W. W. HAWKES.

Device for Tapping Water-Pipes.

No. 204,730. Patented June 11, 1878.

Fig. 1.

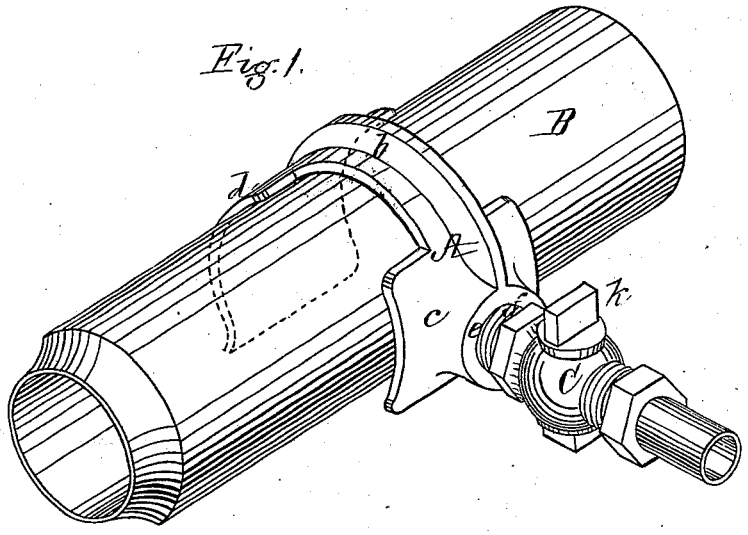
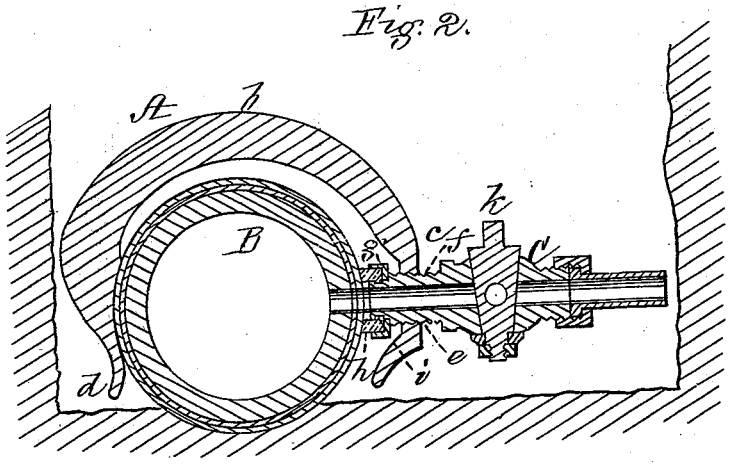


Fig. 2.



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UNITED STATES PATENT OFFICE.

WARD W. HAWKES, OF MALDEN, MASSACHUSETTS.

IMPROVEMENT IN DEVICES FOR TAPPING WATER-PIPES.

Specification forming part of Letters Patent No. **204,730**, dated June 11, 1878; application filed May 10, 1878.

To all whom it may concern:

Be it known that I, WARD W. HAWKES, of Malden, in the county of Middlesex and State of Massachusetts, have invented an Improved Device for Tapping Water-Pipes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved device applied to a water-pipe. Fig. 2 is a vertical section through the center of the same.

The device commonly used for tapping cement-lined water-pipes (where it is impossible to screw in a cock in the ordinary manner) consists of a circular metallic band made in two halves, which, after being fitted around the pipe so as to entirely encircle it, are secured together by screw-bolts and nuts, the band being furnished with a straight joint-cock, the inner end of which is provided with a packing, which rests against the outside of the water-pipe, around the hole bored therein by a drill passed through the cock from its outer end. To apply this band it becomes necessary to dig entirely around and under the pipe, which is inconvenient and laborious, while it is often found difficult to properly adjust the two halves of the band on the pipe by means of the screw-bolts, so as to cause the packing of the joint-cock to bear evenly on the pipe around the aperture bored therein.

My invention has for its object to overcome these difficulties; and consists in a U-shaped clasp, which only partially encircles the pipe to be tapped, and is provided with a straight joint-cock having a packing made to swivel on its inner end, the cock being screwed in through the clasp to bring the packing firmly up against the pipe, through which an aperture is bored by a drill passed through the cock in the ordinary manner, the operation of tapping a pipe being thereby greatly simplified and facilitated, as there are no screw-bolts to adjust, and no digging underneath the pipe is required to allow of the clasp being fitted thereon.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents a U-shaped clasp, formed preferably of cast-iron, the central portion *b* of which is of a size and shape to allow of its being easily grasped by the hand, while the two ends *c d* are enlarged, the whole being adapted to fit over a water-pipe, B, as seen in Fig. 1.

The enlarged end *c* of the clasp is tapped at *e*, to receive the threaded portion *f* of a straight joint-cock, C, known as a "corporation-cock," to the outer end of which the branch pipe is to be attached in the usual manner.

Over a shoulder at the inner end of the cock C is placed a swiveling flanged collar, *g*, within which is fitted a rubber packing-ring, *h*, which is sprung over a lip, *i*, at the end of the cock, by which means the packing-ring and its collar are held in place, and yet allowed to turn or swivel freely upon the end of the cock.

When a street-pipe, B, is to be tapped it is merely necessary to dig down sufficiently to allow of the clasp being placed over it, as seen in the drawings, which can be easily accomplished, as no digging beneath the pipe is required, as is the case where a band is to be applied which is to entirely encircle it.

After the clasp A has been placed over the top of the pipe B, the corporation-cock C is screwed in until the packing-ring *h* is brought up firmly against the exterior surface of the pipe, so as to make a tight joint, the inner side of the enlarged portion *d* (which is curved to correspond to the exterior rounded surface of the pipe) being drawn up firmly against it by the operation of screwing in the cock C to bring the packing up to the pipe.

A drill is then passed through the cock C (the plug *k* having been turned to bring its hole in line with the passage) and a hole bored through the side of the pipe B, after which the drill is withdrawn and the plug *k* turned, when the operation is completed, the space between the clasp and the pipe being filled in with cement, with which the clasp is also covered before filling up the trench in which the pipe is laid.

From the foregoing it will be seen that the operation of tapping a water-pipe is greatly facilitated by the employment of my improved device, which is of exceedingly simple construction, easily applied, and effects a considerable saving in time and labor.

What I claim as my invention, and desire to secure by Letters Patent, is—

The U-shaped clasp A, adapted to partially encircle the pipe B, in combination with a straight joint-cock, C, provided at its inner end with a swiveling packing, *h*, which is brought up against the outside of the pipe by screwing in the cock C, substantially as and for the purpose set forth.

Witness my hand this 8th day of May, A. D. 1878.

WARD W. HAWKES.

In presence of—
P. E. TESCHEMACHER,
N. W. STEARNS.