

No. 837,052.

PATENTED NOV. 27, 1906.

F. E. GERSTENBERGER.
CALK JOINT RUNNER.
APPLICATION FILED FEB. 23, 1905.

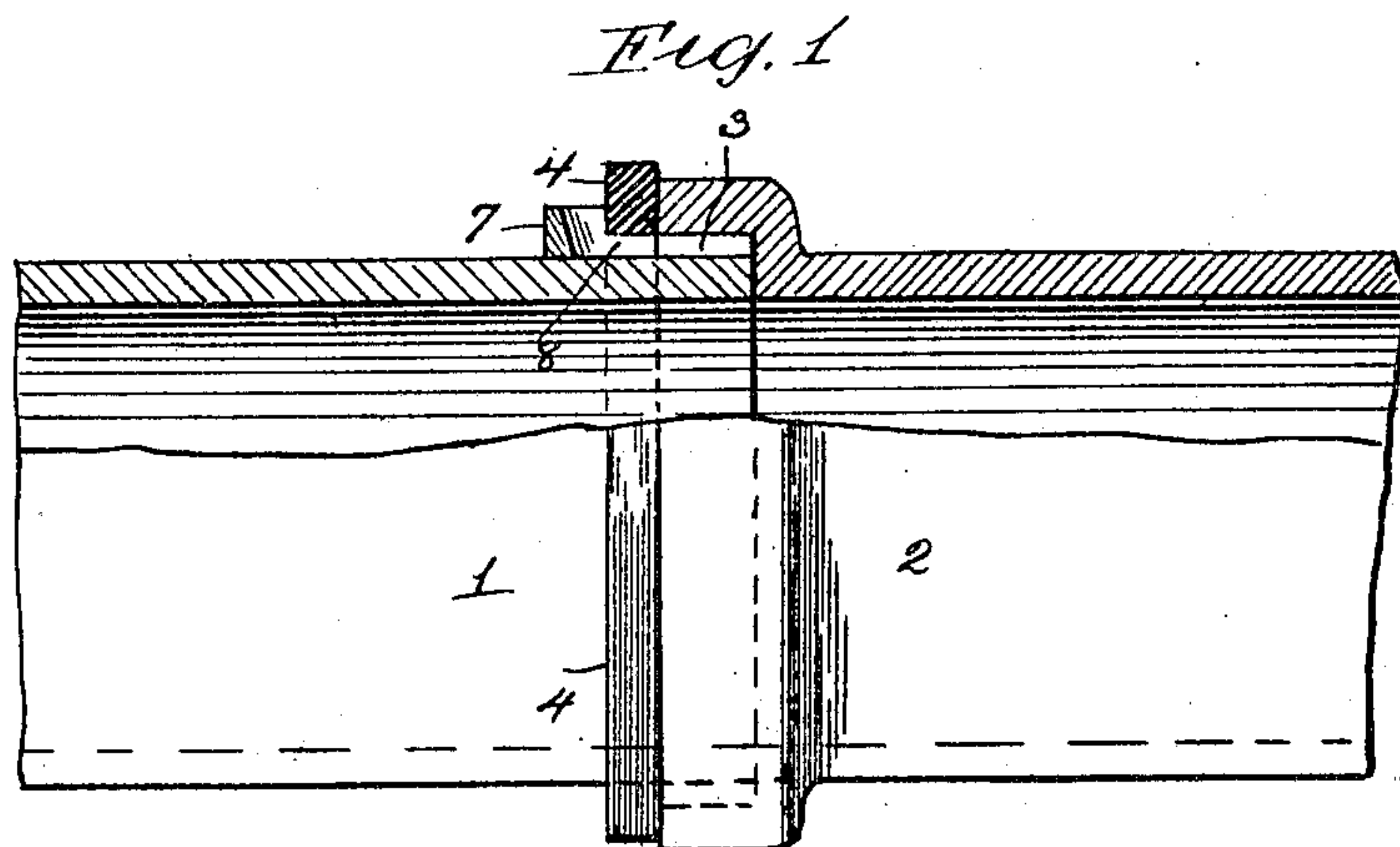


Fig. 2

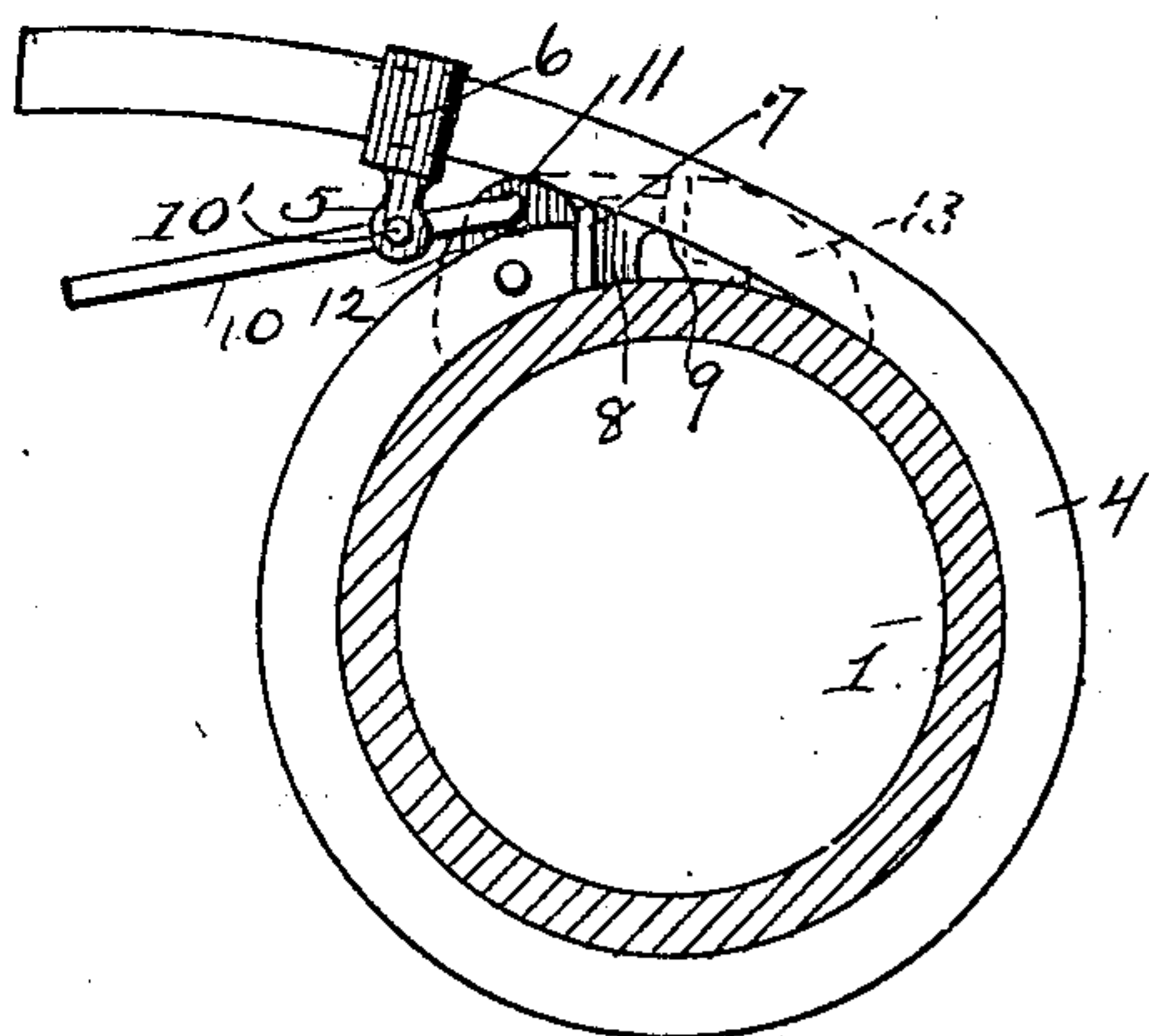
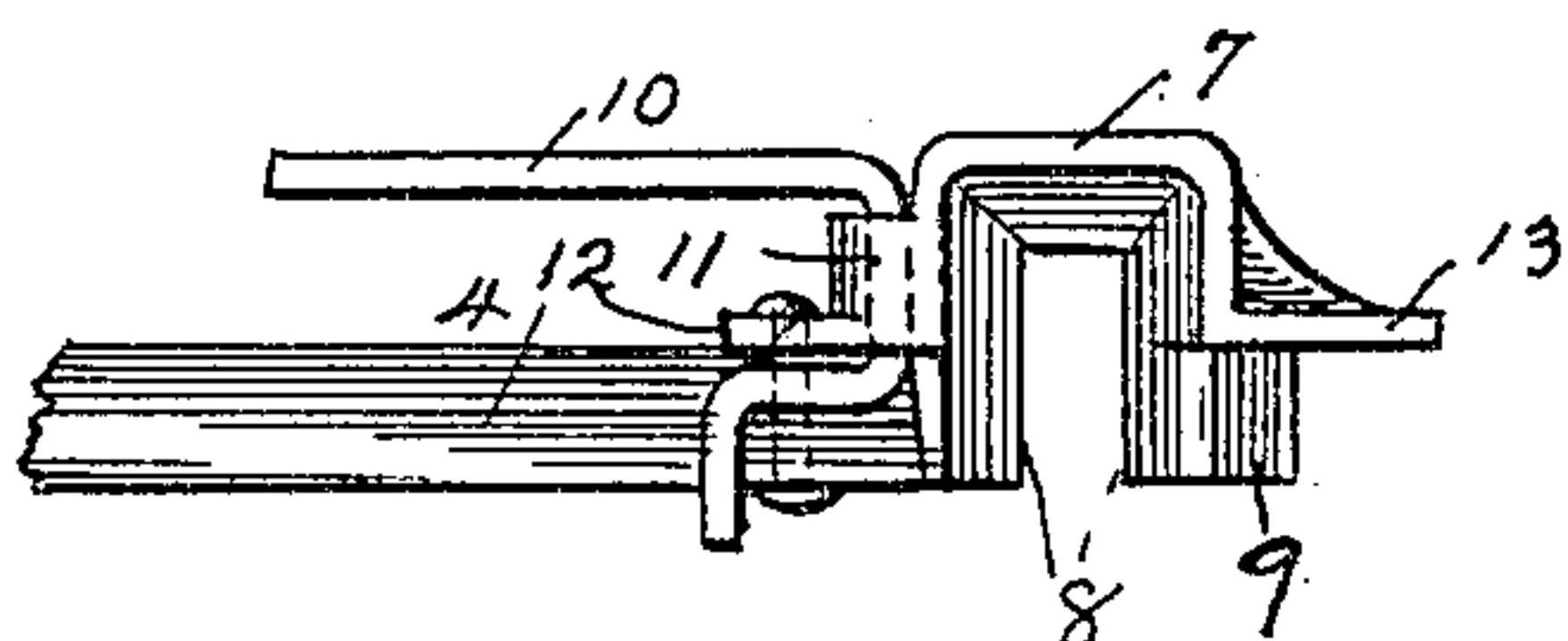
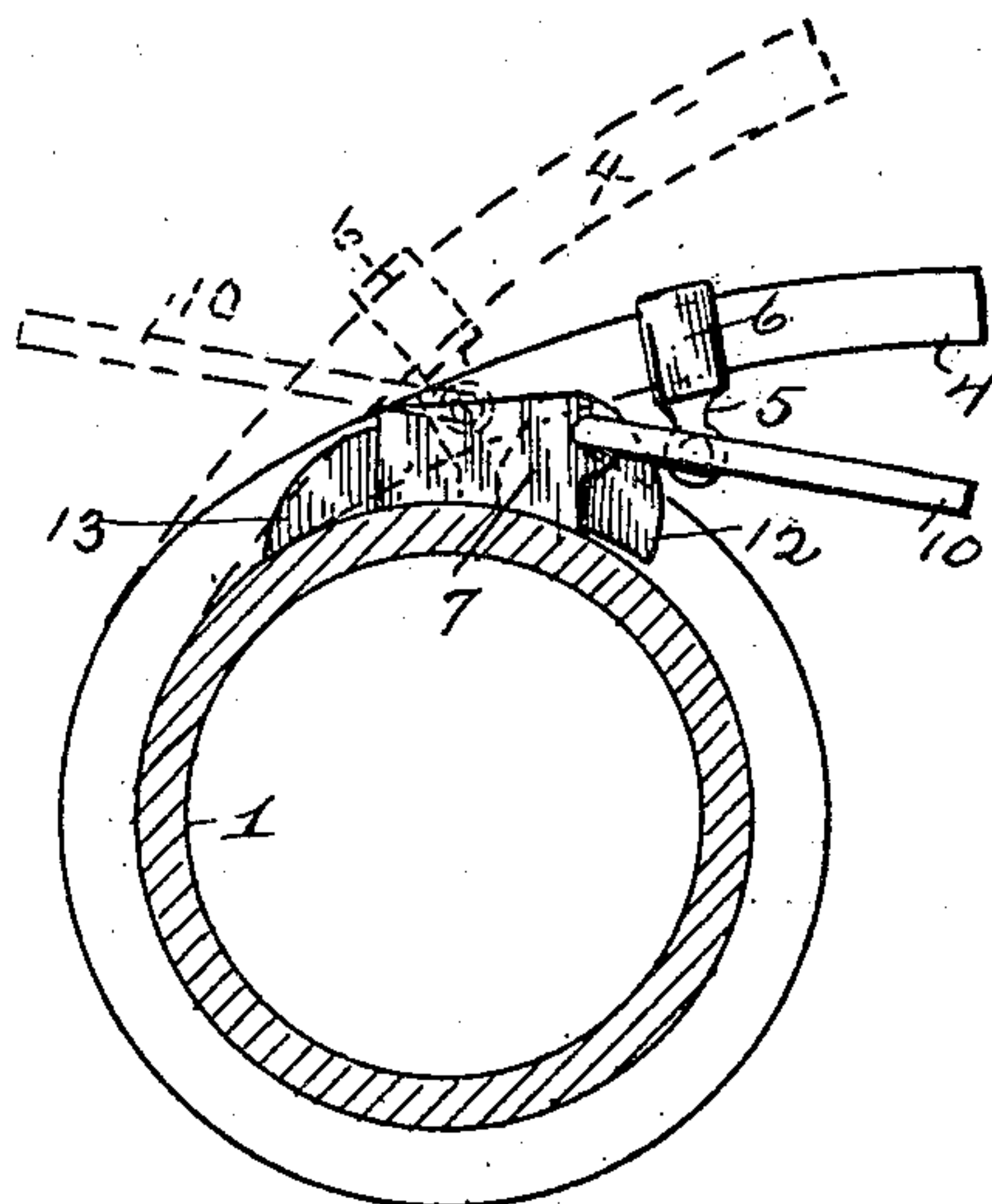


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK E. GERSTENBERGER, OF SOUTH EUCLID, OHIO.

CALK-JOINT RUNNER.

No. 837,052.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed February 23, 1905. Serial No. 247,036.

To all whom it may concern:

Be it known that I, FREDERICK E. GERSTENBERGER, a citizen of the United States, and a resident of South Euclid, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Calk-Joint Runners, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to improvements in calked-joint runners or shields for casting plugging-rings of metal in the annular space between the ends of engaging metal pipes and also for analogous uses; and the objects of the invention are to provide a portable and flexible shield which when placed about the outer end of the enlarged portion of one of the pipes will seal the opening so that the running metal will not escape therefrom.

The invention consists in the flexible band adapted to engage closely the periphery of one pipe and the enlarged end of the other and in instrumentalities for tightly securing the band in place and for locking the same, and also in addition thereto of a gate and runner and in means for obtaining adjustability of the device for all sizes of pipe, with the details of construction and combination and arrangement of parts, as hereinafter described, shown in the accompanying drawings, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of the engaging extremities of two water-pipes, partly in section, showing the annular space to be filled with the metal, and the position of the shield, gate, and runner. Fig. 2 is a transverse section of the pipe, showing the shield from the inner side, the shield being in the locked position. Fig. 3 is a similar view of the same from the outer side, showing the shield in dotted lines in the open position. Fig. 4 is a plan view of one end of the flexible shield, showing the gate and runner and the lever portion of the locking device.

In the views, 1 and 2 are the pipes, 3 the annular space between their ends which is to be filled with metal.

4 is the shield, which consists of a flexible band of material not readily injured by the heat of the molten metal. This is usually

formed of hard rubber, in which cloth or other fiber is embedded. The effect of the contact with the molten metal is then merely to char slightly the inner surface of the shield, and so make it more effective for its use. One end of this shield is provided with an eye 5, which is secured to a movable ring or sleeve 6 for longitudinal adjustment upon the band, and at the other end is secured a metal gate 7, which extends far enough outside the shield for pouring the metal easily therein. From the gate leads the runner 8, which needs no bottom, since the surface of the pipe closes the opening at the bottom.

To bring the ends closely together, so as to close the annular opening tightly, the free end of the band is brought over the sides of the runner, at least one of which is beveled at 9 for this purpose, and the device is tightened and locked in its place by means of the cranked lever 10, one end of which, 10', is inserted in the eye 5 and the body portion is inserted in a bearing 11 in the metal of the gate. When this lever is turned to the center-line or beyond it, as shown in Figs. 2 and 3, the shield is locked and will not open until released by turning the lever back again, as shown in dotted lines in Fig. 3. It will be seen that the movable eye on the outer end of the shield affords means for adjusting the shield to all sizes of pipes, and the quickness with which the device can be applied and its efficiency in use make it desirable. Upon either side of the metal gate wings 12 and 13 extend so as to cover the portions of the band adjacent thereto and prevent the formation of openings and the escape of metal.

I do not confine myself to all the details of construction shown or described; but,

Having described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination in a calked-joint runner, of a flexible band, a gate and runner therein and a device for tightening and locking the ends of the band, consisting of a movable eye upon one end of the band, and a cranked lever upon the other end, one end of said lever being adapted to engage with said eye, substantially as described.

2. The combination in a calked-joint runner, of a flexible band, a gate and runner secured to one end thereof—a metal eye movably secured upon said band, and a lever piv-

oted upon said gate and provided with an engaging means for said movable eye, substantially as described.

3. The combination, in a soft-metal joint-
5 runner, of a flexible band, a gate and runner, secured to one end thereof, a sliding sleeve or ring upon the band, a lever device mounted upon the gate and adapted to engage with said sleeve or ring, and a shield extending

across the opening between the contiguous portions of the band, substantially as described.

In testimony whereof I hereunto set my hand this 10th day of February, 1905.

FREDERICK E. GERSTENBERGER.

In presence of—

WM. M. MONROE,
GEO. S. COLE.