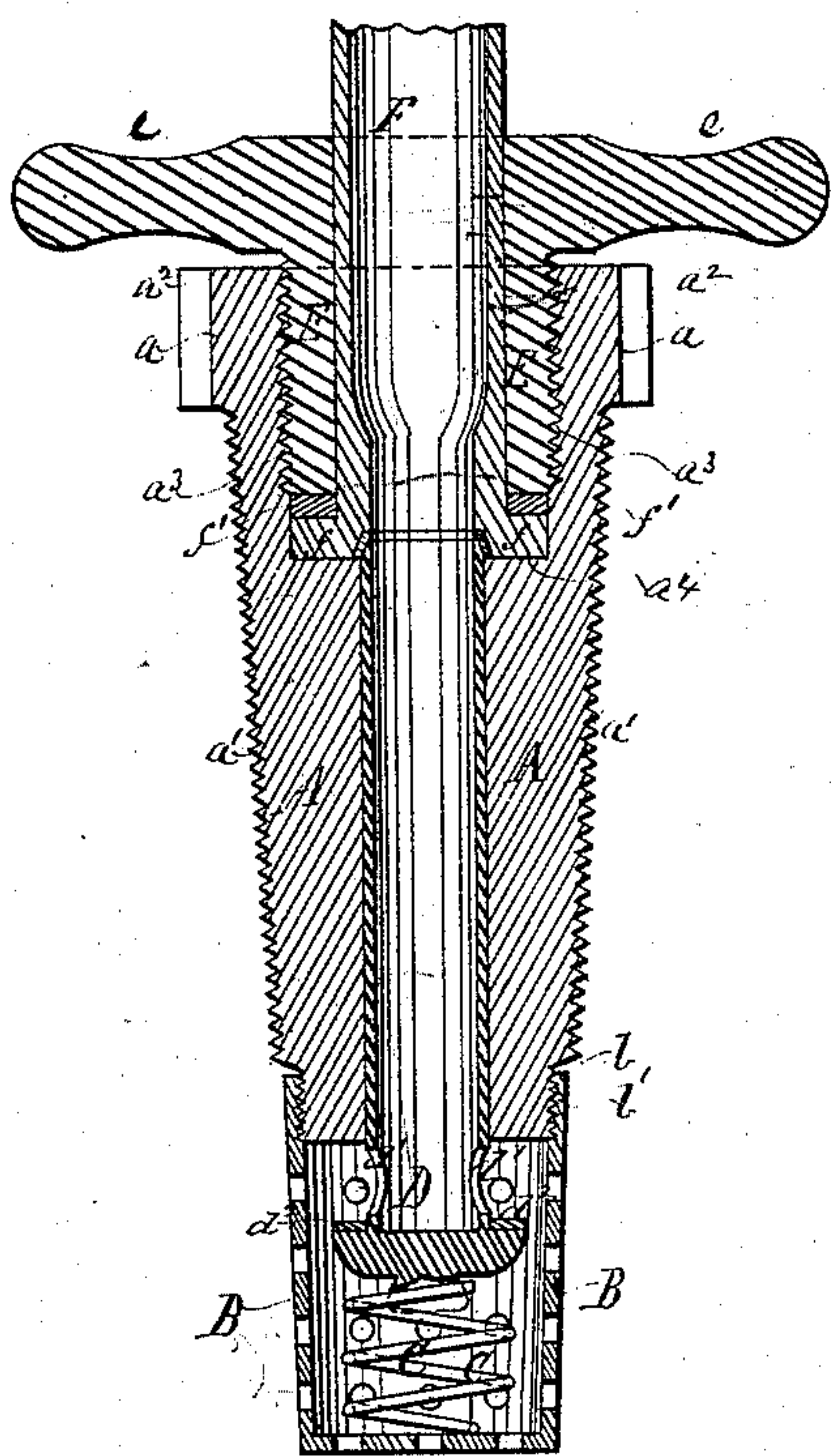


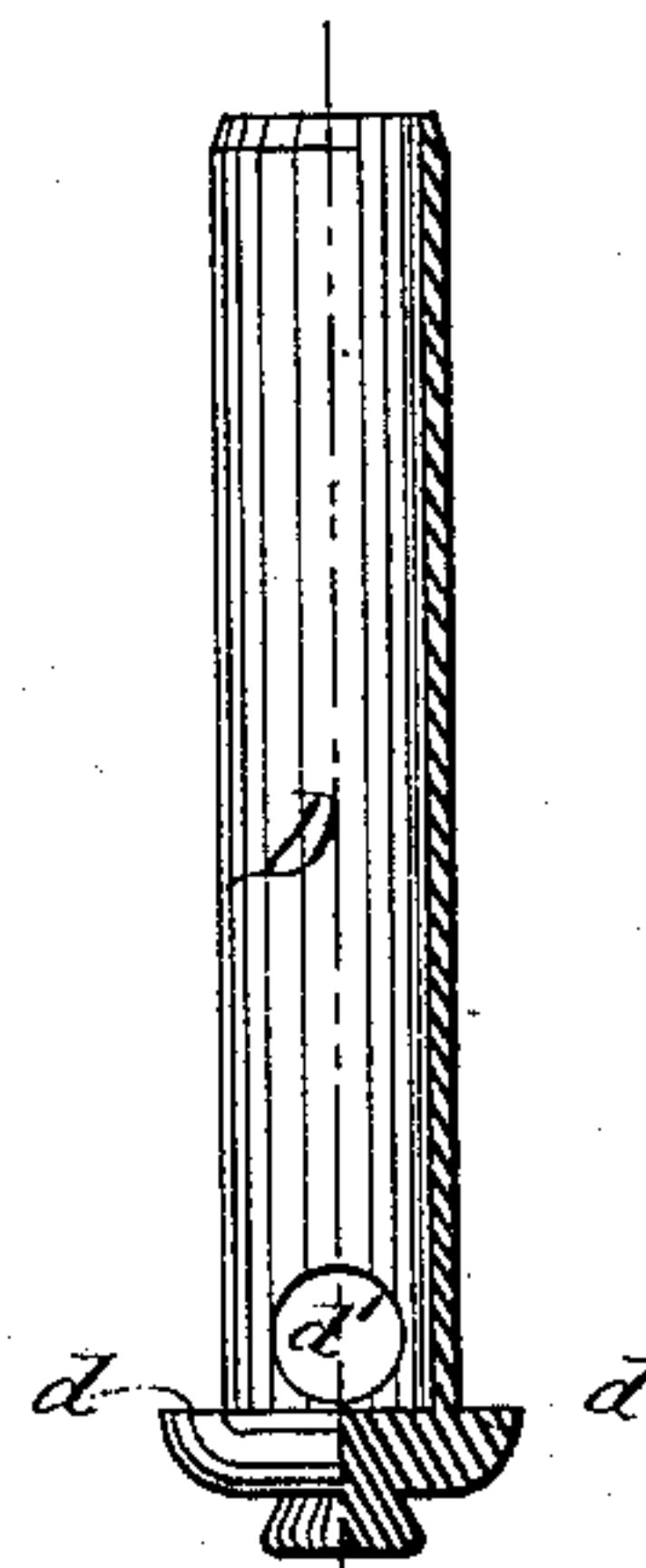
J. P. GRUBER.  
Faucet Attachment.

No. 219,254.

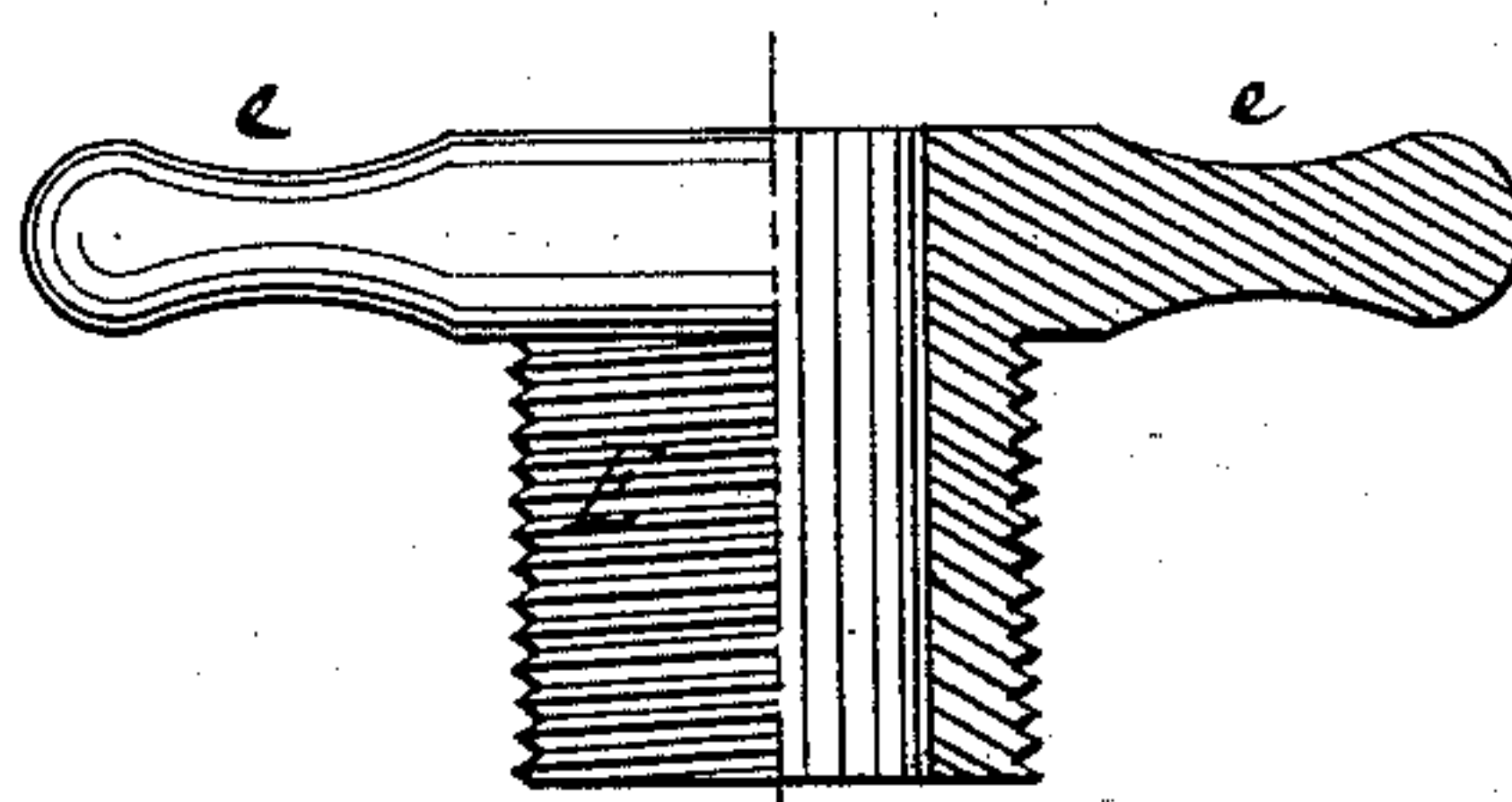
Patented Sept. 2, 1879.



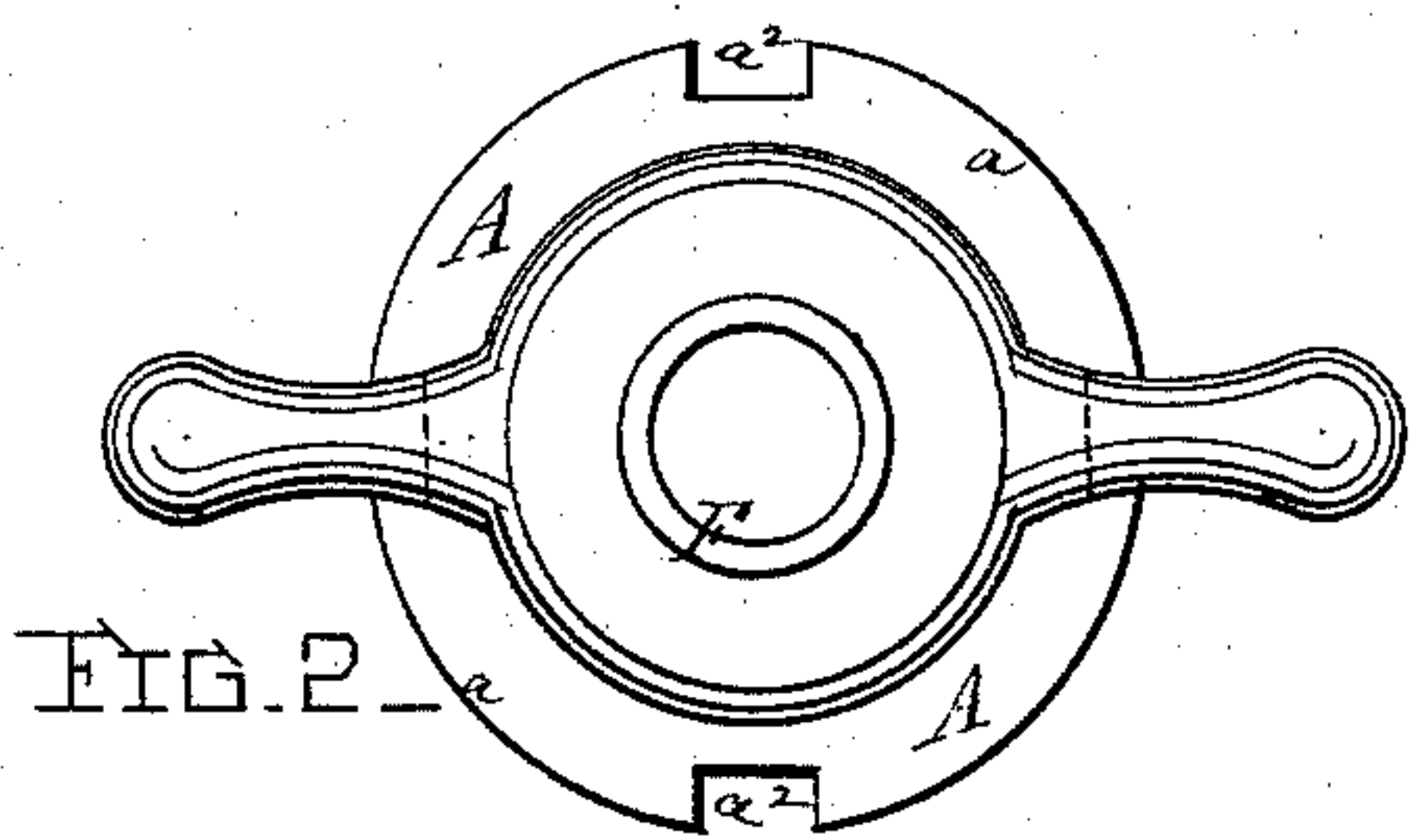
— FIG. 1. —



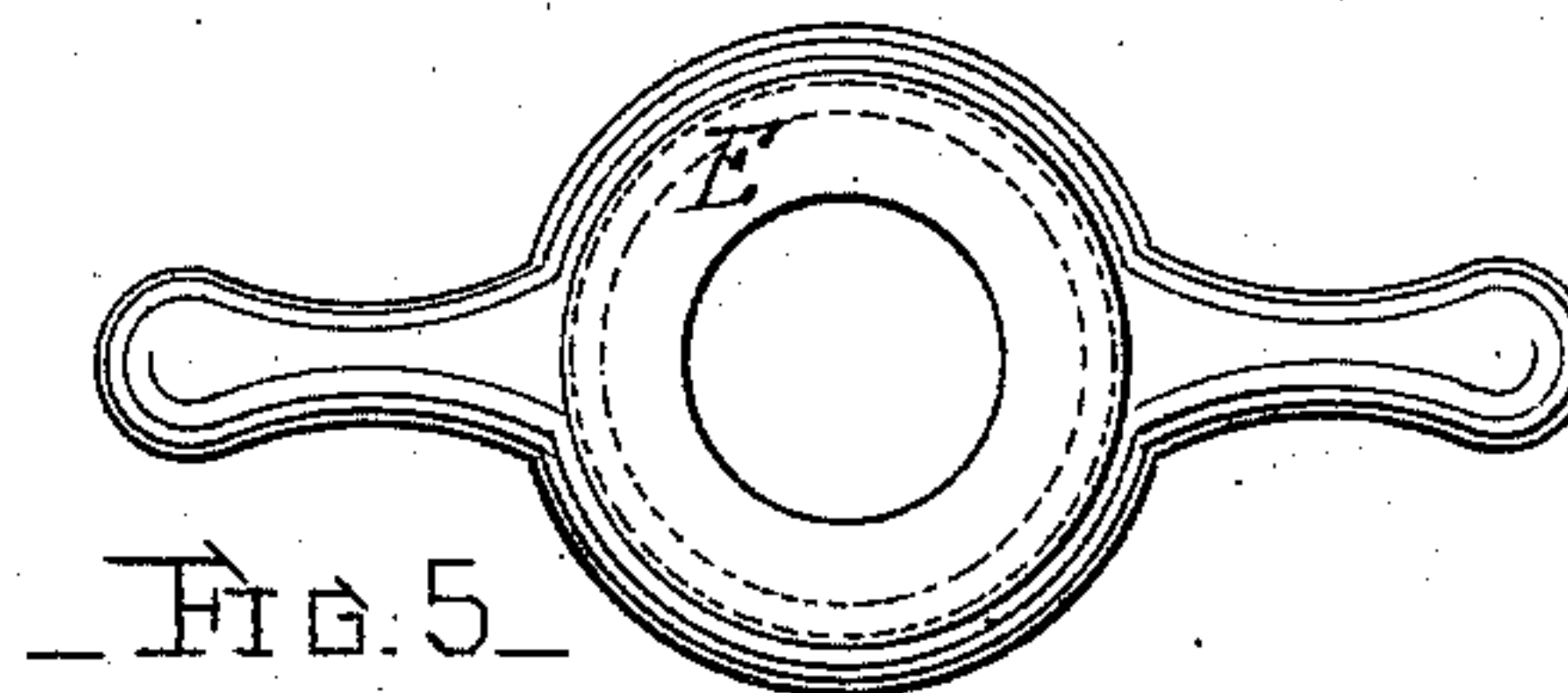
— FIG. 3. —



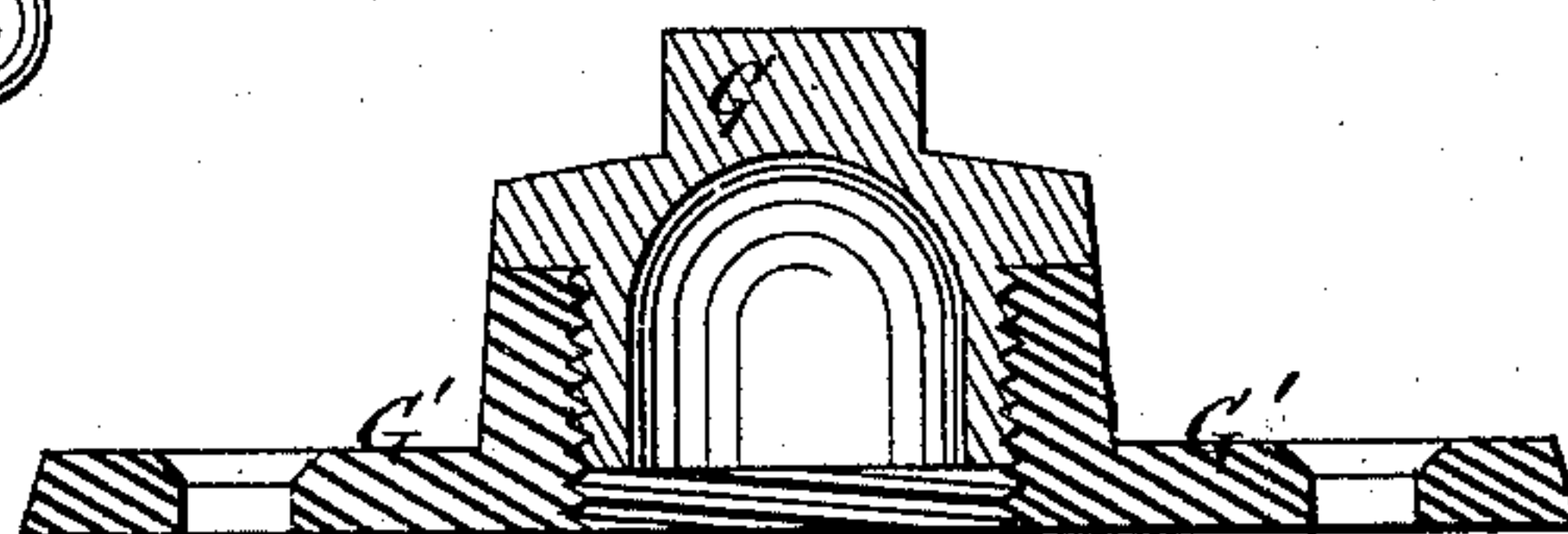
— FIG. 4. —



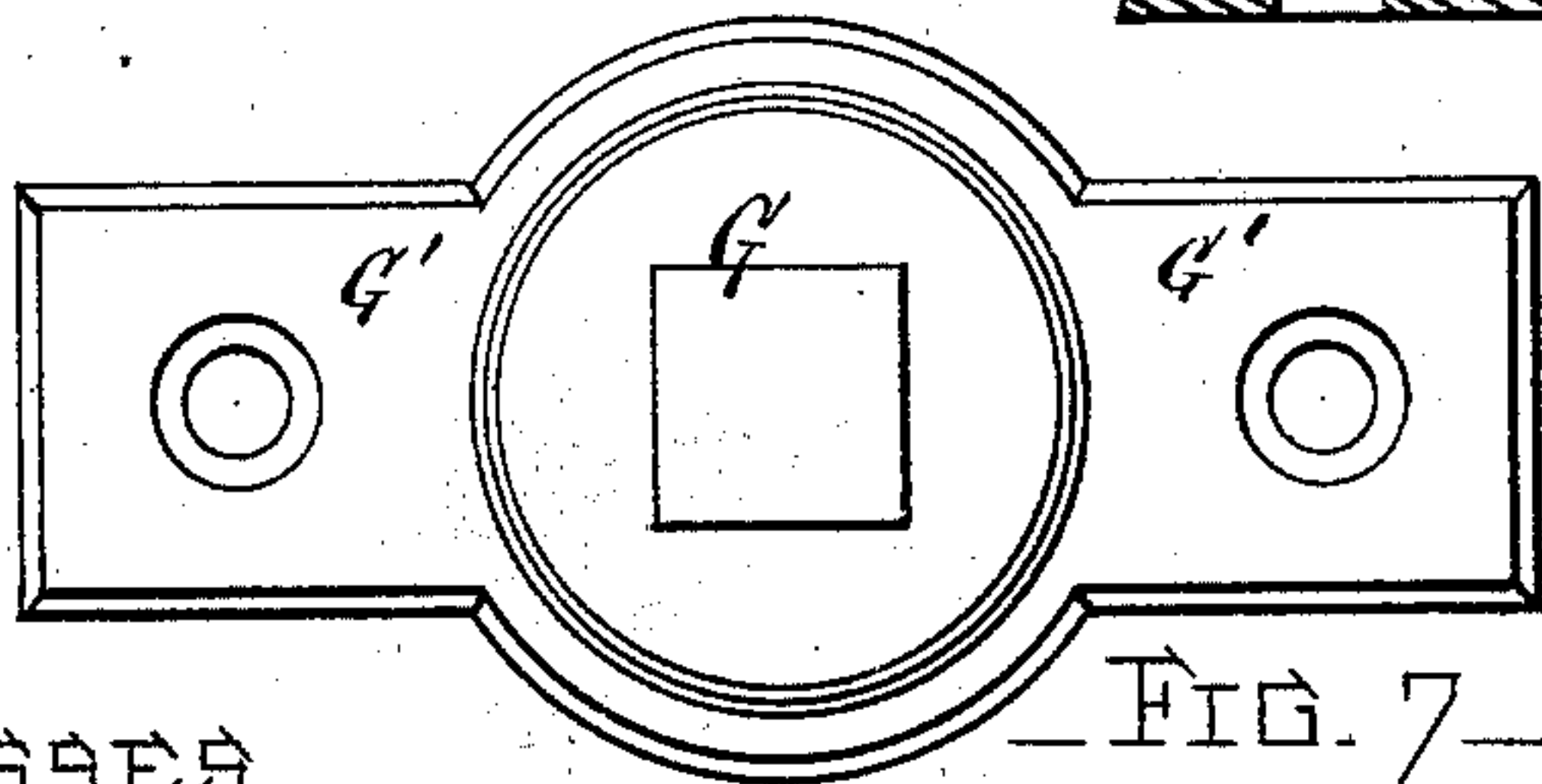
— FIG. 2. —



— FIG. 5. —



— FIG. 6. —



— FIG. 7. —

— WITNESSES. —  
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# UNITED STATES PATENT OFFICE.

JOHN P. GRUBER, OF JERSEY CITY, NEW JERSEY.

## IMPROVEMENT IN FAUCET ATTACHMENTS.

Specification forming part of Letters Patent No. **219,254**, dated September 2, 1879; application filed June 17, 1879.

*To all whom it may concern:*

Be it known that I, JOHN P. GRUBER, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Faucet Attachment, of which the following is the specification.

The nature of this invention consists in providing a metallic bushing, which is to be screwed or otherwise securely fastened into the side or end of the barrel in lieu of, or in addition to, the ordinary bung-hole; and within this bushing, and attached to it, there is to be a valve-piece so arranged as to be fixed in an opened or closed position by means of a set-screw, which said set-screw is made in the form of an annular coupling, by means of which the service-pipe is to be attached to the barrel, or rather to the aforesaid bushing, which is fixed to the barrel. When the service-pipe is to be attached to the barrel, the said coupling is to be screwed into the bushing by means of male and female screw-threads, which permit the said service-pipe and its annular coupling to be fully and securely attached to the said bushing before the bottom end of the bushing, acting as a set-screw, touches the top end of the valve-stem, and then, by continuing to turn the set-screw or annular coupling-piece, the valve will be pressed down upon its closing-spring and its ports opened, so as to establish free communication between the interior of the barrel and the service-pipe, an ordinary faucet or stop-cock being attached to the outer or discharge end of the service-pipe, from which the contents of the barrel are to be drawn in the ordinary manner.

When the service-pipe is to be detached from the barrel, the first few turns of the annular coupling-piece will release the valve-piece, so as to allow a spring, which constantly presses upon it, to throw it back to its seat, so as to close its ports and break the connection between the interior of the barrel and the service-pipe, when a few more turns of the screw will detach the service-pipe from the bushing, and the old or empty barrel may be removed and a new one attached in the same manner as that above described.

After the service-pipe shall have been de-

tached, a screw-plug will be inserted into the outer end of the bushing, so as to prevent accidental bruising or injury to the threads of the bushing.

By using these connections for beer, ale, and other similar barrels, the ordinary difficulty and danger of tapping the barrels will be wholly obviated, and the operation will become so simple that a woman or child can perform the operation, and the barrels will receive much less injury than they do by the present method of tapping.

The invention will be readily understood by reference to the accompanying drawings, of which—

Figure 1 is a central sectional elevation of one of the improved bung, faucet, and washer devices. Fig. 2 is a general plan of the same. Fig. 3 is a half-elevation and half-section of the valve-piece. Fig. 4 is a half-elevation and half-section of the annular coupling or set-screw piece. Fig. 5 is a general plan of the annular coupling-piece. Fig. 6 is a sectional elevation of the closing or guard plug for protecting the threads of the bushing when the coupling is not attached, and also of the hold-plate for securing it to the barrel when not in use. Fig. 7 is a general plan of the parts shown in Fig. 6.

The bushing A is constructed tapering on the outside below its flange *a*, and the tapering part is cut with V-shaped screw-threads *a'*, by means of which it is to be screwed into or attached to the barrel. A perforated strainer or guard-piece, B, cylindrical in form, with its bottom end closed, is attached to the bottom or inner end of the bushing-piece by means of the screw-threads *b b'*. This guard-piece fills the triple office of a strainer, a spray or washer nozzle, and a rest for the bottom end of the spiral spring C, which spring is employed to keep the valve D closed, except when it is opened by the action of the set-screw, as hereinafter described. The flange *a* of the bushing-piece has notches *a''* cut in its periphery, by means of which it is to be screwed into the barrel.

The interior of the bushing A is chambered at its top end and provided with screw-threads



$a^3$ , by means of which to attach the annular coupling or set-screw piece. A square shoulder,  $a^4$ , at the bottom end of this chamber forms a stop, against which the coupling or service-pipe may be screwed. Between the shoulder  $a^4$  and the inner end of the bushing-piece a suitable hole is bored for the reception of the valve-piece D. The valve-piece D is tubular in form, and has a flange,  $d$ , projecting from its sides at or near its lower end, which is closed below the said flange, while just above the said flange there are apertures or ports  $d^1$  made through the sides of the said valve-piece, so as to establish a communication between the exterior and interior of the said valve-piece at or near its lower end.

Placed on top of the flange  $d$ , and surrounding the tubular part of the valve-piece, is an annular packing-piece,  $d^2$ , of india-rubber, leather, or any suitable material, against which the valve may be closed, so as to make it perfectly water-tight, this packing-piece being pressed up against the bottom end of the bushing-piece by the spring C, so as to keep the valve closed, except when it is pressed down and opened by the set-screw, as hereinafter described. The length of the cylindrical part of the valve-piece is such as to allow its top or outer end to extend beyond the square shoulder  $a^4$  when the parts are assembled together, and the valve is pressed up by its spring C, so as to cause it to rest firmly on its seat or on the interposed packing-ring  $d^2$ , the distance which the top end of the piece D extends beyond the shoulder  $a^4$  being equal, or nearly equal, to the diameter of the apertures or ports  $d^1$ , so as to leave these openings wholly uncovered and open when the valve-piece is pressed down, so that its top end shall be even with the shoulder  $a^4$ .

The annular coupling-piece or set-screw E is clearly shown in Figs. 4 and 5. A pair of radial arms,  $e$ , project outwardly from its sides near the outer end, and by means of these arms it may be screwed into its seat in the bushing-piece A, or unscrewed therefrom, as may be required, the thumb and fingers of the operator applied to these radial arms being quite sufficient to screw the said coupling-piece into or out of its seat.

Below the arms  $e$  the periphery of the piece E will be provided with screw-threads  $e'$ , by means of which to engage it with the screw-threads  $a^3$  of the chambered part of the bushing-piece A.

The piece E has a central aperture, through which is passed the service-pipe F, the end of the said service-pipe terminating in a projecting flange,  $f$ , which extends outwardly under the inner end of the coupling-piece E, and is pressed down by the said coupling-piece when the parts are assembled together, as shown in Fig. 1, a packing-piece,  $f'$ , being interposed between the flange  $f$  and the end of the piece

E, so as to insure a water-tight fit between these parts.

An annular groove may be turned in the outer side of the flange  $f$  for the purpose of introducing a packing-piece therein, which will close upon the end of the valve-piece D when the piece E is screwed down upon it.

The service-pipe F may be of any desirable length to connect the barrel with the station at which its contents are to be drawn, and a suitable faucet will be attached to its outer end, so as to draw the contents of the attached barrel therefrom as may be desired.

The parts hereinbefore described are to be employed as follows: The bushing A is to be screwed into a suitable aperture provided for it in the side or end of the barrel to which it is to be applied, the valve D, spring C, and guard B having previously been assembled together in the manner described and shown in Fig. 1. Then the coupling-piece E, with the flanged end of the pipe F within it, will be screwed into the outer end of the chambered bushing A until the top end of the valve-piece D is pressed down even with the shoulder  $a^4$ , at which time the inlet ports or apertures  $d^1$  will be wholly uncovered and open, and the contents of the barrel will be free to flow into the discharge-pipe, from which the outflow will be regulated by the discharge-faucet. (Not shown.)

Previous to the time of screwing the piece E down upon the valve the spring C will throw the flange  $d$  up against its seat on the bottom end of the piece A, or against the interposed packing-piece  $d^2$ . The contents of the barrel will thus be securely closed up within it, no matter how much the pressure thereon may be, and the valve will immediately return to its closed position as soon as the coupling-piece E is unscrewed enough to allow it to do so.

The coupling and uncoupling of the piece E is so simple an operation that almost any person may perform it, and the parts are so simple that they can easily be put together and taken apart again for cleansing or repairs.

In order to protect the outer end of the bushing-piece A from injury during the handling or transportation of the barrels, I employ a stopper, G, which I screw into the threads  $a^3$ , and have the outer end of the piece G constructed so as to extend beyond the bushing-piece A sufficiently to protect it from bruises or other injury.

A hold-plate, G', into which the stopper-piece G may be screwed and carried when not needed in the bushing-piece, will be provided, and attached to the end of the barrel, so as to be protected by the projecting chines of the barrel.

When this device is to be used as a washer of the inside of the barrel, a hose will be attached to the outer end of the bushing-piece,

and then water driven or forced into the barrel through the valve and the perforated strainer on the inside, and the water will escape through the perforations of the strainer in a spray or shower that will thoroughly wash the inside of the barrel.

Having described my invention, I claim—  
The bushing A, tubular valve D, projecting

through the bushing and operated by the pipe F, and screw E, in combination with the packing *f'*, strainer B, and spring C, substantially as described.

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Witnesses:

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