No. 782,404. PATENTED FEB. 14, 1905.

A. C. LYNCH.

HAND HOLE COVERING.

APPLICATION FILED NOV. 7, 1904.

Fig. 1.

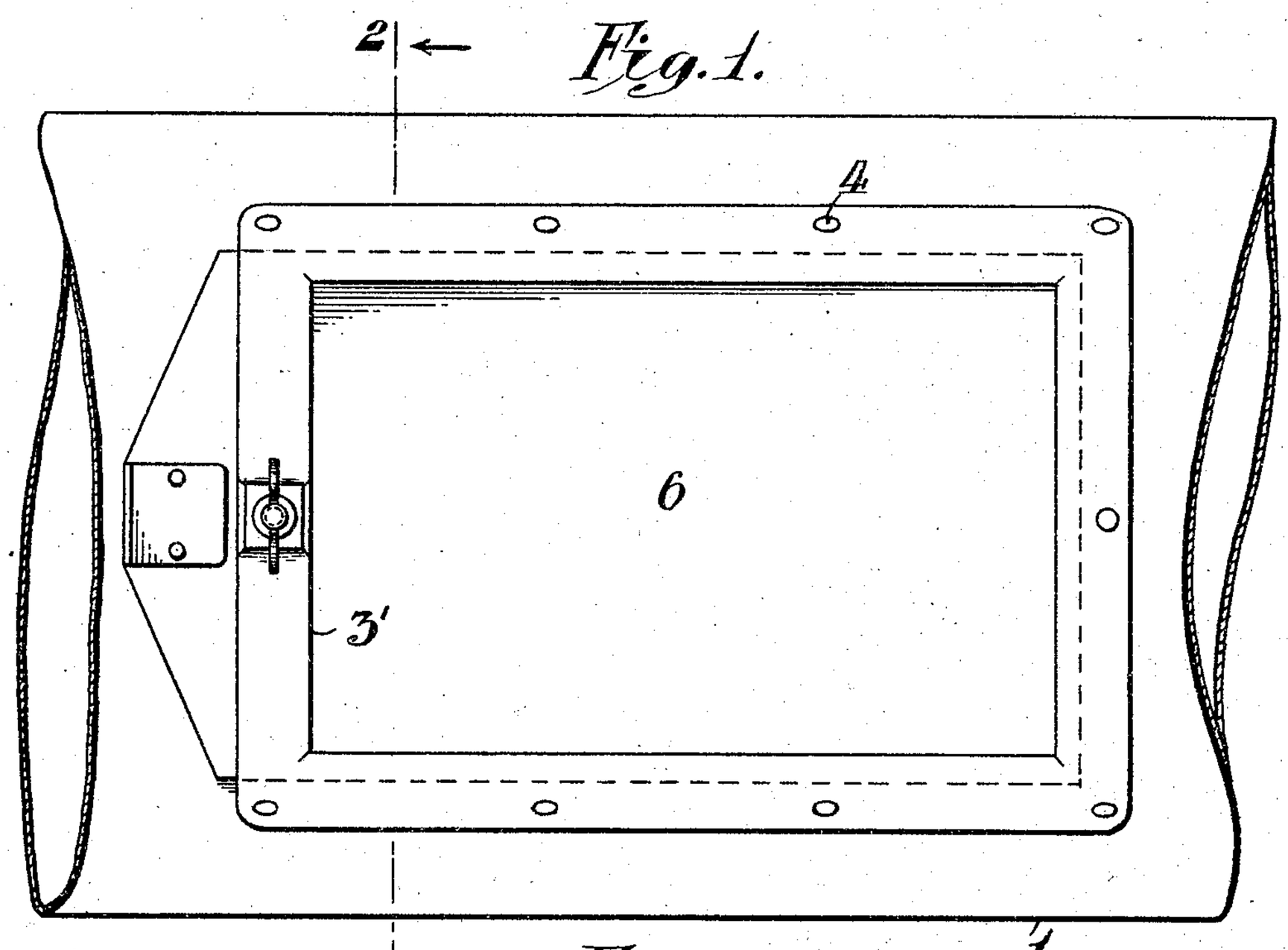
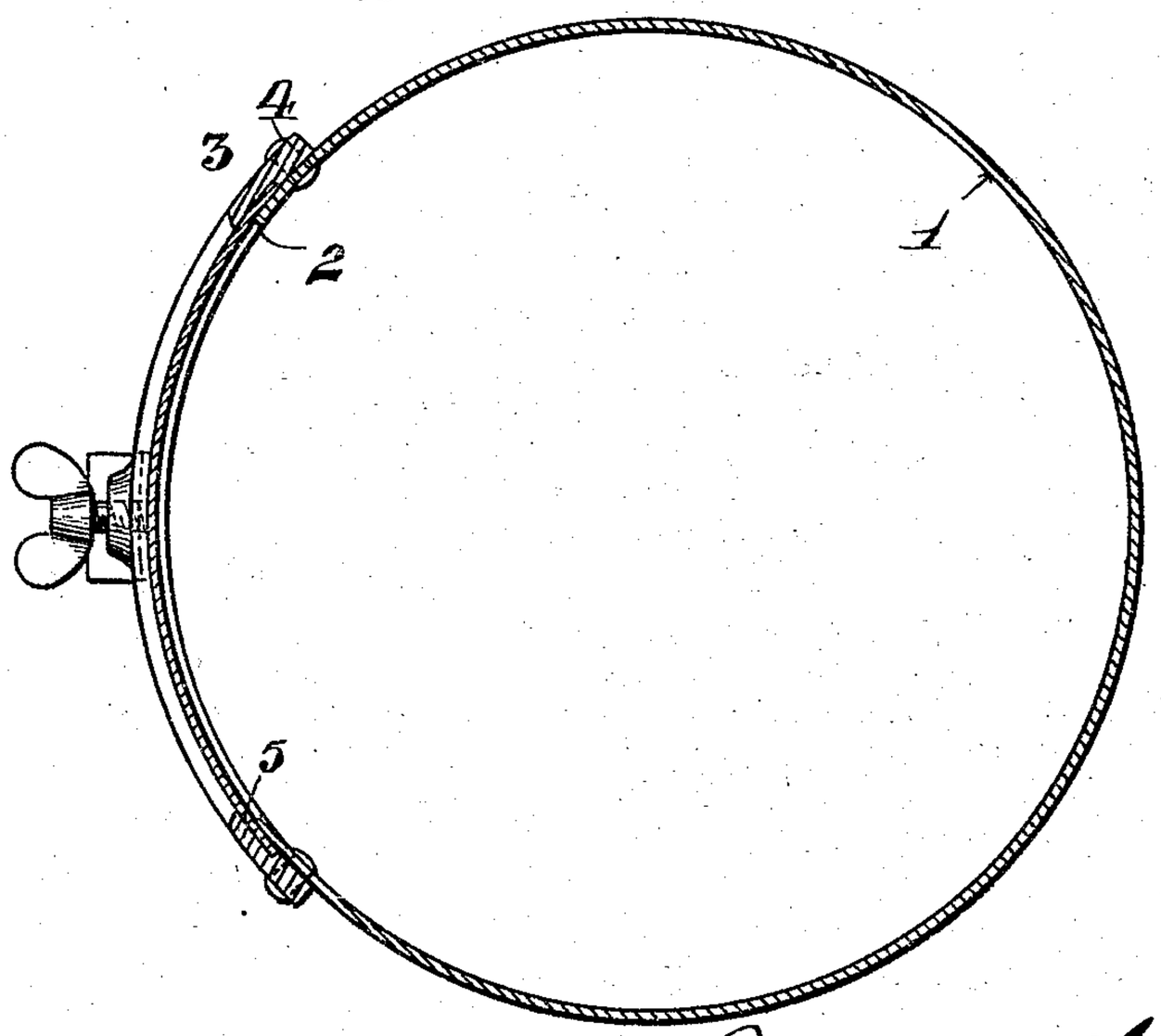


Fig. 2.



Witnesses
Edgeworth Greene
H. G. Limbach

Inventor
Arthur C. Lynch
By his Attorneys
Wetherbee & Greene

No. 782,404. Patented February 14, 1905.

UNITED STATES PATENT OFFICE.

ARTHUR C. LYNCH, OF RICHMOND HILL, NEW YORK.

HAND-HOLE COVERING.

SPECIFICATION forming part of Letters Patent No. 782,404, dated February 14, 1905.

Application filed November 7, 1904. Serial No. 231,642.

To all whom it may concern:

Be it known that I, ARTHUR C. LYNCH, a citizen of the United States, residing at Richmond Hill, county of Queens, State of New York, (whose post-office address is the same,) have invented certain new and useful Improvements in Hand-Hole Coverings, of which the following is a full, clear, and concise specification.

My invention relates to hand-hole coverings for pipes and conduits in which air or other gas is intended to be conveyed at a pressure different from that of the surrounding medium or atmosphere, and more particularly to pipes used for conveying mixtures of air, dust, shavings, and other like material, such openings being necessary for the purpose of removal of obstructions within the pipe and other purposes.

Referring to the accompanying drawings, forming a part hereof, Figure 1 is a side elevation of a hand-hole covering embodying my invention, and Fig. 2 is a transverse sectional elevation taken on the line 2 2 of Fig. 1 in the direction of the arrows thereon.

The reference-numeral 1 indicates a section of a pipe or other conduit which is cylindrical, having an aperture 2 formed in its side of a size sufficiently large to permit the insertion of the hand. The aperture is preferably rectangular, but may of course be formed with other shapes. The frame 3 is of substantially the same shape as the aperture and curved concentrically to the curve of the pipe and is firmly secured to the outer surface thereof by means of the rivets 4. The aperture through the frame is slightly smaller than the aperture 2 above referred to and is provided with a rabbet 5 on both sides of the frame and at one end overlapping the margin of the hand-hole, as shown in Fig. 2. At its other end the frame is provided with a slot of the same depth as the rabbet, but extending entirely across the end bar 3′ of the frame, so as to provide an opening through which a shutter or slide 6 may be inserted. The latter member consists of a plate slightly greater in width than the aperture 2 and curved concentrically with the pipe 1, so that it may be inserted through the slot underneath the bar 3′ and slide snugly therein and in the space formed by the rabbet and the margin of the hand-hole. The protruding end of the shutter or sliding plate is provided with an attached or integral ear, which is convenient for the manipulation of the same.

The cross-bar 3′ of the frame above referred to is provided with a central boss or enlargement, which is bored or tapped to receive a thumb-screw adapted to bear against the shutter to retain it in position. Other forms of retaining devices, however, may of course be employed with equal facility.

Having described my invention, what I claim, and desire to secure by United States Letters Patent, is—

A pipe or pipe-section provided with a substantially rectangular hand-hole, a substantially rectangular frame surrounding said hand-hole and secured to the pipe, said frame being curved concentrically with the curvature of the pipe and provided with a rabbet overlapping the margin of the hand-hole on its sides and one end and with a slot in the other end, in combination with a shutter sliding within said slot and rabbet, forming a closure for said hand-hole, and a thumb-screw tapped into said frame and serving to retain the shutter in position, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR C. LYNCH.

Witnesses:

OSCAR W. JEFFERY,

H. G. KIMBALL.