

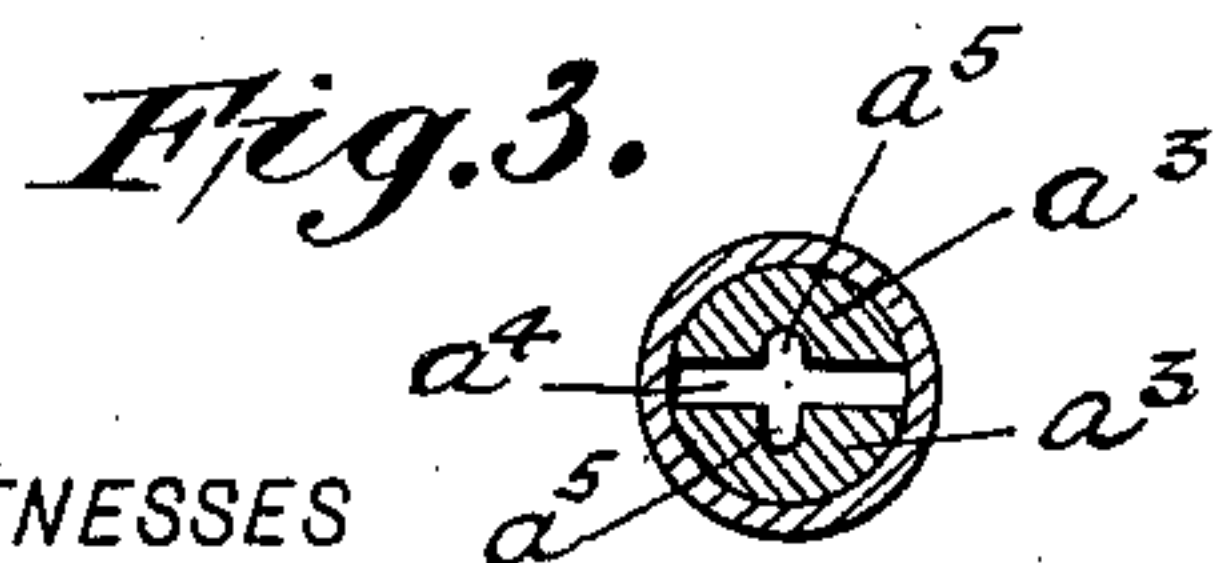
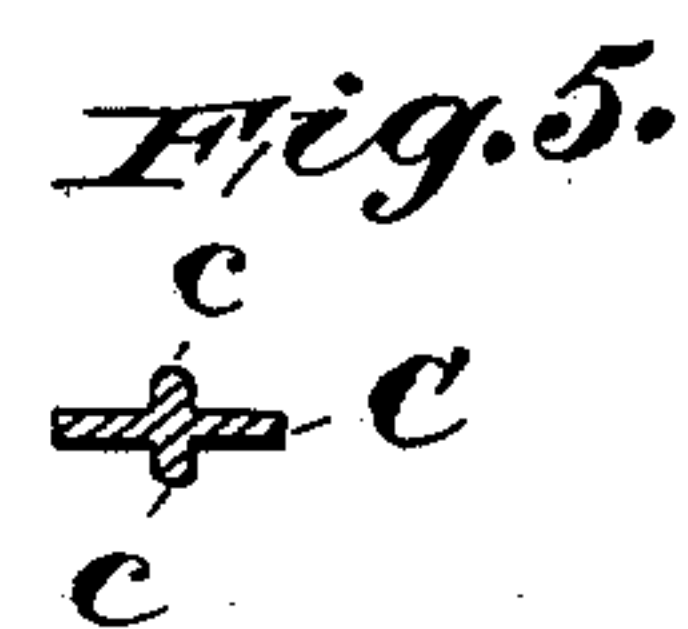
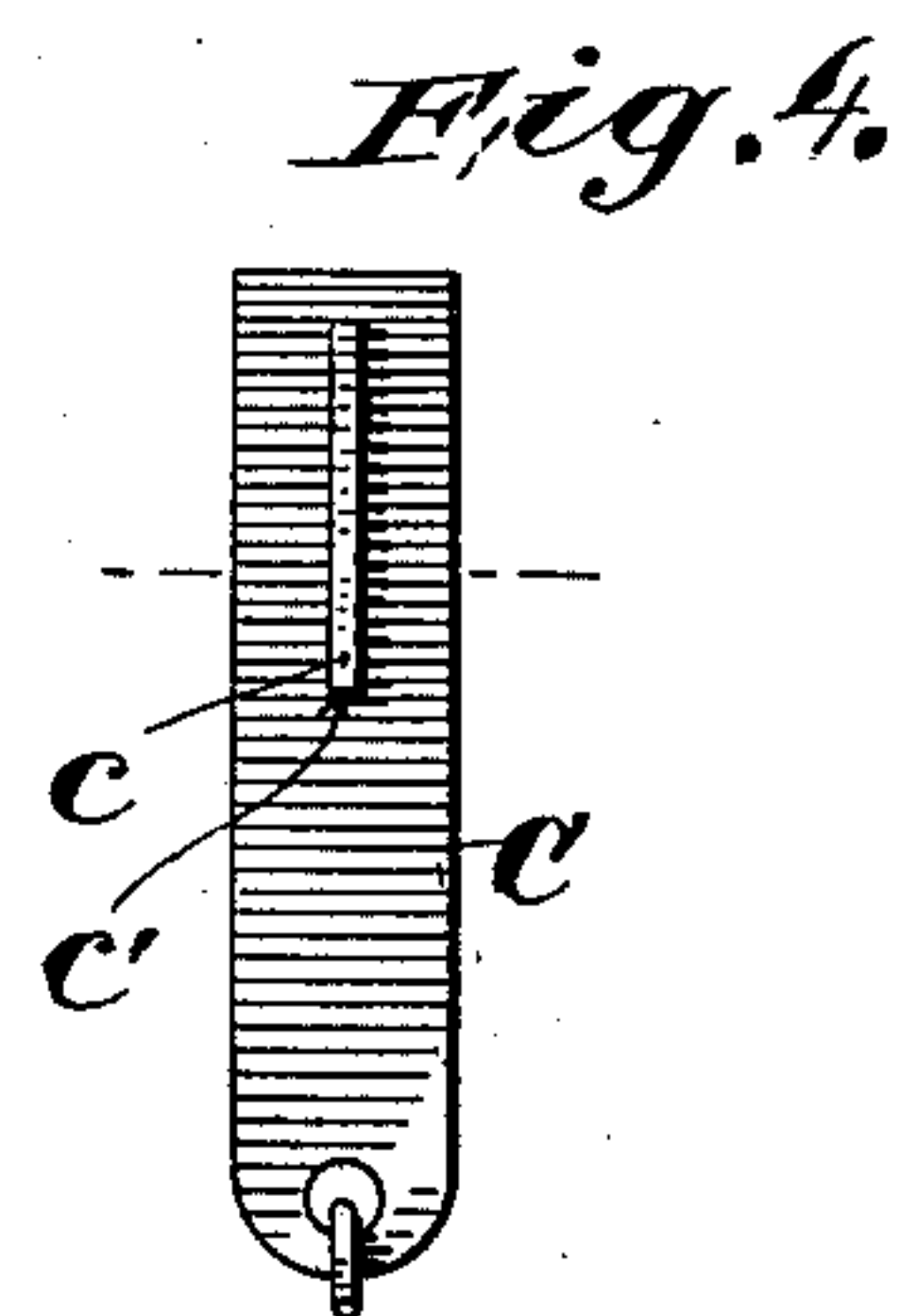
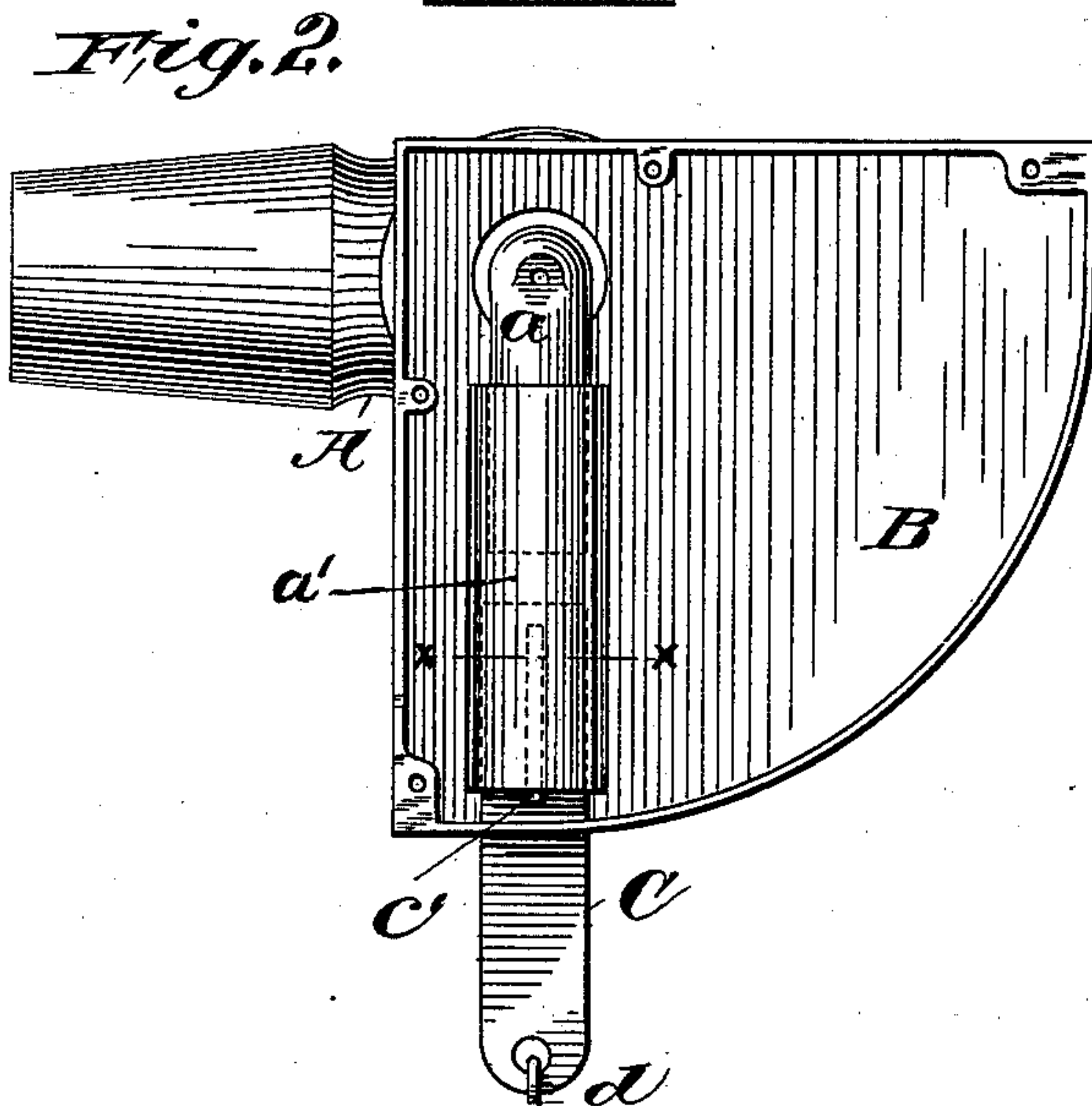
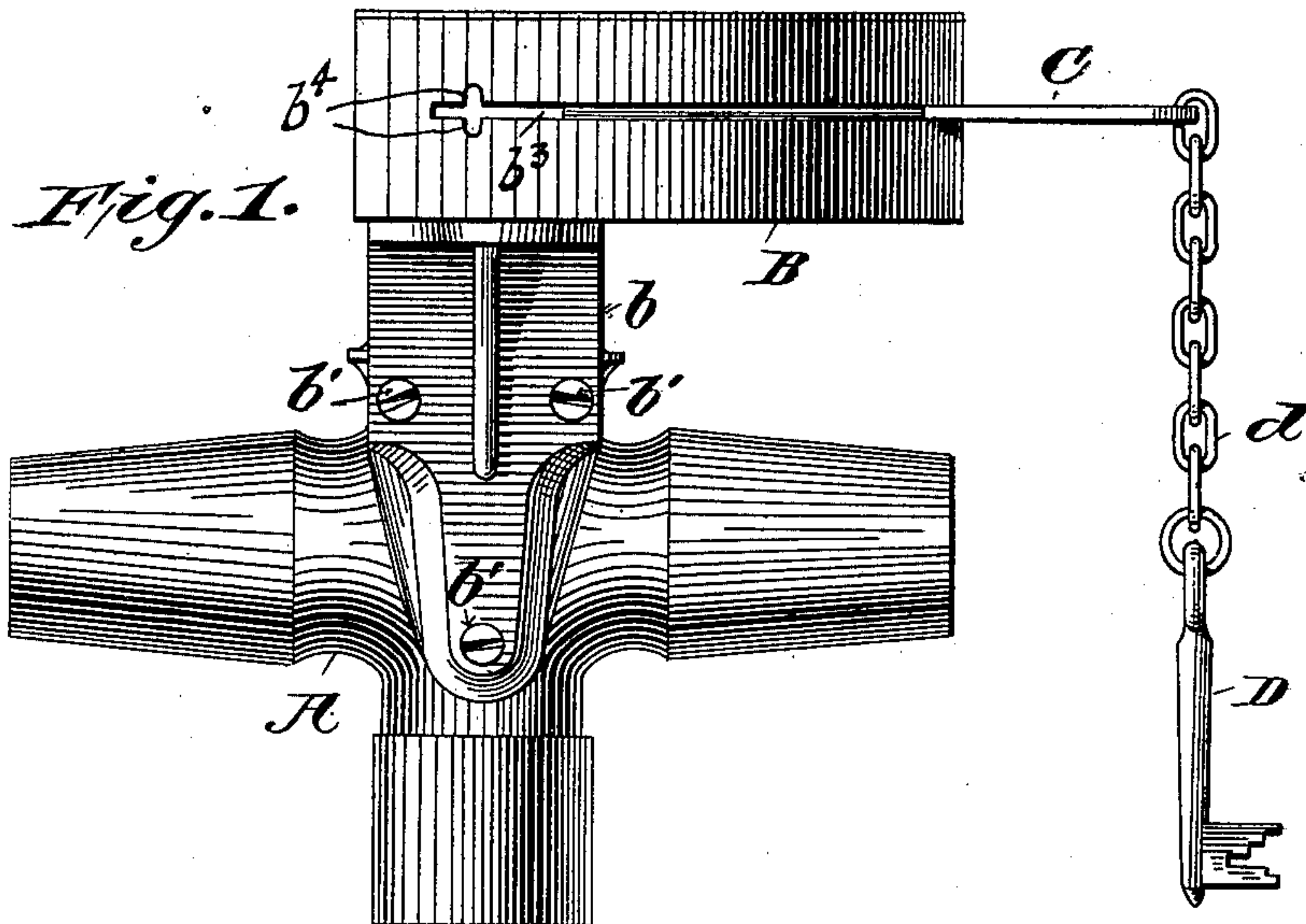
No. 630,354.

Patented Aug. 8, 1899.

P. HUFELAND.
VALVE OPERATING DEVICE.

(Application filed Dec. 5, 1898.)

(No Model.)



WITNESSES

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PHILLIP HUFELAND, OF NEW YORK, N. Y.

VALVE-OPERATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 630,354, dated August 8, 1899.

Application filed December 5, 1898. Serial No. 698,245. (No model.)

To all whom it may concern:

Be it known that I, PHILLIP HUFELAND, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Valve-Operating Devices, of which the following is a full, clear, and exact description.

This invention relates to devices for reminding persons charged with the performance of certain duties to perform those duties. For instance, in buildings where water, gas, electricity, or other commodities are supplied from external sources it is desirable to insure the shutting off and turning on of the supply of the material, the former to avoid overflows or leakage and the latter to place the material at the disposal of the users. It has been proposed heretofore to accomplish this purpose by means of a lock on the valve or other device controlling the supply of material, which lock must be operated before the lock of the door of the building in which the valve is located can be operated, the reason being that the key which operates the door-lock also operates the valve-lock, and in order to release it from the valve-lock for use upon the door-lock the valve must be closed, and, vice versa, when the door-lock has been opened the key must be carried to the valve, inserted in the lock there, and the valve opened to supply the material during the day, this act resulting in trapping the key in the lock until such time as the valve is again closed. Now while this locking device serves a useful purpose the only locks feasible to use are easily "picked," and a vicious janitor or porter, if he desired, could remove the key from the lock in the valve where it is entrapped without turning off the valve. Thus, after all, the devices heretofore used are nothing more than reminders, and where the janitor or other person charged with such duties is successfully reminded to perform those duties the benefits of the invention are achieved as far as possible.

I have recognized the fact that in order to simply remind the janitor or porter of his duties it does not require so complex a mechanism as a lock, and I have therefore devised a reminding apparatus which will serve every purpose of the apparatus heretofore proposed,

but which is simpler in construction and is not a lock.

The invention will be described in detail with reference to the accompanying drawings, in which—

Figure 1 is a front elevation of a valve, showing my improved device attached thereto. Fig. 2 is a plan of the same with the top plate of the casing removed. Fig. 3 is a section through the valve-handle on line *xx* of Fig. 2, and Figs. 4 and 5 are respectively a plan and transverse section of an operating-lever.

Referring to the drawings by letter, A represents a valve controlling the supply of water, gas, or other material to a building. It may also represent an electric switch controlling an electric circuit. To this valve I attach a bracket *b* by means of screws *b'*. This bracket carries a casing B, inclosing the valve-handle *a*. This casing is quadrant-shaped, the valve-handle projecting up through an opening in the bottom of the casing, located at the angle thereof. To adapt my apparatus to the valve, the handle thereof is cut off or made short and a sleeve *a'* slipped over the end and secured thereto. The outer end of the sleeve reaches to a point close to the arc-shaped front of the casing and is plugged up by two semicylindrical pieces *a³*, a flat longitudinal space *a⁴* being left between them for the insertion of an operating-lever. This space is also enlarged by grooves *a⁵* above and below, so as to give it the shape of a cross in cross-section. The valve-handle, with this socketed sleeve, is confined in the casing B and cannot be reached by hand unless the cover-plate of the casing is removed or it is broken.

The arc-shaped front of the casing is provided from end to end with a horizontal slot *b³*, that end of the slot to which the valve-handle points when in its closed position being provided with notches *b⁴*, extending above and below, affording an opening at that point similar in shape to the cross-section of the socket in the sleeve.

Now in order to move the valve-handle a lever of the same character must be passed through the slot in the casing and engage with the socket in the handle. To provide for this, I use a flat lever C, having wings *c* extending longitudinally along its middle line

on both sides and ending in square shoulders c' at the rear end. This lever may be inserted through the end of the slot containing the notches b^4 , and if the valve-handle is in position directly behind it the lever may be thrust into the socket therein. The end of the lever projecting outward may then be used as a handle and the valve turned to the open position, the lever swinging through the slot b^2 to its other extremity. While in this position the lever cannot be removed, because an outward motion thereof will be thwarted by the shoulders c' of the wings of the lever coming against the arc-shaped face of the casing B. Thus in order to remove the lever it is necessary to swing the valve-handle back to the closed position, where the wings c of the lever will come into alinement with the notches b^4 in the slot in the casing.

In order to apply this device to carry out the purpose of the invention, I attach to the lever C in some permanent manner, as by a chain d , the key D, which fits the lock of the front door or other door of the building in which the valve is located and through which the porter first enters the building in the morning. This key might of course be formed on the rear end of the lever C, the idea being merely to have some permanent connection between them.

The operation is as follows: The porter is in possession of the key D and the lever C over night. In the morning he opens the door of the building with the key and must then at once turn on the water, gas, or electricity for use in the building during the day. He approaches the valve, and not being able to open it by hand he is reminded to thrust the lever C through the end of the slot b^2 where the notches are and into the socket in the valve-handle. He then swings the valve to the open position, where he must leave it and where also he must leave the door-key D, because the lever cannot be removed on ac-

count of its engagement with the casing B. When the building is closed for the night, the porter is reminded to turn off the water, gas, or electricity, because he must go to the valve to obtain the door-key. Proceeding to the valve, he must swing the valve-handle to the closed position before he can remove the key. Having done so, the key is obtained and the building locked.

It is obvious that the porter may defeat the object of the invention by using some other device to open and close the valve, but it would be just as easy for him to manipulate the valve by the lever designed for the purpose as to do it in any other way designed by himself, so that there would be no object in his using other means to operate the valve than those provided unless he is bent on mischief, in which event complex locking mechanisms would be but little more effective in dissuading him from his purpose. Hence the object of the invention is accomplished as well with the simple device herein described as with the more complex mechanisms referred to.

Having described my invention, I claim—

The combination with a valve of a casing attached thereto and inclosing the valve-handle, the casing being provided with an elongated slot, and an operating-lever shaped to enter a certain part of the slot in the casing and to engage with the valve-handle and provided with a shoulder adapted to engage with the casing to prevent its removal from the valve-handle and the casing when occupying any other position in the slot than that through which it entered the slot.

In witness whereof I subscribe my signature in presence of two witnesses.

PHILLIP HUFELAND.

Witnesses:

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