

Fire Extinguishment and Control

floor or high enough so that it will not be a hazard to passers-by or be damaged by trucking operations. See NFPA Standard No. 14, *Standpipe & Hose Systems, Installation*.

The hose should be so arranged that it will not kink or tangle when pulled out. One end should be kept connected to the standpipe, and the other end should be equipped with a $\frac{3}{8}$ - or $\frac{1}{2}$ -in. nozzle tip or a combination spray-solid stream nozzle. To prevent kinking in use, not more than 75 ft of hose should be placed at a standpipe outlet.

Except for unlined linen hose, all fire hose should be hydrostatically tested annually, thoroughly inspected, dried and returned to service (Fig. 36-8).

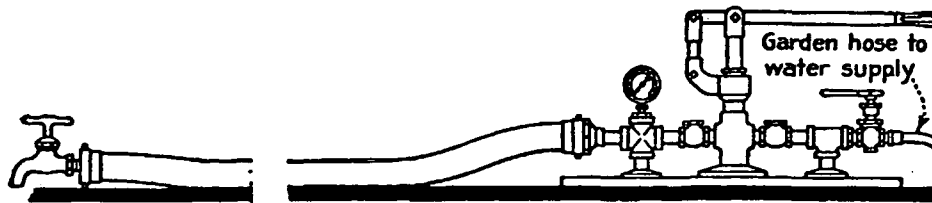


FIG. 36-8 — Hand-pump assembly for hydrostatic testing of hose

Monitor nozzles Permanent monitor nozzles are frequently used to protect pulpwood storage piles at paper mills, in lumber yards, in stock yards, and in railway car storage yards. Nozzles are often elevated to clear obstructions so that the operator can stand on a shielded platform and direct a high-pressure stream of water over a wide area. Such systems are especially useful in large congested areas where it is impractical to lay hose lines in an emergency.

Hose nozzles. Effective streams for fire fighting are controlled by the size and type of nozzle. The nozzle, in turn, must be supplied with the correct quantity of water at the discharge pressure for which it is designed. Nozzles are designed for solid streams, spray streams (frequently referred to as fog), or combination streams. And nozzles for special extinguishing agents, such as foam and dry chemical, are also available. Solid stream nozzles are designated by the diameter of the nozzle tip, whereas spray

nozzles are designated according to the amount of water they discharge at 100 psi nozzle pressure.

Spray nozzles are widely used in both public and private fire protection and make the application of water more effective under many conditions. They are of three general types:

- 1 Open nozzles of fixed (nonadjustable) spray pattern, usually attached to shut-off valves. Some nonadjustable nozzles can be equipped with an applicator (a long pipe extension, curved at the end and fitted with a fixed spray nozzle) for fighting fires where extended reach is necessary.

- 2 Adjustable nozzles which provide variable discharges and patterns from shut-off to solid stream and from narrow- to wide-angle spray.
- 3 Combination nozzles in which a solid stream, a fixed or adjustable spray, and shut-off are selected usually by a two- or three-way control valve.

Maintenance of fire hose

The following suggestions for maintenance of fire hose are given by Factory Mutual Engineering Corporation in *Maintenance of Fire Hose*, Loss Prevention Data—Extinguishing Equipment 4-2 (July 1965).

Hose for outdoor use Inspect and test woven-jacket lined hose periodically to make sure that it will be in good condition when emergencies arise. Water should be run through the hose at least twice a year. Fire hose should be reserved for fighting fires, if hose is needed for other uses, a separate sup-