## OBSERVATIONS ON PENSION FUNDS FOR EMPLOYES RENDERED PERMANENTLY DISABLED BY REASON OF A SECOND INJURY

## BY

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It is clearly the intent of the compensation laws of all of the states that the employe receiving a permanent injury of a serious character which, however, does not prevent his doing some useful work, shall not be regarded as permanently and totally disabled, but rather that he shall be restored to the working force as soon as his recovery from his physical injuries and suitable retraining will permit. This is shown by the fact that even where injuries resulting in permanent total incapacity are compensated with a life pension, permanent injuries of only partially incapacitating nature are compensated with temporary benefits. In some states\* these benefits are based distinctly upon the so-called "rehabilitation theory" and intended to cover a term during which the employe may rehabilitate himself and in other cases this type of benefit appears to have been dictated only by the convenience in settling claims.

The passage of the workmen's compensation laws, however, has tended to handicap the disabled man in getting back into industry. Under liability conditions, when the doctrine of assumption of risk enabled the employer to set up and plead, as a defence against a suit for damages, that the employe had assumed the risk of the industry, there was little likelihood of his having to pay a large claim arising out of the second injury of a workman who was already partially disabled at the time of his employment. But, under the compensation law, when this doctrine is abolished and all cases of injury arising out of the industry are compensable, it is certain the employer or his insurance carrier will have to pay a claim in such cases and because of the previous injury the claim would in most cases, be for permanent total disability with a correspondingly large cost unless some provision to the contrary has been inserted in the law. To this condition is added the fear that a partially

\* e. g., California.

disabled employe is more liable to accident. Consequently a self-insured employer would be less willing to take on an employe already partially disabled and a careful underwriter would look askance at the acceptance of a risk where he knew there were employed a number of workers who had sustained serious partially disabling injuries of a permanent nature.

This was the situation under the New York law as originally passed and is yet the condition in several states. It came to the attention of the late John Mitchell, when Chairman of the Industrial Commission of New York and the difficulties of the situation were clearly recognized by him. The smaller cost under the compensation law for death benefits when an employe left no dependents than where there were dependents entitled to compensation was also noted by him as a force which tended to the discrimination against the employment of men with families and in favor of single men. To the extent that the cost of such cases can be equalized with the cost of cases where dependents are left, this force would be diminished. It therefore occurred to Mr. Mitchell that the situation in both cases might be helped if the insurance carrier (including, of course, selfinsurers) covering the risk employing the partially incapacitated man were relieved of liability for compensation beyond that specified for the second disabling injury in cases of the first type and a trust fund were created for paying the remainder of the permanent total benefit, the support of such fund being derived from small payments by such carriers in respect to each "no dependency" death case. Accordingly on his initiative the compensation law of New York was amended in 1916 so as to provide for such a trust fund, this fund to be maintained by the payment into the state treasury of \$100 for each "no dependency" death case.

There was some question as to the constitutionality of this provision. The theory was advanced that it was a special and discriminatory tax based upon a false and improper discrimination, but the matter has been liberally construed and in New York no constitutional objection has been found. Objection has been found in some other jurisdiction on these grounds.

A fund created in this way is distinctly a pension fund and has all the difficulties of financial administration which characterize pension funds and certain peculiar ones of its own. These latter arise from the facts that (1) its source of income is not in any way closely associated with the cause of its disbursements, but is a fixed amount per occurrence of fatal cases where no dependents are left, (2) the contingencies covered are of rare and infrequent occurrence, but very costly when occurring, making a determination of their probability and expected cost most difficult, and (3) there is no provision either for meeting a deficit or for disposing of a surplus. Hence there is no way, without new legislation, to adjust income and outgo, or meet any contingencies which may arise.

From the technical, actuarial point of view, it would appear that the revenue of such a fund should be in some way more closely associated with the cause of its disbursements, perhaps, for example, being a function of the cost of major permanent disability cases, from among which must arise the cases of second injury which cause the disbursement. However, actuarial refinements must always give place to broad questions of social policy and if social advantages can be gained by deriving the income from the "no dependency" death cases this must be accepted as a basis.

All pension funds, when not critically examined from an actuarial standpoint, have the common characteristics of appearing to accumulate a handsome surplus for a considerable period of vears after their inauguration, even though in actual fact their revenues may not be sufficient to meet their ultimate outgo. It is often only after a period of years, and sometimes after it is too late to effect a remedy, that the difficulty is discovered. Funds of the type in question share this peculiarity, since the revenue comes in immediately on the happening of the "no dependency" death cases, but the disbursements for compensation are spread over a long period of time and do not begin, under the New York law, until at least two and one-half years after the injury has taken place.\* For some types of cases the interval is much longer. There is further no provision in the New York law, nor, I believe, in the laws of other states, for special notice to the administration of the pension fund that cases are due to come upon the fund until at, or near, the termination of the period during which the insured is paying

\* For other states the periods are somewhat different.

the benefits. This tendency of the fund will perhaps be made clearer by an illustration.

We may assume, for purposes of illustration, that in New York there occur 150 "no dependency" fatal cases each year, and there also occur annually 2 cases of the loss of an eye to an employe who has already lost the sight of the other eye. The present value of the future compensation in such cases averages close to \$10,000 each. For purposes of convenience we may also assume that these cases occur exclusively at the middle of the year. The carrying company will pay compensation for 128 weeks on these cases so that they will not come upon the trust fund until the third year and then only for two weeks. It will also simplify the problem and not invalidate the principle if we ignore the element of interest.

Under the above conditions the following table will show the progress of such a fund for the first eleven years from its inception:

SIMPLE EXAMPLE OF THE GROWTH OF A FUND ACCUMULATED WITHOUT INTEREST BY THE PAYMENT OF \$100 EACH FOR 150 DEATH CASES OCCURRING ANNUALLY TO PROVIDE PENSIONS OF \$20 PER WEEK FOR LIFE TO TWO CASES OCCURRING EACH YEAR AT MID-YEAR AND ENTITLED TO RECEIVE THE BENEFIT BEGIN-NING AFTER 128 WEEKS, THE PRESENT VALUE OF EACH CASE BEING ESTIMATED AT \$10,000.

Year	Year's income	Cumulative income	Year's inc'd loss	Cumulative inc'd loss	Year's payments	Cumulative payments
1	15,000	15,000	20,000	20,000		
3	15,000	30,000 45,000	20,000 20,000	40,000 60,000	80*	80
45	15,000	60,000 75,000	20,000 20,000	80,000 100,000	2,160 4,320	2,240 6,560
6 7	15,000 15,000	90,000 105,000	20,000 20,000	$\begin{array}{c} 120,000 \\ 140,000 \end{array}$	$6,480 \\ 8,640 $	13,040 21,680
89	15,000 15,000	$120,000 \\ 135,000$	20,000 20,000	$\begin{array}{c} 160,000 \\ 180,000 \end{array}$	$10,800 \\ 12,960$	$32,480 \\ 45,440$
10 11	15,000 15,000	150,000 165,000	20,000 20,000	200,000 220,000	$13,120 \\ 15,280$	58,560 73,840

\*Two weeks at \$20 on each of two cases.

It will be noted that notwithstanding the fund is piling up a deficit at the rate of \$5,000 a year under the \$100 contribution, it is not until the eleventh year that the cash outgo exceeds the income and in the meantime the fund, including its interest accumulations, will have reached almost, if not quite, \$100,000. During the intervening period the fund will have appeared proportionally even more prosperous. In the illustration it

has also been assumed that no death takes place among the pensioners for the first eleven years. One or more deaths would make the fund appear even more prosperous.

My attention was directed to this provision of the law during the time I was connected with the State Industrial Commission through the receipt of a telegram from the authorities of another state asking how this provision was working because they were contemplating the introduction of this provision into their law. I attempted to investigate and found a considerable amount had been collected but no disbursements had vet been made, the amendment having been passed only about two years before. Nor could I ascertain what claims were likely to come upon the I did find, however, cases in the experience of the State fund. Fund whose present value was alone nearly equal to the amount collected and considering the proportion of business done by other carriers and self-insurers, it seemed to me probable that the revenues of the Fund were insufficient to meet its obligations. This was not found in time to advise against copying the scheme in other states in the same terms. I took this up with different members of the Commission and an investigation was ordered, but up to the time I severed my connection with the Commission, I was not able to obtain the particulars as to cases likely to come on the fund. The result of my suggestion that the revenues might not have been sufficient, however, appears to have borne fruit in the amendment of the law passed at the last (1922) session of the Legislature which increased the payment for each "no dependency" death case to go into this fund from \$100 to \$500.

From such investigation as I was then able to make, it has seemed to me this amount is more than will be necessary to meet the requirements of such a fund and I have, therefore, endeavored to investigate the matter further so far as it is possible. In this investigation I have had the opportunity to go through the experience records, for New York State, of the National Council on Workmen's Compensation Insurance, covering policy years 1916, 1917 and 1918, and through the courtesy of the New York Insurance Department, have been furnished particulars with respect to policy year 1919. During policy years 1916 and 1917, individual reports on major permanent partial disability cases were not called for in Schedule Z. It is, therefore, not entirely

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feasible to check out all the cases accurately from the data of the National Council, inasmuch as such pension cases would be reported by the companies not as "permanent total," but, as "major permanent partial" since this is all the liability the individual carriers would incur. The figures for 1916 and 1917, however, tend to confirm the figures for the other years. Policy year 1918 shows 125 "no dependency" death cases and two cases where the loss of an eye to an injured employe who already had lost the sight of his other eye made the case one which would potentially come upon this fund. There are one or two other cases reported under the major permanent partial for which the particulars are not clear whether or not they will come upon this fund. For policy year 1919 the figures are 109 "no dependency" death cases and 1 pension case.

In view of the limited amount of data available from these sources, I have obtained through the courtesy of Mr. S. B. Perkins, the experience in this regard of the Travelers Insurance Company for the States of Connecticut, Illinois, Massachusetts, New Jersey, New York, Pennsylvania and Maine for policy years 1917, 1918 and 1919. In this experience there were 294 "no dependency" death cases and 2 cases of permanent total disability from second injury, the type of cases which would come upon such a pension fund.

If the figures above quoted are typical it would appear that the revenue provided by the law as now amended will be far more than is needed by this fund and instead of having a deficit to deal with the Industrial Commission and the State Treasurer will have accumulated a handsome surplus.

The need for careful scrutiny of this fund is appreciated by the Insurance Department of New York as may be noted from the following observations appearing in the recent annual report of the Superintendent of Insurance:

"In accordance with section 15, subdivision 7, and section 27 of the Workmen's Compensation Law, the State Industrial Commission has created two trust funds. Under section 15 each carrier or employer is required to pay \$100 to the State treasurer in every death case where there are no dependents. This money is used to compensate injured employees who have become permanently and totally disabled as a result of a second accident. \* \* The statement has been made publicly that the fund created under section 15 is actually insolvent. In view of these facts, it is suggested that next year a law be passed providing that these funds be placed under the supervision of this Department."

The carrying through of this recommendation will be at least one step in the right direction.

It seems to me, however, that something further is necessary and that the legislation as it now is, is fundamentally faulty in the following respects—it provides a fixed revenue which can only be altered by legislative action, and a fixed benefit which likewise can only be modified by legislative action, yet it provides no means for making up a deficit or disposing of a surplus. Neither does it provide for any advance notice for cases which are likely to become claims upon the fund.

It would seem that a much wiser type of legislation, from the actuarial point of view\* would be one which provides:

1. That until a fixed date, the amount payable into the fund for each "no dependency" death case shall be \$100 or some other sum stipulated in the law with the proviso that after that date the amount of such payments shall be periodically revised, either by the Superintendent of Insurance or by the Industrial Commission at least once every five years;

2. That in order to insure adequate notice of cases liable to become claims upon this fund, the insurance carrier shall only be relieved of its liability for taking care of the case as a life pension case in event that notice is given to the Industrial Commission and State Treasurer within a limited time, say 30 or 60 days after the case has been found by the carrier to be such that it will eventually fall upon this fund;

3. That periodically, not less often than once in five years, an actuarial investigation of the fund shall be made by the Superintendent of Insurance or the Industrial Commission, or perhaps both in conjunction, including a determination of assets and liabilities as well as income and disbursements, and a study of the probable future relative rates of occurrence of "no dependency" death cases and pension cases be made;

4. That after each such investigation the amount payable for each "no dependency" death case shall be redetermined as noted in (1) and fixed for the ensuing period of five years, the redetermination to be made in such way as will maintain the fund solvent from an actuarial point of view and yet tend to accumulate

\*I have not investigated what, if any, legal objections there might be to it.

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no more surplus than is reasonably justified by the probabilities of variation either in the rates of income or claims, or in the value of securities held as assets.

In view of the fact that the principle embodied in the New York Law is being extended and incorporated in the laws of several other states, it becomes increasingly important that we should work for the establishment of these funds on a sound actuarial basis.