

(No Model.)

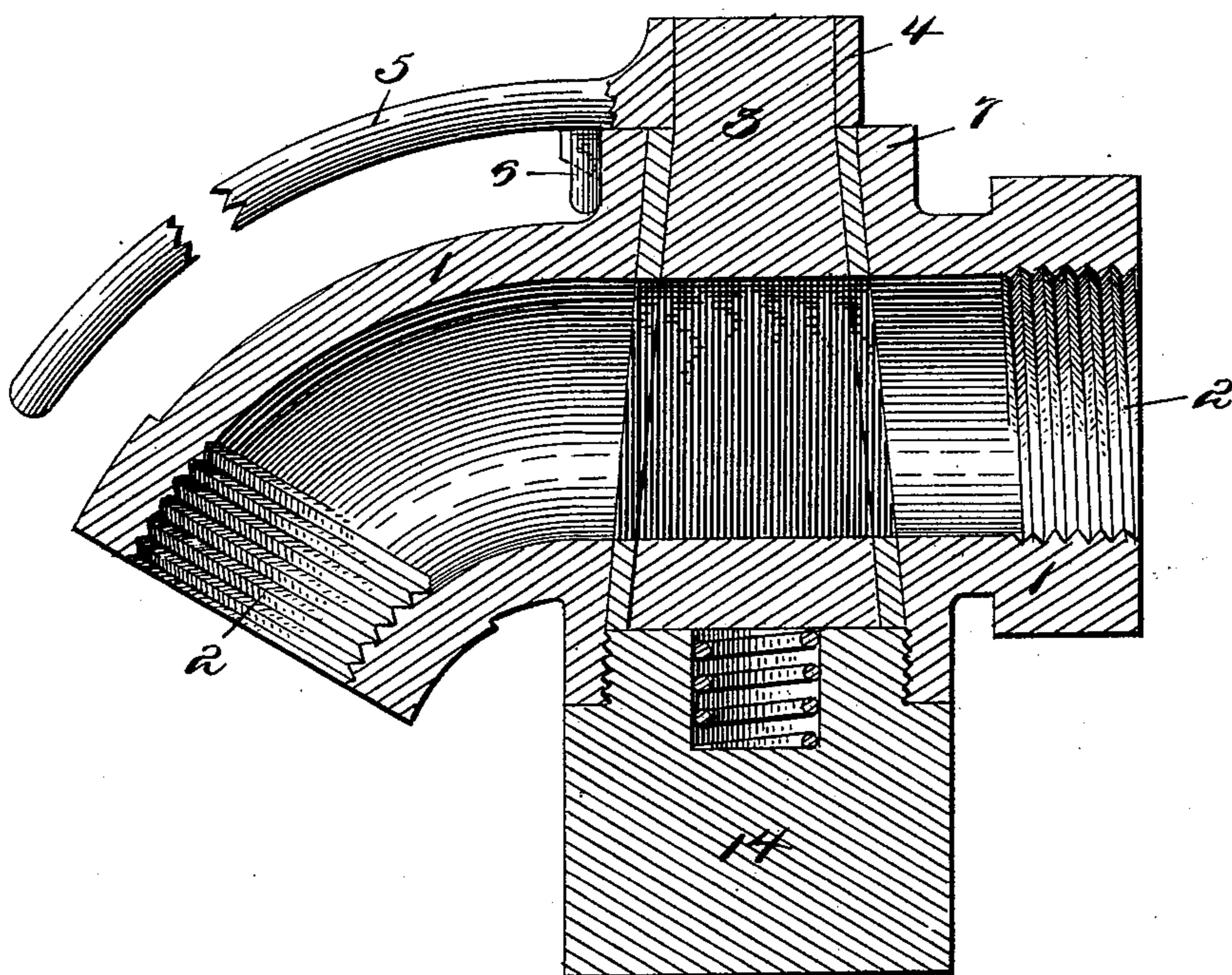
2 Sheets—Sheet 1.

N. CLINE & J. FARRELL.  
LOCK FOR STOP COCKS, VALVES, &c

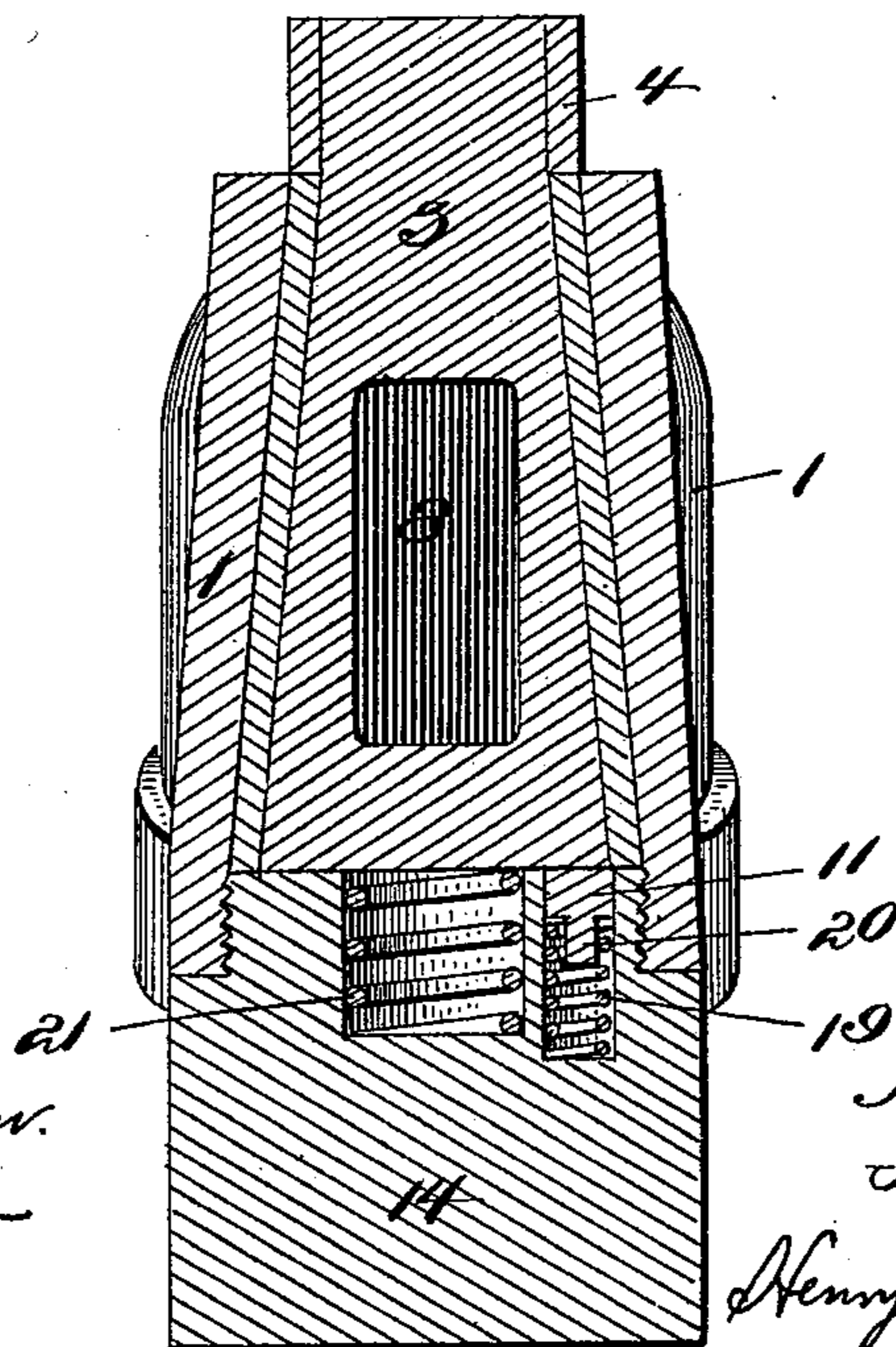
No. 594,229.

Patented Nov. 23, 1897.

*Fig. 1.*



*Fig. 2.*



Witnesses  
*J. P. Appleman.*  
*A. M. Wilson*

Inventors  
*Nelson Cline.*  
*John Farrell.*  
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(No Model.)

2 Sheets—Sheet 2.

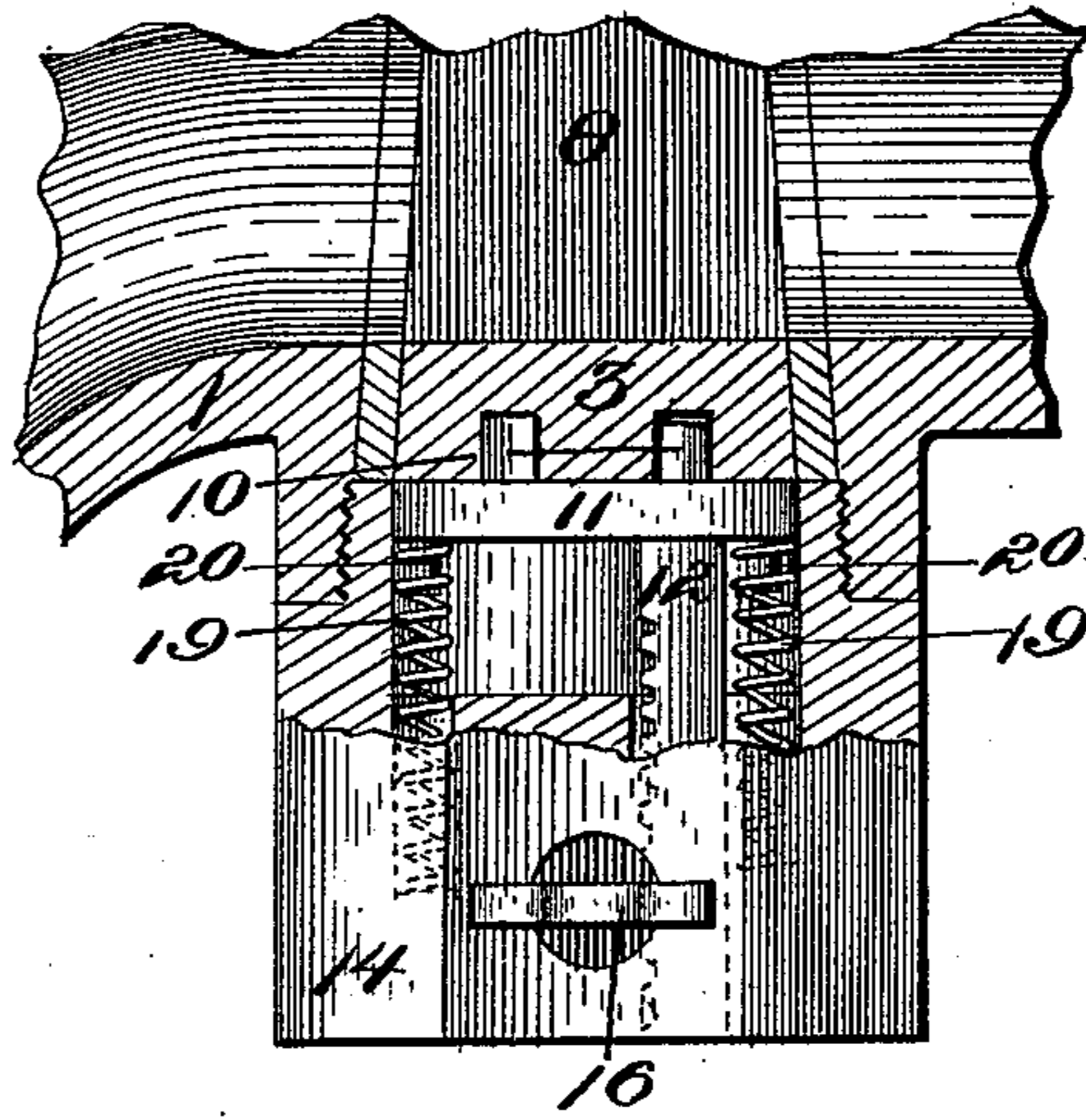
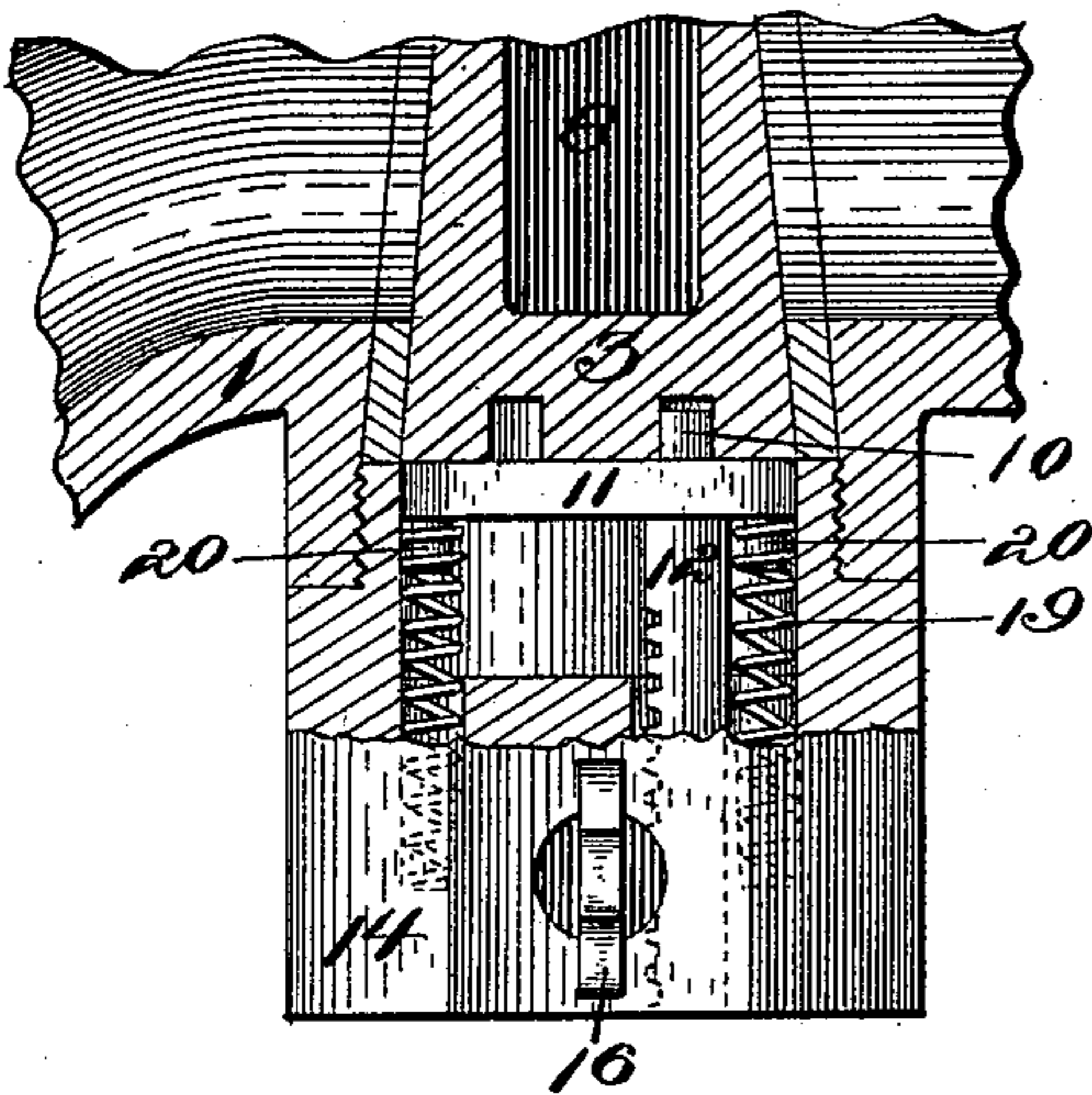
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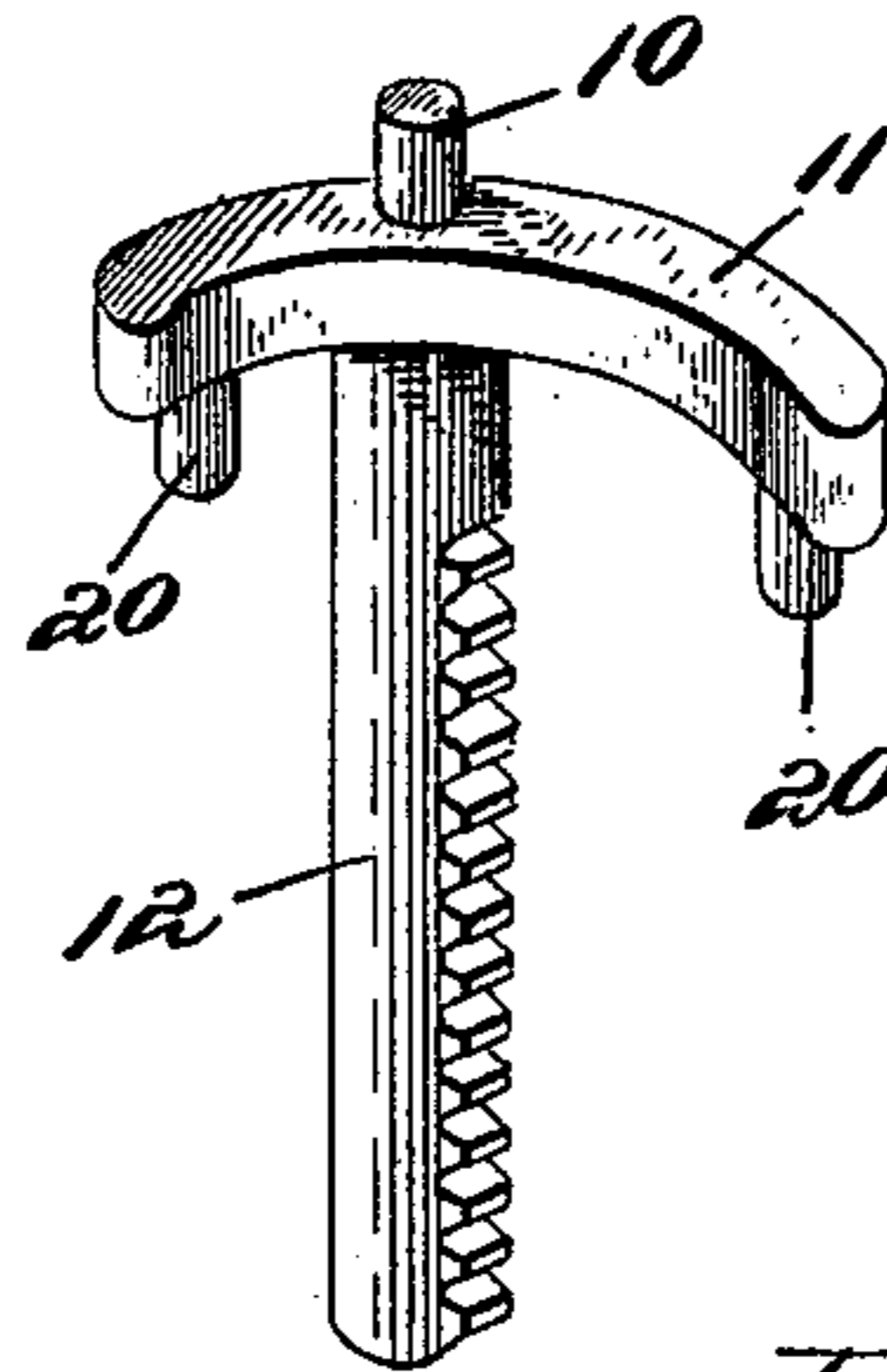
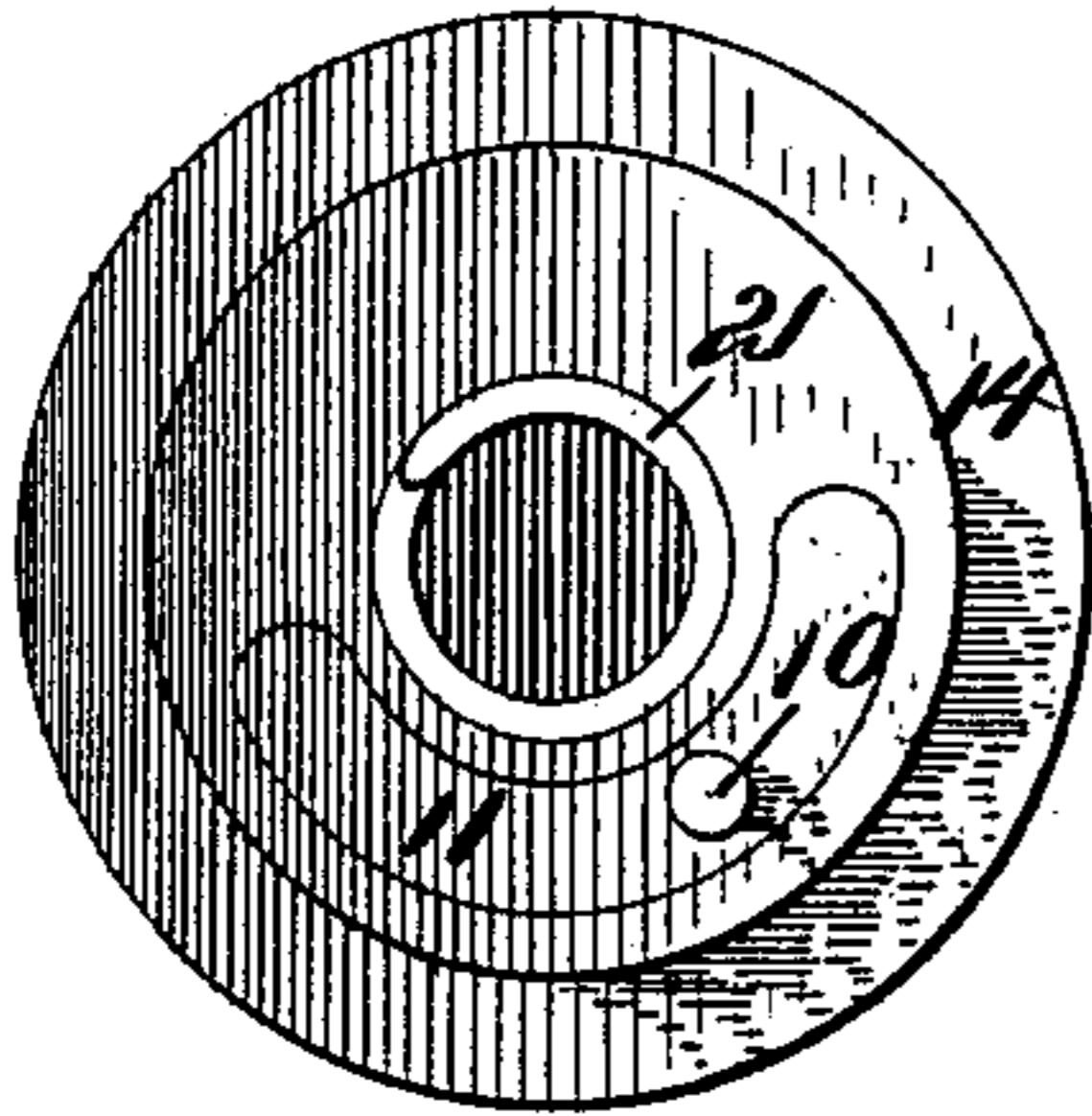
*Fig. 3.*

*Fig. 4.*



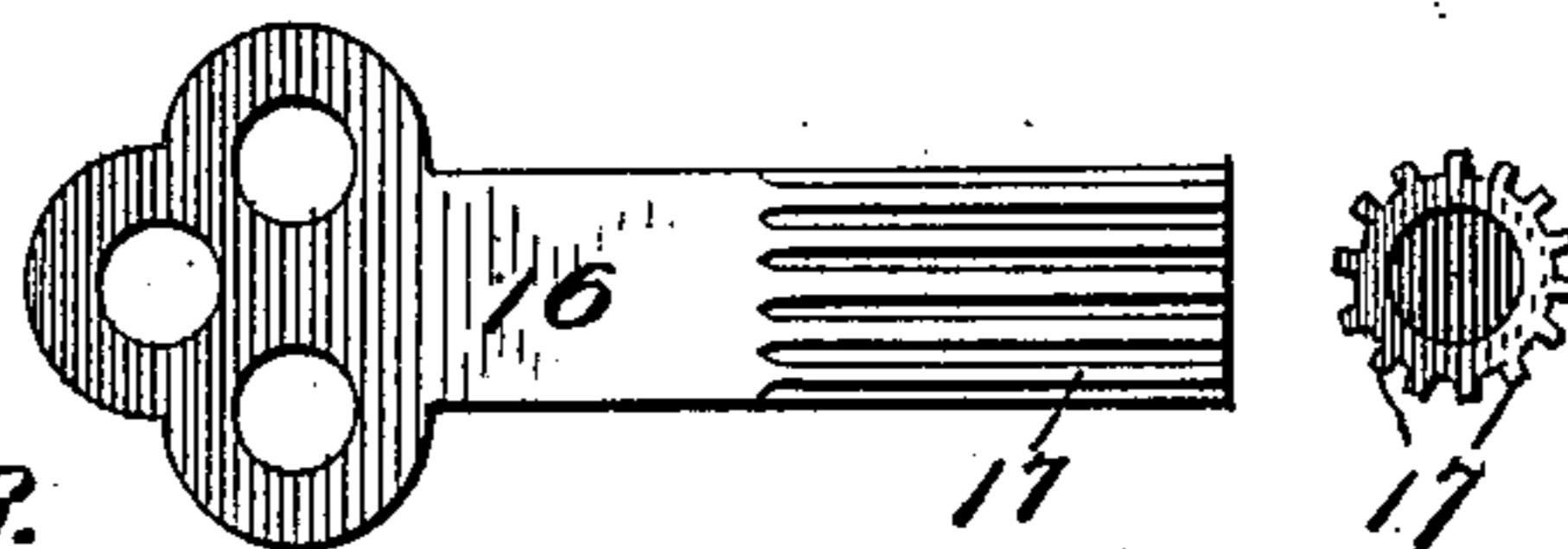
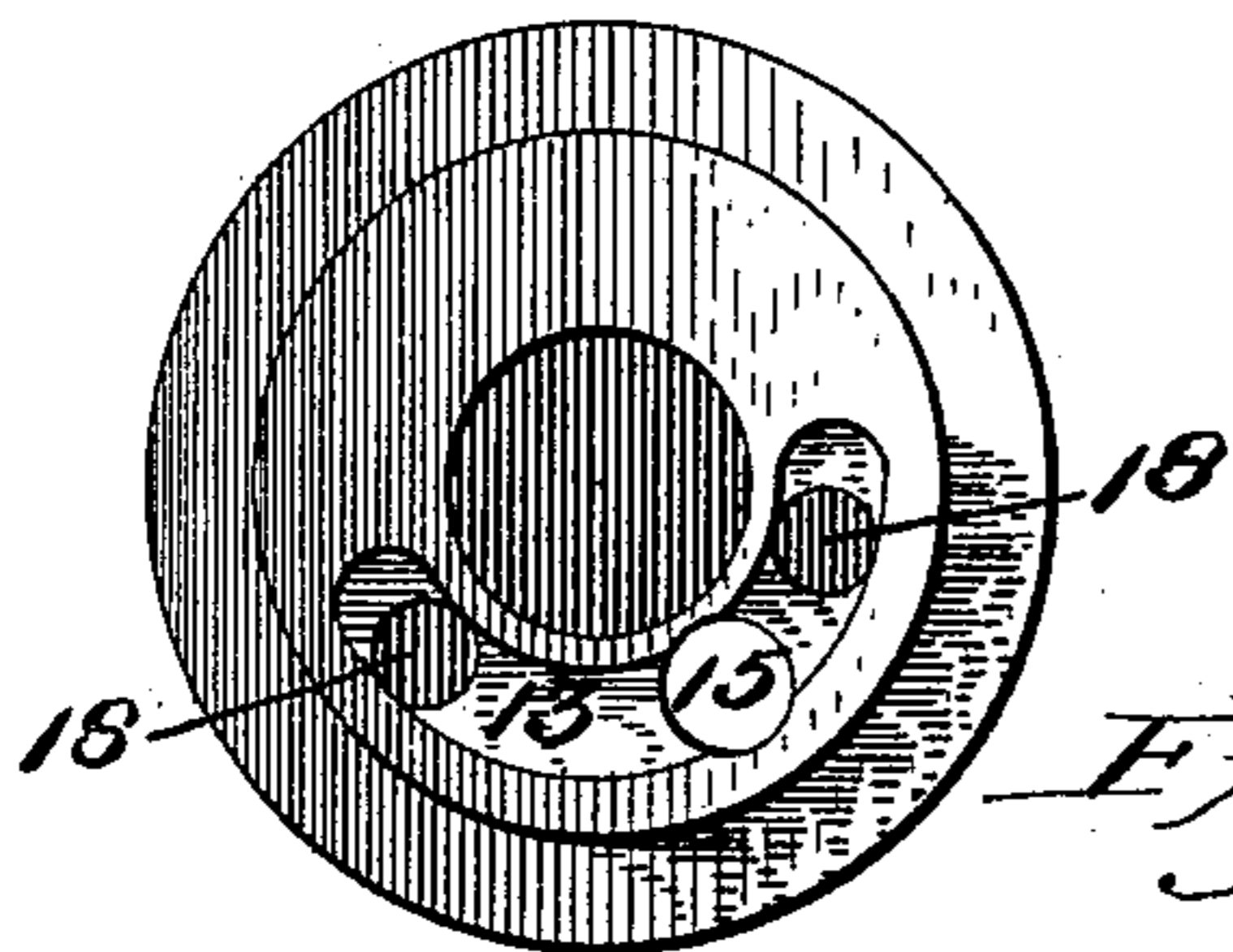
*Fig. 5.*

*Fig. 6.*

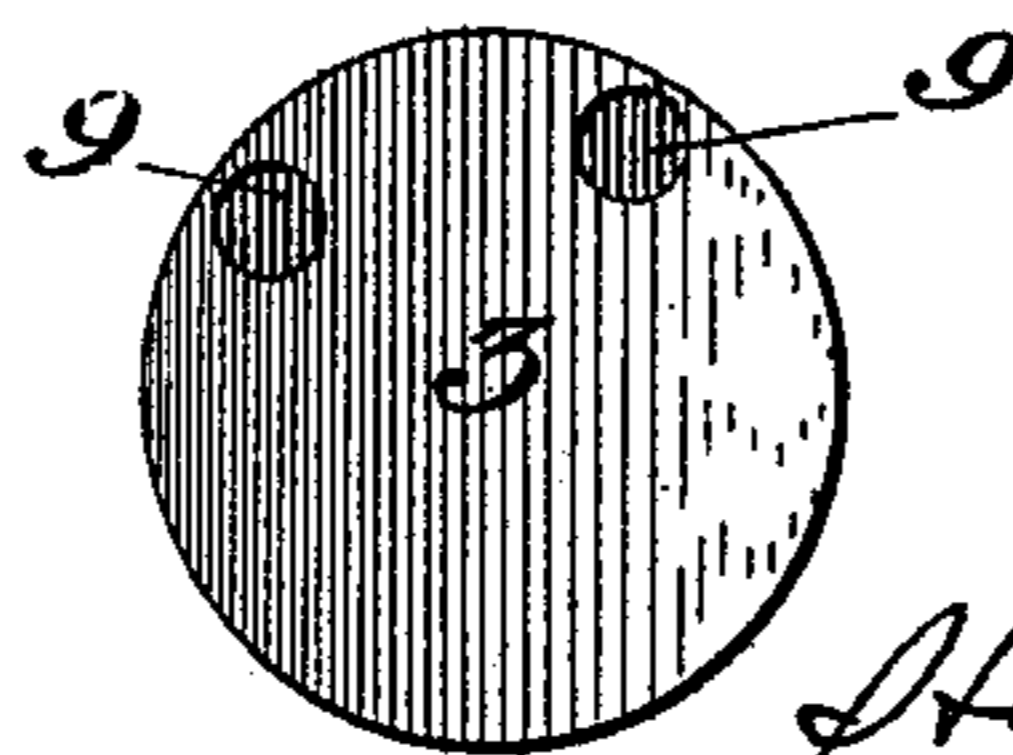


*Fig. 7.*

*Fig. 9.*



*Fig. 8.*



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# UNITED STATES PATENT OFFICE.

NELSON CLINE AND JOHN FARRELL, OF FREEDOM, PENNSYLVANIA.

## LOCK FOR STOP-COCKS, VALVES, &c.

SPECIFICATION forming part of Letters Patent No. 594,229, dated November 23, 1897.

Application filed March 20, 1897. Serial No. 628,464. (No model.)

*To all whom it may concern:*

Be it known that we, NELSON CLINE and JOHN FARRELL, citizens of the United States of America, residing at Freedom, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Locks for Stop-Cocks, Valves, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in locks for stop-cocks, valves, and the like, and has for its object to provide novel and effective means which may be applied to various devices of this nature—such as angle-cocks, air-brake appliances on railway-trains, oil or gas pipe lines, or any place where it may be necessary or desired to guard against unauthorized parties tampering with the cock or valve; and to this end the invention resides in the novel construction, combination, and arrangement of parts to be hereinafter more specifically described, and particularly pointed out in the claims.

The invention therefore aims to provide means for locking the cock or valve in any desired position, so that it cannot be unlocked or moved except by the application of our unlocking device. In railway automatic fluid-pressure brake systems the train-pipe forms a continuous and uninterrupted passage for the fluid from the engineer's brake-valve on the locomotive to the rear end of the last car, where the passage is closed by an angle-cock such as is shown in the drawings. A similar cock is located in the train-pipe under and near each end of each car, so that when the train-pipe is charged with fluid and the brakes thereby released the section of pipe underneath each car may be cut out from the remainder of the train-pipe and the cars disconnected without applying the brakes. It will therefore be obvious that the closing of any of these cocks in the train-pipe between the engineer's brake-valve and the rear of the train would deprive the engineer of the control of the brakes that would be in the rear of the closed cock, and it is therefore aimed to prevent the closing of any of these cocks by accident or by the intentional interference of unauthorized persons, and to accomplish this is the aim of our invention.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like figures of reference indicate similar parts throughout the several views, in which—

Figure 1 is a longitudinal sectional view through the plug-cock, illustrating our invention. Fig. 2 is a transverse vertical sectional view of the same. Fig. 3 is a sectional view, partly broken away, showing the lock in position within the cock and the port closed. Fig. 4 is a similar view showing the port open. Fig. 5 is a top plan view of the locking mechanism. Fig. 6 is a perspective view of the rack-bar and lock. Fig. 7 is a top plan view of the nut which carries the rack-bar and lock. Fig. 8 is an underneath plan view of the plug which receives the locking-pin. Fig. 9 is a detail view of the key employed for unlocking the cock or valve.

Referring now to the drawings by reference-figures, 1 denotes the casing, which is provided with screw-threaded connections 2, and extending through the said casing is a plug 3, which forms the valve, said plug being provided on its upper end with a square, octagon, or other suitable-shaped head 4, which is adapted to receive the operating-lever 5, the limit to the movement of said lever being controlled by the pin 6, which is carried thereby, engaging against the shoulder 7 of the casing. The said plug 3 is provided with a suitable opening 8 and on its underneath or larger end is provided with apertures 9, suitably arranged to receive the locking-pin 10, which is arranged on a segment-bar 11, carried by the rack-post 12, said segment-bar 11 being adapted to fit within the groove 13, which is secured in the bottom of the casing, and said rack-post 12 extending through an aperture 15 in the said nut, where it may be engaged by the cock 16, which is provided with a milled end 17 to engage in the racks of said post, said cock being inserted in the nut 14 through a transverse opening in the same. At the base of the groove 13 the nut is provided with circular apertures 18, which form seats for the springs 19, which are engaged by downwardly-projecting pins 20, carried by the segment-bar 11, said nut 14 being also centrally apertured to receive

a tension-spring 21, which abuts against the lower end of the plug-valve 3.

The operation is as follows: The nut 14 is screwed into the lower end of the casing, as is shown in Figs. 3 and 4, and when the same has been securely adjusted in its position the springs 19 19 will force the segment-bar 11 flush with the upper face of the nut, as is shown in Fig. 5, causing the locking-pin 10 to engage in one of the apertures 9 in the base of the plug and prevent the movement of the said plug from the position in which it has formerly been placed. In case it is desired to move the plug to a reversed position the key is inserted in the side of the nut and into engagement with the rack-post 12, and by turning the key the rack-post and segment-bar are forced downwardly, withdrawing the locking-pin 10 out of engagement with the plug, when the same may be readily moved by means of the lever 5, which is secured on the upper end thereof. By this arrangement it will be observed that it will not be necessary to remove the lever 5 from the plug, thus having the same always at hand for use when needed, as the key may be readily carried in the pocket of the person or persons who may be authorized to operate the cocks or valves.

It will be observed that the lock is entirely automatic in its operation and requires the key to release the same, and we desire to call particular attention to the many purposes to which our lock may be applied, as it will be noted that a faucet, spigot, or any device of this nature may be equipped with the device.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of our invention.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a locking device for cocks and the like, consisting of a casing, a cut-off plug in said casing, a nut in the bottom of said casing, a spring-actuated plug carried by said nut, engaging the cut-off plug, a key for operating the spring-actuated plug to unlock the same to permit the cut-off plug to be operated, substantially as shown and described.

2. In a locking device for angle-cocks and the like, the combination of the cock or valve, a plug therein, a lever for operating said plug, a nut secured in the base of said cock, a rack-post depending through said nut, a segment-bar arranged within a recess in said nut, said bar carrying a locking-bar to engage the plug, a tension-spring arranged within said nut, and means whereby the locking-pin may be disengaged from the plug so as to permit the operation of the same by the lever, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

NELSON CLINE.  
JOHN FARRELL.

Witnesses:

MILTON C. CRIDER,  
WILLIAM H. FLUGGER.