

No. 771,411

PATENTED OCT. 4, 1904.

G. T. BRENNAN.  
JOURNAL LUBRICATOR.  
APPLICATION FILED MAY 23, 1904.

NO MODEL.

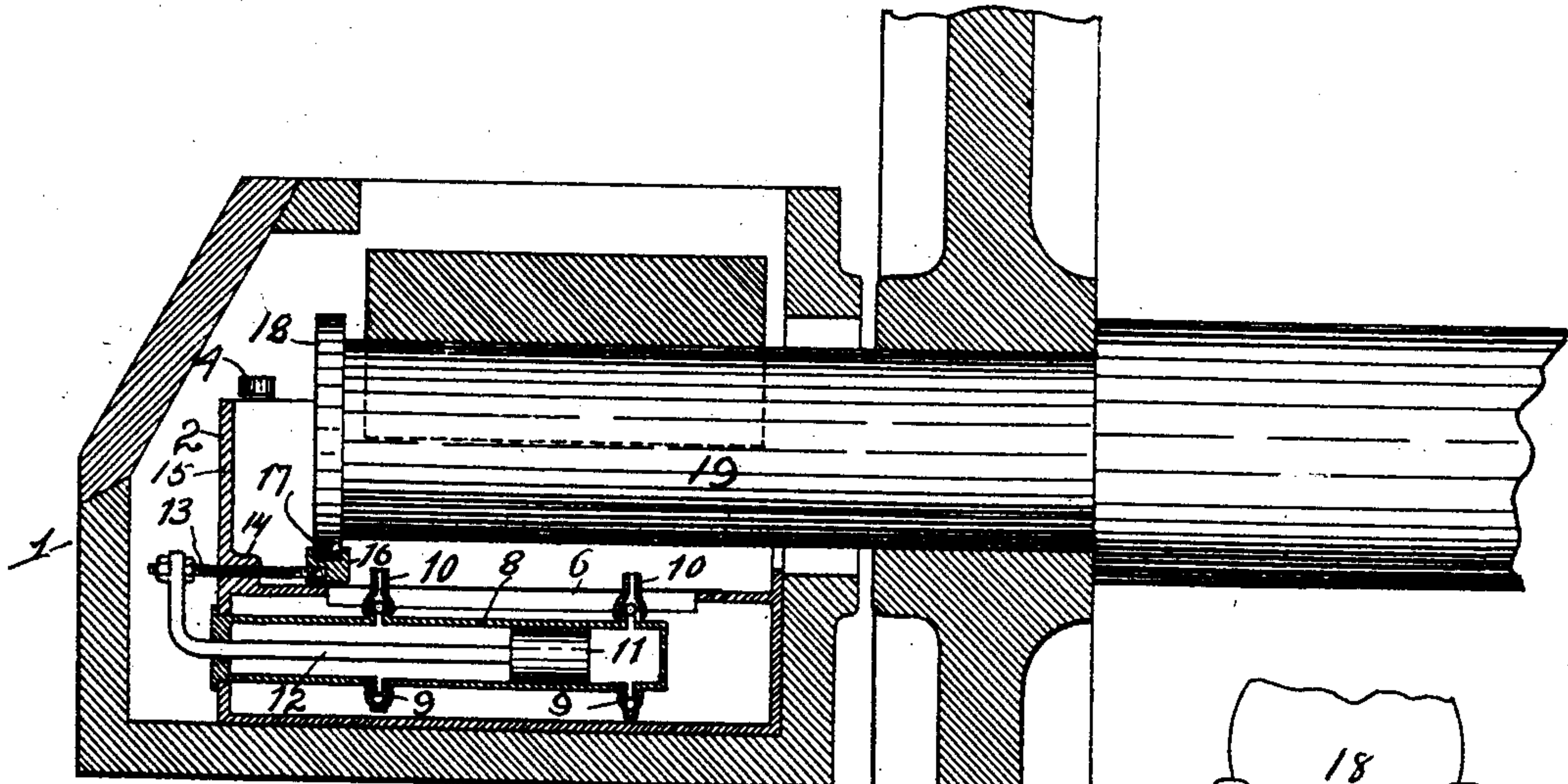


Fig. 1.

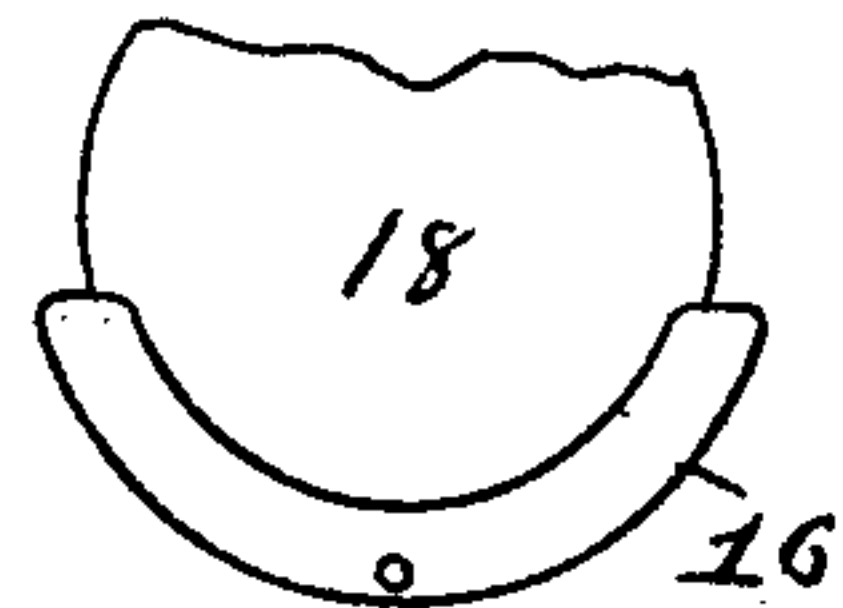


Fig. 5.

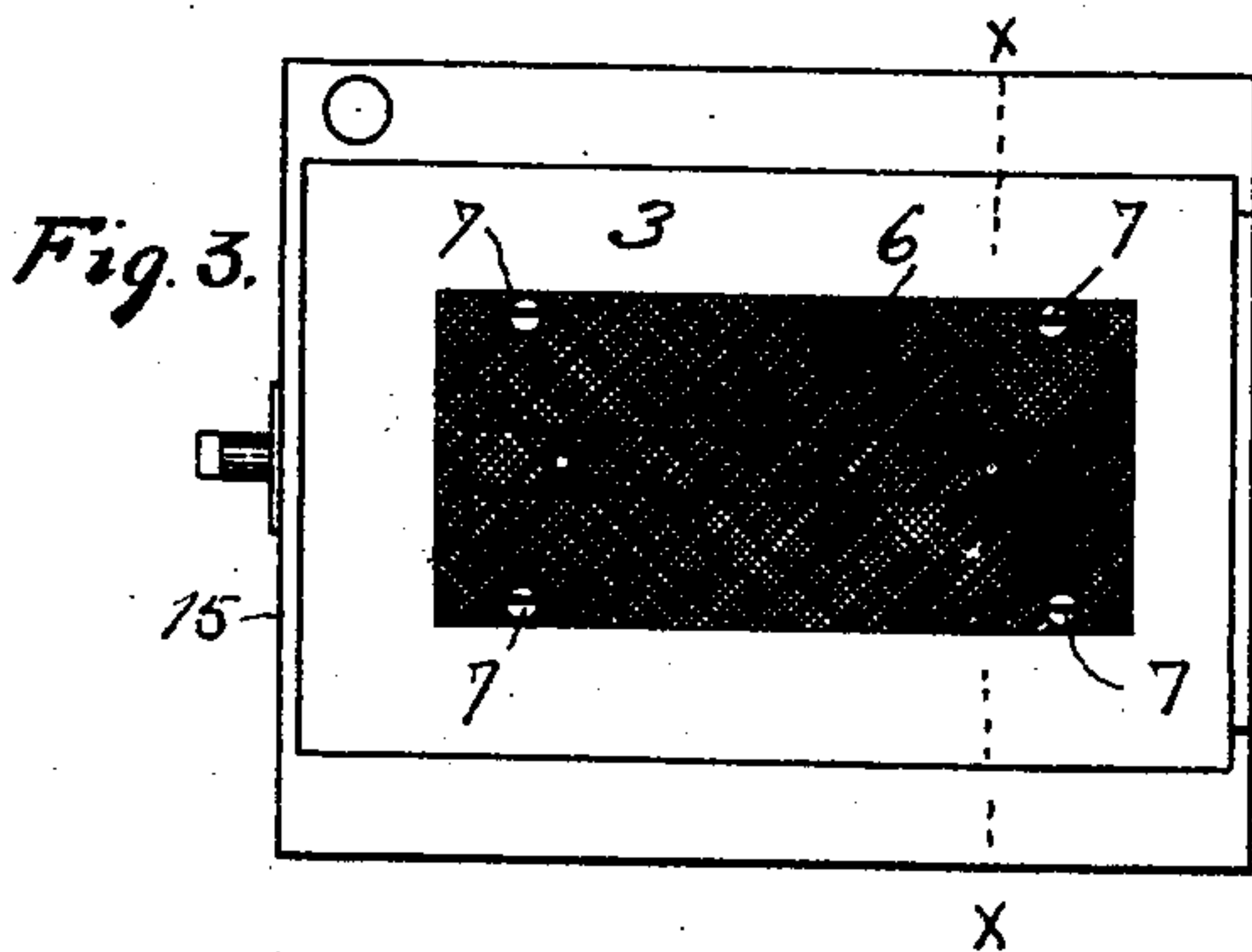


Fig. 3.

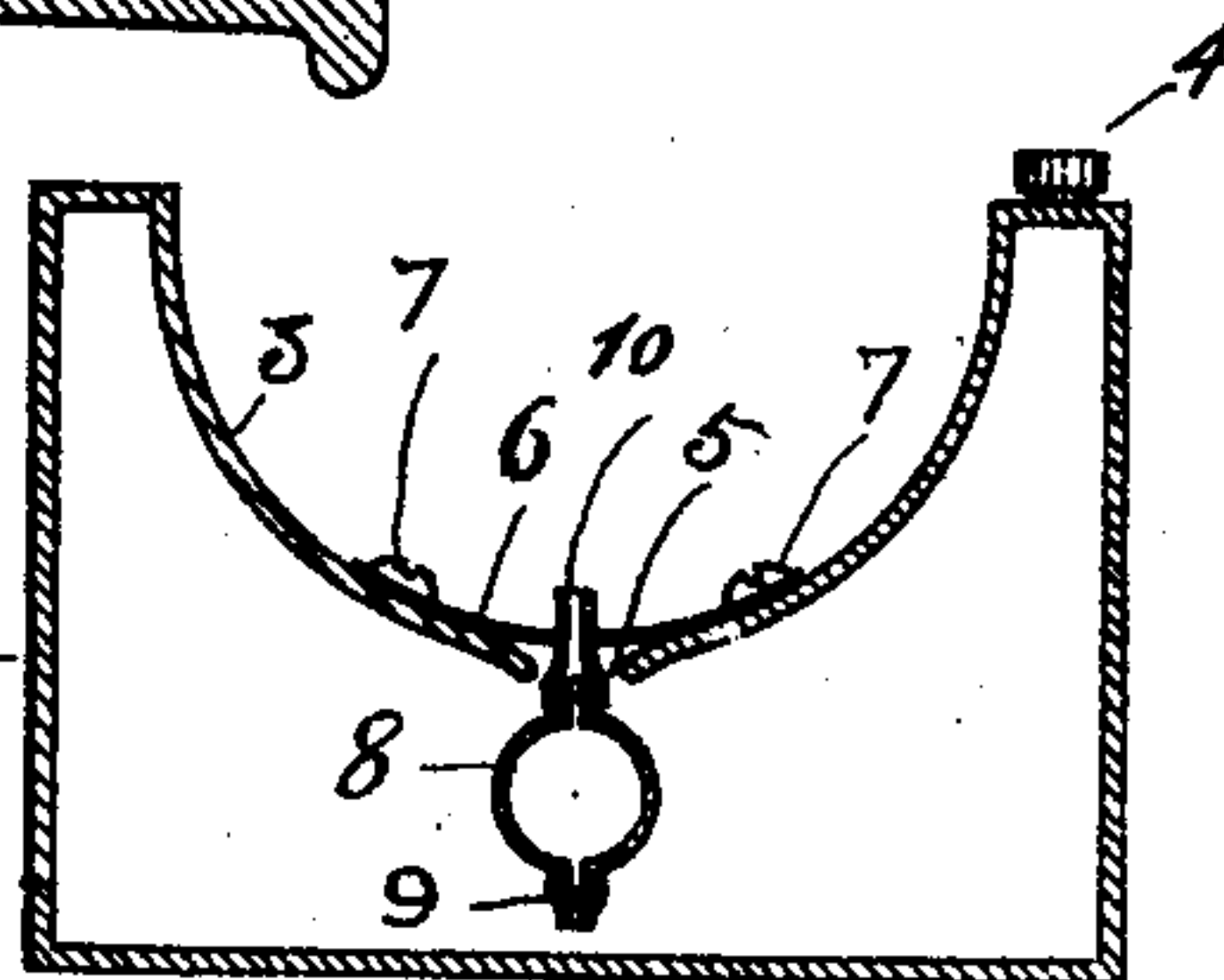


Fig. 4.

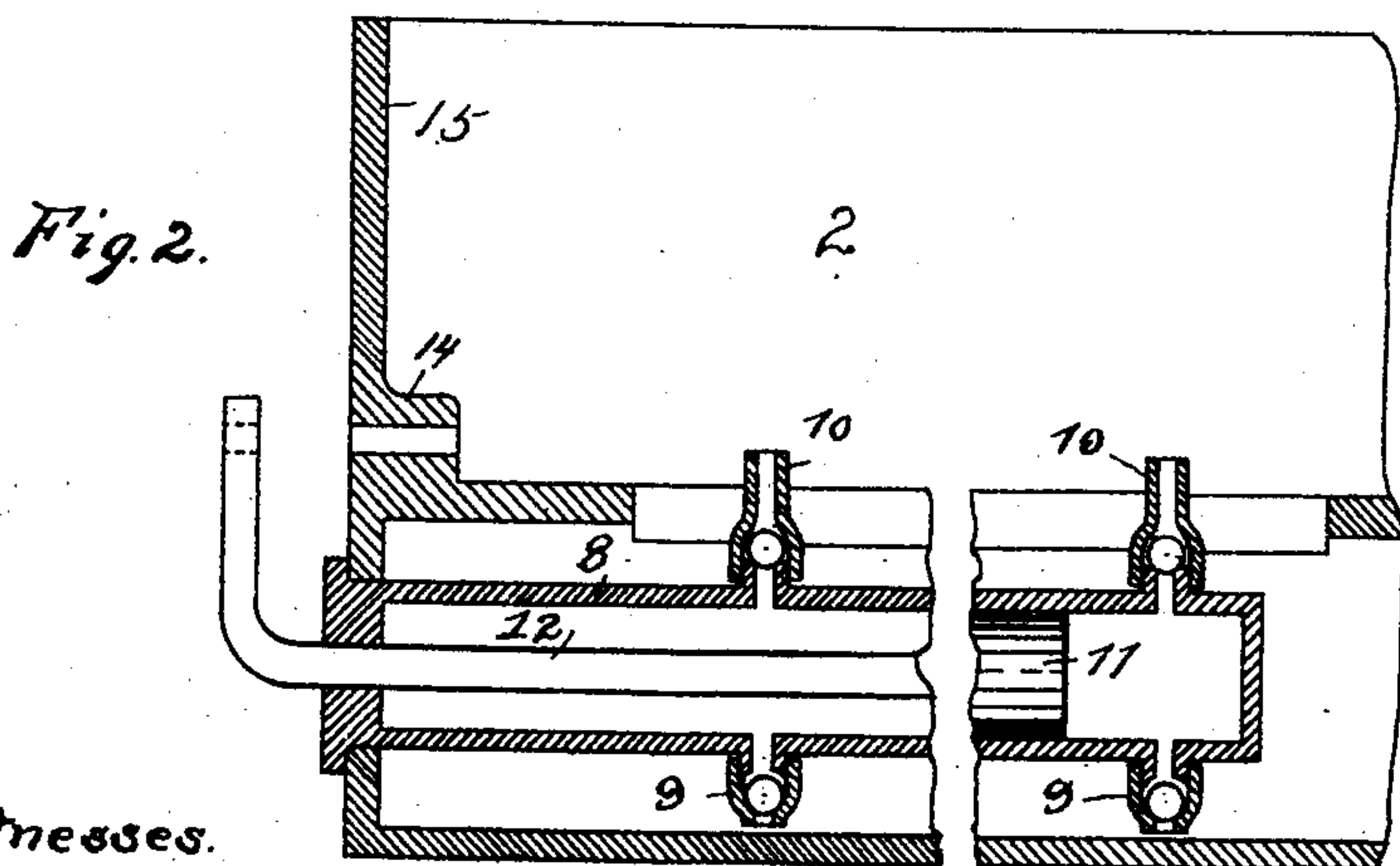


Fig. 2.

Witnesses.

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# UNITED STATES PATENT OFFICE.

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## JOURNAL-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 771,411, dated October 4, 1904.

Application filed May 23, 1904. Serial No. 209,162. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE T. BRENNAN, a citizen of the United States, residing at Coraopolis, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Journal-Lubricators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in lubricators for the journals of car-wheel axles.

The object of the invention is to provide lubricating means which dispenses with the use of waste which is commonly employed in the journal-boxes and a great deal of which is consumed.

A further object of the invention is to economize in the use of the oil in lubricating the journals.

Preceding a detail description of the invention reference is made to the accompanying drawings, in which—

Figure 1 is a sectional elevation of a journal-box and the lubricating devices involved in the present invention. The car-wheel in this view is also shown in section and partly broken away. Fig. 2 is an enlarged sectional view of the lubricant-tank and devices removed from the journal-box and partly broken away. Fig. 3 is a top plan view of the lubricant-tank. Fig. 4 is a cross-sectional elevation on the line *xx* of Fig. 3. Fig. 5 is an end view of the axle-journal and the grooved member engaged thereby.

In a detail description of the invention similar reference characters indicate corresponding parts.

The journal-box 1 may be of any of the common forms daily in use, as the present invention does not enter into the construction thereof. Located in a fixed position within the journal-box is a lubricant-tank 2, having its upper surface concaved from end to end and

inclosed by a wall 3. This tank is supplied with a lubricant through an opening in one side thereof, which is closed by a plug 4. In the central portion of the concaved wall 3 there is an opening 5, which is closed by a wire screen or grading 6, said screen or grading being removably secured to the wall 3 in any suitable manner. In the present instance screws 7 are shown. The object and purpose of this network or mesh is to strain the oil back into the tank or receptacle. Placed within the lower central portion of the tank is a pump-cylinder 8, which is supportable therein in any suitable manner. The lower surface of said cylinder is provided with two suction-valves 9 9, and the upper surface has two discharge-valves 10, thus making the pump double-acting. Movable within the pump-cylinder is a piston 11, which in its operation will pump the lubricant into the space above the concaved wall 3. The piston-rod 12 is turned upwardly at its outer end and is connected with a sliding rod 13, which is mounted in a boss-bearing 14, projecting inwardly from the front wall 15 of the lubricant-tank. The inner end of said rod 13 is connected to a segment-piece 16, which has a groove 17 in its upper surface to receive the lower portion of the flange 18 of the axle-journal 19. The flange 18 of the journal turns freely within the groove in said member 16, and the longitudinal movements or vibrations of the axle are sufficient to impart to the groove member 16 the necessary movement to operate the pump-piston. This lubricant is operative to oil the journal when a car is in motion, and when stops are made the lubricating of the journals ceases. The journal lies immediately above the discharge-valves 10, and the vibration or movement of the car imparts to the journal sufficient longitudinal movement of said journal to impart the necessary movement to the piston 11 to discharge the lubricant.

Having described my invention, I claim—

In a journal-lubricator, a lubricant-tank placed within the journal-box, said tank having its upper face concaved and provided with

a screen, said concaved portion being adapted to receive a journal, a pump located within said tank and having two discharge-valves projected through the concaved portion of  
5 said tank, a grooved member engaging the lower edge of the outer flanged end of the journal, a connection between said grooved member and the piston-rod of the pump whereby movement is imparted from the endwise

thrust of the journal to said piston-rod solely 10 from the outer end of the journal to operate the valves, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE T. BRENNAN.

Witnesses:

R. J. McCARTY,

J. W. McKEOWN.