The Early Development of Insurance

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THE EARLY DEVELOPMENT OF INSURANCE

A THESIS
Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts (in Economics)

by
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PREFACE

It is the purpose of this thesis to trace the development of risk bearing by insurance from the earliest times, to the period when the modern institution of insurance may fairly be said to have become established. The thesis will not cover in its scope the history of insurance, nor the history of any particular period, but will rather survey each period studied, searching for new developments of insurance theory, and consider particularly those contributions that represent distinct advances in development. The aim of the work is to assemble those early fragments of evidence that may be found, and so present them as to afford a perspective of the development of an idea. It does not come within the scope of the work to present a complete record of the numerous instances that represent reduplication of the idea. On the other hand mention is made of developments that at the time only remotely bear upon insurance, but are destined later to become important factors in the field. The scattering threads that appear in the early periods will be brought together as the development of the thesis proceeds.

In the assembling of the material, and the preparation of the work, I have been favored with the generous co-
operation and assistance of many. Without presenting a detailed list of the individuals, libraries, and institutions, to whom I am under obligation, I nevertheless avail myself of the privilege here afforded of acknowledging my indebtedness to all. Without the cooperation and assistance so freely rendered, the work could not have been completed. I must at this time, however, by personal mention, acknowledge my indebtedness to Dr. John H. Ashworth, head of the Department of Economics at the University of Maine. It was under the direction of Dr. Ashworth that this work was carried on, and to him my obligations are great. It is a pleasure to acknowledge them.
CHAPTER 1.

PRE-GRECIAN CONTRIBUTIONS.

1. Origin of Bottomry.

So far as extant records furnish us evidence, loans of the type known during the middle ages by the terms "Bottomry" and "Respondentia" served as the earliest means in general commercial use to effect a shifting of the burden of risk. Such a contract was familiar to the Greeks as early as the fourth century before the Christian era, and was used in connection with maritime loans. The origin of the idea is clouded in uncertainty, but such evidence as we have warrants the presumption that the bottomry contract is the outgrowth of the contract made between merchants and their agents in Ancient Babylon.

The essential feature in the bottomry contract that permits its adaption as a vehicle for effecting insurance, is the condition which relieves the borrower from loss in the event of the happening of certain undesired and stipulated contingencies. In the Greek contract these contingencies were those arising out of the "perils of the sea." The agreement itself was concerned with a loan, made with a ship
as security, by which her owner was able to fit her out for a voyage, or to provide a cargo. The condition upon which the loan was obtained, however, made the safe arrival of the ship at the agreed destination a condition precedent to the repayment of either the advance or the stipulated interest or premium. A modification of the contract occurs where the loan is made, not upon a ship, but upon goods or merchandise, and in this instance the term "respondentia" is used. Insofar as the contingent feature of the contract is concerned, relieving the borrower from the payment of interest, and the repayment of principle, in the event of certain stipulated losses, the contracts are analogous. To both types, whether the loans are made on ship or merchandise, the term "bottomry" is commonly applied, and for the purposes of this study the term will be so used. In our search for its origin with the early Babylonians, we carry the term from the sea, and apply it to landborne risks.

Babylon, during the most remarkable period marked by the reign of the Hammurapi, (circa 2123 - 2081 B.C.) occupied the position of a great trading center, and sent caravans abroad with her manufactured articles to every corner of the then known civilized world, and her contacts
with the countries with which she traded necessitated long and hazardous journeys into strange lands, and among peoples of all grades of civilization. It is obvious that the wealthy manufacturer or merchant, with interests stretching, perhaps to India, China, Phoenicia, Egypt, Tibet, or any of the other countries in trading contact with Babylon, would not himself be able to go with his wares and conduct the negotiations for trade in person.

In the beginning merchants maintained contact with their various interests by sending some member of the household to represent them abroad, manage their affairs, and sell the goods they had to offer. With the expansion of business, however, and the need for many representatives, this simple expedient no longer served, and the great merchants or financiers devised the system of securing individual agents to represent them on these journeys.

This agency relationship, the oldest form of business association in Asiatic life, is known by the name *Commenda*. Under the terms of agreement by which the associates operated, the commendatist gave a sum of money or supply of merchandise to an agent with which he was to do business. The agent at a stipulated time, usually upon his
return from a journey, rendered an account to his principle, paid back the loan, to which was added an agreed share of the profits. 1

That most remarkable legal compilation, that dates from this early period, the Code of Hammurapi, devotes several of its sections to the regulation of such business associations. 2 Under the terms of agreement, the agent who took the money or goods of a merchant, and went abroad with them to trade, was liable to repayment of the loan upon his return, except in one definitely named instance. If the agent lost his goods at the hands of robbers, then he was not obliged to make an accounting, but was freed from the debt, and the loss rested upon the merchant who made the loan. 3 Such an agreement had all the characteristics of the modern bottomry agreement, with the exception that the risk covered by the insurance feature was a risk of loss from robbers, instead of loss from the perils of the sea.

It is now recognized by students of ancient history that the Code of Hammurapi was not a creation de novo by

3. Ibid., sec. 103.
Hammurapi himself, or by his counselors, but like other codifications of law that have served as landmarks in legal development, reverted back to laws of a more remote period. It is essentially a compilation of existing legislation rather than a presentation of an entirely new set of laws.

Hammurapi's part in this great piece of legislation was limited to the translating and publishing of the older code for the government of his own people. Indicative of this development there is evidence to show in the code the inclusion of the older Sumerian laws. Added to the older elements are newer statutes modifying the older regulations or effecting changes. It might be supposed that in the compilation of a code such as that of Hammurapi, older laws that were later modified by newer enactments would have been dropped to give place to the newer developments. There is a reason, however, for the retention of the older sections, in that a sacred character was attributed to the law, and they were considered as oracular decrees of the gods, and therefore binding forever. For this reason the old laws

4. Rogers, History of Babylonia and Assyria. v.2., p.87.
were retained side by side with modifications in the form of new laws that changed their effect and tenor. It is difficult to place a date as to the origin of the older portions of the Code. A document of a far earlier period than that of Hammurapi, in the reign of Urukagina, (circa 2700 B.C.), refers to certain legal reforms effected by him that presuppose a considerable body of law already extant. Upon this evidence it may be assumed that as far back at least as 3000 B.C., and probably much earlier than that, a considerable body of law had been built up to govern the public and private affairs of the community. Bearing in mind this background to the compilation of the Code of Hammurapi, references to particular practices mentioned in the code do not of necessity fix the time of Hammurapi as the date of origin of the legislation. As a matter of fact, the date of origin may extend back to a period much more remote than that ascribed to the compilation and promulgation of the Hammurapi Code itself.

At this point we are interested in determining whether the clause in the code that releases the agent from all liability in the event that he is robbed, refers to a

custom of merchants already in common practice, or whether, on the other hand, this clause represents one of the later enactments included in the code to soften the effect and mitigate the penalties attached to the older laws. If we conclude that the code provided legislation to govern an existing custom, we are permitted to conclude that a contract with the characteristics of the bottomry agreement was known to the Babylonians previous to the promulgation of the code by Hammurapi. In the light of the general tenor of the code, it seems more reasonable to conclude that this law was one of the latter enactments aimed to correct a situation into which abuse had probably crept.

A contrary opinion is expressed in a painstaking and laborious research into the origin and early development of insurance by Dr. O. F. Trenerry who advances the theory that the agreement referred to in the Hammurapi code was a development between merchants and their agents previous to the compilation of the law. It is his theory that because of losses, traders were unable to meet their obligations, and in consequence found themselves and their families in a position where they became the property of their creditors. So

intolerable did this situation become that some form of compromise was devised, resulting in an agreement between the parties whereby the agent if he were robbed and lost the goods entrusted to him through no fault of his, was to be excused from further accounting. The contract thus became a custom among merchants, and was at the time of the compilation of the Code of Hammurapi recognized and given legal force by its inclusion in the law of the land. (10) The theory here advanced is of considerable interest, in that it places the origin of the contract at a point more remote than the Hammurapi Code.

In a field where so much is based on conjecture and supposition, it would seem to be an unwarranted presumption to present a contrary theory, without at the same time recalling its hypothetical nature. However the theory advanced by Dr. Trenerry, that the Code of Hammurapi specifically refers to a contract of bottomry, using the term in a sense of a relationship whereby the borrower or agent is exempted from repayment in the event of certain specified losses, seems less probable than does the theory to be here advanced, that the regulations in the code were designed to correct an oppressive situation only, and furnished incidentally and as an unforeseen consequence the seed from which

germinated at a later date the contract of bottomry. The theory is here advanced, contrary to the opinion of Dr. Trenerry that the Babylonians had no knowledge of such a contract previous to the enactment into the law of the clauses in question, but that out of the compulsory release of debtors who lost their goods through no fault of their own, the custom developed and spread, and was voluntarily adopted by merchants in communities associated with Babylonian influence, but beyond the reach of her laws.

Had an agreement similar to the bottomry contract been the custom previous to the enactment of the laws, specific provision for lenience to the agent would have been unnecessary. We get a better insight into the purpose of the law when we recall the painstaking care exercised by Hammurapi to prevent the "strong from oppressing the weak." 11 and to protect those who might find themselves without any fault of their own at a serious disadvantage before the law. In such a position the borrower or agent might easily find himself. Under the Babylonian law the position of the debtor was far from enviable, and while the Code retains the general point of view that a man who contracts a debt which he is unable to pay is a criminal,

even though there was no intent to defraud, the Code likewise makes a move in the direction of mitigating the pressure of the creditor against the debtor. The severity of Babylonian law upon the debtor is evident from those sections of the Code dealing with debtors. That a member of a debtor's household could be seized as a hostage by the creditor seems perfectly evident 12 and death of the hostage through natural causes imposed no liability upon the debtor. This originally severe provision was softened considerably by provisions that permitted the operation of the lex talionis 13 in the event of death caused by inhuman treatment by a creditor who should seize a member of a debtor's family. Likewise a move was made in the direction of relieving the debtor whose wife and children were considered part of his chattels, and who might be forced to sell them for debt. The code in this instance provided that the wife or children thus sold should be freed in the fourth year. So in the laws governing the relationship of agent to his principle, the agent was responsible for the goods entrusted to him. 14 It became apparent, however, that in the event of robbery this was a loss entirely

13. Ibid., 116.
14. Ibid., 117.
15. Ibid., 100.
beyond his control, yet carried in its train all the serious consequences attaching to debt. Rather than giving voice in the laws to an existing custom in relieving an agent from an accounting if robbed, it is more probably true that the legislators saw in the harsh measures that were used in enforcing claims against debtors and agents, an element of injustice in insisting upon an accounting where the loss was beyond the control of the agent. Bearing in mind the general trend toward fairness and the concern for the weaker party that is evidenced throughout the code, it is a reasonable presumption that this accounts for the enactment in the code that where the agent was robbed, he was not to be held accountable for the goods lost, but to go free. That is the agent was to be excused from repayment of the value of the merchandise, or otherwise making any further accounting.

An almost parallel situation is found in the sections of the code dealing with slavery. Under the existing law those harboring a runaway slave, or in any way assisting him to escape, faced the death penalty. On the other hand a reward is provided for whoever returns to his master a slave

found in the open country. However, and here we have a parallel instance to the law respecting robbery of an agent, if a slave shall escape from the one who has captured him, the man by swearing his innocence to the owner of the slave shall be acquitted of all responsibility or blame. 17 This is a case where responsibility for delivery to his master apparently attaches, once an individual takes into his custody a slave not his own property. However, if he loses custody of the slave through no fault, the law relieves him from any responsibility. Penalties were so severe both in the slavery legislation and in the relationship of creditor and debtor that the code went to considerable length to protect parties who might without its protective legislation incur serious trouble without themselves being at fault. In the case of losing custody of the slave, the consequence might have been death. In the instance of the agent of a wholesaler, who probably might have little with which to meet losses, everything was at stake on the adventure, not excluding his freedom and that of his wife and children, until remedial legislation intervened.

17. Ibid., 20.
The importance to us of the theory that the section 18 in the code that excuses the agent from making an accounting in the event that he is robbed, was enacted in the beginning to protect a helpless agent from responsibility arising out of a contingency over which he has no control, is found in the possibility that here is the seed that actually germinated into bottomry. In other words we conclude that up to this point all risk attached to the agent, but out of the compulsory relief furnished by the Code of Hammurapi a relationship was established that was later expanded into the contractual relationship of bottomry, and furnished a simple but early means for risk bearing.

The relationship to which the code refers is quite evidently that of principle and agent, with the agent liable to his principle for an accounting upon his return from an undertaking. It is but a step from the entrusting of goods by a manufacturer to an agent to sell, to the loaning of money by one individual to another to finance an undertaking, with the relationship merging from agency to that of borrower. In the new situation a contractual relationship is established,

whereby money to finance an adventure, or the merchandise necessary, was entrusted by the lender to the borrower.

With the example already set by law, in the instance of the responsibility of agents, it was a natural procedure to incorporate in the agreement a release from liability to repay in the event the goods lost at the hands of robbers, or possibly from other contingencies that might from time to time have been agreed upon. Recalling the commercial prestige of Babylon, whose weights, measures, and coinage were widely adopted, it would not be an unexpected development to find this relationship, with the contingent provision in the event of loss, adopted by merchants in commercial contact with Babylon, even though beyond the immediate jurisdiction of her laws. By this means, such a contract could easily have become a customary relationship among merchants, with the hazards insured against changing with the needs of the time, or the perils of the journey undertaken. In Babylon the principle hazard was robbery of the caravan. In sea-going ventures the perils were those of the sea. In each instance the principle involved was identical.

Where the original agency element persisted, the agent secured for himself a percentage of the profits of the
enterprise as compensation, the amount depending upon the status of the agent and his relationship to his principle. As the character of the transaction merged into that of a loan, compensation for the use of the money or goods was naturally the subject of an agreement, but as in the case of the bottomry contract of later times, it was very much higher than the rates of interest charged for ordinary loans.

We are permitted at this point a brief summarization. We find we have developed all the essential elements that enter into the bottomry contract as it later became a familiar commercial usage. These essential elements include first a loan or advance of goods, with the security passing out of the control of the lender. Secondly there is the provision that in the event of loss through the happening of certain specified contingencies, the borrower is freed of liability to repay. Lastly, the interest charge for the loan is so much higher than ordinary rates of interest, as to include a payment or premium for the assumption by the lender of the specified risks.

For the purpose of this study, we should like to show that the contract of bottomry was effected in the course of its development during this early period primarily for the purpose of risk bearing. Such a development we must leave
to a later period. The economic effect of risk, however, must have made itself manifest, and the simplified form of the contract that we find must have served to stimulate a foreign trade that might otherwise have languished through a failure to secure agents because of the risks. We may at this point consider the basis upon which the burden of risk could be carried by one set of individuals and shifted by another. Without departing too far into the field of hypothesis, we have found a development in this early Babylonian period that probably gave rise to a contract, simple in form but having all the essential elements of the latter-day bottomry. We have first an agent, and ultimately a borrower, shifting back to the principle or lender the burden of the risk attached to inland marine transportation. We have no evidence that steps were taken by the risk bearers to effect a dispersion in individual cases. The inducement that prompted the lender to become a party to the enterprise is found in the reward for assuming the risk, and is made possible through the operation of the principle of marginal utility. It is quite apparent that the money lender who finances a voyage out of one of many units of his capital loses but little in comparison with the poor trader who borrows, and who might in the
event of loss lose not only all of his possessions but his freedom as well. On this basis a wealthy lender could assume a risk that the poorer borrower could not. Lastly it is to be presumed that the merchant or money lender, while in conducting his business, is at the same time engaged in a number of such enterprises, and so far as loss was concerned, in essentially the same position as the modern merchant with many ships who secures a dispersion through interest in a multiplicity of risks. A considerable step in the direction of marine underwritings, as it was known to us in the early development of marine insurance, would appear could we but demonstrate the division of individual risks into parts, each part to be assumed by different carriers. Such a contribution is hardly apparent from the evidence, and the probability of its existence is a matter of pure conjecture. However, in this ancient period we do have a beginning of risk bearing. We are certain of the operation of the laws in the Code of Hammurapi, and it is a reasonable presumption that here was a beginning of the bottomery contract so familiar in later insurance developments. Because of the paucity of evidence we have no means of knowing just the point geographically or chronologically that the contract developed to the stage we find in ancient Greece.
2. **Bottomry in India.**

India furnishes us a final clue to the development of bottomry during the pre-Grecian period. In the Institutes of Manu, a considerable section of the Eighth Book is devoted to the matter of loans and interest. Two of these sections point to the existence of a bottomry contract that in scope and extent approaches the form of contract that we meet in the early classical period.

The time elapsed between the promulgation of the Code of Hammurapi and the drawing up of the Institutes of Manu is at least a millennium. The origin of the Institutes is shrouded in uncertainty, and Hindu mythology attributes them to a semi-divine hero Manu, from which they take their name. The extravagances of Hindu mythological chronology place the time of their compilation as far back as $6 \times 71 \times 4,320,000$ years. In its present form the code probably dates from around 200 B.C. but includes a compilation of precepts known and taught over a longer period. Older writings upon which the Institutes in their latter form are based, indicate a point of origin previous to 600 B.C. and possibly

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20. *Institutes of Manu*, VIII.
22. *Smith, History of Mathematics*, V.1, p. 34.
go back to 1000 B.C. Unlike the Code of Hammurapi, the Institutes of Manu do not represent the law of the land, or the promulgation of a ruler, but rather represent a series of precepts presented by the teachers for the guidance of the people.

In the light of the interpretation that we have given to the pertinent sections in the Code of Hammurapi, it is not possible to compare the development of Bottomry among the Hindus in the light of the Institutes of Manu with that of the early Babylonians. We cannot tell where the one ends and the other begins. If bottomry developed out of the legislation of Hammurapi, mitigating the intolerable position of a debtor who became insolvent through losing by robbery the goods entrusted to him, and the theory is here advanced that it so developed, we have no knowledge of the point reached in its evolution among the Babylonians. When the contract took the form of a voluntary agreement entered into by merchants and their agents, or by money lenders and their debtors, it is reasonable to assume that it would be changed and modified to satisfy the demands created by new conditions. How much of the development may be attributed to the Babylonians, how much to the Hindus, or even to intermediary contributors, we
have no means of knowing.

That the contract of bottomry had passed through a long period of development when we meet with it among the Hindus is evident. Its scope has been extended, and its usefulness as a vehicle for transferring the burden of risk is more inclusive. The Institutes of Manu that deal with the question do not specify or list the hazards that excuse the borrower from repayment, but use the expression "if by accident the goods are not carried to the place or within the time." From this it is apparently the intention to include all of the perils of the undertaking that fall within the meaning of the phrase "by accident". It is specifically provided that the laws apply to both sea-voyages and journeys by land, bringing bottomry at last to the surroundings in which it is familiar to us in connection with sea-loans, and as a vehicle for marine insurance. Finally we have a semblance of underwriting. Men who were acquainted with sea-voyages and journeys by land were to estimate the risk. That is, they were to study the hazards of the voyage, its probably extent, the destination of the voyage with its attendant dangers, and on the basis of their observations to calculate a rate or premium to be charged the borrower.

24. Ibid., translated by Sir William Jones.
Such regulations presuppose a considerable knowledge of risks and hazards, and intimate strongly that the risk bearing features of the agreement were becoming important factors.

It would be pleasing if we could leave the development of bottomry among the Hindus at this point. It is necessary, however, to state that with the Institutes of Manu, as with so many of the ancient oriental documents uncertainties of translation seriously becloud our conclusions. The translation that most clearly indicates bottomry, and permits the conclusions with regard to this contract that have been here advanced, is that of Sir William Jones, who "in addition to being a profound Oriental scholar, had been peculiarly fitted to translate an Indian legal code by his own judicial experience in that country."\(^{26}\) In contrast, however, to the Jones translation are others that permit quite a different interpretation. To emphasize the uncertainty created by the differences in translation, without attempting to exhaust the possible examples, mention is made here of the scholarly work of Prof. G. Buhler. In his translation of the first of the two sections in question,\(^{27}\) he makes no mention of a lender,

\(^{26}\) Trenerry, op. cit., p. 68.
\(^{27}\) Laws of Manu, VIII, 156. Buhler Translation.
or of the accidental loss of the goods, but interprets the clause as a regulation with reference to individuals who "contract to carry goods by a wheeled carriage for money." Failure upon the part of the contractor to fulfill the terms of his contract, that is, if he does not deliver the goods at the place and time stipulated, he forfeits the reward agreed upon. The section following, 28 in the Buhler translation makes reference to the fixing of rates in sea-voyages, and omits any mention of journeys by land. Certainly no reference is made in either section to a loan agreement providing that the borrower is to be relieved of his obligation in the event of the happening of some undesired contingency. Considering the evidence in the light of the two translations cited, we are warned again of the uncertainties attendant upon any conclusion possible regarding this early period. In the face of such translation difficulties as present themselves, in the interpretation of the code in the light of insurance, the probability that the sections may refer to a bottomry contract with an insurance feature is sufficient to warrant their consideration at this point.

If, as we suppose, the contract of bottomry did develop out of the legislation of Hammurapi, knowing the extent

of the Babylonian commercial contacts, it is not unreasonable to assume knowledge of the practice on the part of the Hindus, and that the source of that knowledge either directly or indirectly was ancient Babylon. Cornelius Walford, whose pains-taking researches in the field of insurance history justly entitle his opinion to weight, in his unfinished Insurance Cyclopedia directs attention in his discussion of bottomry to the Laws of Manu. While emphasizing the uncertainty he points out that the material dealing with the subject is "at least sufficiently vague to justify a surmise." As supporting evidence that the Laws of Manu do contemplate a contract having the essential characteristics of bottomry, he cites the Vyavahāra Mayuka, A Treatise on the Hindoo Law by Nilakamtha Bhatta, which in the course of a discussion on lawful rates of interest, states that it has been ordained by Yajnavalkya that "all borrowers who travel through vast forests may pay ten, and such as travel the ocean twenty in the hundred." This clause he believes seems to imply loans to merchants; the reference to the charge for borrowers who travel through the forest relating to transport insurance, while the other charge is for advances on bottomry.\(^29\) Walford uses the term bottomry here in its more particular sense as applying to a

marine loan, giving the term transport insurance to the land borne traffic. It is quite evident that the element of risk is here considered in fixing a rate for ocean travel at twice that fixed for a journey through the forest. The assumption that reference is here made to a contract for a loan, with the elements of the bottomry agreement, is justified upon the basis of the difference in rates. Likewise, it lends support to the belief that the section in the Laws of Manu that provides for the safe arrival of goods, is a law relating to an agreement having the characteristics of bottomry.

A final point is made in considering the arrangement of the Code. Separate sections of the Code are assigned to the treatment of a particular subject. Two regulations dealing with compensation or wages would hardly be found inserted in a part of the code dealing with loans, interest rates, and other allied matter. Rather than to believe that such extraneous matter as the regulation of wages, or compensation for services rendered was contemplated at this point, it is more reasonable to assume that "interest" was the rendering intended, and that these sections were drawn up with reference to loans.

30. Laws of Manu, Sec. 157.
If at this point we may conclude that a preponderance of evidence points to the practice of bottomry by the Hindus, we may before leaving the question consider the probability of their being an intermediary between Babylon and ancient Greece. When we meet with the contract as a well established custom in Greece. It is likewise known and practiced by others of the maritime nations in commercial contact with Greece. Legislation regarding the contract was incorporated in the laws of Phodes. Whence came the contract to the maritime nations of the Mediterranean?

While the Institutes of Manu, in the form in which we know them, are presumed to date around 200 B.C., it must be remembered that the code then compiled included laws, that at that period boasted great antiquity. The origin of the laws probably date back to a period corresponding to the Homeric age in Greece.

During this period there was but little commercial activity in Greece. The Homeric nobles satisfied their simple requirements with the products of their own land, their riches consisting chiefly in flocks, herds, and slaves. Luxuries they imported, securing them from traders of other

countries who stopped to dispose of their cargoes. The Phoenicians provided most of the articles imported during this early period, and they in turn secured them by journeying to the far corners of the then known world. Wherever there was a prospect of gain, these shrewd traders were to be found; their voyages reaching from Britain on the west to India in the east. That the Phoenicians may have been the intermediary by which a knowledge of the practice of bottomry was carried from the more ancient civilization to the Greeks seems very probable. This is the opinion of Dr. Trenerry who believes they acquired their knowledge directly from the Babylonians. This assumption, reasonable as it is, is purely a matter of hypothesis, for there is no direct evidence that the contract was ever utilized by the Phoenicians in their commercial ventures.

During the period marked by the great commercial expansion of Greek commerce, which includes the rise to Commercial supremacy of the city of Rhodes, great trade routes were established between Greece and the far corners of the world. Rhodes was founded in B.C. 408. The first reference to bottomry in Greece occurs around 350 B.C. To be sure, the

33. Trenerry, op. cit., p. 10
contract when we meet it in Greece had been perfected, and evidenced a long period of development. At this time the Greeks had established a great line of trade from Hellas, past Rhodes and Cyprus, along the coast of Phoenicia to Egypt. Over this route the Greeks secured the products of the far East, India, Arabia, and Babylon. It is entirely probable that the bottomry contract was not introduced into Greece until this period of commercial activity, when the influence of Phoenicia upon Greece was upon the wane.

It is likewise possible that India may have been the intermediary, taking the idea from Babylon, developing it, and passing it on to Greece, and the maritime nations of that period.

We may say in conclusion, that if the origin of bottomry may be attributed to Babylonia, we may likewise credit India with enlarging its scope so far as the risk element is concerned, and extending the practice to cover the hazards attaching to sea voyages as well as undertakings involving land transportation. If, as it is entirely possible, Phoenicia or some other people contributed to this development, the Hindus have at least left us a record.
3. Fire Insurance

So far as the problem of fire is concerned, the Code of Hammurapi is silent, save in a single instance. This mention has regard to the safeguarding of property from theft, after fire had started. The law is severe, placing punishment in the hands of the injured party. If, says the code, a fire break out in a man's house, and any one who goes to put the fire out shall take any of the owner's property, he shall be cast into that same fire. This has been interpreted to mean that the punishment may be inflicted immediately upon catching the offender.

This section of the code is of interest to us here only to indicate that the problems arising out of fires had gained the attention of the law makers, and if there were at this time any laws that had reference either to fire losses, or any means of indemnifying sufferers, it might be reasonably presumed that they would find a place in this code. There is nothing to be found in the code that relates to fire insurance in any form.

The question presents itself as to whether the Babylonians or Assyrians, at any period following the drawing up of the Code of Hammurapi, had devised any such system. In

34. *Code of Hammurapi*, Sec. 25.
a paper read by Mr. Charles Stewart, of the Lancashire Insurance Company, before the Insurance and Actuarial Society of Glasgow, in the year 1881, he places the beginning of fire insurance with the communes of the towns and districts of Assyria and the East more than 2500 years ago. The plan which Stewart believed to have been in effect is a form of compulsory assessment, which he says operated in the following manner:

"Judges, priests, and magistrates were appointed for each town and district with power to levy contributions from each member of the commune to provide a fund against sudden calamities such as drought and fire. If the judges were satisfied that the fire was accidental they empowered the magistrates to assess the members of the commune in kind or in money, and in the event of any member being unable through poverty to meet his share of the contribution, the deficiency was made up from the common fund. These communes still exist in a modified form in China. In some towns of Russia the inhabitants are jointly responsible for accidental fires and the government make enforced contributions according to the status and wealth of the inhabitants of the town or village. These communists had and have nothing in common with the communism of the present day which means the negation of private property." 36.

This statement has been preserved for us by Relton, in his excellent work on the history of fire insurance in Great Britain during the seventeenth and eighteenth centuries.

Relton gives the quotation in his introductory chapter with full acknowledgment to Stewart. Since its appearance in Relton's book, either through further quotation, or the repetition of the subject matter in subsequent works, the statement had been widely circulated. The assertion is now frequently made that a form of mutual fire insurance, through compulsory assessment, was in operation in Assyria at this early date.

Unfortunately, the source of Stewart's information is lacking. It is doubly unfortunate, because in the light of the more complete information we now have concerning this early period, it seems that Stewart's statement was probably based upon faulty information. As a matter of fact, in 1881, when Mr. Stewart read his paper the decipherment of Assyrian cuneiform had not progressed far enough to make possible, with any degree of certainty, the conclusion he presents with regard to the existence of insurance in Assyria.

Research in the works of the leading authorities in the field, as well as correspondence with recognized American authorities makes inevitable the conclusion that Stewart's statement is open to doubt at least until more information is available. Commenting upon this quotation, Prof. A.E.R. Boak,
Chairman of the Department of History at the University of Michigan states:

"I have investigated the quotation which you enclosed in your letter of March 20, but I have been unable to find the source from which it is taken. Furthermore, I have not been able to find the slightest bit of evidence to support the statements contained in the quotation. I have consulted on this matter with Professor Leroy Waterman, who is a recognized authority on Assyrian history, and he tells me that he knows of nothing which would justify these assumptions. I believe, therefore, that the statements should at least be recognized as extremely doubtful." 37

Referring directly to the same quotation from Relton's book, Dr. W. F. Albright, Professor of Semitic Languages at the Johns Hopkins University, states:

"I am afraid that Relton's statement with regard to the existence of fire insurance in Assyria more than twenty-five hundred years ago is quite without foundation. We have a very large number of business documents of every possible kind from ancient Babylonia and Assyria, but none of them refer to any kind of insurance against death or sudden calamities such as drought and fire." 38

Were the matter of community assessments a common practice, reference to them would be found among the thousands of documents now deciphered and catalogued. Nor would the existence of such a custom be unknown to the modern scholars

37. From a personal letter to the writer.
38. From a personal letter to the writer.
in the field. Insurance writers frequently consult Relton's admirable book for material on the early development of fire insurance, and his inclusion of Stewart's statement in the form of a quotation has given it widespread circulation throughout more recent insurance works. In the light of the best evidence, however, it seems that Stewart's statement is entirely without authority, and there is nothing to warrant the assertion he makes. We cannot, then, agree with those writers who cite Relton or Stewart as authorities, that mutual insurance in the form of compulsory assessments was known and practiced by the early Assyrians.

4. Early Partnerships.

For the purposes of this study, we are particularly interested in such developments as tended toward the amassing of capital for business enterprise, for without facilities for amassing great capital the business of insurance would have been impossible. 39

While we have no evidence that the partnerships of early Babylon concerned themselves with underwriting risks, it is of course possible that individuals should join to divide

the risks of an enterprise much in the same manner that they did later in Greece. In fact there is evidence to show that two individuals sometimes joined in financing an agent though there is no evidence to indicate the practice had assumed any of the characteristics of insurance underwriting. However, regardless of whether or not we can connect the formation of partnerships at this early date with the business of risk bearing, we are interested in the development as a collateral contribution, because of its later importance in the development of insurance.

The earliest development of joint operations grew out of the practice of renting flocks. It was the custom for the owner of a flock to rent it to another party for a considerable period of time, part of the consideration specified being a share in the wool, and in the increase of the flock. Records have been found in the early contracts or partnership agreements, that they are very simple in their form. An example of this simplicity is found in an agreement that simply states, besides naming the parties to the agreement, witnesses, place, date, and such legal formalities, that:

42. Jastrow, op. cit., 353.
"Whatever transactions they engage in, they share in common." \(^43\)

From this simple beginning partnership arrangements continued to develop to a stage where individuals were able to invest a sum of money or a quantity of merchandise in a common enterprise, and could if they wished entrust the management of the business to another. \(^44\) During the period of partnership debts contracted by one party carried with it liability for payment on the part of the other partners, and definite partnership agreements entailed a definite legal procedure for their dissolution. Among the requirements for the legal and orderly dissolution of a partnership arrangement there was included the necessity of rendering an account before the proper tribunal, and the taking of an oath that the assets has been equitably distributed. \(^45\) From available data, it has been determined that such partnerships were effected at a very early period, and continued in much the same form for several centuries. That these partnerships were often of the nature of permanent business enterprises may be determined from the existing records. Typical is a document dated around 500 B.C. describing the dissolution of a partnership

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44. Jastrow, \textit{op. cit.}, p. 354.
that had been a going concern for thirty-one years.

While it is not easy to determine the terms of the partnership association from the records, cases where the evidence is sufficient show it to be the ordinary procedure to effect a division of profits pro rata according to the amount of capital each contributed to the enterprise. To what extent each partner was obligated to contribute his personal services for the benefit of the concern was not always certain, but there is ground for the belief that some of the partnership associations were drawn up with the evident purpose of requiring certain partners to furnish only the capital for the enterprise, while others assumed the responsibility for the actual conduct of the business.

A considerable legal terminology grew up around the partnership agreement. The terms and phrases are of such a character, when we meet with them in the early documents, as to give rise to the belief that they are abbreviations of much longer sentences. This presupposes a long period of development and may be considered as illuminating evidence of the antiquity of the partnership relationship.

47. Johns, op. cit., p. 287.
48. Ibid., p. 290.
of the advanced state reached in the development of this commercial relationship is found in the cognizance taken by the local courts in enforcing the agreements. A dissolution of partnership was a formal procedure and involved recourse to the courts. Appeal to the courts is sought for the purpose of settling disputes. In short, even in the early days, when we first meet with the relationship, the evidence shows it to be a long established commercial custom, recognized by law and protected in its operation by the courts.

Our interest in the development of partnership is concerned with the means such business associations afford for effecting a dispersion of risk. As a matter of fact, without some form of association such as partnership, or its later development, the corporate form of business organization, the business of insurance could never have developed to its present form.

As a vehicle for bearing risk, such associations furnish a means for accumulating small units of capital which the owners are willing to hazard. This accomplishment serves two purposes. It is obvious that if an undertaking involves a large unit of capital in a single risk, the number of individuals with sufficiently large marginal units of capital which they will subject to the risk will be limited. On the
basis then of scarcity, they can and will command a higher price for the use of their capital. However, because of the size of the unit risked, its value to the owner will be high and the danger of losing it all in a single enterprise will have the effect of fixing a high price for the use of the unit.

It now follows that if small units of capital that would be useless to finance a single enterprise may be accumulated, the supply of available capital will be increased. Likewise, in so far as a comparison is possible, the marginal utility of the smaller units of capital will be less, and the reward demanded for their use correspondingly less. We have here an apparent paradox, where the sum of the parts is less than the whole. In other words, if twenty people could join in assuming a given risk, because to the owners of the capital the marginal utility of a twentieth part would be proportionately less than a twentieth of the whole, the compensation that would satisfy the twenty and attract their capital to the field would be very much less than the compensation that would be satisfactory to attract a single individual to carry the entire burden.

While these features had not yet manifested them-
selves in the field of risk bearing in this early period, we are interested at this point in recording the development of the vehicle that was to become such an important factor in the institution of insurance.
CHAPTER 11.

ANCIENT GREECE.

1. Bottomry in Ancient Greece.

Leaving behind us the pre-classical period, we pass from the realm of speculation. Maritime interest ( ) furnished a most profitable source of income to the money lenders of Ancient Greece, and a bottomry agreement was developed, that in its essential corresponded to the contract of modern times. 1

According to the custom developed by the ancient Greeks, the ship or the cargo was made security for the money lent. There is a possibility that the money received for passage and freight was likewise pledged as security. Loans were made, so far as can be determined, most frequently upon the cargo, or a part of it, less frequently upon the ship, and least often, if at all, upon the money received for passage or freight. Because risk of loss rested upon the creditor, the owner of the ship or cargo, besides securing capital for use in his undertakings, at the same time insured himself against loss. 2

A well defined procedure for effecting a bottomry

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1. Walford, op. cit., V. 1, p. 334.
agreement was developed. Contracts were formed by drawing up articles of agreement, and depositing a record of them with a money-changer. The form of agreement developed is a most complete and interesting document, and clauses and conditions that were incorporated therein have been retained and included as among the most essential features of the modern marine insurance policy. Fortunately we have preserved for us, in the oration of Demosthenes against Lacritus, a complete agreement, and another in part in his speech against Dionysodorus.

Because of its importance as indicative of the contribution of ancient Greece, and to facilitate our consideration of the contract in the light of insurance developments, the agreement taken from the oration of Demosthenes against Lacritus is here given in full:

"Androcles of Sphettus and Nausicrates of Carystus have lent to Artemo and Apollodorus, both of Phaselis, three thousand drachms in silver from Athens to Mende or Scione, and thence to Bosporus, or, if they please, on the left coast as far as the Borysthenes, and back to Athens, at interest of two hundred and twenty-five for the thousand; but in case they shall sail out of Pontus to Hierum after the rising of Arcturus, at interest of three hundred for the thousand, on the security of three thousand casks of Mendaean wine, which shall be conveyed from Mende or Scione in the twenty-oared vessel of which Hyblesius is the owner. They hypothecate these goods, not owing upon them any money to any other person, nor will they borrow anything further upon them. And they shall bring back to Athens in the same vessel all the goods which they purchase in

Ibid., p.185.
Pontus for the return-cargo. And, if the goods are brought safe to Athens, the borrowers shall pay to the lenders the money accruing due according to the agreement within twenty days after their arrival at Athens, without any abatement, except for jettison, which the passengers have made by common resolution, or for payments made to enemies, but no deduction shall be allowed in respect of any other loss; and they shall deliver the security entire to the lenders, to be under their absolute control until they have paid the sum due under the agreement. And, if they do not pay it in the stipulated time, it shall be lawful for the lenders to pledge or to sell the security for such price as can be obtained; and, if there is any deficiency in the money which is due to the lenders under the agreement, it shall be lawful for the lenders, both or either of them, to levy the amount by execution against Artemo and Apollodorus, and against all their property, whether on land or sea, wheresoever they may be, in the same manner as if a judgment had been recovered against them and they had committed default in payment. And if they do not enter Pontus, but stay ten days after the rising of the dog-star in the Hellespont, and discharge their cargo in some place where the Athenians have no right of reprisals, and thence return home to Athens, they shall pay the interest inserted for the previous year in the agreement. And, if the ship in which the goods are conveyed should meet with any irretrievable disaster, the security shall be saved, if possible, and whatever is recovered shall be the joint property of the creditors. And touching these matters nothing shall have greater effect than the agreement.

"Witnesses, Phormio of Piraeus, Cephisodotus, a Boetian, Heliodorus of Pithus." 4

We are interested in the insurance features of this agreement. It is to be noted first of all that the contract expressly provides that all of the property of Artemo and Apollodorus, as well as the return cargo, to be purchased by them,
is made liable for the repayment of their loan. The agreement provides that if the security for the loan, when sold by the creditors, shall prove deficient to meet the obligations, then the creditors are empowered to seize any other of the debtor's property, wherever it may be found, in the same manner as if a judgment had been recovered. These features are concerned with the loan and security therefor. Our interest centers chiefly upon the clause that provides as a condition precedent to repayment of the loan and interest, (the money accruing due according to the agreement) the safe arrival of the goods at Athens. This is the feature of the agreement that introduces the insurance element. If the goods offered as security for the advance be lost on the voyage, the lender loses his money. But if it arrives in safety at the point of destination agreed upon at the time the advance is made, then the amount of the loan is to be repaid together with the interest agreed upon by the parties. Only in the event of the safe arrival of the cargo pledged as security have the creditors a right to levy against the debtors, and seize their property in execution after a sale of the security fails to satisfy the claim. In other words the debtors are insured to the full amount of their loan. In
the event that the security fails to arrive safely at the agreed destination, the entire loss rests upon the lender, who is, as a matter of fact, the insurer.

The hazardous nature of the undertaking, from the point of view of the lender, seems to have been fully recognized by the Greeks, particularly in such a commercial center as Athens. Because the loss of the property hypothecated carried with it both loss of principle and interest, the yield on such loans was very much higher than could ordinarily be obtained in the ordinary course of lending money. Such contracts, in which the creditor did not undertake the risk, were prohibited by the Rhodian laws. The element in the charge, made for risk was fully recognized, and by the terms of their law unless the lender undertook the risk of loss he was not allowed to charge the interest customarily allowed in the bottomry contracts. There was no such restriction in the Attic law, though the risk element was fully recognized. This is demonstrated by the regulation which prohibited using the money of orphans for loans on bottomry.

6. Ibid., p. 186.
In the contract we are discussing, there appears another most interesting development. The insurance element of the agreement is extended to permit an adjustment of the amount due the creditor in the event of jettison in the first instance, and again for payments made to enemies. Both of these sources of loss were incorporated as hazards covered in the later development of the marine insurance policy. Their appearance at this point is worthy of note.

From the earliest development of a distinct insurance contract, jettison was recognized as an insurable hazard, and losses arising therefrom were covered by the marine policies. One of the first policy forms of which we have record, was established by a Florentine ordinance of 1523, and provides:—

"The said assurers taking upon themselves the risk of all perils of the sea, fire, jettison, reprisals, robbery by friend or foe, and every other chance, peril, misfortune, disaster, hinderance, misadventure, though such as could not be imagined or supposed to have occurred, or be liable to occur --" 7

And yet we must go back to this agreement, furnished us by Demosthenes, to find the first mention of jettison, included

as one of the risks in the insurance feature of the bottomry contract.

Jettison finds its justification in the principle of natural equity. If the goods of one merchant on a ship are sacrificed for the benefit of all, then he is entitled to a contribution from those who have benefited thereby in proportion to the value of the property they have thus been able to save. The levy made to compensate the owner of goods jettisoned is termed "general average". The earliest law dealing with the subject originated in Rhodes, and was adopted in the Digest of Justinian where mention is specifically made of its origin. The Rhodian law, as adopted by the Digest remains unchanged in its essentials to the present day.

In the bottomry contract of ancient Greece, while jettison is specifically mentioned as a reason for abatement in the repayment of the loan, the borrower must comply with conditions specified in the contract. Certain formalities are ordinarily required before goods may be jettisoned, even today. In the contract we are considering, in order that jettison might be the grounds for a claim on the part of the

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8 Digest, XIV - Tit 11.
debtor against the creditor, it was necessary that the property be sacrificed only after the adoption of a common resolution by all on board. Whether this reference to an abatement in the event of jettison extended to the sacrifice of property other than that offered as security for the loan is not clear. Whether the custom of general average was known to the Greeks is a point upon which we have no knowledge, but the fact that all on board shall vote to throw over, for the common good, all or part of the goods of any one of the owners, would seem to imply a liability on their part to compensate for the benefit secured. It would be an interesting point to determine, whether jettison during the course of a voyage that in no way affected the physical value of the security, but involved a claim for general average, was contemplated as a ground for abatement in the Greek contract of bottomry. In reference to modern insurance practice, it is the custom of the underwriter to include in his contract an express agreement to indemnify the assured for losses arising out of general average.

Equally interesting, though less pertinent, in the light of modern developments is the stipulation providing that losses originating out of payments made to enemies, shall be borne by the lender of the money. Under modern practice, the
rule with respect to payments made to enemies, has in all respects been similar to those applied to jettison. Lacking any feature of fraud, and having used reasonable means to protect the goods, if part of a cargo be voluntarily delivered to a pirate or enemy, as an inducement to save the vessel and the rest of the cargo, or if instead of goods, money be advanced as a ransom, then the value of that which is saved thereby must contribute to the loss. An interesting sideline as to the extent to which the equitable principle is carried, is found in the provision that there is no obligation for contribution if the enemy or pirate shall by force overpower the ship, and choose for himself such goods or money as he desires to take. In this instance the goods lost is not the purchase price paid for the safety of that which remains. We are at loss to know whether in this agreement, in Demosthenes, it was intended that liability for contributions to general average should furnish grounds for a claim, or in fact, whether or not there was any liability even to contribute. So in the event of payments to enemies, we know that losses of the hypothecated goods furnished grounds for a claim. Further than this we cannot go.

With these ancient Greek contracts we need not go into the question of insurable interest. The very fact that the borrower was under obligation to repay the amount of his
loan, and that he pledged his entire assets as additional security, is evidence of his interest in the safe outcome of the undertaking, and that the risks of the voyage rested upon him, until by means of his bottomry contract he had shifted them back to the lender of the money.

The doctrine of warranty was operative both as to statement of fact and promise of performance. We find the borrower warranting that the goods hypothecated are free of any encumbrance, and agreeing not to further encumber them. Likewise a definite destination was provided for the journey, and no deviation from the route was allowed unless provision was made for it in the agreement. Failure to comply with similar warranties in a fire or marine insurance contract would furnish grounds for voiding the policy. Likewise there is the provision in the agreement, that requires the discharge of the cargo in some place where the Athenians have no right of reprisals. Commissions to make reprisals were granted in ancient times in a manner not unlike the letters of marque and counter-marque were issued in more modern times. It was therefore essential to the safety of the cargo that the ship should not be unloaded at any place where the Athenians had the right of reprisals, because Athenian property
and consequently the hypothecated goods in the particular case under discussion, might and very probably would have been taken by those upon whom the Athenians were authorized to prey. Consequently the condition is inserted in the agreement. Non compliance would increase the hazards of the risk beyond that contemplated in the undertaking at its inception. This of itself would furnish ample grounds to void a modern insurance policy, in addition to the grounds furnished by failure to comply with a specific condition of the agreement.

The contract shows further a considerable development in the underwriting procedure. First of all a specific ship is named in which the undertaking is to be carried out. Presumably the lenders of the money were familiar with the ship, its size, speed, condition of its rigging and hull, and in general what factors were present that contributed to the risk. Likewise periods dangerous to navigation were recognized. In the agreement we are considering three thousand drachmas were lent upon a quantity of Mendaen wine, on the voyage from Athens to Mende or Scione, and thence to Bosphorus. If the borrowers wished it was provided that they could proceed along the left shore of the Black Sea as far as the Borysthenes, thence back to Athens. The interest charge for this voyage was 22\(\frac{1}{2}\)%, or as it is expressed in the agreement, two hundred and twenty-
five for the thousand. But here is the interesting point.
It is provided that if they shall sail out of Pontus to Hierum, after the rising of Arcturus, the interest rate is increased to 30% or three hundred on the thousand. The additional rate is charged to compensate for the increased hazards of navigation of early autumn. Finally as evidence of the care exercised by these lenders in estimating the risks and perils of the journey in the event that the borrowers should exercise a choice permitted them, and decide not to enter the Pontus, they were then bound to stay ten days after the rising of the dog-star in the Hellespont. This was at the end of July, the period characterized by the storms of the dog-days. In the event this option was exercised, they were to unload at a safe port and return to Athens, paying the interest inserted for the previous year in the agreement. This means, because the year ended about mid-summer, that a delay until the rising of the dog star carried the borrowers into the succeeding year, and hence it was stipulated that the lower rate was to apply if they did not enter the Pontus, and shielded themselves from the dangerous storms of the dog-days by delaying in the protection of the Hellespont for ten days.

Then there is incorporated into the contract the feature so important in the later development of insurance, the limiting of indemnity to actual loss. We have already seen that in the instance of jettison, or payment to an enemy, provision is made for an abatement of the amount due the creditor. This is presumably limited to the amount of the loss. There is, however, another interesting section that provides that if the ship in which the goods are conveyed should meet with any irretrievable disaster, the security shall be saved if possible, and whatever is recovered shall be the joint property of the creditors. If the borrower is no longer obligated to repay the loan, he is not entitled to profit by the mishap through retaining the salvage. As in the case of the modern insurance agreement, however, he is under obligation to do whatever he can to salvage and protect the property, and turn it over to the creditor, who in this instance is likewise an insurer. As the agreement is drawn, and in the absence of fraud, there is no opportunity for profit to accrue to the borrower through the happening of the contingency that results in a loss.

The question naturally presents itself as to the penalty for non-compliance with the terms and conditions in the agreement. To be sure no penalty is set forth in the
contract, but if there were no recourse to law, and no satisfaction for the injured party, the inclusion in the document of so many specific conditions would have been a useless superfluity. It is to be presumed that any violation of the terms of the agreement would be fraught with legal consequences. Just what the nature of the procedure would be is uncertain, but probably would include a forfeiture of the beneficial features of the agreement that accrued to the borrower. It may safely be presumed that if the borrowers should deviate from the route permitted in their agreement, and the hypothecated goods should be lost, the creditors would not be obliged to suffer the loss of their capital, but might proceed against the property of the debtors on the same basis as they would if the security arrived safely but failed to satisfy the claim. A deviation furnishes grounds for voiding a modern marine insurance policy. The place of departure and destination being specified in the agreement, it is an implied condition upon the part of the assured to be performed, that the ship shall proceed to her destination without delay and without deviation from the shortest course. A change in the voyage, after the departure of the ship, is considered to be a different voyage, and the insurer is no longer liable for loss, even if the loss be not a consequence of the deviation. When the deviation
is effected liability ceases. That such was the penalty in
the Greek bottomry contract we are considering seems a most
reasonable assumption.

Up to this point the insurance element in the
bottomry agreement has been emphasized. Because it is our
purpose here to trace the thread of development of the insur-
ance idea, this is the feature in which we are interested.
While every bottomry contract from its very nature must contain
some element of risk bearing to maintain the proper perspective,
the fact must not be submerged that the contract of bottomry
is not in all instances per se a contract of insurance. The
contract had other uses than that of risk bearing, and it is
to be presumed that while this feature of the agreement is not
to be minimized, it was nevertheless for a considerable period
a subordinate factor. The joint enterprise was a hold over
from an early period. It is interesting in passing, and essen-
tial to our purpose in tracing the contributions of ancient
Greece to the development of the insurance idea, to examine
the evolution of the bottomry agreement. We are interested
in determining at what point the insurance feature became the
important element in the agreement, and in contrast, to what

extent the marine loans represented in the beginning a joining in a business venture by the lender for a stipulated share of the profits. We are interested in considering the elements of the contract that constitute it an insurance agreement, and have as an end the shifting of the burden of risk from the shoulders of one to which the risk already attaches to those of another more willing to bear it.

At this point we are called upon to distinguish between carrying the risk on the one hand, and becoming a partner in the enterprise on the other. Let us take first as an example for consideration the case where a capitalist enters into an agreement with a merchant to finance a venture for a share of the profits, the merchant furnishing the knowledge and skill, the capitalist the required finances. Such an arrangement, even though the ship or cargo are given as security upon safe arrival, is not a contract of insurance, for there is no placing of the capital of the risk bearer in the position of the capital of another to meet anticipated risks. It is essentially a joint venture. Such a situation more closely resembles the position of the silent partner in the modern partnership or business enterprise. This was the relationship found in the commanda of the Babylonians. In the bottomry loan, unless the adventurer, because of risk, deliberately avoids the use of his own capital, there is little
to justify calling the transaction insurance, but rather more
to include it as a form of business association.

Perhaps another comparison might be made, not in the
form of organization, but in the relationship of capital to
the risk. In our modern form of corporate organization we
have a general classification of securities into three groups.
Regardless of the various forms to be found included in the
main classifications, the three principle groups include first
the bonds issued to lenders, second preferred stock issued to
limited proprietors, and lastly the common stock issued to
proprietors. Now then, the lender or bondholder expects the
return of his money regardless of the success of the venture.
The preferred stockholder knows that with failure of the ven-
ture he will salvage nothing until all obligations are met,
then he may have a preference as to remaining assets. On the
other hand his share in the profits is definitely determined
by the articles of agreement. Now then, even though the rate
of interest that a corporation must pay for an issue of pre-
ferred stock to attract buyers is in excess of the interest to
be paid upon a bond, the difference cannot be termed an insur-
ance premium paid by the common stock to guarantee the safety
of part of the capital. To partake of the character of insur-
ance, the capital risked must stand to bear the losses of other
capital to which the risk would ordinarily attach.

If it was difficult in the beginning to distinguish the insurance feature of the bottomry loan because it had more the characteristics of a joint venture, eventually the insurance element became more important and the payment on the loans instead of being at a rate that included a sizeable portion of the profits, more closely coincided with a premium charge above the current interest rates for risk. Presumably, as business advanced, borrowers were able on their own credit to finance their adventures, and were unwilling to pay the exorbitant interest that was originally demanded. They were willing to pay the lender a premium for carrying the risk, but no more. When the borrower reached the stage where he might borrow at one rate of interest, but be under obligation to pay back regardless of the success of his adventure, or borrow at a higher rate but be free of any further obligation in the event his ship or cargo was lost, the difference in rate measuring the element of risk, then the bottomry loan became insurance. It coincides with the definition, by then having as its principle end the shifting of the burden of risk. It is now an accepted belief that merchants who might well have financed themselves upon sea-ventures out of their own capital, often preferred to
borrow under the bottomry contract because of the risk inherent in the undertaking they contemplated, and pay the higher rate of interest required in return for the security offered. It follows if they were at the same time to invest their own capital in less hazardous undertakings, that the difference between the yield upon their own capital, and that paid for the sea loan, represents a premium paid for risk bearing, and is therefore a premium paid for insurance.

The contract of bottomry thus developed into a form of marine insurance, and may be regarded as the earliest form of indemnity to become a widely known and common practice in the commercial world. The commercial nations of antiquity secured through this means the benefits of insurance, cumbersome in its operation, this method of indemnifying loss was a decided step in the development of a means for risk bearing, and for the people of the ancient world, for whose benefit it operated, it was real insurance in its results.

2. Risk Bearing By Groups.

To ancient Greece belongs the credit, not only for developing the bottomry contract to a high state of usefulness,

but also for devising a means dividing the risk so that a single loss would bear heavily on no single individual. It is here for the first time that the partnership organization makes a contract and contribution to the business of insurance.

The earliest of these associations known in Greece were the marine trading companies, naturally formed by a group of associates aboard ship who were uniting their efforts in a common venture. The tradition that thus developed in connection with marine undertakings was bound to survive, and the step from forming groups to go to sea in a ship as partners in an enterprise, to the formation of groups to finance an enterprise by means of the bottomry loan, was both simple and logical. This form of partnership arrangement for effecting bottomry loans was an usual and well known business practice.  

The association or grouping of individuals for the purpose of dividing the risk involved in a single bottomry transaction furnishes us a striking parallel to the modern Lloyds associations. While the Lloyds associations of the present represent the accumulation of years of experience in conducting the business of insurance, the theory involved in

carrying the risk is essentially the same as that employed in the partnership associations of ancient Greece.

This partnership association developed in Greece was well adapted to the purpose of risk bearing, and was utilized not only in connection with the underwriting of marine loans, but also to finance undertakings of other kinds that involved too great a risk for a single individual. Athens, a city of great commercial enterprise, facilitated business operations through its widespread adoption. Many companies of great importance were formed there, and included among the partners some of the wealthiest and most influential men of the city.¹⁵

The usual form of organization included a leader or chief, as well as any number of associates. All of the members were not responsible before the law, but upon the leader or principle associate fell the duty of answering for the others.¹⁶ As to whether there was any provision in the law that regulated the affairs of the members or enforced the conditions of their contract of association is uncertain.¹⁷ It is to be presumed, however, that the law took cognizance of a

¹⁶ Ibid., p. 187.
¹⁷ Ibid., p. 187.
contract of association that occupied so important a place in the commercial life of the time. It seems certain that the company secured a considerable degree of unity and mobility of action through the device of making the leader the official representative of the group who entered an appearance for them whenever necessary. This form of association admirably adapted itself to the business of marine underwriting, and served as a means for carrying on the business of insurance.

The procedure for arranging to carry a bottomry loan, and at the same time effect a wide distribution of risk was simple. To begin with, a single individual might negotiate a loan on his own behalf, or it might have been arranged by a leader and two or three partners who were united for the purpose. The individual, or the partners who have negotiated the loan, and who are alone known to the borrower, then proceed to effect a form of re-insurance. That is, they further spread the risk by assigning part of it to other partners whose names do not appear in the original articles of agreement. The result of this dispersion makes each individual liable for but a small part of the total of any one risk.\(^{18}\) It is obvious, then, that an individual with a given sum of money, instead of being obliged to risk it all in a given venture, or risk it in large

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sums, may go about and place part on one risk, part on another. The loss of a ship in which they are interested would therefore involve but a fraction of their capital. There was likewise afforded an opportunity for the individual whose wealth was not all in a form to use for bottomry loans, but who might occasionally have small units available for risk to participate in a venture. He too could join in the underwriting of one or more of these groups. In this way more capital was made available for the purpose. The associations thus formed were not permanent partnerships, like companies, but like the Lloyds underwriters, formed a separate group for every transaction. Each group formed to underwrite a loan was a societas unius rei, lasting for a pre-arranged time, usually dependant upon the time of the voyage for which the money was advanced.

3. The Insurance of Slaves.

The earliest example we have of carrying on the business of insurance, following the method adopted in modern times, is found in Aristotle. Today as the business of insurance is carried on, if a given risk is to be transferred by means of

19. Ibid., p. 302.
insurance, it is accomplished by means of the insurer assuming the burden of risk by contract, in return for the payment of a stipulated premium by the assured. Surprise has sometimes been expressed, considering the development of commerce and business among the ancient peoples that no form of providing indemnity in the event of disaster, for the payment of a premium in advance, was effected on a commercial scale, at least so far as the available records afford us evidence. That the principle was not unknown, the Oeconomica attributed to Aristotle, affords us an outstanding example. In the instance cited, Antimines a Rodian has been placed by Alexander in charge of the roads around Babylon, and turned to the problem of raising money. Among other devices, he went into the business of insurance. Owners of slaves, if they wished, were permitted to register the value of each slave, and to pay eight drachmae a year. In consideration of the payment of this sum (premium) the owner would receive the price he had registered in the event the slave should run away. It is recorded that many slaves were registered, and that Antimines accumulated in this way a considerable sum of money.

20. Oecon, 11, 1352 (b) 33.
The special significance that attaches to this instance is found, not in its commercial importance, but in the fact that it demonstrates to us the fact that the principle must have been well known long before it became a common commercial practice. With the authorship of the *Oeconomica* we are not here particularly concerned. The fact that it has been handed down to us in the Aristotelian Corpus assures us that it was widely known and read. If the case of Antimines were an isolated instance and the report buried in some obscure document that had since come to light we could not be sure that the instance was known. But to be included in Aristotle was to assure the material being familiar at least to the scholars and students. Because of its importance in giving body to an idea that was subsequently to be of great commercial importance, as well as making a record thereof, the passage is here included in full:

"On another occasion, when providing slaves who were to serve in the army, he commanded that any owner who wished should register the value which he put upon them, and they were to pay eight drachmae a year; if the slave ran away the owner was to receive the price which he had registered. Many slaves being registered, he amassed a considerable sum of money. And whenever any slave ran away he ordered the satrap of the country in which the camp was situated to recover the runaway or else to pay the price to the owner." 22

22. *Oeconomica*, II. 1532 (b) 33 ff. Forster translation.
This was indeed insurance, and so far as we have any knowledge from the records that have been preserved for us, represents the first instance of risk bearing where the insurer in return for the advance payment of a premium, agrees to indemnify the assured upon the happening of the undesired contingency for which protection is provided. As to what extent the idea was used by others, or whether it was used at all, we have no information. That the idea was presented in the *Oeconomica*, not merely as a record of the past, but as an example to be followed by others who desired to engage in an undertaking for profit, may be gathered from a further reading of the text. In the beginning of the second book of the *Oeconomica*, the author distinguishes four kinds of economy. After mentioning and describing them, he then presents a collection of all the methods that he conceived to be worth mentioning, devised or employed by men of former times as money-making schemes. The information was presented with the idea in mind that others might make use of it as a means for securing a profit for themselves. Then follows a number of examples showing how different individuals were able to secure money. Among the examples thus listed, is to be found this insurance project of Antimines. 23

Whether, as the writer suggests, others availed themselves of

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the insurance idea thus described, there is no information. It is to be presumed that at this time the idea failed to survive, for there is no evidence that it ever became at this early date an important commercial practice.

It is interesting to note in passing, however, that the project apparently developed in response to a decided need, and involved a recognition of the economic effect of risk. The conditions under which slaves were held in military service facilitates escape, and made slave owners reluctant to subject their slaves to this hazard. It is obvious that such a situation would not tend to further the project of Antimines of providing slaves for the army, on the other hand it would tend to make the task more difficult. It might have been expected, as the most logical step, that the authorities furnish the owners with some form of guarantee that their slaves would be returned. This they were apparently unwilling to do. The shrewd Antimines, however, was able to meet the situation. He provided a means of eliminating the risk as far as the slave owner was concerned, and at the same time provided a source of revenue for himself. He went into the business of insuring the slaves.

The voluntary feature of the project is worth noting. While he commanded that facilities be made available to the owners for registering slaves, the matter of registering was entirely optional. Only those who wished were required to pay the premium, and thereby secure the protection that was offered. It was entirely a business proposition. The risk was present. The person upon whom the burden rested could for the payment of a premium secure relief by shifting the burden to the shoulders of the risk bearer or insurer.

We are interested in considering at this point as well the position of the insurer. Had Antimines determined his premium charge on the basis of experience? Did he set up out of his premium collections a reserve for losses? Were the reserves adequate? Had he any knowledge of the elements to be considered in computing an adequate premium? So far as Antimines is concerned that problem of devising a premium to meet losses, and leave a compensation for capital risked, as well as for other expenses, does not concern him. The problem of the insurer or risk bearer is solved by the simple expedient of putting the burden on the shoulders of third parties, who are not concerned with the enterprise. He provided himself with a means of making good all losses
by ordering the satraps to recover runaways, or make good their value to the owners.

The agreement made by Antimines was not unlike that contract known to modern insurance as the valued contract. Under the valued policy contract, in the event of a total loss, the face of the policy for the purpose of adjusting the loss represents the measure of the damage. Likewise in the contract provided by Antimines, the insured is permitted to register the value which he himself puts upon the slave. Unlike the modern insurance agreement, however, the premium amounts to a flat sum of eight drachmae a year, regardless of the value put upon the slave. As in the valued policy, however, in the event of loss the owner of the slave was to receive the amount for which he was registered.

From the method of placing the values on the slaves insured, it might at first glance seem as though sight were lost of the principle of indemnity, and that the insured would tend to place a value upon his slaves in excess of their actual worth. From the text we read that the valuation accepted was that fixed by the owner. Nor was the premium fixed upon the basis of valuation. Doubtless it was true that the owners who took advantage of the opportunity did tend to place a high valuation upon their property. Nevertheless, we may assume that those in charge of the registration were familiar with the upper and
lower limits of the prices of slaves used in the army, and probably exercised a control over the valuations. It is not to be expected that in a venture of this sort excessive payments would be made, consequently it would be natural to guard against excessive valuation at the time of registration.

However, it may be that the insurer did not particularly concern himself with value, and the owners could over insure. As a matter of actual concern, since the insurer does not intend himself to meet the losses out of his resources, but had ordered third parties to provide the indemnity, valuation means little to him. And since no effort is made to make the premium vary with the amount of the risk, and a flat sum is fixed for each individual slave registered, regardless of the value placed upon him, it may be reasonably concluded that the insurer anticipated as much inconvenience in securing the return of a low priced as a high priced slave. The matter of valuation was a concern ultimately only to the satrap called upon to return the runaway, and then only if he failed to capture the fugitive. And the satrap was not a party to the insurance agreement.

This instance of Antimines *the Rodian* from the Aristotelian corpus, is considered here at some length, not
because his venture was of itself of any commercial importance, but because here in his case, a record was made of an idea that failed for centuries to be adopted as a widespread commercial practice, and yet was destined to become "the handmaiden of commerce."
CHAPTER III

ANCIENT ROME.

1. Bottomry and Marine Insurance.

Whether or not ancient Rome ever developed a contract of insurance having embodied in it the essential features of the modern policy, is a question that has been widely debated. So far as direct evidence affords us grounds for a conclusion, it would seem that an agreement for shifting the burden of risk to an insurer having no privity of interest with the insured, in consideration of a premium paid in advance, was entirely unknown to the Romans, and that the only vehicle used by them for effecting marine insurance contracts was to be found in their adoption and commercial development of bottomry. Even though direct evidence is lacking, however, there is reason to believe that both contract forms were known and in commercial usage.

Regarding bottomry there is no doubt. The contract was widely known and extensively used in the ordinary course of business. The titles de nautice fenore and de usuris, which bear upon these contracts afford ample and undisputable
evidence of the extended use made by commercial enterprise of this form of agreement. Bottomry with the Romans was in its essentials the same contract as that developed by the Greeks. Trajecticia pecunia, the term applied in Roman law to money lent on bottomry, referred to money lent for mercantile adventure beyond the sea, with repayment conditional upon the safe arrival of the security at its destination. 1

The insurance element in the agreement was clearly defined in Rome. The risk assumed by the creditor was considered as a sufficient reason to warrant a higher rate than the usual rate of interest. Contrary to the situation that existed in Greece, however, the nauticum fenus or usurae maritimae could be charged, not for the time the borrower held the money, but only for the time over which the creditor's risk in the voyage extended. 2 If this voyage came to an end, and the loan was not repaid, only the legal interest rate might be collected, from the time that marked the termination of the voyage until the loan was repaid. There was, however, a provision for a fine in the event that repayment was delayed beyond the appointed time. This risk element in the bottomry agreement was recognized by Justinian, when in 533 he fixed the

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1. Roby, Roman Private Law. v.2, p. 75.
2. Ibid., p. 75.
rate of interest to be charged on ordinary loans at 6 per cent. In the case of *fenus nauticum*, a special exemption was made, and twelve percent was permitted on the ground that such transactions went beyond the mere lending of money, and constituted an adventure involving the lender, which was subject to the risks of the sea.  

Commenting upon this phase of the Justinian edict, Gibbon, in his *Decline and Fall of the Roman Empire*, says:-

"Persons of illustrious rank were confined to the modest profit of four per cent; six was pronounced to be the ordinary and legal standard of interest; eight was allowed for the convenience of manufacturers and merchants; twelve was granted to nautical insurance, which the wiser ancients had not attempted to define; but, except in this perilous adventure, the practice of exhorbitant usury was severely restrained."  

The legislation of Justinian marks the first limitation of the rate of interest that might be charged on bottomry loans. In placing a limit on the rate, however, he clearly recognized the risk element, and permits a charge therefor.

The utility of the contract as a vehicle for risk bearing, and therefore a means for effecting insurance, was readily recognized by the Romans. Nor did they confine its use solely to marine undertakings. As a matter of fact, loans

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were made, with a condition inserted in the agreement calling for the satisfactory outcome of the undertakings financed, as a condition precedent to any obligation of repayment, where the risks covered were not the ordinary hazards of the sea. There is, for example, an instance cited of a loan made to a fisherman for the purpose of purchasing apparatus, repayment of the loan depending upon the catch of fish. This was an instance where the borrower was insured against loss arising out of disbursements, in preparation for an undertaking that might turn out unsatisfactorily. There is another case, where money was lent to an athlete for training purposes, repayment to be made in the event he won at the contests. From these instances it may be seen that the Romans used the conditional loan agreement as a means for shifting the burden of risk in widely different fields, and did not therefore limit themselves in its application to the field of marine undertakings.

Of the fact that bottomry was well known, and extensively used, there is ample evidence. Turning, however, to consider the possibility of the existence of a contract of insurance, used by the Romans in carrying on their commercial undertakings, the evidence is less certain, and would seem at first consideration to justify the conclusion that such a contract was unknown. Weight is given such a belief, when

6. Roby, op. cit., p. 76.
after a consideration of the frequent references and ample
treatment of the question of bottomry to be found in the Roman
laws, in contrast we find a complete silence when we search
for evidences of legislation dealing with an insurance contract.
As a matter of fact, there is no reference in all the civil
law of Rome to the contract of Insurance. Upon the subject,
not only are the Institutes, Pandects, Code, and Novels, com-
pletely silent, but also there is no trace to be found of ins-
urance as a separate and distinct contract in any of the laws
of the Emperors who succeeded Justinian. This fact alone has
led many eminent scholars to conclude that the Romans were
wholly ignorant, both of the term and of the contract of insur-
ance. 7

Nor does such a conclusion at first thought seem to
be unreasonable. The full treatment of bottomry to be found
in the law, contrasted with the complete silence concerning the
insurance would seem to permit the presumption that this silence
was due to the fact that the contract of insurance was unknown.
The problem, however, is not so simply solved. More complete
investigation tends to explain the silence of the law, and
reverses the older opinion that the insurance contract was un-
known to the Romans.

The learned and scholarly Duer, in discussing this question, believes that insurance, if practiced in Ancient Rome, was effected by a mutual guarantee of associated merchants, or by the division of the burden of the risk among several individuals, who were not otherwise interested in the adventure, each assuming a proportionate part of the risk. Hence, it is his conclusion that marine insurance retained its original form of a mercantile usage, without finding a place in the law.

Bottomry on the other land, occupied quite a different position. Patricians and Senators of Rome during the final days of the Republic, and Nobles under the Empire, had become the capitalists of the world, and sought profitable sources of income by loans outside the city, wherever high rates of interest might be obtained. Voyages of great importance were often projected in neighboring cities where the local capitalists were unable to arrange the necessary financing. In such an instance the natural procedure was to turn for assistance to the great financial center of the world in the city of Rome. Because of the high rate of interest, maritime loans became a favorite investment with the capitalists, and as the business grew in importance, and extended its scope nationwide, careful regulations concerning it were enacted, and ultimately incorporated into the works of Justinian. 8

8. Duer, op. cit., v.1, p. 22 et seq.
There is, however, a further explanation for the omission of any legal regulations covering the subject of marine insurance in the works on Roman law. Such laws as effect marine affairs that are to be found in the Code or Pandects are rather of a supplementary nature than original in their character. There are many subjects of great commercial importance, besides marine insurance, that find no laws for their regulation, yet this fact will not warrant a conclusion that no such laws are in existence. The explanation of this apparent inconsistency is found in the fact that the Romans had early adopted the laws of Rhodes as the Roman legal code for maritime affairs. When they were first incorporated into the law of Rome is not clear, but as early as the time of Augustus they were formally adopted, and their authority was proclaimed by Justinian through the adoption in the Pandects of an edict of Antonius in which the Rhodian laws were directed to be observed in all cases where they were not contrary to the laws of Rome. 9 Hence it is to be expected that if there was in Rome any law regulating the practice of marine insurance, it was to be found in the adopted Rhodian law, laws which are now lost to us.

There are in the writings of the classical authors four passages, upon which have been centered the attention of writers on insurance, and which have been held forth as proof that insurance was not only known to the Romans, but was also a common commercial practice. The passages in question include two references in Livy, dated around 215 B.C., another from a private letter of Cicero dated 49 B.C., and a final instance from Suetonius dated at 58 A.D. Writers have by no means agreed in their interpretation of these passages in the light of their proving a reference to a contract of insurance. They do, however, afford evidence that the insurance idea was known and understood by business men.

The earliest of these references comes to us from Livy. The forces operating in Spain, he tells us, had become destitute, and an urgent appeal had been sent to Rome for assistance. Conditions in Rome were not promising; the treasury was empty, and the people had been taxed to the limit. In the crisis it was decided to call upon the people for credit, and to urge those who had already profited through government contracts, to furnish the needed materials and be paid when the treasury should succeed in getting money. On the day appointed for letting the contracts, the historian tells us

there were a sufficient number who came forward to take the contracts, but named two conditions under which they would advance the supplies on credit. The first of these was exemption from military service, and the second was the assumption by the state of the risks of storms or attacks of the enemy while the supplies were on shipboard and in transit to destination. Both of these demands were granted.

The second mention of this agreement in Livy has to do with abuses that followed the state guarantees. Merchants, he tells us, who had entered into agreements with the government fabricated fraudulent claims, and attempted to collect because of pretended losses on the basis of the government's agreement to indemnify. Small amounts of supplies were sent out in old and unseaworthy ships, and after sinking them at sea, their owners presented false claims as to their value. This practice continued for two years, and became so great a scandal as to cause a popular uprising.

The next reference that may possibly be interpreted as indicating a knowledge of insurance is found in the letter of Cicero to Caninius Sallust. The letter was written following Roman victories in Cilicia and the writer stated that he expected to receive guarantees to protect himself and the state
from the possible loss of the public moneys while in transit. Those who cannot see in this arrangement a contract of insurance, assert that what Cicero referred to was a bill of exchange. On the other hand, if he actually contemplated transferring money and treasure, then the agreement to guarantee the safe transportation, was most certainly an insurance agreement.

The final instance mentioned in the classical writers brings us down into the Christian era, with an elapse of approximately 275 years from the instances mentioned by Livy. This is related to us by Suetonius, and has to do with the period of the reign of the Emperor Claudius. There was, the historian tell us, in A.D. 58 a severe famine in Rome, resulting in great distress and popular demonstrations. With the supply of corn low, and little prospect of further importations during the winter season, Claudius, in order to encourage a resumption of trade, and continued imports of this valued and much needed commodity, offered not only to pay a bounty on all corn imported, but further agreed to be personally responsible for all losses arising from the storms. Here, as in the cases mentioned by Livy, we have a similar set of circumstances. Ownership of the goods to be shipped remained with the vendors until delivery at the points specified. While the goods were aboard ship the shippers would have been responsible for losses, had

they not required an agreement to indemnify them in the cases mentioned by Livy, and had not such an agreement been voluntarily offered in the case mentioned by Suetonius. The government, then, is in each case the risk bearer. It is therefore correct to refer to the agreement entered into between the government and the merchants as insurance contracts. 13

These historical facts, while they prove that in an emergency the government recognized the effects of risk in tending to defeat its ends, and proceeded by means of an insurance agreement to shift its burden, do not of themselves prove that marine insurance as a private contract was known to merchants. The instances are, however, not without value. If they accomplish nothing more, they clearly demonstrate the reluctance of merchants to enter upon hazardous ventures without some assurance of indemnity. In the cases here mentioned it is probably true that the risks were so great that there would have been difficulty in securing an agreement to indemnify from private individuals, and because of that, the government met the need to serve its own ends. It is not an unreasonable conclusion, however, to assume that when merchants, tempted by the allure of great profits, entered upon a hazardous adventure in which the government had no interest, they provided themselves with the required indemnity through a

contract with private individuals.

Serving to confirm the theory that insurance was effected as a private agreement between individuals, there is a passage in the Digest that seems to refer to such a contract. This consists of the incorporation in the Digest of a judgment of the learned Preatorian Praefect Ulpian, who passed upon the validity of the agreement contained in the stipulation: "Do you promise that my ten thousand shall be safe?" (Decem milia salva fore promittis?) If the second party to the agreement replies, "I promise", then he binds himself to assume the risks attaching to the ten thousand of the party to whom the promise was made. When the question of the validity of this agreement was submitted to Ulpian, he made an affirmative decision that ultimately found its way into the Digest. Commenting upon this passage, Marshall, states that it affords "greater color for supposing that the contract of insurance was not altogether unknown to the Romans, than any of the passages above referred to." He adds, however, that whatever sort of contract the passage referred to, it was very little known when Ulpian made his decision, since he found it necessary to state that it was not illegal.  

there is the possibility that the contract had been commonly used in business, but that this occasion marked the first time that its validity was brought into question. It is not uncommon that a custom among merchants is found to persist for many years before disputes arising out of it come before the established courts for settlement. Such may have been the situation in this case. The validity of this agreement was settled for all time in Roman law by Ulpian's decision, and its subsequent incorporation in the Digest.

The form in which this agreement was made represents probably the most ancient of the forms of contract recognized in Roman law, and was known by the name stipulatio. The agreement was entirely verbal, and its validity depended among other requirements, upon a strict conformation to a specified formula. A question containing the terms of the contract was put by the stipulator, or promisee, and the reply was made by the promisor. The act of putting the question, and receiving the reply was called the stipulatio.16

It can readily be seen that if the reference in the Digest to Ulpian's decision regarding the validity of an agreement to keep safe the ten thousand of a stipulator, was a

reference to an insurance agreement, then the stipulatio may have been widely used for effecting insurance contracts. Insurance, would therefore not be of necessity confined to marine risks, and the regulations in the law that effected contracts of insurance would be those that applied to contracts in general.

Whether the contract of insurance was known to the Romans, however, aside from the insurance element to be found in the bottomry agreement, will until further information comes to light, remain a matter of speculation. In the light of such evidence as we have, the following conclusion of the learned Duer warrants thoughtful consideration:

"The desire of merchants of limited means to obtain the necessary capital for enterprises in which they wished to embark, combined with the desire of protecting themselves against the loss of the capital employed, led to the invention and practice of marine loans, in which the lender assumes the risk of the voyage. It is evident that the same desire of providing an adequate indemnity against the perils of the sea, must have existed in cases where no advance of capital, as a loan was needed or desired; that is in cases judging from our own experience, forming a vast majority of commercial adventures. That, to persons thus situated, to minds actuated by this desire, the utility of an insurance unconnected with a loan, should not have occurred, it is difficult to believe, and still more so, that appreciating its utility, they neglected its introduction and use. Let it be admitted that the contract of bottomry was first in the order of invention; reasoning from probability, we should say that the separation in a distinct contract, of the insurance from the loan
was an immediate and almost necessary consequence. For myself, I am persuaded, that were we wholly ignorant of the laws of the Romans, but knew from history the extent of their commerce, we should deem it far more probable, that marine insurance was in frequent and general use, than loans on bottomry and respondentia; for these plain reasons, that the contract of insurance is simpler in its provisions, less onerous in its terms, more easy to be affected, and of far wider utility." 17

While any conclusion with reference to the existence of an independent insurance contract, due to the paucity of evidence, must of necessity be based upon speculation and therefore involve much uncertainty, no such uncertainty exists with reference to bottomry. The evidence here leaves no doubt. We know that the contract was well known and frequently used in the mercantile practice of the Roman people, and served as a vehicle for providing insurance.

2. Collegia and Life Insurance.

Of particular interest, because possessing many of the characteristics of life insurance as written today by the fraternal or beneficial societies, was the practice at Rome of organizing burial societies, whose functions were, among others the payment of the funeraticum or death benefit upon a member's decease. Here we have a situation involving the risk of an

undesired contingency. To ward off the undesired effects, steps are taken by the individuals concerned through organization and contribution to reduce the undesired probability to a reasonable degree of desired certainty. Payment is made in advance for the service rendered at the time agreed. Differing from insurance in that it provides for a certain payment ultimately, there is found here nevertheless the insurance element of the life policy in that it provides for the uncertainty of the contingency on a time basis, thus the protective element is added to the accumulation of a fund undertaken to meet a certain payment. This development of death benefits found its medium in the highly specialized and widespread system of gilds organized among the Romans.

The tendency to form into groups and organizations made itself manifest in Rome at a very early date. According to tradition the early kings were believed to have organized the first gilds. Romulus is said to have been responsible for the military and political institutions, and Numa, his successor, is credited with having carried the work from war to peace with the establishment of such gilds as the shoemakers, dyers, carpenters, and others engaged in peacetime pursuits. 18

To what extent such tradition corresponds with historical fact we are not here concerned. It is sufficient for our purposes to note that the formation of the gilds reaches back in Rome to a very early date.

The information that comes to us concerning their development during the period of the Republic is meager. The position of the poor citizen was not a particularly happy one, nor were the aristocratic writers concerned with including his affairs in their records. Under the Empire, however, the poor workingman began to emerge into a better position. They became an active and industrious class, interested in their affairs, and concerned with their welfare. This period affords a wealth of inscriptions from which it appears that the lower classes, that is the grades of workmen including freedmen and slaves, lived under favorable conditions hitherto unknown.

It was in this atmosphere that the social tendency that manifested itself in the organization of gilds found a favorable environment for development. Such groups were to be found in every strata of the social structure, and their development was particularly fostered among the workmen in the various trades and occupations. There were clubs that

Stobart, *The Grandeur that was Rome*, p. 284.
were particularly religious in character, others political in their nature, groups organized for the purpose of amusement, and lastly the professional organizations. Just as in this country today there are clubs, unions, and societies of every description, so among the Romans, the capitalists, veterans, religious and laborers united to further their own aims and interests. Fascinating as is the examination of their organization and development, we here are concerned only with the insurance element which they provided. This element, closely resembling the life insurance provision of the modern friendly society, is to be found in those societies, which in return for the required contributions, rendered prescribed benefits to their members.

While others of the Roman societies provided benefits for their members, notable among these were the veterans organizations, for our purpose the collegia tenuiorum serve as the best example of a Roman gild organized with an insurance feature. Because of a similarity or organization, and the practice of providing a death benefit, compared with the mutual fraternal benefit insurers of the present time, these ancient societies have been termed the first writers of life insurance.

20. Waltzing, op. cit., p. 33 et seq.
The death benefit of the *collegia tenuiorum*, it is interesting to note at the outset, was designed not as an insurance feature to benefit the heirs of the deceased, but originated in a fear on the part of the poor Roman that he himself after death would be lacking in the necessary religious rites and a proper burial. Hence, in its beginning at least, the death benefit of the *collegia tenuiorum*, was designed to provide the member himself against the unhappy lot of remaining unburied.

On the lowest plane of the Roman social structure stood the proletariat, the free wage earners and slaves employed in the shops and households. With very low wages, scarcely above the minimum necessary to procure the means of a bare subsistence, in the course of providing themselves with a means for social contact and at the same time insure themselves against the most dreaded of all risks, burial without proper rites, the gilds that served these purposes were organized. 21

Because of the extreme poverty of the lower class Roman, the risk of dying without means of carrying out the religious rites he believed to be essential was a grave one. Money of course might be saved, but to the very poor this was a difficult undertaking. Nor was there any assurance that

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he would live long enough to save the necessary money, if he had planned to do so, or should he succeed, that the money would be used as he desired. Nevertheless the difficulty was admirably solved. From his meager wages the poor workman, however, might well manage his dues to the collegia, and thereby transfer the difficulty. He provided security.

Nor is the importance of this protective feature to be minimized. A "decent burial" has concerned the people of every age and generation. Among the civilized countries today it is matter that influences everyone, yet as society is now organized every individual no matter how humble his position or poor his circumstances, need have no fear of the indignaties that haunted the poor of ancient times. In ancient Rome the possible fate of the poor and friendless presented a picture that was not pleasant. During the Republic, and at the beginning of the Empire, there were provided for the disposal of their remains great public burial places constructed in the form of cisterns closed at the opening by a great stone. Here bodies were thrown, one upon the other. 22 A startling and gruesome picture of the common burial place for paupers, (miserae plebi stabat comune seplucrum) is provided by

Horace when he alludes to their bodies cast out (electa cadavera) upon the ground white with bleaching bones (albis ossibus agrum) and infested with thieves and beasts. (furesque feraeque suetae hune vexare locum.)

This, the "Potter's Field" of ancient Rome, with the attendant neglect of proper religious ceremonies and burial rites was the risk, that in relation to all others, loomed in importance to the poorer people. In their move to meet the risk, and to provide security for themselves, through the agency of the collegia tenuiorum, a protective system was effected that served the times, satisfied a need, and created a system that has been carried forward in its essentials to the present through the widespread operation of the modern fraternal and beneficial societies.

In estimating the relative importance of the risk it is especially necessary first of all to bear in mind the deep religious nature of the Roman, together with the fact that the last solemn rites in honor of the dead with a fitting burial were strictly proscribed. The poor freeman, and the slaves in Rome had little or nothing in the way of wealth. There was no risk of loss here. As a matter of fact they

could scarcely be said to have hope. So then, to these people the nearest and most important risk with which they were concerned was the possibility of a future life of unrest. The importance of the proper fulfillment of the religious rites is made clear by Professor Becker, who says:

"At a very early period the belief was rooted in peoples' minds, that the shades of the unburied wandered restlessly about, without gaining admittance into Hades; so that non-burial came to be considered the most deplorable calamity that could befall one, and the discharge of this service a most holy duty. This obligation was not restricted to relatives nearly, and near connections; it was performed towards strangers also; and if one happened to meet with an unburied corpse, he at any rate observed the form of throwing earth thrice upon it." 24

Having recognized the risk, the poor Roman proceeded along the most natural lines to provide for himself a greater degree of security. Whenever there is an end of any sort, if there is a common interest in its accomplishment, the tendency to unite into groups for the purpose of effecting the common end manifests itself. The organization and widespread growth of the gilds of ancient Rome was a response to this natural tendency. Occupying its own position of no inconsiderable importance among all the many types and kinds of associations thus formed, are those which have for their end social relationships, to which have been added the feature of mutual benefits. Such societies are numbered among the most important insurance carriers of today.

and such was the type of society founded by the workingmen of ancient Rome to provide not only a means for social contact but as well an insurance feature that relieved them of the responsibility of providing in some other way for funeral rites and proper burial. Such societies were the collegia tenuiorum.

The statutes of one of these organizations found in Lanuvium illustrates admirably the points of similarity between the modern beneficial society and the collegia. They say in part:

"It has pleased the members, that whoever shall wish to join this guild shall pay an initiation fee of one hundred sesterces, and an amphora of good wine, as well as five asses a month. Voted likewise, that if any man shall not have paid his dues for six consecutive months, and if the lot common to all men has fallen upon him, his claim to a burial shall not be considered, even if he shall have so stipulated in his will. Voted likewise, that if any man from this body of ours, having paid his dues, shall depart, there shall come to him from the treasury three hundred sesterces, for which sum fifty sesterces, which shall be divided at the funeral pyre, shall go for the funeral rites. Furthermore, the obsequies shall be performed on foot." 25

The income for the organization comes from two main sources, the initiation fee, and a system of monthly dues, a system identical with the custom usually in vogue in the modern fraternal beneficial society. In addition there is evidence that a system of fines and gifts added to the funds in the treasury. 26 Dues were paid directly to the common treasury,

26. Ibid., p. 224, and 227.
and out of this fund all expenses of the organization of whatever sort were paid. Next come the provisions and penalties attached to nonpayment of dues, a six months period of grace being allowed before the failure to pay operated to cancel the member's benefits. Lastly a provision is made for the benefits, part of the fund to be used for the expense of burial, and the balance presumably to be distributed to the heirs or dependants of the deceased. The likeness here indicated between the ancient and the modern is indeed striking.

It is worth mentioning here that it does not seem to have entered the minds of the Romans that these organizations, in addition to providing the necessary burial rites, could have served to render assistance in sickness or other time of need. As a matter of fact, there probably was in the beginning at least no intention on the part of the members of the burial societies to provide even for those whom they left behind. The payment to be made upon the decease of a member was designed for two purposes. The first of these was to provide for burial and pay for carrying out of the necessary funeral rites. The sum left over after these expenses were met was to be used in erecting a monument. Any part of this money that the family of the deceased should retain for their own use was in the beginning a diversion of the funds to a use not intended by the collegia. 27

It is to be observed, however, that the funeraticum could be considerably in excess of the actual funeral expenses, and the balance was paid to the heirs of the deceased. If, originally, it was the intention of these societies to provide only an amount sufficient to pay for a burial and monument, as the death benefits were increased, it is to be presumed that such sums as were left after the necessary expenses were met would then be retained by the heirs for their own use. Hence, an institution that was designed originally to provide only for a need of the deceased developed to provide likewise for his family.

The question has been raised as to the effect of Christianity upon these burial societies, with a view to ascertaining whether their benefits were broadened by the contract. The question is answered by pointing out that these societies had for their end the fulfilling of a religious rite of a pagan people, and because of the religious character of the organizations, Christians did not participate in their activities. To render comfort and assistance to the unfortunate the Christians organized various charitable societies of their own.

An examination of the conditions under which fraternal organizations operate today, and the organization, aims, and purposes of the collegia tenuiorum reveals a startling similarity between the two, and justifies the conclusion that here indeed was commenced a system of insurance still in operation with changes only in the details. A very substantial percentage of all lives insured today in the United States are insured by fraternal societies. These societies are primarily social in purpose, effecting mutual aid among members in time of need, and providing the usual death benefit upon the decease of a member. That these organizations are primarily clubs is well established, and their character as such now rests firmly upon court authority. While the insurance feature and general economic aspect has been an important factor in their development, it can in no way be subordinated to the social appeal; and the opportunities offered to partake in the activities of these organizations of a purely social nature have likewise contributed to their growth and popularity.

The funds upon which these fraternal organizations operate and out of which expenses and benefits are paid are derived from dues, usually monthly, together with additions

made to the treasury through assessments, fines, gifts, entertainments and the like. They are co-operative in their operation, and the claims of members against the organizations are on the basis of membership and not upon a contractural relationship as is set up by the issuance of the life insurance policy. Non compliance with the rules of the organization, one of the most important of which is the meeting of dues and assessments, results in the member being cut off from participation in the society's benefits. There is little in common in the relationship of the member to the organization with that of the holder of a life insurance policy to the commercial company of modern times. Yet the benefits do fill a need, and experience shows that as attractive as is the social side, many members join alone and solely for the economic benefits, keep their dues regularly paid, but never take part in the other activities of the society.

While the purposes which modern life insurance policies are designed to meet are many, an analogy may be drawn here between the present and the past, in that the cost of dying today furnishes an important problem, important enough to be sure for the poor or those in moderate circumstances, but increasingly complex as the value of the estate of the deceased mounts in value. While in the case of the poor workman or
slave of ancient Rome the concern was to provide a means for defraying the expenses of burial and funeral rites, the cause of concern today with the rich arises out of the problem of providing ready cash to meet taxes thereby protecting assets in the estate from the necessity of forced or unfavorable liquidation for this purpose. The life insurance policy has solved the problem today, the system of the *collegia tenuiorum* solved the problem of unusual expense attendant upon the death of the poor among the ancient Romans.

It is hard to see how this system could have been improved upon with the knowledge of insurance available to the people of those times. Likewise it must be remembered that these organizations were carried on by the lowest classes in the city, including in their membership slaves and free wage earners, people whose economic status provided but the most meagre living, and it is not to be doubted that the benefits were as welcome and served as well in those days as they do today.

Because these ages are so far in the past, because we are unable without some effort to place ourselves in the place of the peoples of other times, we are inclined to forget they they were very human, they were moved by the same impulses and guided by essentially the same instinctive tendencies.
And this effort of these humble people in a mighty empire, where wealth and luxury are the bywords, is worthy of note in the development of the principle of insurance. And great as is the business of life insurance as it is practiced today, surrounded by science, technical and complicated in its computations and calculations, yet it is not an uncomplimentary statement to term the efforts of the collegia of ancient Rome as the beginning of this great branch of the insurance business, because if it lacked in technique at least it was not failing in purpose.

3. The First Mortality Tables.

The development of actuarial science, without which the modern plan of life insurance would have been impossible, depends first of all for its point of departure upon the construction of tables of mortality. So far as the records furnish us evidence, the first efforts towards the construction of such tables followed the enactment in Rome (40 B.C.) of the Falcidian Law, (Lex Faldicia de Legatio.)

The purpose of the Falcidian law was to restrict the power of leaving legacies. Originally this power was unlimited,
for by the Twelve Tables it was ordained that whatever disposition anyone made of his estate, so shall be the law. (uti legassit suea rei ita jus esto). The law, as represented by the Twelve Tables, made it possible for a testator to so diminish his estate in legacies that the heir or heirs to whom the residue was due would decline to enter, with the result that the will became ineffective. 31

The reason that prompted an heir to refuse to enter when the estate was nearly exhausted, or entirely so, because of numerous bequests, is found in the Roman doctrine of universal succession. A universal succession involves a transmission of the aggregate of the rights and duties at one given moment from one person to a successor. Such a succession followed upon a death, and the heir was immediately clothed with the legal person of the deceased, and instantly acquired not only all of his rights, but likewise all of his duties. Among the duties was a responsibility for the debts of the deceased. 32

It can readily be seen that the heirs to an estate exhausted by bequests might succeed to little more than an

30. Twelve Tables, Tabula V., 3.
31. Roby, op. cit., v. 1, p. 344.
accumulation of duties, and steps were early taken by the legislators to remedy such a situation. Three laws in succession were passed with this end in view. The first of these, the lex Furia, as well as the lex Voconia which followed, while limiting the power of leaving legacies, were still inadequate, and the third law, the lex Falcidia was passed, and took its place as a part of the permanent body of Roman Law.33 It is with the provisions of the lex Falcidia that we are here concerned, because it was in an effort to make them effective that the first mortality table was developed.

The law was passed in 40 B.C., and while under its terms the right was left to any citizen to leave his property to whomever he chose, nevertheless, and this is the important feature of the law, it was required that the amounts of all the bequests should be so restricted as to leave the heirs under the will not less than one-fourth of the estate.34

Under the operation of this law it became necessary to evaluate not only the entire estate, but in the event that it appeared the heir or heirs were not to get their fourth part, if all bequests were paid, it was likewise necessary to appraise

33. Roby, op. cit., V. l., p. 344 et seq.
34. Institutes, Lib. II, Tit. xxii.
each separate bequest. In the case of property the matter of valuation was not difficult. Each article was to be appraised at its true value as an article of commerce. However, in the event that a testator left a beneficiary a certain sum, to be paid him annually for life, then the problem of evaluating the annuity presented itself. It was in the solution of this problem that the Roman jurists devised the first mortality tables.

What the earliest means were that were attempted to ascertain the value of an annuity for the purposes of this law we do not know. Aemilius Macer furnishes us the first record. According to him the method in common use in his time (c.230 A.D.) for making this computation was as follows: - The value of the annuity was to be computed at thirty years purchase for all ages up to thirty, and above that age it was to be computed at so many years purchase as equaled the difference between the age of the annuitant and sixty. Using this method described by Macer an annuity value never exceeded thirty years purchase. 35

Recognizing the inadequacy of this system, the distinguished jurist, the Praetorian Praefect Ulpianus, in 364 A.D.

35. Walford, op. cit., v. 1, p. 98; Roby, op. cit., v.1, p. 350.
undertook to compute a table that more nearly adjusted itself to the probable life term of the annuitant. The system of Ulpian placed the value of an annuity at thirty years purchase for all annuitants under the age of twenty. The value of the annuity decreased with the increasing age of the annuitant until the age of sixty. At that age and upwards, the value was placed at five years purchase.

The table as computed by Ulpian follows:–

<table>
<thead>
<tr>
<th>Age.</th>
<th>Years' Purchase.</th>
</tr>
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<tbody>
<tr>
<td>Birth to 20</td>
<td>30</td>
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<tr>
<td>20  &quot; 25</td>
<td>28</td>
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<td>25  &quot; 30</td>
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<td>30  &quot; 35</td>
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<td>49  &quot; 50</td>
<td>10</td>
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<tr>
<td>50  &quot; 55</td>
<td>9</td>
</tr>
<tr>
<td>55  &quot; 60</td>
<td>7</td>
</tr>
<tr>
<td>60 and upwards</td>
<td>5</td>
</tr>
</tbody>
</table>

The table computed and used by Ulpian represents the first attempt of which we have any knowledge to measure annuity values taking age as a basis for making the computation. The
elements that entered into his computations are unknown. However, in the computation of Ulpian we find the first step in the direction of modern actuarial science.

4. The Fire Problem.

In Rome we find the problem of fire coming prominently to the front. Constant reference is made by contemporary writers to its threats and dangers, and the burdens imposed by the tremendous losses were recognized. It may be fairly stated that the Romans were fire conscious. Bearing this point in mind, and recalling the advanced state of development reached by business organizations, particularly during the period of the Empire, it would not have been surprising to have found a method of indemnifying for losses from fire developed on a commercial scale. Yet as a matter of fact there were no offices or commercial organizations that afforded insurance against losses from fire.

That the city was particularly susceptible to fire seems to be borne out by contemporary writers. Livy tells

37. Homo, Problêmes sociaux de jadis et d'a présent. p. 15.
us that when the city was rebuilt after its destruction by the Gauls, in their rush the people gave little care to making the streets straight and orderly, and built wherever they found a space. To show to what extent this hit or miss system of locating buildings were carried, he points out that the sewers which used to pass through the streets were in his time to be found under the private dwellings (nunc privata passim subeant tecta). The result of all this was a mass of building through which passed a network of narrow and crooked streets, giving the city according to the historian the appearance of having been built upon ground that was seized, rather than upon lots marked off with any degree of regularity. Suetonius likewise mentions the narrow and twisted streets and the delapitated buildings, when we accuse Nero of burning the city because annoyed by them. A final contribution to the risk created by flimsey and crowded construction, delapitated buildings and narrow and crooked streets, was a result of the difficulty involved in lighting fires, as well as the religious custom that necessitated constantly burning fires or lights in the buildings. The attitude of the people is well espresed

40. Suet, Neron. 6:38.
by Homo, who says:—

"Incendies, écroulements, deux mots qui repaissent comme une obsession et reviennent comme un refrain chez tous les écrivans du début de l'Empire." 42

To Augustus must go credit for taking the first steps involving action on the part of the state to meet the risk. Recognizing the gravity of the situation, he took the first and most natural step in the direction of greater security, that of provided protection. His biographer tells us that in addition to adorning the city, Augustus, recognizing that it was exposed to flood and fire, (inundationibus incendiisque) made it safe for the future so far as human judgment was able to provide. (Tutam uero, quantum providere humana ratione potuit, etiam in posterum praestitit.)

To accomplish his purpose, Augustus divided the city into sections corresponding perhaps to the ward divisions of the modern American city, and arranged for their supervision. Night-watchmen were detailed to patrol the streets, and a particular concern of theirs was to be on the lookout for incipient fires. (Adversas incendia exubias nocturnas vigilesque commentus est.)

It was to these nightwatchmen that Professor Becker alluded when he mentioned "the occasional tramp of the Nocturnal Triumveriri,

42. Homo, op. cit., p. 15.
43. Suet, Aug., ii, 28, 30.
44. Ibid., 28, 30.
as they passed on their rounds to see that the fire watchmen were at their posts." 45 For the purpose of fighting fires there were assigned seven cohorts. 46 Not only were the duties of the members of these organizations so assigned as to permit a high degree of efficiency through specialization, but they were also equipped with every conceivable device for fighting fires that the ingenuity of the times afforded. The organization and equipment of the Roman fire department is here aptly described:—

"Certes les pompiers ne manquaient pas à Rome et ils étaient dotés d'une organization remarquable, Divisés en sept cohortes, à raison d'une par deux régions, avec autant de casernes et quatorz postes-vigies, les vigiles atteignaient un effectif total de sept mille hommes chiffre qui, même pour une ville d'un million et demi d'âmes, comme l'était la Rome impériale, ne lassait pas que d'être fort respectable. À l'intérieur du corps, suivant les habitudes méthodiques romaines, le personnel était strictement spécialisé; pompiers proprement dits (sifonarii), vigiles chargés de alimentation en eau (aquarii), démolisseurs (falciarii uncinarii), sauveurs (emitularii). Le matériel était aussi complet que le permettaient les moyens techniques de l'époque. Le pompiers de Rome --- nous le savons par les textes contemporains et aussi par les travaux archéologiques --- avaient des pompes à bras (sifones), des crocs (uncinae), des haches (dolabrae), des scies (serrae), des marteaux (maillei), des faux (falces), des perches (perticae), des échelles à crochetas (scalae), des seaux (hamae), des éponges (spongiae), jusqu' à des pièces de drap (centones), imbibées de vinaigre et des matelas (emitula), pour sauvetage des locataires. 48

In addition to the firemen who manned the pumps, the water carriers who in addition to working at the fires familiarized themselves with all possible water supplies in their territory, the life savers, and those in charge of demolitions, there was also an official known as the "Questionarius" whose duty it was to investigate questionable fires, and who had at his command that interesting and ingenious means devised by the ancients for eliciting information, namely torture. It is supposed that an interview with the "Questionarius" was a dread affair. The matter of life saving was under the supervision of four doctors attached to each cohort, and the general supervision of the entire operation of fighting the fire fell to the Praefectus Vigilum, the fire martial of the time. 49

Following the inauguration of a system of fire protection and an organized fire department in the city of Rome the idea spread. Ultimately the problem of fighting fires was entrusted to certain of the collegia, and these organizations, because of their political activities, became a source of considerable annoyance to the authorities.

Light is thrown upon the situation in the correspondence of Pliny with the Emperor Trajan. 50 Pliny writes concerning a fire at Nicommedia, where a number of private houses,

several public buildings and a temple were destroyed. These buildings occupied two sides of a street, and while there was a violent wind, Pliny blames the loss to the indolence of the people and the lack of engines, (sipho) or other fire fighting equipment. He tells the Emperor that he has given directions for the preparation of fire fighting apparatus, and suggests the organization of a company of fire fighters limited to a hundred and fifty members. Bearing in mind the abuses that had crept into these organizations, he promises that privileges as well as numbers will be limited, in order to keep the organization under proper regulation. Trajan in his reply refers to the companies of other cities, and because they had in instances formed themselves into factions and caused considerable disturbance he suggests an alternative solution. Rather than permitting the organization of a fire company, he advises rather the provision of fire fighting equipment to be used by owners of buildings, aided when necessary by the populace.

In the face of this reception of the risk of fire, it would not have been surprising to find a commercial system of insurance. While there has been nothing left us by contemporary writers to show that there was any such business carried on, nevertheless there was a well established custom among the
more wealthy, of making voluntary contributions to those suffering from losses by fire. Such a custom has sometimes been termed insurance by compulsion. That is, there is no legal requirement that makes necessary a contribution by one to the losses of another, but the mores of the group sometimes exert a force more powerful than law. Then again the contribution to the fire losses of a neighbor is a means of assuring for one's self a like treatment in the event of loss. That there was such a system in vogue in Rome seems well established. 51 Juvenal gives us an intimation of the extent to which the custom had been carried among the rich. Before the fire is extinguished he says, there begin to arrive gifts of marble, building materials, statues, bronzes, silver, books, works of art and other valuable presents. Martial 52 likewise in his epigrams refers to the contributions that poured in when a house was destroyed amounting to many times its cost.

We may safely assume that the custom of making contributions by neighbors and friends to indemnify the owner of property who suffered a loss from fire was well established and the procedure mentioned by Juvenal and Martial was the expected

51. Sat. iii, 215.
52. Epigrams, iii, 52.
one, rather than reports of isolated cases. This we may assume from the fact that in both the cases cited, the writers are of the opinion that the owners of the property were connected with the origins of the fires, and that they themselves burned the property for gain. Juvenal points out that because oftentimes the fire enabled the owner of the property to restore his losses with more and better things, (meliora ac plura reponit) he may with good reason be suspected of burning his own home (et merito iam suspectus tamquam ipse suas incenderit aedes). We may assume by inference that Juvenal was of the opinion that could the doctrine of indemnity have been enforced in these situations, fires might have occurred less frequently. Nor was the attitude confined to Juvenal. Martial in his Epigrams has no easy feeling about Tongilianus, who had purchased a house for two hundred thousand sesterces. Because contributions poured into the amount of a million sesterces, Martial asks if Tongilianus may not be suspected of having set fire to his own house. It is certainly true, that unless the custom of making these contributions were well established, and the owner of the property reasonably certain

53. Sat. iii, 215.
54. Epigrams, 111, 52.
of help, he would never have taken the chance of setting fire to his house, nor would he have been suspected of such a step.

Suetonius and Tacitus furnish us another interesting glimpse of the fire situation in Rome. While the friends of an individual, through their contributions, could restore to one who had a fire the amount of his loss, it is obvious that if there were a great many sufferers, contributions might not fill the need. Yet, within limits, the catastrophe hazard found its solution. An instance to the point is related by Suetonius, who tells us that during the reign of Tiberius a fire broke out of the Caelian Mount, destroying many clusters, or blocks of houses. The Emperor, in his private capacity, came forward to relieve the suffering (ad mitigandam temporum atrocitatam), and restored to the sufferers their losses. (pretio restituto). 54 According to Tacitus, on two occasions such assistance was rendered by Tiberius. He mentions first the fire on Mount Caelius, after which the Emperor contributed to each of the sufferers the amount of his loss. For this, according to the historian, he received the thanks of the senate and the applause of the people. The second instance mentioned in the Annals, refers to the fire which burned part

54. Suet, Tib., xlviii.
of the Circus near the Mount Aventine, as well as the area of the Mount itself. Again, as in the previous instance, Tiberius made good to the owners the value of the tenements destroyed, expending according to the record, a hundred thousand great sesterces. The means for ascertaining the amounts lost by the different individuals is of interest, in that it furnishes the earliest record of a committee selected for the purpose of determining the amount of losses by fire. The four sons-in-law of the Emperor were chosen for this duty, and to assist them there was appointed to the committee a fifth member nominated by the Consuls. It was this committee who ascertained the damage, before payments were made by the Emperor to the sufferers.

To what extent contributions in the event of a disaster could be depended upon from the Emperor is not easy to state. Such contributions, however, would not be altogether unexpected in Rome. Private benefactions were so usual as to be expected by the people, and particularly once a precedent was established, it would be a natural sequence that the people would look to the Emperor or the very rich for assistance in such disasters as were so great that friends could not with their contributions

55. Tacitus, Annals. 4, 64; et 6, 45.
56. Ibid., 6, 45.
reimburse the sufferers. Contributions from the Emperor or the State, however, would ordinarily be expected only in the event of disasters. Of more interest is the custom of contributions from friends in the case of the isolated loss. Such instances are more important, because more frequent, and tend to show that the Romans by means of this customary insurance had effectively shifted the burden of the risk of fire.

The business element in Rome was ever seeking new sources of income, and when we recall the exploit of Crassus during the last century of the Empire, whose salvage brigade accompanied him to fires where he would make a bid to owners for their property still burning, it is indeed surprising that the fertile minds of the Romans did not turn to the field of fire insurance. It is worth noting in passing that the ingenious Crassus is said to have amassed a fortune that left to his estate after the most liberal donations, property to the value of nearly ten million dollars. This must have been a most profitable undertaking due to the value of some of the properties. Cicero, classed as a man of moderate tastes, is said to have possessed eighteen different estates, and to have paid for his city house a value equivalent to approximately

57. Stobart, The Grandeur that was Rome. p. 131.
It seems as if insurance would have been a profitable venture as well as salvage. However, from the records available, we are forced to the conclusion that among the ancient people the business of fire insurance did not exist, and that such recognition as was given the hazards, concerned itself with the twofold problem of prevention, and providing indemnity for losses by contributions from friends and neighbors.

5. Partnership and the Corporation.

A final contribution to the science of insurance from ancient Rome is found in the development of the corporate forms of conducting business. This form has proved one of the most satisfactory means for the accumulation of capital for the purpose of providing the indemnity promised by the insurance carrier under the contract of insurance.

The cooperative principle of carrying on big business enterprises through the formation of companies (societates) was in practice in Rome at a very early date. It was to these companies that Livy referred, when in 215 B.C. the Roman state appealed for supplies on credit, and three companies of nineteen men each came forward to supply the needs. Polibius, likewise throws light upon the development of the company, as well

59. Livy. 23;28.
as the widespread business interests of the Romans, as far back as the second century before the Christian era. He refers in his history to public contracts let for repairs and construction in all parts of Italy, for the collection of revenues from rivers, harbors, gardens, mines and the like, and comments that nearly everyone is interested financially in this work either as a contractor or as an employee. The contractors, he says, purchase the contracts from the censors, in some instances for themselves, in other instances they have partners in the undertakings, while a final group concern themselves with going as surities for the contractors, pledging for them their property to the treasury.

Business in Rome in these centuries just preceding the advent of the Christian era passed through a great period of expansion. The period is recalled as one of prosperity and development, and the degree of organization reached by business cannot but excite admiration. A financial center was developed in the city, and a market was in daily operation in the Forum near the temple of Castor. Here trading in real estate, slaves, and other goods was carried on daily, and likewise here was to

60. Polibius, 6; 17.
be found the banking center of the city. Because Rome had not yet developed the corporate form of business organization with transferable shares, the need for a stock exchange or market had not yet made its appearance and there is no evidence of the existence of such an institution. The importance of the companies and the corporations in the field of business in Rome, and the business arising out of their organization and financial needs, however, developed here a great banking and financial center.

The interests of the shareholders in these companies extended to every quarter of the then known civilized world, nor were these shareholders limited to a few wealthy financiers of the capital. On the contrary ownership of shares in an enterprise was quite the usual thing among those whose resources would permit. "Poor crops in Sicily, heavy rains in Sardinia, an uprising in Gaul, or 'a strike! in the Spanish mines would touch the pocket of every middle class Roman." 61

Roman law took careful cognizance of the partnership as a business relationship, and under its direction it reached a high state of development ultimately culminating in the corporation. 62 The law provided for combinations of a temporary

62. Justinian, Institutes, Lib. iii, Tit. xxv.
character, that is for doing a particular piece of business, as well as for the more permanent organizations designed to carry on a continuous trade or enterprise. These associations or partnerships were easily formed and needed no formal procedure to become effective, the only essential element required being the simple consent of the parties to the agreement. Dissolution was equally simple, depending either upon the consent of the partners, or the renouncement of the agreement by one of the partners. A break occurred in the partnership likewise at the death of a partner, for under the law a partner's heir did not become a partner, even if it were so provided in the agreement at the beginning of the association.

A step in advance from this simple form of association, the private partnership, is found in the large companies of tax farmers. Dissolution in this instance did not follow the death of a partner and steps were provided for registering the share of the deceased in the name of the heir, thereby making him a partner. In such an instance the companies were said to *corpus habere*, that is to be corporations. They were

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recognized as entities by law. They had a common treasury, and a manager who could sue, be sued, and make agreements on behalf of the corporate body. The shares or interests, however, were not transferable. This corporate organization of the Romans marks a decided step in the direction of the joint stock corporation with transferable shares. Recognizing the importance of the corporate form of business as a vehicle for risk bearing the contribution of this development to the science of insurance is at once apparent.
CHAPTER IV.

MIDDLE AGES AND RENAISSANCE.

1. The Gilds as Insurers.

With the decline of the Roman influence early in the sixth century we are brought to the period of the Middle Ages. During this period the principle of mutual insurance received an impetus in its development and expanded to include in its scope many risks that had hitherto remained uninsured. The gild was the agency through which this development was effected.

Gilds were voluntary associations for religious, social and commercial purposes. Their origin is shrouded in uncertainty, and is a much debated question. Attempts to trace their origin from the Roman collegia, have not been attended with success, nor does the evidence warrant the conclusion that their beginning may be traced to the sacrificial feasts of the ancient Teutonic nations. In fact there is good reason now to believe that there is no single source from which they sprung, but that they are rather a manifestation of the social instinct in man that has given rise from the very earliest times to the tendency to form groups when drawn together by a common interest.

However, because the Roman collegia flourished for

centuries before the rise of the gilds of the Middle Ages, and because there is a point of contact between the two, especially in those countries where the Roman influence had manifest itself, the question presents itself as to whether the collegia made any direct contribution to the gilds. Any conclusion to that effect is based upon presumption, there being nothing in the way of documentary evidence to substantiate such an inference.\(^2\)

However, recalling the tenacity with which tradition clings, it is not to be expected that Roman customs and institutions were entirely without influence is those centuries to which Roman dominion had extended, and a presumption is created that here at least the gilds in their development reflected the influence of the earlier collegia of Ancient Rome.

The word gild has a special significance. It is derived from the Anglo-Saxon gylden, or geldan meaning "to pay", and in the earliest records it appears meaning in some cases a contribution, in others a feast, and still again an association. It is not difficult to trace the relationship of one meaning with the other. The common contribution with a distinguishing feature of early unions, and the word gild, meaning to pay was eventually applied to the society as well as to festivities whose

expenses were met by the common payments. The word gild in the course of time came to be used generally to mean a "society", and was eventually used to designate organizations whose aims and purposes differed from the earlier Anglo-Saxon unions.

The gilds as they developed among the Teutonic nations during this period may be divided into four general classifications, (1) religious, (2) firth, (3) merchant, and (4) craft gilds. Their development was fostered and encouraged by the Church, and its teaching of charity and mutual aid and assistance in times of difficulty prompted many of the provisions that were included among the benefits available for members. Besides such activities as almsgiving, care of the sick, burial of the dead, providing Masses for the souls of the deceased, there were likewise established insurance funds for the benefit of the members from which they received indemnity in the event they suffered certain losses. Thus, in addition to the other purposes for which they were organized, they were essentially mutual insurance associations, aiming to indemnify the few in the event of great losses through the cooperation of the many. They were in truth, says Walford, the insurance

4. Ibid., p. 105.
associations of the Middle Ages, and probably the only ones which were required or could have existed in that state of society. 5 It is with the insurance features of the gild organizations that we are here concerned.

The insurance feature of the gilds was usually made effective through regular payments by the members into a common fund, out of which disbursements were made to those suffering losses from certain specified disasters. The more common of these included fire, flood, or robbery, though the gild system of indemnity was eventually extended to cover most of the risks which attached to the enterprises of the time.

This recognition of risk, and the formation of an association operating on a mutual basis, having for one of its aims the dividing the losses of the few over the many, is a distinct step in the direction of the modern practice of insurance. As a matter of fact, so far as there is any available information, these gild organizations of the Middle Ages were the first permanent associations to effect property insurance.

The benefits that each gild provided were those presumably that were of greatest concern to the membership. While some gilds were organized for special purposes, or included unusual provisions in their regulations, there were

other features that were nearly always to be found. Care for the fitting burial of the dead at the cost of the gild was a feature most generally incorporated in the regulations. This it will be remembered was the chief concern of the members of the collegia tenuiorum of ancient Rome. Continuing, however, at the point where the Romans left off, the gilds likewise provided help to the poor, the sick, the infirm and the aged, sometimes with money, sometimes with food or clothing. Next they extended the arm of protection so as to render assistance to those who were unfortunate enough to suffer losses caused by fire, flood, or robbery. Relief not unlike the accident and health insurance of modern times was provided in the event of need in old age, at the loss of sight or limb, upon becoming deaf, dumb, or being afflicted with a serious malady such as leprosy. Then there were gilds who rendered assistance to those who lost cattle, or for the fall of a house. Others provided relief in the case of shipwreck, in the case of imprisonment, or for the legal defense of members who became involved with the law. Sometimes provision was made for gifts to the young people so that they could get started in the world, and for young women doweries were provided. Assistance was frequently rendered in temporary pecuniary difficulties, sometimes as special instances, and in others as a regular feature.

of the gild benefits. In short the insurance feature of the gilds was expanded and extended to meet the needs of the times, and the manner of accomplishment cannot but excite admiration. 7

In the Anglo-Saxon period (827 – 1013) gilds with a feature of protection can be traced to an early date. The earliest mention of gilds occurs in the laws of Ine, and in the laws of Alfred. 8 These laws, as well as those of Aethelstan and Henry I. reproduce still older laws that recognize the universal existence of gilds as a well known and accepted fact. 9

The advances made in gild organization early in this period are shown by the Judicia Civitatis Lundoniae, the Statutes of the London Gilds, which were made a matter of record in the time of King Aethelstan (935 – 941). The insurance features to be found in the gild organizations are admirably illustrated in the regulations made for governing these tenth century London associations. Commenting on their provisions the learned Dr. Lujo Brentano says that one might call these gilds "assurance companies against theft." 10 The insurance feature was certainly one of the important purposes of the association. The gilds in and about London at this time seem to have united to

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form a single gild, apparently under the direction of the
authorities. The preamble to the statutes states that they
were ordained by the bishops and reeves of London and confirmed
by the pledges of the gild-brethren. The gild had for its
object the recovery of stolen stock and slaves, if recovery
were possible, but where recovery could not be accomplished,
then the gild was to indemnify the loser by means of pro rata
contributions from the members.

Among the chief regulations were the requirement that
all of the members should contribute a stipulated yearly payment
to the common fund. If any property were stolen a common
search was undertaken, and the members contributed a shilling
toward expenses. Poor widows unable to make the payment were
exempted. The regulations specified the amount of indemnity
to be provided in particular instances. For example a horse
commanded a half pound "if it be so good". If it was deemed
not worth the maximum payment, then the sum to be received by
the owner was to be determined by the value of the lost animal.
Provisions were likewise made for payment, in the event of the
loss of an ox, a cow, a hog or a sheep. A slave who succeeded
in escaping was paid for "according to his value." The money

necessary to meet these losses was taken from the funds on hand but it was provided that such funds as were needed over that on hand were to be secured by a call among the members.

Payment for the lost property was made as soon as the contributions were secured, but in the meantime, the owner of the property who had suffered the loss was required to continue the search until payment was made him, and provision was made for compensating him for this expense. Whoever suffered loss was obliged, if he intended to make a claim, to give notice within three days, and to continue the search, for "the gild will only pay for stolen, not ungarded property; and many men make fraudulent claims!"

Here we have at this early date a mutual insurance association designed to indemnify its members for losses from stolen cattle or slaves. A slave who escaped was said to have stolen himself. Those who drew up the regulations for the association had a clear understanding of the fundamental principles that should govern an insurance organization. For example, first of all, insistence upon indemnity without profit is a feature of the regulations. A maximum indemnity is provided, but payable only in case the property lost warrants it. In the case of inferior property, the value only is to be

paid. This rule serves the double purpose of minimizing the moral hazard, and at the same time setting an upper limit to possible claims. Finally the gild is wary of fraudulent claims. If the owner of the property is negligent and does not report his loss promptly, or if he fails to carry on a search, then he is not entitled to compensation. From the standpoint of the development of insurance principles the regulations of this gild are noteworthy.

Gilds were widely organized during the eighth, ninth, and tenth centuries, and in the Norman Period (1066 – 1154) continued to be established for the purposes of promoting religion, trade, and charity. The specific aims and purposes of the many organizations that sprang up varied with the needs and circumstances of the gild members. Each gild had its own regulations, governing the contributions of members, the benefits provided for them, and their various duties and obligations. At the pinnacle of their development they were very wealthy, and had acquired no inconsiderable power. At the beginning of the Reformation in England their wealth was so notable as to attract the attention of Henry VIII, whose needs were still unsatisfied after he had exhausted the resources of the church. Indicative of the great wealth accumulated by

the gilds at this period is the loan advanced by twelve city gilds, of over twenty thousand pounds, secured by lands mortgaged to them, for the purpose of providing Henry means for carrying on his wars with Scotland. The cupidity of the crown was aroused, and shameless acts of confiscation followed. The policy of Henry was carried on by Edward VI, and Elizabeth, with the result that the gilds rapidly declined. 15

It does not come within the scope of this discussion to describe the many different rules or purposes to be found in the course of the development of the gilds. For our purposes we are not concerned whether the payments to the common fund were yearly, quarterly, or as was the case in one instance, weekly. Nor need we trace in the different organizations the great diversity of benefits. In each instance, the principle was the same. The insurance protection that the gilds afforded was a form of mutual protection, with losses met out of a fund built up by regular payments and augmented by special assessments. So far as the insurance idea is concerned a lengthy examination of many gilds would involve needless repetition.

It is sufficient to say here, that when the burden of risks that attach themselves to human enterprise began to weigh too heavily, the gilds served as the first means among the

15. Walford, op. cit., v. 5, p. 387.
general populace for effecting insurance. They stood, says Dr. Brentano, "like a loving mother, providing and assisting, at the side of her sons in every circumstance of life, cared for her children even after death; and the ordinances as to this last act breathe the same spirit of equality among her sons, on which all her regulations were founded, and which constituted her strength." They took the place in old times, says Mr. Toulman Smith, of the "modern Friendly or Benefit Society," and "the idea by which all were penetrated", says Dr. Seligman, "was the partial realization of the doctrine of universal brotherhood which the early church so zealously strove to diffuse." 

2. The Joint Stock Company.

We have considered in passing the development of business associations, because of their ultimate importance as providers of the means for amassing the great capital necessary for conducting the business of insurance. Partnership associations were developed in the Babylonian times, and were used in the business life of Greece and Rome. In Rome a permanent

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form or organization was developed, said to have a body (corpus habere) and here was the beginning of the corporate form of business organization.

In the Middle Ages the private partnership continued a standard form of business association, and was commonly composed of a number of individuals who were relatives. Then there was the association furnished by gild membership. Here each member furnished his own capital, and carried on his business undertaking, but under the guidance of the group regulation. Lastly there was still in common use that earliest of all associations, the commenda. As used during the Middle Ages, the "Commendator" furnished the capital for some business venture or undertaking. The second party to the transaction was known as the "Tractor". He was the manager, and to him fell the responsibility of carrying out the undertaking. His compensation for his services was usually one-fourth of the profits, though this was often varied, particularly if the "Tractor" as he often did, furnished part of the capital.

However, in quite another direction we find the earliest appearance of the stock company. It developed in mediaeval Italy, out of the custom of managing the public debt. The

system in operation in the event of a public loan, involved first the division of the total amount to be borrowed into a large number of smaller sums, so that a number of borrowers might participate, thus facilitating the undertaking. The procedure was not unlike that followed today in public finance, by dividing the amount of a loan into a number of smaller sized bonds.

To guarantee payment of both principle and interest, it was a customary procedure to turn over certain sources of revenue to the creditors, or assign for the purpose certain taxes. To handle the revenue thus obtained, the creditors were obliged, on their part to effect some suitable form of organization. They had to provide for the receipt and administration, or division of the monies that were turned over to them, and this involved the employment of agents, book-keepers, and other administrative assistance. In short they were obliged to form a corporate organization whose shareholders were the public creditors.

The first actual stock company, however, to develop out of this association for the administration of the payments on a public debt, occurred in Genoa, and dates from the fourteenth century. The Genoese government, had in carrying out her conquest of Chios and Phocaea, become heavily involved in debt,
and was without resources to meet her obligations. Chios and Phocaea were sources of alum and gum mastic, valuable commercial products, and because the state had no other means for paying the debt, the alum works and other properties were themselves placed in the hands of the creditors for a period of twenty years, so that they might secure themselves through the income thus to be obtained. At the end of the twenty year period the state was still unable to fund the debt. The property already turned over to the states creditors was therefore left in their hands. The shares into which the debt was divided now represented shares or interests in the alum company, the status changing from that of state creditor with certain resources held as security, to that of proprietor, with shares that were transferable representing the holdings of each stock holder.

An example of the application of the corporate principle to a business organization is found in the Bank of St. George in Genoa, said to be one of the most famous of the mediaeval business institutions. This bank grew out of a merger of these state creditors, one group being the owners of the alum works already mentioned. Its organization effected in 1407, it carried on an extensive banking business, accepting deposits, and investing its funds, as well as managing state revenues,
and carrying out other business enterprises. There were said to be approximately five hundred shareholders who elected the boards who managed the banks affairs.

Thus for the first time was developed the joint stock corporation with transferable shares. Hundred of individuals, foreigners, children, women, or others who knew nothing about conducting the business of the undertaking could furnish small or large units of capital and derive a share in the profits of the business. At the same time the individual investor, because his shares were transferable could readily withdraw from the enterprise, without any interruption in the company's affairs, by the simple expedient of selling his holdings. Finally the shareholders all have an interest in the management of the company proportional to their holdings, and are thereby enabled to choose, for managers those in whom they have confidence.

It is not the place here to go at length into the advantages and disadvantages of the corporate form of business organization. These are too well known for repetition at this time. We are interested, however, in recording the development of the joint stock company, for not until the joint stock company was used as the vehicle for risk bearing did the business

of insurance expand with any great degree of stability. In
fact it may be stated that the modern business of insurance
marks as its point of inception the chartering of the first
incorporated insurance companies. This however, was at a con-
siderably later period.

3. Fire Insurance.

The need of protection from fire was recognized during
the period of the Middle Ages, and one of the more common pro-
visions in the rules of the gilds, was the insurance feature
that provided the members assistance in the case of loss from
this cause. Fire insurance as a commercial undertaking, how-
ever, was slow in developing.

The earliest law of which there is a record bearing
upon the question of fire and indemnity was promulgated in the
year 1240 by Thomas, Count of Flanders, and Johanna his Countess.
Under the terms of this law a means of indemnity is provided,
and a community of liability established, and is known as the
custom of Furnes. By article XI of the law termed Oora, or
Keure it is provided:—

"In quacunque villa combustio facta fuerit occulte,
tota villa statim solvat damnum per illos quos eligent
coratores; quod si malefator sciri poterit, bannetur
perpetuo, et solvetur damnum de ejus; residuum vero
cedat comiti. Qui vero de nachbrant acclamatus fuerit,
per quinque coratores purgare se poterit; alioquin
suspendetur, omnia bona sua erunt in gratia comitis, restituto prius damno illi qui damnum habuet: si prius tamen querimoniam fecit," 22

Thus it is provided by the law that in whatever house a fire shall have been secretly made, the whole place immediately makes good the damage through those whom the guardians select. But if the malefactor can be found out, he is banished forever, and the damage is made good out of his property, the residue he yields up to the court. The law then goes on to state that he who can exculpate himself from the accusation will be commended by the guardians, but in the meantime he is suspended. All of his goods are at the pleasure of the court; the damage being first made good to the injured who has made complaint. Thus it is seen that whoever suffers a loss by fire is assured of indemnity if the cause of the fire is unknown. If, however, the person responsible for the damage can be found, the loss is made good out of his property. Presumably he has the opportunity to appear and free himself from blame, thereby relieving himself of the punishment of being banished forever, though his goods remain in the custody of the court to make good the loss caused by the fire.

The custom is not unlike the French law known as "voisinage" in that a property owner, if a fire starts on his premises, and damages a neighbor, is responsible to him for

In France one insures not only his own property, but his liability for loss to his neighbor's property as well. In the community of liability under the custom of Furnes, is found one of the earliest instances outside the gilds where the risk of fire was definitely recognized, and steps taken to effect a shifting of its burden.

The instances in this period that relate to providing indemnity for losses arising out of fires are scattered and unrelated, but may indicate a gradual increase of attention to the risk and a groping in the direction of fire insurance. In 1302, in the city of London, we find an instance of a guarantee of indemnity for loss originating from fire made by an individual. On January 13, one Thomas Bat is reported as having come before John le Bund, Mayor of London, and the Aldermen of the city, and bound himself to keep the city of London indemnified from "peril of fire and other losses" which might arise from his houses that were covered with thatch and situated in a certain designated parish. He further agreed to roof his houses with tile, and have the work finished about the next Feast of Pentecost. Failure on his part to make the agreed improvements carried the right to the city's officials to roof the house with tile themselves, and pay for them out of the

rents. As security for the indemnity, his rents, lands, and tenements were bound.

The instance here referred to seems to relate to a guarantee by an individual to assume responsibility for damage arising out of his property until such time as he can correct objectionable features to the satisfaction of the authorities. It is an agreement to indemnify, but a limited contract. It can hardly be termed a shifting of the burden of the risk of fire, for the indemnitee is not concerned with fires that originate from any source other than from his houses covered with thatch. Such being the case, the agreement furnishes the most limited form of protection, though it furnishes us the earliest record we have of an individual assuming the responsibility for indemnification from loss by fire.

There is a reference that would indicate the practice of fire insurance in Scotland early in the fifteenth century. The information is vague, and furnishes no evidence as to the form in which the insurance was effected.

It is stated that in 1427 an act was passed in the Seventh Parliament of King James I., of Scotland which bore the title "The leave to Merchants to sure their gudes." The act

itself is now lost, and information concerning its details are wanting. Such knowledge as we have of the legislation of James, dealing with the subject of fire concerns itself with fire protection and not with the matter of insurance. The shred of evidence found in the title of the foregoing act furnishes us little information that is of value, though we may conclude from this title of the law that some form of fire insurance was known to the merchants and used by them.25

The lag in the development of fire insurance is readily apparent, and such fragments of evidence as we have from this period indicate a lack of interest in fire risks. To a certain degree the problem was handled by the gilds. It is nevertheless true that the advantages of fire insurance made less of an appeal than did those offered by marine insurance, and in consequence fire insurance failed to keep pace in its development with the insurance of sea-risks.

This lag may be attributed, not so much to a failure to apply the principle of insurance to the risks arising from the hazards of fire, but rather to a characteristic of human nature. There is tendency on the part of individuals to disregard risks to which they have become conditioned. They

become entirely unconscious of their existence. There is an inertia whose importance must not be underestimated that grows out of habit, and serves at the same time as a protection to our institutions and a drag upon progress. When the individual had adjusted himself to an accustomed method, he will deviate from the habits thus established only upon the application of some extra stimulus. Man likes to do things the old way, and has a dread of new methods or change, and for this reason tends to postpone the adoption of something new that through the action of his intellectual capacity he has fully decided to accept.

The application of the principle to insurance readily illustrates the reason for the development of marine insurance while fire insurance lagged. A casual consideration of the risks attaching to every sort of human enterprise classifies them roughly into two divisions, the absolutely unavoidable, and those assumed by choice. Disease, accident, the onset of physical incapacity with old age, and death are risks that all must face and none may escape. On the other end of the scale there are forms of business enterprise where hazards attach, which, attracted by profits, the individual undertakes through choice. Between these two are many degrees of risk attaching to an individual in modern society, in theory assumed from choice
but as a matter of fact undertaken because of the requirements imposed by the group of which the individual is a member. As a matter of theory one need not make use of furniture, nor use a dwelling for shelter. As a matter of fact, however, the mores of the group eliminates free choice, and the individual is faced with risk. Such risks as offer no choice as to whether they will be assumed or avoided are those to which the individual tends to become conditioned. These he tends to disregard. But if a new and strange enterprise is suggested, before making a step he weighs all the risks, is conscious of all possible consequences, and his decision regarding the undertaking is made upon the basis of this appraisal.

Such was the relationship between the hazards of fire and those of the sea. Buildings, stocks of merchandise, furni-
ture, and the like were always owned. The individual became conditioned to the risks to which they were subjected. The human tendency to do things as they had always been done mani-
fested itself, and current custom and methods as a matter of habit were accepted as good enough. Not so with marine ventures. Here a choice must be made. The unconscious acceptance of risk changes to the conscious assumption. Because there is a greater range of free choice, risks that seem too great will be avoided. One of the means devised for relief was found first in the
bottomry loan, and ultimately in the marine insurance contract. Because the assumption of fire risks was part of an automatic order they received little attention.

A passage from the Wealth of Nations seems to illustrate this tendency as it operated in Smith's day. Comparing fire and sea-risks, the later are more alarming to the greater part of the people, and the proportion of ships insured to those not insured is much greater than is the case with houses. This is indicative of the conclusion already drawn that where risk imposes a burden, the intensity of the desire to shift it varies directly with the ability of the individual to avoid it. Man as has already been pointed out may in theory be free to live without the customary habitation, yet as a matter of fact the dictates of the mores of his group are such as to make the occupation of a habitation compulsory. Shipping on the other hand to the average citizen offered a free choice, and before an individual takes his fortune, or a part of it and risks it in a sea voyage, he weighs carefully the consequences of loss against possible gains, and finds himself willing to forego part of the gains for the sake of a greater degree of security. In the instance of the house there was no element of choice, the individual finds himself conditioned to the risk, and tends to bear it. In the case of the sea risks a venture is proposed that offers

a complete freedom of choice as to whether or not the undertaking with its attendant hazards will be entered upon, and here we find the tendency veering toward seeking a means of protection before the project to which the risk attaches is commenced.

As individuals acquired greater properties, and as cities grew, and hazards increased, the tendency to ignore the hazards of fire continued. It was not until the great fire of London in 1666 that brought the world face to face with the menace, and broke down the unconscious and habitual disregard for the risk.


We now come to the development of the modern form of effecting insurance. The risk bearer, or insurer in return for the payment of an agreed premium assumes the burden of a designated risk by agreeing to indemnify the assured in the event that he suffers a loss.

With the decline of the Roman influence, there is little in the way of recorded evidence to throw light upon the development of marine insurance until the revival of commerce in the Middle Ages. It is not easy to believe, however, that an insurance institution such as bottomry, so widely known and so useful in
the commercial world, should fall into disuse without providing a substitute in its place. It is easier to believe the records as lacking, than to believe the great shipping centers carried on their business without insurance protection. 27

Under the feudal system there were trade organizations of cities, and of separate callings, that may have furnished some form of marine insurance, 28 and marine risks were among those covered by certain of the gilds. 29 Even though some protection was afforded from these sources, recalling the extent of the diffusion of Roman influence particularly through the incorporation of Roman laws into later codes, it is not to be presumed that bottomry was unknown or fell into disuse only to be revived again at a later time.

The period from the fifth to the eleventh century is extremely poor in documentary evidence, and records of business transactions or mercantile practices that might throw light upon the field of insurance are lacking. It may be supposed, however, that the practice of bottomry was uninterrupted down to the ninth century, for in the Basilica, a compilation of laws made by the Byzantine Emperor Basilius in 867 - 880 A.D., there are to be found regulations regarding the practice that follow in all

28. Ibid., p. 69.
29. Walford, op. cit., v. 5, p. 343.
important particulars those that appear in the Digest of Justinian.

Beginning with the twelfth century, the *Jus Navale Rhodeorum*, a Greek compilation whose date is placed earlier than 1167 A.D., likewise contains regulations regarding loans on bottomry essentially the same as those to be found in the earlier Digest. At this point, however, we come to a break, for the two important marine codes governing the European nations are conspicuously silent regarding either bottomry or marine insurance.

The most ancient collection of European maritime law is the famous *Il Consolatio del Mare*. There are few obscure marine ordinances that anti-date the *Consolatio*, but they are relatively unimportant and are not generally included among the sources of European commercial law. The origin of the *Consolatio* is shrouded in obscurity, being attributed on the one hand to the ancient kings of Arragon, while on the other the credit is given to Pisa. Regardless of the point of origin, the importance of the compilation in the legal system of the day is readily recognized. Having been completed and in force as early as the eleventh century, the regulations it contained

were regarded as law and followed during the period succeeding their promulgation by all the nations of Southern Europe.  

The Oonsolatio, although it contains a full account of other marine customs and usages contains no mention of insurance or loans on bottomry, though there are several chapters that indicate or presuppose the use of bottomry.  

There is, likewise, provisions for a contract that has a trend toward mutual insurance. It indicates that owners of ship and of goods often agreed that all losses should be apportioned among them in accordance with the interest of each. This amounted to an agreement by the parties concerned to apply the principle of general average to all losses suffered by any of the contracting parties. The inclusion of such a provision, however, only serves to emphasize the failure to mention directly either bottomry or insurance.

Another important legal compilation of this period is found in the Roles D'Oleron, known also as the laws or judgements of Oleron. Concerning the time and place of their origin there is considerable controversy between the English and French

33. Walford, op. cit., v. 1, p. 337.  
34. Duer, op. cit., v. 1, p. 38, note (c).
authorities. On the one hand it is stated that they were first published in their present form by King Richard I, on his return from the Hold Land, and intended to have the force of law in English as well as in French possessions. On the return hand French jurists claim that the laws were first compiled under the authority of Queen Eleanor, mother of Richard, and were published by her at her favorite isle of Oleron. Others reject both the English and French claims, and place the date of publication at 1266, a half century after the death of Queen Eleanor and her son. Upon insurance as a distinct and separate contract, as well as upon the subject of bottomry, the judgments of Oleron are silent.

Considerable importance has sometimes been attached to the fact that during this period two important compilations of law, such as the Consolatio, and the Roles D'Oleron, mention directly neither bottomry nor insurance, and has given rise to the belief that the one had fallen into disuse and the other had not yet been developed. The danger of concluding, however, that bottomry was no longer used in commercial practice, and that insurance was unknown, solely because affirmative evidence is

35. Marshall, op. cit., v. 1, p. 16.
37. Walford, op. cit., v. 1, p. 337.
lacking in legislative expression is easily demonstrable. Practices common to merchants have existed for long periods before it was deemed necessary to incorporate regulations concerning them in the legal system. Experience shows that in the case of insurance, it has existed probably in every country for a long time as a practice among merchants before the subject became a matter of law. In the case of insurance a negative decision based upon the absence of positive legal evidence is far from convincing or certain.

When we turn, however, to the legal code of the Hanseatic League, the language of the law leaves no room for doubt. This famous confederacy of merchants and traders, who were mostly of Teutonic Nationality, through its members carried on a vast foreign trade and became the great sea carriers of the northern nations. The League published various sea codes during the thirteenth century that were ultimately consolidated in a single authoritative code, known as the Laws of the Merchants and Masters of the magnificent city of Wisby. The laws take their name from Wisby, an ancient city of Sweden, on the western side of the Isle of Gothland in the Baltic. 38 Located about equally distant from Sweeden, Russia, and Germany, this city during the thirteenth and fourteenth centuries rose

to a position of great wealth and power, and became a center for the extensive commercial and trading operations of the members of the League.  

The date of the promulgation of these laws is not certainly known, the claim being made by some that they are older even than the Roles D'Oleron, by others that they are a translation of the Roles. The similarity in their context lends weight to the hypothesis that they at least were founded upon the laws of Oleron. Instead of anti-dating them it is believed that in drawing up the Laws of Wisby, use was made of the regulations found in the Roles D'Oleron, modifications being made for the purpose of better adapting them to the needs and usages of the commercial states of northern Europe, for whom they were compiled. The claim of the northern writers that the code is older than the laws of Oleron, or even as some state, the Consolatio del Mare, is not considered to be well founded. That learned and distinguished French writer Oléirae ventures the opinion that when the Roles D'Oleron were published the Magnificent city of Wisby had not yet become a town.

41. Parsons, op. cit., v. 1, p. 10.
42. Parsons, op. cit., v. 1, p. 10.
43. Marshall, op. cit., v. 1, p. 17.
While the date of their promulgation is now conceded to be near the close of the thirteenth century, or early in the fourteenth, their importance is not to be underestimated. Following their publication they became the sea code and recognized law of the northern nations. Their authority and importance was recognized by Grotius when he wrote:

"Lex Rhodia navalis pro jure gentium, in illo mari Mediterraneo vigebat; sicut apud Galliam leges Oleronis, et apud onces transrhenanos, leges Wisbuenses." 46

In the Laws of Wisby mention is made for the first time in an European code of the practice of bottomry. Reference is made to the practice in such a way however, as to permit the inference that it was a well known commercial custom that had long been in use. Bottomry during the Middle Ages furnishes no new contribution to the science of insurance, but remains in its essentials the same contract as practiced in ancient Greece fifteen hundred years earlier. There is evidence, however, that the cumbersome features of bottomry as an insurance contract had manifested themselves to the far seeing and able

44. Duer. op. cit., v. 1, p. 41.
45. Martin, History of Lloyds. p. 4.
47. Martin, op. cit., p. 4.
traders of the Hanseatic League, and a step was made in the
direction of a contract of insurance apart from a loan. There
is no mention of insurance as such in the Laws of Wisby, though
a section of the code refers to a practice that would indicate
such a contract. It is stated in Article 66 of the laws:

"Si le maistre est contraint de bailier caution
au bourgeois pour le navire, le bourgeois sera
parcilmment tenu bailier caution pour la vie du
maistre." 48

It is pointed out that giving security for the safe return of
the ship is the same thing as insuring her, and counter security
for the life of the master indicates the insurance of his life. 49

Oleriac, in his version of the laws included in Article 66, the
following, which follows immediately after the paragraph already
quoted:

"C'est d dire que, contre les hazards de la mer et de
la mort, il ne peut ecohir de requisition raisonnable
a bailier caution; regullerement le bourgeois doit
risquer son bien, et le maistre sa liberte et sa vie,
bi en y peut estre fait polisse d'assurance." 50

This second paragraph, which mentions directly the subject of
insurance, does not appear in some of the older editions in

48. Quoted by Duer, op. cit., v. 1, p. 41, not e (a).
49. Duer, op. cit., v. 1, p. 41.
50. Quoted by Marshall, op. cit., v. 1, p. 17.
which the laws are published, and it is believed that instead of being a part of the original text it represents a comment upon or exposition of the paragraph in the laws that immediately proceeds it. 51 Regardless, however, of this second paragraph, Article 66 of the Laws of Wisby have been interpreted to mean that if the merchant obliged the master to insure the ship, the merchant shall be obliged to insure the master's life against the perils of the sea. 52 Hence, in a single regulation, provision is made for a contract of marine insurance, and a contract of life insurance, and in terms that imply a familiarity with the practice upon the part of those whom the law was designated to effect.

While it has been suggested that the Laws of Wisby are of a much later date than that commonly ascribed to them, and for that reason a section devoted to insurance is not surprising, the evidence against this theory is strong. Another opinion accounts for the mention of insurance by stating that the section relating thereto is an interpolation of a later date. The final view, and this has the weight of authority, being held by the eminent Emergion and others, holds that both marine and life insurance were known and practiced at this early time. 53

52. Angell, Law of Fire and Life Insurance., p. 29.
There is a passage from an old historical work, the Cronyk van Vlaenden which tends to confirm this belief, and affords further evidence that insurance, as effected by the modern insurance contract, was understood and in common use by the members of the Hanseatic League. In the Chronyk there is a reference to insurance in the following terms:

"On the demand of the inhabitants of Bruges, the Count of Flanders permitted in the year 1310, the establishment in this town of a Chamber of Assurance, by means of which the Merchants could insure their goods, exposed to the risks of the Sea, or elsewhere, in paying a stipulated Percentage. But, in order that an Establishment so useful to Commerce might not be dissolved as soon as formed, he ordered the laying down of several Laws and Regulations which the Assurers as well as the Assured, are bound to observe." 54

Bruges was at this period a great trading center of the North, and a chief market, and one of the principle sea-ports of the League. Indicative of her importance as a sea-port and trading center, it has been stated that it was no uncommon thing for a hundred and fifty tall ships to enter the outer harbor of the city on a single tide. If we could stop at this point and rely upon the statement of the Chronyk, the practice of insurance by the members of the Hanseatic League would seem to be demonstrated.

54. Quoted by Martin, op. cit., p. 6.
Referring to this passage, however, Walford states that some of the best authorities on the subject, mentioning Pardessus and Reddie, do not regard the authenticity of this part of the work as established. *Nor were* there any insurance ordinances from Bruges, that might confirm the statement in the *Chronyk*. Walford believes, however, that an explanation of this lack is to be found in the suggestion that the regulation was so analogous to the *Roles D'Oleron* as to have been either drawn from them, or as he says some writers have affirmed, been adopted into them. 55 Martin, in his discussion of the history of marine insurance, sees no good reason to doubt the authenticity of the *Chronyk*, and presents a forceful argument when he says that if there is no evidence that has come down to us in confirmation, neither has there been any to disprove the statements, and there is an extreme probability that far seeing merchants of the Hanseatic League should have devised the institution of modern insurance. 56

In the evolutionary development of risk bearing by insurance, a degree of continuity is to be found in the field of marine coverage. In the *Laws of Wisby*, however, a mutation develops, in that in addition to ship or merchandise, the life

of the master of the ship is made the subject of insurance. Here for the first time we find in the law a definite provision for effecting insurance upon the life of an individual. That the idea of life insurance may have developed from this beginning is not an unreasonable supposition. There is in 1641 an English case that would intimate that the practice here provided for was adopted by the English. It had to do with recovering under a policy effected upon the life of the captain of a vessel during a voyage he was about to make to the West Indies. The contract had been effected in the same manner as an ordinary shipping policy, and suggests an early connection between marine and life insurance. It would have been a simple and reasonable sequence for insurance upon lives to develop as a form of protection entirely apart from marine insurance or marine hazards. If such a development can be recognized, it takes as its point of departure Article 66 of the Laws of the Merchants and Masters of the Magnificent city of Wisby.

The legal evidence now takes us to the other end of the continent. The first definite ordinances concerning marine insurance come to us from Spain. The Magistrates of Barcelona

57. Angell, op. cit., p. 388.
on four separate occasions during the fifteenth century promulgated ordinances dealing directly with the subject of marine insurance, dating respectively 1436, 1458, 1461 and 1484.58 These laws are designed, not to make provision for effecting insurance, but rather recognizing its existence, are designed to secure its full benefits for the community, to prevent over insurance, and to eliminate fraudulent transactions.59

The earliest of these ordinances to be found affords evidence of the existence of older regulations dealing with marine insurance that have been shown through the passing of time, and other circumstances to be defective and inexpedient. A translation of this ordinance in Spanish from the original in Catalan is in the records of the city of Barcelona. The evidence of the earlier laws is found in the preamble:

"Como las ordenanzas hechas para los seguros maritimas y mercantiles que se hacen en Barcelona sobre generos y mercaderias de vasallos del Senor Rey, y se cargan en navios o fustas de extrangeros, prohíben que ninguna persona pueda asegurar en ellos sino la mitad del coste; y atendiendo al tiempo que corre y a otros respectos, no son practicables en provecho de la causa publica, antes necesitan de correccion y enmienda."60

The date of the earliest appearance of marine insurance in Spain is therefore shrouded in uncertainty, but antidates by a

58. Duer, op. cit., v. 1, p. 35.
59. Martin, op. cit., p. 25.
60. Quoted by Duer, op. cit., p. 34, note (c).
considerable period the law of 1436.

The insurance ordinances of Barcelona are of especial interest, not only because they furnish evidence that marine insurance was known and practiced in Spain at this early date, but they likewise throw a light upon the understanding that these people had of the real purpose of insurance. With the view of eliminating fraud, numerous clauses were inserted in the laws prohibiting insurance for full value, but leaving some of the risk upon the insured. Likewise the principle of indemnity was recognized. With the advent of marine insurance as a separate contract, it immediately became possible for the owner of a vessel to insure it for full value, then borrow a like amount by means of a bottomry contract. Having no investment in the ship, a loss would mean to the owner a return of double its value, less expenses for insurance and for fitting out the voyage. The loss of the ship would be a decidedly profitable happening for its owner under such circumstances. Steps were taken to make this situation impossible.

The Barcelona ordinance of 1436 provided that if anyone borrowed on bottomry, in estimating the interest of the owner these loans first must be deducted. The law further placed a limit of insurance that might be obtained at three-fourths the value of

61. Martin, op. cit., p. 25.
the ship, from which again must be deducted all loans on bottomry. Here, so far as the records are a guide, we have the first effort made to limit the amount to be collected by the assured in the event of the happening of the contingency insured against, to a sum not in excess of the actual loss sustained. These old ordinances of Barcelona coincided, in their provisions regarding the payment of losses, to the modern theory that insurances is designed solely for indemnity.

In these ordinances we meet a further regulation that is of interest as marking a step forward in the development of insurance. For the first time we find in the law evidence of steps taken to prevent the issuance of wager policies. Underwriters were required to make oath that the "insurances are real and not fictitious," and were forbidden to use the words in their contracts, "value more or less, or done or not done" —va leguem mes o menys, o haje o no haje. 63 Here we have an ordinance concerning the important principle now incorporated into modern insurance law, that the insured must have an insurable interest in the property covered. It may be added here, that the principle fell into disuse, and gambling policies, where there was no insurable interest whatever on the part of the assured, were

a common practice for many years after. The existence of these early regulations in Barcelona, however, furnish illuminating evidence of the degree of understanding of the aims and purposes of insurance possessed at this time.

With the ordinances of Barcelona in the fifteenth century we find marine insurance an established institution. By the way of confirmation and evidencing the extent of its use, there are records of decrees bearing upon the subject of insurance from Venice that in point of time ante-date the earliest of the recorded ordinances of Barcelona, though as has been stated the earliest of these Spanish ordinances recorded are not the first. The Venitian decrees, while not strictly insurance regulations, in the sense of making provisions regulating the contract, as do the Spanish ordinances, nevertheless are concerned with the subject matter of insurance, and demonstrate beyond a doubt the existence of an insurance system among the Venitians at the dawn of the fifteenth century. The earliest of these documents is a manuscript act in Latin, dated May 15, 1411, and refers to insurance as an established practice. The purpose of the act is to prohibit the inhabitants and citizens of Venice from making insurance contracts on foreign vessels. It is pointed out that the insurers cannot have information concerning the condition of foreign ships, or of the merchandise
upon them, yet influenced by the hope of small profits, they incur the risk of great loss. After setting a date, beyond which such contracts were no longer to be effected, for those who failed to comply with the degree severe penalties were provided. Another document dated June 1424, refers to the state of war existing between the Genoese and Catalonians, and the Florentines and the Genoese. It then states that the custom in Venice of insuring foreign property may be the means of involving the state in these wars, and citizens, subjects, or allies of Venice are therefore prohibited, under penalty of forfeiting twenty-five percent of the value of the thing he has insured, from making such contracts.

A comparison of the decrees of Venice, and the ordinances of Barcelona furnish us no evidence as to which of the countries were first to practice insurance. In both instances the earliest of the records supply evidence that insurance was then an institution of long standing. The trade of Barcelona, was at the time of the promulgation of the early insurance ordinances, carried on principally with Italy, and presumably there was an exchange of ideas concerning the practice of insurance between the two countries. The insurance ordinances of Barcelona were followed before the close of the century with the promulgation

of similar legislation in Venice.

Nor is it to be supposed, that the practice of insurance thus evidenced in these two countries was beyond any doubt limited to the Mediterranean. A mercantile practice of Venice was certain to find its way to England, because the Italians, or Lombards, as they were known, had already secured a strong foothold in England and were competing commercially with the powerful Hanseatic League of the North. Presumably, by this time marine insurance had spread through the lanes of commerce, and was well known and commonly used by merchants and ship owners throughout the whole of continental Europe.

Up to this point we have been concerned with examining the evidence to be found in the law. Useful in indicating the degree of development of the insurance contract, the law, however, offers us but little help in determining its time and place of origin. We are interested in this point and must turn for assistance to historical opinion.

The oldest treatise in a modern language dealing with the subject matter of insurance is that entitled Le Guidion de la Mer, published in 1671 by Oleriac, a learned French jurist, in the second part of his work on the usages and customs of the

sea. (Us et Coutoumes de la Mer.) No account is given by Cleriac of the author or origin of the work. Dr. Duer is of the opinion, basing his conclusion upon the character of the style, and other internal evidence, that it was probably written close to the end of the century preceding its publication in Cleriac's work. This is in agreement with Pardessus and others who fix the date between 1590 and 1600, making Rouen the place of issue. Concerning the authorship of Le Guidion, the theory has been advanced that it probably was not the work of a single individual but the combined labor of a group, possibly an association of underwriters such as Lloyds, who prepared a code for the benefit of themselves and the public as well.

References to insurance in the Guidion are many, and there is evidence that at the time of its appearance marine insurance was in general practice on the continent of Europe as well as in England. Cleriac states of it "that it was originally composed for the use of the Merchants of Rouen, and is so complete in itself, that it fully explains all that is necessary to know on the subject of marine contracts and naval commerce; and that nothing is wanting to it but the author's name."

Cleriac, in his commentary upon the first article of Le Guidion, gives us the earliest statement in any work on in-

urance concerning its origin. He asserts that insurance was invented by the Jews, who when they were expelled from France by Philip Augustus in the year 1182, sought and found refuge in Italy. This opinion is founded, he says, upon a statement in the universal history of Giovanni Villani, who according to Dr. Duer, died at an advanced age in 1348 "the most justly celebrated of the early Florentine historians." Cleriac's theory, based upon Villani's statement, is that the Jews in transporting their effects from France to Italy, devised the insurance idea to protect themselves from loss. They accomplished this by making the payment of a present, called a premium, the consideration to the insurers for assuming all the risks of the voyage. It is his idea that the Italians and Lombards, who were spectators of the Jewish transactions, preserved the forms of the instruments used, and afterwards adopted them in their own commercial undertakings.

Marshall in his Treatise on the Law of Insurance, commenting on the opinion thus advanced by Cleriac, states that although adopted by so respectable a writer, it carries very little of the air of probability. Duer, on the other hand,

69. Duer, op. cit., v. 1, p. 29.
70. Marshall, op. cit., v. 1, p. 4.
71. Ibid., v. 1, p. 4.
relying upon the evidence of Villani, in whom he places the
greatest confidence, agrees with Cleirac that it would have
been a most reasonable thing for the astute and sagacious Jews
to have resorted to the idea of insurance in protecting them-
selves while transferring their property.  It may be added,
however, that regardless of the soundness of this theory of
the origin of insurance, it cannot be questioned that the in-
stitution of insurance was known in Italy at the time of
Villani's work, and had already been in existence for a con-
siderable period of time.

Another hypothesis concerning the beginning of the
insurance contract as used in modern times was advanced by
Vilagut, a docte of canon law, in his treatise De Usuris
published in Venice in 1589, and involves a consideration of
the teachings of the church concerning interest.  The corpus
juris canonici, prohibited interest, though from the teachings
of St. Thomas Aquinas (1227 - 1274) it will be seen that
certain exceptions were made.  Apparently the payment made for
bottomry loans, where the risks attaching to the venture fested
upon the lender, were not included in the prohibitions relating
to interest, and in the latter Middle Ages the doctrine that

risk justified interest payments became well established. Bottomry, which was the insurance vehicle for carrying marine risks, until the insurance contract was developed, was therefore considered permissible and a high rate of interest in such cases legitimate. In 1234, however, a decree was promulgated by Pope Gregory IX which declared:

"Naviganti vel eunti ad Mundinas certam mutuans per coruniae quantitatem pro eo quod suscipit in se periculum, recepturus aliquid ultra sortem, usurarius est censendus." 74

This decree created an entirely new situation. Alauzet, a French writer commenting upon this decree states that while some grammatical doubts were at first raised as to its true interpretation, it was soon understood to be a total prohibition of loans on bottomry and respondentia as usurious, and he adds that it was for the purpose of evading this prohibition, by separating the assumption of the risk from the loan of the money, that the contract of insurance was invented.

With this theory advanced by Alauzet, Dr. Duer is not inclined to agree. While admitting that the quotations of passages from the early writers cited by Alauzet give to his hypothesis "an air of great probability", he nevertheless believes that if the decree of Gregory IX gave rise to the invention of the contract of insurance the fact would have been

74. Quoted by Duer, op. cit., v. 1, p. 31.
notorious. He further objects that if the decree had been an authoritative interdiction of the church and if the practice of bottomry were ever discontinued, why was it so soon revived as to become almost universal in every country in Europe subject to Papal sway, with no evidence that would point to a modification or revocation of the decree of Gregory. Alauzet states, however, that soon after publication, by reference to the context of the entire document, it was apparent that the true meaning intended was "usurarius non est censendus", the important word non having been omitted by mistake. If this were true, then the decree instead of condemning the practice of bottomry was designed specifically to exempt it from the usuary prohibitions, presumably intending to give expression in a decree to an exemption that custom and precedent had previously sanctioned. It is possible, then, to answer Dr. Duer's objection that the practice of bottomry spread throughout the nations under Papal sway, following the promulgation of the decree of Gregory, with the assumption that when the decree was finally understood, it was interpreted as a specific permission to take interest for loans on bottomry. At the same time, the hypothesis that the decree was the immediate cause for developing a contract for

75. Duer, op. cit., v. 1, p. 32.
risk bearing without the advancing of a loan is equally tentable. If the decree as originally promulgated inadvertently stated that such loans *were condemned* when it was the intention to state that they *were not condemned* as usurious, then a period of doubt and uncertainty must have followed, and during that period the contract for risk bearing without the attendant loan could have been developed.

Whether or not the decree of Gregory IX was actually the immediate cause of the development of the insurance contract, it is not unreasonable to believe that the pressure exerted against money lending by regulations against usury were instrumental in bringing it about. Shakespeare has portrayed for us in the figure of Shylock, the position of the money lender. The business of money lending in Christian countries was regarded as illegitimate, and those engaged in it despised as usurors. The fact that there were certain exceptions made to the rule prohibiting interest would hardly succeed in removing the stigma that attached to the business, and as long as the Church regulations were interpreted to prohibit interest taking, most of the business of money lending was carried on by the Jews and other non-Chrisitans.

With the development of commercial enterprise, and
the increasing use of money for the purposes of production, the difference between usury and interest was brought out in the Papal decrees. The crime of usury was limited to consumption loans at exorbitant rates, while Pope Innocent IV (d 1254) defined as legitimate a charge for the use of commercial and industrial capital, if risk of loss or sacrifice of gains were an element of the transaction. 76 With this distinction clearly understood, there was a tendency for the Lombards and other Christians to engage in the business of lending money for productive purposes, leaving the smaller personal loans to the Jews. With the dawn of the thirteenth century the civil laws in Italy began to distinguish loans on the basis of risk. There was permitted first the simple charge of interest, that might be compared to the pure interest rate of modern economic theory. To this might be added a charge for predictible risks, and lastly a charge for the varying risks that attach to any business undertaking. 77 This emphasis upon risk and the charge therefor tended to place a decided measure upon the cost of its assumption. It was but a step from this point for merchants, who borrowed on bottomry for the protective feature, when they required no financial assistance,

76. Knight, Barnes and Flugel, op. cit., p. 115.
77. Ibid., p. 119.
to pay for the protective feature without taking the loan. And the Lombards, described by a contemporary poet as: "A nation clever, sagacious, prudent, active, adroit, far seeing in council, learned in the science of laws and right," might be expected to see the advantages of the insurance contract, and provide a means for taking the step.

Regardless of the date of the introduction of the contract in the other nations of Europe, weight must be given to the hypothesis that the contract originated in Italy. As already suggested, it is of course possible that the Lombards were not the absolute originators of the idea, but to them at least the credit seems due for introducing it throughout the continent. During the Middle Ages the spread of commercial institutions was from the south to the north. As early as the twelfth century the Papal collectors had penetrated to the remote parts of northwestern Europe, and were instrumental in disseminating the financial ideas of the south. Nor were they the only carriers of the Italian influence. The Italian merchants followed the travelling markets of fairs of Northern France, Germany, and England, and they were accompanied by the Lombard money changers. Expanding their operations

78. Hopkins, op. cit., p. 17.
79. Knight, Barnes, and Flugel, op. cit., p. 114.
throughout the continent during the thirteenth century, the Lombards became powerful financiers and their influence was great. In the hands of their colony in London rested the foreign trade of the kingdom, and to them tradition ascribes the introduction of insurance to England.  

Added to tradition is a powerful argument from etymology. The word policy which is used today to designate the name of the written instrument containing the contract comes to us from the Italian. The word in the English language, or in any other language than the Italian, has no meaning save that arbitrarily ascribed to it. Polizza, the Italian word from which policy is derived is used as the name of a contract in writing that furnishes evidence of, or creates a legal obligation. Hence its application to the insurance contract by the Italians was perfectly correct, though it was by no means limited in its meaning to such contracts alone, and applied equally well to a promissory note, bill of exchange, or other similar document. The term has been carried out of the Italian as a name for the insurance contract, and it is to be interpreted as meaning that when the Italians introduced the insurance idea they designated the agreement a polizza, and

80. Duer, op. cit., v. 1, p. 33.
the Italian term was accepted and used to designate that partic-
icular type of contract, the insurance agreement.

As there is no absolute certainty as to the place of
origin of insurance, so the time of its beginning is likewise
shrouded in uncertainty. We know that a custom of merchants
can exist for many years before the usage becomes a matter of
formal law. Such customs have the force of law where they
prevail. It is reasonable to presume that insurance was
known as a custom among merchants for a long period before it
became the subject of formal legislation. The evidence from
the laws, and from the historians, however, is not to be doubted,
and we can with reasonable certainty fix the time of the appear-
ance of insurance as not later than the close of the twelfth
or the beginning of the thirteenth century. Likewise, a
preponderance of evidence favors the conclusion that the idea
originated with the Italians.

82. Hopkins, op. cit., p. 18.
83. Duer, op. cit., v. 1, p. 28.
CHAPTER V.

PERIOD OF FINAL DEVELOPMENT, 1500 - 1720.

1. Marine Insurance.

The arrival of the sixteenth century found that in the maritime nations the practice of marine insurance had become general, and its principles well understood. In that earliest treatise on the subject of insurance, Le Guidion de la mer, to which reference has already been made, it indicates that at the time of its publication marine insurance was known and practiced in France, Spain, Italy, Flanders and England.

For many years after the turn of the century, insurance underwriting had not become a specialized business, but was carried on by merchants who from time to time committed themselves to risks by subscribing policies as a side line to their other affairs. In England the early policies were issued in this manner, and just as the insurers were merchants, so the business of insurance was in the hands of the sworn brokers who acted as the merchants' agents in the buying and selling goods. It was the custom, though not followed in

every instance, to have the policies drawn up and attested by a notary. Lombard street seems to have been the headquarters for merchants engaged in taking marine risks, though there appears to have been no particular control of centralization of facilities.

From the regulations governing the conduct of the business of insurance to be found in Le Guidion, it is apparent that at the time the treatise was compiled, the business in Rouen was likewise in the hands of numerous underwriters, without any centralized place of doing business. Some centralization was to be found in the provision for a registrar of policies, who it was provided must establish his place of business in a frequented location, and display over his door a sign reading "Office of Insurances". He, it was specified, must be of good reputation, well acquainted with the details of insurance, and have a knowledge of book-keeping, so that he might enter and keep a list of the policies submitted to him, and he further was required to keep his office open during the entire day, with either himself or a clerk always in attendance. The underwriters, however, were not in any central location, for it was provided that whenever a policy was offered to the registrar for completion,

2. Wright and Fayle, History of Lloyds, p. 35.
it must be carried to all of the underwriters in a specified order, so that all might have an opportunity to participate in the venture. It may be fairly presumed that these rules, drawn up for the regulation of the business of marine insurance at Rouen, fairly depict the customary manner of carrying on the business of insurance in the other maritime nations of Europe.

Because of the uncertainty of the date of Le Guidion we are in doubt as to when in the sixteenth century the recorded of insurance first made his appearance. We do know that in England during the entire first half of the century underwriters were scattered, and the business of insurance unorganized and in the hands of merchants and their brokers. At the same time the importance of the business is not to be minimized. In fact it was so widely practiced, and commonly known that Lord Bacon in 1548, in opening Elizabeth's first parliament said:—"Doth not the wise merchant, in every adventure of danger, give part to have the rest insured?" So far as there is any information, the business as carried on proved itself adequate to the needs of commerce.

At this point we must mention the establishment of the Royal Exchange, destined for many years to be an important factor in the insurance field. A triumph of the labors and planning of the famed Sir Thomas Gresham, the first Royal Exchange was

dedicated by Queen Elizabeth on January 23, 1571, and marked a long step in freeing English business from the domination of the Lombardy men, and the Hanseatic traders of the Steelyard. The Hanseatic traders, known as Easterlings, or Emperor's men had for the greater part of five centuries following the reign of Edward the Confessor, secured a stranglehold upon British commerce. This group of traders in London lived upon a monastic plan, never married, nor were allowed even to visit any person of the opposite sex, took all meals in common and submitted themselves to a strict government. They owned great yards and buildings on the bank of the Thames, known as the Staplehof. This was eventually contracted to Staelhof, and anglicized into Stillyards, and finally into the Steel yard. To break the power of the foreign influence, and at the same time adopt their business methods was part of the far seeing design of Gresham in establishing his new exchange. 6

but sentiment was at that time adverse. The merchants preferred to meet and conduct their business on the cobbles of Lombard street.

In 1571, however, Gresham's exchange became a fact. It became at once the meeting place of merchants, and when the power of the Steelyard was eventually broken, became the important business center of London. During the day merchants and others interested in business congregated there, and their disputes were adjusted, and the negotiations for new transactions completed. The fast developing business of insurance, carried on among the merchants of Lombard street, gravitated toward the center of business activity that the exchange created. While the underwriting continued in the hands of individual merchants for many years, the floor of the Royal Exchange was destined to become a center for effecting insurance contracts. This first Royal Exchange, built under the guidance of Gresham, and dedicated by Elizabeth continued for ninety years an important center in the business life of London. It was destroyed in 1666 by the great fire. 7

Following the establishment of the Royal Exchange as a center for merchants for carrying on their business negotiations, including in their other affairs the business of insurance, there

appeared in the year 1574, or thereabouts, a new development in the field. Apparently sensing an opportunity for securing a profitable monopoly for himself, one Richard Candeler, obtained from the Queen a patent granting to him and his deputies the sole right of making and registering policies of all kinds, as well as other instruments of insurance, made upon ships or upon merchandise. In the preamble of the patent, reasons to justify the grant were set forth. Because of the secrecy possible in securing a policy, dishonest or unscrupulous persons were able to buy insurance from more than one source and thereby defraud the insurers.\(^8\) Attached to the grant was the proviso that whenever reform of the office thus established was deemed necessary, suit might be made to the Queen or her Council, and Candeler was to conform to their orders.\(^9\)

Immediately there were objections. The notaries petitioned against the grant of the patent on the ground that it threatened their business. The brokers likewise voiced their objection. As a result of the opposition there was appointed a commission of inquiry into the proposed Office of Assurances. The commission, however, confined itself to fixing the rates to be charged for registrations and other services, without interfering with the monopoly.\(^10\)

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10. Wright and Fayle, *op. cit.*, p. 36.
In the early days of the development of insurance, the courts seemed to be particularly free from disputes arising out of the interpretation of insurance policies. The first case upon insurance to be found in any book of reports was mentioned by Lord Coke in Dowdale's Case decided in 1588. An action, it appears, was brought on a policy covering a ship from Malcombe Regis to Abbeville. The loss alleged arose out of the detention of the ship by the King of France in the River Soane. In the course of the action the defendant contended that because the detention arose out of the realm, the case could not be tried in London. It was held that:

"where as well the contract as the performance of it is wholly made or to be done beyond the sea, it is not triable under our law, but if the promise be made in England it shall be tried."

It seemed at that time to be the prevailing idea, however, that disputes arising out of the contract of insurance should be settled by special tribunals rather than by appeal to the courts.

The first English statute relating to the subject of insurance is the famous 43. Elizabeth, ch. 12, which has for its purpose the establishment of a tribunal, before which disputes arising out of the insurance contract might be heard and settled.

Provision was made for the establishment of a Standing Commission for the trial of such cases, to be renewed yearly by the Lord Chancellor or the Lord Keeper. It was provided that both the Judge of the Admiralty Court, and the Recorder of London, were to be ex officio members of the Commission. Of the remaining commissioners, there were to be included two Doctors of Civil Law, two common lawyers, and eight merchants. Five of the commissioners were to constitute a quorum. The findings of the commission were not final, but provision was made for an appeal to the Court of Chancery.

The act is of interest, representing the first English legislation in the field of insurance. The wording of its preamble is especially significant and worthy of quotation, indicating as it does a recognition not only of the great antiquity of the business of insurance, but also an understanding of its benefits. In it we find the following:

"Whereas it ever hathe bene the policie of this realme by all good meanes to conforte and encourage the merchante, ——And whereas it has bene tyme out of mynde an usage amongateau merchantes, both of this realme and of forraigne nacyons, when they make any great adventure (speciallie into remote partes) to give some consideration of money to other persons (which commonlie are in noe small number) to have from them assurance made of their goodes, merchandizes, ships and things adventured, or some parte thereof, at suche rates and in suche sort as the parties assurers and the parties assured can agree, which course of dealinge is commonlie termed a policie of assurance; by means of whiche policie of assurance it commethe to passe that upon the losse or perishinge of any slippe there followeth the not the undoinge of any man, but the loss lightethe rather
easilie upon many than heavilie upon fewe, and r; upon them that adventure not than those that doe adventure, whereby all merchantes, speciallie the younger sorte, are allured to venture more willing and more freely. 14

Not only does the wording of the statute establish beyond a doubt that insurance as a business had long been in existence in England when the statute was passed, so long in fact that its origin was lost to memory, but it also puts forth in suscint terms an appraisal of the economic effect of risk, the benefits that are to be derived from the device of insurance designed to shift the burden of the risk through effecting a dispersion of the losses.

The act then refers to the custom that had been followed previous to the passing of the statute in settling controversies, and call attention to a new tendency in the following:

"And whereas heretofore suche assurers have used to stande so justile and preciselie upon their credit as few or no controversies have risen thereupon, as if any have growne the same have from tyme to tyme bene ended and ordered by certaine grave and discri merchantes, appointed by the Lorde Mayor of the Citie of London, as men by reason of their experience fitteste to understande and speedilie to decide the causes, untill of late years that divers persons have withrawn themselves from that arbitrarie course, and have sought to drawe the parties assured to seeke moneys of everie several assurer, by suites comme in her Majesties courts, to their greate charges and delays; For remedie whereof be it enacted by the authoritie of the presente Parliamente: " 15

15. Quoted by Martin, _op. cit._, p. 11. ff.
Next the act proceeds to authorize the Lord Chancellor, and the Lord Keeper of the great seal to appoint the commission already described.

Here through this act was created in effect a permanent board of arbitration to settle disputes arising out of policies of insurance. The commission thus established, however, did not meet with great success, and its decisions have left no mark on the law of insurance. Its jurisdiction was confined to London, and took cognizance only of insurance on merchandise, and considered only the claims of the assured. A further limitation of its scope was found in the fact that it recognized only policies registered with the Office of Assurances, thereby helping to perpetuate the monopoly of Candeler and his successors. Because so many withdrew themselves from its remedies, the court finally fell into disuse, and was ultimately discontinued.

With reference to the Office of Assurances, while its grant provided a monopoly on the registering of policies, all policies issued were by no means registered in this office. As a matter of actual practice there were many policies issued

17. Wright and Fayle, op. cit., p. 38.
for individuals by the underwriters without recourse to the registration privileges of the Office of Assurances. The Office eventually disappeared around 1688.

We may now temporarily leave the development of insurance in England. For our purpose it would suffice, to trace the contributions to the science of insurance as they make their appearance in England. Nevertheless, because of the light they throw upon the status of insurance when the seventeenth century is drawing to a close, we are interested in giving some attention to the insurance section contained in that justly famous code, the Ordonnance de la Marine, of Louis XIV., published in 1681.

The Ordonnance de la Marine was probably the first complete code of maritime and commercial law ever attempted. Its scope is sufficiently broad to cover the entire range of maritime law including insurance. Compiled under the direction and patronage of Colbert, the celebrated minister of Louis XIV, it is said the distinguished jurist Kent, a "monument of the reign of Louis XIV, far more durable and more glorious than all the military trophies won by the valor of his armies."

When we consider its originality and the extent of its design,

19. Duer, op. cit., v. 1, p. 43.
says the learned Duer, and consider the ability with which it is executed, "we shall not hesitate to admit, that it deserves to be ranked among the noblest works that legislative genius and learning have yet accomplished." 20 Vallin has written a commentary upon the ordinance which, says Kent, almost rivals the ordinance itself in the weight of its authority as well as in the equity of its conclusions. Commenting upon the laws, Vallin states that universal administration was excited by the appearance of an ordinance "so beautiful in its economical distribution, so wise in its general and particular policy; so correct and exact in its divisions; and so learned that it presents as many abridged treatises of jurisprudence as there are subjects which it embraces." 21 From the Ordonnance de la Marine we date the modern system of maritime and commercial law. 22 A long section of the code is devoted to the subject of insurance, and these statutes form the basis of the present French law upon the subject. 23

Nor was the influence of the Ordonnance de la Marine confined to French law. The influence upon English law is known and recognized. The English nation never had any general

21. Quoted by Walford, op. cit., v. 4, p. 312.
23. Elliott, op. cit., p. 3.
and formally enacted code of maritime law promulgated by legislative authority, such as this code of Louis XIV, and the older codes effected by other of the European maritime nations. The deed was supplied first by a number of compilations of existing laws, and supplemented with numerous decisions based upon findings in the older European codes. Here mention must be made of that great and distinguished juror, Lord Mansfield, whose work was so largely instrumental in shaping the maritime law, and the law of insurance in Great Britain. Finding little in the way of help in the English common law, he turned to the foreign codes and authorities. Early in his judicial career he brought to the notice of the English Bar the Rhodian Laws, the Consolato del mare, the Roles D'Oléron, the treatises of Roccus, the Laws of Wisby, and above all the then famous Ordonnance de la Marine of Louis XIV. with the equally notable Commentary of Vallin. These authorities were cited by him in Luke v. Luke (2 Burr. 882) and a new direction was given to the development of English law. The Ordonnance of Louis XIV containing a digest of the older usages and customs was frequently

cited in subsequent cases, as was also the Commentary of Vallin. The English text books of law, based as they were upon the decisions of the courts, were thereby directly influenced by the provisions of this French code. 27

We are here interested in the sections of the code dealing with insurance, for by their means we are enabled to judge the long strides that had been taken in the development of the business of insurance up to the time when the code was promulgated. The regulations are specific, and in the light of any insurance legislation that had preceded them, surprisingly complete.

In the beginning of that division of the code devoted to the subject of insurance, after authorizing both subjects and foreigners to insure "ships, goods, and other effects that may be carried by sea, or navigable rivers," the insurers are then authorized to fix the price to be charged for assuming the risk. In other words rates are to be made by the insurers. 28

Next in order are several regulations covering the policy contract. It is provided that the agreement be drawn up in writing, but it may be executed without notarial verification. A subsequent section prohibits under penalties named,

27. Walford, op. cit., v. 4, p. 313.
any clerk, secretary of an insurance chamber, notary, or broker, from having a policy underwritten in which there were any places left blank. Nor were they, themselves, to be concerned either directly or indirectly in insurances. There are enumerated detailed information the policy must contain. First comes the name, and place of residence of the insured, with a statement as to whether the person who is securing the insurance is acting in the capacity of owner of the insured goods, or broker. Next in order after naming the property to be covered by the insurance, the name of the vessel and the master are required, as well as the port of loading, the port of destination, points the ship will touch, the time of the beginning and ending of the risk, the amount of insurance, the premium, and other details that may be pertinent or agreed upon. A declaration was required that any disputes be settled by arbitration. Here we find enumerated the essential details to be included in the policy when drawn up, including the arbitration clause that finds its place in the present day policy of insurance. 29

Following the regulations governing the drawing up of the policy, there are several sections dealing with exceptions or specific points. Without enumerating them all, mention

29. Ordonnance de la Marine, sec. 3 - 8.
may be made of authorization to effect insurance against captivity and slavery, though insurance upon lives was specifically prohibited. It was forbidden masters to insure the freight money their vessel might earn, and merchants were likewise prohibited from insuring profits. To this day, profits are not included in measuring a loss under a property insurance policy, though there has now been devised a policy specifically covering profits. 30

Reinsurance is expressly declared lawful. 31 While in times past subject to many abuses, reinsurance is now recognized as an important factor in the conduct of the business of insurance, and is in effect a contract entered into by an assurer, in order to secure relief from risks to which he no longer desires to be committed. By this means he transfers a part, or all of a burden to the shoulders of other underwriters, who are called reinsurers.

The principle of indemnity was recognized by the code. It was provided that if a policy were made without fraudulent intent, but for an amount in excess of the actual value of the goods insured, in case of loss the insurers were liable only for the value of the goods lost, and the underwriters were to contribute to the loss pro-rata. A difference in procedure

30. Ibid., sec. 9-16.
31. Ibid., sec. 20-22.
from that now practiced under our law was followed in the event that the insurance was written in several policies. Instead of all contributing pro-rata to the loss, as would now be the case in this country, the policies in meeting the loss are to be exhausted in the order of their issue, and those that represent an insurance in excess of the value of the goods insured do not contribute. The law provided that such insurers as do not contribute shall withdraw and return all but a small per-cent of the premium.

The risks insured against, and for which under the law the insurers were liable, included loss from "tempest, ship-wreck, stranding, running foul of other ships, changing the course or the voyage of the ship; jettison, fire, capture, plundering, detention of princes, declaration of war, reprisals, and generally all other accidents of the sea." It was provided, however, that if a change of course was made by order of the insured without consent of the insurers, the insurers are not liable. This rule is extended to other losses that may happen through act or fault of the assured. Under modern practice, deviation from a specified route, certain instances being excepted, will void the policy. On the other

32. Ibid., sec. 23-25.
33. Ibid., sec. 26.
34. Ibid., sec. 27.
hand modern insurance law does not recognize negligence as a ground for voiding the policy, but allows indemnity to the assured for loss by the peril named, in spite of contributing negligence on the part of himself or others. 35

The doctrine of concealment was made operative by the code. This doctrine, briefly stated, recognizes that the subject of the contract of insurance is a chance, and that both parties must contract with reference to the same chance. Under this doctrine, facts, material to the risk, known to one party only, must be made known to the other party. If the underwriter, by some means or other knows that the voyage is ended safely, it would quite clearly be a fraud for him to accept a premium for insuring it. On the other hand, if the ship be already lost, insurance would be likewise fraudulent. 36 The Ordonnance takes particular cognizance of such contracts, and declares them void if made after a loss that the insurer knew of, or after an arrival that had been made known to the insurer. And it was presumed that such information would reach the parties concerned, if the news could have been brought, allowing a lapse of an hour for each league and a half of distance. 37

Elaborate instructions are given for reporting losses, abandonment to the insurers, and the time within which losses

36. Ibid., p. 75.
may be presumed to have occurred. Provision is made for declaring insurance carried as well as bottomry loans in the event of loss, and in the event of over insurance, where there is any concealment the insurance is declared void, and the insurance feature of the bottomry contract inoperative. That is the bottomry loans must be repaid, even though the ship be taken or lost. Exemplary punishment is provided for whoever sues for the sum insured if it be above the value of the effects insured, or the interest of the assured in them.

Provision is made for settling claims. Methods are named by which goods are to be valued, and for the care and disposition of goods detained or abandoned. There are regulations governing the business operations of brokers, notaries, clerks and secretaries of chambers of insurance, having to do particularly with the issuance of policies and their records. Detailed procedure is lined out for carrying on the arbitration of disputed claims. The attention which the Ordonnance gives to these and other details is indicative not only of the scope of the law, but also of the extent of the business of insurance

38. Ibid., sec. 42-52.
39. Ibid., sec. 53-55.
40. Ibid., sec. 56-65.
41. Ibid., sec. 68-69.
42. Ibid., sec. 70-74.
when the code was promulgated.

The interest of Louis XIV, and his advisers in the field of insurance, was not confined to legislation, for in 1686 the King together with Colbert and Boucherat, signed a decree establishing the creation of a Compagnie Generale pour les Assurances Grosses Aventures de France in the city of Paris. (General Company for Insurances and Bottomry Bonds of France). Here at this date we have the organization of the first stock insurance company. The importance of insurance was set forth in the beginning of the edict. The preamble and first article are here quoted:

"Louis, by the grace of God, King of France and Navarre, dauphin of Viennois, Count of Valentinois and Dijois, Provence, Forcalquier and adjacent lands, to all those present and to come, GREETINGS.

"Since we have devoted ourselves to the reestablishment of maritime commerce, the jurisprudence of which we have established by various regulations and by our decree of the month of August, 1681, several of our subjects have concluded policies and contracts of insurance with great advantage to themselves, thus avoiding large losses by means of the payment of modest amounts to have their vessels and merchandise insured. This has caused us to urge several merchants and others versed in business to combine and form a General Insurance Chamber, in the form of a Company having a common capital and signature, in order to amass a large amount of money, so that merchants who wish to avail themselves of this method of reducing the risks which they incur in their ordinary business may do so and continue their business with greater facility and safety."
"For these reasons and others we have stated and declared, and we state and declare by these presents, signed by our hand, what is our wish and pleasure.

"1. That there be established a Compagnie Generale des Assurances et Grosses Aventures in our good city of Paris, at such place as the interested parties may find most convenient, to constitute it the general office for insurance business, hold the necessary meetings there, and there to negotiate the business of the company." 43

Following this, the decree fixed the number of associates at thirty. They were to have a capital stock of 300,000 livres, divided into seventy-five shares of 4,000 livres each, and the term for which the association was to function was fixed at ten years. Certain stipulations were inserted with reference to the policy that the company should issue. For example the clause agreeing that disputes be submitted to arbitration was required, though provision was made to regulate appeals. Fees were established for the registrar, and all persons but those who were members of the association were forbidden to engage in the business of insurance or bottomry in the city of Paris, thereby creating a monopoly for the company. It was provided, however, that merchants, traders, and others of the cities of Rouen, Nantz, St. Malo, Rochelle, Bordeaux, Bayonne, Marseilles, and others should be permitted to continue in the business of insurance, but only upon the footing that existed previous to the date of the edict. The association was permitted to

make its own by-laws for the company's regulation, so long as they were in conformity with the conditions specifically set forth in the decree. Here was the first marine insurance company. There were but thirty stockholders, and anyone else who wished to engage in the business of insurance in Paris in order to do so must first purchase the stock of some member of the company. 44

There was an effort made to establish a great marine insurance company in England, at a period considerably earlier than the date of the establishment of the French company, but the efforts seem to have been marked with no degree of success. In 1680, the proposal was made by a group of individuals, with a view to providing greater security and centralized facilities, that a great corporation be established under royal patent for the purpose of effecting insurance upon ships and cargoes. 45

The originators of the idea, in their estimates placed the foreign trade of the country at seven million pounds a year, and pointed out that if they secured even half this business at 5%, they would have a premium income of one hundred seventy-five thousand pounds. As a capital to secure the assured, the promoters of the company were to raise a capital of a half million

44. Walford, op. cit., v. 4., p. 313.
45. Wright and Fayle, op. cit., p. 40.
pounds, to be deposited with the East India Company, or other-
wise safely placed.

A favorable report was given the project by the Council of Trade, upon two conditions. These were that losses should be paid without the abatements that were then customary, and that no one should be prevented from insuring elsewhere. Unlike the French company, there was here created no monopoly. This may have been the reason for allowing the project to fall through. Without a monopoly the projectors were apparently unwilling to raise the necessary half million capital. Whether this was the reason, or some other, the company was never organized, and the idea of a company for writing marine insurance was not seriously brought forward for over a half century.

Following the disappearance about 1688 of the Office of Assurances created by the grant of Elizabeth in England, the business of insurance to the end of the seventeenth century was carried on in much the same manner as it had been under Elizabeth before the establishment of the registry. The insurers, for the most part, were at this time merchants engaged in other lines of business. There was, however, one noticeable development. Whereas, in the time of Elizabeth, merchants

46. Wright and Fayle, op. cit., p. 39.
were the insurers, and the business was carried on largely by the brokers who represented the merchants in other lines, by the beginning of the eighteenth century the business of insurance broker had become a specialized occupation.

Two marked defects in the system eventually forced themselves to the attention of the commercial community, and were instrumental in effecting the next steps in the evolution of the business. The first short coming was to be found in the lack of any kind of a financial guarantee of stability on the part of the underwriters. They committed themselves, as individuals, to a part of the risk insured by the various policies. And there was a number of these individuals concerned in each risk. Next there was no recognized center for carrying on the business, but brokers who had policies to complete were obliged to go from office to office, in order to secure sufficient insurers to complete a policy. 47

Without any concerted action, or preconceived design on the part of any group, underwriters and brokers with common interests began to assemble in the coffee houses. Lacking other meeting places, the coffee houses seemed admirably designed to serve their needs. Not only did they serve as a place to gather,

47. Wright and Fayle, op. cit., p. 40. Martin, op. cit., p. 55
but it was here also that latest developments in the field were carried, and here the latest news might be obtained. The first coffee house of which there is any record opened in 1652. Within a very short time these coffee houses had become the popular resort of merchants who patronized them for business purposes. Utilizing the facilities of the coffee houses to their own ends, the merchants engaged in underwriting, and the brokers, engaged in completing policies, formed the habit of frequenting these institutions. The actual business of underwriting was carried on at this time on the floor of the Royal Exchange, but in the business of underwriting marine risks news was the all important factor, and the best sources of news were found to be the coffee houses. There appears to have been no effort on the part of the managers to limit their patronage to any given class. Any one who desired might be served. But it was natural that those with common interests should be attracted, and specialization in the coffee houses was the result.

With insurance underwriting and the coffee houses, the name of Edward Lloyd has become inseparably associated. His coffee house, destined to become famous in insurance history was

49. Wright and Fayle, op. cit., p. 9.
by no means the earliest of these institutions, nor was it in the beginning the sole resort of the insurance interests. There were other coffee houses well known and patronized before his time, and it may fairly be said that the great institution known as Lloyds traces its beginning to all of those early coffee houses that served the insurance interests.

It was by going about from place to place that the merchant was enabled to learn of the important events of the day, and of the developments of interest to his business. There were very few newspapers, and what there were contained but little of value to the business man. Mails were slow and postage expensive. News was spread largely by personal contact. Merchants obtained their news by an exchange of information, and for this the coffee house served as a place of meeting.

Recognizing the value of supplying this business news, it seems to have been an early custom, not only to supply such newspapers as were available, but also to post up, or circulate letters containing matters of interest to those assembled, a custom not unlike that to be seen among groups gathered in the board room of a stock exchange house today. It was due to the initiative of Lloyds that his coffee house outdistanced its competitors. Lloyds became recognized as a center for news, and
in 1696 Lloyd began the publication of his own paper, *Lloyd's News*, consisting of a single page that appeared three times weekly.

The earliest notice of Lloyd's coffee house is found in the *London Gazette*, of February 18-21, 1688. From this advertisement it is evident that the first Lloyd's was doing business in Tower street at this date. From the numerous advertisements it appears from the beginning that Lloyd's was frequented by merchants and shipmasters. It was not until 1691, however, that Lloyd left the old location to establish himself in the heart of the business world, and to enter into competition with a group of prosperous and flourishing coffee houses that clustered around the Royal Exchange. It is apparent that Lloyd's from the beginning was a success, and became one of the largest establishments in the vicinity. One of the first advertisements mentioning the house to appear, following the change to Lombard street, dated in 1692, concerned the sale at auction of three ships and their furniture, and gave an intimation of the trend in the class of business. At the beginning of the eighteenth century, Lloyd's had not yet become a distinct insurance center, but was one of a group of prominent coffee

houses frequented by underwriters. The business of insurance was still carried on by merchants, and the brokers had to go from office to coffee house, and coffee house to exchange, in the course of carrying out their business of completing policies. In this early coffee house of Lloyd's, however, the ground was prepared for the sowing of a seed that was to develop into one of the greatest insurance institutions in the world.

The close of the seventeenth century finds the business of insurance still conducted largely on the floor of the Royal Exchange, or as often happened carried on directly with individual underwriters without reference to the Exchange. There was as yet no centralization of the business, and so far as specialization was concerned it was at this time limited to the brokers. Coffee houses were frequented by both insurers, brokers, and the insured. Their function was at this time primarily to furnish a meeting place for those having common interests, and as a source of news. With the turn of the century, however, developments in the field of insurance were rapid. Because at this point the different branches of insurance merge, the further development of marine insurance, during the first decade of the eighteenth century is treated in the discussion of the Bubble

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52. Wright and Fayle, op. cit., p. 55-6.
Period, which brings us to the granting of charters to the companies organized to carry on the business of insurance.

2. Life Insurance.

In the order of development, marine insurance was first to become permanently established. Following, life insurance takes the second position. When the underwriters began to write policies upon the lives of individuals is not clear. The earliest life insurance policy of which we have any detailed information was made in June of 1583 at the Office of Insurance at the Royal Exchange, in London.\(^53\) When this policy was made, however, life insurance was probably not at all uncommon. As a matter of fact we do know that life insurance was written many years before this time, for the treatise *Le Guidon* to which reference has already been made, while treating mainly of marine insurance does mention life insurance. Stating that while life insurance was practiced in other nations, it was prohibited to insure the lives of persons in France, as contra bonos mores. This form of insurance, it was stated, permitted innumerable abuses and frauds,

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and it was because of these that some of the other nations had been forced to discontinue the practice. It may be that England was one of the countries in which the practice of insuring lives was permitted when Le Guidon was published. In any case we have definite evidence of the existence of the business in the registering of the policy of 1583.

The circumstances attending the issuance of this early policy are interesting. On the 18th. of June, 1583, the insurance was effected on the life of William Gibbons, for £ 383, 6s. 8d, for twelve months. The policy was signed by sixteen underwriters, each individually for his own share, and the premium charged was 8 percent. The history of this early undertaking hardly reflects credit upon the business dealings of these early underwriters. It so happened that Gibbons died on May 29th, 1854, and it would clearly seem that the insurers were liable for the amount of the policy. However, they were not averse to seeking a way out for themselves, and in an effort to save themselves from payment contended that the policy had expired before the date of Gibbons death. Their argument was based upon the assertion that when they named a period of twelve months as the term of the policy, they intended it to run for

54. Walford, op. cit., v. 4, p. 295.
twelve months of twenty-eight days each. Reckoning upon this basis Gibbons had outlived the term of his policy, and the underwriters were thereby not liable for payment under the terms of the contract. It is recorded that the law failed to recognize this quibbling, and the underwriters were obliged to pay.

The business of life insurance had made little progress up to the beginning of the eighteenth century. The first life policies issued by the chartered companies in 1720 were for a term of twelve months, and were based upon little else than chance and guess work. The progress of life insurance has been made possible through the development of a scientific system of probabilities. To the mathematician of the seventeenth century, the business of insurance is indebted for both the formulation of the theory of probabilities, and for the computation and construction of tables of mortality. Without these, life insurance in its modern form would not have been possible.

The earliest consideration of probability is to be found in the writings of the theologians. They were concerned with the course an individual was obliged to follow in cases of doubt concerning the existence, or the application of a law.

It was understood that when there was certainty with regard to a prohibiting law, all subject to the law were bound to abstain from performing such action as the law forbade. On the other end of the scale no obligation existed where there was no law. In either of these cases there is no doubt, but certainty. Between these two extremes, however, there can be all degrees of uncertainty as to the existence or application of a prohibiting law. Doubt in its strict sense is said to exist when there are no positive arguments either way, or when the arguments are equal. Then there can be a preponderance of opinion in favor of the law, with the opposite opinion still probable. The opinion favoring one view can be more probable than the opposite, most probable, or slightly probable.

Out of the problem thus presented grew up the moral system termed *Probabilism*. Bartholomew Medina, a Dominican theologian, was born in 1527 and died in 1581 after a life devoted to the teaching of theology at Salamanca, and is usually termed the Father of Probabilism. Writers are not in agreement upon the question as to whether he introduced the system or merely formulated it, when he taught "if an opinion is probable it is

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lawful to follow it, even though the opposing opinion is more probable." So far as we have any record, however, Medina was the first to expound the doctrine.

In the discussion of probabilism, the opinion which favors the law is termed the safe opinion, while the opinion which favors liberty is termed the less safe. With the rise of Jansenism probabilism became a center of controversy. The Jansenist theologian Sinnichius, a professor of Louvain, a defender of rigorist doctrines, taught that it was not lawful to follow even a most probable opinion in favor of liberty. This brings us to the mathematician Blaise Pascal.

Blaise Pascal, "one of the most sublime spirits in the world"[^58] is known to literature as one of the greatest Frenchmen of the seventeenth century. His fame would rest secure on his writings alone, but he was moreover a scientific investigator, a great mathematician, and a theologian. While he is noted particularly for his works in the field of mathematics, in 1646 becoming a member of the Jansenists he devoted a great part of his time to religious study. In 1650, on the advice of physicians, he withdrew from active pursuits because

of failing health. In 1654 abandoning all of his mathematical and scientific studies he devoted himself entirely to religion and became a regular guest at the Abbey of Port Royal a center of Jansenism.

Perhaps the most famous of the literary works of Pascal are his Provincial Letters, or Letters from a Provincial to one of his friends, and to the Reverend Fathers, the Jesuits. In the work he bitterly attacked the Jesuits, and made bitter accusations against them. Parts of two of the letters he devotes to the system of probabilism. The Letters are held one of the most brilliant pieces of writing that France had to that time produced, and their satire, charm, and eloquence attracted multitudes of readers. Because of the emphasis they gave to the question of probabilism, it may be stated that with the publication of the Provincial Letters the question of probability was taken from the discussions of the monasteries and schools of theology and brought to the attention of the world.

While the Provincial Letters brought the question of probability to the attention of the world, we owe much more than this to Pascal. It is to him we are obligated for the first explicit formulation of the principle of recurrence, stated in

60. Ibid., pp. 82 ff., pp. 99 ff.
a tract called *The Arithmetic Triangle* published in 1654. It has been found upon investigation, however, that the material in this tract was also contained in the correspondence between Pascal and Fermat regarding a problem in gambling, and the material here discovered is now regarded as the point of beginning from which developed the mathematical theory of probabilities. 61

Pierre de Fermat, like Pascal was one of the most noted mathematicians of his time. He was a counselor of the Parliament of Toulouse, an office of no great importance. He is said to have given no serious consideration to mathematics until after he was thirty years of age, yet was destined to be one of the greatest writers on the theory of numbers. Publishing little on his own account his discoveries exist in the form of marginal notes, or are made known through his letters to Pascal, Descartes, and others. 62

The correspondence between Pascal and Fermat which gave rise to the development of the theory of probabilities had to do with a problem proposed by a gambler regarding the division of stakes in an unfinished match. The problem is stated: Given the number of points necessary to finish the game and the
game is interrupted, requires two points to win while his opponent B needs three. It can be seen that the game can be decided in not over four more trials, for if B should win the first two and lose the next two A will secure the necessary score. If B wins the first two, and either the third or fourth B will win. By no shifting of the possible arrangement of scores will there be more than four more trials. Fermat in determining the chances of each player takes two letters, a and b and writes down all the possible combinations that can be formed by four of them as follows: - aaaa, aaab, aaba, sabb, abaa, ... bbbb, and finds the total possibilities to be sixteen in number. He then takes his array and determines which of the cases are favorable to A and which to B. Because A needs two successful trials to win, he determines that those cases where a appears two or more times are favorable to A, and by the same reasoning where b occurs three or more times, those cases are favorable to B. Upon inspection of the sixteen cases, it appears that there are eleven favorable to A, with five favorable to B. The stakes, therefore, are in this instance to be divided in the proportion of eleven to five. There was another problem considered which concerned itself with the probability of throwing a six with a die in eight throws. Fermat apparently carried the work no further, but Pascal developed the work,
carrying his researches to other and more difficult cases.

The theory thus evolved has, in the field of insurance, proved to be an instrument of incalculable importance. The measure of probability is expressed algebraically by means of a fraction whose numerator is the number of favorable (or unfavorable) possibilities, and whose denominator is the number of all possible cases. Using the following notation, in which \( n \) represents the number of ways an event can occur, \( a \) of which are to be considered as favorable and \( b \) as unfavorable, then the probability of \( p \) a favorable outcome can be expressed \( p = \frac{a}{n} \) and the probability of an unfavorable outcome is written \( p = \frac{b}{n} \).

A simple illustration of the formula is found in the experiment of tossing a coin. There are but two ways in which a coin may fall, either head up, or tail up. The probability that it will fall head is found by using the number of possible successful chances as the numerator of the fraction, and the total number of chances as the denominator, and we have the probability of tossing a head as \( \frac{1}{2} \). The probability that it will fall tail is the same.\(^64\) The probability that a man aged 35 will live 10 years is according to the data taken from the American Experience Table of Mortality the ratio \( \frac{74173}{81622} \).

\(^{64}\) Mills, Statistical Methods, p. 516.
According to the table of 51,822 men living at the age of 35 there are living 10 years later 74,173. That is there are 74,173 chances of success, which number is used as the numerator of the fraction, and 81,822 the total number of chances is the denominator. The value of the theory of probabilities to the science of insurance, it can readily be seen, is dependent upon the accuracy of statistical data.

John DeWitt, a Dutchman, was the first to apply the doctrine of probabilities to the subject of life annuities, in a report made to his government. Here for the first time were used mathematical calculations. The government in April, 1671 decided to raise funds through the medium of life annuities, and in July the report of DeWitt was presented, explaining the basis upon which such an enterprise could with success be carried out. In the process of formulation of his theory of annuities, DeWitt not only applied the principle of probabilities and compound discount in the ascertainment of the annuity value, but he also invented a mortality table based upon a plan of equal decrements. Actual statistical data, however, was still lacking.

65. Ibid., p. 522.
The first steps in this direction grew out of the terror inspired by the great plague. The "sweating sickness" which caused death in a few hours carried off thousands, and there were numerous visitations previous to 1665 causing great destruction of life. Rumors, then as now were exagerated, and in order to reassure a public whose morale was being undermined, the government ordered the various parishes to issue bills of mortality. These bills, however, had a grave defect as a basis for insurance calculations. A statement was included giving the cause of death, but not the age. For scientific computation this was fatal. Bills of mortality were issued in London as early as 1562. The beginning of the weekly issuance of bills by order of Elizabeth is placed at 1594.

The first, so far as we know, to turn his attention to an analysis of the bills of mortality was John Graunt, and his work constitutes one of the outstanding contributions to the science of insurance. He gave considerable thought to the population figures, and in 1661 there appeared the first edition of his work entitled Natural and Political Observations mentioned in the following Index, and made upon the Bills of mortality.

68. Mason, op. cit., p. 78.
69. Walford, op. cit., v. 1, p. 283.
Mortality, chiefly with Reference to the Government, Religion, Trade, Growth, Air, Diseases, and the Several Changes of the said City. The work attracted wide attention at the time of its publication, and a second edition was published in 1662, followed by a third in 1665. While the book was not received with favor by many, for one reason because Graunt placed the population of London at 384,000 when it had heretofore been measured in millions, nevertheless his work came to the attention of Charles II and this monarch recommended the writer to the Royal Society.

Among a large number of interesting problems considered in this work, we are interested in the mortality table which he presented. He computed that seven men out of every hundred lived to be seventy, of that number only one will be alive at 76, and none at 80, while thirty-six died before the age of 6. He then made a table showing in 229,250 deaths, the cause of each. This work of Graunt's is the first semblance of a mortality table we have in modern times.

The next to study the question of mortality was Sir William Petty. He wrote An Essay on Arithmetic concerning the

70. Mason, op. cit., pp. 80 ff. Walford, op. cit., v. 5, p. 538
Growth of the City of London, with the Measures, Periods, Causes and Consequences thereof. In this work he estimated the population of the city to be 670,000 in 1682, it having doubled in the previous forty years. He was at a loss to account for this growth, but predicted that the world would be fully peopled in the next 2,000 years and that the growth of the city of London must stop of its own accord before the year 1800. 71 Among his other works he carried forward a table based upon results deduced from the London Bills of Mortality for a period of eighteen years, 1665-82 inclusive. The works of Petty and Gruant exerted a wide influence both in England and on the Continent, and doubtless were instrumental in bringing about needed amendments to the Bills of Mortality, and more exact registrations of births and deaths. In 1728 not only the causes of the death, but the ages of the deceased were included in the records.

In 1693 the final step was made with the construction of a mortality table from actual data scientifically arranged. In that year Halley, known for his work in Mathematics, and more particularly as an astronomer, published in a pamphlet a table of probabilities of the duration of human life at every

71. Mason, op. cit., p. 84.
Unlike Graunt and Petty, whose tables were only approximations because the Bills of Mortality from which they computed did not record the ages of death, Halley had secured some definite data. It was found that in the City of Breslau, in Silesia, records were kept which showed, among other data, the age of the deceased at death. This was exactly the data for which the scientific men of the time interested in this field had been searching. A member of the Royal Society made application in 1692 for copies of these records, and copies of the registers for a period of five years 1687–91 were obtained. The lists showed a total of 6193 births, and 5869 deaths.

At this time Dr. Halley's reputation as a mathematician had already won for him great recognition, and he was selected as the one most competent to work with the materials thus obtained. The results of this work were published in 1693 in a paper submitted to the Royal Society under the title:—An Estimate of the degrees of the Mortality of Mankind, drawn from curious Tables of the births and funerals of the City of Breslau; with an attempt to ascertain the price of annuities upon lives. Halley assumed in his computations a stationary population, and proceeded to construct his mortality table from the record of deaths, showing the diminution of the number of lives each year out of an original group.

72 Walford, op. cit., v. 1, p. 106.
Halley's table was arranged in a form that showed how many out of the group of 1,000 at the age of one might be expected to survive at a given year. Likewise of the number surviving at any given year, it could be determined how many of them might be expected to survive at any subsequent year. From his table the chances of living and dying for all ages might easily be determined. The number of expectant survivors represented the chances of living, and the remainder, or those who were not expected to survive, the chances of death. This work of Dr. Halley's marked an important contribution to the development of insurance science, and it is to this work that actuarial science is heavily indebted.

The next great advance, and the final one to be here considered takes us into the early part of the eighteenth century, when Abraham de Moivre in 1725 published his work on life annuities which appeared under the title:— *Annuities upon Lives; or the valuation of Annuities upon any number of lives; and also of Reversions.* Preceding the publication of this work in 1725 de Moivre had already distinguished himself in the field of mathematics. Although born in France, from the age of 18 he lived in London, and supported himself largely by private teaching, lecturing, and solving mathematical puzzles. Because of straightened circumstances he was unable to devote his time
entirely to study, and is said to have spent a large part of his time in a London coffee house, where he picked up sufficient funds to meet his needs in solving problems. Among his earlier works is to be found a paper De Mensura Sortis, submitted to the Royal Society in 1710, and enlarged into a book in 1718 under the title The Doctrine of Chances. The work published in 1725 made practical application of his learning in determining the values of life leases and other life annuities.

When de Moivre turned his attention to the values of annuities, the mathematicians had already worked out methods for arriving at the summation of a series, when the elements follow some mathematical law. De Moivre was keen enough to see that it would be a comparatively simple matter to compute annuity values if a mortality table could be shown to follow a mathematical law. With this idea in mind, he studied the Breslau table of Halley, and found within reasonable limits, that for a considerable period, and possibly for the whole span, the number that survived to each year, out of a given number starting from the earliest age of the table, was a term in a decreasing arithmetical series. Working from this point he developed the hypothesis that bears his name, and which is briefly expressed as follows: Of 86 persons, one dies every year until all are

extinct. The hypothesis assumed that each year the number of deaths would be the same, but this number would each year be a larger proportion of the survivors, who it will be seen were diminishing each year.  

Thus the probability of death would each year become greater, not because of any increase in the annual number of deaths in the group, but because of the steady decrease in the survivors, who constituted the denominator in the probability ratio.  

The value in arranging a mortality table in an arithmetical series, for the purposes of computation, is readily seen. De Moivre continued to elaborate upon his work, and included in his computation not only the element of probability as determined from the mortality tables, but also the factor of interest in the form of discount.

With de Moivre, we are on the threshold of the scientific development of statistics as applied to insurance. An able and far seeing worker, his accomplishments in the field of mathematics won him widespread recognition, and he was admitted to membership in the Royal Society and into the academies of Paris and Berlin. We may leave insurance mathematics at this point, for the further developments that followed take us into the more modern contributions to the science.

While life insurance, up to the early part of the eighteenth century was largely in the hands of individual underwriters, and policies were written ordinarily for a single year, there was a mutual association formed during this period that enjoyed a long and successful existence. The formation of this society dates back to the 24th. of January, 1705. The promoters obtained a charter from Queen Anne the following July and they and their successors were incorporated under the name of the Amicable Society for a Perpetual Assurance Office. The principle feature of the insurance element is to be found in the amount of the death benefit. A certain amount was set aside to be divided among the representatives of the deceased. The larger the number of deaths in a given year, the smaller would be the benefit each would receive. The element of certainty was entirely lacking. There was no limitation as to the age of those who might participate, nor was there any difference in the amount paid for membership by those of different ages, and the benefits were the same for all who died in any given year. There appears to have been some concern, however, in selecting the applicants for policies. Those who wished to become members of the association were required to appear personally before the members of the board of directors for questioning. Each director might put such questions as he wished, and upon the
withdrawal of the applicant, gave his opinion of the eligibility of the candidate. There was no formal medical examination. The society did, in the course of time, recognize certain hazardous occupations as disqualifying for membership. Among these were foreign residence, and members of the army or navy. The society thus organized continued its operations for one hundred and sixty-one years.

Life insurance in the beginning of the eighteenth century merges with the other forms of insurance. Any further study of the subject finds its treatment with the general consideration of the development of insurance during the first quarter of that century. Up to this point the recorded contributions to the actual development of life insurance have been slight. The developments of the mathematicians, however, which had not yet been to an appreciable extent applied, represent a turning point in the history of all insurance.

3. Fire Insurance.

Friday, September 2, 1666, marks the date of the Great Fire. It is also an important landmark in the development of

77. Walford, op. cit., v. l., pp. 74 ff.
the business of fire insurance. It is hardly correct to say that fire insurance dates from that day, though the stimulus that the fire gave to the introduction and growth of the idea is not to be denied. A consideration of the early attempts to establish a means for effecting fire insurance indicates how little known and poorly understood was the idea, but it likewise indicates that it did not originate with the London fire of '66.

For example in the early part of the century the proposal was made that all proprietors of land should insure the houses of their subjects against fire, in return for the payment of a premium that should be a percentage of their value. The originator of this idea presented it for consideration to Count Anthony Gunther von Oldenburg in 1609. It was his idea, considering the number of fires and property lost thereby, that the Count might, after showing his subjects the danger of such losses, propose to them that he would upon receipt of a specified annual payment agree to pay the amount of the loss to those whose property should be damaged by fire. The proposal called for the placing of a valuation upon the property, and to pay at the rate of 1½ for the insurance. Fire from any cause was apparently to justify a claim, with one exception mentioned, that arising out of the misfortunes of war.
The originator of the plan was quite confident that over a period of years it would prove profitable for the insurers. While it would probably be true that losses would be heavy at first, he thought a calculation of the number of houses consumed over a long period would show that the losses were by a considerable margin less than the premiums collected. He also recognized the value of careful underwriting, for he did not recommend that all the houses in each town be accepted for insurance, but that the risks be selected. He does not intimate upon what basis the selection was to be made, but does state that indiscriminate acceptance might result in unduly large claims.

The Count evidently gave the matter serious consideration, but eventually decided against entering into the venture. This decision was founded, as it happens, not upon his finding any fault with the plan, but because it seemed to him that Providence might be tempted. He felt, moreover, that his subjects might be displeased, and forming improper ideas of his conduct accuse him of avarice. "God," he is reputed to have said, "had without such means preserved and blessed for many centuries the ancient house of Oldenburg; and he would still be present with him, through His mercy, and protect his subjects from destructive fires." Because of these scruples he rejected
the scheme, but in dismissing the author of the idea, it is reported that he rewarded him liberally.

Turning from continental Europe to Great Britain, we find under date of 1635 a petition addressed to Charles I, in which his attention is invited to the suffering caused from losses by fire. The petitioner, whose name by the way does not appear, prays that the King grant him authority to insure against losses from this cause. The petition carried with it an agreement for a payment to the King, and an upper limit for rates. This petition is considered to be a preliminary draft, submitted for consideration. In 1638, however, William Ryley and Edward Mabb petitioned the King to grant them a patent to run for a term of 41 years, permitting them to insure against losses from fire in accordance with a set of propositions which they annexed to their petition. In tracing the development of the fire insurance idea, we are interested in the term of these early proposals. They state:

"Propositions touching the prevention of fires in London and the parts and suburbs thereof. The owners or inhabitants of houses within the City and suburbs of London, together with the City of Westminster and Borough of Southwark, paying 12 pence per annum for every house yielding £20 yearly rent, if more or less after the rate of 12 pence yearly for every £30: shall have his house or houses redified according to His Majesty's proclamation, and sett in as good or better state as they were before in case any loss or casualtie by fire shall happen

73. Walford, op. cit., v. 3, p. 439.
unto them. For security hereof there shall be de-
posed £5000 into the Chamber of Lond. which shall
continually lay wholly end entire to receive for int.
£.5 in the £100, which increase shall runne until it
shall amount to £10,000. And there shall also be
kept a continual watch in all parts of the Citty and
suburbs all night, that if any fire should break forth
it may presently be espied. And engines shall be made
and kept in every ward thereof to be ready at hand for
the quenching of the same, and the watch brought
speedily to the fire, and those severall watchers in
every ward shall speedily repayre themselves to assist
where the fire shall be. Reserved of water shall be
made in convenient places for sudden use." 79

The petition was referred to the Attorney General, who approved
of the plan. There is no evidence however, that it ever
became operative.

On the continent, however, fire insurance was known
and practiced. Relton, quoting Beckman, who wrote in 1781,
refers to the institution of insurance offices to indemnify
losses sustained by fire, and calls them a most useful imitation
of marine insurance. Beckman states that so far as he is able
to learn, fire insurance offices were first formed toward the
middle of the century before he wrote, though he adds, houses
were insured by individuals much earlier. Commenting upon
this statement, Relton says that a German writing in a general
way might fairly be presumed to draw his information from German

sources, and that possibly his opinion was based upon some transaction in his own country of which knowledge has been lost. We have no idea, he adds, that his statement applied in any way to England. It is possible that Beckman had reference to some of the early German gilds that were in some instances converted into distinct insurance associations. An instance in point is the Feuer Casse at Hamburg, said to be one of the earliest distinct Fire Insurance Associations of which there is any knowledge. This association was the outgrowth of a merger in 1676, of several small Brandgilden (Fire Gilds) that had as early as 1591 entered into Fuer Contracts for mutual insurance. There were fire gilds in Schleswig-Holstein in the early part of the fifteenth century, in the form of local mutual fire insurance associations on the state or municipal plan. There seems to be no evidence that the gilds in England developed into distinct insurance associations, nor that any fire insurance association following the decline of the gilds, had become fairly established previous to the fire of 1666.

September 2, 1666 marks the date of this conflagration, and so great was the calamity that the anniversary was observed as a Fast Day for over a hundred years. The fire burned for

80. Relton, op. cit., p. 18.
four days and nights, and its destruction spread over 436 acres of the city's area. Over 85% of the buildings of the city were estimated destroyed, with a property loss estimated at ten million pounds. The blow staggered the city and the kingdom, and it is not surprising that the attention of business interests was then drawn to the field of fire insurance.

Immediately following the fire, it is reported that mutual insurance groups were formed to effect fire insurance. These societies granted insurance, not exceeding five hundred pounds on a single risk, and continued in active business for a considerable period.

In 1667 Dr. Nicholas Barbon opened his office for the insuring of houses and buildings against loss from fire. Dr. Barbon, having failed in the practice of medicine, for which profession he was educated, turned to building, and was one of the first of the builders to engage in extensive operations following the fire. He became involved in numerous financial and business schemes, one of them being insurance, and died in 1698 heavily in debt, leaving a stipulation in his will that his executor should never pay his debts, a stipulation which the executor, after reading the will to the creditors, promised religiously to fulfill. Our interest in Barbon centers in the

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83. Walford, op. cit., v. 3, p. 441.
fact that he was the first projector of fire insurance in England who succeeded in bringing his scheme to maturity. In the beginning Barbon carried on his business as an individual, and in principle his policies were the same as the marine policies of the time, that is policies underwritten by individuals.

Barbon's office merged in 1680 into The Fire Office, in which he joined with himself several others in the organization of the first joint-stock proprietary company for fire insurance in London, and probably the first of its kind in the world. The name assumed by the company was The Fire Office, thought it was for a considerable period commonly known as The Insurance Office at the backside of the Royal Exchange. A significant reference to this company is found in the advertisement appearing in the True Protestant (Domestick) Intelligence, of May 7, 1680. The advertisement states:

"There is a new office to be kept at the backside of the Royal Exchange, London, and will be opened on Thursday next. They do undertake for a very reasonable rate to secure the houses in London and the suburbs thereof from fire, and if burnt down to build them again at the cost of the office, for which end is provided a considerable bank of money, and a fund of free land, to such a value as will secure those that agree with the office. There being now in print a particular thereof, we need not give you any further account." 86

The company continued in business for a considerable time, and in 1705, adopting the name Phenix Office from the mark it placed

84. Relton, op. cit., p. 21.
85. Ibid., p. 28.
86. Quoted by Walford, op. cit., v. 3, p. 444.
upon buildings that it insured, and operations were then carried on under that name. The date when this office discontinued business is unknown.

In 1683 there appeared the proposals for a new society to provide protection, but this society unlike Barbon's was organized on a mutual basis. The proposal was entitled:

\[ \textit{A Proposal of a New Way or Method for Securing Houses from any Considerable Loss by Fire, by Way of Subscription and Mutual Contribution}. \]

The project was to be known as the \textit{Friendly Society}. The following year the original proposals were amended, and the mutual insurance association was launched. In accordance with the proposals of the society issued in 1684, every person becoming a member was obliged to obligate himself by subscribing an instrument to submit to a tax or assessment limited to 30s for every hundred pounds of insurance. This money the assured is to retain, but makes a deposit of 6s 8d to remain in the hands of the association as a pledge. There follow other clauses providing for the profits of the undertakers, expenses and the like, and give the basis for estimating the necessary contributions. De Foe is his \textit{Essay on Projects},

86. Quoted by Walford, \textit{op. cit.}, v. 3., p. 444.
after having mentioned Barbon's office, in connection with his discussion of the origin of fire insurance, says that this office was soon followed by another, where all who subscribed pay their quota to build up any man's house who is a contributor, if it shall happen to be burned. It was said that considerable rivalry existed between this new organization and the older Fire Office. The age old controversy that wages today, was at its height, and hinged upon the question as to whether mutual or non-mutual insurance was the superior. Sensing the controversy, De Foe states that while he will not decide which is the best, or which succeeds the best, he is willing to venture the opinion that the mutual form brings most money to the contriver.

Just as with The Fire Office we had the first non-mutual insurance society, so the Friendly Society was the first mutual fire insurance association. The time when the society ceased to do business, and the circumstances of its ending, are both shrouded in uncertainty. There is a reference made to it in a digest of the laws of insurance published in 1781, and it is believed that possibly because of depleted funds after the fires that occurred during the years from 1784 to 1786 the company sought to strengthen its proposition in a merger. It is stated that in 1714 the society was absorbed into another organization

known as the Union. The Friendly Society may be said to mark the beginning of mutual fire insurance associations in England.

Between the scheme of Barbon, that became the Fire Office and the establishing of the Friendly Society, the corporation of the city of London went into the business of issuing fire policies. A considerable business was written, but the undertaking was short lived, and just a year and a month after the authorities had entered upon the venture, they decided to abandon the business and the Chamberlain was ordered to return the premiums advanced and cancel the outstanding policies.

We come now to the first of these early societies that survived into the period in which modern insurance was developed. In 1696 the Hand in Hand mutual insurance office was opened. The original title of the organization was Contributors for insuring Houses, Chambers, or rooms from loss by Fire, by Amicable Contribution within the cities of London and Westminster and the liberties thereof, and the places thereunto adjoining. The title was afterward shortened to the Amicable Contributors for Insuring from loss by Fire, and after a final trimming it was reduced to the brief Amicable Contributorship. It was not until 1706 or thereabouts that the name Hand in Hand attached itself to the company. This name probably grew out of a reference

89. Rélton, op. cit., p. 68.
90. Walford, op. cit., v. 3., p. 455.
to the emblem or trade-mark of the company which consisted of two clasped hands. The name was not formally adopted by the company until considerably later, probably about 1713-4. Because this was the oldest of these early companies to survive into modern times, the Hand in Hand has sometimes been referred to as the first fire office to transact business in England. This, however, is not the case, for policies were actually written by Dr. Barbon, both as an individual and through The Fire Office, as well as by the corporation of London and the Friendly Society. This Hand in Hand fire office is not to be confused with the American company of the same name, though it served as its model. The American company was not organized until 1752. Like its English model it began with a long cumbersome name, that was eventually shortened to the Philadelphia Contributionship, adopting however the plan and badge of the older company, and was known as the Hand in Hand. This was the first fire insurance company to be started in America, and is today one of the outstanding institutions in the field.

Up to the time of the organization of the Hand in Hand the business of fire insurance was confined entirely to the insuring of buildings. It was not until 1704 that the idea was

91. Relton, op. cit., p. 71., Walford, op. cit., v. 3., p. 460.
92. Gray, One Hundred Years, pp. 42-3., Gall and Jordan, One Hundred Years of Fire Insurance, pp. 12-3.
extended to the insurance of goods. It is recorded that at this time there was founded the Lombard House, in Duke street, Westminster, and had for one of its aims the insuring of household furniture and stocks of merchandise from loss by fire. This was a mutual insurance venture adopted by an organization that had the previous year been organized under the name of the Charitable Corporation. The original idea of the corporation was to lend small sums of money to the poor, and it received a charter from Queen Anne in 1707. The insurance feature of the organization, because it represents the first attempt to extend the idea of fire insurance to household furniture, or to merchandise, is of particular interest. The company operated by requiring a deposit, depending upon the amount of coverage the insured desired. This deposit was to be returned at the end of the policy term to the insured with interest, the pro rata share of all losses occurring during that time first being deducted. It is interesting to note the optimism of the promoters of the scheme. The organizers expected to be able to more than meet such losses as would happen from the interest on the insurance fund. Losses they believed would be small, for

93. Walford, op. cit., p. 3., p. 463.
among the other precautions, the company had provided "a competent number of watermen with coats and silver badges" who were to attend fires and help to remove the insured goods to a place of safety. In addition, warehouses were provided in all sections of the city, to which goods that were insured might be sent, when in danger, and left there until the danger had passed, without any charge to the assured. While in the agreement there was a liability on the part of the assured to further contributions, the sponsors of the idea were of the opinion that the need for such an assessment seemed hardly probable. So far as the rates were concerned, there seems to have been no distinction between classes of goods, but there was a provision that goods in timber houses should pay double the rates provided in the proposals. While the first to write fire insurance on merchandise, this association made no lasting mark in the business of insurance.

We next come to the name of Charles Povey, inseparably associated with the development of the modern business of fire insurance. Povey appears on the scene around 1706, and the period between that date and 1710 marks a turning point in the history of fire insurance. It was possibly in 1706 that Povey set in motion his project for writing fire insurance, that was known as the Exchange House Fire Office, and was located in
Relton is not certain that the business of fire insurance was actually commenced at this time, and basing his conclusion upon references in Povey's secret history, places the date of beginning of the fire business at 1707-8. According to Relton, in 1706, Povey started the Traders' Exchange House, for insuring lives, and it was after this probably, that the fire insurance scheme was set on foot. Though it may have been planned in 1706, the fire business was probably not in operation until 1707-8.

The first of Povey's fire offices was organized to write business in the city, and the policies were issued by himself. The office was essentially a one man affair. This earlier city office was followed by another undertaking, known as the Exchange House, Fire Offices in the Country. The exact date of the beginning of this office is surrounded in obscurity, but is placed by Relton in 1708-9.

Povey as was the custom adopted an emblem for his company, and for this purpose used a figure of the sun. Just as in the case of the Amicable Contributionship, the company was eventually known as the Hand in Hand from its emblem, so Povey's office became known from its mark as the Sun Fire Office.

94. Walford, op. cit., v. 3., p. 465.
96. Relton, op. cit., p. 268.
Povey, however, soon found the business of fire insurance more of an undertaking than was suited to the assets of a single individual. From the evidence, it appears that his early ventures were not entirely profitable, and he then projected a company to take over his ventures, upon terms it is to be presumed that reflected to his advantage. In 1709 the Company of London Insurers was in the process of organization, but it was not until the following year that organization was completed and the new company ready for business. The new company absorbed the two Exchange House Offices, and on April 7, 1710, the deed of co-partnership of the new company was executed, and the business of fire insurance had turned a corner, and this date stands as another important landmark in the history of the business. The Sun Fire Office, or the Company of London Assurers marks the beginning of fire underwriting by non-mutual companies, and this company organized in 1710, is today the oldest non-mutual fire insurance company in the world.

Because the company marks a turning point in the development of the business of fire insurance, we are interested in some of the details effecting the organization. The preamble to the deed of co-partnership stated that the Company of London Assurers had set up an office of insurance named the Sun Fire

97. Walford, *op. cit.*, v. 3., p. 467.
Office, within the cities of London and Westminster, and the Liberties thereof, and that proposals had been published, and that the company intended to carry on the business of insurance in all parts of Great Britain and Ireland. The organizers of the company agreed that the number of members or partners should never exceed twenty-four, and that if any right or interest in any of these partnerships should devolve upon a "female or infant" she or it should while owners of the share appoint some one to act in their stead. All losses were to be equally borne by the members, and expenses are to be likewise apportioned. Calls were to be made when necessary, and profits equally divided among members. There were regulations as to meetings, the making of by-laws, fines, committee rules, the appointment of a treasurer and secretary, and other such details. While there was a power granted to transfer shares, there was no right of survivorship.

The first contracts of this association with the assured provided for the payment of losses up to five hundred pounds, but only upon the condition that there be a sufficient sum of money in the bank to satisfy all the claims arising from that quarter, otherwise but a proportionate part was to be paid.

By the terms of the first set of proposals, dated April 10, 1710, provision was made to reserve out of the quarterly payments received, both in London and all parts of Great Britain, an amount that was deemed to be more than sufficient according to careful calculations, to make good each sufferer's whole loss and damage. It was provided that the money thus reserved should be equally divided among the sufferers in proportion to the amount of their losses, but not in any case to exceed five hundred pounds on each policy. There was nothing in the policy that pledged the twenty-four members to contribute to losses, and under the terms of the proposals insufficiency of funds to meet claims left the assured definitely the loser, for the policy holders were excluded from contribution. This exclusion thus expressed: "No person insured shall ever be liable to make any further payment or allowance towards repairing the Loss and Damage of any Sufferer." definitely removed this insurance project out of the mutual classification. Because of this limitation on the payment of losses, it is easy to see that in the event of a serious fire in any given quarter, the policy holders might be heavy losers. As a matter of fact, it is believed, however, that the company from the beginning paid all losses in full. The fact, however, that an option
was left to the company to pay only so much of the losses as the reserve fund permitted, made the policy an unsatisfactory form. This fact was early recognized by the officials of the company and a change was made. In 1715, or thereabouts, the old arrangement was discontinued, and a new policy was issued, in which the company bound themselves to satisfy the assured's entire loss, up to the limit of the policy, which was still not to exceed five hundred pounds.

From the very beginning the company took a leading position in the business of fire insurance. It was the first company to undertake the insurance of merchandise and household furniture, as well as buildings, throughout England. By 1720 the company had reached a point in its development where it had outstanding nearly 20,000 policies, and insured approximately ten million pounds sterling. This amount was deemed too great a risk for twenty-four persons, and with the business still growing it was decided to divide each share into one hundred parts, with the arrangement that the original members might sell as many of the new shares as they deemed wise. The active management of the company was kept, however, in the hands of twenty-four members. Their capacity was now changed from

102. Walford, op. cit., v. 3., p. 468.
that of the original board, where each represented his own interests, but under the new organization, the new board had the same powers and authority as the original members.

The name of the company was eventually changed to the Sun Insurance Office. The partnership organization was abandoned, in 1726, with the formation of a joint stock company, with the capital stock divided into shares.

The organization of the Sun brings us to the threshold of modern fire insurance practice. The Sun, if we were to trace its development, would in fact bring us down to the present time. During this early period which we have just considered, there were other companies. We have, however, considered those that mark turning points, or decided contributions in the development of the insurance idea. From this point on, the different branches of insurance thus far developed, marine, life, and fire, either merge or overlap, and must now be considered together.

4. The Chartered Companies:

The second decade of the eighteenth century will always be remembered as an era of stark speculative madness.

103. Relton, op. cit., p. 287.
Strange as it may seem, when the bubbles had burst, and the wreckage had cleared away, we find the business of insurance in the final stages of the development that carried it to the threshold of modern times. In fact, if a date can be named that marks the beginning of insurance as practiced today, that date may be fixed at the close of the Bubble period, with the granting of Royal Charters to the London Assurance and the Royal Exchange.

In the early years of the eighteenth century, John Law, a Scotchman, held at one time in a London Prison under sentence of death for murder, escaped to Paris, and there organized the now famous Mississippi Company. France was gripped by a furor of speculative madness. Closely following the schemes of Law in France, came the huge South Sea Bubble in England, attended by a speculative mania that held in its grip the people of all stations and classes.

The South Sea Company was organized in 1711 by Robert Harley, Earl of Oxford, to take over England's floating debt of ten million pounds. While the government guaranteed a return of six percent for a term of years, the important feature of the venture that lent it its speculative flavor was the grant of the monopoly of trade with the southern Atlantic coasts of America. The project, it may be stated, met with strenous
opposition on the part of some of the cooler heads associated with the government. The speculative fever, it seems, had already commenced its work, and reason and speculation have never been known to go hand in hand. And so the South Sea Company was founded.

Crowds swarmed to Change Alley, and stock prices began to soar. So loud was the uproar, and so great was the confusion that attended the mad scramble of the multitudes seeking the path to quick and easy riches, it has been stated, that the market was at times in utter confusion. The soaring market for the South Sea Stock, however, soon carried it out of the range of thousands who were unable to purchase the coveted security. Yet the fever for quick and easy wealth had played no favorites. Rich and poor alike were scrambling for stocks. Nor were there lacking swindlers and rogues to satisfy the demand. Other companies sprang up in the neighborhood, and opportunities to subscribe for their stock were offered a gullible public. The advertised capital of these undertakings, when the South Sea Company was riding on the crest of public favor, reached the stupendous sum of five hundred millions sterling, an amount said to be about five times as much as the current cash of all Europe. 105

105. Mason, op. cit., p. 57.
It has been calculated that during the period the South Sea mania lasted there were launched more than two thousand schemes, mostly in the form of joint-stock undertakings. One project after another was put forth. Some of the organizers remained in business but a few hours. But their profits were great. And the stream of buyers seemed never-ending. A glance at some of the proposals is enlightening. One undertaking was organized to furnish funerals in any part of Great Britain. There was another that had for its purpose the making of looking glasses and coach glasses, and required for capital the modest sum of two million pounds. Another scheme, with a bit more of the speculative zest, had for its purpose the transmutation of quicksilver into malleable fine metal. There was a scheme, with a capital of three million pounds, for the building and rebuilding of houses throughout all of England, and another for supplying a town with fresh water. Another device was to manufacture boards out of sawdust, and most ingenious of all, there was organized a company "for carrying on an undertaking of great advantage, but no one to know what it is." The guiding genius of this last mentioned undertaking decided upon a modest half million pounds as capital, to be divided into five thousand shares, each of one hundred pounds. But we still have to come to an illuminating feature of the organization.
A subscriber was not required to deposit a hundred pounds for a share. Two pounds only were required, and in return for this payment, the subscriber was promised a hundred pounds a year on each share thus taken. It is reported that the subscriptions for stock in this promising venture were opened in the morning, and before night deposits amounting to two thousand pounds had been collected. And when the manager closed that night with his two thousand pounds, he closed his door for the last time. In the morning his office and company were no more.

In the midst of this orgy of speculation, and the organization of get-rich-quick undertakings, it was not to be expected that the business of insurance would be slighted. Nor was it. During the period of the Bubble mania, there were brought forth about a hundred schemes that were concerned with insurance. Besides companies for insuring houses and goods from fire, as well as ships and merchandise at sea, there were companies organized to insure "horses dying natural deaths, stolen, or disabled," and another office undertook to insure "Masters and Mistresses against losses they shall sustain against servants thefts, etc". There were insurances for

106. Mason, op. cit., p. 60.
"Insuring and Increasing Children's Fortunes"; for "Insurance from death by drinking Geneva"; for "Assurance from lying"; for "Insurance from Housebreakers"; for "Rum Insurance"; for "Insurance from Highwaymen"; for "Assurance of Female Chastity"; for "Insurance Against Divorce"; and numerous others. The extent to which the absurdity was carried may be estimated from the organization of "A project to insure uniformity amongst Protestant dissenters"; and "Another to insure it amongst the Orthodox".

Among all these insurance projects there was one that stood out because of its simplicity. The project was easily grasped, and the promises were attractive. Organized by an old man named Le Brun, there was opened in Change Alley, the Office of Insurance and Annuity for Everybody. LeBrun's career was a spotty one, and his response to the easy money of Change Alley was prompt and immediate. Nor was he in this period of ingenious schemes to be found wanting. Upon opening his office he announced that anybody who paid him five pounds was to be assured of a hundred pounds annually for the rest of his life "as soon as a sufficient number had subscribed". The number, however, was never "sufficient". Nor, as a

matter of fact, would it ever be. But this was apparently no concern of Mr. Le Brun. Nor did the scores of other rogues concern themselves with the fulfilling of their promises. They were concerned chiefly getting the initial payment on a subscription.

But all great speculative moves seem destined to the same end. The stock of the South Sea Company, around which the craze developed, continued to soar until it had touched the dizzy figure of 800 per-cent. Here it hesitated, and those who had realized great profits began to sell. This brought about a decline but the decline was only temporary, and in a short time the stock had crossed the old high to a figure of 1000 per-cent. And then came the crash. This time it was complete. Consternation and rage were everywhere, and the credit of the country was shaken to its very foundations. Parliament was hastily summoned, and upon investigation frauds in the affairs of the company were uncovered, in which members of the government were involved, and the scandal was terrific. It was in striking the death blow to the bubbles of the period that brought forth the final development we are here to consider in the business of insurance.

Strange as it may seem, in this period noted particularly for its frauds and cheats, there were organized two great insurance
companies that have enjoyed an uninterrupted business from that
day to the present, a span of over two centuries, and they rank
today among the leaders in the field. We are now concerned
with the events leading to the organization and incorporation
of these companies.

The first of the subscriptions, leading to the organ-
ization of an incorporated insurance company was opened in the
fall of 1717. It was proposed to raise a capital of a million
pounds, for the purpose of insuring ships and merchandise at sea.
The project was known as the Mercers' Hall Marine Company.
During the following January the list was closed, and a petition
was presented, praying for a charter of incorporation. To the
petition there was affixed 236 signatures. The name of Lord
Onslow appears among them.

While the petition expressly stated that there was
no intention to ask for a monopoly of marine insurance, and private
insurers were not to be excluded from the business, nevertheless
a storm of bitter opposition broke forth from this quarter.
There was conducted several inquiries, by representatives of
the government, into the feasibility of the undertaking, and it
was finally turned down and the charter refused.

Onslow and his associates, however, were persistent, and soon hit upon an idea. It appears that during the reigns of Elizabeth and the early Stuarts, charters had been granted to a number of private monopolists, and while many of the undertakings had long since been abandoned, the charters had not become without effect. The associates resorted to the expedient of buying one of these old companies. The Mines Royal Mineral and Battery Works was an amalgamation of two older companies. Upon advise of council that underwriting might be carried on under the charters possessed by the amalgamated society, the Mercers' Hall subscribers acquired them. By March, 1719, a nominal capital of £1,152,000 had been subscribed, and the new company under the name Governors and Court of Assistants and Societies of the Mines Royal Mineral and Battery Works entered upon the business of insuring ships and their cargoes.

The next step taken by this aggressive group was the filing of a petition in their corporate capacity, asking that they be granted the privilege of insuring ships and cargoes, exclusive of all other corporations. As a result of this petition, there was opposition from the private insurers on the ground that the charters were being illegally used. While the question was pending Onslow and others of his associates presented
a new petition for a charter. This was in January of 1720.

In 1719 a new face appeared on the horizon. Walter Chetwynd, a member of an old family and influential in politics, was in 1717 created Viscount Chetwynd of Bearhaven, County Cork, and Baron of Rathdowne, County Dublin, in the peerage of Ireland. Lord Chetwynd was an influential figure. On December 22, 1917, at the Marine Coffee House, a new subscription for marine insurance was opened with a capital of £2,000,000. Chetwynd was one of the prime movers in the venture and the following month, with 380 others, a petition for a charter of incorporation was presented. Recalling that this petition was presented while the South Sea mania was raging, it is not surprising that the undertaking became known as "Chetwynd's Bubble."

It would not have been surprising to have found the Mines Royal group in opposition to the Chetwynd petition. This, however, was not the case. As a matter of fact there is little doubt that both Onslow and Chetwynd had pooled their influence, and were acting in collusion, believing the field big enough for a charter for both companies. But if there was harmony between the two petitioning groups, there was opposition enough from the private underwriters. The battle raged fiercely,

and arguments for and against the petitioners were advanced, while the Attorney General, to whom the petitions were referred, took them for consideration.\textsuperscript{112} In March of 1720 the Attorney General, Sir Nicholas Lechmere made his report. The important point to be found in this report lies in the complete reversal of the position previously taken by the Government. The report stated that there was no objection to a charter of incorporation, provided others were not excluded from the business. This represented a decided victory for the proponents of the corporations.

Just when it seemed to be fair sailing, there was a new development. Sir William Thompson charged corruption, accusing the Attorney General of receiving bribes from the petitioners. An inquiry was held, and Lechmere was ultimately exonerated. In the meantime the House of Commons had begun to concern itself with the frauds that were being perpetrated upon the public through the organization of the innumerable bubble projects already mentioned, and in taking steps to curb the practice made no distinction in favor of marine insurance companies.\textsuperscript{113}

\textsuperscript{112} Ibid., pp. 50-6. \textsuperscript{113} Wright and Fayle, \textit{op. cit.}, p. 58.
Chetwynd and Onslow were apparently resourceful and far seeing men. In the face of what seemed to be inevitable defeat, they played another card. The Government of George I, it appears, was heavily in debt. There were great arrears in the Civil Lists, with no means at hand to make provision for them. In this critical juncture there appeared on the scene two patriotic gentlemen, who realizing the difficulties in which the King found himself, ventured to offer assistance. Each, with his associates, offered the Government the sum of £300,000 -- provided of course that the Government could see its way to granting the petitioners the charter for which they were asking. From this point the story is short. It is surprising the light that the promises of £300,000 threw upon the subject of Marine insurance, and the utility of chartered companies. The King, through the mouth of the Chancellor of the Exchequer, recognized the usefulness and advantages to trade and commerce that would accrue from the existence of the chartered companies, incidentally mentioning the additional advantage of taking care of the Civil Lists, without recourse to the tax payers. On May 4, 1720, a Royal Message was sent the House of Commons, conveying the King's approval and recommendations. The Commons were prompt with their response, and voted an address of thanks to the King for his gracious condescensions in desiring their
advice upon a matter of such importance.

From this point the petitioners had no further trouble in securing their charters. On May 31, 1720 the now famous Bubble Act passed the House by 123 votes to 22, passed the Lords soon after, and received Royal approval under date of June 10. Under the terms of the act, the King was authorized to grant the two charters for marine insurance, and all other corporations were expressly prohibited to enter upon this business. The right was still reserved, however, for individual underwriters to continue in the business, and this provision exerted a powerful force in shaping the trend of the insurance business.

On June 22, 1720 Royal Charters were granted both companies. Ochetwynd’s company was chartered under the name of the London Assurance Corporation, and Onslow’s group was called the Royal Exchange Assurance Corporation. The Mines Royal Mineral and Battery Works then discontinued business, its capital being absorbed into the Royal Exchange. While it was apparently the intent of the organizers of these companies to write marine business at the beginning, and for this purpose charters were granted, the following year both merged fire insurance offices that had already been established, and in April, 1720 were granted charters that permitted the writing

114. Street, op. cit., p. 21.
of fire and life business.

With the granting of the Royal Charters to the London Assurance and the Royal Exchange we are brought down to the early days of the modern business of insurance. Both of these companies have been continually in business from the date of their incorporation. It is to be remembered, that under the terms of the Bubble Act, individual underwriters were still permitted to do business. As a matter of fact, the Bubble Act served as a great stimulus to the business of the individual underwriters, because under its terms, all insurance that was not placed with the two chartered companies must be given to them. It was the further association of these individual underwriters, that gave rise to the development of Lloyds, from whose method of doing business has grown not only the great organization in England that bears the name, but also the considerable number of similar groups of individual underwriters, whose business is located in different parts of the world, and who are known as Lloyds groups.

Here we leave the business of insurance as established. The seed of the idea we have seen was slow in germinating, slower still in its earlier development, and it can be said in truth that not until very recent years did the delicate shoots "grow

and wax strong," and become indeed a tree planted by the river. The principle has gradually, steadily, and definitely established itself in the economic structure, and spread like a blanket its protecting influence to every form of human activity, to all classes and conditions of people, and to the furthermost corners of the globe. It has become a very foundation stone of credit, and a stabilizer of the business expansion that has made possible the wealth, prosperity, conveniences, high standard of living, and luxuries we now enjoy. It was in fact a long precarious journey from the Royal Charters of 1720 to the present, but with that journey we are not here concerned.
BIBLIOGRAPHY.


CLARK (J). History of the Massachusetts Insurance Department Wright and Potter. Boston, 1876.


FIRE INSURANCE CONTRACT. Rough Notes Company. Indianapolis, 1922.


FLUEGEL (M.). The Humanity, Benevolence and Charity Legislation of the Pentateuch and the Talmud, In parallel with the laws of Hammurabi, the Doctrines of Egypt, the Roman XII tables, and Modern Codes, the Sequel of "Spirit of the Biblical Legislation." H. Fluegel & Co. Baltimore, 1908.


The Development and Present Status of Marine


MANU.  

The Damathal or Laws of Menoo. Translated by D. Richardson, American Mission Press. Maulmain, 1847.


MARTIAL.  


MOORE (F. C.). Fires, their Causes, Prevention and Extinction. 102 Broadway, New York, 1877.


