

MISCELLANEA.

*The Mortality of the Scottish Widows' Fund and Life Assurance Society, 1815 to 1845.*—The records of the Scottish Widows' Fund, (first Life Assurance Society established in Scotland, and now, in point of business, inferior to

scarcely any in England), contain a list of 642 deaths which have occurred, from the institution of the Society in 1815, to the period of the last investigation at the close of the year, 1845.

The total number of the assured, amongst whom the deaths have taken place, (exclusive of those whose policies have been either surrendered or forfeited), is 5,989. Of these, 5,542 were males, and 447 females; of the females, 365 were married, and 82 unmarried.

Adhering to the arrangement adopted by the Registrar-General, which is likely to be followed in all future Mortality Tables, the deaths may be classed under 12 heads, which, with their numbers, are as follows:—

Causes of Death.		No.	Per cent. to Total Deaths.
I.	Epidemic and Contagious diseases . . . . .	93	14·48
II.	Diseases of uncertain seat . . . . .	52	8 10
III.	Diseases of the brain and nerves . . . . .	133	20·72
IV.	Diseases of the respiratory organs . . . . .	152	23·69
V.	Diseases of the heart and blood-vessels . . . . .	53	8·26
VI.	Diseases of the organs of digestion . . . . .	77	11·99
VII.	Diseases of the urinary organs . . . . .	23	3·58
VIII.	Childbirth, and diseases of the Uterus, &c. . . . .	5	·78
IX.	Diseases of the joints . . . . .	3	·47
X.	Violent deaths . . . . .	18	2·80
XI.	Old age . . . . .	6	·93
XII.	Causes not specified or ascertained . . . . .	27	4·20
Total . . . . .		642	100·00

Of the first class, the greatest mortality arises from continued fever; 54 out of 93 deaths of which the class is composed, or upwards of 8 per cent. of the gross mortality, being ascribed to this cause. Of the 54 deaths, one-sixth part occurred amongst members of the medical profession, an experience which justifies the caution the Board has lately exercised, when called to consider the proposals of medical men, who have not previously passed through the disease. Of the remaining number, 3 are recorded among the clergy; a profession exposed in some measure also to the risk of contagion; and only one instance in the case of a female.

The deaths which occurred at different periods of age, (of which the deaths by each class of diseases are given at each period of age in the Table), are—

Ages.	Deaths.
20 to 30 . . . . .	28
30 „ 40 . . . . .	109
40 „ 50 . . . . .	143
50 „ 60 . . . . .	143
60 „ 70 . . . . .	123
70 „ 80 . . . . .	57
Above 80 . . . . .	12
Not classed . . . . .	27

Total 642

[We have added the proportion per cent. of deaths by the different classes of diseases, from Mr. Neison's article, before quoted, as he avails himself of Dr. Begbie's paper, to make a comparison with the deaths from similar classes of diseases observed in the Gotha Life Assurance Company, in Germany.]—(Observations on the Mortality of the Scottish Widows' Fund, and Life Assurance Society, from 1815 to 1845. By James Begbie, M.D., F.R.S.E., Consulting Physician of the Society. The Monthly Journal of Medical Science, Jan. 1847).

*Intensity of Diseases at different periods of life.*—In the decennial period of age, 31—40, the greatest rate of mortality has taken place from “Pulmonary

diseases;" next, from "Fevers;" then, from "Local inflammations;" "Abdominal diseases;" "Apoplexy;" and, least of all, from "Dropsy;" and in the next ten years of life, the mortality of these diseases follows the same order as to their intensity. In the term of life, 51—60, however, the following is the order in which the same six diseases stand, as to intensity:—apoplexy, fever, pulmonary diseases, inflammations, dropsy, and abdominal diseases. And in the ten years, 61—70, the order is again varied, being—apoplexy, inflammation, abdominal diseases, fever and dropsy equal, and pulmonary diseases at the bottom of the scale; and in the most advanced form of life of the preceding abstract, the following is the order of intensity of the diseases:—apoplexy, inflammation, fever, abdominal diseases, dropsy and pulmonary diseases. The following arrangement may perhaps exhibit these results in a more simple form:—

Diseases arranged according to the order of their intensity at the following terms of life:—

31—40.	41—50.	51—60.	61—70.	71—83.
Pulmonary diseases.	Pulmonary diseases.	Apoplexy.	Apoplexy.	Apoplexy.
Fevers.	Fevers.	Fevers.	Inflammations.	Inflammations.
Inflammations.	Inflammations.	Pulmonary diseases.	Abdominal diseases.	Fevers.
Abdominal diseases.	Abdominal diseases.	Inflammations.	Fever. }	Abdominal diseases.
Apoplexy.	Apoplexy.	Dropsy.	Dropsy. }	Dropsy.
Dropsy.	Dropsy.	Abdominal diseases.	Pulmonary diseases.	Pulmonary diseases.

Pulmonary disease is, therefore, so far as the preceding facts are concerned, essentially the disease of highest intensity in the destruction of life under 50; and above that age, apoplexy; the other diseases maintaining varying but intermediate positions in the scale of mortality.—(Mortality of the Provident Classes in this Country, and on the Continent. By F. G. P. Nelson, Esq.—Read before the Statistical Section of the British Association at Edinburgh, 5th Aug., 1850.)

*Risks from Gunpowder in Liverpool.*—The attention of the commercial classes of Liverpool, as well as of its residents generally, has lately been awakened to an alarming contingency. Within a mile and a quarter of the docks there are magazines containing 16,767 barrels, or 721 tons, of gunpowder—a quantity far larger than is believed ever to have been accumulated before in any one spot. These buildings are not fireproof, they are without the means of ventilation, except by leaving the windows and doors open, and are not even provided with a lightning conductor. So complete, indeed, is "the resignation to chance and good fortune," to use the words of a recent report by a Government officer, that no guard by night patrols the place to protect it from robbery, or to give an alarm on the first outbreak of fire in the neighbourhood. The sensation created among the owners of property in Liverpool by these revelations may easily be imagined. The effect of an explosion of such a quantity of powder cannot be estimated, but it is generally believed that it would ruin the shipping and the town, and destroy thousands of lives. An explosion at Leyden of about a fiftieth part of what is deposited at Liverpool is said to have blown down 400 houses, and there are many other examples which leave little doubt as to the excuse in this case for the most extreme apprehension. It appears also that about 40,000 barrels are delivered yearly from the magazines to boats on the river, that the wheels of the carts which convey them have tyres of iron, that the horses are shod with the same metal, and that sometimes powder is sprinkled from leaky casks as they go along. Two or three years ago a house was burnt down within 50 yards of the magazines, but the wind happened to set in an opposite direction. Recently a house was struck by lightning in their neighbourhood, and it has more than once occurred that when cotton ware-

houses have been burnt down lighted flakes have been blown over and beyond them. The Government, on the matter being represented, have expressed the greatest surprise, but the *onus* of providing a remedy rests, in their opinion, with the Town Council. That body, it seems, granted in 1842 a new lease of the premises for 45 years to the parties by whom they are occupied, and who have converted them into a monopoly, as these are the only magazines where an unlimited supply is allowed to be stored, that privilege being permitted to Liverpool on account of its being a great dépôt for the African as well as for the home trade. The Council did not stipulate that the premises should be open to all traders upon equal terms, and hence compensation is demanded by the existing holders, such as is not likely to be small in amount, as their profits are estimated at £10,000 a year from the monopoly alone, which, it must be remarked, adds further to the danger of the town by causing an illicit trade in the article to be carried on in unauthorized places, under every possible disguise, in and around the docks and quays. On the other hand, it is believed that the evil might be met, and the parties dispossessed, by indicting them as a nuisance, but obstacles could be opposed to the proceedings, which would cause a delay of a year or two. Under these circumstances, and after a fruitless interview on the subject, the Town Council are of opinion that no arrangement can be effected without an act of Parliament. Meanwhile, the 400,000 inhabitants of Liverpool are existing in daily consciousness of their peril, and it is felt that something should be done immediately. The case is one to call for some direct step on the part of the Government, although the rights of all parties might be reserved. At the same time it may be well to suggest to the lessees who now stand upon the letter of their claims, that supposing they could be legally driven out in two years, their demand for compensation should be limited to that period, and that it may also be well that they should ask themselves the question whether the law would be wholly powerless to reach them in a more serious way, if, after the warning that has been given of the consequences that are now within possibility, any accident should arise by which either human life or property might be destroyed.—(*Times City Article*, Dec. 6, 1850.)

*Marine Insurance in 1693.*—"Assurance is, when you are in any manner of fear of the ship your goods are in, or the danger of the voyage, or of pirates, &c., you then are willing to give another man a certain sum of money to put himself in your place, and if any danger arises, to pay you for the same goods the value that you have assured. It is a thing hath been long in custom and use amongst traders, and was established by a law under *Claudius Cæsar*, before the birth of our Saviour *Christ*; it hath been much practised in all trading nations, and is a cause of great increase of trade, because that hazard is borne by four or five with mutual consent, which otherwise must fall upon one person. The nature of it is thus; suppose you ship £300 of goods for Jamaica, you being unwilling to run so great a hazard yourself, you go to the *Assurance Office* behind the *Royal Exchange in London*, and there acquaint the clerk you will ensure £200 or £250, or if you will, the whole £300, (for you may ensure the whole or any part) upon such a ship for so much goods you have on board. The clerk presently speaks to other men that are merchants, that make it their trade to ensure, and you agree with them at a price so much in the hundred, and this is called *Primo*; the man that is your insurer runs all the hazard that can be imagined until your goods arrive safe at *Jamaica*. Before you pay the *Primo*, you have a Policy of Insurance signed by the man or men you agree withal, for you may deal with two, three, or four, to underwrite for you several sums. This Policy of Insurance ought to be copied in the office of Assurance, in a book kept there for that purpose, and for which you pay a certain sum unto the clerk or clerks sitting at that time. In the Policy is expressed the name of the person that causeth himself to be ensured, the place he ensures for, the ship, the master's name, the sum of money, the dangers you are ensured from, and how long that lasteth, with the name of the party or parties, that ensure or underwrite the Policy for you."—(*Leybourn's Panarithmologia*. 1693).

*Advice to Choose Honest Insurers.*—"Those Assurances are most dangerous when they are thitherwards inserted lost or not lost, which is commonly done

when a ship hath been long missing, and no tidings can be had; the *Premio* (especially in time of war) will run very high, sometimes 30 or 40 *per cent.*, and though it happens at the time that the subscription is made, the ship is cast away, yet the Assurers must answer the loss to the Insured.

"But if the party that caused the Insurance to be made saw the shipwrecked, or had certain intelligence, such subscription will not oblige the same, being accounted meer fraud.

"So likewise, if the Assured, having a rotten vessel, shall assure upon the same more than she is worth, and afterwards give orders, that, going out of the port, she should be sunk or wrecked, this will be fraudulent, and not oblige the Assurers to answer. So soon as you hear of a certain that a loss has happened, you must enquire at the office for the Insurers (if you know them not), and acquaint them of the loss, and how you came to know it, and desire them to inform themselves of the truth of it if they please, and are not satisfied with your report. When they are satisfied there is a real loss, there is generally an abatement of 10 *per cent.* for prompt payment; for if they are punctual men and value their reputations, they will presently pay you; if not, they will shuffle you off, and endeavour to find out flaws, and raise scruples for a larger abatement than ordinary, and sometimes will keep you a year or two out of your money, and many times never pay; but generally get, in case of loss, 15 or 20 *per cent.* abated; I have known 40 *per cent.* abated on very small pretensions, which makes a common proverb about such insurers:—*What is it worth to insure the Assurers?* Be careful, therefore, to deal with honest men that value their reputation, when you have anything to be Insured."—(Ibid).

*The Interest of the Insured in Marine Insurances.*—"The original design of making Insurance on shipping, was, undoubtedly, no more than a general indemnity against the perils and dangers of the sea, and being confined within the bounds of that intention, is of great encouragement to trade and navigation, and in that point of view it has been treated in all countries where commerce has flourished as a matter of the highest importance, and almost everywhere, except in Great Britain, is subject to ordonnances and regulations fixing and ascertaining the limits thereof.

"But the best institutions are often liable to be applied to the worst purposes; there is no case which affords more instances of this kind than that of insurances, especially in this country, for there is no other where an Insurance on *no Interest* is not prohibited.

"The permitting this absurd species of Insurance upon *no Interest* to gain ground here, hath been the introduction of all those fraudulent practices, by which so many ships and cargoes have been wilfully lost at sea.

"It was about the time my Lord Somers held the Great Seal, that Insurance, *Interest, or not*, first appeared; but then the Court of Chancery could not conceive upon what principle, either of Law or Equity it was, that a recovery of a recompense in damage, for a loss not sustained could arise, and therefore vacated an Insurance, because it appeared that it was made upon *no Interest*; but afterwards means were found, under suggestions of advantage to the trade of the nation, to bring the Law to acknowledge a validity and force in that which before was esteemed absurd and nugatory; and thus the Policy of Insurance, *Interest, or not*, became established.

"Soon after this, the making of Insurance vastly increased, for gamblers, wagerers, and cunning fellows who pretended to deal in speculation, began to be almost as much concerned as the merchants; so that a Policy of Insurance in a short time acquired rather the effect of a box and dice, than a contract to secure trade. And as gamblers seldom play fair after a few of the first games, it was not long before foul play in Assurances began to appear, and which has ever since continued increasing, insomuch that now it is almost as common to hear of a wilful and fraudulent, as of an inevitable loss at sea.

"Practice and experience are the great lights of business, without which it is not known what things may be made to bear; though *speculative* Insurance, under the direction of proper intelligence, and other useful helps, was become a considerable branch, and carried on without employing any other money or stock than the Premios of Insurance; yet experience disclosed, that as all those

Insurances were to be made on the ship only, the care of a cargo might sometimes obstruct the *beneficial* loss of a ship, and keep Insurance upon *no Interest*, within narrower bounds than otherwise it would be, if ways could be found of profiting by the loss of the cargo, as well as by that of the ship; for hitherto Insurance on goods could not be otherwise made than upon their value.

"This introduced another new species of Insurance called a *Valued Policy*, whereby the Insured might value his interest at £1,000, though it was not really worth so many shillings, and no other proof was to be required than the production of the Policy; so that now by insuring *Interest*, or *not*, on the ship, and valuing the goods at ten times their worth, nothing can happen so much to the disadvantage of the Insured, as the arrival of the ship and cargo, a circumstance affording small hopes of safety in such adventures, but it is the state into which the business of Insurance is brought, by leaving the door of fraud wide open; for the frauds of the Insured, in common estimation, are almost equal in risk to any other peril usually insured against, especially in time of war, when colourable captures are easily contrived by entering into confederacies with the enemies of the nation, a practice of which instances appear almost every day. Under these circumstances it is, that this great branch of trade, called Insurance, which hath been accounted so valuable, is now esteemed, upon the whole, rather a losing than a beneficial part of business.

"The making Assurance in such manner as manifestly interests the party *Insured in a loss*, is a thing on the first view appearing so dangerous, that one would think it impossible to be endured. It is so far from being tolerated in any other country, that there is no State in Europe, where Insurance is used, that hath not expressly prohibited the making it beyond the Interest of the party under severe penalties, such as confiscation of goods, or corporal punishment, as appears by the ordonnances of *Fountainbleau touchant la Marine*, and also those of many other places. And by a late Act of Parliament, intitled, *An Act to regulate Insurance on Ships, &c.*, it is enacted that no Insurance shall be made after the 1st of August, 1746, on any ship belonging to his Majesty, or any of his subjects, *Interest*, or *no Interest*, or without *further proof of Interest than the Policy*, by which the sense of the Legislature here seems to be declared, that Insurances of that nature are unlawful, and ought to be prohibited; but it is conceived that Statute is not sufficient effectually to answer the end proposed, though it has gone a good way towards it.

"An effectual and absolute prohibition therefore of all Assurances whatsoever, upon *no Interest*, or for more than the real Interest of the Assured, is still wanting; for such a prohibition would manifestly tend to *prevent frauds, restore fair dealing, preserve the Marine, encourage Insurance*, and, finally, to support and maintain trade and commerce in general."—(An Essay to Prove that all Insurances on Ships and Goods at Sea, beyond the Interest of the Assured, ought to be Prohibited.—By a Merchant. 1747.)

*Whether it be Nationally Advantageous to Insure the Ships of our Foreign Enemies.*—"It deserves solemn attention, that our insurers, in reality, oppose all the efforts of the state to destroy our enemies; for, whilst our Admiralty is designing the total capture of the French ships, and exerting the maritime force of the nation to ruin the French commerce, our insurers step forth, and agree with the French merchants to guaranty their commerce; and that their loss shall not exceed 15, 20, or 33½ per cent., or whatever is paid for the premium, from both the sea and our captors. So that they actually intercept the blow meditated by the Government against our enemies; and, upon a certain bribe being paid to themselves, place the French commerce in a state of security.

"Put the case, that the French have entirely insured any of their outward or homeward-bound fleets, as their late St. Domingo fleet is supposed to have been, at any premium, as suppose 20 per cent. upon a medium. Imagine now, that the British ministry, or Admiralty, by the interception of a French packet, or by any other intelligence, are informed that the rendezvous of the whole French fleet is to be in a certain latitude; and that a squadron of British men-of-war may be so stationed, as to be morally certain of *destroying or taking* the whole French fleet. An event of this sort will shine in the Gazette,

and be celebrated with public illuminations. But what will be the consequence? It is evident, that if the French fleet be *destroyed*, our insurers are responsible for it to the French; therefore, in the case of the *destruction* of their fleet, even upon a fair insurance, we shall have the value of all this fleet to pay to the French, towards which our insurers have only received one-fifth part for the *premia*: whence it appears, that there will be a clear loss to the British nation of four-fifths of the value of the whole French fleet, from this event.

"But suppose that the French fleet, instead of being *destroyed*, is all *captured*. Our captors then gain the whole from the French, and the French recover again four-fifths thereof clear from our insurers. So that, upon the whole, we acquire only one-fifth part of the value of this fleet, or the *premia*, which we should have acquired if this capture had not happened. Thus, upon the supposition that the whole French fleet is *insured*, we shall neither gain or lose by the *capture*; therefore, the destination of our squadron to this expedition, *at the best*, will be absolutely useless; and the public treasure and strength, in money and ships, and men, to the amount of perhaps £200,000 or £300,000, will have been all wasted and squandered away, to no purpose, upon this event.

"It is, therefore, high time for serious enquiry, whether, under the present *practice of insuring* the French ships, the greatest part of our public naval expense, so solemnly provided, and appropriated by the legislative body of the nation, may not, upon many occasions, be fruitlessly directed; for, *after French ships are insured here*, it is ridiculous to employ our maritime strength in *taking* them, since then all the *loss* will fall upon *our own insurers*. It is, indeed, certain, that the *more* of our enemy's ships we take, the *higher* the *premia* will be raised upon them in *future* voyages; and, consequently, the greater deduction will be made out of their *future* profits. But in regard to a *present voyage* which is *insured*, the *premia*, having been fixed and paid, are not at all affected by the capture. And after any fleet of French ships have been here *insured*, the success of our naval force in *destroying* that fleet will be our national loss, to the amount of the whole *clear capital*, and our *capture* of that fleet, though accomplished with great expense, will be entirely insignificant to us, upon the balance of the accounts of our insurers."—(Essay towards illustrating the Science of Insurance; wherein it is attempted to fix, by precise calculation, several important maxims upon this subject; to solve various problems, and cases of contest; and particularly to balance, whether it be nationally advantageous to insure the ships of our foreign enemies.—Addressed to the Right Hon. Henry Pelham, Esq. London, 1747.)

*Corpulence in Connection with Life Assurance.*—"The amount of fat required for the full and perfect resistance of the body, is different, as aforesaid, in different individuals, and will also vary according to their mode of life. Thus, a man of letters will require less than a soldier, a soldier less than a prize-fighter. It is impossible, therefore, to fix any absolute standard of weight, and it is incorrect to look upon the average weight of healthy individuals in proportion to their height, as necessarily the proper one for every person. Still, there are certain limits on each side of the average, the transgression of which shows a predisposition to disease, or even itself constitutes infirmity. If a patient is below the boundaries of healthy thinness, there is a strong presumption in favour of some cause existing which may account for his emaciation, and will tend to shorten life; and, if that cause exists, he is, from the deficiency of fat, less able to resist its influence. If he is above the standard of healthy corpulence, the natural defence becomes a burthen; he loses the power of resistance which was derived from the normal proportion being kept between the various tissues; the balance, in fact, of the system is destroyed. Can we wonder at this, when we reflect on the vast aggregate amount of capillary vessels distributed through the adipose tissue, and think that these are doubled or trebled in quantity in obesity? Can we be surprised that the individual becomes thus more liable to such diseases as arise from this defective balance; that he is prone to heart-disease, to apoplexy, and congestions?

"The development of fat I consider an element of great practical importance in calculations of the value of human life. It is of the more importance, from the facility with which it may, in all but exceptional cases, be reckoned by the

weight in proportion to the stature. In our species, the bulk of the frame is pretty accurately shown by the height, and consequently the quantity of fat which ought to be attached to that frame may be calculated. Its deviations from the normal proportion may, therefore, easily be arrived at, and can hardly be denied to lead to very valuable conclusions. What can add more to that examination which has resulted in the discovery of no disease, than to find that the weight is such as the healthiest usually possess? while, if a person is much above or below the standard, it is not necessary to discover any other bad symptom to pronounce the insurance of his life as above the ordinary risk. Were we confined to the observation of one single fact, by which to appreciate the probability of future illness, I do not know any which would teach us more than this; and when we have means of learning other circumstances, there is none which opens the ground better for investigation. If, for example, a proposal be sent from the country, backed merely with the opinion of a referee whom we do not know, that "no signs of disease are discoverable," and that "the proposer has a robust appearance," our knowledge of the tendencies of his constitution is small indeed. But if to this it be added that he is five feet eight inches high, and weighs eleven stone, we feel a certain degree of safety in accepting him. But should his weight be seventeen stone, a probable deposit of fat in the omentum and the heart occurs to us,—disturbance of the abdominal circulation, apoplexy, &c., are suggested, and the liability to these balanced and inquired about. A corresponding deviation from the natural weight, in the other direction, would, in a similar manner, lead to a more detailed examination of the chest, and a calculation of the possible existence of tubercle. When we remember that four-fifths of the losses at insurance offices arise from apoplexy and consumption, the safety which they would gain by the simple observation above mentioned is obviously very important to those engaged in such enterprises. I may add, too, it facilitates much the explanations of the reasons for a refusal or acceptance, which the directors will sometimes require from their medical advisers; for it depends on a reasoning comprehensible to all, and capable of reduction to figures; so that we are thus enabled to follow the advice of the wise man of old, which bids us "deliver all things in number," and can avoid the vagueness of a mere negative opinion.

"Height and Weight.—I put, therefore, a higher value than the modest author does upon a table which he gives in that paper of average weights in proportion to height, and think that our practical deductions would not be affected by the difference, if the average were taken from all the adult males in the United Kingdom, instead of the 3,000 cases he has collected. For an average, however large, must never be taken for more than it is worth, and should be rather a guide to knowledge than knowledge itself.

"Dr. Hutchinson's table gives, as I have said, the mean weight, at various heights, of 5,000 healthy men, but he thinks it better, for practical purposes, to exclude the extremes of stature, and, in a broad sheet for the use of insurance offices, has inserted another table, of which he has kindly furnished me with a copy. In this the heights of men, between five and six feet only, are collected to the number of 2,650, and that is the one I shall take as the standard of mean healthy weight. The table is as follows:—

HEIGHT.		WEIGHT.	
Feet.	In.	Stones.	lbs.
5	1	8	8
5	2	9	0
5	3	9	7
5	4	9	13
5	5	10	2
5	6	10	5
5	7	10	8
5	8	11	1
5	9	11	8
5	10	12	1
5	11	12	6
6	0	12	10



"The individuals on whom these observations were made were men in the prime of vigorous life, capable of and accustomed to use great muscular exertions, such as sailors, firemen, policemen, Grenadier guards, watermen, cricketers, gentlemen, Oxford and Cambridge rowers, and the like; a certain quantum of paupers and artisans may be fairly set off by an equivalent allowance of draymen, wrestlers, and pugilists, who are inserted."—(Dr. Chambers on Corpulence, or Causes of Fat in the Human Body).

*Report in 1761 of the Attorney and Solicitor-General on the Petition for a Charter for the Equitable Life Assurance Society :*

To the Right Hon. the Lords of a Committee of His Majesty's most Hon. Privy Council. May it please your Lordships,

In humble obedience to your Lordships' order of the 2nd April, 1760, referring to us the annexed copy of a petition of the Hon. Coote Molesworth, of Chichester, Doctor in Physic and Fellow of the Royal Society; Sir Richard Glynn, Knight Banneret and Alderman of London; Thomas Pickering, of London, D.D.; John Silvester, of London, M.D. and F.R.S., and 78 others, in behalf of themselves and many others his Majesty's dutiful and loyal subjects, for our consideration and to report our opinion thereon to your lordships, which petition sets forth :

That great numbers of H.M.'s subjects, whose subsistence principally depends on the salaries, stipends, and other incomes payable to them during their natural lives, or on the profits arising from their several trades, occupations, labour, and industry, are very desirous of entering into a society for assuring the lives of each other, in order to extend after their decease the benefit of their present incomes to their families and relations, who may otherwise be reduced to extreme poverty and distress by the premature death of their several husbands, fathers, and friends, which humane intention the petitioners humbly apprehend cannot be effectually carried into execution without H.M.'s royal authority to incorporate them for that purpose. That to effect their humane intention, the petitioners beg leave to propose the following plan, viz. :—

That the petitioners shall form themselves into a society for the Assurance of Lives, and that they and their successors shall have power to grant policies for that purpose.

That on granting such policies, the petitioners and their successors shall receive, and from time to time shall continue to receive, from the persons to whom the same are respectively granted, a premium or premiums proportionate to the chance of death attending the age of the life or lives assured, and the term of years for which the same shall be respectively assured.

That on granting such policies, the petitioners and their successors shall also receive from the persons to whom the same are respectively granted, a deposit of a further sum to answer the ends of a joint stock or fund, which deposit shall be placed out on government or other sufficient securities, and there remain to make good any deficiency or deficiencies that shall or may happen to be in the fund arising from premiums, by means of an unusual mortality amongst the members of the said society, or by any other means whatsoever.

That no such policy or policies of assurance shall be granted to any person or persons, until he or they shall have signed or executed a declaration or covenant purporting that he or they do voluntarily enter into and become a member or members of the said society, and will so continue during the term or terms for which the policy or policies to be granted to him or them shall respectively continue in force, and will bear or pay their proportion or proportions of any loss or losses which during such term or terms shall or may happen to the said society, and exceed the amount of the premiums and deposits to be paid as aforesaid.

That the petitioners are ready and desirous to ascertain and fix the several premiums and deposits proposed to be by them and their successors taken as aforesaid, and also to be restrained from acting contrary to their said plan.

That establishment by H.M.'s Royal Charter of a free and open office of Insurance upon the plan aforesaid will, as the petitioners with great submission apprehend, be more equitable than any hitherto proposed as being calculated for the sole benefit of the persons assured, a method not hitherto practised, and

will, as the petitioners humbly hope, in a variety of instances prevent the before mentioned inconveniences, and be productive of the greatest advantages to the public.

That there is at present subsisting but one Corporation for the present assurance of lives, which, as the petitioners humbly apprehend, acts upon so circumscribed and narrow a plan, that very few of H.M.'s subjects do receive any benefit from it, in comparison with the great number to whom the benefit of such an Insurance might be extended.

The petitioners, therefore, humbly pray that his Majesty, out of his royal grace and favour, will be pleased to grant H.M.'s Royal Charter for the purposes aforesaid, unto the Right Hon. Hugh Lord Willoughby, of Parham; the Hon. Coote Molesworth, M.D.; Sir Thomas Heathcote, Bart.; Sir Richard Glynn, Knight Banneret; and Sir Thomas Ladbroke, Knight and Alderman of London; John Silvester, M.D., Edward Rowe Mores and Adam Martin, Esqrs., William Sclater and James Townley, Clerks, William Mountain, F.R.S., William Mosdell, William Bonham, Michael Tovey, Thomas Smith, Charles Lucas, Richard Emans, John Bedford, George Coulton, James Brooks, and — Gentlemen, by the name of the "Equitable Corporation on Lives," under such restriction as to H.M. in his royal wisdom shall seem meet.

Upon this petition your lordships will be pleased to observe:—

1st. The petitioners propose to insure upon cheap terms and for a longer time than is practised at present in any offices, to which end they have specified the rates at which the Assurance is to be done.

2nd. They propose to raise a capital by investing the premiums, together with a small additional sum of 40s. to be deposited by every person insured, to answer all losses; and by way of further security, to oblige every person insured to become a member of the Corporation, and to declare or covenant that he will bear his proportion upon any call if the premiums and deposits should be deficient.

Upon these proposals we are required to deliver our opinions whether it will be proper for H.M. to grant the petitioners a Charter of Incorporation for these purposes.

We, having been attended with counsel on behalf of the said petitioners, and also by counsel on behalf of the Governors and Companies of the London and Royal Exchange Assurance Companies, and also on behalf of the Corporation of the Amicable Society, for a perpetual Assurance on Lives in Serjeant's Inn, the said Companies and Corporations having entered caveats with the Attorney-General against granting the prayer of the said petition, and the said petitioners and their opponents having produced the several affidavits annexed to this our report, we have proceeded to examine the same, and after the best consideration we have been able to give the subject, we are humbly of opinion to advise H.M. not to comply with the prayer of the said petition, for the following reasons:

1st. Because it appears to us altogether uncertain whether this project will or can succeed in the manner in which it is proposed, and if the success is uncertain, the fund for supporting it which is to arise from the profits of the undertaking will be precarious.

This last objection is, in our opinion, a fatal objection to the scheme; for though an undertaking plainly calculated for the benefit of the public may in some instances deserve encouragement, even where the success is dubious, yet in such cases the projectors alone ought generally to abide the peril of the mis-carriage.

In the present proposal, therefore, whatever else may be hazardous, the capital or fund to answer losses ought to be certain and liable to no casualty, for which reason, when the legislature enabled H.M. to erect the two Corporations of the Royal Exchange and the London Assurance, they thought it necessary to oblige these bodies in the first place to raise a large capital before they began to insure.

The success of this scheme must depend upon the truth of certain calculations taken upon tables of life and death, whereby the chance of mortality is attempted to be reduced to a certain standard; this is a mere speculation never yet tried in practice, and consequently subject, like all other experiments, to various chances in the execution.

The tables upon which the calculations are built are the bills of mortality of

London and the Breslau tables, and admitting them to be strictly accurate (of which there is strong reason to believe the contrary), they are compounded of diseased as well as healthy persons of those who are embarked in dangerous as well as other employments without pointing out the proportions they bear to each other, and yet as the petitions propose to ensure only such even of the healthy as are not employed in dangerous occupations, the register of life and death ought to be confined, if possible, for the sake of exactness, to such persons only as are the objects of insurance, whereas the calculations offered embrace the chances of life in general, the healthy as well as unhealthy parts thereof, which, together with the nature of such persons' occupations, are unknown numbers.

As the fund to answer losses must depend principally upon the premiums (for we pay but little regard to the small deposits or the personal covenant), the project should be sure of success otherwise the adventurers will be undone or greatly injured, and the project will fall the heavier because it will fall principally upon the poorest sort, the rich having no temptation to assure. Under these circumstances if there were no other objection against the scheme proposed, the uncertainty of success would make us fearful of advising the charter.

We are the more apt to doubt of the event, because it has been represented to us by the affidavit of Mr. Savage, that all the profit which has been received by the Royal Exchange Assurance Office, from the time of its commencement to the present time, amounts only to a sum of £2651 4s. 6d., the difference between £10,915 2s. 2d. paid in premiums and the sum of £8263 17s. 8d. disbursed in losses, which small profit must have been near exhausted in the charges of management. If, then, this Corporation, who are charged with taking unreasonable premiums, have reaped no greater profit, we can hardly expect a more considerable capital to arise from lower premiums, and the hazard of loss will be increased in proportion as the dealing will be more extensive.

2nd. The Crown has very wisely been always cautious of incorporating traders, because such bodies will either grow too great and by overwhelming individuals become monopolies, or else by failing will involve thousands in the ruin attendant upon a corporate bankruptcy.

As trade seldom requires the aid of such combinations, but thrives better when left open to the free speculations of private men, such measures are only expedient where the trade is impracticable upon any other than a joint stock, as was thought to be the case in the East India, South Sea, Hudson's Bay, Herring Fishery, and in some other Companies erected upon that principle; but there does not appear to be any such necessity in the present case, because the business of insuring lives is carried on, not only by the two great companies already mentioned, but such policies are duly underwritten by numbers of private men, and we think that if the profit were so enormous as the petitioners have endeavoured to represent upon the terms now and for many years practised in the City of London, there would not have been wanting enterprising persons to have reduced the premiums and drawn this branch of dealing to themselves by underselling the market. If the petitioners then are so sure of success, there is an easy method of making the experiment by entering into a voluntary partnership, of which there are several instances in this business of insuring; and if upon such a trial these calculations are found to stand the test of practical experiment, the petitioners will then apply with a much better grace for a charter than they can at present, whilst the scheme is built only upon speculative calculations.

3rd. The Parliament, in erecting the two great Companies already mentioned, have already declared their opinion that such charters ought not to be granted without some benefit accruing to the public, and were not sure when they passed the act whether they were not erecting a nuisance, to prevent which a power was reserved to the Crown to abolish the Corporation at any time within the term of 31 years, if they should be found upon trial to be mischievous or inconvenient; and we cannot help observing, that except only in the case of the Amicable Society of Serjeant's Inn, and which is formed upon a very narrow bottom, the Crown has never of itself, as far as it appeared to us, granted such a charter as the present in any case whatsoever: and as the two great Companies

paid a very large sum to the public for the privileges of their charter, we cannot advise the Crown to entrench upon their rights on the bare request of any set of men without a clearer and more certain prospect of public good.

It is for these reasons principally, that we find ourselves under the necessity of advising his Majesty not to comply with the prayer of this petition; and though we are fully persuaded that those worthy gentlemen who have made this application are really convinced that this scheme will prove advantageous to the public as well as to themselves, yet we have not sufficient evidence to satisfy us that either of these ends will be answered or that any necessity of the times requires the trade to be extended under a new Charter of Incorporation.

All which is most humbly submitted to your Lordships' consideration by

Your Lordships' most obedient Servants,

Tuesday, July 14th, 1761.

C. PRATT,  
C. YORKE.

---