capable of carrying water under substantial pressures, yet flexible and sufficiently easy to handle Therefore, the fire hose should be of suitable quality, properly cared for when used, and carefully maintained in storage Yard hose should be stored in standard hose houses for protection from weather (Fig 43–33).

Hose for outside or yard protection ordinarily is 1½- or 2½-in double-jacketed lined type or single jacket type when weight or bulk is undesirable Hoses made of polyester or other synthetic fibers are lighter, stronger, and mildew resistant (See NFPA Standard No 24, *Outside Protection*)

Woven-jacket, lined hose with an outer rubber or plastic cover is chiefly used in industries where the hose jacket must be protected against chemicals and abrasions

The lined hose with a rubber or plastic cover is available in ¾- and 1-in sizes, and is generally used as a booster hose, or as a hose on chemical engines, wheeled extinguishers, and wall-mounted or vehicle-mounted pressurized hose reels

For inside use by building occupants (as opposed to standpipe systems designed for the fire department), 1½-in unlined linen hose is satisfactory to provide small streams for fire protection If kept dry, it will last almost indefinitely It should never be used except in case of fire and should not ordinarily be tested because it will deteriorate if slightly damp However, with the introduction of light-weight, lined fire hose, which has twice the hydraulic efficiency of unlined hose, many firms are replacing the unlined hose on their industrial standpipe installations The unlined hose has its place in such locations as office buildings, where it would be discarded and replaced if ever used The hose should be kept on a swinging rack or reel of approved type, approximately 5 ft above the 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, *Installation of Standpipe and Hose Systems*

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 ⅜- or ½-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 43–34)

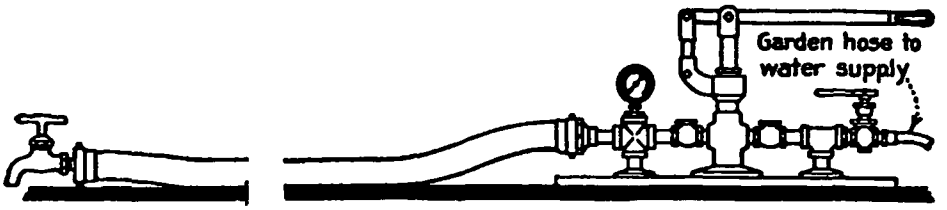


Fig 43–34 —Hand-pump assembly for hydrostatic testing of hose

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