

streams. Generally the heads which open are those over and near the fire; thus the automatic sprinkler is the remedy which strikes the seat of the trouble.

To be of proper effectiveness, it is pointed out, an automatic sprinkler system should be installed in accordance with the rules and requirements of underwriters. These requirements have been refined by the experience of competent engineers covering a period of over a quarter of a century.

A SUMMARY OF EXPERIENCE.

The National Fire Protection Association maintains a special department for the study of fire experience in risks equipped with automatic sprinklers, supervised by a qualified expert. Each year is published in the Quarterly of the association a summary of the statistics covering a period of one year with the purpose of establishing a basis of estimate of the value of automatic sprinkler protection. Following is the annual summary, June 1911-1912:

This is the fifth year that our annual statistics have been presented in substantially the present form. We can now make certain studies and deductions concerning the operation and effect of automatic sprinklers of considerable interest and value.

During this period there has been a gradual decrease in the number of sprinkler failures. The first annual tables prepared, of all fire records available, showed that 6.23 per cent. resulted in failure. The failures have held at about 5 per cent. during the last two years. A study of the causes of these failures suggests that we can hardly hope for a material reduction in this percentage during the next few years. The summary of these failures each year shows almost identically the same relative percentage of failures for each specified cause as those in the present summary. Nearly one-fourth of these failures are due to the fact that the water was shut off from the system, and nearly three-fourths of the latter cases are due to the "man-hazard," which must always be a factor to be reckoned with.

There has been a constant increase in the total number of fires held in check by sprinklers. Five years ago this percentage was 27.16, while the present summary shows the percentage to be 31.37. There has been a very slight decrease in the number of fires practically or entirely extinguished.

The percentage of fires extinguished by the operation of various numbers of sprinklers shows a remarkable unanimity. The percentages have varied so slightly during the periods recorded, that it may almost be stated as a law that, for instance, 30 per cent. of all sprinkler fires will be satisfactorily extinguished or held in check by the operation of one head. An equally amazing regularity of agreement extends throughout the percentages of total numbers of sprinklers operating, as, for instance, that 66 per cent. of all fires can be expected to be extinguished by the operation of not over five heads, and, that 80 per cent. will be extinguished by ten heads or less.



The Prudential Insurance Company of America has been awarded a commemorative medal for an exhibit in connection with the International Exposition of Hygiene at Dresden in 1911. This exhibit consisted of a set of graphic charts showing the death rates in various manufacturing industries and the increasing need of safety appliances for the prevention of accidents. These charts were prepared from special study by the Prudential on matters affecting the business of life insurance in such industries as coal mining, steel making, spinning and weaving industries, railways, stone and marble workers and various other trades. Charts were also supplied showing statistics of deaths from various causes in the larger American cities during the last 30 years. The exhibit has now been transferred to the Museum of Safety at Berlin.

**LIFE INSURANCE COMPANIES AND WELFARE WORK.**

(Address by Mr. Haley Fiske, Vice-President of the Metropolitan Life of New York, at the Annual Convention of the Life Underwriters' Association of Canada, Montreal.)

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SERVICE TO THE PUBLIC.

4. The wage-earning public. When you reflect that we have 11½ millions of industrial policies in force, of which about half a million are in Canada, you will realize that work done for the welfare of our policyholders is very directly and very extensively, and also indirectly, work done for the wage-earning public. And some of our activities have been directed beyond the circle of policyholders. Surely the publications of which I have spoken have reached the general public. Then, during the last three years, we have had travelling exhibits at many county fairs in the United States and Canada—in 97 cities and towns in 1910 and 82 in 1911. The exhibits are arranged for the instruction of the general public. Visitors to the fairs have received our health literature; illustrated post-cards; health drinking-cups; the pamphlets giving instruction on the care of babies; on milk; on house-flies; on open-air shacks; on sleeping in the open air; copies of the booklet "War upon Consumption;" the list of sanatoria; the book called "The Child," and others. At many fairs the exhibit included an emergency hospital, with one of our nurses in attendance.

CO-OPERATION WITH PUBLIC AUTHORITIES.

Our co-operation with health authorities and social agencies has been very extensive and some of it very interesting. For instance, in 1909 a referendum was made to the voters of the city of Chicago for authority to build a municipal sanatorium. Our agents distributed 500,000 ballots to our policyholders. We were told that this had a great effect on the result, which was an overwhelming vote in favor of the sanatorium, the total vote being about 200,000, the measure being carried four to one. In 1910 we were appealed to by the municipal authorities of the city of Cleveland to assist at a city election whereat authority was asked of the voters to the issue of bonds for a tuberculosis sanatorium. Our agents distributed ballots and the General Superintendent of the Department of Public Safety wrote us that he was sure that much was accomplished by our men. The vote was in favor of granting the authority.

In co-operation with various State and city authorities, we distributed in 1909, through our agents, 250,000 pamphlets on the summer care of babies in New York city; in Vermont, 2,500 booklets on consumption, issued by the Board of Health of that State; 6,000 circulars on health and consumption in Burlington, N.J. Later the company printed for the State Charities Aid Association, of New York, 100,000 pamphlets on tuberculosis, one-half of which the association sent out and the other half was distributed by our agents. Our agents in New York State circulated 40,000 pamphlets on the prevention of blindness, in co-operation with the public authorities. The superintendents of New York city have received milk station cards for the benefit of policyholders. In 1910 the company began a co-operation with the