Early water routing; pipe and transition box



Fig.1 Top view of wooden water main segment with fire plug hole near the right end.



Fig.2 Close up of fire plug hole end.

Page *Subject*
1 Water main
2 Transition / Distribution box
3 Fire plug diagram
4 Acknowledgements



Fig.3 Fire plug hole end of pipe.

The pictures on this page show a segment of an original wooden water main. Made made from a single wood log, it was hollowed out and reinforced with iron strapping. The strapping was secured with nails. Can you find the remains of highly eroded nails in the strapping seen in figure 3?

Fig.1-3 SPECIFICATIONS

Material: Wood and iron
Dimensions (approximate):
Length = 49.5"
Outer diameter = 5.5 - 5.75"
Inner diameter = 3.0"
Fire plug hole = 1.5"
Strapping = 1.5" wide x 0.?" thick
Capacity: (?)

Early water routing; pipe and transition box



Fig.4



Fig.7



Fig.5

Shown here are four views of the same original wooden transition, or distribution, box. Similar ones connected the wooden water mains seen on the previous page. Made from a single wood timber, this box was hollowed out and then reinforced using iron bolts, nuts and washers.



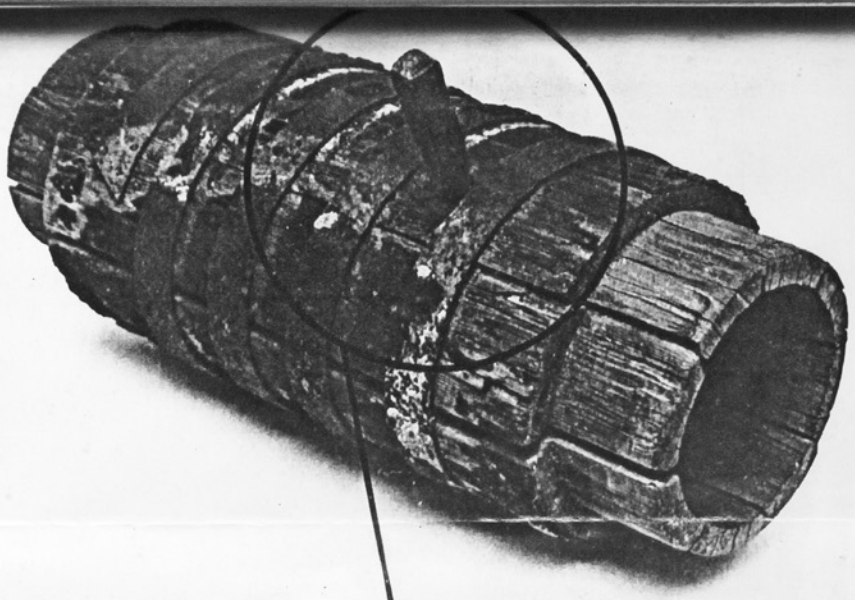
Fig.6

Fig.4-7 SPECIFICATIONS

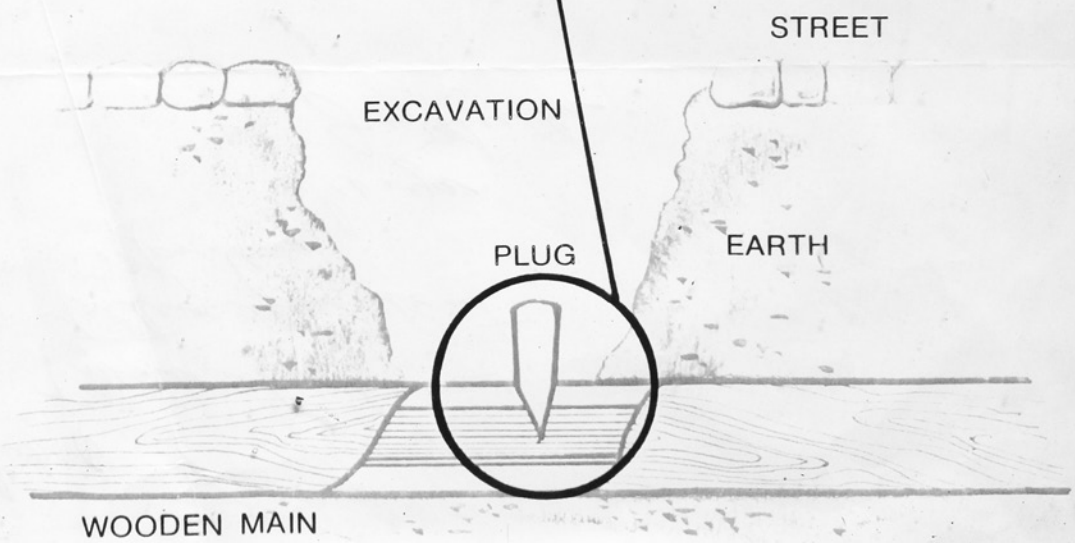
Material:
9" square cross-section wood timber
Top dimensions (approximate):
Long side = 16.5"
Short side = 8.0"
Diagonal sides = 10.0"
Hole dimensions:
Diagonal sides = 4" diameter
(circled by embedded 7.5" diameter steel)
Long side = 2.5" diameter, 2.5" deep
Hardware:
~10" x 0.5" iron bolts
1.75" diameter washers
Bracket (unknown function)

Early water routing; pipe and transition box

Fig.8



Why a hydrant is sometimes called a "fire plug." In early water distribution systems employing wooden mains, water was obtained for fire engine pumper suction use from hastily constructed sumps excavated around the pipe. A hole was bored in the pipe, allowing the water to flow into the sump. After the fire, the hole was stopped by a wooden plug. Excavating and drilling at the time of the fire were eliminated by an improved arrangement in which permanently installed vertical pipes or shields and long plugs were provided. When water was needed, the plug was pulled and the water flowed up the shield.



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Acknowledgements:

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