

No. 667,627.

Patented Feb. 5, 1901.

F. E. JOHNSON.
STOP AND WASTE COCK.

(Application filed Oct. 17, 1900.)

(No Model.)

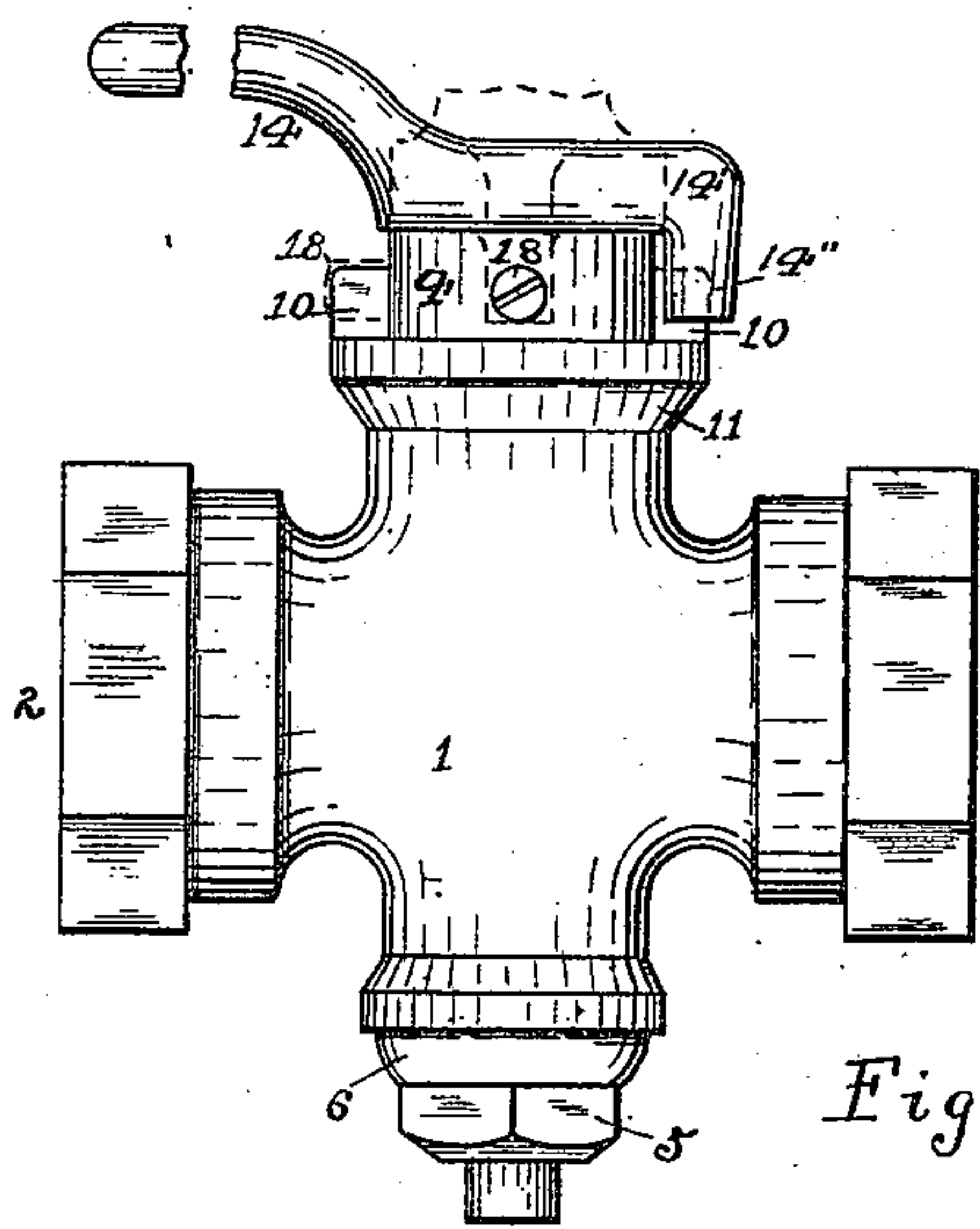


Fig. 1.

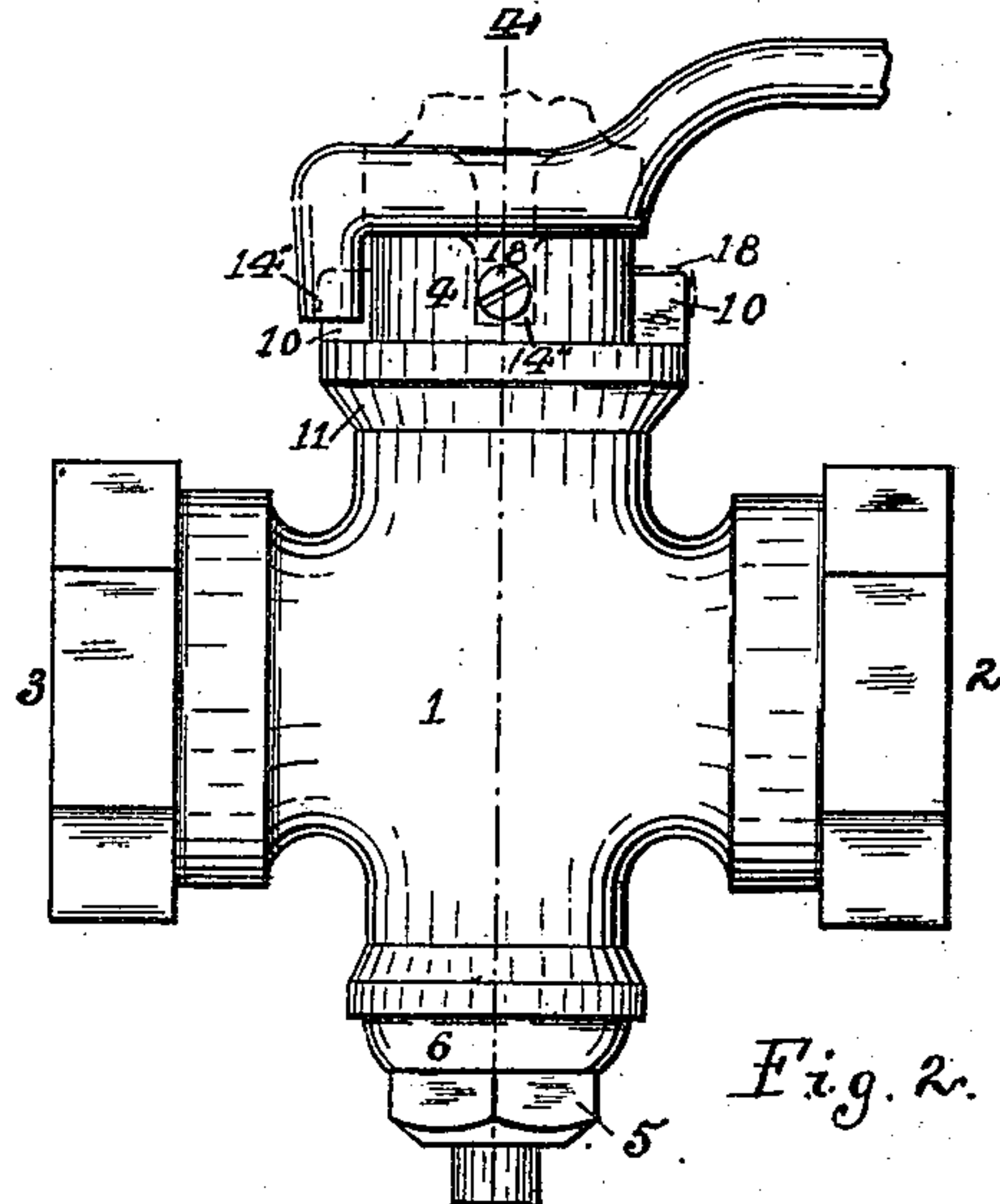


Fig. 2.

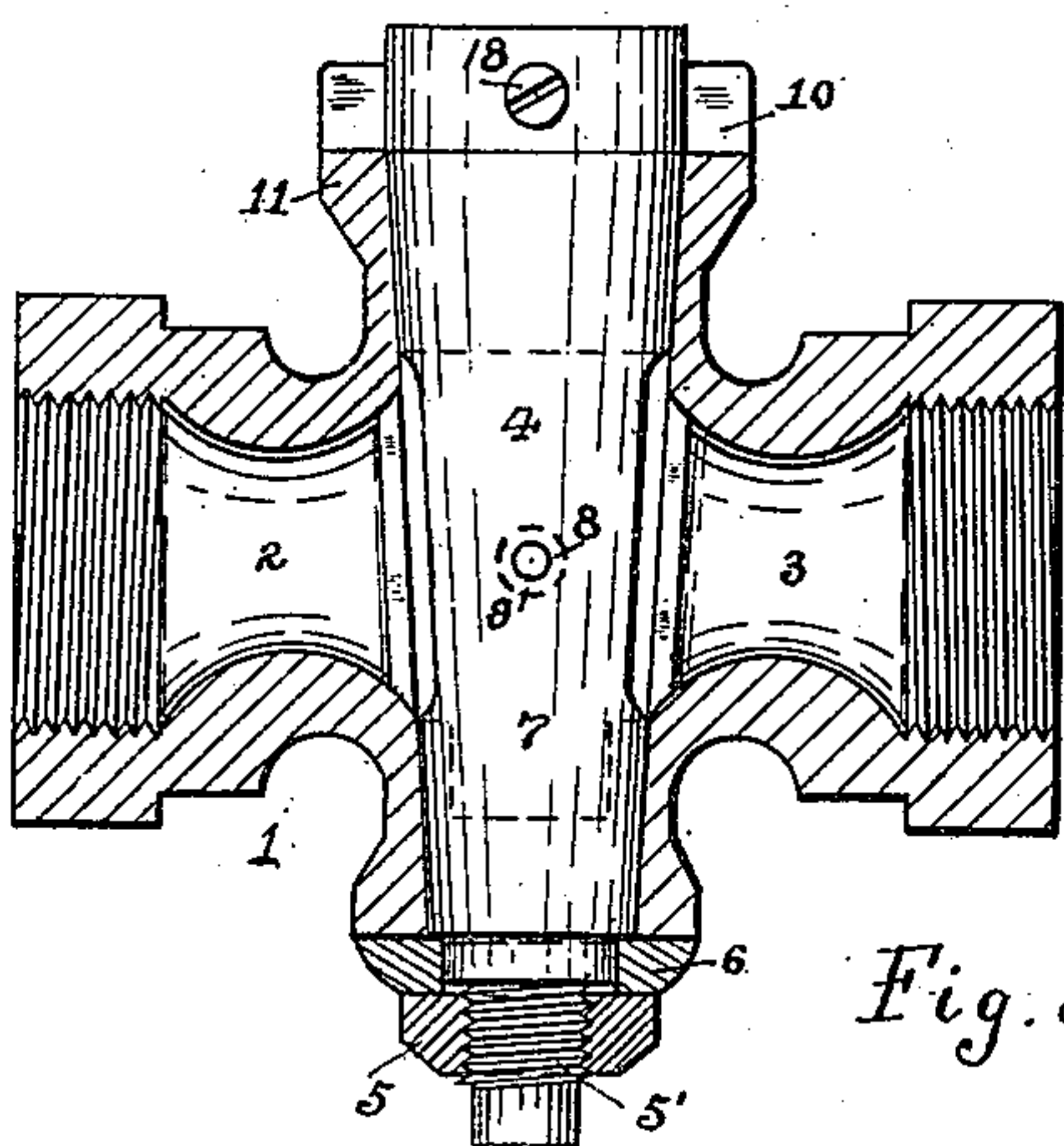


Fig. 3.

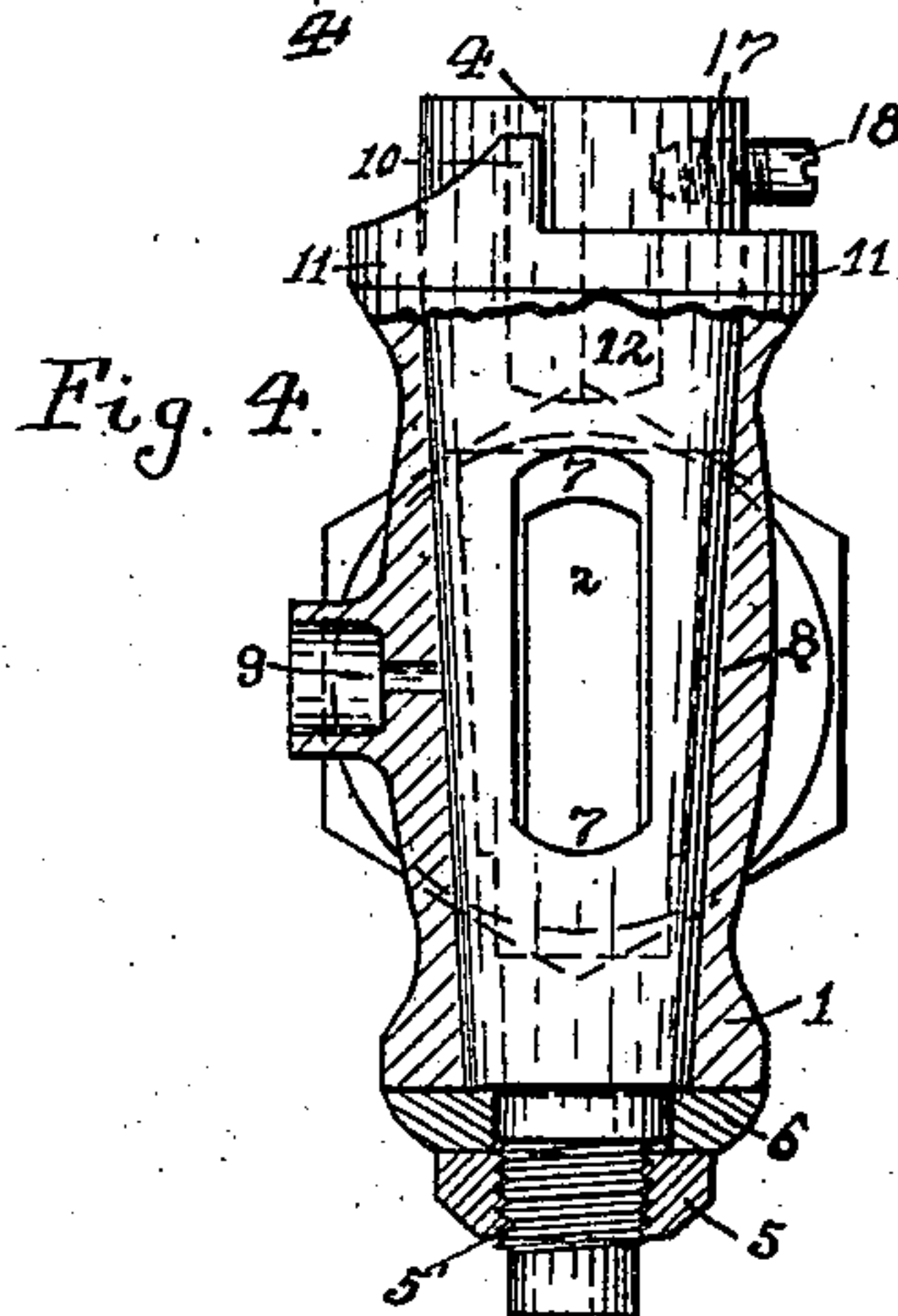


Fig. 4.

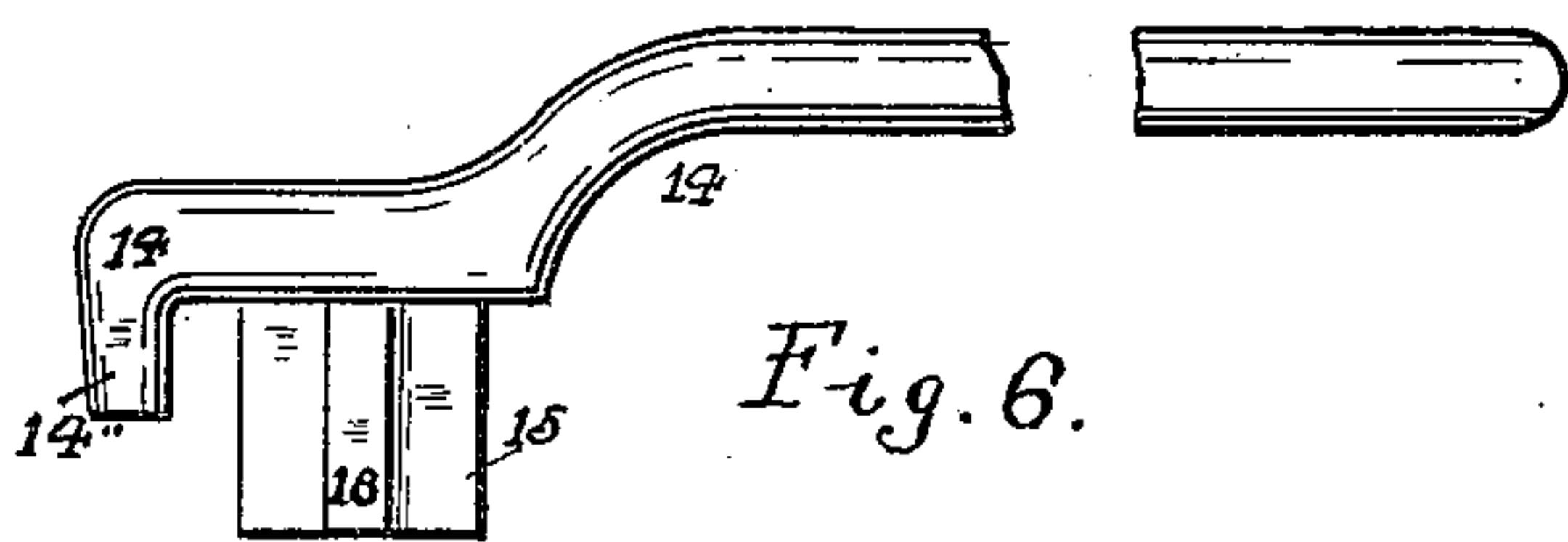


Fig. 6.

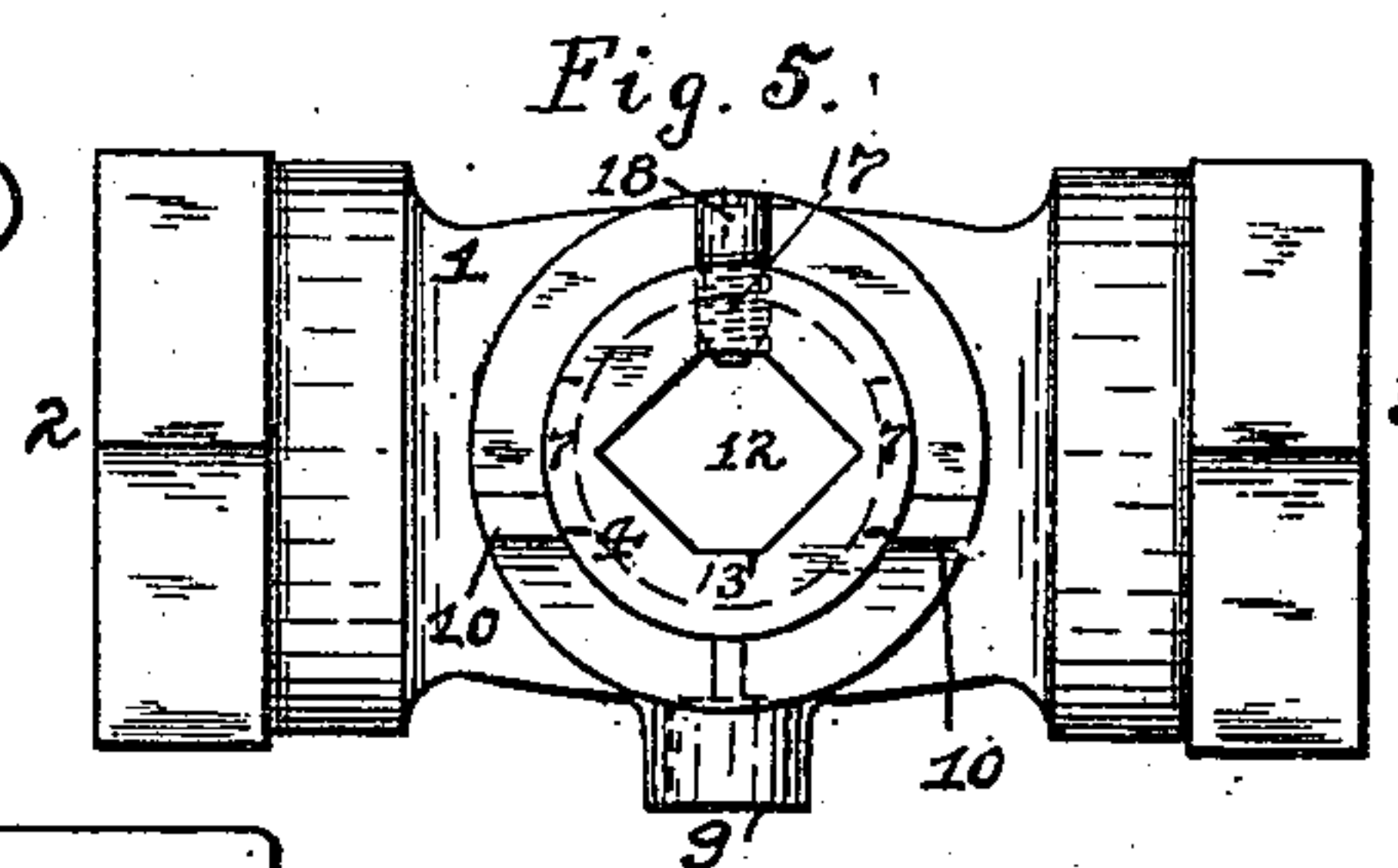
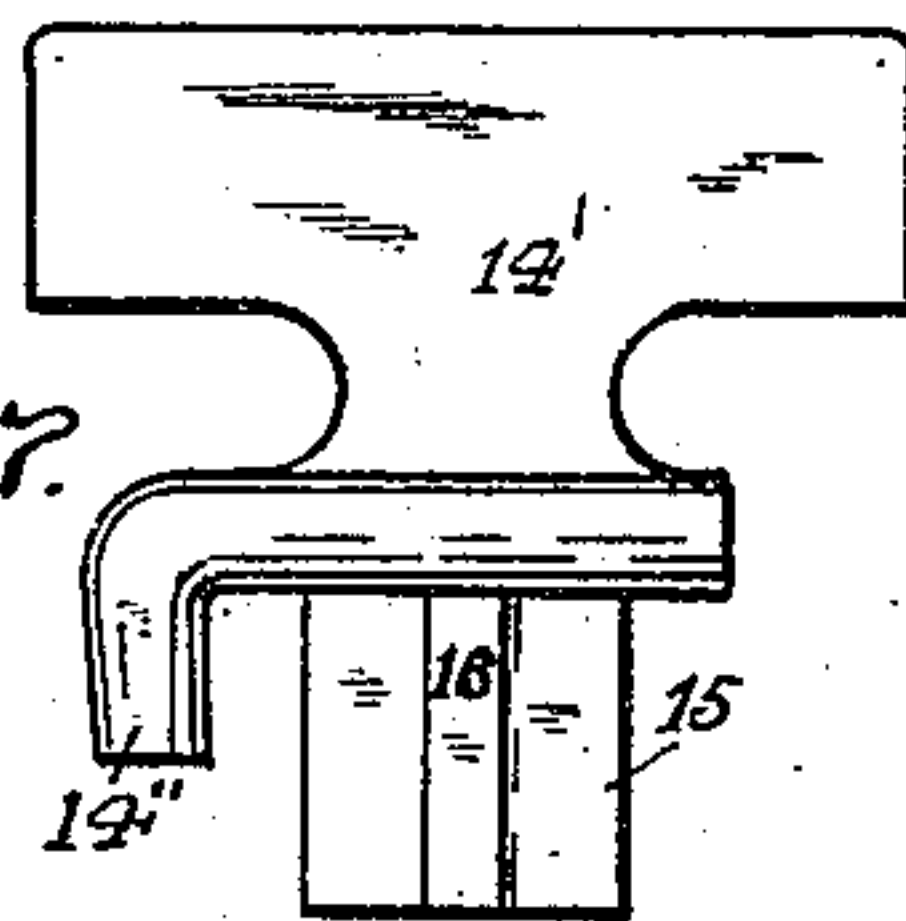


Fig. 5.

Witnesses:
James L. Wehr. Fig. 7.
J. L. Trefaller, Jr.



Inventor.
Frank E. Johnson
By J. M. Bookley
attorney.

UNITED STATES PATENT OFFICE.

FRANK E. JOHNSON, OF GREENSBURG, PENNSYLVANIA, ASSIGNOR TO JOHN T. KELLY, OF NEW YORK, N. Y., AND GEORGE M. JONES, OF PITTSBURG, PENNSYLVANIA.

STOP AND WASTE COCK.

SPECIFICATION forming part of Letters Patent No. 667,627, dated February 5, 1901.

Application filed October 17, 1900. Serial No. 33,380. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. JOHNSON, a resident of Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Improvement in Stop and Waste Cocks; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to stop and waste cocks, and has special reference to what are known as "right" and "left" hand stop and waste cocks.

The object of my invention is to provide such improvements in this class of cocks that will enable convenience in operation and simplicity in the construction of the parts.

My invention consists, generally stated, in the novel arrangement, construction, and combination of parts, as hereinafter specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use the cock, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved stop and waste cock. Fig. 2 is a like view showing the parts in another position. Fig. 3 is a longitudinal central section of the same. Fig. 4 is a vertical central section on the line 4-4, Fig. 2. Fig. 5 is a top view of the cock, showing the handle removed. Fig. 6 is a view of the handle, and Fig. 7 is a view of another form of handle.

Like numerals herein indicate like parts in each of the figures of the drawings.

The body 1 of my improved stop and waste cock is of the usual or ordinary approved construction having the pipe connections 2 and 3 thereon and the tapered plug 4, removably secured within the body 1 by the nut 5, which engages with the threaded end 5' on said plug 4 and bears against the washer 6 around said plug. The plug 4 is provided with the main passage 7 and the waste-passage 8, leading therefrom and adapted to connect with the pipe connection 2 for the escape of the water therefrom through the passage

8 into the passage 7 and out of the waste-nozzle 9, formed on the body 1.

The body 1 is provided with the two stop-shoulders 10, preferably formed on the flange or rim 11 on said body 1 opposite to each other around the plug 4, and the end of the plug is provided with the handle-socket 12, of angular form in cross-section and having two of its corners flattened, as at 13. The handle 14 is provided with a stem 15 thereon, which is of an angular form in cross-section and has two of its corners flattened, as at 16, so as to enable said stem 15 to fit within the socket 12 and the flat corners 16 on said stem being adapted to fit or bear against the flat corners 13 in the sockets 12, so that the handle-stem 15 can only be inserted in the socket 12 in two different positions, representing a half-revolution of the handle 14 on the plug 4, in both of which the handle is parallel to the main passage 7 through the plug. The handle 14 is provided with the plug or projection 14' thereon, which preferably is formed as part of said handle and extends down from the circular portion of said handle 14, carrying the stem 15, and is adapted to fit down over and around the end of the plug 4. Fitting within a threaded socket 17 in the end of the plug 4 is the removable pin or stop 18, which also serves as a set-screw for engaging with one of the flat faces 16 on the stem 15 of the handle 14 to secure or hold said handle in place within the socket 12 of the plug 4.

The use and operation of my improved stop and waste cock are as follows: When the handle 14 is in the position shown in Fig. 1, the plug 14' on said handle is in contact with one of the stop-shoulders 10 on the rim 11 of the body 1, while the removable pin or stop 18 on the plug 4 is midway between said shoulders 10. When the parts are in this position, the handle 14 is parallel to the pipe connections 2 and 3 and the main passage 7 in the plug 4 is opened, while the waste-passage 8 is opposite to the waste-nozzle 9, and such waste-nozzle is closed, as is shown by dotted lines in Figs. 3, 4, and 5. By turning the handles 14 and plug 4 a quarter-turn one side of the removable pin or stop 18 will be in con-

tact with the other shoulder 10 on the rim 11 of the body 1 and the lug 14' on the handle 14 will have moved away from the shoulder 10 and be midway between said shoulders 10, such as is shown in dotted lines in Fig. 1, while the main passage 7 in the plug 4 will be closed and the waste-nozzle 9 opened, so that the waste-passage 8 will register with the pipe connection 2 to allow the waste water to pass from the pipe connected thereto through such waste-passage 8 into the main passage 7 in the plug 4 and out through the nozzle 9 to drain such pipe connected to the pipe connection 2, that being the house side with the adjustment shown. In order to change the cock for the other hand, all that is necessary is to unscrew the removable pin or stop 18 from contact with the stem 15 of said handle, so that the stem 15 on the handle 14 can be lifted out of the socket 12 in the plug 4 to remove said handle, when the position of said handle can be changed on said plug 4 one-half of the revolution and be replaced by inserting the stem 15 thereon in the socket 12 of the plug, and after this is accomplished the removable pin or stop 18 can be screwed to place against the flat face 16, such as is shown in Fig. 2, and the same operated as before, such as is shown in dotted lines of said Fig. 2.

It will be evident that while a lever-handle is shown in Figs. 1 and 2 a T-handle 14', such as is shown in Fig. 7, may be inserted in the same socket in the plug, the stem thereof being formed to fit the said socket in like manner and a handle or other operating device be adapted to be connected to said T-handle for use therewith in operating the

same when such cock is used for street or other service, and various other modifications in the construction and design of the various parts may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a stop and waste cock, the combination of the body provided with two stop-shoulders, a plug fitting within said body, a handle having a stem fitting within said plug, a single pin or stop fitting within said plug and engaging with said stem to hold the handle in place on said plug, said pin or stop adapted to engage with one of said shoulders in one position, and a lug or projection on said handle adapted to engage with the other one of said shoulders in the other position.

2. In a stop and waste cock, the combination of the body provided with two stop-shoulders, a plug fitting within said body, a handle having a stem fitting within said plug, a single removable pin or stop fitting within a threaded socket in said plug and engaging with said stem to hold the handle in place on said plug, said pin or stop adapted to engage with one of said shoulders in one position, and a lug or projection on said handle adapted to engage with the other one of said shoulders in another position.

In testimony whereof I, the said FRANK E. JOHNSON, have hereunto set my hand.

FRANK E. JOHNSON.

Witnesses:

JAMES C. HENRY,
ROBT. T. RICHARDSON.