

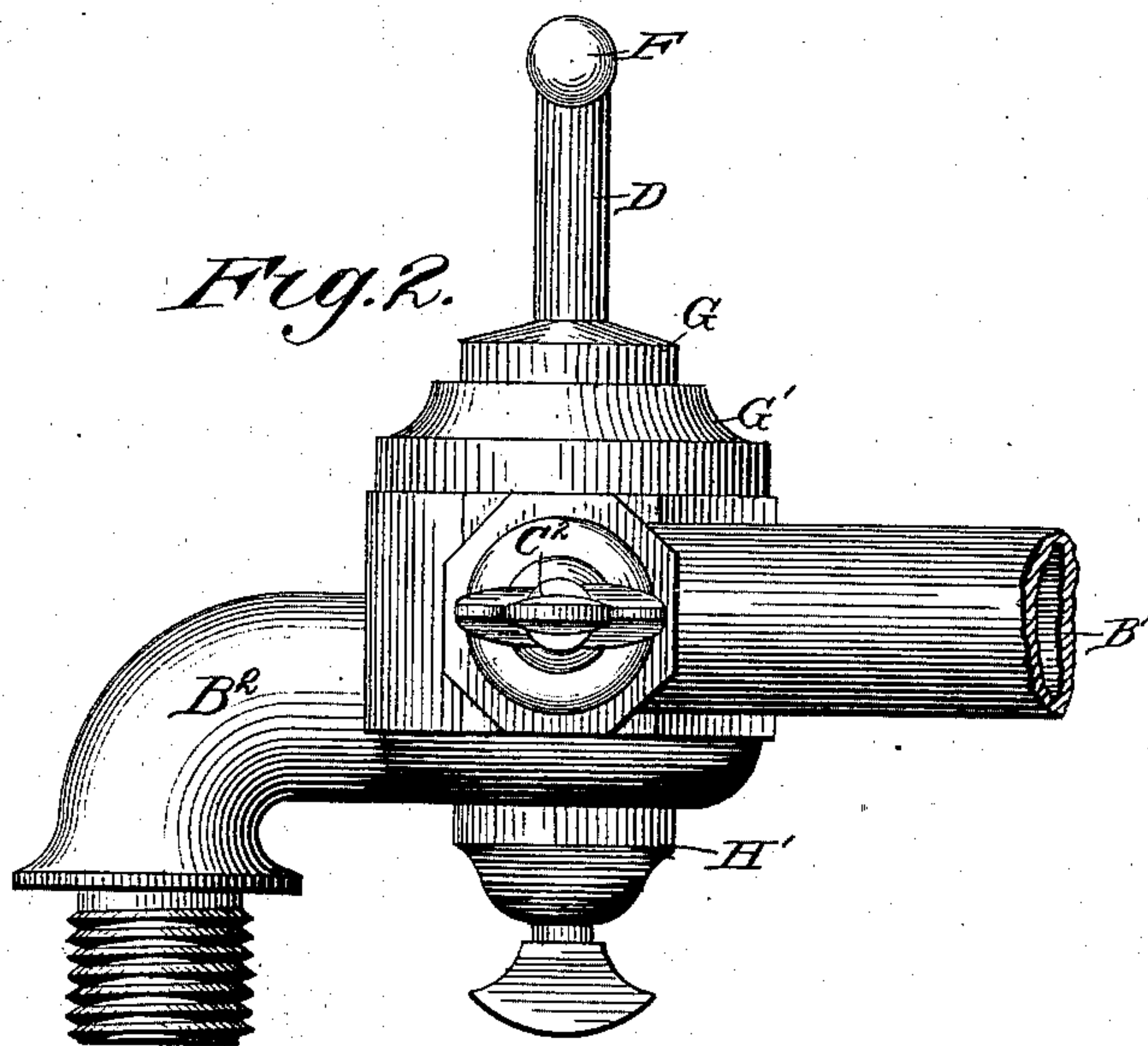
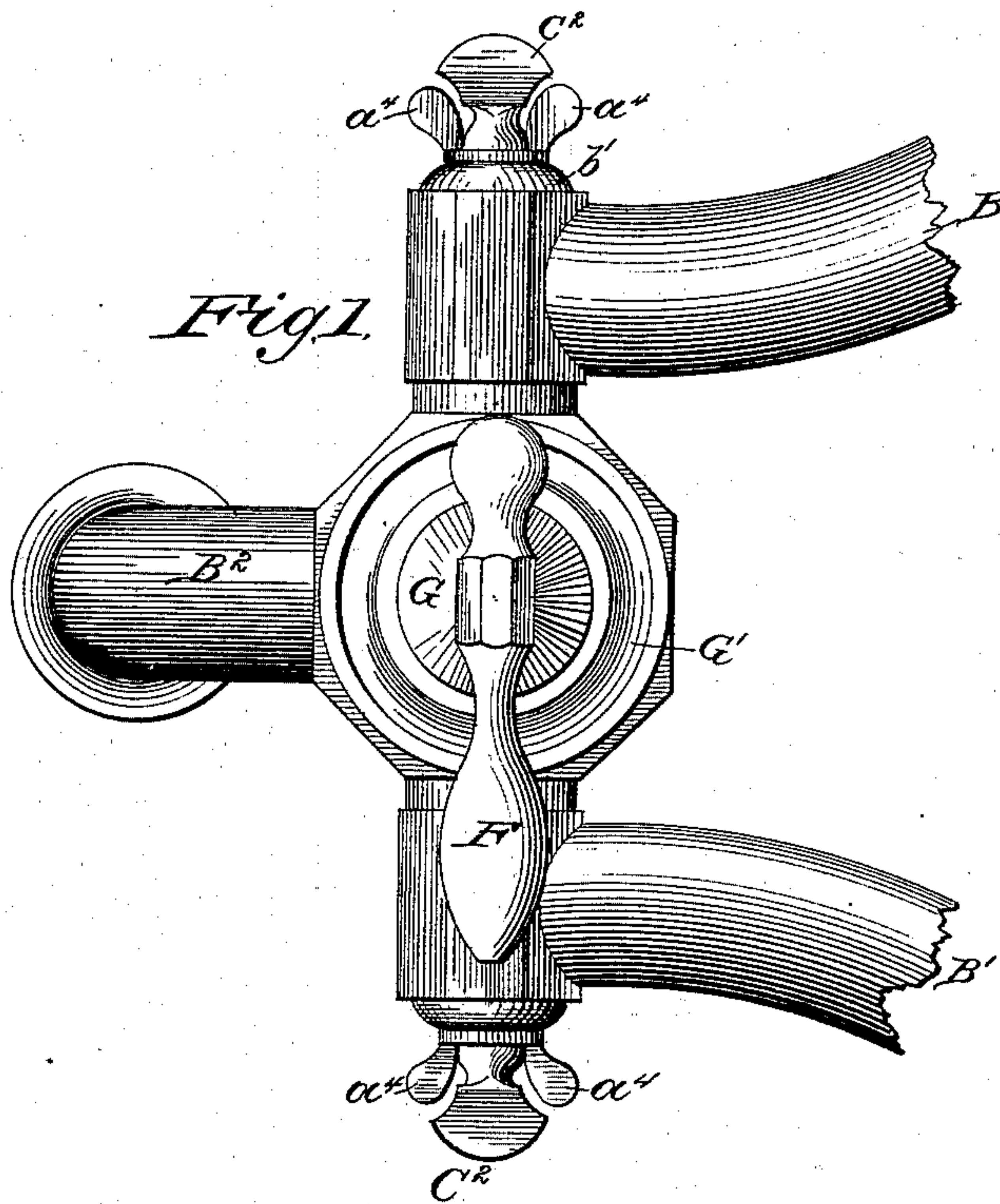
(No Model.)

F. L. ROCKWELL.
DOUBLE FAUCET.

2 Sheets—Sheet 1.

No. 284,237.

Patented Sept. 4, 1883.



Witnesses.
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Inventor:
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(No Model.)

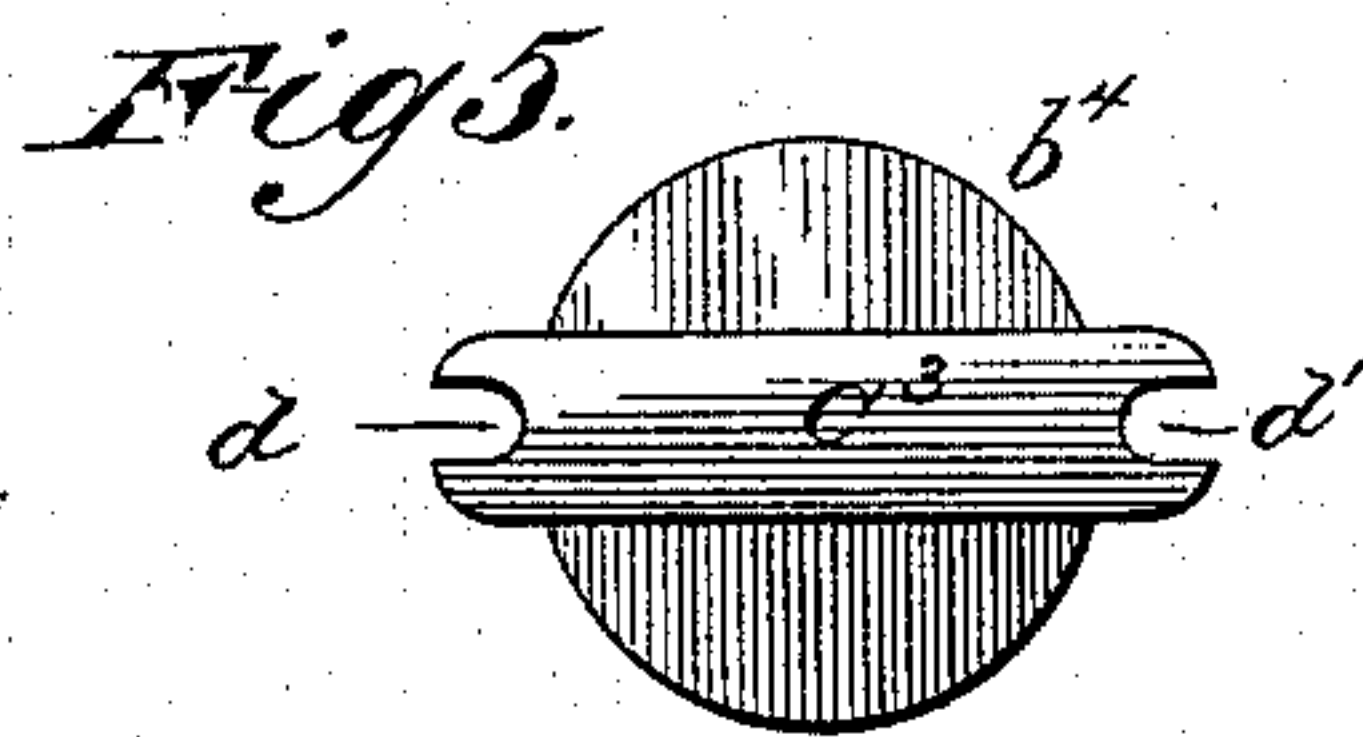
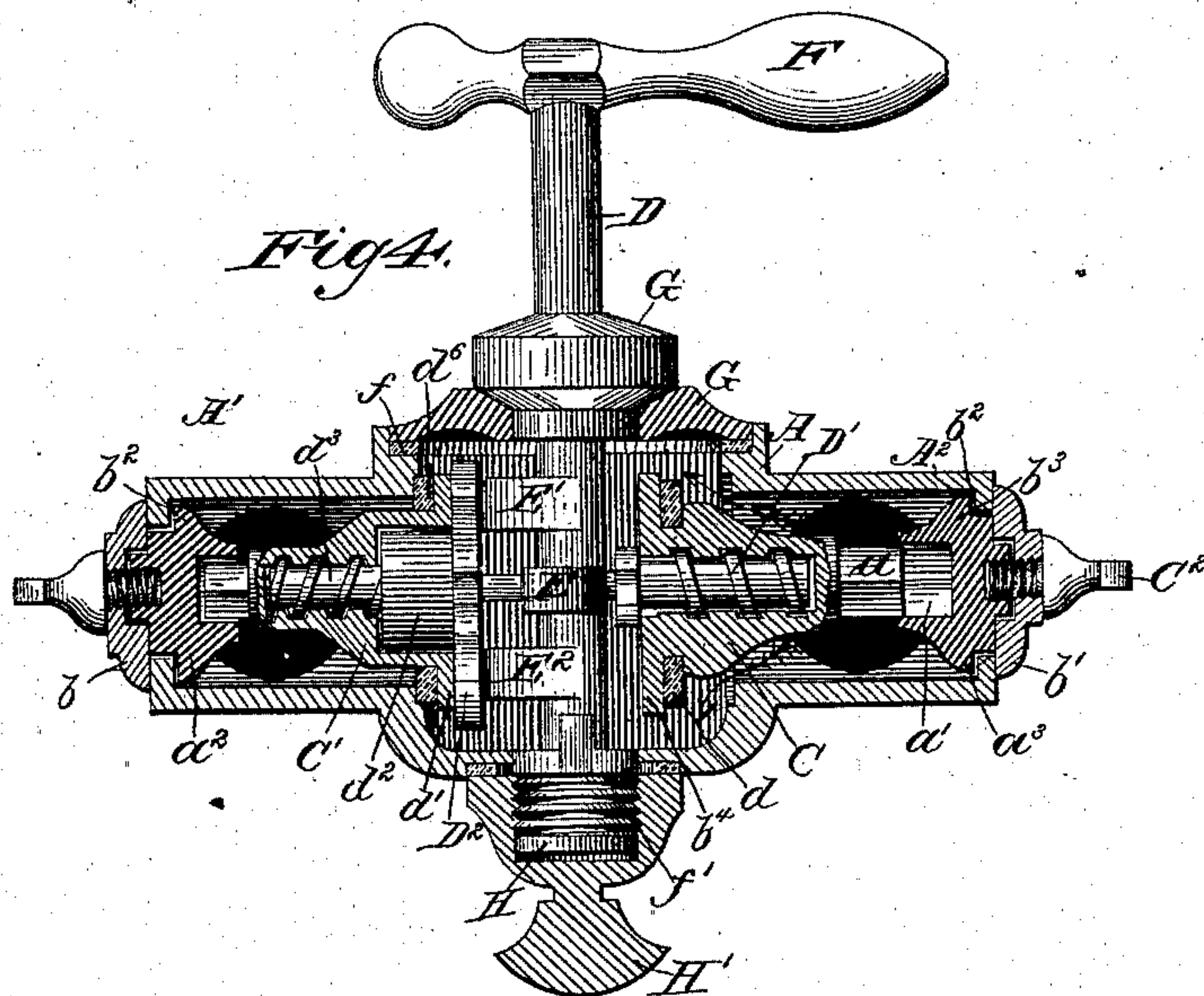
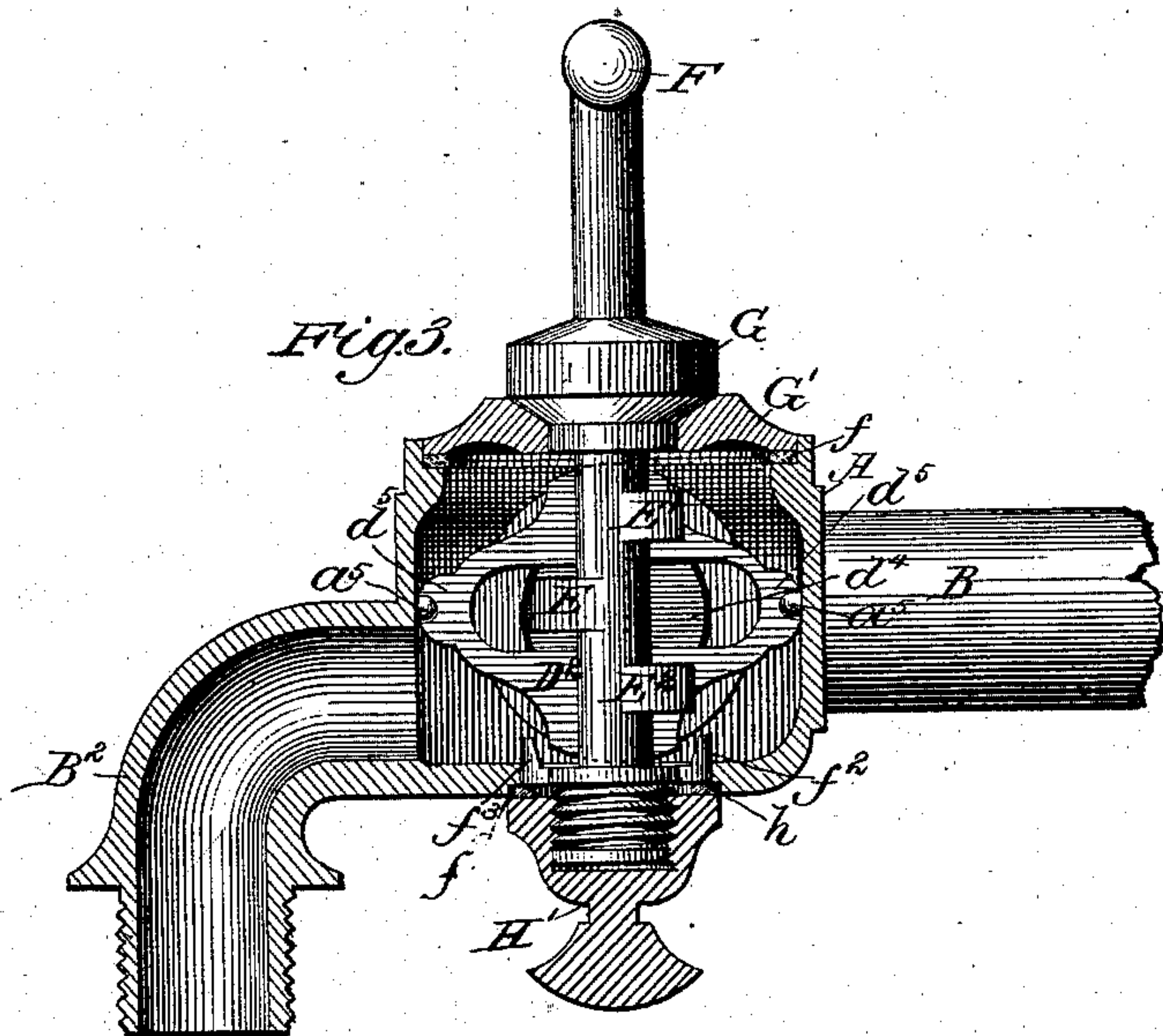
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

FRANK L. ROCKWELL, OF CHICAGO, ILLINOIS.

DOUBLE FAUCET.

SPECIFICATION forming part of Letters Patent No. 284,237, dated September 4, 1883.

Application filed November 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. ROCKWELL, of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Double Faucets, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, forming a part of this specification.

This invention relates more especially to that class of faucets intended for use in connection with stationary wash-basins, whereby either hot or cold water may be received through the same discharge, or both at the same time, both passages being regulated by one handle, as will be hereinafter more fully set forth, and described in detail.

Figure 1 is a top view of a device embodying my improvement; Fig. 2, an end elevation; Fig. 3, a vertical transverse section; Fig. 4, a vertical longitudinal section, and Fig. 5 a detached detail.

Referring to the drawings, A represents a cylindrical body or shell, having the lateral projecting parts A' A².

B is the hot and B' the cold water connections, which are formed integral with the ends A' A²; and B², the discharge-pipe common to both, which forms an integral part of the body A.

The water-valves C C', placed in a horizontal plane on each side of the vertical spindle D, are of a cylindrical tapering form, the smaller end or ends being made square, and projecting into the parts A' A², as shown in Fig. 4 of the drawings. The square end *a* of these valves engages with the correspondingly-shaped recess *a'* in the inner side of the clamping-disks *a*² *a*³. The outer side of these disks is provided with a small square end, fitting into a square recess in the perforated locking flange or flanges *b* *b'*, through which passes the thumb set-screw C². The threaded end of this set-screw engages with the correspondingly-threaded recess in the clamping disk or disks *a*² *a*³. These disks are provided with the central flange, *b*², which abuts against the annular shoulder *b*³, and is thereby prevented from moving outward beyond this point. The locking-flanges *b* *b'* are provided with the pro-

jecting ears *a*⁴, forming a convenient finger-grasp for adjusting the same. The opposite end of the valve C is provided with the flange *b*⁴, leaving an annular groove in back of the same for the packing-disk *d*. This end of the valve is recessed and threaded to receive the correspondingly-threaded spindle D', which is provided with the cross-bar or elongated head C³, the ends of which are provided with the notches *d'*, as shown in Fig. 5 of the drawings. These notched ends are adapted to engage with projecting ribs cast on the interior surface of the shell A, and are exact duplicates of the ribs *a*⁵, (shown in Fig. 3 of the drawings,) and which serve as guides for the valves moving in a horizontal plane, but prevent a rotary movement.

The peculiar operation of this device requires a little different construction in the valve C' from that of the valve C, just described. The valve C' has a large recess for the reception of the enlarged part *d*², from which extends the threaded valve-spindle *d*³ into the smaller threaded recess, as shown in Fig. 4 of the drawings. The enlarged head D², forming an integral part of the valve-spindle *d*³, is provided with the elongated opening or slot *d*⁴, and the projecting notched ends *d*⁵ engaging with the ribs *a*⁵, which prevents a rotary movement of the valve parts. The packing-disk *d*⁶ is placed on the valve C', back of the flange *d*⁷, and has an annular seat on the interior of the inclosing-shell, as shown in Fig. 4 of the drawings, which represents this valve closed, while the opposite or companion valve C is open for the inflow of water, as indicated by the arrows in Fig. 4 of the drawings. These valves open inwardly by the pressure of water. The locking-flanges *b* *b'* and set screw or screws C² serve the purpose of drawing the valves to a close seat, and also prevent these parts from leaking.

That part of the vertical operating-stem D in line with the valves C C' is provided with the three lateral projecting cams E E' E², arranged in a staggering manner, as shown in Figs. 3 and 4 of the drawings. The middle cam, E, is adapted to impinge on the cross-bar C³ of the valve C as the operating-spindle is rotated for the purpose of closing the same, while the companion cams pass above and be-

low without coming in contact with the valve C. The middle cam is set somewhat quartering on the stem relative to the upper and lower cams, which lie in a parallel plane.

5 Now, when the stem D is rotated to the position shown in Fig. 3 of the drawings, the long end of the handle F being just the opposite from the position shown in Fig. 4, the valve C is opened, and as the stem is rotated

10 farther the middle cam projects into the elongated opening d^4 , and does not come in contact with the valve C', so that the stem may be turned clear around until the upper and lower cams come in contact with the head D²

15 above and below the opening d^2 . By this arrangement the middle cam serves to close the valve C, and cannot be brought in contact with the companion valve, no matter to what position the stem D may be rotated, the same

20 arrangement existing in regard to the upper and lower cams which close the valve C'. This form of construction permits of water being drawn through either valve alternately; or, by turning the long end of the handle

25 back from the front, both valves are thrown open at the same time, and when rotated to the opposite point both valves are closed. The stem D may be rotated clear around in either direction. The throw or distance the

30 valves open is regulated by turning in or out the adjustable spindles D' and d^3 , which increases or lessens the distance between the cams and the impinging-points.

The stem D has formed integral therewith

35 the flange G, which has a conical or beveled bearing-surface with the packing-collar G', and forms a ground joint, so that no leakage can occur around the stem. The edge of the packing-collar G' has an annular bearing in

40 the top of the inclosing-shell A, the interposed packing-ring f serving to form a tight joint. The lower projecting end of the stem is provided with the loose screw-collar f' , having the guide-lugs $f^2 f^3$, which fit into cor-

45 responding openings or grooves, f^5 , in the under side of the shell A. The flange H on the extreme lower end of the stem D serves to retain the loose screw-collar in place, and the guide-lugs prevent a rotary movement,

50 but at the same time allow a vertical adjustment. The screw-cap H' is adapted to engage with the collar f' , and has a bearing in the under side of the shell A, the interposed recessed packing-ring h forming a tight joint.

55 By tightening on this screw-cap, all the bearings and joints on the stem D are brought to a perfectly-tight bearing.

Having thus described my invention, what I claim as new, and desire to secure by Letters

60 Patent, is—

1. In a double faucet, as described, a cylindrical body, consisting of the shell A, having the chambered projections or valve-chambers A' A², the double connections B B', and the

65 discharge-pipe B², formed integral, substantially as described.

2.—The combination, with the shell A and the chambered projections A' A², of the valves C C', the clamping-disks $a^2 a^3$, the locking-flanges $b b'$, and the thumb set-screw C², substantially as and for the purpose set forth. 70

3. The combination of a case or shell having flanges, and a valve having a threaded recess, and a correspondingly-threaded spindle, D', provided with the cross-bar or elongated

75 head C³, having the notched ends d' , substantially as and for the purpose described.

4. The combination of a shell, a valve adapted to have a longitudinal movement in said shell, and having a spindle provided with the

80 elongated head C³, and a stem having a cam formed integral therewith, substantially as described.

5. The combination of a shell having ribs, and a valve having a threaded recess, and a

85 correspondingly-threaded spindle, having a head provided with an elongated opening or slot, d^4 , and the notched sides d^5 , engaging with the ribs d' , substantially as described, and for the purpose set forth. 90

6. The combination of a shell, a valve having a spindle provided with a slotted head, and stem D, having cams E' E², substantially as described.

7. The combination of a shell, a valve having an adjustable head, and a stem having a cam or cams for operating the valve, substantially as described. 95

8. The combination of a shell having valve-chambers, a spindle having cams arranged in a staggering manner, valves seated in said

100 valve-chambers, and separately operated by a cam or cams which have no contact with the other valve or valves, substantially as described, and for the purpose set forth. 105

9. The combination of a case having valve-chambers, a spindle between the valve-chambers, and having cams arranged substantially as described, and valves arranged in said

110 valve-chambers, and provided with projections and depressions in their heads, to permit certain cams to strike and others to pass without striking, for the purpose set forth.

10. The combination of a shell, A, packing-collar G', resting upon the shell A, and a stem,

115 D, having a conical flange, G, resting on the walls of an opening in collar G', and means for holding said parts together, substantially as described.

11. The combination of a shell having an

120 upper and lower opening, the latter provided with guide-grooves f^5 , a stem supported from the top of the shell, and passing through the openings in the latter, and having a flange, H, a screw-collar resting upon flange H, and hav-

125 ing guide-lugs $f^2 f^3$, and a cap, H', having a female screw for said screw-collar, substantially as set forth.

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Witnesses:

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