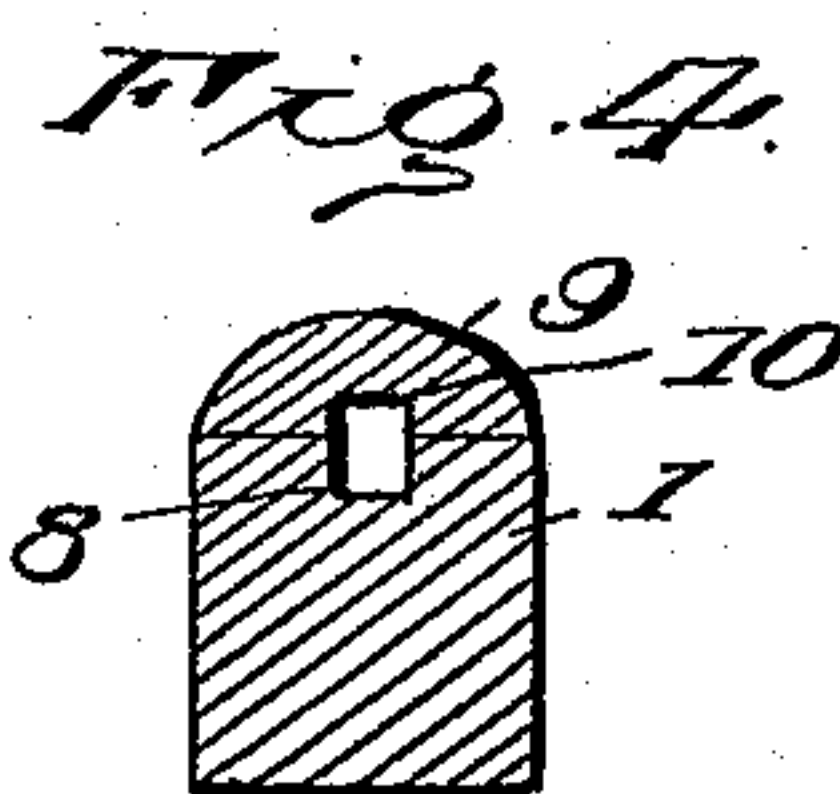
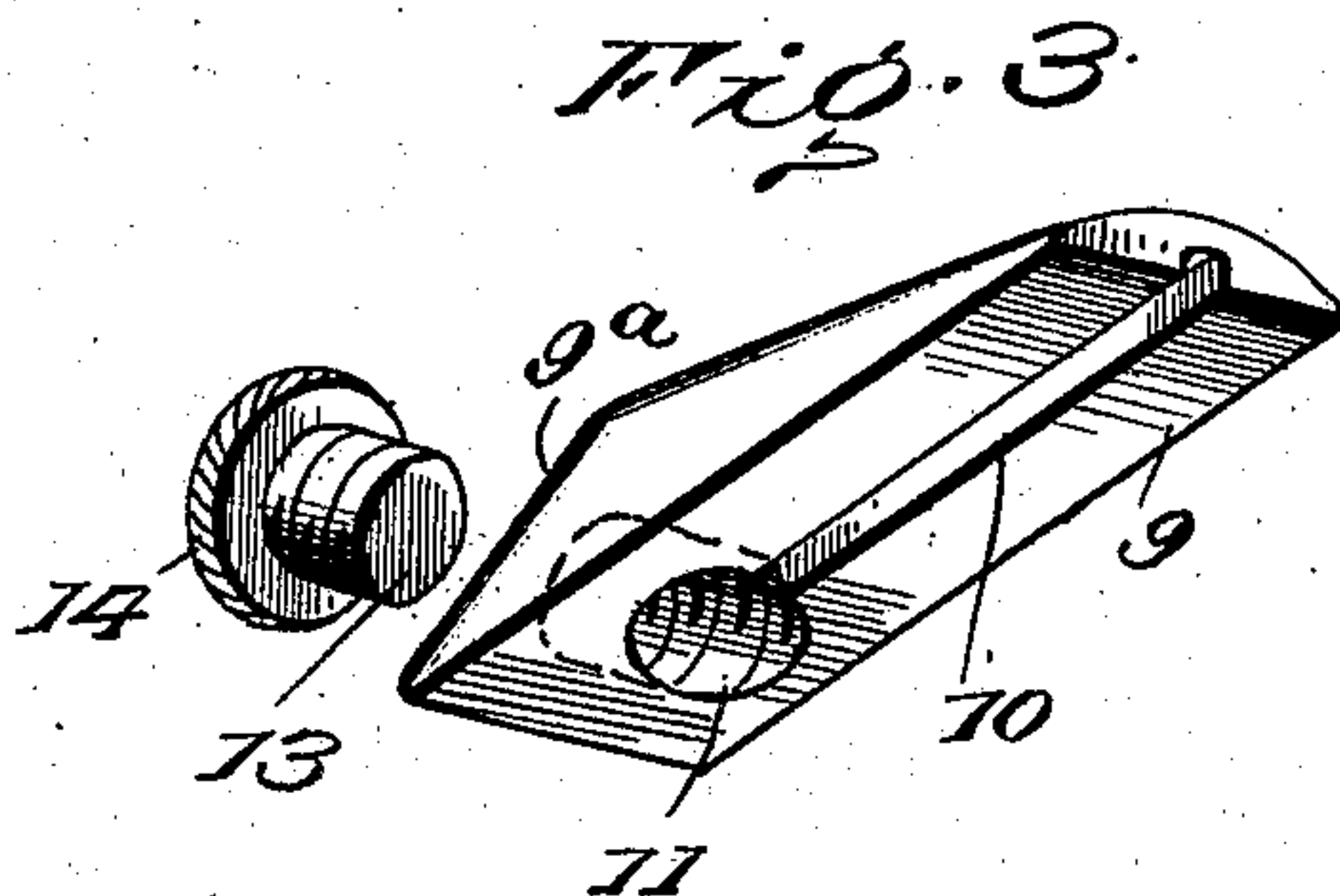
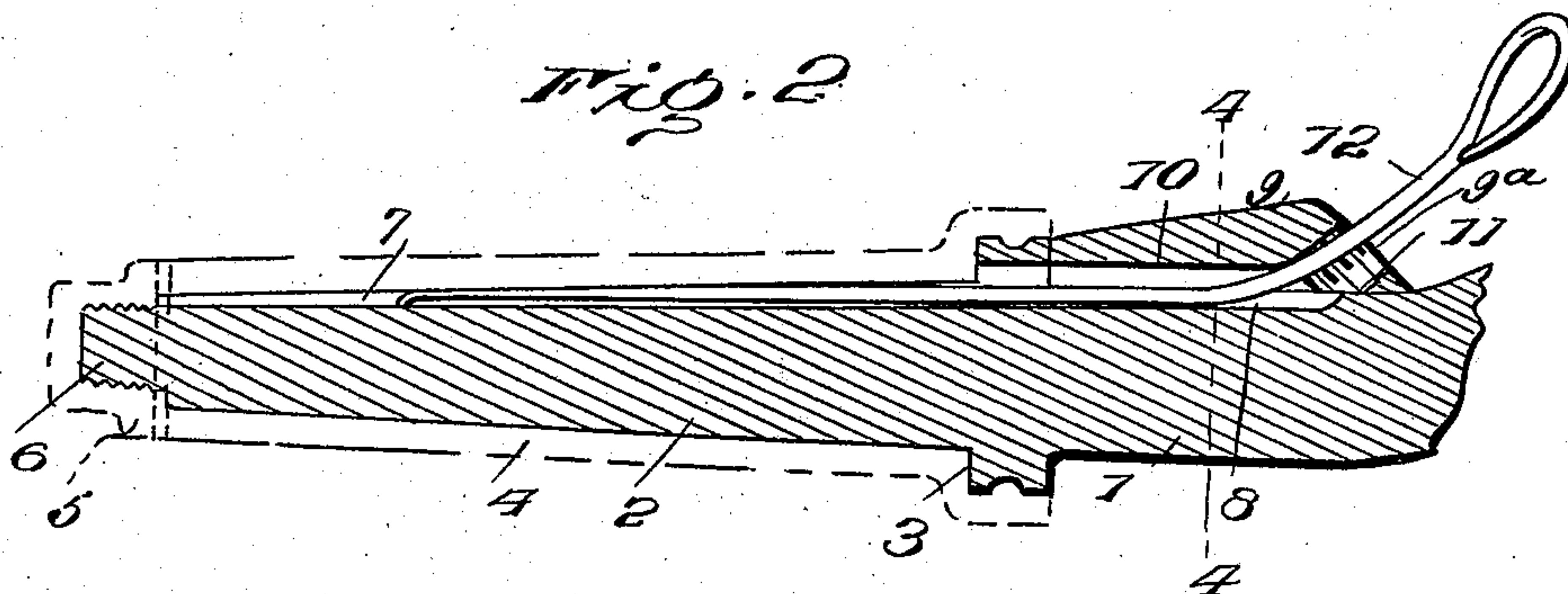
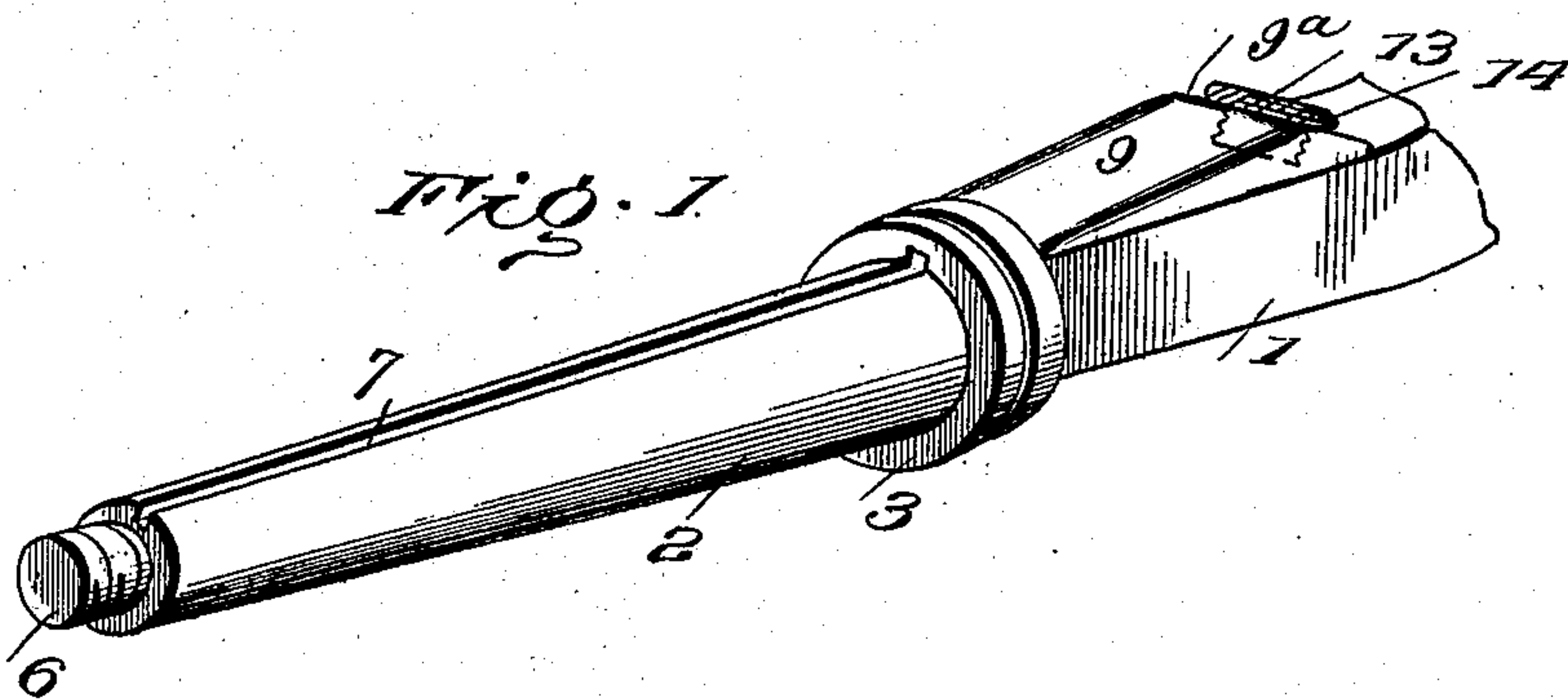


J. ADEN.  
 AXLE LUBRICATOR.  
 APPLICATION FILED MAR. 19, 1907.

900,252.

Patented Oct. 6, 1908.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOSEPH ADEN, OF GREENSBORO, NORTH CAROLINA.

## AXLE-LUBRICATOR.

No. 900,252.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed March 19, 1907. Serial No. 363,183.

*To all whom it may concern:*

Be it known that I, JOSEPH ADEN, citizen of the United States, residing at Greensboro, in the county of Guilford and State of North Carolina, have invented certain new and useful Improvements in Axle-Lubricators, of which the following is a specification.

This invention has for its object an improved construction of vehicle axle, whereby a tool used to clean out the lubricating passages or channel in the axle spindle, may be directed readily into the same from the inner end of the spindle, and without the necessity of removing the wheel.

The invention consists in certain constructions and arrangements of the parts which I shall hereinafter fully describe and then point out the novel features in the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of the spindle end of an axle embodying the improvements of my invention, Fig. 2 is a longitudinal sectional view thereof; Fig. 3 is a detail perspective view of the tapered cap or block, employed in carrying out the invention, and its screw cap or closure, these two parts being shown detached or separate from the axle and in juxtaposition to each other. Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawing, the numeral 1 designates an axle, 2 the tapering spindle thereof, 3 the shoulder against which the inner end of the box 4 is intended to abut, and 5 the axle nut designed to be screwed on the threaded extremity of the spindle.

7 designates the oil channel which in the present instance extends entirely throughout the length of the spindle, and which may be fed with oil by any suitable means or from any desired reservoir (not shown).

The essential feature of the invention resides in the provision of a guide mounted upon the axle for directing a cleaning rod

into the lubricating channel 7 formed in the spindle.

In carrying out my invention, I form a longitudinal groove 8 in the upper surface of the axle proper just back of the collar which forms the shoulder 3. The said groove is extended through the said collar and registers with the channel 7. I then take a metallic tapered block 9 which is initially formed as illustrated in Fig. 3, with a longitudinal groove 10 in its lower face and with a threaded socket 11 communicating with said groove and opening upwardly at a slight inclination or angle to the horizontal in the beveled face 9<sup>a</sup> which extends at right angles to the socket as shown. I place this block upon the axle proper just back of the said collar, one end of the cap abutting against said collar, and the groove 10 and socket 11 coinciding with the groove 8 in the axle. The block is then secured rigidly to the axle preferably by brazing or welding, and it will then cover the groove 8 and form therewith a longitudinal bore which will accurately guide a cleaning rod 12 into the oil channel 7 in the spindle. As the upper wall of the groove 10 lies in a plane intersecting the socket 11 and above the lower wall of said socket, it is evident that the rod 12 may be thrust back and forth readily, as practically a horizontal opening is formed from the socket clear through to the outer end of the spindle 2.

When the rod 12 is not being used, the socket 11 is closed by a threaded cap 13 formed with a milled head 14 so that it may be readily inserted in and detached from the block.

From the foregoing description in connection with the accompanying drawing, it will be seen that I have provided very simple and efficient means for guiding the cleaning rod or tool into the oil channel in the spindle from the inner end thereof, whereby the oil passages may be easily and effectively cleaned.

Having thus described the invention, what is claimed as new is:

An axle having a spindle provided at its inner end with a collar forming an abutting shoulder, and having a lubricating channel in the top side of the spindle leading through the said collar and extending beyond the same a short distance and formed in the top



portion of the axle adjacent to the said collar, and a block fitted upon the outer portion of the axle with its upper end abutting against the aforesaid collar and conforming  
5 thereto, said block having a channel in its lower face registering with the channel of the axle and the opening through the collar, and having its upper portion oppositely inclined from an intermediate point, the inclined portion remote from the collar having an open-

ing therein in communication with the opening formed by the registering channels of the said block and axle.

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

JOSEPH ADEN. [L. s.]

Witnesses:

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