

No. 711,983.

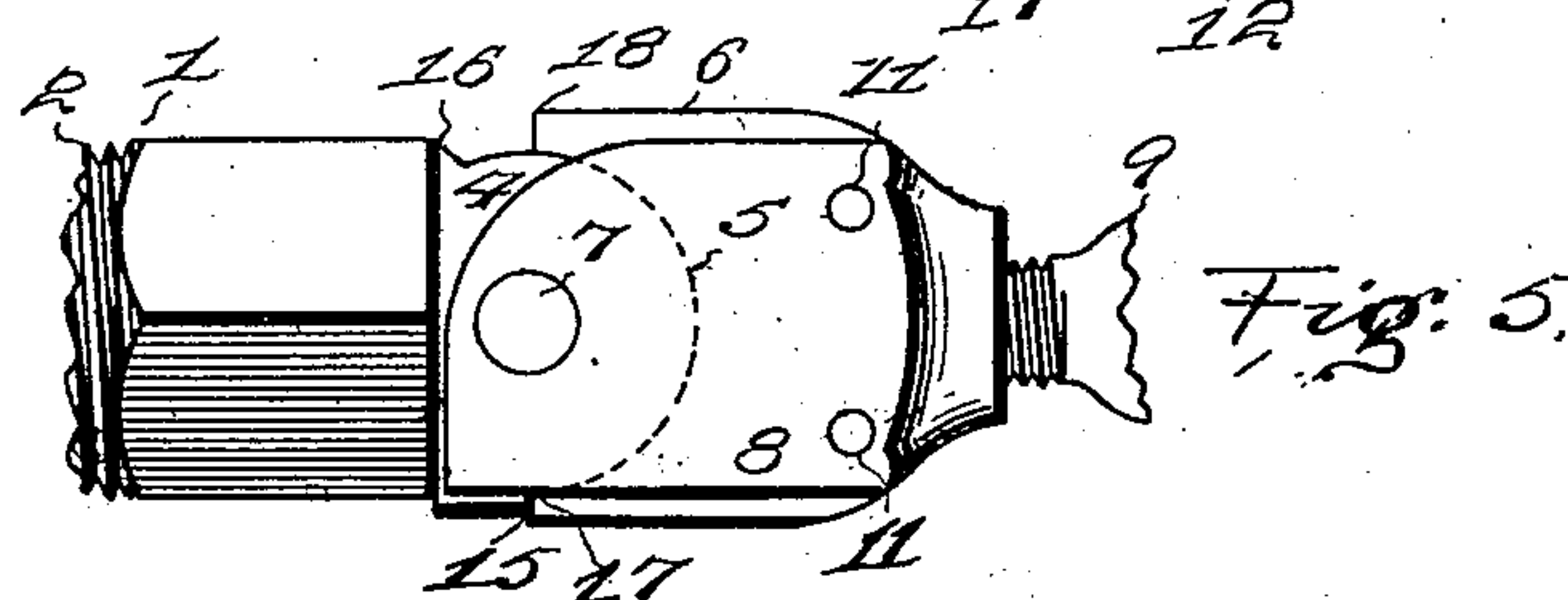
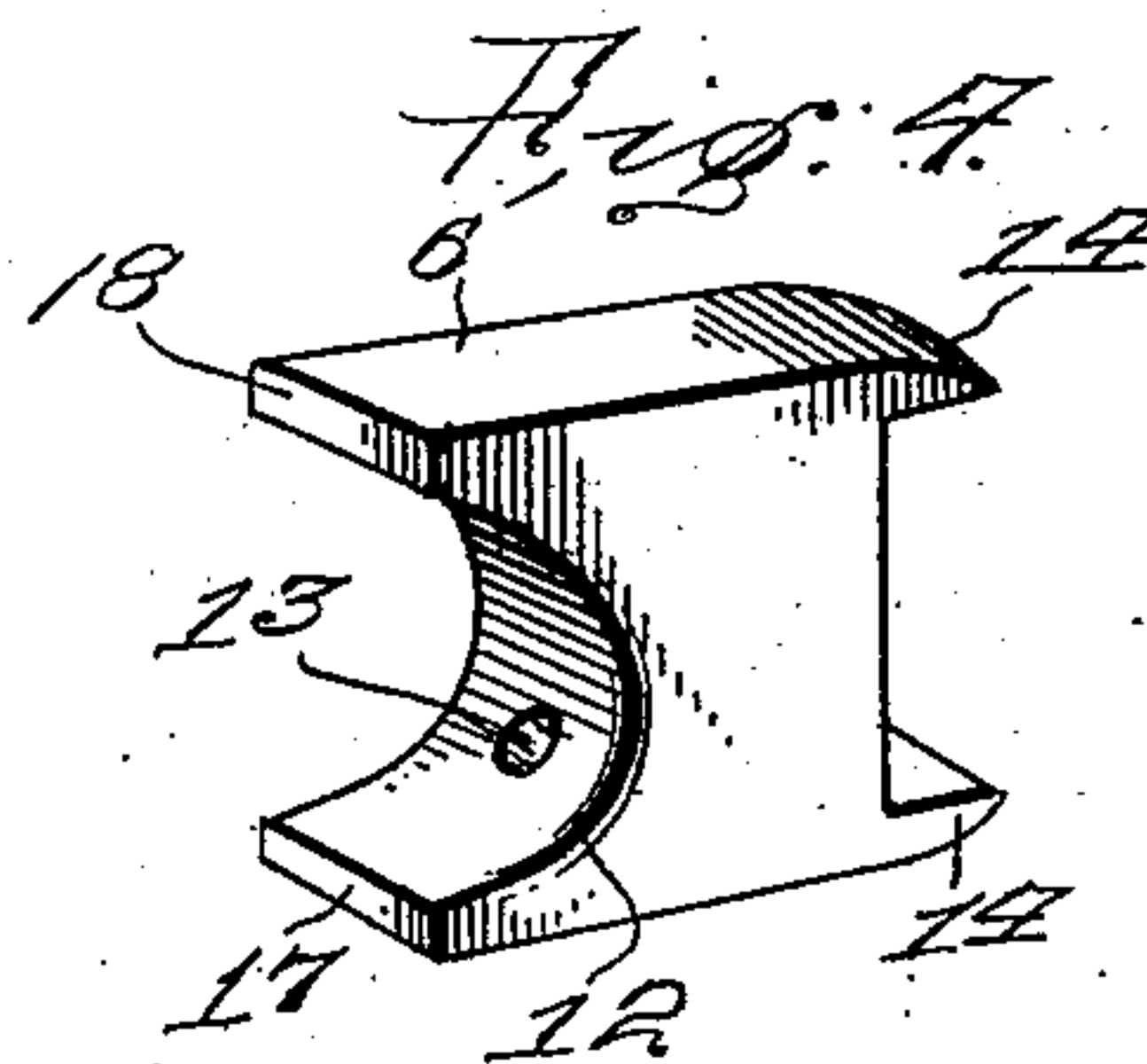
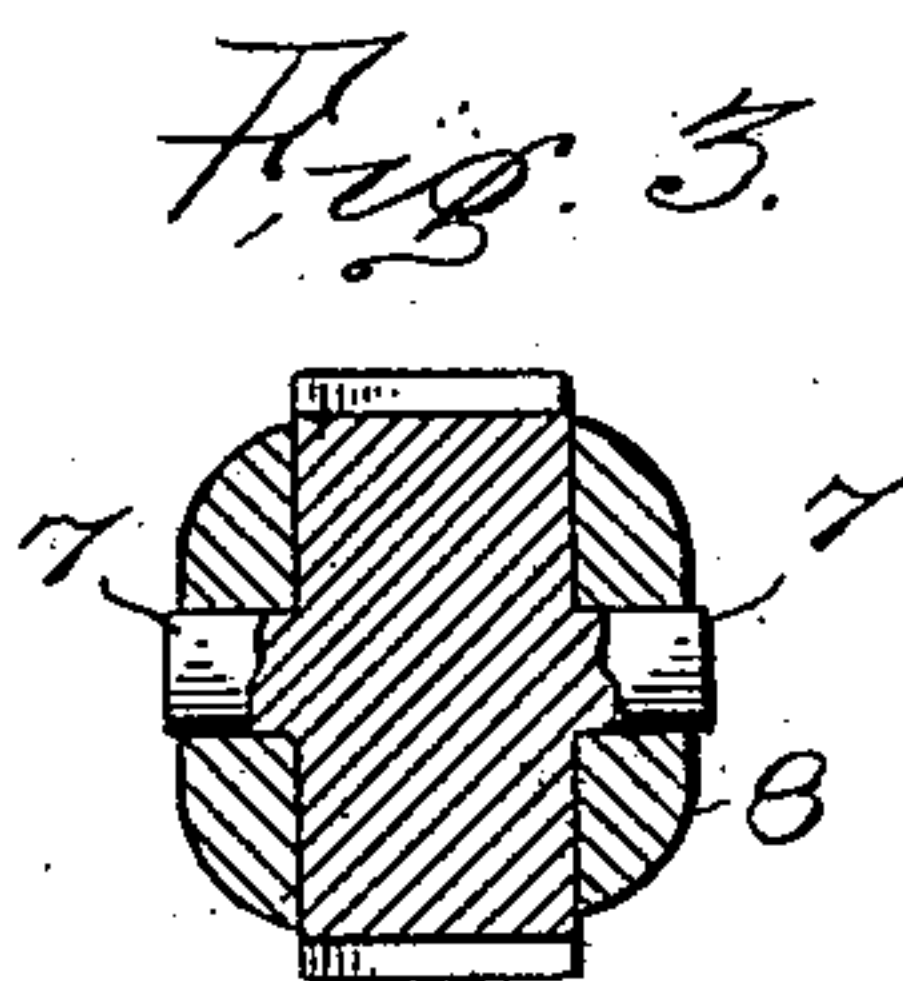
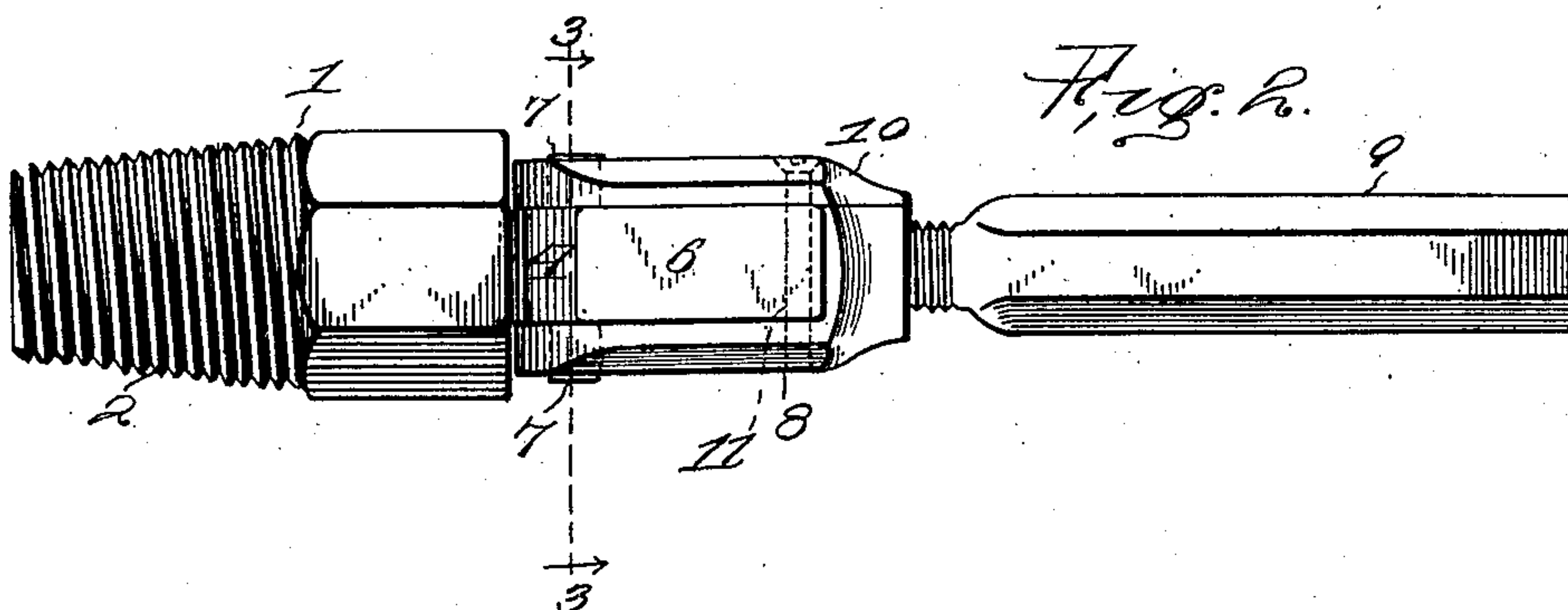
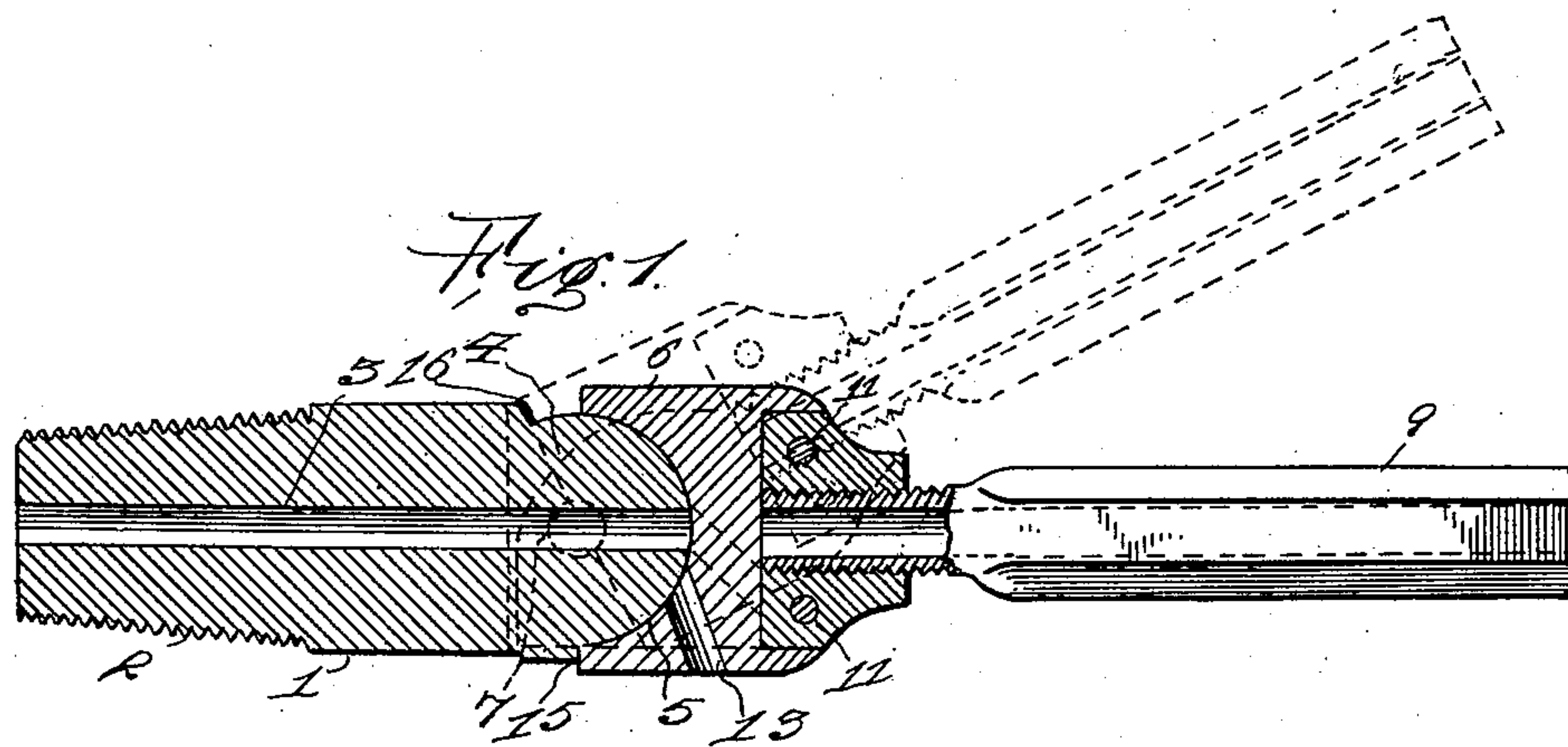
Patented Oct. 28, 1902.

F. W. LEIDECKER.

GAGE COCK.

(Application filed Feb. 4, 1902.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK WALLACE LEIDECKER, OF MARIETTA, OHIO.

## GAGE-COCK.

SPECIFICATION forming part of Letters Patent No. 711,983, dated October 28, 1902.

Application filed February 4, 1902. Serial No. 92,541. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK WALLACE LEIDECKER, a citizen of the United States, residing at Marietta, in the county of Washington and State of Ohio, have invented a new and useful Gage-Cock, of which the following is a specification.

This invention relates to gage-cocks.

The object of the invention is to present a gage-cock which shall be automatic in cutting off the escape of steam or water from a boiler and in which wear of the valve or cut-off may be readily taken up without necessitating removal of the device from the boiler.

A further object is to present a gage-cock which shall combine simplicity of construction, high efficiency and durability in use, and cheapness of production.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a gage-cock, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like numerals of reference indicate corresponding parts, there is illustrated a form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the scope of the invention, and in these drawings—

Figure 1 is a view in sectional elevation of a gage-cock characterized by this invention, its normal or closed position being shown in full lines and its opened position indicated by dotted lines. Fig. 2 is a view in top plan. Fig. 3 is a view in transverse section, taken on the line 3 3, Fig. 2, and looking in the direction of the arrow thereon. Fig. 4 is a perspective detached detail view of the valve or cut-off. Fig. 5 is a fragmentary detail view in side elevation.

Referring to the drawings, 1 designates a nipple having a threaded portion 2, to be screwed into the boiler and provided with a centrally-disposed passage-way 3, extending throughout its length. The end of the nipple opposite its threaded portion is reduced

transversely of its width to present a bearing 4, having straight side walls and a rounded outer edge, as shown at 5, constituting a seat for the valve 6, the seat being provided with outward-projecting horizontally-alined lugs or bearings 7, preferably integral with the seat and to be engaged by the members of a yoke 8, the front end of which is provided with a threaded orifice to be engaged by the threaded end of a lever or handle 9, the same being hollow throughout its length, whereby it will be prevented from becoming highly heated, and being preferably rectangular in cross-section, as shown. The yoke 8 is a two-part structure, one member 10 of which is detachable and is held assembled with the other member by screws 11, and by thus constructing the yoke the same may be readily disconnected from the valve-seat when desired.

The cut-off 6 is provided in its front face with a semicircular recess 12, adapted snugly to embrace the valve-seat, and with a passage-way 13, disposed at an angle to its width and normally out of register with the passage-way 3 of the nipple, the cut-off being normally held in this position by the weight of the lever 9. The rear end of the cut-off is provided with two extensions 14, which are adapted to overlap the upper and lower sides of the rear portion of the yoke, thus to hold the cut-off securely associated therewith. The valve-seat is provided with two stops or abutments 15 and 16, which are adapted to be engaged by the forward end portions 17 and 18 of the cut-off, the stop 15 serving to limit the downward movement of the lever and the stop 17 its upward movement, as will be readily understood by reference to Fig. 1. The inner end of the lever 9 normally abuts against the rear face of the cut-off, whereby to hold the same snugly against the valve-seat, thus to prevent escape of steam or water through the gage, and as the cut-off wears this may be taken up by screwing the handle inward, thus to force the cut-off against its seat. In order to permit the yoke to be moved upward to the position shown in Fig. 1, the forward upper end portions of the yoke members are rounded, as shown at 19 in Figs. 1, 2, and 5.

When it is desired to ascertain the level of



the water in a boiler, the lever 9 is lifted to bring the passage 13 into register with the passage 3, whereupon the steam or water will be discharged through the passage 13 downward, whereby danger of scalding the attendant will be prevented, and as soon as the lever 9 is released it will drop, and thereby automatically cut off the discharge from the boiler.

It will be seen from the foregoing description that the gage-cock of this invention is exceedingly simple of construction and will by reason of the manner of its construction and assemblage be thoroughly efficient in operation. The only part of the device that will be liable to wear is the cut-off, and as this may be adjusted in the manner pointed out to take up wear its use may be prolonged indefinitely. When worn out, however, it may readily be replaced at a small expense.

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

1. A gage-cock comprising a nipple provided with a valve-seat, and with a passage-way, a cut-off adapted to be rotated on the said seat and having a passage-way normally out of register with that of the nipple, and means for holding the cut-off in positive engagement with the seat.

2. A gage-cock comprising a nipple provided with a passage-way and with a rounded valve-seat, a cut-off adapted snugly to fit the valve-seat and provided with a passage-

way, a yoke for holding the cut-off in engagement with the seat, and means carried by the yoke for forcing the cut-off against the seat.

3. A gage-cock comprising a nipple having a rounded valve-seat and a passage-way, a yoke pivotally connected with the valve-seat, a cut-off carried by the yoke and engaging the seat and provided with a passage-way, and a lever adjustably connected with the yoke and bearing against the cut-off.

4. A gage-cock comprising a nipple provided with a passage-way and having a rounded valve-seat provided with laterally-extending bearings, a yoke engaging the bearings and carrying a cut-off to work against the valve-seat and provided with a passage-way, and a lever adjustably connected with the yoke to hold the cut-off in engagement with the seat.

5. A gage-cock comprising a hollow nipple provided with a rounded valve-seat carrying laterally-extending bearings, a two-part yoke engaging the bearings, a cut-off carried by the yoke and engaging the valve-seat and provided with a passage-way, and a lever adjustably connected with the yoke to hold the cut-off in engagement with the seat.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANK WALLACE LEIDECKER.

Witnesses:

HOWARD H. WENDELKEN,  
EDWARD H. CONRAD.