

No. 681,809.

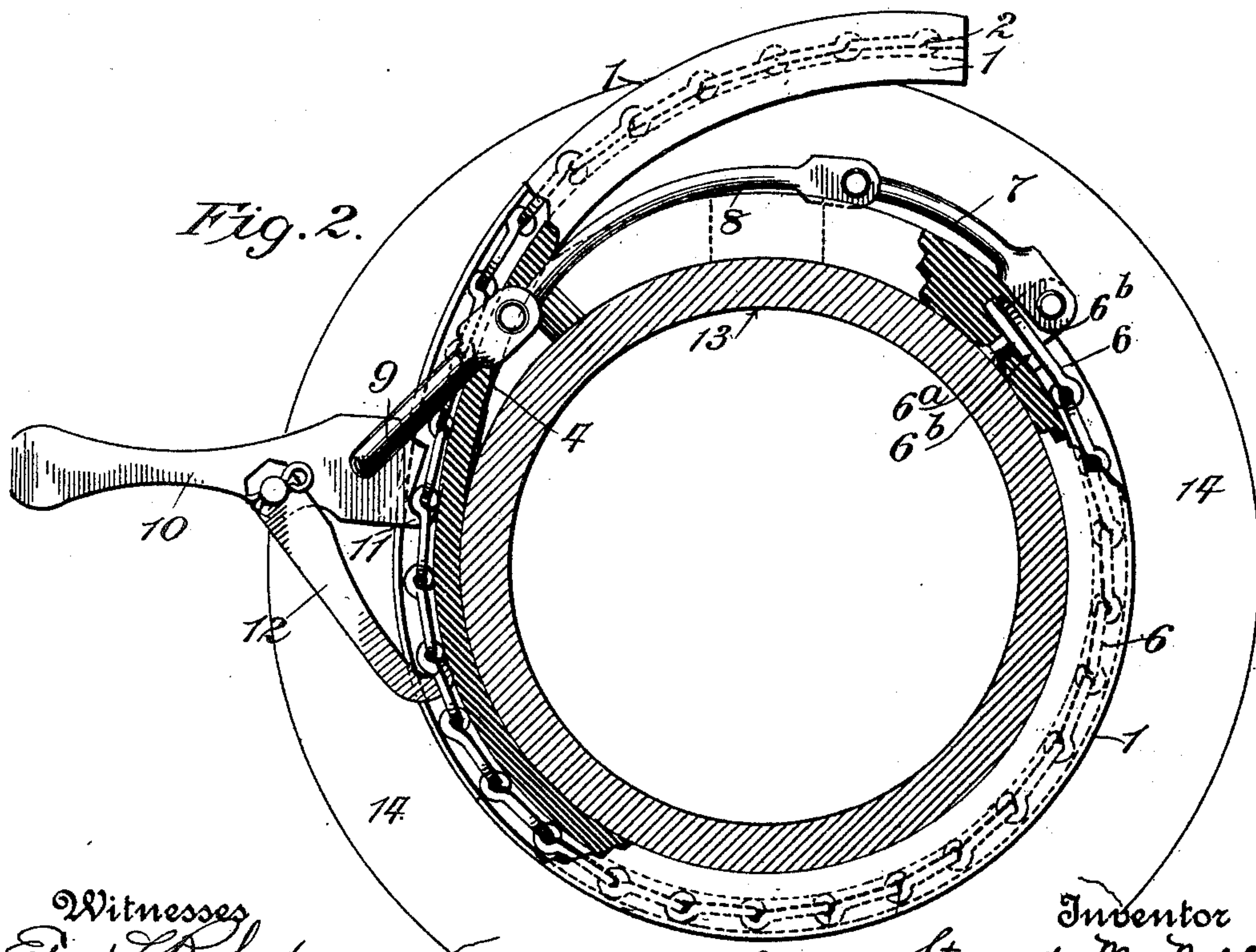
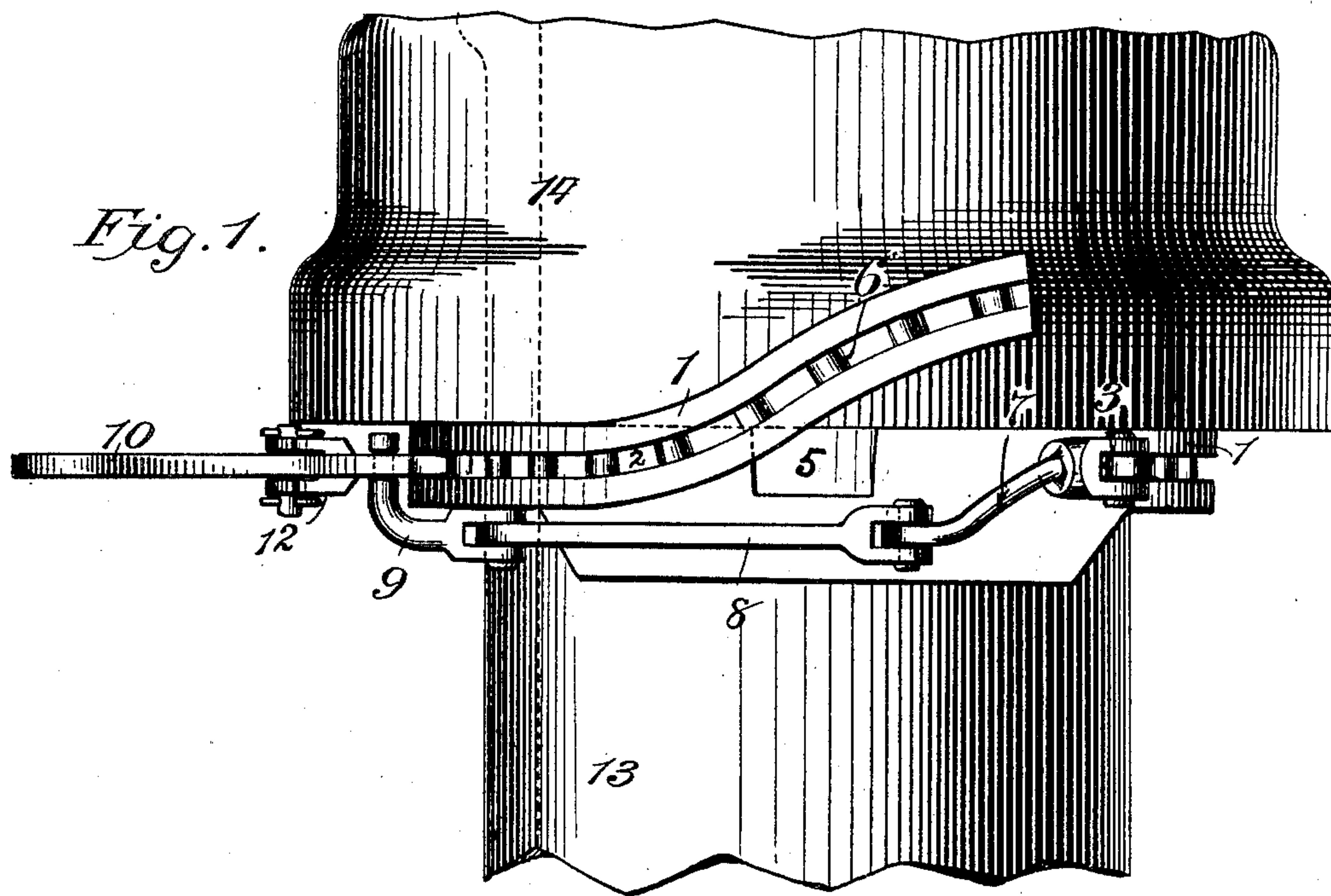
Patented Sept. 3, 1901.

S. M. NEFF.
PIPE JOINTER.

(Application filed Jan. 11, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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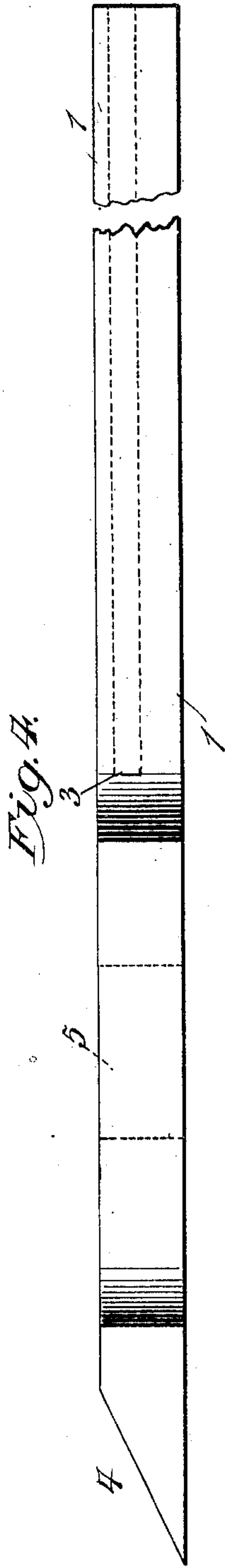
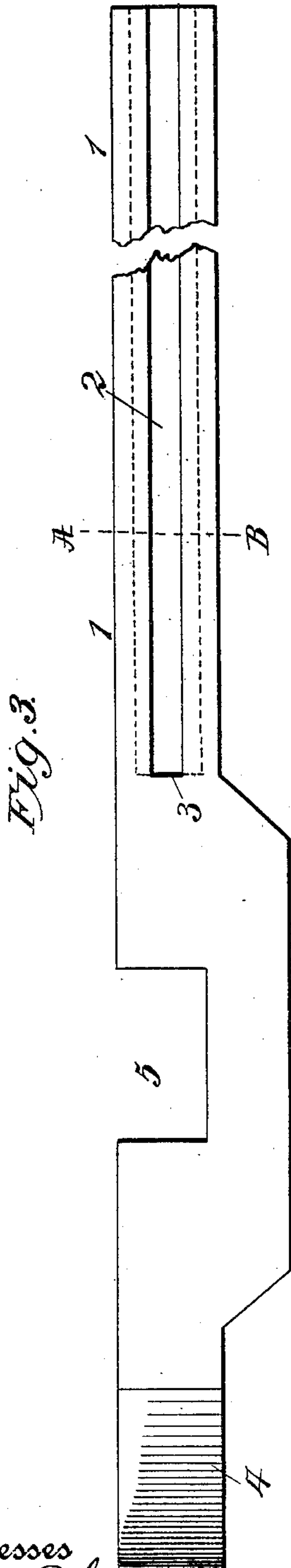
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

STEWART M. NEFF, OF NEW YORK, N. Y.

PIPE-JOINTER.

SPECIFICATION forming part of Letters Patent No. 681,809, dated September 3, 1901.

Application filed January 11, 1901. Serial No. 42,831. (No model.)

To all whom it may concern:

Be it known that I, STEWART M. NEFF, of the borough of Manhattan, in the city, county, and State of New York, have invented a new and useful Improvement in Pipe-Jointers, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

The object of the invention is to provide a simple, efficient, and durable pipe-jointer for use in laying cast-iron pipes which will permit of the molten lead used in forming the joint being easily poured into place and which will possess a wide range of adjustment, so as to be adapted for use on pipes of different diameters.

The invention will first be described in detail and then set forth in the claims.

In the accompanying drawings, Figure 1 is a view in plan showing my improved pipe-jointer in position upon a pipe. Fig. 2 is an end elevation of Fig. 1, partly broken away to more clearly illustrate certain parts. Fig. 3 is a view in plan of the band which forms the body of the pipe-jointer. Fig. 4 is a side elevation of Fig. 3. Fig. 5 is a sectional view taken through Fig. 3 at the line A B.

In said figures the several parts are respectively indicated by reference-numbers as follows:

The number 1 indicates a flexible strip or band which forms the body of the pipe-jointer. This band may be made of any desired length and of any suitable material; but I prefer to secure flexibility by employing rubber as the most satisfactory material. The band 1 is provided with a channel or groove 2, (clearly shown in Fig. 5,) which extends throughout the band from one end to the point 3 near the opposite end, Fig. 3. From the point 3, as shown in Figs. 3 and 4, the band is made solid throughout and is beveled at its end, as shown at 4, a suitable aperture 5 being formed in the band to permit of the pouring of molten lead into the pipe in forming a joint. Within the channel or groove 2 is a chain 6, which may be of any suitable construction; but I prefer to employ a malleable-iron open-link chain such as shown. Said chain is clamped within the groove 2 by a rivet 6^a, Fig. 2, which passes through the body of the band 1 and through

a boss or bearing-block 6^b. Pivoted to the boss or bearing-block 6^b is the forked end of a bent arm or rod 7, the other end of said rod being pivoted in the forked end of another rod 8. The other end of the rod 8 is in turn pivoted in the forked end of a bent arm or rod 9, to the other end of which bent rod is pivoted a clamping lever or handle 10. The lower end of the lever 10 is provided with a nose or projection 11, adapted to engage the chain 6 in the groove 2, and said lever has also pivoted thereto a swinging dog 12, also adapted to hook into said chain. It will be observed that the shapes of the rods 7, 8, and 9 are such that they clear the aperture 5 in the band 1 and offer no obstruction to the easy pouring of the molten lead into said aperture, while at the same time said rods serve as a jointed connection between the chain 6 and the operating lever or handle 10.

The operation of the device is as follows: In Figs. 1 and 2 the pipe-jointer is shown surrounding the spigot end of a cast-iron pipe and in contact with the bell end of a pipe. When the band 1, forming the body of the jointer, has been thus placed in position, it is drawn tightly around the pipe and locked in position by simply moving the handle or lever 10 so as to cause the nose 11 of said lever to engage one of the links of the chain 6 and then hooking the dog 12 into another link, as clearly shown in Fig. 2. The jointer will thus be held firmly in position upon the pipe, and the molten lead employed to form the joint can be easily poured into the joint through the aperture 5 in the band 1. Said band by reason of its close contact with the pipes and the tight joint which its beveled end 4, Fig. 3, makes with the body of the band, as shown in Fig. 2, prevents escape of the lead during the jointing operation and insures the formation of a satisfactory joint.

It will be evident from the above description that as the chain 6 extends throughout the body of the jointer the device possesses a very wide range of adjustment and is adapted for use upon pipes of widely-different diameters. Thus, for example, if we assume that the pipes shown in the drawings are forty-eight inches in diameter the jointer shown on these pipes will also serve to make a joint on a pipe four inches in diameter by

simply drawing the flexible band 1 around the smaller pipe and clamping it in position by means of the lever 10 and chain 6. In such case the surplus or free end of the band 5 1 can simply be bent over to the side of the trench by the workmen and will not interfere in any way with the pouring of the lead or the formation of the joint. It will thus be seen that one pipe-jointer constructed according to my invention can be used as a universal jointer for many sizes of pipe, whereas heretofore it has been necessary to have on hand ready for use a separate jointer for each size of pipe laid when constructing a 15 system of piping—a four-inch pipe requiring a four-inch jointer, a six-inch pipe a six-inch jointer, and so on.

I do not confine myself to the precise details of construction shown and described, as 20 it is evident that these may be varied without departing from my invention.

Having thus fully described my invention, I claim—

1. An adjustable pipe-jointer composed of 25 a flexible band; a clamping-chain on said band; and means for engaging said chain at any point in its length, and locking the jointer in position upon a pipe.

2. A band for pipe-jointers composed of 30 flexible material and having an open longitudinal channel or groove therein and provided with a clamping device in said groove.

3. A band for pipe-jointers, composed of rubber and having an open longitudinal channel or groove, as 2, formed therein, and provided with a clamping device in said groove. 35

4. A band for pipe-jointers, composed of a single piece of flexible material having molded therein an open longitudinal channel, as 2, and a lead-pouring aperture, as 5, and provided with a clamping device in said groove. 40

5. An adjustable pipe-jointer composed of a flexible band provided with an open groove, as 2; a chain in said groove; and means for entering said groove and engaging said chain 45 to lock the jointer in position upon a pipe.

6. An adjustable pipe-jointer composed of a flexible band provided with an open groove, as 2, and with a lead-pouring aperture, as 5; a chain in said groove; and means for entering said groove and engaging the chain to 50 lock the jointer in position upon a pipe.

7. An adjustable pipe-jointer composed of a flexible band provided with an open groove, as 2; a chain in said groove; a jointed rod 55 pivoted to one end of said chain; and a clamping handle or lever pivoted to said rod and adapted to enter said groove and engage the links of the chain.

8. An adjustable pipe-jointer composed of 60 a flexible band provided with a groove; a chain in said groove; a jointed rod pivoted to one end of said chain; a clamping-handle pivoted to said rod and provided with a nose or projection to engage said chain; and a dog 65 pivoted to said handle or lever and also adapted to hook into said chain.

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