

J. P. GRUBER
Faucet.

No. 232,709.

Patented Sept. 28, 1880.

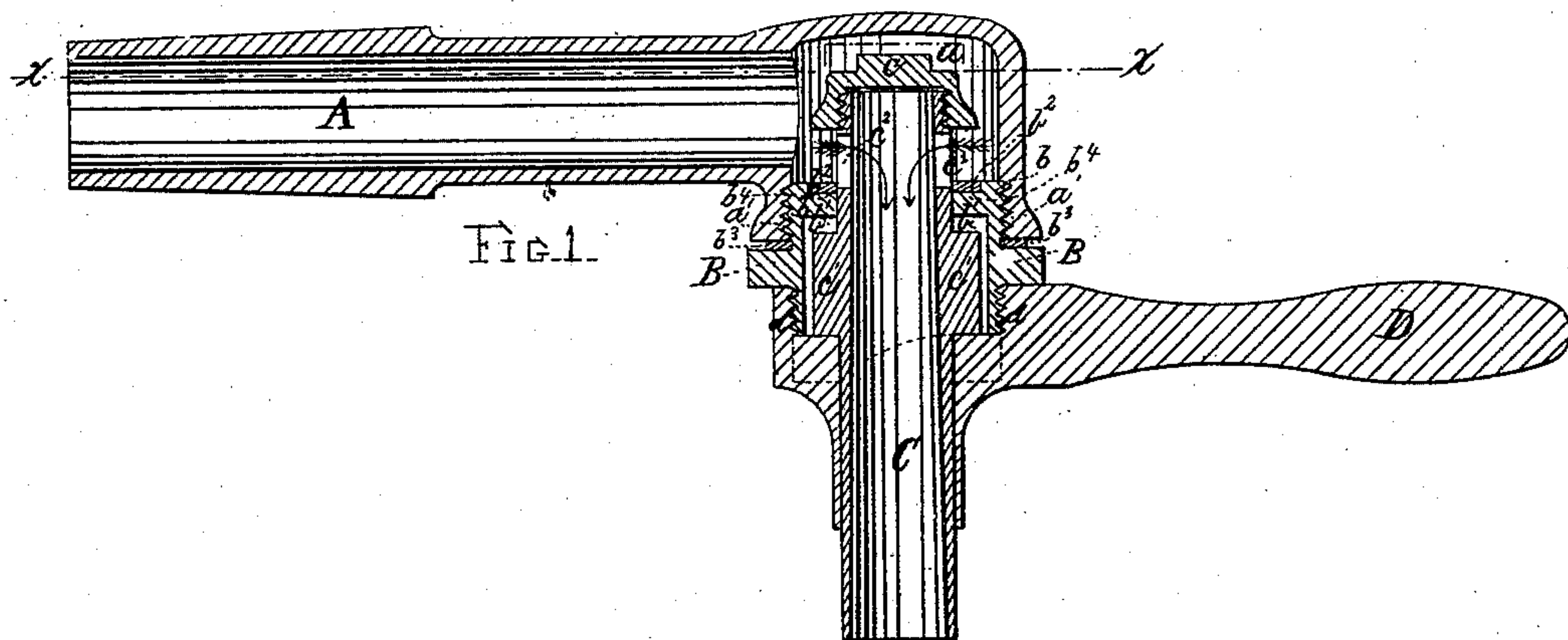


Fig. 1.

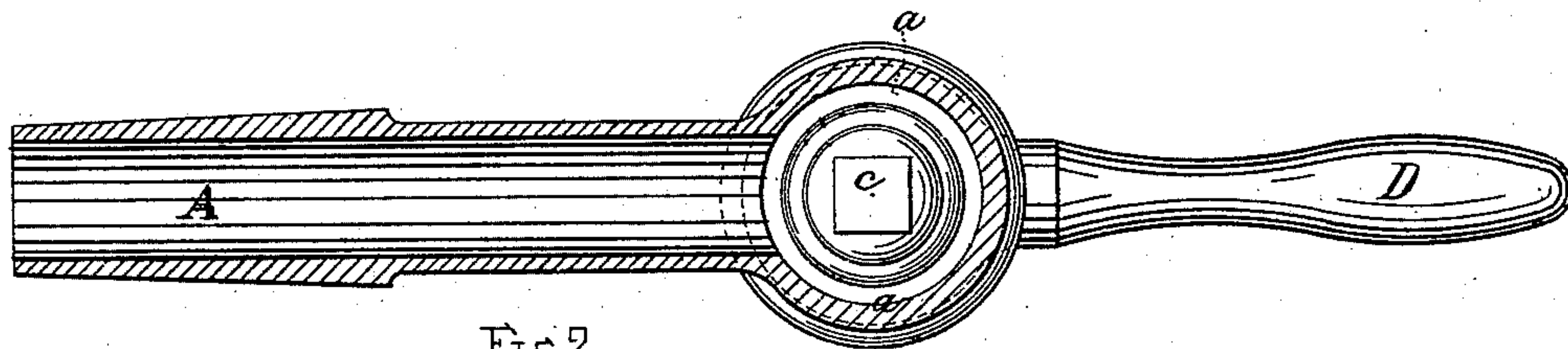


Fig. 2.

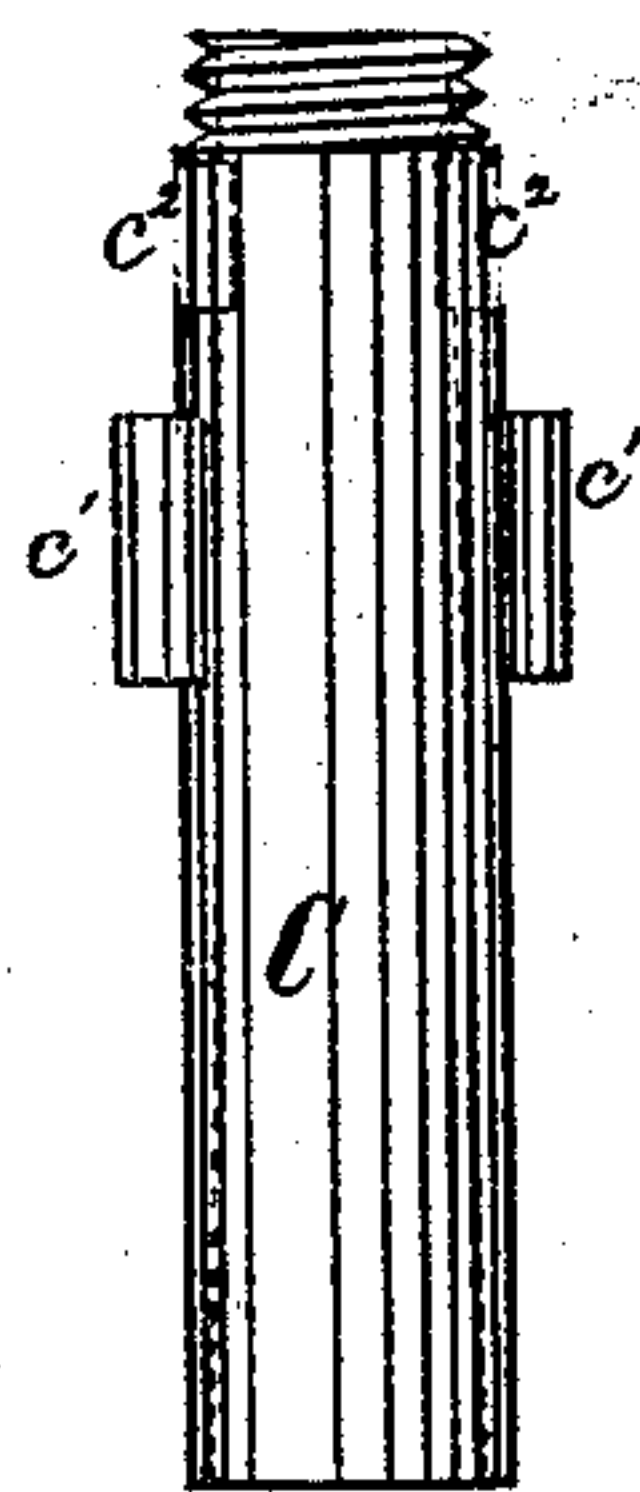


Fig. 5.

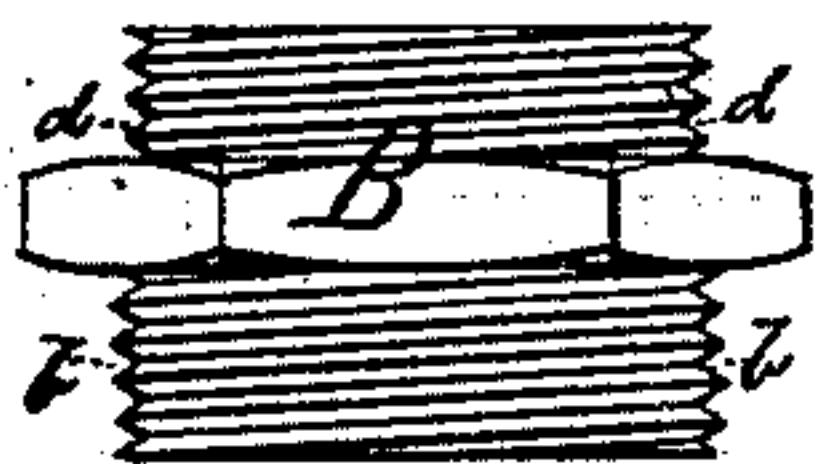


Fig. 6.

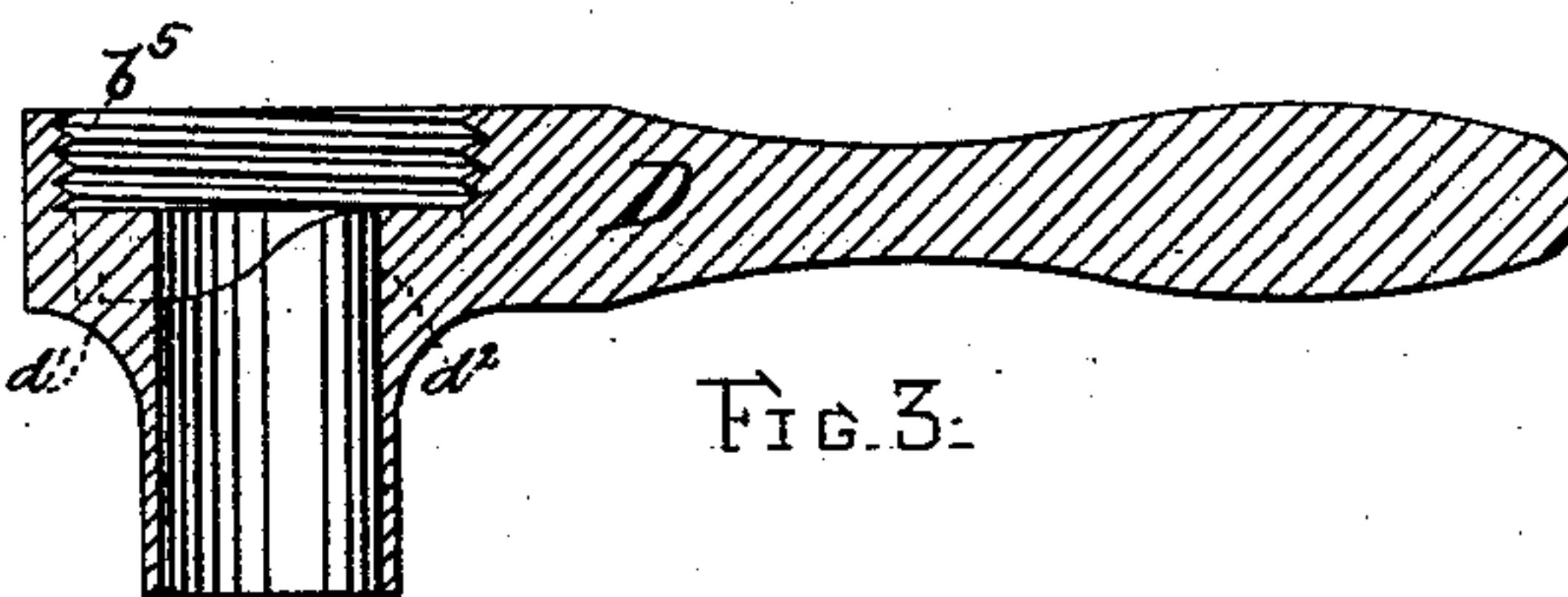


Fig. 3.

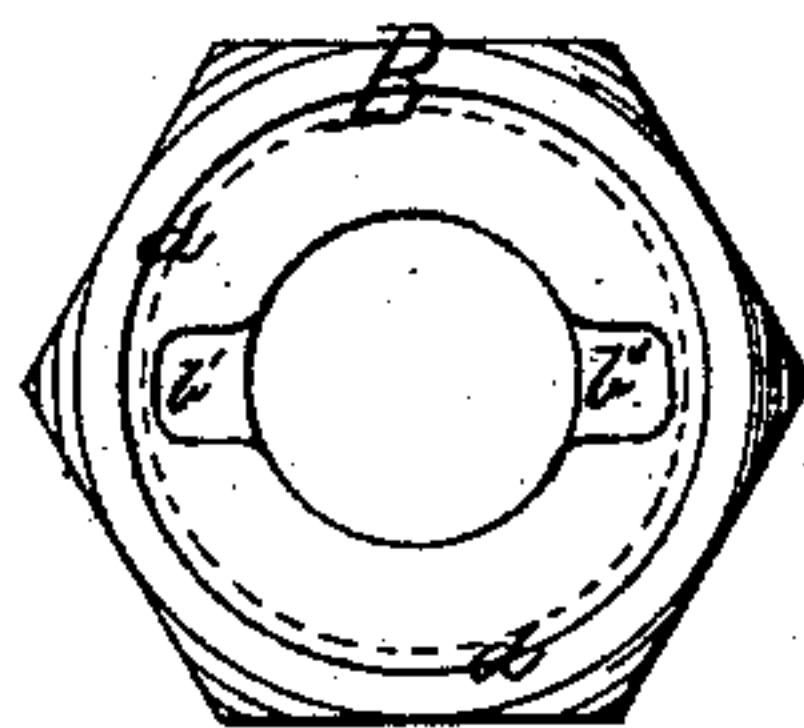


Fig. 7.

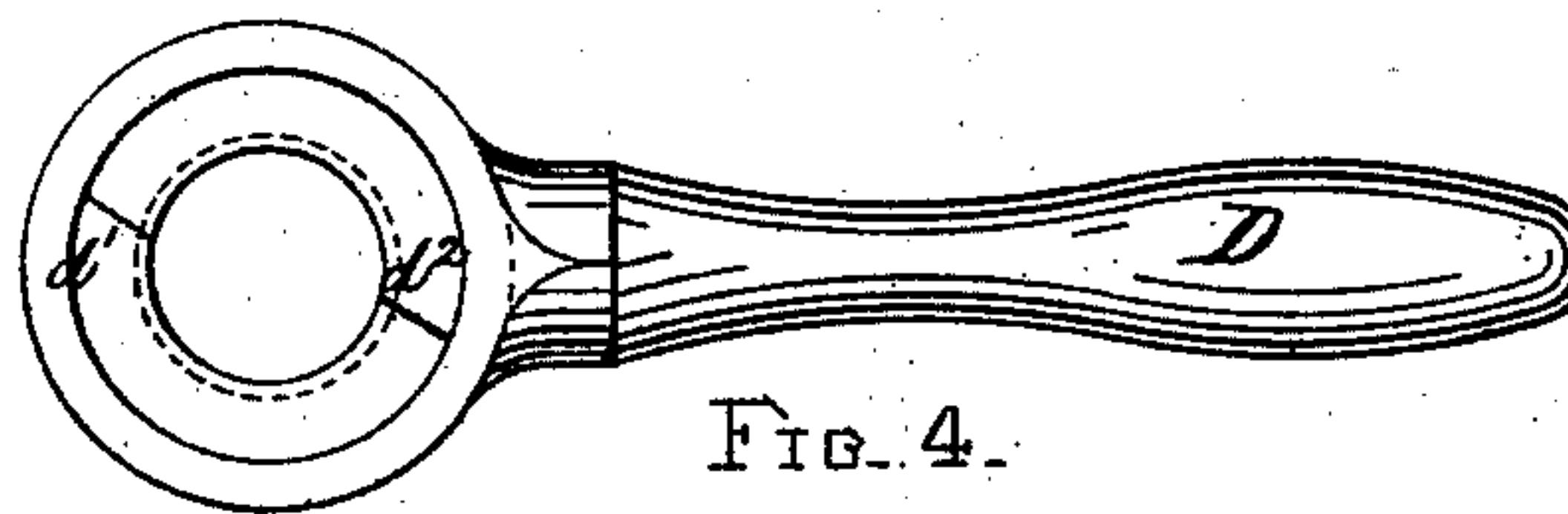


Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

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

FAUCET.

SPECIFICATION forming part of Letters Patent No. 232,709, dated September 28, 1880.

Application filed February 9, 1880.

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 Improvement in Faucets, of which the following is a specification.

This invention has for its object the construction of a faucet in which the operative parts are detachable from the base or stem of the faucet, so that if from any cause the operative parts should become unserviceable, worn out, or injured by reason of freezing, as in the case of hydrants, faucets, &c., the said operative parts may be easily removed from the base or stem, so they may be repaired or replaced by new ones. To accomplish this result the operative parts or the valve, &c., will be seated in or attached to a chamber-piece, which said chamber-piece will be screwed into or otherwise suitably coupled with the base or stem of the faucet.

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

Figure 1 is a longitudinal sectional elevation of the improved faucet complete. Fig. 2 is a sectional plan of the same, taken on the line *xx* of Fig. 1. Fig. 3 is a sectional elevation of the handle of the faucet, showing the annular socket part forming its inner end. Fig. 4 is a general plan of the faucet-handle, showing the annular formation of its inner end. Fig. 5 is a side elevation of the valve-piece. Fig. 6 is a side elevation of the double screw-threaded chamber-piece in which the valve has its seat. Fig. 7 is a general bottom plan of the chamber-piece which forms the valve-seat.

The base or stem A of the faucet may be constructed of cast metal and shaped into any suitable or approved form; but the outer end of it will have a chamber, *a*, which will terminate in the screw-threaded neck *a'*, which will preferably be placed in a vertical position, though this is not essential. The chamber-piece B has screw-threads *b*, with which to engage the screw-threads *a'*, and by means of these screw-threads *b* and *a'* the two parts A and B are united.

The valve-piece C is a cylindrical tube closed at its top end by the screw-cap *c*, and provided

with side lugs, *c'*, as shown in Fig. 5, these side lugs fitting into the seats *b'* provided for them in the chamber-piece B, through which the said valve concentrically passes, as shown in the general drawings in Fig. 1.

The lower end of the valve-piece C forms the nozzle or outlet through which the fluid is ejected from the faucet, the fluid gaining access to the interior of the tube or valve-piece C through inlet-ducts *c²*, near its top end, just below the cap-piece *c*.

The lower end of the cap-piece *c* forms a valve, which closes on the valve-seat *b⁴*, so as to stop the flow of the fluid through this faucet. A suitable packing, *b²*, is placed in an annular seat, *b⁴*, on the top end of the chamber-piece B to form a cushion for the said valve to shut upon. A packing-piece, *b³*, should also be interposed between the nut or flange of the chamber-piece and the end of the piece A. These packing-pieces *b²* and *b³* may be of india-rubber, leather, or any suitable packing material.

When the parts are assembled together the valve-piece C will be inserted through the chamber-piece from the bottom toward the top, as shown in Fig. 1, and then the cap-piece *c* screwed on its place. This will leave the said valve-piece C liberty to have a free vertical play for a distance equal to the distance between the top ends of the lugs *c'* and the bottom end of the cap-piece *c*, less the thickness of the top end of the chamber-piece B, and this vertical movement of the valve-piece C will be equal to the height of its inlet-ducts *c²*, so that when the said valve-piece is raised fully up the gateways or ducts *c²* will be wide open; but when the said valve-piece is let fully down the bottom edge of the cap-piece *c* will rest on the packing-ring *b²*, and the water-way or ducts *c²* thereby be wholly closed. This raising or lowering of the valve-piece C then will open or close the said valve, as may be required.

The valve C will be operated as required by the operating-lever D, which is constructed as shown in Figs. 1, 2, 3, and 4, the inner end of the said lever being in the form of an annular holder, which, when the parts are all in place, surrounds the valve-stem C, as shown in Figs. 1 and 2. The annular part of this lever-head may be attached to the lower end of the cham-

ber-piece B by their respective screw-threads b^5 and d , or by any other suitable means—as, for instance, two projecting pins or trunnions attached to one of the pieces and arranged to
5 fit into grooves or slots in the other piece. An inclined lifter-seat will be formed in the interior of the annular part of D, with which to lift and open the valve C; and this lifter-seat will preferably be made in the form of two inclined planes, d' and d^2 , as shown in the detail
10 figures, Figs. 3 and 4. When the parts are all assembled together, as in Fig. 1, these inclined planes will rest under the bottom ends of the lugs c' , and thereby raise or lower the said
15 valve-piece, and so open or close it by simply turning the handle D nearly a half a turn.

In case of any accident, injury, or wearing out of the operative parts of this faucet, or in case the same becomes frozen up, the parts
20 may be repaired or replaced by others by sim-

ply unscrewing the chamber B from the base or stem piece A, and then, after the necessary repairs or renewal, reassembling these parts together again, as before.

Having described my invention, I claim— 25

1. The combination of the fixed part or tube A, provided with screw-threads a' , the supplemental annular holder, as shown, the intermediate detachable part, B, provided with a valve-seat, and the discharge-tube C, concentric with
30 the above, provided with slots c^2 and cap c , substantially as described.

2. The valve C, with its side lugs, c' , and the operating lever or handle D, with its lifter-rests d' and d^2 , combined, as and for the pur-
35 pose described.

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Witnesses:

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