evans. Industrial Relations Counsellors, New York, 1934. Pp. xiv, 310.

Administration of Placement and Unemployment Insurance in Germany. Oscar Weigert. Industrial Relations Counsellors, New York, 1934. Pp. xiv, 241.

If the reviewer owes an humble apology to the authors, publishers and readers for the unseemly delay of more than a year in presenting this review, he may at least fall back upon this plausible defense: even under ordinary circumstances a belated review may be welcome if it helps to revive interest in a book which otherwise might have been forgotten. But in the case of these books the neglect and delay are almost providential. What would have been merely two volumes of academic interest, volumes in a series to decorate the appropriate shelf, have by this time become, if not necessarily two best sellers, books most important to the profession which will be called upon to organize and operate some 49 independent unemployment insurance systems and placement organizations in that many states. While undoubtedly some more energetic, more enterprising and perhaps more fortunate executives will want to go to Europe to gain the necessary experience at first hand, the two books, like motion picture travelogues, offer to many the much cheaper and easier way of learning by vicarious experience.

The significance of the difference between the date of publication of both books and the date of this review is of course that in the meantime the federal Social Insurance Act has been passed by the U. S. Congress and signed by the President. As yet there are probably very few actuaries or economists, or members of any other profession who have made a very thorough study of that Act and can truthfully say that they understand it thoroughly (and that

goes for the majority of the members of both houses of Congress who voted on the Act). But the main provisions in reference to unemployment are probably known. The government establishes an excise tax levied on payroll (beginning with 1% in 1936 and up to 3% in 1938 and following years), payable by all employers of 8 or more with the exception of employers of agricultural labor, domestic service, national, state, and local government service and a few other groups. Against this excise tax the employer may take credit for payment of payroll levies made by virtue of any state unemployment insurance law, up to 90 per cent of the amount of the federal tax. Another provision demands that the money paid into the state treasury on account of state unemployment insurance systems must be turned over to the federal treasury, which will be drawn upon for payment of benefits under these selfsame state insurance laws. And the purpose of this complicated system is to concentrate into the hands of the federal treasury the gigantic funds and reserves which the authors of the legislation expect will accumulate, and thus protect the funds from unwise investment, and the security markets and the national financial system from the possible threat of sudden flooding of the markets with securities pressing for sale.

Then of course we are confronted with the inevitable result of our complicated and involved political and constitutional system, that we may have, in fact, are sure to have, and already have a great variety of different state unemployment systems, different in the financial provisions, benefit schedule and administrative organization. There is comparatively little in the master act to enforce uniformity and while it is not impossible that the federal administrative authorities will endeavor to establish greater uniformity both of the laws and their administration, either by legislative interpretation of the federal act or by administrative regulations, or finally by moral suasion and pressure on state legislatures when the acts are being adopted and on state administrative officials when appointed—while all that is possible it nevertheless remains fairly certain that a great deal both of legislative variety and administrative variety will remain.

Now whoever has chosen or been forced to look into the operation of European unemployment insurance systems a little more fully than is possible merely through reading of literature pro and

con, to study the actual *modus operandi* of the systems, knows that in the very nature of things the administration of a compulsory unemployment act is a very complicated administrative task, requiring a large staff, the highest degree of accuracy, comprehensive records, etc. As a matter of fact, already, as employers are somewhat slowly becoming aware of this, the attacks upon the structure of unemployment insurance and social insurance in general, which emanate from Chambers of Commerce and political opponents of the New Deal, are making the most of this complexity; accounting companies are frightening employers with the bugaboo of excessively complicated and expensive records and reports; and even administrative bodies as they begin to face their duties are caught with the same panicky fear.

One might of course if one wanted to remain objective, point out that the detailed records and forms of unemployment or old age insurance are perhaps no more complicated, or need not be, than those required by the tens of millions of individual records of weekly payments of nickels and dimes by half of the American people for their industrial life policies, and that perhaps the machinery of the State of New York and of the federal government should be as capable of handling millions of records as are the Metropolitan and the Prudential or the office of the British unemployment insurance system at Kew Gardens. Be that as it may, the importance of proper preparation for the administrative task is obvious if we are to avoid too much confusion in the beginning, or as many changes in the administrative machinery as we had to witness during less than three years of our system of federal relief.

All of which emphasizes the importance of these two studies and perhaps of similar ones to follow dealing with other countries as well. Of course they must not be read as would be a book of instructions to be blindly followed, for many differences exist between European conditions and ours. Nor should it be assumed that either the British or the German system has worked with infallible perfection. The writer of these lines has come by his faith in social insurance *via* a study of European samples and precedents; he has tried for nearly 30 years to preach the necessity of teaching the American people the results of that European experience. Yet he would be the last to insist that we could or

should blindly follow either foreign standards of legislation or foreign methods of administration. Both the British and the German systems have much to teach us; but perhaps the negative lessons, how not to do things, may be as useful and important as the positive ones. Both books must be studied, not copied.

As indicated in the bibliographical note, both volumes have been published by the organization which during the last 10 years has done more for the thorough study of unemployment insurance than any other group or body in the United States. The signature of Bryce M. Stewart, as director of research for the organization is sufficient guarantee to every American student of the scientific and objective and dispassionate character of the studies. Of course the advocate and proselyte might have grown impatient during some of these 10 years, because in addition to this scientific spirit Industrial Relations Counsellors did not show a little more enthusiasm for an idea. But that after all is so much water over the dam and certainly during the last 18 months, as the Social Security study and legislative proposals were going through the mills, the energetic participation of Dr. Stewart in these deliberations and his courage in defense of his convictions have won for him the admiration of all initiates.

Somewhat deviating from the earlier policies of that research organization these books are *not* the work of American students gone to the foreign country to make a careful study for a year or two and reporting their findings as thoroughly and accurately as have many authors of books published by the same body in earlier years. Both have been entrusted to thoroughly competent foreign authors; not only competent but in addition authoritative and even semi-official.

Mr. Chegwidden has been connected with the British Labor Department for over 15 years and for 7 years has been in charge of the administration of the Labour Exchange Act.

Mr. Myrddin-Evans, with an equally long period of service in several Government Departments, is responsible for general questions of employment and unemployment and decasualization.

Dr. Oscar Weigert, the author of the volume dealing with Germany, is as far as we know no longer connected with the Government service, probably for reasons which have nothing to do with competency. He had formerly been connected with the German

Ministry of Labor for 15 years and as a matter of fact is more than any one else responsible both for the German unemployment insurance law and the present system of employment offices. It would be rather difficult to find people more familiar with all the practical and theoretical technicalities of the administration of these acts than those Mr. Stewart has selected.

With all that and after a most careful examination of these two monographs, the question of the comparative value of studies of this character by outsiders and insiders is not definitely settled. There is no question that the latter are in a much better position to give a painstakingly accurate description of all the minutiae, run much less the chance of detailed inaccuracies. On the other hand it is equally obvious that insiders, particularly so long as they remain insiders, are, in face of the very best intentions, unconsciously at least and sometimes even consciously unable to give an impartial critical appraisal of the institutions and methods and processes, and this critical analysis is at least as important as mere accuracy of description; that public officials the world over, particularly permanent civil servants, acquire a certain handicap for critical appraisal anyway; and finally in order to make a foreign institution intelligible to an American reader it is necessary to understand the political structure both of the foreign countries as well as of the United States. And few foreign writers possess this latter knowledge. Thus the study of a foreign institution by a foreign scholar needs to be translated for the benefit of an American reader as much as if it had been written in a foreign language.

The comprehensive and thorough character of both books is clearly indicated in their tables of contents. The British study begins with a very thorough statistical review of British population, occupation and employment data in the 4 chapters of Part I entitled, *The Problem.* Part II in 7 chapters deals with *Placing and Employment Work of the Exchanges:* Historical Development of the Employment Exchange Service, Present Organization of the Service and Method of Financing, General Placing Procedure, Special Classes of Applicants and Vacancies, Special Measures for Encouraging the Mobility of Labor, Decasualization and Regularization of Employment, and Review of Placing Work. Finally the third and last part goes beyond the mere administration of placement work into the procedure governing employment insur-

ance as such. The term "employment exchanges" may to a foreign observer somewhat obscure the fundamental fact that these exchanges at the same time are unemployment insurance offices and the insurance procedure is at least of equal importance with placement procedure. Thus we have here in a very detailed description: employment books and contributions, making a claim, proof of unemployment, rating, computation and payment of benefit and transitional payments and an analysis of cases in which statutory conditions for receipt of benefit are not satisfied. The book concludes with a number of very comprehensive appendices giving detailed statistical tables of the work both of placement and insurance, long lists of forms, an analysis of which conveys the interesting information that no less than 138 forms are being used in the work of placement and insurance and even a description of the more important of such forms. There is a very comprehensive index.

It would hardly seem necessary to point out how useful such detailed descriptions must be at this time when we are in the beginning of the process of organization of our unemployment insurance and employment exchange system. Obviously blind imitation of English forms of procedure would be a mistake or even impossible. There are differences in the size of the country, political forms of organization and particularly in the very basis of our system of federal and state cooperative unemployment insurance. The systems established by the Social Security Act differ so strongly from the European that nilly-willy we shall be forced to fall back upon our own resources of inventiveness to provide forms and statistics and blanks and so on and so forth. Nevertheless the book is full of practical suggestions which no one would want to discard without at least some effort at utilizing the lessons of European experience.

Take for instance the question of the probable size of the necessary personnel for the whole national scheme. When the reviewer was engaged in calculating an actuarial basis for Ohio legislation the most difficult problem was to make some sort of a reasonable estimate of the size of the administrative machine and its cost. We learn from the British study that in Great Britain 420 exchanges and 747 branch offices are necessary. On this basis considering only the difference in population and not the difference in

geographic distances we would need in the United States some 1,250 exchanges and 2,250 branch offices or some 3,500 offices altogether. That offers at least some basis for computation as to the necessary personnel.

In the discussions of the whole question of unemployment insurance and specifically of the efficacy of public employment exchanges and the combination between the services of insurance and placement which began in this country some 2 or 3 years ago and will go on with increasing intensity for many years to come, many problems have already presented themselves to which we barely gave consideration while our federal act was rushed through Congress. There are such questions as: proper methods of auditing; records for individual employers and particularly for individual employees, particularly if the right of benefit should be tied up with a specified length of employment; the best methods of administering the benefit without excessive red tape or loss of time; methods of testing the fact of unemployment to prevent fraud, and what is even more difficult control of the bona fide efforts of the beneficiary to seek employment; the combination of insurance with placement; methods of inducing employers to utilize public employment exchanges in lieu of private or industrial exchanges or the will and caprice of the foreman; and so on and so forth. All those problems must necessarily come up. One may trust to American administrative ingenuity to provide methods of handling them but it is equally certain that in the beginning at least a great deal of confusion will prevail and that confusion may be reduced somewhat by study of sources such as those published by Industrial Relations Counsellors. How important it is to be prepared one illustration will suffice to indicate. In Ohio we are now confronted with the strong recommendation of a government (Sherrill) survey made at the request of the Governor, that unless the federal unemployment insurance act is declared constitutional, existing employment exchanges under the Wagner-Peyster Act be abolished altogether because employers do not need them as they have long waiting lists of labor laid off and expecting impatiently to return. So grossly an anti-social interpretation of the functions of employment exchanges would be unthinkable in Europe; it would certainly be unthinkable here after experience with unemployment insurance.

While the usefulness of the British book could not be questioned for a moment its limitations may be frankly stated. It would be idle to look through it for a critical appraisal of the work of the exchanges as well as of the insurance system in Great Britain. Even so enthusiastic a follower of European precedents as the writer of these lines is assumed to be would not want to insist upon the infallibility of the British system. No system of social legislation and certainly no system of unemployment insurance can work without friction. The British employment exchange system has frequently been charged with inefficiency, with failure to impress itself upon the employer, with placement of only a part of the unemployed but it would be idle to look for a critical analysis of those problems in a practically official statement by two important executives of the Labour Department. And finally if one may ever allow himself to criticize a book for what it does not contain as well as for what it does, it may be pointed out that there is at least one very serious gap, a gap of particular importance to the actuary. There is no discussion at all of the entire actuarial problem and background of unemployment insurance, such as: the original methods used in determining the rates of dues and benefits, the reasons for the inadequacy, the comparative advantages of fixed rates as against a certain latitude of rates to be regulated by administrative order rather than by law, the question of variation in rates by industry or by establishment—all those problems which at present are so much disturbing the American student and actuary and employer because of the controversy between the Ohio and Wisconsin plans. It is true that these problems have never become as acute in England as they seem to be in this country now but there has been some discussion of those problems and the whole field has remained untouched.

By and large Dr. Weigert's study of the situation in Germany follows, at least in its table of contents, the same plan. Presumably that was the outline presented to the foreign authors by the American editors. The book is divided into 4 parts and the sequence and headings of those parts follow rather closely those of the British study. Part I, Chapter I, deals with The General Features of the Labor Market. Part II, *Organization of the Public Employment Service,* discusses in 7 chapters the development of the public employment service, the organizations and functions

of the service organs of self-government, employment service statistics, personnel of the service, employment office premises and cost of financing the service. Part III deals with Placement Activities of the Public Employment Service: Placement Procedure, Placement Service for Special Groups, Vocational Guidance, Relations with other Institutions, Special Problems. A separate chapter is devoted to the changes in the employment service from March, 1933 to September, 1934, that is, the first half of the Hitler regime, and finally there is a chapter of Summary and Appraisal. The fourth and last part dealing with administration of unemployment insurance unfortunately is much too brief to present a comprehensive discussion. The 4 chapters discuss the establishment of right to benefit, the payment of unemployment insurance benefits, the collection and administration of contributions and unemployment statistics. The appendix of statistics and forms is not quite as comprehensive as that of the British study. Of course one must realize that the entire experience of Germany with unemployment insurance has been much briefer than that of England. Beginning in 1927 and precipitated into a deep depression, and substantially modified in 1933, it may claim only 5 or 6 years of experience as against a quarter of a century in Great Britain. Perhaps for this reason the German study demonstrates less of the expected Teutonic love for exactness and detail but on the other hand Dr. Weigert's work does show the equally characteristic German custom of looking deeply into fundamental principles and the philosophy beyond mere forms and procedures. "Experience," says Dr. Weigert, "has indicated that there is little justification for the fear common in Germany, when the 1927 law went into effect, that the granting of benefits for long periods would impair willingness to work." An observation of such fundamental importance probably goes far beyond what the British civil servants would undertake either to assert or to deny.

Whether in philosophic principles as well as in details of clerical procedure and mechanical arrangement we shall be willing to be guided entirely by foreign experience may be doubted. Probably we shall have to learn our own lessons by experience, repeat many of the old mistakes and make many new ones before our variegated system of federal and state unemployment insurance and a nation-wide chain of employment exchanges with 48 varie-

ties of legislative civil service and civil service procedure will work at least as smoothly as has the British system. But in the stress and strain of adjustment, complicated by the unusual economic environment under which our unemployment insurance has been adopted, greater familiarity with foreign details as well as principles will be of very great assistance.

All of this provided, however, that the administration of the law is put in the hands of persons who are able to profit by the experience of others, who have an open mind to learn, to imitate if necessary; that the administration will not be turned over to political henchmen whose only qualification has been party service. That there is the latter danger no one would deny. Already that may be noticed in the kind of appointments made—no matter where. It is hardly necessary to make these charges more specific. So long as membership in party committees will be considered sufficient preparation for administration of very complicated measures of social and labor legislation no books will help. But that is of course quite another story.

I. M. RUBINOW.

Inflation. E. C. Harwood and Donald G. Ferguson. American Institute for Economic Research, Cambridge, 1935. Pp. 64.

This booklet is presented as a series of articles under the following headings:

What is Inflation?
Varieties of Inflation and Their Consequences
The Story of Inflation in Germany
Inflation and Devaluation in France
America's Experiences with Inflation
An Index of Inflation

The first article lists the forms that purchasing power takes and states that the function of a commercial banking system is to place in circulation purchasing power necessary to bring to market goods already produced but that bankers have centered attention on the adequacy of collateral for loans and have come to disregard the limitations on volume of loans that would be consistent with the purpose of a commercial bank. This leads up to the definition:

> We shall therefore define inflation as the condition arising when purchasing power (currency or credit) is made avail-

able to the public at a faster rate than goods are made and brought to market.

In the second article different types of inflation are considered. The "printing press" method with the consequent flight from the currency is described only briefly. Credit inflation through excess bank reserves is given more attention with an illustration showing how a large expansion of purchasing power is made possible. If the banks could buy government bonds only to the extent of new savings of depositors no tendency toward inflation would be involved. But referring to the pressure upon the banks of this country to purchase government bonds in order to finance national undertakings, the author says:

> Under present conditions, there are virtually no limits to the expansion which may be induced by this funding of Treasury deficits. . . . By our Federal Reserve system we have so increased the elasticity of the country's money-credit system as to lengthen greatly the rope of private credit inflation with which we are wont to hang ourselves. . . . For all practical purposes, the restrictions at present imposed on forced government inflation, because of existing gold reserves and present legal requirements, are negligible. The limits are so far removed that "the sky's the limit."

With reference to the present policy of governmental purchase of silver it is stated that its inflationary tendency is due not to the large seigniorage charge but rather to the fact that these purchases are being made not with savings but rather with new purchasing power created for the purpose.

The next 3 articles review briefly the experience with inflation in Germany, France and the United States. That of France after the World War is presented as being of most interest to this country because of likenesses to developments now taking place here. The reconstruction efforts in France after the war were similar to our public works program:

> In the case of France, there was an insistent demand for large sums to meet the cost of reconstructing devastated areas. These expenses were financed through the banks by the process of selling government securities to meet continuing government deficits. . . . The method of creating inflation, namely, via government deficits absorbed by the banking system, is precisely the method being followed today in the United States.

Inflations in the United States are reviewed under the headings:

Continental Currency Inflation
Wildcat Banking
Civil War Greenbacks
Liberty Bond Inflation
New Era Credit Inflation

With reference to the "New Era Credit Inflation" the open market policy of the Federal Reserve Board is briefly reviewed after the following statement:

> It is seen therefore that a necessary prerequisite to the striking abnormalities of the New Era was the availability of bank credit on an enormous scale at low rates. How was it that so much easy money was available? The answer is to be found in Federal Reserve policy during those years.

As to the social effect of this disturbance, the following is significant:

> The younger generation during such times sees the preceptions expounded by their fathers violated with impunity, and from this deduces that all the wisdom of the past is so much "bunk." Customs which have developed through the years are tossed aside, even though some of them may have real value, in the rush to sweep away the cobwebs of old fogyism and clear the path of progress toward a "new era."

Finally, after discussing a proposed index to detect inflation, the author closes with a statement which, although not new, deserves most careful consideration:

> The principal danger which lies ahead is not a mere matter of the direct inflationary effects to be expected from the existing holdings of Government securities. The difficulty lies in the fact that, in order to preserve their position, the banks will find it necessary to support Government credit. Maintenance of the market value of these vast holdings has become essential to the banking system as well as to the Federal Government. Consequently, it is fairly certain that Government deficits can be financed by offering bonds to the banking system. This process can be carried on into the indefinite future, and the proceeds of these sales, in the form of demand deposits subject to check by the United States Treasury, can be forced out into the channels of business with inevitable inflationary effects. This is precisely the process which was followed by France for seven years, until the people of the country forced politicians to abandon that too easy solution of their difficulties. It seems not improb-

able that we are to follow a somewhat similar course; and, if that be the case, two practical conclusions are justified. The first is that a considerable degree of inflation and in the end further devaluation will result; and the second is that dissemination of knowledge along these lines and a more general understanding of the course of events is the only and best protection against carrying the process to disastrous extremes.

RAINARD B. ROBBINS.

Insurance or Dole? The Adjustment of Unemployment Insurance to Economic and Social Facts in Great Britain. E. Wight Bakke. Institute of Human Relations. Yale University Press, New Haven, 1935. Pp. xiii, 280.

The Social Security Act, signed by the President on August 14th, is now law. Among its major provisions is one designed, through the allowance of credits against a special federal tax to be levied on employers of 8 or more, to stimulate the enactment of state unemployment compensation laws. Sensing perhaps the possibility of some such situation as this Dr. Bakke, as far back as 1930, appears to have made it his special business to familiarize himself not merely with the technical ramifications but also with the entire economic, sociological and historical background of the system of unemployment insurance initiated in Great Britain in 1911, and developed over the ensuing 23 years.

This is not the author's first book dealing with British unemployment. In 1931 he spent eight months in England on a Sterling fellowship from Yale University, in an attempt "to discover the way in which unemployment insurance fitted into the whole cultural world of the unemployed and its effect upon the willingness and ability of workers to support themselves." The result was a book entitled *The Unemployed Man,* in the preface to which Sir H. Llewellyn Smith, co-author with Sir William Beveridge of the original British law, observes:

> It is not primarily a history, description or criticism of British legislation and administration in relation to unemployment, though light is incidentally thrown on all these topics. It is rather an attempt to make the general reader understand how the system looks to those who are most directly concerned, and for whose benefit it has been established.

In his later volume now under review Dr. Bakke has attempted to supplement his previous work with an "analysis and criticism of the British system from the point of view of its adjustment to social and economic reality," an analysis "directed at those aspects of the legislation for and administration of unemployment insurance which appear most relevant to our American situation."

The book contains an introduction, 5 chapters, and a number of useful appendices. The introduction attempts, ably as far as it goes, the somewhat formidable task of setting social insurance in its proper relation to other types of insurance and other methods of meeting the hazards of life. We could have wished however that it had given some attention to those criteria for determining the insurability or non-insurability of a risk, reference to which has brought many actuaries to the conclusion that unemployment is uninsurable in any strict sense of the word "insurance." In regard to the statement on page 9 that "the allocation of the cost burden does not change the actuarial basis on which the cost is computed," we believe most actuaries would take the view that the will not to file unnecessary claims, as well as to do everything possible to prevent occurrence of the risk insured against, depends to an appreciable extent on the way in which the pockets of those who claim, or of others who have it in their power to do something to minimize claims, are affected.

In his first 3 chapters the writer deals with the important matter of defining and testing genuine unemployment on which the title to benefit rests; he traces the tendency for benefits to increase up to a "level which the public conscience sets as the amount necessary for human existence," this being "the minimum level at which unemployment benefit rates can be successfully defended against demands for an increase or for supplementary assistance;" he outlines the "drift away" from the concept of a strictly defined and limited insurance scheme, designed merely as a tideover for the worker between one job and another, toward assumption by the State of increasing responsibility for the maintenance of all who are genuinely unemployed as long as their unemployment lasts; and he discusses the various "stimulants to change" behind this "drift," all of which, "with the possible exception of powerfully organized labor demands, are at work in the United States."

In Dr. Bakke's opinion the British progress "from insurance by

contract to relief by status" (to use the expression of Sir William Beveridge), or as some would say from insurance to dole was in view of the attendant circumstances inevitable. The important question for us, he claims, is whether such a progress is likewise inevitable in this country. While it would be rash to venture a dogmatic answer to this question it is nevertheless advisable to have an adequate conception of the causes and forces of change behind the British development in order to be

> . . . in a better position to judge which of these causal factors are a permanent part of the industrial system of any country and which are passing phenomena peculiar to one locality; whether the characteristics of British unemployment are the characteristics of American unemployment; whether the alternative possibilities in behavior of the British unemployed are the same as those of the American unemployed; whether the voice of labor and other interested groups in America is keyed to the same pitch, crying in the same tones, or able to make itself felt with the same force as the voice of such groups in England; whether the needs and demands of local charity organizations in America are apt to play the same part as the needs and demands of Public Assistance bodies in England.

In his fourth chapter the author goes on to consider the provision to be made for an unemployed worker who has exhausted his benefit rights under an insurance (or, as we would say, a compensation) scheme, or who never was eligible for insurance. The answer which British administrators, after wrestling with the problem for 23 eventful years, have given to this question is, he tells us, to be found in the new unemployment assistance scheme set up by the Unemployment Act of 1934, and intended as a permanent national service. While the primary emphasis of this scheme is on cash relief it is also charged with the "welfare" of the unemployed. Dr. Bakke discusses in some detail such facilities for discharging this latter obligation as have already been developed in greater or less degree in Great Britain and will be at the disposal of those who administer the scheme. They include various types of public provision for retraining or reconditioning workers, for instructing them in new occupations, for giving them physical training, provision of public works (not stressed in Great Britain as a major answer to the unemployment problem), provision for juveniles and cooperation with voluntary rehabilitation organizations, produc-

tion-for-use experiments, etc. How far the administrators of the new assistance scheme will utilize and develop these facilities remains to be determined.

The author next discusses a number of problems to which these administrators will have to give serious attention, the two most fundamental being the deep-seated repugnance to a means test and the fact that the scheme is primarily a continuation of the attempt to supply cash—a mere tool in the basic relationship of work to living—rather than to create the basic work relationship itself on which all social living is focused. Dr. Bakke is convinced that "to maintain personal stability and security and social status and social organization through useful work" is a fundamental interest of society which will assert itself in one way if not in another and that unless industry can find a way to reconcile that interest with the profit motive as we know it industrial organization on the basis of private profit will be severely modified. The alternatives are for government to exercise such control over industry as will force it to absorb reserves of labor which cannot be taken care of by a restricted insurance scheme or else to sponsor production units in which the unemployed will be producing the goods they need for their own use. "The challenge to industry," he tells us, "is to absorb the employables or accept the competition of publicly supported enterprises which do."

In his final chapter Dr. Bakke reemphasizes certain conclusions from British experience which bear on the chief questions facing us in this country. To risk repeating ourselves, these questions concern the obligation of a nation to its unemployed; the definition, recognition and testing of genuine unemployment; satisfactory provision for the genuinely unemployed who fail to qualify for strictly limited benefits; provisions advisable for integrating all methods of relieving distress due to unemployment; standards for testing the amount of benefit; measures necessary for protecting labor standards; whether experience indicates insurance, compensation or relief (terms which have developed definite meanings with respect to provision against the hazards of unemployment) as the most realistic adjustment to the facts of unemployment; and finally the social conditions and forces operating to change the provisions of an established plan.

One does not always have to agree with the author to appreciate

the value of his contribution to our literature in a field where good American writing has so far been none too abundant, largely no doubt because of the widespread pre-depression belief that in her doctrine of high wages America had found the talisman that would rid her of depression and make nationwide provision against the risk of unemployment superfluous. His analysis of the British situation is guarded and moderate in its conclusions and full of penetrating observations. He has also raised a number of very pertinent questions for those who will be responsible for drafting and administering our unemployment laws. He presents an intricate subject clearly, and while we note a tendency to repetition through restating the same argument in different words or from a different angle, this after all may be a help rather than a hindrance to the uninitiated reader. *Insurance or Dole?* can be confidently recommended to the rapidly multiplying list of students on this side of the Atlantic who are giving serious thought to our employment problem.

JAMES D. CRAIG.

Life Insurance. Fourth Edition. Joseph B. Maclean. McGraw-Hill Book Company, Inc., New York, 1935. Pp. xii, 610.

Life Insurance. Third Edition. S. S. Huebner. D. Appleton-Century Company, Inc., New York, 1935. Pp. xxv, 692.

The increasing recognition of the importance of life insurance in modern economic systems, the wider and more intelligent interest in the subject, the greater number of men and women (stimulated by the requirements of the Life Office Management Association Institute) studying it in home offices, in the field (through preparation for the designation of Chartered Life Underwriter), and in the many educational institutions offering courses in various insurance forms combine to account for large editions of standard textbooks on the business of life insurance. While this business in years of unprecedented financial change has exhibited a stability all its own enough significant adjustments in practice adapting the institution to present conditions have been introduced to warrant a considerable revision of any textbook on the subject written even within a dozen years. It is therefore perhaps something more than a coincidence that Professor Huebner's volume,

which first appeared in 1915 and was thoroughly revised in 1923, should come out in a completely revised and greatly enlarged edition in 1935, and that Mr. Maclean's volume, which first set new standards of excellence for such works in 1924, should now appear in a fourth edition.

As explained in earlier editions of Professor Huebner's work its preparation was originally undertaken at the suggestion of the National Association of Life Underwriters. It perhaps follows that much of the text is written from the point of view of the salesman. Thus much of Part I on the nature and uses of life insurance, particularly the important second chapter entitled Family and Personal Uses of Life Insurance, fairly bristles with sales arguments and has very frequent references to the author's volume *The Economics of Life Insurance,* which from an actuarial standpoint has already been reviewed with exceptional clarity by Rainard B. Robbins (*Proceedings,* Vol. XIV, p. 168.)

Part II entitled *The Science of Life Insurance* consists chiefly of the excellent chapters prepared for the earlier editions by Professor Bruce D. Mudgett. Here the intricacies involved in the determination of net and gross premiums and reserves (according to the American Experience net level premium basis exclusively) are well expounded for the layman.

Part III entitled *Special Forms of Life Insurance* covers industrial, group, fraternal and assessment insurance, with a chapter on total and permanent disability income insurance in which the basic importance of the waiver of premium clause appears to be insufficiently emphasized.

Part IV deals with the organization, management, and supervision of life insurance companies and includes two chapters devoted to the selection and treatment of risks.

The revision for the new edition of Part V covering important legal phases of life insurance was entrusted to the author's colleague, Professor George L. Amrhein, well qualified for the task by his recent preparation of *The Liberalization of the Life Insurance Contract.* Numerous other chapters, including those on selection were entrusted to another colleague in the Wharton School of Finance and Commerce.

This diversity of authorship has both advantages and disadvantages but the latter seem to me to be very largely overcome by

Professor Huebner's vigorously enthusiastic attitude toward his subject. This fervent enthusiasm for an institution whose importance in the modern social order is not even yet, he thinks, properly recognized, has been shared, one feels, by his collaborators.

It would be unfair to imply that the absence in the Index of both Overinsurance and Insurance Hazard is quite typical of the volume. Both possibilities have recognition if not elaboration in the text but the stress on each is very different from what any experienced home office underwriter would feel compelled to give. Since so much of Professor Huebner's book is built around the idea of capitalizing human values it is a bit disappointing to find no reference, even in the generous bibliography supplied for successive chapters, to the most painstaking, stimulating and illuminating book ever written on the subject, Dublin and Lotka's *The Money Value of a Man,* which seems to me invaluable alike to home office underwriters and thoughtful men in the field.

Maclean's work in previous editions has been so carefully reviewed in our actuarial publications by so many authorities from Mr. Henry Moir to Mr. John R. Larus that an attempt at extended appreciation here would be an impertinence. The author has an advantage over any academic student of the subject, no matter how painstaking his research and how great his enthusiasm, in that so many years of his life in Great Britain and the United States have been devoted to an intensive study of every technical detail of the business and the resulting mastery of actuarial theory has been supplemented by an intimate familiarity with extremely diversified home office practices. The Fourth Edition is nearly half as fat again as the substantial First, thus insuring the reader ample information concerning all significant current topics pertinent to the subject. But in broad outline the First, Second, Third and Fourth Editions are identical in a rather unusual and extremely happy sequence of chapters from the first, in which the sound actuarial basis of level premium insurance is neatly introduced, to the final succinct but thoughtful outline of the historical development of life insurance in the United States. The additional attention properly devoted in the new edition to practices in Canada, some of which make an actuary on this side of the line a bit envious, is well worth while.

None of the excellences of the First Edition, with the single

exception of the brief descriptive paragraph entitled Medical Impairment Bureau, have been lost. That one deleted paragraph speaks eloquently of the combined weight of authoritative influence which can be brought to bear by legal and medical departments, even on an author so clear in critical judgment and so fearless in expressing it as Mr. Maclean shows himself throughout his work.

When nearly 11 years ago I attempted to interest one company's agents in this remarkable text-book I wrote: "The author of a book on *Life Insurance* who is entitled to place after his name the imposing array of letters M.C., F.I.A., F.F.A., F.A.S., *and doesn't,* may fairly be expected to write an authoritative and unusual book. And in this case the reader's expectations will be fully realized. . . . . To every man who regards the selling of life insurance as a profession which he intends to practice professionally, it will prove infinitely more valuable than any amount of hints on salesmanship. A thorough understanding of the insurance he is selling can be better obtained from this book than from any other one volume yet published, while the carefully selected references following each chapter are a lure to further study." If my appeal then had been addressed to serious workers in a home office, to young men who might be considering an actuarial career or to college students who for any reason chose to take a course in life insurance, my advice would have been the same. With the attractive Fourth Edition before me I can but reiterate it with renewed emphasis.

HENRY H. JACKSON.

The Partnership Way Out. Ambrose Ryder. Harper & Bros., New York, 1935. Pp. xxi, 189.

The partnership referred to in this title is that which must exist among the human elements entering into our economic activities, if the optimum of prosperity is to be achieved. Increased cooperation is not regarded by the author as the sole answer to our problems, however, for it is his view that "collective welfare awaits the development of an economic logic that can be applied to the problems of society with the same degree of accuracy and precision that logic is applied in other fields of endeavor where correct thinking now prevails." Accordingly, he formulates and sets down

throughout the course of this discussion a series of 87 propositions, or steps of reasoning, designed to provide a basis for the coordinated solution of our social and economic problems. Starting with the maxim that "the foundation stone of economic logic shall be a determination to build collective welfare by means of a direct appeal to man's selfish instinct," these guides to economic behavior are built up, one by one, in the order of their application to the problems confronting us. Not all of the principles comprised in this series are as realistic as the first.

An important feature of the author's proposed way out is the creation of a new legislative congress, to be known as the Forum, which would be supplementary to existing national and state legislative bodies. It is suggested that, through this agency, the interests of Capital, Labor and the Public could be brought together in such a way as to give full effect to the principles of self-regulation and group-bargaining, which are essential to our economic welfare. In addition to the establishment of codes of procedure covering less important details of our economic conduct, the Forum apparently would concern itself with such weighty questions as controlled production, more effective distribution and enlightened consumption, the latter to be brought about through a form of buyers' service. The details of the organization of this regulatory body are left for later consideration, but it is stipulated that every party at interest, which presumably includes the entire population, should be represented in its final decisions. The practical difficulties of creating an organization of this character are discussed less fully perhaps than their importance warrants. Neither is it clear why such a democratic and authoritative organization, if its creation were possible, should not or would not replace rather than supplement existing governmental agencies.

In addition to indicating the specific solution of many of our more general economic problems, the author expresses himself freely and interestingly on such varied topics as laws, taxes, homes, the liquor question, crime, dishonesty in business and world peace. While he has definite views as to the likely approach to the solution of these problems, he presents his suggestions, not as guaranteed panaceas, but merely as one person's conclusions.

OTTO C. RICHTER.

Personal Accident Insurance. Third Edition. C. E. Golding. Buckley Press Limited, London, 1935. Pp. 156.

This book, essentially a text-book for students preparing for the examinations of the Chartered Insurance Institute, deals with the business of personal accident and health insurance as it is conducted in Great Britain. To those interested in comparing the coverage afforded, rates charged, and underwriting principles practiced by British and American Companies it will be found of material help. We suggest that those studying for the examinations of our Society first read Mr. Armand Sommer's *Manual of Accident and Health Insurance* (reviewed in P.C.A.S., XV, 256), the outline of which parallels very closely that of Mr. Golding's *Personal Accident Insurance.*

Both books open with a brief history of the development of accident and health insurance and explain the nature of the contract. Applications and policy forms are then discussed at length, followed by chapters on premium rates, riders or endorsements and claims. Both books contain specimens of various contracts which are of invaluable aid in comparing the forms in use in the two countries.

After reading Mr. Golding's book we are impressed with the extremely liberal coverage offered by our companies as compared with that afforded by the British Offices. Their Permanent Sickness Insurance (comparable to our Non-Cancellable) is the only form which gives anything approaching our life indemnity feature, and even under this form weekly benefits cease at a certain specified age—55, 60 or 65—at which time a capital sum may or may not be payable, depending on the type of policy issued.

For rating purposes British Companies commonly use the following three classifications:

Ordinary or Class I
Medium or Class II
Hazardous or Class III

A certain number of occupations fall into a fourth or extra hazardous class, but as these comprise risks which not every office is willing to entertain, they are not always to be found in published prospectuses.

The definitions of the classes are as follows:

Class I or ordinary risks are those of the clerical, professional or superintending classes, in which no manual work is involved.

Class II or medium risks are trade risks of a light nature, not involving the use of machinery driven by mechanical power or any work or process of a dangerous nature.

Class III or hazardous risks are trades with mechanically driven machinery, or where the work is of a heavy nature.

Class IV or extra hazardous risks are those in which the nature of the work is such as to entail a heavy risk of accident.

Accident rates for a full coverage (death, dismemberment and weekly indemnity) contract in Class II are increased 25% over those for Class I, and the rates for Class III are increased 50% over those for Class I.

> In estimating in which classification a particular trade shall be put, experience is the main guide, and it is here that divergencies in practice exist among different offices, though when it is remembered that no tariff exists as yet for personal accident business, and that consequently each company is a law unto itself, it is perhaps surprising how closely the different classifications agree in detail.
>
> To arrive at the real premium value of each particular benefit, a collation of experience over a series of years would be necessary, dissecting the various sources from which the claims arose. No doubt this has often been done by individual offices, but the information would be infinitely more valuable if the experience of all the offices would be aggregated, which could only be brought about through the medium of a tariff.

Members of the Bureau of Personal Accident and Health Underwriters in the United States have had compiled, beginning with policy year 1931, combined commercial accident experience which serves as a basis for determining occupational classifications and premium rates.

The various bonuses offered policyholders by British Offices are extremely interesting. Either premium reductions or principal sum accumulations are often made for renewals after five years. An additional bonus, usually 5%, is allowed those carrying life insurance in the same company. While intemperance is always just cause for rejection, it is worthy of note that the total abstainer

is *creme de la creme* to the English underwriter, and is entitled to a 10% premium reduction. Although the author does not say how often this bonus is claimed, the mere recognition of the "teetotaler" indicates that he is not the *rara avis* that we consider him in this country. All three forms of bonus may be allowed concurrently, with a maximum of 15% or 20%. All bonuses are calculated on the original gross premium.

> Premiums are payable annually in advance. Arrangements can be made for premiums to be paid in half-yearly instalments with the addition of 5 per cent.

It is interesting to note that in England personal accident premiums for the fatal risk and life premiums may be used as a credit for income tax purposes.

There is a most interesting discussion of the application of personal accident insurance to certain sports, pastimes or recreations of a hazardous nature and of the extension of the ordinary policy to cover these.

In addition to Mr. Sommer's book, referred to above, we recommend as collateral reading *By-Ways in Personal Accident Insurance,* a paper read by Mr. Golding before the Insurance Institute of Reading (*Journal of the Chartered Insurance Institute,* Vol. 29, p. 189). The material presented in this paper supplements that contained in the book under review.

E. S. FALLOW.

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Selection of Risks. Harry W. Dingman. National Underwriter Company, Cincinnati, Ohio, 1935.

CURRENT NOTES

A. N. MATTHEWS, CURRENT NOTES EDITOR

Guest Liability Eliminated in Massachusetts

The standard Massachusetts automobile liability policy, which is a prerequisite to registration of a car in that state, has been redrafted effective January 1, 1936, to exclude specifically all coverage to guest occupants. If the owner of the automobile wishes to provide coverage for his guests he may do so, the charge for guest coverage being uniform throughout the state. Since the statutory policy applies only to accidents happening in the state, it is necessary to take out further supplementary coverage if it is desired to insure against liability to guests as a result of accidents happening outside of Massachusetts.

The coverage available to a Massachusetts driver may be summarized as follows:

A. Bodily Injury Liability—Statutory

B. Bodily Injury Liability—Supplementary to Statutory

1. Guest Occupant upon the Ways of Massachusetts
2. Guest Occupant off the Ways of Massachusetts
3. Not Guest Occupant

C. Property Damage Liability

The insured is not required to carry more than Coverage A to secure registration of the motor vehicle in Massachusetts. The "Not Guest Occupant" coverage is simply extra-territorial coverage, and protects the insured against liability incurred outside of Massachusetts to persons other than guests.

"One-Five-One" Automobile Policy

A new type of automobile policy which provides public liability coverage of $1,000 per person and $5,000 per accident, with property damage liability limited to $1,000 per accident has been introduced by a western stock company. In its advertising the company points out that in the western states in which it operates,

from 70% to 80% of registered cars are uninsured. The new policy is calculated to interest those drivers who are at present uninsured and who, but for this policy, would be financially irresponsible. The policy is not acceptable as proof of financial responsibility in those states having financial responsibility laws, but it is pointed out that most suits are settled for less than $1,000 per person, and therefore an operator protected by the low limits policy would in all probability not be obliged to take out a standard limits policy in order to comply with the law. It is also claimed that the low limits provided by the policy have the effect of producing prompt claim settlements, since lawyers are presumably not interested in extensive litigation if they realize that the assured is financially irresponsible beyond the limits of the policy.

Medical Cost Study Plan

The following discussion of the medical cost study plan has been taken from the annual report of the National Council on Compensation Insurance.

"In order to accord with a resolution adopted at the December 5th, 1934 session of the National Convention of Insurance Commissioners, a special joint committee of company doctors, claim executives and actuaries was appointed for the purpose of preparing and issuing the necessary special call to comply with the desire of the Convention. Such a Plan has been developed and a copy has been furnished to all member carriers.

"The purpose of the Plan is:

(1) To comply with the resolution adopted by the National Convention of Insurance Commissioners.
(2) To collect and tabulate statistics bearing on medical costs to the end that these data may serve the carriers as a further check and control on any excessive medical costs.
(3) To assemble data which may be presented to the appropriate authorities for consideration in connection with various medical problems.

"The Plan is applicable to cases closed on or after January 1st, 1936. The Plan requires that the carriers submit monthly reports to the National Council on Compensation Insurance on all cases

closed during the preceding month. These reports consist of a standard card to be filed by the carrier for each case reported, designating whether the case was handled by a 'staff' or 'non-staff' doctor and showing the state, amount of compensation and amount of medical paid. A separate report is required for each case closed on both compensable and non-compensable cases. For non-compensable cases the Plan provides for keeping track of cases closed in the various large cities throughout the country. For compensable cases this is not required but additional details are required regarding the nature and location of injury and duration of disability. The data reported to the National Council on Compensation Insurance on these medical analysis cards will be transferred to punch cards.

"This Plan will, we believe, produce the data desired by the National Convention of Insurance Commissioners and may prove of assistance to the carriers in their effort to curtail any excessive medical costs.

"After a test period of six months a tabulation of the combined results will be presented to the Joint Claim Executives and Actuarial Committees for review and consideration of any changes in the Plan which may appear to be desirable."

Occupational Diseases Added to Compensation Laws

In addition to New York, which has amended its Compensation Law so as to include silicosis and similar diseases, Nebraska, North Carolina and West Virginia have revised their laws in order to provide Compensation for occupational diseases.

In Nebraska, the definition of "injury" has been extended to include occupational diseases peculiar to the smelting or metal refining industries. The following sentence, added to the law at the same time, is of interest in this connection. "If an employee receives an injury, which, of itself, would only cause permanent partial disability, but which, combined with a previous disability, does in fact cause permanent total disability, the employer shall only be liable for the permanent partial disability caused by the subsequent injury." The amendment became effective May 25, 1935.

The North Carolina law, as amended March 26, 1935, lists twenty-five occupational diseases or groups of diseases, two of these being asbestosis and silicosis. The medical provisions of the law are extended to provide medical "and/or other" treatment for occupational diseases, not to exceed $334.00 per year or to cover a period of more than three years. Special attention is given to asbestosis and silicosis, it being provided that all new employees subject to the hazards of these diseases shall be examined to determine if they have either of the diseases or are susceptible thereto. Examinations of other employees may be made from time to time. The refusal of an employee to submit to such an examination bars him from benefits under the law, and any employees found to have asbestosis or silicosis may be removed from their employment and be given weekly compensation for a maximum period of from twenty to forty weeks, depending on the number of dependents. It is also provided that an employee, forced to change his occupation because of disease, may be given special training to adjust himself to new work, such training not to cost more than $300 or $500, the amount varying with the number of his dependents. If an employee elects not to change his occupation, compensation payable for his subsequent disablement or death is limited to one hundred weeks.

In West Virginia a "workmen's compensation silicosis fund" has been established out of which benefits for disability or death resulting from silicosis are payable. Participation in this fund is not compulsory, the question of election or rejection resting with the employer. No compensation is payable if the employee is guilty of "wilful self-exposure," as defined in the law, and on the other hand, if the employer is guilty of "deliberate intention" to produce silicosis in one of his employees, the employee or his dependents may sue at common law. There are several other limitations in the law, but if it is proved that the employee did not violate any provisions of the law, he or his dependents receive compensation as follows: $500 in a lump sum for silicosis in the first stage, $1,000 in a lump sum for silicosis in the second stage, and regular compensation benefits for silicosis in the third stage or death resulting therefrom. This amendment to the West Virginia law became effective March 8, 1935.

Occupational Disease Benefits Added to New York Law

Prior to September 1, 1935, the New York Workmen's Compensation Law provided Compensation benefits to workmen suffering from any one of twenty-seven specifically listed occupational diseases or groups of diseases, not including any of the various forms of pneumoconiosis. Group 28, "Any and all occupational diseases" has now been added with the following regulatory paragraph, "Nothing in group twenty-eight of this subdivision shall be construed to apply to any case of occupational disease in which the last injurious exposure to the hazards of the disease occurred prior to September first, nineteen hundred thirty-five."

Silicosis, asbestosis, and other diseases of the respiratory tract caused by inhalation of various forms of dust, are now included in the law, and in order to provide insurance against these diseases two forms of rating are available, by agreement between the carrier and the assured.

Under Plan I, the insurance carrier pays all losses and claim expenses, receiving from the assured, in addition to the regular premium, a specific occupational disease premium, based on payroll, and a specific "claim charge" of $300 for each claim due to death or disability lasting four months or longer.

Plan II is similar to Plan I in that the carrier receives from the assured the regular premium and also the specific occupational disease premium, but the Plan II rates are considerably lower than those charged under Plan I. However, if any occupational disease claims are incurred, the assured must pay six-sevenths of the cost of all such losses and allocated claim expenses, not to exceed $6,214 per claim. To guarantee payment of these claim charges, the assured pays to the carrier at the inception of the policy a "deposit fund," which amounts to a per capita charge for all employees engaged in occupations likely to produce pneumoconiosis. The deposit fund is not considered as premium, but is held in trust by the carrier to guarantee the payment of claim charges, and when these are fully paid the balance is returned to the assured.

Uninsured Compensation Risk Problem

Voluntary plans for granting coverage to uninsured Compensation risks are administered by the National Council on Compensation Insurance in the following states:

Connecticut	Iowa
District of Columbia	Kansas
Florida	Missouri
Georgia	Nebraska
Indiana	Rhode Island
	Vermont

The administration of the various voluntary plans under the jurisdiction of the National Council appears to be meeting with general approval. Assignments are being promptly made and the carriers are providing coverage on the various risks with reasonable dispatch. Considerable effort is being expended by the managers of the bureaus under the jurisdiction of the National Council to keep to a minimum the number of risks which must be assigned under the various Voluntary plans. Local representatives of the carriers are being urged with considerable success to voluntarily cover risks which apply for insurance.

In addition to the above states voluntary plans in the following states are being administered by rating bureaus other than the National Council.

Illinois	New Jersey
Minnesota	North Carolina
	Virginia

Wisconsin has a compulsory plan for insuring undesirable Compensation risks. Under this plan the Wisconsin Compensation Rating and Inspection Bureau assigns all undesirable risks to one of four servicing companies. These servicing companies retain 30% of the premium for handling the business but reinsure the entire losses with the Wisconsin Rejected Risk Pool which is administered by the Wisconsin Compensation Rating and Inspection Bureau. Assessments for the maintenance of this pool are assessed against the companies in proportion to their Compensation volume in the state.

Assigned Risk Pool

The Assigned Risk Pool is a reinsurance pool organized by members of the National Bureau for the purpose of sharing the risk

imposed upon the companies by their participation in the various voluntary plans for insuring rejected Compensation risks. Voluntary Plans in operation in the following states have been brought within the scope of the Pool, as of the specified effective dates:

Connecticut	March 26, 1935	Minnesota	Oct. 1, 1935
Dist. of Columbia	July 1, 1935	Missouri	Jan. 1, 1935
Florida	Nov. 9, 1935	Nebraska	May 22, 1935
Georgia	April 10, 1935	New Jersey	Jan. 1, 1935
Illinois	Jan. 1, 1935	North Carolina	March 8, 1935
Indiana	March 6, 1935	Rhode Island	Nov. 13, 1935
Iowa	July 17, 1935	Virginia	July 23, 1935
Kansas	Oct. 7, 1935	Vermont	Sept. 30, 1935

The Voluntary Plans for Granting Coverage to Uninsured Risks, as they are usually called provide that any undesirable risk, usually after being rejected by three carriers, shall be assigned by the administrator of the Plan to some company operating in the state. The Assigned Risk Pool was formed by National Bureau members to discharge their obligations under these Plans, but membership in the Pool is not obligatory upon National Bureau companies, nor does the Pool undertake to bring all Voluntary Plans within its scope.

In the actual operation of the Pool, the company to which a risk is assigned is known as the servicing company for the risk, and as such collects all premium and adjusts all losses. The servicing company remits 70% of premiums collected to the Pool, retaining 30% for its own expenses. The Pool reimburses the servicing company for all losses paid, and makes assessments when necessary on member companies to compensate for any deficiency in premiums.

South Carolina Compensation Act

The South Carolina Compensation Act became law on September 1, 1935. This was the second compensation law to be enacted during the year, Florida having put its Compensation Law into effect on July 1, 1935. The only states in the country at the present time without compensation laws are Arkansas and Mississippi.

The scale of benefits provided by the new South Carolina Law is very similar to that provided by the North Carolina Law, with the exception of occupational disease benefits which have been newly added in the latter state. Specifically, the National Council

found that, excluding occupational disease elements, the relationships of South Carolina benefits to North Carolina benefits were as follows:

Serious	.815
Non-Serious	.800
Medical	1.000
Total	.878

The first rates for use in South Carolina were calculated by applying the above factors to the pure premiums underlying the North Carolina rates.

Personal Notes

Edward C. Stone has been appointed United States general manager and attorney of the Employers' Liability Assurance Corporation.

Charles E. Hodges has been elected chairman of the board of directors of the American Mutual Liability Insurance Company.

Gardner V. Fuller has been advanced to secretary of the National Council on Compensation Insurance.

James H. Washburn is now actuary of Joseph Froggatt & Company.

Edwin A. Cook has been advanced to assistant secretary of the Interboro Mutual Indemnity Insurance Company.

William Newell is now secretary of the Assigned Risk Pool of New York.

Ernest T. Berkeley has been promoted to superintendent, actuarial and statistical department of the Employers' Liability Assurance Corporation.

Ralph M. Marshall has been appointed assistant actuary of the National Council on Compensation Insurance.

Robert S. Hull is now treasurer of The Title and Mortgage Company of Westchester County.

James M. Woolery is now actuary of the North Carolina State Insurance Department.

Freeland R. Cameron has been advanced to assistant manager of the automobile department of the American Surety Company.

Harilaus E. Economidy is now secretary of Lloyds America.

LEGAL NOTES

BY

SAUL B. ACKERMAN
(OF THE NEW YORK BAR)

ACCIDENT AND HEALTH—FORFEITURES

[Ruderman *vs.* Massachusetts Accident Co., 180 A. 237.]

The insured under a non-cancellable disability policy for accident and sickness was disabled for a long period of time. The company tendered a draft in the sum of $180.00 which was to constitute payment in full. The insured, not agreeing with the terms of the draft, returned it to the company. Subsequently a premium in the sum of $36.11 became due on the policy. The insured gave the company his check for this sum but it was returned for "insufficient funds." The time for payment having elapsed the company cancelled the policy. The insured sued to reinstate the policy. Could he succeed?

The court held that the law does not favor forfeitures and will decline to enforce them whenever it is against equity and good conscience to do so. It would be inequitable and unjust under the circumstances of this case to hold the insurance forfeited for non-payment when the company had, in effect, in its possession disability funds belonging to the assured sufficient to pay the premium. The company could have, and should have, deducted from the sum of $180.00 it held for the assured, the premium of $36.11 which became due and thereby continued the policy in force.

AUTOMOBILE—COMPULSORY—OMNIBUS CLAUSE

[Kuhn *vs.* Auto Cab Mutual Indemnity Company, 279 N. Y. S. 60.]

The insured's automobile operated by his employee struck and injured a certain individual. This person brought an action against the employee and recovered a judgment. Execution was issued thereon and was returned unsatisfied. The company had issued to the owner a statutory policy of insurance conditioned for the payment of any judgment recovered for deaths or injuries resulting

from the operation of the automobile. The injured person brought this action against the insurance company to recover on the policy. This policy contained no omnibus coverage clause or provision for any additional insured. Was the company liable?

The court held that the Insurance Law did not provide coverage to the employee or licensee of an owner of an automobile. The coverage required is for the benefit of the owner as the insured for the acts of his employee in the course of the operation of the owner's car.

The consequences of the injured person's failure to join the owner as a party defendant in the negligence action could not be avoided by reading into the statutes a provision which was not there expressed. Since the injured recovered a judgment against the employee and since the policy of insurance did not cover the acts of the employee, the company was not liable.

Automobile—Financial Responsibility—Breach of Warranty

[U. S. Casualty *vs.* Timmerman, 180 A. 629.]

The insured had previously had an accident and was therefore brought within the scope of the Financial Responsibility Act. Subsequently the company issued to him the policy in controversy and subsequently he had another accident. The company attempted to cancel this policy on the ground that the insured had falsely warranted that he was the exclusive owner of the car when, as a matter of fact he was the owner of the car under a conditional sales contract. Could the company cancel the contract?

The court held that: "The beneficiaries of the statute and of the policy provisions are the public—those who may be injured in motor accidents. The protection afforded by the policy to the assured is outside the purpose of the statute, as clearly appears from the clause giving to the company a right of action against assured in certain cases. Now a policy which is void *ab initio* because of a warranty or condition precedent provides no protection to the public. Such conditions must fail. It will be noted that the statute authorizes inclusion in the policy of "agreements, provisions or stipulations not contrary to the provisions of this

act," but does not mention in that connection warranties or conditions, while it does permit conditions binding only as between insurer and assured by authorizing a provision that assured shall reimburse the company for payments involving a breach of the terms, provisions or conditions of the policy.

The situation presented by a financial responsibility policy is much like that created by a fire policy with standard mortgagee clause attached. The insurer's liability to the insured is distinct from its liability to an injured third person. The rights of the latter against the insurer spring from the statute as well as from the policy, just as the rights of the mortgagee are determined by the mortgagee clause. The fire policy remains valid as to the mortgagee, despite a breach of warranty by the assured owner. Likewise, the complainant's policy remains valid as to the injured person. The company's remedy is an action on the policy against the insured.

Bank Burglary and Robbery—Securities—Records

[Ocean Accident & Guarantee Corp., Ltd. *vs.* First National Bank of Dickinson, 84 S. W. (2d) 1111.]

A bank purchased a policy providing it with indemnity for the "burglary of money and securities feloniously abstracted during the day or night, from within . . . any safe or vault by any person or persons who shall have made forcible entry therein," etc. "Securities" were defined as "all negotiable or non-negotiable instruments, documents or contracts representing money or other property."

Burglars entered the bank, opened the safe, and took therefrom money, bonds, notes and certain pieces of jewelry which were pledged as collateral or placed there for safe-keeping.

The company recognized the insured's claim as to everything except the jewelry. As to that, the company stated that it was not "securities" or "money" and that no proper records of it were kept.

The notes for which the jewelry was security described the items fully, but these were also stolen. The note register however also had a general description and estimated value of the items.

The court held that the pledged items were securities and the company liable therefor, but as to the items held for safe-keeping, the company was not liable. Was this ruling proper?

The court said "We think it clear from the definition of the term 'securities' given in the policy it comprehends all obligations evidenced by written instruments, pledges, mortgages, deposits and liens given by debtors in order to secure payment of their debts . . . and we think it was the intention of the parties to the policy contract that the policy should cover the notes held by this bank and the lien given by its debtors, which represented the jewelry pledged, which is property other than money . . . since the object and purpose . . . was to indemnify the insured against loss of securities by burglary, it should be construed so as to carry out that intention," especially in view of the fact that any other construction leads to a forfeiture.

As to records, the usual bank books were kept and from these the loss could be determined. That was sufficient record. However, there was no such record of the items held for safe-keeping and for these the insurance company was not liable.

Credit—Waiver

[American Credit Indemnity Co. of N. Y. *vs.* W. K. Mitchell & Co., 78 F. (2d) 276.]

The company issued a credit policy to the insured wherein it contracted to indemnify the insured against any losses which the insured might sustain as a result of credit extended by assured to any of its customers. There was a clause in the policy which read as follows: "If any claim for excess loss is made under this policy, a final statement of claim, duly sworn to, shall be made by the indemnified upon blank forms which will be furnished by the company upon application, but such final statement of claim must be received by the company at its executive office in St. Louis, Mo., within 30 days after the termination of this policy. No claim for loss shall be made or allowed under this policy unless set forth in such final statement of claim, nor shall any claim that has been collected in full be included therein."

During the term of the policy the insured sent to the company a claim which the company tried to collect. The company and the

insured cooperated in the attempt to collect for a long time prior to and for several months after the expiration of the term of the policy. The insured, within 30 days after the expiration of the term of the policy, because of the facts as above, did not file a statement as set forth in the above quoted clause. Several months after the expiration of the term of the policy the company returned the claim to the insured as uncollectable and the insured began this action for indemnity under the policy. The insurance company defended on the ground that the insured failed to comply with the above quoted clause in the policy, i.e., insured failed to file a statement of claim within 30 days after the expiration of the term of the policy. Could the company's defense be upheld?

The court stated: "A fair interpretation of the evidence shows rather conclusively that the company, which was in possession of all the facts upon which a final statement could be based, from the beginning recognized its liability."

"Leaving out of the question waiver and estoppel, either one of which is supported by the evidence; that company's superior knowledge of the entire matter, the full interchange of information, the cooperation of the assured and the general relations of the two companies throughout made compliance with the final statement of claim clause unnecessary and immaterial."

Compensation—Computation of Wages

[Moquin *vs.* Glens Falls Hotel Corp., 281 N. Y. S. 323.]

An employee worked as a waiter for a period of one or two days each week during the year immediately preceding his injury. His earnings during the period were $76.10 plus one meal valued at 33¢ and plus 75¢ per day in tips, a total of $138.74. There was testimony that he was not a regular employee, and that he had a kidney ailment which prevented regular employment.

The Industrial Board found that his actual earnings did not reasonably or fairly represent his annual earning capacity, having regard to his previous earnings and those of other employees in the same or similar employment in the same locality. The Board fixed the reasonable annual earnings at $959.92, and the weekly wage for the purpose of computing compensation at $18.46. Was the decision correct?

The court said: "Loss or diminution of wage earning ability is the foundation upon which compensation award and death benefits are computed . . . the statute was not adopted to be a source of profit for an injured employee."

"The deceased did not belong to the class of employees who had been working full time, and the wages received by them did not reasonably represent his annual earning capacity. . . . Compensation should not be fixed upon a fictitious (payroll). Actuality should control. . . . The award should be based upon the actual earnings of the deceased for the actual number of days he worked during the year immediately preceding his injury."

Compensation and Public Liability—Change of Rates—Classification—Interest

[U. S. Fidelity & Guaranty Co. *vs.* American Building Maintenance Company of Los Angeles, 46 P. (2d) 984.]

The insured was covered by four policies of insurance, two of which were workmen's compensation insurance and two were contractors' public liability insurance. The insured was engaged in the business of doing janitor work in buildings. The following facts were present:

1. In one of the buildings which the insured serviced he performed only window cleaning operations. The company desired to charge a higher rate for work in this building claiming that it was a separate enterprise.

2. During the time that the policies were in effect, the company changed its rates several times and each time mailed to the insured an endorsement, specifying changes, which the insured attached to the policies. Several policies provided that rates could be modified.

3. The company desired to charge interest upon certain premiums which it claimed were due although it had refused a request of the insured to inspect its books in order to determine the amount of premiums due.

What were the company's rights?

The court held:

1. The insured could conduct its janitor business in any manner that it saw fit and such operations would take the general rate covering the maintenance, care and custody of buildings as specified in the policy, providing that window cleaning was not the principal business of the insured. Since window cleaning was not the insured's principal business, but was only one of its undertakings, the insured was liable only for the maintenance, care and custody rate.

2. Some policies expressly provided that the rate charged were subject to change. Since the endorsements of change of rates were attached to the policies this was all that was required to make effective any modification in the rates of the premium.

3. The insured was liable to pay interest only on liquidated claims. The claim of the company in this case was not liquidated. The insured sought to liquidate the claim when it asked to inspect the company's books. This was refused by the company. These claims were not liquidated until the trial of the action and hence the insured was not liable to pay interest.

Fidelity—Dishonesty—Ratification—Notice

[Fidelity & Deposit Co. of Maryland *vs.* Bates, 76 F. (2d) 160.]

The company issued a fidelity bond which covered among others, the cashier of the bank. The bond covered direct loss of money, not exceeding $20,000, sustained through any dishonest act of any of the employees of the bank, whether acting alone or in collusion with others, and discovered not later than a year after the cancellation or termination of the bond.

The cashier assisted in the extension of unauthorized credits, the kiting of checks, and the concealment of overdrafts for the benefit of several persons, himself incidentally, and to the loss of the bank in an amount in excess of the bond.

It was claimed by the company that the acts of the cashier were not dishonest, that his acts were ratified by the bank (through its directors), and that no notice was given after the first loss became known.

The directors re-elected the cashier to his position after some

of the facts became known, and accepted security for the repayment of overdrafts and loans. However, at that time it was not known that these situations were caused by dishonesty of the cashier.

The jury returned a verdict for the bank. Was the correct result reached?

The court said: "The meaning of fraud and dishonesty extends beyond acts which would be criminal. They are to be given a broad significance, and taken most strongly against the surety company. . . . The appeal is to the mores, rather than to the statutes."

It may be that no act of the cashier was illegal, but it was not mere indiscretion or error of judgment. Rather it was wilful, intentional and gross faithlessness, which is dishonesty.

The directors could not ratify dishonest acts, where they did not know of the dishonesty. By the same token, notice of loss was timely if such notice was given promptly upon discovery that loss came within the terms of the policy, namely, through dishonesty.

Forgery—Innocent Parties

[United States F. & G. Co. *vs.* First National Bank of Omaha, 260 N. W. 798.]

A forger drew a check which was endorsed by an innocent party. The forger received the funds and disappeared. The bank cashing the check forwarded it to its correspondent, and eventually through the clearing house to the drawee bank. The drawee bank charged the amount of the depositor and marked the check paid. The supposed drawer returned the check as a forgery, and eventually it came back to the endorser. In the meantime the insurance carrier of the drawee bank paid the loss to the drawee bank. The endorser also paid the amount of the loss. The insurance company then demanded the payment it had made. The endorser had already demanded and received the return of his money from the drawee bank. Was the insurance company liable under its blanket forgery policy?

The court said that under a rule of the clearing house all checks

not found good must be returned before 3:00 P. M. of that day, otherwise the transaction is ended. That was not done here, but the drawee bank held and charged the check, "the rule is well established that a drawee bank which pays a forged check to a bona fide holder for value, and without fault, cannot recover the payment from him." Thus the drawee has no remedy against the corresponding banks.

Further it is settled that "an innocent endorsee cannot be compelled to refund the money paid to him on a forged acceptance." This rule prevented liability from being visited upon the endorser, and as he paid under a mistake of fact and was under no legal obligation, allows him to hold the money which was returned to him by the drawee bank.

These questions "being settled, it is plain that the (drawee) bank, having paid a forged check and suffered a direct loss thereon, was entitled, under its blanket bond to recover the amount of its loss" from the company.

MALPRACTICE—ILLEGALITY

[Glesly *vs.* Hartford Accident and Indemnity Co., 44 P. (2d) 365.]

The insured was a physician and was covered by a policy of insurance which provided that it shall not cover bodily injuries "1. caused by the assured or any assistant of the assured while to any degree under the influence of intoxicants, anaesthetics or narcotics, or while engaged in, or as the result of performance of any unlawful acts; 2. caused as the result of criminal malpractice or the violation of any law or ordinance by the assured or any partner or assistant or substitute of the assured." The insured employed as his assistant one who was neither a graduate of a medical school nor licensed to heal the sick and afflicted in the State. The insured permitted his assistant to treat patients. A patient brought an action against the insured and his assistant for malpractice of the assistant and recovered a judgment against them. He then sued the company on the policy. Could he recover?

The court held that the patient's injuries were due to the lack of skill exercised by an unlicensed assistant and were the result

of the use by the doctor of an unqualified and non-licensed assistant in violation of the provisions of law. The loss was therefore one not covered by the insurance policy.

Mercantile Safe Burglary—Sole Occupancy

[M. Pachman *vs.* New Amsterdam Casualty Co., 281 N. Y. S. 758.]

The insured's policies contained the following provision: "To indemnify the assured for all loss by burglary, of property insured hereunder from within that part of any safe or vault. . . . While such safe or vault is duly closed and locked by at least one combination or time lock and located in the assured's premises as hereinafter defined. . . ." The policy then defined "premises" to mean the interior of that portion of the building . . . which is occupied solely by the insured in conducting his business." The insured did not occupy the premises alone but there was another occupant of the premises. A burglary occurred. Could he recover?

The court held that the risk was covered while the safe was in a building solely occupied by the insured. Since such was not the case the company was not liable.

Owners', Landlord and Tenants—Notice

[New Amsterdam Cas. Co. *vs.* Plaza, 195 N. E. 289.]

The insured was covered by a public liability policy which contained the following clause: "B. The assured shall give immediate written notice of any claim or suit resulting therefrom. . . ."

An accident occurred in January, 1929, of which insured had no knowledge. The only persons who had knowledge thereof were the insured's janitor and insured's sister-in-law. These persons never informed him of the accident. In September, 1929, the insured was notified of the accident and he, within 3 days thereafter notified the company of the fact. Subsequently the insured was served with a summons and complaint which he turned over to the company but the company refused to defend and disclaimed liability under the policy on the ground that the insured did not comply with the

terms of the policy. A judgment of $800 was recovered against the insured which he satisfied. He then sued to recover his damages, i.e., the $800 judgment, counsel fees, and costs under the policy. Could he recover?

The court held that notice or knowledge of the accident possessed by insured's janitor and/or his sister-in-law was no notice to insured. Insured had no notice until September, 1929, and that notice he gave to the company within three days which was timely. Although the policy provided that "the insured shall give immediate written notice of any accident" yet the policy is not construed so that the insured is required to do an impossible thing, to wit, to give notice of the accident, before he knew about it. The language of the policy must be given a reasonable construction.

Public Liability—Assignment

[McNeill *vs.* Fidelity & Casualty Co. of New York, 82 S. W. (2d) 582.]

The insured operated a hotel and was covered by a policy of public liability insurance which contained provisions specifying the method of assignment. The requirement for the transfer of the policy was that the assured was required to assign the policy subject to the written consent of the company. Blank forms of assignment were printed on the back of the policy. The ownership of the hotel changed and the insurance company on a separate instrument which was duly signed and authorized, executed an assignment of the policy. This assignment was not noted on the original policy. After the change of ownership a woman was injured on the premises of the hotel. She recovered a judgment against the hotel and sued the company on the policy. The company disclaimed liability on the ground that the assignment of the policy was not noted on the face of the policy. Was the company liable?

The court held that since the company had knowledge of the change of ownership and had in fact executed an assignment of the policy which was duly delivered to and accepted by the new owner of the hotel it bound itself and was liable.

ROBBERY—CUSTODIAN

[Great American Indemnity Company *vs.* Southern Feed Stores, 181 S. E. 115.]

The insured was covered by a policy of robbery insurance which provided that the insurer for and in consideration of the premium paid would indemnify "the assured from all loss or damage to said property . . . in the premises . . . occasioned by robbery or attempt thereat committed during the hours specified . . . within the assured's premises"; that "robbery as used in this policy shall mean a felonious and forcible taking of property by violence inflicted upon a custodian, or by putting him in fear of violence or, by any overt felonious act committed in the presence of a custodian and of which he is actually cognizant, provided such act is not committed by an officer or employee of the assured, or a felonious taking of property from the person or direct care and custody of a custodian, who, while having custody of property covered hereby has been killed or rendered unconscious, by injuries inflicted maliciously or sustained accidentally"; that "custodian" is a person between the ages of 17 and 65 who is in the employ of the insured and "duly authorized by him to act as his paymaster, messenger, collector, cashier, clerk or salesperson, and while so acting to have the care and custody of property covered hereby but who is not a watchman or a porter"; that the property insured shall consist of "money, securities and merchandise" taken "from within the premises *while at least one custodian is on duty therein*"; and that "within the premises" of the insured shall mean the "entire" building occupied by the insured in conducting its business. The insured employed a person acting as night watchman as well as having the care and custody of the property of the insured, having authority to sell the merchandise of the insured from the premises at night when he was on duty, checking in its drivers, assorting the merchandise returned by the truck drivers and receiving from them the money and checks belonging to the insured. While so employed he was held up by unknown persons outside the premises of the insured. He went outside to remain the balance of the night because it was cooler outside than in the building. The employee's hands were tied and his head was covered while he was forced to remain under the building of the insured while these

persons broke into the premises and stole the insured's merchandise. Could the insured recover the proceeds of its loss from the company?

The court held that in such circumstances regardless of whether such person was a custodian within the meaning of the policy or not, the robbery was not of merchandise of the insured from within the premises of the insured while a custodian of the insured, having direct care and custody of the merchandise of the insured was on duty within the premises. The policy clearly provided that one custodian must be on duty at all times, and since such was not the case at the time of the robbery the insured could not recover.

OBITUARY

WALTER H. THOMPSON

1887 - 1935

Stricken suddenly by a fatal heart attack on the afternoon of Saturday, May 25, Mr. Walter H. Thompson, assistant treasurer of the Lumbermens Mutual Casualty Company and the American Motorists Insurance Company, passed away at his Evanston home on Tuesday, May 28. The untimely death of Mr. Thompson, who was but 48 years of age and to all appearances in vigorous health, came as a severe shock to his associates and friends in the insurance business.

Mr. Thompson had been engaged in insurance work for about 25 years, entering the business with the Federal Liability Insurance Company, with which company he rose to the position of assistant treasurer. He joined the Lumbermens Mutual Casualty Company at the time the Federal was taken over by the Lumbermens in 1928 and in the spring of the following year he was transferred to Chicago and placed in charge of the Casualty Accounting Department, in which capacity he had served until his death.

He is survived by his widow and two children.

Mr. Thompson became an Associate Member of the Casualty Actuarial Society on November 22, 1934, and two weeks before his death, took and passed the Fellowship examinations.

Having so recently become a member of the Society, he was not as well known to some of our members as he would have been had he lived. Those of us who knew him in Boston and Chicago feel strongly the loss of a personal friend, and are sensible of a more serious loss to the insurance business.

CASUALTY ACTUARIAL SOCIETY

NOVEMBER 15, 1935

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ABSTRACT FROM THE MINUTES OF THE TWENTY-SECOND ANNUAL MEETING

NOVEMBER 15, 1935

The twenty-second annual (forty-fifth regular) meeting of the Casualty Actuarial Society was held at the Hotel New Yorker, New York, on Friday, November 15, 1935.

President Greene called the meeting to order at 10:15 A.M. The roll was called showing the following fifty-three Fellows and twenty Associates present:

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AINLEY	EPPINK	MAYCRINK
AULT	FONDILLER	MOORE, G. D.
BAILEY	GINSBURGH	OBERHAUS
BARBER	GLENN	ORR
BARTER	GODDARD	PERRYMAN
BERKELEY	GRAHAM, C. M.	PHILLIPS, J. S.
BLANCHARD	GREENE	PINNEY
BREIBY	HULL	PRUITT
BROWN, F. S.	JACKSON, C. W.	SENIOR
CAHILL	JONES, F. R.	SINNOTT
CAMERON	KORMES	SMICK
CARLSON	LESLIE	SMITH, C. G
COMSTOCK	LINDER	ST. JOHN
CONSTABLE	MCCONNELL	TARBELL
CRANE	MCMANUS	VALERIUS
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DORWEILER	MARSHALL	WILLIAMS
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CLEARY	KARDONSKY	WHEELER
FITZGERALD	LYONS	WILLIAMSON
FURNIVALL	MILLER, J. H.	WOODWARD
GATELY	MILLS	

Mr. Greene read his presidential address.

The minutes of the meeting held May 24, 1935, were approved as printed in the *Proceedings*.

The Secretary-Treasurer (Richard Fondiller) read the report of the Council and upon motion it was adopted by the Society. The informal discussion on "Automobile Liability Rating" would be published in this number of the *Proceedings*, after securing the consent of the discussors and editing by R. H. Blanchard. In respect of the 1935 examinations these resulted as follows:

The following Associates had passed the necessary examinations and had been admitted as Fellows:

WALTER T. EPPINK	T. M. OBERHAUS
GILBERT W. FITZHUGH	WALTER H. THOMPSON
M. H. MCCONNELL, JR.	HARRY V. WAITE

H. V. WILLLIAMS, JR.

The following candidates had passed the necessary examinations, had met the experience requirements, and had been enrolled as Associates:

C. R. BRERETON	H. M. JONES	S. TYLER NELSON
A. E. CLEARY	E. W. KITZROW	G. I. SHAPIRO
A. N. GUERTIN	J. A. MILLS	

The following candidates had been successful in completing the examinations for Associate but have not yet been enrolled by reason of the terms of Examination Rule 4:

ARTHUR C. DANIELS WILLIAM GOULD SAMUEL L. KLEINBERG

The President announced that Richard Fondiller had again presented One Hundred Dollars to the Society to be awarded as a prize, for the best paper submitted in 1935 and 1936.

Diplomas were then presented by the President to Walter T. Eppink, Gilbert W. Fitzhugh, M. H. McConnell, Jr., T. M. Oberhaus, Walter H. Thompson, Harry V. Waite and H. V. Williams, Jr., who had been admitted as Fellows under the 1935 examinations.

The President announced the death since the last meeting of the Society of Walter H. Thompson, Fellow, and the memorial notice appearing in this Number was thereupon read.

The report of the Secretary-Treasurer was read and accepted. The annual report of finances follows:

CASUALTY ACTUARIAL SOCIETY

ANNUAL REPORT OF FINANCES

Cash Receipts and Disbursements from October 1, 1934, to September 30, 1935

INCOME

On deposit on October 1, 1934, in Marine Midland Trust Company		$1,196.91
Members' Dues	$2,780.00	
Sale of Proceedings	1,928.94	
Examination Fees	464.00	
Examination Data	8.00	
Luncheons	618.00	
Interest and Miscellaneous	44.86	
Michelbacher Fund	115.25	
Fondiller Prize	100.00	6,059.05
Total		$7,255.96

DISBURSEMENTS

Printing and Stationery	$4,338.07
Postage, Express, etc.	181.72
Stenographic Services	360.00
Library Fund	17.04
Luncheons	790.64
Examination Expense	52.35
Fondiller Prize	100.00
Insurance	35.69
Miscellaneous	63.06
Total	$5,938.57
On deposit on September 30, 1935, in Marine Midland Trust Company	1,317.39
Total	$7,255.96

Income	$6,059.05
Disbursements	5,938.57
Excess of Income over Disbursements	$ 120.48
1934 Bank Balance	1,196.91
1935 Bank Balance	$1,317.39

ASSETS

Cash in Bank	$1,317.39
Bonds	1,000.00
Total	$2,317.39

The Auditing Committee (W. P. Comstock, Chairman) reported that the books of the Secretary-Treasurer had been audited and his accounts verified.

The Examination Committee (A. Z. Skelding, Chairman) submitted a report of which the following is a summary:

1935 EXAMINATIONS—SUCCESSFUL CANDIDATES

The following is a list of those who passed the examinations held by the Society on May 15 and 16, 1935:

ASSOCIATESHIP EXAMINATIONS

PART I:
John F. Emerson
Arthur W. England
Jarvis Farley
F. J. Fruechtemeyer
William Gould
Samuel L. Kleinberg
Glen W. Myers
Edward D. Sayer
Valeska Urdahl (Miss)
James V. Walsh
Ben Wartell
Aubrey White
Herbert Wolfe
LeRoy J. Wolf
Donald M. Wood, Jr.

PART II:
Cecil Childress
Jarvis Farley
F. J. Fruechtemeyer
William Gould
Hugh P. Ham
H. Edward Hill
Samuel L. Kleinberg
W. M. Lloyd
W. S. McCormick
Glen W. Myers
Rosemary A. Smith (Miss)
Herbert Wolfe
Donald M. Wood, Jr.

PART III:
Henry F. Boyer
Arthur W. England
William Gould
Hugh P. Ham
Harold M. Jones
Samuel L. Kleinberg
S. Tyler Nelson
Gustav H. Uhlig, Jr.
Herbert Wolfe
LeRoy J. Wolf

PART IV:
Codie D. Bell
Arthur C. Daniels
Arthur W. England
William Gould
Hugh P. Ham
Harold M. Jones
Samuel L. Kleinberg
J. A. Mills
S. Tyler Nelson
George I. Shapiro

FELLOWSHIP EXAMINATIONS

PART I:	A. E. CLEARY	E. W. KITZROW
	A. N. GUERTIN	M. H. MCCONNELL, JR.
	ELSIE KARDONSKY (MISS)	WALTER F. SULLIVAN
	H. V. WILLIAMS, JR.	
PART II:	A. E. CLEARY	E. W. KITZROW
	JOHN J. GATELY	M. H. MCCONNELL, JR.
	A. N. GUERTIN	H. V. WILLIAMS, JR.
PART III:	WALTER T. EPPINK	THOMAS M. OBERHAUS
	GILBERT W. FITZHUGH	WALTER H. THOMPSON
	DANIEL J. LYONS	HARRY V. WAITE
	M. H. MCCONNELL, JR.	H. V. WILLIAMS, JR.
PART IV:	JAMES BARRON, JR.	THOMAS M. OBERHAUS
	WALTER T. EPPINK	WALTER H. THOMPSON
	GILBERT W. FITZHUGH	HARRY V. WAITE
	M. H. MCCONNELL, JR.	H. V. WILLIAMS, JR.

The Council's election of Clarence W. Hobbs, Editor, and William Breiby, Librarian, subject to confirmation by the Society, was announced.

The annual elections were then held and the following officers and members of the Council were declared elected:

President	WINFIELD W. GREENE
Vice-President	RALPH H. BLANCHARD
Vice-President	CHARLES J. HAUGH
Secretary-Treasurer	RICHARD FONDILLER
Editor	CLARENCE W. HOBBS
Librarian	WILLIAM BREIBY

Members of Council (terms expire in 1938):

A. Z. SKELDING S. D. PINNEY W. J. CONSTABLE

The presentation of the new papers printed in this number was begun.

Recess was taken for lunch at the Hotel until 2:15 P. M.

Informal discussion upon the topic "Automobile Liability Rating" was participated in by a number of members.

The presentation of new papers was concluded.

The papers read at the last meeting of the Society were discussed.

Upon motion the meeting adjourned at 5:00 P. M.

An informal dinner was held in the evening at the Hotel.

VOL. XXII, PART II NO. 46

PROCEEDINGS

MAY 15, 1936

SOME COMMENTS ON ECONOMIC THEORY

PRESIDENTIAL ADDRESS BY WINFIELD W. GREENE

"Though pleas'd to see the dolphins play;
I mind my compass and my way."
Matthew Green, 1696-1737.

It may occur to you that the above is an odd title for an address to be delivered to an actuarial society. I hope to convince you that such is not the case, at least where the major interest of the society lies in the casualty business.

1. It is quite obvious that the amount of casualty insurance done depends mainly upon the extent of general business activity which, in turn, over a period, must reflect the extent to which industrialists and other businessmen adhere to sound economic principles, whatever these may be.
2. Casualty insurance itself cannot be above the economic law, if there is such a thing.
3. Citizens of whatever occupation should be deeply interested in the study of economics at this time; for without a basic economic creed we must of necessity be in doubt as to what constitutes proper governmental policy, and what may be regarded as sound policy for corporate management.
4. Lastly, it seems to me that the actuary should be the ideal person to grapple with general economic problems in view of his intensive training in the handling of a specialized type of economic problem in quantitative terms.

The task of the actuary is to criticize insurance schemes as to their financial feasibility and where proposed schemes are unworkable, to develop others which will work. In the course of his duties, he deals with a great variety of economic and social phenomena. If he is a good actuary, he will not exclude human

nature from his consideration, in his search for insurance plans that will be both saleable and profitable.

I think it would be a good thing for the public and for the insurance business for the mind which has been thinking in these terms to broaden its field to include the more general economic problems of the nation; for without at least some tentative settlement of our more basic problems it may prove quite useless to wrestle with the difficulties intrinsic to the insurance business. It is all very well to be a good surgeon, but in order to be a useful one it is necessary to know which individuals society wills to preserve. For example, the removal of an intestinal cancer, however brilliantly performed, is hardly worthwhile, if the patient has already been condemned to death.

I confess on my part a strong urge to attack these more fundamental problems. At a dinner following the meeting last Fall, one of our more literary Fellows paid tribute to this tendency in terms implying rather slight respect for the result of my efforts, and doubtless his comment was justified. On the other hand, if more of you would join in this attempt to dig deep, the greater the chance of our eventually reaching a substantial body of ore.

You will gather from what has just been said that my own search for an economic creed, a quest inspired by the desire for a more secure foundation for remarks addressed to this Society, has been only partially successful. I am inclined to think that as a nation we have no comprehensive economic philosophy. As briefly as I can, I will cover some of the ground which I have traversed before reaching this conclusion, one gained, incidentally, as the result of an attempt to compress what should have been the study of many years into the compass of a few months.

* * *

Going back to the two and one-half centuries that terminated with the Seven Years' War in the Old World and our own French and Indian War in the New, we find economic activity and economic thought dominated by the effects of far-flung colonization and the rapid expansion of international trade. The national economic goal during this period was a favorable balance of trade (a surplus of exports over imports) since such a condition furthered the expansion of population and of manufactures as well as the build-

ing up of a substantial national stock of the precious metals. Manufacturing remained chiefly a matter of manual labor. The merchant class, which was in the ascendency, possessed such influence that it enlisted the aid of government in the enactment of a great variety of regulations intended to foster these objectives. In the light of recent events, it is interesting that in the period under discussion, referred to by economists as the age of "mercantilism," government was on the side of business, and business, far from asking the government to leave hands off, fostered its interference.

Change, however, was on the way. In France the "physiocrats" burst out in revolt against the restrictions of mercantilism. These French writers, Quesnay, Gournay and Turgot, speaking for agriculture rather than for manufacturing, advocated free trade, peasant rights and the single tax and developed the principle of *laissez-faire*,—the supposed desirability of permitting "economic law" free play. Meanwhile, in England particularly, the rise of the machine enhanced the importance of industry in the more modern sense as opposed to mere traffic in handmade products. British writers beginning with Adam Smith embraced this new principle of *laissez-faire* with a sigh of relief, stressing the essential identity between self-interest and the commonweal.

The first half of the nineteenth century witnessed in England the rise of the Ricardian, or classical school of economic thought, of which Bentham, Malthus, Ricardo, McCulloch, James Mill and his son, *John Stuart Mill, were the outstanding figures. Although as individuals these writers were actuated by high motives, their work collectively suggested a bleak outlook for the mass of mankind. Supposed economic principle developed by the deductive process in the quiet of the study was exalted to the status of law. Among the cheerful teachings expounded, were the following:

1. Population tends to increase faster than the means of subsistence. Periodical destruction of population through war, famine and pestilence is, therefore, an unavoidable neces-

* John Stuart Mill was a member of the Ricardian, or classical school, in the earlier part of his career. Later on, he developed the distinction between the production and the distribution of wealth, holding that whereas the former is a matter of economic law, the latter is one of social choice. Indeed, he went so far as to advocate government interference in the distribution of wealth to the extent of inheritance taxes and taxes on the unearned increment in land values.

sity; unless man exercises "prudential restraint," which is to be hoped for, rather than expected.

2. As population spreads over the surface of the earth, the supply of desirable land relative to population becomes more and more inadequate.
3. In view of the limited supply of desirable land and the tendency of population to increase, the rent paid for the land becomes an increasingly high element in the cost of producing the fruits of the soil.
4. Wages tend to a level just high enough to maintain efficient physical life in the laborer and his not too numerous family. A wage scale higher than this fosters a greater population than the earth can support.
5. In modern life, the governing impulse of man and of society is the economic one; and both individual and social action can be accounted for in terms of the desire for "economic goods."

The possessors of these ideas evidently regarded themselves as the evangelists of a particularly fatalistic and gloomy revelation. Economic law was inexorable and irresistible. Why should the capitalist pay high wages and thereby encourage an augmentation of population which the earth eventually could not sustain? Why should government intervene on behalf of the wage earner when intervention would mean but the raising of hopes for a living standard which eventually could not be maintained?

It is not difficult now to point out grave exceptions to the "laws," enunciated by the classical economists, but their influence was and remains tremendous. Their teachings pervaded the college classroom of my youth. I am sure you will be able to discern the outlines of some of their tenets when you read the editorial and financial pages of your newspaper tomorrow morning. Indeed, I will be surprised if they do not make the front page, somewhere among the political news.

* * *

But it is not with the classical school solely that we are concerned to-day. Equally are we interested in the evolution of protest against its underlying principle, namely, that the economic activities of mankind should not be interfered with because in the long run the individual's pursuit of self-interest will achieve the greatest possible measure of good for society as a whole.

Since the beginning of the Industrial Revolution (in England, usually set as about 1760), criticism of the orthodox viewpoint has occurred and recurred in an interesting pattern, of which the following are outstanding elements:

1. *The Over-Saving Theory*—It has been held by many that there is a tendency inherent in the capitalistic plan to pile up huge savings (profits not expended for consumer's goods), and to invest these savings in the tools of industry. This spending for plant (or capital goods, so-called) increases the consumption of perishable products only incidentally and slightly, whereas it does tend to increase the supply of consumers' goods tremendously. Production, therefore, outruns consumption and the inevitable result is a general business crisis in which the growth of capital is temporarily interrupted. Unfortunately employment and, therefore, consumption are also interrupted, so that people as well as machines are injured. This idea was mentioned by Lauderdale as early as 1804, was carried further by Sismondi in 1819 and 1837, and referred to once more by Malthus in 1820. The idea of over-saving is prominent in the writings of Rodbertus and Marx, the founders of Continental socialism. In fact, the over-saving theory is of the essence of socialism, since it is through this principle that capitalism is expected to destroy itself in preparation for the expropriation of industry by the state.
2. *Government Intervention in the Distribution of Income*—I have already referred to the fact that John Stuart Mill in his later writings advocated government intervention of certain kinds. In this, he had many predecessors. During the mercantile period, guidance of economic affairs by the state was the prevailing rule though it is hard to say how generally governmental rules were obeyed. According to Ely, "prices, wages and the rules of apprenticeship" were fixed by public authority. This period culminated in the "Navigation Laws" intended to force colonial populations to favor the home country in the matter of trade, and to depend absolutely upon the motherland as far as manufactures were concerned. During the Industrial Revolution, Sismondi, already referred to, was an advocate of government intervention in the distribution of income. The whole idea of social insurance, which, of course, had its inception in Germany in 1894, is a measure of re-distribution of income through governmental intervention. In more recent years, the principle of minimum wage has been developed; while the National Industrial Recovery Act went so far as to enunciate

the principle of outright control of wage scales through government sponsored agencies.

3. *Public Works*—This, of course, is a type of government intervention in income distribution; since public works, on the one hand, are a benefit to the people and, on the other, are sustained by taxes which, in theory at least, are levied more heavily upon the classes with greater incomes. Malthus was an early advocate of programs of this type as a means of taking up the slack supposedly produced by "over-saving," and of thereby shortening the vicious swing of the business cycle. In this, the renowned author of the population theory anticipated our contemporary statesmen by over a century. This type of antidote to business instability was much talked about following the depression of 1921-22. Needless to say, it has been acted upon, and commented upon, to no slight extent since March, 1933.

4. *Socialism* has already been referred to as the logical conclusion of the over-saving theory in the minds of those who see state ownership of industry as the only means of preventing a periodical unbalance between production and consumption. I am not aware that the proponents of socialism have reached any agreement among themselves as to the methods by which society can exercise ownership over the productive mechanism and at the same time preserve any freedom of action to the individual, that is, to other than the head socialist.

5. *Equilibrium,* or balance, strangely I think, is evidently regarded by some economic writers either as a dynamic force or as an end in itself. The equilibrium referred to has to do with the inter-relation existing between such things as production, on the one hand, and consumption and plant extension, on the other; or, using financial terms, between prices and wages, dividends and amounts added to surplus account. It seems obvious that a comparative equilibrium between economic elements is desirable,—save in one direction, that is, *forward;* an absolutely complete equilibrium being represented, I should say, by the state of savages whose chief concern is to carry on the customs of their ancestors.

6. *The High Wage Theory*—American writers upon economic and other subjects have always stressed the comparatively high wages paid in this country. An unusual course of events resulted in the existence of a relatively high scale of real wages in this country following the depression of 1921-22. This happening lent color to the belief that the "American System" contemplated the preservation of prosperity by

fostering buying power through an ever increasing wage scale. This doctrine was rationalized by such writers as Hobson, and Foster and Catchings. Following the crash of 1929, industry made a worthy effort to adhere to the high wage theory and for the most part reduced wages only when forced to do so. The weakness of the high wage theory, or rather its incompleteness, lies in the fact that the direct effect of wage rises in a given establishment apply only to persons who usually consume but a small fraction of the products of their own efforts. The success of this plan depends, therefore, upon the delicate and difficult matter of all, or at least a great majority of, employers raising wages simultaneously. Furthermore, a rise in wages does not enhance the buying power of those whose incomes are derived from interest, rents, dividends, annuities, etc.

7. *Progressive Price Reduction*—Even prior to 1929 certain writers (largely industrialists) dealing with the subject of "mass production," linked gradually increasing wages with technological improvements, increasingly better products (or the development of entirely new products), and gradually declining retail prices. In certain fields, these ideas have been applied either quite fully or in part. For example, this mass production philosophy has been applied in the automobile industry, in the radio industry, and in the evolution of the chain store systems and of the great mail order houses. The Brookings Institution of Washington in a study extending over a period of three years, has quite recently issued four substantial volumes entitled, respectively, "America's Capacity to Produce," "America's Capacity to Consume," "The Formation of Capital" and "Income and Economic Progress." The findings of this investigation were summarized by Dr. Harold G. Moulton, President of the Institution, in a recent magazine article entitled "Economic Progress Without Economic Revolution."* This article is a coherent and well-documented plea for progressive price reduction as a means of avoiding crisis by so broadening the market as to keep consumption well abreast of production, and thereby diverting the attention of capitalists and consumers alike away from quick profits and speculation toward a long-range adaptation of the productive mechanism to the needs of the people.

From the foregoing, it is evident that the idea of the business cycle is by no means a new one, and, indeed, that Socialism has

* *Fortune*, November 1935.

its rise in the study of the causes of economic crisis. It is of interest that the earlier observers of the business cycle stressed "over-production" whereas the majority of later writers, whether socialistic or not, stress "under-consumption." In state of mind, therefore, we have made some progress in the direction of the "Economy of Abundance" of which lately we have been hearing so much.

* * *

As implied in my opening remarks, I am unable to recite our national economic credo because I have not discovered it. I feel that there is much to commend the mass production philosophy, and, further, that the work of the Brookings Institution is a substantial contribution towards the foundation of the structure we are seeking to build. Incidentally, I am confident that the casualty business can profit much by study and application of the price reduction theory. It is heartening that both producers and carriers are at last beginning to realize that adherence to a rigid scale of charges is not necessarily the surest or shortest way to profits.

The actuary, if he is persuaded to serve his country in the pursuit of a basic economic theory, will still need a specific objective. As I see it, this objective is the development of a comprehensive yet compact theory as to what type of private and governmental conduct will promote prosperity.

Prosperity is relative. The greatest prosperity exists when there is produced the greatest quantity of *voluntarily* consumed economic goods per capita; provided (1) that all fit individuals enjoy at least a reasonably abundant existence (2) that relative economic well-being depends approximately upon the social contribution of the individual, and (3) that the unfit are cared for scientifically and humanely. All these conditions are apt to be realized if the voluntary consumption of economic goods is sustained above a certain per capita level; as a rather wide diffusion of goods is the only way of sustaining a high aggregate consumption of most commodities.

Many have thought that the way to accomplish this end is through dictatorship by a person or a committee, as by this device the problem can be approached directly, i.e. the dictator, committee, or council can order such a division of effort as will keep all

workers and all resources of the state employed. This will not produce the desired result because of

1. Malingering and sabotage.
2. Cost of the necessary military establishment.
3. Restriction of invention due to destruction of profit motive.
4. Clothing, food, homes, selected by the dictator and therefore not suiting most individuals (our happiness depends largely upon our liking what we use).
5. Jobs selected by the dictator, and therefore not suiting most individuals (our happiness depends largely upon our liking our work).

Even in the economic field a reasonable degree of freedom is essential to well-being. Democracy is unwieldy, but, with the aid of education and ethics, it should continue to maintain a higher living standard than can any dictatorship. Somewhere between the jungle of *laissez-faire* theory and the prison-camp of socialism lies a happier country imbued with a progressive economic philosophy erected upon a foundation of economic science. I urge the members of this Society to make whatever contribution may be within their power to the task of discovering and developing this land.

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This bibliography was prepared by Mr. John J. Gately, an Associate of the Society, who assisted the author in the research incidental to the preparation of this paper.

THE EXTRA-TERRITORIAL APPLICATION OF COMPENSATION ACTS

BY

CLARENCE W. HOBBS

1. *In General.*

A goodly number of the compensation acts are by their terms extra-territorial: that is to say, having application to injuries sustained by employees subject to the act outside of the state. Others, not by their terms extra-territorial, have been so interpreted. This gives rise to a notable number of cases where a given injury may come within the scope of more than one law. If the injury is sustained in a state which has no compensation act, and there is an element of legal fault, there may be a right of action under the laws of that state to recover damages. If in a state which has a compensation act of its own, there may be rights under that act.

The problem created by this situation comes under the branch of jurisprudence known as Conflict of Laws. It is measurably different from the problem which exists when a state law infringes upon the Federal jurisdiction over interstate commerce or the Federal maritime jurisdiction. There the issue is essentially constitutional. Under the Federal Constitution the jurisdiction reserved to the Federal Government is paramount to the jurisdiction of the states. There are situations where the lack of a Federal law may justify the application of a state statute or a state common-law remedy to fill the vacancy; but once the Federal Government has acted, its jurisdiction is exclusive of that of the state, and the state law thereupon ceases to have application. The state has no option in the matter. Its courts may entertain jurisdiction of a cause of action; but the law applicable is the Federal law and an attempt to apply its own law can be summarily annulled.

When, however, a cause of action comes before the tribunal of a state, and the question is whether to apply the law of the forum or the law of some other state, there is no question of constraint, save in so far as the Federal Constitution may compel recognition of the laws of that other state. Save for the restrictions of the Federal Constitution, the states of the Union are sovereign states. Within its territorial boundaries a sovereign state has plenary

jurisdiction over persons and property found therein. It can regulate rights and duties. It can empower its courts to enforce its laws with respect to any persons within reach of its courts' processes.

On the other hand its jurisdiction stops at the state boundaries. Beyond these boundaries its laws have no effect. This does not prevent it from establishing rights and duties which will be recognized by its own courts with respect to acts and events transpiring beyond its bounds: but there is no obligation on the courts of another state to recognize those rights: nor indeed any obligation on the courts of another state to recognize any rights created by its law. Such recognition as is given by one state to the laws of another state is not by obligation but by the principle of comity. And the principle of comity is the basis of Conflict of Laws.

2. *Comity.*

Comity is, as its derivation implies, a principle of good-fellowship among states. As a practical matter, intercourse between states is a very difficult thing unless the states concerned do give some recognition to each others' laws. With regard to public affairs there is a fairly well defined code of international law. With regard to private affairs there is, strictly speaking, no international code. The extent to which one state will recognize the laws of another is essentially a matter of public policy; in other words a state does not have to be a good fellow in regard to private rights and recognize the laws of another state as having application thereto unless it so chooses. Public policy is a matter essentially legislative. Save as controlled by legislation, however, principles of comity have been developed in the private law of every state, interpreted and declared by its courts in the same manner as the principles of the common law. These principles have to some degree been recognized in all states, and follow along fairly uniform lines. Such principles as are pertinent to the matter in hand may be briefly noted.

(a) The principle of comity applies only to rights essentially private. No principle of comity requires one state to enforce the penal laws of another.

(b) The principle of comity requires a state to give recognition to and enforcement of private rights arising in another

state under the provisions of the laws of that state. Comity however does not require a state to enforce a right definitely contrary to its public policy, or one calculated to work injury to it or to its inhabitants.

No distinction is made between common law rights and statutory rights. If, however, the statute creating the right couples it with a statutory remedy unknown to the law of the forum, i. e. the law of the state in which action is begun; or if the statute provides that it shall not be the subject of an action outside the state, comity does not require the enforcement of the right.

12 C. J., 438-441.

(c) Causes of action arising in another jurisdiction will be enforced under the principle of comity only if the courts of that jurisdiction would enforce similar causes of action arising under the law of the forum.

12 C. J., 441.

(d) Comity does not require the application of a remedy unknown to the law of the forum. A state in recognizing and enforcing rights arising under the laws of other states applies the remedies provided by its own laws.

12 C. J., 447.

(e) In causes of action in tort, the question whether a particular act or event gives rise to an actionable tort is generally recognized as determined by the law of the state within whose bounds the act or event takes place. If, by the law of the state, there is no actionable tort, no right of action exists elsewhere, even in a state where the same acts or events would have constituted an actionable tort. Conversely, if the act or event, under the law of the state where the same takes place, does constitute an actionable tort, action may be maintained even in a state wherein the same act or event would not have constituted an actionable tort.

The law of the state where the right of action arises is generally applied to determine, not merely the existence of the right, but all questions strictly appurtenant thereto, such as questions of survivorship, defences, and limitations on the amount which can be recovered. Limitations of the time within which action must be brought are generally regarded as going to the remedy rather than to the right. These, therefore, and all other questions appurtenant to the remedy, are determined by the law of the forum.

12 C. J., 453-454.

(f) In causes of action in contract, the existence and validity of the contract are generally determined in accordance with the law of the state where the contract was made, i.e. the state in which the last act necessary to the completion of the contract was effected. A contract valid where made is generally recognized as valid everywhere, though it will not be enforced in a state where the making of such a contract is contrary to public policy. The law of the state of making the contract generally determines its interpretation and rights arising thereunder. If, however, a contract is to be performed in a state other than that where the contract was made, courts frequently assume that the parties contracted with a view to the law of the place of performance. Courts recognize also the right of parties to make stipulation in the contract as to what law shall govern: but this right must be exercised in good faith and without intent to evade the law of the forum.

12 C. J., 449-451.

(g) In causes of action based on quasi-contractual rights, the existence of the right is generally determined by the law of the place where the circumstances giving rise to the right occur.

(h) In causes of action based on status, the right is generally determined in accordance with the law of the domicile of the person, so long as the right concerns acts and events occuring within the domicile. When a person goes, even temporarily, into another jurisdiction, he does not necessarily take rights of status conferred by the law of his domicile with him. The state's exclusive control over persons within its territorial limits extends to the right of regulating status and its incidents.

12 C. J., 457-462.

The above principles are generally, but not uniformly observed: and their observance may in a given case be materially modified by the public policy of the state. There is, also, so far as the United States is concerned, a constitutional side to the question. Failure on the part of a state to give due recognition to rights arising under the laws of other states may in some instances at least raise issues under the "Full Faith and Credit" provision of the Federal constitution and also under the "Due Process" provision of the Fourteenth Amendment.

3. *The Nature of Rights to Compensation Benefits.*

The Compensation acts are long and complex statutes out of which grow various kinds of rights of action or modifications of existing rights of action. A good part of these are statutory actions sounding in tort. The right to compensation benefits, which is the most characteristic feature, is, however, of a peculiar nature, not the same under all compensation acts. It has been variously termed a right of contract, a quasi-contractual right, and a right of status.

In case of a compensation act which specifically refers to the right to compensation benefits as a statutory annexation to the contract of employment, it is more or less natural for a court to regard it as essentially a right of contract, and to settle questions of conflict of law on that basis, taking as a test the law of the place of making the contract, or the law of the place of performance, or a combination of the two. If the act is elective, and if the rights are regarded as written into the contract of employment by aid of a system of statutory presumption, there is a certain contractual element, i.e. neither party needs to have the element in the contract of employment unless he so wishes. But when the act is compulsory in character, there is no element of contract in the process. The incidents are appurtenant to the contract or to the relationship whether the parties wish it or not. Courts have tended in such case to regard the rights either as quasi-contractual or as rights of the status of employer and employee. If this is the case, the location of the employment and the domicile of the parties become elements more important than the mere place where the contract is made, and the place where the injury occurs is likewise of importance.

In addition, the right is not only a statutory right, but is very frequently coupled with a statutory remedy, so phrased as to indicate that it is to be enforced only by a proceeding before a local tribunal. As previously indicated, in such case the principle of comity does not require its enforcement: though in a proper case the court might still recognize the applicability of a foreign law and leave the parties to their remedy under it. When the law provides for the enforcement through ordinary court process, the remedy may be such as a court of another state can apply.

United Dredging Co. v. Lindberg, 18 F. 2nd 453.
Floyd v. Vicksburg Cooperage Co., 126 So. 395.

Again, the right is very frequently not an unconditional right. It is a right which arises by virtue of an agreement between the parties, with or without official approval: or a right which arises only after the approval of an agreement for compensation or the making of an award by a statutory tribunal. Frequently the approval of an agreement or the making of an award does not close the matter, the tribunal having power to modify the award, or even reopen the matter after payments have terminated. Many laws provide means for transforming an award into a judgment debt. Until this is done, however, the obligation to pay compensation under an award is not a debt, but has been termed essentially like a decree in alimony. It is neither provable in bankruptcy nor dischargeable in bankruptcy.

Lane v. Industrial Commissioner, 54 F. 2nd 338.

Indeed, if the analogy to alimony holds good, compensation claims would not be provable in bankruptcy even when reduced to judgment.

Audubon v. Shufeldt, 181 U. S. 575.

The nature of the right to compensation benefits is therefore of a puzzling character, and as stated above, not the same under all laws. Even apart from the question of public policy, which is capable of great variations as between state and state, it is necessary, in passing on a question involving conflict of laws to take cognizance of the statutes and the decisions thereunder in both states involved.

4. *The Constitutional Limitations.*

The extent to which the obligation of the states to recognize the laws of other states is not merely a matter of comity but is mandatory under the constitution of the United States has entered into a number of compensation cases, and bids fair to do so to a greater extent in the future. Art. IV sec. 1 of the Constitution provides:

> "Full Faith and Credit shall be given in each state to the public acts, records, and judicial proceedings of every other state."

A compensation act, and any other statute for that matter, is a public act.

Bradford Electric Light Co. v. Clapper, 286 U. S. 145.

As to whether a proceeding under a compensation act constitutes a "judicial proceeding", depends upon the nature of the process. If the act is enforced by ordinary court process and takes effect as a judgment it is doubtless a judicial proceeding. If enforced by an administrative tribunal, it seems more properly classed as a quasi-judicial proceeding. Some recognition must therefore be given to the laws of other states, and this is more than a mere recognition that the law exists and is valid. The fact that persons within this jurisdiction of the state have rights and duties thereunder must also be recognized.

An arbitrary and oppressive use of the state's jurisdiction in the form of a wanton disregard of such rights and duties under the law of another state might also raise issues under the "due process" clause of the Fourteenth Amendment.

Alaska Packers Ass'n v. Ind. Acc. Com., 294 U. S. 532.

This is not to say that the provisions quoted above write into the Federal Constitution any definite code of conflict of laws: if they did, the matter would be simple enough—for everybody but the Supreme Court. In cases involving actions in tort only, a definite rule has been adopted by the Supreme Court. It is the law, so recognized by that court, that when a person brings an action in one jurisdiction based on a tort committed in another, he does so on the ground of an obligation incurred at the place of the tort that accompanies the defendant elsewhere: and this obligation is not only the ground, but the measure of the maximum recovery.

Western Union Tel. Co. v. Brown, 234 U. S. 542.
Alaska Packers Ass'n. v. Ind. Acc. Comm., 294 U. S. 532.
Slater v. Mexican Nat'l R. Co., 194 U. S. 120, 126.
Cuba R. R. Co. v. Crosby, 222 U. S. 473.

Practically this is the generally followed rule of conflict of laws, i.e., that the law of the place where the tort is committed determines the right, the law of the forum the remedy.

In compensation cases, the Supreme Court is as yet reasonably far from adopting a definite rule: and this is probably due to the highly uncertain nature of the right to compensation previously noted.

Bradford Electric Light Co. v. Clapper, 286 U. S. 145 involved the case of an employee of a light and power company doing busi-

ness in both New Hampshire and Vermont. The employee in question was employed in Vermont, resided in Vermont and habitually worked there. He and his employer were subject to the compensation act of Vermont. This Act provided a remedy for injuries incurred outside the state, and this remedy under the terms of the act was exclusive.

The employee was sent to a sub-station in New Hampshire to replace burned-out fuses, and was killed there.

His administratrix, a resident of New Hampshire, brought an action in tort under the New Hampshire law to recover damages for the death. The employer had brought itself within the terms of the New Hampshire compensation act, but that act permits an election of remedy even after accident. The employer pleaded the Vermont act by way of defence.

This, the court held, the employer was entitled to do. In its opinion, the following points may be noted:

(a) That the Compensation Act of Vermont was a "public act" within the terms of the "Full Faith and Credit" clause.

(b) That where parties by their conduct subject themselves to obligations under a compensation act, giving a remedy in terms exclusive, for injuries sustained outside the state, this is not to deemed an extra-territorial application of the law of the state creating the obligation.

(c) That rights thus created under the Vermont act were entitled to protection when set up in New Hampshire by way of defence.

(d) That while the "Full Faith and Credit" clause does not require the enforcement of any right conferred by a statute of another state in case the forum has no court with jurisdiction of this controversy, or in case the forum has no procedure adequate to its determination, or in case the enforcement of the right conferred would be contrary to public policy, or in case the liability is a penal one, none of these considerations were applicable here. The right under the Vermont act was set up, not by way of relief, but by way of defence. It was a right similar to rights recognized under the laws of New Hampshire, and was in no sense penal.

(e) That it did not appear that it would be obnoxious to the public policy of New Hampshire to give effect to the Vermont act in cases involving merely the rights of residents of Vermont: and that it did not appear that the State of New Hampshire had any interests to be subserved by apply-

ing to own law, the deceased not having been a resident of New Hampshire, and having left no dependents there.

(f) That the acceptance of the New Hampshire act by the employer did not refer to any but New Hampshire employees, nor operate to bring within the New Hampshire law any employees not otherwise subject to it.

This case, while the opinion is very cautiously worded, serves at least to establish the principle that in some cases a state must give force and effect to rights and duties created under the compensation act of another state, even though the injury occurs within its own borders.

State of Ohio v. Chattanooga Boiler & Tank Co., 289 U. S. 439

involved the case of the employee of a Tennessee firm, killed while erecting a tank in the state of Ohio. The employee was a resident of Tennessee and his contract of employment was made there, and both employee and employer were subject to the Tennessee compensation act.

The employer had no place of business in Ohio, had not complied with the Ohio compensation act, and had not qualified under the Ohio laws to do business there as a foreign corporation.

The widow, who had transferred her residence from Tennessee, made application for compensation under the Ohio law. The employer appeared specially to challenge the Commission's jurisdiction. This plea was overruled. The employer did not defend further, and the Commission made an award for $4,900. The maximum which could have been recovered under the Tennessee law was $2,200.

The employer did not pay the award. The Industrial Commission of Ohio paid the award out of the State Fund, and brought action against the employer to recover. The first suit failed for want of jurisdiction, and a second suit was brought in the name of the State of Ohio under the original jurisdiction of the Supreme Court over controversies between a state and citizens of another state.

Meanwhile the widow made application for compensation under the Tennessee law. The employer defended on the ground that by seeking and obtaining an award under the Ohio law she had waived her right to exclusive remedy, in case of injuries sustained outside the state. The court upheld the employer's contention, but added rather significantly that it did not see exactly how the employer, having taken this position, was going to avoid liability for the Ohio award.

Tidwell v. Chattanooga Boiler & Tank Co., 43 S. W. 2nd 221.

This proved to be the case. The Supreme Court distinguished this case from Bradford Electric Light Co. v. Clapper on the ground that in view of the decision of the Tennessee Court it was evident that the remedy provided by the Tennessee act was not exclusive, and gave judgment against the employer.

This case does not limit the Clapper case, and is of value merely as illustrating the extreme peril of inconsistent positions. The widow was entitled to compensation under the one law or the other; and the employer having in one case taken the position that she was not entitled under the Tennessee law might have anticipated that the Supreme Court would not look very kindly on a plea that the matter was governed by the Tennessee law rather than the Ohio law.

Alaska Packers Ass'n v. Ind. Acc. Com., 294 U. S. 532,

involved the case of a non-resident alien employee, hired in California to work during the fishing season in Alaska, a period of about three months. The contract involved transportation to Alaska, and transportation back to California at the end of the season. The work was to be performed wholly in Alaska, and the contract contained a stipulation that it should be subject to the Alaska compensation act, The contract, however, being made in California, in this respect ran counter to a provision of the California law, which is extra-territorial in terms, and which provides that no contract of employment shall exempt the employer from liability for the compensation fixed by the act.

The employee was injured in Alaska, and on his return to California, sought compensation under the California act. Compensation was awarded, and sustained by the state courts.

Alaska Packers Ass'n v. Ind. Acc. Com., 34 P. 2nd 716.

This decision was affirmed by the Supreme Court. The following points in the opinion may be noted.

(a) The "due process" clause of the Fourteenth Amendment does not necessarily prevent a state from regulating the incidents of a contract to be performed elsewhere.

(b) While under the rule laid down in Western Union Telegraph Co. v. Brown, 234 U.S. 542, a state has no power to control the legal consequences of a tort committed elsewhere, liability under the compensation acts is not a tort, but a liability imposed as an incident of the employment relationship.

(c) In the present case, the exercise of control over a contract to be performed entirely outside the state was not so arbitrary or unreasonable as to constitute denial of due process of law. The court however significantly left open the question as to what its position would be had it appeared that the parties were both domiciled in Alaska, or that the state had a less adequate reason to control the particular contract of employment. The present contract involved seasonal employees, hired in California, transported some 2000 miles to Alaska and returned at the end of the season. If injured, and brought back, they would be in no position to secure their rights under the Alaska law, which by its terms cannot be enforced outside Alaska: and the responsibility for their care might well devolve upon California.

(d) California was under no obligation under the 14th amendment to prescribe the Alaska remedy rather than its own. The obligation, if it existed, was under the "Full Faith and Credit" provision.

(e) California did not exceed its constitutional power by prohibiting employers from making contracts of employment which exempt them from liability for the compensation fixed by the act.

(f) The "Full Faith and Credit" clause does not require a state rigidly to apply the statute of another state which by its terms is applicable. The conflict is to be resolved by appraising the governmental interests of each jurisdiction in the particular case, and turning the scale of decision in accordance with the relative weights of those interests. The result of this is stated by the court in the following manner:

> "It follows that not every statute of another state will override a conflicting statute of the forum by virtue of the 'Full Faith and Credit' clause: that the statute of a state may sometimes override the conflicting statute of another, both at home and abroad: and again, that the two conflicting statutes may each prevail over the other at home, though given no extra-territorial effect in the state of the other."

This last quotation is one which involves the whole subject in obscurity. The meaning appears to be that in passing on questions of conflict of law in the compensation field, the court does not intend to observe technical rules, but to be guided in the final analysis by a rule of reason, based on the facts in the particular

case. This issue is apparently not drawn upon the nature of the right to compensation benefits, nor upon the application of any particular theory of conflict of law, but essentially upon the question, which state is the one which should properly regulate this particular employment: which state has the major interest in controlling the incidents of this particular employment. One thing is certain: the above decisions do not consistently support the application of either the law of the place of making or the law of the place of performance of the contract. It seems not improbable that the considerations of major interest will ultimately be found to follow in the main the application of the law of the place where the employment is localized: but this is by no means conclusively shown, and it is very doubtful if such a rule would be technically or rigidly applied. If a case is taken to the Supreme Court, it will probably be found necessary to buttress any argument of legal theory with considerations of substantive merit derived from the facts of the particular case.

5. *Conflicts between rights under Compensation Acts and rights of action in tort.*

In the early days of compensation, the situation of a conflict between a right of action in tort and a right under a compensation act was more frequent than it is today. The situation, however, still occurs, occasionally with respect to rights to compensation benefits, more frequently with respect to rights under the compensation acts which sound in tort.

(a) *When the injury occurs in the forum.*

If the injury under the laws of the forum gives rise to an action of tort, the question is, whether the compensation act of another state can be pleaded in bar.

Where it appears that the injured employee and his employer were both subject to the compensation act of another state, and that act provided that the compensation benefits applied to injuries sustained outside the state and were by the terms of the act the employee's exclusive remedy, there seems to be reason for recognizing the validity of the compensation act of the other state by way of comity as a bar to the action.

Barnhart v. American Concrete Steel Co., 125 N. E. 675 (New York).

The Linseed King, 48 F. 2nd 311.

In re Spencer Kellogg & Sons, 52 F. 2nd 129.

As has been seen, in some cases the "Full Faith and Credit" clause of the Federal Constitution requires this.

Bradford Electric Co. v. Clapper, cited above.

There are, however, cases where this has not been done. When the contract is with a resident of the forum, for work to be done wholly within the forum, principles of comity would not seem positively to require the application of the law of the state where the contract of employment was made: and a stipulation in the contract that the compensation act of that state should apply might properly be regarded as an endeavor to evade the laws of the forum.

Standard Pipe Line Co. v. Bennett, 66 S. W. 2nd 637.

The case of *Farr v. Babcock Lumber Co., 109 S. E. 833 (N. C.),* is not so easily explainable. The employee was hired in Tennessee for work in Tennessee and elsewhere. He and his employer were subject to the Tennessee compensation act. He was injured in North Carolina, and the North Carolina court held that the Tennessee Act, which is in terms extra-territorial, did not bar an action at law.

The case of *Paulus v. State of South Dakota, 201 N. W. 867 N. D.,* involved a different principle. Here an employee of the state of South Dakota was injured while working in a coal mine operated by that state in North Dakota. The court declined to entertain the suit on the ground of comity, but the comity was apparently on the principle that a sister state could not be sued without its consent.

If the injury occurs in the forum, and the forum has a compensation act, it need not give cognizance to the fact that the employee came from a state where like injuries would give rise to an action in tort. By familiar rule a right sounding in tort must be founded on the law of the place where the tort is committed: and the only question is, whether the employee, the employer and the injury come within the terms of the local compensation act. If not, the remedy is under the liability laws of the forum.

(b) *When the injury occurs outside of the forum.*

If the forum has no compensation act applicable to the injury in question, it can entertain an action in tort for an injury occuring outside the forum; but on familiar principle, that action must be founded on the law of the place

where the injury occurs. This principle, as has been seen, is recognized by the United States Supreme Court.

Hence, ordinarily if the injury under the law of the State where it occurs gives rise to rights under the compensation act of that state and does not give rise to rights of action in tort, that should be a conclusive defence to an action of tort brought in the forum.

Singleton v. Hope Engineering Co., 137 So. 441 Ala.
Logan v. Missouri Valley Bridge and Iron Co., 249 S. W. 21 Ark.
Magnolia Petroleum Co. v. Turner, 65 S. W. 2nd 1 Ark.
Floyd v. St. Louis Smelting & Refining Co., 215 S. W. 506 Mo.
Anderson v. Standard Oil Co., 209 N. Y. S. 493 N. Y.
Shurtliff v. Oregon Short Line, 241 P. 1059 Utah.
Prdich v. N. Y. C. R. R. Co., 183 N. Y. S. 77 N. Y.
Wasilewski v. Warner Sugar Ref'g. Co., 149 N. Y. S. 1035 N. Y.
Reynolds v. Day, 140 P. 681 Wash.

There are two North Carolina cases to the counter which seem bad in principle. In the first case the employee was hired in North Carolina, by a corporation subject to the Tennessee compensation act, and was injured in Tennessee. In Tennessee his remedy was apparently under the compensation act. The court however, permitted an action in tort to be maintained, on the very peculiar ground that since the Tennessee act was enforceable locally only, there was not a case for the exercise of comity.

Johnson v. Carolina C. & O. R. Co., 131 S. E. 390.

The other case involved a resident of North Carolina, hired in Tennessee and injured there. The court held, however, that the Tennessee act did not bar an action for damage.

Lee v. Chemical Construction Co., 136 S. E. 848.

These cases seem contrary to the general trend of decision.

If the compensation act of the state where the injury occurs does not apply to the case in question, it cannot of course be pleaded in bar.

Dillard v. Justus, 3 S. W. 2nd 392 Mo.

In *Shurtliff v. Oregon Short Line,* cited above, a principle involved may be noted namely, that the law of another state must be proved like any other question of fact. The Utah court in that case, in the absence of evidence, assumed

that the Idaho compensation act was, like the Utah compensation act, exclusive in terms.

If the state has a compensation act applicable, it would seem unquestionable that no action at law can be maintained in that state, even though the act constitutes an actionable tort under the law of the state where committed.

In the case of *St. Louis & S. F. R. v. Carros, 93 So. 455,* this principle was held not to prevent an action where the compensation act was not pleaded in defence.

(c) *Effect of Compensation Act of Forum on Foreign Torts.*

i. If there is a right of action based on an injury outside the territorial bounds of the state, and the local compensation act gives no remedy for that particular injury, there seems no reason why an action may not be maintained despite the fact that so far as local injuries are concerned the state has generally substituted a remedy of a different kind. Thus, it has been held that the abolition of common law remedies in compensation cases does not affect the right to maintain an action at law for an injury occurring outside the state.

Reynolds v. Day, 140 P. 681.

ii. The provisions of the compensation acts abolishing common law defences, are in general restricted to cases involving employers, employees and injuries which come within the scope of the act. Attempts to invoke these provisions in case of a right of action based on an injury to which the compensation act has no application are generally negatived. Such attempts are not infrequently made in case of injuries coming within the scope of the maritime jurisdiction of the United States.

There is, however, one case where the abolition of common law defences has been applied in an action of tort involving an out-of-state injury. Generally, defences are matters touching the right, and as such are governed by the law of the place where the tort occurs. This particular case involved an injury to the employee of a railroad, employed in Massachusetts, and injured in intrastate commerce outside of Massachusetts. The railroad had not complied with the Massachusetts compensation act, and was therefore liable to action at law. The action was brought in Massachusetts, and the court held that the provisions of the Massachusetts act abolishing common law defences was applicable; and this position was sustained by the Supreme Court. This is apparently on the ground that the abolition of common law defences

is so annexed to the employment as to operate extra-territorially, as the compensation provisions would have, had the employer accepted the act. Had the employee been engaged in interstate commerce, or had the employee been hired outside the state, the same result could hardly have obtained.

Armburg v. Boston & Maine R. Co., 177 N. E. 665, 285 U. S. 234.

iii. Provisions of the compensation acts creating special rights of action in tort are effective only as to torts committed within the state. A right of action in tort cannot be created with respect to an act not tortious under the law of the state where it is committed.

So held in case of a statutory right of action to recover the amount of an award paid on account of an injury caused by the wrongful act of the defendant outside the bounds of the state.

Travelers Ins. Co. v. Central R. of N. J., 258 N. Y. S. 35 (N. Y.).

So also in case of a statutory provision empowering the industrial commission to bring an action in tort to recover for injuries to an uninsured employee. Here, however, not only were the injuries received outside the state, but an attempt was made by the injured employee to maintain an action.

Osagera v. Schiff, 240 S. W. 124 (Mo.).

(d) *Subrogation Rights Under the Compensation Act of the Forum.*

Nearly every compensation act has a provision expressly authorizing the bringing of actions by employees entitled to compensation, and providing for subrogation to the employee's rights in favor of the employer or insurer paying compensation. Where the injury occurs in another state, question arises as to how far rights under these provisions are applicable.

i. The third party provisions are not essentially the creation of a new right of action, but the preservation of a right of action already existing. It would seem therefore that an employee or beneficiary subject to the local compensation act is not barred from maintaining a right of action arising under the laws of another state, whether

he sues as an individual or by virtue of an appointment as administrator.

Smith v. Arkansas Power & Light Co., 86 S. W. 2nd 411 (Ark.)
Bernard v. Jennings, 244 N. W. 589 (Wisc.)
In re Hertel's Est., 237 N. Y. S. 655 (N. Y.).
Rorvik v. North Pacific Lumber Co., 190 P. 331, 195 P. 163.
Betts v. Southern R. Co., 71 F. 2nd 787.

ii. The fact that compensation has been paid properly has no standing in the action against a third party, being a transaction in which the third party has no concern. The verdict therefore cannot be diminished by the amount of compensation paid.

Smith v. Arkansas Power & Light Co., cited above.
Bernard v. Jennings, cited above.
Rorvik v. North Pacific Lumber Co., cited above.
Betts v. Southern R. Co., cited above.

iii. The subrogation sections occasionally raise difficult questions as to whether the employer or the insurer who has paid compensation is a necessary party in an action brought without the state. On general principles, the state cannot confer on them a right of action based on a foreign tort, nor is its action in making them parties in actions brought in its own courts binding on a foreign forum. It may be noted that subrogation rights may exist independently of statute.

In *Smith v. Arkansas Power and Light Co., 86 S. W. 2nd 411,* the question was raised but found immaterial, both employer and insurer having waived their rights under the statute.

The same question occurred in *Goldsmith v. Payne, 133 N. E. 52* and *Hendrickson v. Crandic Stages, 246 N. W. 913.* The first case indicated that a railroad operating in interstate commerce could not set up the subrogation provisions of an act to which it was not subject. The second case, involving an Illinois employee, was decided, partly on the authority of the first, partly on the ground that the subrogation provisions were not extra-territorial in operation.

The extent to which a subrogation provision transfers rights of action to the employer is similarly no easy ques-

tion when rights under the laws of other states are involved.

Anderson v. Miller Scrap Iron Co., 170 N. W. 275, 171 N. W. 935, 182 N. W. 852, 187 N. W. 746 (Wisc.).

Here the court indicated that the subrogation section of the Wisconsin law does not operate to transfer to the employer a right of action arising under the laws of Michigan.

Bernard v. Jennings, 244 N. W. 589 (Wisc.).

Similarly held as to rights of action under the laws of Indiana.

Hartford Acc. & Ind. Co. v. Chartrand, 204 N. Y. S. 791.

Here the New York Court refused to recognize the subrogation section of the New Jersey act as operating to create a lien on a New York judgment.

Rorvik v. North Pac. Lumber Co., 190 P. 331, 195 P. 163.

Here the Oregon Court refused to recognize the subrogation section of the California compensation act as operating to transfer a right of action under an Oregon statute which was by the terms of the law unassignable.

In re Hertel's Estate, 237 N. Y. S. 655. This held that a widow, having taken compensation under the New York law, was bound by the subrogation section, even though the cause of action rose under the laws of Michigan.

Betts v. Southern R. Co., 71 F. 2nd 787. This held that a widow, having received compensation under the North Carolina law, might maintain suit under the Virginia death statute: but indicated she was subject to a lien on the judgment under the North Carolina subrogation section for the amount of compensation paid.

With regard to the above cases it may be stated that except in so far as this is directly contrary to the law of a state, under whose laws the right of action arises, there seems to be no good reason why a state which has required an employer to pay compensation, should refuse to recognize his right to be subrogated to such rights as the employee or his beneficiary may have against a third party, to the extent at least of the amount of compensation paid or payable. When the beneficiary sues not in his or her own right, but by virtue of an ap-

pointment, the subrogation should go merely to the extent of the beneficiary's interest, as was apparently held in the Hertel's Estate case cited above. There seems to be no reason, however, why the state in which an action is pending should be required to recognize the rights of any parties save those which are, under its own laws, proper parties to the suit.

It may be observed that the above is in no sense an endeavor to cover all phases of the intricate subject of subrogation, but merely of such phases thereof as have reference to the laws of more than a single state.

6. *Conflicts between Compensation Acts.*

(a) *In General.*

The most frequent case of conflict between compensation acts is in case of an injury, compensable under the terms of the act of the state where it occurs, compensable also under the act of the state where the contract of employment is made, or where the employment is located. In such case it is necessary to determine whether to apply the one act to the exclusion of the other, or whether to regard both acts as having some application.

This is a matter which is determined primarily on considerations of the public policy of the forum, or if there has been no declaration of public policy, on considerations generally of comity. Public policy is very frequently declared in the compensation acts in regard to the extent to which its acts shall operate extra-territorially, that is to say, with respect to injuries sustained outside the state: and these declarations often indicate fairly well the theory on which they are founded, so that, in determining concrete problems the courts have a clue as to the principles to be applied. Declarations of public policy as to the extent to which the compensation acts of other states shall be recognized in connection with injuries in these states, or in connection with injuries in the forum are much less frequent: and in a considerable number of states there are no declarations at all. It may be stated at once, that express declarations of public policy differ very widely, and that the principles followed by the courts in supplementing declarations of public policy or in supplying them are by no means uniform.

i. The acts of Delaware and Oklahoma do not apply extra-territorially. In Alaska, New Hampshire and Wyoming, there is no provision for extra-territorial application, and no indication of the decision of the courts as to such application.

Delaware has an express statutory declaration that its act applies to all injuries sustained within the state.

ii. The acts of Arizona, Missouri, New Jersey, and Pennsylvania have extra-territorial application, in case of Arizona, Missouri and Pennsylvania by statute, in case of New Jersey by decision. In case of Missouri and Pennsylvania there is a statutory declaration as to injuries sustained within the state similar to that of Delaware, and in Arizona and New Jersey a similar policy has been indicated by judicial decision.

iii. The rest of the states have acts which are extra-territorial either expressly or by judicial construction. The policy with respect to injuries sustained within the state is in most cases uncertain. In case of Colorado, Connecticut, Indiana, New York and Vermont, however, the courts apparently apply to injuries sustained within the state the same principles that govern the application of their own acts to injuries sustained without their bounds.

Comity properly has application only to the extent that the state whose law is in question gives effect to the law of the forum in like cases. In case of the laws of Arizona, Missouri, New Jersey and Pennsylvania, therefore, it is to be presumed that a state would not feel constrained on grounds of comity to withhold application of its own law in case of an injury within its own bounds, merely because of the existence of a remedy under the laws of these states. As indicated previously, on constitutional principles, some recognition of the rights under the laws of other states is, in a proper case, obligatory.

(b) *Principles of Contract.*

i. *In General.*

In case of the greater number of the states which have given extra-territorial application to these laws, this application is based on the fact that the contract of hire is made within the state. The early tendency of the courts was to rate rights to compensation benefits as contractual rights, and in cases involving conflict of laws to apply principles derived from decisions on the subject of contracts generally and this tendency received no little support from the wording of the compensation acts.

These principles are fairly well established. A contract is governed as to its validity and its incidents by the law of the place of making, with the exception that where it is to be performed in a particular location, the parties may be presumed to have intended the laws of that place to govern.

In accordance with this principle, if a contract of employment is made in a state which annexes to the contract the incident of compensation benefits, that incident should follow him wherever he goes, regardless of space and time. This is true whether the contract is to be performed within the state in whole or in part, or actually outside its bounds, with the one exception that, if it is to be performed entirely within another state, it may be presumed that the parties intend the laws of that state to govern.

This principle afforded a facile means for justifying the extra-territorial application of compensation acts, which in many cases was desirable. On the other hand, it tended in some cases to carry the compensation acts far beyond the sphere in which they could effectively be applied, and beyond the sphere where the state had a legitimate interest to conserve in applying them. Moreover, the reciprocal principle was just as clearly indicated, namely that a state was bound to recognize the application of the act of another state to injuries within the state if the contract of employment was made in that state, unless the contract of employment was exclusively for services within the forum. And this principle resulted in applying the compensation acts of other states to cases of employment wherein the state had a very legitimate interest to conserve in applying its own laws.

For this reason, states have been inclined to draw away from the contract theory, either by reservations in their laws, or by court decisions. An appendix gives a brief summary of the statutory provisions in each state, and of decisions thereunder.

ii. *Where the Contract is Made in the Forum and the Injury is Outside the Forum.*

Most states give extra-territorial application to their laws in cases where the contract of hire is made within the state.

This formula appears in the laws of Alabama, Arizona, California, Georgia, Hawaii, Idaho, Illinois, Kansas, Kentucky, Maine, Maryland, Massachusetts,

Michigan, Missouri, Nevada, North Carolina, Ohio, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia and West Virginia.

In most of these states there are statutory limitations. In Arizona, the extra-territorial provision applies also to workmen regularly employed in the state. This brings Arizona within the class of states which do not follow the contract theory.

Outside of statutory provisions, the state act has been given extra-territorial application on principles of contract in Colorado, Connecticut, Indiana, Iowa, Louisiana, Minnesota, Nebraska, New Jersey, New York, Rhode Island, Washington, and Wisconsin. But in Indiana, Minnesota, Nebraska, New York and Wisconsin there has developed a tendency away from the contract theory, towards the theory of localization, or in case of Wisconsin of status.

As to states not included in the above, the following will indicate the general situation.

Alaska	Act probably not extra-territorial.
Arkansas	No compensation act.
Delaware	Act not extra-territorial.
Dist. of Col.	Act extra-territorial on localization principle.
Florida	Act extra-territorial. Principle not stated in law.
Mississippi	No compensation act.
Montana	No extra-territorial provision.
New Mexico	No extra-territorial provision.
New Hampshire	No extra-territorial provision.
North Dakota	Extra-territorial to very limited extent.
Oklahoma	Act not extra-territorial.
Pennsylvania	Extra-territorial to very limited extent, apparently on localization principle.
Wyoming	No extra-territorial provision.

The exceptions and limitations of the contract theory in the states where it applies are discussed under later headings.

It seems natural to classify a state which applies its law extra-territorially on the basis of a contract of hire made within the state as definitely committed to the con-

tract theory. Unfortunately, as will be seen, some do not follow the theory consistently: and in most the statutory limitations are inconsistent with the theory.

The contract theory serves very well to give an extra-territorial application of the state act in most cases where such application is desirable. There is, however, a class of cases, consisting of employees regularly employed in the state and even residing there permanently, who cannot get the benefit of extra-territorial provisions because the contract of hire was made elsewhere. This entails in many cases a peculiar hardship, and constitutes one practical reason for a trend to the localization theory. Another reason is discussed under the following heading.

iii. *Where the Contract is Made Outside the Forum and Injury Occurs Inside the Forum.*

This is the converse of the preceding rule. Ordinarily it would seem to follow that if a state extends its act extra-territorially on the theory that the contract of employment is made in the state, the principle of comity would require a reciprocal application of the rule when the question is of an injury within the state and the contract of employment is made in a state whose law is extra-territorial. It is not, of course, bound to apply the law of the other state to an extent beyond what that law requires.

On this point, states have hesitated to go to the extreme limit of the rule, which would indeed have far-reaching results. Some have invoked the law of the place of performance, which is legitimate enough, providing the contract is for services exclusively in the state, and providing also that the principle is really applicable. The law of the place of performance is applied on the theory that the parties intended the law of the place of performance to govern: but under many compensation acts, parties are strictly forbidden to limit the scope of the act by contract. It will be remembered that this point was involved in the case of Alaska Packers Ass'n v. Ind. Acc. Com., 294 U. S. 532. Where an employee is a resident of the state and the state or a subdivision thereof is liable for his support, undoubtedly it has a proper governmental interest to see that he is properly compensated for the injury, and the consideration that the contract of employment was made outside the state is technical.

So technical, indeed, that as compared with cases

under the preceding heading, cases under this heading are relatively few. The following note indicates the policy of the states as far as this can be inferred.

Alabama .....No decided cases. Extra-territorial feature of act based on place of making contract.

Alaska .....Probably not extra-territorial.

Arizona .....Act contains a provision for enforcing the law of other states in case of workmen hired without state. But this provision has been held not to apply to any case when the injury is sustained in Arizona.

Ocean Acc. & Guar. Corp'n v. Ind. Acc. Com., 257 P. 645.

California .....No cases. Act extra-territorial on contract theory.

Colorado .....Act does not apply when contract of employment is made outside of Colorado and not to be performed principally in Colorado.

Hall v. Ind. Acc. Com., 235 P. 1073.

Connecticut .....Very properly applies law of state in case where contract of employment was made in a state where law was not extra-territorial and where employer and employee had accepted Connecticut act.

Douthwright v. Champlin, 100 Conn. 97.

Applies law of Connecticut when contract is to be performed in Connecticut.

Banks v. Albert P. Howlett Co., 102 A. 822.

Does not apply law of Connecticut when contract is not for performance of services exclusively in Connecticut.

Hopkins v. Matchless Metal Polish Co., 121 A. 828.

Delaware .....Act not extra-territorial, and made expressly applicable to all injuries in state, irrespective of where contract of employment was made.

Dist. of Col. .....Act has been applied to injury in District of Columbia when contract of employment was made in another state and services were performed in a number of states. Cases in the District of Columbia will probably not be settled in accordance with the contract theory, but on localization theory.

U. S. Cas. Co. v. Hoage, 77 F. 542.

Florida .....Not known.

Georgia .....No cases. Extra-territorial feature is on contract theory, but restricted.

Hawaii .....No cases. Act is on contract theory as to extra-territoriality, and contains a provision similar to that noted in Arizona for enforcing the law of other states in case of workmen hired outside state.

Idaho .....No cases. Act similar to that of Hawaii.

Illinois .....No cases. Extra-territorial feature of act on contract theory.

Indiana .....Indiana act held applicable in case of contracts made outside state for services to be performed in Indiana.

Hagenbeck & Great Wallace Show Co. v. Randall, 126 N. E. 501
Same v. Ball, 126 N. E. 504.
Johns Manville Inc. v. Thrane, 141 N. E. 229.

But not applicable when services in Indiana are incidental to an outside employment.

Darsch v. Thearle-Duffield Fire Works Display Co., 133 N. E. 525.
Norman v. Hartman Furniture & Carpet Co., 150 N. E. 416.
Bishop v. International Sugar Feed Co., 162 N. E. 71.
Smith v. Menzies Shoe Co., 188 N. E. 592.

Iowa ..... No cases. Cases on extra-territoriality follow contract theory.

Kansas ..... No cases. Act extra-territorial on contract theory.

Kentucky ..... No cases. Act extra-territorial on contract theory.

Louisiana ..... No cases. Cases on extra-territoriality on contract theory except Durrett v. Eicher-Woodland Lumber Co., 140 So. 867, which appears to tend towards localization theory.

Maine ..... In the only case involving the situation, the employer had apparently brought himself under the Maine act: and was not subject to the compensation act of his own state. The Maine act was held to apply, although the contract of service was made in Massachusetts.

Smith v. Heine Safety Boiler Co., 112 A. 516.

Maryland ..... No cases. Act extra-territorial on contract theory but to limited extent.

Massachusetts .. No cases. The cases on extra-territoriality seem to follow the contract theory.

Michigan .....Extra-territorial features of act on contract theory as are cases on extra-territoriality. But the case of Leininger v. Jacobs, 257 N. W. 764, where compensation was awarded under the Michigan act in case of a contract of employment made outside the state for trucking between Toledo, Ohio, and parts in Michigan does not fit in very well with the contract theory.

Minnesota .....Minnesota follows localization theory, but the case of Ginsburg v. Byers, 214 N. W. 55, might well have been decided the same way on the contract theory. Here the contract of employment was made by a Minnesota employer outside the state. The employee worked on a job in Iowa till it was finished, and then came to work on a different job in Minnesota.

Missouri ..... Act provides that it shall apply to all injuries in state regardless of where contract of employment was made.

Montana .....(Uncertain).

Nebraska .....The case of Esau v. Smith Bros., 246 N. W. 230, appears to fit in better with localization theory than contract theory. Here the employee was hired in Kansas, where the employer was located. Subsequent to the employment, he moved his headquarters to Nebraska. It did not appear that the contract was for services solely in Nebraska. The Nebraska act was, however, held applicable.

Nevada .....No cases. Extra-territorial feature of act on contract theory but limited.

New Hampshire . Uncertain. But inasmuch as act authorizes an alternative remedy in tort, the principle is not of the same importance as elsewhere.

New Jersey..... Act held to apply to injuries sustained in New Jersey, irrespective of place of ruling contract.

American Radiator Co. v. Rogge, 92 A. 85, 93 A. 1083.
Davidheiser v. Hay Foundry Co., 94 A. 309.
Rounsaville v. Central R. Co. of N. J., 94 A. 392.
West Jersey Trust Co. v. Phila. & Reading R. Co., 95 A. 753.

These cases are frankly inconsistent with the principle of contract.

New Mexico .... No cases.

New York ..... New York does not follow the contract theory but the localization theory. The application of the New York law is made to depend on the question whether the employment was localized in New York.

North Carolina.. No cases. Extra-territorial features of act on contract theory, but with limitations.

North Dakota ... No cases. Little indication as to policy.

Ohio ..... The Supreme Court case of State of Ohio v. Chattanooga Boiler & Tank Company, 289 U. S. 439, indicates that Ohio does not adhere to the contract theory in passing upon injuries sustained within the state.

Oklahoma ..... No cases. The act is not extra-territorial.

Oregon ..... No cases. The act is extra-territorial on the contract theory but to a very limited extent.

Pennsylvania ...Act applies to all injuries sustained within state, regardless of where contract of employment is made.

Rhode Island....No cases. The one case on extra-territoriality went on lines of contract.

South Carolina ..No cases. Act extra-territorial on contract theory, but to limited extent.

South Dakota ...No cases. Little indication as to policy.

Tennessee .....No cases. Act extra-territorial on contract theory.

Texas .....No cases. Act extra-territorial on contract theory, with some limitations. But inasmuch as an employee comes within the Texas act only by insuring, the case is not likely to arise.

Utah .....No cases. Act extra-territorial on contract theory and contains provisions for enforcement of remedies under laws of other states in case of workers hired without the state.

Vermont .....The act is extra-territorial on contract theory and contains provisions similar to that of Utah. In the only recorded case, De Gray v. Miller Bros. Const. Co., 173 A. 556, the court applied the Vermont act, but indicated that ordinarily, in case of a foreign contract of employment, it would, on principles of comity, decline to take jurisdiction, leaving the parties to their remedy in the state where the contract was made.

Virginia .....No cases. Act extra-territorial on contract theory with limitations.

Washington ....No cases. Policy of state uncertain.

West Virginia...No cases. Act extra-territorial to limited extent on contract theory.

Wisconsin .....The state follows the theory of localization or status, rather than the theory of contract.

The case of Johnson v. Wilson, 150 N. W. 620, might have been decided the same way under the contract theory, the employee having accepted the Wisconsin act.

The case of Interstate Power Co. v. Ind. Com., 234 N. W. 889, where an employee was injured in Wisconsin while there only temporarily, does not seem to fit in with the contract theory.

Wyoming .....No indications of state policy.

The above will indicate that in this branch of the question there is no little confusion. It must be admitted that in this particular field the contract theory does not assort well with the lines followed by the Supreme Court of the United States.

iv. *The Law of the Place of Performance.*

This well-known principle of conflict of laws has been recognized in the compensation field chiefly as a convenient reason to avoid applying the law of another state to domestic injuries. Recognition as to restricting application of the laws of the forum to injuries sustained in other states is not so common. The principle is a difficult one to apply in view of various provisions of the compensation act. The greater part of the acts have specific provisions that the act shall apply in case of contracts of employment made within the state to injuries sustained outside the state: and while in a number of cases exception is made of contracts to be performed entirely outside the state, in the absence of such provision the principle can hardly be applied. Again, as previously mentioned, if the compensation act provides, as many do, that employees and employers may not by contract escape from its provisions, there is no room for a doctrine which is based on a presumption that the parties intended the law of the place of performance to

apply. Here again, some acts specifically provide or by implication authorize, contracts to exempt foreign injuries from the provisions of the act.

The cases on the subject come, as might be expected, chiefly from states where extra-territoriality is not by virtue of express statutory provisions, but is read into the act by interpretation. They may be cited as follows:

Colorado .....*Platt v. Reynolds, 282 P. 264.* This seems to have been decided, however, on the point that relation of employer and employee never existed in Colorado.

Connecticut ....*Banks v. Albert P. Howlett & Co., 102 A. 822.* As interpreted by court, this was case of a contract to be performed in Connecticut.

Indiana .....*Hagenbeck & Great Wallace Show Co. v. Randall, 126 N. E. 501.*

Hagenbeck & Great Wallace Show Co. v. Ball, 126 N. E. 504.

Johns-Manville Inc. v. Thrane, 141 N. E. 229.

Bement Oil Corp'n v. Cubbison, 149 N. E. 919.

Leader Specialty Co. v. Chapman, 152 N. E. 872.

New York .....*Perles v. Lederer, 178 N. Y. S. 449, 189 A. D. 425.*

Baum v. N. Y. Air Terminals, Inc., 245 N. Y. S. 357, 230 A. D. 531.

v. *Where Contract of Employment is Made Outside State and Injury Occurs Outside State.*

Ordinarily under any contract theory, there is no possible reason for a state to apply its law to such a case. This has generally been held. The reason why the question should be raised at all would seem to be on the ground that the right to compensation benefits is in some way connected with the fact that the employee is domiciled in the state, i.e., that it is a right of status. But the status doctrine, as will be seen, is adopted in

very few states and in these is not developed to any great extent. Some cases are brought up, doubtless, on question as to where the contract of employment was made.

State law held not applicable—

Indiana ..... *Finkley v. Eugene Saenger Tailoring Shop, 196 N. E. 536.*

Kansas ..... *Dawes v. Jacob Dold Packing Co., 38 P. 2nd 107.*

Louisiana ..... *Abood v. Louisiana Oil Refining Corp'n, 155 So. 484.*

Maryland ..... *Liggett & Meyers Tobacco Co. v. Goslin, 160 A. 804.*

Nebraska ..... *Freeman v. Higgins, 242 N. W. 271.*
Rigg v. Atlantic, Pacific & Gulf Oil Co., 261 N. W. 900.

New Jersey ..... *Hamm v. Rockwood Sprinkler Co., 97 A. 730.*

New Mexico .... *Hughey v. Ware, 276 P. 27.*

New York ..... *Cameron v. Ellis Const. Co., 169 N. E. 622* (not decided on principles of contract).
Thompson v. Foundation Co., 177 N. Y. S. 58, 188 A. D. 506.
Baggs v. Standard Oil Co., 180 N. Y. S. 560.
Prdich v. N. Y. C. R. Co., 183 N. Y. S. 77.
Kalfatis v. Commercial Painting Co., 254 N. Y. S. 519, 233 A. D. 649 (on localization theory).

Texas ..... *Texas Employers Ins. Ass'n v. Hoehn, 72 S. W. 2nd 341.*

State law held applicable—

Georgia ..... *Aetna Life Ins. Co. v. Menees, 167 S. E. 335.* Here, however, the employer had entered into an agreement for compensation, and it was held that it was too late to raise the question.

Illinois .....*Kennedy-Van Saun Mfg. Co. v. Ind. Com., 189 N. E. 916.* This can be justified on the localization theory, though not on principles of contract.

Minnesota .....*Stansberry v. Monitor Stove Co., 183 N. W. 977.* Decided on localization theory.

Brameld v. Albert Dickinson Co., 242 N. W. 465. Decided on localization theory.

Wisconsin .....*McKesson-Fuller-Morrison Co. v. Ind. Com., 250 N. W. 397.* Theory none too clear, but probably status.

vi. *Contract to be Performed Exclusively Outside State.*

This is a well established statutory exception to extra-territorial provisions, occurring in the laws of Georgia, Maryland, Nevada (by necessary implication), North Carolina, North Dakota (by necessary implication), Oregon (by necessary implication), Pennsylvania (by necessary implication), South Carolina, Virginia, West Virginia (by necessary implication). It has been established in some states by decision. Under the contract theory, the fact that the contract is not to be performed within the state is not material as regards the application of the law of the state of making. The decisions under the compensation acts seem to be based on the principle that the acts were intended to regulate domestic employments, and not employments no part of which is to be within the state. States which apply the contract theory to its full extent do not, of course, make this exception.

Held not subject to state law—

Colorado .....*Platt v. Reynolds, 282 P. 264. Tripp v. Ind. Com., 4 P. 2nd 917.*

Louisiana .....*Durrett v. Eicher Woodland Lumber Co., 140 So. 867.*

Ohio .....*Ind. Com. v. Gardinio, 164 N. E. 758.*

Wisconsin .....*Wandersee v. Moskewitz, 223 N. W. 837.* (But see *Val Blatz Brewing Co. v. Gerard, 230 N. W. 622.*)

vii. *Contracts Performed in Substantial Part Without State.*

This covers a number of statutory exceptions to the extra-territorial provisions, the obvious effect of which is to confine the operation of the act within reasonable distance of local employments, which are, after all, those which the state has most interest in protecting. They constitute, of course, a narrowing down of the contract theory.

Maryland .....Act applicable to "casual, occasional or incidental employment outside of the state by the Maryland employer of an employee regularly employed by such employer within the state."

Nevada .....Extra-territorial provisions restricted to employees hired in the state whose usual or ordinary duties are confined to the state.

North Dakota ...Act not extra-territorial except under contract of insurance against extra-territorial injuries. Such contracts available only to employers whose plant and main or general office is in the state and who expired two-thirds of payroll for services performed in North Dakota.

Oregon .....Extra-territorial provisions restricted to employers "temporarily" leaving the state.

Pennsylvania ...Extra-territorial provisions limited to Pennsylvania employees whose duties require them to go outside state for not exceeding 90 days.

Texas .....Extra-territorial provision not applicable in case injury occurs more than a year after employee leaves state.

West Virginia . . . Extra-territorial provisions applicable only to employees absent temporarily from state, and where absence is directly incidental to carrying on a business in this state.

This policy is more or less in line with the principle of the localization theory as applied in New York, though not as applied in Minnesota or Wisconsin.

viii. *Residence*

The practice of confining the application of the extra-territorial provision to residents or citizens of the state appears with a fair degree of frequency. Residence has no place in the contract theory. It is more in line with the doctrine of status, which is much involved with the question of domicile.

Residence restrictions appear in the laws of California, Georgia, Maryland ("citizens or residents," in case of salesmen), Michigan, North Carolina, Pennsylvania ("Pennsylvania employees"), South Carolina, Virginia.

The requirement has been held unconstitutional in California.

Quong Ham Wah v. Ind. Acc. Com., 192 P. 1021.

It does not appear to be observed in Michigan.

Roberts v. I. X. L. Glass Corp'n, 244 N. W. 108.
Wearner v. Michigan Conference, 7th Day Adventists, 245 N. W. 802.

In Maryland, however, it is held constitutional.

Liggett & Meyers Tobacco Co. v. Goslin, 160 A. 804.

Residence is frequently referred to in the compensation cases, but seldom seems a decisive element. There is perhaps an exception to this in a case in Wisconsin, where the residence of the claimant seems about all that links him to the Wisconsin Act, the residence of the employer, the place of making the contract and of the injury all being outside.

McKesson-Fuller-Morrison Co. v. Ind. Com., 250 N. W. 397.

But residence alone does not appear sufficient to support the application of the compensation act.

Hamm v. Rockwood Sprinkler Co., 97 A. 730.

ix. *Location of Business Within State.*

This appears in a number of acts as a condition for the application of the extra-territorial provisions. In this form it appears in the laws of District of Columbia, Georgia, North Carolina, Pennsylvania, South Carolina, and Virginia. It is pretty clearly implied in the laws of Maryland, Nevada, Oregon and West Virginia.

As to Pennsylvania see Bock v. D. B. Frampton & Co., 161 A. 762. It is clear enough that a compensation act cannot apply to an employee who is wholly at all times without the state, save for the presence of his employer within the state. If, however, he is within the state long enough to make a contract of employment, that in the strict terms of the contract theory would suffice to cause the compensation incidents of the law of the state of making to attach, provided of course, he came within the statutory definition of "employee" and was subject to the act. But the purpose of the acts is not to regulate such transitory birds of passage; but to regulate a relation substantially existing within the state.

There will at some time be litigation to test the necessity of the exceptions, on the point of how far an employer has to be within the state to comply with the condition: i.e., whether the employer must as in North Dakota have his plant and main office there, or whether it suffices to maintain an office, branch, or agency, or to comply with the laws as to foreign corporations qualifying to do business, or merely to be carrying on some work there.

In the Indiana, the Minnesota and Wisconsin decisions, constant mention is made of the standing of the employer as an employer of the state in question: and it would in general appear to be a real item as determining the application of the localization theory. Certainly the state has its most proximate interest to regulate employment in case of employers who are regularly carrying on business within the state, and this interest diminishes in the proportion their principal operations are somewhere else.

x. *Contracts as to What Law Shall Apply.*

Under the doctrines of conflict of laws, contracting parties can make a valid stipulation as to what law shall govern the contract, provided this is done in good faith and without intent to avoid the laws of the forum.

In case of contracts of employment generally, such

contracts run counter to the express terms of the compensation acts, and are therefore void. In case, however, of the extra-territorial application of the compensation acts, some measure of contracting is either authorized, or countenanced.

Alabama ..... Act extra-territorial "unless otherwise specified in said contract."

California ..... Such agreements held illegal. *Alaska Packers Ass'n v. Ind. Acc. Com., 32 P. Ind. 716, 294 U. S. 532.*

Indiana ..... Stipulation that contract should be governed by laws of District of Columbia void when contract contemplated work within Indiana.

Kansas ..... Same provision as Alabama.

Kentucky ..... Employers who hire employees to work in whole or in part outside state permitted to make written agreements with them exempting from the operation of act injuries incurred outside state.

Missouri ..... "Unless the contract of employment in any case shall otherwise provide".

Ohio ..... Recognition given to a contract stipulating that it was made in another state and subject to its laws. *Johnson v. Ind. Com., 186 N. E. 509.*

Tennessee ..... "Unless otherwise expressly provided by said contract."

Contracts providing for extending the extra-territorial operation of the act are authorized in the laws of Nevada and North Dakota (between the employer and the Bureau).

Contracts providing for making the remedies of the compensation act exclusive in case of extra-territorial injuries are authorized in the laws of Idaho, Maine and Vermont.

xi. *Election of Remedy.*

This may take several forms. The most common, naturally, is the seeking and acceptance of compensation under the act of one state: the question naturally raised being whether it bars or affects the right to seek compensation under the act of another.

In case of ordinary contract rights the question could hardly arise. The right would be enforced in an action at law, and a composition and settlement, whether in accordance with the terms of one law or another, or of no law at all, for that matter, would be recognized as valid and binding in the absence of fraud. Similarly if the cause went to trial, and the court found the law of one state applicable, and judgment was duly rendered, a party litigant could not subsequently maintain a suit on the same subject matter in another jurisdiction. But the enforcement of rights under the compensation acts is a very different matter. Each law provides its own remedy, and each law provides a method whereby settlement shall be effected: and a settlement valid in one jurisdiction does not necessarily close the matter so far as another jurisdiction is concerned. Further, settlements under a compensation act are frequently not final and conclusive even within the jurisdiction in which they are made, owing to the very liberal provisions made in some laws for the reopening of cases because of new developments or other cause.

In some states, either by statute or by decision, it would seem that an award of compensation under the law of another state will preclude an action for compensation under the law of the forum.

New Mexico .... *Hughey v. Ware, 276 P. 27.*

Oregon ..... Statute excludes from extra-territorial operation of act employees who have a remedy under the compensation act of another state.

Texas ..... Statute excludes from extra-territorial operation of act employees who have elected to pursue a remedy in the state where the injury occurs.

More commonly, the trend of statutes and of decisions is to regard an award or the receipt of compensation in another state as not barring an award in the forum.

This is on the ground that the policy of the statute is against a party by his own act waiving or foregoing the rights provided by the statute. The general procedure is, however, not to permit a total recovery for the same injury greater than is allowed by the law of the forum.

This rule appears in the statutes of Georgia, Maryland, North Carolina, South Carolina and Virginia.

See also

McLaughlins' Case, 174 N. E. 338 Mass.

Shout v. Gunite Concrete Const. Co., 41 S. W. Ind. 629 Mo.

Sweet v. Austin Co., 171 A. 684 New Jersey.

Interstate Power Co. v. Ind. Com., 234 N. W. 889 Wisc.

Claims for benefits under one law after receiving compensation or an award under another law, also figured in

Finkley v. Eugene Saenger Tailoring Shop, 196 N. E. 536 Ind.

Minto v. Hitchings & Co., 198 N. Y. S. 610, 210 App. Div. 661 N. Y.

Anderson v. Jarrett Chambers Co., 206 N. Y. S. 458, 210 App. Div. 543.

Tidwell v. Chattanooga Boiler & Tank Co., 43 S. W. 2nd 221.

State of Ohio v. Chattanooga Boiler & Tank Co., 289 U. S. 439.

There are two Texas cases which hold that receipt of compensation under the law of one state not only does not bar recovery of compensation under the law of the forum, but the award in the forum need not take cognizance of what has been paid in other states. This is now impossible through an amendment of the statute in 1931 to the form noted above.

Texas Employers Ins. Assn. v. Price, 300 S. W. 667, 672.

Norwich Union Ind. Co. v. Wilson, 173 W. 2nd 68, 43 S. Co. 2nd 473.

Another form of election is effected by the employer accepting the compensation act of the particular state in which he does business, or taking out insurance under that act. The acceptance of the compensation act of a particular state will avail to make certain the fact that the employer is subject to the act, but does not necessarily preclude the employee from making claim that his case is subject to the compensation act of another state.

Nor can the employer by this means take himself out of the operation of another act if otherwise subject thereto.

In connection with other circumstances, however, the act of the employer may have a certain weight in determining the application or non-application of a particular law.

Douthwright v. Champlin, 100 A. 97 Conn.
Miller Bros. Const. Co. v. Maryland Cas. Co., 155 A. 709 Conn.
Premier Const. Co. v. Grinstead, 170 N. E. 561 Ind.
Smith v. Heine Safety Boiler Co., 112 A. 516 Maine.
Pickering v. Ind. Com., 201 P. 1029 Utah.
De Gray v. Miller Bros. Const. Co., 173 A, 556 Vermont.
Johnson v. Nelson, 150 N. W. 620 Wisc.
Zurich Etc. Ind. Co. v. Ind. Com., 213 N. W. 630 Wisc.

Acceptance of the compensation act is of course a material issue where the act is elective or where the employer comes under the act only by insuring. Insuring may be material under some laws, as determining the nature of the liability of the employer.

Another type of election is the election to reject, or failure to come under the provisions of a non-compulsory act. In this type of case the laws commonly provide for a liability to action at law with common-law defences removed, and the question has been raised as to how far the provisions removing the defences are extra-territorial in effect: that is, whether they apply to an action at law based on an injury outside the forum. There is a Texas case holding that the extra-territorial provision does not apply to a non-subscriber.

McGuire & Cavender v. Edwards, 48 S. W. 2nd 1010.

In a Massachusetts case a different result was reached.

Armburg v. B. & M. R. Co., 177 N. E. 665. app. 285 U. S. 234.

This is contrary to the general principle of conflict of laws, for the actions, being actions in tort, ought to be governed as to defences by the law of the state where the tort occurs. Such an extra-territorial application of rights seems justified only on the theory that the rights are annexed to a status created under the law of the state.

xii. *Summary.*

From the foregoing it will appear that while some states have sought to apply orthodox principles of conflict of law on the theory that compensation rights are essentially rights of contract, and while the theory has considerable support from the language of the statutes, in most states, either by statutory modification or by court decision a considerable variation of orthodox principle prevails. Applying the law of the state where the contract was made has been subjected to considerable modification in cases where the attempt is to apply the law of the state of the forum to extra-territorial injuries: and has met with considerable difficulties where the attempt is to apply the law of another state to injuries sustained in the forum. The doctrine of the law of the place of performance has had a restricted application only, due to the fact that it runs counter in many states to the policy of the compensation act.

So far as the contract theory goes, therefore, the doctrine of conflict of laws as applied to compensation cases is a very hybrid affair. It seems destined to be further hybridized because of the decisions of the Federal Courts in applying the principles of the Full Faith and Credit clause.

(c) *Principles of Status.*

A status is a relationship which a person holds to the state or to another individual, to which relationship the law of the state annexes certain legal incidents. In some sense, the relationship of employer and employee may be regarded as a status: and in certain cases the courts have indicated an opinion that the rights to compensation benefits are rights of status.

Lane v. Ind. Com., 54 F. 2nd 338.

Ocean Accident & Guarantee Corp'n v. Ind. Com., 257 P. 645 Arizona.

Val Blatz Brewing Co. v. Gerard, 230 N. W. 622 Wisconsin.

It may be admitted that the contract theory does not fit very well into some compensation acts, especially those which are by these terms compulsory. In New York and New Jersey, the courts have referred to the rights to compensation benefits as rights quasi-ex-contractu, annexed by the law to the relationship.

American Radiator Co. v. Rogge, 92 A. 85, 93 A. 1083.

Cameron v. Ellis Const. Co., 169 N. E. 622.

This much seems reasonable enough. But the traditional principles of status have been developed in connection with relationships relatively stable and assort very ill with a relationship often very casually and informally created, and usually dissoluble at the will of either party. Rights of status are very closely linked with domicile: and it is entirely clear that compensation acts are not framed with the idea that the rights depend in any way upon the domicile or legal residence of either employer or employee.

At all events, there has been no very substantial attempt to develop a theory of conflict of laws in compensation cases based on status. There are several cases in Wisconsin which profess to go upon this theory, and several cases elsewhere which fit in with this theory fairly well: but the localization theory, next to be discussed, appears not to follow traditional lines of status. It concerns itself, not with the individuals, but with the employment.

(d) *The Localization Theory.*

This has been followed in New York, and also in Minnesota. It is uncertain whether Wisconsin should be placed in this category or in the preceding. There are cases in other states which seem to be influenced by this theory also. In the case of Cameron v. Ellis Construction Co., 169 N. E. 622, the court made the following statement:

> "When the course of employment requires the workman to perform work beyond the borders of the state, a close question may at times be presented as to whether the employment itself is located here. Determination of that question may at times depend upon the relative weight to be given under all the circumstances to opposing considerations. The facts in each case, rather than juristic concepts, will govern such determination. Occasional transitory work beyond the state may reasonably be said to be work performed in the course of employment here: employment confined to work at fixed place in another state is not employment within the state, for this state is concerned only remotely, if at all, with the conditions of such employment."

This, it is submitted, lays down a very sensible rule, and one which accords very well with the spirit of compensation acts generally. The state's direct concern is a regulation of employment within the state. It is not the fact that employer or employee resides within the state, which is material, but the fact that the two are, within the state, in a

relation which the state has an interest in regulating. That relation may entail work outside the state, and if that work be properly incidental to the relation existing within the state, the state has a sound reason for making its regulation extend to such work. But when the employer and employee carry on work in another state which may fairly be said to be located there, the state's interest diminishes and the other states' interest is superior.

This, it may be noted, comes within very reasonable distance of the position of the Supreme Court of the United States. That court also decried the settling of conflicts between compensation acts on theoretical juristic concepts, and laid down as a principle that the decision should turn upon which state had the principal interest in regulating the employment.

This case was followed in Smith v. Aerovane Utilities Corp'n, 181 N. E. 72, giving compensation for an injury sustained in Pennsylvania while working for a New York corporation.

See also

Baum v. N. Y. Air Terminals Inc., 245 N. Y. S. 357, 230 A. D. 531.

Amaxis v. Vassilaros, 250 N. Y. S. 201, 232 A. D. 397.

Proper v. Polley, 253 N. Y. S. 530, 233 A. D. 621.

Kalfatis v. Commercial Painting Co., 254 N. Y. S. 519, 233 A. D. 649.

Zeltoski v. Osborne Drilling Corp'n, 267 N. Y. S. 855, 239 A. D. 235.

Ind. Com. v. Underwood, Elliott Fisher Co., 276 N. Y. S. 519, 243 A. D. 658.

Goddard v. Taylor Instrument Co., 282 N. Y. S. 182, 244 A. D. 836.

The rule has been applied very consistently and fairly, and the courts have not hesitated to deny compensation under the New York law when the injury occurred in New York, if it appeared to have been sustained in work transitory in character and incidental to the work of an out of state employment. It will be noted that under the localization theory, the place where the contract was entered into is immaterial. The sole test is the localization of the employment.

The localization theory has been applied in Minnesota. Some of the cases would doubtless have been decided the same way on the contract theory: but the localization theory is a facile means to justify the extra-territorial application

of the law in case of employees of an out-of-state corporation operating a branch within the state.

State ex. rel. Maryland Casualty Co. v. Dist. Court, 168 N. W. 177.
Stansberry v. Monitor Stove Co., 183 N. W. 977.
State ex. rel. McCarthy Bros. v. Dist. Court, 169 N. W. 274.
Krekelberg v. M. S. Floyd Co., 207 N. W. 193.
Ginsburg v. Byers, 214 N. W. 55.
Bradtmiller v. Liquid Carbonic Co., 217 N. W. 680.
Brameld v. Albert Dickinson Co., 242 N. W. 465.

The same may be said of the Nebraska cases. There, too, the localization of the employment, and more particularly the situs of the chief operations of the employer appears the determining factor. Thus, the law applies to out-of-state injuries to the employee of a Nebraska firm or to one affiliated with the Nebraska office of an out-of-state employer.

McGuire v. Phelan Shirley Co., 197 N. W. 615.
Skelly Oil Co. v. Gaugenbaugh, 230 N. W. 688.
Stone v. Thompson Co., 245 N. W. 600.
Penwell v. Anderson, 250 N. W. 665.

But not when the operations of the employee in Nebraska are purely incidental.

Rigg v. Atlantic Pacific Gulf Oil Co., 261 N. W. 900.

Nor when employer after making the contract but before accident moves his headquarters out of the state.

Watts v. Long, 218 N. W. 410.

On the other hand, if an out-of-state employer moves his headquarters into the state, he comes within the law as to employees hired outside the state.

Esau v. Smith Bros., 246 N. W. 230.

The Wisconsin cases are not so easily understood. The earlier cases were based on the contract theory, rather than the localization theory. The case of Interstate Power Co. v. Ind. Com., 234 N. W. 889, was very similar on the facts to Bradford Electric Light Co. v. Clapper: i.e., an employee of a power company, resident in Iowa and working there regularly, was transferred to work temporarily in Wisconsin, where he was killed. The court held that the business of the employer was localized in the state and awarded compensation. Here, however, the contract of employment was entered into in Wisconsin, which distin-

guishes it from the Clapper case. The cases of Val Blatz Brewery Co. v. Gerard, 230 N. W. 622, and McKesson, Morrison Co. v. Ind. Com., 250 N. W. 397, seem flatly inconsistent. In the first case, the court applied the Wisconsin law to the case of an out-of-state injury to a salesman employed by a Wisconsin concern to sell its products in Missouri and Arkansas. This accords fairly well with the localization theory, or as the court puts it, the status theory, since the work was transitory in character, and incidental to the Wisconsin operations; though to be sure it practically overrules Wandersee v. Moskewitz et al, 223 N. W. 837, where compensation was denied a buyer, no part of whose service was in Wisconsin. But the second case involved the salesman of an unlicensed foreign corporation without even a working address in Wisconsin, and the injury took place in Illinois. The localization theory could not justify the award of compensation to him under the Wisconsin law: in fact, the one element linking the case to Wisconsin at all seems to have been the residence of the employee in Wisconsin.

Other cases which seem to reflect the localization theory are

Kennedy-Van Saun Mfg. Co. v. Ind. Com., 189 N. E. 916 Ill. This involved the extra-territorial application of the Illinois law to the employee of a New York corporation, sent to work with an Illinois subsidiary.

Bishop v. International Sugar Feed Co., 162 N. E. 71 Ind.

Smith v. Menzies Shoe Co., 188 N. E. 592 Ind.

Finkley v. Eugene Saenger Tailoring Shop, 196 N. E. 536 Ind.

In all these cases the emphasis seems to be on the fact that it is not an Indiana employment.

Durrett v. Eicher Woodland Lumber Co., 140 So. 867 La.

Abood v. Louisiana Oil Ref'g Corp'n, 155 So. 484 La.

U. S. Casualty Co. v. Hoage, 77 F. 2nd 542 D. C.

The localization theory has much to recommend it from the practical standpoint. It avoids technicalities, and along the lines indicated in New York makes a rule which brings under the act about what a state is really interested in regulating. There is to be sure a no-man's-land between outside operations clearly transitory and incidental, and outside operations at fixed locations: but this is as nothing compared with the difficulties often met with in deciding where a contract of employment is made, to say nothing of the

various other pitfalls incidental to the contract theory. It seems also reasonably close to the lines followed by the Supreme Court. For this latter reason it seems likely to receive in the future a further extension.

7. *Collateral Questions.*

(a) *The Enforcement of the Compensation Acts of Other States.*

Assuming that a court finds the compensation act of another state applicable to a question before it, the matter of how that act shall be given effect is important. In case of some laws, where the remedy provided is such as can be enforced by the courts, the courts can and do give a direct enforcement.

Floyd v. Vicksburg Cooperage Co., 126 So. 395 Miss.
United Dredging Co. v. Lindberg, 18 F. 2nd 453.
Texas Pipe Line Co. v. Ware, 15 F. 2nd 171.

But the remedy normally provided by the compensation acts is not of a kind which can be administered by the courts, being a special statutory process enforceable by a specific administrative tribunal. In that case the only remedy the courts can give is to decline to entertain the case, leaving the parties to their remedy under the law which applies.

Singleton v. Hope Engineering Co., 137 So. 441 Ala.
Logan v. Missouri Valley Bridge and Iron Co., 249 W. 21 Ark.
Verdicchio v. McNab & Harlin Mfg. Co., 164 N. Y. S. 290, 178 A. D. 48.
De Gray v. Miller Bros. Const. Co., 173 A. 556.

A number of states have legal provisions authorizing the enforcement of the law of another state if the remedy is of a character which can be enforced within the state.

See acts of Arizona, Hawaii, Idaho, Utah and Vermont.

Where the law of the state provides that action shall not be maintained under it outside the state, it will, on well established principles, not be enforced extra-territorially.

Martin v. Kennecott Copper Corp'n, 252 F. 207.
Hicks v. Cudahy Packing Co., 241 S. W. 960 Mo.

Provisions of the act can however be set up by way of defense, as in Bradford Electric Light Co. v. Clapper, or awards in the act proven by way of set-off to an award of compensation, or if the law so permits, in bar of an award.

(b) *Insurance Contracts.*

One collateral effect of the extra-territorial effect of compensation acts is to be noted in case of a contract of insurance which by its terms or by requirement of law covers generally an employer's liability under the compensation act, or which, as in Massachusetts and Texas is for the purpose of making an employer an "insured person" under the compensation act.

It would seem in any of these cases, and, where the obligation to give full coverage is statutory, the policy covers not only injuries within the state, but extra-territorial injuries to which the law applies as well, any provisions in the policy contract to the contrary notwithstanding.

Wright's case, 197 N. E. 5 Mass.
State ex rel. London and Lancashire Ind. Co. v. Dist. Ct. 170 N. W. 218 Minn.
Venuto v. Carter Lake Club, 178 N. W., 760 181 N. W. 377 Neb.

In the last named case, however, the decision was based on estoppel, the premises on which the injury occurred having been named in the policy declarations, although outside the state boundaries.

Home Life Ins. Co. v. Orchard, 227 W. 705 Tex.

This case involved a policy issued prior to the amendment of the law inserting the extra-territorial provisions. The policy was held to cover an extra-territorial injury sustained during the policy term, and subsequent to the amendment.

This rule does not hold good, of course, if the policy can be validly restricted, and is restricted to operations within the state.

There is one Connecticut case, Miller Bros. Const. Co. v. Maryland Casualty Co., 155 A. 709, which involved two policies in different companies, one on the Connecticut business and one on the Vermont business of the assured. An injury happened in Vermont. The employee was entitled under the Connecticut extra-territorial provisions to compensation under the Connecticut law. The court in this case held that the injury came within the coverage of the Vermont policy, rather than the Connecticut policy: This, in spite of the fact that the Vermont policy gave no coverage under the Connecticut law, so that if an award were made under the Connecticut law it would of necessity be paid by the employer. A case in the Federal courts, McCaffrey v.

American Mutual Liability Ins. Co., 32 F. Ind. 791, 37 F. Ind. 870, brought up the problem in another way. The employee was hired in Tennessee and injured in Texas. The Tennessee act is extra-territorial—very much so—but the employer had insured his liability under the Texas Act with the defendant. The employee elected to proceed under the Texas act, and received an award. It was held that the insurer was bound under its contract.

8. *Conclusion.*

The principles of conflict of law as applied to compensation will be seen from the above to be in no very orderly condition. There are several theories for applying principles of comity and there is also the Federal jurisdiction under the Full Faith and Credit clause and the Due Process clause which does not regard technical rules under any one of them, but decides cases on grounds of substantive merit. It is not claimed that there is no agreement in the decided cases. The great majority of states make some application of the rules of conflict of law derived from the contract theory. But the application is not uniform, and is very extensively modified by legislative policy.

The contract theory, while the oldest and best established of any, seems destined to be less relied on in the future. It was a natural theory to adopt, but it simply does not fit the needs of the situation. It affords a convenient theory for the extra-territorial application of compensation acts: but its full application in case of contracts made out of the state would remove from the influence of the local compensation acts cases which the state has a clear interest in protecting. A state cannot well refuse protection to one who is regularly employed within its bounds, merely because the contract of employment was made years before outside its bounds. To admit such a principle would afford a facile means of avoiding its compensation act altogether. And yet, to inject the terms of its own act into a contract of employment made beyond its bounds is to trespass on the sovereignty of another state and run dangerously near the constitutional mandate against impairing the obligation of a contract. To say, that because the services contemplated are to be rendered within the state, provisions of the state compensation act become automatically a part of the contract, is untrue in fact,

although true in the sense that it sets forth the policy the court intends to pursue. Again, the very facility with which the theory justifies the extra-territorial application of the law, tends to bring within the scope of the law activities in which the state has no possible interest. Compensation acts have been held to cover injuries sustained in Europe, in Nicaragua and on the high seas: in fact there is no limit to their extension. This is not so much of an objection as the possibility that it may bring within the act enterprises in other states, carried on at fixed locations, and in every way properly subject to the law of the state of location.

The very natural result has been a most undesirable variation in state policy. A few states have in effect closed their borders to the law of other states. Others have written limitations into their extra-territorial provisions, or have by judicial decision educed limitations unknown to the principles of conflict of law applicable to contracts. Still others have discarded the contract theory entirely, and the Supreme Court has, as above stated, turned its back on theoretical considerations.

Ultimately the lines of procedure must come nearer to those followed by the Supreme Court, though it may be anticipated that the program of uniformity will take some little time. It seems probable that the ultimate result will be in fair accord with the theory of localization as worked out and applied by the courts of New York. This theory is simple and logical. It lays down very natural lines as a limit to the jurisdiction of the state, including the greater part, certainly, of what the state is really interested in protecting, and leaving out the greater part of that in which the state has no protective interest. It substitutes a practical test for a theoretical test. It obviates the enormous difficulty of going into past history and disentangling the various steps by which a contract of employment was made, and substitutes therefore the simple and easily provable test of where the employee is characteristically employed. All this is a great gain. It is not claimed that the theory will serve in all cases: but it is thought it comes closer to the idea of the Supreme Court than any other theory.

Meanwhile, and until this branch of the law crystallizes into more permanent form it is necessary, in dealing with a problem of conflict of law to read carefully the statutes and decisions in each of the states concerned, and also the decisions of the Supreme

Court. It may be assumed that the temporary and incidental employment of an employee in another state will as a rule be no interruption of the application of the law of the state where he is employed. It may also be assumed that if the employment is at fixed location in another state for a substantial period, that generally the law of that state will govern the operation. That this will be held in all states is by no means certain: but it seems as likely an ultimate result as any.

APPENDIX

CASES AND STATUTORY REFERENCES

1. *Federal.*

Bradford Electric Light Co. v. Clapper, 286 U. S. 145.

State of Ohio v. Chattanooga Boiler & Tank Co., 289 U. S. 439.

Alaska Packers Ass'n v. Ind. Acc. Com., 294 U. S. 532.
(application of "Full Faith and Credit" provision to conflicts of laws involving compensation acts)

Western Union Tel. Co. v. Brown, 234 U. S. 542.

Slater v. Mexican Nat'l R. Co., 194 U. S. 120, 126.

Cuban R. R. Co. v. Crosby, 222 U. S. 473.
(application of "Full Faith and Credit" provision and "Due Process" provision to conflicts of law involving actions in tort)

Texas Pipe Line Co. v. Ware, 15 F. 2nd 171.

United Dredging Co. v. Lindberg, 18 F. 2nd 453.
(enforcement of compensation act by Federal court)

McCaffrey v. American Mutual Liability Co., 32 F. 2nd 791, 37 F. 2nd 870, 281 U. S. 751.
(liability of insurer when employee, having remedy under two compensation acts, elects remedy under law covered by insurer's policy)

Scott v. White Eagle Oil & Ref'g Co., 47 F. 2nd 615.
(Law of place of making contract of hire applied to extra-territorial compensable injury)

The Linseed King, 48 F. 2nd 311.

In Re Spencer Kellogg & Sons, 52 F. 2nd 129.
(compensation act of state of employment held to prevail over action under death statute of place of injury)
(these cases were reversed in Supreme Court on point of Federal maritime jurisdiction. Spencer Kellogg Co. v. Hicks, 285 U. S. 502)

Ford, Bacon & Co. v. Volentine, 64 F. 2nd 800.
(discussion as to whether law of place of performance should not apply)

Betts v. Southern Railway Co., 71 F. 2nd 787.
(effect of subrogation section of compensation act on action to recover damages for wrongful death in another state)

U. S. Casualty Co. v. Hoage, 77 F. 2nd 542.
(compensation act of District of Columbia applicable to injury there sustained though contract of employment was made elsewhere)

Joseph Wiederhoff Inc. v. Neal, 6 F. Supp. 798.

(Illinois compensation act held to apply to injury in Missouri, when contract of employment was made in Illinois and both employer and employee resides there)

2. *Alabama.*

Compensation act (sec. 7540) gives exclusive remedy for injuries sustained outside state where contract of employment is made in state, unless contract of employment expressly otherwise provides.

St. Louis S. F. R. Co. v. Carros, 93 So. 445.

Deft. in action for damages for out-of-state injury cannot avail himself of statute unless it is specifically pleaded in bar.

Singleton v. Hope Engineering Co., 137 So. 441.

Action of tort for injury in another state cannot be maintained if compensation act of that state gives an exclusive remedy therefor.

Note: See U. S. Cas. Co. v. Hoage, 77 F. 2nd 542, which held that above provision did not, under the circumstances, prevent award under law of District of Columbia for injury sustained there.

3. *Alaska.*

No extra-territorial provision. Section 2185 of compensation acts stipulates that no action shall be maintained under act outside territory, unless service of process cannot be had within territory.

Martin v. Kennecott Copper Corp'n, 252 F. 207.

Action to recover compensation in suit brought outside territory held barred by above provision.

4. *Arizona.*

Compensation act, Sec. 1429 gives remedy under act for injuries sustained outside state, if the workman is hired or is regularly employed in the state. Provision made for enforcement of remedies to which workmen hired outside state may be entitled under compensation act of state of hiring.

Ocean Accident & Guarantee Corp'n v. Ind. Com., 257 P. 645.

Holds that intent of act is that law of Arizona shall apply to all injuries sustained in Arizona, the right to compensation being a right of status.

5. *Arkansas.*

No compensation act.

Logan v. Missouri Valley Bridge & Iron Co., 249 S. W. 21. An action of tort cannot be maintained in Arkansas when the injury took place in Oklahoma and came within the terms of the compensation act of that state. Remedies provided by that act not enforceable by Arkansas courts.

Magnolia Petroleum Co. v. Turner, 65 S. W. 2nd 1. Where resident of Arkansas was employed there to do work in Texas, and was injured there, court held it not contrary to public policy to give effect to provision of Texas compensation act, barring an employee from bringing common-law action against insured employer.

Standard Pipe Line Co. v. Bennett, 66 S. W. 2nd 637. Where Arkansas resident is hired by Louisiana corporation to do work in Arkansas, and contract stipulates that injuries shall be settled under the Louisiana compensation act, that stipulation is contrary to the public policy of Arkansas, and is void.

Smith v. Arkansas Power & Light Co., 86 S. W. 2nd 411. Question of proper parties to third party suit for injury in Arkansas by Employee who had received compensation under Tennessee Act.

6. *California.*

Compensation act, Sec. 58. Gives remedy for extra-territorial injuries in cases where employee is resident of state at time of injury, and contract of hire was made in state.

Act not originally extra-territorial.

North Alaska Salmon Co. v. Pillsbury, 162 P. 93.
Kruse v. Pillsbury, 162 P. 891.

Validity of extra-territorial provision sustained, but limitation as to residence declared void.

Quong Ham Wah v. Ind. Acc. Com., 192 P. 1021.

Stipulation in contract of hire made in California for seasonal work to be performed wholly in Alaska, that Alaska compensation act should apply to injuries, held void as contrary to provision of act forbidding agreements to forego remedies provided by act.

Alaska Packers Ass'n v. Ind. Acc. Com., 34 P. 2nd 716, 294 U. S. 532.

Contract made in California for performance of services in Utah on railroad construction work held governed by California law as to injuries sustained outside state, the court finding that employee was not engaged in interstate commerce.

Los Angeles & S. L. R. Co. v. Ind. Acc. Com., 43 P. 2nd 282.

California law not applicable where contract of hire is made and performed and injury sustained on military reservation of United States.

Allan v. Ind. Acc. Com., 43 P. 2nd 787.

7. *Colorado.*

Compensation act not extra-territorial in terms.

Held, that where contract of hire is made in Colorado, to work in Colorado and elsewhere, the Colorado act applies to an injury sustained outside state.

Ind. Com. v. Aetna Life Ins. Co., 174 P. 589.
Home Ins. Co. v. Hipp, 15 P. 2nd 1082.

But act does not apply if contract is for services entirely outside Colorado.

Platt v. Reynolds, 282 P. 264.
Tripp v. Ind. Com., 4 P. 2nd 917.

Where contract of hire is made outside state, and services are not to be performed principally in Colorado, Colorado act does not apply to injury sustained in Colorado.

Hall v. Ind. Com., 235 P. 1073.

8. *Connecticut.*

Under provisions of sec. 5223 the term "employee" includes one who has entered into or works under a contract of service "whether such contract contemplated the performance of duties within or without the state."

The act has been held to apply to extra-territorial injuries, where contract of employment is made in Connecticut.

Kennerson v. Thames Towboat Co., 94 A. 372.
Harivel v. Hall-Thompson Co., 120 A. 603.
Petitti v. T. J. Pardy Const. Co., 130 A. 70.

This has been held true, even though the contract of employment was made before the taking effect of the compensation act, and the employee was a non-resident when act took effect.

Falvey v. Sprague Meter Co., 151 A. 182.

Conversely, the application of the act to intra-territorial injuries is affected by the law of the place where the contract is made. Thus, where the contract is made in a state whose law is not extra-territorial, and the parties have accepted the Connecticut act, the Connecticut act applies.

Douthright v. Champlin 100 A. 97.

Where the contract is made in a state whose act is extra-territorial, the Connecticut act applies if the contract is for services in Connecticut.

Banks v. Albert P. Howlett Co., 102 A. 822.

But it does not apply if the services are not to be performed exclusively in Connecticut.

Hopkins v. Matchless Metal Polish Co., 121 A. 828.

Where an employer separately insured its employees in Connecticut and in Vermont, an injury in Vermont to an employee hired in Connecticut was held to come under the Vermont policy rather than the Connecticut policy, even though the Vermont policy did not contemplate coverage under the Connecticut law.

Miller Bros. Const. Co. v. Maryland Casualty Co., 155 A. 709.

This last case is rather hard to reconcile with the others.

9. *Delaware.*

Under Sec. 3193a of the compensation act it is definitely provided that the act applies to all injuries within the state, irrespective of where contract of hire is made, and that it does not apply to any accident occurring outside the state.

10. *District of Columbia.*

P. A. No. 419, 70th Congress, Sec. 1. Provides that the act applies to injury or death of an employee of an employer carrying on any employment in the District of Columbia, irrespective of where the injury or death occurs.

This indicates that the act is not extra-territorial on the contract theory, but probably on localization theory.

The case of U. S. Casualty Co. v. Hoage, 77 F. 542, declined to apply law of Alabama to injury received in District of Columbia, though contract of employment was made in Alabama.

11. *Florida.*

Sec. 25c. makes provision for place of hearing in cases where injury occurs outside state.

12. *Georgia.*

Sec. 37 of the compensation act gives remedy for extra-territorial injuries

(a) if the contract of hire is made in the state
(b) and if the employer's place of business is in the state
(c) or if the residence of the employee is in the state.

But not if the contract of employment is expressly for services outside the state.

A proviso is added, that if an employee receives compensation or damages under the law of any other state, the above provision shall

not entitle him to a total compensation for the same injury greater than provided by this act.

Extra-territorial application of act sustained.

Empire Glass-Decoration Co. v. Bussey, 126 S. E. 912.
Metropolitan Cas. Co. v. Huhn, 142 S. E. 121.

Where agreement for compensation for extra-territorial injury has been entered into, it is too late to move to dismiss the claim on the ground that the contract of employment was not made in Georgia.

Aetna Life Ins. Co. v. Menees, 167 S. E. 335.

13. *Hawaii.*

Sec. 7523 of compensation act gives remedy for extra-territorial injuries, if the workman is hired in the territory. Act contains a provision for enforcement of remedies under the compensation laws of any other state to which employees hired under the law of that state may be entitled.

14. *Idaho.*

Sec. 6275 of compensation act is same as Hawaii provision quoted above.

Sec. 6219 authorizes employers who hire workmen in state to work outside state to make agreements with such workmen that remedies under act shall be exclusive as to injuries sustained outside state. Contracts of hire made in state presumed to include such agreement.

Extra-territorial application of act sustained.

Dameron v. Yellowstone Trail Garage, 34 P. 2nd 417.

15. *Illinois.*

Sec. 5 of compensation act gives remedy for extra-territorial injuries where contract of hire is made in Illinois.

The act was originally not extra-territorial.

Friedman Mfg. Co. v. Ind. Com., 120 N. E. 460.
Union Bridge & Const. Co. v. Ind. Com., 122 N. E. 609.
Joyce-Watkins Co. v. Ind. Com., 156 N. E. 346.

Extra-territorial feature added by amendment sustained.

Beall Bros. Supply Co. v. Ind. Com., 173 N. E. 64.
Johnston v. Ind. Com., 185 N. E. 191.

Extra-territorial feature of act held to apply to employee of Illinois subsidiary of New York concern, though contract of employment was made in New York. This seems more in accord with localization theory than contract theory.

Kennedy-Van Saun Mfg. Co. v. Ind. Com., 189 N. E. 916.

For subrogation feature of act, see

Goldsmith v. Payne, 133 N. E. 52.

16. *Indiana.*

Sec. 20 of compensation act indicates that every employer and employee under the act are bound by the provisions thereof whether injury occurs in Indiana or in another state or foreign country.

The early cases followed the contract theory. Thus, the act applies extra-territorially where contract is made in Indiana.

Hagenbeck v. Leppert, 117 N. E. 531.

But not where contract is wholly to be performed in another state.

Leader Specialty Co. v. Chapman, 152 N. E. 872.

Even when both employer and employee are residents of Indiana (here contract was made in Illinois for work in Arkansas).

Bement Oil Co. v. Cubbison, 149 N. E. 919.

Conversely, act covers intra-territorial injuries in cases where the contract is made outside the state, but to be performed exclusively in Indiana.

Hagenbeck & Great Wallace Show Co. v. Randall, 126 N. E. 501.

Same v. Ball, 126 N. E. 504.

Johns-Manville Inc. v. Thrane, 141 N. E. 229.

But not where services are to be performed elsewhere than in Indiana.

Darsch v. Thearle-Duffield Fireworks Display Co., 133 N. E. 525.

Norman v. Hartman Furniture & Carpet Co., 150 N. E. 416.

Indiana law held not applicable to contract of employment made in Indiana for work there and in other states, where employee had accepted compensation act of state where accident occurred.

Premier Construction Co. v. Grinstead, 170 N. E. 561.

The later cases appear to stress the fact that the employment is not an Indiana employment. This seems at least a tendency toward localization theory.

Bishop v. International Sugar Feed Co., 162 N. E. 71.

Smith v. Menzies Shoe Co., 188 N. E. 592.

Finkley v. Eugene Saenger Tailoring Shop, 196 N. E. 536.

17. *Iowa.*

Sec. 1440 of act makes provision for hearing in case of extra-territorial injuries.

Act held extra-territorial in case of contracts of employment made in Iowa.

Pierce v. Bekins Van & Storage Co., 172 N. W. 191.

Chicago, R. I. & P. R. Co. v. Lundquist, 221 N. W. 228.

Cullamore v. Groneweg & Schoentgen Co., 257 N. W. 561.

As to extra-territoral operation of subrogation feature of foreign compensation act, see

Hendrickson v. Crandic Stages, 246 N. W. 913.

18. *Kansas.*

Section 6 of compensation act indicates that act applies extra-territorially if contract of hire is made in state, unless contract otherwise specifically provides.

Has no extra-territorial application where contract of hire is made outside state for work outside state.

Dawes v. Jacob Dold Packing Co., 38 P. 2nd 107.

19. *Kentucky.*

Sec. 4888 of compensation act provides that remedies of acts are exclusive as to employees hired in state with respect to injuries sustained outside state, unless employer and employees have agreed in writing to exempt such injuries from operation of act.

20. *Louisiana.*

No provision, but held extra-territorial as to contracts of employment made in state.

Hargis v. McWilliams Co., 119 So. 88.
Durrett v. Eicher-Woodland Lumber Co., 136 So. 112.
Selser v. Bragman's Bluff Lumber Co.

Not extra-territorial, if contract is with out-of-state employer, for work exclusively out of state.

Durrett v. Eicher-Woodland Lumber Co., 140 So. 867.
Abood v. Louisiana Oil Ref'g Corp'n, 155 So. 484.

A beneficiary under Louisiana act does not forfeit exemption from garnishment of benefits by leaving state.

Festervand v. Laster, 130 So. 112.

21. *Maine.*

Sec. 2 II(b) of act provides that employers who hire workmen within state to work outside state may agree with such workmen that remedies of act shall be exclusive as to extra-territorial injuries. Contracts of employment made in state, unless otherwise specified, are presumed to include such agreement.

Extra-territorial application of act sustained as to injury in Canada.

Saunders' Case, 136 A. 722.

Where contract of employment is made outside state, but employer is carrying on work in Maine, and is an assenting employer under Maine act, that act applies to injury sustained in Maine.

Smith v. Heine Safety Boiler Co., 112 A. 516.

22. *Maryland.*

Section 32(43) of act indicates that it applies extra-territorially to salesmen and sales managers who are citizens or residents of state, employed by an employer having a place of business within state.
Section 65(3) of act indicates that it does not apply to employees employed wholly outside state, but that it does apply to casual, occasional or incidental employment outside state by Maryland employer of employee regularly employed within state.
Both sections contain provisions that if an employee receives compensation or damages under law of another state, he shall not by reason of this provision, receive greater compensation for same injury than is provided by this article.

Section 65(12) provides that act shall apply to miners working outside state bounds if tipple, mouth or principal entrance of mine is in Maryland.

Validity of restriction of Sec. 32(43) to "citizens or residents" upheld.

Liggett & Myers Tobacco Co. v. Goslin, 160 A. 804.

23. *Massachusetts.*

Sec. 26 of act indicates that act applies to extra-territorial injuries unless employee has given notice of his claim to rights of action under the laws of jurisdiction where injury occurs, and applies where employee, having given such notice has waived it.

Sec. 24. Employee deemed to have waived rights of action at common law or under law of any other jurisdiction.

Acts 1927 C. 309 Sec. 13. Employee deemed to have waived rights of action under laws of any other jurisdiction as to injuries therein occurring unless he gives employer notice that he intends to claim such rights within 30 days of effective date of act.

As originally drafted, act not extra-territorial.

In re American Mutual Liability Co., 102 N. E. 693.
In re Gould, id.
In re B. F. Sturtevant Co., id.

Act now extra-territorial as to contracts of employment made in Massachusetts with Massachusetts employer.

Pederzoli's Case, 169 N. E. 427.

Applies even though employee has accepted compensation under law of another state.

McLaughlin's Case, 174 N. E. 338.
Migues' Case, 183 N. E. 847.

Insurer liable for extra-territorial injuries, regardless of policy limitations.

Wright's Case, 197 N. E. 5.

As to effect of abolition of common law defences in case of extra-territorial injuries, see

Armburg v. B. & M. R. Co., 177 N. E. 665, 285 U. S. 234.

As to application of act on land owned by United States, see

Lynch's Case, 183 N. E. 834.

(Questionable in view of decision in Murray v. Joe Gerrick & Co., 291 U. S. 315)

24. *Michigan.*

Pt. III Sec. 19 gives remedy for extra-territorial injuries where employee is resident of state at time of injury, and contract of hire is made in state.

Extra-territorial application of act upheld.

Crane v. Leonard, Crossette & Riley, 183 N. W. 204.
Hulswit v. Escanaba Mfg. Co., 188 N. W. 411.
Klettke v. C. & T. Commercial Driveaway, Inc., 231 N. W. 132.
Deakins v. Same, 231 N. W. 133.

Residential requirements not observed.

Roberts v. I. X. L. Glass Corp'n, 244 N. W. 188.

Wearner v. Michigan Conference, 7th Day Adventists, 245 N. W. 802.

Act has been held to apply to injuries sustained in Michigan where contract of hire is made outside state (but with Michigan employer) for work to be done, partly in Ohio, partly in Michigan.

Leininger v. Jacobs, 257 N. W. 764.

25. *Minnesota.*

No provisions: but act held to apply to extra-territorial injuries.

The earlier cases seem to be based on contract theory.

State ex rel. Chambers v. Dist. Ct., 166 N. W. 185.

The later cases apparently apply act extra-territorially on basis of an employment localized in Minnesota.

State ex rel. Maryland Casualty Co. v. Dist. Ct., 168 N. W. 177.
State ex rel. McCarthy Bros. v. Dist. Ct., 169 N. W. 274.
Krekelberg v. M. A. Floyd Co., 207 N. W. 193.

Irrespective of whether the employer is a Minnesota resident or an out of state concern with office only in Minnesota.

Stansberry v. Monitor Stove Co., 183 N. W. 977.
Bradtmiller v. Liquid Carbonic Co., 217 N. W. 680.

Intra-territorial application of act apparently uses same test, without regard to where contract was made.

Ginsburg v. Byers, 214 N. W. 55.

As to effect of extra-territorial feature on insurance policies, see

State ex rel. London & Lancashire Ind. Co. v. Dist. Ct., 170 N. W. 218.

Residence of employee has no effect on extra-territorial application of act.

Brameld v. Albert Dickinson Co., 242 N. W. 465.

26. *Mississippi.*

No compensation act. Compensation act of Louisiana recognized as barring action of tort for injury in Mississippi, and remedy under that act enforced.

Floyd v. Vicksburg Cooperage Co., 126 So. 395.

27. *Missouri.*

Sec. 3310b of act states that act applies to all injuries in state, regardless of where contract of employment was made.

Act applies extra-territorially where contract is made in Missouri, unless contract otherwise provides.

Prior to enactment of compensation act, held that no action of tort could be maintained upon injury sustained in state where proceeding under compensation act was sole remedy.

Mitchell v. St. Louis Smelting & Refining Co., 215 S. W. 506.

Action not barred if employer not subject to compensation act in state of injury.

Dillard v. Justus, 3 S. W. 2nd 392.

Action not permitted to enforce rights under compensation act of another state, where act prohibits maintaining of actions

Harbis v. Cudahy Packing Co., 241 S. W. 960.

Subsequent to enactment of act, courts have applied act extra-territorially where contract of hire was made in Missouri.

State v. Missouri Compensation Commission, 8 S. W. 2nd 897.

Wadley v. Employers Liability etc. Corp'n, 37 S. W. 2nd 665.

Hartman v. Union Electric Light & Power Co., 33 S. W. 2nd 241.

Muse v. E. A. Whitney & Son., 56 S. W. 2nd 848.

Even though contract is for work entirely outside state.

Zarnecke v. Blue Line Chemical Co., 54 S. W. 2nd 772.

Daggett v. Kansas City Structural Steel Co., 65 S. W. 2nd 1036.

And irrespective of employee's residence.

Bolin v. Swift & Co., 73 S. W. 2nd 774.

Right to compensation not barred by acceptance of compensation under act of another state.

Shout v. Gunite Concrete & Construction Co., 41 S. W. 2nd 629.

The federal courts have in one case applied act of another state to injury in Missouri, enjoining industrial commission from entertaining case.

Joseph Wiederhoff Inc. v. Neal, 6 F. Supp. 798.

28. *Montana.*

No extra-territorial provision.

Act has been held to apply to injury on territory of United States.

State ex rel. Loney v. State Ind. Acc. Board, 286 P. 408.

29. *Nebraska.*

Laws 1935 C. 37 Sec. 15 makes provision for hearings in case of extra-territorial injuries.

Decisions as to extra-territorial application of act seem upon localization theory rather than on contract theory.

Thus, Nebraska law applies where work is for a Nebraska employer.

McGuire v. Phelan-Shirley Co., 197 N. W. 615.

Penwell v. Anderson, 250 N. W. 665.

Or where work is for out of state employer maintaining headquarters or an office in Nebraska, and work is directed from or incidental to the work of such headquarters or office.

Skelly Oil Co. v. Gaugenbaugh, 230 N. W. 688.

Stone v. Thomson Co., 245 N. W. 600.

But not when headquarters have been moved to another state.

Watts v. Long, 218 N. W. 410.

Or where employer has no place of business or merely incidental operations in Nebraska.

Freeman v. Higgins, 242 N. W. 271.

Rigg v. Atlantic, Pacific & Gulf Oil Co., 261 N. W. 900.

Similarly act applies to injury to employee hired outside state by non-resident employer, where employer moves headquarters to Nebraska and employee is injured there.

Esau v. Smith Bros., 246 N. W. 230.

30. *Nevada.*

Sec. 2723 of act gives act extra-territorial application where employee is hired in state and whose usual and ordinary duties are confined to state.

Provision whereby Nevada employers and any employees thereof may by joint election elect to come under act as to injuries outside of state.

31. *New Hampshire.*

No provision as to extra-territoriality.

As to application of compensation acts of other states to injuries in New Hampshire, see

Bradford Electric Light Co. v. Clapper, 286 U. S. 145.

32. *New Jersey.*

No provision as to extra-territoriality.

State act held applicable to injuries in state, irrespective of where contract of hire was made.

American Radiator Co. v. Rogge, 92 A. 85, 93 A. 1083.
Davidheiser v. Hay Foundry & Iron Works, 94 A. 309.
Rounsaville v. Central R. Co. of New Jersey, 94 A. 392.
West Jersey Trust Co. v. Phila. & Reading R. Co., 95 A. 753.

But act held to apply extra-territorially where contract of hire is made in state.

Foley v. Home Rubber Co., 99 A. 624.
Frank Desiderio Sons Inc. v. Blunt, 167 A. 29.
Hi-Heat Gas Co. v. Dickerson, 170 A. 44, 174 A. 483.

Even though the work is to be performed outside the state.

Sweet v. Austin Co, 171 A. 684.

Award under act not barred by receipt of compensation in another state.

See preceeding case.

Act does not apply extra-territorially if contract is made outside state, for work to be performed in state of injury, even though employee resides in New Jersey and employer has place of business there.

Hamm v. Rockwood Sprinkler Co., 97 A. 730.

33. *New Mexico.*

No provision as to extra-territoriality.

Court has declined to make award for injury in New Mexico where compensation has been awarded under law of state where contract of hire was made.

Hughey v. Ware, 276 P. 27.

34. *New York.*

No provision as to extra-territoriality.

A. *Decisions Prior to Compensation Act.*

Court recognizes compensation act of New Jersey as barring action of tort for injury sustained in New Jersey, where contract of hire is made in New Jersey with New Jersey corporation.

Wasilewski v. Warner Sugar Ref'g Co., 149 N. Y. S. 1035.

Also, when injury is sustained in New York, where contract of employment is made in New Jersey, between resident of New Jersey and New Jersey corporation, for services to be performed, part in New York, part in New Jersey.

Barnhart v. American Concrete Steel Co., 125 N. E. 675. See also, 167 N. Y. S. 475, 181 A. D. 881.

But where contract of hire is made in New York for services to be performed partly in New York, partly in New Jersey, an action of tort for an injury in New Jersey is not barred by New Jersey compensation act.

Pensabene v. F. & J. Auditore Co., 140 N. Y. S. 266.

Subrogation Section of New Jersey act does not create lien on New York judgment.

Hartford Acc. & Ind. Co. v. Chartrand, 204 N. Y. S. 791.

B. *Decisions Under Compensation Act. Contract Theory.*

Act held extra-territorial where contract of hire is made in New York.

Post v. Burger & Gohlke, 111 N. E. 351.
Spratt v. Sweeny & Gray Co., 111 N. E. 1100.
Valentine v. Smith, Angevine & Co., 111 N. E. 1102.
Klein v. Stoller & Cook Co., 116 N. E. 1055.
Jenkins v. Hogan & Son, Inc., 163 N. Y. S. 707, 177 A. D. 36.
Gilbert v. Des Lauriers Column Mould Co., 167 N. Y. S. 274, 180 A. D. 59.
Holmes v. Communipaw Steel Co., 167 N. Y. S. 475, 181 A. D. 881.
State Ind. Com. v. Barene, 177 N. Y. S. 689.

But not where contract of employment is for services exclusively in another state.

Gardiner v. Horse Heads Const. Co., 156 N. Y. S. 899. 171 A. D. 156.
Perlis v. Lederer, 178 N. Y. S. 449, 189 A. D. 425.
Prdich v. N. Y. C. R. Co., 183 N. Y. S. 77. (This involved an action of tort, not a proceeding under compensation act.)

An act has no application when contract of employment is not made in New York, and services are not to be performed in New York.

Thompson v. Foundation Co., 177 N. Y. S. 58, 188 A. D. 506.
Baggs v. Standard Oil Co., 180 N. Y. S. 560.

For extra-territorial application of law on vessel risk, see

Edwardsen v. Jarvis Lighterage Co., 153 N. Y. S. 391, 168 A. D. 368.

Refusal to administer remedies under compensation act of another state.

Verdicchio v. McNab & Harlin Mfg. Co., 164 N. Y. S. 290, 178 A. D. 48.

Effect of receipt of compensation under law of another state.

Gilbert v. Des Lauriers Column Mould Co., 167 N. Y. S. 274, 180 A. D. 59.
(Held not to bar award.)

Minto v. Hitchings & Co., 198 N. Y. S. 610, 210 A. D. 661.
(Held to bar award.)

New York act held not applicable extra-territorially in case of employer who moved plant from state prior to passage of act, though contract of hire was made in New York.

Smith v. Heine Safety Boiler Co., 119 N. E. 878.

C. *Decisions Under Compensation Act. Localization Theory.*

Test of extra-territoriality held to be whether employment is located in New York.

Matter of Cameron v. Ellis Construction Co., 169 N. E. 622.
Smith v. Aerovane Utilities Corp'n, 181 N. E. 72.

New York law held applicable.

Smith v. Aerovane Utilities Corp'n, 181 N. E. 72. Case of New York employee doing work in Pennsylvania incidental to New York employment.

Madderns v. Fox Film Corp'n, 200 N. Y. S. 344, 205 A. D. 791. Moving picture actor on boat, injured on New Jersey side.

Amaxis v. Vassilaros, 250 N. Y. S. 201, 232 A. D. 397. Painter doing transitory work in New Jersey.

Zeltoski v. Osborne Drilling Corp'n, 267 N. Y. S. 855, 239 A. D. 235. Driller making foundation tests for New York Co. in Tennessee.

Ind. Com. v. Underwood Elliott Fisher Co., 276 N. Y. S. 519, 243 A. D. 658. Repair man on machines, working out of New York office.

Goddard v. Taylor Instrument Co., 282 N. Y. S. 182, 244 A. D. 836. Travelling salesman, working out of Rochester, N. Y. office.

New York law held not applicable.

Cameron v. Ellis Const. Co., 169 N. E. 622. Canadian employee of Massachusetts concern, working at gravel pit in Canada.

Donohue v. H. H. Robertson Co., 199 N. Y. S. 470, 205 A. D. 176. Employee of foreign corporation, located in Pennsylvania, hired in New York, but never employed in hazardous work there.

Anderson v. Jarrett Chambers Co., 206 N. Y. S. 458, 210 A. D. 543. Rigger, hired in New York, but never performing hazardous work there.

Baum v. New York Air Terminals Inc., 245 N. Y. S. 357, 230 A. D. 531. Employee of construction co., employed exclusively on New Jersey job.

Kalfatis v. Commercial Printing Co., 254 N. Y. S. 519, 233 A. D. 649. Painter, working on bridge job, including work to be done in both Pennsylvania and New York, but never having worked in New York.

Similarly, New York law not applicable to injury in New York, if employee is only temporarily in New York, location of employment being elsewhere.

Proper v. Polley, 253 N. Y. S. 530, 233 A. D. 621.

Third Party Actions.

In Re Hertel's Est., 237 N. Y. S. 655. Extra-territorial effect subrogation provision.

Travelers Ins. Co. v. Central R. Co. of N. J., 258 N. Y. S. 35. Extra-territorial effect statutory right of action.

35. *North Carolina.*

Sec. 36 of act gives remedy for extra-territorial injuries:

(a) if contract of hire is made in state, and
(b) if employer's place of business is in state, and
(c) if employees residence is in state.

Act not extra-territorial if contract is expressly for services exclusively outside state.

Provision that if employee receives compensation or damages under law of any other state, he shall not receive a total compensation for same injury greater than provided by this act.

Prior to enactment of compensation act, court refused to recognize compensation act of another state as barring action of tort in North Carolina.

(a) Where plaintiff was resident of North Carolina, hired in Tennessee, and injured in North Carolina. Farr v. Babcock Lumber Co., 109 S. E. 833.
(b) Where plaintiff was employed in North Carolina, and injured in Tennessee. Johnson v. Carolina, C. & O. R. Co., 131 S. E. 390.

(c) Where plaintiff was employed and injured in Tennessee. Lee v. Chemical Const. Co., 136 S. E. 848.

The last two cases seem contrary to sound principle.

36. *North Dakota.*

Sec. 396-a 10 of act provides that act shall not apply extra-territorially except in case of county peace officers, and except in case the employer has contracted for extra-territorial protection, no employer can obtain extra-territorial protection unless his plant and main office are in North Dakota, and unless he expends two-thirds of payroll in employment in North Dakota.

Act not applicable extra-territorially in case of employment located in Washington.

Altman v. North Dakota Workmen's Compensation Bureau, 195 N. W. 287.

Act not applicable extra-territorially in case of county peace officer unless county has purchased extra-territorial protection.

McArthur v. North Dakota Workmen's Compensation Bureau, 244 N. W. 259.

37. *Ohio.*

Sec. 1465-68 and 1465-90 indicate that act applies extra-territorially.

Not extra-territorial as to contracts for services wholly to be performed outside state.

Ind. Com. v. Gardinio, 164 N. E. 758.

Not extra-territorial as to employee engaged in construction entirely in another state, and who signed a contract stating that contract was made in such other state and was governed by its laws.

Johnson v. Ind. Com., 186 N. E. 509.

38. *Oklahoma.*

Act not extra-territorial.

Sheehan Pipe Line Const. Co. v. State Ind. Com., 3 P. 2nd 199.
Continental Oil Co. v. Pitts, 13 P. 2nd 180.

As to extra-territorial effect of statutory right of action against uninsured employer, see

Osagera v. Schiff, 240 S. W. 124 (Mo).

39. *Oregon.*

Sec. 49-1813-a. Act extra-territorial as to workman who is hired to work in state, and temporarily leaves it, provided he is not at time of accident subject to compensation act of another state.

Sec. 49-1815-a. Act not extra-territorial as to employers of interstate carriers of goods by motor vehicle between fixed termini.

As to effect of subrogation section of foreign compensation act, see
Rorvik v. North Pacific Lumber Co., 190 P. 331, 195 P. 163.

40. *Pennsylvania.*

Sec. 1. Provides that act shall apply to all injuries in commonwealth irrespective of where contract of hire was made.

Act applies extra-territorially only to Pennsylvania employees performing services for employers whose places of business are in commonwealth, and whose duties require them to be temporarily absent from the commonwealth not exceeding 90 days.

The term "Pennsylvania employees" does not mean merely employees of a Pennsylvania employer, but only such as perform the major part of their services in Pennsylvania.

Bock v. D. B. Frampton & Co., 161 A. 762.

41. *Rhode Island.*

No provision as to extra-territoriality.

Act held to apply to extra-territorial injury of employee hired in Rhode Island.

Grinnell v. Wilkinson, 98 A. 103.

42. *South Carolina.*

Sec. 36. Act extra-territorial.

(a) If contract of hire is made in state, and
(b) If employer's place of business is in state, and
(c) If residence of employer is in state.

Act not extra-territorial if contract is expressly for services exclusively outside of state.

Provision that if employee receives compensation or damages under the law of any other state, he shall not receive a total compensation for same injury greater than provided by act.

43. *South Dakota.*

Sec. 9453. Act stated to apply extra-territorially.

44. *Tennessee.*

Sec. 6870. Act applies extra-territorially if contract of hire is made in state, unless otherwise expressly provided in contract.

Held to apply extra-territorially even if contract is for service exclusively in another state.

Smith v. Van Noy Interstate Co., 262 S. W. 1048.

Receipt of award for compensation under law of another state bars award under Tennessee law.

Tidwell v. Chattanooga Bolier & Tank Co., 43 S. W. 2nd 221.

45. *Texas.*

Part 1 Sec. 19. Act applies extra-territorially in case of employees hired in state, provided

(a) That injury occurs within 1 year after leaving state, and

(b) That employee has not elected to pursue his remedy and has not recovered in courts of state where injury occurs.

Act applies extra-territorially where contract is made in Texas.

Texas Employers' Insurance Ass'n v. Volek, 44 S. W. 2nd 795, 69 S. W. 2nd 33.

But not if contract is not made in Texas.

Texas Employers' Insurance Ass'n v. Hoehn, 72 S. W. 2nd 341.

Extra-territorial provisions have no application if employer is non-subscriber.

McGuire & Cavender v. Edwards, 48 S. W. 2nd 1010.

Insurance policy issued before enactment of extra-territorial provision held to cover extra-territorial injuries sustained after enactment and during policy term.

Home Life & Acc. Co. v. Orchard, 227 S. W. 705.

Prior to amendment of act, receipt of award under law of another state was not available in bar or as set-off.

Texas Employers' Insurance Ass'n v. Price, 300 S. W. 667, 672.

Norwich Union Ind. Co. v. Wilson, 17 S. W. 2nd 68, 43 S. W. 2nd 473.

46. *Utah.*

Sec. 3126. Act extra-territorial as to workmen hired in state.

Provision for enforcement of remedies under laws of other states in case of workmen hired outside state.

Contractor's employee hired in Utah held entitled to award for injuries in Colorado although employer had taken out insurance in Colorado State Fund to protect employees working in Colorado.

Pickering v. Ind. Com., 201 P. 1029.

Action for damages based on injury in Idaho held barred by Idaho compensation act.

Shurtliff v. Oregon Short Line R. Co., 241 P. 1058.

47. *Vermont.*

Sec. 6506. Act applies extra-territorially as to workmen hired in state.

Sec. 6507. Provision for enforcement of remedies under laws of other states in case of workmen hired outside state.

Sec. 6510. Provisions for agreements between employers and employees hired within state to work outside that remedies under act shall be exclusive as to extra-territorial injuries. Contracts of hire made in state presumed to include such agreement.

Held that Vermont act applies to injuries received in Vermont, wherever contract of employment is made: but that ordinarily the court would, on principles of comity, leave parties to remedy under law of state where contract was made.

De Gray v. Miller Bros. Const. Co., 173 A. 556.

48. *Virginia.*

Sec. 37. Act applies extra-territorially.

(a) If contract of hire is made in state, and
(b) If employer's place of business is in state, and
(c) If residence of employee is in state.

Does not apply extra-territorially if contract of hire is expressly for services exclusively outside of state.

Provision that an employee who receives compensation or damages under law of another state, shall not receive for the same injury total compensation greater than that provided by act.

49. *Washington.*

No extra-territorial provision: but act held to apply to extra-territorial injury received by Washington employee temporarily absent from state.

Hilding v. Dept. of Labor & Industries, 298 P. 321.

Compensation Act held not to prevent courts from entertaining suit based on foreign tort.

Reynolds v. Day, 140 P. 681.

50. *West Virginia.*

Part 2. Sec. 1. Act extra-territorial as to employers regularly employing persons for carrying on business or industry within state, and as to employees temporarily and necessarily absent from state, such absence being directly incidental to carrying on industry within state.

Act extra-territorial as to employees of mines if main opening is located wholly within state.

Act held extra-territorial as to employees in mine.

Gooding v. Ott, 87 S. E. 862.

Act held extra-territorial as to employee regularly employed in West Virginia, but temporarily in Kentucky.

Foughty v. Ott, 92 S. E. 143.

51. *Wisconsin.*

No provision as to extra-territoriality.

Act originally held extra-territorial where contract of hire was made in state.

Anderson v. Miller Scrap Iron Co., 170 N. W. 275, 171 N. W. 935, 182 N. W. 852, 187 N. W. 746.

Zurich etc. Co. v. Ind. Com., 213 N. W. 630.

Thresherman's Nat. Ins. Co. Ltd. v. Ind. Com., 230 N. W. 67.

But not where no part of service is performed in Wisconsin.

Wandersee v. Moskewitz et al., 223 N. W. 837.

Act applies to injuries in Wisconsin under Minnesota contract of service, where employer accepts Wisconsin act.

Johnson v. Nelson, 150 N. W. 620 (Minn).

The later cases go on theory of status or localization.

Val Blatz Brewing Co. v. Gerard, 230 N. W. 622.

Contract of hire made in Wisconsin to sell products in Missouri and Arkansas. Held that employee was under Wisconsin law until he acquired status of employee in another state.

This would seem to overrule Wandersee v. Moskewitz, cited above.

Interstate Power Co. v. Ind. Com., 234 N. W. 889.

Wisconsin act held to cover death by injury in Wisconsin of Iowa resident, employed to work in Iowa, but sent temporarily to do work in Wisconsin.

McKesson-Fuller-Morrison Co. v. Ind. Com., 250 N. W. 397.

Wisconsin act held to apply to death of travelling salesman, a resident of Wisconsin, killed in Illinois. The employer was an unlicensed foreign corporation without even mailing address in Wisconsin. (A very extreme case.)

For cases on extra-territorial effect of subrogation section, see

Anderson v. Miller Scrap Iron Co., cited above.

Bernard v. Jennings, 244 N. W. 589.

52. *Wyoming.*

No provision as to extra-territoriality.

ABSTRACT OF THE DISCUSSION OF PAPERS READ AT THE PREVIOUS MEETING

DISTRIBUTION OF INSPECTION COST BY LINE OF INSURANCE—HARRY V. WAITE

VOLUME XXII, PAGE 15

WRITTEN DISCUSSION

MR. ROBERT S. HULL:

It is difficult to criticize a paper which is an able exposition of a successful piece of work.

Mr. Waite's paper is a valuable addition to the literature of cost analysis as applied to insurance work. There is considerable literature on manufacturing costs but when the insurance man finds it necessary to distribute his costs by line of insurance he must for the most part blaze his own trail. A few years ago, in commenting on the possibilities of expense allocation an accounting executive of one of our large companies remarked:

"You can't keep costs on a damn lot of papers."

Nevertheless, considerable progress has since been made in doing just that.

Mr. Waite's paper gives the Society the benefit of an experience based on two carefully planned investigations of inspection costs. The soundness of the method is indicated by the close correspondence which he notes in the results of the two tests.

It would seem that one of the greatest difficulties to be encountered in such a study would be engaging the cooperation of the field men in securing time sheets on which the dates were accurately recorded throughout the day, rather than being thrown together by guess as an afterthought to the day's work. However, if the field man understood, as is probable, that the test was being applied in all offices and that the results would probably be compared, he would be inclined to use sufficient care not to produce weird results that might show up in the comparison.

Mr. Waite brings out interestingly certain by-products of the study in addition to the allocation of expense by lines of insurance. The first of these is in the break down of time for each line into

percentages for each operation, with the resultant indication of possible inefficiency in permitting non-productive time to bear too high a ratio to the actual inspection time. Such a study might easily save much more than its cost by pointing the way to the elimination of such leaks.

In comparing the efficiency of inspection offices, the number of inspections made will have little meaning unless the normal relative costs for the different types of inspection be known and this, the list furnishes.

The break down of inspection costs by lines is a not inconsiderable factor in determining the profit or loss for each kind of insurance and if at least the larger companies can furnish a reasonably accurate distribution of inspection costs for the New York Casualty Experience Exhibit, we have a valuable check on the allowance for this purpose in the rates.

In such lines as boiler, machinery and elevator where inspection costs are a large factor in the rate, it would seem that the companies should pool experience in inspection costs as well as in exposure and losses. If memory serves, this was tried several years ago, but failed for lack of cooperation on the part of the companies. Such experience to be of value should of course be analyzed by kind of machine or vessel and by type of inspection.

The analysis of compensation inspection costs by number of employees has interesting possibilities. While the allowance for inspection expense in the premium in a given classification necessarily varies with the size of the risk, it is doubtful whether the inspection cost varies in the same proportion. Also is there a marked disparity in ratio of inspection costs to premium as between industrial, contracting, stevedoring and all other risks? *Question*: Is there any better way of charging compensation inspection expense than as a flat percentage of the premium?

MR. GEORGE D. MOORE:

The paper presented by Mr. Waite seems to cover this subject fully. For a very large carrier the expense incident to the collection of data is perhaps insignificant. For the small carrier to go into all of this intricate detail would perhaps be unwarranted. As simplified method to be used by a smaller carrier and when the

inspectors cover more than one line of insurance, the following is suggested: Starting with the actual time spent on inspecting and excluding all references to Travel and Clerical time, it is possible to make a complete summary of actual time spent over a given period by all the company's inspectors by lines. Then if the total costs of inspection for Home Office and Field Salaries, Home Office Rents, Traveling Expenses, and Branch Office Expenses chargeable to inspection is distributed to lines of insurance by actual time spent on each line, it will be possible to approximate the expense for each class of business. This method presupposes that the costs of overhead, including traveling, is proportional to the time spent in actual inspection. Results on this basis seem practical.

Another difficulty encountered by the smaller carrier is to include in the figures those expenses incurred on fee base inspections, that is where inspections are made by outside firms. The method used by the company with which the writer is connected is to arrive at the average time per inspection by lines derived from inspection made by the company itself, these averages are then applied to the number of inspections made by outside firms and then the general overhead is distributed proportionate to the combined time to fee and company inspections. This method presupposes that the costs of fee base inspection has been first specifically allocated to line at the time the fee base bills are received. Although the method is not strictly accurate the results do not appear to be out of line.

SOCIAL INSURANCE AND THE CONSTITUTION—CLARENCE W. HOBBS

VOLUME XXII, PAGE 32

WRITTEN DISCUSSION

MR. LEON S. SENIOR:

Although the subject is timely, it may be difficult to explain why Federal legislation dealing with old-age pensions and unemployment insurance should be discussed in this forum from the constitutional point of view. It would have been more appropriate for us to examine its theory, its philosophical and actuarial aspects, or the soundness of its mathematical foundation. If I may venture

a guess, the author thought it good strategy to demolish Federal legislation as unconstitutional, thereby saving himself and the members of the Society the time and effort necessary for a critical study of its philosophy and mathematics. This he has done well. Whatever doubts one has entertained on the soundness of the legislation from its constitutional aspects have been removed by Mr. Hobbs' convincing argument.

Hastily put together, the Social Security Act is offered as a political measure and as an effective slogan for the coming campaign. To anyone familiar with the powers of the Federal Government and the limitations imposed on such powers by our Constitution, it is amazing to find the National Government actually embarking upon a field which heretofore has been regarded as strictly within the province of the individual states. Neither unemployment insurance nor old-age pensions come within the Federal police power, which insofar as internal affairs of the state are concerned is limited to interstate commerce and to matters of taxation.

The Federal statute on unemployment insurance is a purely coercive measure. It seeks, under the guise of taxation, to foist upon the states a so-called system of "insurance" which in its essence lacks the definite characteristics commonly associated with insurance. Its effect is to establish contingency reserves for the benefit of workmen who have lost their jobs either through their own fault, or through the inability of industry to give employment. Under the ordinary forms of fire, life, marine and casualty insurance the occurrence of the loss is not within the control of the assured or the beneficiary. I am, of course, excepting cases of fraud which may normally be expected as an incident to claims arising under all insurance contracts. But under a system of unemployment insurance, the situation as respects losses is to a large extent within the control of the employer who pays the premium. This is especially true as respects minor periodical fluctuations. As an example, I may cite the automobile industry where changes in method of sales, advertising and deferred payment plans have a material effect upon production. When it comes to long-lasting world-wide depressions the cushion provided by reserve funds set aside for unemployment insurance is rather thin to be of any lasting benefit. As a Federal project the tax for unemployment

insurance comes neither within the express nor implied powers of the Government; nor is it inherent as an incident to its sovereignty.

Aside from that, what the nation requires is not a panacea in the form of "unemployment insurance," which may help the idle workers to tide over a temporary period, but radical reduction of unemployment by providing jobs for the employable. Systematic planning for the creation of jobs has been lost sight of in the mad rush for impractical schemes to be organized and controlled by the Federal Government. Constitutionally unsound, economically impractical, the plan for unemployment insurance falls far from achieving the object to bring the country back to economic recovery. No scheme of unemployment insurance can be described as a real remedy. Like an aspirin for a headache, or a bromo-seltzer for the morning after, it will do nothing more than treat the symptom; it offers no cure for the disease.

The New York Sun has recently published some illuminating articles on the subject of unemployment. In its edition of May 11th it puts the question: "Why are 2,000,000 men out of work on the farms?" And it furnishes the answer: "Plainly because the New Deal told the farmers to stop plowing, to stop planting, to stop cultivating, to stop harvesting, all in order that the farmers could get a higher price for their products at a time when other men and women were unable to buy enough to eat. Why are miners idle? Partly because of the threat of Government-produced power by the TVA and other New Deal schemes. And 700,000 railroad workers are out of employment not only because of Government treatment of the lines, but because the production of farms and mines has been curtailed by the acts of the Administration." Billions are spent on boon-doggling schemes such as golf courses and swimming pools, while the railroads starve and farm hands sit and whittle, and plans for unemployment insurance are hatched by the social uplifters.

Since the publication of Mr. Hobbs' paper, the New York Court of Appeals upheld, on a divided vote, the New York Unemployment Insurance Act. The case will soon reach the U. S. Supreme Court and may be sustained there. But that does not necessarily mean that the Supreme Court will uphold the Federal Act which involves much different issues.

When we come to discuss the subject of old-age pensions, I find

myself far more sympathetic with the project than with so-called "unemployment insurance." The idea of making life secure for the individual against the vicissitudes of life has its limitations. To a certain extent society has an obligation to provide through common effort for its disabled and its incompetent, but by and large the individual should be encouraged to provide for himself in his years of plenty against a future rainy day. I fully realize that it is fashionable nowadays to speak with derision of "rugged individualism" and yet the race has made its greatest progress and has achieved its highest triumphs through pioneering struggles, overcoming obstacles presented by men and nature.

Assistance to the aged does come within the province of the individual State, and its details should be worked out in a rational, practical manner within the limits of our constitutional system. It is clear, however, that that portion of the Social Security Act which deals with old-age pensions is not a constitutional scheme. Mr. Hobbs very clearly shows that all the reasons which have led to the rejection of the Railroad Retirement Act are applicable to the case of the Social Security Act. The fact that railroad employees are engaged in interstate commerce gave color to the plea that Congress had jurisdiction in the matter. But this excuse does not exist in the case of a pension scheme which has no direct relation to the subject of interstate commerce. A pension plan which takes no cognizance of occupation, domicile and other important details will, in the long run, prove unworkable. The subject is essentially one for the individual states and not for the Federal Government. The benefit scale may suffice to maintain the simple life on a farm, but one may question whether the uniformity of its arrangement is ideally suited to a standard of living for men and women in urban communities where conditions of living are more difficult and more costly.

No great harm will be done if all or part of the present Social Security Act, particularly the part dealing with contributory pensions is cast overboard. Some good will have been accomplished by making open a path for the discussion of a social problem which must be solved, but like all things worth while the solution does not lie through hasty, half-baked legislation. A satisfactory Social Security Act may and will come in the future through patient and painstaking effort on the part of men who will not be affected by the political considerations of the moment.

And in conclusion, may I offer my compliments to the author on his admirable essay. It is quite well known that anyone who was raised in Boston or lived in any of its suburbs, when he breaks into speech or written word uses the most chiselled and faultless English. But occasionally Mr. Hobbs lapses into classical Latin or even more classical Greek. His latest is "graphe paranomon." I assure you it is not a chemical or pharmaceutical preparation. It has reference to a special type of legal process which was in vogue by Athenians of old. It could be invoked by any citizen against one who proposed an unconstitutional law. Mr. Hobbs concludes that it is pretty fortunate for our legislators that this form of process does not exist under our common law system of jurisprudence. With this conclusion I most heartily agree.

MR. F. ROBERTSON JONES:

I am so nearly in accord with many of the general views expressed by Mr. Hobbs in this address that it is only with difficulty that I have been able to find points for comment or criticism.

However, it stands out that even in the short time that has elapsed since the date of this address there have been two court decisions that have a disturbing bearing on Mr. Hobbs' subject—namely, the decision of the United States Supreme Court in the AAA Case, *United States v. Butler et al., 36 S. Ct. 312, (January 6, 1936)* and the decision of the New York Court of Appeals in the Unemployment Insurance Case, *W. H. H. Chamberlin, Inc., v. Andrews, 271 N. Y. 1, (April 15, 1936)*.

The United States Supreme Court case tends to support Mr. Hobbs' conclusion that the old-age insurance feature of the Federal Social Security Act is unconstitutional; but practically it has some implications looking the other way:—

Some 20 years ago, when the propaganda for compulsory social insurances first became widely vocal in America, even their advocates agreed that the Federal Constitution stood in the way of *national* compulsory insurance systems. There were then two major schools of thought as to the limitations on the power of the Federal Government to tax and spend "for the general welfare"—

the school of Madison, which was "strict," and the school of Hamilton, which was "liberal." Mr. Hobbs' objections to the constitutionality of the Federal old-age insurance scheme are based, in part at least, upon the doctrines of Madison. But in the United States Supreme Court case, above cited, those doctrines were weakened; the conservative majority of six justices adopted the more liberal doctrines of Hamilton; and the minority of three departed yet further from the Madisonian doctrines and went far beyond the Hamiltonian doctrines in the direction of maintaining that there are no limitations at all upon acts of Congress declared to be "for the general welfare." So we see that some of the commonly accepted constitutional limitations on the power of Congress have been fading away; and there is reason to anticipate that, by replacement of the justices of the Supreme Court, they may, before long, be approximately eliminated. Therefore I fear that Mr. Hobbs' conclusions as to the unconstitutionality of this feature of the Social Security Act are not as certain as I would wish.

Then as to the New York Court of Appeals decisions: Mr. Hobbs attacks the unemployment compensation or insurance laws on the ground that they are not regulations, under the police power, of the relation between employers and employees, but are distinctly the taking of property of one class for the private use of another class. Perhaps such objection would not apply with the same force to a "dismissal wage" law (such as was proposed in Connecticut) or to a law requiring employers to contribute to unemployment benefits for their own employees, as in Wisconsin; but, according to the opinion of some competent authorities, it would be absolutely fatal to the constitutionality of the New York law—which is distinctly class legislation and, with its pooled fund, is one of the most communistic forms of so-called unemployment compensation that could be devised. Yet it was that very New York law which has been upheld by the decision above referred to. That decision arouses the fear that, in regard to legislation of this character, we are rapidly approaching a status wherein constitutions—state along with national—will be treated practically as scraps of waste paper and such discussions of constitutionality as Mr. Hobbs' will belong in the realm of archeology.

Then, there are several passages in Mr. Hobbs' address with

which I agree in spirit, but disagree in some details. Thus at one point he says (page 33 of the printed address) :—

> ". . . Social Insurance is, so far as it goes, a leveling device, designed to put one class of the community in a position of improved economic status, necessarily at the expense of another class."

This proposition, in my opinion, is not accurate in application to social insurance universally. Social insurance may be honestly designed to and—more improbably—may have the effect of benefiting the community generally, some classes directly and others indirectly. On the other hand, it may be designed to regiment a proletariat and content them with delusions, in the interests of the politicians. It seems to me that the two principal lines of social insurances provided for in our Social Security Act belong in the latter category. Certainly their primary and principal beneficiaries will be the office holders, the spoilsmen and the tremendous bureaucracy they would entail, whereas it is problematical whether the wage-workers as a class will ultimately benefit. Certainly "social security" will not thereby be materially promoted, but the welfare of the community will be perverted more than ever into a political gamble. I submit that an intensive analysis of these half-baked social experiments will support my diagnosis—and I feel that Mr. Hobbs will agree with me.

Finally, Mr. Hobbs optimistically concludes (page 49 of the printed pamphlet) :

> ". . . the act [the Federal Social Security Act] stands . . . as a battle monument marking the attainment of an objective by one side in a social warfare. As such its permanence depends upon the maintenance in power of the winning side; and the law of retribution renders this on the whole unlikely."

Here again my diagnosis differs a little from Mr. Hobbs' and my prognosis is less favorable. I do not believe that these particular social insurance enactments have been so much achievements of an objective in a class war, as they have been emanations from a "brain trust," actuated by the time dishonored policy of "bread and circuses." And the history of the Roman Empire affords little ground for expectation that when such a policy is once embarked upon there will be any turning back.

However, in all discussions of this subject, it needs to be borne

in mind that the problem of greater economic security for the less fortunate classes of the population is a real one.

MR. J. B. GLENN:

Mr. Hobbs' discussion of the decision in *Railroad Retirement Board v. Alton* and its bearing on the constitutionality of Titles II and VIII of the Social Security Act would be improved if he would show how the points on pooling and due process, in a case where money is collected from A and immediately disbursed as an annuity to B, the amount of the annuity bearing no relation to the contributions, if any, previously made by B, apply to a case where the contributions of A are held and accumulated to be disbursed as an annuity to A, the amount of annuity, generally speaking, bearing a close relation to his previous contributions. In the second case the plan is nothing more than a compulsory savings proposition, on a group basis while in the first case an element of "share-the-wealth" is present. Another point worthy of notice is that in one case the system operated retroactively in certain respects while in the other it is not only non-retroactive, but is not even immediately effective. Possibly also the fact that one applied only to one industry while the other applies generally, may be pertinent. As originally introduced the Social Security Act included a much larger number within its scope, but practical difficulties in the collection of taxes lead to several restrictions of its coverage.

Another matter which should have a bearing on the question of constitutionality, but perhaps doesn't, is stated by a critic of the Act, thus:[1]

"A tax on payrolls ranging upward from 4% in 1937 to 9% in 1949 and thereafter can come only from two sources in practical business operation:

(a) It must be deducted from the current wage rate by refusing to advance wages with prices or depressing them at current prices; or

(b) It must be added to the price of goods.

Probably a combination of the two will actually take place." The author fails to point out that 80% of the public which will pay the

[1] Economic Pitfalls in the Federal Social Security Act, Farrel-Birmingham Co., Inc., Ansonia, Conn., 1935.

higher prices consists of employees covered under this Act, and their dependents. Certainly if the framers of the Act supposed they were bettering the economic conditions of the employee at the expense of the employer, they should receive credit for very little discernment, particularly in view of a probable continuing labor surplus. Laws regulating the *disposition* of a part of wages cannot operate as a regulation of the total amount of wages, as long as the remaining part is fixed by bargaining between the employer and employee.

Except for the fact that appearances are sometimes of importance, the entire amount of the contributions might just as well have been collected directly from the employee rather than indirectly as in the Act.

It would seem rather difficult to support a contention that the Social Security Act, except through the poor relief portions, involves a transfer of property from A to B. A difficulty is that while it may not involve a transfer as a matter of fact, it may as a matter of law.

If the old age relief grants in Title I of the Act are constitutional, it may be argued that the compulsory pensions are constitutional also, on the ground that the public recognition of responsibility for its aged indigent will impose a substantial and increasing burden on the taxpayer, unless a compulsory savings system is enacted to reduce the number of aged indigent. Since the compulsory pensions are in fact a compulsory savings proposition, the person doing the saving should receive the annuity, as a matter of right, irrespective of need. Without this line of argument the compulsory pensions probably would not have been enacted by a Congress inclined to favor all appropriations, oppose all taxation.

A similar line of argument applies to the unemployment compensation sections of the Act. The Federal Government has been called upon for huge sums for relief, and such demands are likely to continue or recur. Some means of taxation must be found to provide the necessary funds and to liquidate debts incurred in the past on this account. The provision of unemployment benefits tends to reduce the amounts required for relief. It would seem reasonable and proper, therefore, to allow a credit to the taxpayers of a State which takes steps to reduce the relief require-

ments. The fact that unemployment compensation is paid as a matter of right rather than need can again be justified on the ground that it is a compulsory savings proposition, on a group basis. An examination of State unemployment compensation Acts shows that benefits are more or less closely related to previous contributions.

There seems to be little point in discussing whether the collection of payroll taxes imposes a new incident on the employer-employee relationship, as it is a matter of definition. In many instances certain classes of persons have been appointed as unofficial tax-collectors for the government even though the proceeds of the tax are to be used for some purpose wholly unrelated to the business of the collector. The imposition of a sales tax for relief funds may or may not impose a new incident on the purchase and sale of goods, depending on definition.

The fact that other forms of social insurance cannot be justified by the usual arguments for workmen's compensation would be irrelevant if it can be shown that:

(a) workmen's compensation can be justified on other grounds that will also include other forms of social insurance, or
(b) that the other forms can be justified on grounds independent of those used for workmen's compensation.

If the arguments for social insurance as a matter of natural justice correspond to those stated in this paper, the advocates of social insurance will be well advised not to set up any system which collects funds from the proposed beneficiaries and relates benefits closely to previous contributions. If the Social Security Act is social insurance in any proper sense of that ill-defined term, it is a decidedly reactionary form of it.

A correction, which has no bearing on the points in this paper, is that the Railroad Retirement Act of 1934 provided for retirement at age 65, with a possible extension by agreement between the employer and employee, but not beyond age 70 unless the employee occupied an "official position." Retirement before 65 was permissible if the employee had 30 years of service, but the annuity was reduced by one-fifteenth for each year he was less than 65 except that there was no reduction if the employee was retired by the carrier for disability.

MR. JOSEPH LINDER:

In a most interesting paper entitled "Social Insurance and the Constitution," Mr. Hobbs first discusses the constitutional questions raised by the Federal Social Security Act. The old age assistance provisions and unemployment provisions are dealt with separately. This procedure seems to be particularly appropriate since it is more than a mere possibility that one of the sections might be declared constitutional without regard to the other.

There is then discussed the state unemployment acts. In this connection the New York Court of Appeals in a recent decision (April 15, 1936) declared the New York Unemployment Insurance Act in practically its entirety as constitutional under both the Federal and State Constitutions. While not necessarily presaging similar action by the United States Supreme Court with regard to either the New York Act or the unemployment provisions of the Federal Social Security Act, certain parts of the decision make particularly interesting reading. The New York Court of Appeals has apparently decided in favor of the "self-restraint" recently argued for by the minority of the United States Supreme Court. "Courts should not interfere with attempts by the legislature in the exercise of the reserve power of the State to meet dangers which threaten the entire common weal and affect every home. . . . Whether or not the Legislature should pass such a law or whether it will afford the remedy or the relief predicted for it, is a matter of fair argument but not for argument in a court of law." It is of course appreciated that the question of the "reserve powers" of the individual states is not the same as the question of the "reserve powers" of the Federal Government.

Under the heading of "Natural Justice," Mr. Hobbs discusses the "pros" and "cons" of the legislation without regard to constitutionality. One gathers that Mr. Hobbs feels that the Federal Act is in the nature of class legislation in that it involves a transfer of moneys to a certain class, such moneys necessarily coming from another class or from the general revenues of the state. The present reviewer adheres to the school of thought which believes that taxes imposed for the purpose of raising funds which are returned to employees in the form of benefits ultimately become wages. (Workmen's compensation insurance is also classed as a form of

taxation coming within this category). In other words, the Federal Government is forcing various individuals to set aside certain sums out of their own incomes in order to protect themselves in part against their own misfortune or improvidence. If this view of such taxation is sound, then the old age assistance section of the Federal Act not only does not create a class of beneficiaries at the expense of another class, but actually preserves the respective equities of the individuals who ultimately become recipients of benefits.

This view might also be held, but to a limited extent, with regard to the unemployment provisions. Here the beneficiaries may also include the balance of the population at large (in terms of sustained purchasing power). It is doubted that the employing class in Great Britain would be willing to do away entirely with their own system of unemployment "insurance." In Great Britain and other European countries the functioning of unemployment benefit systems appears to have sustained purchasing power during the late (it is hoped!) depression. In such countries the purchasing power of the wage earning population declined much less (percentagewise) than in the United States. It is even possible that, paradoxical as it may sound, the "cost" of insurance was less than the "benefits," if the latter is expressed in terms of the smaller decline in purchasing power.

The present reviewer is quite frankly in favor of the social insurances if for no other reason than that of orderly and efficiently meeting a cost which is already being met in disorderly and inefficient fashion. He also feels that if soundly conceived and efficiently administered, the effect on the national economy cannot be other than helpful.

MR. W. R. WILLIAMSON:

Mr. Hobbs' discussion is timely. I suppose that possibly it well represents the position of the conservative who instinctively feels there must be something inherently wrong with social insurance.

I should like to refer primarily to two other discussions on the same subject; one by Professor Powell, Langdon Professor of Law at Harvard University, entitled, "The Constitution and Social Insurance," appearing in the September 1935 number of the Annals of the American Academy of Political and Social Science;

the other by Professor Barbara Nachtrieb Armstrong of the University of California School of Jurisprudence, entitled "The Federal Social Security Act," appearing in the December 1935 number of the American Bar Association Journal.

Professor Powell's attitude in his review of the Railroad Retirement Act decision is quite different from that of Mr. Hobbs. Professor Powell says, "Frailty in the arguments advanced in support of the views may be a factor tending toward ultimate erosion. . . . If judges subject themselves to suspicion of unawareness of what they are doing, they must subject themselves to the possibility of the revaluation of what they have done." Prof. Powell accepts more readily the attitude expressed by Chief Justice Hughes in his dissent from the bare majority decision reached by five of the nine members.

Back of the Railroad Retirement Act is, of course, the very interesting history of the establishment of pension programs by railroad after railroad. Most of the roads notified the employees as a whole that pensions were being granted. Undoubtedly for many years employee and foremen discussion indicated that pensions could be counted upon as a definite right. They become as nearly deferred wage as they have become in any general industry. The railroads, whose resources have been somewhat curtailed, have not provided what insurance companies would consider an adequate reserve to back up these pension rights. It may even be said that rulings from the Interstate Commerce Commission have hampered the roads by putting obstacles in the way of such reserve provision. Not only had they failed to establish reserves, but they had, in fact, already begun to reduce pensions then in force, the receipt of which pensions must have been regarded by the employees concerned as very definite.

With this background, one could regard the Railroad Retirement Act as the attempt by the federal government, under whose Interstate Commerce Commission the railroad's freedom of action had theretofore been somewhat curtailed, to make up for adverse governmental rulings and to permit the railroads to live up to the intent of their own essential promises, though permitting the employees to join with them in the provision for old age benefits. It seems to me that this aspect of the Railroad Retirement legislation had inadequate recognition in the Supreme Court decision and

that it presents a rather important element to have been overlooked.

Professor Armstrong's conclusion is that the Social Security Act recognizes the enlargement of our unit of assistance in relief work from the parish to the country as a whole since a considerable proportion of the workers are never permanently localized even within a particular state. She believes, also, that "Titles II, VIII and IX in the social security bill have unquestionably used the taxing power to accomplish their social insurance objectives. Such a motive on the part of Congress must be freely conceded. Whether such a motive, however, renders the legislation improper is quite another question. It may perhaps find its answer in such a statement as that contained in the concluding paragraph of the recent case of Magnano Co. v. Hamilton which reads: 'From the beginning of our government, the courts have sustained taxes although imposed with the collateral intent of effecting ulterior ends which, considered apart, were beyond the constitutional power of the lawmakers to realize by legislation directly addressed to their accomplishment.'"

Mr. Hobbs' discussion of "natural justice" calls for rather special commentary. Professor Armstrong's conclusion as to the enlarged community which must support relief, suggests as reasonable an attitude as that indicated by Mr. Hobbs' statement, "On the other hand, if the burden is arbitrarily imposed, with no reason other than that the state has seen fit to do it, there is a lack of natural justice." The community is already responsible for relief. Social insurance is a modification of relief principles, but possibly more a rationalization than a radical departure. Both old age benefits and unemployment benefits under the social security program are to be largely financed by taxes upon the employee's wages, or upon that source of the employee's wages—the employer. Since wages are not permanently determined at any point, the effect of these taxes upon the employer may slow down wage advance in the future and thereby transfer the burden to the employee. The cooperation of those concerned seems imperative. The common provision for these needs on the part of those affected is essentially a tax upon those who may be subject to future needs and is group budgeting. This part of the social security program seems to involve the same principle of shared provision on the

part of the citizens which is already evidenced in the common provision for education and road building. Since the time of Queen Elizabeth the state has taxed "those who had" for the relief of "those who had not." These portions of the Social Security Act attempt to tax as well those who, it is evident, will eventually lack the means of support and thus increase the equity back of the transaction. It seems that the entire trend of this legislation is in the direction of that "natural justice" which Mr. Hobbs considers so desirable and that instead of simply removing property from A and transferring it to B, as we are rather unsuccessfully doing already, it secures the cooperation of B to reduce the magnitude of the burden upon A.

Mr. Hobbs seems a trifle careless in his lumping together of the two distinct coverages—old age assistance and old age benefits, and later in his sweeping statements which rather ignore the taxation upon the employees.

Much of the discussion of the Railroad Retirement Act ignores almost the entire argument of the salesmen of group annuities, that the building up of a proper retirement program is a distinct advantage to the employer. Consider, in particular, the quotation from the majority decision of the Supreme Court as to improved morale, concerning the transfer of loyalty to employer to gratitude to the legislature. The Act possibly attempts to make good the employer's promise of pensions made, as has been earlier argued by the railroads, to secure improved operating efficiency. Those of us who are familiar with the pitfalls of the pension device, the inability of many an employer to formulate a clear picture of what he is doing in the creation of the pension program so that he falls into the error of failing to budget properly for his liabilities, can readily believe that the current legislation must eventually help to clarify this complicated subject in the minds of both the employer and the employee. It is not unduly harsh to say that in a field which touches so importantly the lives of millions of employees, clear thinking on pensions has been unforgivably postponed and obligations to employees have been most casually treated.

The Social Security Act which, rather than the Railroad Retirement Act, is the subject of discussion, seems to be a notable advance upon the general level of pension provision on the part of a

large group of employers who have failed to recognize financial pension liability. Its attempts at budgeting may come closer to the principles of "natural justice" than the hit-or-miss methods which have been all too common among employers.

Professor Powell says: "I am not unfamiliar with the background of experience and opinion which would make a compulsory pension plan a noxious novelty. I look back with some emotional nostalgia to those easy days—easy for those for whom they were easy—when character and ability won their deserved reward, and when those to whom reward did not come were, by the force of ineluctable logic, without the requisite character and ability. What any man did, all other men could do. The industrious and prudent saved for their old age. Men chose what work they would do, and when they chose a dangerous occupation they assumed the risks thereof. If accident came, it was merely what they had anticipated and were paid for anticipating. Men chose to work with careless fellow employees often unknown and miles away, and so of course were themselves to blame if their own carelessness in joining a careless companion resulted in harm. There was no need to provide for other men's security, for if men did not win security for themselves, they did not deserve it. To provide for others what they could not provide for themselves would destroy the incentive of men to provide for themselves what they could provide for themselves. It was all so simple and so moral, and each man was free to succeed and free to fail.

"Of course it was a false picture even in those days, but many of us who were comfortable fondly believed it to be true. I should be glad if it were true today, if only private charity were kind enough to the unfortunate ones who lack ability and character. We know it is not true today, and only by looking at what is true today can we have any wisdom about what is legitimate for government to do today. The simple fact is that an uncontrolled industrial system or lack of system holds out to few a chance of either abundance or security. For the many, the most that can be hoped for is a minimum of security. Employers who would proffer security plans are inevitably hindered or deterred by the nonconformity of their competitors. Without conformity, the cost cannot be passed on to the consumer. Such competitive disadvantage can be borne only by a few. If, therefore, we are

to have a minimum of security, the only way to get it is by legislation comprehensive in its spread. So the question boils down to the simple one of whether we wish to provide security or not. If we do not, let us be frank about it and say so. If we do, let us not cavil at costs which cannot be avoided if we are to achieve the end."

Sounder recognition of the needs of the old and of the unemployed is essential. The community suffers when these needs are uncared for. It may well be that if the conservatism of social insurance is unavailable that much more radical remedies may be demanded and applied.

AUTHOR'S REVIEW OF DISCUSSIONS

MR. CLARENCE W. HOBBS:

Nietzsche gives as the sign of the State, confusion of the language of good and evil. This, as in case of much which Nietzsche says, cuts very deep into the essential weakness of modern society. There are no more peoples, inspired with a common faith and common hope: there are but states: artificial conglomerates of vast masses of folk, with no common ideals, and therefore acting to no common purposes, fighting each other, if not with arms, at least with ideas.

Of this, my paper and the five excellent discussions thereof, are illustrations. Mr. Senior, Mr. Jones and myself apparently see more or less eye to eye: as between us and the other three gentlemen, there is a gulf fixed not readily to be bridged over, involving as it does entirely different concepts of what should be the end and aim of state policy.

This difference has recently been most lucidly set forth by Dorothy Thompson in the New York Herald-Tribune, under date of June 23rd. The author indicates as antitheses "liberalism" and "social democracy." "The liberal," she states, "believes in the free play of economic forces, with the state reduced to the function of seeing that the game remains fair. The revolt of the liberal is against those forces, economically powerful, and representing themselves as conservatives, who by concentrated power aggran-

dize special privileges for themselves. The liberal wants above all things, freedom. He wants freedom from the economic domination of powerful groups, but he also wants freedom from the meddlesome interferences of government bureaucracy. And he fears the all-powerful state above all things, because the state has behind it, eventually, armed force, and possibilities of coercion which not the most powerful capitalism can command."

This in general states my own views very concisely, and I trust I do Mr. Senior and Mr. Jones no violence by suspecting that their views point in that direction also.

The "social democrat," goes on the author, "accepts the rise of huge combinations of wealth as an inevitable development of capitalism and machine production. He does not seriously try to introduce greater fluidity in the interests of fair competition, but to force those combinations into popular service. Without the relentless logic of the tough-minded Communists, he hopes to achieve this by democratic methods and by the collaboration of all people of good will. Meanwhile, without attacking the matter of ownership, fundamental to a true Socialistic program, from the revolutionary implications of which he shrinks, he expands the paternalistic powers of the state, making up to the masses in one form or another, for the defects of the economic system. The process appeals at the outset to people of humanitarian instincts. It also appeals to all politicians who have the disposal of such doles. To keep the process going inside political democracy one thing is essential, that the burden of taxation for it should not fall too visibly on too large a section of the population. Therefore it must be financed by visible taxes only on the well-to-do or by borrowing. If the taxes on the rich tend to break down the powerful economic groups, so that eventually they yield to the state out of sheer weariness, so much the better. But there is no robust policy for what should then be done."

And I think I do no violence to Messrs. Glenn, Linder and Williamson, by indicating that I think their views fall within this category.

With this distinction in mind, I proceed to comment upon the several discussions. That of Mr. Senior accords so well with my own views that I bestow upon it no more than passing comment. His criticisms of unemployment insurance and of the present

Federal old age pension plan are pungently stated, and, I think, raise entirely valid points. His kindly comments as to myself are much appreciated. The same may be said of the discussion of Mr. Jones. This raises some very interesting points, and I regret that I cannot in brief space do them full justice.

Mr. Glenn challenges my assertion that the Social Security Act involves a transfer of property from A the employer to B the employee. That is the immediate effect, certainly of levying a tax upon the employer. Mr. Glenn quotes a statement of a critic of the act to the effect that the tax in payrolls can come from only two sources in practical business operations, (1) By deduction from wages, (2) By addition to prices: and adds the commentary that 80% of the public which will pay the higher prices consists of employees covered under the act. Wherefore, he concludes, the employee is really paying the bill, and "except for the fact that appearances are sometimes of importance, the entire amount of the contributions might just as well have been collected directly from the employee rather than indirectly as in the Act."

This quotation fits in very well with the statement of Dorothy Thompson quoted, that it is essential that the burden of taxation should not fall too visibly on too large a section of the population.

But Mr. Glenn's premise is not entirely correct. Save in case of those very fortunately situated, employers cannot raise prices at will. Some, like public utilities, can do so only with the consent of an administrative body: and in some parts of the governmental program during the past three years, broader price-fixing provisions have been proposed. In any event, whenever business is competitive, raising of prices is possible only by joint action of all competitors: and whether competitive or not, prices cannot be raised above the public's ability or willingness to pay without reducing the demand. Therefore, the second means will not in all cases be available. Again, employers are by no means free in dealing with wages. In unionized industries, wages are controlled by contract: in other industries a general attack on wages would be a potent motive to unionization and a disastrous series of labor troubles. The employer would have in numerous cases to meet the tax out of his own pocket or else cast about for means of lowering operating costs—which would inevitably mean the displacement of a certain amount of labor. If he failed in the latter,

and could not pay the taxes out of his pocket, he would go out of business. To some extent, therefore, the transfer from A the employer to B the employee will be, not technical, as Mr. Glenn implies, but real.

To some extent, also, there is an indirect tax on so much of the community as do not draw benefits under the act. I am not in position to challenge Mr. Glenn's statement that 80% of the public which will pay the higher prices consists of employees covered under the act and their dependents, but it seems a trifle high.

Now there are some employers who can afford this tax: either by reason of ability to fix prices, or by reason of ability to deal with wages, or by reason of a comfortable margin between operating income and operating expense. Many will be in serious difficulties: not a few will be forced to the wall: that is, if the Act continues until the maximum tax is reached. It is perhaps superfluous to shed a tear over the small employer: in these days of broad thinking, and looking to mass results only, the small employer has, and possibly deserves, no friends. It may be for the good of the community that business fall into the hands of large and potent organizations. This process has long been going on. The levying of this new burden bids fair to accelerate it. A "liberal" like myself may deplore the tendency, which the "Social Democrat" views with complacency. A "liberal" like myself may also deplore the addition to the already over-numerous horde of tax-collectors, of an indefinite number of what Mr. Glenn styles "unofficial tax collectors for the government": but here again a good "Social Democrat" like Mr. Glenn sees nothing untoward in the phenomenon. I fear I am not properly appreciative of the essential beauties of a polity consisting of tax slaves toiling under the lash of an army of tax collectors, official and unofficial, for the purpose of receiving some day in form of benefits so much of the products of their toil as the army of tax collectors and the other army of benefit dispensers do not require for themselves.

As to Mr. Glenn's statement, "If the Social Security Act is social insurance in any proper sense of that ill-defined term, it is a decidedly reactionary form of it," I have no extended comment to offer. I must say, if the Social Security Act does not provide social insurance, I do not know what social insurance is: and if it be

reactionary, that is almost as much of a surprise as learning from Dorothy Thompson that I am a "liberal."

With regard to Mr. Linder's discussion, I think I indicated that previous decisions of the Supreme Court with regard to particular acts cannot be depended upon as conclusive of their decisions upon other acts. Each act stands on its own footing and no two involve precisely the same legal issues or precisely the same background; nor does it always happen that the personnel of the court remains the same. Mr. Linder's premise that taxes imposed on A the employer to be ultimately returned to B the employee in the form of benefits are "wages," strikes me as a very strained use of the term: and his conclusion that since it is "wages," then the old age assistance section of the federal act does not create a class of beneficiaries at the expense of another class, but actually preserves the respective equities of the individuals who ultimately become recipients of benefits, is, I must admit, beyond my logic. So far as employee contributions are concerned, I would not challenge his conclusion. But the tax on the employer is none the less at the employer's immediate expense by terming it "wages." It is something that would not have accrued to the employee's benefit but for the law, and in the first instance it comes out of the employer's pocket. He may or may not be able to pass it on to the employee or to the public, and the cost may or may not eventually settle on the employee's shoulders.

The effect of unemployment insurance doubtless operates as a buffer to take up something of the shock of unemployment: and it is certainly to be hoped that it does not lack its beneficial features. But the English unemployment system was modified into a system of doles which came near to paralyzing governmental finance, and the cut in benefits initiated by the conservative government was doubtless necessary. And England and every other European country has still an unemployment problem. As to Mr. Linder's statement that the cost of the insurance may be less than the benefits derived therefrom through a smaller decline in purchasing power, I do not comment, save that I seem to recollect a similar philosophy preached by Dr. Townsend: nor would I deplore his pronouncement in favor of social insurance, "If soundly conceived and efficiently administered." To be sure, the "if" is by no means insignificant.

With regard to Mr. Williamson's discussion, I feel that after quoting Dorothy Thompson I should demur to the title of "conservative," though the matter of nomenclature is less important than the content read into the particular title. I am far from asserting that there are not two sides to the legal argument, or that the opinion of the majority of the Supreme Court in the Railroad Retirement Act case necessarily represents the sum and substance of the wisdom of the ages. Mr. Williamson's arguments, and those from the authors he cites are not without their force. But I think there is a distinction between poor relief and compulsory service pensions: certainly one of degree, and probably one of kind. To say that a law which charges the community generally with the burden of providing care and maintenance for those unable to care for themselves is of one kind with a law which charges upon one class of the community, the employers, and another class of the community, the employees, the cost of providing retirement allowances to such of the latter class as reach a certain age, irrespective of need, and in no way related to the cost of their care and maintenance is very far fetched. The two are altogether different, and depend upon entirely distinct principles. I therefore would question his statement that "Social insurance is a modification of relief principles, but possibly more a rationalization than a radical departure." It is not relief: it is the annexation to a class of a right not dependent upon anything except the status. It may, and in many cases doubtless will, render direct relief unnecessary. It may also be the thing to do. But the point which I sought to bring out is, it involves a concept of the state and of its duties to its citizens which has not as yet been defined or fully justified.

On this point, let us return to Dorothy Thompson. She points out, on the basis of a broad personal observation, that the Social Democratic approach has been tried in many countries and has very generally failed. Why? First, because its program attracts to itself groups that have no essential homogeneity and tend to disperse. Second, because the appetite for benefits grows upon that on which it feeds, causing any moderate program to be defeated by the programs of those who promise more. Third, because the source of wealth for distribution tends, eventually, to run dry, since the state has taken no power to produce wealth, but only to

tap it. Fourth, because of the danger of a combination of governmental charity with political corruption, driving into revolt people of all classes who detest the debauching of government: and Fifth, by reason of forcing an eventual consolidation of the economically powerful, backed up by patriotic citizens who naturally would not be on their side, but who are alarmed into opposition by the preceding tendencies. "Then," she says, "Only the revolutionary weapon is at hand with which to oppose them. And nowhere has the social democracy grasped it."

The social security act is but one item in the Social Democratic program, to be sure: and the fate of that program generally may or may not carry the social security act with it, and may or may not result in its modification. But with regard to Professor Powell's statement, quoted by Mr. Williamson that "the question boils down to the simple one of whether we wish to provide security or not," the following comment may be made. There is no such thing as absolute security: and as far as relative security goes, it is not provided for. There is an act, to be sure. It ostensibly provides for security. Its mechanism involves the heaping up of prodigious funds, to be invested in the evidences of debt of the United States. One element of doubt exists as to whether such sums of liquid funds can be extracted from the veins of a nation already terribly burdened with taxation, and threatened with more. Another element of doubt, and a very genuine and pertinent one, lies in the character of investment. Doubtless no better could be suggested. If the United States defaults on its obligations, all other securities become of very questionable value. But the United States has for some years past failed to balance its budget, and that by an enormous margin. Unless that is stopped, and stopped quickly, a default is certain: and it can be stopped now only against the angry protests of millions of subsistents upon government bounty, and salaried employees of the government, and over the dead bodies of every politician in Congress. Already the United States has failed to live up to the letter of its outstanding obligations. Already it has been and is being urged to increase its purchases of silver, to descend to currency inflation. And yet it would seem that the investment of tens of billions in its obligations may be dignified with the title of "security."

Again, the United States is but one state in a world visibly in travail. There, as here, the backs of people crack beneath the burden of nations grown over-great and powerful; of governments, that have mushroomed out into huge organizations of employees, office-holders and functionaries, and prodigious investments in buildings and equipment for war and peace, the cost of which is drained out of every producer and every consumer: and of an economic system, fast crystallizing into powerful capitalistic aggregations, which tend either to crowd small business and individuals to the wall or to absorb them into their own organizations. I do not question seriously Professor Powell's statement that an uncontrolled industrial system or lack of system holds out to few a chance of either abundance or security; it is under present conditions increasingly true. But I would add to this, that an over-controlled industrial system or lack of system holds out to fewer a chance of either abundance or security: and that the further hypertrophy of government at the rate of the last series of years holds the same out to none at all.

I entertain no illusions as to the fate of the individualistic principle. On the governmental side it is being regulated to death: on the economic side it is being ganged to death. But individualism and its philosophy, to which Professor Powell states he looks back with "emotional nostalgia" are phenomena deserving of more than the sneer of the advocates of the theories of Social Democracy. Once in the life of a race—not oftener—it develops a general and widespread aspiration for liberty, the true birthright of the individual, which enables it to bend or break, one after another, the bonds of custom and usage, of government, law and religion, which have nurtured its youth but which now serve but to fetter the limbs and shackle the thought. Then its people are free: free to develop all that is in them of best and of worst: free to expand outward into the realms of thought, of art and science, of industry, commerce and finance. The philosophical expression of their freedom is individualism, its political expression democracy. And in this grand efflorescence it achieves its conquests and garners its wealth.

But because the good is mixed with evil: because liberty passes into license; because the freedom that gives the individual power to advance, permits also the strong to oppress the weak, the gang

to overpower the unorganized; freedom ultimately slays itself and disappears, first from the economic field, second from the political and last from the intellectual, leaving but the ghosts of its institutions to grace and to modify the conditions which succeed. We are approaching that phase now. But they who sneer at "rugged individualism" and applaud its passage would do well to mourn instead: for it was that same individualism which furnished the ideas and the energy that accumulated the wealth they seek to regulate and to tap; and with its passage go the ideas, the energy and ultimately the wealth. They can extinguish the flame: to relight it is not so easy.

Security and stability are very natural aspirations, but in a world perennially in flux, never attainable for more than a limited period. Underneath all the forms of government is the spirit of life, which is never at rest, ever seeking to surpass itself, straining and fretting against all bonds and shackles with which government seeks to force it to move in orderly and predetermined lines, longing for freedom, pining for lack of it. The greatness of a state depends upon its ability to make use of this latent energy: to bring it to the fore. I must admit I see little hope of greatness in the state of tax-gatherers and tax-slaves which it is sought to construct: merely the bargaining for a widespread modicum of comfort and ease, all the glory of aspiration and desire that are bound up in the name of liberty. There is but slight prospect of that bargain being fulfilled: and the sum and substance of the achievement is to add to those who cry peace, peace, when there is no peace, a throng of those who cry security, security, when there is no security.

OCCUPATIONAL DISEASE COVER IN NEW YORK—ARTHUR G. SMITH

VOLUME XXII, PAGE 50

WRITTEN DISCUSSION

MR. GRADY H. HIPP:

Mr. Smith's paper on Occupational Disease Cover in New York records in a concise manner the pertinent facts in connection with the development of the rates and rating plans for the "All-Inclusive Occupational Disease" amendment to the New York Workmen's Compensation Law which became effective on September 1,

1935. The developments in connection with this coverage constitute another tumultuous but interesting chapter in the history of Workmen's Compensation insurance in New York State.

Mr. Smith states that the absence of a definition of occupational disease leaves in doubt the precise extent of the new Paragraph 28, Subdivision 2, Section 3 of the New York Workmen's Compensation Law. This situation has been remedied in part at least by instructions issued to Referees by the Industrial Board, State of New York Labor Department. The following paragraph is quoted from a letter of March 24, 1936 from the Chairman of the Industrial Board to the General Manager of the Compensation Insurance Rating Board of New York:

> "After the amendment of Section 3, Subdivision 2 by the addition of paragraph 28, became effective the Industrial Board instructed the Referees that the provisions of this new paragraph would cover all disabling diseases characteristic of and peculiar to the employment in which the disease is claimed to have been contracted."

As stated in Mr. Smith's paper, the Actuarial Committee of the Compensation Insurance Rating Board of New York first submitted to the Governing Committee a set of rates now known as Plan I. When the matter was referred back to the Actuarial Committee by the Governing Committee on account of the dissatisfaction with the proposed rates on the part of some members of the Governing Committee, a substitute set of rates now known as Plan II was submitted by the Actuarial Committee. Mr. Smith does not make it clear in his paper that the Actuarial Committee did not submit the two sets of rates on an optional basis. The Governing Committee, however, did propose both sets of rates to the Superintendent of Insurance with the option on the part of the carriers as to which plan they would use in each individual case.

While the Superintendent of Insurance drastically reduced the proposed rates, he nevertheless accepted the idea of two plans for optional use by the carriers. Accordingly, two forms of rating for occupational disease coverage are now available "at the option of the carrier by agreement with the assured."

The phrase "by agreement with the assured" is practically meaningless. In general, the employers had to accept the plan offered to them by the companies which usually was Plan II or else go to the one carrier which wrote this type of business freely although in many instances at higher rates.

By far the greater number of employers who had serious dust hazards were refused coverage by the companies inasmuch as the rates approved by the Superintendent of Insurance were considered generally to be inadequate. The result was that the greater part of this class of business involving serious dust hazards obtained coverage in the one carrier which has the right to use rates differing from the published rates.

This entire situation raises serious doubts as to whether optional plans for compulsory coverage should be promulgated by a Rating Board. As long as either the carrier or the employer has a choice there is likely to be adverse selection; shopping around for better terms or disagreeable controversies of various kinds.

The experience gained from the use of optional rating plans should prove to be a valuable guide for the future.

Another important conclusion which may be warranted on the basis of the occupational disease situation is that the supervisory authorities are likely to overestimate greatly the value to the carriers of any right which they may reserve to change rates in individual cases. I refer to the following:

The memorandum of decision of the Superintendent of Insurance of the State of New York, dated August 16, 1935 contains the following paragraph:

> "Risks involving abnormal hazard of exposure to dust diseases will be submitted to the Rating Board for consideration of a supplemental rating which after determination by the Board shall be submitted to the Superintendent for approval. Similarly, assureds whose processes, although classified as in the dust disease group, involve a non-existent hazard should be submitted to the Rating Board for removal of the charge for the dust disease hazard."

Apparently, relying upon the above authority vested in the Rating Board, the Superintendent of Insurance discounted the indicated rates by 20%. Presumably this was done on the ground that there would be a sufficient amount of increases in individual cases to offset the 20% discount. Additional reductions were made in the rates proposed by the Rating Board.

I venture the opinion that the increases in specific occupational disease rates in individual cases have not amounted to anything like 20% of the total average premiums, but that on the other hand such increases probably have not equalled the decreases in the total average premiums resulting from changes in rates in individual cases.

Mr. Smith stated that there was no reliable data to serve as a basis for rates and that consequently the Actuarial Committee was forced to rely to a considerable extent on assumptions and judgment. It should be borne in mind, however, that some valuable data based on loss experience in other states—particularly Wisconsin—were available which furnished valuable information as to dust disease claim frequency under conditions more or less peculiar to those states but which could be used in a measure and with suitable modifications as a rough guide in New York State.

It is yet entirely too early to form an accurate opinion as to whether or not the specific occupational disease rates approved by the Superintendent of Insurance are adequate. There is danger that we may be lulled into a false sense of security by the belief that the number of cases thus far reported is small. While it is not yet known just how many cases have thus far been reported, we should keep in mind the fact that the number of cases thus far reported do not necessarily constitute any reliable indication as to the number that will be reported either during the first or second policy year following September 1, 1935. It is undoubtedly true that there are a considerable number of employees who are in a position to make claims which may be sustained at any time they see fit to take action looking towards the establishment of claims. Many of the employees whose physical condition is such that they could establish valid claims prefer to work as long as they can continue in their occupations.

Mr. Smith discussed at some length the so-called Silicosis Bill which passed both Houses of the Legislature but which was vetoed by the Governor in May, 1935 after protests against signing the Bill were made by many employers and insurance carriers.

At its 1936 Session, the New York State Legislature passed a bill creating a new Article 4-A of the Compensation Law relating to Silicosis and other dust diseases. This bill was signed by the Governor on June 6, 1936 and became effective on that date.

The new Article 4-A was agreed upon by the representatives of industry and labor prior to its introduction in the Legislature. The representatives of the insurance carriers also collaborated in the preparation of the Bill containing this article.

The new Article 4-A contains some very interesting provisions among which are the following:

It is declared to be the policy of the Legislature of the State in enacting the Article to prohibit through every lawful means available, pre-employment examinations. It requires additions to the Industrial Code rules and regulations for the purpose of governing the installation and maintenance of approved devices designed to eliminate harmful dust and for the purpose of controlling Silicosis and other similar diseases. Payments into the so-called second injury and vocational rehabilitation funds are not required in no dependent death cases resulting from Silicosis and other dust diseases. The aggregate amount of benefits payable in case of disability or death from Silicosis or other dust diseases is limited in the aggregate to the sum of $500 if disablement or death occurs during the first calendar month in which the Act becomes effective. This aggregate amount is increased $50 each month thereafter until the final maximum aggregate of $3,000 is reached. The liability of employers is defined. Medical treatment is limited to 90 days unless this period is extended for an additional 90 days upon the order of the Industrial Board. Employees are not entitled to compensation under this Article if they make false representations in writing regarding their previous disability from dust diseases or regarding previous compensation or benefits for such diseases at the time of their employment. The Article includes provisions for special medical examiners to make the necessary medical and X-ray examinations of claimants for the purpose of obtaining the medical facts in an impartial manner. The findings of these special medical examiners are subject to review by expert consultants on dust diseases. An employer who fails to obtain insurance coverage in a carrier or fails to qualify as a self-insurer is deprived of the usual common law defenses.

The new Article 4-A will result in a substantial reduction in specific occupational disease rates. The Actuarial Committee of the Board has estimated that the present specific occupational disease rates will be reduced by nearly 68%.

MR. GARDNER V. FULLER:

Mr. Smith's paper on Occupational Disease Cover in New York is in my opinion a most concise but very clear description

of what is perhaps the most interesting and important milestone along the road of the occupational disease problem. The amendments to the New York Workmen's Compensation Law, effective September 1, 1935 with respect to occupational disease, created untold apprehension in insurance quarters and unquestionably the rating procedure introduced to adequately provide for the situation was the best that could be devised at the moment. Perhaps only those immediately connected with the development of the procedure are familiar with its theoretical background and make-up. Mr. Smith has not attempted to burden the reader with such theory but apparently the thoughts underlying his efforts were the creation of not only a very non-technical description of the New York procedure but also a brief historical document bringing out only the most important phases of the general problem which gave rise to the complicated rating procedure adopted for use in New York State. In both of these objectives Mr. Smith has admirably succeeded. Mr. Smith has not attempted to prognosticate the final solution of the occupational disease problem in New York but in so many words, and certainly by his clear description of a complicated rating procedure, he has evidenced an appreciation of a genuine need for a final solution, not only with respect to more simple and appropriate methods of application of rates but perhaps what is more important, the development of the true cost of covering occupational disease hazards under the amended law and the establishment of more satisfactory rates.

AUTHOR'S REVIEW OF DISCUSSIONS

MR. ARTHUR G. SMITH:

Mr. Hipp's discussion adds some material omitted from the original paper and brings the history of occupational disease cover up to approximately June 6, 1936 when new Article 4-A of the Compensation Law became effective. He gives the impression that very few risks with dust hazards were written by any carrier but one and that most of those few were covered under Plan II. According to a record maintained by the Compensation Insurance

Rating Board up to June 1, 1936 "One Carrier" covered 65% of such risks while the other carriers wrote 35%. Of the latter 79% were covered under Plan I and 21% under Plan II. In the case of foundries a slightly higher percentage was written by the other carriers but almost half of these were under Plan II. Oddly enough Plan II was used more freely by carriers of the group which originally opposed its adoption than by its proponents.

There seems to be little doubt that the existence of optional plans of cover appreciably broadened the market for risks with serious dust hazards, and very little evidence of difficulty in the application of the two plans has come to the attention of the Board. Hence, I am not sure that the adoption of optional plans was as inadvisable as Mr. Hipp seems to think.

He is correct in his opinion that increases in specific O. D. rates authorized by the Rating Board in individual cases have not balanced decreases. Supplemental rates have been approved in numerous cases where the classification carried no specific O. D. rate, but I know of no instance where the specific O. D. rate shown in the Manual has been increased or where any increase has been requested by the carrier. On the other hand, such rates have been eliminated on a considerable number of risks. It is quite possible, however, that this situation is due to the fact that "One Carrier" could and did in many cases increase the rates by varying percentages. If this had not been possible, it is quite likely that approval for higher rates would have been requested in accordance with the Manual provisions in a good share of these cases.

It may be true that there are many employees in such physical condition that they could establish valid claims but who prefer to work as long as possible. It would seem, however, that there would have been a tendency for such employees to make their claims before the possible benefits were greatly reduced by the enactment of new Article 4-A. Of course, there is still a period in which claims under the old law may be filed but in such cases disablement must be due to exposure prior to June 6th.

The Actuarial Committee's estimated rate reduction of 68% was in comparison with the rates for Plan I. Rates on this basis were filed with the Superintendent of Insurance, who, however, required further reduction to almost 79% below the old Plan I

rates. The major part of this difference was due to a lesser estimate of the effect of the stated policy to prohibit pre-employment medical examinations through every lawful means available. These rates are predicated on the benefits payable during the first year of the new law's operation. Rating Plans I and II have now been discontinued and replaced by straight coverage without any contributions by the employer toward the cost of individual claims.

GROUP RATE LEVELS IN WORKMEN'S COMPENSATION INSURANCE—M. H. MC CONNELL, JR.

VOLUME XXII, PAGE 60

WRITTEN DISCUSSION

MR. R. P. GODDARD:

Mr. McConnell's study of group rate levels has provided us with the important fact, not definitely realized before, that rate levels will vary by industry group, even though a single rate level is used for the entire state. The use of a single rate level will produce larger increases in rate level for some groups than will the use of group rate levels, whereas other groups, which would obtain large increases in rate level through the group rate level system, will receive smaller increases when the single rate level is used. He concludes that it would not be justifiable to depart from group indications merely because a larger increase could be obtained by keying to a single rate level.

Before discussing specifically the results shown in Mr. McConnell's paper it might be well to devote a little time to a consideration of the general purpose of projection to rate levels. Why is it necessary to project experience to a definite rate level? Why would we not obtain the desired results if we allowed the actual experience to determine the rates and thereby the rate levels? The answer to these questions may best be given by means of an example. Assume that we have available for rate-making purposes, five policy years of experience for two states, this experi-

ence producing on the present manual rate level the loss ratios shown in the exhibit below:

	State A	State B
1st year	20.0	75.0
2nd year	30.0	75.0
3rd year	40.0	75.0
4th year	50.0	75.0
5th year	60.0	75.0

We could make rates for State A, using the actual losses, but the results would reflect the average conditions obtaining during the five year period. Such rates would, of course, be too low, unless conditions affecting loss ratios during the year in which the rates would apply were the same as those during the five-year period as a whole. If we assume that the upward trend shown by the loss ratios for State A will not cease we must either discard the experience of the earlier years or else modify it in some way. If we decide to use this experience, we must increase the losses to such a point that they will produce loss ratios equivalent to that of the policy year or years which, in our opinion, were affected by the same general economic conditions which will affect the experience of the year during which the rates will apply. For State B, on the other hand, there is no trend in the loss ratios and we are justified in assuming that no projection factors will be necessary. If we use the actual experience we will obtain rates which will produce the desired aggregate rate level for all classifications. In other words, projection to a specified rate level, other than that of the full five-year period, is not necessary unless there is an upward or downward trend in the experience. The conditions in State B, as shown by the loss ratios, call for a large increase in rates, but they do not call for projection factors.

For the District of Columbia during policy years 1928 to 1932 there was an upward trend in the loss ratios for each individual industry group, and, therefore, for all groups combined. In order to make use of the experience of the earlier policy years it was necessary to increase the losses of those years to the level indicated by the experience of the last one or two policy years. For all groups combined, the loss ratios selected were 35.9% for in-

demnity and 25.3% for medical. The actual projection of losses to these levels is shown in the attached Exhibit I.

This exhibit is practically self-explanatory, although it might be mentioned that the projected losses shown in the exhibit have been calculated directly from the premiums at 12-31-33 manual rates by means of the selected rate-level loss ratios. Thus the figures in column (5) are obtained by multiplying the premiums at 12-31-33 manual rates by .359 and those in Column (6) by multiplying by .253. When we divide the projected losses, which we find to be necessary in order to produce adequate rates, by the actual losses we obtain the figures shown in Columns (8), (9) and (10). These figures are, of course, not projection factors but merely index numbers which show the relation of the projected losses to the actual losses.

However, if we desire to obtain a rate level for the entire state based upon an indemnity loss ratio of 35.9% and a medical loss ratio of 25.3%, it will be permissible to use as projection factors the index numbers already calculated. We must be careful in using such numbers as factors, however, because they are measures of the trend of the experience of all groups combined, as well as of the distribution of losses between indemnity and medical, and therefore may not produce the desired results for any individual industry group which has an abnormal trend in its loss ratios or an abnormal distribution of losses between indemnity and medical.

Consider, for example, the ten figures shown in Columns (8) and (9), excluding (8f) and (9f).

1.331	1.812
1.220	1.484
1.072	1.258
.982	1.316
1.022	.999

These figures are, for practical purposes, exactly the same as the ten "average projection factors" which Mr. McConnell has used in making his tests. When we use them as factors to project losses so that they will produce rates on a definite rate level, we are assuming that the experience is homogeneous both as respects the trend by policy year and the distribution between indemnity and medical. Any variation from the normal for any industry group will produce variations in the results for that industry

group. These factors will produce an increase of 19.8% in the losses of the state as a whole, but the increase for any individual industry group will be greater or less than 19.8% unless the distribution of losses is exactly the same for the group as for the entire state.

Now consider the five factors shown in Column (10), excluding (10f).

1.495
1.317
1.142
1.097
1.012

The employment of these factors would indicate that we considered the experience of individual industry groups to be homogeneous as respects trend by policy year, but not necessarily homogeneous as respects the distribution of losses between indemnity and medical. If it were homogeneous in this respect also, it would, of course, do no harm.

We may also use the two factors, from Column (8f) and (9f) as follows:

1.116 1.337

By using these factors we would be admitting that we did not necessarily consider the trend of the experience to be the same by policy year for all industry groups, but that we did think that each industry group had the same distribution between indemnity and medical.

Similarly, of course, the use of the single factor, 1.198, would indicate that we thought that the experience was not necessarily homogeneous either by policy year or kind of benefit but simply that we considered it necessary to increase all losses by 19.8% in order to produce rates on the desired rate level.

Exhibit II attached shows the results obtained by the use of the various sets of factors referred to above. These results have been compared with the results which would have been obtained if no factors whatever had been used, and also with the results obtained by the use of group rate level factors.

The calculation of Exhibit II is fairly simple. For the Manufacturing group, for example, the unprojected losses shown in Column (1a) are the sum of the losses shown in Mr. McConnell's

Exhibit II, Part A, line (2g) plus line (3g) for the same group. The losses, after projection by group rate level factors, amount to $691,167. This figure was taken from the same exhibit, line (10g). Similarly, the losses projected by ten factors, that is, by the "average projection factors," have been taken from line (8g) of Exhibit II—Part B, attached to Mr. McConnell's paper. The figures shown in lines (1d), (1e), and (1f) have been obtained by projection of the actual losses, by the factors found in Exhibit I attached to this discussion in columns (9a) to (9f), and (7f) and (8f). The permissible losses are also shown for the group, on line (1g).

Column (2) of the exhibit shows the ratios of the projected losses for each group to the unprojected losses. The figures in this column, therefore, show the extent to which the losses are increased in the aggregate by various methods of projection. Column (3) shows the ratios of the projected losses to the 1933 permissible losses. These figures therefore indicate the rate levels which will be obtained by the use of the different projection methods.

Before discussing these results, it might be well to state for the purpose of argument that we are assuming that the group rate level method now in force produces the most desirable results for each individual industry group. The effect of the present system is to tailor the rate level for each industry group to the trend of that group, as accurately as the former system tailored the rate level to the state as a whole. In discussing the results shown by various methods of projection to a single rate level, those results will be considered most desirable which most nearly approach the results obtained by projection to group rate levels.

The following exhibit is merely a summary of Column (2) of Exhibit II.

INCREASES IN LOSSES BY PROJECTION

	Group Rate Levels (1)	Single Rate Level			
		Ten Factors (2)	Five Factors (3)	Two Factors (4)	One Factor (5)
Manufacturing	1.171	1.223	1.217	1.203	1.198
Contracting	1.210	1.177	1.190	1.185	1.198
All Other	1.196	1.208	1.199	1.208	1.198
Total.....	1.198	1.198	1.198	1.198	1.198

It will be seen that under the group rate level system the losses of the Manufacturing group must be increased 17.1% in the aggregate in order to produce adequate rates. The corresponding increases for the Contracting and All Other groups are 21.0% and 19.6% respectively. Under the "Ten Factor" system the losses of the Manufacturing group are increased 22.3% and those of the Contracting group 17.7%. The group which needs the largest increase receives the least, and vice versa. The upward trend in the experience of the Contracting classes, working through the average projection factors, has the effect of increasing the losses of the Manufacturing classes more than they would normally be increased. On the other hand, the inclusion of the Manufacturing classes in the determination of the average projection factors has the effect of reducing the increase which would normally go to the contracting classes. The presence of an upward trend is a hindrance rather than a help in obtaining an increase in rates when average factors by policy year are used.

The various methods of rate level projection will produce the following increases in rate level. These figures are taken from Column (3) of Exhibit II.

INCREASES IN RATE LEVEL

	No Projection (6)	Group Projection (6) × (1) (7)	Projection to Single Rate Level			
			Ten Factors (6) × (2) (8)	Five Factors (6) × (3) (9)	Two Factors (6) × (4) (10)	One Factor (6) × (5) (11)
Manufacturing	.854	1.000	1.044	1.039	1.027	1.023
Contracting	.952	1.152	1.121	1.134	1.128	1.141
All Other	.834	.998	1.008	1.001	1.008	.999
Total.....	.881	1.055	1.055	1.055	1.055	1.055

Without any projection, the rate level of the Contracting classes (relative to the 12-31-33 rate level) will be 9.8 points higher than the rate level of the Manufacturing classes. Because of the greater upward trend, the rate level after group projection for the Contracting classes is 15.2 points higher than that of the Manufacturing group. But this greater trend works to the disadvantage of the Contracting group when the "Ten Factor" system is used. The difference between the rate levels for the two groups is now

only 7.7 points (1.121 — 1.044); the rate level for Manufacturing is too high and that for Contracting too low. The situation improves as the number of factors decreases. Thus with only five factors the difference in rate level for these two groups is 9.5 points, with two factors 10.1 points, and with only one factor 11.8 points.

From a consideration of the foregoing we are led to the following conclusions:

(1) If no projection factors are used the rate levels will vary by industry group. These rate levels will be determined by the five-year average loss ratios of the groups.

(2) If we use separate projection factors for each industry group, the rate level for any group will be that determined by the five-year loss ratio for the group, plus an increase or decrease determined by the trend of the experience of the group.

(3) If we use the same projection factors for all groups, these factors not being split by policy year, the rate level for any group will be that determined by the five-year loss ratio of the group, plus an increase or decrease determined by the trend of the experience of all groups combined.

(4) If we use the same projection factors for all groups, these factors being split by policy year, the rate level for any group will be that determined by the five-year loss ratio of the group, with an increase or decrease determined by the use of such factors. Those groups, however, which need the greatest increase because of trend will receive the least, and those which need the least increase because of trend will receive the greatest.

Thus far the effect of the National experience has been neglected. In this connection there are two respects in which the figures prepared by Mr. McConnell, and shown in Exhibit IV of his paper, might be improved. In the first place, the losses used in calculating reversion factors are losses projected by group factors rather than by average factors. As Mr. McConnell states, "this was because both sets of projection factors are supposed to produce the same effect over all. This introduces an error into the calculation for we cannot be sure that the two sets of projection factors will have the same effect on eliminated experience, even for all groups combined." It appears that the difference in pro-

jection factors may have a decided effect on the local losses for an individual industry group, even though the use of either set of projection factors will produce approximately the same reversion factors for the state as a whole. In other words, if average projection factors had been used, there would probably have been little change in the reversion factors shown in column (1) of the latter part of Exhibit IV, but there might have been a decided change in the District of Columbia losses shown in columns (4), (7) and (10) of the same exhibit. Another point which might be mentioned is the apparent inclusion of the off-balance correction factor of 1.023 in the experience used to calculate the reversion factors, although this factor was not included in the experience used elsewhere in the paper, and the entire paper is devoted to a discussion of the effect on collectible, rather than on manual rate level. The difference may not be material, but it would be interesting at least to calculate the effect of the National experience on group rate levels using losses projected by average projection factors and excluding the 1.023 off-balance correction factor.

The discussion so far has centered around the use of the old method of average projection factors (the "Ten Factor" method) for projecting to rate level. We have seen that the "Ten Factor" method produced by industry group within a state exactly the opposite results from those desired. It remains for us to consider whether the "Ten Factor" method in use at the present time produces results which are undesirable, by individual classification within an industry group.

Let us consider the two following hypothetical Contracting classifications. In order to simplify the example, only indemnity losses will be considered.

Class A

	Premiums at 1933 Rates	Unprojected Losses	Loss Ratio	Indemnity Projection Factors	Projected Losses	Ratio to Unprojected Losses
1928	100,000	20,000	20.0	1.379	27,580	
1929	100,000	40,000	40.0	1.296	51,840	
1930	100,000	60,000	60.0	1.241	74,460	
1931	100,000	80,000	80.0	1.029	82,320	
1932	100,000	100,000	100.0	.851	85,100	
	500,000	300,000	60.0		321,300	1.071

Class B

	Premiums at 1933 Rates	Unprojected Losses	Loss Ratio	Indemnity Projection Factors	Projected Losses	Ratio to Unprojected Losses
1928	100,000	60,000	60.0	1.379	82,740	
1929	100,000	60,000	60.0	1.296	77,760	
1930	100,000	60,000	60.0	1.241	74,460	
1931	100,000	60,000	60.0	1.029	61,740	
1932	100,000	60,000	60.0	.851	51,060	
	500,000	300,000	60.0		347,760	1.159

Here we have two classifications with the same volume of premiums and losses, but one class is suffering from an upward trend in loss ratio, whereas the other class has maintained the same loss ratio throughout the period. After projection, the class with the upward trend in loss ratio will obtain a smaller increase in rate level than the class with no trend. If one factor had been applied instead of ten, the increases in rate level for these classes would have been equal.

This is an extreme case, and if Class A had departed less from the normal trend of the experience of all classes in the group, the penalty, relative to other classes, would have been less. But it should be remembered that the extent to which the trend of the experience of a class is worse than that of the group is the extent to which that class is penalized when it comes to rate level increases. It is also worthy of note, that if the experience of all classes within a group is absolutely homogeneous, a single factor will produce the same result for any individual class as ten factors.

The objection to a single factor is that we sometimes do not have five full policy years of experience on which to base our rates. If we had, for example, a Contracting classification with only the experience of policy year 1932 available, we would hesitate to apply a flat projection factor of 1.210 when the "Ten Factor" method calls for factors of .851 and .877. However, we cannot tell from one year of experience whether such a class is actually similar to Class A of our example, or Class B. Furthermore, it is probable that such a class would be dependent upon National experience to a large extent in its rate-making. As a matter of fact, classifications with less than five years of experience do not seem to be very frequent. For the 1934 revision of District of

Columbia rates, there were 62 reviewed classifications, of which two had less than five years of experience. One of these classes had four policy years of experience, lacking 1928, and the other had three policy years of experience, lacking 1931 and 1932.

At first reading, Mr. McConnell's paper would seem to be of only academic interest, since it deals with a method of rate-level projection which has now been abandoned. We have seen, however, that the old method would have been improved if it had been less complicated, and it behooves us to apply the same type of intellectual curiosity to our present method, remembering that complexity does not always make for accuracy.

EXHIBIT I

CALCULATION OF AVERAGE PROJECTION FACTORS

District of Columbia 1934 Revision

	Premiums at 12-31-33 Manual Rates* (1)	Actual Losses on 1-3-29 Law Level		
		Ind. (2)	Med. (3)	Total (4)
(a) 1928	1,906,582	514,097	266,191	780,288
(b) 1929	1,987,758	584,832	338,931	923,763
(c) 1930	1,894,836	634,722	381,125	1,015,847
(d) 1931	1,815,404	663,704	349,011	1,012,715
(e) 1932	1,627,605	571,790	412,042	983,832
(f) 1928-32	9,232,185	2,969,145	1,747,300	4,716,445

		Projected Losses to Rate Level Loss Ratios		
		Ind. (1) × .359 (5)	Med. (1) × .253 (6)	Total (1) × .612 (7)
(a) 1928		684,463	482,365	1,166,828
(b) 1929		713,605	502,903	1,216,508
(c) 1930		680,246	479,394	1,159,640
(d) 1931		651,730	459,297	1,111,027
(e) 1932		584,310	411,784	996,094
(f) 1928-32		3,314,354	2,335,743	5,650,097

		Ratio of Projected to Actual Losses		
		Ind. (5) ÷ (2) (8)	Med. (6) ÷ (3) (9)	Total (7) ÷ (4) (10)
(a) 1928		1.331	1.812	1.495
(b) 1929		1.220	1.484	1.317
(c) 1930		1.072	1.258	1.142
(d) 1931		.982	1.316	1.097
(e) 1932		1.022	.999	1.012
(f) 1928-32		1.116	1.337	1.198

* These rates included no loading to offset the off-balance caused by rating plans, and are considered to be collectible rates.

EXHIBIT II

COMPARISON OF METHODS OF PROJECTION TO A SINGLE RATE LEVEL

		Amount (1)	Ratio to Unprojected Losses (1) ÷ (1a) (2)	Ratio to 1933 Permissible Losses (1) ÷ (1g) (3)
Manufacturing Group				
Unprojected Losses on Law Level	(a)	590,085	1.000	.854
Projected by Group Rate Level Factors	(b)	691,167	1.171	1.000
Projected by Ten Factors *	(c)	721,719	1.223	1.044
Projected by Five Factors **	(d)	718,117	1.217	1.039
Projected by Two Factors ***	(e)	709,647	1.203	1.027
Projected by One Factor ****	(f)	706,898	1.198	1.023
Permissible Losses, 1933 Manual	(g)	691,194	1.171	1.000
Contracting Group				
Unprojected Losses on Law Level	(a)	1,900,273	1.000	.952
Projected by Group Rate Level Factors	(b)	2,298,926	1.210	1.152
Projected by Ten Factors *	(c)	2,236,980	1.177	1.121
Projected by Five Factors **	(d)	2,261,996	1.190	1.134
Projected by Two Factors ***	(e)	2,251,437	1.185	1.128
Projected by One Factor ****	(f)	2,276,451	1.198	1.141
Permissible Losses, 1933 Manual	(g)	1,995,260	1.050	1.000
All Other Group				
Unprojected Losses on Law Level	(a)	2,226,087	1.000	.834
Projected by Group Rate Level Factors	(b)	2,662,521	1.196	.998
Projected by Ten Factors *	(c)	2,690,087	1.208	1.008
Projected by Five Factors **	(d)	2,669,696	1.199	1.001
Projected by Two Factors ***	(e)	2,689,022	1.208	1.008
Projected by One Factor ****	(f)	2,666,763	1.198	.999
Permissible Losses, 1933 Manual	(g)	2,668,213	1.199	1.001
All Groups Combined				
Unprojected Losses on Law Level	(a)	4,716,445	1.000	.881
Projected by Group Rate Level Factors	(b)	5,652,614	1.198	1.055
Projected by Ten Factors	(c)	5,648,786	1.198	1.055
Projected by Five Factors	(d)	5,649,809	1.198	1.055
Projected by Two Factors	(e)	5,650,106	1.198	1.055
Projected by One Factor	(f)	5,650,112	1.198	1.055
Permissible Losses, 1933 Manual	(g)	5,354,667	1.135	1.000

* Factors are from Exhibit I Column (8) and (9) from (a) through (e).
** Factors are from Exhibit I Column (10) from (a) through (e).
*** Factors are from Exhibit I Column (8f) and (9f).
**** Factor is from Exhibit I Column (10f).

AUTHOR'S REVIEW OF DISCUSSIONS

MR. M. H. MC CONNELL, JR.:

The writer, being in complete agreement with Mr. Goddard's views, has little to say other than to acknowledge his indebtedness for a comprehensive and understanding review.

Mr. Goddard's discussion of projection factors and their effect upon rate level, however, deserves special mention. In studying group rate levels a thorough understanding of projection factors is necessary, because the effect of keying to group rate levels is mainly brought about by the projection factors.

In the interest of accuracy it is well that Mr. Goddard noted the presence of a possible error in calculating the adjustment for national experience in Part B of Exhibit 2. That this adjustment was approximate only was mentioned in the original paper, although it was not mentioned that the correction for off-balance factor was included in this adjustment. Fortunately Mr. Goddard caught this omission.

INFORMAL DISCUSSION

State Regulation of Rates

MR. RALPH H. BLANCHARD:

The purpose of state regulation of rates is primarily protection of the policyholder and incidentally of the insurance carrier through applying the criteria of adequacy, reasonableness, and non-discrimination. The various states have shown particular concern in connection with rates for workmen's compensation, accident and health, and automobile insurance. In most states workmen's compensation rates must be approved and accident and health rates must be filed, and in several states automobile rates must be either filed or approved. The great majority of the compensation states permitting private insurance of the compensation hazard have laws ranging from requirement of mere filing of rates to provisions for filing and approval. In Massachusetts, rates for automobile bodily injury liability insurance, and in Texas, workmen's compensation rates, are made by the state. In New York and in Vermont there are rating laws which undertake to apply regulation to all rates with certain defined exceptions.

It is evident that state activity in the regulation of rates is increasing. It is not the purpose here to discuss its wisdom but, assuming that rates for a particular branch of insurance are to be regulated, to inquire what method of regulation is most likely to achieve the ideal implicit in the criteria.

Without disparagement, it may be pointed out that insurance commissioners are human, that they are not unconnected with political and other local situations, and that only a minority have adequate technical training or competent advisers.

It seems clear that the greater the extent to which insurance departments are made responsible for the approval or promulgation of rates, the more likely the rates are to be inadequate. The experience with rates for bodily injury liability insurance in Massachusetts is in point—the members of this Society are familiar with it. And this situation does not result from a desire to make or approve inadequate rates, but probably rather from

a feeling that the department must be in a position to defend the rates to the insuring public (and their highly vocal political representatives). Consequently, conjectural or projection factors are ruled out—and little or no provision can be made for expected developments which are not to be repetitions of the past. Similarly, in matters of reasonableness or discrimination, if the department sponsors a set of rates, it lays *itself* as well as the rates open to attack.

It is only natural that a department should show more hospitality to downward than upward revisions of rates and that it should feel that it must have definite evidence of insurance costs to justify its actions.

A formula should be sought which would give a department the basis and power for effective regulation and, at the same time, put it and all interested parties in a position where correct rates are most likely to emerge from the combined private and public rate-making machinery.

The only dogmatic statement which I propose to make is that the problem is worthy of consideration. Beyond that, I propose only to advance certain tentative conclusions which will serve as a basis for discussion. They will be stated categorically for the sake of simplicity.

1. A sound uniform statistical plan applicable to all carriers is the *sine qua non* of correct rates. It should be revealing in terms of the purpose for which it is designed. Such a plan should be submitted to and approved by the State.*

2. Rates should be made by rating bureaus representing all carriers. Deviations for individual carriers or a group of carriers should be permitted where clear justification could be shown.

> I do not enter here into the question of how a rating bureau should be organized, whether representation should be balanced as between participating and non-participating carriers, or on some other basis; nor do I propose to consider whether there might be separate rating bureaus for different classes of carriers. My point is that rating bureaus representing the carriers should focus both statistics and the calculation of rates.

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* The term "State" is used in a general functional sense; equally applicable to individual states of the Union, or to the various states acting in concert.

3. The states should be represented by an observer in, or have access to records of, every step of the rate-making process.

4. Complete reports of experience and of the deliberations of rate-making bodies should be filed with the State, to the extent that they bear on matters of general policy.

5. Rates should become the official rates one month (or other reasonable period) after the filing by the bureau. They should then remain in force for a reasonable period, (perhaps one year) without further revision, except possibly in the case of individual risks or classifications. The department should not be required either to approve or disapprove the rates.

6. For a reasonable but definitely limited period after the filing of rates, they should be subject to revision by order of the State Insurance Department or of a Board of Appeals of which the insurance commissioner would be one member.

(a) Appeals to the courts should be only on questions of law.

7. Revision should only be made on the initiative of the insurance department, or on complaint of a party in interest and after due hearing. The adoption of this principle would concentrate attention on rates concerning which there was a real question, and avoid unnecessary investigation.

8. There should be no general public hearing on any rate filing. A general public hearing serves principally as a forum for exhibitionists who attend hearings regardless of their interest in the subject, and as an opportunity for legislators to file protests as a means of creating political capital. Reporting of such hearings in the press is not conducive to impartial consideration of the problem.

Provision should, however, be made for public announcement of the filing of rates.

9. The authority ordering revision of rates should be required to file a detailed statement of the reasons for the revision.

MR. FRANCIS S. PERRYMAN:

The President referred to me as a stock-company man. I am afraid the word "stock" doesn't even come into this discussion because it really follows the example and exhortations of our President that actuaries should try to keep the economic point

of view in mind, and I thought it was advisable in this discussion of rate regulation that we should take some look at the question from the broad economic point of view.

One more thing I want to say about these few pages I have here. I originally jotted down some notes which when written out came to such a long statement that I condensed it as much as possible so that I am making a lot of statements which are rather bald because I don't think I should take the time to go into all the reasons for arriving at the conclusions.

It would be easy enough to criticize particular aspects of the existing set-up of State regulation of rates but I have tried in these remarks to view the question from a broader economic standpoint. Since I have endeavored to keep the length of these remarks down to the minimum it will be necessary to present many of the arguments and conclusions in skeleton form. Those interested in insurance will, however, have no difficulty reading between the lines and in filling in the arguments that have been omitted.

The question of State regulation of insurance rates is a part of a more general one, namely, that of governmental supervision of prices. This involves the ancient conflict of two theories of prices, namely, "just" prices and "functional" prices. The theory of functional prices is that prices should be left to the free play of open market competition to find the proper level, which will be the level at which goods can be produced at a reasonable profit to the producer. The theory of just prices is that the prices of goods should be regulated so that they represent fair value to the consumer. Some interesting remarks on this subject are made by Mr. Benjamin Anderson, Jr., Economist of the Chase National Bank, in a recent number of the *Chase Economic Bulletin.* He says, "As the economist sees prices, their function is to tell the truth regarding what is going on in the fields of production and consumption, and to correct maladjustments and bring about a reequilibration of the various productive activities when they get out of balance. * * * But governmental attitude toward prices runs on radically different lines. When governments touch prices they touch them from the standpoint of the notion of just price rather than from the standpoint of the notion of functional price. It is the essentially mediaeval notion of just price which dominates

both juristic tradition and present day governmental policy, when government touches prices at all."

Provided that the market level of prices can be left to free competition the general opinion of economists seems to be that this should be done. However, in some exceptional instances where it would be undesirable to have competition, (for instance, public utilities) then it becomes necessary to make some attempt to see that the prices charged are just prices.

Insurance rates are usually not of the type of prices requiring the setting up of just prices by some governmental agency. Exceptions to this might be where the State gives a monopoly of a certain kind of insurance either to an organization set up by itself or to some private carrier: in the normal case insurance rates should be left to competition but not, however, to unregulated competition. There should be enough supervision to see that abuses are prevented. So far both the proponents and opponents of State regulation of rates might be said to agree, both maintaining that there should be competition with regulation to avoid (i) cut-throat competition, and (ii) the danger of monopoly. These are both real potentialities. As regards cut-throat competition, insurance by its nature lends itself to extreme optimism on the part of irresponsible underwriters who can continue to write business at unprofitable levels for long periods. As regards the danger of monopoly this again is real since the necessity of a broad exposure for the making of insurance rates tends to encourage the banding together of carriers, and from that it is a short step to the establishment of a virtual monopoly. The difference, of course, between the proponents and opponents of State supervision lies in the degree and type of supervision advocated. Unfortunately, from the point of view of advocates of little supervision, when supervision is set up it usually tends to become bureaucratic and to go far beyond the maintaining of healthy competition and the heading off of unsound practices. State supervising authorities naturally tend to gravitate to the theory of just prices, particularly as regards some forms of casualty insurance of which the most notable example is workmen's compensation, this form of insurance being usually compulsory upon the employers of a State and very easily considered by the supervising authorities of the State to be affected with a high degree of public policy and social justice.

In the United States there are further complications to State supervision of rates. There is always the territorial question. Insurance is held to be intra-state business and, therefore, each State sets up its own regulating machinery despite the fact that a large and growing proportion of modern insurance, and in particular casualty insurance, is in its application essentially nation-wide. Each State, however, sets up its own machinery and tends to regard problems from its own special point of view. Naturally, efforts and rules and regulations of the various State supervising authorities cannot help but be disjointed and inconsistent despite the efforts of these authorities and the insurance carriers to secure as much uniformity as possible.

With modern business spreading indiscriminately across state lines and with most carriers writing in several if not many of the states, state-wide regulation of rates has a series of disadvantages which are, of course, well known. For instance, a state like New York will regulate rates very strictly in New York; the carriers doing business in New York and having to observe these rates may and usually are doing business in other states where much different and laxer practices can be followed. Thus, if New York sets up "just" rates for New York risks which are considered to be uneconomically low or high by the carriers then there will be a strong incentive for adjustments to be made in other states on those risks which stretch beyond the bounds of New York. This results in unequal treatment of wholly and of partly New York risks; and while it may protect New York risks from excessive rates it leaves these very same New York risks faced with the possibility of insolvency of the carriers taking the risks because of inordinately low competitive rates elsewhere.

Apart from this it is difficult if not impossible to make rates on an intra-state basis for some important types of casualty insurance. For example, insurance on automobile fleets, inter-state trucking, aviation risks, all transportation risks, as well as Fidelity Schedule Bonds.

The setting up of insurance rate regulating authorities in each state results not only in a vast amount of duplication and inconsistency as between the efforts of the various authorities but also spreads out very thin the man-power available for manning the various bureaus. At best, the staff of a governmental regulating

authority will not under modern (American) conditions attract the highest type of insurance experts—although there are, of course, many notable exceptions.

It is not difficult to judge from the tenor of the foregoing remarks that I do not believe that the present system of state regulation of rates as now set up in the United States is perfect, and it is only fair that, since I have made so many objections to the present set-up, I should outline what I consider as possible remedies for the present state of affairs, although as a matter of fact this will be merely a repetition of my thoughts expressed earlier. There should be less supervision and more competition. The supervision should be more of the checking type; rates should be allowed to find their own economic level, and supervising authorities should confine their energies to the avoidance of abuses both in the direction of uneconomic competition and unhealthy monopoly. Rates should be functional and not just (in the sense used above). Finally, much as I dislike many aspects of the extension of central bureaucracy in recent years I believe insurance would be better off were supervision by the states abolished and replaced by federal supervision.

MR. WILLIAM LESLIE:

This is a subject that I think lends itself particularly well to discussion because it is one of those fortunate questions on which much can be said on either side. What I am going to say represents purely my personal views and not necessarily the views of any of the companies that belong to the National Bureau of Casualty and Surety Underwriters. I would like to divide this subject: to refer to it first, briefly, from the theoretical aspect of rate supervision, and then from the practical aspect of rate supervision or rate regulation.

It has always seemed to me, from the theoretical aspect, that a great deal could be said in favor of some kind of rate regulation.

In the very early days of workmen's compensation, our old friend, Commissioner Hardison, of Massachusetts, decided that workmen's compensation insurance rates should be regulated to prevent companies from charging inadequate rates. Competition for compensation business between companies with an insufficient

knowledge of what the ultimate costs of compensation would be was apt to lead to the use of inadequate rates. Many of the companies newly organized, entering this field, particularly companies of the mutual type, had the distinct and proper fear that the rates would be pitched at a level insufficient for the development of those new carriers. Commissioner Hardison fostered a law which was enacted in the State of Massachusetts regulating compensation rates as to adequacy, and adequacy only, and providing for the approval of a set of minimum adequate rates. That legislation was followed by similar legislation in a few other states, particularly important compensation states, such as New York and California.

Those early rate-regulatory laws applicable to workmen's compensation insurance imposed a responsibility upon the state authorities to see that the rates approved were adequate for the carriers transacting the business. There was absolutely no obligation to see that the rates were not unreasonably high.

There is a very good theoretical reason in the insurance business for not being concerned about the question of whether rates are reasonable or unreasonable. In the actual conduct of the business, I doubt whether anyone can point to any situation in the casualty business where rates have been maintained at an unreasonably high level over any period of time sufficiently long to be injurious to the insuring public.

It is, of course, true that rates may be high in any particular year or for a period of one or two or three years, but taking the casualty business and its history you will find there has never been an underwriting profit in the business that was unreasonable from the standpoint of the insuring public. The reason is that the competitive forces that exist in the business are bound to keep the rates at the lowest possible level consistent with adequacy and, in the absence of rate regulation, they are apt to keep the rates below the level of adequacy. It is for that reason, it seems to me, that in theory, there is a good and proper reason for regulation of rates as to adequacy only.

Irrespective of whether rates are adequate or inadequate, I think we all would agree that they shouldn't be unfairly discriminatory. Sections of the law relating to discrimination do not run to the question of whether the general level of rates is too high or too low.

However, with the bringing into the rate regulatory statutes of the principle of reasonableness, there has been placed upon supervising authorities a responsibility that it is very difficult for them to discharge fairly, honestly, and with justice to insurance carriers. As Mr. Blanchard said in his opening remarks, insurance commissioners or their representatives who pass upon rates are human. As a matter of fact, in a great many states, they don't have the opportunity to express their own individual viewpoint because of the circumstances surrounding their appointment to their position and the pressure that is put on them from local forces that are far more potent and far more effective in appealing directly to a commissioner in his own state than are the absentee insurance companies that the public frequently regard as merely taking money out of the state to be invested elsewhere and thereby not helping the industries of the state at all.

Coming from the theoretical to the practical side of rate regulation I would like to mention a few of the most outstanding examples of the misapplication of rate regulatory laws in the field of casualty insurance. I am not going to name particular states; but some of you people may identify them.

In the field of compensation insurance, in one state, over a period of eleven years, there occurred a series of disapprovals of rate increases filed, failures to act upon filings, delays, and occasional approval of only a part of the required increase. The underwriting record for that same period of time shows an aggregate underwriting loss of 12% of the premiums. The underwriting loss was not sustained by one class of carriers but was distributed among stock and non-stock carriers. The law in that state requires that rates shall be adequate and shall be non-confiscatory as to any class of carriers doing business in the state and shall contain a reasonable margin for the building up of an adequate surplus.

In the field of automobile insurance there are two states where rates have been for some time, and still are, kept below the point of adequacy by political considerations.

It wouldn't be fair to cite three extreme cases of that kind and assert that they typify the regulation of rates universally throughout the country; they do not. We have a number of states where I would say rates have been regulated extremely satisfactorily from the standpoint of insurance carriers and from the standpoint

of the insuring public. I mention these three cases, which happen geographically to be distributed widely, to illustrate that from a practical standpoint there is great fear about the introduction of a rate regulatory law however nicely its language may be couched and however it may appear that the minimum of regulation will be present under that law. Again to paraphrase what Mr. Blanchard said earlier, insurance commissioners are human; even though you get a good insurance commissioner in office, he isn't there for life because his job isn't under civil service. They come and go, they change, with the result that under a policy of rate regulation applied generally to the casualty insurance business, you can count, as surely as the sun rises tomorrow, on a certain number of states in which you will have trouble. They won't be the same states every year, but about the same number every year, and if you are doing a countrywide business and a certain fraction of the business is held to an inadequate rate level, your business as a whole is going to be on an inadequate level.

MR. JOSEPH J. MAGRATH:

The development and administration of rating laws naturally presents many grave problems to the insurance business and the state. A sound law and intelligent application of it are of great advantage to both the public and the insurance business.

Careful study has led to the conclusion that insurance needs the stabilizing influence of rate-making conferences to which companies may bind themselves by agreement. The laws generally have encouraged or allowed this departure from the anti-trust principle with but few states invoking so-called anti-compact laws. The insurance business is indeed fortunate that the law makers have taken such an intelligent view of this most important problem.

The privilege, however, is not one that has been freely granted without a measure of responsibility and sacrifice. In New York, the rating laws require filing or approval of rates and subject them to review and revision by state authority.

Although the New York rating law has not been materially changed during the past fourteen years, it is unquestionably the model rating law up to now. Experience under this law and the

comparative freedom from litigation speak for the quality of administration.

A simple analysis of the scope and limitations of the New York rating law, as applied to casualty insurance, should include the following:

Filing of rates and rules is required for all classes of casualty insurance and surety bonds. (Sec. 141, subdiv. 3; Sec. 141-b, subdiv. 2 and 3; Sec. 107, subdiv. (a); Sec. 67 and Sec. 67-a, subdiv. 2).

Approval of rates and rules is required for the following coverages:

1. Workmen's compensation insurance;
2. Bodily injury and property damage liability insurance required under the Vehicle and Traffic Law;
3. Surety bonds required under the Vehicle and Traffic Law.

(Sec. 67 and 67-a, subdiv. 2.)

Approval of rates is required for all classes of coverage, except accident and health, under the following conditions:

1. Where any increase in rate is necessary to comply with an order of the Superintendent directing the removal of unfair discrimination;
2. Where a discount or surcharge is to be applied to the rates established by a rating organization.

(Sec. 141, subdiv. 4; Sec. 141-b, subdiv. 3.)

The Superintendent of Insurance is empowered under the law

1. To call for such information as he may require concerning the organization and operation of a rating organization. (Sec. 141, subdiv. 1);
2. To examine rating organizations. (Sec. 141, subdiv. 2);
3. To call upon rating organizations and insurers to file rates and information concerning rates. (Sec. 141, subdiv. 3);
4. To order the removal of unfair discrimination. (Sec. 141, subdiv. 4);
5. To approve rating organization methods of hearing appeals for changes in rates. (Sec. 141, subdiv. 7);
6. To appoint statistical agents for the compilation of experience results. (Sec. 141-b, subdiv. 5);
7. To approve statistical forms for reporting experience. (Sec. 141-b, subdiv. 5);

8. To order increases or reductions in rates when he finds they produce inadequate or excessive profits. (Sec. 141-b, subdiv. 6).

The statute says, "nor shall any such rating organization or any person, association or corporation authorized to transact the business of insurance within this state, fix or make any rate or schedule of rates or charge a rate which *discriminates unfairly* between risks within this state of *essentially the same hazards*"—(Sec. 141, subdiv. 4).

The significance of the words "discriminates unfairly" and "essentially the same hazards" must control most questions arising under this provision of law.

Must there be facts or would reasonable judgment suffice? Cases have been decided upon both bases.

Do rate differences occasioned by different expense loadings constitute unfair discrimination? This is a difficult question. As it will probably call for a decision in the near future, no opinion will be ventured here.

"The term 'rate' as used . . . shall include all of the elements and factors forming the basis for computing the consideration for insurance." Would it be fair to apply the following meaning to the above language?:

1. That each step in the calculation of a rate is subject to scrutiny under the law in the same manner and to the same extent as the complete final rate.
2. That in addition to the pure premium or expected loss costs, the loadings for claims investigation and adjustment, administration, acquisition and field supervision costs, and other expenses and provision for underwriting profit are each subject to limitation in rate review by the state.
3. That in addition to limiting the detailed allowances in the rates, the state may limit the actual expenditure for costs not fixed by the policy contract.

Perhaps consideration of other provisions of the law may lead to a conclusion.

"The schedules, rules and methods employed in computing the rates charged for insurance shall be reasonable." This language,

coupled with the first quotation, lends support to the first two opinions.

"No insurance agent, broker, corporation or association shall charge a rate *or receive a premium* which deviates from the rate fixed and filed for, and the rules applicable to such risk . . ." This quotation, coupled with the custom of insurance companies receiving their premiums net as to commission, lends support to the view that receiving a net premium that contains less than the loss factor and factors for expenses other than commission would be improper.

The legal right of rating organizations to fix commission and agency limitations would undoubtedly improve commission control provided a violation of these rules became clearly a rate violation and subject to rating organization or state penalty.

A comparison of New York state loss ratios with those of the remainder of the country shows results slightly more favorable here than elsewhere. All lines rated by the National Bureau showed a grand total difference over a five-year period of only .4% for all stock companies licensed in New York.

Wherever there is conferred upon a public official certain broad powers such as are found in rating laws, he cannot or should not avoid the responsibility of exercising those powers prudently and judiciously. Although there is a temptation to unduly favor the purchaser of insurance or the producer for political reasons, or to confer gracious favors upon the insurance business for reasons of future employment, the honorable official abhors either extreme.

The law makers and advocates of rating laws should not overlook the fact that laws do not administer themselves but require a competent and unbiased staff if the purposes are to be truly applied. Civil service and competitive examinations, coupled with adequate pay for the state employees charged with the work of analyzing data and recommending action to be taken, afford the best assurance of competence. These employees should be free from possibility of intimidation.

The New York rating law is of a type that leaves the exercise of judgment by the Superintendent fairly free from restrictions except for judicial review by the courts. The advantage of such a law is that the Superintendent is free to recognize changing views and variable conditions as they arise in the insurance business

and rate making. The weakness of such a law is the very great power possessed by that official to impose his will upon the bloodstream of the insurance business.

Some insurance men are disposed to favor rating laws which prescribe fixed standards by which the state must be guided in exercising its powers over rate levels. These are advantageous from the standpoint of stability, but may be hurtful to the insurance business due to their rigidity and ineptness in recognizing trends, variable conditions, catastrophe hazard and the evidential value of limited exposure.

With an active demand in many jurisdictions for rating laws, it might be the better part of wisdom for insurance men to develop a model form of law which they can support. So far the company stand has been uncompromising in its opposition to anything real in the way of a rating law. I can well understand this opposition from the danger of political abuse but wonder whether a carefully drawn law might not answer the problem.

I was very much interested in Mr. Perryman's reference to insolvent companies as a result of the lack of control of rates which they might charge where the state doesn't exercise control. That may be borne out in individual cases, but in the aggregate, the casualty results that we have tabulated do not indicate that stock companies operating in the State of New York are having a very much worse experience outside of New York than they do within the state. I realize there may be some adjustment factors necessary as between lines, but the aggregate loss ratio over a five-year period for all lines regulated by the National Bureau was four-tenths of one per cent higher outside of New York State than it was in New York State. That reflects favorably upon the benefits of strict regulation in the state but it does not show such a great divergence of results in spite of the fact that there are a few companies that are not members of the National Bureau outside of the State of New York.

MR. LEON S. SENIOR:

In the debate which has just concluded, I have heard a good deal about the fact that commissioners are human. No mention

was made, however, of the fact that managers of insurance companies are also human. A number of them are disposed to keep on asking for increased rates without special regard as to whether the general experience justifies an increase or a decrease. The commissioners must necessarily weigh the demands for rate increases in the light of their duties as representatives of the public. When the demand for an increase involves conjectural factors, the commissioner has as much right to speculate on the values as the organization which presents the proposal.

Mr. Leslie has referred to the fact that the statute on rate adequacy originated in Massachusetts under Commissioner Hardison and that the original intent of the measure fostered by him contemplated that the term "adequacy" should be construed in a very narrow sense, i.e., to mean that the rates shall be sufficiently high to protect the companies against insolvency, and without consideration of the point that this interpretation would result in excessive rates. I feel quite sure that such was not the intent of the legislation when copied in New York and in other states. At least, it was not the intent of the New York Insurance Department when Section 67 of the Insurance Law was proposed to the Legislature. In New York we had constantly in mind the idea that the term "adequacy" carried with it the implication of reasonableness.

If I may summarize all that has been said on the subject of rate regulation, it comes down to this:—The points advanced deal with procedure, with type of supervision and with its effect on interstate transactions. Mr. Blanchard has offered several good ideas on procedure which deserve to be studied, particularly the one that would dispense with public hearings before a set of rates becomes effective. While this is a desirable method from the viewpoint of rating organizations, it is, of course, doubtful whether its introduction will be possible where law and public sentiment call for advance notice thru public hearings.

On the merits of the subject, I don't believe there is very much to debate. The effectiveness of rate regulation depends, of course, upon intelligent supervision. That is the answer to the problem. The companies and the public are well served in states where supervision is intelligent. Where supervision is in the hands of the ignorant and inefficient, much cannot be expected. But

that is true with respect to all services that are subject to public control.

If I understand Mr. Perryman's idea correctly, regulation by individual states is not effective. He would prefer a form of interstate rather than intrastate regulation. Unfortunately this is not possible since insurance does not come within the federal province. Moreover, it is doubtful whether regulation from Washington would be any better than the state regulation now in force, supplemented by the efforts of the National Association of Insurance Commissioners to coordinate and promote uniformity between the states.

REVIEWS OF PUBLICATIONS

CLARENCE A. KULP, BOOK REVIEW EDITOR

Selection of Risks. Harry W. Dingman. The National Underwriter Company, Cincinnati, 1935. Pp. 380.

This volume might fairly have been entitled "The Home Office Underwriter's Manual from A to Z" or more literally "From Abdominal Girth to Yaws and Yellow Fever." The treatment in alphabetical order of topics (excluding occupational hazards) pertinent to the selection of risks is preceded by a very brief introduction in which the importance of persons and of qualities relating to the acceptability of risks for life, accident or health insurance is stressed. The persons discussed are: the agent, medical examiner, inspector and Home Office selector; the qualities are: personal history, family history, race, occupation, environment, habitat, morals, finances and physical. I hope this last word will jolt the reader of this review a bit, just as it jolted one reader of Dr. Dingman's book. The fact is that throughout the treatise the author takes considerable pains to employ what H. L. Mencken is pleased to regard as the American language. One result of this jazzing-up process is the avoidance of the heavy, dull and generally unreadable qualities which might so easily have been the fault of such a handbook. Those who know from happy experience Dr. Dingman's genuine felicity of expression and command of pure English may wish that a Toronto University man had not fallen into such extreme informality, but the reviewer must confess genuine gratitude for the trenchant, wise, humorous and witty way in which he has enlivened many a dull and even gruesome topic and actually transformed an alphabetical list of subjects into a readable manual on selection.

Perhaps it is natural to wonder just who will read "Selection of Risks." I believe I know what groups ought to read it. Certainly all the members of a Home Office Medical Department should form one group. In the many medical terms listed they may find nothing they do not already know, although it is doubtful whether a Medical Director who has not recently been looking up a particular subject will have trippingly on the tongue the very latest pertinent statistical data and insurance experience

supplied here whenever possible. From the book as a whole the medical reader will certainly get an excellent idea of the fundamental non-medical problems of selection, which he will probably admit it is well worth his while to reconsider from the point of view of so sound and apt an expositor as Dr. Dingman.

The lay underwriters in the Home Office may find the book even more informative. Certainly they will not quarrel with the importance attributed by the author to the non-medical features of selection and in the lively but sound commentary on medical terms will be almost certain to learn something to their advantage. One feature of the alphabetical arrangement of subjects perhaps deserves comment. The body of the work is in general without cross-references and the author frequently chooses to treat a particular topic under a slightly unexpected heading. This need occasion no difficulty however, since the volume has been painstakingly directly indexed. Thus although Bright's Disease is not given a separate entry, the index lists no fewer than 11 references thereto from Abdominal Girth to Pericarditis.

But if the book is to render to the business of life, accident and health insurance its real value it should be read by a much wider group. Its contents should be thoroughly familiar, so far as the general subjects of selection are concerned, to those who go out into the field to stimulate sales—and to the agents whose sales they are trying to stimulate. This does not mean that every general and soliciting agent must read the paragraph on Synovitis or the brief article on Schizophrenia or attempt to look up Pneumothorax—which by the way even the index will not help him to find except under Lung Collapse—or even Jake's Paralysis. It does mean that the serious agent who accepts the dictum on the opening page that the applicant "is judged not a little according to the agent who introduces him and the grade of business that that agent has previously submitted" will find in the general introduction and in a goodly proportion of the 421 listed topics something to make him think, something to make him understand his own business better, something worth a great deal more than the pat palaver constituting so much of what is called sales psychology. He will not find the title Over-Insurance in either text or index but a reading of Claim Psychology, Creditor Insurance, Disability, Insurable Interest, Insurance Quota, Reinstatement Underwriting,

Reinsurance Underwriting and Replacement Underwriting will give him important information which he should weigh and consider. Throughout the author stresses the incalculable value of the initial selection by the good agent in the field. In the brief paragraph on Underwriting he drives this home with the simple statement: "It is a joint function of field and home office."

The importance of the Medical Examiner receives due emphasis likewise throughout the book and I should add Medical Examiners to the groups who ought to find the volume of particular value and interest. It is probably too much to hope that the vast body of present and prospective insurance risks will also run, not walk, to the nearest book stall and purchase a copy. But it would do them no harm to look through the book. It might bring home to them as never before the preponderantly cooperative nature of the insurance enterprise whether conducted by mutual or stock companies. We are all in the business to provide what has come under modern conditions to be regarded as an economic necessity on the fairest terms and at the lowest cost consistent with safety. If every honest applicant realized that his own interests are being safeguarded by keeping gamblers, speculators, and liars off our books and by dismissing promptly every unreliable and unscrupulous agent, a life insurance millennium would be at hand.

In his arrangement of the text the author had to choose whether to include voluminous notes and authorities or to dispense with them altogether, except for an important name here and there in cases of direct quotation or reference. Wisely I think he accepted the briefer alternative. The professional student of underwriting should be at little loss to hunt down fuller information on a subject if he requires it whereas others might find comprehensive notes an impediment. Besides in the corresponding section of his earlier and far more formal *Insurability* (New York, 1927) Dr. Dingman pursued the other course.

Another choice had to be made concerning the expression of opinion. Should the writer of this condensed encyclopedia on selection make very guarded statements concerning insurability under special conditions or should he be brief, direct, dogmatic? Again Dr. Dingman's choice favored brevity. So far as possible his verdicts of "uninsurable," "entirely ineligible for health insur-

ance," "postpone ten years," and the like represent the consensus of careful underwriting opinion today. Possibly here and there they indicate his personal judgment, but never I think his private whim. Certainly this lay reviewer has no desire to take issue with his verdicts.

HENRY H. JACKSON.

Life Insurance—A Critical Examination. Edward Berman. Harper & Brothers, New York, 1936. Pp. xi, 192.

In eleven chapters comprising 180 pages, Edward Berman has managed to make one incontrovertible point, namely, that if life insurance were bought on the initiative of the insuring public with no agents and consequently no commissions and agency expenses, it might be cheaper than it is under the system familiar to Americans. It is important to say *might be* instead of *would be,* since it is at least arguable that not enough purchasers under the agentless plan would unite to form stable co-operative groups managed with sufficient skill and integrity to give satisfactory results.

Evidently Mr. Berman in the preparation of an earlier pamphlet for the United States Department of Labor learned just enough about the Massachusetts system of Savings Bank life insurance to feel that in this plan lay the germ of a national scheme for the elimination of the life insurance agent. Such elimination seems to him highly desirable since the typical agent is, in his opinion, a reprehensible person without business integrity. As the following quotation will indicate, he reaches this conclusion after looking into agency records and commission schedules without due diligence and understanding:

> "Since his commission, whether he sells ordinary insurance or industrial insurance, depends to a large extent upon the size of the premium, he is induced to sell policies which require the payment of the larger premiums. Thus workers by the thousands have bought endowment insurance despite the fact that honest consideration for their well-being would have required the sale of a straight life policy. Since premiums on endowment policies are generally about twice as large as those on straight life policies, commissions are greater."

Probably every actuary actively engaged in the insurance busi-

ness has had occasion to say harsh things about unscrupulous agents, but the reviewer is convinced that the sort Mr. Berman has in mind and apparently believes typical actually represents an insignificant proportion of the field forces of reputable companies.

The author is impressed by the fact that a system begun in 1908, advocated with crusading zeal by an influential group, sponsored by a great commonwealth, and subsidized not only by a privately formed League but by the very government which was heavily taxing private corporations conducting the same beneficent business, should in 23 banks after twenty-seven years have attained insurance in force exceeding $100,000,000. He does not estimate, nor can anyone possibly know, how large a proportion of this insurance was bought by men for whom it was initially least intended and who are least in need of State subsidies, nor how many of the purchases were actually the direct result of the active solicitation of life insurance for regular companies. Those buying Savings Bank insurance as the indirect result of such activities must be still more numerous. Indeed, only the already existing popularity of life insurance promoted by agency forces made possible the Massachusetts experiment. He emphasizes the fact that the direct State subsidies were discontinued in 1934, but never suggests that indirect subsidies may still exist. For example, the experience and research developed by ordinary companies becomes available for the management of Savings Bank life insurance, thus supplementing, through actuarial aid, the agency assistance already referred to as having made the experiment workable. Furthermore, it would appear that the Savings Bank depositor may have to subsidize the holder of an insurance policy in his bank, since the former, as I understand the matter, has no guarantee of a basic rate of interest to be earned on his deposits, whereas the latter is assured of interest at a minimum stipulated rate on his reserves. Indeed, unless the depositors in mutual savings banks of Massachusetts are today blest beyond their brethren elsewhere, they are already suffering from discrimination in favor of their cousins, the policyholders in those banks.

Not content with proving that life insurance (whether directly or indirectly subsidized, or both) placed without agency expense is cheaper than life insurance sold subject to such expense, Mr.

Berman devotes considerable attention to showing the superior operation of the Savings Bank system in regard to the selection of risks, the investment of funds, and management generally. A glance at his method of establishing the allegedly more successful selection may sufficiently illustrate the value of his conclusions. He takes an average of the year-by-year percentage ratios of actual to expected mortality for the twelve years 1923-34 inclusive on total business in force as shown by the Savings Banks (more than half of which began writing insurance since November 1, 1929) and by the Gain and Loss Exhibits of fifteen old representative companies. He is apparently unaware that, under the measuring-rod employed, the proportion of new to old business and the age distribution of the policyholders are of such paramount importance that comparison of the ratios without some knowledge of these facts is worse than worthless, since it is highly misleading.

The author's naive reliance on the Gain and Loss Exhibit of a company's annual statement is even better demonstrated elsewhere when he asserts that the companies claim "that a high proportion of lapses causes a loss to them which exceeds any possible gain" and then proceeds to refute the claim by adducing the aggregate "gains" from these sources for an eleven-year period as tabulated in the Gain and Loss Exhibits of the companies operating in Massachusetts. Without troubling to ascertain the true significance of these bookkeeping items, he then adds, "It is evident that the companies actually gained because the policyholders permitted their policies to lapse and took advantage of the non-forfeiture provisions." It is indeed evident that to Mr. Berman the incidence of mortality and the incidence of expense have no significance in the analysis of insurance statistics.

Curiously enough, his ready employment of any figures that come to hand misleads the author into paying the companies generally one of his rare compliments to them, a compliment quite as undeserved as any of his unfavorable criticisms. He believes that a reduction in the ratio of operating expenses to premium income during the period 1923 to 1934 is to the credit of the insurance companies. Unfortunately, the credit belongs to the changed proportion of new to old business and of annuities to insurances.

Quite the most elaborate arithmetical analysis in the book consists of that bane of the business—a comparison of so-called net costs, past, present, and future, in fifteen prominent companies. Since these costs over a ten or twenty year period are developed with interest at zero percent, companies with low initial premiums and small dividends, and particularly a company with flat guaranteed premiums and no participation, fare but ill in comparison with high-premium companies with (normally) steeply ascending dividend scales. It would indeed be unfortunate if buyers of life insurance were misled by such seemingly elaborate statistics into believing that the order of rank thus assigned to fifteen companies below the savings banks has the slightest genuine significance. How well those companies will function during the next few or many years will depend chiefly on managerial skill and integrity, on the current financial and general condition of each company, and to some extent, as in all human affairs, on sheer luck. It certainly will not depend on past net costs, much less on current and necessarily arbitrary dividend scales now tentatively employed in a transition period subject to violent and unpredictable changes.

Even more misleading, if possible, is Mr. Berman's comparison of policy provisions in his selected companies. With utter lack of discrimination he blandly assumes that the perfect insurance policy to be issued by a company selling insurance under the agency system should reflect precisely those features which would be appropriate if the business were produced without acquisition expense. It should be obvious that terms which would be equitable in subsidized Savings Bank insurance not subject to generous first commissions would in ordinary companies be extremely unfair to old policyholders through the squandering of their funds on flitting guests. Indeed, an approach to the generous surrender values available under the one condition might well be a reproach rather than a glory to a company operating under the other.

The volume is not without its happy moments for the actuary. Thus it is reassuring to be told, however grudgingly, "The old well-established life insurance companies in this country appear to be safe." And the actuary's self-righteousness, if not his self-esteem, is flattered by this assertion, which follows a comment on the fundamental and indispensable nature of the actuary's work, "As a rule, however, no important full-time official of the ordinary life

insurance company, with the possible exception of the auditor and occasionally the superintendent of agencies, receives a salary as small as does the actuary of the company." Perhaps after all it is just as well that the problems of the life insurance business are not quite so simple as Mr. Berman assumes them to be. Otherwise actuaries as a class might be deprived even of the meager sustenance they now obtain.

HENRY H. JACKSON.

Elementary Mathematics from an Advanced Standpoint. Felix Klein. The Macmillan Company, New York, 1932. Pp. ix, 274.

This book is a translation from the German by Professors E. R. Hedrick and C. A. Noble of the University of California of the third edition of Part I of 3 volumes of lectures by Professor Felix Klein of Göttingen. These men have made a real contribution for there was no book in English of a similar nature or at all comparable to this, either in wealth of material or in the interesting way in which the material is presented.

While this book should be of interest to all mathematicians it was written as a stimulus to teachers of mathematics in the higher schools. The plan followed in the lectures is well expressed in the preface to the first edition (1908):

> My concern is with developments in the subject matter of instruction. I shall endeavor to put before the teacher, as well as the maturing student, from the viewpoint of modern science, but in a manner as simple, stimulating and convincing as possible, both the content and the foundations of the topics of discussion.

One might be misled by the title of this book to think that it is just an ordinary book on elementary mathematics. The reader will not have gone far however before he realizes that to appreciate it he must be conversant with the various fields of advanced mathematics, and in particular with the theory of functions of a complex variable.

The book is divided into 3 parts in which he treats in succession 3 branches of mathematics: arithmetic, algebra and analysis. In the First Part: Arithmetic, he starts with the fundamental idea of number as used in counting—the positive integer—and then

gives the various extensions of the idea of "number": negative numbers, fractional numbers, irrational numbers and finally complex numbers (including quaternions). In considering the fundamental laws he mentions in particular the monotonic laws: "If $b > c$ then $a + b > a + c$" and "if $b > c$ then $a \cdot b > a \cdot c$." He illustrates the use of this law in obtaining approximate results by abridged multiplication. In the case of complex numbers, he points out, the monotonic law takes a modified form. Here as throughout the book the author does not adhere strictly to his main purpose but makes frequent excursions into the general theory of advanced topics. In this Part he diverges to discuss such things as the theory of prime numbers, continued fractions and quaternions.

In the Second Part: Algebra, attention is given chiefly to graphical and geometrically perceptual methods of the solution of equations. The author first treats equations with real unknowns, taking in succession equations with one, two and three parameters. Then follows a discussion of equations in the field of complex quantities which leads to the introduction of Riemann surfaces.

In the Third Part: Analysis, we have a discussion of logarithmic, exponential and trigonometric functions. After outlining the historical development of the theory of logarithms the author treats logarithms from the standpoint of the modern theory of functions, which he illustrates geometrically by Riemann surfaces. He brings out clearly the analogy between hyperbolic functions and trigonometric functions. These latter he calls "goniometric" functions and the inverse functions "cyclometric" functions. He illustrates the applications of goniometric functions to (a) trigonometry, particularly spherical, (b) mechanics, particularly to the theory of small oscillations, and (c) the representation of periodic functions by trigonometric series.

The author gives an interesting historical sketch of the development of the infinitesimal calculus, pointing out the 2 principal fundamental concepts: (1) that of Newton, Maclaurin, d'Alembert, Kastner and Euler, who build up the calculus treating the differential coefficient or derivative as the *limit* of the quotient of corresponding finite increments of function and variable and the integral as the *limit* of a sum, and (2) that enunciated by Lieb-

nitz, Wolff and others where the differential dx of the variable x had actual existence as an ultimate indivisible part of the axis of abscissas, as a quantity smaller than any finite quantity and still not zero, that is, actually infinitely small. The part played in the development of this theory by Cauchy, Weierstrass and Lagrange is also indicated. There follows a brief treatment of the subject of "interpolation" using the formulae of the calculus of finite differences and it is shown how Taylor's theorem with the Remainder term may be derived therefrom.

In a supplement the author discusses the transcendency of e and π, and gives a brief survey of the "theory of assemblages."

The subject matter is very clearly presented and well illustrated with numerous drawings. It will repay anyone to read it carefully, whether he is a teacher of mathematics who wishes to widen his viewpoint or a pure mathematician who will undoubtedly see many things in a new light.

L. A. H. WARREN.

Mortality of Assured Lives, 1925-1929 (Monetary Tables), Vols. II and III. The Institute of Actuaries and the Faculty of Actuaries in Scotland. Cambridge University Press, London, 1935. Vol. II (*Monetary Tables*), Pp. x, 225. Vol. III (*Monetary Tables, Joint Lives*), Pp. x, 99.

In 1934 Vol. 1 of this series appeared, giving the mortality functions and tables of monetary values for whole life and endowment assurances based on the combined experience of 52 life companies doing business in Great Britain over the 6-year period 1924-1929 inclusive. These monetary tables were given for 13 different rates of interest ranging from 2% to 6%.

In Vol. II monetary tables are given at 7 rates of interest only: 2½%, 3%, 3½%, 4%, 4½%, 5%, 6%. The book is thus divided into 7 sections, one for each rate of interest, and the scope of the tables in each section is identical. In each section we have:

(a) Tables of values of annual premiums for limited payment whole-life policies on the select and ultimate bases: ${}_tP_{[x]}$, ${}_tP_x$ (for $t = 5, 10, 15, 20, 25$ and 30); ${}_tP_{[x]}$, ${}_tP_x$ (for $x + t = 45, 50, 55, 60, 65, 70$). These are given for values of x from 15 to 65 inclusive.

(b) Values of $\bar{a}_{[x]}$, $\bar{A}_{[x]}$, $\bar{P}_{[x]}$ for values of x from 10 to 80; $\bar{a}_x$, $\bar{A}_x$, $\bar{P}_x$ for values of x from 10 to 99.

(c) Whole life policy values ($100_n V_x$) for all ages at entry from 15 to 74 for all durations from 1 to 80 (up to $x + n = 95$).

(d) Endowment assurance policy values ($100_n V_{x:t}$) for quinquennial entry ages 15 to 70 at all original terms from 6 to 58 and all durations.

In Vol. III monetary tables are given at the same 7 rates of interest of the following joint-life functions:

(a) For 2 lives of equal age x, the values of D, log D, N, log N, a, M, log M, R, A, P. In the select tables x goes from 10 to 80 and in the ultimate tables from 10 to 90.

(b) For 2 lives of unequal age, the values of joint-life annuities select and ultimate — $a_{[xy]}$ and a_{xy}.

These are given for every third age of each of the lives. In the select tables x ranges from 21 to 78 and in the ultimate tables from 21 to 90. In a footnote is shown the method of obtaining the annuity value for other combinations of ages by interpolation from the given values.

(c) For 3 and for 4 lives of equal age are given the values of $a_{[xxx]}$, $a_{[xxxx]}$, and a_{xxx}, a_{xxxx}. In the select annuity tables the ages range from 10 to 80 and in the ultimate tables from 10 to 90.

The tables are well set up and conveniently arranged throughout.

L. A. H. WARREN.

Analyzed Mortality, English Life No. 9a Tables. Eric B. Nathan, Folio typescript. Pp. 134, appendices. No date.

The author presented a paper in 1924 to the Faculty of Actuaries in Scotland in which he derived and discussed mortality by individual ages from specific diseases or groups of diseases. The data necessary for his purpose were obtained from the 1911 Census of England and Wales and the returns of the Registrar-General of deaths in the years 1911 and 1912. These tables he styled "English Life No. 8a Tables." The present investigation is similar in outline, the data being drawn from the 1921 Census and deaths in the years 1920-22, and in part its object is to measure the changes in mortality from disease and accidents since the previous investigation.

The aggregate mortality is separated into mortality rates from

20 main groups of causes and these in turn into sub-groups giving the mortality from disease of certain organs or from special diseases included in the main group. In order to permit comparison of the 2 investigations these main groups correspond to the grouping adopted in the previous paper. Under each group or sub-group the author gives a table of rates of mortality from the disease at each quinquennial age and for each sex, the ratio of this disease mortality rate to the aggregate mortality rate from all causes and the ratio of the rate of disease mortality in the 9a tables to the same function in the English Life No. 8a Tables. This latter ratio indicates the changes in the recorded mortality over the nine and a half years between the mean dates of the two investigations. Although improvement in diagnosis and death certification affect this ratio it may be taken as a fair index as to whether mortality due to disease is increasing or decreasing. Accompanying each group is a diagram on which the curves of the 8a and 9a tables are plotted. These diagrams are helpful in visualizing the trend of the mortality. The analysis of each group is completed by a short discussion of the figures presented, pointing out the salient features for male and female lives.

The author then gives a general summary, proceeding age by age to point out which diseases contribute most to aggregate mortality and whether the mortality from these diseases is decreasing, is more or less stationary or is increasing. The paper closes with an appendix in which are shown complete tables of the rates of mortality for each separate group of causes by individual ages, subdivided by sex. These have been constructed so that the sum of the mortalities from diseases and accidents at any age equals the aggregate rate of mortality for that age.

Commenting on the results of the investigation the author points out that there has been a considerable improvement in mortality in the years between the 2 investigations, except at young adult ages where there is an increase and at ages exceeding 75 for males and 80 for females where the rates of mortality have remained approximately the same. The increase in mortality at young adult ages is due mainly to increase in deaths from influenza and pulmonary tuberculosis, the latter particularly among young adult females. This disease accounts for 42.1 per cent of all female deaths in age group 20-24 and its mortality rate is

111.1 per cent of the rate prevailing in 1911 and 1912 for the same age group. It is interesting to note in this connection that for the 1910 Registration Area in the United States the death rate from this disease among females in the age group 15-19 showed no improvement in 1920 over 1910. This is notable in view of the fact that death rates from pulmonary tuberculosis for other ages showed a substantial improvement in both countries over the same period.

The recorded mortality rates from cancer and heart disease also show a considerable increase. This characteristic has been noted also in statistics for the 1910 Registration Area in the United States. It has been claimed that greater accuracy in diagnosis and certification has caused the apparent increase. The author is of the opinion that the increase in cancer mortality which occurs particularly at ages over 60 is real but that much of the increase in mortality from heart and arterial disease is the result of improvement in the certification of deaths previously attributed to "old age."

The preparation of this paper must have entailed an enormous amount of time and labor particularly in the preparation of the tables and charts with which it is replete. The material presented should be of considerable interest to the vital statistician, the medical director and the actuary in his study of underwriting.

The undersigned acknowledges the helpful assistance of Clemens G. Arlinghaus in the preparation of this review.

JAMES D. CRAIG.

An Introduction to the Mathematics of Life Insurance. Walter O. Menge, Ph.D. and James W. Glover, Ph.D. Macmillan Company, New York, 1935. Pp.

The authors, of the Mathematics Department of the University of Michigan, claim that "for the study of this text, no mathematical preparation other than that usually included in the high school course is necessary." It is true that an intelligent reading of the text does not require any extensive knowledge of higher mathematics. At the same time it is the opinion of this reviewer that the quotation is an optimistic valuation of the ability of the aver-

age high school graduate to carry through algebraic calculations.

The subject matter of the text is covered in 6 chapters.

Chapter I includes a very brief discussion of elementary probabilities. There is also a short discussion of the sources and construction of mortality tables.

Chapter II is devoted to a discussion of compound interest and various forms of annuities.

Chapter III discusses the derivation of various formulae for the determination of net premiums in whole life, term and endowment insurance.

Chapter IV, on Net Level Reserve, treats of the prospective and retrospective methods. There are brief sections devoted to Fackler's Accumulation Formula, intial reserves, mean reserves, surrender values and the effect of changes in interest rate. There is also a brief section on the use of calculating machines.

Chapter V treats of Modern Reserve Systems. In connection with this chapter the authors state in the preface that "certain of the developments in this text are presented in an entirely new way."

Chapter VI is devoted to gross premiums with brief discussions under the headings of non-participating gross premiums, mortality, interest and expense, computation of gross premiums, asset shares and participating gross premiums.

Several tables are included in the appendix. The text also contains about three hundred problems together with answers.

This book is a very satisfactory introduction to the elementary mathematics of life insurance. The subject matter is presented clearly and concisely and can be used to advantage for self-study. This feature should appeal particularly to students preparing for the examinations of the Casualty Actuarial Society.

A. Z. SKELDING.

Compound Interest Tables — W. A. Forster, F. I. A. Cambridge University Press, Cambridge, Mass. Macmillan Company, New York, 1936. Pp. 36.

These tables have been reprinted from the "Journal of the Institute of Actuaries," Volume LXV, pages 365-401. The tables present values of v^n, $(1+i)^n$ and $v^{n+\frac{1}{2}}$, with n ranging from 0 to

105, and at various rates of interest from 2% to 6% inclusive, at intervals of ¼%. The tabulated values are shown to six decimal places. There is also included a list of formulae and auxiliary values to facilitate the calculation of functions other than those tabulated in detail.

In spite of the many tables already in existence there always seems to be room for one more publication, just as in the case of the numerous volumes on elementary algebra, trigonometry, geometry, etc., which continue to make their appearance. There is no reason why the tables under review should be less valuable than other similar tables which may be in existence. It is assumed that typographical errors have been eliminated.

A. Z. SKELDING.

Man and the Motor Car. Educational Series. Volume 10. Edited by A. W. Whitney. National Bureau of Casualty and Surety Underwriters, New York, 1936. Pp. xvi, 256.

This publication is Volume 10 of the Educational Series published by the National Bureau of Casualty and Surety Underwriters. The preface states that "so many persons have had a hand in the making of this book that it seemed necessary to have it sponsored by an 'editor' rather than by an 'author.'" The book has been written as a text book for use in High Schools. It is designed however not only to meet the needs of a text book but of anyone who wants to know about the automobile and how to use it.

While the chief emphasis is properly on the art of driving the book is by no means simply a manual of good driving. Chapters are included on the development of the automobile and its mechanical construction. These chapters are written in a simple manner and may be readily comprehended by High School students; no technical mechanical terms are used without clearly defining their meaning. Other chapters treat of the psychology of the driver and his habits and nature.

While driving is the most important and universal problem the authors of this book have recognized that the reduction of automobile accidents cannot be accomplished simply by the proper training of drivers. Therefore chapters are included on highway

development and construction as well as on correct codes of the road. But even with the solution of the highway and driving problems there still remains the pedestrian and a chapter is devoted to his responsibility on the highways.

An appendix contains questions on each chapter which, answered correctly, will demonstrate knowledge of traffic problems. These questions will materially aid in the teaching of safety education.

The book is largely concerned with the way things ought to be rather than the way they are and in conclusion a chapter is added on the automobile millennium.

While the book has been written and is essentially intended as a textbook it has been compiled in such an interesting manner as to afford enjoyable reading for anyone who uses an automobile and who therefore must be conscious of the vital need for proper training of all future automobile drivers. In the past too little attention has been given to the safety education of young people of High School age. We have had many safety programs for elementary schools and some for secondary schools but very little material has been available for use in High Schools. Perhaps the failure to provide safety education in High Schools for persons already learning to be automobile drivers is due to lack of available material. If so there is no longer an excuse.

W. J. CONSTABLE.

The Townsend Scheme. National Industrial Conference Board Studies No. 219. National Industrial Conference Board, New York City, 1936. Pamphlet, Pp. xi, 42.

The Townsend Scheme from page 1 to the end is a brief and workmanlike exposition of the Townsend Plan. It shows, it is true, no knowledge whatever of the grave social and economic facts that have given birth to this newest Utopia. It is entirely negative. But within these limits it is a clean job. It tells objectively what the proponents expect from the Townsend Plan and one by one it ticks off the devastating points against it. Even the summary, while it speaks plainly of the basic responsibility of economist, business man and politician for this our latest Ameri-

can grotesquerie, is still in the character of a scientific treatise. But —

The foreword! It requires no specific acknowledgment to tell that this was written by another. Its first lines suggest the intention of the foreword's author to place the Townsend Plan in its economic setting, but at increasing tempo the idea rapidly gets out of control. Page 2 of the foreword has sharp words for even so universally acceptable a device as unemployment benefits. (These are lumped with many another policy, for example restriction of production, for which on paper no one has kind words.) On page 3 one becomes uneasily aware that he is reading not an objective treatise but a tract written by a very angry man. The little book, a pamphlet in form, has become a pamphlet indeed. The third last paragraph of the foreword not only is an open attack on the "public policies of the United States in economic affairs," it goes on to indict "the many scientific specialists and institutions . . . [and] the everlasting shame of their profession." That is to say it belabors, as intemperately as this reviewer recalls in professedly scientific literature, all politicians and professors with whom the author disagrees. Quite possibly, in part at least, the author may be right and these others may be wrong. But what a curious way to furnish an economic background: to fasten on the economic theories which, if anything, are results, to ignore completely the vast and threatening forces that have produced the theories and many another symptom of a nearly universal fear and distrust.

C. A. KULP.

Social Security in the United States. An Analysis and Appraisal of the Social Security Act. Paul H. Douglas. Whittlesey House, New York, 1936. Pp. xi, 384.

This is the Paul Douglas analysis of the federal Social Security Act and its relation to state security legislation. But it is something more. It is also a story of the events that preceded its passage (The Background) and of the problems the act leaves unsolved or has even aggravated (What Lies Before Us). There are able chapters in each of the 3 sections: in particular the chapter on the pros and cons of the straight federal and various federal-

state approaches; that on administrative problems; and finally the last 2 chapters on next steps and constitutionality.

Douglas is for a national plan although he believes that constitutionally it stands the poorest chances. He has a number of wise things to say on the administrative tangles that go with any combined state-federal system; his prediction of conflict between the U. S. Department of Labor and the Social Security Board in employment office administration has already come, actually if not publicly, true. Ask any state unemployment administrator about the duplication and overlapping of effort between federal and state agencies.

The chapter on the Clark amendment comes properly in the last third of the book: What Lies Before Us. It was written too soon. The first paragraph on page 283 says:

> In view of all these safeguards it seemed to the majority of the Senate and to a goodly section of the public that there was really no legitimate objection against granting such an exemption.

To this should be added: and no reason for any employer to ask for exemption. The reason for the nearly total loss of employer interest in the Clark amendment in 1936 is simply that all employers would have to pay as much under an eligible private plan as under the compulsory system and would have to submit to the same kind of regulation by the federal government as insurance companies now receive from states; and that employers with nonsolvent plans—the majority—now begin to perceive the ineffable privilege of transferring to the government scheme their ever-increasing and ever more embarrassing accrued liabilities.

As in the world of affairs, so in the book the law and the courts have the last say, which comes properly even after the outline of next steps. Legally one can make the best case for federal subsidy to the states: it is one of the cruelest ironies of our constitutional impasse that the law that grants largess with the openest hand has the best chance of passing the gauntlet of the courts. The tax offset, basis of the unemployment insurance system, runs second, but one is not impressed with the Florida inheritance tax decision, which to the layman seems to have been decided on grounds practical rather than legal. The straight national approach, as in old age, is weakest of all, unless the courts may be

persuaded that no relation exists between two related tax and benefit sections or two related laws. Of course government can always give money away, and that goes one dire stage beyond subsidies without strings. Douglas argues hopefully that there are at least 3 sets of precedents, including workmen's compensation, favoring the constitutionality of state unemployment insurance laws. But this was written before the recent unfavorable decision of the U. S. Supreme Court on the New York minimum wage law; also more pertinently and more hopefully before the favorable decision of the New York Supreme Court Appellate Division on the New York Unemployment Insurance Law. The decision of the U. S. Supreme Court on the pending appeal from the New York Appellate decision promises, whichever way it goes, to be one of the landmarks not only in American constitutional law but in the history of American social legislation.

The Douglas preface, written after the book itself and perhaps the more significant for that, is the least buoyant part of the book. The long paragraph on page viii, a beautiful bit of writing, is a somber prevision of the possible fate of a very sorry world and its stupidities and wastes and paradoxes. It repeats the solemn note of the final pages: if neither federal nor state government can act to meet great national issues (there was no labor class, he says, when we made our Constitution) "then no one knows where the blind forces of change will carry us." Douglas knows as well as you do that social insurance is not the whole program with which to face the issues. It is, on paper at least, not even the best program. "The best way of meeting this situation, as long as we retain the capitalistic system, is to increase the level of wages itself." But no one quite knows how to achieve this happy result and if we all did know there would be a wide difference of opinion as to whether we should use our knowledge. Social insurance has the great immediate practical advantage that it demands no drastic changes in the going order and that we know how to get it started.

C. A. KULP.

Administrative Labor Legislation. John B. Andrews, Harper & Bros., New York, 1936. Pp. 231.

It is well that Dr. John B. Andrews has written this book analyzing, in a time of strain, stress and confusion, the performance, the possibilities and the defects of a technique for dealing with certain difficult problems in the labor field. The plan and purpose of the book are explained in the following:

> "Despite the failure of most legislatures to prescribe adequate safeguards of proper procedure in the enabling legislation, administrators have for the most part shown commendable foresight in the use of this power. With the prospect of an early extension of the rule-making method into new fields, however, it is urgent that careful attention should now be given to preventing possible weaknesses and abuses which might endanger the future of so valuable an instrument for the general welfare. This study, therefore, endeavors to present the theoretical basis of delegated labor legislation, the present stage of its progress, and the practical results that have been achieved. In addition to outlining the difficulties encountered and the methods successfully employed in overcoming them, an effort is made to embody this first quarter-century of American experience in a constructive formulation of principles or standards which appear to be essential for effective administration."

Dr. Andrews, without giving any references or bibliography regarding earlier developments in other countries along similar lines, plunges into the subject, leaving the reader to wonder whether it is assumed that the practice of delegating legislation in other countries has been entirely successful and satisfactory, particularly in the face of the experience of certain countries where legislatures have not only delegated but practically abdicated their powers to administrative authority.

In our own field, however, Dr. Andrews gives a realistic analysis of the need for delegating certain limited legislative powers, the advantages and disadvantages, the necessary precautions and an appraisal of performance thereunder in the various jurisdictions.

On numerous pages, he perhaps ascribes too thorough an understanding and too farseeing wisdom to the "early advocates" of such devices, and on their behalf seems to disclaim responsibility for such defects and failures as have developed in the experience of years.

Of course, the study of a particular device or technique tends to foreclose consideration of alternative approaches to a problem. The reader is not fully satisfied that other and perhaps better plans are not deserving at least of serious consideration, particularly in view of the difficulties and defects explained by the author.

A commission plan gives a flexibility and a continuity which ordinarily a legislature does not have; furthermore, its members are fewer in number, in closer and more intimate contact with the problems. On the other hand, there is the anomaly of the legislature delegating powers to a body generally appointed not by it, but by the Executive and responsible to him (if to any one). It might be asked whether such a body could function in an advisory capacity to the legislature, with emergency powers to prescribe rules with the force of law under certain safeguards, to remain in force only until the legislature had had a reasonable time to pass upon them. If rules or standards become fairly fixed and permanent, there seems to be no reason why they are not a fit subject for regular legislation, subject perhaps to some possibilities of granting individual variations.

That administration cannot always be trusted to exercise broad delegated powers with wisdom and moderation has been forced on the consciousness of the people, and Dr. Andrews well pictures the difficulties which may arise from the promulgation of half-baked, insufficiently recorded administrative orders having the force of law. His book gives timely warnings which should be heeded if the device of delegation is to survive and attain its maximum of usefulness.

Another possible approach which is not analyzed in the book is differential taxation of some sort, or a system of fines which amounts to the same thing, as a partial substitute for prohibitions tempered with variations. The penalties collected would be graduated in proportion to the undesirability of the practice or condition under consideration, and their imposition might in many cases be received with a better grace and lead to gradual but sure betterments by hastening the obsolescence of those enterprises not up to the most modern standards. The differential could increase with the lapse of time, and penalties could be paid into some fund for the benefit of those subjected to the practices or conditions.

Such an approach, obviously, is worthy of consideration for

application in much broader fields. The analogy to schedule and experience rating in insurance is fairly obvious.

Indeed it is a question in the mind of the reviewer whether we would not get ahead faster in the solution of many governmental problems, particularly those having social and economic implications, if we would always intelligently consider the possibilities of progressively influencing, rather than prohibiting or ordering sudden drastic changes.

The book is well planned, well printed, perhaps in too bulky a form however. Typographical errors are rare. Obviously a great deal of thorough and discriminating research was required, where in many cases source material may have been difficult to unearth and to condense.

The author, though obviously an advocate of the delegation plan at its best, maintains fairly consistently a realistic and praiseworthy objectivity and has produced a manual which should be extremely useful to all students of labor legislation, but particularly to those confronting problems which perhaps cannot be satisfactorily handled by the customary legislative methods.

The chapters on NRA experience and constitutionality are particularly timely, also the choice of Wisconsin's rules relating to dust hazards as a "sample of administrative regulations" in Appendix B.

The "suggestive draft of a bill" in Appendix A does not seem to have been thoroughly considered in all its details. In general, however, it seems to be well conceived but goes far afield, it would seem, in requiring "safety" by definition to include "welfare of employees, or frequenters, or the public, or tenants, or firemen," having already defined "welfare" to mean and include "comfort, decency, and *moral* well-being"! It would seem ill advised to request a legislature to consider such broad, vague and otherwise objectionable proposals at this time.

The phrase "enabling statute" which appears on innumerable pages, does not seem to properly describe laws which specifically require certain actions, rather than permit them.

The suggestion to divide the Industrial Board into two parts is a constructive one.

There is an index to codes, also a general index; both probably well planned. "Silicosis" does not appear in either, however.

In the preface Dr. Andrews says that recently legislatures have become so burdened with work that they are unable to give adequate attention to the problems. Some cynics may believe it is not so much the pressure of work as the way in which legislators are chosen, and the conditions under which they function, which lower the quality of their performance.

CHARLES G. SMITH.

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CURRENT NOTES

A. N. MATTHEWS, CURRENT NOTES EDITOR

Retrospective Rating Plan in Massachusetts

Insurance Commissioner Francis J. DeCelles of Massachusetts has approved a plan of retrospective rating for Workmen's Compensation risks to apply to policies written in that state after May 1, 1936. The approval is granted for a limited time only, and it is understood that the plan may be changed after a year's trial.

The plan applies only to risks with an expected annual premium at standard rates of $5,000 or more. The plan is optional with the assured subject to acceptance by the insurance company.

Under the retrospective plan as now drawn, in order to determine the retrospective premium it is first necessary to determine the premium at standard rates, which are manual rates modified by the experience rating plan. The Basic Premium (a certain percentage of the standard premium, varying by size of risk) is then found, and the final retrospective premium can then be determined in accordance with the formula,

Retrospective Premium = Basic Premium + Losses $\times$ 1.15.

The final retrospective premium is subject to minimum and maximum limits which also vary by size of risk. A table of minimum and maximum limits, expressed as percentages of standard premium, is included in the outline of the plan in the Compensation manual.

The Basic Premium is 30% of standard premium for all policies with a standard premium of less than $27,500. This percentage decreases as the size of risk increases, until it reaches 22.5% for risks of $150,000 or over. The basic premium is calculated to provide for expenses that are independent of the policy's loss ratio and to cover any losses in excess of those contemplated by the maximum retrospective premium. Included in the basic premium, therefore, are provisions for acquisition expense on the minimum premium (since no commission is paid on premium in excess of the minimum), administration, inspection, payroll audit, taxes

on the minimum premium and partial claim expense. The basic premium also includes provision for losses in excess of those contemplated under the maximum premium.

The loading factor of 1.15 applicable to losses includes provision for adjustment expense and for taxes on the premium so derived.

Adjustment of the premium due under a policy subject to retrospective rating will be made at three separate times, the first between eighteen and twenty months after the effective date of the policy, and the second and third at annual intervals thereafter. In determining the premium due under the plan, actual paid losses plus the insurance company's estimates of outstanding losses will be used. Retrospective premium adjustments will be promulgated by the Massachusetts Rating and Inspection Bureau on the basis of the losses submitted by the companies.

If the policy is canceled by the assured, the minimum amount to be charged will be the earned standard premium calculated on a short-rate basis, exactly as if the policy had not been subject to retrospective rating, and the maximum amount will be determined in accordance with the retrospective rating plan, using the percentage which would have applied if the policy had been allowed to run for a full year. If the policy is canceled by the insurance company, the adjustment of premium will be subject to the retrospective rating plan, using the percentages which apply to the standard premium which was actually earned while the policy was in force.

The following table is that used in determining the Basic, Minimum and Maximum premiums under the present Massachusetts retrospective rating plan:

COMPENSATION RETROSPECTIVE RATING PLAN—MASSACHUSETTS
SECTION IX—TABLE OF RATING VALUE

Rating Formula:

Retrospective Premium = Basic Premium + (Losses $\times$1.15) subject to Minimum and Maximum Retrospective Premiums as shown in table.

Standard Premium (See Footnote)	Percentages of Standard Premium (1) Basic Premium	(2) Minimum Retrospective Premium	(3) Maximum Retrospective Premium	Standard Premium (See Footnote)	Percentages of Standard Premium (1) Basic Premium	(2) Minimum Retrospective Premium	(3) Maximum Retrospective Premium
$5,000	30.0%	75.0%	175.0%	$32,500	29.3%	58.5%	138.5%
5,500	30.0	74.5	174.0	35,000	29.0	58.0	138.0
6,000	30.0	74.0	173.0	37,500	28.8	57.5	137.5
6,500	30.0	73.5	172.0	40,000	28.5	57.0	137.0
7,000	30.0	73.0	171.0	42,500	28.3	56.5	136.5
7,500	30.0	72.5	170.0	45,000	28.0	56.0	136.0
8,000	30.0	72.0	169.0	47,500	27.8	55.5	135.5
8,500	30.0	71.5	168.0	50,000	27.5	55.0	135.0
9,000	30.0	71.0	167.0	52,500	27.3	54.5	134.5
9,500	30.0	70.5	166.0	55,000	27.0	54.0	134.0
10,000	30.0	70.0	165.0	57,500	26.8	53.5	133.5
10,500	30.0	69.5	164.0	60,000	26.5	53.0	133.0
11,000	30.0	69.0	163.0	62,500	26.3	52.5	132.5
11,500	30.0	68.5	162.0	65,000	26.0	52.0	132.0
12,000	30.0	68.0	161.0	67,500	25.8	51.5	131.5
12,500	30.0	67.5	160.0	70,000	25.5	51.0	131.0
13,000	30.0	67.0	159.0	72,500	25.3	50.5	130.5
13,500	30.0	66.5	158.0	75,000	25.0	50.0	130.0
14,000	30.0	66.0	157.0	80,000	24.8	50.0	129.6
14,500	30.0	65.5	156.0	85,000	24.6	50.0	129.2
15,000	30.0	65.0	155.0	90,000	24.4	50.0	128.8
16,000	30.0	64.5	153.0	95,000	24.2	50.0	128.4
17,000	30.0	64.0	151.0	100,000	24.0	50.0	128.0
18,000	30.0	63.5	149.0	105,000	23.8	50.0	127.6
19,000	30.0	63.0	147.0	110,000	23.6	50.0	127.2
20,000	30.0	62.5	145.0	115,000	23.4	50.0	126.8
21,000	30.0	62.0	144.0	120,000	23.2	50.0	126.4
22,000	30.0	61.5	143.0	125,000	23.0	50.0	126.0
23,000	30.0	61.0	142.0	130,000	22.9	50.0	125.8
24,000	30.0	60.5	141.0	135,000	22.8	50.0	125.6
25,000	30.0	60.0	140.0	140,000	22.7	50.0	125.4
27,500	29.8	59.5	139.5	145,000	22.6	50.0	125.2
30,000	29.5	59.0	139.0	150,000 & over	22.5	50.0	125.0

If the earned standard premium of the policy is less than $5,000, the percentages for a standard premium of $5,000 shall apply. In all other cases, if the earned standard premium lies between two of the amounts shown in the table, the percentages for the lower amount shall apply.

Massachusetts Graded Expense Provision

Effective May 1, 1936 in Massachusetts a discount of 11.4% will be made on all Compensation premium in excess of $5000 on an individual policy. This discount does not apply to policies written under the retrospective rating plan.

The discount from the premium determined at standard rates is possible because of the reductions in commission on premium in excess of $5000 and reductions in the various home office expenses. Commissions on premiums above $5000 have been cut in half, and as a result it is possible to reduce the acquisition expense allowance from 17.5% to 8.75%. The allowance for administration, payroll audit, and inspection has been reduced from 10.86% to 8.5%. The table below shows the relative proportions of the various items of expense in the premium below and above $5000.

Item	First $5,000 of Premium	Premium over $5,000	
		% of Full Manual	% of Total of Col. (3)
(1)	(2)	(3)	(4)
Acquisition	17.50	8.75	9.88
Claim	8.14	8.14	9.18
Payroll Audit	1.36		
Inspection	2.54	8.50	9.59
Administration	6.96		
Taxes	2.50	2.21	2.50
Total Expenses	39.00	27.60	31.15
Losses	61.00	61.00	68.85
Total	100.00	88.60	100.00

The plan of reduced commissions on excess premium in Compensation insurance is not a new one, since a similar plan was tried by the stock companies in 1932. Under this plan all premium over $1000 was discounted 12.5%, and commissions on this premium were reduced 50%. The plan became effective in August, 1932 in Connecticut, Dist. of Col., Idaho, Illinois, Indiana, Iowa, Louisiana, Montana, Nebraska, New Mexico and Rhode Island but was abandoned after somewhat more than a year's trial. The mutual companies, in order to meet this competition established rates about 10% less than those charged by the stock companies. Since the states in which these rates were filed were not subject to rate regulation, the differences in rates were not maintained in actual practice. Until the present instance in Massachusetts, no

further attempt has been made to inaugurate a plan of reduced commissions on large risks.

Occupational Disease Amendment to New York Law

The New York Workmen's Compensation Law has been amended, effective June 6, 1936, to include specific provisions for silicosis and other dust diseases. As a result, the rating plans described in Proceedings XXII, p. 183 will no longer be used. The manual rates will contain specific occupational disease loadings and no other charges will be made upon the assured.

The law amends paragraph 28 of subdivision 2 of section 3 of the Workmen's Compensation Law, relating to compensation for all occupational diseases, by providing that nothing in said paragraph shall be construed to apply to dust diseases.

It further amends said Law by adding a new article thereto relating to dust diseases. The policy of the legislature is expressed as prohibiting any requirement of medical examinations as a prerequisite to employment.

No compensation shall be payable for partial disability due to dust diseases. In case of temporary or permanent total disability or death, compensation shall not exceed $500 if such disablement or death occurs during the first calendar month in which this act becomes effective. Thereafter the total of compensation payable for such disability or death shall increase at the rate of $50 each calendar month, the amount payable being determined by the total payable in the month in which disablement or death occurs. In no event however shall such compensation exceed $3000. No payments shall have to be made into special funds in cases of death where there are no persons entitled to compensation.

Compensation shall be payable from the 8th day following total disablement at the rate of 66⅔% of the average weekly wage, with a maximum of $25 per week and a minimum of $8 per week. In event of death dependents shall receive any balance remaining between the amounts paid for disability and the total compensation payable under this article.

All claims for compensation resulting from inhalation of harmful dust, where the last exposure occurred between the effective date of this act and September 1, 1935 shall be barred unless filed within 180 days from the day on which this act takes effect.

An employer shall be liable for compensation for dust diseases when disability of an employee resulting in loss of earnings shall be due to an employment in a hazardous occupation in which he was employed and such disability results within 1 year of the last injurious exposure in such employment; or in case of death resulting from such exposure if such death occurs within 5 years following continuous disability. The employer in whose employment the employee was last injuriously exposed and the insurance carrier, if any, which was on the risk at that time shall be liable for any payments required by this article.

Medical treatment for dust diseases shall be limited to a period of 90 days from the date of disablement which period may be extended for an additional period of 90 days upon the order of the industrial board. If an employee falsely represents in writing that he has not previously been disabled from the disease which causes the disablement or death or that he has not received compensation under this article, no compensation shall be payable.

Liability under this article shall be exclusive, and in place of any other liability, at common law or otherwise, but if an employer fails to insure as provided in said Law the employee, or in case of death his personal representative, shall be able either to claim compensation under this act or maintain an action in the courts for damages on account of such injury. In such an action it shall not be necessary to plead or prove freedom from contributory negligence nor may the defendant plead as a defense that the injury or disease was caused by the negligence of a fellow servant or that the employee assumed the risk of his employment, nor that the injury or disease was due to the contributory negligence of the employee.

Illinois Occupational Diseases Act

The Illinois legislature has repealed the "Occupational Diseases Law" and enacted a new "Workmen's Occupational Diseases Act," effective October 1, 1936.

The new law provides regular Compensation benefits for all workmen disabled by any occupational disease or for their dependents if the disease results in the death of the employee. Before benefits are paid it must be proved that the disability caused by the disease started within one year after the last exposure to

the disease, except in the case of silicosis or asbestosis, in which case the minimum time for filing claim for benefits is increased to three years.

The new law is elective, both for the employer and employee, but it is provided that the employer may elect not to continue under the law after one year if he so desires. In case the employer is not subject to the law, his employees or dependents may sue him at common law, but the employer is deprived of the three common law defenses. The employee or his dependents must prove negligence, which includes the violation by the employer of any rules made by the industrial commission pursuant to the Health and Safety Act, or of any statute intended for the protection of the health of employees. In case of death the maximum amount which may be recovered at common law is $10,000, but there is no limit to the amount recoverable in other cases.

Amendments to Rhode Island Workmen's Compensation Law

The Rhode Island Workmen's Compensation law has been thoroughly revised and amended, the new provisions to go into effect on September 15, 1936. The National Council has estimated that the increase in benefits excluding the increase resulting from the addition of occupational diseases will be as follows:

Serious	86.8%
Non-Serious	34.6
Medical	14.1
Total	34.7

This is the largest increase in a Workmen's Compensation law since the benefits of the New Hampshire law were increased 89.7% in 1923.

The provisions in the Rhode Island law prior to the recent amendment were somewhat lower than those of other states and were particularly low in comparison with the benefits provided by the New York law. The table below shows a comparison of the benefit provisions of the Rhode Island law effective February 28, 1935 expressed as ratios to the New York law effective September 1, 1935.

Fatal	.379
Permanent Total	.283
Major	.490
Minor	.475
Temporary Total	.754
Medical	.846
Total	.652

The following is a partial list of the changes made by the new law:

	OLD LAW	NEW LAW
Partial Disability (non-dismemberment)		
Maximum Weekly Comp...	$10.00	$13.00
Maximum Period	300 wks.	700 wks.
Partial Disability (Specific Schedule)		
Minimum Weekly Comp....	$ 4.00	$ 8.00
Maximum Weekly Comp....	16.00	20.00
Fingers and Toes	5-25 wks.	10-50 wks. (entire schedule doubled)
Payment for multiple injuries to run	consecutively	concurrently
Total Disability		
Maximum Weekly Comp....	$16.00	$20.00
Maximum Period	500 wks.	1000 wks.
Death		
Maximum Weekly Comp....	10.00-$14.00 300 wks.	$12.00-$16.00 500 wks.
Maximum Period	Ceases at remarriage	Does not cease at remarriage
Last sickness and burial...	$200 Payable if no dependents	$300 Payable in any event
Waiting Period	One week Retroactive at 4 wks.	Three days Retroactive at 2 wks.
Medical		
Maximum	$100-$150	$200-$250

In addition to these changes in the provisions for benefits from disability arising from accident, the law has been amended to cover certain occupational diseases. Thirty-one diseases are listed, these being the twenty-seven specific diseases listed in the New York law and in addition manganese poisoning, hernia, infection or inflammation of the skin or eyes, and frost-bite. Diseases of the respiratory tract caused by the inhalation of dust or sand are not mentioned.

Underwriting Results in Recent Years

The National Bureau of Casualty and Surety Underwriters annually publishes a summary of the underwriting results of companies licensed to operate in New York State as shown by the New York Casualty Experience Exhibit. In the table below are shown the earned premium and underwriting profit based on the countrywide business of practically all the stock and mutual companies operating in New York State.

Similar figures for the New York State Fund, which writes Compensation insurance in New York State only at a discount from manual rates, are shown below:

Calendar Year	Earned Premium	Underwriting Profit	%
1932	6,241,859	— 200,583	— 3.2
1933	6,799,612	— 558,472	— 8.2
1934	9,505,697	—1,181,218	—12.4
1935	13,977,746	+ 126,067	+ .9
Total	36,524,914	—1,814,206	— 5.0

STOCK COMPANIES

Calendar Year	Compensation			Auto Liability			All Lines		
	Earned Premium	Underwriting Profit	%	Earned Premium	Underwriting Profit	%	Earned Premium	Underwriting Profit	%
1932	93,148,532	—16,972,585	—18.2	160,638,719	— 4,900,593	—3.1	529,802,776	—31,013,639	—5.8
1933	82,846,606	—17,250,206	—20.8	146,178,212	— 2,576,226	—1.8	475,099,772	—15,337,396	—3.2
1934	96,479,343	— 4,834,037	— 5.0	140,154,320	— 8,955,868	—6.4	493,563,214	— 8,551,013	—1.7
1935	105,311,269	— 2,982,094	— 2.9	144,282,269	— 9,449,916	—6.6	516,602,956	+10,360,484	+2.0
Total	377,785,750	—42,038,922	—11.1	591,253,520	—25,882,603	—4.4	2,015,068,718	—44,541,564	—2.2
MUTUAL COMPANIES									
1932	25,226,860	3,718,505	14.7	24,086,093	4,398,665	18.3	62,568,482	12,506,400	20.0
1933	23,722,179	2,126,719	8.9	27,540,011	5,472,275	19.9	65,686,078	12,515,632	19.1
1934	34,422,945	5,418,374	15.7	30,365,684	4,458,718	14.7	80,839,496	14,512,490	18.0
1935	43,882,014	8,603,226	19.6	32,799,811	5,393,044	16.4	95,063,594	19,087,134	20.1
Total	127,253,998	19,866,824	15.6	114,791,599	19,722,702	17.2	304,157,650	58,621,656	19.3

Personal Notes

Paul Dorweiler is now Actuary of the Aetna Casualty and Surety Company, Hartford, Connecticut.

Robert Henderson has retired from the position of Vice President and Actuary of the Equitable Life Assurance Society. He will make his residence at Crown Point, Essex County, New York.

John M. Laird is now Vice President and Secretary of the Connecticut General Life Insurance Company, Hartford, Connecticut.

Ray D. Murphy is now Vice President and Actuary of the Equitable Life Assurance Society.

Matthew H. McConnell, Jr., is now with the Indemnity Insurance Company of North America, at Philadelphia.

Nellas C. Black is now Statistician of the Maryland Casualty Company, Baltimore, Maryland.

Arthur E. Cleary is now with the Compensation Insurance Rating Board, 125 Park Avenue, New York City.

L. Leroy Fitz is now with the Group Insurance Department of the Equitable Life Assurance Society.

Walter C. Green is now a Consulting Actuary at 120 South La Salle Street, Chicago.

John A. Mills, Secretary and Actuary of the Lumbermen's Mutual Casualty Company is also Secretary and Actuary of the American Motorists Insurance Company, Chicago, Illinois.

John M. Powell, President of the Loyal Protective Insurance Company is also President of the Loyal Life Insurance Company, Boston, Massachusetts.

LEGAL NOTES

BY
SAUL B. ACKERMAN
(OF THE NEW YORK BAR)

ACCIDENT

Question: An insured held an accident policy which provided "Risks Excluded, This insurance shall not cover suicide—nor shall it cover injury, disability, death or any other result caused wholly or partly, directly or indirectly, by ptomaines or disease germs, or any kind of infection, whether introduced or contracted accidentally or otherwise (excepting only septic infection of and through a visible wound caused directly and independently of all other causes by violent and accidental means)." The insured suffered disability as a result of a septic infection caused by his using a needle and tweezers to remove several ingrown hairs on his face. The insured immediately notified and gave proof to the insurer of his disability. The insurer refused to pay, stating that the disability of the insured did not come within the coverage of the policy. Could the insured recover?

Answer: The only provision that could possibly have aided the insured provided "Excepting only septic infection of and through a visible wound caused directly and independently of all other causes by violent and accidental means." The determination of the insured's rights depended on whether the insured's disability came within this exception to "Risks Excluded". The insured's right to benefits under this provision therefore, depended solely on whether he suffered a disability caused by violent and accidental means. An injury is not produced by accidental means within the terms of an accident policy, where it is the direct though unexpected result of an ordinary act in which the insured intentionally engaged. While the insured's injury and consequent disability was in a sense accidental, yet that was not sufficient. The wound through which the septic infection entered insured's body must have been caused by accidental means. The wound however was made intentionally by the insured by the use of a

needle and tweezers, and while the result was unexpected the language of the policy precluded a recovery.

Northam v. *Metropolitan Life Ins. Co.*, 163 S. 635.

AUTOMOBILE—CANCELLATION

Question: A broker at the request of the insured, who was in the trucking business, obtained for it a public liability policy. The insured agreed with the broker that payment of premiums be deferred. The insured thereafter inquired of the broker whether it could obtain insurance covering the trucks for only such periods as they were in use and the broker informed the insured that it could not be done. The insured stated it would have to continue the insurance. The day following this conversation the broker cancelled the insurance and on the following day the insured's truck killed a man. The day of the accident the insured made a payment on the insurance which was accepted at the broker's office. The following day the broker had the insurance reinstated. The heirs of the man killed instituted an action. The insurer refused to defend this action and judgment was obtained against the insured. The heirs sought to recover the amount of the judgment against the insurer who refused to pay denying coverage. Was the insurer's contention sound?

Answer: The question was whether the policy was in full force and effect at the time of the accident. It was conceded that the policy did not lapse for non-payment of premium. The policy took effect upon issuance and delivery to the insured and unless there was an agreement to the contrary, the fact that the premium had not been paid in no wise affects the terms of the policy. The problem then devolved on whether the broker could on his own initiative cancel the policy. A broker has no right or authority to cancel insurance except upon request of insured. If he acted without authority, his act was not binding and did not affect the insured. Since the broker acted without authority, the cancellation of the policy did not relieve the insurer from liability and the insurance remained in full force and effect.

Hooker et al v. *American Indemnity Co.*, 54 P. (2d) 1128.

BURGLARY—WARRANTY

Question: An agent of the insured applied for a burglary insurance policy for the insured, which was duly issued. The question in the application "No burglary, theft or robbery insurance applied for or carried by assured has been declined or cancelled by any company within the last five years except as herein stated," was answered "no exceptions". The policy provided that the answers to the questions in the application for the policy "are made the basis of this insurance and the assured by the acceptance of this policy warrants them to be true. This policy is issued in consideration of such statements and the payment of total premiums". Several months before this policy was issued, an insurance company had cancelled insured's burglary insurance. The insured's home was burglarized a month after the issuance of this policy. The insurance company refused to pay the loss stating that the insurance policy was voided by the breach of warranty. Was the contention of the insurance company tenable?

Answer: When the statement in the application for insurance is declared to be a warranty and the insured declares the statement to be true, and the statement is in fact false, the policy is void from its inception. The materiality of the false statement is not for the consideration of the court. The mere fact that the answer is false is sufficient to void the policy. One of the principal reasons for such warranty is to preclude all controversy as to materiality or immateriality of the use. The answer to the question was expressly declared to be a warranty, and since such statement was false, the policy is void from its inception.

Craig v. *United States Fidelity & Guaranty Co.*, 54 P. (2nd) 486.

FIDELITY—ESTOPPEL

Question: The insured held a fidelity bond indemnifying it against a pecuniary loss sustained by it as a result of larceny or embezzlement on the part of an employee, "which shall have been committed during the life of this bond and discovered within six months after the expiration thereof." An employee of the insured embezzled certain sums of money during the period that this bond was in force but the losses were not discovered until

more than six months after the expiration of the bond. The insured immediately notified the insurer of the loss, and requested the insurer as to what it must do to report the loss properly. The insurer wrote the insured that claim must be filed within 90 days after discovery to come within the terms of the bond. The insurer further requested the inspection of the insured's books and directed an audit of the books. The insurer refused to pay the loss as not having been discovered within six months after the expiration of the policy. The insured claimed that although the loss was not discovered within 6 months after the expiration of the policy, the insurer was estopped from setting this up as a defense because it requested an inspection and directed an audit of the books at expense and trouble to the insured. Was the insurer estopped as claimed by insured?

Answer: The provision of the policy excluding the insurer from any liability if the losses were not discovered within six months after the expiration of the policy was a valid and binding provision and excluded the insurer from any liability from losses by defalcation discovered thereafter. The question was whether the insurer was estopped from using this as a defense by its conduct. Estoppel alone can never create a cause of action. An action must be founded in contract or an actionable wrong. Where the insured breached a warranty or a condition, the contract was defeasible at the option of the insurer, but the insurer's conduct may estop it from using the breach as a defense and then the policy continues as before. However, under an excepted loss the insurer was under no liability. By a waiver it cannot assume a non-existent duty. Nothing less than a new agreement based on consideration will create liability upon the insurer. To apply the doctrine of estoppel here would make this contract of insurance cover a loss it never covered.

Mass. Bonding & Ins. Co. v. *Dallas Steam Laundry & Dye Works et al,* 85 S.W. (2nd) 937.

Liability—Bicycle

Question: An insured held an insurance policy indemnifying it against loss by negligence of its employees. The policy pro-

vided that "this policy does not cover any accident caused directly or indirectly by any automobile vehicle or by any draught or driving animal or vehicle owned or used by the assured or by any employee of the insured in charge thereof". An employee of the insured, while engaged in the business of the insured, struck a woman with the bicycle he was riding. The insurance company refused to defend the action instituted by the woman, on the ground that it was not liable under the policy. Did the policy cover the insured for such loss?

Answer: The only question presented was whether a bicycle was a vehicle within contemplation of the policy. The policy excluded as a risk accidents caused by (1) automobile vehicles and (2) vehicles moved by draught or driving animals. There was no general exclusion of risk as to accidents caused by any vehicles. Such exclusion could not be inferred in view of the fact that the policy specifically provided the type of vehicles that were excluded as risks assumed by the insurance company. A bicycle was not excluded in the language of the policy upon which the insurance company sought to escape liability.

Montlake Drug Co. v. *Maryland Casualty Co. of Baltimore,* 54 P. (2nd) 1009.

LIABILITY—ACCIDENT

Question: An insured held a policy under which the insurer agreed to indemnify against loss by reason of the liability imposed upon it by law for damages for bodily injuries accidentally sustained by any person except employees to whom the insured is liable in so far as such injuries shall result from the ownership, care, maintenance, occupancy or use of the plaintiff's theatre. A patron came to the insured's theatre and while being questioned as to his ticket by one of the employees, was assaulted by another employee. The patron instituted an action for assault which the insurer refused to defend. The patron won and the insured sought to be indemnified for the loss sustained. The insurer contended that this was not covered by the policy as the patron did not accidentally sustain bodily injuries.

Answer: The insurance contract between the parties provided that the insurer indemnify the insured against loss by reason of

liability for damages imposed by law upon it because of bodily injuries accidentally sustained by any person other than an employee. Whether an injury was accidental must be determined from the standpoint of the person injured. From the patron's standpoint the injury was accidental. In the absence of a provision in the policy excluding liability the meaning of "accidentally sustained" becomes plain and controlling. The insured was liable for the tortious acts of its employees. The liability of the insured imposed by law for the act of its servant arises out of the operation of the business, just as if some apparatus in the theatre did not function properly and the patron was injured. The insurer was therefore liable under the terms of the policy.

Fox Wisconsin Corporation v. *Century Indemnity Co.*, 263 N.W. 567.

ROBBERY—TIME LOCKS

Question: A bank held a robbery policy. A rider attached to the policy limited the insurer's liability to a percentage of the loss when loss by robbery occurred when the money was not protected by a time lock, locked at the beginning of the robbery. The policy defined robbery as a felonious or forcible taking of property by violence inflicted upon the person or persons having care of the property or by putting such person or persons in fear of violence. Two robbers broke into the bank during the night and waited for the cashier to open the vault which was set for 9 A.M. in the morning. At 9 A.M. the cashier opened the vault and as soon as she did so, the robbers approached her with leveled guns and took the money from the vault and escaped. The insurer claimed it was liable for a percentage of the loss only, in that at the beginning of robbery the money was locked under a time lock. What was the liability of the insurer?

Answer: The insurer was liable for the entire loss under the policy. The robbery began at the time the robbers entered the bank during the night, notwithstanding the fact that the money was taken from the cashier after the time lock was unlocked. Under the facts, the beginning of the robbery was not limited to the final act of the felonious and forcible taking of the money by the cashier, but the robbery began with the first act of the robbers

to effect their plan, that was, breaking into the bank during the night. The robbery therefore began at a time when the money was locked under a time lock.

Bank of Conception of Clyde v. *American Bonding Co. of Baltimore,* 89 S.W. (2nd) 554.

Surety—Premiums

Question: A contractor entered into a contract to perform certain heating work at an agreed price. The contract provided for additional agreed compensation for work set forth in the contract if so requested by the owner. The insurance company issued a surety bond for the faithful performance of this work by the contractor. The bond provided for the payment of additional premiums at a set rate if the contract price was increased. The owner of the property thereafter entered into another contract with the contractor for the performance of certain work other than the heating. The insurance company sought to recover additional premiums for the other work performed by the contract. Was the contractor liable for additional premiums?

Answer: The obligation of the insurance company under the bond was limited explicitly to the work to be performed under the original contract between the owner and the contractor. The insurer was entitled to additional premiums in the event that the contract price was increased by reason of additional work done by the contractor as set forth in the original contract. However, the contractor did no additional work under the original contract but performed work other than heating and other than that set forth in the original contract. The insurer was therefore not entitled to any additional premium.

Fidelity & Deposit Co. of Maryland v. *B. Greenwald, Inc.,* 262 N.W. 831.

Workmen's Compensation—Coverage

Question: A porter was employed by a hospital for the aged at its new building. Several blocks from the new building, the old building of this hospital for the aged was located. The old building was declared by the city building department to be dangerous,

and a menace. The hospital authorities sent the porter to help remove the fire escapes and close the entrance to the building. While engaged in this work, the porter was injured. The hospital carried a workmen's compensation policy which covered work at the hospital and work incidental thereto and directed therefrom. The insurance company denied liability on the ground that the porter was not engaged in work at the hospital nor was the work incidental thereto. Was the porter covered by the workmen's compensation policy under the circumstances?

Answer: The question of coverage must be determined from the terms of the policy. The policy covered work at the hospital and work incidental thereto, and directed therefrom. The porter was sent to the old building a short distance away, to help remove the fire escapes. This job was on the employer's building, the work was directed from the new building and was incidental to the work at the hospital. The porter was therefore covered by the workmen's compensation insurance policy and was entitled to the benefits under the policy.

Sullivan v. *Home of Old Israel, Inc. et al,* 282 N.Y.S. 328.

OBITUARY

DAVID W. MILLER

1889 - 1936

Mr. David W. Miller, a charter member of the Casualty Actuarial Society, died suddenly on January 18th. Mr. Miller was first engaged in the casualty insurance business as an accountant with the Frankfort General Insurance Company in 1907, leaving that Company in 1911 to accept the position of Comptroller of the Prudential Casualty Company, which was held by him until 1915.

Although in later years he was not connected with the business of insurance he still maintained his interest by continuing his membership in the Society which he valued highly. He is survived by his widow.

CASUALTY ACTUARIAL SOCIETY

MAY 15, 1936

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	ALBERT Z. SKELDING	1938

*Terms expire at the annual meeting in November, 1936.
†Terms expire at the annual meeting in November of the year given.

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ABSTRACT FROM THE MINUTES OF THE MEETING
MAY 15, 1936

The semi-annual (forty-sixth regular) meeting of the Casualty Actuarial Society was held at the Briarcliff Lodge Hotel, Briarcliff Manor, Westchester County, New York, on Friday, May 15, 1936.

President Greene called the meeting to order at 10:30 A. M., daylight saving time. The roll was called showing the following forty-one Fellows and fifteen Associates present:

FELLOWS

AULT	GREENE	OBERHAUS
BARBER	HAUGH	ORR
BERKELEY	HOBBS	PERRYMAN
BLANCHARD	HULL	PINNEY
CARLSON	JACKSON, C. W.	SENIOR
COMSTOCK	KORMES	SINNOTT
CORCORAN	LANGE	SKILLINGS
CRANE	LESLIE	SMICK
DORWEILER	LINDER	SMITH, C. G.
EPPINK	MARSHALL	TARBELL
FONDILLER	MASTERSON	VALERIUS
GODDARD	MATTHEWS	VAN TUYL
GOULD	MOORE, G. D.	WILLIAMS
GRAHAM, C. M.	NICHOLAS	

ASSOCIATES

BARRON	GILDEA	MILLS
BLACK, N. C.	HIPP	MONTGOMERY, J. C.
CLEARY	KIRK	SIBLEY
FITZGERALD	MAGRATH	STOKE
FURNIVALL	MALMUTH	UHL

A number of officials of casualty companies and organizations were also present.

Mr. Greene read his presidential address.

The minutes of the meeting held November 15, 1935 were approved as printed in the *Proceedings*.

The Secretary-Treasurer (Richard Fondiller) read the report of the Council and upon motion it was adopted by the Society. The Librarian (William Breiby) submitted his report, which showed an increasing use of the library.

The President announced the death since the last meeting of the Society of David W. Miller, Fellow, and the memorial notice appearing in this Number was thereupon read.

The new papers printed in this Number were read.

Recess was taken for lunch at the hotel until 2:15 P. M.

Informal discussion upon the topic "Regulation of Rates in Casualty Insurance on the Part of State Authority," was participated in by a number of members.

The papers presented at the last meeting were discussed.

Upon motion, the meeting adjourned at 4:40 P. M., daylight saving time.

Representatives of Casualty Companies and Organizations Present

L. T. Block, President, Utilities Insurance Company, St. Louis, Mo.

H. E. Curry, Actuary, Farm Bureau Automobile Mutual Insurance Co., Columbus, Ohio.

E. R. Eastburn, Treasurer, Keystone Automobile Club Casualty Co., Philadelphia, Pa.

E. A. Erickson, Statistician, Utilities Mutual Insurance Company, New York.

Raymond L. Hardesty, Ass't Sec'y, New Amsterdam Casualty Company, New York.

R. E. Hatfield, Ass't Mgr., Massachusetts Rating and Inspection Bureau, Boston, Mass.

O. M. Huntoon, Merchants Mutual Casualty Company, Buffalo, New York.

F. C. Kessler, Treasurer, Consolidated Taxpayers Mutual Insurance Co., Brooklyn, N. Y.

H. D. Maple, Statistician, Sun Indemnity Company, New York.

R. C. MEAD, Actuary, State Farm Mutual Automobile Insurance Co., Bloomington, Ill.

ALAN McDOUGALL, Head of Statistical Department, Central Surety & Insurance Corp., Kansas City, Mo.

KENNETH D. MOSES, Ass't Treasurer, Merchants Mutual Casualty Company, Buffalo, New York.

A. C. OROZCO, Actuary, Seguros de Mexico, Mexico City, Mexico.

HENRY A. PLATZ, Ass't Secretary, Wolverine Insurance Company, Lansing, Mich.

HENRY REICHGOTT, Manager, Group Accident & Health Division, Equitable Life Assurance Society, New York.

C. G. VAN DER FEEN, Statistician, National Bureau of Casualty and Surety Underwriters, New York.

B. H. ZIMELS, Vice-President, Consolidated Taxpayers Mutual Insurance Company, Brooklyn, N. Y.

INDEX TO VOLUME XXII

CASUALTY ACTUARIAL SOCIETY

ORGANIZED 1914

1936 YEAR BOOK

(Addendum to Volume XXII of the *Proceedings*)

Corrected to February 1, 1936 **No. 15**

FOREWORD

The Casualty Actuarial Society was organized November 7, 1914 as the Casualty Actuarial and Statistical Society of America, with 97 charter members of the grade of Fellow. The present title was adopted on May 14, 1921. The object of the Society is the promotion of actuarial and statistical science as applied to the problems of casualty and social insurance by means of personal intercourse, the presentation and discussion of appropriate papers, the collection of a library and such other means as may be found desirable.

Prior to the organization of the Society comparatively little technical study was given to the actuarial and underwriting problems of most of the branches of casualty insurance. With the passage of legislation providing for workmen's compensation insurance in many states during 1912, 1913 and 1914, the need of actuarial guidance became more pronounced, and the organization of the Society was brought about through the suggestion of Dr. I. M. Rubinow, who became the first president. The problems surrounding workmen's compensation were at that time the most urgent, and consequently many of the members played a leading part in the development of the scientific basis upon which workmen's compensation insurance now rests.

The members of the Society have also presented papers to the *Proceedings* upon the scientific formulation of standards for the computation of both rates and reserves in accident and health insurance, liability, burglary, and the various automobile coverages. The presidential addresses constitute a valuable record of the current problems facing the casualty insurance business. Other papers in the *Proceedings* deal with acquisition costs, pension funds, legal decisions, investments, claims, reinsurance, accounting, statutory requirements, loss reserves, statistics, and the examination of casualty companies. After three years' work the Committee on Compensation and Liability Loss Reserves submitted a report which has been printed in *Proceedings* No. 35 and 36. The Committee on Remarriage Table after four years' work submitted a report including tables, printed in *Proceedings* No. 40. During the past year the Special Committee on Bases of Exposure after two years work submitted a report printed in *Proceedings* No. 43. New "Recommendations for Study" were also completed, and appear in the same number.

There are two grades of membership in the Society: Fellows and Associates; while admission to either grade is in rare cases by election, in all other cases qualification is by examination, with the additional requirement of satisfactory experience in casualty insurance work. Examinations have been held every year since organization; they are held on the third Wednesday and following Thursday in May, in various cities in the United States and Canada. The membership of the Society consists of actuaries, statisticians, and executives who are connected with the principal casualty companies and organizations in the United States and Canada. The Society has a total membership of 311, comprising 184 Fellows and 127 Associates. The annual meeting of the Society is held in New York in November and the semi-annual meetings are held in May, usually in Baltimore, Boston, Hartford or Philadelphia. The Society twice a year issues a publication entitled the *Proceedings* which contains original papers presented at the meetings of the Society. The *Proceedings* also contain discussions of papers, reviews of books and publications, current notes and legal notes. This Year Book is published annually by the Society and "Recommendations for Study" is a pamphlet which outlines the course of study to be followed in connection with the examinations for admission. These two booklets may be obtained free upon application to the Secretary-Treasurer, 90 John Street, New York.

With *Proceedings* No. 45, the Society begins the printing of a record of its informal discussions.

CASUALTY ACTUARIAL SOCIETY

NOVEMBER 15, 1935

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PAUL DORWEILER 1938

†*Ex-Vice-Presidents:* WILLIAM F. ROEBER 1938
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†*Elected:* ROBERT J. MCMANUS 1936
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Gustav F. Michelbacher
Ralph H. Blanchard
Francis S. Perryman

MEMBERSHIP OF THE SOCIETY, NOVEMBER 15, 1935

FELLOWS

Those marked (†) were Charter Members at date of organization, November 7, 1914.

Those marked (*) have been admitted as Fellows upon examination by the Society.

Date Admitted	
*Nov. 21, 1930	AINLEY, JOHN W., The Travelers Insurance Company, 700 Main Street, Hartford, Conn.
*Nov. 13, 1931	AULT, GILBERT E., Assistant Actuary, Colonial Life Insurance Company, 921 Bergen Avenue, Jersey City, N. J.
May 23, 1924	BAILEY, WILLIAM B., Economist, The Travelers Insurance Company, 700 Main Street, Hartford, Conn.
*Nov. 20, 1924	BARBER, HARMON T., Assistant Actuary, Casualty Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
*Nov. 18, 1932	BARTER, JOHN L., Superintendent, Rating & Research Department, Hartford Accident & Indemnity Co., Hartford, Conn.
*Nov. 13, 1931	BATHO, ELGIN R., Assistant Actuary, Ontario Equitable Life & Accident Insurance Company, Waterloo, Ontario, Canada.
†	BENJAMIN, ROLAND, Treasurer, Fidelity & Deposit Company of Maryland and American Bonding Company, Baltimore, Md.
*Nov. 22, 1934	BERKELEY, ERNEST T., Superintendent, Actuarial and Statistical Department, Employers Liability Insurance Corporation, Boston, Mass.
†	BLACK, S. BRUCE, President, Liberty Mutual Insurance Company, Park Square Building, Boston, Mass.
Apr. 20, 1917	BLANCHARD, RALPH H., Professor of Insurance, School of Business, Columbia University, New York.
May 24, 1921	BOND, EDWARD J., JR., Senior Vice President, Maryland Casualty Company, Baltimore, Md.
May 19, 1915	BRADSHAW, THOMAS, Vice-President and General Manager, Massey-Harris Company, Limited, 915 King Street, Toronto, Canada; President, North American Life Assurance Company of Canada, Toronto, Canada.
†	BREIBY, WILLIAM, Consulting Actuary, Fackler & Breiby, 8 West 40th Street, New York.
*Nov. 18, 1927	BROWN, F. STUART, Comptroller, Fireman's Fund Indemnity Company, 116 John Street, New York.
Oct. 22, 1915	BROWN, HERBERT D., Glenora, Yates County, New York.
June 5, 1925	BROSMITH, WILLIAM, Vice-President and General Counsel, The Travelers Insurance Company and The Travelers Indemnity Company, 700 Main Street, Harrford, Conn.
†	BUCK, GEORGE B., Consulting Actuary for Pension Funds, 150 Nassau Street, New York.

FELLOWS

Date Admitted	
*Nov. 18, 1932	BURHANS, CHARLES H., Standard Accident Insurance Company, 640 Temple Avenue, Detroit, Mich.
Apr. 20, 1917	BURHOP, WILLIAM H., Secretary, Employers Mutual Liability Insurance Company, Wausau, Wis.
*Nov. 23, 1928	BURLING, WILLIAM H., The Travelers Insurance Company, 700 Main Street, Hartford, Conn.
*Nov. 19, 1929	CAHILL, JAMES M., The Travelers Insurance Company, 700 Main Street, Hartford, Conn.
*Nov. 18, 1932	CAMERON, FREELAND R., Assistant Manager, Automobile Department, American Surety Company, 100 Broadway, New York.
†	CAMMACK, EDMUND E., Vice-President and Actuary, Aetna Life Insurance Company, Hartford, Conn.
*Nov. 21, 1930	CARLSON, THOMAS O., Assistant Actuary, National Bureau of Casualty & Surety Underwriters, 1 Park Avenue, New York.
†	CARPENTER, RAYMOND V., Senior Actuary, Metropolitan Life Insurance Company, 1 Madison Avenue, New York.
*Nov. 15, 1918	COATES, BARRETT N., Coates and Herfurth, Consulting Actuaries, 114 Sansome Street, San Francisco, Calif.
*Nov. 17, 1922	COATES, CLARENCE S., Statistician, Lumbermen's Mutual Casualty Company, Mutual Insurance Bldg., Chicago, Ill.
Oct. 27, 1916	COGSWELL, EDMUND S., First Deputy Commissioner of Insurance, 100 Nashua Street, Boston, Mass.
Feb. 19, 1915	COLLINS, HENRY, Manager and Attorney, Ocean Accident & Guarantee Corporation and President, Columbia Casualty Company, 1 Park Avenue, New York.
*Nov. 23, 1928	COMSTOCK, W. PHILLIPS, Statistician, London Guarantee & Accident Company, 55 Fifth Avenue, New York.
*Nov. 22, 1934	CONSTABLE, WILLIAM J., Resident Secretary, Lumbermen's Mutual Casualty Company, 400 North Broad Street, Philadelphia, Pa.
*Nov. 22, 1934	COOK, EDWIN A., Assistant Secretary, Interboro Mutual Indemnity Insurance Company, 270 Madison Avenue, New York.
†	COPELAND, JOHN A., Consulting Actuary, Candler Building, Atlanta, Ga.
*Nov. 18, 1925	CORCORAN, WILLIAM M., Consulting Actuary, c/o S. H and Lee J. Wolfe, 116 John Street, New York.
†	COWLES, WALTER G., Vice-President, The Travelers Insurance Company, 700 Main Street, Hartford, Conn.
†	CRAIG, JAMES D., Vice-President, Metropolitan Life Insurance Company, 1 Madison Avenue, New York.
*Nov. 19, 1926	CRANE, HOWARD G., Comptroller, General Reinsurance Corporation, 90 John Street, New York.
*Nov. 18, 1932	DAVIES, E. ALFRED, Budget Supervisor, Liberty Mutual Insurance Company, Park Square Building, Boston, Mass.
*Nov. 18, 1927	DAVIS, EVELYN M., Woodward, Ryan, Sharp & Davis, Consulting Actuaries, 90 John Street, New York.
†	DAWSON, MILES M., Consulting Actuary and Counsellor at Law, 500 Fifth Avenue, New York.
†	DEARTH, ELMER H., 1156 Lincoln Avenue, St. Paul, Minn.

FELLOWS

Date Admitted	
†	DEKAY, ECKFORD C., President, Industrial Service Corporation, 84 William Street, New York.
*Nov. 17, 1920	DORWEILER, PAUL, Actuary, Accident & Liability Department, Aetna Life Insurance Company, Hartford, Conn.
May 19, 1915	DUNLAP, EARL O., Assistant Actuary, Metropolitan Life Insurance Company, 1 Madison Avenue, New York.
*Nov. 24, 1933	EDWARDS, JOHN, Casualty Actuary, Ontario Insurance Department, 91 Arundel Avenue, Toronto, Ontario, Canada.
*Nov. 17, 1922	ELSTON, JAMES S., Assistant Actuary, Life Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
*Nov. 15, 1935	EPPINK, WALTER T., Assistant Secretary-Assistant Treasurer, Merchants' Mutual Casualty Co., 268 Main Street, Buffalo, New York.
†	FACKLER, EDWARD B., Consulting Actuary, Fackler & Breiby, 8 West 40th Street, New York.
†	FALLOW, EVERETT S., Actuary, Accident Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
†	FARRER, HENRY, Chief Accountant, Insurance Company of North America, 111 John Street, New York.
Feb. 19, 1915	FELLOWS, CLAUDE W., President, Associated Indemnity Corporation, Associated Fire & Marine Insurance Co., Associated Insurance Fund, Inc., 332 Pine Street, San Francisco, Calif.
*Nov. 15, 1935	FITZHUGH, GILBERT W., Metropolitan Life Insurance Co., 1 Madison Avenue, New York.
Feb. 19, 1915	FLANIGAN, JAMES E., Agency Manager, Bankers Life Co., 225 Broadway, New York.
†	FLYNN, BENEDICT D., Vice-President and Actuary, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
Feb. 19, 1915	FONDILLER, RICHARD, Woodward and Fondiller, Consulting Actuaries, 90 John Street, New York.
†	FORBES, CHARLES S., Treasurer, Smyth, Sanford and Gerard, Inc., Insurance Brokers, 68 William Street, New York; Actuary, Service Mutual Liability Insurance Co., Park Square Building, Boston, Mass.
*Nov. 22, 1934	FULLER, GARDNER V., Secretary, National Council on Compensation Insurance, 45 East 17th Street, New York.
†	FRANKLIN, CHARLES H., Assistant to First Vice-President, Continental Casualty Co., 910 South Michigan Avenue, Chicago, Ill.
*Nov. 18, 1927	FREDERICKSON, CARL H., Actuary, Canadian Underwriters Association, 44 Victoria Street, Toronto, Canada.
Feb. 25, 1916	FROGGATT, JOSEPH, President, Joseph Froggatt & Co., Insurance Accountants, 74 Trinity Place, New York.
†	FURZE, HARRY, 42, Douglas Road, Glen Ridge, N. J.
Feb. 19, 1915	GARRISON, FRED S., Secretary, The Travelers Indemnity Co., 700 Main Street, Hartford, Conn.
*Nov. 20, 1924	GINSBURGH, HAROLD J., Assistant Secretary, American Mutual Liability Insurance Co., 142 Berkeley Street, Boston, Mass.

FELLOWS

Date Admitted	
*Nov. 21, 1930	GLENN, J. BRYAN, Assistant Actuary, Railroad Retirement Board, Washington, D C.
May 19, 1915	GLOVER, JAMES W., Professor of Mathematics and Insurance, University of Michigan, 620 Oxford Road, Ann Arbor, Mich.
*Nov. 13, 1931	GODDARD, RUSSELL P., The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
†	GOODWIN, EDWARD S., 750 Main Street, Hartford, Conn.
†	GOULD, WILLIAM H., Consulting Actuary, 123 William Street, New York.
*Nov. 19, 1926	GRAHAM, CHARLES M., Assistant Actuary, State Insurance Fund, 625 Madison Avenue, New York.
Oct. 22, 1915	GRAHAM, GEORGE, President, Central States Life Insurance Co., 3663 Lindell Blvd., St. Louis, Mo.
Oct. 22, 1915	GRAHAM, THOMPSON B., Assistant Secretary, Metropolitan Life Insurance Co., 1 Madison Avenue, New York.
†	GRAHAM, WILLIAM J., Vice-President, Equitable Life Assurance Society, 393 Seventh Avenue, New York.
May 25, 1923	GRANVILLE, WILLIAM A., Director of Publications, Washington National Insurance Co., 1737 Howard St., Chicago, Ill.
†	GREENE, WINFIELD W., Vice-President and Secretary, General Reinsurance Corporation, 90 John Street, New York.
†	HAMILTON, ROBERT C. L., Comptroller, Hartford Accident & Indemnity Co., Hartford, Conn.
†	HAMMOND, H. PIERSON, Actuary, Life Actuarial Department, The Travelers Insurance Co., 700 Main St., Hartford, Conn.
Oct. 27, 1916	HARDY, EDWARD R., Secretary-Treasurer, Insurance Institute of America, Inc., 80 John Street, New York.
Oct. 22, 1915	HATCH, LEONARD W., (Retired), 425 Pelham Manor Road, Pelham Manor, New York.
*Nov. 19, 1926	HAUGH, CHARLES J., Actuary, National Bureau of Casualty & Surety Underwriters, 1 Park Avenue, New York.
Nov. 17, 1920	HEATH, CHARLES E., Vice-President and Secretary, Standard Surety & Casualty Company of New York, 80 John Street, New York.
Nov. 21, 1919	HENDERSON, ROBERT, Vice-President and Actuary, Equitable Life Assurance Society, 393 Seventh Avenue, New York.
May 17, 1922	HERON, DAVID, Secretary and Chief Statistician, London Guarantee & Accident Co., Ltd., Phoenix House, King William Street, E.C. 4, London, England.
†	HILLAS, ROBERT J., (Retired) 2 Whippany Road, Morristown, N. J.
May 23, 1924	HOBBS, CLARENCE W., Special Representative of the National Association of Insurance Commissioners, National Council on Compensation Insurance, 45 East 17th Street, New York.
Nov. 19, 1926	HODGES, CHARLES E., Chairman of the Board, American Mutual Liability Insurance Co., Allied American Mutual Automobile Insurance Co., American Policyholders' Insurance Co., 142 Berkeley Street, Boston, Mass.
Oct. 22, 1915	HODGKINS, LEMUEL G., Secretary, Massachusetts Protective Association and Massachusetts Protective Life Assurance Co., Worcester, Mass.

FELLOWS

Date Admitted	
†	HOFFMAN, FREDERICK L., 7500 Old York Road, Melrose Park, Philadelphia, Pa.
Oct. 22, 1915	HOLLAND, CHARLES H., Room 1406, 9 East 44th Street, New York.
*Nov. 22, 1934	HOOKER, RUSSELL O., Actuary, Connecticut Insurance Department, Hartford, Conn.
Nov. 18, 1932	HUEBNER, SOLOMON S., Professor of Insurance, University of Pennsylvania, Philadelphia, Pa.
†	HUGHES, CHARLES, Auditor and Actuary, New York Insurance Department, 80 Centre Street, New York.
Nov. 19, 1929	HULL, ROBERT S., Treasurer, Title and Mortgage Company of Westchester County, 235 Main Street, White Plains, N. Y.
†	HUNT, BURRITT A., Assistant Secretary, Accident and Liability Department, Aetna Life Insurance Co., Hartford, Conn.
†	HUNTER, ARTHUR, Vice-President and Chief Actuary, New York Life Insurance Co., 51 Madison Avenue, New York.
Nov. 18, 1921	HUTCHESON, WILLIAM A., Vice-President and Actuary, Mutual Life Insurance Co., 32 Nassau Street, New York.
Feb. 25, 1916	JACKSON, CHARLES W., Consulting Actuary, Woodward and Fondiller, 90 John Street, New York.
*Nov. 19, 1929	JACKSON, HENRY H., Actuary, National Life Insurance Co., Montpelier, Vt.
May 19, 1915	JOHNSON, WILLIAM C., Vice-President, Massachusetts Protective Association and Massachusetts Protective Life Assurance Co., Worcester, Mass.
Nov. 23, 1928	JONES, F. ROBERTSON, General Manager, Association of Casualty and Surety Executives; and Secretary-Treasurer, Bureau of Personal Accident and Health Underwriters, 1 Park Avenue, New York.
*Nov. 19, 1926	KELTON, WILLIAM H., Assistant Actuary, Life Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
†	KING, WALTER I., Ganse-King Estate Service, 1 Federal Street, Boston, Mass.
*Nov. 21, 1919	KIRKPATRICK, A. LOOMIS, Insurance Editor, Chicago Journal of Commerce, 12 East Grand Avenue, Chicago, Ill.
*Nov. 24, 1933	KORMES, MARK, Associate Actuary, Compensation Insurance Rating Board, Pershing Square Bldg., 125 Park Avenue, New York.
Nov. 23, 1928	KULP, CLARENCE A., Professor of Insurance, University of Pennsylvania, Logan Hall 36th Street and Woodland Avenue, Philadelphia, Pa.
Feb. 19, 1915	LAIRD, JOHN M., Vice-President, Connecticut General Life Insurance Co., 55 Elm Street, Hartford, Conn.
Nov. 13, 1931	LA MONT, STEWART M., Third Vice-President, Metropolitan Life Insurance Co., 1 Madison Avenue, New York.
*Nov. 24, 1933	LANGE, JOHN R., Chief Actuary, Wisconsin Insurance Department, State House, Madison, Wis.
Nov. 17, 1922	LAWRENCE, ARNETTE R., Special Deputy Commissioner of Banking and Insurance, 1203 Military Park Building, 60 Park Place, Newark, N. J.
†	LEAL, JAMES R., Vice-President and Secretary, Interstate Life and Accident Co., Interstate Building, 540 McCallie Avenue, Chattanooga, Tenn.

FELLOWS

Date Admitted	
†	LESLIE, WILLIAM, Associate General Manager, National Bureau of Casualty & Surety Underwriters, 1 Park Avenue, New York.
*Nov. 20, 1924	LINDER, JOSEPH, Consulting Actuary, c/o S. H. and Lee J. Wolfe, 116 John Street, New York.
Nov. 18, 1921	LITTLE, JAMES F., Vice-President and Actuary, Prudential Insurance Co., Newark, N. J.
Nov. 23, 1928	LUNT, EDWARD C., Vice-President, Great American Indemnity Co., 1 Liberty Street, New York.
†	MAGOUN, WILLIAM N., General Manager, Massachusetts Rating and Inspection Bureau, 89 Broad Street, Boston, Mass.
*Nov. 23, 1928	MARSHALL, RALPH M., Assistant Actuary, National Council on Compensation Insurance, 45 East 17th Street, New York.
*Nov. 18, 1927	MASTERSON, Norton E., Vice-President and Actuary, Hardware Mutual Casualty Co., Stevens Point, Wis.
*Nov. 19, 1926	MATTHEWS, ARTHUR N., The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
May 19, 1915	MAYCRINK, EMMA C., Examiner, New York Insurance Department, 80 Centre Street, New York.
*Nov. 16, 1923	MCCLURG, D. RALPH, Secretary and Treasurer, National Equity Life Insurance Co., Little Rock, Ark.
*Nov. 15, 1935	MCCONNELL, MATTHEW H., JR., National Council on Compensation, Insurance, 45 East 17th Street, New York.
May 23, 1919	MCDOUGALD, ALFRED, Ellerslie, Beddington Gardens, Wallington Surrey, England.
*Oct. 31, 1917	MCMANUS, Robert J., Statistician, Casualty Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
†	MICHELBACHER, GUSTAV F., Vice-President and Secretary, Great American Indemnity Co., 1 Liberty Street, New York.
†	MILLER, DAVID W., 9 Brixton Road, Garden City, Long Island, N. Y.
†	MILLIGAN, SAMUEL, Second Vice-President, Metropolitan Life Insurance Co., 1 Madison Avenue, New York.
†	MITCHELL, JAMES F., U. S. Manager, General Accident Fire and Life Assurance Corporation, Ltd., 414 Walnut Street, Philadelphia, Pa.
†	MOIR, HENRY, President, United States Life Insurance Co., 101 Fifth Avenue, New York.
*Nov. 18, 1921	MONTGOMERY, VICTOR, President, Pacific Employers Insurance Co., 928 So. Figueroa Street, Los Angeles, Calif.
Nov. 19, 1926	MOONEY, WILLIAM L., Vice-President, Aetna Life Insurance Co., Hartford, Conn.
†	MOORE, GEORGE D., Comptroller, Standard Surety & Casualty Company of New York, 80 John Street, New York.
†	MORRISON, JAMES, 250 Bronxville Road, Bronxville, N. Y.
†	MOWBRAY, ALBERT H., Consulting Actuary, 806 San Luis Road, Berkeley, Calif.
*Nov. 17, 1920	MUELLER, LOUIS H., Director, Associated Insurance Fund, 332 Pine Street, San Francisco, Calif.

FELLOWS

Date Admitted	
†	MULLANEY, FRANK R., Vice-President and Secretary, American Mutual Liability Insurance Co., and Secretary, American Policyholders' Insurance Co., 142 Berkeley Street, Boston, Mass.
May 28, 1920	MURPHY, RAY D., Vice-President, Equitable Life Assurance Society, 393 Seventh Avenue, New York.
†	NICHOLAS, LEWIS A., Assistant Secretary, Fidelity & Casualty Co., 80 Maiden Lane, New York.
*Nov. 15, 1935	OBERHAUS, THOMAS M., Office of Woodward & Fondiller, Consulting Actuaries, 90 John Street, New York.
†	OLIFIERS, EDWARD, Actuary and Managing Director, Previdencia do Sul, Caixa Postal 76, Porto Alegre, Brazil.
Nov. 18, 1927	O'NEILL, FRANK J., President, Royal Indemnity Co., and Eagle Indemnity Co., 150 William Street, New York.
†	ORR, ROBERT K., President, Wolverine Insurance Co., Lansing, Mich.
†	OTIS, STANLEY L., Counsellor at Law, Manager, Otis Service, 90 John Street, New York.
*Nov. 21, 1919	OUTWATER, OLIVE E., Actuary, Benefit Association of Railway Employees, 901 Montrose Avenue, Chicago, Ill.
Nov. 19, 1926	PAGE, BERTRAND A., Vice-President, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
*Nov. 18, 1921	PERKINS, SANFORD B., Assistant Secretary, Compensation and Liability Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
Nov. 15, 1918	PERRY, W. T., Deputy Manager, Ocean Accident and Guarantee Corporation, 36 Moorgate, London, E. C. 2, England.
*Nov. 21, 1930	PERRYMAN, FRANCIS S., Secretary, Royal Indemnity Co., and Eagle Indemnity Co., 150 William Street, New York.
Nov. 19, 1926	PHILLIPS, JESSE S., Chairman of Board, Great American Indemnity Co., 1 Liberty Street, New York.
*Nov. 24, 1933	PICKETT, SAMUEL C., Assistant Actuary, Connecticut Insurance Department, Hartford, Conn.
*Nov. 17, 1922	PINNEY, SYDNEY D., Associate Actuary, Casualty Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
*Nov. 13, 1931	PRUITT, DUDLEY M., Actuary and Assistant Treasurer, Pennsylvania Indemnity Corporation, Atlantic Building, Philadelphia, Pa.
May 13, 1927	REID, A. DUNCAN, President and General Manager, Globe Indemnity Co., 150 William Street, New York.
†	REMINGTON, CHARLES H., Room 2707, 90 John Street, New York.
May 23, 1919	RICHARDSON, FREDERICK, U. S. Attorney and Managing Director, General Accident Fire and Life Assurance Corporation, 414 Walnut Street, Philadelphia, Pa.
*Nov. 19, 1926	RICHTER, OTTO C., American Telephone & Telegraph Co., 195 Broadway, New York.
May 24, 1921	RIEGEL, ROBERT, Professor of Statistics and Insurance, University of Buffalo, Buffalo, New York.
*Nov. 16, 1923	ROEBER, WILLIAM F., General Manager, National Council on Compensation Insurance, 45 East 17th Street, New York.

FELLOWS

Date Admitted	
†	RUBINOW, ISAAC M., Secretary, Independent Order of B'nai B'rith, 40 Electric Bldg., Cincinnati, Ohio.
†	SCHEITLIN, EMIL, Treasurer, Globe Indemnity Co., 150 William Street, New York.
†	SENIOR, LEON S., General Manager, Compensation Insurance Rating Board, Pershing Square Bldg., 125 Park Avenue, New York.
*Nov. 13, 1931	SILVERMAN, DAVID, c/o S. H. & Lee J. Wolfe, 116 John Street, New York.
*Nov. 24, 1933	SINNOTT, ROBERT V., Hartford Accident and Indemnity Company, 690 Asylum Avenue, Hartford, Conn.
*Nov. 19, 1929	SKELDING, ALBERT Z., Actuary, National Council on Compensation Insurance, 45 East 17th Street, New York.
*Nov. 19, 1929	SKILLINGS, EDWARD S., c/o S. H. and Lee J. Wolfe, 116 John Street, New York.
*Nov. 18, 1932	SMICK, JACK J., National Council on Compensation Insurance, 45 East 17th Street, New York.
Apr. 20, 1917	SMITH, CHARLES G., Manager, State Insurance Fund, 625 Madison Avenue, New York.
*Nov. 24, 1933	ST. JOHN, JOHN B., Metropolitan Life Insurance Company, 1 Madison Avenue, New York.
Nov. 18, 1927	STONE, EDWARD C., U. S. General Manager and Attorney, Employers' Liability Assurance Corporation, Limited, and President, American Employers' Insurance Company, 110 Milk Street, Boston, Mass.
Feb. 25, 1916	STRONG, WENDELL M., Associate Actuary, Mutual Life Insurance Co., 32 Nassau Street, New York.
Oct. 22, 1915	STRONG, WILLIAM RICHARD, No. 4 "Sheringham," Cotham Road, Kew, Victoria, Australia.
*Nov. 17, 1920	TARBELL, THOMAS F., Actuary, Casualty Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
†	THOMPSON, JOHN S., Vice-President and Mathematician, Mutual Benefit Life Insurance Co., 300 Broadway, Newark N. J.
†	TRAIN, JOHN L., President and General Manager, Utica Mutual Insurance Co., 185 Genesee Street, Utica, New York.
Nov. 17, 1922	TRAVERSI, ANTONIO T., Consulting Actuary and Accountant, London Bank Chambers, Martin Place, Sydney Australia.
*Nov. 23, 1928	VALERIUS, NELS M., Accident & Liability Department, Aetna Life Insurance Co., Hartford, Conn.
*Nov. 21, 1919	VAN TUYL, HIRAM O., Chief Accountant, London Guarantee & Accident Co., 55 Fifth Avenue, New York.
*Nov. 17, 1920	WAITE, ALAN W., Chief Underwriter, Accident and Liability Department, Aetna Life Insurance Co., Hartford, Conn.
*Nov. 15, 1935	WAITE, HARRY V., Statistician, The Travelers Fire Insurance Co., 700 Main Street, Hartford, Conn.
*Nov. 18, 1925	WARREN, LLOYD A. H., Professor of Mathematics, University of Manitoba, 64 Niagara Street, Winnipeg, Manitoba, Canada.

FELLOWS

Date Admitted	
†	WHITNEY, ALBERT W., Associate General Manager, National Bureau of Casualty & Surety Underwriters, 1 Park Avenue, New York.
*Nov. 15, 1935	WILLIAMS, HARRY V., JR., National Council on Compensation Insurance, 45 East 17th Street, New York.
*Nov. 13, 1931	WITTICK, HERBERT E., Secretary, Pilot Insurance Co., 199 Bay Street, Toronto, Canada.
†	WOLFE, LEE J., Consulting Actuary, 116 John Street, New York.
May 24, 1921	WOOD, ARTHUR B., President and Managing Director, Sun Life Assurance Company of Canada, Montreal, Canada.
*Nov. 17, 1920	YOUNG, CHARLES N., 229 East Benedict Avenue, Upper Darby, Pa.

ASSOCIATES

Those marked (*) have been enrolled as Associates upon examination by the Society.

Numerals indicate Fellowship examination parts credited.

Date Enrolled	
May 23, 1924	ACKER, MILTON, Manager, Compensation and Liability Department, National Bureau of Casualty and Surety Underwriters, 1 Park Avenue, New York.
*Nov. 15, 1918	ACKERMAN, SAUL B., Professor of Insurance, New York University, 90 Trinity Place, New York.
Apr. 5, 1928	ALLEN, AUSTIN F., Executive Vice-President, Texas Employers Insurance Association and Employers Casualty Co., Dallas, Texas.
Nov. 15, 1918	ANKERS, ROBERT E., Secretary and Treasurer, Continental Life Insurance Co., Investment Building, Washington, D. C.
*Nov. 21, 1930	ARCHIBALD, A. EDWARD, Actuary, Volunteer State Life Insurance Company, Chattanooga, Tenn. (I, II.)
*Nov. 24, 1933	BARRON, JAMES C., JR., General Reinsurance Corporation, 90 John Street, New York. (I, II, IV.)
*Nov. 23, 1928	BATEMAN, ARTHUR E., Liberty Mutual Insurance Company, Park Square Building, Boston, Mass. (I, II.)
*Nov. 18, 1925	BITTEL, W. HAROLD, Associate Actuary, Woodward, Ryan, Sharp, & Davis, 90 John Street, New York.
Nov. 17, 1920	BLACK, NELLAS C., Superintendent, Statistical Division, Maryland Casualty Co., Baltimore, Md.
*Nov. 22, 1934	BOMSE, EDWARD L., American Mutual Alliance, 60 East 42nd Street, New York.
*Nov. 23, 1928	BOWER, PERRY S., Great West Life Assurance Company, Winnipeg, Manitoba, Canada.
*Nov. 15, 1935	BRERETON, CLOUDESLEY, R., Department of Insurance, Ottawa, Ontario, Canada.
*Nov. 15, 1918	BRUNNQUELL, HELMUTH G., Assistant Actuary, The Northwestern Mutual Life Insurance Co., Milwaukee, Wis.
*Oct. 22, 1915	BUFFLER, LOUIS, Underwriting Supervisor, State Insurance Fund, 625 Madison Avenue, New York.
*Nov. 20, 1924	BUGBEE, JAMES M., Maryland Casualty Co., Baltimore, Md.
Mar. 31, 1920	BURT, MARGARET A., Office of George B. Buck, Consulting Actuary, 150 Nassau Street, New York.
Nov. 17, 1922	CAVANAUGH, LEO D., Executive Vice-President and Actuary, Federal Life Insurance Co., 168 N. Michigan Avenue, Chicago, Ill.
*Nov. 18, 1927	CHEN, S. T., Actuary, China United Assurance Society, 104 Bubbling Well Road, Shanghai, China.
*Nov. 15, 1935	CLEARY, ARTHUR E., American Mutual Liability Insurance Co., 76 Westminster Street, Providence, R. I. (I, II.)
*Nov. 18, 1927	CONROD, STUART F., Secretary and Actuary, Western Empire Life Assurance Co., Power Bldg., Winnipeg, Manitoba, Canada.
May 23, 1929	COWEE, GEORGE A., Vice-President, Liberty Mutual Insurance Co., Park Square Building, Boston, Mass.

ASSOCIATES

Date Enrolled	
*Nov. 24, 1933	CRAWFORD, WILLIAM H., Assistant Secretary, Commercial Casualty Insurance Company and Metropolitan Casualty Insurance Company of New York, 10 Park Place, Newark, N. J. (I, II.)
*Nov. 18, 1932	CRIMMINS, JOSEPH B., Metropolitan Life Insurance Co., 1 Madison Avenue, New York. (I, II.)
*Nov. 18, 1925	DAVIS, MALVIN E., Assistant Actuary, Metropolitan Life Insurance Co., 1 Madison Avenue, New York.
*Nov. 24, 1933	DAVIS, REGINALD S., Assistant Comptroller, State Compensation Insurance Fund, San Francisco, Calif. (I, II.)
May 25, 1923	ECONOMIDY, HARILAUS E., Secretary, Lloyds America, San Antonio, Texas.
June 5, 1925	EGER, FRANK A., Secretary-Comptroller, Insurance Company of North America and Affiliated Companies, 1600 Arch Street, Philadelphia, Pa.
*Nov. 16, 1923	FITZ, L. LEROY, Consulting Actuary, 176 Federal Street, Boston, Mass. (I, II.)
*Nov. 18, 1927	FITZGERALD, AMOS H., Assistant Actuary, The Prudential Insurance Company of America, Newark, N. J. (I, II.)
*Nov. 16, 1923	FLEMING, FRANK A., Actuary, American Mutual Alliance, 60 East 42nd Street, New York.
Nov. 20, 1924	FROBERG, JOHN, Superintendent, California Inspection Rating Bureau, 114 Sansome Street, San Francisco, Calif.
*Nov. 19, 1929	FURNIVALL, MAURICE L., Assistant Actuary, Accident Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn. (I, II.)
Mar. 21, 1930	GALLON, RICHARD W., Vice-President, New Amsterdam Casualty Co., 227 St. Paul Street, Baltimore, Md.
*Nov. 13, 1931	GARWOOD, MORRIE L., Kemper Insurance Organization, 88 Lexington Avenue, New York. (I, II.)
*Nov. 22, 1934	GATELY, JOHN J., General Reinsurance Corporation, 90 John Street, New York. (II.)
*Nov. 18, 1932	GETMAN, RICHARD A., Life Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn. (I, II.)
*Nov. 17, 1922	GIBSON, JOSEPH P., JR., Vice-President and General Manager, Excess Underwriters, Inc., 90 John Street, New York.
*Nov. 16, 1923	GILDEA, JAMES F., The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
Nov. 19, 1929	GORDON, HAROLD R., Executive Secretary, Health & Accident Underwriters Conference, 176 West Adams Street, Chicago, Ill.
*Nov. 18, 1927	GREEN, WALTER C., Illinois Insurance Department, Springfield, Ill.
*Nov. 15, 1935	GUERTIN, A. N., Actuary, New Jersey Department of Banking and Insurance, Trenton, N. J. (I, II.)
*Nov. 18, 1921	HAGGARD, ROBERT E., Superintendent, Permanent Disability Rating Department, Industrial Accident Commission, State Building, San Francisco, Calif.
*Nov. 17, 1922	HALL, HARTWELL L., Associate Actuary, Connecticut Insurance Department, Hartford, Conn.
*Nov. 18, 1925	HALL, WILLIAM D., Actuary, National Automobile Underwriters Association, 1 Liberty Street, New York. (III, IV.)

ASSOCIATES

Date Enrolled	
Mar. 24, 1932	HARRIS, SCOTT, Vice-President, Joseph Froggatt & Co., 74 Trinity Place, New York.
*Mar. 25, 1924	HART, WARD VAN BUREN, Assistant Actuary, Connecticut General Life Insurance Co., Hartford, Conn. (I, II.)
Nov. 21, 1919	HAYDON, GEORGE F., General Manager, Wisconsin Compensation Rating & Inspection Bureau, 715 N. Van Buren Street, Milwaukee, Wis.
Nov. 17, 1927	HIPP, GRADY H., Actuary, State Insurance Fund, 625 Madison Avenue, New York.
*Oct. 31, 1917	JACKSON, EDWARD T., Statistician, General Accident Fire & Life Assurance Corporation, 421 Walnut Street, Philadelphia, Pa.
Nov. 19, 1929	JACOBS, CARL N., President, Hardware Mutual Casualty Co., Stevens Point, Wis.
*Nov. 18, 1921	JENSEN, EDWARD S., Group Underwriter, Occidental Life Insurance Co., Los Angeles, Calif. (III, IV.)
Nov. 21, 1930	JONES, H. LLOYD, Assistant Manager, London Guarantee & Accident Co., 55 Fifth Avenue, New York.
*Nov. 15, 1935	JONES, HAROLD M., Liberty Mutual Insurance Company, Park Square Bldg., Boston, Mass.
*Nov. 21, 1919	JONES, LORING D., Assistant Manager, State Insurance Fund, 625 Madison Avenue, New York.
*May 24, 1935	KARDONSKY, ELSIE, Compensation Insurance Rating Board, Pershing Square Bldg., 125 Park Avenue, New York. (I.)
*Nov. 17, 1922	KIRK, CARL L., Actuary, Zurich General Accident & Liability Insurance Co., 431 Insurance Exchange, Chicago, Ill.
*Nov. 15, 1935	KITZROW, E. W., Underwriting Manager, Hardware Mutual Casualty Co., Stevens Point, Wis. (I, II.)
*Nov. 18, 1932	LEWIS, HOWARD A., The Travelers Insurance Company, Hartford, Conn.
*Nov. 23, 1928	LIPKIND, SAUL S., Reliance Life Insurance Company, Pittsburgh, Pa.
*Nov. 13, 1931	LYONS, DANIEL J., Chief Assistant Actuary, New Jersey Department of Banking and Insurance, Trenton, N. J. (I, II, III.)
*Nov. 13, 1931	MACKEEN, HAROLD E., The Travelers Insurance Co., 700 Main Street, Hartford, Conn. (I, II.)
Mar. 24, 1932	MAGRATH, JOSEPH J., Chief of Rating Bureau, New York Insurance Department, 80 Centre Street, New York.
*Nov. 18, 1925	MALMUTH, JACOB, Examiner, New York Insurance Department, 80 Centre Street, New York.
Mar. 24, 1927	MARSH, CHARLES V. R., Comptroller and Assistant Treasurer, Fidelity & Deposit Co. and American Bonding Co., Baltimore, Md.
*Nov. 17, 1922	MCIVER, ROSSWELL A., Actuary, Washington National Insurance Co., 1737 Howard Street, Chicago, Ill.
*Nov. 17, 1922	MICHENER, SAMUEL M., Assistant Actuary, Columbus Mutual Life Insurance Co., 580 East Broad Street, Columbus, Ohio. (I, II.)
*Nov. 13, 1931	MILLER, HENRY C., Comptroller, State Compensation Insurance Fund, 450 McAllister Street, San Francisco, Calif. (I, II.)

ASSOCIATES

Date Enrolled	
*Nov. 21, 1930	MILLER, JOHN H., Actuary, Monarch Life Insurance Co., Springfield, Mass. (I, II.)
*Nov. 15, 1935	MILLS, JOHN A., Assistant Secretary and Actuary, Lumbermen's Mutual Casualty Co., Mutual Insurance Bldg., Chicago, Ill.
*Nov. 19, 1926	MILNE, JOHN L., Actuary, Presbyterian Ministers' Fund for Life Insurance, 1805 Walnut Street, Philadelphia, Pa.
Nov. 17, 1922	MONTGOMERY, JOHN C., Secretary and Assistant Treasurer, Bankers Indemnity Insurance Co., 15 Washington Street, Newark, N. J.
May 25, 1923	MOORE, JOSEPH P., President, North American Accident Insurance Co., 275 Craig Street, W., Montreal, Canada.
*Nov. 21, 1919	MOTHERSILL, ROLAND V., Executive Vice President and Secretary, Anchor Casualty Co., Anchor Insurance Building, St. Paul, Minn. (III, IV.)
*Nov. 19, 1929	MULLER, FRITZ, Secretary-Treasurer, Agrippina Life Insurance Stock Co., Berlin, W. 30 Motzstr. 3, Germany.
*Nov. 15, 1935	NELSON, S. TYLER, Utica Mutual Insurance Co., 185 Genesee Street, Utica, New York.
*Oct. 27, 1916	NEWELL, WILLIAM, Secretary, Assigned Risk Pool, 1 Park Avenue, New York. (I, II.)
*Nov. 23, 1928	NEWHALL, KARL, Group Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
*Nov. 18, 1925	NICHOLSON, EARL H., Actuary, Equitable Reserve Association, Neenah, Wis.
May 23, 1919	OTTO, WALTER E., Secretary-Treasurer, Michigan Mutual Liability Co., 163 Madison Avenue, Detroit, Mich.
*Nov. 19, 1926	OVERHOLSER, DONALD M., 803 East 35th Street, Brooklyn, N. Y.
Nov. 20, 1924	PENNOCK, RICHARD M., Actuary, Pennsylvania Manufacturer, Association Casualty Insurance Co., Finance Building, Philadelphia, Pa.
Nov. 19, 1929	PHILLIPS, JOHN H., Employers' Mutual Liability Insurance Co., Wausau, Wis.
*Nov. 17, 1920	PIKE, MORRIS, Vice-President and Actuary, Union Labor Life Insurance Co., 570 Lexington Avenue, New York.
Mar. 24, 1927	PIPER, JOHN W., Superintendent of Statistical Department, Hartford Accident & Indemnity Co., 690 Asylum Avenue, Hartford, Conn.
*Nov. 23, 1928	PIPER, KENNETH B., Secretary-Actuary, Life Dept. Provident Life and Accident Insurance Co., Chattanooga, Tenn. (I, II.)
*Nov. 18, 1927	POISSANT, WILLIAM A., The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
*Nov. 17, 1922	POORMAN, WILLIAM F., Vice-President and Actuary, Central Life Assurance Society, Fifth and Grand Avenues, Des Moines, Iowa. (I, II.)
Nov. 17, 1922	POWELL, JOHN M., President, The Loyal Protective Insurance Co., 38 Newberry Street, Boston, Mass. (I, II.)
*Nov. 15, 1918	RAYWID, JOSEPH, President, Joseph Raywid & Co., Inc., 90 William Street, New York.
Nov. 19, 1932	RICHARDSON, HARRY F., Secretary-Treasurer, National Council on Compensation Insurance, 45 East 17th Street, New York.
*Nov. 18, 1932	ROBERTS, JAMES A., Life Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn. (I, II.)

ASSOCIATES

Date Enrolled	
*Nov. 21, 1919	ROBBINS, RAINARD B., Secretary and Actuary for Annuities, Teachers Insurance and Annuity Association, 522 Fifth Avenue, New York. (I, II.)
*Nov. 18, 1927	SARASON, HARRY M., Assistant Actuary, General American Life Insurance Co., 1501 Locust Street, St. Louis, Mo.
Nov. 16, 1923	SAWYER, ARTHUR, Globe Indemnity Co., 150 William Street, New York.
*Nov. 20, 1930	SEVILLA, EXEQUIEL S., Actuary, National Life Insurance Co., P. O. Box 2856, Manila, Philippine Islands.
*Nov. 15, 1935	SHAPIRO, GEORGE I., Examiner, New York Insurance Department, 80 Centre Street, New York.
*Nov. 20, 1924	SHEPPARD, NORRIS E., Lecturer in Mathematics and Mechanics, University of Toronto, Toronto, Canada. (I, II.)
Nov. 15, 1918	SIBLEY, JOHN L., Assistant Secretary, United States Casualty Co., 60 John Street, New York.
*Nov. 18, 1921	SMITH, ARTHUR G., Assistant General Manager and Actuary, Compensation Insurance Rating Board, Pershing Square Bldg., 125 Park Avenue, New York.
*Nov. 19, 1926	SOMERVILLE, WILLIAM F., St. Paul Mercury Indemnity Co., St. Paul, Minn. (I, II.)
*Nov. 18, 1925	SOMMER, ARMAND, Assistant to Vice-President, Continental Casualty Co., 910 So. Michigan Avenue, Chicago, Ill.
*Nov. 18, 1927	SPEERS, ALEXANDER A., Secretary and Actuary, Michigan Life Insurance Co., Detroit, Mich.
*Nov. 15, 1918	SPENCER, HAROLD S., Aetna Life Insurance Co., Hartford, Conn.
Nov. 20, 1924	STELLWAGEN, HERBERT P., Vice-President, Indemnity Insurance Company of North America, 1600 Arch Street, Philadelphia, Pa.
*Nov. 16, 1923	STOKE, KENDRICK, Michigan Mutual Liability Company, 163 Madison Avenue, Detroit, Mich.
*Nov. 21, 1930	SULLIVAN, WALTER F., Associated Indemnity Corporation, 332 Pine Street, San Francisco, Calif. (I.)
Mar. 23, 1921	THOMPSON, ARTHUR E., Chief Statistician, Globe Indemnity Co., 150 William Street, New York.
*Nov. 21, 1919	TRENCH, FREDERICK H., Manager, Underwriting Department, Utica Mutual Insurance Co., 185 Genesee Street, Utica, N. Y. (I, II.)
*Nov. 20, 1924	UHL, M. ELIZABETH, National Bureau of Casualty & Surety Underwriters, 1 Park Avenue, New York. (I, II.)
*Nov. 21, 1919	VOOGT, WALTER G., Treasurer, Associated Indemnity Corporation, 332 Pine Street, San Francisco, Calif.
May 23, 1919	WARREN, CHARLES S., Secretary, Massachusetts Automobile Rating and Accident Prevention Bureau, 89 Broad Street, Boston, Mass.
Nov. 18, 1925	WASHBURN, JAMES H., Actuary, Joseph Froggatt & Co., Inc., 74 Trinity Place, New York.
*Nov. 18, 1921	WATERS, LELAND L., Secretary-Treasurer, National Assurance Corporation, Lincoln, Neb. (I, II.)
Nov. 17, 1920	WATSON, J. J., Vice-President and General Manager, Casualty Underwriters, Republic Bank Bldg., Dallas, Texas.
*Nov. 18, 1932	WEINSTEIN, MAX S., Examiner, New York Insurance Department, 80 Centre Street, New York.

ASSOCIATES

Date Enrolled	
*Nov. 18, 1921	WELCH, EUGENE R., Associated Indemnity Corporation, 332 Pine Street, San Francisco, Calif.
*Nov. 18, 1925	WELLMAN, ALEXANDER C., Vice-President and Actuary, Protective Life Insurance Co., Birmingham, Ala.
*Nov. 21, 1930	WELLS, WALTER I., Supervisor of Applications, Massachusetts Protective Association, Worcester, Mass. (I, II.)
Mar. 21, 1929	WHEELER, CHARLES A., Chief Examiner of Casualty Companies, New York Insurance Department, 80 Centre Street, New York.
*Nov. 18, 1927	WHITBREAD, FRANK G., Assistant Actuary, Great West Life Assurance Co., Winnipeg, Manitoba, Canada.
*Oct. 22, 1915	WILLIAMSON, WILLIAM R., Assistant Actuary, Life Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
*Oct. 22, 1915	WOOD, DONALD M., Childs & Wood, General Agents, Royal Indemnity Company, 175 W. Jackson Blvd., Chicago, Ill.
*Nov. 18, 1927	WOOD, MILTON J., Assistant Actuary, Life Actuarial Department, The Travelers Insurance Co., 700 Main Street, Hartford, Conn.
*Oct. 22, 1915	WOODMAN, CHARLES E., Assistant Manager, Ocean Accident & Guarantee Corporation and Comptroller, Columbia Casualty Co., 1 Park Avenue, New York.
*Nov. 22, 1934	WOODWARD, BARBARA H., Examiner, New York Insurance Department, 80 Centre Street, New York.
*Nov. 18, 1925	WOOLERY, JAMES M., Actuary, Department of Insurance, Raleigh, N. C.
*Nov. 17, 1922	YOUNG, FLOYD E., Actuary, Montana Life Insurance Co., Helena, Montana.

SCHEDULE OF MEMBERSHIP, NOVEMBER 15, 1935

	Fellows	Associates	Total
Membership, November 22, 1934	182	129	311
Additions:			
By election	..	..	..
By examination	7	9	16
	189	138	327
Deductions:			
By death	3	..	3
By withdrawal	2	4	6
By transfer from Associate to Fellow	..	7	7
Membership, November 15, 1935	184	127	311

EX-PRESIDENTS AND EX-VICE-PRESIDENTS

EX-PRESIDENTS

	Term
I. M. Rubinow	1914-1916
James D. Craig	1916-1918
*Joseph H. Woodward	1918-1919
Benedict D. Flynn	1919-1920
Albert H. Mowbray	1920-1922
*Harwood E. Ryan	1922-1923
William Leslie	1923-1924
G. F. Michelbacher	1924-1926
Sanford B. Perkins	1926-1928
George D. Moore	1928-1930
Thomas F. Tarbell	1930-1932
Paul Dorweiler	1932-1934

EX-VICE-PRESIDENTS

	Term
Leon S. Senior	1920-1922, 1932-1934
Edmund E. Cammack	1922-1924
Ralph H. Blanchard	1924-1926
Sydney D. Pinney	1928-1930
*Roy A. Wheeler	1930-1932
William F. Roeber	1932-1934

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*Deceased

DECEASED FELLOWS

Date of Death	
June 4, 1934	BUDLONG, WILLIAM A., Superintendent of Claims, Commercial Travelers Mutual Accident Association, Utica, N. Y.
Mar. 30, 1935	BURNS, F. HIGHLAND, Chairman of the Board, Maryland Casualty Co., Baltimore, Md.
Feb. 4, 1920	CASE, GORDON, Office of F. J. Haight, Consulting Actuary, Indianapolis, Ind.
July 23, 1921	CONWAY, CHARLES T., Vice-President, Liberty Mutual Insurance Co., Boston, Mass.
Jan. 20, 1922	CRAIG, JAMES MCINTOSH, Actuary, Metropolitan Life Insurance Co., New York.
Sept. 2, 1921	CRUM, FREDERICK S., Assistant Statistician, Prudential Insurance Co., Newark, N. J.
June 21, 1931	DAWSON, ALFRED BURNETT, Consulting Actuary, New York.
Jan. 18, 1929	DEUTSCHBERGER, SAMUEL, Actuary, New York Insurance Department, New York.
July 9, 1922	DOWNEY, EZEKIEL HINTON, Compensation Actuary, Pennsylvania Insurance Department, Harrisburg, Pa.
Oct. 30, 1924	FACKLER, DAVID PARKS, Consulting Actuary, New York.
July 25, 1931	FRANKEL, LEE K., Second Vice-President, Metropolitan Life Insurance Co., New York.
Aug. 22, 1925	GATY, THEODORE E., Vice-President and Secretary, Fidelity & Casualty Co., New York.
Mar. 18, 1932	HINSDALE, FRANK WEBSTER, Secretary, Workmen's Compensation Board, Vancouver, B. C., Canada.
Mar. 10, 1924	HOOKSTADT, CARL, Expert, U. S. Bureau of Labor Statistics, Washington, D. C.
Feb. 11, 1928	KEARNEY, THOMAS P., Manager, State Compensation Insurance Fund, Denver, Col.
Oct. 15, 1918	KIME, VIRGIL MORRISON, Actuary, Casualty Departments, The Travelers Insurance Co., Hartford, Conn.
Aug. 3, 1933	KOPF, EDWIN W., Assistant Statistician, Metropolitan Life Insurance Co., New York.
Dec. 9, 1927	LANDIS, ABB, Consulting Actuary, Nashville, Tenn.
Nov. 29, 1933	MEAD, FRANKLIN B., Vice President, The Lincoln National Life Insurance Co., Fort Wayne, Ind.
Mar. 27, 1931	MELTZER, MARCUS, Statistician, National Bureau of Casualty & Surety Underwriters, New York.
Aug. 20, 1915	MONTGOMERY, WILLIAM J., State Actuary, Boston, Mass.
Dec. 19, 1929	MORRIS, EDWARD BONTECOU, Actuary, Life Department, The Travelers Insurance Co., Hartford, Conn.
July 24, 1915	PHELPS, EDWARD B., Editor, The American Underwriter, New York.
July 30, 1921	REITER, CHARLES GRANT, Assistant Actuary, Metropolitan Life Insurance Co., New York.
Nov. 2, 1930	RYAN, HARWOOD ELDRIDGE, Consulting Actuary, New York.
Feb. 26, 1921	SAXTON, ARTHUR F., Chief Examiner of Casualty Companies, New York Insurance Department, New York.
May 9, 1920	STONE, JOHN T., President, Maryland Casualty Co., Baltimore, Md.
July 19, 1934	SULLIVAN, ROBERT J., Vice-President, The Travelers Insurance Co., and The Travelers Indemnity Co., Hartford, Conn.

DECEASED FELLOWS—Continued

Date of Death	
May 25, 1935	THOMPSON, WALTER H., Kemper Insurance Organization, Chicago, Illinois.
Feb. 25, 1933	TOJA, GUIDO, Director General, Institute Nazionale Delle Assicurazioni, Rome, Italy.
May 8, 1935	WELCH, ARCHIBALD A., President, Phoenix Mutual Life Insurance Co., Hartford, Conn.
Aug. 26, 1932	WHEELER, ROY A., Vice-President and Actuary, Liberty Mutual Insurance Co., Boston, Mass.
Dec. 31, 1927	WOLFE, S. HERBERT, Consulting Actuary, New York.
May 15, 1928	WOODWARD, JOSEPH H., Consulting Actuary, New York.
Oct. 23, 1927	YOUNG, WILLIAM, Actuary, New York Life Insurance Co., New York.

DECEASED ASSOCIATES

Date of Death	
Feb. 10, 1920	BAXTER, DON. A., Deputy Insurance Commissioner, Michigan Insurance Department, Lansing, Mich.
Mar. 8, 1931	HALL, LESLIE LE VANT, Secretary-Treasurer, National Bureau of Casualty & Surety Underwriters, New York.
Dec. 20, 1920	LUBIN, HARRY, Assistant Actuary, State Industrial Commission, New York.
June 11, 1930	WILKINSON, ALBERT EDWARD, Actuary, Standard Accident Insurance Co., Detroit, Mich.

STUDENTS

This list includes candidates who have passed one or more parts of the Associateship Examinations. Those who are listed as having passed all four parts have not yet been enrolled as Associates of the Society by reason of the terms of examination rule IV which reads:

> "Upon the candidate having passed all four parts, he will be enrolled as an Associate, provided he presents evidence of at least one year of experience in actuarial, accounting or statistical work in casualty insurance offices, or in the teaching of casualty insurance science at a recognized college or university, or other evidence of his knowledge of actuarial, accounting or statistical work as is satisfactory to the Council."

Upon the completion of the requirements of the Council in respect to each of these candidates, they will be enrolled as Associates.

The numerals after each name indicate the parts of Associateship Examinations passed.

ARTHUR, CHARLES R., Manufacturers Life Insurance Co., 100 Bloor Street, E., Toronto, Ontario, Canada. (I, II, III, IV.)

BAILEY, ROBERT C., Sovereign Life Assurance Co., Winnipeg, Manitoba, Canada. (I, II, III, IV.)

BAKER, ROBERT W., Manufacturers Life Insurance Co., 100 Bloor Street, E., Toronto, Ontario, Canada. (I, II, III, IV.)

BATHO, BRUCE, Franklin Life Insurance Co., Springfield, Illinois. (I, II, III, IV.)

BELL, CODIE D., Benefit Association of Railway Employees, 901 Montrose Avenue, Chicago, Ill. (I, II, IV.)

BOYER, HENRY F., National Council on Compensation Insurance, 45 East 17th Street, New York. (III.)

BROCK, STANLEY E., Ontario Equitable Life & Accident Insurance Co., Waterloo, Ontario, Canada. (I, II, III, IV.)

CAMPBELL, GEORGE C., Metropolitan Life Insurance Co., One Madison Avenue, New York. (I, II, III, IV.)

CANNON, LESLIE A., Great West Life Assurance Co., Winnipeg, Manitoba, Canada. (I, II, III, IV.)

CHILDRESS, CECIL, Virginia Auto Mutual Insurance Co., State Planters Bank Bldg., Richmond, Va. (II.)

CHODORCOFF, WILLIAM, Assistant Mathematician, Prudential Insurance Company, Newark, New Jersey. (I, II, III, IV.)

COHEN, ABRAHAM J., New York State Labor Department, 80 Centre Street, New York. (III.)

COLEMAN, MARY. (American) Lumbermen's Mutual Casualty Company, Chicago, Ill. (II.)

DANIELS, ARTHUR C., Office of Fackler & Breiby, 8 West 40th Street, New York. (I, II, III, IV.)

EMERSON, JOHN F., Hartford Accident & Indemnity Co., 720 California Street, San Francisco, California. (I, II.)

ENGLAND, ARTHUR W., Coates and Herfurth, 114 Sansome Street, San Francisco, Calif. (I, III, IV.)

FARLEY, JARVIS, Massachusetts Indemnity Ins. Co., 632 Beacon Street, Boston, Mass. (I, II.)

FELDMAN, ISRAEL, Metropolitan Life Insurance Co., Ottawa, Ontario, Canada. (I, II, III, IV.)

STUDENTS

FISBECK, FRANCES, C., 40 Highland Place, Ridgefield Park, New Jersey. (II.)

FOOTE, JEAN VIVIAN, 42 Hochelaga Street, W., Moose Jaw, Sask., Canada. (I, II, III, IV.)

FRUECHTEMEYER, F. J., 91 Wendell Street, Cambridge, Mass. (I, II.)

FURSA, CHARLES A., 420 Sheffield Avenue, Brooklyn, N. Y. (II.)

GARRETT, HAROLD E., Compensation Insurance Rating Board, Pershing Square Bldg., 125 Park Avenue, New York, N. Y. (II.)

GIROUX, PAUL EMILE, Sun Insurance Company, 276 St. James Street, W., Montreal, Canada. (II.)

GLAZIER, RICHARD L., Union Central Life Insurance Co., Cincinnati, Ohio. (I, III, IV.)

GODDARD, DAVID G., The Travelers Insurance Co., Hartford, Conn. (I, II, III, IV.)

GOULD, WILLIAM, Actuarial Division, Metropolitan Life Insurance Company, 1 Madison Avenue, New York. (I, II, III, IV.)

GOZZI, DANTE, American Mutual Liability Insurance Company, 142 Berkeley Street, Boston, Mass. (I.)

HAM, HUGH P., British American Assurance Co., 807 Electric Railway Chambers, Winnipeg, Manitoba, Canada. (II, III, IV.)

HIBBARD, DONALD L., Group Insurance Department, Equitable Life Assurance Society, 393 Seventh Avenue, New York. (I, II, III, IV.)

HILL, H. EDWARD, Pennsylvania Indemnity Corporation, 260 So. Broad Street, Philadelphia, Pa. (II.)

JONES, CHARLES H., Metropolitan Life Insurance Company, 1 Madison Avenue, New York. (I, II, III, IV.)

KLEINBERG, SAMUEL L., 813 Park Avenue, Brooklyn, New York. (I, II, III, IV.)

KNOWLES, FREDERICK, Montreal Life Insurance Co., 625 Burnside Place, Montreal, Canada. (I, II, III, IV.)

KWASHA, HERMAN, Travelers Insurance Company, Hartford, Conn. (I, II, III, IV.)

LAING, CHARLES B., Prudential Insurance Company, Newark, N. J. (I, II, III, IV.)

LAIRD, W. DARRELL, Great West Life Assurance Co., Winnipeg, Manitoba, Canada. (I, II, III, IV.)

LEARSON, RICHARD J., Associate Actuary, Western & Southern Life Insurance Co., Cincinnati, Ohio. (I, II, III, IV.)

LEHANE, LEO J., Central Life Insurance Co., Chicago, Ill. (I, II, III, IV.)

LEWIS, BARNET, 3912 Laval Street, Montreal, Canada. (I, II, III, IV.)

LLOYD, WILLIAM M., The Travelers Insurance Co., Hartford, Conn. (I, II.)

LOADMAN, ARTHUR E., 665 Elgin Avenue, Winnipeg, Manitoba, Canada. (I, II, III, IV.)

MCCORMICK, W. S., Aetna Life Insurance Company, Hartford, Conn. (II.)

MOORE, HAROLD P. H., Great West Life Assurance Co., Winnipeg, Manitoba, Canada. (I, II, III, IV.)

MOSCOVITCH, NATHAN A., 90 Monck Avenue, Norwood, Manitoba, Canada. (III, IV.)

MULLANS, G. ROBERT, The Travelers Insurance Co., Hartford, Conn. (I, II, III, IV.)

MUTH, A. F., Actuarial Department, London Life Insurance Company, London, Canada. (I, II, III, IV.)

MEYERS, GLEN W., Assistant Actuary, Federal Life Insurance Co., 168 North Michigan Avenue, Chicago, Ill. (I, II.)

NOWAK, L. EDWARD, New York Insurance Department, 80 Centre Street, New York. (II.)

STUDENTS

ORLOFF, CONRAD, Prudential Insurance Company, Newark, New Jersey. (I, II, III, IV.)

PRASOW, ROSE, Actuarial Department, Confederation Life Association, Toronto, Ontario, Canada. (I, II, III, IV.)

RINTOUL, JOHN W., Canada Life Assurance Co., Toronto, Ontario, Canada. (I, II, III, IV.)

ROBERTSON, ARTHUR G., Government Insurance Department, Ottawa, Ontario, Canada. (I, II, III, IV.)

ROOD, HENRY F., Lincoln National Life Insurance Company, Fort Wayne, Ind. (I, II, III, IV.)

ROSENQUIST, ROY, Travelers Insurance Company, 175 W. Jackson Boulevard, Chicago, Ill. (I.)

SAYER, EDWARD D., General Reinsurance Corporation, 90 John Street, New York. (I, II.)

SCHWARTZ, RICHARD T., Actuarial Department, New York Life Insurance Co., 51 Madison Avenue, New York. (I, II, III, IV.)

SMITH, ROSEMARY A., Statistical Bureau, Metropolitan Life Insurance Co., 1 Madison Avenue, New York. (II.)

SPELLER, S. I., Illinois Bankers Life Assurance Co., Monmouth, Ill. (I, II, III, IV.)

SUTHERLAND, HENRY M., Actuarial-Department, Sun Life Assurance Co., Montreal, Canada. (I, II, III, IV.)

THOMPSON, EMERSON W., Travelers Insurance Co., Hartford, Conn. (I, II, III, IV.)

UHLIG, GUSTAV H., JR., Liberty Mutual Insurance Co., 10 East 40th Street, New, York. (III.)

URDAHL, VALESKA, Federal Life Insurance Co., 168 North Michigan Avenue, Chicago, Ill. (I.)

WALL, DEAN, Actuarial Department, General American Life Insurance Co., St. Louis, Mo. (I, II, III, IV.)

WALSH, JAMES V., Travelers Insurance Co., Hartford, Conn. (I, II.)

WARD, ROBERT G., Columbian National Life Insurance Co., Boston, Mass. (I, II, III, IV.)

WARTELL, BEN, 2340-63rd Street, Brooklyn, N. Y. (I.)

WHITE, AUBREY, 97 Chaplin Crescent, Toronto, Ontario, Canada. (I.)

WILSON, JOHN F., Manufacturers Life Insurance Co., Toronto, Canada. (I, II, III, IV.)

WOLFE, HERBERT, 314 Pulaski Street, Brooklyn, N. Y. (I, II, III.)

WOLF, LEROY J., Metropolitan Life Insurance Co., 1 Madison Avenue, New York. (I, III.)

WOLFMAN, MAURICE, 485 Pritchard Avenue, Winnipeg, Manitoba, Canada. (I, II, III, IV.)

WOOD, DONALD M., JR., Childs & Wood, 175 West Jackson Blvd., Chicago, Ill. (I, II.)

YATES, J. ARNOLD, Travelers Insurance Co., Hartford, Conn. (I, II, III, IV.)

YOUNG, WALTER, Prudential Insurance Company, Newark, N. J. (I, II, III, IV.)

CONSTITUTION

(As Amended November 23, 1928)

Article I.—*Name.*

This organization shall be called the Casualty Actuarial Society.

Article II.—*Object.*

The object of the Society shall be the promotion of actuarial and statistical science as applied to the problems of casualty and social insurance by means of personal intercourse, the presentation and discussion of appropriate papers, the collection of a library and such other means as may be found desirable.

The Society shall take no partisan attitude, by resolution or otherwise, upon any question relating to casualty or social insurance.

Article III.—*Membership.*

The membership of the Society shall be composed of two classes, Fellows and Associates. Fellows only shall be eligible to office or have the right to vote.

The Fellows of the Society shall be the present members and those who may be duly admitted to Fellowship as hereinafter provided. Any Associate of the Society may apply to the Council for admission to Fellowship. If the application shall be approved by the Council with not more than three negative votes the Associate shall become a Fellow on passing such final examination as the Council may prescribe. Otherwise no one shall be admitted as a Fellow unless recommended by a duly called meeting of the Council with not more than three negative votes followed by a three-fourths ballot of the Fellows present and voting at a meeting of the Society.

Any person may, upon nomination to the Council by two Fellows of the Society and approval by the Council of such nomination with not more than one negative vote, become enrolled as an Associate of the Society, provided that he shall pass such examination as the Council may prescribe. Such examination may be waived in the case of a candidate who for a period of not less than two years has been in responsible charge of the statistical or actuarial department of a casualty insurance organization or has had such other practical experience in casualty or social insurance as in the opinion of the Council renders him qualified for Associateship.

Article IV.—*Officers and Council.*

The officers of the Society shall be a President, two Vice-Presidents, a Secretary-Treasurer, an Editor, and a Librarian. The Council shall be composed of the active officers, nine other Fellows and, during the four years following the expiration of their terms of office, the ex-Presidents and ex-Vice-Presidents. The Council shall fill vacancies occasioned by death or resignation of any officer or other member of the Council, such appointees to serve until the next annual meeting of the Society.

ARTICLE V.—*Election of Officers and Council.*

The President, Vice-Presidents, and the Secretary-Treasurer shall be elected by a majority ballot at the annual meeting for the term of one year and three members of the Council shall, in a similar manner, be annually elected to serve for three years. The President and Vice-Presidents shall not be eligible for the same office for more than two consecutive years nor shall any retiring member of the Council be eligible for re-election at the same meeting.

The Editor and the Librarian shall be elected annually by the Council at the Council meeting preceding the annual meeting of the Society. They shall be subject to confirmation by majority ballot of the Society at the annual meeting.

The terms of the officers shall begin at the close of the meeting at which they are elected except that the retiring Editor shall retain the powers and duties of office so long as may be necessary to complete the then current issue of *Proceedings*.

ARTICLE VI.—*Duties of Officers and Council.*

The duties of the officers shall be such as usually appertain to their respective offices or may be specified in the by-laws. The duties of the Council shall be to pass upon candidates for membership, to decide upon papers offered for reading at the meetings, to supervise the examination of candidates and prescribe fees therefor, to call meetings, and, in general, through the appointment of committees and otherwise, to manage the affairs of the Society.

ARTICLE VII.—*Meetings.*

There shall be an annual meeting of the Society on such date in the month of November as may be fixed by the Council in each year, but other meetings may be called by the Council from time to time and shall be called by the President at any time upon the written request of ten Fellows. At least two weeks' notice of all meetings shall be given by the Secretary.

ARTICLE VIII.—*Quorum.*

Seven members of the Council shall constitute a quorum. Twenty Fellows of the Society shall constitute a quorum.

ARTICLE IX.—*Expulsion or Suspension of Members.*

Except for non-payment of dues no member of the Society shall be expelled or suspended save upon action by the Council with not more than three negative votes followed by a three-fourths ballot of the Fellows present and voting at a meeting of the Society.

ARTICLE X.—*Amendments.*

This constitution may be amended by an affirmative vote of two-thirds of the Fellows present at any meeting held at least one month after notice of such proposed amendment shall have been sent to each Fellow by the Secretary.

BY-LAWS

(As Amended May 21, 1926)

Article I.—*Order of Business.*

At a meeting of the Society the following order of business shall be observed unless the Society votes otherwise for the time being:

1. Calling of the roll.
2. Address or remarks by the President.
3. Minutes of the last meeting.
4. Report by the Council on business transacted by it since the last meeting of the Society.
5. New membership.
6. Reports of officers and committees.
7. Election of officers and Council (at annual meetings only).
8. Unfinished business.
9. New business.
10. Reading of papers.
11. Discussion of papers.

Article II.—*Council Meetings.*

Meetings of the Council shall be called whenever the President or three members of the Council so request, but not without sending notice to each member of the Council seven or more days before the time appointed. Such notice shall state the objects intended to be brought before the meeting, and should other matter be passed upon, any member of the Council shall have the right to re-open the question at the next meeting.

Article III.—*Duties of Officers.*

The President, or, in his absence, one of the Vice-Presidents, shall preside at meetings of the Society and of the Council. At the Society meetings the presiding officer shall vote only in case of a tie, but at the Council meetings he may vote in all cases.

The Secretary-Treasurer shall keep a full and accurate record of the proceedings at the meetings of the Society and of the Council, send out calls for the said meetings, and, with the approval of the President and Council, carry on the correspondence of the Society. Subject to the direction of the Council, he shall have immediate charge of the office and archives of the Society.

The Secretary-Treasurer shall also send out calls for annual dues and acknowledge receipt of same; pay all bills approved by the President for expenditures authorized by the Council of the Society; keep a detailed account of all receipts and expenditures, and present an abstract of the same at the annual meetings, after it has been audited by a committee of the Council.

The Editor shall, under the general supervision of the Council, have charge of all matters connected with editing and printing the Society's publications. The *Proceedings* shall contain only the proceedings of the meetings, original papers or reviews written by members, discussions on said papers and other matter expressly authorized by the Council.

The Librarian shall, under the general supervision of the Council, have charge of the books, pamphlets, manuscripts and other literary or scientific material collected by the Society.

ARTICLE IV.—*Dues.*

The dues shall be ten dollars for Fellows payable upon entrance and at each annual meeting thereafter, except in the case of Fellows not residing in the United States, Canada, or Mexico, who shall pay five dollars at the time stated. The dues shall be five dollars for Associates payable upon entrance and each annual meeting thereafter until five such payments in all shall have been made; beginning with the sixth annual meeting after the admission of an Associate as such the dues of any Associate heretofore or hereafter admitted shall be the same as those of a Fellow. The payment of dues will be waived in the case of Fellows or Associates who have attained the age of seventy years.

It shall be the duty of the Secretary-Treasurer to notify by mail any Fellow or Associate whose dues may be six months in arrears, and to accompany such notice by a copy of this article. If such Fellow or Associate shall fail to pay his dues within three months from the date of mailing such notice, his name shall be stricken from the rolls, and he shall thereupon cease to be a Fellow or Associate of the Society. He may, however, be reinstated by vote of the Council, and upon payment of arrears of dues.

ARTICLE V.—*Designation by Initials.*

Fellows of the Society are authorized to append to their names the initials F. C. A. S.; and Associates are authorized to append to their names the initials A. C. A. S.

ARTICLE VI.—*Amendments.*

These by-laws may be amended by an affirmative vote of two-thirds of the Fellows present at any meeting held at least one month after notice of the proposed amendment shall have been sent to each Fellow by the Secretary.

EXAMINATION REQUIREMENTS

SYLLABUS OF EXAMINATIONS

Effective 1934 and thereafter

SUBJECTS

ASSOCIATESHIP:

PART I

Section 1. *Advanced algebra*
Section 2. *Compound interest and annuities certain*

PART II

Section 3. *Descriptive and analytical statistics*
Section 4. *Elements of accounting, including double-entry bookkeeping*

PART III

Section 5. *Finite differences*
Section 6. *Differential and integral calculus*

PART IV

Section 7. *Probabilities*
Section 8. *Elements of the theory of life contingencies; life annuities; life assurances*

FELLOWSHIP:

PART I

Section 9. *Policy forms and underwriting practice in casualty insurance*
Section 10. *Investments of insurance companies*

PART II

Section 11. *Insurance law and legislation*
Section 12. *Economics of insurance*

PART III

Section 13. *Calculation of premiums and reserves for casualty (including social) insurance*
Section 14. *Advanced practical problems in casualty (including social) insurance statistics*

PART IV

Section 15. *Advanced problems and practical methods of casualty insurance accounting*
Section 16. *Advanced problems in underwriting, administrative and service elements of casualty (including social) insurance*

To assist students in preparation for the examinations, Recommendations for Study have been prepared. This lists the texts, readings and technical material which must be mastered by the candidates. Textbooks are loaned to candidates by the Society.

RULES REGARDING EXAMINATIONS FOR ADMISSION TO THE SOCIETY

(As Amended November 14, 1935)

The Council adopted the following rules providing for the examination system of the Society:

1. Examinations will be held on the third Wednesday and following Thursday during the month of May in each year in such cities as will be convenient for three or more candidates.

2. Application for admission to examination should be made on the Society's blank form, which may be obtained from the Secretary-Treasurer. No applications will be considered unless received before the fifteenth day of February preceding the dates of examination. Applications should definitely state for what parts the candidate will appear.

3. The examination fee is $2.00 for each part, with a minimum of $5.00 for each year in which the candidate presents himself; thus for one or two parts, $5.00, for three parts, $6.00, etc. Examination fees are payable to the order of the Society and must be received by the Secretary-Treasurer before the fifteenth day of February preceding the dates of examination.

4. The examination for Associateship consists of four parts. No candidate will be permitted to present himself for any part of the examination unless he has previously passed, or shall concurrently present himself for and submit papers for, all preceding parts. If a candidate takes two or more parts in the same year and passes in one and fails in the other, he will be given credit for the part passed. Upon the candidate having passed all four parts he will be enrolled as an Associate, provided he presents evidence of at least one year of experience in actuarial, accounting or statistical work in casualty insurance offices or in the teaching of casualty insurance science at a recognized college or university, or other evidence of his knowledge of actuarial, accounting or statistical work as is satisfactory to the Council.*

* Candidates who have had no insurance experience, or whose experience is limited exclusively to life insurance companies, or who have not had one year of casualty insurance experience, will not be enrolled as Associates after passing all four Parts, until they have had one year of casualty insurance experience; however, candidates not having one year of casualty insurance experience may, in accordance with a ruling of the Committee on Admissions, be enrolled as Associates upon passing the examination for Fellowship Parts I and II.

EXAMINATION REQUIREMENTS

5. The examination for Fellowship is divided into four parts. No candidate will be permitted to present himself for any part of the examination unless he has previously passed, or is then also presenting himself for all preceding parts. If a candidate takes two or more parts in the same year and passes in one and fails in the others, he will be given credit for the part passed.

6. As an alternative to the passing of Parts III and IV of the Fellowship Examination, a candidate may elect to present an original thesis on an approved subject relating to casualty or social insurance. Such thesis must show evidence of ability for original research and the solution of advanced problems in casualty insurance comparable with that required to pass Parts III and IV of the Fellowship Examination, and shall not consist solely of data of an historical nature. Candidates electing this alternative should communicate with the Secretary-Treasurer and obtain through him approval by the Examination Committee of the subject of the thesis. In communicating with the Secretary-Treasurer, the candidate should state, in addition to the subject of the thesis, the main divisions of the subject and general method of treatment, the approximate number of words and the approximate proportion to be devoted to data of an historical nature. All theses must be in the hands of the Secretary-Treasurer before the third Wednesday in May of the year in which they are to be considered. Where Parts I and II of the Fellowship examination are not taken during the same year, no examination fee will be required in connection with the presentation of a thesis. All theses submitted are, if accepted, to be the property of the Society and may, with the approval of the Council, be printed in the *Proceedings*.

In order to assist students preparing to take the examinations for Associateship, the answers to the examination questions in past years have been prepared and may be had at cost upon application to the Secretary-Treasurer.

EXAMINATION REQUIREMENTS

Waiver of Examinations for Associate

The examinations for Associate will be waived under Article III of the Constitution only in case of those candidates who meet the following qualifications and requirements:

1. The candidate shall be at least thirty-five years of age.
2. The candidate shall have had at least ten years' experience in casualty actuarial or statistical work or in a phase of casualty insurance which requires a working knowledge of actuarial or statistical procedure or in the teaching of casualty insurance principles in colleges or universities. Experience limited exclusively to the field of accident and health insurance shall not be admissible.
3. For the two years preceding date of application, the candidate shall have been in responsible charge of the actuarial or statistical department of a casualty insurance organization or of an important division of such department or shall have occupied an executive position in connection with the phase of casualty work in which he is engaged, or, if engaged in teaching, shall have attained the status of a professor.
4. The candidate shall have submitted a thesis approved by the Examination Committee. Such thesis must show evidence of original research and knowledge of casualty insurance and shall not consist solely of data of an historical nature. Candidates electing this alternative should communicate with the Secretary-Treasurer and obtain through him approval by the Examination Committee of the subject of the thesis. In communicating with the Secretary-Treasurer, the candidate should state, in addition to the subject of the thesis, the main divisions of the subject and general method of treatment, the approximate number of words and the approximate proportion to be devoted to data of an historical nature.

Library

The Society's library has practically all of the books listed in the Recommendations for Study, as well as others on casualty actuarial matters. Candidates and students may have access to the library by receiving from the Society's Secretary the necessary credentials. Books may be withdrawn from the library for a period of two weeks upon payment of a small service fee and necessary postage.

The library is in the immediate charge of Miss Mabel B. Swerig, Librarian of the Insurance Society of New York, 100 William Street, New York City.

1935 EXAMINATIONS OF THE SOCIETY

MAY 15 AND 16, 1935

EXAMINATION FOR ADMISSION AS ASSOCIATE

PART I

1. (a) Solve the following equation:

$$\frac{1}{\sqrt{x+1}} - \frac{1}{\sqrt{x-1}} + \frac{1}{\sqrt{x^2-1}} = 0$$

   (b) What is the maximum distance an elastic ball will traverse before coming to rest if it be dropped from a height of 30 feet and if after each fall it rebounds one-third of the height from which it falls?

2. (a) Expand $\left(\frac{a+x}{a-x}\right)^{\frac{1}{2}}$ to 6 terms in a series of ascending powers of x.

   (b) A wine-seller has 40 gallons of wine. As soon as he has sold half a gallon he mixes with the remainder half a gallon of water. How often can he repeat this process before the amount of wine in the mixture is less than half of the 40 gallons?

   Given: $\log 2 = .3010$, $\log 79 = 1.8976$

3. Find two numbers such that their sum multiplied by the sum of their squares is 65 and their difference multiplied by the difference of their squares is 5.

4. (a) Find the sum of all numbers greater than 10,000 formed by using the digits 1, 3, 5, 7, 9, no digit being repeated in any number.

   (b) Find the number of selections and arrangements that can be made by taking four letters from the word *expression.*

5. Develop a formula for the present value of an annuity of 1 per annum payable p times a year for n years with interest convertible annually.

6. A debt of \$10,000 must be retired in five years in equal monthly payments. Calculate the monthly payment if money is worth 6% effective.

Given $v^5 = .74726$, $1.06^{1/12} = 1.0048676$ (at 6%).

7. A debt of \$1,000 is to be repaid, principal and interest at 3% annually, in a series of equal payments at the end of each year for 20 years. Find to the nearest dollar the amount of principal repaid after the eleventh payment.

Given $v = .9709$, $v^{10} = .7441$, $v^{20} = .5537$ (at 3%).

8. A bond for \$10,000 yields 6% nominal, payable semi-annually, and is to be redeemed at par after 5 years. At what price must it be bought to yield 4% nominal, convertible semi-annually? Complete an amortization schedule showing the book value, the net income, and the amount of amortization of the premium at the end of every dividend period.

Given $a_{\overline{10}|}$ at $2\% = 8.9826$.

PART II

1. (a) Enumerate several methods of smoothing statistical data. Describe and discuss each briefly.

   (b) What information is given about a frequency distribution by the datum σ/Mean. Analyze the expression.

2. (a) Explain the term "probable error". Write formulas for the probable errors of the arithmetic mean and the coefficient of correlation in normal frequency distributions.

   (b) What are index numbers and what purposes do they serve?

3. Fit a straight line by the method of least squares to the following points:

(1, 3) (2, 2) (3, 3) (4, 6) (5, 4) (6, 7) (7, 5)

4. Write down the usual expression for Pearson's coefficient of correlation and state its limiting values. Show that it can be written as

$$\frac{\Sigma d_x\, d_y}{\sqrt{\Sigma d_x^2\ \Sigma d_y^2}}$$

where d_x and d_y represent the deviations of the values of the two variables, respectively, from their arithmetic means; compute the coefficient for the following statistics and interpret the result.

x series	0	1	2	3	4	5	6	7	8	9	10
y series	13	12	12	9	10	8	7	5	5	2	5

5. (a) Define or otherwise indicate the meaning of the following accounting terms: mixed account, current assets, controlling account, adjusting and closing entries.

   (b) In a wholesaling business it is desirable to obtain from the ledger the volume of business done with various customers. What journal entries should be made when the consideration in a sale is a note receivable from the vendee?

6. and 7.

The following are the balances of the general ledger of A. Person as of December 31, 1934:

	Debits	*Credits*
Cash	$ 2,347.64	
Accounts Receivable	5,096.24	
Merchandise Inventory, 12/31/33	5,187.51	
Furniture and Fixtures	1,210.00	
Accounts Payable		$ 5,486.19
A. Person, Capital		10,000.00
Sales		19,478.90
Sales Returns and Allowances	467.70	
Purchases	16,580.20	
In Freight	279.80	
Salaries	2,250.00	
Stationery and Supplies	150.00	
Insurance	110.00	
Rent	1,200.00	
Bad Debts	86.00	
	$34,965.09	$34,965.09

The merchandise inventory at December 31, 1934 was $8,472.60, accrued salaries amounted to $100.00, depreciation of furniture and fixtures was estimated at 10% of the book value, and bad debts at 3% of the accounts receivable.

6. Make the adjusting and closing journal entries.

7. Prepare a profit and loss statement and a balance sheet.

8. You have audited the books of account underlying the trial balance given for Question 7, and found that the following transactions had taken place:

   (a) Furniture and fixtures were sold for $520.00 and that amount has been included in the sales of $19,478.90.

   (b) $50.00 was received from an insurance company for the loss in transit of merchandise, and was credited to the insurance account.

   Explain fully what adjustments you would make because of these transactions, and their effect upon the profit and loss statement and the balance sheet.

PART III

1. (a) The amount of $1.00 at interest for 50 years
   at 2½% = 3.4371
   at 3 % = 4.3839
   at 3½% = 5.5849
   at 4 % = 7.1067
   Find the amount at 3¾%.

   (b) Explain how, in differencing rational integral functions, differences are finally reached which are zero.

2. (a) Given $u_0 = 30$, $u_1 = 30$, $u_3 = 25$, $u_6 = 20$, find the value of u_2, u_4, and u_5.

   (b) Give Lagrange's interpolation formula and state under what circumstances its use is advantageous.

3. Sum the series 1, 5, 17, 53, 161, $\cdots$ to n terms by the method of finite differences.

4. (a) Derive the formula for differentiation of the quotient of two differentiable functions of the same variable.

   (b) Find $\frac{d^2y}{dx^2}$, given $x^3 + y^3 + 3xy = 0$.

5. (a) Differentiate the function $y = \log \sqrt{\frac{1 + \sin x}{1 - \sin x}}$

   (b) Find $\int \frac{(8x + 2)}{x - x^3}\, dx$

6. A man in a boat 2 miles from the nearest point A on the shore wishes to reach as quickly as possible a point B which is 4 miles distant from the point A along the shore. If he walks twice as fast as he rows find the distance from A at which he should land.

7. Prove that the area bounded by the parabola $y^2 = 4ax$, the axis of x, and any ordinate is two-thirds of the rectangle contained by the ordinate and the intercept on the axis of x.

8. By means of Maclaurin's series expand a^x into a power series in x, and determine for what values of x the series is convergent.

PART IV

1. (a) Two persons, A and B, throw alternately with a single die and he who first throws an ace is to receive \$1. What are their respective expectations?

   (b) In a lottery there are 1,000 tickets numbered 1 to 1,000. Three tickets are drawn. Find the chance (1) that the three tickets bear consecutive numbers and (2) that two of the three tickets bear consecutive numbers.

2. (a) Find the chance that in seven throws with a pair of dice (each having six faces marked 1 to 6) the sum of the readings will be 9 in exactly three of the seven trials.

   (b) A can hit a target four times in five shots, B three times in four shots, C twice in three shots. They fire a volley. What is the probability that two shots at least hit?

3. A throws two dice with faces marked 1 to 6; B tosses four flat counters marked 1 on one side and 6 on the reverse side. What is the probability that B's total is exactly double A's total?

4. A and B are two inaccurate arithmeticians whose chance of solving a given problem correctly are ⅛ and 1/12 respectively; if they obtain the same result and if it is 1,000 to 1 against their making the same mistake, find the chance that the result is correct.

5. Explain the meaning of the following symbols and give the expression for each of them in terms of commutation symbols:

(a) $|_n\mathbf{a}_x$ (b) $_n|A_x$ (c) $_nV_x$ (d) $a_{x|y}$

6. Find the rate of interest

(a) Given $D_x = 1361$ $l_x = 14062$
$D_{x+1} = 1146$ $l_{x+1} = 12194$
(b) Given $A_x = .32154$ and $\mathbf{a}_x = 23.294$
(c) Given $N_\omega = .04357$ and $C_\omega = .04230$

7. Outline and explain a procedure for calculating the value of a_{xy} having available a Makehamized mortality table with columns of the force of mortality, D_{ww}, and N_{ww}.

8. A company provides pensions to retired employees of $1,000 a year payable at the end of each year for life, and $500 as a burial benefit upon the death of a pensioner. What is the value of the above to a pensioner aged 60, given
$D_{60} = 7351.65$, $N_{60} = 81{,}106.4$, $M_{60} = 4608.9$?

EXAMINATION FOR ADMISSION AS FELLOW

PART I

1. (a) In what lines of casualty insurance does a loss reduce the amount of insurance available? Discuss the justification for this.

(b) Explain and illustrate the "concurrent insurance" clause of a plate glass policy.

2. (a) A has an Automobile Public Liability policy carrying the omnibus clause. B operates the car without a driver's license but he has A's knowledge and consent to such operation. In the event B has an accident, injuring a third party, what coverage is afforded to A and B respectively under the policy?

(b) What underwriting bases are available to an automobile storage garage or service station desiring automobile public liability insurance?

3. (a) State briefly the subject matter of the following Conditions of the Residence, Burglary, Robbery, Theft and Larceny policy:
   (1) Permissible Vacancy
   (2) Exclusions
   (3) Notice of Loss
   (4) Subrogation

   (b) What data are included in the Declarations of this policy?

4. (a) What coverage for occupational diseases under paragraphs 1 (a) and 1 (b) of the Standard Workmen's Compensation and Employers' Liability policy is contemplated by the manual rates for each of the following:
   1. The states in which all occupational diseases are under the compensation law.
   2. The states in which occupational diseases are not under the compensation law.
   3. The states in which some occupational diseases are under the compensation law and other diseases are not.

   (b) What are the provisions of the Workmen's Compensation Manual with regard to premium calculations: (1) where board and lodging are furnished the employee; (2) where gratuities or "tips" constitute a part of the employee's earnings; (3) with regard to Executive Officers.

5. (a) Distinguish between corporate suretyship and insurance.

   (b) Explain the coverage provided under the Product Public Liability policy with respect to
   1. Claims from accidents occurring during the policy period but arising from products sold prior to the effective date of the policy.
   2. Claims from accidents occurring after the expiration date but resulting from products sold during the policy period.

6. (a) What general principles would govern your selection of investments for a casualty insurance company?

   (b) Discuss the merits of the following classes of investments for a casualty company, with due regard to current conditions:

   1. Insurance stocks
   2. Industrial stocks—preferred
   3. Mortgage bonds
   4. Railroad bonds
   5. Mortgages on city property

7. Indicate what you consider to be a good average percentage distribution of admitted assets among the following items for an insurance company engaged in (a) fire insurance; (b) life insurance; (c) casualty insurance:

   Real Estate
   Mortgage Loans
   Collateral Loans
   Loans on Policies
   Bonds
   Stocks
   Cash in offices and banks
   Unpaid premiums
   All other assets

   Give reasons for your answer.

8. Why has the National Convention of Insurance Commissioners prescribed at times a standard of valuation, other than current market quotations, for stocks and bonds? What are the advantages and disadvantages of such a valuation program? What basis of valuation was prescribed for casualty companies as of December 31, 1934?

PART II

1. To what extent in New York State may the fields of life, fire and casualty insurance overlap? Discuss the advantages and disadvantages to policyholders and to casualty companies of the law in so far as it restricts the field of casualty insurance.

2. What is the status under the New York Compensation Act of
   (a) A minor
   (b) A stevedore
   (c) A railway employee
   (d) An emergency relief employee

3. (a) Company A writes an Automobile Liability policy for John Roe for 20/40 limits. Company A reinsures the liability of this policy in excess of 5/10 limits with Company B. An accident occurs and before the claim is settled, Company A becomes insolvent. A verdict of $20,000 to one person is given against John Roe. What have the courts decided the liability of Company B to be? To what extent is the policyholder indemnified for his loss?

   (b) A company's agent, who was also cashier of a bank, wrote a burglary and robbery policy covering the bank. At the time he wrote the policy he had knowledge of a contemplated holdup. The holdup occurred. The company denies liability on the ground that the insured concealed facts material to the risk. The bank contends that any knowledge which its cashier had of the contemplated holdup became the knowledge of the company by virtue of the fact that the cashier was also agent for the company. Is the company liable?

4. Discuss the advantages and the disadvantages of the Massachusetts Compulsory Automobile Liability Insurance Law as compared with the New York Motor Vehicle Financial Responsibility Act.

5. To what extent are rates for the following casualty lines subject to the supervision of state insurance authorities:
   (a) Workmen's Compensation
   (b) Automobile Liability
   (c) Burglary

6. (a) Enumerate five ways in which risk may be reduced by business firms.

(b) What methods may be employed by insurance companies to reduce the shock of catastrophe losses?

7. Outline what you consider to be the essential features of a complete social insurance scheme. To what extent is your scheme effective in the United States today?

8. (a) To what extent does the Wisconsin Unemployment Compensation Act represent insurance within the usual definition of the word?

(b) There is an increasing tendency for hospitals to devise a medical service program for individuals and their families whereby a specified number of weeks of hospital care will be available annually in the event of accident or illness. A periodic fee is charged for such service. Do you consider this to be a desirable development? Does this constitute an encroachment into the field of insurance companies?

PART III

1. Discuss the comparative merits of two rate-making programs for liability lines, one of which tends to produce small fluctuations in loss ratios from year to year, the other of which tends to produce small fluctuations in the rate level from year to year.

2. Define "incurred but not reported claims." Outline a method of setting up reserves to cover such claims for automobile public liability.

3. What information is shown in Schedule P—Parts 5 and 5A? What is the purpose of these schedules?

4. (a) What is the purpose in the Workmen's Compensation Experience Rating Plan of (1) payroll modification factors, (2) loss modification factors?

(b) Discuss the effect on loss ratios of minimum and maximum limits to weekly compensation benefits during a period of falling wages.

5. Enumerate the various provisions of the 1934 rate-making program for workmen's compensation insurance.

6. Discuss the inadequacies of the present method of determining credibility for rate-making purposes in the liability lines from the number of claims incurred in the experience period. Is this method better in your opinion than one basing the credibility upon the actual incurred losses? Give reasons for answer.

7. If the automobile public liability loss ratio of your company were increasing rapidly, what investigation would you make to determine the cause?

8. (a) What is the American Accident Table and how is it used in connection with the determination of workmen's compensation rates?

   (b) The experience on a certain liability line shows total standard limits losses to be $8,700,000, total losses amounting to not more than $100 per claim to be $1,450,000, the number of claims in excess of $100 each to be 21,500. Calculate the discount from manual rates indicated for deductible coverage with an assured's retention of $100 per claim, given the following breakdown of the manual premium dollar:

Losses	.473
Allocated Claim Expense	.037
Unallocated Claim Expense	.080
Inspection	.035
General Administration	.075
Production, Taxes and Profit	.300

PART IV

1. What schedule in the Annual Statement do you believe could best be improved so as to be of more value both to insurance commissioners and to insurance companies without undue expense to the companies? Outline your suggestions for improving it, giving reasons.

2. (a) Explain the reasons for the difference between the liability loss reserves as shown in the Annual Statement and as shown in the Casualty Experience Exhibit.

   (b) If the expense loadings for the casualty lines were to be revised on the basis of the New York Casualty Experience Exhibit, would the expense loadings thus developed include provision for investment expenses? Give reasons for answer.

3. Design a form to be used by carriers in reporting compensation premiums and losses by state, which will show developments of policy year figures up to 60 months and which can also be used to determine current calendar year results.

4. Design a 45-column punch card for recording and assembling data from the form of question No. 3.

5. Discuss the proposal of a single basic limit of $10,000 per accident to be established for automobile public liability and property damage coverage combined instead of the present limits of $5,000/$10,000 for public liability and $5,000 for property damage.

6. State arguments for and against the establishment of a self-supporting monopolistic state fund to provide coverage for a compulsory line of insurance.

7. Describe the Wisconsin Plan for providing compensation insurance for so-called undesirable risks.

8. What arguments would you present in attempting to convince the president of a medium sized multiple-line casualty company that his organization should include an actuary? State briefly the scope of the work of such an actuary who is without assistants.

CASUALTY ACTUARIAL SOCIETY

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