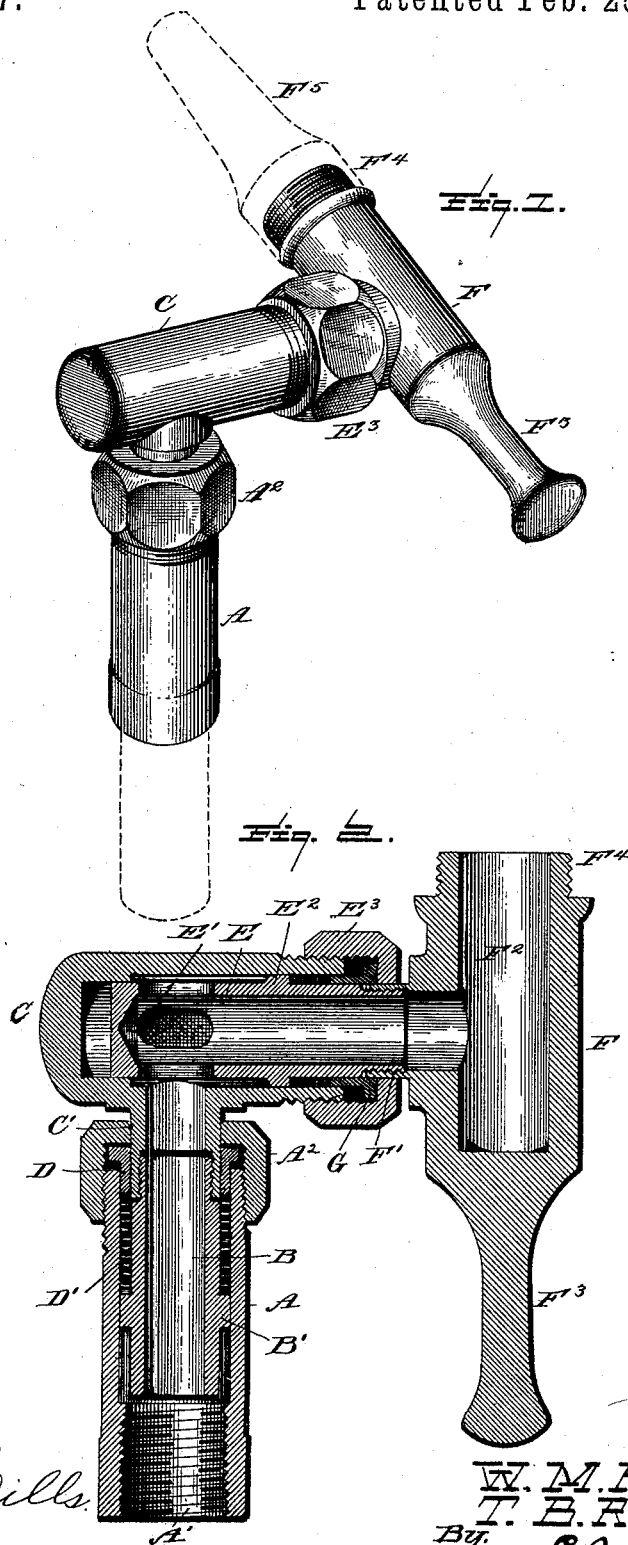


(No Model.)

W. M. HARRIS & T. B. REESE.
PIPE COUPLING.

No. 422,017.

Patented Feb. 25, 1890.



Witnesses:

L. C. Hills

E. M. Mordeman

Inventors:

W. M. Harris

T. B. Reese

By

E. A. Storking
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM M. HARRIS AND THOMAS B. REESE, OF MANSFIELD, OHIO.

PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 422,017, dated February 25, 1890.

Application filed April 12, 1889. Serial No. 307,001. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM M. HARRIS and THOMAS B. REESE, citizens of the United States, residing at Mansfield, in the county of Richland, State of Ohio, have invented certain new and useful Improvements in Pipe-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of our invention is the provision of the most compact and easily-movable kind of attachment for sprinkling water on grass, flowers, &c., the same being adapted to be screwed or otherwise attached directly
15 to the mouth of the hydrant-pipe, preferably upon the surface of the ground. To this end we have constructed my device in the manner described in the following specification, and with such novel features, as will be particularly set forth in the claims at the end of the
20 same.

In the drawings, Figure 1 is a perspective of our attachment in position for use, and showing a nozzle attached thereto in dotted
25 lines. Fig. 2 is a longitudinal vertical section of the same, showing the nozzle-piece in a vertical position.

Like letters of reference indicate the same parts in all the drawings.

30 A is the upright pipe, which is preferably adapted to be fastened to the end of the city or town mains by means of the screw-threads A'. Upon the top of this upright pipe there is a main cap A², which screws over the end
35 of the pipe, as shown, or which is otherwise attached thereto. Screwing on, as shown, is, however, preferred, as it facilitates the removal of the cap.

40 Within the upright pipe A is the main spindle B, situated in the relation shown with regard to the upright pipe. This spindle has a shoulder between the ends thereof, as at B', which may be nearer to or farther from the top of said spindle, according to the amount
45 of packing which it is desired to apply to the surface thereof. This shoulder extends all the way around the spindle, and is ground to fit the interior of the pipe.

50 The horizontal swivel C is a bored piece of piping having one end closed, as shown, and provided with an offset C', which projects through a central opening in the top of the

cap A² and screws over the top of the spindle. This screw-connection is preferred, although it is evident that any other may be
55 used without departing from the spirit of my invention. The inner bore of the offset C' is of the same diameter as that of the spindle, as shown.

60 Surrounding the end of the offset and adapted to slide over both said offset and the spindle, if desired, is the shouldered packing-follower D. This is of such dimensions, as shown, as to completely fill the inner diameter of the pipe A and to project therein, while
65 the shoulder rests upon the top thereof.

Between the end of this follower and the shoulder upon the spindle the packing or washers are placed, as at D', for the purpose of making the joint between the horizontal
70 pipe and attached spindle and the upright pipe water-tight. By screwing the cap A² more tightly upon the end of the upright pipe the packing may be tightened at will, and by unscrewing said cap the whole joint can be
75 easily gotten at for the purpose of repair or of renewal of the packing.

Within the horizontal piece C is placed the horizontal spindle E, having the apertures E', preferably four in number, for the purpose
80 of allowing the passage of the water into the bore of the same. Like the main spindle, there is also upon this one a shoulder E². The end of the horizontal pipe is screw-threaded and provided with a cap E³, as
85 shown, for the same purpose as that upon the upright pipe. The nozzle-piece F is supplied with an offset F', which is bored and communicates with the bore F² of the nozzle-piece
90 itself. This offset is screwed or otherwise fastened onto the end of the spindle, as shown, projecting at the same time through a central aperture in the cap E³.

95 Surrounding the spindle and offset there is a washer-follower of the same kind as that explained in connection with the upright pipe and subserving the same purpose, as shown at G. Both of the spindles turn a little
100 tightly in their pipes for the purpose of allowing of the adjustment of the same in different positions, and they may be made tighter or looser by the proper management of the packing.

The rear end of the nozzle-piece is prefera-

bly made into a handle for the manipulation of the nozzle, as will be described, while at the other end of the same there is a screw-thread, to which the nozzle proper is attached, as at F⁵ in Fig. 1.

The operation of our device is as follows: The upright pipe is screwed upon the end of the water-main, as shown in dotted lines in Fig. 1, and generally upon the surface of the grass-plot or near the same, or near the flower-bed, upon which it is intended to sprinkle. The horizontal piece is then swung around and the nozzle depressed or raised at will until the proper direction in azimuth and altitude is attained, when the water is turned on and the device left to itself until it is desired to change the direction of the stream. When it is desired to renew the packing, the cap A², for instance, is removed, and with it the spindle B and the attached horizontal pipe will come. The spindle is then unscrewed from the offset upon the horizontal pipe and the packing removed, if desired, together with the follower. To replace the packing put the parts back in place in the reverse order.

What we claim is—

1. A pipe having a cap and a swiveled piece projecting through said cap, in combination with a hollow spindle connected with said swiveled piece and having an exterior shoulder, packing surrounding said spindle and

supported by said shoulder, and a follower under said cap and abutting against said packing, substantially as specified.

2. A swivel-piece having an offset extending substantially at right angles therefrom, said offset being interiorly screw-threaded for an extension, and the other end of the piece being exteriorly screw-threaded for a cap, substantially as described.

3. A swivel-piece having an extension screwed thereto, said extension being provided with an integral shoulder, and a follower surrounding said extension and formed with an exterior flange, substantially as described.

4. The combination, with the swivel-piece formed with offset C' and cap, of the nozzle-piece at right angles to the swivel-piece and having offset, the apertured spindle within the swivel-piece and connected with the offset of the nozzle-piece, the pipe A at right angles to the swivel-piece, and the spindle within said pipe and connected to the offset C' within said pipe, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

WM. M. HARRIS.
THOS. B. REESE.

Witnesses:

JAS. K. RUSSELL,
J. C. LASER.