

A. O'BRIEN.
FAUCET.

APPLICATION FILED SEPT. 9, 1901.

Fig. 1.

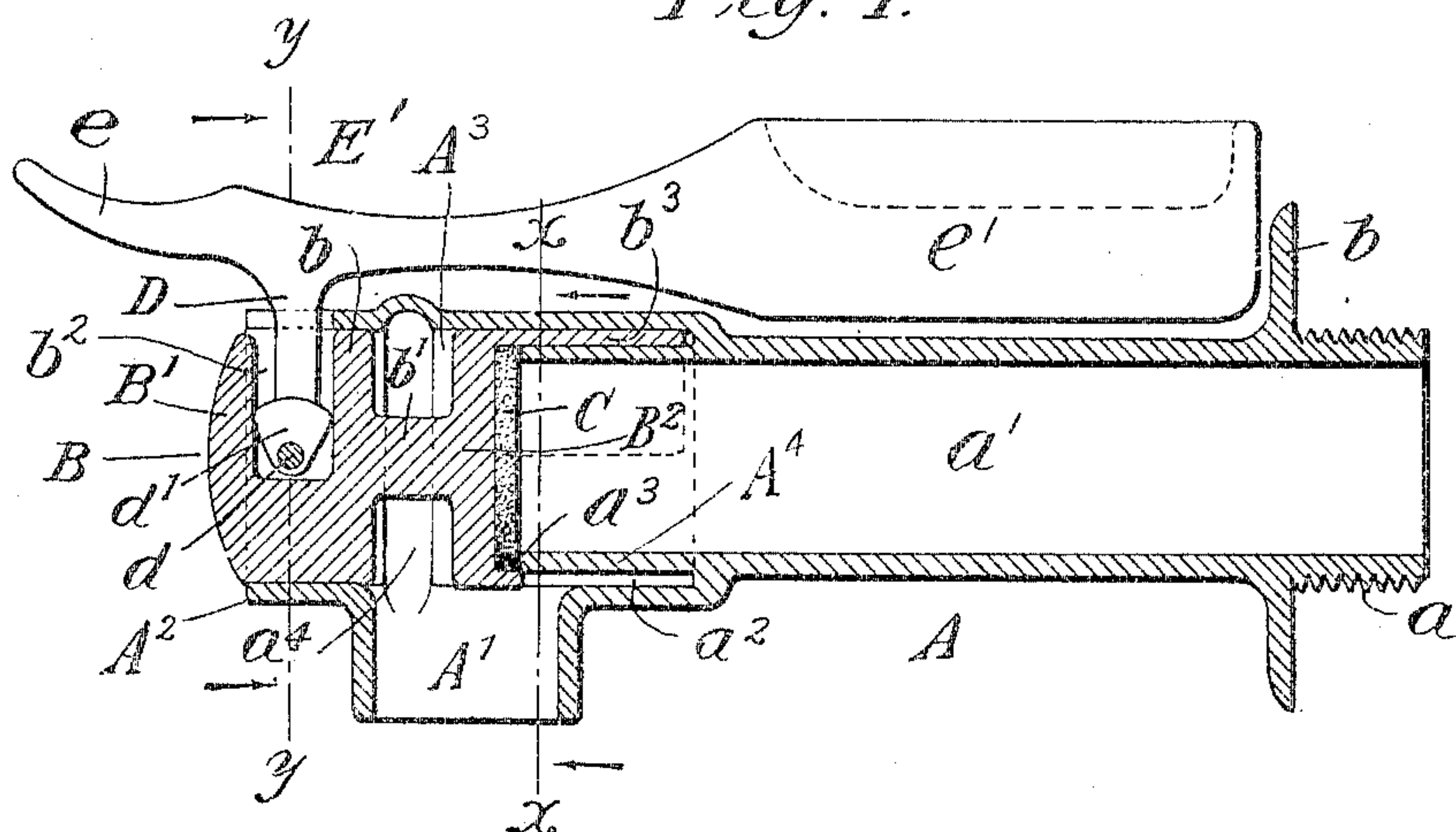


Fig. 2.

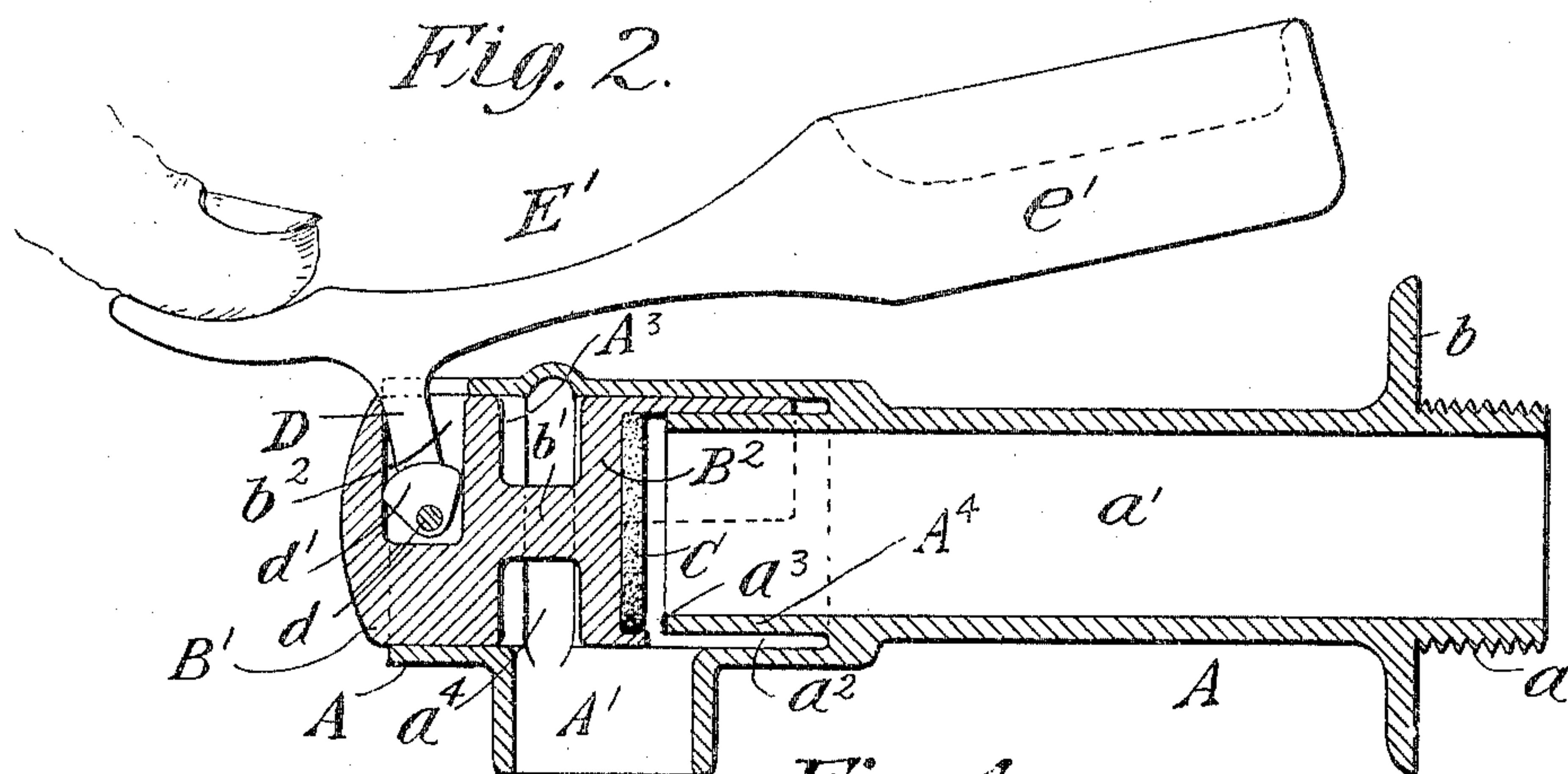


Fig. 4.

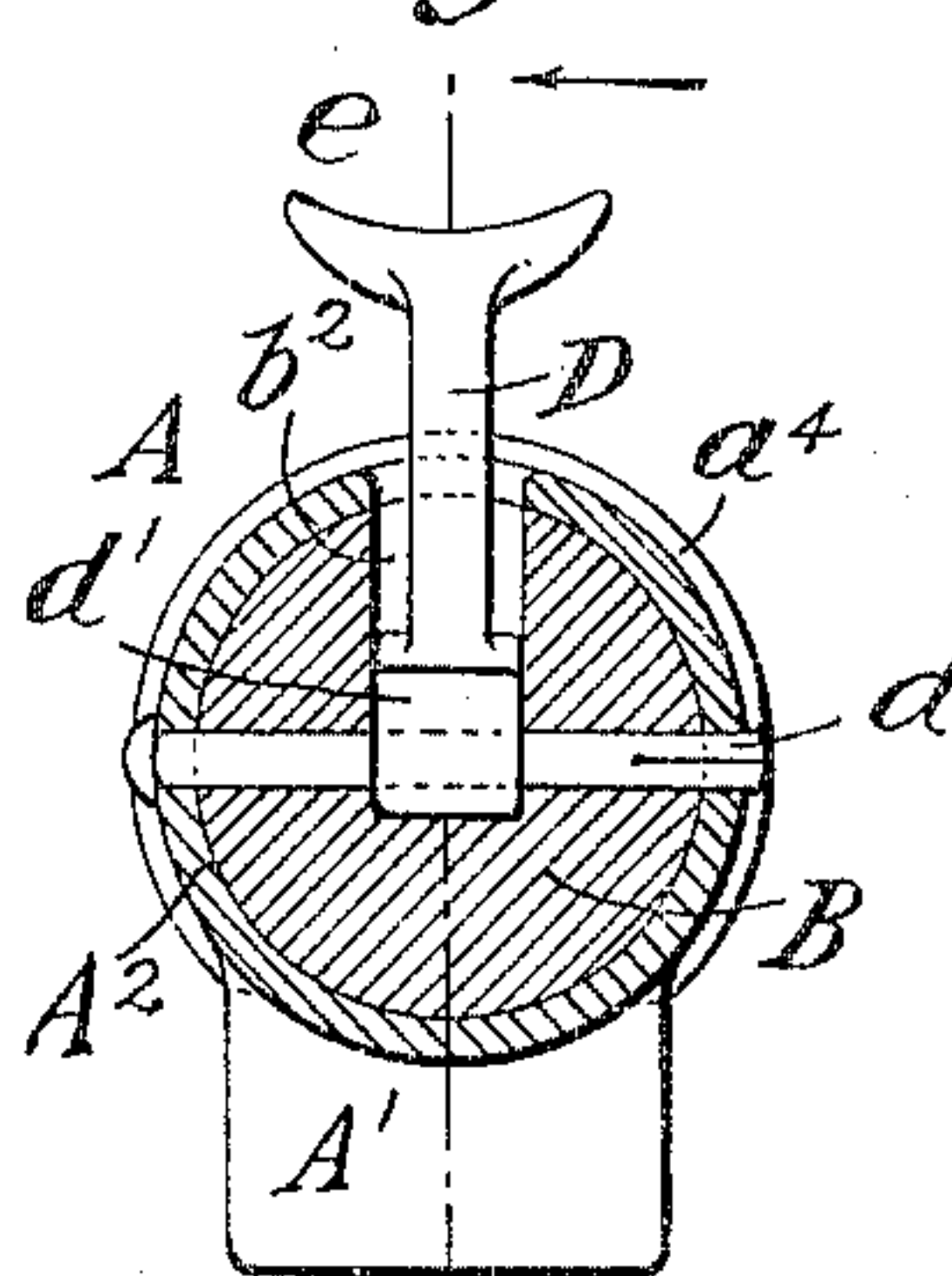


Fig. 3.

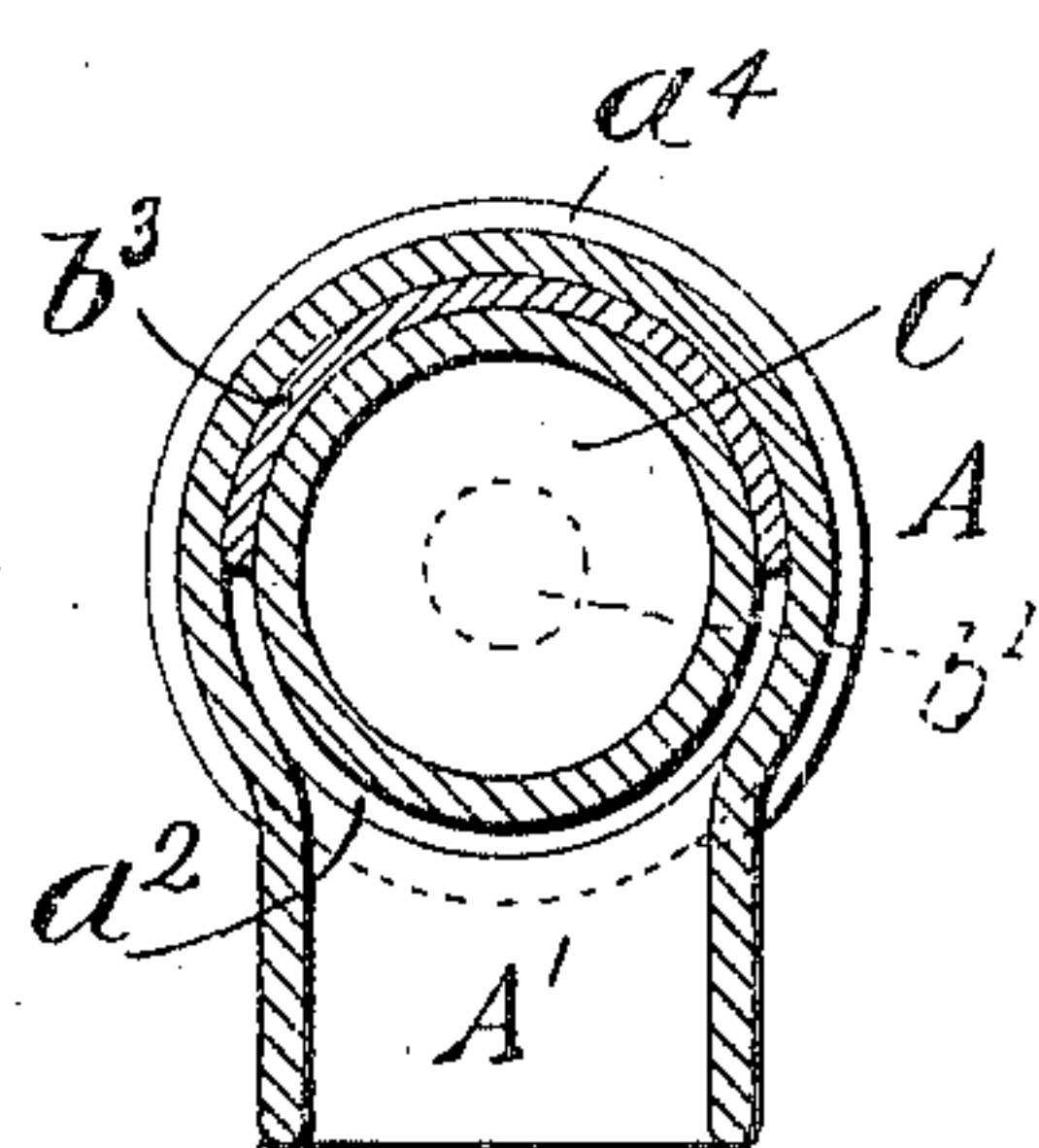
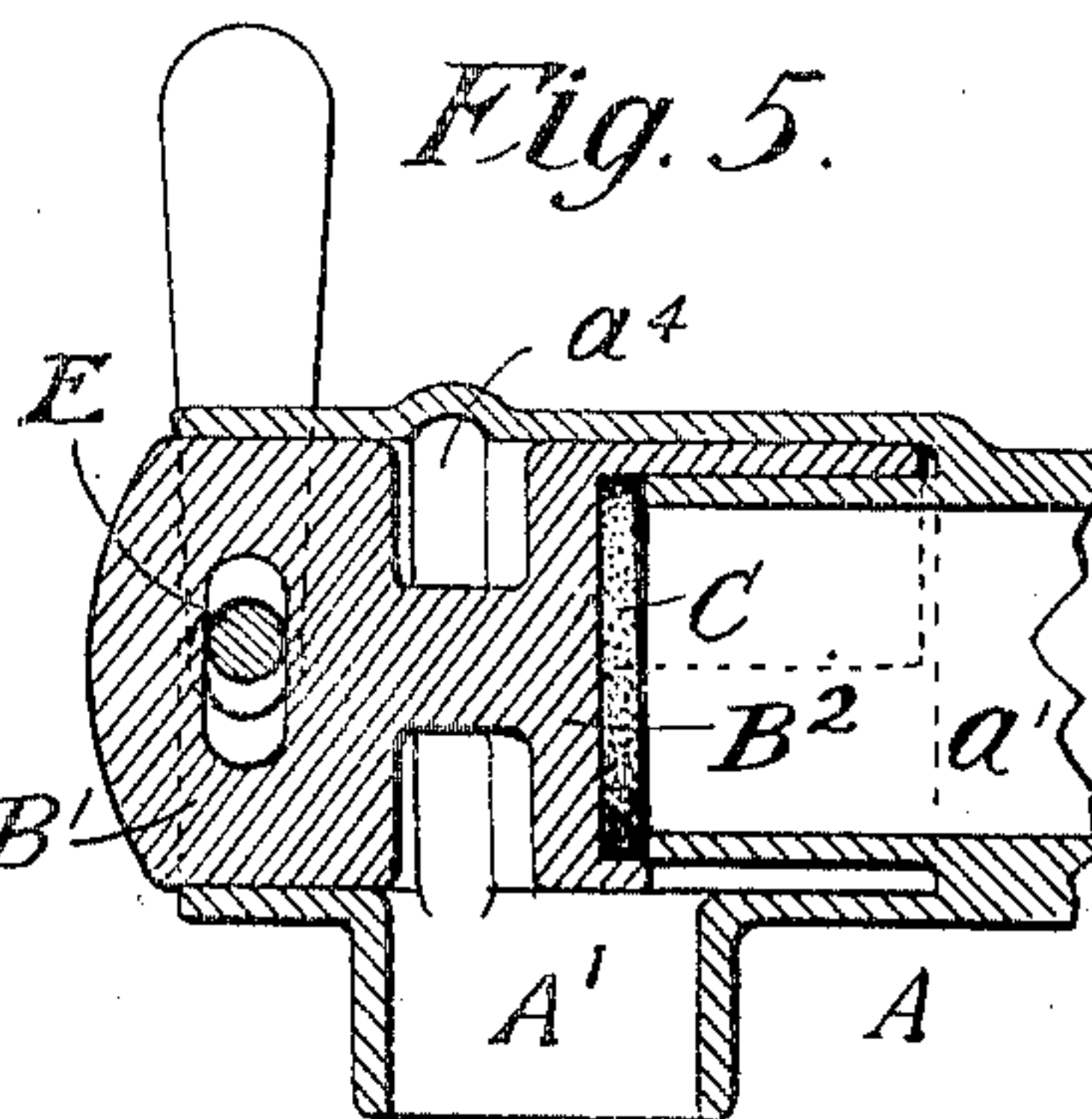


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

ARTHUR O'BRIEN, OF CHICAGO, ILLINOIS, ASSIGNOR TO ARTHUR H. RUGG
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FAUCET.

SPECIFICATION forming part of Letters Patent No. 789,445, dated May 9, 1905.

Application filed September 9, 1901. Serial No. 74,775.

To all whom it may concern:

Be it known that I, ARTHUR O'BRIEN, of Chicago, in the county of Cook and State of Illinois, have invented an Improved Faucet, of which the following is a specification.

My improved faucet may be used for many purposes, both in the line of plumbers' goods and for many special purposes where simplicity, cheapness, and durability of construction are the essential requisites, and belongs to that class of faucets set forth and claimed in my application for United States Letters Patent on self-closing and siphon valves, filed January 23, 1902, Serial No. 90,912, in which the valve-closure is provided with a stem having a recess in one side thereof adapted to receive a cam which operates the valve-closure.

My invention consists primarily in a cylindrical body having a central bore extending the full length and open at both ends thereof and a spout depending from the outer end thereof, a plunger fitted in the open outer end of the body to reciprocate therein and having a packing-disk to bear against a valve-seat projecting from the central bore of the body, and suitable means for holding the plunger and packing to bear against the valve-seat and receive any required pressure of liquid against the inner ends thereof.

In the accompanying drawings, Figure 1 is a longitudinal section of a faucet with the plunger-valve closed by a weighted handle; Fig. 2, a similar view thereof with the plunger-valve opened by the pressure of the thumb against a weighted handle; Fig. 3, a vertical section in line *x x* of Fig. 1; Fig. 4, a similar section in line *y y* of Fig. 1, and Fig. 5 a longitudinal section of my improved faucet fitted with a non-self-closing plunger-valve and cam-handle.

The body A of the faucet has a thread *a* and flange *b* at its inner end, a spout A' depending from the outer end thereof, a central bore *a'* extending the entire length and open at both ends thereof, the outer end A² of the bore *a'* being of larger diameter than the inner end thereof, the outer end of the contracted portion of the bore falling within the en-

larged outer diameter thereof, thus providing a short internal cylinder A¹ within the bore having an annular pocket *a*² surrounding the same, the rim of said internal cylinder forming a valve-seat *a*³, against which the packing C of the plunger-valve B bears to close the faucet, and the annular pocket *a*² providing a recess into which a segmental flange *b*³, projecting from the inner end of the plunger-valve, is received to thus provide an extended bearing for the plunger-valve within the bore of the body and close the upper and outer end of the bore more effectively against leakage.

The enlarged outer end A³ of the faucet-body A has a circular recess *a*¹ upon the inner surface and leading to the outer part of the spout to provide a gutter for carrying off any liquid which may force its way between the outer surface of the plunger-flange *b*³ and the adjacent surface of the annular pocket *a*² of the cylinder-bore.

The middle portion of the plunger-valve B has a neck *b'* to connect the two disk-shaped end sections B¹ B², thus to allow any leakage to pass freely around the plunger to the spout. The inner section B² of the plunger-valve has a recessed face to receive the packing-disk C and is held within the same by the pressure of the liquid against the inner face thereof, the rim of the packing-disk being securely held against the valve-seat *a*³ by the handle-cam.

The handle D has a cam-shaft *d*, fitted in bearings in the outer end of the body, and a cam *d'* thereon which bears upon the opposite walls of a recess *b*² in the outer section B¹ of the plunger, the rocking of the handle thus serving to open and close the plunger-valve. When a non-self-closing valve is employed, a simple bar or lever E is attached to the cam-shaft, as shown in Fig. 5, and when a self-closing valve is employed a weighted lever, as clearly shown in Figs. 1 and 2 of the drawings, is employed, the weighted lever comprising an arm E', secured to the cam-shaft *d*, a thumb-piece *e* upon the outer side thereof, and a weighted bar *e'* upon the inner side thereof and extending backwardly over

the body of the faucet, the said parts being so proportioned in length and weighted to close the plunger-valve against any required pressure. The upper end of the weighted bar *c'* 5 has a gutter therein to receive finger-rings or pins, studs, or like small articles removed from the person while the faucet is in use in connection with a washbowl or bath-tub.

It is evident that the few parts employed 10 and the simplicity of the construction of said parts insures the production of a neat inexpensive faucet adapted to nearly every variety of purpose for which cocks and faucets are used, and it is also apparent that the plunger- 15 valve may at any moment be removed from the body of the faucet and the entire interior thereof be thoroughly cleansed or sterilized when the faucet is used in connection with a coffee-urn milk-reservoir and where other 20 liquids are employed which would contaminate the inner surfaces of the faucet.

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

1. A faucet-body having a central bore extending the full length thereof and open at 25 both ends, a short, internal cylinder therein providing an annular cup between said cylinder and the body, a valve-seat on the end of said cylinder, a reciprocating plunger-valve, 30 a segmental flange thereon adapted to seat in said cup, a spout depending from the body and means for operating said plunger.

2. A faucet-body having a central bore larger at its outer end, a valve-seat therein, 35 an annular pocket surrounding said valve-seat and the inner end of the smaller bore, a discharge-spout depending from said body outside of the valve-seat, a plunger-valve fitted in the open outer end of the body, a segmental flange thereon adapted to fit in said pocket, 40 a weighted lever extending longitudinally of

the body of the faucet and means operated thereby acting to reciprocate the plunger.

3. A faucet-body having a central bore, an internal cylinder-section within the bore providing a valve-seat at the outer end thereof, a discharge-spout depending from the body outside of the valve-seat, a plunger-valve having a segmental flange to project into the pocket 45 between the valve-seat cylinder-section and the outer end of the body and means for operating the plunger-valve substantially as described. 50

4. A faucet-body having a central bore, an internal cylinder-section within the bore, a 55 valve-seat at the outer end thereof, a plunger-valve, a segmental flange thereon fitting between the valve-seat cylinder and the outer end of the bore, a circular recess or gutter in the outer end of the bore opposite the discharge-spout and means for operating the 60 plunger-valve.

5. A faucet-body having a central bore extending the full length thereof, the outer portion of said bore being larger than the inner 65 portion and providing an annular cup partially inclosing said inner bore, a circumferential recess in said outer portion, a plunger-valve fitted in the outer end of the body, a circumferential groove therein adjacent to 70 said recess, a segment-flange on the inner end of said plunger and extending into said cup, a cam-receiving recess in said plunger-valve, a cam-shaft passing through said recess, having bearings in the body of the faucet, a cam 75 upon said shaft and actuating means engaged on the shaft.

ARTHUR O'BRIEN.

Witnesses:

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