

FIRE PROTECTION HISTORY-PART 128: 1920 (SODA-ACID TYPE FIRE EXTINGUISHERS)

By Richard Schulte

Among the technical committees reporting at the twenty-fourth Annual Meeting of the National Fire Protection Association was the Committee on Field Practice. The chairman of this Committee in 1920 was Edward R. Hardy, and Mr. Hardy made the presentation of the Committee Report. The following is an excerpt from the Report which addresses recommendations for soda-acid fire extinguishers:

“SECTION IV.—FIRE EXTINGUISHERS. (Soda and Acid Type).

*These appliances are copper tanks with a small hose attached. They are filled with water in which is dissolved bicarbonate of soda, while in a glass container, kept separate from the soda solution, is sulphuric acid. **When the acid and the soda solution are mixed, carbonic acid gas is formed, creating pressure within the container, and expelling the solution through the hose.***

Method of Operation:

Extinguishers should be carried to the fire right end up, and to be used should be inverted. While the stream is more effective if used close to the fire, in case of necessity it can be directed from a distance as great as 25 feet.

Suitability:

Appliances of this type are effective on incipient fires in free burning material (such as wood, etc.), and where water or solutions containing large percentages of water are effective. They are of limited service on fires in liquids of flammable nature. Their use on electric arcs, electric machinery or wiring carrying high voltages may be dangerous on account of conductivity of liquid.

Distribution:

(a) *Unit of Installation: One extinguisher is considered the equivalent of five fire pails.*

(b) *As a general rule extinguishers should not displace more than one half the pail requirement without the permission of the inspection department having jurisdiction.*

(c) *Area per Unit: Extinguishers should be distributed in the proportion of one for every 2500 sq. ft. of floor area, figuring each room, gallery, mezzanine, etc., separately.*

(d) *Arrangement: Extinguishers should not be grouped except in such properties as churches, schools, hotels and strictly office buildings where corridor distribution and grouping may be necessary to some extent. The extinguishers should be so placed that travel from any point to the nearest extinguisher will not be greater than 35 feet in any direction. They should be conspicuously located on posts, securely hung on hooks or brackets, so that the top of the extinguisher is approximately five feet from the floor."*

Soda-acid type fire extinguishers are now ancient history, but the brass containers make beautiful antiques.

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Source: *"Proceedings of the Twenty-Fourth Annual [NFPA] Meeting"*, Chicago, Illinois, 1920.