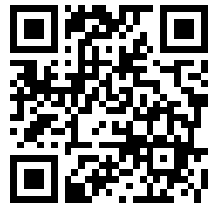

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**THE HISTORY OF LIFE INSURANCE IN
THE UNITED STATES TO 1870**

With an Introduction to its Development Abroad

**BY
CHARLES KELLEY KNIGHT**

STANFORD LIBRARY

A THESIS

**PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY**

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PREFACE

Life insurance constitutes one of the very few of our more important financial institutions whose early history has not been written. This seems strange, for in no other business does success depend more on a favorable record, and in no other do agents and advertisers appeal more often to history. For example, each one of three prominent companies advertises at the present time that it is the "oldest company" in this country. Several companies, it is true, have published their own individual histories, and these contain much valuable and accurate information; but one could scarcely expect to find in such works any information of a nature adverse to the best interests of the companies concerned.

The present writer attempts to present all facts essential to a general knowledge of the early history of the institution as a whole. At the same time he realizes that the impartial historian of life insurance is charged with a peculiar duty. All who are acquainted with the institution agree that it should be encouraged by every legitimate means. It is useless, therefore, to revive old scandals concerning individual insurance men long since dead, or to portray disreputable practices that have been permanently abandoned. On the other hand, false practices that might recur at some future time require the boldest exposition as regards their nature and effects.

The author wishes to acknowledge his indebtedness to Professor S. S. Huebner, who kindly read the entire manuscript and offered many valuable suggestions, as well as to Professor E. S. Mead and other members of the Wharton School Faculty. The writer is also especially obligated to his wife, who was of immeasurable assistance throughout the entire work, from the collection and classification of material to the final reading of the proof.

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CHAPTER I.

INTRODUCTION

THE ORIGIN AND DEVELOPMENT OF LIFE INSURANCE ABROAD.

In the early history of life insurance four primary stages of development may be distinguished. The first of these may be called the period of experiment. It extends from the earliest beginnings down to the year 1700. During this time the practice of keeping mortality records originated, and the fundamental laws of probability were evolved and applied to the valuation of human life. Underwriting was done by individuals, and toward the end of the period some distribution of risk was accomplished by the insurers, since it became customary to accept but a small portion of each one of a number of separate hazards. The second stage may be designated the speculative assessment period. It extends from 1700 to 1721, and is distinguished by the fact that assessment associations of a highly speculative nature were formed for effecting life insurance. The third period, from 1721 to 1760, may be termed the era of scientific progress, since it is characterized by the progress made in the science of life contingencies. The fourth and last epoch, from 1760 to 1800, is one in which the advent of modern life insurance occurred. It was during this time that insurance for the whole of life on an annual level premium basis, and with a reserve fund to meet liabilities increasing with advancing age, was put into practical operation.

The period of Experiment from the Earliest Beginnings to 1700.—*Early Devices for Protection.*—Marine insurance is the earliest form of protection against loss to which specific and authoritative reference may be cited. Yet the question as to whether or not it was known to the ancient world is a difficult one, and the answer seems to depend on the sense in which the term "insurance" is used. About two years after the battle of Cannae the Government of the Roman Republic guaranteed against loss by storm or enemy attack certain shipments of clothing and corn to the Roman army in Spain.¹ There is no

¹Livy, History, lib. 23, c. 49.

evidence of a premium payment, however, unless it be assumed that the merchants who shipped the cargoes paid a premium in the form of a reduction from the price they would otherwise have received.²

That so-called loans on bottomry were effected in ancient times, however, may be supported by much first-hand evidence.³ These were usually made between individual capitalists and private owners of ships. The lenders would finance a venture with the stipulation that if successful the loan should be returned with interest at a much higher rate than was customary in the case of ordinary commercial transactions, and if unsuccessful the borrower should be absolved from any return payment. If a part of the sum lent be considered the face of an insurance policy paid in advance, and if the extra rate of interest charged be looked upon as a premium payment; then insurance may be said to have existed. A merchant who had the financial ability to undertake a voyage might avoid the risks of the venture by procuring a loan on bottomry and then reinvesting the sum borrowed at the prevailing commercial rate. The difference between the commercial and the nautical rate may be looked upon as an insurance premium, since by its payment the merchant could secure protection against marine perils. But the process was the reverse of present day insurance practice and, therefore, further evidence may be demanded before admitting that insurance as the term is now understood was practiced in ancient times. There was no "social device for making accumulations to meet uncertain losses of capital which is carried out through the transfer of the risks of many individuals to one person or to a group of persons."⁴

²Other citations from which inferences of the early existence of insurance may be drawn are sometimes made. Thus Livy, in *History*, lib. 25, cap. 3, indicates that frauds were occasionally perpetrated against the state by sinking worthless vessels and claiming damages for the loss of valuable cargoes. And Suetonius, in the *Life of Tiberius Claudius*, ch. 15, tells how the Emperor made good the losses occasioned by attempts to import corn in winter.

³*Leg. Rhod.*, f. 1, art. 21, and f. 2, art. 16. *Digest*, lib. 22, tit. 2. *Code*, lib. 4, tit. 33. In his text book on *Insurance Law*, published in 1789, James Allan Park states (p. 474) that one can hardly open a book on Roman law without finding chapters "de nautico foenore, de nauticis usuris."

⁴Definition of insurance by Willett, Alan H., in "The Economic Theory of Risk and Insurance," p. 106.

Life Contingencies and the First Mortality Table.—Having observed how a merchant in ancient times might secure relief from the peril of losing his ship or cargo, it might be suspected that evidence could be found of some practice by which the merchant, who usually accompanied his venture in those days, could insure his own safe return. But, while the first contracts involving payments in the event of death were entered into by masters of ships, no primary source reveals such a practice until the sixteenth century.⁵ Hence, if lack of evidence showing the existence of life insurance indicates its non-existence it was certainly unknown to the ancients. Nevertheless, some knowledge of life contingencies was attained by them. It appears that the Falcidian law prevented a testator from leaving more than three-fourths of his property to others than legally constituted heirs.⁶ But as it sometimes happened that testators bequeathed temporary and life annuities,⁷ it became necessary to calculate the value of these annuities in order to determine whether or not the legal requirements had been met. It appears to have been customary to evaluate them at thirty years' purchase for persons under thirty years of age, and to deduct one year's purchase for each year by which the annuitant exceeded thirty. That is, a bequest of an annuity of 1 per annum was assumed to be the equivalent of 30 at once if the recipient were under thirty. But if he were thirty-one, an annuity of 1 per year was considered to be equivalent to 29 at once, etc., until age sixty was reached when the annuity was valueless.⁸ This method appears to have been so unsatisfactory that the Praetorian Praefect Ulpianus produced a table of life expectancy to serve as a more accurate basis for such calculations. His table is reproduced below together with the American Experience Table which is in general use for insurance purposes in the United States today.⁹

⁵See notes pp. 10–11 below.

⁶Digest XXXV. 2, 1 (Cited by H. J. Roby, *Justinian's Digest*, p. 45, publ. by Cambridge University Press, 1886). Digest XXXV, 1. See also Mommsen-Krueger, *Digesta Justiniani Augusti*, vol. 2, pp. 200 et seq.

⁷Roby, *Justinian's Digest*, p. 189.

⁸Aemilius Macer, in Digest, XXXV. 2, 68 (cited by Roby, *Justinian's Digest*, p. 188). See also Mommsen-Krueger, *Digesta Justiniani Augusti*, Vol. 2, p. 214.

⁹Hendriks, F., in *Assurance Magazine*, Vol. II, p. 224.

ULPIAN'S TABLE OF EXPECTATION OF MALES AND FEMALES ¹⁰		EXPECTATION BASED ON AMERICAN EXPERIENCE TABLE OF MORTALITY	
Ages	Expectation in Years	Ages	Approximate Expectation in Years ¹¹
Birth to 20.....	30	10 to 20.....	45.82
20-25.....	28	20-25.....	40.85
25-30.....	25	25-30.....	37.42
30-35.....	22	30-35.....	33.92
35-40.....	20	35-40.....	30.34
40-41.....	19	40-41.....	28.18
41-42.....	18	41-42.....	27.45
42-43.....	17	42-43.....	26.72
43-44.....	16	43-44.....	26.00
44-45.....	15	44-45.....	25.27
45-46.....	14	45-46.....	24.54
46-47.....	13	46-47.....	23.87
47-48.....	12	47-48.....	23.08
48-49.....	11	48-49.....	22.36
49-50.....	10	49-50.....	21.63
50-55.....	9	50-55.....	19.49
55-60.....	7	55-60.....	16.06
60 and upwards.....	5	60 and upwards.....	5.97

Ulpian's table was most probably based on recorded observations of the value of annuities rather than on the number of deaths occurring within a given time at various ages,¹² yet it is more nearly accurate than any other of which we have record until nearly the close of the seventeenth century.

The Middle Ages.—During the middle ages the disorganized state of society together with the ever recurring epidemics rendered life insurance, except as a wager between two or more persons, impossible. And yet there is sufficient evidence to indicate that so-called "wager policies"¹³ were entered into

¹⁰(Ibid, p. 225).

¹¹Arithmetical average of expectancies at the ages during the periods indicated.

¹²Ibid. p. 224.

¹³It is highly probable that the wager policies referred to were merely contracts in which the insurers did not have a provable interest, and were in no sense looked upon as gambling instruments. They would today be looked upon as business policies since they were used in most cases to protect the holder's credit.

quite frequently, especially during the latter part of the period.¹⁴ In form and substance the contracts resembled the old marine contracts from which Lloyd's standard policy developed. They were used to insure merchants, masters of ships and others about to embark on long and hazardous journeys against death and to provide funds for ransom in case of capture.¹⁵ Annuity dealings were also entered into as a means of investment and to avoid the usury laws, and contracts were made to protect the purchase of state offices and the lease of church lands "for life."¹⁶ James Allan Park in his work on Insurance published in 1789 states that the first legal reference to life insurance that he can cite is contained in the 66th article of the Laws of Wisby. This article provided that if a merchant should require a master to insure his ship, then the merchant must insure the master's life.¹⁷ But life insurance conceived of as meaning a contractual relationship whereby for a premium paid in advance the insurers agree to pay a certain sum of money to the insured's estate or to such persons as he may designate in the event of his death during a stipulated period, and as requiring at least some effort on the part of the insurers to spread the risk involved over at least several persons, was first effected so far as may be determined from primary sources, during the latter half of the sixteenth century. As was the case in the so-called wager policies mentioned above, the insurances written during this period were temporary, and were against capture or death on voyages and were payable to heirs or creditors in case of the happening of the event insured against. In some instances the insured person paid the premium and in others the

¹⁴Cleirac, E., "Guidon utile et necessaire pour ceux qui font Marchandise, & qui mettent à la Mer," ch. 16. This is a compilation of laws and customs together with a discussion of maritime and commercial contracts, found in Cleirac's "Les Us, et Coutumes de la Mer" published at Rouen in 1671. Ch. 16, entitled "Des Assurances qui se font sur les corps des personnes," is found on pp. 272-275. (Library of the University of Pennsylvania.)

¹⁵Ibid.

¹⁶Bensa, in his *Histoire du Contrat d'Assurance*, p. 90 et seq., states that contracts were made in the fifteenth century to insure against death during pregnancy. Slaves on board ship may have been "insured" in the same manner as was other property in ancient times.

¹⁷Park Intro, p. 27. See also Cleirac, "Us et Coutumes de la Mer," p. 155.

policies were taken out by creditors. Contracts were also entered into by those having pensions for the continuance of the pensions in whole or in part to their heirs in the event of their own premature death.¹⁸

These insurances were forbidden in France, however, because of the endless abuses and deceptions that arose.¹⁹ Prohibitory laws and ordinances were also passed in a number of other countries during the latter part of the sixteenth and the early part of the seventeenth century.²⁰ Ordinances prohibiting a practice may be fairly taken to indicate its existence. The statutes, however, fail to distinguish insurance contracts from gambling, which leads to the conclusion that on the Continent wager policies predominated.

Early Life Insurance Policies.—The earliest known life insurance policy was effected June 18th, 1583, in London. It appears that for some reason²¹ a man named Richard Martin secured a policy on this date payable to himself in case one William Gibbons should die within the ensuing twelve months. The policy reads as follows:

“In the name of god amen. Be it knowne vnto all men by these psents that Richard Martin Citizen and Alderman of London doth make afsurance and causeth himself to be afsured vpon the naturall life of William Gybbons Citizen and salter of London, for and during the space of xij monethes next ensuinge after the vnderwriting heareof by the assurers heareafter subscribed fullie to be complete and ended. The wch assurance wee the psons heareafter named mchantes of this Citie of London for and in consideracon of certeine currant money of England by vs received at the subscribing hereof, of the said Richard Martin after the rate of viij^{ll} sterling p cent (whereof we acknowledge ourselves and everie of vs by these psentes trulie satisfied & paid) do take vpon vs to beare. And we do assuere by thiese psentes that the said William Gybbons (by what addicon so eu he is or shal be

¹⁸Us et Coutumes de la Mer, p. 274.

¹⁹Ibid.

²⁰An ordinance of Philip the Second forbade insurance on lives in 1570. (Cited by F. Hendriks in *Assurance Magazine*, Vol. II, p. 229). The Civil Statutes of Genoa in 1588 prohibited “bonds or wagers” without license of the Senate upon the life of the Pope and other distinguished personages, which indicates that insurance was not yet dissociated from gambling.

²¹Doubtless because the beneficiary was in position to suffer financial loss should the insured die within the year.

named or called) shall by Gods grace contynue in this his naturall lief for & during the space of xij monethes next ensuing after the vnderwriting hearof by everie of vs the assurers, or in default thereof everie of vs to satisfye content & paie or cause to be satisfied contended and payd vnto the said Richard Martin his executors administrators or assigns, all such seuell sumes of money as we the afsurers shall hereafter seually subscribe, promising and binding vs eche one for his owne part, our heirs executors & administrators by these psentes, That if it hapen (as god defend) the said William Gibbons to dye or decaise out of this psent world by any wayes or meanes whatsoever before the full end of the said xij monethes be expired, that then we our heiers, executors or assigns wthin two monethes next after true intimacon thereof be to vs our heires executors or administrators lawfullye given, shall well and truly content and pay or cause to be contented and paid vnto the said Richard Martin his executors administrators or assigns all such sume and sumes of money as by vs th assurers shalbe heereafter seually subscribed without any further delaye: It is to be vnderstanded that this psent writing is and shall bee of asmuch force, strength and effect, as the best and most surest policy of writing of assurance wch hath bene eu heretofore vsed to be made upon the life of any pson in Lumbard Street, or nowe wthin the Roilll Exchange in London. And so the afsurers be contented and doep mise and binde themselues and everie of them their heiers executors and administrators by these psents to th' afsured his executors administrators and assigns for the true pformance of the pmises according to the vse and custome of the said street or Royall exchange: And in testimony of the truth the afsurers have hearevnto seually subscribed their names and sumes of money afsured. God send the said William Gibbons helth and long lief. yeven in the office of afsurance wthin the Royall Exchange aforesaid the xvijth day of June, 1583.”²²

Other policies of a similar nature were issued before this date, however, as is attested by this policy itself, and by other evidence.²³ For instance, it may be noted that this policy provides that it shall be “of as much force.....as the bestpolicywhich hath bene ever

²²See pp. 15-16, below.

²³Copied from MSS Lansdowne, No. 170, fo. 123 (British Museum) in the *Journal of the Institute of Actuaries*, Vol. 16, pp. 420-421. See also, Walford, C., in *Journal of the Institute of Actuaries*, Vol. 25, pp. 119-120.

heretofore used to be made upon the life of any person” And again the insurers bind themselves to the performance of the contract “according to the use and custome of the Royall Exchange.” The fact that the first court case involving the interpretation of a life insurance policy grew out of this contract probably accounts for its being the earliest policy whose form and substance have been preserved. It closely resembles the marine contracts in use at that time as to form, premium rate, time of payment of premium, and the time stipulated for payment of the proceeds.²⁴ It was subscribed to in much the same manner as is a marine policy in Lloyds of London today. The names of sixteen underwriters appear, six of them having signed in pairs, with amounts after each name or pair of names varying from £25 to £50. £383 $\frac{1}{3}$ was the total amount subscribed and the premium was 8 per cent. of this sum, or £30 $\frac{2}{3}$. The premium was paid in advance and the total amount subscribed or the “face,” was to have been paid two months after proof of the death of the insured. Gibbons died May 29, 1584, and the insurers contested the claim on the ground that the insured had lived twelve months of twenty-eight days each. The court held, however, that the contract was intended to remain in force for the full year, and ordered the insurers to pay the amounts subscribed.²⁵

The earliest reference to a policy of life insurance procured by a person on his own life for the benefit of his heirs, i. e., a policy used for family protection, is found in the work of Gerard Malynes entitled “*Consuetudo, Vel Lex Mercatoria*,” or the “*Ancient Law Merchant*,” published in 1622. Malynes states²⁶ that the master of the mint,²⁷ a man aged 90 secured a policy of £300 on his own life for one year at 25 per cent. The claim arose during the year and the proceeds were paid. Another instance is cited of a person who had borrowed money to purchase an office taking a policy so that in case of his death before repaying the loan his creditors would be able to recover

²⁴Malynes, *G. Vel Lex Mercatoria*, Edition of 1636, pp. 108–112. Magens, N., *Essay on Insurances*, 1755, Vol. II, pp. 4–7, 23–24.

²⁵A partial record of the court case was also copied from MSS. Lansdowne, in *J. I. A.*, cited above, pp. 419–423.

²⁶Page 107.

²⁷His name was Richard Martin, and might very probably have been the same person named in the policy above.

from the proceeds of the insurance.²⁸ This is the first example of a man taking a policy on his own life to protect his creditors.

The First Facilities for Effecting Life Insurance.—As has been noted one of the early sources of information as to the existence of life insurance on the Continent consists in recorded legislation prohibiting it. The reason for such adverse legislation seems to have been that so many fraudulent practices prevailed that any contract providing for the payment of money in the event of death, was considered an unmitigated evil. In England, however, regulation rather than prohibition began to be applied before the close of the sixteenth century, and laws were even passed for facilitating life underwriting. In 1574 Queen Elizabeth granted the right to *make and register all manner* of insurance policies to Richard Chandler, who established what was known as the Chamber of Insurance. Commissioners were also appointed by the City of London to settle disputes arising out of insurance contracts.²⁹ In 1587, two judges of the Court of Admiralty upheld the judgment of the Commissioners in the first recorded life insurance case (previously referred to) on the basis of the common law regarding contracts.³⁰ In 1601 Statute 43 Elizabeth c 12 was enacted creating the "Policies of Insurance Court," whereby commissioners were appointed to meet weekly at the "Office of Insurance on the West side of the Royal Exchange," for the determination of insurance controversies arising from policies registered at the office. The Office of Insurance seems to have grown out of the Chamber of Insurance mentioned above. But the Insurance Court, due to the fact that the statute creating it was not sufficiently inclusive and perhaps also to partiality shown by some of the Commissioners was soon limited to the trial of property insurance cases. Later it passed out of existence.³¹ The determination of insurance cases then reverted to the ordinary courts of law where it has since remained. But a sufficient number of cases appear throughout the ensuing century to indicate that by 1700 life insurance was not only sanctioned in England by both common

²⁸Ibid, p. 107.

²⁹Walford, C., *Insurance Cyclopaedia*, Vol. I, p. 486.

³⁰Journal of the Institute of Actuaries, Vol. 16, p. 423, and Vol. 25, p. 120.

³¹Park, J. A., *A System of the Law of Marine Insurances, etc.*, 1789, Introduction, pp. 37-38.

and statutory law, but was also recognized by the judiciary as having attained a place in the realm of legitimate business.

There is no first hand information concerning facilities for effecting life insurance prior to the establishment of the Chamber of Insurance in 1574. But since it was customary at that time for men who were interested in a particular line of business to gather at some coffee house to discuss their affairs, it is not at all improbable that risks involving life were underwritten, or at least information as to who desired insurance and what persons would be likely to accept the risk was disseminated at these informal gatherings. In fact Malynes, in discussing insurance, states that meetings of merchants were held in Lombard Street, because certain Italians from Lombardy kept a pawn-shop there before the establishment of the Royal Exchange by Sir Thomas Gresham.²² As has been stated above *the purposes of the Chamber were to make and register policies and to settle disputes.* A person desiring insurance, therefore, had recourse to the Chamber whose clerk would draw up the policy contract and secure subscribers who had already signified their readiness to underwrite such hazards. The clerk was even empowered to sign the names of certain persons for limited amounts on different risks, although the Chamber itself did not accept risks, and cannot, therefore, be compared to an insurance company. The additional service of the clerk in registering the policy was of value in case the original were lost or destroyed. The Office of Insurance, which grew out of the functions of the Chamber, continued to offer similar facilities for more than a century.²³ Nevertheless, many policies were written during this century which were not secured through the Office, because the records of the latter were open to public inspection and many persons wished to keep their insurance affairs private. These contracts so far as is known, must have been secured by personal solicitation. The establishment of Lloyd's in 1710 with at least some control over its underwriting members, which was entirely lacking in the two earlier organizations, led to the abandonment in large measure of other facilities for effecting insurance.

²²Malynes, G., *Vel Lex Mercatoria*, pp. 105-106.

²³Walford, C., *Insurance Cyclopaedia*, Vol. I, p. 487.

Origin of the Science of Life Contingencies.—From the publication of Ulpian's table in 40 B. C. to the middle of the seventeenth century no progress was made in the development of the mathematical phase of life insurance. But in 1654, Pascal, responding to certain questions, outlined the basic principles of the theory of probability now recognized as vital to actuarial science.³⁴ Christian Huygens elaborated on Pascal's statements, about 1657. Hence, the fundamental principle, now known as the law of simple probability, that the probability of an event happening may be expressed by a fraction whose numerator is the number of chances for its happening and whose denominator is the total number of chances for its happening plus the chances for its not happening, was evolved.³⁵ On July 30, 1671, John DeWitt, Grand Pensionary of Holland and West Friesland, applied this principle in making a report to the States General on the valuation of life annuities. His report is the first scientific treatise on the valuation of life contingencies according to the probabilities of life and death given by records of mortality.³⁶ He did not estimate the value of life annuities at each age, however, but merely at one age by way of illustration. He made no contribution to the methods of ascertaining the value of forms of life contingencies other than annuities.

The death records to which DeWitt and others who followed him had access are known as bills of mortality. They were abstracts from parish or city records which showed the number who died during a period of time such as a week, month, or year. Sometimes they included baptisms and in later times marriages. Without them the science of life contingencies could not well have been worked out, and its later development was made possible largely by the improvement in the manner and accuracy with which the records were kept. The history of the bills occupies a prominent place in the early development of the science of life insurance. Such records were not unknown in Roman times. Bills of mortality first appeared in England in 1538 when a few parishes kept records in order to determine

³⁴Assurance Magazine, Vol. II, pp. 230-231, Article by F. Hendriks.

³⁵Ibid, p. 231.

³⁶DeWitt's Treatise, with comments, is reproduced in the Assurance Magazine, Vol. II, pp. 232-254, 1851-52.

the number of deaths due to a plague which was raging. The records were used by residence seekers to avoid unhealthy places. Records again appeared in London in 1592, there having been a recurrence of the plague. Their preparation was supervised by the Fraternity of St. Nicholas, which was later (in 1611) granted a charter by James I, incorporating it as the Company of Parish Clerks and formally intrusting it with the future regulation and issue of the London Bills. In 1660, the bills were revised so that the causes of death were shown. The first bills to give the ages at which the deaths occurred were kept in Breslau in Silesia during the five years from 1687 to 1691 inclusive.³⁷ The method of ascertaining the data as used in England, during the latter part of the seventeenth century may be described as follows: The death of a member of the parish was announced usually by the tolling of the church bell by the sexton. Occasionally some other means was used. It was then the duty of certain persons called "Searchers" who had been especially designated for the task, and who had taken an oath, to view the corpse, and make inquiries so as to ascertain as accurately as possible the cause of death. The Searchers then reported to the parish clerk. Once each week the parish clerk reported to the "Clerk of the Hall" who compiled and published a report covering the whole city.³⁸

In 1661 John Graunt made a partial study of such records as these and arrived at the conclusion that of 100 quick conceptions 36 die before they are past 6 years of age, and that one lived beyond seventy-six. Observing seven decades between six and seventy-six he arbitrarily chose six mean proportional numbers between 64, the number living at age 7, and 1, the number who passed seventy-six, and constructed the following table:³⁹

Graunt's book and table went through several editions, one appearing sometime after his death with an introduction by Sir William Petty⁴⁰ in 1678. But since he worked on bills of mortality which gave him neither the ages of death, nor a sufficient number of people to assure the operation of averages, he arrived at mere approximations of the value of human life.⁴¹

³⁷Walford, C., *Insurance Cyclopaedia*, Vol. I, pp. 282-286.

³⁸*Ibid*, Vol. I, p. 287.

³⁹*Insurance Cyclopaedia*, Vol. V, pp. 538-539.

Age	Living	Dying
0	100	36
7	64	24
17	40	15
27	25	9
37	16	6
47	10	4
57	6	3
67	3	2
77	1	1

It remained for Dr. Edmund Halley, the astronomer who discovered the comet which bears his name, to construct the first real mortality table. This he did in 1693.

Halley's Table.—It occurs that in 1692, the British Government undertook to raise money by selling annuities for life at the rate of approximately seven years' purchase.⁴² Since the public could be depended on to choose young lives as annuitants, it was evident from the first that the Government would lose heavily by the practice. Attention was thus directed to the necessity of accurately determining the value of life annuities. Other reasons for undertaking the study are to be found in the uses to which Halley stated his table might be put. They were: (1) to determine the number of persons fit for military service; (2) to determine the probability of living to the end of, or dying within a given period. (3) To determine the expectation of life and (4) to calculate the value of insurances and annuities on one, two, or three lives.⁴³ The Royal Society of which Dr. Halley was assistant secretary immediately attacked the problem. Learning that bills of mortality giving the ages at death had been kept in Breslau, a city in Silesia, and being aware that comparatively few people ever permanently left or came into that city the Society obtained copies of its bills covering the five year period from 1687 to 1691, inclusive. With this material before him, Dr. Halley prepared the famous paper

⁴²Petty seems to have taken great interest in the subject and some have gone so far as to attribute Graunt's work to him.

⁴³Ibid, Vol. I, pp. 286, et seq. Philosophical Transactions, Vol. 17, p. 597.

⁴⁴An annuity of £14 for life was granted for £100 purchase, Philosophical Transactions, Vol. 17, p. 604.

⁴⁵Philosophical Transactions, Vol. 17, pp. 601-610.

entitled "An Estimate of the Degree of Mortality of Mankind, etc.," which he read before the Society in 1693.⁴⁴ Assuming the population of Breslau to remain stationary in amount and distribution, he began the work of preparation by comparing the number of deaths at the different ages. The comparison showed that while the list of deaths varied at some ages after childhood, it was for the most part quite regular.⁴⁵ He, therefore, assumed further that there was no age after childhood that could be considered especially favorable or fatal compared to the mortality at the two ages adjacent to it. Then reasoning from his assumption that the population remained stationary, Halley arrived at the conclusion that the number living at the end of any year could be determined by subtracting the number of deaths that had occurred during the year from the number living at its beginning. Hence, using 1,000 as a radix during the first current year of age and applying the death rate as shown by his data he constructed the following table:⁴⁶ [P.21]

This table represents the first important step in the art of life measurement, and it is the earliest complete mortality table of which we have record. That Dr. Halley clearly understood the uses to which it might be put is shown by the fact that he went further and compiled a table of "annuity" values based upon it,⁴⁷ using essentially the same method as is now employed in making such calculations.⁴⁸ Since he only shows the value of an annuity for every fifth year of age to the seventieth,⁴⁹ however, and uses but one interest rate, his table of values was not sufficiently refined for practical use. Also, as determined later, his table of mortality gave too low an estimate of the expectation of life, and was, therefore, unsafe for annuity valuations, although it would, of course, have served as an ultra-conservative basis for life insurance premiums. Thus it was possible for the granting of insurances to have been placed on a scientific basis by the close of the seventeenth century.

⁴⁴Philosophical Transactions, Vol. 17, p. 596.

⁴⁵Assurance Magazine, Vol. I, 1850, p. 44. Article by E. J. Farren.

⁴⁶Philosophical Transactions, Vol. 17, p. 600.

⁴⁷Philosophical Transactions, Vol. 17, p. 603.

⁴⁸The use of auxiliary tables now simplifies the process but the principles underlying the calculations are the same.

⁴⁹Philosophical Transactions, Vol. 17, p. 603.

Age current	Persons	Age current	Persons
1	1000	43	417
2	855	44	407
3	798	45	397
4	760	46	387
5	732	47	377
6	710	48	367
7	692	49	357
8	680	50	346
9	670	51	335
10	661	52	324
11	653	53	313
12	646	54	302
13	640	55	292
14	634	56	282
15	628	57	272
16	622	58	262
17	616	59	252
18	610	60	242
19	604	61	232
20	598	62	222
21	592	63	212
22	586	64	202
23	579	65	192
24	573	66	182
25	567	67	172
26	560	68	162
27	553	69	152
28	546	70	142
29	539	71	131
30	531	72	120
31	523	73	109
32	515	74	98
33	507	75	88
34	499	76	78
35	490	77	68
36	481	78	58
37	472	79	49
38	463	80	41
39	454	81	34
40	445	82	28
41	436	83	23
42	427	84	20

Tontines.—An interesting development which took place on the Continent during this period remains to be considered. The payment of life annuities by town and city governments was considerably practiced as early as the fourteenth century. In

some instances an annuity would be granted to a man and his wife with the stipulation that should the man die first the payment of the entire annuity should be continued to the wife alone so long as she lived. In Berlin the council sold an annuity to three persons in 1401, which provided that the survivors at the end of each year should share the payment equally. The last survivor should, of course, receive the entire payment each year until his death⁶⁰. This differed from life insurance in that those who survived longest were the gainers whereas those who died prematurely were the losers in the transaction. It differed also from annuity contracts proper and from pure endowments in that it was to the interest of each survivor that his fellow annuitants should die soon after having subscribed. This practice, which later came to be known as "Tontine Insurance," or "The Tontine Plan" of insurance, did not attain prominence until about the middle of the seventeenth century. In 1653 Lorenzo Tonti, an Italian physician who was stationed at the time in Paris, recommended to Cardinal Mazarin a plan for raising money for the State by selling annuities. The plan was similar in many particulars to the ones outlined above. Other attempts were made and the plan gained much notoriety but little success till 1689. In that year, probably sometime after Tonti's death, the first state "Tontine" as it was called after him, came into operation. While in previous plans the so-called annuities were undoubtedly purchased primarily on the lives of young persons, it seems that this was the first to give much consideration to the question of age. According to the plan the sum of 14,000,000 livres was to be raised for the State by individual subscriptions of 300 livres. The subscribers were promised a life income to furnish which 10 per cent. of the total was to be set aside yearly. The participants were divided into fourteen classes according to age, the older groups receiving the higher interest. There was to be no repayment of principal nor was there to be any liquidation by means of a constant return sufficient to cover interest and to eventually effect payment. Upon the death of a subscriber the sums formerly paid to him went to swell the amounts paid to the remaining members of his particular age-group. Payments to members of the oldest

⁶⁰A. F. Jack, *An Introduction to the History of Life Assurance*, p. 174.

group were to cease with the death of the last survivor of that group. The State's obligations to members of this class were then entirely fulfilled. The sum formerly paid to members of this group was not divided up among the surviving groups. And so, one after another as the last survivors of each of the remaining classes died, the State's obligations ceased.⁴¹

The practice spread to other countries, reaching England in 1692, and was for a time quite a favorite scheme for replenishing depleted public treasuries. Private individuals and companies organized similar projects. Insurance schemes containing an element of the Tontine plan have recurred at intervals throughout the entire history of life insurance.

Summary and Conclusion.—From the preceding it is clear that in England the practice of a type of life insurance similar in many respects to marine had by the close of the seventeenth century become customary. At least some of the principles involved were quite well understood. Facilities for the making of contracts were adequately supplied. The policies were of short duration and the underwriting was done by individuals, who, nevertheless, secured some distribution of risk by signing for small amounts on several lives just as the risk is spread in Lloyd's of London today. In some instances, the premium was influenced by the age, health, occupation and general habits of the applicant, whereas, in others no reference to these factors can be found. The insurances were used to protect creditors against the possible death of the debtor, to protect estates against loss through the premature death of the owner who had purchased an office, to protect families and friends against the failure of a voyager to return from a long and hazardous journey, and to provide ransom in case of capture. Numerous attempts at fraud were made as is brought out in the court cases, and the gambling element was quite generally prevalent. Insurance covering the entire productive period of life was unknown, although all manner of annuity dealings were entered into as a means of investment and as a method of evading the usury laws. Tontines, especially on the continent, were undertaken by governments and private organizations to raise money, and

⁴¹A. F. Jack, *An Introduction to the History of Life Assurance*, p. 211, et seq.

were subscribed to by persons who were attracted by the chances of reaping a rich harvest in their old age.

Also, by the close of the seventeenth century pestilence had so abated that it no longer rendered life insurance impossible. Legal and judicial influences were quite favorable. Important progress had been made in the construction of mortality tables and in applying the laws of probability to them for the measurement of the risk involved. Sufficient knowledge of the elementary principles of life insurance as it is understood today had, therefore, been attained, and conditions were not wholly unfavorable for it to emerge from the stage of experiment to one of mathematical certainty.

The Speculative Assessment Period, 1700-1721.—The early development of life insurance in England as compared with its progress in countries on the continent was probably due in the first place to the fact that she was somewhat isolated from the turmoil of the mainland. Notwithstanding the wars of the seventeenth century, England had been growing rich.⁴² While again engaged in war during the early part of the eighteenth century (the War of the Spanish Succession) the scenes of action were far removed from her, and she was quite able to devote her energies in large measure to peaceful pursuits. In the second place, a considerable amount of property in England was held by possessors of entailed estates, by tenants for life, and by those holding by dower rights, by marriage settlements or wills—to which contingencies every freehold estate was liable. And estates held for life by ecclesiastical persons were by no means uncommon. Thus it is seen that the value of real estate was closely connected with the probable duration of human life, and that these values could often be enhanced by insuring against premature death. Again, pensions were often granted, and donations for life were frequently made. The values of these could only be determined by applying the principles underlying the calculation of the values of life annuities.⁴³

As above noted, facilities were adequate and knowledge was sufficient for the practice of life insurance in England on a scientific basis from the beginning of the eighteenth century. During the first twenty years of that century, however, there seems

⁴²Cheney, E. P., *A Short History of England*, p. 527.

⁴³Bailey, F., *The Doctrine of Life Annuities and Assurances*, 1810, preface.

to have been little desire for it. The spirit of speculation pervaded London and other cities, and while the first efforts to establish associated life projects were undoubtedly sincere, and were intended to create permanent structures, the early organizations were founded on an uncertain basis and soon fell prey to unscrupulous adventurers. The latter looked upon them as new methods of aggregating wealth rather than as institutions serving the true purposes of life insurance.⁵⁴ A brief account of some of the plans follows.

In 1698, Rev. William Assheton proposed the accumulation of a fund for the benefit of the widows of clergymen and others. Because of the safety offered in the form of property pledges as well as the confidence felt in the integrity of its management, the Mercers Company was entrusted with the care of the fund. According to the plan a man under sixty years of age might subscribe from £50 to £300, and thus provide an annuity of thirty per cent of the subscription payable to his widow as long as she survived him. No payment was to be made by the company if the husband survived the wife, and only the amount subscribed would be paid the widow if the husband died by suicide, justice or dueling. No person going to sea or entering the military or naval service was admitted.^{55 56}

The First Independent Society.—The first life insurance association to be projected apart from any other financial or business organization, was known as "The Society of Assurance for Widows and Orphans." It was an assessment association, and was founded in London in 1699 by a Mr. Stansfeld. It was to consist of 2,000 members who were to contribute 5 shillings each to the beneficiaries of any member who should die. If all paid up this would amount to £500. The rate of five shillings per person was taken because the general bills of mortality at that time showed that about one person in fifty died each year. The Society in a published statement estimated, therefore, that since at this rate only forty out of 2,000 would die annually the

⁵⁴Walford, C., In Journal of the Institute of Actuaries, Vol. 25, p. 128 et seq.

⁵⁵The Mercers Company's Proposal for Granting Annuities, 1698. (806, F. 10, pamphlet No. 9, sheets 1-2. Library Company of Philadelphia).

⁵⁶The type of contract used in this plan would today be called a reversionary annuity. See Huebner, S. S., Life Insurance, p. 55.

assessments per member would surely not be more than £10 per year. In fact it was hoped, and not without reason, that the rate would be less than £10 per year since this rate was based on general bills of mortality which included children and persons not in good health; whereas the Society attempted to select only healthy males as members. The management was placed in the hands of the "Master of the Office," who was Mr. Stansfeld the organizer, and thirteen Trustees, who were elected by vote of the subscribers. The Master was to maintain an office and a staff sufficient to transact the business and keep the records. He enforced the rules and regulations, and might alter the latter with the approval of the Trustees. As a guarantee of good faith he was obliged to give what to all intents and purposes was a bond worth about £1000. The expenses of his office were met by deducting 3 per cent from all payments to beneficiaries. He was also to receive one shilling quarterly from each subscriber, and five shillings, which was required of each member as an entrance fee. The two latter payments appear to have been the compensation for the Master's own services. The Trustees served for a period of one year, apparently without compensation. They were persons of good social standing such as clergymen, etc. All claims and other matters pertaining to the society were passed upon by them. Any five of them when called together by the Master might transact business, and any three, sitting as a "court," might dispose of applications for the admission of new members. To become a member it was necessary for the applicant to sign the contract and to appear within six months at the office when three or more of the Trustees were present to pass upon his desirability as a risk. When required by the master or trustees the applicant was obliged to produce a certificate of age and to file an affidavit that to the best of his knowledge he was in good health. Persons might be admitted by proxy if known to the master, to some of the Trustees or to two members, or to "two substantial housekeepers living within the Bills of Mortality," as a person of good report. He was not to be over fifty years of age, however, and was obliged to furnish a certificate signed by three ministers stating that they believe him to be in good health, and that his age was stated correctly. Members who resided outside of the bills of mortality were required to pay

extra dues. Having been approved by the trustees as a satisfactory risk, the applicant was required to pay five shillings as an entrance fee and an additional five shillings as his contribution towards the next claim. The Secretary of the Society then recorded his name, together with the names of his beneficiaries, in the register book which was kept at the office for that purpose,⁵⁷ and in the presence of the Trustees, signed and delivered to him his policy.

The following is a copy of the policy used:

"Office of Assurance for Widows and Orphans, London, the
..... day of16..... This Policy of
Assurance is given unto contributor to the Society
of Assurance for Widows and Orphans, on the behalf of....
.....his now wife, and also on behalf of.....his
sons and daughters, or the survivor or survivors of them,
upon the Joint Stock and credit of the said Society, begun
in London the 6th April, 1699, for payment of £500 of lawful
money of England, unto.....of the Parish of
in the of for the use and benefit of
.....his now wife sons and
daughters of the said or the survivor or
survivors of them, within two months after the death of the
said now the husband of the said.....
subject to the conditions and agreements mentioned in the
Articles of Settlement of the said Society, agreed to and signed
by the said on behalf of his wife and of his sons and
daughters above mentioned: Provided that the said.....
is and shall be living at the end of six months, to be accounted
from and after the.....day of.....

In Witness whereof the Seal of the said office is hereunto affixed the day and the year first above written..... Registrar, approved by the Trustees.....Secretary."⁵⁸

It will be noted that the contract was subject to the "Articles of Settlement" of the society. In these it was provided that £500 (less the 3 per cent deducted for expenses) should be paid to the beneficiaries of subscribers deceased while in good standing and who had been members for 6 months or longer, only on

⁵⁷There were two register books; one for the purpose of recording the names, ages, contributions, addresses, etc., of members, and the other for keeping account of claims and other payments made by the Society. The books were open to examination by members.

⁵⁸Walford, C., in *Journal of the Institute of Actuaries*, Vol. 25, p. 130. See also pp. 127 et seq.

Beneficiaries might be changed by the subscriber.

condition that the Society contained the full 2,000 members and that all would pay up their contributions; otherwise the amount was to be reduced to such a sum as resulted from the contributions of the active members, each paying an assessment of five shillings. The result was that the actual payments amounted to from about £145 in 1704 when there were six hundred members, to about £300 in 1707 when there were eleven hundred and four members. The Society published, under an indefinite date, a statement that payments of about £220 were being made, and that those who had been members from the beginning had paid in as assessments a total sum of but £14 each.

So long as a member paid his dues regularly and his assessments when called upon to do so, he might remain in the Society. Upon his death it was necessary to give notice to the office in order that it might send its visitor to see the deceased. Also, the interested parties were required to file an "affidavit of death" together with a certificate of death from the minister and church wardens, or from three "substantial housekeepers." All claims against the Society on the part either of a member or his beneficiaries were forfeited if all assessments were not paid when due, and no claims were paid if a member perished abroad, or in the military or naval service, or died at the hands of justice.

While the Society's membership did not increase as rapidly as had been anticipated it enjoyed a fair measure of success for ten or a dozen years. Walford states that the payment of claims was advertised in 1707, 1708, and 1711. But in 1712 there appeared, "Articles for establishing an Hereditary Company for the Benefit of the Present and Succeeding Generations" which provided for the admission on somewhat favorable terms of persons who had been subscribers "of the late Societies of Assurance for Widows and Orphans kept in Racquet Court in Fleet Street.....etc., etc."⁵⁰ This indicates that the Society had ceased to exist.

This was the first of what may be called mutual assessment life offices. It was based upon a plan which could not endure when its original members became old because of the ever increasing death rate, the difficulty of getting young subscribers, and the operation of what is now known as adverse selection.

⁵⁰Ibid, p. 262-263.

Nevertheless, it had some of the essential elements of life insurance. The subscriber could furnish his family with some measure of protection, an effort was made to exclude all except the more desirable risks, and proof of death was required and other provisions were made against fraud. Risks due to travel or to military and naval service were excluded, and deaths at the hands of justice were not compensated. The organization and management⁶⁰ while not complex was capable of functioning sufficiently well to transact the business and the policy form used was quite comprehensive.

The next year, in 1700, the same Mr. Stansfeld founded a similar Society which was called the "Second Society of Assurance for Widows and Orphans." The plan was nearly the same but it was to be conducted on a smaller scale. It soon disappeared. In 1704, still another organization was founded. It was known as the "New Assurance Office upon the lives of men, Women and Children." It followed the same general plan as the other two, but provided for the insurance of both man and wife for £250 each. This sum was to be paid in case of the death of either—£500 being promised upon the death of both.⁶¹ Its career seems to have been a short one.

The Amicable Society.—In 1706, however, a life insurance organization was chartered which was destined to survive for a period of 160 years. It was known as the "Amicable Society for a Perpetual Assurance Office."⁶² Instead of providing as its predecessors had done that each surviving member should pay a stipulated sum towards defraying death claims whenever they chanced to arise, the Amicable provided that each member

⁶⁰The control of the Society was vested in large measure in the Trustees who were elected by the policyholders. Hence, the term mutual assessment office is applied to it. Possibly because the Society advertised its "Joint Stock" as being worth "about £220," some writers have concluded that it and similar organizations which followed were "joint stock" companies. So far as the present writer is able to determine, however, the advertisements meant that when a member died it was probable that enough surviving members would pay up so that the beneficiary would receive approximately £220. The policies represented the only claim to the Society's funds, or to a share in its management. Note the wording of the policy quoted above.

⁶¹Ibid, p. 132.

⁶²Jack, A. F., *An Introduction to the History of Life Assurance*, p. 234, et seq.

should pay a fixed amount of £6.4s per annum. The number of members was to be 2,000, the same as the first Society of Assurance for widows and orphans. Financial stability was established by simply providing that less should be paid out than was taken in. Thus it was arranged that only one-sixth of the total contributions should be divided among the beneficiaries of those members who died during the first year. In case the full 2,000 subscribed, £4000 was to be divided among the claimants the second year, £6000 the third, £8000 the fourth and £10,000 the fifth. The latter sum was to remain permanently as the amount to be divided each year among the estates of the deceased unless it should be increased by agreement of the "General Court" of members which was held annually. If fewer than 2,000 were enrolled the amount divided was to be only a proportionate amount of the £10,000. Since 2,000 members would, at the rate of £6.4s each, contribute over £12,000 per annum, the Society was assured of always having enough on hand to meet claims, and would be continuously accumulating a surplus. This surplus was also increased from funds derived from the sale of annuities which the Society also practiced. The only uncertain element was the amount to be received by the estates of the deceased. The fewer deaths during the year the greater, of course would be each one's share of the sum to be divided. It would appear, therefore, that each person should have had an interest in keeping out all but first class risks. But the very high mortality rate experienced by the society during its early years would indicate that the desire to attain the full 2,000 members outweighed other considerations.⁶³

The control of the Society was lodged with the members directly. Once each year there was held a "general court" at which all members might be present. If twenty-five or more assembled they might make by-laws, alter regulations, and choose not fewer than twelve among their number to serve as the "Court of Directors." They might also elect five members as auditors to examine all the affairs of the Society and render reports. The management was placed in the hands of the court of directors. As stated, the directors were elected annually, but at least four who had served the preceding year were to remain in office to instruct the newly elected members. The directors

⁶³Walford, in *Journal of the Institute of Actuaries*, Vol. 25, pp. 208-209.

were required to take an oath. They might hold a "Court" whenever they chose to direct the affairs of the Society, and to pass upon applications for membership.⁶⁴ In order to become a member it was necessary for the applicant to appear personally before the directors.⁶⁵ Each director might ask any question he chose concerning the health and habits of the prospect. They then withdrew and after deliberation rendered a decision. There was no medical examination nor age limit, although the directors could, of course, refuse to admit persons of extreme age. The rate was the same for all.

The details of the office were apparently under the direction of the Registrar. He looked after receipts and disbursements and kept the register of members. All interested persons might inspect the latter. He was required to furnish security to the extent of £2000, but this did not prevent him from later absconding with some £6500. This event, together with the high mortality rate experienced during its early years, was not encouraging. Also, underwriters at Lloyd's were accepting risks regularly at £5 per £100 of insurance per year, whereas the members of the Amicable were paying £6.4s, plus certain fees for expenses and receiving, so far as the records show, considerably less than £100 in death benefits. Nevertheless, the Society remained full and continued its existence with some degree of success, long after all similar schemes projected during the first twenty years of the century had been forgotten.

Other Projects.—In the years immediately following the advent of the Amicable a number of projects were started.⁶⁶ Many of them engaged in business other than life insurance but some few were devoted solely to the latter. The speculative element was predominant in most of them. Thus in 1708 a Society was founded in which one might insure the life of another for the benefit of the former, and this might be done without the knowledge of the person on whose life the insur-

⁶⁴Insurance Cyclopaedia, Vol. I, p. 74, et seq.

⁶⁵Persons living in the country might be admitted upon presentation of certain certificates and affidavits regarding health and habits. The blank forms for these were prepared by the Society.

⁶⁶The practice of life insurance began to spread out from London to other parts of England during this period. Thus in 1708 the Berkshire and Counties Insurance Association was formed.

ance was taken.⁶⁷ But in spite of the unsound basis upon which they rested,⁶⁸ the idea of life insurance was gaining the attention of the public. The newspapers contained many advertisements and there were occasional comments in the news spaces.⁶⁹ In 1710, John Ward published a small book entitled "Clavis Usuree; or a Key to Interest, etc.," which is considered to be the first work which treated of life insurance as such. The uses to which life insurance might be put at that time were quite well understood. They were enumerated in an advertisement by the Amicable, as follows: (1) Indemnity to families for the loss of the husband's income through premature death; (2) to protect dependents against the loss of a life income by the death of an annuitant; (3) to protect servants against the loss resulting from the death of their employer; (4) to improve the credit of those desiring to borrow money; (5) to protect wholesalers when extending credit to country retailers, and (6) to protect the estates of creditors who could collect only interest from the income of the debtor during the latter's life time.⁷⁰ In 1711, insurance of a questionable type had gained sufficient notoriety to cause an act to be passed "supressing such unlawful lotteries and such Insurance as are therein mentioned. And whereas several ill-disposed persons with design to defraud Her Majesty's subjects have of late presumed to erect and set up offices for making insurances on marriages, births, christenings or services; which practices are also prejudicial to the public, and tend to defraud Her Majesty's subjects."⁷¹ And in 1714, a scheme was proposed which is of interest since it provided that after five years a subscriber might borrow money from the office to pay contributions. This appears to have been the first instance in which arrangements were made whereby the surplus which had accumulated from contributions could be used to keep the

⁶⁷Journal of the Institute of Actuaries, Vol. 25, pp. 209-212. All of these failed after a very short period.

⁶⁸One organization advertised in 1711 that members might insure the lives of persons under sixty years of age "whether sick or in health."

⁶⁹Ibid, pp. 214, 259, 269.

⁷⁰In 1719, a petition for incorporation contained several statements concerning the advantages of life insurance, one of which was that it "would encourage merchants to be more bold in their undertakings."

⁷¹Statutes of the Realm, 9 Anne, c. 6, Sec. 57. The Act was not intended to prohibit legitimate plans for insuring lives.

policy in force. It was probably conceived of as a means of meeting the problem of lapses which was a most serious one at that time.

Each year up to 1721, more attractive projects were put in operation. The organizers and managers of a mutual assessment society were in a position to profit by securing the greatest possible number of subscribers since they usually received an entrance fee from each one. And since a substantial deduction from all death claims paid was also made for their benefit, the more death claims that were paid the greater was the sum to be derived from this source. Unscrupulous promoters could, therefore, realize a fortune more quickly by encouraging unhealthy lives to insure. Of course, subscribers themselves paid the claims under the system, and so long as the managers retained only such fees and deductions from claims as they were legally entitled to, no criminal or civil action could be taken against them. Not only that, but some societies advertised that they invested their members' funds in the South Sea Company, and other highly speculative ventures in existence at that time. Then in 1720 came the passing of the "Bubble Act,"⁷² and in 1721, the failure of the famous South Sea Company. The financial crash caused by the failure of this company rendered most of the securities held by the insurance societies worthless, and this together with the general bankruptcy that ensued, caused the downfall of all those in existence at that time, except the Amicable.⁷³ The managers of the latter Society appear to have taken proper precautions to guard against such a contingency,⁷⁴ but it must have felt at least to some extent the shock resulting from the general collapse of credit.

Results.—The following results appear to flow out of the experience of the period just considered. First, the public was made acquainted with life insurance and had come to realize at least in a measure the benefits that may be derived from it. Second, the speculative element must be eliminated. Third, a more correct method of estimating rates was necessary. Fourth, more efficient methods of management and greater security against the possible misuse of funds were essential, and fifth,

⁷²Geo. I, c. 18.

⁷³See *Journal of the Institute of Actuaries*, Vol. 25, pp. 269, 271, and 433.

⁷⁴*Insurance Cyclopaedia*, Vol. I, p. 78.

that life insurance based upon the mutual assessment plan was a failure. From this time forward financial stability was the one thing demanded by the public.

The Era of Scientific Progress—1721–1760.—*Life Insurance Practice.*—The period following the general collapse of 1721 was one of extreme caution on the part of investors. Even those who were accustomed to engaging in the more hazardous commercial ventures were reluctant to entrust their funds with any but the most conservatively managed companies. Life insurance fell into such disrepute that there was very little demand for it during the next forty years. Those who did desire it sought out organizations whose financial strength was unquestioned. Thus the Amicable, which remained as the sole survivor of the preceding epoch, and which had considerably changed its methods of operation, could show a surplus of £50,000. It had also distributed during the sixteen years of its existence £118,000 in death claims. And so, while its rates were higher than those charged for one year term contracts at Lloyds, it maintained a firm hold upon public confidence and experienced no unusual difficulty in maintaining its membership. But it was not long left without rivals in the field. Two powerful marine insurance companies obtained legal powers to accept life risks early in 1721. They were known as the London Assurance Corporation, and the Royal Exchange Assurance Corporation. The policies issued by them were for one year, and were for business purposes rather than for family protection. The rates were the same as those prevailing at Lloyds; that is, 5 per cent of the sum insured, regardless of the age of the person upon whose life the risk was taken. Two per cent was deducted from the claims which were paid—a practice which was carried over from the preceding period.

The policy differed but slightly from those used in 1699.⁷⁵ It was still modelled after the marine contract, and was what is known as a "Valued Policy." That is, the corporation was obliged to pay the full amount upon the death of the insured, regardless of the interest which the beneficiary may have had in the life of the deceased person.⁷⁶ No insurance was granted

⁷⁵A copy of the policy form used appears in the *Journal of the Institute of Actuaries*, Vol. 22, p. 248.

⁷⁶*Ibid*, p. 433, et seq.

on female lives. The extent to which insurance was practiced during this period may be estimated by the fact that the Royal Exchange Assurance Corporation in opposing the charter to the Equitable in 1760 stated on affidavit that it had received but £10,915, 2s, 2d. in premiums and had paid but £8,263, 17s. 8d. in death claims since it began taking life risks. Walford estimates that the three organizations together had but £320,000 of insurance in force in 1760, and private insurers were supposed to have about £30,000 at risk. The private insurance contracts were entered into in some instances during this period merely for gambling purposes. Thus it appears that when the newspapers announced that some prominent person was seriously ill, those inclined to speculate would make contracts insuring his life for periods of short duration. The rates varied inversely with the reports concerning the patient's progress towards recovery.⁷⁷ Most of the private insurances, however, were effected at Lloyds by means of brokers, who were held to more legitimate practices by the rules of the Association. Thus a person desiring a life insurance policy with private underwriters would consult a broker who had access to Lloyds for purposes of transacting business. It was customary for the person on whom the risk was to be taken to appear before the underwriters, although the latter were probably content to allow the broker, if he was considered reliable, to inspect the risk. The broker being satisfied as to the age and state of health of the prospect, would then report to the exchange and secure the signatures of a dozen or more persons, each of whom promised to pay a small sum in case the insured should die within the term of the policy. The person applying to the brokers was obliged to convey all the facts regarding health, etc., of which he had knowledge.⁷⁸

It is clear that throughout this period facilities were quite lacking for effecting life insurance, nor was there any considerable demand for them. Premium rates were based on no scientific principle. The annual rate of five per cent of the amount insured prevailed—possibly because of the generally accepted belief that, according to the bills of mortality, twenty out of

⁷⁷Journal of the Institute of Actuaries, Vol. 26, pp. 2-6.

⁷⁸See *Cleeve v. Gascoigne*. An early case quoted in part in *Journal of the Institute of Actuaries*, Vol. 26, p. 1.

each one thousand persons died within one year.⁷⁹ This was a very high rate for all except those past sixty-four years of age.⁸⁰ Hence, it appears that no plan of life insurance as it is understood today had been put into operation by any organization in England prior to 1760. The same is true as regards France⁸¹ and Germany.⁸²

Scientific Progress.—Although quite barren of practical life insurance,⁸³ the period is distinguished by the progress made in developing the science of life contingencies. Thus in 1725 a work entitled "Annuities on Lives; or the Valuation of Annuities upon any number of Lives, as also of Reversions. To which is added an appendix concerning the Expectation of Life, and the Probabilities of Survivorship," was published by Abraham DeMoivre. DeMoivre was a celebrated mathematician of his time. While studying Dr. Halley's table of mortality he observed that the number of people living diminished regularly by the number of six each year between the ages 12 and 22, and by seventeen each year between ages 54 and 71. He also noticed that the number dying in any other year of life differed but little from that of the year immediately preceding or succeeding. He, therefore, concluded that a given number born within any one year might be assumed to decrease from year to year by a uniform number of deaths. For instance, of 86 children born one may be assumed to die each year until all are gone.⁸⁴ This assumption came to be known as DeMoivre's "Hypothesis."⁸⁵

⁷⁹Babbage, Charles, *A Comparative View of the Various Institutions for the Assurance of Lives*, 1826, Preface, pp. 30-31. Walford thinks Babbage is mistaken in his explanation. Five per cent was the rate on ships, hence, the same was asked upon the captain's life. The rate thus became customary for all life policies that were to remain in force for one year—*J. I. A.*, 25, 435.

⁸⁰Calculated from the American Experience table of mortality with interest at three per cent, net premium loaded one-third.

⁸¹Brown, Samuel, in *Assurance Magazine*, Vol. III, p. 16 et seq.

⁸²G. Hopf, in *Journal of the Institute of Actuaries*, Vol. 9, p. 42 et seq. See also Vol. V, p. 324 et seq.

⁸³A few annuity institutions were founded during this period, and there were some of earlier date which survived the failures of 1721.

⁸⁴DeMoivre states that Graunt's table as well as certain Swiss tables also placed the extreme limit of life at 86—*Annuities on Lives, etc.*, preface to second edition, p. 10. See also Fourth edition, pp. 13-14.

⁸⁵The germ of DeMoivre's theory may be found in a letter written by M. J. Hudde to John DeWitt, October 22, 1671, in which Hudde speaks of a "Provisional Hypothesis; namely, that out of 80 young lives about one dies annually." It is a fair inference that Hudde had in mind 80 persons who were 6 years of age. See *Assurance Magazine*, Vol. 3, p. 107, for a copy of DeWitt's reply.

Following out his conclusions, he estimated the expectation of life by taking one-half of the difference between the number living at the age attained by the person on whose life the calculation was being made and the extreme length of life, or age.⁸⁶ While he was aware that his assumption was not born out by experience he maintained that it was sufficiently accurate for calculating the value of life annuities for middle life, and that his method of calculation had the advantage of simplicity. His work ran through several editions and played an important part in the history of life contingencies. It was used by Dr. Price in his celebrated work of a later period.

In 1726 John Smart published a second edition of his "Interest Tables"—a work which first appeared in 1707. It also contains a discussion of the subject of life annuities and a table for use in calculating their value. Richard Hayes published a work in 1727 in which the principle of insurance for the whole of life was first put forward. Several other writers devoted attention to the valuation of human life for purposes of granting annuities during the remainder of the period, but the most noteworthy efforts were made by Thomas Simpson in 1742. Simpson published his principle work under the title "Doctrine of Annuities and Reversions deduced from general and evident principles, with useful Tables, etc." He evolved general formulae which were applicable to all tables, thus obviating the necessity of inventing new hypotheses to interpret whatever new data might happen to be compiled. This constituted a notable advance in clearness,⁸⁷ and was somewhat simpler than DeMoivre's methods. He also prepared a mortality table for London which he thought would show the death rate there more accurately than did Halley's Breslau table. Other works followed, and there were new editions of the ones already mentioned. In France DeParcieux published his "Essai sur les Probabilités de la Durée de la Vie Humaine" in 1746, and in Germany Süssmilch had published "Die Gottliche Ordnung."⁸⁸ But the main result had been accomplished. The essential principles of life measurement were now generally understood in England.

The Advent of Modern Life Insurance—1760—1800.—The preparation had now been made for the advent of scientific life

⁸⁶Annuities on Lives, etc., Fourth edition, pp. 15 et seq.

insurance, as it is understood today. While a sufficient knowledge of life contingencies was available more than 60 years earlier, it has been noted that the speculative feature appeared too attractive for the establishment of life organizations that could endure. And following the failures of the early ventures came a period of forty years duration in which there was very little demand for life insurance. Such policies as were effected were for business purposes rather than for family protection. But meanwhile the business of granting annuities flourished, mortality data were more carefully collected and more scientifically tabulated, and the laws of chance together with the possibilities of their application to mortality statistics in the measurement of the probable duration of human life were evolved and expanded. In addition, the business of the country had become more stable. People had learned more about the organization and management of corporations, since the beginning of production by machinery necessitated greater skill in the application of capital to industry.⁸⁹ And while there was no active demand for life insurance other than short term policies for business purposes, there was quite a strong potential demand for whole life protection as was afterwards shown by the experience of the Equitable Society of London.

The Equitable Society.—The formation of this Society⁹⁰ marks the beginning of modern life insurance. It was this company that first granted protection for the whole period of life for annual level premiums, and with provisions for a reserve fund to meet the increasing probability of death at the older ages. It seems to have come into existence in the following manner. James Dodson, having been appointed to a remunerative position, desired insurance on his life, but found that the Amicable would not accept him on account of his age.⁹¹ At about the same time Thomas Simpson who was lecturing on insurance

⁸⁷Jack, A. F., Introduction to the History of Life Assurance, p. 219.

⁸⁸The latter was little more than a work on vital statistics.

⁸⁹Cunningham, W., Growth of English Industry and Commerce, 1892, Vol. II, pp. 343 et seq.

⁹⁰The proper title is "The Society for Equitable Assurances on Lives and Survivorships.

⁹¹He was past 45, the maximum age at which the Amicable accepted risks at that time

and annuity associations originated the idea of forming an organization based on more scientific methods than were then used. Dodson appears to have taken Simpson's recommendation,⁹² and to have propounded a scheme whereby premium rates should be charged according to age.⁹³ He also calculated and set down in tabular form a set of premiums, inserted an advertisement in a newspaper calling attention to his project and inviting all who might be interested to a meeting for discussion of plans and organization. This was in 1756.⁹⁴ Several attempts were made to secure a charter, but each time it was refused for one reason or another. Meanwhile Dodson died and the real work of getting the Society under way fell upon Edward Rowe-Mores. The latter made a final attempt to secure the grant in 1761, but the petition was rejected. The ostensible reasons were that the organization proposed to issue insurance for longer terms and at lower rates than any other institution in existence at that time, and because there was to be no paid up capital stock as a guarantee of safety. Also, the charter was vigorously opposed by the existing corporations which accepted life risks. The real reason was probably the fact that the organizers offered no considerable payment to the Crown.⁹⁵ Despairing of a charter, Mr. Mores and others organized a mutual Society in 1762. It was entirely different from the mutual assessment societies of the first part of the century, however, since it provided for stipulated premiums based on the probability of death at the age of insuring and the time the insurance was to continue. It was planned to issue contracts covering the whole of life as well as definite periods on single and joint lives, and on survivorships. The contracts provided for the payment of a stipulated sum on the happening of the event insured against, and the premiums were to be fixed annual charges. As a means of safeguarding the Society, however, it was provided that on the happening of any unusual event such as the recurrence of the plague, sums payable at death might be reduced as much as seventy-five per cent. But the reductions were to be credited to the claimants

⁹²There is considerable evidence to the effect that Dodson thought out the plan independently.

⁹³Dodson J., *Mathematical Repository*, 1755.

⁹⁴*Insurance Cyclopaedia*, Vol. II, p. 570, et seq.

⁹⁵*Journal of the Institute of Actuaries*, Vol. 26, p. 7.

until the condition of the Society might warrant their payment together with interest at three per cent.⁹⁶ Also, if the premiums should prove inadequate to pay claims members might be called upon for additional payments which were also to be credited to the payor at three per cent. These precautions were unnecessary, as was afterwards shown by experience, and the expedients were never resorted to.⁹⁷

The management was entrusted to fifteen directors, each insured for £300 or more, one of whom was to serve as president, and two others as vice-presidents. Any five might constitute a "Court of Directors" to transact business. There were also five trustees, named by the directors, at least three of whom were to sign all contracts and policies. Trustees and directors were given power to bind all members. The court of directors met weekly to grant policies and admit new members. The directors also had power to appoint clerks, agents and servants to carry on the business. An "actuary" was appointed to keep the minutes of meetings, superintend the bookkeeping, see that all applications received were entered, account for all monies, and to observe and perform the direction of the court. Four times each year, and oftener at call of the president, there was to be held a general "court" of members for passing by-laws, making new regulations, electing directors, and hearing a general account of the Society's affairs. The books were open to the inspection of members, and disputes were to be referred to His Majesty's Attorney General, Solicitor General, and the senior King's Counsel for settlement.⁹⁸

To become a member of the Society it was necessary for a person to fill out a "proposal," or "application" as it is at present called in the United States, (it is still called a proposal in England) stating the name and occupation of the person to be insured, place and date of birth, residence, age, sum insured, the term, and the name of the person effecting the insurance. Two references to persons of good repute were required, "*one if possible of the medical profession,*" to ascertain the applicant's state of health. The applicant was also asked whether he had ever had the smallpox, cowpox, or gout; or had ever been rup-

⁹⁶Deed of Settlement, Clause 22.

⁹⁷Insurance Cyclopaedia, Vol. II, p. 578 et seq.

⁹⁸Ibid, Vol. II, p. 578 et seq.

tured. So while there was no formal medical examination, the reference to a member of the medical profession,⁹⁹ together with the declarations constituted a distinct advance in the selection of life risks.

Males who satisfied the health requirements were admitted upon the following premium basis:^{100 101}

Ages	Rates per annum					
	One Year			Whole of Life		
8	£1	10	6	£ 2	4	10
14	1	11	9	2	7	7
20	1	15	6	2	15	4
30	2	4	6	3	12	3
40	3	2	0	4	12	2
50	4	8	3	5	18	4
60	6	4	10	8	5	2
67	7	18	1	11	18	8

Since these rates were calculated more exactly and were based on the more recently collected data of the London Bills of Mortality, they were much lower than those asked by other organizations.

Women under fifty years of age and men engaged in the more hazardous occupations were insured, but an extra charge was made in both instances. There was an entrance fee of fifteen shillings. It is interesting to note that persons with gout were accepted upon payment of an extra premium; thus furnishing what is perhaps the first instance of the granting of insurance on sub-standard lives.¹⁰² Members were prohibited from taking additional insurance in a rival organization on penalty of forfeiting all claims against the Society

The policy appeared to be much simpler than those used in 1583, and 1699.¹⁰³ It was little more than a certificate stating the name of the person insured, the amount of the insurance

⁹⁹Reference to an applicant's family physician has since proved to be of doubtful value.

¹⁰⁰Journal of the Institute of Actuaries, Vol. 26, p. 8.

¹⁰¹The rates were increased in 1764 and again lowered in 1777. The Equitable made no allowance for expenses of management or losses on investments—Price, Observations on Reversionary Payments, 4th Ed., Vol. I, p. 166.

¹⁰²Real progress in the field of sub-standard insurance upon a sound basis has been but recently made.

¹⁰³See pp. 12-13, 27, above.

and the premium rate. But a member of the Society was bound by its general regulations. One of the more important of these provided that a false declaration or misrepresentation in the proposal (application) should avoid the policy. In effect this regulation made warranties of all statements made by the applicant in the "proposal." Another required the person entering to observe the bye-laws, rules, ordinances, etc., while a third was planned to exclude all persons who did not have an insurable interest in the life of the person insured at least equal to the face of the policy. The regulations also made arrangements for reinstatement, in case of lapse, on terms that were quite liberal. Thirty days' grace was allowed on premium payments, and reinstatement within three months upon payment of arrears and a penalty of ten shillings for every £100 of insurance, provided the person were in good health, was permitted.¹⁰⁴

The Equitable grew steadily until by 1800 it had 5,129 policies outstanding for a total of £3,900,000 of insurance in force. And since its premium rate was higher than was necessary to insure solvency,¹⁰⁵ and it had made some fortunate investments, large surplus funds accumulated. A part of these funds were distributed from time to time among the surviving members in the form of dividends. Two-thirds of the surplus was distributed, the remainder being held as a permanent fund to insure safety. The "dividends" (they are now called "bonuses" in England, but in the United States the term dividend is still generally applied to them) were not paid immediately in cash but were added to the amount of the member's policy. Holders of term and special forms of policies did not participate.¹⁰⁶ The Society provided for the immediate division of profits at first but soon abandoned this plan, in favor of the practice of distributing the surplus every ten years.¹⁰⁷ By the close of the century the Society had accumulated an "insurance fund"¹⁰⁸ of £1,000,000

¹⁰⁴See Journal of the Institute of Actuaries, Vol. 26, p. 9, for copy of the more important regulations.

¹⁰⁵There being no paid up capital stock, an overcharge in premium rates was essential to safety.

¹⁰⁶Bailey, F., *Doctrine of Life Annuities and Assurances*, 1810, p. 487.

¹⁰⁷Babbage, C., *A Comparative View of the Various Institutions for the Assurance of Lives*, 1828, p. 74, and Introduction p. 27.

¹⁰⁸The "insurance Fund" may be compared with the modern reserve, although the Equitable's method of valuation, if what is surmised concerning

to meet policy liabilities, as against £3,900,000 of insurance in force, and a surplus amounting to £258,000 was distributed during the year ending December 31, 1799. The Equitable had thus demonstrated the practicability of conducting life insurance on a large scale.

Other Companies.—Throughout this period the four organizations previously formed continued to transact business. Several annuity associations were projected—most of them on an unsound basis.¹⁰⁹ In addition, a small number of new life projects were started. Thus the New Laudable Life Office was formed in 1777, the Universal Institution for Assurance of Lives in 1778, the Westminster Society in 1792, the Pelcan Life in 1797, and the Globe Insurance Company in 1799. While these furnished some opposition to the Equitable the latter was practically without a serious competitor throughout the entire period.¹¹⁰

Among the new projects, the Westminster Society is of especial interest because it was the first of the joint-stock or proprietary life companies. That is, the first company having a capital stock whose possessors had all the rights of ownership and management, and who entered upon the business of life insurance for a profit. The capital was £150,000 all of which was paid up and invested in the public funds for the general protection of all who might have claims against the company. The Society also granted annuities. It was also the first life insurance organization to introduce an agency system. The

it is correct, would not now be tolerated. The method of valuation first used by the Society is in some doubt. Apparently the present value of future death claims minus the present value of future gross or office premiums due, with no allowance for future expenses or contingencies, was considered the reserve required for solvency. The low rate of interest assumed (3 per cent) and the provision for the retention of one-third of the surplus shown by the valuation for the safety of the company, proved to be adequate. The Northampton table with its high death rate provided redundant premiums, but was not safe as a basis for reserve calculations since reserves depend not so much upon the rate of mortality as upon the rate of increase in the mortality rates. For the Equitable system of valuations see *Assurance Magazine*, Vol. 38, pp. 70 et seq., and Manley, H. W., *Report on the Valuations of the Equitable Society*, 1896.

¹⁰⁹Bailey, F., *Doctrine of Life Annuities and Assurances*, 1810, p. 491.

¹¹⁰Morgan, W., *Principles and Doctrines of Assurance*, etc., 2nd Edition, 1821, preface, p. 7.

equitable, as was noted, required directors to be insured for at least £300, and other concerns required those prominently connected with them to effect a considerable amount of insurance either on their own lives or on the lives of others. A large part of the insurance in force was secured in this manner. For the remainder, old members were depended upon to secure new subscribers who were not to be prominently connected with the affairs of the organizations, or the societies had been content with those applicants who presented themselves without solicitation. But the Westminster inaugurated a system, which later became a prominent and permanent part of life office organization, whereby prominent solicitors and banks were given a commission of five per cent of the first premium and five per cent of renewals on all business written by them. Agents were also given power to pass upon the desirability of risks in outlying districts who could not appear personally before the board of directors.¹¹¹ The Westminster offered whole life insurance according to the following schedule of premium rates

Age	Rate per £100 Whole Life Insurance		
	£2	2	4
8 to 14			
20	2	9	1
25	2	14	3
30	3	0	1
40	3	15	8
50	5	2	2
60	7	3	5
67	9	13	9

As these rates were considerably lower than those of the Equitable and other mutuals it is clear that the stockholders were anticipating the savings in mortality and other things which the mutuals were experiencing and returning in part to their policyholders in the form of dividends.¹¹² The capitol of £150,000. of course, obviated the necessity on the part of the Westminster of making such heavy overcharges as were made by the Mutuals in order to insure safety.

¹¹¹Bailey, F., *Doctrine of Life Annuities and Assurances*, 1810, Ch. 14, pp. 479 et seq.

¹¹²Francis Bailey states on page 501 of his book, "The Doctrine of Life Annuities and Assurances," published in 1810, that all of the companies charged the same rates at that time. He, therefore, concluded that the Equitable was much to be preferred by those seeking insurance.

Legal Phases.—Some important legislation was enacted during this period. In 1774, an act was passed prohibiting insurance on lives in which the beneficiary had no interest. It also provided that the names of the persons interested should appear in the policy and that no greater sum should be recovered than the amount of the interest insured against.¹¹³ A few court decisions, also, which had an important influence on the future of life insurance were rendered during this period. Thus in 1780 a case arose regarding the health warranty.¹¹⁴ It appears that a man was insured who was subject to certain indispositions incident to gout, but who was warranted to be in health at the time the insurance was granted. The insured died and the insurers contested the claim, although it was shown that the insured was in as good health at the time the policy was granted as he had been for several years. The court held that the health warranty could not mean that a man "has not the seeds of disorder," since "we are all born with the seeds of mortality in us," and ordered the claim paid. This decision pointed out to the insurance companies the necessity of inquiring more closely into the matter of constitutional diseases in persons applying for insurance, since the courts could not be depended on to enforce a health warranty, and constitutes one of a long line of decisions tending to interpret warranties made in applications (the application is considered a part of the policy contract) for life insurance in such a manner as to render them representations and to give ambiguous passages in life policies the interpretation most favorable to the insured.¹¹⁵

Life Contingencies.—Progress in the evolution of the science of life contingencies culminated for the period in the publication of the fourth edition of Dr. Richard Price's work "Observations on Reversionary Payments; on Schemes for providing Annuities, etc.," in 1783. Dr. Price was apparently moved to undertake his work by the fact that many annuity schemes were in existence and others were being formed which operated on an unsound basis.¹¹⁶ It was his purpose to call attention to

¹¹³14 Geo. III, C. 48.

¹¹⁴Willis v. Poole, cited in Park on Insurance, 1789, p. 499.

¹¹⁵Park, J. A., on Insurance, 1789, pp. 487-501 cites a number of other cases.

¹¹⁶Bailey, F., The Doctrine of Life Annuities and Assurances, p. 491.

the situation and to further a movement for safer organizations, so that the calamitous failures which he clearly saw would result if the prevailing practices were to continue might be avoided.¹¹⁷ But in order to point out specifically the dangers to be avoided, he found it necessary to construct tables of mortality, more accurate than were then available, and to explain the principles underlying the valuation of annuities and insurances. Hence, following the methods evolved by Halley, De-Moivre, and Simpson, he constructed two tables. One was based on the bills of mortality of Northampton and the other on those of Norwich. These two appear in the first edition of his work, published in 1769. While the Norwich table is more in accord with modern experience the Equitable Society adopted the Northampton as a basis for calculating premiums. It thus became famous, and for more than a generation was recognized as the standard of life measurement. [See p. 47.]

Dr. Price continued his efforts, collecting mortality data and adding to his explanations so that by 1783, when the fourth edition appeared, he was able to check his figures by comparing them with mortality statistics from other cities in England, and from other countries. He was also enabled by that time to publish numerous tables of valuations at different interest rates, which he did in Volume II. In fact, it was in this edition that he made his real contribution to the science of life contingencies. The value of his work in checking the progress of unsound schemes, and in promoting scientific life insurance is inestimable.¹¹⁹

Summary.—During this time life insurance was practiced to a very limited degree in France¹²⁰ and Germany,¹²¹ but neither of these countries made any essential contributions to the scientific principles or the correct practices of the business.¹²² To

¹¹⁷Price, R., *Observations on Reversionary Payments, etc.*, Fourth Edition, pp. 127, et seq.

¹¹⁸*Observations on Reversionary Payments, Introduction, Fourth Ed.* Bailey, F., *Doctrine of Life Annuities and Assurances*, 1810, p. 491 et seq.

¹¹⁹Brown, S., in *Assurance Magazine*, Vol. III, p. 16 et seq.

¹²⁰Herr Hopf, in *Assurance Magazine*, Vol. 9, pp. 42, et seq.

¹²¹Bailey, F., *Doctrine of Life Annuities and Assurances*, 1810, Preface, p. 26, note. Professor J. N. Tetens evolved methods of constructing and using commutation columns in 1785—*Assurance Magazine* Vol. I, pp. 1–20. Article by F. Hendriks on the History of auxiliary tables for the computation of life contingencies.

THE NORTHAMPTON TABLE OF MORALITY.¹¹⁸

Age	Living	Decr.	Age	Living	Decr.	Age	Living	Decr.
0	11650	1340	35	4010	75	72	1072	80
3 mo.	10310	554	36	3935	75	73	992	80
6 "	9756	553	37	3860	75	74	912	80
9 "	9203	553	38	3785	75	75	832	80
1 yr.	8650	1367	39	3710	75	76	752	77
2 "	7283	502	40	3675	76	77	675	73
3 "	6781	335	41	3559	77	78	602	68
4 "	6446	197	42	3482	78	79	534	65
5 "	6249	184	43	3404	78	80	469	63
6 "	6065	140	44	3326	78	81	406	60
7 "	5925	110	45	3248	78	82	346	57
8 "	5815	80	46	3170	78	83	289	55
9 "	5735	60	47	3092	78	84	234	48
10 "	5675	52	48	3014	78	85	186	41
11 "	5623	50	49	2936	79	86	145	34
12 "	5573	50	50	2857	81	87	111	28
13 "	5523	50	51	2776	82	88	83	21
14 "	5473	50	52	2694	82	89	62	16
15 "	5423	50	53	2612	82	90	46	12
16 "	5373	53	54	2530	82	91	34	10
17 "	5320	58	55	2448	82	92	24	8
18 "	5262	63	56	2366	82	93	16	7
19 "	5199	67	57	2284	82	94	9	5
20 "	5132	72	58	2202	82	95	4	3
21 "	5060	75	59	2120	82	96	1	1
22 "	4985	75	60	2038	82			
23 "	4910	75	61	1956	82		299198	11650
24 "	4835	75	62	1874	81			
25 "	4760	75	63	1793	81			
26 "	4685	75	64	1712	80			
27 "	4610	75	65	1632	80			
28 "	4535	75	66	1552	80			
29 "	4460	75	67	1472	80			
30 "	4385	75	68	1392	80			
31 "	4310	75	69	1312	80			
32 "	4235	75	70	1232	80			
33 "	4160	75	71	1152	80			
34 "	4085	75						

England, then, belongs the distinction of having originated, developed, and put into practical operation this great institution. In the latter country, to sum up, the period ended by 1800 witnessed the establishment and success of the first insur-

¹¹⁸Observations on Reversionary Payments, 4th Ed., Vol. II, p. 36.

ance organization granting whole life insurance upon premiums based on the age of the insured, and calculated from a mortality table sufficiently accurate for all practical purposes. It operated on the mutual plan, provided for careful selection, granted insurance on sub-standard lives at an increased premium, paid dividends to policyholders and engaged in several other practices now common among life companies. Stock companies also came into existence offering lower premium rates and the protection of paid up capital. An agency system was devised which hastened the spreading of life insurance to other parts of England than London, and to Ireland. Facilities were adequate to accommodate those desiring protection. There was a considerable demand for life insurance as is evidenced by the number of persons insured. Knowledge of the science of life contingencies was sufficient and the methods of transacting the business as well as the management of companies were well enough understood to make possible the avoidance of the pit-falls which had proved so disastrous in the past. A careful study of England's experience would have been of great assistance in getting the business of life insurance under way in the United States. To this country we are now prepared to turn.

CHAPTER II.

LIFE INSURANCE IN THE UNITED STATES TO 1809. FROM INDIVIDUAL TO CORPORATE UNDERWRITING.

Individual Underwriting.—The practice of life insurance was begun in the colonies in much the same manner as in the mother country, although at a somewhat later date. Individual underwriting on the lives of persons about to undertake voyages or engage in other hazardous enterprises of a temporary nature came first. As merchants and traders were accustomed to gather at certain coffee houses to exchange information and transact business as well as to enjoy social intercourse with others interested in similar pursuits, the coffee house came to be the most convenient place for obtaining policies of insurance in this country, just as it had been in England.¹

While it is possible that those engaged in commercial pursuits may have shared one another's hazards to a limited extent, general underwriting was recognized as necessary to secure a proper distribution of risk. Taking advantage of this fact and of the difficulties and inconveniences necessarily attending the insurance of our interests by London underwriters, which led to many complaints on the part of colonial shippers because of the time consumed in effecting insurance with them and the uncertainty as to whether or not it would be paid in case of loss,² John Copson opened a "Public Insurance Office" at his house in Philadelphia, in May, 1721. He apparently contemplated a sort of brokerage office, similar to those of London, where persons desiring insurance could secure their policies, and where persons willing to accept risks for a premium might do their underwriting.³ He promised to exercise care that the underwriters should be persons of undoubted financial responsibility and integrity.⁴ His project appears to have met with but little success. In 1724 the first "Office of Insurance" in New

¹Prudential Insurance Company, *Documentary History of Insurance*, p. 5.

²Penn and Logan Correspondence, I., 353.

³J. A. Fowler, *History of Insurance in Philadelphia*, p. 10.

⁴Fowler, *Pennsylvania Insurance Hand Book*, p. 14. Quoting Penna. Mercury, May 25, 1721.

England was opened in Boston to provide for individual underwriting of marine policies. In 1725, Mr. Francis Rawle of Philadelphia proposed "to the Legislature that an office be erected and supported by a Fund," so that merchants might be encouraged to carry on trade. The idea seems to have been to establish a sort of semi-governmental institution in which merchants might secure insurance, and which should be so managed and financed as to afford real protection. The inference is that insurance in other offices, most of which had been "dropt and prov'd abortive," involved much uncertainty as to whether or not claims would really be paid.⁵ Rawle's work is of interest chiefly because it appears to have been the first publication issued in America in which insurance is mentioned.⁶ Several insurance offices sprang up in New York during the next fifty years, most of them in connection with the coffee houses. It appears that the managers of the offices generally made some attempt to see that only persons of financial responsibility were admitted to do underwriting. While these offices served marine interests primarily, a merchant who was about to embark on a voyage to Europe, or expose himself to some other temporary hazard, was likely to repair to one of them for a policy upon his life. To accomplish this, he would in all probability appear personally where such insurances were customarily made, or he might apply to a "broker" who operated at an insurance office and secure the policy through him. Having communicated his desire for insurance he would make known to the prospective underwriters either personally or through his broker the amount of insurance desired, the length of time he wished to be covered, and all of the circumstances concerning the nature of the journey, etc. If satisfied, the underwriters would subscribe for various amounts until the sum requested had been secured. If the insured were then satisfied as to the financial responsibility of the underwriters, he would pay the premium and thus complete the contract. The traditional English premium rate of five per cent of the amount insured prevailed—the contracts

⁵Rawle, F., *Ways and Means for the Inhabitants of Delaware to become rich*, pp. 62-63. "Inhabitants of Delaware" refers in this title to those who live along the Delaware River.

⁶Montgomery, T. H., *History of the Insurance Company of North America*, p. 15.

being for periods of from six to twelve months' duration. The following is a copy of one of these early contracts:

"Insurance is hereby made by Benjamin Lincoln, Esq., on his Natural life, aged about fifty-six years, for and during the space of twelve Kalender months, to commence from the date hereof and we the Assurers do agree that the life of the said Benjamin Lincoln shall be rated at the sum of one Thousand pounds lawful money For which we have received the premium due us of five pounds per cent In case he shall during the said Term happen to die, then we will well and Truly pay unto his heirs, the Sums we have hereunto subscribed."⁷

Early Fire Insurance Organizations.—Marine insurance, and such life insurance policies as were made by merchants for the protection of their heirs and creditors in case of death during short intervals of time, continued to be underwritten for the most part by individuals throughout the colonial period and for twenty years thereafter.⁸ But the fire risks during this period were seldom undertaken by individuals. Mutual insurance societies were formed for this purpose. In the early days when a house was destroyed by fire it was customary to look to neighbors and friends for contributions to alleviate the distress caused rather than to an insurance office. The step from this practice to an association in which the members were bound to make contributions in case one of them suffered loss was not a difficult one. It appears to have been first taken in 1735 when the "Friendly Society for the Mutual Insuring of Houses Against Fire" was organized under a Royal Charter in Charleston, South Carolina.⁹ The Philadelphia Contributionship for the Insurance of Houses from Loss by Fire, an organization which still transacts business, was formed in 1752. The scheme was promoted by Mr. John Smith, a prominent merchant of Philadelphia, with the cooperation of Benjamin Franklin.¹⁰ But the first attempt at association to attain the benefits of life

⁷Zartman, Lester F., in *Yale Readings in Insurance*, pp. 78-79.

⁸Kent, Chancellor James, *Commentaries*, 1826, introduction to law of marine insurance.

⁹Prudential Insurance Co., *Documentary History of Insurance*, p. 18, Quoting from the *South Carolina Gazette*, Sept. 27, 1735.

¹⁰Montgomery, T. H., *History of the Insurance Company of North America*, pp. 28-29.

insurance was made by the Presbyterian Synod of Philadelphia in 1756, when a committee was appointed to apply for a charter "to make us a corporation."¹¹

Religious Societies.—*The Presbyterian Corporation.*—In 1717 the Synod of Philadelphia created a "Fund for Pious Uses," to be disposed of "according to the discretion of the Synod."¹² The fund was used for various purposes, as well as to assist in the support of needy ministers and their families. By 1754 the fund had proved inadequate, and it was deemed advisable to create an additional fund to be devoted exclusively to the care of the widows and destitute families of deceased ministers. A plan was accordingly put in operation in 1755, whereby ministers might subscribe certain sums to what was called "The Widows' Fund," with the stipulation that the trustees of that fund should pay certain fixed annuities to the widows and children of ministers in case of the death of the latter. This Widows' Fund was essentially a mutual insurance society in which the proceeds of insurances were to be paid in the form of annuities. Collections for the fund were solicited among congregations, but the additions from this source were supposed to be used to extend the benefits beyond the regular subscribers. They could be used, however, for the benefit of dependents of regular subscribers in case the rates paid by the latter should prove inadequate. But a voluntary unincorporated body could not well be depended on to carry out provisions involving obligations extending so far into the future, so in 1756 the Synod appointed a committee to petition for a charter as mentioned above.¹³

A charter was accordingly granted by the Proprietary Governors of Pennsylvania (Thomas Penn and Richard Penn), January 11, 1759, creating "The Corporation for the Relief of Poor and Distressed Presbyterian Ministers, and for the Poor and Distressed Widows and Children of Presbyterian Ministers." The charter was accepted by the Synod,¹⁴ February 6th

¹¹Allen, Rev. Dr. Perry S., *Historical Sktch of the Presbyterian Plan of Life Insurance*, pp. 2-3, Quoting the original petition of the Committee.

¹²Ibid, p. 1, quoting a minute of the Synod of 1717.

¹³Allen, Perry S., *Historical Sketch of the Presbyterian Plan*, pp. 1-3.

¹⁴The Synod of New York had apparently united with the Synod of Philadelphia for purposes of carrying out and extending the benefits of the Plan. See Article XIII of the Plan of Agreement, quoted below.

of the same year. One of the original incorporators was the Rev. Dr. Francis Alison, at that time Vice-Provost of the College of Philadelphia (now the University of Pennsylvania) who was also active ten years later in assisting Dr. William Smith, Provost of the College, in the formation of the Episcopal Corporation, an account of which follows.¹⁶ The Corporation began its work by appealing to the ministers to subscribe to the fund and by adopting and publishing the following plan:

THE PLAN OF AGREEMENT between the CORPORATION for the Relief of poor and distressed Presbyterian Ministers, and of the poor and distressed Widows and Children of Presbyterian Ministers; and the Annual Contributors,

(That is to say)

I. THAT the yearly Rates of the Contributors be two Pounds, three Pounds, four Pounds, five Pounds, six Pounds or seven Pounds, current Money of PENNSYLVANIA; and that the respective Annuities to be paid to the Widows and Children of the Contributors, be ten Pounds, fifteen Pounds, twenty Pounds, twenty-five Pounds, thirty Pounds or thirty-five Pounds; and that no Alteration be ever after made in the Rates, but that every Contributor abide by the Rate which he first chooses.

II. THAT no Person shall at any Time be entitled to an Annuity, until one full Year after the Father's or Husband's Decease.

III. THAT no Annuity be transferable, or liable to be sold; in as much as that Practice would frustrate the very End of the Charter, and of the pious Contributions for this Purpose.

IV. THAT if any Contributor shall die before he has paid to the Support of this Fund, a Sum equal to three Years Annuity, in that Case there shall be deducted from the Annuity due to his Widow or Children, such a Sum as together with the Rates already paid or due by him (without computing Interest thereon) shall make or be equal to three Years Annuity: PROVIDED ALWAYS, That such Deduction shall be made by retaining only one Half of the Annuity until said Deficiency be made good to the Fund.

V. THAT every Contributor at his Marriage, and as often as that happens, shall pay one Year's Rate extraordinary, as he thereby makes the Chance worse, by bringing, in general, a younger Widow upon the Fund.

VI. THAT every Congregation whose Minister or Pastor has been a Contributor to this Fund, shall after his Death be

¹⁶Ibid, p. 4; and Smith, Rev. Dr. William, Account of the Episcopal Corporation, 1769, contained in "Five Sermons before the Corporation," published by Sherman & Co., Philadelphia, 1880, p. 28.

supplied by the neighboring Ministers in their Turns, a certain Number of Sabbaths, until the Contributions given by these Congregations for these Supplies, be equal to the middle Rate subscribed to this Fund; and these Contributions shall be paid into the Fund that Year in which the Minister dies, and every Year after, while the Congregation is vacant, or until it be dissolved; so that the Fund may not suffer by vacant Congregations.

VII. THAT if any Contributor remove to a distant Country or Province, or resign his Office, or be deposed, or suspended, in that Case, and in every such Case that may happen, provided that he pay his yearly Rate or Quota, he shall be regard as a Member, and his Widow and Children be entitled to their Annuity.

VIII. THAT the Contributor's Widow if there be no Children, shall be entitled to her whole Annuity during her Widowhood, but to no more than Half the Annuity after marriage, during her natural Life.

IX. THAT if there be a Child, or Children, and no Widow, it, or they, shall be entitled to the whole Annuity for thirteen Years after the Father's Decease, and no longer.

X. THAT if there be a Widow and a Child, or Children, the Annuity shall be divided among them as the Corporation shall judge most for their Relief: PROVIDED ALWAYS, That the Widow be allowed as much, at least, as any of the Children. But if she marry before she is thirteen Years a Widow, she shall have one-Third, and the Child or Children two-Thirds for thirteen Years, to be counted from the Death of her Husband; and she shall after that Term, have Half the Annuity during her natural Life: But if all the Children die before the thirteen Years are expired, the Widow, if unmarried, shall have the whole Annuity during her Widowhood, and only half Annuity after her Marriage.

XI. THAT the Corporation may pay the Child or Children of deceased Contributors, such a sum in Hand as will be equal to his or their Annuity, if the Corporation judge it most for his or their Benefit, deducting the legal Interest according to the Number of Years they are obliged to pay the Annuities, or in proportion to the Chances against his or their Life.

XII. THAT the first annual Payment of the Contributions into the Fund, shall commence from the Day of May in the Year of our Lord, one Thousand Seven Hundred and and that the first annual Payment of Annuities be on the Day of in the Year of our Lord, One Thousand Seven Hundred and Sixty-two, if any are then become due: And that every succeeding Payment shall be made on the Same Day of each Succeeding Year.

XIII. THAT if at any Time the Rates and Interest of the Fund be not sufficient to pay the Annuities, the Treasurer shall not break on the Capital, until he lay the affair before the Corporation and the Synod of NEW YORK and PHILADELPHIA, at their first Meeting after this may happen.

XIV. THAT as soon as a Capital can be raised sufficient to enable the Corporation to pay the Annuitants the yearly sums stipulated in this Agreement, with all necessary Charges, then the Interest or Surplusage, or Part of it, shall be divided among the Annuitants, and other distressed Ministers and their Widows and Families, in such Manner as the Corporation think proper: PROVIDED ALWAYS, That particular Regard be had to Contributors, so that their Widows and Children be entitled to a Share in said Surplusage in Proportion to the Sums paid by their Husbands and Fathers.

XV. THAT the Names of all the Contributors to this Fund, shall be inserted in the Corporation's Book; and that their Widows or Children, or both, if Need require, shall produce a Certificate yearly, from the Moderator of the Presbytery next adjacent where it can be procured, or from some other suitable Authority, such as two Magistrates nearest to them, testifying their State and Condition as the Widow and Children of such a Minister, at such a Time deceased; which Certificate shall be laid before the Corporation, and if by them approved, shall be sent to the Treasurer, who shall in all such Cases be warranted to pay such Annuity or Annuities.

XVI. THAT the Corporation shall and may, With the Advice of the Contributors, make such Alterations in this Plan, from Time to Time, as shall be for the Benefit of the Fund and Contributors. the Rates first chosen excepted.

XVII. It is further agreed that if the Rev. Mr. Charles Beattie and the members of this Synod procure contributions to increase its fund to two thousand Pounds Pennsylvania currency to be applied for the relief of Widows and Children of deceased ministers; in that case every contributor shall have a right to an annuity four times as great as the sum he subscribes.

Philadelphia, the 17

Signed, on the one Part, in the Name and by Order of the Corporation, by And on the other Part by¹⁶

Article I indicates that a minister might become a member and contribute from two to seven pounds per annum and thus secure an annuity to his widow or and children of five times the

¹⁶Quoted by Fowler, J. A., in History of Insurance in Philadelphia, pp. 614-615, and Allen, Perry S., Sketch of Presbyterian Plan, pp. 4-5.

amount contributed, the annuity to begin one year after his death. The annuities were not transferable, and what is now known as adverse selection was guarded against in some measure by two provisions. One was that a member could not increase his contributions, and thus augment the amount of the annuity provided, but must abide by the rate he first elected. This removed the temptation to provide for greater protection in case of approaching death because of the attack of a serious disease, or from some other cause. The other provision was that if he should die before having contributed "a sum equal to three years' annuity," which meant, of course, that he must have been a contributor for fifteen years, only one-half of the annuity would be paid until the sums held back, added to the amounts he had paid, should equal fifteen contributions.¹⁷ There were no residence restrictions,¹⁸ and commutation of annuities due children on volition of the corporation was provided.¹⁹ The participation of annuitants in any surplus that might arise was another of the more liberal features of the agreement.²⁰ Contributors were also to have a voice in any changes that might be made in the plan. The rates were the same for all ages, but members may have been supposed to join the Corporation at about the same period of life, thus rendering premium variations unnecessary. At one point in Article V, which provided an extra rate for each re-marriage because a younger widow was generally brought upon the Fund thereby, the question of age was undoubtedly in the minds of those who drew up the plan.

Article XVII appears to have been added after it was decided to commission some one for the specific task of raising money for the fund by soliciting subscriptions outside those derived from the contributions of members. The intention apparently was to make provision for persons who might suffer through the operation of Article IV.

Rev. Beattie made a visit to the churches of England, Scotland and Ireland, in 1760 and secured 3,827 pounds clear of all expenses. While this and subsequent donations served the

¹⁷Article IV.

¹⁸Article VIII.

¹⁹Article XI.

²⁰Article XIV.

fund well, most of the outside contributions were more than offset by the sums paid out to others than beneficiaries of members, or were appropriated to other objects. So far as can be determined, therefore, the rates must have proved fairly adequate. Their calculation was made on no scientific principle but there was a certain rough approximation of a proper basis. The requirement that fifteen payments be made before the full benefit could be reaped, made sure that the widow should in most instances be fairly well advanced in age when she began receiving the annuity. Children were limited to a temporary annuity of thirteen years, and no return payments were promised in case the wife and children should die first.

The first policy contract issued by the Corporation was dated May 22, 1761, and was made out to the same Francis Alison, Vice-Provost of the College of Philadelphia, mentioned above. This policy, a copy of which appears in Rev. Allen's History, cited above, merely sets forth the date, name of contributor, premium, the amount of the annuity and some of the terms. Most of the latter are found in the Plan of Agreement, but one important point deserves mention. The Corporation agreed to pay the reversionary annuity²¹ only if the insured should "faithfully fulfil and perform his covenant" by making his contributions when due. Otherwise the member forfeited all his rights under the contract and sacrificed all of the sums he had paid in.

The Corporation once started met with tolerable success considering the times and circumstances. In 1792, a committee was appointed to study and report on the Plan of Agreement. The committee recommended several important changes, liberalizing the policy contract and providing for a non-forfeiture feature. The Corporation adopted and published the new Plan, together with an address setting forth the experience up to that date. The address gives instances of large sums having been paid to widows and families of deceased members, and states that "a full experience has demonstrated that the system here

²¹A reversionary annuity is one payable to an annuitant only in case of the prior death of the insured. To all intents and purposes that is what this policy provided. For, while the payments were to be made during the life of the contributor, it is reasonable to suppose that he would allow the policy to lapse should he survive the death of his wife and children.

presented is wise in its construction and benevolent in its operations."²² The Corporation continued its career of usefulness, changing its plans from time to time to conform more nearly to correct insurance practices. It still transacts business under the name of "The Presbyterian Ministers' Fund," in a most efficient and inexpensive manner. Its mortality experience also has been very favorable, so that the net cost of insurance to policyholders is at present very low.

The Episcopal Corporation.—Ten years after the formation of the Presbyterian Corporation an organization of a similar nature was effected by the clergymen "in the Communion of the Church of England in America." It appears that the distressed circumstances in which members of the Episcopal Clergy often left their families upon the occurrence of premature death had long been a matter of concern among both the ministers and their congregations. So at a meeting of the clergy in 1767, a committee, the leading spirit of which was the Reverend Dr. William Smith, Provost of the College of Philadelphia, now the University of Pennsylvania, was appointed to frame a plan for making some provision for the dependents of members who should die in destitute circumstances. The committee met in 1768 and drew up a plan and draughts of a charter for an organization to be known as the "Corporation for the Relief of the Widows and Children of Clergymen in the Communion of the Church of England in America." These were approved by the clergy, and three identical charters were submitted to the provincial Governments of Pennsylvania, New York and New Jersey. Pennsylvania granted the charter February 7th, New Jersey, March 29th, and New York, September 29th, all in the year 1769.²³

The charters, which were alike in every article, after conferring the usual corporate powers upon the members, provided that it should be lawful for them to meet and make "certain fundamental regulations" and elect officers. The first regulations as well as amendatory laws and regulations were to be made by a majority of the members of the corporation and were

²²Allen, Perry S., *Historical Sketch of the Presbyterian Plan*, p. 6.

²³Smith, Rev. Dr. William, in a brief account of the Corporation published in connection with a sermon preached before the Corporation, October 14, 1769, Catalogue No. 257.2-947, Library of the University of Pennsylvania.

to be binding upon all. A majority vote of the members was also required to elect officers. It was further provided that the accounts of the Corporation should be laid before the Archbishops of Canterbury and York, and the Bishop of London, or their representatives in America, for examination as often as might be demanded.²⁴

Pursuant to the provisions of the charter the members of the Corporation met in October, 1769, choosing Christ Church, Philadelphia, as the place. They first heard a sermon by Dr. Smith in which he set forth the advantages of insurance with such clearness and force as to compel profound admiration. Choosing three texts, Job. XIX, 11-13, Jeremiah XLIX, 11, and James I, 27, he proceeded to point out the religious duty of caring for the widow and the fatherless; and concluded that should any degree of success attend his hopes and wishes concerning the organization, "it will surely be high satisfaction to the members of our churches, to behold their ministers so relieved from their anxious cares, which every man must have, on the prospect of leaving a distressed family behind him, as to proceed cheerfully in all duty; knowing, that although they can acquire little, and leave less of their own in this world, there is some small provision to place their children above total want....." After agreeing that there should be an "Anniversary Sermon" before the Corporation each year, they passed the following fundamental laws and regulations:

"LAWS RELATIVE TO ANNUITIES, ETC.

I. The yearly contributions of the clergy, whose widows and children shall be hereby entitled to annuities, shall not be less than eight Spanish milled dollars, of the present current weight namely, seventeen pennyweight and six grains, nor more than twenty-four such dollars, or the value thereof in current money of the province where each contributor lives.

II. No annuities shall be paid but to the widows and children of such clergymen as shall have been contributors to the fund; and the respective annuities to be paid to the widows and children of such clergymen, shall be five times the sum of their annual contribution.

III. In order to have a certainty, both as to the quantum, as well as the payment of the annual rates, each contributor shall abide by that rate or class which he first chooses; unless he shall

²⁴Charter, published by Rev. Dr. William Smith, cited above.

change into another class, on such terms as to the corporation shall appear to be reasonable; and each contributor shall pay his annual contribution to the corporation, on or before the first Wednesday after the feast of St. Michael, in every year, under the penalty of one penny in the pound, for every day's default; and if the said penalty of one penny in the pound, together with the whole contributions due, shall not have been paid up during the life of the contributor, then his widow and children shall receive only an annuity proportionable to the payments made by the husband or father.

IV. Every yearly contributor, who shall marry oftener than once, shall pay one year's contribution extraordinary on every such marriage, as he makes the chance in general worse against the fund

V. If the husband or father of any person or persons, entitled to an annuity on this plan, shall not have paid five annual contributions into the fund; then the widow and children shall only be entitled to ten per cent per annum, for thirteen years, on the amount of the contributions paid by the deceased.

VI. If any contributor shall have paid for five years, or any number of years under fifteen, and exceeding five, the annuitants shall receive only half the annuity which belongs to the rate or class subscribed to by the deceased, until such time as the yearly deduction of half the annuity, added to five or more payments, made by the deceased (without computing interest) shall together make a sum in the fund, equal to the sum of fifteen annual payments in the rate or class to which such deceased contributor belonged; which partial annuities, payable agreeably to this article, shall be proportioned between the widow and children as hereafter fixed, in respect to full annuities, viz.:

VII. If there be no children, the widow of every contributor, if fewer than fifteen payments shall have been made by the deceased, shall receive the whole annual sum due by the last preceding article; and if fifteen such payments shall have been made complete by the deceased, then the widow shall receive the whole annuity due on her husband's contribution during her widowhood; and if she marry again, she shall, from the time of such second marriage, receive only half such annuity during her natural life.

VIII. If there be a child, and no widow, such child shall be entitled to the whole or partial annuity for thirteen years, agreeably to the foregoing articles; but if there be more than one child, and no widow, the annuity, whether whole or partial, shall be equally divided among them, to be laid out, in case they are minors, in their education or apprenticeship, with the advice and approbation of such executors or guardians as the father may have nominated; and if none such shall have been nominated by the father, then in such manner for the benefit of the child or children, as the corporation shall direct.

IX. If there be a widow and one child, the annuity, whether whole or partial, shall be equally divided between them, under the limitations aforesaid; and if there be a widow, and two or more children, she shall have one-third during her widowhood, or one-sixth during her natural life, if she should marry a second time; and the remainder for thirteen years, shall be laid out for the use of the children as aforesaid.

X. The corporation may, if they think proper, with the consent of the annuitants, or of their guardians, if they be minors, pay the child or children of contributors such a sum in hand, as shall be equal to the annuity of such child or children, according to the number of years for which such annuity should be paid, deducting legal interest, and taking into the account the chances against the life of such child or children for the term such annuity is to be paid.

XI. The corporation shall have power to increase the rates of annuities, as the state of the fund shall admit; and for that end, all benefactions that shall be made to this fund shall, for the term of ten years to come from this day, be put out to interest, on good land security, and the said interest annually collected, and again put out to interest, shall be appropriated as an augmentation of the capital stock, for the said term of ten years; and, after the expiration of the said term, the interest of all benefactions shall be equally divided among all the children of contributors, for the term that their annuities respectively shall continue payable, according to the foregoing articles.

BY-LAWS.

I. At every annual meeting, agreeably to the charter, there shall be one president, one or more treasurers, and one secretary chosen for the ensuing year; and if any of the said officers should be absent from any meeting, the members met shall choose another to officiate in his stead, during that meeting. At any annual meeting, the members met as aforesaid, shall have power to elect such new members as they shall think fit, and likely to promote the good purposes of the charity; and all elections whatsoever, shall be by ballot, and the majority of votes shall be sufficient for the election of the president, treasurer or treasurers, and secretary; but no new member shall be admitted, unless four-fifths of the whole votes be in his favor.

II. There shall at each annual meeting be chosen a standing committee of six members, consisting of two out of each of the three provinces, who, together with the president, treasurer or treasurers, and secretary, shall direct and carry on the necessary correspondence of the corporation, and from time to time assist the treasurer or treasurers, in managing the rents and estate of the corporation, and in putting out at interest the moneys coming into the stock, either by the annual contributions of the

clergy, or the occasional donations of benevolent persons, for which good land security shall be taken at least to double the value of the moneys lent, payable in Spanish milled dollars of the present current weight, namely, seventeen pennyweight and six grains each, or the value thereof in current money of the province where the loan is made.

III. The annual meetings of the corporation, appointed by the charter, shall be alternately held in the provinces of New York, New Jersey, and Pennsylvania; and six weeks previous notice of the time and places of all annual meetings, shall be given by the secretary, in one or more of the public newspapers, published in New York and in Philadelphia. And if an occasional meeting of the corporation should be found at any time necessary, and the Standing Committee of Business, to be appointed agreeably to the rules of the society, should apply in writing to the president of the corporation, to call such meeting at any particular place within the said three provinces, the president shall call such occasional meeting at the place requested by the committee, giving such public notice thereof, by the secretary, as is directed above. And at all such meetings, whether occasional or stated, any number of members met, not being less than fifteen, shall have power to make by-laws, and in general, shall have all the powers granted by charter to this corporation, other than the making, altering, or repealing fundamental laws and regulations; provided always, that when any part of the stock of the corporation is to be disposed of, or any augmentation of annuities to be made, the same shall be expressed in the previous public notices hereby directed to be given of such meetings

IV. The treasurer or treasurers, shall give such security to the Corporation every year, or as often as thereto required, in such sum or sums as the corporation at any annual meeting may judge sufficient, for the faithful discharge of the trust reposed, and to be reposed, in him or them; and farther, he or they shall, at each annual meeting exhibit his or their accounts to the corporation, for their inspection and approbation.

V. Every clergyman who shall become a contributor, in order that his widow and children may be entitled to an annuity at his decease, is to continue the payment of his yearly contribution during his life, and not to stop at the end of fifteen years; the whole calculation being on the principle of payments for life. And if any clergyman shall die in arrears of his annual payments, all his arrears with the penalty of one penny in the pound per day, are to be deducted out of the annuity payable to the widow and children."²⁵

²⁵Five Sermons Preached before the Corporation, etc., published by Sherman & Co., Philadelphia, 1880, Appendix, pp. 33-37.

As will be noted, the regulations provided that a member of the clergy might contribute from eight to twenty-four dollars per annum, and thus secure a reversionary annuity, payable to his wife or children in case of his prior death. But the Episcopal Corporation differed somewhat from the Presbyterian in providing that the amount of the annuities should be made to depend more closely upon the number of contributions actually made.²⁶ This arrangement conformed in some degree to the scientific principles of life insurance, although the methods provided for the valuation of life gave only approximations. As was true of the Presbyterian Corporation, fifteen annual payments were necessary to secure five times the amount of the annual contributions as an annuity. To illustrate, a member was required to contribute \$24 annually for fifteen years in order to secure an annuity of 120 per year to his family in the event of his prior death. If the number of payments was less than fifteen, the amount of the annuity was reduced, but contributors who outlived the fifteen year period were required to continue their payments throughout life. Thus it is observed that provision was made for the accumulation of a considerable sum against each separate liability, and that the sum increased as the probability of death became greater. Also, the requirement that the sum be paid over a considerable space of time in order that the annuity might not be reduced, automatically took care that the annuitant should have attained a sufficient age to render her after life time reasonably short. This, of course would not hold if a clergyman should remarry and then leave a young widow on the Corporation, but such contingencies were provided for by Article IV. These rates were submitted by Dr. Franklin to Dr. Richard Price. The latter stated that the rates were adequate if the experience of the Corporation should happen to conform to that of the ministers in Scotland, and if interest be taken at six per cent. If but four and one-half per cent compounded annually could be earned safely, then Dr. Price thought the Corporation should grant annuities of but four times the annual contributions.²⁷ But since the Corpora-

²⁶See Regulations V, VI, VII, VIII, and IX.

²⁷Remarks on the Scheme of the Corporation by Dr. Richard Price at the Request of Dr. Benjamin Franklin. Quoted in "Five Sermons preached before the Corporation," etc., published by Sherman & Co., Phila., 1880, pp. 39-41.

tion anticipated, and indeed received, considerable assistance from outside contributions and bequests²⁸ the rates appear to have been adequate for all practical purposes.

One or two other points in connection with the original plans of this Corporation are of interest in view of more recent developments in life insurance. Regulation III, provided for grace, with a penalty attached, in the payment of contributions, Regulation X, provided for commutation of annuities at the volition of the Corporation with the consent of the annuitants, and Regulation XI, for the participation of annuitants "as the state of the fund shall admit."

As mentioned above, it was further agreed at the first meeting that each year there should be a sermon before the Corporation. These anniversary sermons were continued down to 1791. The five which are preserved contain numerous citations of the Scriptures as well as statements of facts and illustrations demonstrating the advantages of insurance and the necessity of caring for those who are left in want by the premature death of the bread-winner.²⁹

The clergy of the Protestant Episcopal Church of Maryland followed with another corporation to enable them "to raise and manage a fund for providing small annuities for the distressed widows of the said clergy, and the education of their children," in 1784.

The activities of these companies was necessarily curtailed during the Revolutionary War, and indeed there was considerable anxiety as to the safety of funds already held by them. But in 1787, Pennsylvania, New York, and New Jersey all passed acts renewing their charters, thus giving them the necessary legal authority to continue their activities. The Pennsylvania legislature authorized a division of funds among the three states in which the Episcopal Corporation was originally chartered, in 1797.³⁰ New York passed a similar act in 1798, and the three branches continued their separate existence. The fundamental laws or regulations were changed from time to time as experience dictated, and rates which had been calculated by competent actuaries were later adopted.³¹ But like

²⁸Ibid. pp. 42 et seq.

²⁹Ibid. The Sermons follow the Appendix.

³⁰Fowler, J. A., *History of Insurance in Philadelphia*, p. 627.

³¹Ibid, pp. 648-649.

the Presbyterian, the business of the Episcopal Corporation was necessarily limited in extent. Nevertheless, these denominational corporations which combined life insurance and annuities to provide a meager return to those who suffered because of the devotion of their bread-winners to the religious interests of their respective communities, form the connecting link between individual and corporate underwriting of life risks in this country. Errors in method and early mistakes in management were made up by voluntary contributions from outsiders so that they have been enabled to render valuable service to their restricted groups. Their activities tended to familiarize the public with the advantages to be gained from insurance, and their influence contributed to the formation of corporations which extended these benefits to other members of the community. The knowledge that the first corporations for conducting life insurance in this country as well as in England were originated by ministers of the Gospel should have done much to dispel the peculiar religious prejudice against such institutions which has at times been manifest.

The Formation of Companies to do a General Insurance Business.

—The corporations mentioned above were the only ones formed in America that had anything to do with insurance prior to the adoption of our constitution. The poverty of the colonies furnished little inducement for purely financial enterprises. The seven years of war, followed by four more years of suspense regarding the stability of the Government had practically exhausted our available resources. But with the adoption of the Constitution and the establishment of a sound financial system conditions for corporate enterprise became more favorable. Then the outbreak of the French revolution and the subsequent entrance of every maritime power of Europe into war greatly enhanced the importance of our commercial and business interests. Our neutral flag secured a large share of the world's carrying trade,²² and the business of insurance developed along with it. Thus, from 1787 to 1799, inclusive no fewer than twenty-four charters were granted to insurance companies.²³

²²Bogart, E. L., *Economic History of the United States*, p. 120.

²³The Mutual Assurance Company of Philadelphia was chartered in 1786. This, together with the Philadelphia Contributionship and the denominational corporations, which were re-chartered in 1787, added to the above number, makes a total of thirty-one companies in operation by 1800.

Five of these were authorized to do a life insurance business in connection with the other forms of insurance.³⁴ The first one of the latter five was the Baltimore Fire Insurance Company. It was chartered in 1787 with power to do fire, inland, and life business. So far as is known it never exercised its privilege to grant life insurance policies.³⁵

The Insurance Company of North America, organized in Philadelphia in 1792³⁶ and incorporated by the Pennsylvania legislature, April 1, 1794³⁷ was second. It had power to do a general insurance business, but from the first confined its activities chiefly to marine and fire risks. It did not, however, neglect the life insurance privilege entirely. Thus a committee was appointed early in 1794 to consider a "Policy for insuring persons against capture by Algerines, etc." As a result two ship captains were insured against capture during two separate voyages from Philadelphia to London and from Baltimore to Oporto or Lisbon. The one making the voyage from Philadelphia was insured for \$5,000 at 2 per cent premium, and the other for \$4,000 at five per cent. Other policies of a similar nature followed, but there were not many of these. They are of interest chiefly as evidence that insurance on human lives as granted by an ordinary business corporation began in this country in much the same manner as individual life underwriting began abroad. They were ~~against capture, and were to provide ransom only, as it was specifically stated that they were made upon the person "against the risque of capture by the Algerines or any of the Barbary Corsairs only, and that if~~

³⁴Nichols, Walter S., in the Insurance Blue Book, Centennial Issue, 1876 (1877), pp. 10-11.

³⁵Ibid., p. 10. Plans for a society for making provision for widows and for granting annuities to persons after certain ages together with tables for calculating what must be paid by each member were published in Boston by one William Gordon, in 1792. Gordon appears to have been moved to publish his plans by a study of the constitution of the London Annuity Society, an abstract of the deed of settlement of the Laudable Society, and Dr. Richard Price's, "Observations on Reversionary Payments."—Gordon, William, Plan of a Society, etc., 1792. (Library Company of Philadelphia.) Nothing seems to have resulted from Gordon's efforts.

³⁶Montgomery, T. H., History of the Insurance Company of North America 1885, p. 12.

³⁷Ibid, p. 44.

the said should be killed in any attempts made to defend the said Brig or should die before or after his Captivity and before he should be Ransomed, the Assurers shall not be bound to pay any other Sum or Sums than what may have been expended in attempting the Ransom of the said....."³⁸

On January 9, 1795, "it was decided to undertake some plan for insurances on lives," and another committee of the Board of Directors was appointed to formulate the plan. Two applications were accordingly approved by the board, May 21, 1796, but one of which appears to have accepted by the applicant. This was upon the life of a person about to sail for India. The insured was said to have been about forty-one years of age, the policy, which was for \$5,000 was to continue in force for a period of eighteen months, and the premium was 10 per cent of the amount insured, paid in advance. Three other applications were approved by the board—one on September 27, 1796, another on February 15, 1803, and the third on April 9, 1804. But none of these were issued. The premiums exacted by the company probably discouraged applicants, although they were as low in most instances as those quoted by private underwriters. There seems to have been practically no demand for life insurance among business men. Mr. Hazard, the first secretary of the company, wrote in November, 1799, that there had been few instances in which life policies had been made, "perhaps half a dozen, in each of which we have gained the premium. Price's tables are those we have used, as far as tables have been recurred to." The company seems to have engaged in the business more as an experiment, or to supply the demand for hazardous accident insurance, than as an attempt to cultivate life insurance proper. It was entirely abandoned in 1804.³⁹

The "Insurance Company of the State of Pennsylvania," chartered four days after the Insurance Company of North America by rival Philadelphia merchants, also had power to grant policies of insurance on lives,⁴⁰ but appears never to have exercised it.⁴¹ The "United Insurance Company of the City

³⁸Ibid, pp. 72-73.

³⁹Ibid, pp. 72-74.

⁴⁰Fowler, J. A., Pennsylvania Insurance Hand Book, 1860, p. 74.

⁴¹Nichols, Walter S., in Insurance Blue Book, 1876, p. 11.

of New York," chartered March 20, 1798, and the "New York Insurance Company for Maritime Insurances, Houses, Goods, and Lives," incorporated in New York, April 2, 1798, completes the list of companies chartered before 1800, with authority to grant life as well as other forms of insurance, but no use was made of the life privilege by either of these companies.

It thus appears that the Insurance Company of North America was the only business corporation in this country to grant life insurance prior to 1800, and that it did not write more than half a dozen policies. Individual life underwriting continued, but certainly could not have been carried on very extensively without leaving more traces than can be found in the records of the period.

Tontines.—It may be recalled that the Tontine was the height of its popularity in Europe during this period. And down to about 1792 a system of lotteries was resorted to for the purpose of raising funds among the colonists.⁴² But with the gradual working out of a more sound financial policy and with the increase in wealth which followed the Revolution more legitimate schemes for raising money became practicable, and lotteries fell into disrepute. It is but natural then that the Tontine should have been introduced into the states and should have played quite an important part in early financial schemes. Thus about 1790, tontine plans were suggested as a means of carrying forward certain philanthropic enterprises which had previously been supported by lotteries, and appear to have met with general approval. They were started in several cities to raise money for charitable purposes and to erect public and private buildings.⁴³ The old City Hotel, Park Theatre, and the celebrated Tontine Coffee House were projected in New York on the tontine principle. And in Philadelphia the Universal Tontine, originally started for charitable and other purposes resulted in the formation of the Insurance Company of North America. In Boston there was organized what was known as the Boston Tontine Association, which soon failed to accomplish its original purposes, " and eventually took the

⁴²McMaster, J. B., *History of the People of the United States*, Vol. I, pp. 588-589 and note, Vol. II, pp. 23-24 and note.

⁴³Montgomery, Thomas, H., *History of the Insurance Company of North America*, pp. 9-11.

form of a State Bank, The Union." Most of these projects failed after a very short period, because sufficient subscribers failed to come forward with the necessary funds, and the tontine plan followed the lottery system into general disrepute.⁴⁴

That life insurance played such a small part in our early development is not to be wondered at when the circumstances are considered. In the first place, it had made practically no progress in Europe and was only in the initial stages of practical importance in England. In the next place, there was little need for it in the colonies. The early settlers and pioneers were accustomed to assist one another in times of distress, as indeed they were in the habit of doing many things in common. Again life insurance policies are confined chiefly to the well-to-do, and these could not have been numerous in 1800. And later on when private capital became sufficient, the temptation to devote it to other and more urgent needs, coupled with a prejudice against life insurance which seems to have been carried over from the days when lotteries and tontines were first denounced and private underwriters were proclaimed unreliable,⁴⁵ were sufficient to delay its establishment as a practical financial institution for another generation. Finally, the lack of properly compiled mortality statistics rendered the practice of whole life insurance prior to 1800 uncertain, since premiums could only be established by the crudest sort of guess-work.

Progress in Life Measurement.—It must not be concluded from the above statement, however, that mortality statistics were given no attention whatever during this period. In 1761, President Styles of Yale, called attention to the high birth rate in the colonies, estimating that the population in the back settlements doubled about every fifteen years. And Dr. Richard Price quotes statistics of births and deaths in Boston from 1731 to 1752, from the "Gentlemen's Magazine" of that city. In 1782 Professor Edward Wigglesworth of Harvard, presented a paper to the American Academy of Arts and Sciences, in which he discussed the subject of mortality. In preparing his paper, Professor Wigglesworth had studied the bills of mortality which had been kept in several Massachusetts towns after the manner of the early English bills. He found the mortality to

⁴⁴Ibid, See also Nichols, Walter S., in *Insurance Blue Book*, 1876, pp. 11-12.

⁴⁵History of the Insurance Company of North America, pp. 14-27.

be lower than in Breslau, from which Dr. Halley had secured his statistics. His purpose was to assist in the valuation of life estates.⁴⁶

The First American Mortality Table.—In 1789, Professor Wigglesworth contributed a much more extended and valuable paper to the Academy which contained the first American mortality table ever compiled. It is entitled, "A Table showing the Probability of the duration, the Decrement, and the Expectation of Life in the States of Massachusetts and New Hampshire, formed from sixty-two bills of Mortality on the files of the American Academy of Arts and Sciences in the year 1789." Apparently some directions or requests had been sent out by the Academy, as Professor Wigglesworth remarks that the "society are under obligations to a considerable number of gentlemen in different parts of the Commonwealth for the attention which they have paid to this subject. Since their formula had been dispersed through the State, . . . many . . . have communicated bills . . . etc." Ten towns are enumerated as having kept bills for a "long course of years." The total number of deaths as shown by the bills was 4,893. The following table shows the periods of life at which these deaths occurred:⁴⁷

Under 5 years	1942
Between 5 and 10 years	236
" 10 " 15 "	136
" 15 " 25 "	425
" 25 " 35 "	382
" 35 " 45 "	349
" 45 " 55 "	270
" 55 " 65 "	270
" 65 " 75 "	372
" 75 " 80 "	185
" 80 " 85 "	171
" 85 " 90 "	103
" 90 " 95 "	36
" 95 " 100 "	16

⁴⁶Memoirs of the American Academy of Arts and Sciences, Vol. I, pp. 565 et. seq.

⁴⁷Memoirs of the American Academy of Arts and Sciences, Vol. II, Part I, p. 132.

Using 4,893 as a radix and assuming the number of deaths to be equal to the number of births, he constructed the following table:⁴⁸

WIGGLESWORTH'S TABLE

Ages	Persons Living	Decrement of Life	Expectation of Life	Ages	Persons Living	Decrement of Life	Expectation of Life
Birth	4893	1264	28.15	37	1702	35	
1	3629	274		38	1667	35	
2	3353	188		39	1632	35	
3	3167	132		40	1597	35	26.04
4	3035	84		41	1562	35	
5	2951	58	40.87	42	1527	35	
6	2893	55		43	1492	35	
7	2838	47		44	1457	34	
8	2791	40		45	1423	27	23.92
9	2751	36		46	1396	27	
10	2715	28	39.23	47	1369	27	
11	2687	27		48	1342	27	
12	2660	27		49	1315	27	
13	2633	27		50	1288	27	21.16
14	2606	27		51	1261	27	
15	2579	42	36.16	52	1234	27	
16	2537	43		53	1207	27	
17	2494	43		54	1180	27	
18	2451	43		55	1153	27	18.35
19	2408	43		56	1126	27	
20	2365	43	34.21	57	1099	27	
21	2322	42		58	1072	27	
22	2280	42		59	1045	27	
23	2238	42		60	1018	27	15.43
24	2196	42		61	991	27	
25	2154	40	32.32	62	964	27	
26	2114	38		63	937	27	
27	2076	38		64	910	27	
28	2038	38		65	883	37	12.43
29	2000	38		66	846	37	
30	1962	38	30.24	67	809	37	
31	1924	38		68	772	37	
32	1886	38		69	735	37	
33	1848	38		70	698	37	10.06
34	1810	38		71	661	37	
35	1772	35	28.22	72	624	37	
36	1737	35		73	587	38	

⁴⁸Memoirs, American Academy of Arts and Sciences, Vol. II, Part I, pp. 133-134.

Ages	Decrement		Expectation of Life	Ages	Decrement		Expectation of Life
	Persons Living	of Life			Persons Living	of Life	
74	549	38		87	113	21	
75	511	37	7.83	88	92	20	
76	474	37		89	72	20	
77	437	37		90	52	8	3.73
78	400	37		91	44	7	
79	363	37		92	37	7	
80	326	35	5.85	93	30	7	
81	291	34		94	23	7	
82	257	34		95	16	6	1.62
83	223	34		96	10	5	
84	189	34		97	5	3	
85	155	21	4.57	98	2	1	
86	134	21		99	1	1	

But Wigglesworth estimated from the bills that the annual number of births was twice the number of deaths, and therefore concluded that the expectation of life as shown by his calculations was less than would actually be experienced in practice. This, of course, would follow since the actual number of deaths had occurred out of a greater number than he had assumed. His table would, therefore, have been a safe basis for insurance purposes, but might result disastrously if used, without correction, as a basis for annuity valuations. But at no point in either of his papers does he make any reference to life insurance—the business to which his investigation would have been the most valuable.⁴⁹

His table was used for many years by the Supreme Court of Massachusetts for determining the value of life estates, and was later compared by the New England Mutual Life Insurance Company with six other tables in determining the basis for its early premiums.⁵¹

Legal Phases.—The development of the legal and judicial aspects of insurance during this period was confined to marine contracts. Nevertheless, important principles of contract law were worked out or derived from English jurisprudence and applied in interpreting marine policies. so that a definite basis for deciding insurance cases generally was being evolved as the

⁴⁹Ibid, Vol. II, Part I, pp. 131-135.

⁵⁰Transactions of the Actuarial Society of America, Vol. VII, p. 3.

century drew to a close, although most of this work remained to be done in subsequent periods.

Conditions during the first decade of the new century were more favorable to the development of life insurance in this country. While epidemics especially of small-pox and yellow fever had to be considered, pestilence had abated, more sanitary conditions prevailed and a greater knowledge of the rate of mortality was obtainable. In Philadelphia the Board of Health began keeping and publishing more accurate statistics, and records of other cities were more complete.⁶¹ English companies began to display an interest in the possibilities on this side of the Atlantic, the Pelican Life Insurance Company of London, having opened an office in Philadelphia in 1807.⁶² Peculiar circumstances, however, favored the development of local companies. There was considerable jealousy of foreign influences. Impending trouble with England from her interference with our ocean shipping created doubt regarding the security of policies issued by her insurance companies. And toward the close of the decade, state legislatures began passing laws prohibiting the operations of foreign corporations. By the close of the decade, therefore, conditions were quite favorable for the establishment of a corporation for granting life insurance and annuity contracts.

Summary.—The period just closed witnessed the introduction of life insurance into this country. It was at first conducted on an uncertain basis, covered but short periods of time, and was undertaken by individual underwriters. This was followed by the organization of religious societies for associated life insurance, but they extended the privilege of securing protection to a limited group only. Then came insurance by corporations which did business on a sound basis, but which conducted what little life insurance happened to come to them, merely as an adjunct of their marine and fire business. Throughout the period there had been no attempt to ascertain the probable length of life for insurance or annuity purposes, although some knowledge of American mortality had been gained and applied to other uses. Legally, life policies had been sanctioned in

⁶¹Fowler, J. A., *History of Insurance in Philadelphia*, pp. 614-632.

⁶²*Ibid.*, pp. 27-28.

several states by the charters granted to religious and other corporations, and a well defined basis for interpreting contracts of insurance in general was being evolved by our courts, following, in the main, English precedence. During the last decade, sentiment as well as legislation favored the development of our own corporations, and other conditions were sufficiently satisfactory to encourage the establishment of a commercial life insurance company.

CHAPTER III.

THE BEGINNING OF SCIENTIFIC LIFE INSURANCE IN THE UNITED STATES.

THE PROPRIETARY PERIOD—1809—1843

Our First Commercial Life Insurance Companies.—*The Pennsylvania Company.*—At the beginning of this period life insurance was attracting no little attention in England and a considerable knowledge of its principles and advantages had been attained in this country. Trade was expanding, and capital accumulated by the activities incident to our neutral position in the late European wars was seeking investment. Several fire and marine companies had been organized and were meeting with considerable success. Animated by these conditions as well as by the circumstances enumerated toward the close of the preceding chapter, a group of men gathered at the Merchants' Coffee House, Philadelphia, in December, 1809, and organized the first commercial company in this country to engage exclusively in the business of life insurance and annuities. The company was named, "The Pennsylvania Company for Insurance on Lives and Granting Annuities."¹

A capital stock of \$500,000 divided into shares of \$100 each was subscribed in a short time and a committee appointed to obtain a charter of incorporation from the legislature. Application was formally made by the committee in January, 1810. The legislature, due to the efforts of those who desired to form a rival corporation and to opposition from individual underwriters, was in no haste to grant the request, the House of Representatives having at first refused it; but the petitioners persisted in their appeal until they were at last successful, the charter being finally approved by the Governor, March 10, 1812. A meeting of the stockholders was then called and on March 17, 1812, Mr. Joseph Ball, who had been president of the society under the articles of association since December 25, 1809, was elected president of the corporation. Ten days later, Mr. Joseph Shoemaker was made "Actuary" to the Com-

¹Morris, Harrison S., *A Sketch of the Pennsylvania Company for Insurance on Lives and Granting Annuities*, 1896, pp. 8-11.

pany, thus being the first officer of a corporation to bear that title in this country. The president soon resigned and was succeeded by James Paul, who in turn resigned after seven months, leaving the real work of getting the company under way to Mr. Samuel Hodgdon, who assumed his duties as president, January 10, 1813.²

The duties of the president were in no way extraordinary, but those of the actuary are of especial interest since they bring out the clear-cut conception of the functions of that officer and the importance of his work. Thus number five of the articles of association makes the following provision:

"The Actuary shall receive all applications for insurances and annuities, and make all necessary inquiries respecting the same, under the instruction of the Board of Directors; calculate the respective premiums and prices of annuities, and report the same to the Board; and, if approved, prepare the policies and bonds, which shall be signed by the President and at least one Director, and countersigned by the said Actuary."³

ARTICLE XI provided that five per cent of net profits might be deducted before declaring dividends in order to create a separate reserve fund for the greater security of the company. The other provisions for the operation and management of the company were the same as those of other ordinary corporations. The company "took a room in Mr. Shoemaker's house," and commenced business by writing an insurance policy there on June 10, 1813. This domicile was soon outgrown, however, and more spacious quarters were secured in September following.⁴ In 1814, a remarkable "Address from the President and Directors of the Pennsylvania Company, etc.," was published. The object, as stated in the address was "to disseminate throughout the Union" the objects of the institution and to circulate "that kind of intelligence" which would "lead to the permanent benefit" of the people as well as the corporation. After a brief account of the company and a statement of its elements of strength, the kinds of contracts the corporation stood ready to enter into were enumerated together with a definition and very clear statement of the uses and advantages of each form. One

²Ibid, pp. 11-20.

³Articles of Association, adopted December 13, 1809, No. V.

⁴Sketch of the Pennsylvania Company, pp. 19-20.

rarely sees a more concise and accurate statement of the functions of life insurance in the literature of the subject today than was given in that pamphlet. The same may be said regarding annuities and reversions.⁵ To the address was appended a statement of the rules of the Company. According to them, one who desired insurance was required to sign a declaration or application setting forth the age, state of health, occupation, residence, and other circumstances concerning the person on whose life protection was asked. In case of a person taking a policy on the life of another, a statement of insurable interest at least equal to the amount insured was necessary. The declaration was made the basis of the contract, which should be void in case of any "artful, false or fraudulent representation." In the latter event, all payments made were forfeited to the Company.⁶

If the company were satisfied with the risk, the following policy was granted upon the payment of the computed premium and one dollar additional.⁷

WHOLE LIFE POLICY

PENNSYLVANIA COMPANY FOR INSURANCES ON LIVES AND GRANTING ANNUITIES

Policy of Insurance

On The Life of for \$ Annual Premium \$, payable during life.

⁵Address from the President and Directors of the Pennsylvania Co., etc., quoted in full by Morris, H. S., in *Sketch of the Company*, pp. 93-113.

⁶"The Substance of a Declaration, required to be made and signed by or on behalf of a person who proposes to make an insurance on his or her own life.

I born in but now of, intending to make an insurance with 'the Pennsylvania Company for insurances on lives, and granting annuities,' in the sum of upon my own life for do hereby declare that my age does not exceed; that I have had the small-pox or been vaccinated, and that I am not afflicted with any disorder which tends to the shortening of life; and I do hereby agree that this declaration be the basis of the contract between the said company and me, and that if any untrue averment is contained in this declaration, all monies which shall have been paid to the Company upon account of the insurance, made or to be made, in consequence thereof shall be forfeited. Dated the day of in the year of our Lord one thousand eight hundred and"

⁷Sketch, p. 115.

No.

These Presents Witness, That in consideration of the sum of which hath at the execution of these presents, paid to The Pennsylvania Company for insurances on Lives and Granting Annuities (the receipt whereof is hereby acknowledged) and of the further sum of to be paid on or before the day of in each and every year during the continuance of this Policy for Insuring the Life of for the whole duration thereof, the said Company do hereby covenant and bind themselves (and their successors) that on the death of the said the said Company shall and will, sixty days after due proof thereof, well and truly pay to the executors, administrators, or assigns, of the said the just and full sum of

“Provided Always, and it is hereby expressly declared to be the true intent and meaning of these Presents, that if the declaration subscribed by which hath been deposited with this Company, is in any respect not true, or if the said shall die at sea, or by own hands, whether sane or insane, or by reason of an attempt to commit suicide, whether sane or insane, or of any wound or injury received in a duel, or by the hands of justice, or if during the continuance of this Policy, the said shall go beyond the limits of the United States, except within the British Provinces of New Brunswick and Upper and Lower Canada, or within the said States to the Southward of the Southern Boundary of the States of Virginia and Kentucky, or shall enter any Military Service, by Sea or Land, (except the Militia) without the consent in writing of the President and Directors of this Company, or if the said shall not pay the said annual instalments on or before the day herein before mentioned for the payment thereof, then, and in every such case, the said Company shall not be liable to the payment of the said sum of or any part thereof, and this Policy so far as relates to such payment shall be utterly void. Provided always nevertheless that if within fifteen days after the day of payment before mentioned, the annual instalment then unpaid, shall be paid to the said Company, the said being at the time of such payment living and in good health, but not otherwise, then this Policy shall have the like effect as if the said annual

instalment had been paid on the day herein before mentioned for the payment thereof.

This Policy not to be assigned without the consent of the aforesaid Company.

In Testimony Whereof, The Pennsylvania Company for Insurances on Lives and Granting Annuities, have caused their common Seal to be hereunto affixed the day of one thousand eight hundred and

By The Company
 President.
 Actuary.

.....
Date of Receipt	Premium Received
Sum Insured	Actuary's Signature

The policy would be looked upon today as quite a restricted contract. Sixty days were reserved for the payment of claims, nothing was due in case the insured died by suicide, dueling or the hands of justice, and travel was restricted to parts of Canada and the United States north of the southern boundaries of Virginia and Kentucky, unless the consent of the company were obtained. Premiums had to be paid when due or the policy was forfeited, but might be reinstated within fifteen days if the insured were in good health. The policy could not be assigned without the company's consent, a clause which still obtains with important modifications in policies today. The company employed no agents, but depended on intelligent publication to point out the needs and create the demand for its policies.⁸ The rates charged were at first based on Price's Northampton table and interest at five and one-half per cent.⁹ But consideration was early given to the influence of local mortality rates. In 1814 the company made the first attempt to collect American vital statistics for life insurance purposes. Obtaining the records of the Episcopal church and of the Philadelphia Board of Health, whose annual reports had been available since 1806, a table was constructed showing the expectation of life in Philadelphia.

⁸Fowler, J. A., *History of Insurance in Philadelphia*, p. 641.

⁹Address of the President and Directors, etc., 1814, in *Sketch of the Company*, pp. 111-112.

EXPECTATION OF LIFE, PHILADELPHIA, 1814.¹⁰

Age	Episcopal Board of		Age	Episcopal Board of	
	Church	Health		Church	Health
1 yr.	30.91	25.96	40 yr.	21.44	19.15
5 "	37.91	36.94	50 "	17.32	16.32
10 "	37.12	34.59	60 "	13.75	13.71
15 "	34.10	30.92	70 "	9.37	9.83
20 "	30.60	27.04	80 "	5.95	6.97
30 "	25.50	21.48	90 "		4.73

The following tables show the rates adopted in 1814. They seem to be approximations of the Northampton four and one-half rates—doubtless having been modified to meet local conditions:

TABLE OF PREMIUM RATES FOR \$100 OF LIFE INSURANCE.¹¹

Age	7 Yrs. Whole Life			Age	7 Yrs. Whole Life		
	1 Yr. Premium	Annual Pre.	Annual Pre.		1 Yr. Premium	Annual Pre.	Annual Pre.
14	.98	1.18	2.06	41	2.31	2.50	3.82
15	.99	1.25	2.12	42	2.39	2.56	3.93
16	1.06	1.35	2.18	43	2.45	2.63	4.04
17	1.16	1.43	2.24	44	2.50	2.71	4.16
18	1.27	1.51	2.29	45	2.56	2.79	4.29
19	1.37	1.56	2.35	46	2.62	2.89	4.41
20	1.50	1.62	2.39	47	2.69	2.99	4.54
21	1.59	1.66	2.45	48	2.76	3.10	4.68
22	1.61	1.68	2.49	49	2.87	3.21	4.82
23	1.63	1.70	2.54	50	3.03	3.34	4.99
24	1.65	1.73	2.59	51	3.15	3.45	5.14
25	1.68	1.77	2.65	52	3.24	3.56	5.30
26	1.71	1.79	2.70	53	3.35	3.68	5.47
27	1.73	1.83	2.76	54	3.46	3.82	5.65
28	1.77	1.86	2.81	55	3.57	3.96	5.85
29	1.80	1.89	2.87	56	3.69	4.11	6.16
30	1.82	1.92	2.93	57	3.83	4.26	6.27
31	1.85	1.96	3.00	58	3.97	4.43	6.50
32	1.89	1.99	3.06	59	4.13	4.62	6.75
33	1.92	2.02	3.14	60	4.29	4.80	7.00
34	1.95	2.07	3.21	61	4.47	4.99	7.28
35	2.00	2.13	3.28	62	4.60	5.22	7.57
36	2.03	2.18	3.37	63	4.81	5.49	7.89
37	2.07	2.24	3.45	64	4.99	5.76	8.23
38	2.12	2.30	3.54	65	5.23	6.09	8.62
39	2.15	2.35	3.64	66	5.50	6.47	9.03
40	2.23	2.43	3.72	67	5.80	6.89	9.47

¹⁰Sketch of the Pennsylvania Company, pp. 117-120.

¹¹Sketch of the Pennsylvania Company, pp. 121-122.

ANNUITY WHICH \$100 WOULD PURCHASE AT DIFFERENT AGES.¹²

Age	No. of Yrs. Purchase	Rate per cent to Annuitants	Age	No. of Yrs. Purchase	Rate per cent to Annuitants
Birth	9.306	10.74	48	11.146	8.97
6 mos.	11.837	8.44	49	10.965	9.12
1 year	12.141	8.23	50	10.782	9.27
2	14.091	7.09	51	10.602	9.43
3	14.841	6.73	52	10.421	9.59
4	15.343	6.51	53	10.235	9.77
5	15.568	6.42	54	10.045	9.95
6	15.793	6.33	55	9.851	10.15
7	15.924	6.27	56	9.652	10.36
8	15.987	6.25	57	9.448	10.58
9	15.970	6.26	58	9.241	10.82
10	15.895	6.29	59	9.028	11.18
11	15.795	6.33	60	8.811	11.35
12	15.683	6.37	61	8.590	11.64
13	15.567	6.42	62	8.364	11.95
14	15.445	6.47	63	8.129	12.30
15	15.317	6.52	64	7.889	12.67
16	15.183	6.58	65	7.639	13.07
17	15.050	6.64	66	7.385	13.54
18	14.927	6.70	67	7.126	14.03
19	14.813	6.75	68	6.862	14.57
20	14.707	6.79	69	6.595	15.15
21	14.612	6.84	70	6.324	15.81
22	14.524	6.87	71	6.052	16.52
23	14.433	6.92	72	5.779	17.30
24	14.340	6.97	73	5.507	18.16
25	14.245	7.02	74	5.239	19.08
26	14.146	7.06	75	4.981	20.07
27	14.045	7.12	76	4.736	21.11
28	13.941	7.17	77	4.490	22.27
29	13.835	7.22	78	4.236	23.60
30	13.725	7.28	79	3.964	25.22
31	13.613	7.34	80	3.690	27.10
32	13.496	7.40	81	3.426	29.18
33	13.377	7.47	82	3.171	31.53
34	13.254	7.54	83	2.937	34.04
35	13.127	7.61	84	2.759	36.24
36	12.995	7.69	85	2.595	38.53
37	12.861	7.77	86	2.444	40.91
38	12.721	7.86	87	2.303	43.42
39	12.577	7.95	88	2.184	45.78
40	12.428	8.04	89	2.021	49.48
41	12.279	8.14	90	1.810	55.24
42	12.128	8.24	91	1.520	65.78
43	11.977	8.34	92	1.211	82.56
44	11.820	8.46	93	0.857	116.68
45	11.660	8.57	94	0.551	181.48
46	11.494	8.70	95	0.250	400.00
47	11.323	8.83			

While the company offered term and whole life insurance, immediate and deferred annuities, and reversionary payments, annuities seem to have been more popular.¹³ The original incorporators probably intended that an annuity rather than a life business should in the main be pursued. More was known of annuities. They had long been popular abroad, and the furnishing of facilities for investing the surplus funds in the hands of individuals similar to those successfully established in England was one of the chief services of this company during its early years. Later on, in 1836, the company succeeded in getting authority from the State to engage in the business of executing trusts. The profitable nature of the latter business coupled with the development of competition in the life insurance field, led to a gradual decline of the latter branch.¹⁴ No new policies have been issued since 1872.¹⁵

The Massachusetts Hospital Life Insurance Company.—In New England, the practice of life insurance arose in a somewhat different manner and as the result of motives of a peculiar nature. In Massachusetts, lotteries and tontines had each failed in turn to serve adequately as methods of raising funds for charitable and other purposes, so the granting of life annuities was hit upon as a means to supply these needs. The idea was undoubtedly carried over from England and other countries where annuities had long been used to raise money by various governmental authorities as well as by private organizations. A public hospital having been incorporated in 1811,¹⁶ to be established and maintained largely from private donations, it became desirable to increase the facilities for raising funds for that institution; whereupon an act was passed in 1814,¹⁷ authorizing it to grant annuities on lives. Nothing was done with the privilege until 1818, when it was surrendered to a separate organization, chartered that year under the name of the Massachusetts Hospital Life Insurance Company.¹⁸ The Hospital hav-

¹³Fowler, *Ibid*, pp. 641-642.

¹⁴Sketch of the Pennsylvania Company, pp. 35-38.

¹⁵*Ibid*, p. 143, Quoting Report of Examiners appointed by the Orphans' Court, 1884.

¹⁶Acts, 1811, Chap. XCIV.

¹⁷Acts, 1814, C. 158.

¹⁸Acts, 1818, C. 180.

ing apparently given up the hope of raising any considerable sum from the sale of annuities, decided that a separate company devoting its attention to annuity and insurance dealings might be more successful; and if the latter were obliged to share its earnings with the hospital, a greater income would result than if the hospital continued to exercise the privilege itself. So the Hospital Life Company agreed to pay over to the hospital each year one-third of its net profits arising from insurance on lives.¹⁹ The charter as approved by the legislature also provided that so long as the life company continued to make such payments to the hospital no other person or corporation within the Commonwealth should be permitted to make insurance on lives "upon land" unless so empowered by future legislation; and upon the granting of such power to some other organization, the obligations of the Hospital Life Company to the hospital were to cease unless the same requirements were met by the new companies.²⁰ The intention of the legislature was apparently to safeguard the interests of the hospital, but it resulted in giving the insurance company a virtual monopoly of the life insurance business written in Massachusetts for a period of twenty-six years.

As regards the nature of the company, the act of incorporation provided for a capital stock of \$500,000 divided into shares of \$100 each to be paid in instalments. The control of the company was vested in a board of thirteen directors elected by the stockholders, the directors being empowered to elect such officers clerks, etc., as were necessary to carry on the business. Investments of the capital stock and of the premiums received were restricted to such securities as were then considered the most conservative. The books were to be opened once a year to the "Trustees of the Massachusetts General Hospital," and an annual report to the Secretary of the Commonwealth was required. The legislature might appoint a committee at any time to examine the company's records and affairs.²¹ The corporation was given power, "to make insurances on lives, by sea and on land, and to contract for reversionary payments, and generally to make all kinds of contracts, in which the casualties

¹⁹Ibid.

²⁰Ibid.

²¹Ibid.

of life and interest of money are principally involved; and to make, execute and perfect such and so many contracts, bargains, policies, and other instruments, as shall or may be necessary, and as the nature of the case shall or may require."²²

The hospital having received little or nothing from the life company, a new arrangement was legalized in 1824, whereby the hospital should receive one-third of all the net profits accruing to the Hospital Life from "insurances . . . reversionary payments, and generally from all kinds of contracts in which the casualties and contingencies of life . . . are principally involved, after deducting for the use of the said stockholders, legal interest on the amount of capital actually paid in"²³ By this arrangement the hospital would receive one-third of the net profits arising from all classes of policies, whereas formerly it was entitled to but one-third of the net profits on *insurances* on lives only, but the hospital was not to receive anything²⁴ until the stockholders had been allowed legal interest. This was much more favorable to the life business since under the former plan the Hospital Life was not encouraged to push this branch because the contributions to the hospital were based on it. The new plan removed the discrimination, but the company did not encourage insurance and confined its efforts primarily to annuities, and to the management of trust funds, for which authority had been granted. In fact the premiums asked for one and seven year term policies as well as for whole life insurance were much higher at most ages than those of the Pennsylvania company, and these excessive rates were maintained down to 1843, when the requirement that any company doing a life business must pay one-third of its net profits to the hospital was rendered nugatory by certain events related below. As late as 1843, many persons in New England, even in Massachusetts, resorted to New York, Philadelphia and Baltimore for their insurance policies, since there were companies at that time in the latter cities which granted insurance at lower rates.²⁵ It is probable

²²Ibid.

²³Laws of Massachusetts, 1824, Chap. LI.—Sessions of 1822–25.

²⁴The hospital held a considerable amount of stock in the Hospital Life, on which, of course, it was entitled to dividends as a stockholder.

²⁵Jencks, T. R., In Hunt's Merchant's Magazine, Vol. 8, 1843, pp. 118–120.

that the virtual monopoly granted the Hospital Life, and its disinclination to encourage the business of life insurance due to payments expected by the hospital retarded the development of the institution in Massachusetts for some years. Jencks, just cited, states that "when a charter was obtained by some public spirited gentlemen of Boston,"²⁶ they found "upon endeavoring to carry it into effect, the above clauses²⁷ were found so much in the way that it could not be got into operation."²⁸ It is a fact that no rival attempted to start business until late in the year 1843. Nevertheless, it will be noted later that from 1843 to 1846 when life insurance first began to attract general attention, means were found to avoid the payments to the hospital. While this was made possible by the development of the mutual plan, the latter was not new in England and the present writer feels that had there been any serious demand for life insurance in Massachusetts between 1818 and 1843, a way would have been found to overcome the handicap.³⁰

The business methods of the Hospital Life differed but little from those of the Pennsylvania Company. A declaration setting forth the applicant's age, occupation, state of health, etc., together with a certificate of health from a physician of established reputation, was required for life policies, and an application for an annuity was required to state the age of the party to whom it was granted. Travel limits, provisions regarding lapse and reinstatement, the \$1 extra charged above the premium rate for drafting the policy were the same in both companies.

An Early Instance of the Separation of Life and Fire Liabilities.—The Aetna Insurance Company of Hartford, founded in 1819, to do fire underwriting only, made a unique proposal in 1820. In that year it secured the passage of an act permitting it to

²⁶He refers to the charter of the New England Mutual, granted in 1835.

²⁷Referring to the restrictions mentioned.

²⁸The monopoly of the Hospital Life was not the only obstacle in the way of the charterers of the New England Mutual, since the financial conditions following 1836 were not favorable.

²⁹Ibid, p. 119.

³⁰In 1846 an Act was passed which provided that mutuals with guaranty capital should pay to the hospital one-third of their profits in excess of 6 per cent, the Act to become effective when the Hospital Life gave its assent (Acts, 1846, C. 82), which it readily did. Since most companies limited such dividends to 7 per cent, there was not much left to share with the hospital.

increase its capital by \$50,000 for the purpose of creating a special annuity fund to be held exclusively for the payment of annuities and losses on life contracts.²¹ This was the first proposal to establish a separate life department with separate liabilities, in connection with other forms of insurance. But little practical use was ever made of the privilege, and it was not until 1853 that the shareholders of the annuity fund were set up as a separate corporation.²²

General Conditions Affecting Insurance.—A period of general business prosperity began about 1820, which continued well into the succeeding decade. During this time manufacturing interests expanded, immigration increased, transportation facilities were improved, trade centers sprang up, land values advanced, and our excess of exports over imports caused specie to flow in freely from Europe. Toward the latter part of the period banks expanded their circulation, the funded indebtedness of states was greatly enlarged, and other influences led to an abundant supply of money and credit. About 1832 an era of general speculation began. During most of this period the investment funds of the country were quite generally devoted to enterprises other than insurance. Thus in New York for example, although quite a number of fire and marine companies were started between 1820 and 1825, only a half-dozen or so of new insurance companies of any kind were chartered between 1825 and 1832. Those already in existence were capable of meeting the existing demand for protection. But with the inflation that began after the latter date the number of insurance as well as banking charters increased by leaps and bounds. Between 1832 and 1837 more than twenty-five charters were granted in New York alone to insurance companies.²³ A similar increase occurred in other Eastern states, and the movement began to spread to the Middle West and South. While it is true that most of these were devoted to property insurance, a considerable number of companies which confined their activities to a life insurance and trust business were put into operation. Such were the conditions which gave rise to the first

²¹Charters of American Life Companies, published by Spectator Company, 1895, pp. 8-9.

²²Ibid, pp. 10-12.

²³Laws of New York, General Index, 1777-1850, pp. 313-321.

genuine impulse to the active prosecution of life insurance in this country. Most of the companies that resulted from it did very little life business, and all of them have either passed out of existence or continue as trust companies which have long since given up writing new policies.³⁴ A few of them deserve special mention.

The New York Life and Trust Company.—The New York Life Insurance and Trust Company was chartered March 9, 1830,³⁵ and commenced business the following September. In many respects it was similar to the Pennsylvania Company for Insurances on Lives, etc., previously referred to, and for many years stood in the same relation to New York as the latter had stood to Pennsylvania. The respective careers of these two companies were almost identical. The New York Company differed from the Massachusetts Hospital Life only in that it engaged in an active campaign for life insurance, whereas the latter company discouraged this branch of its business. In addition to the general privileges of a corporation it was given power by its charter to make insurance on lives, grant and purchase annuities, "make any other contingent contract involving the interest of money and the duration of life," execute trusts, act as guardian, etc., etc. The capital stock was fixed at \$1,000,000, the investment of which as well as the investment of funds from other sources were limited in the usual manner to certain securities and types of property. The control of the company was lodged with a board of thirty trustees with the stipulation that vacancies should be filled by a two-thirds vote of the remaining members. The Trustees were required to render an annual statement to the Chancellor, who had power to order an investigation of the company's affairs and to "report his opinion in relation to the ability and integrity with which its affairs are conducted; the prudence and safety of its investments; the security afforded to those by whom its engagements are held; and the advantage derived by the public from its operations."³⁶ The Chancellor also had authority to make recommendations to the trustees regarding alterations in the regulations and by-laws, and if the company failed to comply

³⁴The New York Life and Trust Company still offers annuities.

³⁵Laws of New York, Sess, 1830, Chap, 75.

³⁶Laws of New York, Sess. of 1830, Chap. 75, Sec. 18.

with them he was required to communicate the facts to the next session of the legislature.³⁷ The latter retained authority to repeal, alter or modify the act of incorporation or any of its provisions at any time.³⁸

Contrary to the practice of most of the other companies, the New York Life and Trust actively prosecuted the business of its life department. From the start, and continuing for a period of ten years, its president took great interest in facilitating a knowledge of the numerous benefits which may be derived from life insurance by means of intelligent publication, advertising, and the use of an agency system.³⁹ A fair measure of the public demand for life insurance at the time may, therefore, be obtained from a study of the first few years of its experience. According to its report to the Chancellor in 1839 about 1800 policies were issued during this time, of which nearly 700 were still in force for a total amount of over \$2,450,000.

PARTIAL EXHIBIT OF THE NEW YORK LIFE AND TRUST FROM ITS RETURNS TO THE CHANCELLOR IN 1839.⁴⁰

Total number of policies issued.....	1,821
Number in force.....	694
Total premium receipts.....	\$232,851.34
Amount at risk.....	\$2,451,958.00
Premium receipts for 1839.....	49,997.20
Losses paid for 1839 (6 deaths).....	6,500.00
Total receipts from annuities in force in 1839.....	63,685.40
Number of annuities in force in 1839.....	24
Amount of annuities paid annually.....	\$7,563.33
Deposits in trust at 3 to 6 per cent.....	3,555,280.00
Guardianship funds.....	9,227.00
Trusts to accumulate at 4 to 5 per cent.....	460,280.00
Surplus profits.....	202,940.00

The Beginning of the Agency System in this Country.—This company used the agency system from the beginning of its career, and deserves the distinction of having been the first to

³⁷Ibid, Sec. 19.

³⁸Ibid, Sec. 24.

³⁹Stoughton, E. W., in Hunt's Merchant's Magazine, Vol. 2 (1840), p. 232. Jencks, T. R., Ibid, Vol. 8, p. 120.

Nichols, Walter S., in Insurance Blue Book, 1876, p. 19.

⁴⁰New York Insurance Reports, Barnes' Condensed Edition, Vol. I, pp 205-206.

put into practical operation the writing of life insurance policies by that method. L. Ward was appointed as its representative in Rochester, New York, in 1832, and wrote his first policy in August of that year. He rendered a report in 1846 which is of interest not only because it reveals the operation of the agency method, but also because it throws much light upon the insurance business during the fourteen years he had been connected with the company. According to his report, he had written \$457,100 of insurance, received \$27,521 in premiums, paid \$22,000 in losses, which left less than \$4,000 clear profit to the company after paying his commissions and expenses (his commission must have been five per cent of the premiums) for carrying a risk of over \$400,000.⁴¹ In 1843, a rigid valuation of policies was made by Mr. Bard, the company's president and actuary, whose figures were afterwards submitted to Mr. Finlaison, the celebrated English actuary. The examination showed the average profits of the period of thirteen years to have been about \$8000. The policyholders were found chiefly among the more prosperous members of the communities. During the month of August, 1839, eighteen policies were issued, of which four were to residents of New York City. Seven of the holders were merchants and brokers, four were students and clerks, three manufacturers, two mechanics, one a lawyer and one an engineer. Two were life policies of \$10,000, ten were seven year term policies of \$5,000 and six were for smaller amounts and shorter periods.⁴² The company enjoyed the confidence of the Court of Chancery which intrusted it with the large sums of money over which the court had control.⁴³

The Baltimore Life.—Only one other stock, or proprietary, company which retained its profits for the sole benefit of the stockholders is of sufficient interest to merit attention before leaving this period. The Baltimore Life Insurance Company was chartered to do a life insurance and annuity business in 1830, with a capital of \$50,000.⁴⁴ The peculiar feature of this company was that it provided for holding in reserve the entire premium receipts from its life policies until the policies them-

⁴¹Nichols, Walter S., in *Insurance Blue Book*, 1876, p. 19.

⁴²*Ibid.*

⁴³Stoughton, E. W., in *Hunt's Merchant's Magazine*, Vol. 2, p. 232.

⁴⁴*Laws of Maryland*, Sess. 1830-31, Chap. 149.

selves became due as a special guarantee of their security. It did little with the life insurance branch of its business, however, and withdrew from the field entirely, transferring its risks to the Equitable of New York some thirty years later.⁴⁶

The Transition from Proprietary to Mutual Companies.

The Mixed Company.—While some private underwriting was carried over from the preceding epoch into the early years of the period from 1809 to 1843, during the latter part of the period the practice had entirely disappeared, due to the stronger security offered by the powerful financial resources of the corporations. And while with few exceptions life insurance was no longer considered as a mere adjunct to the marine and fire business, it was still conducted for the most part even in the later years of the period by corporations whose chief interests lay in some other line of endeavor—usually that of receiving and executing trusts. Prior to 1836 all of these corporations except the two religious societies had been organized on the joint stock or proprietary plan that did not allow policyholders to participate in the earnings of the company. But from 1836 to the period of the Civil War few life companies were started in this country, as will be shown later, which did not provide for some sort of a division of profits or surplus with policyholders. The so-called "Mixed" system, whereby stock companies divided their profits with policyholders, came first in this movement toward mutualization, being inaugurated by the Girard Life Insurance, Annuity, and Trust Company of Philadelphia, chartered in 1836. But before taking it up it is necessary to note some of the events which led up to the change.

Events that led to the Development of Participation.—It has been noticed that shortly after the opening of the century foreign insurance companies were discouraged in this country by legislative action and by other means. This was primarily due to the threatened war with England. Following that war, the desire to protect American interests prompted the people to continue to discourage foreign capitalists. Up to 1835, therefore, insurance of all kinds had been practiced "by Americans, for Americans." Stock companies prevailed in all lines of insurance, and were universal in the life business. In 1835,

⁴⁶Nichols, Walter S., in Insurance Blue Book, 1876, p. 19.

however, an event occurred which was to play a very important part in the history of American life insurance. On the night of December 16 of that year, a fire occurred in New York which destroyed practically the entire business center of the city. The total loss was estimated at \$15,000,000. This was the first of the great American conflagrations. Thousands of business men were rendered insolvent, and all of the fire insurance companies of the city except three were bankrupt. Practically all of their capital was absorbed by the losses. Up to this time the greatest confidence had been placed in fire insurance stocks—the Chancellor himself having often ordered the small savings of those who came under his care invested in them. Now, however, the public confidence in the fire insurance business fell in proportion to its former height. The dangers of local insurance and concentrated risks were for the first time fully realized, and from this time fire insurance was gradually divorced from other lines of business, such as banking, trust and life insurance. But these were not the only important results derived from the unfortunate experience. It was but natural that prudent investors should hesitate to put their money into fire insurance stocks again. Local capital failed to come forward to meet the needs of new companies, hence the value of foreign investments became apparent. So in 1837 the tax on foreign marine and fire agents was reduced from 10 per cent of the premiums collected to 2 per cent,⁴⁶ thus repealing in part the Act of 1824, which had been intended to exclude foreign companies.⁴⁷ But foreign capital, as might have been expected, also failed to supply the demand. The city was thus left practically without protection. Resort was now had to mutual companies to supply the deficiency. Many mutuals had, of course, been organized previously to supply local needs where capital was scarce, but the greater security of companies guaranteed by a capital of considerable amount had long given them preference in the principal commercial centres of the country. Following the New York fire of 1835, however, a veritable rage for mutual fire companies developed. Forty-four were chartered during

⁴⁶Laws, 1837, C. 30.

⁴⁷Acts, 1824, C. 277. It appears that English Agents were not disturbed much in writing business but the legality of the business written was, of course, open to question, to say the least.

the next two years in New York State alone. During the next five years the movement spread rapidly through the New England and middle states, and was copied in the West. The latter movement was undoubtedly accelerated by the scarcity of funds following the financial crash of 1837.

The rapid rise of mutuals in the fire and marine insurance business, with policyholders reaping the advantages of the favorable experience in the next few years following the fire, had not long to wait for a similar movement in life insurance. There was not, of course, the same urgency in the demand for life protection as there was for fire and marine, but the public was gradually becoming familiar with its benefits and the success attained by the several life and trust companies was by no means discouraging, especially when estimating the effects that the participation of policyholders in surplus earnings would have upon the popularity of the business. In England, as noted, mutual companies had been in existence since the founding of the Equitable in 1762, stock companies came into existence in the last few years of the century, and by the end of the first quarter of the nineteenth century the mixed plan had become popular. With mutual and mixed companies in operation abroad and with the immediate mutualization in the fire insurance business following the New York conflagration of 1835, it is not at all strange that participation should have been inaugurated in this country, to be followed a few years later by the complete mutualization of the life insurance business.

The Girard Life and Trust Company.—The years of inflation immediately preceding the panic of 1837 were marked by the flotation of numerous projects of all kinds. Favorable financial conditions combined with the other causes set forth above led to the formation in different sections of the country of several life insurance and trust companies. The New York Life and Trust, and the Baltimore Life Insurance Company, both started in 1830, have been treated above. In 1834 the American Life Insurance and Trust Company of Baltimore was chartered.⁴⁸ The New England Mutual Life Insurance Company of Boston followed in 1835, but did not begin business until 1843.⁴⁹ And in 1836 the Girard Life Insurance, Annuity and Trust Company,

⁴⁸Laws of Maryland, Session of 1833-34, Chap. 256.

⁴⁹Laws of Massachusetts, 1835, C. 109.

distinguished as the first to provide for participation secured legal sanction to begin business.⁵⁰ Its charter, granted by the Pennsylvania Legislature March 17, 1836, conferred power to engage in a general life insurance and annuity business, and to receive and execute trusts, but prohibited it from exercising any banking privileges.⁵¹ None but stockholders were to be legally considered as members of the company.⁵² Nevertheless, the company proposed to "make a reservation from its incomes, and add the same after a term of years to the policies for the whole of life."⁵³ This appears to have been the beginning of the dividend system in American, or the plan whereby the insured participates in the earnings of the company.⁵⁴ Such dividends were referred to in England as "reversionary bonuses" and correspond to the deferred dividends which were used almost exclusively in this country prior to 1865. The tontine element was clearly evident in this plan, since only those who survived a certain number of years could hope to have their policies increased by the dividend addition. The exact basis for the division of profits is not clear, since it was "to be explained at the office," according to the original proposals. Jencks presumed in 1843 that the English rate of one-third of the profits arising from insurance policies would be apportioned among the stockholders and two-thirds would be allotted to the surviving holders of whole life policies.⁵⁵ The first bonus, or dividend, was declared December 27, 1844, on whole life policies written prior to January 1st, 1842. Ten per cent was added to each policy in force since 1836, 8¾ per cent to those written in 1837, 7½ to those of 1838, etc., with proportional reductions

⁵⁰There were other companies, but these were the more important.

⁵¹Laws of Pennsylvania, Sess. 1835-36, No. 41, Sections, 2, 9.

⁵²Ibid, Section 5.

⁵³Fowler, J. A., *History of Insurance in Philadelphia*, p. 650, (quoting proposals of the company.)

⁵⁴Dr. Henry Vethake, Professor in the University of Pennsylvania, and American editor of J. R. McCulloch's *Dictionary of Commerce*, stated in 1840 that the Girard "is the only one in the United States that has offered, to those who make insurance for the whole of life, a bonus, or addition to the value of their policy, after the expiration of a term of years."—Edition of 1840, p. 95. See also *Hunt's Merchant's Magazine*, Vol. 8, 1843, pp. 232-233.

⁵⁵*Hunt's Merchant's Magazine*, Vol. 8, p. 233.

for subsequent years. Dividends were continued on a quinquennial basis.⁵⁶

The Girard introduced several other liberalizing features into the life insurance business. Its travel restrictions were not so rigid, fifteen days grace in payment of premiums were allowed without voidance of the policy, premium payments at intervals of less than one year were permitted,⁵⁷ and in certain cases the company promised to repurchase its policies, thus granting a somewhat indefinite surrender value.⁵⁸ Annuities and children's endowments as well as insurance policies were offered by the company. Its insurance contracts appear to have consisted of policies for one year, seven years, and the whole of life. The success of the company was assured from the outset, 246 insurance policies having been secured during the first ten months and the number increased until by the close of the present period 1843,⁵⁹ it ranked with the New York Life and Trust, thus constituting one of the two most prominent companies in the country doing a life insurance business at that time. Both continue as bank and trust companies, but both have long since ceased to write insurance policies.

Although no mutual life companies had as yet been put into operation, by 1843 the transition from proprietary or stock companies to insurance under the mutual plan may be said to have ended. While most of the companies organized after that date were started with a guarantee capital, the latter was for security in the early years only, and it was not intended that profits other than an ordinary return (six per cent in most instances) should go to the stockholders. That the mixed plan had proved popular with the public as compared with the joint-stock was evinced by the success of the Girard, and by the tendency of others to adopt the plan.⁶⁰ The mutual idea was now dominant in all lines of insurance, and in the early years of the next period it was put into practice.

⁵⁶Fowler, *History of Insurance in Philadelphia*, p. 657.

⁵⁷*Ibid.*, pp. 652-653 for a copy of the policy used.

⁵⁸*Hunt's Merchant's Magazine*, Vol. 8, p. 233.

⁵⁹The panic of 1837 had but little effect upon the life insurance business of established companies.—Fowler, *History of Insurance in Philadelphia*, p. 655. It undoubtedly discouraged the formation of new companies.

⁶⁰The Pennsylvania Company announced in 1845 that it would issue interest bearing dividend certificates equal to one-half of its profits.

Legal and Judicial Development During the Period.—The years from 1809 to 1843 were practically barren of general life insurance legislation. There were no specific provisions whereby new companies might secure legal sanction to begin business, each company being required to secure a charter granted by a special act of incorporation; and once established, the companies confined their activities for the most part within the borders of the home state. Regulations regarding investments, the responsibility of officers and directors, reports, etc.; and such provisions for investigations and legislative control as were made, were contained in the several acts of incorporation including amendments thereto. With a single exception the acts that affected life companies were passed with a view to fire and marine companies, or to monied corporations in general. In New York, the taxation of insurance companies along with other corporations began in 1823.⁶¹ Massachusetts following with an act making insurance companies liable to taxation under any general law for that purpose in 1832.⁶² Both of these states enacted laws intended to discourage agents of companies not incorporated within their borders, New York in 1824,⁶³ and Massachusetts in 1827⁶⁴ and while these were directed at marine and fire companies they would probably have become operative, certainly so in Massachusetts, had agents of foreign life companies attempted to do much business. An annual report to the Comptroller setting forth the character and amount of assets, liabilities, etc., was required in 1830 of all monied corporations started in New York after that date.⁶⁵ The Comptroller was directed to issue blanks for the returns. A similar blank containing twenty-one questions was required to be filled out annually for the Secretary of the Commonwealth of Massachusetts, by all insurance companies operating in that state in 1837.⁶⁶ The first general law dealing directly and exclusively with life insurance in this country, and the only one appearing

⁶¹Laws of New York, 1823, Chap. 262, Sec. XIV.

⁶²Acts, 1832, C. 95.

⁶³Laws, 47th Sess., 1824, c. 277.

⁶⁴Acts, 1827, C. 141.

⁶⁵New York Insurance Reports, Barnes' Condensed Edition, Vol. I, p. XIII.

⁶⁶Acts, 1837, C. 192.

during this period, was passed in New York in 1840. It provided as follows:

"Sec. 1. It shall be lawful for any married woman, by herself, and in her name, or in the name of any third person, with his assent, as her trustee, to cause to be insured, for her sole use, the life of her husband for any definite period, or for the term of his natural life; and in case of her surviving her husband, the sum or net amount of the insurance becoming due and payable, by the terms of the insurance, shall be payable to her, to and for her own use, free from the claims of the representatives of her husband, or of any of his creditors; but such exemption shall not apply where the amount of premium annually paid shall exceed three hundred dollars.

"Sec. 2. In case of the death of the wife, before the decease of her husband, the amount of the insurance may be made payable after her death to her children for their use, and to their guardian, if under age."⁶⁷

This statute has been considered so important that provisions of a similar nature have been incorporated in the laws of almost every state, Massachusetts having adopted it in 1844,⁶⁸ and for a time companies inserted a clause in their policies covering the point in states where it was not taken care of by legislation. In view of the fact that most of the people who sought life insurance in those days were engaged in business, this law may have served as a stimulus to its development.

The only life insurance case of importance before the courts of the country during this period, was that of *Lord v. Dall*, decided by the supreme court of Massachusetts in 1815. Although the first case ever tried in the United States, its importance can scarcely be over-estimated and on at least two points it is still followed as a leading authority today.⁶⁹ It appears that *Dall*, an individual insurer, had underwritten a \$5,000 policy in favor of *Nancy Lord* on the life of her brother who was about to embark on a voyage, for seven months, from December 16, 1809 to July 16, 1810, at noon—the premium being 7 per cent of the sum insured. The claim arose and *Dall*

⁶⁷Laws of New York, 1840, C. 80.

⁶⁸Acts, 1844, C. 82.

⁶⁹*Bigelow, Melville, M., Reports of Life and Accident Insurance cases prior to 1871, Vol. I, pp. 154 et seq.*

contested it on several grounds; maintaining that the beneficiary did not have a sufficient interest in the life of the insured, that the contract of life insurance was illegal, that Lord had deviated from the course contemplated in the contract, and had met death on an illegal voyage. The court refused to sustain the defendant's contentions, however, Chief Justice Parker handing down the decision in the following terms:

"It has been made a question in the argument whether a policy of assurance upon a life is a contract which can be enforced by the laws of this state; the law of England, as it is suggested, applicable to such contracts never having been adopted and practiced upon in this country.

"It is true that no precedent has been produced from our own records of an action upon a policy of this nature. But whether this has happened from the infrequency of disputes which have arisen, it being a subject of much less doubt and difficulty than marine insurances, or from the infrequency of such contracts, it is not possible for us to decide. By the common principles of law, however, all contracts fairly made, upon a valuable consideration, which infringe no law and are not repugnant to the general policy of the laws, or to good morals, are valid, and may be enforced, or damages recovered for the breach of them

"This is a contract fairly made; the premium is a sufficient consideration; there is nothing on the face of it which leads to the violation of law, nor anything objectionable on the score of policy or morals

"It is said the insurable interest must be a pecuniary, legal interest; one that can be noticed and protected by the law; such as the interest which a creditor has in the life of his debtor, a child in that of his parent, etc. The case of the creditor would have no room for doubt. But with respect to a child, for whose benefit a policy may be effected on the life of the parent, the interest, except the insurable one which may result from the legal obligation of the parent to save the child from public charity, is as precarious as that of a sister in the life of an affectionate brother. For if the brother may withdraw all support, so may the father, except as before stated. Yet a policy effected by a child upon the life of a father, who depended on some fund terminable by his death to support the child, would never be questioned; although much more should be secured than the legal interest which the child had in the protection of his father

"As to the other objection, that the life of the insured was employed during the continuance of the contract in an illegal

traffic, we do not think it can prevail to the prejudice of the plaintiff, who did not participate in the illegal employment, and indeed does not appear to have known of it

“Perceiving nothing in this contract unfriendly to the morals or interests of the community, and no knowledge of an illegal intention being imputed to the plaintiff, we see no reason for setting aside the verdict. Judgment will, therefore, be entered upon it.”⁷⁰

It will be noticed that the court, though accepting the general proposition that an insurable interest is necessary, held that a definite pecuniary interest was not required. This bordered on the doctrine now generally accepted that blood relationship constitutes a sufficient interest in Life Insurance.⁷¹ As indicating the favor with which the judiciary have continued to look upon the business of life insurance in this country, the language of the court in this case is significant in that it emphasizes that there was nothing in the contract “unfriendly to the morals or interests of the community.”

To summarize, the contract of life insurance was held to be legal in the absence of prohibitory legislation and so long as it is not so drawn as to be against public policy or morals, the question of insurable interest in life insurance was differentiated from interest in marine policies, and it was set down that an insured person might engage in an illegal enterprise without prejudicing the claim of his beneficiary, provided the latter had no knowledge of his intentions and provided the policy were not drawn to protect a person in violating a law.

Works on insurance law began to appear during this time, an American edition of Marshall being published in Boston in 1805 and in Philadelphia in 1810 to meet the needs of marine underwriters, Phillips on Life Insurance appearing in Boston in 1823, and the four volumes of Chancellor James Kent’s Commentaries, containing discussions of the law of life insurance being produced in the years 1826–1830.

General Conditions.—*The Standardization of Rates*—Epidemics of cholera, or cholera morbus, small-pox, and “inflammations,” or “putrid sore throat” continued to break out at intervals throughout this period, but toward the end of it they seem to have been considered of minor importance so far as

⁷⁰Lord v. Dall, 12 Mass. 115. Supreme Court, March, 1815.

⁷¹Huebner, S. S., *Life Insurance*, pp. 391–392.

their effect upon life insurance premiums was concerned.⁷⁵ The census enumerations and the records kept in municipalities, usually by their respective boards of health, added to the volume of statistics available for purposes of estimating the probable length of life. Companies were also keeping a careful record of their mortality experience with a view to determining proper premium rates. The Pennsylvania Company and the Episcopal Corporation employed actuarial experts to compute new rates on more scientific principles in 1831 and 1835 respectively, but the English Carlisle table formed the principal basis for the calculations. Competition between companies in the matter of premiums appeared about this time, the American Life and Trust Company of Baltimore having become an indirect solicitor (heavy taxation of foreign companies prevented direct solicitation) for Philadelphia business in 1836 at rates considerably lower than those asked by the Girard and Pennsylvania Companies. As a result the latter company reduced its rates in March, 1837, and the Girard followed by adopting the scale of the Baltimore company, which was also that of the New York Life and Trust Company. The Massachusetts Hospital Life alone held aloof from the movement toward standardization, adhering to rates much higher than the others, except at the older ages. [See table, p. 100, below.]

Valuation.—While the formulation of the principles of net premium valuation appears to have been in progress in England during the latter part of this period,⁷⁷ gross valuation seems to have been the method used by American companies. That is, they were apparently content if their reserves added to the present value of future gross or office premiums due equalled or exceeded the present value of future death claims due. America's claim to a contribution to valuation rests on the introduction of legal reserve requirements, but this subject belongs to the next period.

Summary.—At the close of the proprietary period in 1843 life insurance on a sound financial basis was firmly established in this country. It was conducted for the most part by joint-

⁷⁵Fowler, pp. 629, 646-649.

⁷⁷Ryan, G. H., *Methods of Valuation, etc.*, in *Assurance Magazine*, Vol. 38, pp. 73-74, citing Report of the Parliamentary Committee on Assurance Associations, 1853, evidence of Finlaison, Higham, Jellicoe and Thompson.

stock companies that also engaged in the administration of trust funds and estates. One mixed company, introducing the practice of sharing profits with policyholders, met with considerable success. But the total amount of insurance written was not large. While there were instances of companies using an agency system, intelligent publication was largely depended on to introduce the business and familiarize the public with its advantages. Applicants were generally expected to appear

PARTIAL EXHIBIT OF ANNUAL PREMIUMS CHARGED FOR \$100 OF INSURANCE, 1843.

Ages	New York Life & Trust Girard Life & Trust Amer. Life & Trust of Baltimore 1 ⁷⁵			Pennsylvania Company 2 ⁷⁶			Episcopal Corporation 3 ⁷⁵			Mass. Hospital Life 4 ⁷⁶		
	1 Yr.	7 Yrs.	Whole Life	1 Yr.	7 Yrs.	Whole Life	Whole Life	1 Yr.	7 Yrs.	Whole Life		
20	.91	.95	1.77	.92	.98	1.75	1.86	1.36	1.48	2.18		
25	1.00	1.12	2.04	1.12	1.20	2.05		1.53	1.60	2.40		
30	1.31	1.36	2.36	1.32	1.45	2.38	2.44	1.66	1.75	2.66		
35	1.36	1.53	2.75	1.53	1.70	2.76		1.81	1.94	2.99		
40	1.69	1.83	3.20	1.78	1.95	3.21	3.24	2.04	2.20	3.40		
45	1.91	1.96	3.73	2.05	2.27	3.84		2.34	2.54	3.90		
50	1.96	2.09	4.60	2.49	2.82	4.68	4.53	2.75	3.04	4.54		
55	2.32	3.21	5.78					3.25	3.60	5.31		
60	4.35	4.91	7.00				7.24	3.90	4.35	6.36		

at the office of the company, obtain the printed form of proposal and answer the questions contained therein relating to health, occupation, etc. Similar questions were then propounded to the applicant's family physician. If the company was then satisfied the policy was granted—the proposal being a part of and the basis of the contract.⁷⁵ The policies were quite restricted in character compared with present standards. A few companies agreed to repurchase them under certain circumstances if the insured should so desire, thus constituting a

⁷⁵Hunt's *Merchant's Magazine*, Vol. 8, p. 127; Fowler, *History of Insurance in Philadelphia*, p. 654.

⁷⁶Fowler, *Ibid*, p. 654. The Pennsylvania Company again reduced its rates in 1844.

⁷⁶*Ibid*, p. 649.

⁷⁶T. R. Jencks, in *Hunt's Merchant's Magazine*, *Ibid*.

⁷⁶Stoughton, E. W., in *Hunt's Merchant's Magazine*, Vol. 2, pp. 227-228.

sort of indefinite surrender value. Policies could also be sold provided the companies agreed to the assignment, a rough surrender value being realized in this manner.⁷⁹ A deep religious prejudice prevailed in most communities against life insurance, although the published pamphlets and articles of the period indicated that its purposes and advantages were well understood, at least in some quarters. Of the business done, seven year term insurance seems to have been the more popular, followed by whole life; while children's endowments, reversionary annuities and survivorships were of rare occurrence.⁸⁰ Little progress was made in legislation, one court decision which has since proved of importance was rendered, the mortality was found to be similar to that of England so that premium calculations could be refined with the more accurate tables of the latter country as the basis, and progress was made in the standardization of rates among American companies. Participation had been introduced, the mutual idea pervaded all branches of insurance, and the nature and benefits of the institution were becoming sufficiently well understood by the general public to make possible the great progress which began with the renewal of business prosperity in 1843.

⁷⁹Jencks, T. R., in *Ibid*, Vol. 8, pp. 124, 229.

⁸⁰Fowler, *History of Insurance in Philadelphia*, p. 655.

CHAPTER IV.

THE PERIOD OF PARTICIPATION

1843-1861

As noted in the previous chapter, the conditions were favorable in 1843 for the establishment of the mutual or participating plan of life insurance. Also, the public was sufficiently well informed as to the benefits of the institution and the financial situation was such as to encourage the hope that life insurance dissociated from other forms of business might be prosecuted with success. Only a very limited knowledge had been attained however, concerning the expenses necessary to the conduct of this branch of insurance apart from other forms, and apart from the business of administering trusts. The mutual plan presented an additional appeal, therefore, since under it the premium rates might be sufficiently high to cover all unknown contingencies, and the excess returned to the policyholders in some form so that the net cost to them could be made to depend upon the actual experience of the Company.

Our First Mutual Companies.—The New England Mutual Life Insurance Company was the first to be projected under the mutual plan, having obtained its charter in 1835, but for reasons previously stated it did not begin business until the latter part of 1843. In 1841 a joint stock corporation known as the Nautilus Insurance Company was chartered.¹ Two years later it changed to a mutual company and acquired all the privileges granted to the New York Mutual Insurance Company,² an organization doing a life as well as a fire and marine business.³ The company got under way in 1845, issuing life policies, to which it has since confined itself, under the name of The Nautilus (Mutual Life) Insurance Company of New York.⁴ The name of this concern was changed in 1849 to the "New

¹Laws of New York, 1841, C. 209.

²Laws, 1843, C. 207.

³Laws, 1842, C. 287.

⁴Semi-Centennial History of the New York Life Insurance Company, following page 20.

York Life Insurance Company,"⁵ under which name it has grown to be one of the foremost institutions in the country. But the distinction of having been the first to put the mutual plan into practical operation belongs to the Mutual Life Insurance Company of New York. It was chartered by the legislature of that state, April 12, 1842.⁶

The Mutual Life Insurance Company of New York.—No guarantee capital was stipulated in the charter, but the operation of the law of average was assured and funds sufficient to meet whatever claims should arise in the immediate future were made certain by the requirement that no policy should be issued until applications for at least \$500,000 worth of insurance had been received.⁷ All persons insuring in the corporation were legally constituted as members so long as they remained insured, and were entitled to vote for trustees and share the profits, but were not liable for losses and expenses to a greater amount than the premiums paid. The corporate powers of the company were exercised by a board of thirty-six trustees, all of whom were to be citizens of New York State, and such officers as they saw fit to appoint. Trustees were to serve four year periods, the terms of nine of them expiring each year, and were elected by a plurality vote of the members. A policy of at least \$1,000 of insurance was necessary to enable a member to vote. The trustees were required to elect a president annually, fix premium rates, invest the funds after the somewhat limited manner prescribed by the act of incorporation,⁸ and exercise general supervisory powers. The company was authorized to do a general life insurance and annuity business. It was required to report its financial condition to the Comptroller directly instead of to the Chancellor, as had been required of other companies, and personal liability of officers was dispensed with.

While the act of incorporation took effect immediately,⁹ and the company was authorized to begin business as soon as \$500,000 worth of insurance was applied for, it decided to wait

⁵Laws of New York, 1849, C. 211.

⁶Laws of New York, 1842, C. 246.

⁷Ibid, Section, 17.

⁸Real estate holdings were limited, with the usual exception, to such as might be required for office accommodation—Section 2.

⁹Section 19.

until double that amount had been subscribed. In view of the fact that this was the first company to do an independent life business without any guarantee capital, this was in all probability a wise precaution. For, while the time chosen for starting this company on the mutual plan seemed most opportune, and its early experience so demonstrated; its organization was not effected without effort, nor without overcoming some serious difficulties. The idea of founding the company seems to have originated with Mr. Alfred Pell of New York, who associated with himself Messrs. Morris Robinson, Joseph Blunt, and John V. L. Pruyn. These men prepared the charter and Mr. Pruyn secured its passage through the legislature. Little interest was as yet manifested in it, however, as it was only with the greatest difficulty that twenty-one out of thirty-six incorporators were induced to attend a meeting to accept the charter and form an organization. The meeting was finally held May 9, 1842, and Mr. Morris Robinson was elected its first president. Other meetings followed at which other officers were elected. But no salaries were provided for officers and no business office was obtained, so for several months it looked as though the project might be abandoned. But on December 21, a meeting was held at the urgent request of President Robinson, and Messrs. Shipman, Ayres & Company, were appointed agents to solicit applications. It was due largely to their efforts that the required amount of insurance was applied for. The president was also granted a salary of \$1500 per year for his services and the use of an office. A new impetus was given to the enterprise also by well written articles, prepared chiefly by President Robinson, which were published in the newspapers.¹⁰ By February 1, 1843, the company had applications for more than the \$1,000,000 minimum of insurance which it had established, so on that date it formally opened for business. Persistent efforts were required on the part of its president to keep the project going, but they proved successful and by 1845 the company began to enjoy the confidence of the public. Thus at the end of one year, or on February 1, 1844, it had 462 policies for a total of \$1,611,718 insurance in force, and had accumulated assets to the amount of \$32,211.05. On

¹⁰Nichols, Walter S., in *Insurance Blue Book*, 1876, p. 96.

the same day in 1845, it had 971 policies while its assets had grown to \$97,471.36, and these figures had increased by February 1, 1846 to 1,856 policies and \$216,980.29 in assets.¹¹ The policies were for the most part granted to business and professional men, a majority being for the whole of life.¹²

The immediate success which followed the organization of this company indicates that the time was now ripe for the development of life insurance on a large scale. The ground had been well prepared, and the diligence and prominence of the organizers of the Mutual supplied the driving force to make the business a success. The attention which the company attracted rapidly overcame all obstacles and resulted in the immediate triumph of the participating plan. Of the companies which were actively engaged in life insurance at the time the Mutual Life was founded, all retired from the field within ten years, except the Girard and the Pennsylvania Company, and the insurance activities of the latter two were greatly curtailed. But its success also led others founded on the mutual plan to enter the field in a short time

The New England Mutual Life Insurance Company.—The charter of The New England Mutual which had remained dormant for so long was now availed of, and that company opened for business in Boston at the close of 1843, its first policy being issued in February 1844, or about one year after the Mutual Life began business. This marked the beginning of practical life insurance in New England. While some individual underwriting had been done early in the century on short time risks, and a few marine companies had prior to 1810 been granted the privilege of making life insurance the only company east of the Hudson to whom a New Englander might apply for insurance prior to 1843 was the Massachusetts Hospital Life. As has been noted, the latter charged very high rates and in consequence did very little life business. By 1843 its business was confined almost wholly to the management of trust funds and estates. The New England, then, commenced business in a very promising, thrifty, and practically new, territory.

The Beginning of the Part-Note Premium Plan.—The latter company introduced a new feature into the business from the

¹¹Report Exhibiting Fifteen Years Experience of the Company, 1859.

¹²Hunt's Merchant's Magazine, Vol. II, 1844, pp. 340 et seq.

beginning of its career which was destined to play an important role in the history of life underwriting. It was known as the limited credit or part-note premium plan. Instead of insisting on the full premium being paid in cash, as the Mutual Life required, the New England offered to accept the policyholder's note for a part of the premium during the first five years, on the theory that during these years the mortality would be less, due to medical selection, than the death rate provided for by the full premium. It was by no means intended by this company that insurance should be granted on credit. The plan was adopted merely to facilitate the placing of policies among those who could not be induced to pay the whole premium in cash. Thus one of the directors stated, "The object of this practice is to afford a temporary facility for making a policy for the whole of life and not to encourage insurance on credit, and the managers so consider it, for they generally prefer to pay the premium instead of giving a note, except in case of an occasional and temporary exigency. Excessive facility of credit is no less inexpedient and delusive in insurance than in buying and selling."¹³ While the New England itself never has been accused of pursuing any but the most prudent practices, other companies at a later date grossly abused the note system.

Other Features of the New England Mutual.—As regards the other features of the company, a guaranty of \$100,000 capital was required, half of which was to be paid in before commencing business. The capital paid in was to bear interest at a rate not greater than 7 per cent. One fourth of the net profits were set aside each year to redeem the capital, which might be done any time after ten years. The charter carefully provided for taking care of the interests of the policyholders.¹⁴ Dividends were to be apportioned every five years, and special provisions were made for reimbursing older policies for their contribution to the redemption of the guaranty fund.¹⁵ One-third of the net profits, which were defined as the excess over six per cent on the guaranty capital, were paid to the General Hospital the first year. But the next year the company refused to make the payment, "unless the same exaction were made from competi-

¹³Quoted by Nichols, Walter S., in *Insurance Blue Book*, 1876, pp. 100-103.

¹⁴Laws of Massachusetts, 1835, C. 109.

¹⁵Ibid, Section 8.

tors from other states," and the hospital abandoned its claims. The charter was amended March 11, 1844, so as to allow non-participating as well as participating insurance to be issued.¹⁶

Realizing that the task before them was largely an educational campaign, the officers of the company made special efforts to familiarize the public with the principles of the business. One form which the efforts took was that of an annual report. These reports constitute one of the sources from which information regarding the subject of insurance at that time may be obtained. They were largely devoted to popular explanations of the principles upon which the business is founded, but in connection with the explanations the company gave a fairly complete account of its own experience each year. Not only did they strengthen the public confidence in the company, and extend its reputation generally, but they were also an important factor in showing how life insurance is an investment and in this manner served to encourage business men to take policies.

The company did not hesitate to spend money for actuarial services. Before it started it engaged Professor Pierce of Harvard and others to construct a special table of premiums for its use, and as time went on, the construction of more complicated tables rendered the "expenses of its actuarial department one of the prominent items of expenditures."¹⁷

Other Companies.—In 1844 the State Mutual Life Assurance Company of Worcester, Massachusetts, was incorporated with a guarantee capital of \$100,000.¹⁸ In 1845, two other corporations which were destined to become powerful were started, the New York Life, mentioned above, and the Mutual Benefit of Newark, New Jersey.¹⁹ Both were operated on a strictly mutual basis. The Mutual Benefit inserted a clause in its charter permitting it to issue policies for the benefit of married women on the lives of their husbands, free from all claims of creditors.²⁰ This was a substitute for the general law in New York which made similar provisions, and was inserted because New Jersey had not at that time enacted such legislation. Several compan-

¹⁶Acts, 1844, C. 80.

¹⁷Nichols, Walter S., in *Insurance Blue Book*, 1876, p. 100.

¹⁸Acts, 1844, C. 177.

¹⁹Laws of New Jersey, Act of January 31, 1845.

²⁰*Ibid*, Section 4.

ies which followed the Mutual Benefit made similar arrangements in the absence of a general law protecting widows against the claims of creditors to the proceeds of life policies. The companies seem to have attached great importance to the provision possibly because many merchants in country towns would insure for some small amount if their policies were made free from the contingencies of their trade. The Mutual Benefit was also granted power to receive notes for a part or the whole of the premium.²¹

Of the foregoing five companies, all but the Mutual Life of New York adopted the part note system. This system had been in use abroad, and had been an integral part of the mutual fire companies in this country where it had wrought a great deal of harm. Because of the difference in character of the risk, the notes did not immediately result in harm to life companies. In fact if notes were used with caution there is no reason why they should produce any evil effect, as has been demonstrated by the more conservatively managed companies. The amount of the premium accepted by the companies in the form of notes varied from 15 to 75 per cent. The latter figure was allowed by the Mutual Benefit of New Jersey at first, but was afterwards reduced to 50 per cent. The notes bore interest and could be collected in whole or in part by the company if necessary, or failing in this the company could declare the policy null and void and also sue for payment of the note.²² Dividends were supposed to take care of the notes. The State Mutual of Worcester stated in 1849 that the notes were taken to provide for a possible deficiency in the amount of cash premiums, but that for the past five years the cash premiums had been sufficient, and no demand was made for the payment of the notes. The one object was to make insurance more popular. The dividends of the note companies, were applied to a reduction of the notes, and when they were all paid off, for the reduction of the cash premium. In the company which did not use notes, dividends were applied to increase the amount of insurance in force.

In 1846, the Connecticut Mutual Life Insurance Company of Hartford was founded. The main principles upon which it was based were the same as those of most of the companies described

²¹Ibid, Section, 6.

²²Ibid, Section 9.

above. The aims of the company, however, were somewhat different. Dr. Guy R. Phelps, its founder, saw that cautious underwriters were inclined to regard ample security as far more important than equity among policyholders. While he recognized that safety was absolutely essential, he also perceived that if certain improvements in the business as it was then conducted could be made so as to bring about greater equity, its popularity might be greatly enhanced. And if this could be accomplished, he was convinced that the United States with its rapidly increasing wealth and population presented a field in which the business might eventually assume vast proportions. He therefore determined to put his ideas to a practical test, and secured a charter from the legislature in May, 1846.²³

The charter provided for no guarantee capital and required no minimum of applications before commencing business. No territorial limits were set for investments and the company was authorized to take promissory notes or other obligations for the whole or any part of the premium. In case funds were not sufficient to cover losses at any time the notes could be assessed to make up the deficiency. If the assessment was not paid within sixty days the policy was forfeited and the company could collect the note by process of law, if that were deemed feasible. The company was also given authority to accept notes or other securities for premiums in advance from persons intending to receive its policies. These might bear interest at six per cent and might be negotiated by the company for paying claims only. In all these matters it is observed that the company was granted a wide discretionary latitude in the exercise of the unusual powers conferred. But to insure the equity among policyholders which Dr. Phelps had in mind, the charter provided equally peculiar restrictions. Each policyholder was to be credited annually with his share of the premiums earned and profits from investments, and debited with his proportion of losses and expenses, according to the premiums paid. The surplus credited to the member was not to be allowed him immediately, but was to be held liable for future losses until the net profits amounted to \$200,000 after which the excess was to be used to reduce the notes.²⁴

²³Laws of Connecticut, May Session, 1846.

²⁴Ibid, Sections 14-16.

Two distinguishing features are thus observed, a credit premium system, and a return of surplus payments to the members by crediting it to them annually instead of retaining and applying it toward reversionary additions. These two features were really but parts of one scheme, then novel in life insurance, whereby policyholders might be enabled to anticipate future surplus by taking a larger policy in the first place.

As noted, the charter required no guarantee capital. It was not thought advisable, however, to start soliciting business without first procuring a guarantee fund of some kind to obtain the confidence of the public. After some difficulty a fund of \$50,000 was raised, and the company started in December, 1846.

The success of the company was assured from the beginning, it having obtained over 6,000 members at the end of three years, and at the end of five years, its assets had grown to \$1,000,000. The rapid growth of the company apparently bore out the correctness of Dr. Phelps' views. It attracted the immediate attention of the public, and its rivals were led to study its plan critically. As a result, a prolonged and vigorous discussion took place regarding merits and general security of the plan. Those opposed maintained that the credit system tended to impair the strength of the company and to threaten its ability to pay claims. But the officers of the company showed that the amount of premium credits held at no time amounted to more than two years premiums on any policy, and were adequately secured by the lien which they had effected. The Connecticut Mutual remained for many years as one of the champions of the credit system, and its rapid progress contributed largely to the extensive adoption of that method by younger companies. It was the first company to determine the amount of dividend accumulations annually. It was also the first company to make extensive investments in Western securities, where rates of interest were considerably higher than those prevailing in the East. Western investments were evidently contemplated when the charter was issued, since the corporation was careful to see that no territorial limitation on investments was inserted in that instrument.²⁵ The excess interest

²⁵Act of Incorporation, cited above, Section 7.

earned was in consequence considerably above the rate assumed in premium calculations. Its dividend rate was therefore quite high and it was enabled to cancel a corresponding amount of the premium notes received from policyholders.²⁶

One other company remains to be considered as among the first of our more prominent modern companies to get started, not only because it belongs to the number of our early organizations, but also because it was the first to carry the mutual plan into Pennsylvania. The company referred to is The Penn Mutual Life Insurance Company of Philadelphia, the first of modern life companies started south of New York. It was chartered February 24, 1847,²⁷ and commenced business on the mutual plan on May 25 of that year. Until this time, but two companies that had attracted any considerable attention, the Pennsylvania Company, and the Girard Life and Trust, had been chartered in Pennsylvania and both of these had ceased to be active competitors in the insurance field. The charter of the Penn Mutual conferred authority upon the company to grant all kinds of life policies and annuities, and to receive and execute trusts.²⁸ It also provided that all persons who insured should become members of the corporation and should be entitled to vote for trustees according to the premium paid on his policy.²⁹ No proxies were recognized, every voter being required to deposit his vote in person. The control was vested in a board of trustees consisting of twenty-seven persons who were to be policyholders. They were to hold office three years, so that the terms of nine of them should expire each year. The trustees appointed the officers of the company who were to render an annual statement showing its condition. If the report showed a surplus remaining after paying all losses and expenses and setting aside a reserve against the outstanding risks on the books at that time each policyholder was to be allotted a share in the proportion that the premiums paid by him bore to the "aggregate amount of the premiums earned" during the year.³⁰ At first this company limited its activities to Philadel-

²⁶Nichols, Walter S., in *Insurance Blue Book*, 1876, p. 111.

²⁷Laws of Pennsylvania, 1847, No. 118.

²⁸Ibid, Section 2.

²⁹Ibid, Section 8.

³⁰Ibid, Section 14.

phia and the immediate vicinity, and for many years its business was confined to Pennsylvania, Maryland, and Delaware. Its management and practices have been most conservative from the beginning, a small business at a low cost being preferred to a larger one at a greater expense ratio.

All of the companies treated above were founded on the mutual plan. All except the Mutual Life adopted the part-note premium system. With one exception all were started under competent managements and have remained as reliable institutions. All of them were located in the North and East. The other sections of the country were not developed to a sufficient degree financially as yet to offer any considerable attractions for the establishment of home offices.

Unsound Companies.—In 1847 began a series of events which greatly stimulated the general business of the country, and which in turn exerted a powerful influence on the formation of new companies. The second partial failure of crops abroad occurred this year, which created an abnormal demand for American grain and other products and encouraged commercial enterprises of all kinds. The Revolutions of 1848 added another stimulus similar to that of the French Revolution and its attendant wars. Our exports greatly exceeded imports and specie began to flow in in large quantities. The usual inflation under such circumstances now began to make itself felt. These conditions, together with the effect of the success of the better managed companies which others were wont to imitate led to a rapid multiplication of life companies, mostly of the speculative type. Five new companies besides the one treated at some length above were chartered in 1847, all of which disappeared after a brief existence. Incompetent management and inability to secure business were the chief causes of failure among these sporadic and ill-advised ventures. One of them was projected especially to insure unsound lives. The plan itself was not intrinsically unsound, for the rates were determined after an extensive investigation in Europe, and were pronounced adequate by an expert. It was obliged to withdraw because applicants at adequate rates were not secured. It is not at all surprising in the light of more recent experience that this should have been the result, since it is difficult even today to induce substandard risks to accept policies at an adequate rate. Five

more companies were started in 1848, two of which, the Union Mutual of Maine and the National Life of Vermont,¹ were successful. The former was really a Boston company, its incorporators merely securing a charter in Maine because of the more liberal provisions which could be obtained there than in Massachusetts. In 1849 the Mutual system of life insurance was introduced into Louisiana, three companies being started in that year, one of which was devoted entirely to life insurance, and the other two to marine and fire as well. Another was added in 1850, but all failed after a brief period of time. Three other companies were also chartered in 1849; one in Connecticut one in New Jersey, and one in North Carolina. These were also very short-lived. The first era of bubble companies in the history of life insurance in this country was now in full progress. In 1850 no fewer than fourteen companies were chartered, two of which were in the West, and two in the South. Seven of these soon disappeared, but five of the Eastern companies were successful. But before taking up these companies, it may be well to pause to gain a general view of the business as it stood in 1850 and to observe certain other matters.

By 1850 there were forty-seven companies in the field, including three English companies which had established agencies here. Most of them were less than two years old. One-half of the companies were located in the three cities of New York, Philadelphia, and Hartford. Four were in the West, two in Cincinnati, and two in Kentucky, while seven were located in the South, of which two were in Baltimore, and three in New Orleans. None of the Western or Southern companies secured much business, and all disappeared after a more or less brief experience. Only twelve of the entire forty-seven remained in active operation for any length of time. A majority of the companies were the product of the speculative character of the time and the sudden popularity of life insurance. Many of them combined life with fire and marine insurance, or with trust business. Their officers had no adequate knowledge of the work before them, and often attempted to carry on the life business in the same manner as fire insurance. Some of the failures may apparently be traced to a general reduction in

¹Laws of Vermont, 1848, No. 22.

premium rates that took place among the new companies after 1848. Unfamiliarity with methods of securing business and a lack of agency organization was another contributing cause. But in those days the life agent was seldom a specialist in that field, being in most instances more prominently identified with some other business. Nor could he have been expected to devote much time to pushing insurance in preference to his regular business. In order to persuade a person to sign an application he usually had to break down a strong antagonistic prejudice and superstition about its effects, overcome suspicions against the company's character, and remove strong doubt regarding the ultimate payment of the proceeds, before he could begin to talk about the personal advantages of the policy to his prospect. And once all these things were accomplished and the policy accepted and paid for, the agent then received a commission seldom averaging above ten per cent of the first premium, and not more than five per cent on renewals. In view of these facts the wonder is not that so many companies failed, but that so many should have survived and increased their business. Permanent success seems to have been won by those companies whose organizers and managers were well known in other lines of business, and whose practices became favorably known in their respective communities.

The Mixed Plan Revived.—Among the successful companies started during this speculative era, the Manhattan Life Insurance Company of New York is of interest because it was the first of the modern companies to revive the so-called "mixed" system. In 1850 the bulk of the business, as has been noted, was in the hands of the purely mutual companies, and many of these were without adequate security or competent managers. The want of the conservative element was emphasized by the fact that the New York Deposit Law was passed in 1851²² with a view to curbing the recklessness of some of the companies, especially the newer organizations. To supply stability, therefore, the organizers of the Manhattan sought to create a stock company controlled by a board of directors having a personal pecuniary interest in the management, while at the same time protecting the interests of policyholders by giving them the

²²Laws, 1851, C. 95.

advantages of the mutual system whose profits belong to the insured. A paid-up cash capital of \$100,000 was accordingly provided which was to receive interest not exceeding seven per cent. But in order to further increase the directors' interest in efficiency of management, a provision was added that one-eighth of the net profits was also to be distributed among the stockholders. The remaining seven-eighths were to be apportioned among the policyholders every three years in the form of scrip dividends. The scrip was to bear interest not exceeding six per cent and was held liable for all indebtedness of the company until redeemed.³³ As an additional safeguard to the interests of those insured, it was provided that one-half of the directors were to be policyholders. Policyholders whose premiums were at least \$100 per year were eligible for the board of directors,³⁴ and those whose premiums equalled or exceeded \$75 were entitled to vote.³⁵ One other novel feature in connection with this company remains to be considered; namely, savings-bank insurance—a scheme which was later advocated strongly by Mr. Elizur Wright. The Manhattan called it "deposit" or "accumulative policies." At the option of the insured the premium each year would be looked upon by the company as a single premium and would be allowed all the insurance which it would purchase. It was withdrawable at any time, "the company retaining only so much of the interest as might be necessary to meet the cost of insurance."³⁶ The company made rapid progress from the start and maintained a favorable record.

Progress from 1850 to 1857.—The first "bubble era" in our life insurance history may be said to have ended with the close of the year of 1850. From then to 1857 only about a dozen new companies were started. More than half of them failed after a brief experience but the failures were due to efforts to start companies in Southern and Western states where business was not yet sufficient to sustain them. Among the more prominent companies formed between the close of 1850 and 1857 may be mentioned the Massachusetts Mutual Life Insurance Company

³³Charter of the Company, Sections 17-18.

³⁴Ibid, Section 5.

³⁵Ibid, Section 9.

³⁶Nichols, Walter S., in *Insurance Blue Book*, 1876, p. 120.

of Springfield. This company was incorporated May 15, 1851, with a guaranty capital of \$100,000 half of which was to be paid in before starting business. Following the policy which had prevented the formation of but few companies, but which had preserved the safety of those that were started, the legislature limited the investments of the company to those securities which were legal investments for savings banks; and its real estate holdings, were limited to "an amount not exceeding \$10,000 for the purpose of securing suitable offices for the institution." The company was purely mutual in character, provision being made for the retirement of the guaranty capital at any time after ten years that the policyholders might elect.³⁷

But while few new companies were formed during the seven years, the business of the more carefully managed institutions already established increased steadily. Thus from the New York reports,³⁸ and the returns made by Massachusetts companies to the Secretary, there could not have been over 60,000 policies nor more than \$120,000,000 of insurance in force in this country in 1851.³⁹ In Massachusetts and New York alone the amount in force in 1854 was approximately \$135,000,000 and since it continued to increase, the numerous failures seem not to have hindered seriously the progress of the business as a whole. The number of applicants of the failed companies was small, and their policies were in most instances transferred to the more stable companies who were willing to take them when the assets of failed companies were sufficient. The failures served to check the progress of the rapidly increasing oversupply of organizations, and led people to be more cautious in choosing companies in which to insure. Hence, the failures tended to increase the business as well as the confidence of the public in the older and more carefully managed institutions.

Effects of the Panic of 1857.—The Ohio Life and Trust Company of Cincinnati failed in 1857 due to banking speculations, and while it had discontinued its insurance business sometime previous, the magnitude of its trust and banking operations in the West was so great that its fall did much to precipitate the general financial panic which began there and spread rapidly

³⁷Charter, Section 7.

³⁸Barnes' Condensed Edition, Vol. I, pp. 625, 661.

³⁹Insurance not covered by the figures estimated at one-third of the total.

over the entire country. But the life insurance companies were well prepared for such a contingency, so the number of failures among them was very small. By process of elimination previously noted, those companies that probably would have been unable to withstand the pressure had disappeared. While other institutions and mercantile establishments whose credit had up to that time been unimpaired were failing daily, the life insurance companies stood out prominently as the only source of financial protection to many who had lost all in other enterprises. There were two primary reasons why the existing companies were able to stand the strain so well. First they were institutions whose maturing obligations were for the most part incurred by the deaths of policyholders and these were not increased by the panic, and second the companies had been content or had been obliged by law to invest their funds in safe, low interest bearing securities which did not materially decline in value. Of course the companies were indirectly effected. Loans on policies were freely negotiated by those companies that permitted them, and due to the fact that fewer people had funds to devote to insurance purposes, new business remained stationary, whereas otherwise there should have been a substantial increase. According to the New York Comptroller's reports, there were 7,388 policies issued by the companies operating in the state during the year 1856, insuring \$20,478,099 while in 1857, there were but 7,000 policies issued for \$20,278,857.⁴⁰ The panic had thus apparently absorbed the normal increase in new business written. That these comparatively new and somewhat distrusted institutions stood firm throughout such a financial reaction was sufficient to attract the attention and win the confidence of the public. By 1859 the country had sufficiently recovered for life insurance to forge ahead once more. According to the first report of the New York Insurance Department,⁴¹ over \$31,000,000 of insurance was written during that year, and at its close there was approximately \$150,000,000 in force. The progress continued in 1860, but in the following year it was interrupted by the outbreak of the Civil War.

Change in the Character of the Insurance in Force.—The character of the insurance outstanding on the books of the companies

⁴⁰New York Insurance Reports, Barnes' Condensed Edition, Vol. II, pp. 335, et seq.

⁴¹Pages 380-381.

at the close of this period differed radically from that in force at its beginning. As noted, term policies predominated in 1843. But now over ninety per cent of the business consisted of insurance for the whole of life.⁴² In part, the change may be explained by the growing confidence on the part of the public in the safety and permanence of life companies. Also, a decrease in term policies occurred when those granted to persons going to California in the gold rush of 1849 began to expire. And companies having found the mortality among term policyholders to be higher than among those insuring for the whole of life, due to the fact that those seeking short-time insurance were often contemplating hazardous undertakings of a temporary⁴³ nature, determined to discourage term business and confine their attention primarily to ordinary life policies. Seven year and shorter policies continued to be written however, and a beginning was made in endowment insurance. Prior to about 1850, an "endowment" meant a "children's endowment," or what today would be called a "pure endowment." That is, they were contracts providing that if children survived to (say) age twenty-one, certain sums should be paid by the insurance companies. But in 1853, the Mutual Life quoted rates for insurances payable to the party insured on his attaining a certain age, or to his representatives in case of death before attaining the age specified.⁴⁴

New Companies.—Two new companies came into existence during the latter part of this period, both of which were destined to become prominent in life underwriting circles. The first was the Northwestern Mutual Life Insurance Company of Milwaukee, Wisconsin, which began business in November, 1858. It was chartered in 1857 under the name of the Mutual Life Insurance Company of the State of Wisconsin,⁴⁵ but took the name of Northwestern Mutual in 1865.⁴⁶ It was formed as a purely mutual company, managed for the policyholders by a board of trustees elected by them, thus precluding the existence

⁴²Ibid.

⁴³Report of the Mutual Life Insurance Company, 1858, Exhibiting Fifteen Years' Experience.

⁴⁴Angell on Fire & Life Insurance, 1854, Appendix, p. XCIX.

⁴⁵Laws of Wisconsin, 1857.

⁴⁶Ibid, January 20, 1865.

of conflicting or separate interests.⁴⁷ Its early business was conducted on the part-note plan, care being taken to avoid insurance on credit. Dividends were relieved of liability to forfeiture with the discontinuance of the policy, a new and more liberal feature than was practiced by most of the other companies. In 1862 the company took a step very unusual with Western companies and one which immediately attracted the attention of insurance interests throughout the country. It applied and was admitted to do business in Massachusetts. Up to that time, excepting one New Jersey Company, none but New York and New England Companies had been admitted to that state.

The company confined its investments largely to good western securities, consisting chiefly of farm mortgages, which yielded as high as ten per cent interest. The high interest earned together with careful management and a national reputation for safety created by its entrance into Massachusetts, combined to give it an exceedingly rapid growth, which it has been able in large measure to maintain.

The second company referred to above, was the Equitable Assurance Society of the United States. It was chartered in New York in 1859, with a guaranty capital of \$100,000 drawing legal interest. Exceptional managerial skill secured for this company a volume of business in its earlier years without precedent in the annals of life insurance, although its early methods of obtaining business have not been without criticism. At the end of 1859 it had over \$1,000,000 in force,⁴⁸ and at the close of its second year it had over \$3,250,000 of insurance and a surplus of nearly \$100,000 in addition to its capital stock. The significance of this is that its marvelous success gave a new impetus to life insurance and this inaugurated an era in that business which proved to be one of the most unusual in all history.

Progress Along Scientific Lines.—Progress on the scientific side of life insurance during this period consisted in the compilation of statistical data which was used for the further refinement of premium estimates, and in the very important development that took place in valuation, or the calculation of reserves. As

⁴⁷Charter, Sections 4-6.

⁴⁸First New York Insurance Report, p. 380.

regards statistics, an estimate was made in 1849 of the morality in Baltimore from the record of interments from 1826 to 1848,⁴⁹ and from the census returns of 1830 and 1840. The interests of life insurance were first recognized in the Federal census in 1850. At that time additional blanks were furnished requiring information concerning mortality during the different months of the year together with important facts concerning those who had died, such as age, occupation, cause of death, etc. No satisfactory information was obtained, however, as Superintendent DeBow of the Census Bureau stated in his report. A system for recording births and deaths had been placed in operation in but few states, and without such a system the efforts of the Census Bureau proved futile. At this time also some of the insurance companies began to compile and arrange their own morality experience for purposes of determining the adequacy or rates charged, and to learn whether or not they might be safely reduced. Thus Mr. Charles Gill, the first actuary of the Mutual Life, rendered a report on the experience of that company down to 1853 which was one of the earliest attempts to ascertain the value of lives insured in a modern company.⁵⁰ Somewhat later this company attempted to secure statistics from other companies, but the results, published by Dr. Wynne under the title of a "Report on the Vital Statistics of the United States," appear to have been based on the Mutual's own data and "collateral circumstances in the population of Europe." In the annual reports of the Mutual Benefit of New Jersey for 1857 and 1858 were published the mortality experience of the company. Its death rate had been much lower than that indicated by the Carlisle table, but, of course, many of its lives were fresh from the medical examiner. The New England Mutual also reported in 1857 that a careful record of its mortality experience had been kept from the outset, and that "gentlemen of established reputation for mathematical science" were at work on tables of various kinds. And in 1858 the Mutual Life published a very full and complete report of its experience in which a detailed study was made of the results in different sections of the country, different types of policies, ages of insured persons, etc., as well as the company's dividend record.

⁴⁹Fowler, *History of Insurance in Philadelphia*, p. 667, note.

⁵⁰Report of Mutual Life, 1858.

Mr. Homans then proceeded to compile a mortality table upon the basis of the actual experience of the company, but it was for purposes of comparison and not for actual use.

The American Life Convention.—The efforts of individual companies to obtain a better statistical foundation for their business were followed in 1859 by a combined movement in this direction which culminated in the first American Life Convention, held May 25 of that year. Twenty-three delegates, representing seventeen American offices and British agencies met in New York to consider the matter. Three other topics were taken up by the Convention. They were, extra rates, renewal of lapsed policies, and state legislation. Of these the latter was of most importance at that particular time. A committee on vital statistics was appointed, and in rendering a report this committee recommended that the country be divided into seven geographical divisions, and that the mortality be ascertained in each. The reasons assigned for this were that all tables in use were defective, having been deduced for miscellaneous observations in different communities, or deducted from European tables which could not hope to be applied generally in this country, since there were so many different conditions and climates here. To carry out the work the committee recommended that each company contribute data so that the combined experience of all American companies could be deduced, having special reference to the comparative mortality in the different divisions of the country at different ages or epochs of life, and under whole life and term policies.⁶¹

At the next meeting of the Convention, held in May, 1860, statistics had been furnished by thirteen companies, and were promised by nine more. The work was interrupted, however, due to several causes, so that nothing of a very practical nature came of it directly. Indirectly the results of this labor may have been of assistance to actuaries acting individually in determining rates for their companies. It shows the clear view taken at that time, of the problems confronting those who were responsible for the fixing of premium rates.

Valuation.—As regards the subject of valuation or the calculation of the reserves which should be held against policies, each

⁶¹Report of the Convention, 1859.

company had been permitted to estimate the value of its liabilities according to whatever standard it might select, down to 1858. Prior to that date the principle of gross valuation, based for the most part on the Carlisle table and four per cent, appears to have been the basis, both in this country and in England.⁴² A few of our companies, however, reported reserves calculated on the net premium basis,⁴³ and all of the better managed ones made some allowance for future expenses. Had they not done so they would not have been able to meet the legal standard imposed during the latter part of the present period. But beyond all doubt, all of them would have insisted, had it been necessary, that they could meet future liabilities on policies if their reserves plus the present value of future gross premiums due equalled the present value of outstanding insurances.

In England an attempt was made in 1853 to secure the investigation of companies and the valuation of their life policies by government officials, but it failed because the English actuaries pronounced it impracticable on account of the magnitude of the labor involved and the intrusive nature of the work. Subsequent attempts failed for similar reasons.⁴⁴ But in this country, Elizur Wright computed a set of valuation tables from the English Combined Experience Table of Mortality in 1854, for the use of six of our larger companies. This was the first step taken to systematize the labor of valuation. Then in 1858 came the famous Massachusetts Valuation Law,⁴⁵ giving authority to the insurance commissioners to examine the character of the business and assets of the companies and to determine their liabilities. The law did not prescribe the standard of valuation but left this to the discretion of the commissioners. The latter decided to adopt the English Combined Experience or Actuaries' Table of Mortality with interest at four per cent compounded annually as the Massachusetts standard, using the system of net valuation. That is, they only credited companies with the present value of future net premiums according to the Actuaries' 4, instead of the present value of future gross

⁴²Fowler, *History of Insurance in Philadelphia*, p. 692, *Fourth Massachusetts Insurance Report*, Appendix.

⁴³Fowler, *Ibid*, p. 693.

⁴⁴*Twenty-first Massachusetts Life Insurance Report*, p. 236.

⁴⁵*Acts, 1858*, C. 177.

premiums which some companies insisted they were entitled to consider as assets without deductions for expenses of collection, unusual contingencies, etc. The commissioners recognized that net valuation need not be considered as an absolute standard of solvency, but maintained that it might have a more or less important bearing on that question, depending on the greater or less margin of the actual premiums above the net premiums required.⁵⁶ But it was clearly understood by them that net valuation was the only means of determining equity between the present and future policyholders in a mutual company. Thus in the Fourth Report, Commissioner Wright stated that, "every mutual life insurance company is exposed to two opposite dangers; over-accumulation on the one hand, by which the earlier members may be defrauded to enrich the later ones; and excessive dividends, by which the earlier members are benefited to the injury of the latter and perhaps to the bankruptcy of the company." By accurate valuation according to a correct standard both dangers could be avoided since any surplus shown by the valuation belongs to those who are, rather than to those who are to be, insured; and less than the correct reserve a company could not have without compelling new members to contribute to supply the deficiency of the old ones.⁵⁷ While this was an important contribution to the science of life insurance, the determination of equitable distribution among individual policyholders at any one time remained to be worked out. The Massachusetts standard of valuation proved to be a safe and equitable test of solvency, and the principle of net valuation in the determination of legal reserve requirements has been generally adopted. The credit for its establishment belongs to Elizur Wright.⁵⁸

Mr. Wright's method of calculating reserves on the basis of net premiums was immediately put to a practical test, when he reported in 1859 that several companies failed to meet the legal requirements, the most prominent among them being the International Life Assurance Society of London. This company had been considered down to the time of the report as one of

⁵⁶Fourth, Eighth and Twenty-sixth Reports.

⁵⁷Eighth Report.

⁵⁸Professor. C. F. McCay, in *Hunt's Merchant's Magazine*, Vol. 42, p. 435.

the most powerful financial institutions in England. It denied the charge of insolvency and secured calculations and statements from Mr. Woolhouse and Mr. Neison, two of England's most noted actuaries, and from Professor Pierce of Harvard, recognized as America's foremost mathematician at that time, refuting the statements of the Massachusetts Commissioners. But their refutation was based on gross valuation without adequate allowance for collections and other expenses.⁵⁹ Certain American actuaries supported Mr. Wright,⁶⁰ and the failure of the International a few years later in all probability vindicated his position, although the failure may have been hastened by his action.

The Premium Note Controversy.—An agent of the Mutual Life unsupported by the board of trustees of that company, made an attack in 1850 upon the Mutual Benefit of New Jersey, basing his charges upon the part-note premium plan as practiced by the latter company.⁶¹ While the controversy over premium notes was not new, it appears to have taken a more violent form from this time forward, growing more and more intense toward the close of the present period. In its earlier stages it was conducted chiefly by means of pamphlets put out for agency circulation, and in newspapers, but with the advent of insurance journalism in 1852, the advocates and opponents of the plan transferred their attention in large measure to the columns of the insurance press.⁶² The strife seemed to be intensified by

⁵⁹The correspondence is given in full in the Massachusetts report, and in the first New York report, 1860, pp. 394, et seq.

⁶⁰Ibid.

⁶¹Transactions of the Actuarial Society of America, Vol. 15, p. 24.

⁶²The Insurance Advocate and Journal, a number of which appeared in 1850, is generally conceded to have been the first publication in the interests of insurance in this country. Tuckett's Monthly Insurance Journal appeared in Philadelphia, January 15, 1852, but neither it nor the previous journal continued for any considerable length of time. The first insurance publication of importance appeared in 1853, under the title of The Insurance Monitor edited by Thomas Jones, Jr. Fifteen years later this magazine passed into the hands of Mr. C. C. Hine, one of the most distinguished of our early insurance editors. Mr. Hine early associated with himself Mr. Walter S. Nichols, the present editor of the Monitor, who in 1876 collected a vast amount of information on the history of fire and life insurance, published in the Insurance Blue Book of that date, which no one interested in those subjects can afford to overlook. Upon the death of Mr. Hine, his sons, with

the publication of the first Massachusetts report, which showed that about one-sixth of the assets of seventeen New York and New England companies consisted of notes. It was argued on the one hand that premium notes tended to decoy applicants into taking larger policies than they could pay for, so that a debt was immediately created against the policy. Interest on the note was then added annually to his cash payment, and at death, the family received less than was expected owing to the deduction of the notes. As regards the effects upon the company it was contended that the notes enabled it to swell its annual statements, showing large profits or surplus, of which one-half consisted of the notes. Furthermote, it was pointed out that the companies needed about all the cash premiums to meet claims as they arose.

As opposed to this it was maintained that the notes rendered it less difficult for the man of moderate means to protect his family with insurance, and that the reduction in the amount paid the family at the death of the insured was no different in effect than an unpaid mortgage on any other form of property. And as regards the company it was pointed out that it held the security in its own hands, that the interest on the notes was always at a good rate, that a much larger business could be done at the start, and that as the premiums under the mutual plan were much higher than the actual cost of insurance, the notes gave the insured the benefit of his over-payments in immediate insurance instead of requiring him to wait for dividends.⁶³

If kept within proper limits there is no doubt but that the note plan is mathematically safe, as was demonstrated by the experience of our most successful companies, a majority of which used it in their early years. But as policies grew older and the cash payments were increased by the annual interest on the notes, policyholders became dissatisfied, and this along with other causes led several of the older companies to demand all cash premiums from new applicants. In other cases dividends

the continued association of Mr. Nichols, carried on the work; and have rendered a valuable service to the institution of insurance, and to the public. Other insurance publications followed during this period, but none of them attained much prominence or success. (Insurance Blue Book, 1875, pp. 101-104, and files of insurance publications.).

⁶³Nichols, Walter S., in Insurance Blue Book, 1876, pp. 43-44.

were sufficient to redeem the notes after a few years, and hence their use was continued for some time. Later, excessive notes received by new companies caused several failures and brought about legislation prohibiting their use.

Dividends.—Dividends paid to policyholders throughout this period ranged from 15 to 40 per cent of the annual premium. Some companies declared them annually, some every three years, and other quinquennially. Most of them consisted in interest bearing scrip, redeemable at the discretion of the company. Some companies allowed them to be used to purchase additional insurance, others permitted their use to reduce the cash premiums, while a majority confined their use to the cancellation of premium notes. Various methods of determining dividends were used, the percentage of the premium paid being the generally established basis.⁴⁴

Endowment Insurance.—Endowment insurance was beginning to attract attention during the latter part of the fifth decade. The first endowment policy to be issued in this country was granted in 1855 by the Mutual Life of New York. In 1858 it had 156 of these policies in force.⁴⁵ From 1860 on these policies increased rapidly in popularity, but this development belongs to the next period.

Agents and Commissions.—The companies formed during this period used an agency system from the beginning. But the general agency system as now understood was then unknown, the agents being appointed and instructed in most instances directly by the home office, or by a person employed especially for that purpose known as a "Life Insurance Lecturer." This was the title of Mr. H. H. Hyde, who was employed by the Mutual Life of New York. This company began paying commissions of ten per cent on first premiums and five on renewals, except in one case—the St. Louis agent who was paid ten per cent on renewals also. This was considered quite adequate at that time. Calculations for new business and other expenses were based on the same general principles as at the present time, the gross premium being in most cases derived by loading the

⁴⁴Nichols, *Ibid*, p. 49, and New York and Massachusetts Reports.

⁴⁵Report Exhibiting Experience, 1858, p. 14.

net premium one-third.⁶⁶ The Mutual Benefit, New England Mutual, and the Connecticut Mutual followed the Mutual Life by adopting the same scale of commissions for both new business and renewals. These rates as well as the system of agency organization and management, continued until the general agency system was introduced at the beginning of the next period.⁶⁷

Legislation.—General legislation affecting life insurance during this period began in Massachusetts when the legislature of that State adopted in substance the provisions of the New York Law of 1840 freeing insurance for the benefit of a married woman from the claims of her husband's creditors in 1844.⁶⁸ In 1849 an Act was passed by the New York legislature to facilitate the formation of insurance companies which provided that thirteen or more persons might file a declaration of intentions and proposed charter with the Secretary of State, and after complying with certain other stipulations, set themselves up as a corporation to make insurance either on property, or on lives.⁶⁹ Companies incorporated in other states or in foreign countries were required to procure a certificate from the Comptroller, which was to be granted after certain requirements had been met.⁷⁰ Under the provisions of this act many of the more speculative companies previously mentioned in this chapter were formed in 1850. To curb the wholesale incorporation of unsound companies, therefore, the legislature passed another Act, April 8, 1851,⁷¹ requiring all companies transacting the business of life insurance within the state to deposit with the Comptroller on or before August 7 of that year the sum of \$50,000 in approved securities to be followed by a like sum not later than February 1, 1852.⁷² The securities were to be held by the Comptroller as security for policyholders, the company being allowed to collect the interest on them. This Act was known as the "New York

⁶⁶For a discussion of present methods see Huebner's *Life Insurance*, pp. 209 et seq.

⁶⁷Manning, W. S., *Life Insurance Commissions, Past and Present*. N. Y., 1878, (Library of Congress).

⁶⁸Acts, 1844, C. 82.

⁶⁹Laws of New York, 1849, C. 308.

⁷⁰Ibid, Section 7.

⁷¹Laws, 1851, C. 95.

⁷²Section 1.

Deposit Law," and while it was passed to protect the citizens of the state from the numerous companies of doubtful financial stability then operating in New York, and to discourage the formation of new companies without sufficient resources to assure stability, it led to far-reaching results, many of which were of a most unfortunate character. Of the latter the vigorous spirit of retaliation engendered among other states was perhaps the most important. Other states looked upon the law as an attempt to drive out their companies and preserve New York business for her own insurers. And in New York, the smaller companies were inclined to view it as having been designed by, and for the interests of, the larger companies. It virtually prohibited the formation of any new mutuals. Many foreign companies refused to comply and withdrew from the state.⁷³ One of the better features of the law provided that foreign companies should render complete statements to the Comptroller, as was required of domestic companies, but the act received general condemnation. So great was the opposition that in 1853 the legislature yielded in part to the opponents of the law by providing that corporations of other states might satisfy the deposit requirement by presenting a certificate from the chief financial officer of their respective home states to the effect that the \$100,000 worth of approved securities had been deposited with him.⁷⁴ Other objectionable features were also removed. But other states were left with the impression that New York had deliberately discriminated against their companies, and the precedent thus established resulted in retaliatory state legislation becoming quite general, and it has remained to this day as one of the greatest obstacles to the progress of the business.

Massachusetts codified all the insurance laws of the Commonwealth remaining in force in 1854,⁷⁵ and established the first state insurance department in this country in 1855.⁷⁶ Three

⁷³New York Insurance Reports, Barnes' Condensed Edition, Vol. 1, pp. 652-660.

⁷⁴Laws, 1853 C. 463, Section 14.

⁷⁵Acts, 1854 C. 453.

⁷⁶Acts, 1855, C. 124. The first official report on the business of insurance in Massachusetts was compiled by John P. Bigelow, Secretary of the Commonwealth, in 1838, under provisions of the Acts of 1837, C. 192. The

commissioners were appointed under this act, but the department was reorganized in 1858 and the commissioners were reduced to two in number,⁷⁷ Mr. Elizur Wright being the chairman. New York followed with an Act, April 15, 1859, creating an insurance department,⁷⁸ which was the first law of any considerable consequence passed in that state since the act of 1853. Georgia passed an act December 12, 1859, providing for the appointment of an insurance commissioner, but two days later the operation of the law was postponed.⁷⁹ General insurance laws were passed in Wisconsin,⁸⁰ Michigan,⁸¹ and other states during the latter part of the period, restrictions and penalties attached to agencies of companies from other states being among the principal objects of the legislation.

Life insurance companies were subject to general taxation throughout this period, retaliatory taxation playing an important part. In fact at the meeting of the first life insurance convention previously referred to, unfavorable legislation was one of the principle topics of discussion. For instance, the report of the committee on state legislation pointed out that the laws of the various states were quite dissimilar, thus making it necessary for companies to understand the laws of all states in which they contemplated or had established agencies. Complications also grew out of the different forms to be filled out for the various state officers. Uniformity and simplicity of state legislation was recommended as a remedy, and it was suggested that proper laws requiring the collection of vital statistics would benefit not only the companies but the public at large.

At the second meeting, while all agreed that state laws which would enable people to rest assured of the solvency of companies were desirable, deposit laws were condemned as affording no adequate security and merely served to harass the companies.

Acts of 1852, C. 231, created a board of insurance commissioners consisting of the secretary, treasurer and auditor of the commonwealth, which was continued till the regular insurance department was organized, but the reports continued to be made by the secretaries of the commonwealth until 1856.

⁷⁷Acts, 1858, C. 177.

⁷⁸Laws of New York, 1859, C., 366.

⁷⁹Laws of Georgia, December 14, 1859.

⁸⁰Acts, 1858, C. 103, and 1859, C. 190.

⁸¹February 15, 1859.

The Massachusetts laws were generally agreed upon as being most satisfactory to both the public and the companies.

Judicial Decisions.—It was not until after 1850 that the business of life insurance was sufficiently extensive to produce much litigation. The cases of *Lord v. Dall*²² and *Gray v. Murray*²³ occurred in the previous period. In 1843 a case of suicide arose in the New York courts. The policy involved specifically stated that should the insured die "by his own hand" the company would not pay the claim. Yet the court held the company liable on the grounds that the insured was insane at the time the act was committed.²⁴ This pointed out to the companies the importance of the words "whether sane or insane" in the suicide clause. The Louisiana courts brought forth a case involving assignment in 1845²⁵ and a decision on the same subject was rendered in Maryland in 1847.²⁶ The Married Women's Act of 1840 was up before the New York courts in 1846.²⁷ So far as the present writer is aware this completes the list of cases decided prior to the year 1850.²⁸ But in the eleven years from 1850 to 1860 inclusive, more than fifty cases were decided in various parts of the country. Most of them involved questions of insurable interest, assignment, or premium payment, the collection of premium notes being the cause of several cases on the latter point. But numerous other matters were the subject of litigation, such as the authority of agents, waiver, contract (when complete), statements of health, increase in hazard, suicide, proof of death, renewal, what constituted the "settled limits" of the United States, and usury.²⁹ So by the close of the period enough cases had been decided to indicate the general attitude of the courts in this country. In

²²12 Massachusetts 115, 1815.

²³3 Johns, Ch. 167, Court of Chancery, N. Y., 1817.

²⁴*Breasted v. Farmers' Loan and Trust Co.*, 4 Hill, 73.

²⁵11 Rob. La. 298.

²⁶1 Md. Ch. Decisions 34.

²⁷*Moehring v. Mitchell*, 1 Barb, Ch. 264.

²⁸All of the above citations are found in *M. M. Bigelow's Reports of Life and Accident Insurance cases*, published in five volumes, 1871-76. Noted authorities state that Bigelow's Reports contain all cases except three decided before 1870. See *Bliss on Insurance*, 1874, Introduction.

²⁹Information gained by going through the five volumes of Bigelow's Reports, cited above.

brief, insurable interest was required, the courts were inclined to deal leniently with insured persons and give them the benefit of the doubt if any existed as to the meaning of contracts but held that persons seeking insurance should make known all material facts regarding health.⁹⁰

⁹⁰*Vose v. The Eagle Life and Health Insurance Co.*, 6 Cush. 42, Supreme Court of Mass., 1850.

CHAPTER V.

THE PERIOD OF THE CIVIL WAR.

1861-1870

Condition of the Companies at the Beginning of the Period — The year ending December 31, 1860, was a very satisfactory one from the point of view of new business written as well as the condition of established companies and the business generally. The New York Department reported twenty companies, and stated that three had been organized that year, with one more in process of incorporation, thus indicating the "onward progress of Life Insurance in this country"¹ The Superintendent of Insurance, Mr William Barnes, further remarked that there were "probably no companies in the world more sound and reliable."² The Massachusetts Department reported nineteen companies, fourteen of which were corporations from without the commonwealth. A majority of the companies were covered in both reports. Ten thousand new policies were issued during the year, insuring more than \$30,000,000 by companies reporting to the latter state, and they had a total of over \$150,000,000³ in force.⁴ The report states that "in no year since the business commenced in this country has it advanced so rapidly as in the one just closed." Ninety-four per cent of all business consisted of whole life policies by equal annual premiums

It might be supposed that this unusual increase in new business should have been accompanied by a corresponding increase in the expenses of the companies. But the average expenses of the year were exceedingly low, being but little over eleven per cent of receipts, and in the case of the four oldest companies being but from eight to nine per cent. In only one of the new companies did expenses exceed income. Thus the ratio of

¹Second New York Insurance Report, p. XXV.

²Ibid, p. XXVI.

³Mr. Frederick L. Hoffman in the Publications of the American Statistical Association, Vol. 12, p. 669, quotes the Eighth U. S. Census, Preliminary Report, p. 78, to the effect that there were forty-seven life companies in the United States in 1860, insuring 60,000 persons for an amount of \$180,000,000.

⁴Sixth Massachusetts Insurance Report, p. 122.

expenses to income was only about one per cent higher than it had been in 1859. This is accounted for by the fact that commissions were so low.

About one-fifth of the premium receipts were in the form of premium notes. The note system was practiced by nearly all the New England companies. Of the New York companies, on the other hand, seven out of eleven confined themselves to a cash basis. As regards the New England companies, three-fourths of their premiums were in cash. Of a total of \$22,000,000 of assets belonging to the companies covered by the Massachusetts report, about one-half was invested in mortgages on real estate, a little more than \$800,000 in bank and railroad stocks, and nearly \$4,000,000 in premium notes, and other personal loans.

Hence, at the beginning of the period now to be considered, the companies were in a very strong financial position. The confidence of the public in the business had been materially strengthened by the conduct of the companies in 1857. Other conditions were such as to make for progress. The country had recovered from the financial reverses of three years before, and general prosperity was in evidence in all lines of financial and industrial activity. And the insurance companies, led by the success of the Equitable as noted in the preceding chapter, had already entered into a period of unprecedented growth. But the outbreak of the Civil War in 1861, with the general prostration of business that is usual when a country is obliged to readjust its peace-time industries to meet the demands of war conditions, resulted in no great progress being made by life insurance companies during the first year of that strife.*

War Problems—How They Were Met by the Companies.—The position in which the companies found themselves at the beginning of the struggle was one quite different from any they had previously experienced. They were placed between their duties to the country and the public on the one hand, which demanded liberality toward those of their members who might be called to active duty in the field, and liberal participation in Federal bond issues; and on the other, the peculiar character of the business and their inability to estimate the hazards of

*Seventh Massachusetts Insurance Report, 1862.

...upon all. A majority vote of the members was required to elect officers. It was further provided that the minutes of the Corporation should be laid before the Bishops of Canterbury and York, and the Bishop of London, or their representatives in America, for examination as often as should be demanded."

In accordance to the provisions of the charter the members of the Corporation met in October, 1769, choosing Christ Church, Philadelphia, as the place. They first heard a sermon by Dr. Johnson, in which he set forth the advantages of insurance with plainness and force as to compel profound admiration. Reciting three texts, Job. XIX, 11-12; Jeremiah XLII, 21; and James I, 27, he proceeded to point out the religious duty of providing for the widow and the fatherless; and contended that should any degree of success attend his hopes and wishes concerning the organization, "it will surely be high satisfaction to the members of our churches, to behold their widows relieved from their anxious cares, which every man must have for the prospect of leaving a distressed family behind him; so he proceed cheerfully in all duty, knowing that although they may acquire little, and have less of their own in this world, yet there is some small provision to place their children above want." After agreeing that there should be an "Anniversary Sermon" before the Corporation each year, they passed the following fundamental laws and regulations:

"LAWS RELATIVE TO ANNUITIES, ETC.

I. The yearly contributions of the clergy, whose widows and children shall be hereby entitled to annuities, shall not be less than eight Spanish milled dollars, of the present current weight namely, seventeen pennyweight and six grains, nor more than twenty-four such dollars, or the value thereof in current money of the province where each contributor lives.

II. No annuities shall be paid but to the widows and children of such clergymen as shall have been contributors in the last year, and the respective annuities to be paid to the widows and children of such clergymen, shall be five times the sum of their annual contribution.

III. In order to have a certainty, both as to the payment as well as the payment of the annual rates, each member shall subscribe by that rate or class which he first chooses, and it shall

*Charter, published by Rev. Dr. Wilson Hall, and done.

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war, required a most conservative policy. Under the circumstances the companies appealed to Elizur Wright for his opinion. The latter after observing that the mortality in European wars had ranged from nothing to 20 per cent, and commenting on the probability of the speedy suppression of the Rebellion concluded that the chances were in favor of the companies not losing by granting military permits at two per cent. He also stated that if some loss were incurred, the companies were for the most part strong enough to shoulder it, and that their constituents would cheerfully justify them in doing so. His final remark was that the flag must be sustained or the institutions would all sink "into a common ruin."

Such appears to have been the judgment of the officers of most of the institutions. In the spring of 1861, several of the companies sent representatives to meet at the office of the Mutual Life in New York to discuss the subject of "war risk" insurance. After a discussion of such war mortality statistics as were available, the convention recommended the assumption of the war risk in existing policies at the extra rate of five per cent per annum upon the sum insured. The action was not binding upon the companies but the recommendations were practically carried out by all the companies except a few. Some felt that their accumulations did not justify them in assuming the war risk at all. New risks were generally written at five per cent per annum of the sum insured⁶ for the war permit, although some only asked two per cent. The rates proved to be quite sufficient.⁷

Another problem which confronted the companies at the outbreak of the war was the questionable status of Southern policyholders. About \$12,000,000 was at risk on Southern policies by Northern companies. Nearly all of these policies provided that should the insured enter any military or naval service, or die in violation of any national law, the policy should be void. Legally, therefore, the liability attaching to these policies was for the most part swept away by the declaration of war,⁸ and the

⁶Some required an additional five per cent per year for permits to serve in the armed forces south of thirty-four degrees north latitude. Fowler, p. 720.

⁷Third New York Insurance Report, p. XXXVII.

⁸Seventh Massachusetts Insurance Report, 1862.

reserves on them forfeited to the companies.⁹ But policies of those who did not enter the Southern armies, or violate any law of the nation, presented a somewhat different problem. The attitude of the companies generally was that such policies would be paid as promptly as expedient. Of course, the premiums could not be kept up nor could any claims be paid without "giving aid and comfort to the enemy," in each case, and in consequence, many of the lapsed Southern policies were forfeited to the Northern companies, even though the insured did not enter any military force. A considerable number of Southerners had surrendered their policies before hostilities began, however, and large amounts were paid by some companies, even afterwards.¹⁰ Also a considerable number of Southern policies were reinstated after the war.

The companies decided also to support the government loans freely, having about one-third of their assets¹¹ invested in Government securities in 1863.

The question of Federal taxation presented a far more serious situation. It was felt that Congress, not properly understanding the principles upon which life insurance is based, might pass an act levying a tax on the heavy reserves held, which would at once destroy the solvency of every company in the country. In fact, such a bill was proposed in March, 1862. Again the Mutual Life called a general convention which met March 13, to consider the matter and take steps to combat this measure. As finally passed the act imposed a tax on gross receipts of one per cent, on dividends of three per cent, and a stamp tax on policies and renewals of twenty-five cents, to take effect July 1. Subsequently the amount of stamp tax was graded to the amount of the insurance.¹²

Increase in New Business in 1862.—In 1862 a great revival of trade began. Scarcity due to the increased demands of war and the necessary curtailing of production, together with rapidly rising prices led once more to abnormal activity. Life insurance too, began to expand rapidly. The companies chartered in

⁹Third New York Insurance Report, p. XXXVII.

¹⁰Seventh Massachusetts Insurance Report, 1862.

¹¹\$6,000,000 out of a total of \$17,000,000.

¹²Fowler, *History of Insurance in Philadelphia*, pp. 720 et seq., and Nichols in *Insurance Blue Book*, 1876, p. 55.

New York alone had \$85,371,499 of insurance in force in 1860, \$86,134,147 in 1861, and \$101,474,077 in 1862.¹³ The uncertainties of 1861 cut the number of new policies issued that year by New York companies to about 1,300 in number. But in 1862 these companies issued over 7,000 policies,¹⁴ and in November of that year the total number of policies of all the companies doing business in New York was 65,252 for \$183,692,577 in force.¹⁵ Massachusetts reported that the twenty-four companies authorized to transact business in that state, most of which were also covered in the New York report, had made rapid progress during the year, and had at its close nearly \$200,000,000 of insurance in force.¹⁶ The business was now in about the same position as regards its prospective growth in the immediate future as it had been at the close of 1860, except for the additional stimulus given by the war and its attendant activities in other lines of endeavor. These influences operated to bring about the formation of several new companies during the year, among others the John Hancock Mutual Life Insurance Company of Boston.¹⁷

Dividends.—The companies during the year “bought up a considerable amount of depreciated U. S. Stocks,”¹⁸ and earned a high rate of interest on investments generally so that from this as well as from other sources, their assets considerably increased.¹⁹ Hence they were enabled to pay large dividends. The New York Superintendent, Mr. Barnes, remarked that the two most remarkable events of the year as regards companies reporting to his department were the unprecedented dividends of the Mutual Life, amounting to \$3,000,000 and the issue of 3,302 new policies by the New York Life Insurance Company.²⁰ Dividends were still paid in one or the other of two ways, cash, or paid-up additional insurance; the latter being forfeited in most cases in the event of lapse or death before the dividend

¹³Fourth New York Insurance Report, p. IX.

¹⁴Ibid, p. XLIX.

¹⁵Ibid, p. LV.

¹⁶Eighth Massachusetts Insurance Report, 1863.

¹⁷Charters of American Life Insurance Companies, published by Spectator Company, 1895, p. 48.

¹⁸Fourth New York Insurance Report, p. IX-X.

¹⁹Ibid, p. XLIX.

²⁰Ibid, p. L.

due date. Dividends were declared annually by a few companies, triennially by others, but quinquennially by a majority.²¹ Practically all of the business was written on the mutual or participating plan. The Massachusetts commissioner remarked that non-participating life insurance as an independent system, "does not exist any longer. It only lives by adhering to the mutual."²²

The war caused a considerably higher rate of mortality, commissions and other expenses of doing business increased during the year until they amounted to about eleven or twelve per cent of the receipts,²³ and about one-fourth of the new policies written were lapsed by the non-payment of the second premium.²⁴

Continued Progress.—The year 1863 marked a still greater increase in new business. The receipts of companies reporting to the Massachusetts Department increased thirty-seven per cent and the amount insured increased from \$196,000,000 at the beginning of the year to \$260,000,000 at its close. The most remarkable progress was made in endowment and limited payment policies, endowment policies having doubled and those issued on the limited payment plan having increased in a still greater proportion.²⁵ This appears to have been due to the attractive investment element added by the non-forfeiture feature and the additional incentive to agents because of the commissions on the higher premiums. The latter consisted almost wholly of ten-payment life policies, which were first introduced by the New York Life Insurance Company in 1860.²⁶ But whole life policies still formed the greater portion of insurance. There was a large increase in the expenses of securing new business, but these were offset by gains from the forfeiture of Southern policies. The probability of death, according to the experience of the year, had increased a "perceptible shade."²⁷ Similar conditions were brought out in the New York report for the year, and these two reports covered nearly all the business

²¹Eighth Massachusetts Insurance Report, 1863.

²²Ibid.

²³Ibid.

²⁴Fourth New York Insurance Report, p. LV.

²⁵Ninth Massachusetts Insurance Report, 1864.

²⁶Semi-Centennial History, New York Life Insurance Company, 1895, p. 63, note.

²⁷Ninth Massachusetts Insurance Report, 1864.

of the country.²⁸ Sharp competition was developing among companies and agents, the Massachusetts Commissioner complaining about agents besieging his office for information recommending their companies, or depreciating others,²⁹ and the New York Superintendent protesting against agents' commissions of from twenty-five to fifty per cent of first premiums, which resulted in the selling of policies by any and all methods, followed by a sad lapse record.³⁰ Complaints of "twisting," also began to arise during this year.³¹

The business continued to increase in 1864 "in geometric ratio,"³² the insurance on the books of companies reporting to Massachusetts being \$382,570,190, at the close of the year, compared to \$259,725,189 at its beginning.³³ Over ninety per cent of the policies were for the whole of life, but ten-payment life and endowment policies were gaining rapidly, while short term insurance was decreasing relative to the total amount insured. In consequence, there was a noticeable increase in the ratio of cash premiums to the amount insured. Agents were inclined to over-estimate dividends, especially those who represented companies receiving a large portion of the premium in the form of a note, and policyholders were thus often disappointed. War risks now produced no considerable effect, but the ratio of death losses to the amount insured had increased, due to the lowering of the standard of medical selection.³⁴

The Great Gains Following the War.—But the real effects of the war and attendant circumstances began to make themselves felt in 1865. In that year the successful conclusion of the war,

²⁸Ninety-seven per cent of the insurance written in this country as late as 1890 was done by companies reporting to the New York Department. Hoffman, F. L., in American Statistical Association Publications, New Series, Vol. 12, 1911, p. 677.

²⁹Ninth Massachusetts Insurance Report, 1864.

³⁰Fifth New York Insurance Report, pp. LXVIII-LXIX.

³¹The New York Superintendent expressed his regrets that either the Government itself, or one or two strong companies, had not insured the "lives, limbs and health" of soldiers; the insurance to be compulsory and a substitute for pensions. Fifth New York Insurance Report, p. LXXIII.

³²Sixth New York Insurance Report, p. LXXXIII.

³³Tenth Massachusetts Insurance Report, January, 1865.

³⁴Tenth Massachusetts Insurance Report, 1865.

from a Northern viewpoint, found all branches of business in a most flourishing condition. Enormous sums of money were seeking investment, and many who before the war could not have paid premiums for life insurance were now able to provide protection to the extent of several thousands of dollars. The companies were able also to put their accumulations out at high rates of interest. These conditions gave assurance therefore that the life offices might expect patronage far exceeding anything that had yet been experienced. The hopes began to be realized at once. Six companies were started in 1865, three of them in the West, and business increased by leaps and bounds. Companies reporting to the Massachusetts department had \$382,570,190 of insurance in force at the close of 1864, but at the end of 1865 this had grown to \$563,396,862 or an increase of nearly fifty per cent.³⁵ But even this was surpassed the following year when the business on companies reporting to the latter state increased to \$871,863,925, or nearly fifty-four per cent over that at the close of 1865.³⁶ Thirteen companies were formed during the year in various parts of the country, some of which as brought out a few years later, were unfortunately not on a sound basis. Eleven more were added in 1867, most of which were started in the South and West. In fact, the rise of companies in the Western states was one of the features of the years 1866 and 1867. At the close of the latter year the Massachusetts department reported \$1,234,630,474 of insurance in force an increase of about forty-one per cent over 1866. Thus considering the life business of the entire country, it had increased on an average of about thirty-three and one-third per cent per year during 1862, 1863, and 1864,³⁷ but during the years of 1865, 1866, and 1867, the gain had been nearly fifty per cent per annum.

In the year of 1868 the business continued to increase in substantial proportions,³⁸ the Massachusetts department reporting fifty-six companies with \$1,566,901,509. Mr. Walter S. Nichols, writing in the Insurance Blue Book, 1876 states that, "Offices were run on high-pressure system. Solicitors extolled

³⁵Thirteenth Massachusetts Insurance Report.

³⁶Ibid.

³⁷Sixth New York Insurance Report, p. LXXXIII.

³⁸About thirty-three and one-third per cent.

of their own and depreciated those of rival companies in almost every town and village in the country, aided by pamphlets, periodicals, and prospectuses, picturing in magnificent figures the attractive features of the new philanthropy. Railroads and the national debt were about the only things deemed worthy of comparison with such a business. Excessive outlays and defective management were alike concealed by the enormous volume of new business which every enterprising office was able to report at the end of successive years, and the suggestions of speculation, reaction, and a possible collapse were unheeded in the rich harvest that was being reaped.”*

Some of the “suggestions of speculations, reaction,” etc., to which the above author referred were published in the reports of state insurance departments. The Thirteenth Massachusetts report issued January 1, 1868, questioned whether the unprecedented growth in 1867 was “spasmodic or healthy,” and called attention to the enormous amount of insurance lapsed as a result of the “forcing methods of too many agents who mis-represent, hold out false or exaggerated inducements,” which ended in disappointment and the abandonment of policies. He also questioned whether companies were prepared to meet their huge future obligations, in view of the “temptation to pay large dividends, large commissions to agents, large salaries to officers, and large royalties to stockholders,” and concluded that while there was no justification for forbodings, skepticism as to the future was not to be denied plausibility. And in the Fourteenth report, 1869, the commissioner stated that the expense ratio had increased from ten to eleven per cent of receipts in 1858 to twenty per cent in 1868, and expressed his fears that expense and extravagance might lead to the failure of companies, in this country, as in England. His words are well worth repeating in view of later developments when he remarked that it “will not be a matter of surprise if the companies and the public conclude that eager haste for growth is costing more than the results are worth.”

While the business continued to increase in the year of 1869, the gain was not so great as it had been in 1868. Among companies authorized in Massachusetts the increase in the amount

*Blue Book, 1876, pp. 57-58.

insured during 1869 was \$218,195,280 or nearly \$30,000,000 less than the gain during the previous year. As had been the case for some years the larger part of this business was done by a few of the older and larger companies; but newer and smaller companies obtained a greater proportion of the new insurance written than they had done in 1868. And while the insurance commissioner of that state maintained that the business as a whole was "sound and healthy," he continued to point out certain alarming tendencies and practices,⁴⁰ mentioned in previous reports. Lapses and forfeitures had come to be of such common occurrence, and disappointment so wide-spread because of false impressions concerning dividends and other matters, that in almost every community the agents had to work against a strong undercurrent of dissatisfaction on the part of those who had real or fancied grievances. The rivalry among companies and agents, their attacks upon one another, and the statements of insurance commissioners, all tended to bring about unfavorable criticism on the part of the public. And in addition to these adverse influences, the high tide of general business prosperity due to war inflation and other causes had been reached and evidences of an impending decline became more and more apparent. With the close of 1869, therefore, the powerful impetus generated by the war and its attendant circumstances may be said to have spent its force.

Conditions at the Close of 1869 Compared to Those at the End of 1860.—The number of companies reporting to the New York Department had increased from 17 in 1860, to 69 on January 1, 1870. The number of policies on their books were 56,046 in 1860 and 656,572 at the close of 1869, and the amount insured \$163,703,455 and \$1,836,617,818 respectively.⁴¹ There are 75 different companies covered by the Massachusetts and New York reports for 1869. These did nearly all of the nation's life business, but a conservative estimate of the insurance written by outside companies indicate that the business of the entire country increased from \$200,000,000 in 1860 to \$2,000,000,000 at the end of the decade—a ten-fold gain. Receipts, claims, assets, reserves, and all other items covered by the reports increased, but not in the same proportion. As regards

⁴⁰Fifteenth Massachusetts Insurance Report, 1870.

⁴¹Eleventh N. Y. Insurance Report, p. XXV.

changes in the financial condition of the companies reporting to the Massachusetts department, total assets were 137 per cent of total liabilities except capital in 1860, whereas they had decreased to 122 per cent at the close of 1869.⁴² And the actual to the computed reserve decreased from 133.67 in 1860 to 112.87, in 1869, whereas the ratio of expenses to entire receipts increased from 11.21 in 1860 to 17.31 at the later date.⁴³ About one-half of the policies issued in 1869 were endowments, whereas in 1860 nearly all had been for the whole of life. Premium notes amounted to about 37 per cent of the gross assets of the 51 companies⁴⁴ using the premium-note system in Massachusetts, but the commissioner remarked that "the tendency of the business seems clearly towards reduction, which may gradually work out a complete establishment of the cash principle."⁴⁵

As regards the lowering of the relative assets and reserves, it may be stated that the possibilities of the business had been more accurately ascertained, and it was conducted on a larger scale so that a large surplus over the safety margin was not so important with a well managed company as it had been in 1860. But the item which compared most unfavorably in 1869 with 1860 was that of expense. The larger part of this increase was due to the advance in agents' commissions. Of course, the period was one of extraordinary inflation and the cost of conducting other forms of business rose, and the rivalry which incited the companies to offer and agents to demand an increasing percentage was materially aided by the high rewards which could be obtained in other lines of endeavor. Office expenses were also materially increased.⁴⁶

A few points of resemblance between the conditions of the business as it stood at the beginning and end of the decade may be mentioned. The average age and amount of policies, the ratio of claims to the amount insured, and the portion of premiums taken in the form of notes, remained practically the same.

⁴²\$122 of assets per \$100 of liabilities except capital and surplus is considered amply sufficient at the present time.

⁴³Fifteenth Massachusetts Life Ins. Report, p. LVII.

⁴⁴It will be observed that nearly all companies used the note system at the close of 1869.

⁴⁵Ibid, p. LXI.

⁴⁶Nichols, in *Insurance Blue Book*, 1876, p. 54.

The Revival of Non-Participating Insurance.—The mutual or participating plan of life insurance which was put into practice in 1843 continued to be almost universally adhered to down to the close of the Civil War. Although a number of companies were of the mixed type, their capital stock was in most instances limited to legal interest, and aside from this their life business was conducted on the purely mutual plan. It is true also that non-participating rates were quoted and non-participating policies were issued when desired, but what few applications were received for insurance on this plan were confined primarily to short term policies. In fact, non-participating rates were only from 10 to 20 per cent lower than mutual rates,⁴⁷ which meant that the net cost to the policyholder was considerably higher than on the mutual basis. But in 1865 certain circumstances led to a revival of the stock, or non-participating plan.

At this point it may be well to review in a few words some developments previously recorded. For instance, from 1809 to 1836 life insurance in this country was confined to joint-stock or proprietary companies, because of the security afforded by an adequate amount of paid-up capital. Having no experience or mortality statistics to guide them, these companies, were obliged to charge premiums much higher than proved necessary in order to secure safety to their stockholders and policyholders. From this practice surpluses arose and it was but natural that a company should be formed which would offer a contract at a rate sufficiently high to safeguard itself against any contingency and which should promise to refund at least a part of the overcharge above that necessitated by actual mortality and expenses, after deducting a reasonable profit. This was done in 1836. Then, following the fire companies, the next step was to provide for the division of all of the surplus, less, of course, a reserve for special contingencies, among the policyholders; and to supply which, mutual companies were formed in 1843 and following years. In view of the limited knowledge at that time the mutual plan was ideal since initial premiums high enough to meet all contingencies could be charged, and later reduced by dividends so that the net cost to the policyholder should approximate the actual experience. But from 1843 to

⁴⁷Eighth Massachusetts Insurance Report, 1863.

1865 considerable progress was made in the collection and tabulation of American mortality statistics, and the business of life insurance also had the advantage of more than twenty years' experience in administration and management. The cost of insurance having been determined with reasonable accuracy, therefore, the necessity of charging an excessive premium in the beginning was materially reduced. Furthermore, the dividend systems of the mutual companies had given rise to numerous criticisms. Agents were prone to exaggerate the dividends which applicants might expect in the future, and when they failed to materialize much dissatisfaction arose among policyholders. Certain insurance men perceived that an opportunity existed for a purely stock company which should charge rates about equal to the mutual rates after the usual dividends were deducted, thus giving the policyholder the advantage of what amounted to a dividend in advance and eliminating all uncertainty in regard to its amount.

Accordingly, the Universal Life Insurance Company was projected in New York in 1865 on the stock plan, and confining its business strictly to non-participating policies at rates much below those of the mutuals. Another idea of equal prominence possessed the minds of the organizers. Mutual companies had so far deemed it wise to confine their business to select risks only, on account of the difficulty of adjusting equities among members. One of the original purposes of the founders of the Universal was to insure those rejected by other companies at rates adequate to meet the increased mortality. It was thought that an agency of the Universal would be a valuable adjunct to the office of every other agent since he could then insure every risk that made application. The Universal also introduced the practice of paying claims in 30 instead of 60 days, the usual custom at that time, provided for equitable surrender values, and required all-cash premiums.

The company met with success from the start, so far as its ordinary business was concerned, but soon abandoned its sub-standard insurance. Its rates were one-third below those of the mutual companies.

Other stock companies were organized, the Travelers of Hartford which had been chartered in 1863 as an accident company

secured permission to do a life business in 1866,⁴⁸ but the most spectacular of these was the National Life Insurance Company of the United States, founded by Mr. Jay Cooke in 1868. Mr. Cooke, then at the height of his financial power, conceived the idea of organizing a huge stock company for dealing in life insurance in much the same manner as was the custom in ordinary business. With a charter from the Federal Government, a capital of \$1,000,000, the country's foremost financier as its founder and the leading bankers of the various states as its general agents, the company aroused public interest to a degree never before equalled by a life insurance company. It even claimed that compliance with state laws was unnecessary, but the superintendent of the New York insurance department soon demonstrated the absurdity of this claim.⁴⁹ Its premiums being very low and its contract liberal, it met with immediate success. And being the champion of the stock or non-participating plan, threatened to make serious inroads into the field of the mutuals.⁵⁰ A storm of opposition arose from the advocates of participation but the success of the National and other stock companies coupled with the illusory dividends that had been made such a prominent talking point by agents of mutuals, gave the stock principle a new lease of life which has been continued to the present day.⁵¹

Co-operative Insurance.—In spite of the tremendous gain in the amount of life insurance in force during this period and the great increase, both actually and relative to the population, in the number of persons who secured policies, practically no progress had been made toward furnishing insurance on terms within reach of the comparatively poor. So in the latter part of this period the remarkable success of the old line companies and the thorough diffusion of knowledge concerning the benefits to be derived by those who could afford protection, induced certain unscrupulous adventurers to organize societies to provide so-called "cheap" insurance. In 1868 and 1869 numerous

⁴⁸Charter and Amendments, in *Charters and By-laws of 42 Life Insurance Companies*, published by A. J. Flitcraft, 1905, pp. 576, et seq.

⁴⁹Tenth Report, 1869, Barnes' Condensed Ed., Vol. III, p. 796.

⁵⁰Fifteenth Massachusetts Life Insurance Report, pp. 117-119.

⁵¹The company survived Mr. Cooke's failure in 1873 and continued its career, but its subsequent history belongs to a later period.

organizations were formed in various parts of the country under such titles as mutual aid societies, relief associations, co-operatives, etc. In plan they were not essentially different from the English assessment societies of the early eighteenth century. Their contracts provided for assessments according to various plans⁵² to meet claims and expenses, and promised nothing in case the funds were not sufficient to make death payments. They provided no reserve, and when interfered with by state legislation they organized as charitable institutions and continued to offer what they termed "Insurance at cost." The insurance superintendent of New York remarked in 1870 that these institutions were "well calculated to deceive the unsuspecting,"⁵³ and the Massachusetts Commissioner condemned them in no uncertain terms.⁵⁴ The latter state also passed an act suppressing them in 1870.⁵⁵ Since they contracted to pay only such sums as might be collected and the total collections decreased with the decline in membership due to deaths and withdrawals caused by increasing assessments, all failed after a very brief existence. Similar schemes have continued to spring up at different times and under different guises, however, down to the present day but with the same result—failure after a short period of time.

Fraternal Insurance.—The above account of the co-operatives in no way applies to fraternal insurance. Probably because of the similarity in plans of the early fraternal and the sad record of failures among them, many persons have confused them (some perhaps intentionally) with the assessment societies proper. The first fraternal insurance society came into existence when the Ancient Order of United Workman adopted an article of their constitution providing for an insurance fund in 1869.⁵⁶ While similar in plan, and containing many of the inherent defects in assessment life insurance, the motives for the formation of this society appear to have been sincere and it had a great advantage over assessment societies organized solely for so-called insurance purposes since its members were held

⁵²For a description of assessment plans see Huebner, S. S., *Life Insurance*, pp. 271 et seq.

⁵³Eleventh Report, *Life*, p. XXVII.

⁵⁴Fifteenth Massachusetts Life Insurance Report, pp. XCIII-XCVI.

⁵⁵Laws of Massachusetts, 1870, C. 349.

together by other ties. But the main developments in fraternal insurance belong to a later epoch.

New Features Introduced During the Period.—During this era of progress and popularization of the business many new features were added, and old ones once discarded were revived and revamped by the companies and again put into operation. It was but natural that every new company desired some new device for which it might claim special merit, and the older organizations were not idle in adopting features calculated to appeal to the public in the keen competition for business which developed. Many of these have passed out of existence or have been relegated to positions of little importance in the business today, but some of them remain as permanent parts of the system. Of the latter the introduction of the non-forfeiture provision and the development of limited payment and other investment policies were among the more important.

Non-Forfeiture.—As noted in previous chapters, persons who desired or were obliged to discontinue their insurance policies might secure a sort of rough surrender value by selling them to someone, upon notice to the company of the assignment, who was willing and able to keep up the premiums until the insured's death. The assignee was then to receive the amount of the insurance. Toward the latter part of the previous period the companies became more liberal in repurchasing policies and in granting loans on them. Then following his appointment as chairman of the board of Massachusetts commissioners, Mr. Elizur Wright began his spirited efforts toward bringing about the passage of a non-forfeiture law. In the Fourth, Fifth and Sixth Reports he continued to urge upon the companies and the public the injustice of having the forfeiture of one annual premium work a complete forfeiture of a policy on which a considerable reserve had accumulated. The New York Life was the first purely commercial company to put a non-forfeiture clause into operation, which it did in a policy issued August 13, 1860. The clause, written upon the left hand margin of the policy, provided that if the party desired to discontinue the policy it could be exchanged for a new one "for the full value

^aBasye, W., *History and Operation of Fraternal Insurance*, 1919, pp. 9-11; quoting in part, Sackett, M. W., *Early History of Fraternal Beneficiary Societies*.

thereof, without further payment."⁵⁷ A few months later Mr. Wright secured the passage of the Massachusetts non-forfeiture law, which provided that four-fifths of the net value of lapsed policies according to the Actuaries' table and four per cent, less any indebtedness to the company, should be used as a net single premium for extended term insurance according to the age of the insured at the time of lapse on the same mortality and interest basis.⁵⁸ Then in case the required proof of the death of the insured were submitted within the extended term, the company was obliged to pay the claim, less six per cent interest on premiums that might have "been forborne at the time of the death."⁵⁹ But "competition proved as powerful as law," and companies outside of Massachusetts speedily adopted the non-forfeiture principle,⁶⁰ and it became a permanent part of the system.

Limited Payment and Investment Insurance.—It appears that while contemplating the adoption of the non-forfeiture principle the officers of the New York Life were in some doubt as to its advisability if applied to policies requiring the annual premiums to continue throughout life. A table of rates was therefore prepared by which persons might purchase policies payable at the death of the insured, by ten annual premiums.⁶¹ The principle was not new but this seems to have been the first instance of its application in the country. It was soon adopted by nearly all the leading companies, and by the close of the decade the companies covered by the Massachusetts report had 90,544 ten-payment, and 856 five-payment, life policies out of a total of 472,800 whole life policies in force.⁶² The same companies also had 28,920 ten-year and 237 five-year endowment policies on their books.⁶³ Since nearly all of the policies pre-

⁵⁷Hudnut, James M., *Semi-Centennial History of the New York Life Insurance Company*, pp. 62 et seq. The policy follows p. 62. The Presbyterian Company had previously adopted non-forfeiture provisions—Ibid, p. 62, note.

⁵⁸Laws of Massachusetts, 1861, C. 186, Section I.

⁵⁹Ibid, Section 2.

⁶⁰Hudnut, Ibid, p. 63.

⁶¹Hudnut, James M., *Semi-Centennial History of the New York Life*, p. 62. One ten-payment policy was apparently issued before the first non-forfeiture policy—Ibid, p. 63, note.

⁶²Fifteenth Mass. Life Insurance Report, p. CXXXVII.

vious to 1860 were for the whole life, these figures show that during this period the possibilities of life insurance as an investment were being appreciated and made use of freely by the public for the first time in our history.

Other Features.—*Survivorship Annuities.*—In 1862 the actuary of the Mutual Life perfected a “new scheme” of survivorship annuities. As noted in previous chapters this form of insurance was one of the earliest practiced in England as well as in this country, the Presbyterian and Episcopal Corporations having adopted it from the outset. The Mutual provided for certain unimportant modifications in case applicants desired them, but in no sense was either the practice, or the principles involved, new. But in 1862 the scheme was apparently thought to be original. No importance would be attached to the point in the present work were it not for the fact that several prominent writers on insurance subjects have recently fallen into the same error. The advantages of having insurance paid in the form of an annuity rather than in one lump sum were quite well understood in the early part of this period. Thus the following appears in 1862: “A man dies, having taken out a policy, say of ten thousand dollars, in favor of his wife. This money comes into her possession when she is without experience in money matters, and totally unacquainted with any way of investing her funds. The wisest know so well the hazards they incur in making investments that we can readily see how great would be the danger of a widow’s losing all she might thus come into possession of. Her position, too, at such a time, is one in which she might easily be imposed upon by injudicious and designing persons, and be thus deprived of the benefits of the insurance. The plan now proposed avoids these and other similar difficulties, by enabling the insurer to secure a certain and definite provision in annual instalments, for the permanent support of a surviving nominee.”⁴⁴

Tontine Dividends, and Tontine Investment Policies.—The Metropolitan Life Insurance Company of New York, incorporated in 1866,⁴⁵ introduced a policy which was issued at

⁴⁴Ibid, p. CLXIX.

⁴⁵Hunt’s Merchant’s Magazine, Vol. XLVI, 1862, pp. 489-490.

⁴⁶Charter, in *Charters and By-Laws of 42 Life Insurance Companies*, Flitcraft, 1905, pp. 228 et seq.

ordinary life rates, but which provided that at the end of a stipulated period presumably covering the productive period of life, the full reserve plus dividend accretions should be surrendered to the policyholder to meet the needs of old age. Meanwhile if death should ensue the face plus dividends would be paid to his beneficiaries.⁶⁶

This type of policy was probably designed to compete with the so-called "tontine-investment" policy then issued by the New York Life. Soon after introducing the ten-payment non-forfeitable policy this company began issuing policies which provided that, on the election of the insured, no dividends would be paid until the end of a stipulated period. In case of death the face of the policy only would be paid to beneficiaries, and in case of lapse there was no surrender value. Gains from lapses as well as the dividend accessions were divided among the survivors who had kept up their premiums to the end of the tontine period chosen. The number of such persons being necessarily diminished, the sum to be distributed to each one was in consequence quite large—thus making it a very attractive policy.⁶⁷ Of course, it was nothing more than an ordinary tontine, hedged with a term insurance policy. Its popularity was short lived.⁶⁸

Return Premium Insurance.—The Universal Life Insurance Company, mentioned above, introduced the practice of granting return premium insurance in 1867. It did this to give its agents a talking point to compete with the dividends of the mutuals. Thus for rates in most cases lower than those of the mutuals, the company agreed to return all of the premiums paid upon the happening of the event insured against, in addition to paying the face of the policy. In 1869, also, the company offered a policy at approximately the same rate as the mutuals, but agreed that after one year the rates should be reduced one-third. This was the equivalent of a guaranteed dividend, but it also supplied a means of meeting what is now known as the incidence of expense.⁶⁹ The National of the United States also granted return premium insurance when desired.

⁶⁶Blue Book, 1876, p. 151.

⁶⁷Ibid, p. 104.

⁶⁸Hudnut, J. M., *Semi-Centennial History, etc.*, p. 63.

⁶⁹For an explanation of the problem of incidence see Huebner, S. S., *Life Insurance*, p. 219 et seq., and for a more complete account of the Universal see Nichols, Walter S., in *Insurance Blue Book*, 1876, pp. 140-143.

Annual Dividends and the Adoption of the Contribution Plan.—Early in the preceding period two companies introduced the practice of declaring dividends annually, but did not practice it for long, and those whose charters provided for an annual estimate of dividend accruals paid them only at intervals usually of five years duration. Thus in 1861 four American companies reporting to the New York Department declared dividends annually but apparently paid them at intervals greater than one year, while nine declared them triennially or quinquennially.⁷⁰ Scrip dividends payable at the option of the company, liable meanwhile for its obligations, and forfeitable with the policy was the general form in which shares of surplus were allotted to policyholders. Beginning about 1865, however, most of the participating companies adopted the practice of declaring dividends annually on new policies written, probably to meet the increasing competition of stock companies during the latter part of the period. In the meantime, Mr. Sheppard Homans and his associate Mr. David Park Fackler, actuaries to the Mutual Life, worked out a method of applying to life insurance certain principles long practiced by mutual fire companies in estimating the dividends to which each policyholder was entitled. It came to be known as the "Contribution Plan." The purpose of the plan is to return to the policyholder the share of the surplus actually contributed by him. Up to this time the so-called "percentage" plan, according to which surplus was distributed by a uniform percentage of annual premiums, had been generally used.⁷¹ But in 1870, forty-nine companies reporting in Massachusetts used the contribution plan, and six the percentage, while six used a combination of the two, three were non-participating and one was undecided as to what plan to use.⁷²

A great number of other important features were added during this period. For instance the general agency system came into use and was availed of by most of the companies. Attempts were made to establish insurance on impaired lives, but little success attended the efforts. And there were innumerable schemes for changing one form of policy into another.

⁷⁰Third N. Y., Insurance Report, pp. 354-426.

⁷¹Thirteenth Massachusetts Insurance Report, 1868.

⁷²Sixteenth Massachusetts Report, 1871.

In fact, traces of practically every feature proposed or tried out since may be found during this decade.⁷³

Agents and Commissions.—With the adoption of the general agency system in the early years of this decade, the rates of commission (10 per cent on new business and 5 per cent on renewals) that had prevailed for so many years were increased to 15 and 7½ for general agents, 10 and 5 becoming the local rates. The competition that began to develop as the business progressed, induced the Mutual Life to offer a “flat brokerage” of 25 per cent for new business only. This commutation of commissions led other companies to offer 25 per cent on new premiums and 5 on renewals. Some of the note companies then increased the rate to 35 per cent of the full premium, including the note, thus leaving but little in the way of a cash premium to the company. Commutation of commissions also tended to terminate the interest of the agent in the continuation of the policy. Competition among companies to secure the services of agents took another form a little later; one company being willing to purchase outright the renewal commissions of another’s agent for their commuted value, provided the agent would then transfer his new business to the purchaser. Toward the close of the period the older companies increased their commissions to 35 per cent on new, and 7½ per cent on four renewals, as applied to general agents; and 25 per cent on new and 5 on four renewals to local agents. Among the younger companies commissions reached as high as 30 and 10, and in some cases a salary was paid in addition. Fifty per cent was commonly regarded as the commuted value of these rates. The note companies were obviously at a great disadvantage when obliged to compete with all cash companies in the matter of commissions, and this was one of the most important reasons for the growing tendency to restrict the amount of premium notes toward the close of the decade.⁷⁴

Advancement of Science.—The life business of the country having become so extensive and the older companies having

⁷³The more liberal features and refinements of modern policies, such for example as the provisions regarding suicide, incontestability, reinstatement, disability, double-indemnity, and others were of later development.

⁷⁴Manning, W. S., *Life Insurance Commissions, Past and Present*, N. Y., 1878, pp. 2-5 (Library of Congress).

had on their books a large number of risks for a period of twenty years or more, statistical data on insured lives were now sufficient to enable actuaries to discard general population statistics to a large degree and confine their investigations and base the rates of their respective companies upon the experience of insured lives.⁷⁵ An attempt was made to coordinate the efforts of individual companies at the meeting of the first "Chamber of Life Insurance," an organization that resulted from a meeting called in 1866 primarily to consider other matters. Very little was accomplished by the so-called "Chamber," which passed out of existence in a short time leaving the actuaries of the separate companies to pursue their researches independently. In the preceding year, Elizur Wright published his tabulation of the experience of companies doing business in Massachusetts while he had been connected with the insurance department of that state. But in the meantime, actuaries of companies, working on the basis of their own records and such other data as were available, were making substantial progress toward the determination of actual mortality rates among insured lives in this country and in the construction of mortality tables based upon them. The greatest achievement in this direction was accomplished by Mr. Sheppard Homans and his associates who had charge of the actuarial work of the Mutual Life of New York. Following up the efforts of Mr. Gill, the Mutual's first actuary, and whose reports were spoken of in the preceding chapter, Mr. Homans compiled in 1868 what is now known as the American Experience table of mortality—the table in general use today. Mr. Homans gave an account of its construction before a meeting of the Actuarial Society of America in the following words:⁷⁶

"When I first entered life insurance, American companies were dependent on foreign tables entirely. We had no statistics of American mortality, and one of the first duties with which I charged myself was to collect the data in The Mutual Life, and see how the results accorded with the tables upon which our business was based. The table used by The Mutual Life was not exactly a foreign table, but was constructed by

⁷⁵The census report of 1860 was of considerable assistance in that the influences exerted by topography, the distribution of various diseases among the states, etc., were pretty carefully worked out.

⁷⁶Transactions of the Actuarial Society of America, Vol. I, pp. 32-34.

Professor Gill, and based on the Carlisle and Actuaries' Tables. He drew with a free pencil a curve showing for each age the number out of which one person would die, and on that hypothetical basis constructed certain rates of premiums, and those rates were adopted by The Mutual Life. He commenced the collation of statistics of mortality, and made two reports before he died, in the year 1855, and when I became connected with that company I had nothing to do but to follow the line which he had so well defined.

I not only took the numbers exposed at each age and compared them with the deaths, but I divided these data according to geographical districts and also according to kinds of policies. At that time, when we were in the infancy of the business, it was the practice of The Mutual Life when a man was not quite up to the standard as regards family history or personal health, to refuse a whole life policy, but to offer, on the recommendation of the medical examiner, a short term policy, on the theory that he would be good for a few years but not for the average of life. I soon found that the mortality on short term policies was in excess of the average, being in round numbers double the rates on whole life policies.

In 1855, endowment insurance had just been introduced. In separating the experience of endowment policies from those for whole life or short term plans, I found the mortality on the endowments was one-half what it was on the whole life, and on the latter it was again only one-half the rate on the short terms. That might have been an accident, or at any rate might be peculiar to The Mutual Life; but when my friend Mr. Miller got out his experience, and others got out the experience of their companies, I found that peculiarity was maintained and that there was a manifest and marked difference in the rates of mortality among the holders of different kinds of policies.

I reasoned with myself as to the causes, and I came to the conclusion that if men were left to their own judgment and inclinations they would by instinct, not necessarily by any process of reasoning, select that form of policy which was best suited to their own individual interests; that those who had some reason to believe that they would die sooner than the law of nature would indicate would naturally select the short term policy; that those who had no reason to believe they would die sooner or later than nature allowed would naturally select a whole life; while those who had reason to believe they would live to enjoy the benefit, selected the endowment.

I also found, very much to my gratification, in comparing the rates of mortality in this country with the rates of mortality in Great Britian, as shown by the Actuaries' Table,

and still more by the Carlisle Table, that the rates at the middle ages, were far less in America than in Great Britain; although the rates at younger ages and older ages were greater; I accounted for those peculiarities on these grounds: we live faster; we burn the candle at both ends: young people are apt to die more rapidly here than in a more settled and conservative community, and the same would hold good with men in advanced years. Our energetic way of living would carry men in the middle period of life over periods when, in a more staid community, they would succumb to influences prejudicial to health. I believe these peculiarities have been found to exist in all later experiences.

I also collated the experience with regard to geographical districts. I followed the plan laid down by Mr. Gill, of dividing the United States into six territorial districts. The first was the New England and Middle States; the second the Western States; the third, the Southern States on the Atlantic seaboard; the fourth, Southern States on the Gulf; the fifth was California; and the sixth were those which could not properly be included in either one of the other divisions. I found a marked difference in respect to mortality in different localities; but I find from later experiences that those differences are fading away. In the West, in early days, through the want of proper sewerage, and want of water supply, the rate of mortality was greater. In the South, I think, there is a marked improvement. In California, of course, the differences are very marked.

The result was that after I had collated the experience of The Mutual Life, I drew a curve representing the approximate rates of mortality at different ages: and then found, by a simple method of adjustment, the rates of mortality now called "The American Experience Table"—a name, however, that was not given by me. The table has for its basis the experience of The Mutual Life; but it is not an accurate representation of the experience of that individual company. In other words, it is not intended to be, and never was claimed to be an accurate interpretation of the experience of The Mutual Life. I take it that no mortality table, however correct it may be as an exponent of the mortality of the past, will necessarily be a correct exponent of the mortality in the future; it may be a close approximation, and that is all we want. We want, in the first place, a table which will be safe. The American table is safe, because it is based on the mortality of lives where the experience in the first five years is eliminated; that is, the effect of recent medical selection is eliminated. It was more of a happy accident, or a happy thought, than anything else, that I made the termination of that table at the age of ninety-six. In all the records of experience in

different countries—Great Britain, France, Germany and this country—there is no record of any individual attaining the age of one hundred years being insured. There are instances of annuitants attaining the age of one hundred, but they are very rare. The American table was gotten out simply as a study. It was not claimed to have the authority or claim to the confidence that would justly obtain in an experience like that of "Actuaries," or better the "H. M." table; and it was never intended by me to be offered as a standard of valuation, or as a basis for the transactions of a company; that was first suggested by some one else. The idea originated, I think, through Mr. Barnes. At that time about 1859 or 1860, there was a desire to harmonize the laws of Massachusetts and New York with respect to the basis of valuation. New York had adopted the English Life Table, No. 3, by Dr. Farr, with five per cent interest, as a basis of valuations; while Massachusetts had then, as now, the old "Actuaries" table and four per cent. There was a desire manifested to have the same tables adopted as the standard of value in both the States, and Mr. Barnes, then Superintendent, went to see Mr. Wright, who was the then Insurance Commissioner of Massachusetts, with a view of seeing whether they could harmonize on some one table; and Mr. Barnes invited me to go with him, which I did. The Commissioner of Massachusetts thought and perhaps justly, that the "Actuaries" four per cent was a satisfactory basis, and declined to alter his standard. Mr. Barnes, for some reason, adopted the American Table and four and a half per cent, finding that he could not induce the Massachusetts Commissioner to unite on any one table, excepting the one which he had adopted; that was the origin of its adoption by the New York Department.

The question of uniform state valuation requirements was discussed, the contribution plan of apportionment of surplus previously mentioned was worked out and adopted, and numerous auxiliary tables were constructed during this period, but the principal contributions to the science of life insurance appear to have been enumerated above.

Legislation.—Perhaps the most important single act passed during this period was the Massachusetts non-forfeiture law of 1861,⁷⁷ previously mentioned. Other acts were passed in that state, such as the act requiring the conditions of insurance to be stated in the body of the policy,⁷⁸ the act of 1866,⁷⁹ author-

⁷⁷Acts, 1861, C. 186.

⁷⁸Acts, 1864, C. 196.

⁷⁹C. 33.

izing annual dividends, and the act of 1868,⁸⁰ aiming to bring co-operative and other associations within the provisions of the general insurance laws. The Massachusetts insurance department was reorganized in 1866,⁸¹ one insurance commissioner being substituted for the board of two which had been in charge since 1858. State supervision and valuation were developed to the highest degree in that state, with the result that no company living up to the Massachusetts standard failed during the period.⁸² General supervisory and valuation legislation, then, while often applied in such a manner as to harass the companies, proved to be most valuable to the public as well as to the companies themselves.

Other states followed the example of Massachusetts in supervision but introduced modifications more liberal to the companies. They were not so strict in their methods of supervision. Thus New York provided for the valuation of policies but prescribed no specific rule. Either net or gross valuation might be used and the interest and mortality rate was optional with the superintendent of insurance. Dr. Farr's table No. 3, was the first adopted, and the principle of net valuation was followed. The standard was changed to the American Experience table and four and one-half per cent in 1868. By the latter date, also, separate insurance officers and distinct departments organized for the supervision of insurance companies, had been created in four states, California and Missouri being the other two. But in all, thirty-seven states provided for the exercise of some supervisory power over insurance companies.⁸³ Retaliatory state legislation was the marked characteristic of the period with the exception of supervision. The Massachusetts Commissioner in the Eleventh Report, summarizes by stating that state laws were of two sorts, those designed to protect their citizens against fraudulent or ill-managed companies, and those designed to aid their own corporations. In fact the multiplication of state insurance departments with their di-

⁸⁰C. 317

⁸¹Acts, 1866, C. 255.

⁸²The standard adopted by the Commissioners was legalized in 1861—Acts, 1861, C. 186, and 1863, C. 148.

⁸³New York Insurance Report, 1868, Barnes' Condensed Edition, Vol. III, pp. 855-857.

verse forms to be filled out, their varying standards of valuation, together with the numerous retaliatory laws which took the form of taxation, led the companies to organize the first "Chamber of Life Insurance" in 1866. But the "chamber" soon disappeared, due to diversity of opinion among the companies, having left behind it little except information of interest to the historian. By the close of the decade uniformity, at least as regards valuation standards, began to appear, other states following the examples set by Massachusetts and New York. That state regulation and supervision proved of great benefit to the companies in building up public confidence is shown by the success of our companies abroad which soon began,⁸⁴ and the use they have since made of it in the way of advertising.

Litigation.—The comparative freedom from litigation is one of the distinguishing characteristics of this decade. Not more than fifty or sixty cases in all appear in the five volumes of Bigelow's reports. Insurable interest, suicide, waiver, assignment, taxation, proof of death, death in known violation of law, and misrepresentation as regards health, were the principal causes of legal action. Very few claims were contested, however, the companies being inclined to allow themselves to be imposed upon by a few of the more unscrupulous rather than to incur the adverse advertising occasioned by contesting claims. This however, appears to be less true in the last few years of the period. An important fire insurance case, which however affects life insurance, was decided during this period, to the effect that a state has power to regulate insurance companies of other states, doing business within its border.⁸⁵ Down to 1870 there had been but about one hundred life insurance cases in this country a remarkably small number in view of the size to which the business had grown.

Causes of Growth and Summary.—The cause of the wonderful development during this period have been but imperfectly understood. The war has generally been considered the most important factor, and this with the attendant circumstances such as general inflation, curtailed production and increased

⁸⁴Twenty-first, Massachusetts Report, pp. 268-269.

⁸⁵Paul V. Virginia, 8 Wall. 168.

demand which led to general business prosperity, must undoubtedly be considered the most important and immediate cause. But it must be remembered that the business was already in a flourishing condition and bore all the evidences of being on the threshold of an era of tremendous expansion before the war began. Upon the happening of this latter event, general confusion and alarm rendered it impossible for the companies to do more than barely hold their own during the first year. But with the developing strength of the Union, confidence began to be restored, so that in 1862 insurance transactions showed a marked increase over those of any previous year. As in 1857, life insurance seemed to be destined once more to thrive in a period of adversity. The war with its "daily chronicle of death and disaster," tended to induce many to seek protection against possible business misfortunes, or against the possibility of death intervening before a substantial provision for dependents could be made.

Again, within about four years public indebtedness had been incurred by the Federal Government to an extent previously unthinkable. In addition there were state, county and municipal obligations of large amount, to say nothing of the bonds issued by private corporations. Vast funds sought investment in every channel. The abundance of money which accompanied these things served to cause a period of speculation such as had not been known since the days of Andrew Jackson. With brilliant business prospects ahead, and time only needed to accumulate a fortune, it is little wonder that many turned to life insurance as a means of hedging with a small portion of their gains, their future earnings or profits against the contingency of death, thus making the position of their dependents secure. This chain of circumstances and reasons also probably accounts for the popularity of the limited payment policies which were issued in great numbers during the decade. Thus while it is undoubtedly true that life insurance would have made rapid progress had there been no war, yet war conditions were undoubtedly responsible for much of its extraordinary development.⁸⁶

Again the companies, having gained in experience during the past twenty years, were ready in 1860 to provide themselves

⁸⁶Nichols, Walter S., in *Insurance Blue Book*, 1876, pp. 55, 56, 60.

with an efficient internal organization consisting in the delegation of the various tasks—such as the management of investments, administrative, and actuarial work—to separate departments. Their external organization was also perfected by the adoption of the general agency system with commissions high enough to produce results. Their own efforts, then joined with the new and attractive features that were added, and their liberality toward policyholders and freedom from litigation—aided by the public confidence engendered by state supervision and a favorable record even in times of financial distress, combined to make this the greatest era ever before experienced by life insurance in any country.

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