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TOPIC #7 WATER AND GAS VALVES

VALVE KEYS USED IN THE CINCINNATI FIRE DEPARTMENT

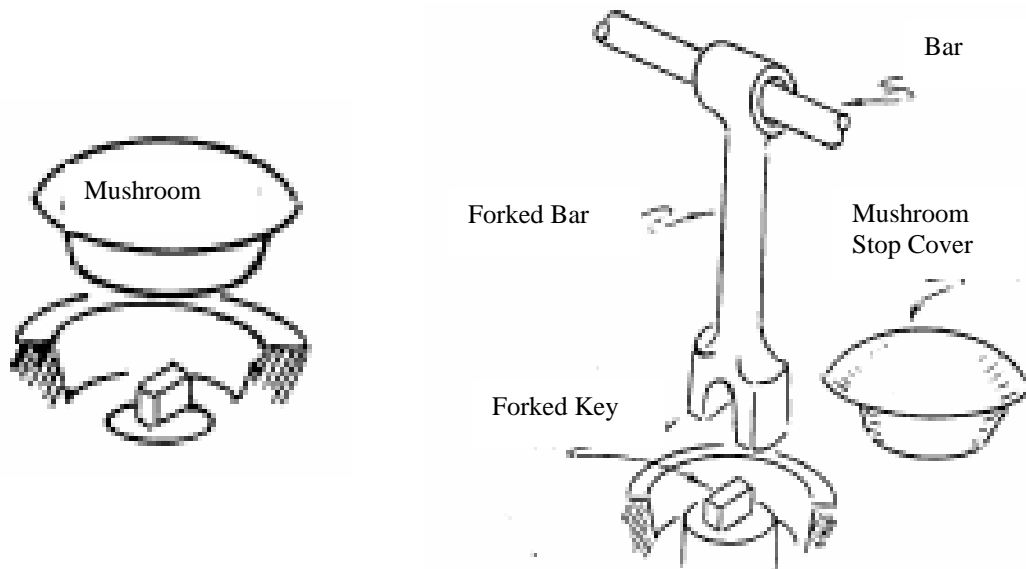
FORK BAR AND KEY


The fork bar and key is standard equipment carried on engine companies. It is used to open and close mushroom type stops of fire hydrants.

To place in service:

1. Remove the stop lid.
2. Gently set key on the nut.
3. Insert the bar into the end of the fork key.
4. Turn the key, one quarter turn clockwise, to open or close.

NOTE: On some stops, if too much resistance is encountered, it may be necessary to turn the key counterclockwise to open or close the valve. The position of the top of the stop will indicate if the valve is opened or closed. If the nut is in line with the pipe below, it is open. If the nut is perpendicular to the pipe below, it is closed.



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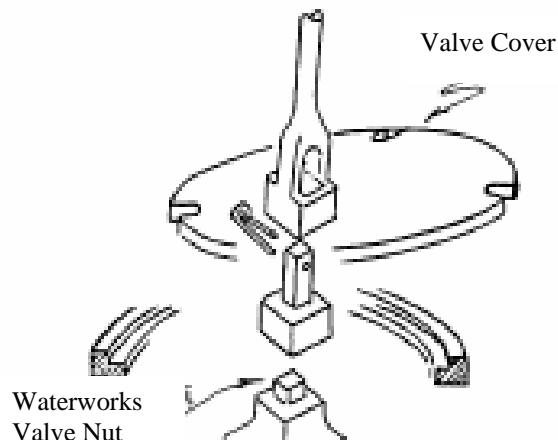
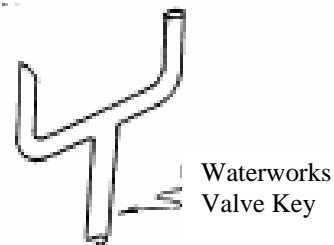
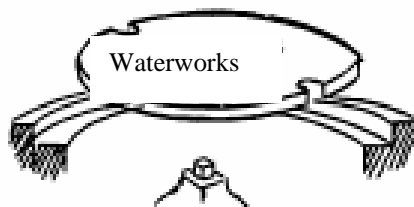
WATER WORKS VALVE KEY:


The "WWV" key is standard equipment carried on engine companies. The key is used to open and close waterworks type valves for fire hydrants, and can be used to open and close some gas stops. The handle end of the key can be used to remove chamber lids. The key assembly consists of the key and a removable socket.

The additional socket is secured with an iron pin. The top nut on waterworks valve may be one of two sizes, 1-1/2" or 2". To use the smaller socket, remove the iron pin and use the smaller of the two sockets.

To place in service:

1. Mark the lid with a piece of chalk and remove the lid from chamber.
2. Place the key on the top nut of the valve.
3. These valves have different threads. They do not turn on and off alike. "Feel" which way the valve turns and continue to turn in that direction. The number of turns differs: some valves have as many as 30 turns to open and close. After the valve is opened or closed, back the valves off of its seat one quarter turn, so that the next person to operate the valve knows which way to open or close the valve.



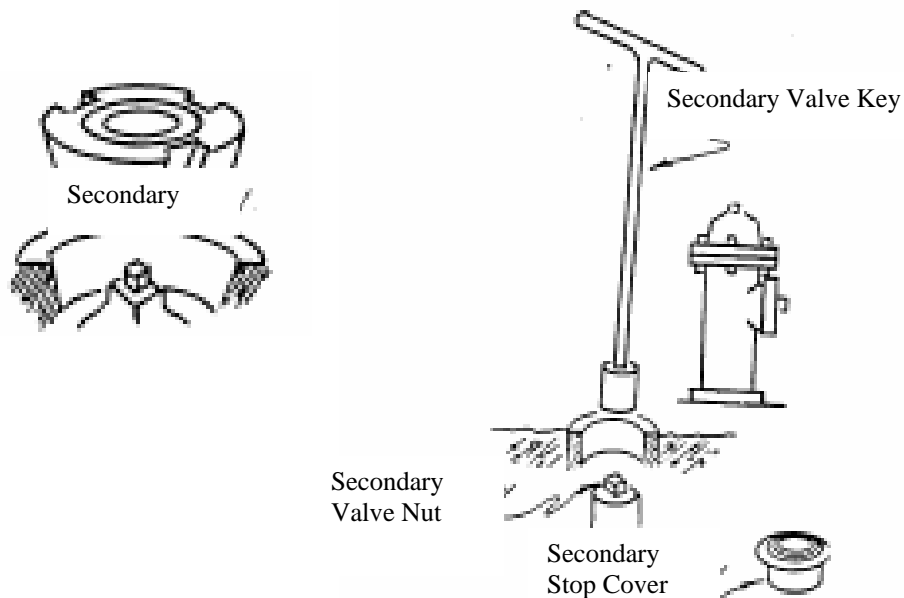
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SECONDARY VALVE KEY:

The secondary valve key is carried on some engine companies located in suburban areas. The key is used to open and close secondary valves of some fire hydrants. These valves are located directly in front of the hydrant.

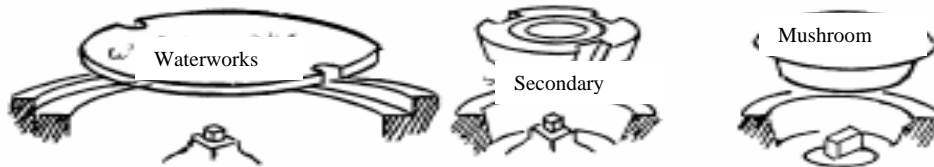
To place in service:

1. Remove the cap from the standpipe with a hydrant spanner.
2. Insert the key into the standpipe and place the key socket on the valve nut.
3. Turn the key clockwise to open the valve and counterclockwise close the valve,



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INSPECTION OF STREET STOP VALVES:



Equipment needed: Short Hay Hook, Shoe Spoon and a piece of chalk.

1. Mark the lid with a piece of chalk* and remove the stop lid. Clean the lid and the seat, if necessary.
2. Remove the dirt from the chamber so that the valve nut is operable.
3. Check for displacement that would prevent placing of the key on the valve.
4. Line up the chalk marks and replace lid.

NOTES:

- Street stops are to be turned on all the way.
- Marking of the lid and the top of the chamber with a piece of chalk, before removal, will aid in replacement and prevent "wobbling" of lids that are worn or warped.
- A record of street stop types, and their locations will be kept in the company diary. They are to be inspected twice a year, usually during the summer and early fall.
- Stop lids that are covered should be reported to the company that is responsible for the hydrants in that district.
- Normally, street stops are raised before streets are resurfaced. Sometimes a block of wood is placed over a stop and the street is resurfaced. Later those blocks are removed and the stop is then raised.
- Covered street stops are reported to the Supervisor of Fire Hydrant Maintenance on a F-47. All companies are reminded that the Fire Division is responsible for only minor cleaning and uncovering of street stops. If the stop is covered by pavement, etc., the Water Works will repair them.

HIGH WATER AND FLOODS:

Some hydrants are shut off at their street stops according to a prearranged schedule when the river reaches a certain stage. When the hydrant is again turned on at its street stop, it is to be flushed and tested. This is done to prevent contamination by flood water. The hydrant is placed in or out of service according to the result of post flood testing.