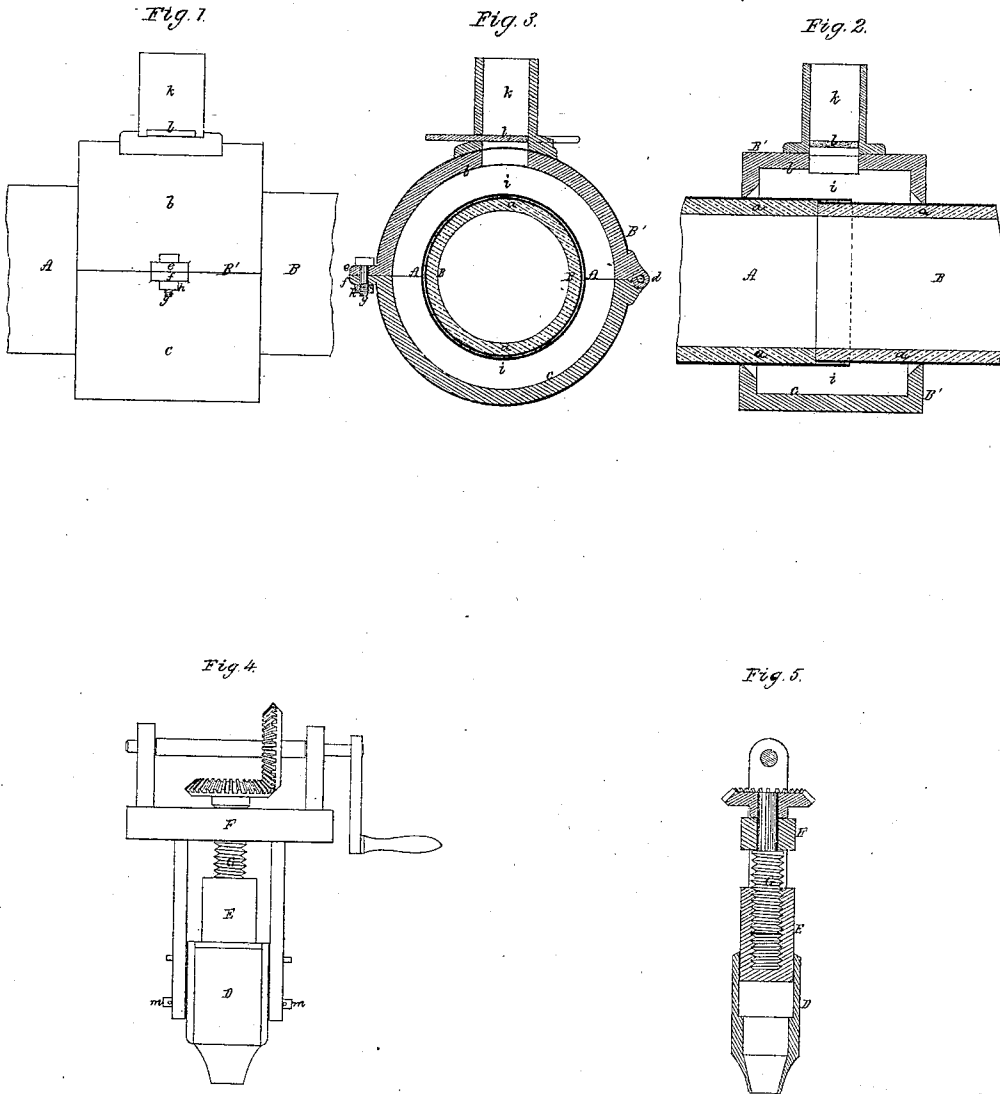


W. CASSIDY.

APPARATUS FOR SEALING PIPE JOINTS.

No. 101,708.

Patented Apr. 12, 1870.



Witnesses  
L. N. Piper  
J. B. Snow

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# United States Patent Office.

WILLIAM CASSIDY, OF NEW BEDFORD, MASSACHUSETTS.

Letters Patent No. 101,708, dated April 12, 1870.

## IMPROVEMENT IN APPARATUS FOR SEALING PIPE-JOINTS.

The Schedule referred to in these Letters Patent and making part of the same

To all persons to whom these presents may come:

Be it known that I, WILLIAM CASSIDY, of New Bedford, of the county of Bristol and State of Massachusetts, have made a new and useful invention having reference to Pipe-Joints; and do hereby declare the same to be fully described as follows, and to be represented in the accompanying drawings, of which—

Figure 1 is a side elevation;

Figure 2, a longitudinal section; and

Figure 3, a transverse section of two water-pipes or conduits provided with my improved joint.

Figure 4 is a front elevation; and

Figure 5, a vertical section of an apparatus designed to be employed with such pipe-joint, and for the purpose of stuffing such with cement.

In the drawings—

A and B denote two cement-lined pipes, one being inserted at one end a short distance into the open end of the other, so as to bring the next adjacent ends of their linings *a a* in or nearly in contact.

Surrounding the two pipes at their junction is a hollow collar or case, B', formed of two semi-tubes, *b c*, hinged together at or near one end of each, as shown at *d*. Near their opposite ends these parts *b c* are furnished with two ears or projections, *e f*, through which a screw-bolt, *g*, provided with a nut, *h*, is to pass for the purpose of clamping the parts *b c* together and upon the tubes A B.

Each part *b* or *c*, where surrounding the tubes, is chambered, as shown at *i*.

A tube or mouth-piece, *k*, provided with a gate or slide-valve, *l*, extends up from the upper part *b*, and opens into the chamber thereof, the valve or gate being to slide laterally through the mouth-piece, so as to close its communication with the chamber below it when such may be necessary.

A barrel, D, (see figs. 4 and 5,) provided with a dis-

charging-hole at its lower end, and tapered to fit into the opening at the top of the mouth-piece *k*, and furnished with a plunger, E, may be employed to force cement into the mouth-piece. This barrel may be fixed in a frame, F, carrying a screw, G, and mechanism for revolving it, the whole being as shown in figs. 4 and 5.

The plunger is made with an internal or female screw, to receive and engage with the male screw G.

The barrel I usually pivot to the frame, as shown at *m m*, so as to enable the latter, with the plungers, to be turned aside and down into a right angle, or thereabouts, with the barrel, when the plunger is out of the latter, such being for the purpose of enabling cement to be introduced into the mouth-piece by pressing such cement into the barrel, while the latter may be inserted in the mouth-piece.

After having fixed the chambered collar in place about the two pipes at their junction, the chamber of such collar should be filled with either cement or molten metal, which, by means of the machine or apparatus shown in figs. 4 and 5, should be crowded into place, so as to thoroughly fill the chamber of the collar, after which the slide-gate or valve should be closed, so as to retain the cement in a pressed state and prevent it from expanding or crowding back on the mouth-piece.

I claim the combination and arrangement of the mouth-piece and its gate or valve, with the chambered collar, made substantially in manner and for application to pipes at their junction, as hereinbefore specified.

WILLIAM CASSIDY.

Witnesses:

R. H. EDDY,  
J. R. SNOW.