

FIRE PROTECTION HISTORY-PART 133: 1906 (SPRINKLER RELIABILITY STATISTICS)

By Richard Schulte

The tenth Annual Meeting of the National Fire Protection Association was held in Chicago in May 1906. Among the technical committees reporting at this meeting was the Committee on Special Hazards and Fire Record. The chairman of this Committee, Henry Fiske, presented the Report at the meeting. The following is an excerpt of the transcript of Mr. Fiske's presentation at the meeting:

"SPRINKLER FIRE TABULATION.

We give as usual a summary of the Unsatisfactory Sprinkler fires reported during the year, also a few tables which may be of interest. Details of all Unsatisfactory fires will be found in the Quarterly Bulletins. We have omitted this year the table on sprinkler fires by class of occupancy awaiting the completion of the card index system, when we will publish a new occupancy classification covering all fires reported to date.

We had reported during the past year 894 fires in Sprinklered Risks, and of these fires 731 were handled successfully by the sprinklers, that is, fire either extinguished by sprinklers or properly held in check so as to allow of extinguishment by such outside aid as was at hand. In 114 fires, there was insufficient heat to operate sprinklers.

UNSATISFACTORY SPRINKLER FIRES.

In 49 cases, or about 5 per cent, the sprinklers were unsuccessful in holding the fire in check, and we give below a summary of those fires, together with the probable cause to which the unsatisfactory results are attributed.

[TEXT OMITTED.]

TABLE VIII.

Effect of Sprinklers.

| | Times Reported. | | Per Cent of No. with Data Given. | |
|--|-----------------|----------------|-------------------------------------|----------------|
| | 1906. | 1897-1906 Inc. | 1906. | 1897-1906 Inc. |
| <i>Practically or entirely extinguished fire</i> | 520 | 2,969 | 66.66 | 66.14 |
| <i>Held fire in check. . . .</i> | 211 | 1,179 | 27.05 | 26.35 |
| <i>Total successful</i> | 731 | 4,148 | 93.71 | 92.49 |
| <i>Unsuccessful</i> | 49 | 278 | 6.28 | 6.21 |
| <i>No data</i> | — | 48 | | |
| | 780 | 4,474 " | | |

While the data provided above is not new, what is of particular interest with this data is the fact that sprinkler protection provided in the late 1800's and the early 1900's extinguished two-thirds of fires which occurred, while only controlling roughly another one-quarter of fires. In other words, sprinkler protection provided 100 years ago was capable of far more than just controlling the fire. Back then, sprinkler protection more likely than not actually extinguished the fire.

Of course, this fact is particularly important, given the delays in response by horse-drawn fire-fighting equipment and the lack of protection provided by the protective clothing and gear used by fire fighters a century ago. Does sprinkler protection today still extinguish fires as often as it did a century ago? There seems to be little or no data today to answer that question, but there is little doubt that sprinkler protection still extinguishes many fires prior to the arrival of the fire department. Further, it seems that given a little additional time, today's sprinkler protection would not only control fires, but extinguish even more fires.

* * * * *

Copyright © 2013
Richard C. Schulte

Source: "Proceedings of the Tenth Annual [NFPA] Meeting", Chicago, Illinois, 1906.