

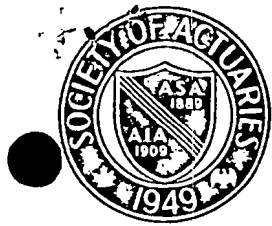


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DISEASE, DISABILITY, DEATH

by Arthur Pedoe

The missing word in the title is "dirt" and the connection between dirt, disease, disability, and death is as close as the alliteration.

The title has an important bearing on current conditions where a generation is growing up with a love for dirt, *coprophilia* is the word: clothes worn deliberately ragged and dirty; filthy, long, unwashed hair—forgetting the dangers of typhus which ravaged mankind, associated with the louse. Then there are rock festivals and gatherings of thousands in tent cities with the most primitive and inadequate sanitary services, ignoring mankind's unfortunate experience over thousands of years in the fight against disease. The word dirt comes from the Saxon *drit*, meaning excrement.

The Greeks worshipped health and their aesthetic sense helped them to avoid the worst effects of dirt in human life. The Romans had the practical sense to build baths and aqueducts, but even these did not spare them from the terrible plagues which repeatedly decimated mankind. The plague of Justinian began in Egypt in A.D. 542 and spread over the whole Roman world (in Constantinople it carried off 10,000 in one day). With the decline of Rome, cleanliness declined all over Europe and it was some 13 centuries before western man took steps to make life reasonably healthy.

To illustrate some aspects of medieval life, we mention the murder of Thomas à Becket, Archbishop of Canterbury, in 1170. In preparing the body for burial it was found he was dressed in eight layers of clothes, decaying and verminous. As the body grew cold an observer recorded that the vermin boiled over like water in a simmering cauldron." Disease and the suffering it caused were

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EUROPEAN REGULATION OF PENSION PLANS

(A report prepared by Frank M. Kleiler for the United States Department of Labor)

by John K. Dyer, Jr.

The further one delves into the social security laws and private occupational pension structures of other countries, the greater becomes his amazement at their intricacy and diversity. The almost unlimited variety of benefit structures, qualifying conditions, and financing mechanisms that can be devised to meet what is essentially a uniform objective—the provision of financial security for large groups of people—must be a tribute to the collective imagination and genius of the social planners, the politicians, and, of course, the actuaries.

Frank M. Kleiler's years of experience as Director of the Office of Labor Management and Welfare Pension Reports prepared him well for surveying public and private benefit systems in other countries. His first such survey, *Canadian Regulation of Pension Plans* (see *The Actuary*, September 1970), was, in the words of the reviewer, "the best, concise, up-to-date one-volume description of public and private pension plans in Canada that exists." This is high praise equally applicable to Mr. Kleiler's latest work, in the opinion of this reviewer.

In some respects the two reports are quite different. The Canadian report covered 97 pages of text, and was documented with 40 pages of appendices. The European report has 22 pages of introductory and summary material, 62 pages of description covering separately ten different countries, and 10 pages of conclusions and bibliography.

Obviously in an average of six pages per country (the range is 4 to 8), the

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A DESCENT INTO THE MAELSTROM OF THE INSURANCE FUTURE

Editor's Note: At the recent (June) meeting of the Canadian Institute of Actuaries, George R. Dinney presided over a workshop on The Future of Life Insurance. Mr. Dinney has kindly supplied us with a copy of his text for the workshop.

There is nothing new under the sun and in many ways we are returning to our origins. Hopefully this backward journey will not carry us to a point of time prior to our origins.

Future Thinking

In most established industries there is a tendency to adopt what may be termed Maginot Line thinking, i.e., to retreat under heavy fire from one entrenched position to a well fortified but equally undefensible, secondary position. Galbraith's *The New Industrial State* makes sobering comment on the mortality rates of companies and industries that are out of step with time.

We offer a vademecum of famous last words, or a short course in Maginot Line thinking. Complete the following expression:

_____ is a threat to the very foundations of our industry which has grown and will continue to grow only on the basis of fixed dollar, permanent, life insurance.

Suggestions for completing this sentence include:

- (a) Group Insurance
- (b) Term Insurance
- (c) Variable Annuities, Mutual Funds
- (d) Variable Insurance
- (e) ?

Fill in the blank with words of your

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Disease, Death, Disability

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considered as sanctifying to the soul.

Very few of the houses in medieval towns, and even up to the 17th century, had sanitary conveniences. It was usual to discharge the accumulated *drit* through a window into the street; I have notes recording this as the practice in London, Edinburgh, and Paris. French politeness required that one cried out the meaning "Garde l'eau" when emptying the pots.

Palaces were little better. In Versailles about the year 1700 there were latrines in the basement but they were so filthy that they were not used by the courtiers and, unless a night stool were handy, they would relieve themselves under the staircases and even in the galleries and salons. So one can imagine the conditions of filth in which lived the peasants and the lower classes in the towns. The periodic plagues were accepted as God's will.

Graunt, the father of vital statistics, in 1662 estimated that 25 years in every century were plague years in London. His contemporary Petty, the statistician, stated that plagues killed about one-fifth of the population where they struck.

Most peasant cottages consisted of one room with a simple partition separating the living quarters from the cowshed. Stories of the Irish peasant sleeping on a mud floor with his pig in the corner have become proverbial. In a cottage open to the winds of the Atlantic this can be criticized, but in a basement in a slum the consequences were appalling. This habit of sharing living quarters with pigs or the family goat or donkey was not confined to the Irish. Following the potato famine of 1845, 1846, and 1847 it is estimated that one million Irish fled overseas and exaggerated the appalling health conditions in the city slums of England, Scotland, Canada, and the United States. Even in New York the Irish managed to keep pigs and the *New York Sun* reported that there were not less than 10,000 pigs roaming the city, "dangerous as hyenas."

It was not only the slums. Sir John Simon, appointed the first Medical Officer of Health of the City of London in 1848, reported that 5,400 cesspools still existed in the "square mile" and many of them were never emptied. There were 88 parish burial grounds still in use and were so overcrowded that they stank; there was a common grave for the

"poor," a hole into which the bodies were thrown. By the time he resigned in 1876 the whole scene had been transformed.

The downward trend of mortality and increase in population can be traced to have begun about 1750, but it was over a century after that before the efforts of sanitary reformers obtained general acceptance. Passing laws did not necessarily mean action; so often no provision was made for enforcement. The cheapening of cotton made easily washable garments available to the masses and was one factor—an alternative to wearing woolen or leather clothes until they rotted. So was the use of iron pipes, making sanitary engineering possible to free drinking water from sewage.

In New York the death rate in 1864 was the highest of any large city in the western world. The sewers were a patchwork of pipes clogging and breaking after any heavy rainstorm, turning Broadway into a "sluggish stream of deep brown mud." In 1866 a Metropolitan Board of Health was created and its first job was to remove 160,000 tons of manure from vacant lots.

We have referred to the western world; what were conditions in primitive countries? When the United States occupied the Philippine Islands they faced sanitary conditions which may be called indescribable. In 1903 Dr. Victor Heiser, M.D., became Chief Quarantine Officer and later Commissioner of Health. In *An American Doctor's Odyssey* he describes conditions. "Across the street from my office was smallpox, to the right was plague and to the left, cholera." * * * "More than 10,000 men, women, and children, blighted by the scourge of leprosy, wandered sad and lonely among the uncontaminated." * * * "Sections of Manila were so closely crowded that no room for streets or even alleys was left; the wretched people who lived there had to creep through human excrement under one another's houses to reach their own." To those who would say this is all ancient history I would mention present conditions: the homeless in the cities of India and the "shanty towns" outside some of the great cities of South America. Dr. Heiser's account of the Rockefeller Foundation's attack on hookworm disease in the southern states of the U.S. is worth reading; he joined that body in 1914.

It might well be asked what the medical profession was doing through these

centuries of filth and squalor. It is only in the last hundred years or so that the relation between dirt and disease has become acknowledged. Tribute must here be paid to Pasteur, the French chemist whose paper in 1858 started the science of bacteriology. The English surgeon Lister opened the modern era of surgery by introducing antiseptic principles with a paper in 1867—sterilization of the operation site, the instruments, and the surgeon's hands.

Before Lister's day the standard of cleanliness in an operating theatre was what would not be tolerated now in a slaughter house. The surgeon wore a coat, splashed with the blood of previous operations and too dirty for wear outside. In the lapels were threaded the sutures to be used in the operation. No wonder Lister puzzled why the surgical wounds healed except round the sutures.

No account of dirt through the ages should omit mention of Semmelweiss, the Hungarian who was assistant professor in the maternity department of a Vienna hospital. He noticed that, in one ward where the women were attended by doctors who came direct from the post-mortem rooms, the death rate from puerperal fever was 10%, whereas in an adjoining ward without such contact with the post-mortem room the mortality was 3%. Semmelweiss ordered disinfection of the hands of the obstetricians with a chloride of lime solution and the mortality fell to 1%.

A recent article in *The New York Times* (13 June 1971) states that gonorrhoea has reached epidemic proportions in the U.S. and is now beyond the control of public health officials. It is stated that the use of soap and water would be a major control, but one must not suggest such a simple solution!

The above extracts are taken from notes I have made over the last 30 years. My interest has been what I have stressed for many years: that mortality trends are closely associated with social developments rather than medical discoveries.

Here is a subject of great importance to the life insurance industry, and perhaps some of their joint publicity could be used to counter the current trend to *coprophilia*, the love of dirt!

Note: There has just been published in the United States, *Dirt—A History of the Western World as Seen Through the Uses and Abuses of Dirt*, by Terence McLaughlin, New York, Stein and Day, (\$6.95). □