

(No Model.)

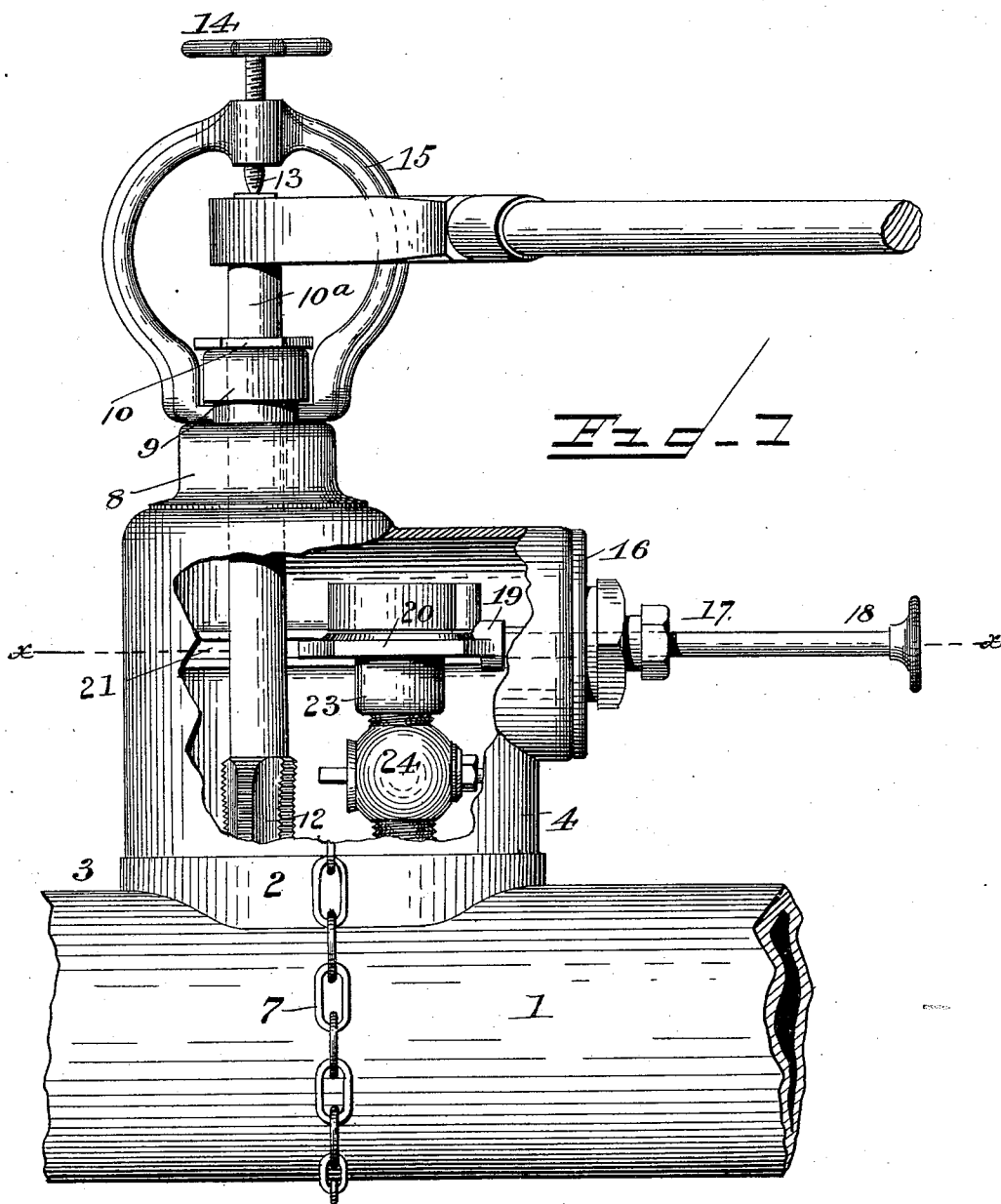
2 Sheets—Sheet 1.

G. SHELLEY.

MACHINE FOR TAPPING WATER OR GAS MAINS.

No. 585,124.

Patented June 22, 1897.



Witnesses:
Frank L. O'Rand
J. L. Coombs

Inventor.
George Shelley,
By Louis Bagge & Co
Attorneys.

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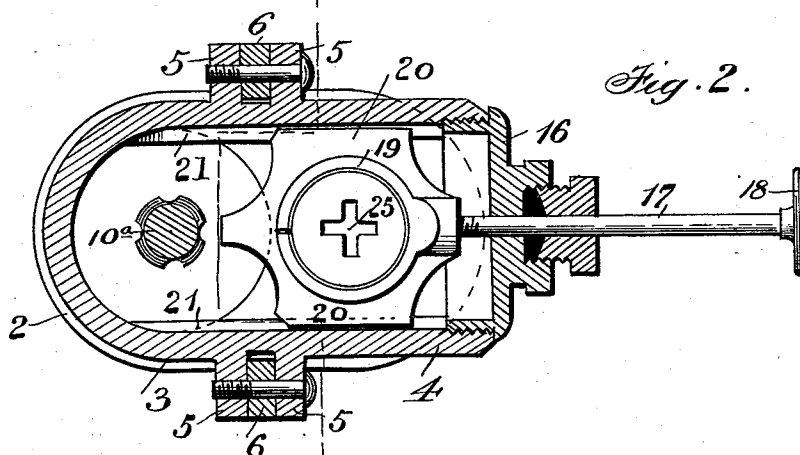


Fig. 2.

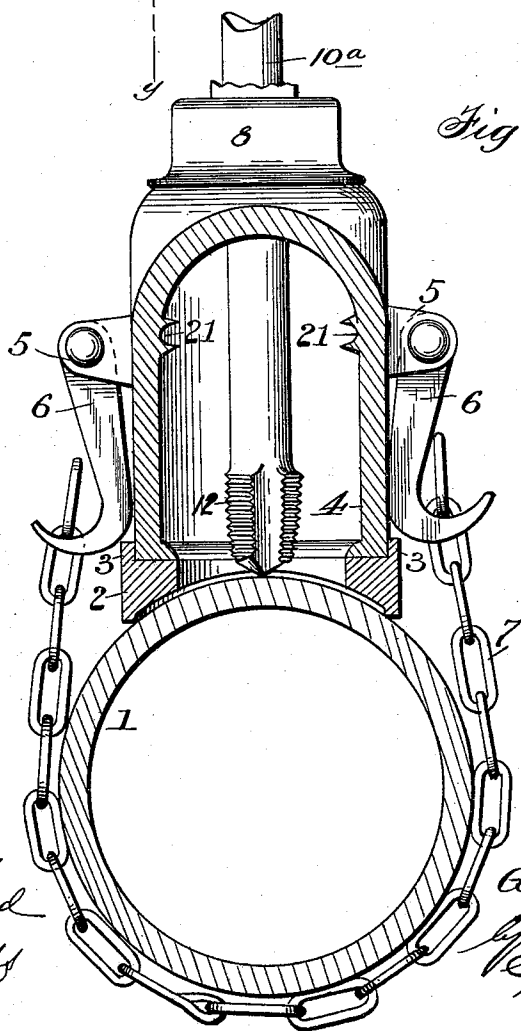


Fig. 3.

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UNITED STATES PATENT OFFICE.

GEORGE SHELLEY, OF WILKES-BARRÉ, PENNSYLVANIA.

MACHINE FOR TAPPING WATER OR GAS MAINS.

SPECIFICATION forming part of Letters Patent No. 585,124, dated June 22, 1897.

Application filed February 15, 1897. Serial No. 623,549. (No model.)

To all whom it may concern:

Be it known that I, GEORGE SHELLEY, a citizen of the United States, and a resident of Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Tapping Water or Gas Mains; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to machines for tapping water and gas mains, and its object is to provide an improved apparatus in which the hole for the stop-cock or spigot may be tapped and the stop-cock inserted therein with but an appreciable loss or waste of water or gas.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation, partly broken away, of a machine or apparatus constructed in accordance with my invention. Fig. 2 is a horizontal section of the same on the line *xx*, Fig. 1. Fig. 3 is a cross-section on the line *yy*, Fig. 2.

In the said drawings the reference-numeral 1 designates a water or gas main which is to be tapped for the reception of a stop-cock.

The reference-numeral 2 designates a metal saddle consisting of an oblong plate with an oblong opening therein. The under side of this saddle is curved to correspond with the curvature of the main, so as to fit snugly thereon and form a tight joint. These saddles will be made in different sizes to fit varying sizes of mains, and their upper sides are formed with an upwardly-extending peripheral flange 3 to receive the lower end of a box or casting 4, which is of a corresponding shape. The upper portion of this box or casting is made approximately cylindrical, and on the outer sides are formed lugs 5, to which are pivoted claws 6, which engage with a chain 7, passing underneath the main, by which the box and saddle are securely held to the main and a tight joint made. At one

end this box or casting is provided with an upward extension 8, having a boss 9 at the upper end, which is interiorly screw-threaded to receive a corresponding threaded nut 10, having a central aperture. Passing through this nut is a vertical rod 10^a, the lower end of which is formed with a screw-tap 12, the flutes of which are at approximately right angles to each other. The upper end of this rod is made angular to engage with a wrench. Also engaging with the upper end of said rod is a pressure-screw 13, provided with a hand-wheel 14, by which it may be rotated. This screw passes through a yoke 15, the lower ends of which engage with the lower side of the boss 9.

At the opposite end the box or casting is provided with a circular screw-threaded head 16, through which passes a horizontal push-rod 17, provided with a button 18 at its outer end. The inner end of this rod is provided with a carrier 19, having flanges 20 at opposite sides, which work in horizontal guide-ways 21, formed in the interior of the box. This carrier is formed with an opening, which engages a coupling 23, formed with interior screw-threads at the lower end, which engage with corresponding threads on the upper end of a stop-cock 24, and at its upper end formed with a cross-shaped slot 25.

The stop-cock or spigot, with the valve closed, is screwed into the coupling and the coupling and stop-cock or spigot are placed in the carrier in the box. The rod and tap are then placed in the box and the latter placed on the saddle on the main and firmly secured thereto by means of the chain. By now turning the rod and tap by means of the wrench a hole will be drilled in the main. The tap is then unscrewed and elevated and the carrier and stop-cock or spigot are pushed in as far as they will go by means of the horizontal rod and button, which will bring the stop-cock or spigot into alinement with the hole in the main. The tap is again pushed down, so that its right-angled flutes will engage with the cross-shaped slots or holes in the coupling, and then rotated to screw the stop-cock into the main. The box is then detached from the main, when the coupling can be detached from the stop-cock to allow a service-pipe to be attached. The valve or

turning-plug will prevent the escape of gas or water, but can be opened when the service-pipe is attached.

Having thus fully described my invention, what I claim is—

1. In an apparatus for tapping mains, the combination with the box or casing, adapted to be secured to a main, and the vertically movable and rotatable rod and screw-tap, of the ways formed in the interior of said box, the horizontally-movable push-rod, the carrier working in said ways and the coupling engaging therewith having an opening with which the tap is adapted to engage, substantially as described.

2. In an apparatus for tapping water and other mains, the combination with the saddle having an upwardly-extending peripheral flange, the box formed with lugs and the pivoted claws, of the vertically-movable screw-tap, the push-rod having a carrier at the inner end, having a circular opening, the ways

on the inner side of the box, with which said carrier engages, and the coupling formed with a cross-shaped slot; substantially as described.

3. In a main-tapping apparatus of the character described, the combination with the box, the lugs on the outer side, the pivoted claws, the extension at one end formed with a boss, the screw-nut, the vertical rod formed with a screw-tap, the yoke, engaging with the boss and the set-screw of the horizontal push-rod, the carrier, the guideways in the box with which said carrier engages, and the coupling formed with a cross-shaped slot; substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

GEORGE SHELLEY.

Witnesses:

A. M. DIMMICK,
E. H. KULP.