

THE PERMANENT TOTAL DISABILITY PROVISION IN LIFE INSURANCE POLICIES

BY

EDWARD B. MORRIS

There are many reasons for bringing this subject to the attention of the members of this Society but principally because of the similar elements found in the contracts of non-cancelable accident and health insurance with which you are more familiar. The conditions under which these two coverages are written, however, differ considerably. The permanent total disability provision is a part of a life insurance contract and is not written separately. This fact is of considerable moment when one considers the element of selection. In order to obtain the permanent total disability provision the applicant must pay the relatively larger premium for the life insurance feature of the contract. (The disability income and waiver extra premium on the average is perhaps 10% of the total premium charge.) In order to obtain a relatively large monthly income under the disability provision it is necessary to make a very considerable investment in the life insurance contract. This in itself to some extent safeguards the insurance company against adverse selection. The non-cancelable accident and health contract has not, of course, this protection.

The underwriting of the disability provision has, or should have, much in common with accident and health underwriting. Unfortunately, many life insurance companies do not have in their employ underwriters trained from the accident and health point of view. Furthermore, the handling of disability claims represents a very much more complicated situation than is true of death claims, not only in the original consideration of the claim but in the continued care and observation necessary.

The accident and health companies that have accumulated their experience have much information of value to the life companies, although for reasons already expressed the results may be considerably different, but the fundamental results should not pass by unnoticed.

The accident and health companies have likewise considered the limiting of indemnity in terms of the insured's income as a

necessary fundamental. Earlier accident contracts actually made provision for the prorating of claims to percentage of income, perhaps two-thirds of the income. The life companies have not as yet taken the same care in underwriting, partly because the facts of disability insurance in the various companies have not always been before them and partly because the possibilities of selection have not always been fully realized. It is pleasing to note, however, that many companies now do include in their applications for insurance inquiries to bring out this information to the underwriter.

It is knowledge of this kind, obtained after long experience in handling accident and health business, which will be of value to the life companies in connection with disability claims and I hope that the discussions of this paper may aid in this regard. It is not strange that a purely life company should pass lightly over points which are considered important by accident and health underwriters, particularly when it is realized that there is a certain natural protection under the life contract because of the total premium charged.

The disability provision has undoubtedly played an important part in the rapid increase in popularity of life insurance within the past twenty-five years. Individuals who may not be particularly attracted to life insurance are more likely to buy the coverage because of the features in the disability provision connected therewith and perhaps for a larger amount than would otherwise have been the case. The disability provision is regarded in life insurance circles as a necessary complement to life insurance and in no wise as a frill.

In 1896 The Fidelity Mutual Life Association of Philadelphia,* then doing an assessment business but later changing to the legal reserve plan in 1899, issued a contract with a permanent total disability provision. Historically, this has been assumed to be the forerunner of the disability provision in this country. Fraternal organizations in this country, however, had previously granted permanent total disability benefits, generally of the premium or assessment waiver type, evidently a development of similar provisions abroad. In 1904 The Travelers Insurance Company* announced the first disability provision that provided directly for a premium waiver benefit. Following the action

*See historical note at conclusion of paper.

of The Travelers the life insurance companies, appreciating the possibilities of this feature, began to incorporate the disability provision in their life contracts until today almost without exception the life companies offer some form of permanent total disability coverage. From the premium waiver clause attempts were shortly made to provide some form of yearly cash instalment benefit to the totally and permanently disabled insured. At first these benefits simply provided for a drawing account against the policy, limited to a certain amount yearly, generally \$50.00 for each one thousand dollars of insurance. The plan was the forerunner of the later maturity clause which transformed the value of the insurance at the time of permanent total disability into a life income with a certain number of payments guaranteed, the contract paying the present value of the balance of such instalments at the insured's death. These plans provided for cash benefits to the totally and permanently disabled policyholder partly at the expense of the insurance. In 1916 The Penn Mutual Life Insurance Company of Philadelphia announced the forerunner of the modern annuity provision whereby not only were the premiums waived but a definite income of \$100.00 a year for each one thousand of insurance was granted during disability, the insurance feature remaining unchanged and in force. This is the principal type now used by all companies, although the customary unit of income is \$10.00 a month for each one thousand of insurance.

The earlier clauses were based upon proof of total and permanent disability. Fundamentally, benefits were intended only to those disabled for life, or presumably so disabled. This immediately caused complications. Except in cases of disappearance it is a comparatively easy thing to prove that a man is dead. As a matter of fact, the only concern of the claim departments of life insurance companies is to make sure that the deceased was the insured under the policy of insurance. To determine whether disability will prove to be permanent is obviously a difficult matter—often a matter of opinion. In the earlier days of the development of the disability provision the claim departments of the companies were slow in approving permanent total disability claims because of the difficulty of the proof of permanency. The situation was unsatisfactory and it

was necessary to decide upon a more satisfactory definition of disability, hence, the ninety days and the six months provisions under which total disability lasting for ninety days or six months was considered permanent disability, the insured being entitled to disability benefits as long thereafter as he remained totally disabled. In connection with the ninety days definition, obviously many claims are paid which are of a temporary nature. Disability from typhoid fever for a period exceeding ninety days will call for benefits under this type of clause, although obviously the benefits would run for a very short time until the insured's recovery and his ability to again assume his occupation.

The following is a typical clause defining permanent total disability as found in the policies of one or more companies :

“the insured has become wholly disabled by bodily injuries or disease and will be wholly and continuously prevented thereby from engaging in any employment for wage or profit.”

The development of the disability provision in life contracts has been an interesting one. Unquestionably it offers a strong talking point for the agent in his presentation, a feature which the companies have recognized. To a certain extent this phase has been fostered by some companies. The provisions have been developed in various ways so that the clauses of the various companies now differ in many details. This will perhaps be more clearly seen from the following table which gives a summary of the disability clauses issued in conjunction with life insurance by the fifty largest companies issuing such a provision in 1928, this table being compiled from the practices of companies practically to October 1928.

SUMMARY OF INCOME DISABILITY CLAUSES ISSUED IN CONJUNCTION
WITH LIFE INSURANCE BY THE FIFTY LARGEST COMPANIES
ISSUING SUCH A PROVISION IN 1928

A. Upper Age Limit—

1. 44 companies provide disability coverage until age 60.
2. 6 companies provide disability coverage until age 65.
3. Among the 44 “Age 60” companies, 5 grant coverage to 65 on certain forms, *e. g.*, policies providing for insurance to age 65 with life income thereafter.

B. Modified Coverage over Upper Limit—

1. 40 companies grant no coverage above their upper limits.
2. 9 companies waive premiums as a lien against the insurance.
3. 1 company grants regular premium waiver without lien.

C. Commencement of Income Benefits, given in the Order of their Liberality—

1. 8 companies pay the income from the commencement of disability.
2. 11 companies grant the income from the commencement of disability, but do not date payments back more than a stipulated period prior to receipt of proof.
 - 2 companies, 1 year;
 - 7 companies, 6 months;
 - 2 companies, 90 days.
3. (a) 4 companies pay from commencement, if permanence is proved, but, otherwise, from the end of 3 months following commencement, but do not date payments back more than a stipulated period prior to receipt of proofs. (This period is 6 months or 1 year.)
 - (b) 2 companies pay from commencement if permanence is proved within the first 3 months, otherwise from the end of the third month, but do not date payments back more than 6 months prior to receipt of proofs.
4. 3 companies pay the income from the end of 3 months following commencement, but do not date payments back more than 6 months prior to receipt of proofs.
5. 21 companies pay from receipt of proof; a few of them state "approval of proof."
6. 1 company commences the income 60 days after receipt of proof.

D. Commencement of Premium Waiver Benefit—

In most companies the premium waiver dates from the time of commencement of income. In 1 company premium waiver is granted from commencement but income from receipt of proof.

E. What establishes Permanence—

1. 37 companies consider the disability permanent if it endures for a certain period; 34 of them have the period 90 days (or 3 months), 3 have 6 months; 4 of these companies also have a second clause, 1 of them with a 2 weeks period, another with a 30 days period, and the remaining 2 requiring proof of permanence before commencing payments.
2. 12 companies require proof of permanence before commencing payments and 3 of these in addition require that disability shall have lasted a stipulated period (one 2 months, the others 3 months).
3. 1 company's practice could not be determined from the information at hand.

F. As to the Existence of Disability at Time of Proof—

1. 8 companies do not require that disability exist at time of proof.
2. The 42 others do, although a few clauses are indefinite on this point.

G. The Possibility of Lapse occurring during Disability—

1. In all but 3 companies it is possible that the non-payment of a premium during disability may lapse the policy.
2. 4 companies, while granting premium waiver from commencement, require that premiums be paid until approval of proof, at which time a refund is made; if a premium is more than six months overdue at time of proof it is considered a default.

H. Disability Income as affected by the Maturity of Endowments—

1. (a) In 31 companies the income continues after the maturity of Endowments;
(b) In 2 of these certain instalment Endowment policies do not so continue the disability income.
2. In the other 19 companies the disability income is not continued beyond maturity. One of these companies does continue it under a certain instalment Endowment form.

I. Disability Clause void—

In 20 companies the entire disability clause is voided by military or naval service in time of war, and in addition in one of these companies it is also voided by engaging in aeronautics or submarine trips, except as a fare-paying passenger.

The other 30 companies have no provision for voiding the clause, if premiums are not in default.

J. Ineligible Disabilities—

1. 31 companies exclude disability resulting from certain causes as follows:
 - 24, Military or naval war service;
 - 20, Self-inflicted injuries;
 - 11, Aerial or submarine casualties;
 - 5, Violation of law;
 - 2, Insurrection or riot;
 - 1, Police duty;
 - 1, Automobile racing;
 - 1, Residence or travel outside of United States or Canada;
 - 1, Manufacture of explosives.
2. The other 19 companies have no restrictions in this connection.

K. Professional Clause—

In addition to the regular disability clause 3 of the 50 companies have a special provision issued only to certain professional occupations, which provision pays benefits if disability prevents the insured from pursuing his regular or customary occupation. An extra premium is charged for this clause.

L. Amount of Income Payments—

1. 48 companies pay \$10.00 a month for each one thousand of insurance.
2. As an additional clause, 4 companies pay increasing incomes, \$10.00 a month for 5 years, then \$15.00 a month for 5 years, and \$20.00 a month thereafter.
3. 1 company has this increasing income clause only, with no level income clause.
4. 1 company pays \$15.00 a month for each one thousand of insurance.

M. Miscellaneous—

1. 1 company has an additional clause which pays a double income if disability is caused by accidental means.
2. 1 company pays \$20.00 a month per unit of income under certain old age income policies. The face value of these policies is \$1,320 or \$1,510 per unit of income.
3. 1 company pays, on Endowment instalment policies, a disability income equal to the amount of instalment normally due at maturity.
4. 1 company, regardless of the form, matures the policy for its face amount at age 60 but continues the income payment for life.
5. 2 companies on their "income for beneficiary" forms pay a disability income of the same amount as the income payable at death.

The above table describes, perhaps as clearly as possible in compact space, the present situation and the apparent lack of uniformity as to disability provisions offered by the various companies. In order to get a clearer idea of the situation, it may be well to discuss the various features included in the above table.

A. Upper Age Limit: The majority of companies cover disability incurred before age 60, although a few companies use 65 as the limiting age and a few grant additional benefits under certain policies maturing at 65. Permanent total disability naturally becomes more susceptible of proof with advanced age. The purpose of the disability clause, however, is to insure against disability that would interrupt the business activities of an individual and not to provide an income in old age, consequently, the necessity for a limiting age. Obviously, the companies that go to 65 are exposed to a type of disability foreign to those that cease at 60. The 65 clause, therefore, calls for a considerable increase in premium and even then may be dangerous because of the lack of experience on which to predicate rates.

B. Modified Coverage over Upper Limit: Here again we find fairly uniform practice. The benefit of waiving premiums as a lien against the face of the insurance is, however, of much less value than the premium waiver benefit. Granting the premium

waiver benefit without an upper age limit is, of course, a real benefit, but involves a considerable increase in premium, particularly at the high ages.

C. Commencement of Income Benefits, given in the Order of their Liberality: Here we find a very considerable difference in treatment between companies. It will be noted that some companies start to pay the income from commencement of disability without regard to the time of receipt of proof. Others pay from commencement of disability provided proof is received within a certain period from such commencement. Others will incur no benefits until after proof has been received. There must properly be a considerable differentiation in the rates charged by the companies for these various types. The experience of The Travelers Insurance Company indicates that there is an average delay of about nine months between the commencement of disability and the receipt of proof and of about eleven months before approval of claim. In some cases the delay is a matter of years. This is not altogether surprising when the situation is analyzed for frequently an insured does not appreciate the terms of his contract. Certain claimants for conscientious reasons may delay in making claim. An insured might be committed to an insane asylum and it is entirely possible that the disability benefit in his life policy will not be discovered until his death. Obviously, under such a case there would be a very material difference in benefits between a company that agreed to pay from commencement of disability and one that required that no benefit accrue until after receipt of proof.

The delay in presentation of claims is of considerable importance in connection with the financial statements of the insurance company in the matter of adequate reserves to cover the existing but then unreported claims. This is a very material reserve which as yet has not been fully appreciated by some companies.

D. Commencement of Premium Waiver Benefit: It will be noted that in general the companies provide that premium waiver benefits shall start from the same date that fixes the income benefit. With those companies which pay benefits from commencement of disability this makes no difference, but, obviously, if the premium waiver benefits and the income benefits coincide for the other class of companies it may be possible that

a contract under which an insured had been disabled but had not presented proof might lapse. It is only just that the premium waiver benefit should date from the commencement of disability in order that the contract may be rendered lapse proof in case of disability.

E. What establishes Permanence: Here it will be noted that there is a considerable divergency in clauses, although the so-called ninety days clause appears to be more generally accepted.

F. As to the Existence of Disability at Time of Proof: Eight companies do not require that disability exist at the time of proof but twenty companies, out of the twenty-eight companies that allow retroactive payments, do. It seems only reasonable, however, to allow claims after recovery provided the insured would have been entitled to benefits if claim had been made during disability.

G. Possibility of Lapse occurring during Disability: In all but three of the fifty companies it is possible that non-payment of the premium during disability may lapse the contract. (See note in section D.)

H. Disability Income as affected by the Maturity of Endowments: Here we find a difference in treatment with, of course, a corresponding difference in premium. The argument in favor of continuing the disability income after the maturity of the Endowment appears to be logical if one considers the disability income feature as a separate coverage.

I. Disability Clause void: Here again will be found a difference in treatment, although a majority of the companies make no provision for voiding the clause unless premiums are in default.

J. Ineligible Disabilities: Thirty-one companies exclude disabilities resulting from certain causes, while nineteen companies make no restriction in this connection.

K. Professional Clause: It will be noted that three of the fifty companies provide for a special disability provision issued only to certain professional occupations, paying benefits if the disability prevents the insured from engaging in his regular or customary occupation. This clause, of course, is issued only at an additional premium and is of a considerably different type, familiar to accident and health underwriters.

L. Amount of Income Benefits: Of the fifty companies, forty-eight provide benefits of \$10.00 a month for each one

thousand of insurance, although four of the companies provide also under separate contract for an increasing type of coverage. One company pays a monthly income of \$15.00. Benefits of \$10.00 a month have been generally accepted as the proper unit. If the income is \$15.00 a month instead of \$10.00, obviously the value of the disability provision is correspondingly increased. Certain of the states, however, recognize in their laws the \$10.00 a month unit. There seems to be but little reason for a disability clause providing for an increasing income. Probably most disabled insured would need a larger income immediately following the time of disability than later on when adjustments could be made. The basic argument for the \$10.00 unit is this: 6% interest on \$1000 of insurance will provide the beneficiary at the insured's death with an income of \$5.00 a month. The amount needed by the insured and beneficiary together is usually not more than twice that needed by the beneficiary alone.

The reaction one must necessarily receive from reviewing the above data is that there exists a considerable lack of uniformity in the coverages of the disability provisions of the various principal life companies, particularly in connection with certain important features. Certain of these are important from a premium point of view. This lack of uniformity is to be deplored for various reasons. Perhaps the most important has been that it has been almost impossible for the companies to combine their experiences in order to obtain a proper basis for rates and reserves, inasmuch as the existing experience is not of a homogeneous character. A few years ago, at the request of the insurance commissioners, The Actuarial Society of America made an investigation of the experience of various companies as to permanent total disability. The result, because of lack of homogeneity, was, to say the least, disappointing. Not only has it been impossible to obtain an entirely satisfactory basis for the rates for the clause itself, but it has been equally impossible to obtain reserve liabilities which accurately met the situation. This has been particularly true at the higher ages where the permanent total disability rate becomes more important. In this connection the experience has been particularly weak. The companies have, of course, had access to certain experiences which have been used in connection with premium rates and

reserves. My point is that these experiences are not the actual experiences of the companies on the permanent total disability provision but have been made up from accident and health data to a certain extent. The legal requirements, therefore, for valuation have been somewhat uncertain, particularly as the state governments have naturally been unable to prescribe a proper basis for valuation. This situation will undoubtedly exist until a homogeneous experience can be obtained. It is, of course, true that the companies have come to realize the seriousness of the situation and that there has been a very marked tendency to increase the disability premium rates, but to date these increases are based very largely upon conjecture. The larger companies can undoubtedly stand some strain because of inadequate premiums on the general theory that such resulting losses can be regarded as acquisition cost on an increased amount of business. While this may have been, with some justice, considered as good business in the past, it is not a particularly happy situation from the viewpoint of the actuary, nor will it be possible when proper knowledge and experience have been obtained. The point further comes up in a somewhat embarrassing way in connection with the companies that write mutual life insurance. Such companies usually put the disability premiums on a non-participating basis. If the disability provision of such companies does result in a loss, it must in a measure affect the dividends, or at least the surplus accumulations, of the life insurance contracts. If all policies were issued with a disability provision this might not perhaps be a serious matter, but when one considers that the disability coverage is optional embarrassment may result, particularly if the situation is questioned by policyholders who do not have the benefit of the disability provision. It is well known that the rates at least formerly charged for the disability provision are probably in many companies inadequate. This is borne out by a casual examination of the gain and loss exhibits of the life companies. The tendency to increase premiums during recent years is in the right direction but, unfortunately, the companies are still embarrassed by inadequate premiums on a part of the existing business.

The lack of uniformity in clause provisions has been to some extent reflected in the underwriting standards of various com-

panies. The tendency today, however, has fortunately been for stricter underwriting based on a better knowledge of conditions.

The lack of uniformity in the settlement of claims between companies should also be noted. A claimant holding policies in several companies generally considers that he has in each of these companies similar disability provisions, without recognizing that the benefits may differ materially between the companies, consequently, if the settlement in one company is more liberal than in another, he is very likely to become confused and probably will not give the companies due credit for making perfectly proper settlements in accordance with the terms of the contracts. This cannot help but be an embarrassing situation and one hardly good for the business in general.

Obviously, a cure for the present situation would be the adoption of a reasonably uniform clause by the companies. As a matter of fact, a great many insurance executives have expressed the hope that something could be done to secure more nearly uniform practices between companies. The disability clause has gone through a trial period—a period of development—and it is not altogether surprising that various types of provisions have developed. On the other hand, the insuring public would undoubtedly be better served if uniformity of clause and treatment could be established. Various attempts have been made to solve this question. The life actuarial societies have had committees to study this situation. The American Life Convention has had a committee on the subject which has only recently made a very interesting report. Superintendent Beha of the New York Insurance Department last Spring appointed a committee of actuaries to duly consider the subject and advise the New York Insurance Department. Necessarily, it is a question first for the consideration of the actuaries and then the companies and insurance departments.

The discussion of whether the general adoption of a uniform disability provision is practicable is the primary object of this article. The following are recommendations of the author in this connection:

1. Waiver of premiums and income benefit of \$10.00 a month for each one thousand dollars of insurance.
2. Exclude benefits because of disabilities commencing after age sixty.

3. Cover any total disability lasting ninety days, income benefits to commence at the end of ninety days, no payments during the first ninety days period.

4. Premium waiver benefit to accrue from commencement of disability.

5. Income benefits not to be dated back for a period exceeding six months before approval of claim.

6. Define total disability as inability to perform the duties of any occupation.

7. No increase in monthly benefits from the unit of \$10.00 for each thousand of insurance, and no increase in benefits if disability results from accident.

Obviously, the above are fundamentals. Incidentally, they are the factors which control the premiums. The author has simply taken the present practices of the companies in the main and adopted for a standard clause a fair compromise of present coverages. There is only one more liberal treatment recommended than is general today, namely, that contained in section 4, inserted to make the disability provision govern automatically as to premium waiver and thus render the policy non-lapsable in case of disability.

From the studies made there should be no difficulty in agreement as to sections 1, 2, 6, and 7, as these are general practices. As already stated, the recommendation in section 4 is fundamental and should receive serious consideration by all companies.

Suggestion 3 is a compromise, but from the study of fifty companies not an impossible one, as thirty-five of the fifty companies already use the ninety days provision. It must be recognized that the ninety days clause is a much more expensive one than the six months clause because of the large number of temporary claims that result. Premiums for the disability clause would, of course, be considerably reduced by the general adoption of the six months clause and the companies would be relieved of considerable expensive claim work, but as the ninety days feature has become so generally adopted it seems proper to recommend it as a satisfactory standard.

There will undoubtedly be argument as to the date income benefits should start. Here again a compromise is proposed, but a reasonable one. It will be noted from the study that certain companies already pay from the commencement of disability.

This, of course, is a very liberal treatment but expensive and not only means a corresponding increase in premiums but in practice results in the piling up of a number of accumulated monthly benefits to be paid with the approval of the claim, this for the reason that disability proofs are not presented with the commencement of disability but only months afterwards. Payment from commencement of disability also encourages malingering in certain cases of acute diseases, encouraging the insured to remain away from work until after the expiration of the ninety days period, thus receiving benefits from commencement of disability. Even with the proposed clause the companies will in many cases pay more than one month's benefit with the first payment.

The practice under section 5 has already been adopted by certain companies. It seems only fair to penalize the insured as to income who fails to make claim within a reasonable time, otherwise the companies will be compelled to carry increased reserves. The limitation will further protect the companies against false claims as to the commencement of disability which might, because of the time elapsed, be difficult to disprove. Whether this period should be one year instead of six months is perhaps debatable, but six months already seems to be an accepted period for those companies which do not pay from commencement.

Other features mentioned in the study of the fifty companies are not material from a rate point of view and might well be left to the individual judgment of the various companies, with the possible exception of the question of requirement of proof during disability. It seems to the author that it is only fair to allow a claim after recovery, provided it is certain that the claim would have been approved had proof been presented during disability.

The question of providing disability income on Endowment policies to or beyond the maturity date of the contract is in the main a matter of rate and can be left to the individual company.

Whether certain acts would void the disability provision, such as engaging in military or naval service in time of war, is probably unimportant as to this discussion and can safely be left to the preference of the individual company. The same may be said in regard to ineligible disabilities, although it seems reasonable to exclude self-inflicted injuries when the company's

clause contains a provision for benefits in event of loss of sight or of the use of hands or feet, etc.

The author may indeed be presumptuous in believing that it is possible for the companies to generally adopt a uniform disability provision. There is so much to be gained, however, by the companies, by the public, by the insurance departments, and by the business in general, that he at least hopes that this review will receive serious consideration and discussion.

***Historical footnote:**

Historically, it is interesting to note the disability provision first granted by The Fidelity Mutual Life Association in 1896 as a part of their Elective Life policy :

(Extract from first page of contract)

"It is further especially agreed that if at any time it should be proven to the satisfaction of the Board of Directors of the said Association that the insured hereunder has become totally and permanently incapacitated, either by accident, bodily or mental disorder, from carrying on any profession or business, the said insured, in lieu of all other benefits and advantages accruing hereunder, shall be entitled to either of the following options:

"First. Such a disability life annuity in exchange for this policy as its face value will purchase at the then age of the insured, according to the Table of Disability Annuity Rates indorsed hereon.

"Second. From the date of the admission by the Board of Directors of such permanent incapacity, the stipulated premiums payable hereunder shall be discontinued or remitted, and this policy shall thereafter be maintained subject to the conditions indorsed hereon from the equation fund.

"It is further agreed that the member or insured making claim under the disability clause aforesaid, must at the time of making such claim, specify in writing under which of the aforesaid options claim is made. In the event of a disability claim being allowed hereunder by the Board of Directors, it is agreed and understood that the present worth of the same shall be carried as a liability on the books of the Association."

(Extract from second page of contract)

"FOURTEENTH.—SAFETY CLAUSE.—The stipulated premium payable hereunder being based on past insurance experience, it is agreed and understood, excluding the first

policy year, that the proportion of the undivided equation fund aforesaid to be maintained on behalf of this policy, shall equal the present worth of the sum insured, less the present worth of the future stipulated premiums, according to the Association's past experience, computed at four per cent. per annum, and that this policy, subject to the rules of the Association, shall participate in any excess of such value. If a deficiency shall occur in the equation fund, to be determined by the periodical valuations to be made, as required by the Association's by-laws, the same shall be made good by the payment by every member of the Association of his pro rata share of such deficiency within thirty days from the date of notice of same, or with the consent of the directors, the amount thereof, together with interest at the rate of six per cent. per annum, may be charged against the member's policy, and deducted therefrom when it becomes a claim. PROVIDED ALWAYS, That the accumulated funds of the Association, as required by statute, shall at no time be less than the sum of one periodical or stipulated payment by all the members, and not less than \$100,000."

"DISABILITY LIFE ANNUITY

which \$1000 Insurance will purchase at attained age.

Age.	Annuity.
21	\$47.40
25	49.05
30	51.62
35	54.95
40	59.30
45	65.04
50	72.72
55	83.13
60	97.45
65	117.43
70	145.65
75	185.83
80	243.03

It is agreed and understood, that if the member shall attain the age of eighty years, he will be deemed to be totally and permanently disabled, without further proof."

(The table actually provided annuity payments at each age.)

The following quotation is from a letter of Mr. J. B. Franks, Actuary of The Fidelity Mutual Life Insurance Company, Philadelphia, dated November 18, 1918:

"It (the disability clause) was not of the nature of an extra provision included in a form of contract that could be

issued without such a feature, but was an essential part of the Elective Life policy.

"Before adopting this form of policy the management of this company had secured certain data from different associations which had previously been granting certain forms of disability benefits, and after compiling and studying the data thus obtained, arrived at a process for increasing the q_x of the Actuaries or Combined Experience Table by percentages which were assumed to represent the extra contingency of total and permanent disability. In other words, the process was that of expressing the probability of total and permanent disability in terms of extra mortality.

"From tables thus constructed the premiums for the Elective Life policy were computed as a solid net premium without any reference to a part of such premium being considered as the extra premium for disability.

"From the above you will see that we are not able to give you what could be called extra premiums charged under our original Elective Life policy. We had only the net premium on the special table, which included provision for both death and disability, and a uniform loading of \$4.00 per \$1000. The premium rates charged for the Elective Life policy first issued in 1896 are given below for sample ages,—

"Age.	Premium Rate.
21	\$17.44
25	18.90
30	21.80
35	24.36
40	29.58
45	34.34
50	42.42
55	51.28
60	70.98"

About 1903 the author of this article suggested to The Travelers Insurance Company the propriety of including in its life contracts a provision to waive premiums in event of permanent total disability or else of issuing in the Company's accident and health department an independent non-cancelable contract that would provide an annuity of a fixed yearly amount payable to the insured during permanent total disability either for life or until a certain fixed date, the idea being that the annuity could be written for the same amount as the premium under any life contract issued by any company, so that if the insured were totally and permanently disabled he could properly assign the annuity to the insurance company which issued the life contract—this arrangement having the effect of waiving the premiums on

the life contract as far as the insured was concerned. The Travelers finally adopted the first idea, although it is rather interesting to speculate as to the development of the disability provision in this country had the second plan been put into operation.

The recommendation above referred to resulted in the premium waiver benefit first announced by The Travelers in 1904. It is interesting to note the wording of the Travelers clause as compared with that of The Fidelity Mutual, remembering the fact that the actuarial methods were entirely independent and of different form. The Travelers contract did not specifically provide for extra premiums, partly for the reason that the contract in question was issued in connection with a special class of policies.

**"PREMIUMS ON CONTRACT PAID BY COMPANY IF INSURED IS
WHOLLY DISABLED—AS FOLLOWS:**

"After one full annual premium shall have been paid and before a default in the payment of any subsequent premium, if the insured shall furnish satisfactory proof that he has become wholly disabled and will be permanently, continuously, and wholly disabled for life, by bodily injuries or disease, from pursuing any and all gainful occupations, the Company, by an endorsement in writing upon this contract, will agree to pay for the Insured the premiums, if any, which shall thereafter become payable during the continuance of such disability. In any such case the Cash Loan and Cash Surrender values shall increase in like manner as if the premiums were being paid by the Insured. If, however, the Insured shall recover so as to be able to engage in any gainful occupation for wages or profit during the premium-paying period, the obligation on his part to make payment of premiums in accordance with this contract shall recommence, but only from date of recovery, with the same force and effect as if this provision were not contained therein."
