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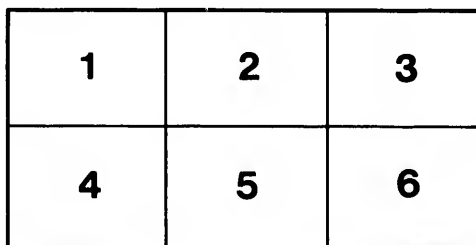
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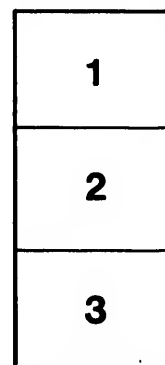
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THEORY

LIFE AND

SPECIAL

CIRCUMSTANCES

FIELD FOR ITS DEVELOPMENT



GEORGE SHEPPARD

BOOKS AND PAPERS

HAMILTON, O. W.

1889

BIBLIOTHEQUE DE LA VILLE DE MONTREAL



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and the protection thus acquired would secure to his family the fee simple of the land should he die in the interim, whilst securing to the company full payment of the debt on the occurrence of the same contingency. The hope which sustains the backwoodsman in his tedious struggle against difficulty and debt would not then be chilled, as it now too often is, by the reflection that his family's home is dependent upon a life that is daily exposed to accident and death. Satisfied that ten years' existence would enable him to meet the whole debt upon his farm, he would also feel that his assurance policy guaranteed its undisturbed possession to his family should he die with his task unaccomplished. The land company—or any private proprietor pursuing the same system—would realize distinctly the benevolent nature of the sale, and would be protected from the odium incident to the enforcement of the conditions of the every-day bond against the widow and the orphan. The genuine land-shark, invidious and remorseless, is the only creature to whom "Freehold Assurance" could bring annoyance or disappointment. To all else it would be a blessing. Who will be the first to introduce and encourage it in Canada?

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ASSIST

LIFE ASSURANCE

IN

THEORY AND PRACTICE.

BY

GEORGE SHEPPARD,

ASSISTANT ACTUARY TO THE CANADA LIFE ASSURANCE COMPANY.

HAMILTON, C. W.

1855.

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LIFE ASSURANCE.*

OUR period is pregnant with paradoxes. Its phases of character vary so widely, and in many respects exhibit so little affinity of method or of purpose, that every attempt to reconcile them is beset with difficulties, not to say impossibilities. Whatever be the temporary inconveniences of the fact, its probable index is far from disheartening. The terrible upheavings of the first French revolution were preferable to the dead-level of wrong doing in which its bitterest throes were cradled into being. Conflict anywhere is better than apathy, not simply because of the vitality which it implies, but also because of the coming good which to the eye of the believer it surely indicates. Life and hope and faith are blended always more or less freely—always beneficently. So, now-a-days, the struggle between civilization, created and controlled by commerce, and civili-

* A lecture: delivered to the members of the Mechanics' Institute, Toronto, and the members of the Mechanics' Institute and Mercantile Library Association, Hamilton.

zation, nourished, sustained, and purified by religion, is in every aspect more acceptable, more encouraging, than the dull stupor which sprang from the selfishness and serfdom of a bygone age. If there be more of selfishness in our age than feudalism or chivalry ever fostered, we have, at least, the satisfaction of knowing that selfishness was never more largely influenced by an inherent sense of right, or by the comprehensive intelligence which links the individual and society—the unit and the aggregate—in the bonds of a common and an enduring interest.

Time was when giants, club in hand, swayed the earth. The mass of men were pigmies, tiny in stature and in soul. They believed as they were taught to believe, and did just what they were told to do, without requiring rhyme or reason. The little thinking that was done in those days was performed wholly and solely by their lords and masters, grim giants as they were. In that, the feudal, age we have the proper type of the one-man power. The kingly right-divine of later growth was at best a sickly thing, in comparison with its great original.

Now, we gaze in vain for giants. They belong, happily, to an extinct race, and are only found fossilized, like the mastodon of another tribe. The

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pigmies, in turn, have advanced towards man-
hood. From mere hewers of wood and drawers
of water they have been metamorphosed into the
recognized source of political power, and the ac-
knowledge basis of national prosperity. Num-
bers accomplish what was before deemed the
exclusive right of prerogative or caste. The
apparently complex machinery, propelled by sim-
ple agencies, which does the work of millions of
hands within the scanty space of a few hundreds of
manufactories, is the material embodiment of this
characteristic of the age. Men pull together for
a common purpose. Perceiving that humanity
has a task to achieve which isolated effort cannot
accomplish, they look to organized exertion as the
foundation of society's hope ; they throw their
strength into common channels, and with seem-
ingly feeble means realize prodigious results.
"Give me a fulcrum whereon to rest my lever,"
was the saying of Archimedes, "and I will raise
the world." Society has discovered the agency
which Archimedes lacked, and uses it lavishly, if
not always wisely and well. With associated means
and effort as the fulcrum, with intelligence and
moral principle as the lever, the world may yet
be lifted into a truer, higher, and happier posi-
tion.

From this general reference to a wide and an eminently suggestive subject, the transition to one of its many fertile feeders is neither arduous nor irrational. A gentle step leads from the contemplation of a potent principle to the consideration of its application to interests involved in human life. From the ability of joint effort to bring about great ends, we turn to life assurance as an illustration of the operation of such effort in a direction easily appreciable and susceptible of multifarious ramifications.

That life assurance is ordinarily set aside as a "dry" matter, is a circumstance attributable rather to the mode of handling it than to aught essentially connected with it. To present it as a solemn abstraction, to be spoken of only in subjection to logarithmic labors and algebraic symbols, is to inflict injustice upon a really interesting branch of knowledge. To deal with it as a mystery, which can in no way be rendered comprehensible to common intelligence, is to entomb in darkness that which, when made intelligible, may be expected to command the approval of every thoughtful man. On the other hand, to touch the subject in strains of spasmodic poetry, and to forget its merits in a zeal for rhapsody, is to imperil the entire working of a plan which rests quite as

securely on the pillars of sense as upon those of sympathy. The head and the heart are alike concerned in promoting its success.

Simply as a fact, apart from causes and tendencies, life assurance may be defined to be a contract, entered into by a society or company, to pay upon the death of an individual assured a fixed sum, in consideration of receiving a stipulated amount of money, at once or periodically during the continuance of his life. The hypothesis is, that the premium or purchase money paid by the assured shall be such as, being invested at compound interest during the probable period of his existence, will yield to the society a fund sufficient to discharge the claim that will arise at his death. The vital elements, then, that enter into the theory of the subject, are, the probable duration of human life—technically, the theory of probabilities—and the profitable investment of accumulating funds.

The doctrine of probabilities in this instance rests on the established truth that life, albeit in individual cases most uncertain, is, in reference to a community, regulated by an almost undeviating law. We cannot tell who amongst our neighbors will be the first to die, nor can we guess the likelihood of our own lengthened exist-

ence ; but extensive and, in a large degree, reliable data exist for calculating the ratio of mortality to the whole number. It is known that of a given number born, a given number die within one year, a given number in the second year, and so on, year after year, until the entire number cease to exist. As, at any particular period, the whole body of survivors may be supposed to have an equal chance of life, the phrase "expectation of life" is used to denote the average of the entire number of years which may, on a supposition, be enjoyed by a mass of individuals collectively. Thus, according to the Carlisle table of mortality, the probability is that a man, aged forty, will live twenty-seven years and seven months longer ; and this probability or expectation rests on the knowledge that that is the curtate mean duration found from the deaths of 5,075 persons, all of whom were alive on their fortieth birthday. Again, bills of mortality show that of 5,307 persons in the prime of life, 650 will die before ten years elapse ; before other ten years pass away 757 more will cease to live ; and in a third term of the same duration 1,006 will go to their final resting place ; so that, at the expiration of thirty years, but 2,894 of the 5,307 will remain to tell the story. The mathematician is, therefore, enabled to de-

termine the theory or law which governs the waste of life in its various stages, and to calculate the money quota which each of a body must contribute to provide a given sum, payable at the period of their respective deaths.

As, however, assurance offices usually deal only with lives that are believed to possess a fair likelihood of longevity, occupation, climate, and other circumstances are, in their arrangements, considered in conjunction with the ascertained rate of mortality. Take the influence of occupation, for example: Of 1,000 boys, ten years old, who shall be reared to agricultural pursuits, one-half will live to see their seventy-second year; rear them as miners, toiling deep in the bowels of the earth, and half of them will die ten years sooner than the first half of the agriculturists; make them plumbers or painters, and half will perish in five years less than the period of the doomed miners; make them clerks, and their chances are five years worse than those even of painters. Let our young men, who hurry from farm or village work-shop to ply a pen behind desk or counter, mark the close relationship which exists between sedentary pursuits and early death.

Without entering into a history of the various tables of mortality that have been constructed in

England, France, Germany, and Sweden, we select the four which, from divers causes, have obtained greater or less recognition in the life assurance world. These are, the Northampton table, constructed in 1782; the Carlisle, resting, like the Northampton, upon very limited data; the Experience, derived from the actual experience of seventeen British life offices; and the English, deduced from returns furnished to the Registrar General since the adoption of the system of compulsory registration, which has been for some years in force in England. The Northampton table is revered by grandames because of its antiquity, and, apparently on that ground, is obstinately adhered to by not a few of the old British offices. Its authority is altogether traditional. Dr. Price, with all his zeal and ability, erred in constructing it, for, instead of comparing the deaths and the living at each age, and thus obtaining the rate of mortality and survivorship, he used the deaths alone. A committee of the House of Commons long ago voted it unreliable; it inflicts injustice upon all young lives assured under it, exacting 20, 30, and even 40 per cent., at some ages, beyond the required premium, and distributing the surplus with equal unfairness; and still venerable British offices cling to it as an ark of safety. The

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Carlisle table, founded on limited observations, and absurdly faulty in its graduation at different ages, has become the working table in the majority of offices, less on account of demonstrable value than in consequence of approximate accuracy, tested by lengthened experience. The results indicated by the four tables in relation to the after-lifetime, or expectation of life, are best seen in juxtaposition.

Expectation of Life according to different Tables of Mortality.

Age.	Northampton.	Carlisle.	Adjusted experience	Irish Experience.	English.
20	33.43	41.46	41.49	34.95	40.34
30	28.27	34.34	34.43	29.71	33.68
40	23.08	27.61	27.28	23.36	27.14
50	17.99	21.11	20.18	17.76	20.55
60	13.21	14.34	13.77	12.67	14.00
70	8.60	9.18	8.54	7.92	8.78
80	4.75	5.51	4.78	4.75	5.97

On the assumption that the Northampton version of the mean duration of life is trustworthy, death may be expected to occur to the majority of mankind much earlier than other tables lead us to expect; and, consequently, a higher premium is requisite to provide against the contingency. On the contrary, if the Carlisle estimate be near to truth, the cost of assurance may be reduced to a comparatively low point, without infringing the main essential, safety;

and that this estimate is, on the whole, sound enough for practical purposes, is proved by the tabulated testimony of admitted authorities.

The rate of interest is the next element that challenges attention. The premiums to be paid on any table of mortality are supposed by the hypothesis to be invested at the moment they become due, year after year, and to be afterwards continually undergoing the process of compound interest. The English offices, for the most part, take three per cent. as their basis of calculation; here and there, three-and-a-half per cent is adopted; and the latter rate usually obtains in Scotland. Prudential management in all cases of this nature implies the selection of a minimum rate, as that most likely to yield the desired quality of permanence; and, for the parent country, therefore, three per cent. may be said to be the highest available rate compatible with investment in first-class securities. Looked at, however, in the Canadian light, the question wears another aspect. The exigencies, resources, and prospects of a young community, like ours, necessitate and justify the adoption of a higher standard in regard to the value of money. To say that money is worth more here than in England, is to state a naked fact, involving no opinion for or against

usury laws ; and to render that fact the basis of long calculations, predicated upon the future, is in no respect to deviate from the path of wisdom. Six per cent. is to our future as three per cent. is to that of England, and may be built upon for the present purpose with quite as much safety. On the face of the matter, then, life assurance premiums invested in Canada, at six per cent. interest, are as safe—other circumstances being equal—as premiums invested in England at three per cent., while their accumulative power is immensely augmented. Or, altering the form of the comparison, a lower premium, improved at six per cent., will, in a series of years produce a fund equal to that yielded by a higher premium invested at half that rate. Parallel columns most clearly exemplify this view.

Net Annual Premium to Assure £100, Single Lives.

Age.	Carlisle.												English six per cent.					
	Northampton three per cent.						Experience three per cent.											
	3 per cent.			4 per cent.			5 per cent.			6 per cent.								
20	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
30	2	3	6	1	9	5	1	9	10	1	6	4	1	3	8	1	1	0
40	2	13	4	1	13	1	1	10	0	1	15	1	1	11	11	1	9	5
50	3	7	11	2	12	1	2	11	11	2	7	6	2	3	9	2	9	7
60	4	10	7	3	16	8	3	12	5	3	7	3	3	2	9	2	48	9

The purchasing power of £1 1s. 6d., as a pre-

mium for £100, payable by a person aged 20, is equal in Canada to £1 9s. 10d. payable by the same person in England. A Canadian company, charging the lower net premium in consideration of Canadian investments, has the same element of solvency and strength as an English company exacting a net premium little less than forty per cent. higher. The advantage in favor of Canada is shown yet more strikingly by a comparison of the net amounts which an annual premium of £1 will assure.

Net Sum which an Annual Premium of £1 will Assure.

Age.	Northampton three per cent.	Experience three per cent.	Carlisle.		English six per cent.
			3 per cent.	6 per cent.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
20	45 17 8	67 16 11	66 19 1	92 11 0	85 4 1
30	37 9 10	52 9 5	51 4 7	67 18 5	65 9 10
40	29 8 8	38 7 8	38 9 5	49 4 11	48 5 5
50	22 1 6	26 1 6	27 12 1	34 0 10	32 12 10

Substitute a deferred annuity for a life assurance, and the contrast becomes still more palpable in favor of Canada as a field for this branch of business.

Net Single Premium for a Deferred Annuity of £10.

Age 30.	Northampton three per cent.	Experience three per cent.	Carlisle.		English six per cent.
			3 per cent.	6 per cent.	
Annuity at 50	£ s d 16 5 4	£ s d 63 12 10	£ s d 63 9 6	£ s d 26 8 0	£ s d 25 15 10
Annuity at 60	19 13 11	28 15 8	29 7 8	9 15 5	9 8 8

Thus far we have spoken only of the net premium, that is, the premium absolutely essential to the due fulfilment of a society's engagements with its assured members. But provision must be made for the expenses of management, to cover the possibility of loss on investments, and to meet contingencies arising from the admission of bad lives, the perpetration of fraud, or any of the other minutiae which legitimately enter into the actuary's calculations. Hence, additions are made to the net premium, ranging in England from ten to thirty per cent. Let us now see how an English and a Canadian company relatively stand.

Assure.

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Gross (or loaded) Premium to assure £100.

Age.	Northampton three per cent. with ten per cent. added.	Carlisle.		
		3 per cent. with 25 per cent. added.	3 per cent. with 30 per cent. added.	6 per cent. with 50 per cent. added.
20	£ 2 s. d. 2 7 11	£ 2 s. d. 2 17 3	£ 2 s. d. 2 18 10	£ 2 s. d. 2 12 3
30	2 18 10	2 8 9	2 10 9	2 4 2
40	3 14 8	3 4 17	3 7 6	3 0 10
50	4 10 8	4 10 6	4 11 1	4 11 10

A Canadian company levying a premium of £1 12s. 3d. per £100, at the age of 20, exacts six shillings and seven pence less than an English company, and nevertheless has an extraguarantee to the extent of twenty per cent. of the net premium. With the same table of mortality, we of this section of the American continent can underbid a British company in the proportion of twenty per cent. of the gross premium, and still possess a clear disposable surplus of twenty per cent. of the true premium! Could any fact be more conclusive? Can other evidence be wanted to prove that cis-Atlantic premiums may be lower than British, and at the same time present a much greater margin to provide against possible mishaps?

In these examples reference has been made

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only to the assurance of selected or healthy lives. Unfortunately a large proportion of the population are not comprised in this category, either on account of hereditary taint or acquired disease, or on account of near relationship to those possessing one or the other. Many, knowing their position in this particular, regard their lives as beyond the pale of assurance, and never trouble an office on the subject. Of the actual applicants for assurance, it has been computed that twenty per cent. are rejected or admitted only at rates above the average for healthy lives. A few English offices assure diseased lives at rates specially calculated with reference to the mortality prevailing amongst the class to which the assured belong; and the tabulated statements of mortality from pthisis, dropsy, hydrocephalus, and other forms of disease, certainly show remarkable uniformity both as to the prevalence and duration of each. But though the number dying yearly from specified causes is known with greater or less precision, we may reasonably doubt whether medical statistics have attained to a degree of perfection indicating the relative number dying at different ages, or the extent to which a disease supposed to be latent has not been developed. In the absence of this and kindred information, the assurance of diseased

lives proceeds upon rates high enough to cover the worst imaginable contingency in every case, and therefore much too high to render this class of assurance generally available.

A directly opposite view of the figures we have presented may be suggested. "The tables of mortality," an objector may allege, "proceed on 'the average of the whole community, sober and 'drunken, sound and diseased, and for that 'reason represent a more unfavorable state of 'things than assurance offices, dealing with 'selected lives, are called to encounter." As applied to the Northampton, the Carlisle, and the English tables, the remark is unquestionably pertinent, but it fails to cover more than a section of the ground. If life assurance were a contract which neither of the parties could invalidate—if individuals once assured were constrained to continue the payment of their covenanted premiums during the term of life, just as the office is constrained to sustain the liability to pay the amount assured whenever death may happen, then, undoubtedly, the necessity for rigid scrutiny on the part of the office would be materially mitigated. But the case is otherwise. The society and the assured respectively enter into a contract which the assured alone is permitted to annul. The

society is bound irrevocably, save in cases of fraud. The assured, on the contrary, is at liberty to continue his connection with the society, or to suspend payment of his premium when he choose. He accomplishes a temporary object, and then withdraws; he finds his health better than he expected it to be, and he stops his premium; the society being all the time bound to submit to his bidding. The right of selection which the society exercises at the outset is, then, to some extent neutralized by the subsequent exercise of a right of selection as against its interests; for the withdrawal of a member not only deprives the society of the portion of income which he engaged to contribute, but in a measurable degree weakens the security on which the mass of the assured have reckoned for the due creation of their respective benefits. Nor are these drawbacks fully counterbalanced by profits from lapsed or surrendered policies, which are often inconsiderately alleged against a company. On the principle of equity, an individual seceding from an assurance office has no right to expect repayment of any portion of his premiums; he voluntarily abandons what the other party to the contract is obliged to respect; and if he receive anything on retiring, the circumstance is properly

attributable to concession on the side of the office, acted upon, no doubt, by the pressure of competition, and by a desire to obviate every class of objection.

A reference to competition in this connection does not imply the presence of the precise evil in relation to life assurance of which in other matters old communities universally complain. The legion of life assurance offices have a work before them broad enough to afford honorable scope for all their exertions; and the proper source of regret is, not that their number is large, but that the means they employ are often framed in view of popular ignorance and gullibility, rather than to promote a healthy regard to the judicious enterprise and the cautious policy which should be found at the bottom of assurance transactions. Schemes are constructed with a single eye to novelty, as a bait with which to catch the great public whale. Professions are put forward pretty as bubbles, and as hollow and evanescent. Promises are promulgated with Munchausen extravagance, without stopping to remember that life assurance, with all its poetry and pathos, is a great fact, open at any time to the impartial scrutiny of common arithmetic. The result is, that prudence is too frequently sacrificed to fleet-

ing show ; and in this way the solid, lasting interests of an enlightened economy are exposed to a petty rivalry and a disingenuous contest, worthy only of a tape-store or a grocery.

With the quarrel waged in Britain by old offices and young offices, we of the new world need not meddle. The Atlantic rolls betwixt them and us, and we can well afford to stand aloof from their irritating controversy. Whether age gives to companies the privileges of monopoly, or youth the prerogative of imposture, is a question on which the English people need no enlightenment from Canada. There are, however, some considerations associated with the general question at stake in which we and all men are, or should be, deeply interested. We are interested especially in the diffusion of such just opinions in relation to assurance as shall necessitate the adoption of a system of finance most clearly calculated to command confidence, and to fulfil in perfect faith the vast though long-deferred obligations of life assurance institutions.

The finance of fire insurance and the finance of life assurance are essentially different affairs, and their management must be judged according to different standards. Measures adapted to serve the objects of one, would entail upon the other

inextricable embarrassment. Fire insurance extends over a brief period, and involves risks limited to that period. The losses encountered may be heavy or light; the ability of the premium fund to meet them is ascertained without difficulty; and whatever be left after payment of these, and after setting apart so much as may be needed to cover outstanding risks, is properly surplus, either divisible as profit or applicable as a guarantee fund, to pay off a subscribed capital or to inspire larger confidence in the company's future. Quite different is the position of a life assurance society. With a large present income, it has enormous distant liabilities. It receives current assets to defray deferred debts. It is a bank, receiving thousands year after year, to provide tens, perhaps hundreds, of thousands due half a century hence. In this respect it differs from every other institution in existence. Their balance sheets are susceptible of weight and measurement now and always; a clear-headed accountant sees through them at a glance. But in life assurance the matter is complicated. An institution may exhibit to the on-looker a brilliant array of figures, and yet be irredeemably insolvent. It may show a large current income, and nevertheless be journeying onward to ruin. On the other hand, it

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may reveal a lessened business and a falling capital, and still be able to fulfil every obligation now or hereafter coming against it.

Although, as has been said, the financial machinery of a life office is in the nature of things complex, its operation may be so simplified as to place proof of solvency within the comprehension of every man concerned. The disposal of a surplus, accruing from the "charge," or "loading," added to the net premium—the application of profit derived from the interest actually received on investments above the rate embraced in the premium calculations—and other similar niceties of management, are too intricate to be readily simplified, and too formal when simplified to be particularly attractive outside of the professional circle. But in relation to the solvency of an office, these points are of comparatively minor importance. On that head difficulties are more imaginary than real. Starting with a true life table and a confessedly safe rate of interest, a company ought to be in a position at any time to demonstrate its soundness; and there is more of credulity than judgment in the individual who remains connected with an office which systematically shirks the simple, available test. The better to understand this test, let us for a moment refer to the gradual

progress of a life assurance fund, as illustrated in the operations of an ideal office.

Assume that a society starts with 300 members, each 30 years of age, and each assured for £500. The net premium on the Carlisle table, at three per cent., is £1 19s. 0d. per £100, or £9 15s. 0d. per £500. Assume, further, that 300 new members enter at the commencement of every succeeding year, each 30 years of age, and each assured for £500; and that the claims on account of death are all paid at the end of each year. Omitting decimals, the society will in its first year receive £2,926 as premiums, and £87 interest; after paying £1,500 on the deaths which may be expected to occur in twelve months, it will possess £1,514 invested stock. In the second year it will receive £5,823 premiums from 597 members, and after payment of claims will possess £4,558 stock. Proceeding at this rate, with the number of members and the proportion of deaths continually increasing, the premiums of each year will be found sufficient to cover all payments at death, and to add somewhat to the stock, until the close of the fortieth year. The members will then stand at 9,282; the income from premiums at £90,545, and from interest at £33,636; the invested stock being £1,064,865. In the forty-first

year the claims on account of death will exceed the income from premiums; and at the end of the fifty-sixth year, the income from premiums and interest united will be less than the outgoings. At that period, then, and not till then, the encroachment upon the stock, amounting to £1,332,259, will commence.

Assume, again, that the six per cent. rate be adopted by another society, exactly identical in regard to membership, management, and indeed on all points excepting only the material ones of premium and interest. At the end of the thirty-first year, the income of this second society from premiums will fall short of the outgoings for deaths: and at the end of the fifty-second year, the stock, amounting to £894,913, will be called into requisition.*

Of course both cases are hypothetical. In practice, no office tallies precisely with either. A variety of differences, some adverse, some favorable, come in, in reality, to modify the results. But the illustration is sufficient for the purpose for which it has been constructed, namely, to prove that a society ought to be able at any time to show that it possesses invested means equal in amount to the aggregate of stock, which should

* See Illustrative Table appended to the Lecture.

be found at the credit of each policy holder. Nothing is more easy than to tabulate the sums which should be in deposit for every pound of net annual premium paid upon lives which commence assurance at specified ages; and if the managers of a society withhold the information which enables every individual interested to judge of its financial condition, the circumstance must be ascribed, not to inherent difficulty, but to a determination to enshroud in darkness that which ought to be clear as noon day. There are bats and buzzards even in the life assurance world.

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VALUATION TABLE.—SUMS IN DEPOSIT.—Carlisle six per cent.

The sums which should be in deposit at the end of each year on account of every £1 of net premium paid and annually renewed by parties whose assurances begin at the specified ages.														
Age at which the Assurance begins	Sums													
	Assured.	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	8th yr.	9th yr.	10th yr.	11th yr.	12th yr.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
20	32 11 0	0 8 2	0 17 2	1 6 8	1 16 8	2 7 3	2 18 3	3 9 10	4 1 5	4 12 2	5 1 8	5 11 5	6 1 7	
25	79 11 0	0 9 8	0 19 11	1 19 2	1 19 8	2 8 0	2 16 7	3 5 7	3 15 5	4 5 11	4 17 2	5 9 1	6 1 3	
30	67 18 4	0 7 6	0 15 6	1 4 1	1 13 5	2 3 3	2 13 9	3 4 6	3 15 8	4 7 2	4 18 7	5 9 6	6 0 2	
35	53 11 7	0 9 4	0 18 11	1 8 10	1 19 1	2 9 3	2 18 11	3 8 6	3 18 1	4 8 2	4 18 10	5 10 3	6 2 6	
40	49 4 10	0 8 6	0 16 10	1 5 3	1 14 2	2 3 6	2 13 6	3 4 3	3 16 0	4 9 3	5 10 5	6 19 8	6 15 10	
45	41 18 3	0 8 11	0 18 6	1 9 0	2 0 10	2 13 9	3 7 10	4 2 3	4 17 1	5 12 5	6 8 5	7 4 10	8 1 11	
50	34 0 10	0 12 2	1 4 9	1 17 8	2 10 11	3 4 10	3 19 1	4 13 11	5 8 10	6 3 0	6 16 2	7 7 8	7 19 1	

Read thus: A, age 30, commences the payment of £1 a year as a premium to assure £67 18s. 4d., and regularly, year after year, repeats the payment. At the termination of six years, when six premiums of £1 each have been paid, an assurance society should have in deposit, at his credit, £2 13s. 9d.; at the end of twelve years, with twelve premiums paid, £6 0s. 2d. should be in deposit on his account; and so on, proportionately.

Instead of dwelling upon the organic peculiarities of life assurance institutions—proprietary, mutual, and mixed; or upon the prevailing methods that govern the distribution of profits—reversionary bonus, reduction of premium, and cash;* we pass on to consider the relation which assurance, as a provident agency, bears to the community.

*The term "profit" is used here in its conventional sense, that is, as comprising the whole amount which the managers of an institution allocate for distribution amongst its members. Were this a proper opportunity for such a controversy, it might be shewn that the term, as commonly received, is not precise enough to be accurate. To be strictly correct, a distinction should be drawn betwixt *gains*, derived from an excess of interest over the rate assumed, from judgment in the selection of none but good lives, and other causes pertaining to management, and *surplus*, arising from an excess of premiums paid by the assured above the rate absolutely necessary for the fulfilment of the purposes of assurance. Only one of these items enters into the constitution of true profit: the other has none of its essential characteristics. In practice both are thrown together to swell the tempting array of profit, which is too often paraded successfully to decoy casual observers from an examination of weightier matters.

The operation of the three prevailing modes which govern the distribution of "profit" admits of brief elucidation. Say that an individual, age 40, having been assured a given period, is credited with surplus amounting to £10. If he elect to take "cash," the £10 are handed to him, and the transaction, so far as surplus to that period extends, is ended. If he choose "permanent reduction of premium," the £10 are held to represent the present value of an annuity to be received by the assured during the remainder of his existence. Let the division proceed on a Carlisle five per cent. basis, and the £10 will represent a life annuity of 14s. 11d., to be deducted year after year from the premium originally agreed upon. If, lastly, he choose "reversionary bonus," the £10 represent the present value of an assurance, payable at his death: and in the case supposed, £10 so applied, on the same basis as before, will yield an addition to the policy of £31 15s. 4d. The assumption of five per cent. in this illustration is in accordance with the safe rule of actuarial practice, which, in valuing surplus or profit, proceeds either upon a lower rate of interest than is employed in the office premiums, or upon a rate of mortality different from that on which those premiums have been constructed.

Life assurance is legitimately applicable to every transaction into which the duration of individual existence enters as an essential element. By far the larger proportion of policies extant have been taken for purely mercantile purposes—to cover outstanding liabilities created by loans granted for business accommodation or arising in the common course of trade. The assurance by members of commercial firms of their trading capital, to avert inconveniences proceeding from the death of a partner during the progress of a business connection, affords a species of indemnity plainly required wherever partnership capitals exist. The surviving members of a firm may in this mode secure the enjoyment of funds adequate to the profitable continuance of their enterprise, free from liability to the injury or ruin which the sudden withdrawal of capital could not fail to produce. In a dozen different methods, directly or remotely akin to this, assurance is susceptible of use as a means of guaranteeing permanence to great undertakings, and of inspiring a degree of confidence in individual energy and solvency that were else impossible. In all such instances, actuarial skill determines the proportion of risk that exists and the money premium by which it may be represented ; and the day is pro-

bably not distant when labor of a parallel character will be deemed an indispensable associate of every mercantile corporation of more than usual magnitude.

Into the strictly mercantile applications of life assurance we will not more minutely enter. They depend for their value in particular cases on circumstances which cannot be generalized with safety, and which, after all, when generalized, would be found subordinate in importance to the strictly social aspects of the question, and the influence which it is calculated to exercise on individual character and domestic happiness.

Writers who have searched the lumber-room of history aver that the Jews of continental Europe were the earliest to avail themselves of the rough elementary principle of insurance as applied to marine risks; and certain it is that from the first mention of the contract until now, insurance, guarding against a possible risk, and assurance providing against a certain one, have been resorted to mainly in their reference to man's immediate convenience. So the system of annuities, with the tontine as its precursor, may be said to have originated in state necessities, which have seldom recognized moral

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obligations in the choice of means or human happiness in the anticipation of results.

The number of life policies in force bears an infinitesimal proportion to the number of male heads of families; and of these policies a large share, amounting, conjecturally, to one-fourth of the whole, have been obtained and are kept up as collateral security or for other purposes of business.* The community, or that portion of it which rejoices in self-complacent respectability, has not begun to appreciate the moral responsibility of life assurance and the odium which rightfully attaches to those who refuse to avail themselves of its provisions. A popular writer has said that "when life assurance shall be as universally understood and practised as it ought to be, he who 'has not made such a provision, or something 'equivalent, for the possibility of his death, will be 'looked on as a not less detestable! wretch than

* A recent estimate by a writer in a London publication fixed the number of life assurance societies in operation in Great Britain at 175, assuring in the aggregate, in round numbers, £160,000,000 sterling, on less than a quarter of a million of lives. Many of these assurances are duplicates on the same lives. The number of individuals assured is calculated to be about 230,000, and these are nearly altogether confined to "the middle and higher classes." In this respect, the industrial classes of the parent country are immeasurably ahead of the classes occupying positions of social superiority. The latter muster a moral phalanx which, after every allowance, must be pronounced small, whilst the working people enrolled in Friendly Societies and Benefit Clubs constitute an army of upwards of 3,000,000, whose aggregate annual contributions amount to £4,980,000 sterling.

‘ he who will not work for his children’s bread ;
‘ and his memory after death will be held in not
‘ less contempt.’. The judgment is severe but
suggestive : is it a hair’s breadth beyond the just
and true?

How is it that whilst fire insurance is, compara-
tively, a rule, life assurance is an exception ? Is
it that a man, aware that his prospects in life
would be largely damaged by the destruction of
his merchandize, his furniture, or his dwelling,
acknowledges the benefit he may himself derive
from insurance and accedes to the terms on which
it is presented ; while he feels that the gain pro-
ceeding from life assurance is not attainable by
himself, and will only fall to the lot of others
when he shall have ceased—humanly speaking—
to be affected by their condition ? This narrow
selfishness lies, we fear, at the root of much of the
indifference and most of the hostility which are
manifested toward life assurance. Charity points
to the supposition that in some quarters at least
the indifference is traceable to ignorance or for-
getfulness. Men otherwise earnest in their efforts
to promote their families’ good forget that the
prudence which prompts an effort to stave off
danger from fire, presses with tenfold force in the
direction of provision for those from whom they

may be at any moment snatched. So long as the energy of manhood remains, the loss of property cannot be deemed irretrievable ; the exertion which first realized it may be expected to do much towards reproducing it; but for the widow and the orphan, suddenly plunged into pecuniary difficulty, no such consolation or expectation is available. Who that is possessed of right feeling can regard without apprehension, not unmingled with self-reproach, the bitterness of poverty and sorrow which only the frail thread of his single life keeps back from his now happy hearth ? What husband or parent endowed with ordinary affection can calmly contemplate the possibility—aye, the probability if not the certainty—of destitution being experienced in all its crushing reality by his family in the event of his death ? That he has started in the direction of prosperity is a plea in no way applicable ; for the grave perhaps stands betwixt himself and the distant goal. That he enjoys ruddy health is an excuse not one whit more pertinent than its predecessor ; for others robust and temperate as himself are daily summoned to their final habitation.

As yet exempted from many of the chronic ills which cripple and crush European communities, we of the new world have proved ourselves apt copyists of their weaknesses and vices. Forget-

ting the thrift which stern necessity imposed upon the early settlers of the country, we appear intent upon nothing less than wide and rapid strides. We must be highly civilized, forsooth—polished brightly as jet blacking can make us ; and in anxiety for effect we often overlook considerations which a little thought could not fail to suggest. We worship externals as devotedly as the giddy multitude of Paris or the motley crowd of a German watering place ; and are half disposed to join both in treating life as a prolonged joke. We have thousands of industrious fathers who contentedly spend their last farthing that they and their families may retain what is called “position” in society. They make *that* their idol, and bow before it as reverentially as the Hottentot before the god of his own handiwork. They live continually in advance of their income, not for the gratification of their own tastes, which remain simple enough, but in obedience to the law of leather and prunella, which measures a man’s value by the quality of his coat, the texture of his wife’s last shawl, the dimensions of his daughter’s bonnet, or the number and brilliancy of his social entertainments. Accost them at mid-day, and they are unable to spare a life assurance premium. The banks have stopped discounting

and hard times are ahead. See them at night and what a change! The tightness of the money market is no hindrance to a dashing quadrille party. The hardness of the times is not a reason why a year's assurance premium should be diverted from the throats of boon companions. Our friends' lives are not assured, but why mar their fun by reminding them of the fact? Their families have no protection against poverty, but, poor things, they must be like their neighbors! And so, mayhap, Death catches them. He steps in, unbidden, and carries off husbands and fathers, who have had good trades or professions, but who have always happened to spend quite as much as they earned. He found them at the dinner table, the ball, or the card party, laughing at the present and never dreaming of a future. When their seats are empty it is discovered, too late, that the heartiness of their companionship has been exercised at the cost of the comfort, not to say the existence, of the wives and children whom they loved. In life they cracked jests; at death they crack hearts.

"But in Canada," somebody says, "property 'is so easily acquired that the necessity for life 'assurance is much diminished, if it be not altogether destroyed." The proposition is plausi-

ble ; is it, or is it not, deceptive ? If literally and in its broadest signification correct, it has great force, but let us be thoroughly satisfied, ere we trust to it, that it is not a will-o'-the-wisp, dancing over the quagmires of speculation.

In the current sense, the individual who is taxed for city lots, or lots so deeply hid in the bush that nobody knows how to find them, is understood to have acquired property. He has title deeds duly registered, and figures oftentimes in the tax collector's roll. Why should such an one assure his life ? Though he die, his family will possess fifty feet frontage on Paradise street, somewhere within the limits of Hamilton ; and other fifty feet frontage on the Grand River, between Fergus and Elora ; and other fifty feet in the business part of the embryo city of Bogdom, in the heart of the county of Essex ; and, added to all, a hundred acres in the centre of the township of Minto. Talk of life assurance, indeed ! Why here is a small tradesman with real estate enough to start a baronetcy. Real estate, however, does not preserve him from the grip of Death. After the first outburst of grief, the widow leisurely felicitates herself on her possessions, and hands the papers to a lawyer that he may realize. He examines and reports somewhat in

this wise : lot in Paradise street, £15 paid, mortgaged for £85, payable in six years with interest; lot on the Grand River, valued at £15, paid £5, and £45 to be paid in yearly instalments; lot in Bogdom bought for £20, whereof £17 10s. remain on mortgage; lot in Minto forfeited for non-performance of settlement duties. The learned gentleman modestly opines that the available assets are less than nothing to the extent of his fees and expenses. The reed on which the fatherless family have confidently leaned being thus abruptly snapped asunder, they have no alternative but to begin a dreary battle with beggary. Alma or Inkermann could scarcely have been more terrible to them.

Admit, if you please, that the case cited has an air of the extreme about it. Admit that industry and enterprise and thrift, with lengthened days, rarely fail to win prosperity. Two potential facts remain : one, that as a people we are most of us in debt to a greater or less extent for the property that is nominally ours; the other, that in relying altogether upon long life we play the gambler's part and stake all upon a single throw. We have not a right to assume that we shall be exempted from the unvarying operation of the law of life, or to risk our children's bread upon

the assumption. As little right have we to imagine that the burlesque of buying property with promises to pay, maturing ten or twenty years hence, in any measure diminishes the force of the duty to do what can be done to guard against the miseries which gallop ever in the train of death. On both points life assurance removes a difficulty : in one case by placing in reversion, to the credit of families or friends, means which years of toil and solicitude may fail to realize ; in the other, by providing funds to meet outstanding liabilities, and thus to guarantee full and easy possession of property apparently presenting a probability of coming profitableness. The merchant, the farmer, and the mechanic, holding property subject to the sway of the evil genius of debt, are equally interested in the benefit which life assurance extends to all, and are equally bound by duty to avail themselves of it to the extent of their necessities. By and bye, perhaps, the man who shall acquire house or land subject to mortgage, without providing for its discharge by the assurance of his life, will be held to have perpetrated a moral wrong to his family and society. Whatever effect a higher morality may exercise on the prevailing liking for indebtedness, this at least is more than problematical, that debt on

real estate will go hand in hand with the means of securing its liquidation ; and life assurance alone provides them.

It were unfair to affect ignorance of the objection which piety here and there suggests to all assurance. In whatever form, whether guarding against casualties by fire, or protecting against the contingency of death, assurance is condemned by a certain class of estimable people as in their judgment violating the domain of Deity. The class in question are not always consistent. Some of them practice fire insurance, but shrink from a life policy as a device of the evil one ; and preachers may now and then be met who press the objection while themselves contributing to an annuity or a superannuation fund. The principle which denounces provision for a man's wife or offspring while sanctioning provision for himself, is too pitiful to merit consideration, and too transparently wicked to operate extensively against the system of assurance. Leaving to these gentlemen the enjoyment of their peculiar logic, let us ask how far a just interpretation of the command, " Take no thought for the morrow," can be construed adversely to the exercise of human prudence ? The spendthrift beyond doubt tramples on the letter and spirit of the precept ; but

the avoidance of his crime does not necessarily imply an adoption of the sin and folly of the miser. Not to use care against want were surely an error quite as great as to burthen ourselves overmuch with anxious thought. In this as in every other instance the genius of christianity harmonizes with the economy of nature, and he but poorly serves his Master who on any ground seeks to construct an element of antagonism betwixt them. The bee and the beaver, the ant and the squirrel, typify instinctively the practical wisdom which man is required to manifest. Wiser than man, they hit the happy medium ; laying up store to meet winter's wants, yet not piling up treasures which they never can consume. Should not we, like them, shun the extremes of profligacy and parsimony, and, while casting care on providence, rationally use the blessings which are placed within our reach ? The lawful employment of the present is not incompatible with a righteous regard for the future, but, on the contrary, enjoins it upon us ; and by what plan other than life assurance can these twin duties be brought into practical unison ?

The immediate consequences of life assurance are seen in their relation to the family in the removal of the apprehension which renders hearths

unhappy, in the promotion of permanent comfort and independence, and in the development of sympathies which the grossly selfish man can never know. Scarcely less obvious are the benefits of the system in its relation to society. Through his family, the prudence of the assured reflects upon and influences those around him, fostering thought for others, generating self-denial as a means of doing good, building up self-dependence as an ennobling element of character; and in this manner infusing into daily life a purer feeling and a loftier conception of duty than have hitherto prevailed. Viewed in this light, life assurance forms a barrier against avarice as well as against improvidence, stripping both of their most plausible pretexts, and doing much to counteract the baneful influences which they are alike calculated to produce. Of all men, then, the christian is most interested in sustaining it, and in giving to its claims a more general and cordial recognition than they have heretofore received.

“The true philanthropist,” remarks Southwood Smith, “is he who labors to give the people, not ‘food, but the knowledge which will enable ‘them to secure it in abundance for themselves and for their children ; and no one saves,

‘prolongs, or blesses human life like him who instructs the people in their own interests.’ Apply the idea to the subject under review. We have in life assurance a principle that is susceptible of endless modification and unlimited diffusion. Available by trading and other classes as a source of security to their families, as a means of freeing property from incumbrance and of imparting confidence to large mercantile undertakings, it is capable of being also converted into the basis of a sounder and more humane polity than has been engrafted upon the nations of Europe. They have contented themselves, so far, with struggling against effects, without attempting to grapple with causes. Poverty sprang up in England, and charity rose to alleviate its horrors. At one time through monasteries, subsequently and to this day through the poor law, English philanthropy has striven to mitigate English pauperism. But the evil lives and thrives. Growing with what it feeds upon, it has become the monster cancer of the parent state, which all the skill of parliament has failed to check or cure. In guaranteeing to all a bare ability to live, English legislation has vindicated English humanity; but, however good the enacted poor law—however much preferable to mere spasmodic manifestations of charity—it

is not equal to the system of annuities, either as a moral agency or an arrangement of finance. The poor law consumes millions, and after all feeds only paupers. Through the medium of deferred annuities, a permanent provision might be presented, less in its original cost and infinitely superior in all its associations and results. A sum little more than nominal* invested at the birth of every child in the land, and improved, as the theory presupposes, at compound interest, would purchase for all who should survive "the valuable reversion of a home and a crust in the days of old age and helplessness," without entailing upon the annuitant or the country the degradation and waste of the present system. The government of Belgium has for years past been occupied with the consideration of the problem, and has in some measure tried to solve it by concocting and carrying a project of law granting deferred annuities under the authority and with

* With the Carlisle table of mortality, and a six per cent. rate of interest, 5s. 1d. invested at the birth of each of 10,000 children, and improved at compound interest, will produce a fund large enough to yield an annuity of £1 to all of the number who shall survive to the age of 50. In the same circumstances, but with the annuity deferred to 55 years of age, 3s. 2d. per head will suffice. In other words, £2 10s. 10d. per child will in one case yield to the survivors a life annuity of £10; in the other, £1 11s. 8d. will achieve the object. As a measure of national economy, then, a compulsory annuity tax would be preferable to the poor-rate which has long formed an oppressive element of English taxation.

the guarantee of the state.* There are grounds, too, for gratulation that the system of deferred annuities granted by the British government, with special reference to the circumstances of the industrial classes, has recently been so far amended as to make more generally acceptable a system possessing in itself all the germs of usefulness and popularity.†

The people and the legislators of Canada are too deeply absorbed in the speculations, the intrigues, and the exigencies of the hour to listen with attention to a proposition affecting an era which is, mayhap, comparatively remote. Like prodigals revelling in rich possessions, they are prone to think that the evil day of poverty can never come; and with this as their humor they are hardly prepared

* In Belgium, in 1849, a project of law, proposed by the Minister of the Interior and the Minister of Finance, was sanctioned by King Leopold, granting deferred annuities, with the guarantee of the state and under the authority of government. In addition to an ordinary deferred annuity, a moderate annuity is granted to persons dependent upon labor for subsistence, who, previous to the period at which the deferred annuity commences, shall by any accident be rendered permanently incapable of earning a livelihood; provided five years have elapsed from the commencement of payments to the fund. The annuities are paid in monthly instalments by agents of the government; and the management of the fund is under the direction of a commission nominated by the king.

† By an act of the British parliament, intituled "An act to consolidate and amend the laws, and to grant additional facilities in relation to the purchase of government annuities," &c., (1853,) the National Debt Commissioners are authorized to grant immediate or deferred annuities to any amount not exceeding £30 per annum, and also to contract for the payment of any sum not exceeding £100 on the death of any party who purchases a proportionate life annuity.

to discuss seriously an idea which nevertheless recommends itself most strongly to infantile nationalities. An ex-premier cited approvingly Belgian practice in connection with railroads, and it is to be hoped that the Belgian precedent in the matter of annuities will be remembered and considered before pauperism becomes part and parcel of colonial institutions.

With a good deal of propriety, the provincial government may even now be asked to dedicate a little thought to life assurance and collateral questions, and to take care that something like fair play is exercised towards institutions organized with a view to meet colonial wants and circumstances. For example, if colonial companies are required to lay before parliament regular statements of their transactions and position, why exempt from the procedure British companies occupying identical ground through their respective agencies? The demand for information is just, and may with advantage be so amended and extended as to bring officially before the country all the facts that can be needed to establish a life company's solvency; but certainly the demand, when made as comprehensive as it can be, ought to apply to every British agency in operation amongst us. There are English companies tran-

sacting life assurance business in the province that have uniformly refused to give to the public information by which their judgment might be guided ; of these companies two are known in England to be in an unsafe condition; and the Canadian people have a right to expect that their legislature, if it meddle at all, shall so meddle as to secure the means of determining the relative prosperity of institutions which are offered as worthy of Canadian support.*

The remark leads us not unnaturally to consider more specifically points that properly enter into individual action in dealing with life assurance. The head of a family, satisfied that his duty is to assure his life, should weigh candidly the peculiarities and pretensions of offices which are brought under his notice. As a discreet man, he

* Another point which may reasonably be borne in remembrance is the equity of exempting from taxation that part of a man's income which is expended in the payment of a life assurance premium. The exemption was conceded by Mr. Pitt, in 1798, being in favor, he said, " of those who have recourse to that easy, certain, and advantageous mode of providing for their families by insuring their lives." The income tax now in operation in Britain makes the same exemption. Why should Canadian legislators, less liberal than Mr Pitt, less just than Mr. Gladstone, persist in taxing an expenditure directly tending to the enhancement of national prosperity ? The existing assessment law allows of some exemptions, but none of them rests upon a claim stronger than that which may be presented in behalf of the provident expenditure of life assurance. Under the present anomalous operation of the law, the charge is sometimes of slight practical importance; but it rests upon an unsound and a vicious principle.

will not be misled by the appearance in a prospectus of pompous names as patrons or directors. These may help to keep a ricketty concern upon its legs for a few years, but, as criteria of good management, they are infinitely below the names of reputable men of business. Besides, if the office be established, no difficulty need be experienced in ascertaining how it has acted towards its members. Has it invariably kept them in the dark in reference to its affairs? Does it hold its meetings with closed doors, that it may effectually conceal the condition of its business? Has it dealt honorably with embarrassed members, and been governed in its settlement of claims by the spirit rather than the letter of the assurance contract? If the answers to these interrogatories be not satisfactory, have nothing to do with it; avoid it as you would an Indiana bank note. If satisfactory, then look a little further. Scan closely its published accounts. Mark what proportion its realized capital bears to its age and its income. Should you discover, as perchance you will, that an office boasts of its position, as the result of years of business, without being able to show invested means equal to a single year's income, set that office down as tottering, and therefore undesirable as the age. If subscribed capital,

premiums, and all, have been expended in providing gilt gingerbread incident to a start, direct your steps to more economical quarters. Begin next to look for genteel professional tricks. Remember that an English railwayking descended to the kitchen to cook accounts, and that life assurance luminaries may be tempted to imitate his example. A gridiron is not a vulgar thing when handled with kid gloves. Look out, then, for cooking. It may be that five years' mortality is made to look like that of six, for the purpose of establishing credit for care and good fortune in selection. It may be that the present value of the "charge," or loading, has been capitalized, as well as the present value of the net premium, without also capitalizing the present value of future expenses. Mistrust all mystery, all wise winks and sagacious shakes, and rest not satisfied until you have discovered an office whose balance-sheet and mode of dealing accord with your ideas as a common sense business man.

Having found what satisfies the requirements of your judgment, complete promptly the duty that has been sensibly commenced. In this more speedily than in most matters, action should follow thought. Numerous are the instances in which persons assured have died within a brief period after

payment of the first premium ; and others there are scarcely less plentiful in which parties of dilatory habit have been prevented from accomplishing an admitted duty by the sudden occurrence of ailments, slight in their beginnings but prejudicial in their consequences. Procrastination, proverbially perilous, is peculiarly so here.

Another consideration to be borne in remembrance is the necessity on the part of the applicant of being scrupulously honest in the transaction. The hint is by no means superfluous. Corporations are by common consent alleged to be devoid of conscience ; and men in dealing with them not unfrequently descend to subterfuges and manœuvres from which they would shrink in intercourse with their fellows. To establish the imputation we need not refer to diabolical deeds perpetrated to defraud through the medium of life assurance, such as those which occurred long ago in London and more recently at Bristol ; nor is it necessary to cite circumstantially the conspiracy successfully concocted in Ireland to plunder London institutions by introducing lives known to be ineligible. These are circumstances happily so rare in their occurrence that they have no direct bearing on the point immediately under notice. They

belong to the romance of life assurance, not to its routine history. Not so rare, however, are the cases in which a single falsehood, expressed or implied, serves the ends of fraud. Mean men understate their age to save a fraction in the shape of premium. Others, holding their heads high above the multitude, fence about interrogatories, and equivocate, and now and then try one of Archdeacon Paley's white lies, to swell an item in their last will and testament, or to oblige an ancient friend who has suddenly become anxious to be assured. Here and there, parties tainted with consumption, or addicted to the bottle, manage to mislead medical referees; and there are not wanting on the record cases of hernia that have been designedly forgotten by gentlemen who would resort to puffing and pistols to avenge an imputation on their honor. The wickedness of these cases is only equalled by their folly. The fact that a fraud of this nature releases an assurance society from its obligation, and so defeats the object of the assured, ought to be sufficient to induce individuals to act honestly and candidly in their references and avowals.

These are topics, however, which can be only glanced at now. A host of other questions aris-

ing out of the practice of assurance must be wholly passed over. The various applications of the system, adapting it to the enjoyment of the assured during life, and providing for the wants and wishes of different classes, are all of interest and importance; but every agent is presumed to be capable of giving the explanation of which each is susceptible. The agent not capable of rendering it occupies the place of a better man, and should either retire or improve. It is not enough that he wait to receive the business which accident casts into his hands, or that he confine his acquaintance with the subject to the terms of the prospectus issued by the office he represents. He ought to be able to explain the peculiar operation and value of the respective modes of assurance, and the fitness of one or another for the wants of parties addressed; and when thus competent to discharge his duty, moderate enthusiasm will open to his view profitable fields for exertion. Notwithstanding all competition, the work of life assurance is still in its infancy.

The facility with which the system can be adapted to the multiform necessities and ever-changing tastes of society, constitutes the best evidence of its excellence and the best guarantee of its success. As a bare business arrangement,

temporary and trite—as a mode of mitigating the sorrows of widows and orphans, and so of satisfying social sentiment—or as an instrumentality which may be applied, directly or remotely, to great questions of national policy—life assurance alike challenges admiration and confidence. By processes more marvellous than alchemy, it evolves certainty out of chance; with simple figures it realizes the dreams of poesy; and by demonstrable rules creates material for a fabric already beautiful in outline, and destined ultimately to exhibit in harmonious combination the claims of justice and the promptings of philanthropy.

ERRATUM.

Page 8, line 17.—For “curtate” read “complete.”

NOTE.

The “curtate mean duration” of life at 40 (Carlisle table of mortality) is 27 years, one month. The “complete mean duration” at the same age is 27 years, 7 months. The former is the average expectation possessed by the whole body of survivors at the age in question, exclusive of that part of the year in which the lives severally fail; which, by the “complete” hypothesis, is added to give to each an equality of expectation.

omparison.

.472 per cent.		Premiums 6 per cent. Interest 8 per cent.		
of ms ay- on s.	Excess of Premiums and Inter- est over payments on deaths	Premiums.	Interest.	Stock at end of year.
	£	£	£	£
3	840	2,208	176	884
3	1,707	4,393	422	2,699
	2,604	6,557	740	5,498
3	3,529	8,698	1,135	9,331
	4,489	10,819	1,612	14,262
	5,482	12,917	2,174	20,354
	6,509	14,991	2,827	27,672
	7,577	17,043	3,577	36,295
3	8,684	19,070	4,429	46,301
3	1,007	21,083	5,390	57,776
	1,007			
	1,007			
	30,212			
	30,054			
	25,232			
	24,229			
	4,397			

y, each 30 years of age, and assured
on lives that fail are all paid at
ling in its transactions upon the
artially, of another, with premiums
mployed in each instance; and for
it are kept out of view. (See Lec-

An Assurance Society in Operation.—II

Year.	Policies extant at the beginning of each year.	Deaths in the year.	Payments on deaths in the year.	Amount assured at end of each year.	3 per cent. Not Premium £1.951 per cent.					6 per cent.	
					Premiums.	Interest.	Stock at end of year.	Excess of sums received for Premiums over payments on policies.	Excess of Premiums and Interest over payments on deaths.	Premiums.	
			£	£	£	£	£	£	£	£	£
1	300	3	1,500	118,500	2,928	87	1,514	1,426	1,514	2,208	
2	597	6	3,000	235,500	5,823	229	4,558	2,823	3,043	4,393	
3	891	9	4,500	411,000	8,691	397	9,147	4,191	4,589	6,557	
4	1,182	12	6,000	585,000	11,529	621	15,290	5,529	6,149	8,698	
5	1,470	15	7,500	727,500	14,333	889	25,024	6,839	7,728	10,819	
6	1,758	18	9,000	868,500	17,118	1,204	32,344	8,118	9,322	12,917	
7	2,037	21	10,500	1,008,000	19,879	1,566	43,288	9,379	10,936	14,991	
8	2,316	24	12,000	1,146,000	22,591	1,970	55,850	10,591	12,567	17,043	
9	2,591	27	13,500	1,282,500	25,283	2,434	70,067	11,783	14,217	19,070	
10	2,866	30	15,000	1,417,500	27,947	2,940	85,959	12,947	15,887	21,083	
20	5,428	67	33,500	2,680,500	52,950	10,262	318,839	19,450	29,712	39,949	
30	7,687	110	55,000	3,763,500	74,498	21,547	684,780	19,408	41,045	56,200	
31	7,823	117	58,500	3,858,000	76,410	22,831	725,520	17,910	49,745	57,650	
40	9,282	180	90,000	4,551,000	90,542	33,636	1,064,867	545	34,181	68,314	
41	9,498	187	93,500	4,610,500	92,477	34,720	1,098,561		33,697	69,211	
50	10,198	257	128,500	4,970,500	99,479	41,676	1,302,380		12,655	75,050	
52	10,230	269	131,500	5,010,500	100,378	42,398	1,321,191		8,276	75,734	
56	10,405	290	145,000	5,057,500	101,500	43,026	1,332,251				

The assumption in each of the above statements is, that 300 members are added at the beginning of every year for £500; that the premiums are paid at the commencement of every year; and that the close of the year. Subject to these conditions, the table shows the financial progress of the society on a three per cent. basis; of the same society with premiums and investments computed at six per cent., but realizing eight per cent. on its investments. The Carlisle typographical convenience decimals are omitted. For simplicity, too, all funds accruing at the end of the year are shown in p.p. 24, 25.)

Operation.—Illustrative Comparison.

.951 per cent.		6 per cent. Net Premium, £1.472 per cent.					Premiums 6 per cent. Interest 8 per cent.		
Excess of Premiums and Inter- est over payments on deaths.	Excess of Premiums and Inter- est over payments on deaths.	Premiums.	Interest.	Stock at end of year.	Excess of Premiums over pay- ments on deaths.	Excess of Premiums and Inter- est over payments on deaths.	Premiums.	Interest.	Stock at end of year.
£	£	£	£	£	£	£	£	£	£
26 1,514	2,208	132	840	708	840	2,208	173	884	
23 3,043	4,393	314	2,548	1,393	1,707	4,393	422	2,699	
91 4,589	6,557	510	5,152	2,057	2,604	6,557	740	5,498	
29 6,149	8,698	831	8,081	2,698	3,529	8,698	1,135	9,331	
39 7,728	10,819	1,170	13,170	3,319	4,489	10,819	1,612	14,262	
18 9,322	12,917	1,505	18,052	3,917	5,482	12,917	2,174	20,354	
70 10,936	14,991	2,018	25,192	4,491	6,509	14,991	2,827	27,672	
91 12,567	17,045	2,532	32,739	5,045	7,577	17,045	3,577	36,295	
83 14,217	19,070	3,108	41,424	5,576	8,684	19,070	4,429	46,331	
47 15,887	21,081	3,750	51,260	6,085	9,835	21,081	5,390	57,776	
50 23,712	39,949	13,290	193,707	6,443	19,649				
38 41,045	56,201	29,094	457,421	1,208	30,212				
19 49,745	57,650	30,904	487,471		30,054				
45 34,181	68,314	40,918	738,880		25,232				
33,697	69,242	48,487	763,110		24,229				
12,655	75,050	57,841	893,360		4,397				
8,276	75,734	58,268	894,911						

00 members are added annually to the society, each 30 years of age, and assured of every year; and that the sums assured on lives that fail are all paid at once; the financial progress of a society proceeding in its transactions upon the investments computed at six per cent.; and, partially, of another, with premiums estimated. The Carlisle rate of mortality is employed in each instance; and for too, all funds accruing from surplus and profit are kept out of view. (See Lec-

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FRIENDLY SOCIETIES.

During the last few years, the condition of Friendly Societies, Oddfellows' Societies, and institutions of a similar character, has formed a theme of fertile controversy in the metropolis and the manufacturing districts of England. The Imperial parliament has debated its merits and legislated to meet some of its most obvious necessities; and actuaries of eminence have applied their researches and their skill to solve a problem involving largely the welfare of millions of the industrial classes. The hypothetical arguments of actuaries, with their collateral calculations, have been sustained with singular precision by the published statements of the Manchester order of Oddfellows, and by the less voluminous but not less reliable revelations of other benevolent fraternities and associations. What was at first derided by "practical men" as the presumptuous dogmatism of science, is now conceded as an alarming fact. It is conceded that the financial basis of the majority of the secret provident societies—Oddfellows, Foresters, Rechabites, and the like—is radically unsound, and that in the absence of prompt curative processes, their insolvency is a question simply of time. The contributions exacted from members are now admitted to be disproportioned to the benefits desired and promised; and the ultimate result must therefore be sorrow and suffering to the classes for whom these organizations have been designed. The ominous circumstance is not limited to England. It operates with slightly diminished force in its application to the provident institutions of the Sons of Temperance, the Oddfellows, and we know not what beside, as they at this moment exist in Canada. Here, as in England, the thrifty mechanic is invited to provide for the wants of sickness and the infirmities of age by availing himself of societies which, as now managed, are destined to end in the cruel disappointment of their long-lived members.

All of these societies attempt too much. With limited knowledge, they undertake a business which above all others requires technical and financial skill; with primitive machinery, they try to accomplish objects which call for the exercise of foresight, nicety, and judgment. The best—because the most feasible—remedy is to simplify their transactions by undertaking only sickness benefits from year to year—in other words, by adopting a temporary instead of a perpetual character; leaving to regular life assurance institutions the task of providing for the exigencies of decrepitude and death. A plan of "life assurance and annuity combined" has been constructed for the purpose of meeting the new want. As its title implies, the plan offers an annuity, payable to an individual after attaining to a given age, as well as a sum payable to his representatives at his death; and it is rendered more particularly applicable to artisans and others similarly situated by the removal of the common liability to continuous payments of premium. Single premiums are substituted for renewal ones,—each premium effecting a distinct and complete purchase of an assurance and an annuity, without exposure to forfeiture or diminution.

Canada Life Assurance Company, HAMILTON, C. W.

President.—HUGH C. BAKER, Esq., F.I.A.

Vice President.—JOHN YOUNG, Esq.

Directors.—Miles O'Reilly, Esq., R. P. Street, Esq., Mr. Sheriff Thomas, John Young, Esq., Archibald Kerr, Esq., James Osborne, Esq., R. Juson, Esq., J. D. Pringle, Esq., G. S. Tiffany, Esq., G. W. Burton, Esq., H. C. Baker, Esq., W. P. MacLaren, Esq., D. C. Gunn, Esq., Hamilton; N. Merritt, Esq., St. Catharines; Hon. A. Fergusson, Woodhill; James Hamilton, Esq., M. D.; Hon. R. Spence, M. P. P.; James McIntyre, Esq., Dundas; Hon. J. H. Cameron, M. P. P.; John Arnold, Esq., Toronto.

Assistant Actuary.—George Sheppard.

General Agents.—W. P. Pickering, Canada West; J. C. Stikewau, Canada East.

Branch Offices at Montreal and St. John, N. B.; with Agencies throughout Canada, and at St. John's, Newfoundland.

The progress of this Company since the date of its establishment—1847—has been one of unchecked prosperity. Starting amidst many drawbacks and encountering many obstacles, it has worked its way to a position which can well endure searching scrutiny. In addition to the original subscribed capital, it now possesses an ample realised and invested fund, and a large and rapidly increasing income.

The features recommending the Company to public favor are, the comparative lowness of its rates, which nevertheless afford a wider margin for contingencies than those of any other company doing business on the continent—the investment of its funds in Canada at high rates of interest—economy in management—and a degree of attention to colonial wants and peculiarities which none but a strictly Colonial Company can be expected to display.

Amongst the branches of business undertaken by the Company are—

1. Sums payable at death, with or without profit.
2. Endowment Assurances, payable on the party attaining a given age, or at death if it happen earlier.
3. Assurances on Joint Lives and Survivorship.
4. Annuities, immediate and deferred.
5. Assurance Annuities, securing sums payable at death if before a given age, or annuities thereafter.
6. Half credit assurances, one half of the premium for the first seven years remaining as a debt.
7. Industrial assurances, providing sums at death in small amounts, and also annuities without liability to continuous payments.
8. Money received at interest or for accumulation, at higher rates than are allowed by banks or savings banks. Five or six per cent. is paid by the Company on money temporarily or permanently deposited—the rate varying with the duration of the deposit and the notice given prior to withdrawal.

Persons assured in any of the first five scales, finding themselves unable to continue payment of their premiums, may exchange their policies for others of smaller amounts, unencumbered with further charges.

Policies of five years' standing purchased at a valuation.

Hamilton, June, 1855.

THOS. M. SIMONS, *Secretary.*

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