

(Model.)

J. C. G. HÜPFEL.
Self Closing Faucet.

No. 241,018.

Fig. 1 Patented May 3, 1881.

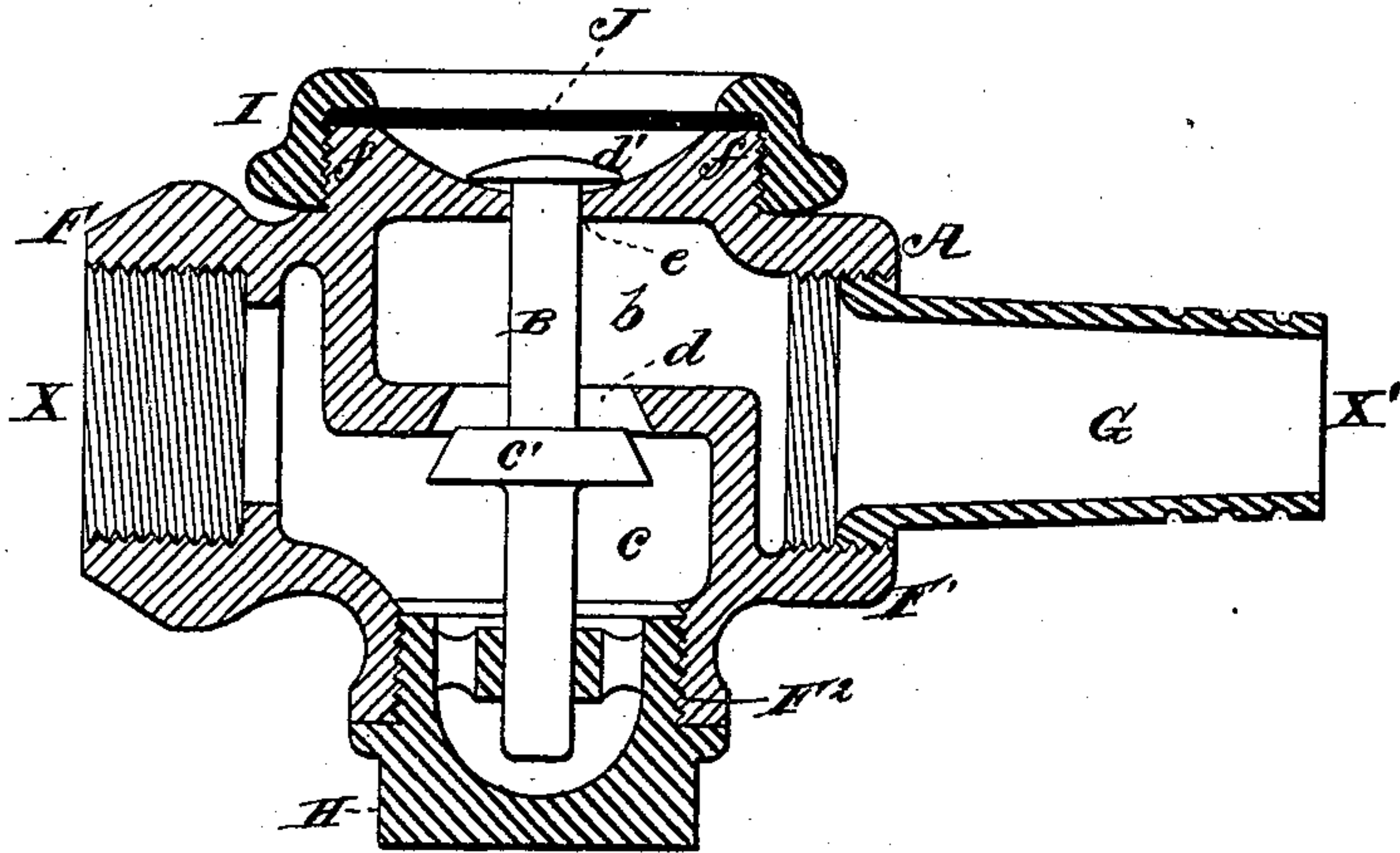


Fig. 2.

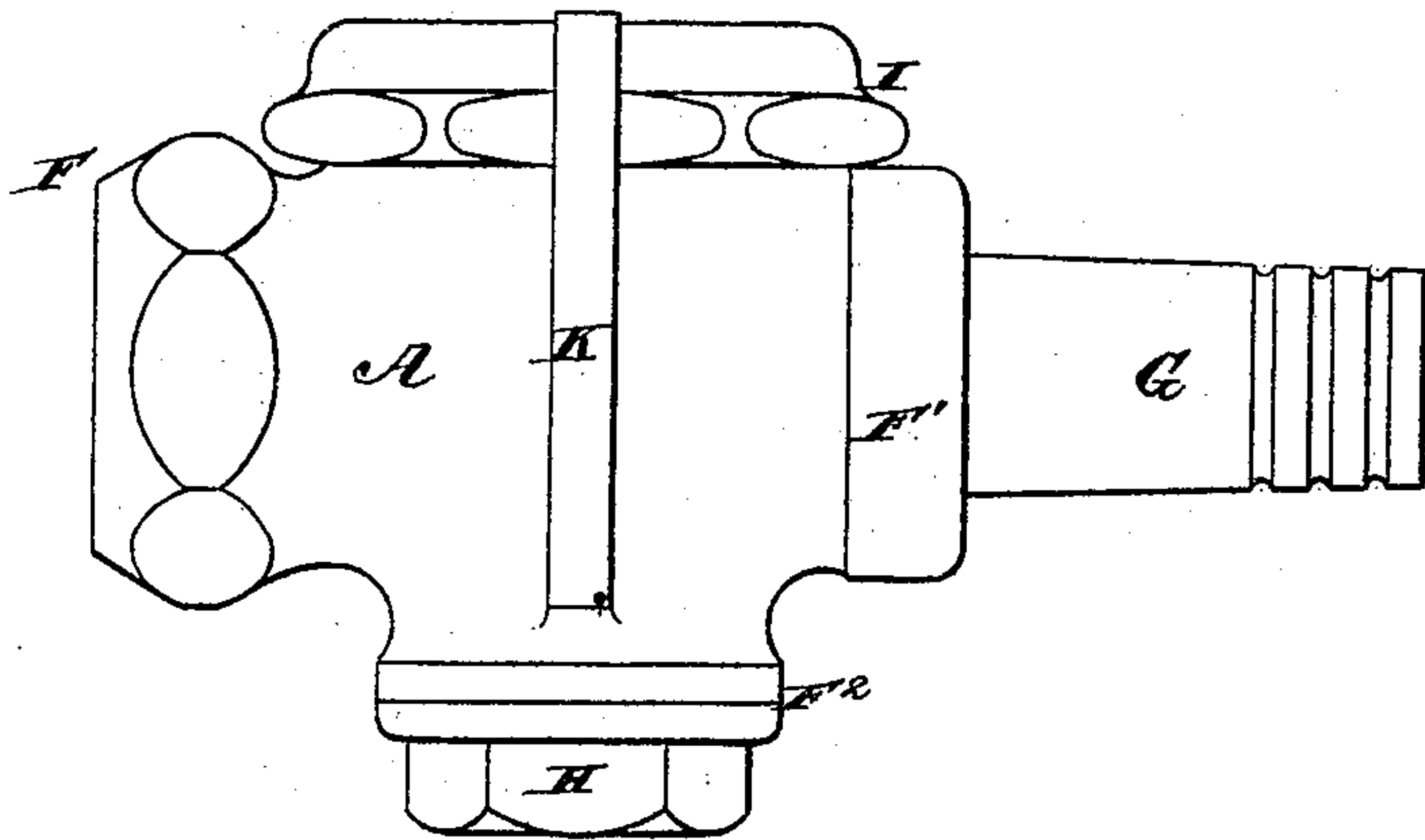
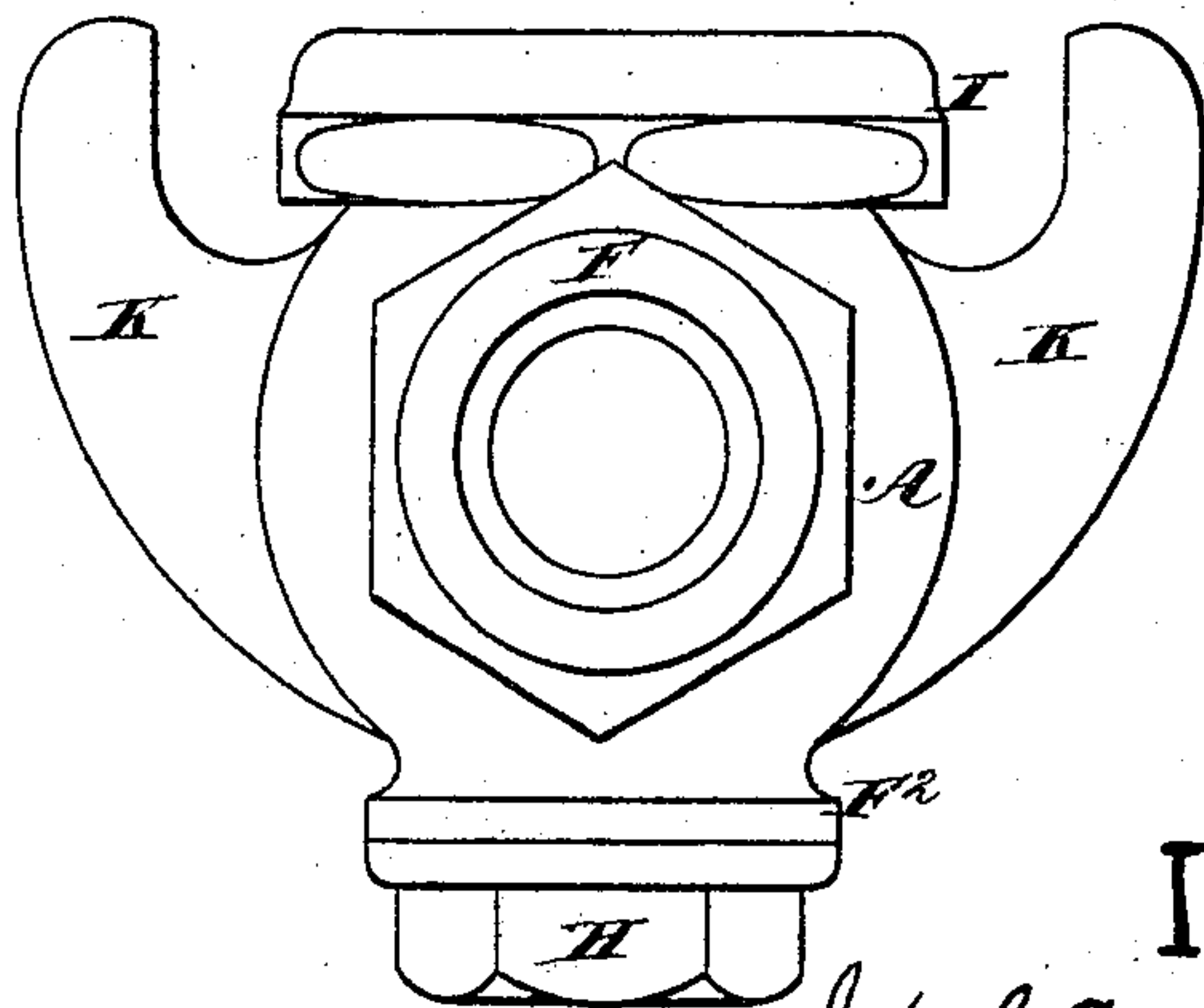


Fig. 3.



Witnesses:
John E. Burke
H. C. Kunkle

Inventor:
John C. G. Hüpfel
per Adam E. Schatz
his atty

UNITED STATES PATENT OFFICE.

JOHN C. G. HÜPFEL, OF NEW YORK, N. Y.

SELF-CLOSING FAUCET.

SPECIFICATION forming part of Letters Patent No. 241,018, dated May 3, 1881.

Application filed February 26, 1881. (Model.)

To all whom it may concern:

Be it known that I, JOHN C. G. HÜPFEL, of the city of New York, in the county and State of New York, have invented certain new and
5 useful Improvements in Faucets, of which the following is a specification.

My invention has for its object to provide a faucet in which the valve is automatically closed against its seat by the pressure of wa-
10 ter, and which valve can be conveniently removed from its seat to permit the passage of water by the simple pressure of the thumb or finger. I attain these objects by the mechanism illustrated in the accompanying drawings,
15 in which—

Figure 1 is a vertical sectional view of the faucet; Fig. 2, a side view of the same; and Fig. 3 is a front elevation showing the protect-
ing arms.

20 Similar letters refer to similar parts.

Referring to the drawings, the letter A indicates the body or casing of the faucet, provided with the usual inlet and outlet chambers *c* and *b*, the dividing-partition of which cham-
25 bers is provided with the passage *d*, constituting a valve-seat. The top wall of the casing A is provided with a concaved or cup-shaped recess on its exterior, surrounded by the shoulder *f*, which is externally screw-threaded.
30 Upon the upper edge of the shoulder *f* is supported a horizontal imperforate flexible diaphragm, J, which is securely fastened in position by the screw-threaded retaining-ring I, adapted to the threads on the shoulder *f*.

35 The letter B indicates the valve-rod, having at or near the center of its length the valve *c'*, which is adapted to set into the passage-way *d*. The lower end of the valve-rod rests loosely in the plug H, and its upper end extends through
40 an opening, *e*, in the concaved top wall of the casing, but terminates below the diaphragm J in a button or rounded head, *d'*, thus permitting free vertical play of the valve-rod independent of the diaphragm.

45 It should be observed that the diaphragm is upon the exterior of the faucet, and owing to the concave recess in the top wall of the casing said diaphragm can be depressed by the simple pressure of the thumb or finger for
50 the purpose of opening the valve, as herein-after explained.

The casing or body A is provided with the

screw-threaded inlets F and the screw-threaded outlet F'.

G indicates an ordinary hose-coupling or nozzle, and F² indicates a screw-threaded neck, 55 into which the screw-threaded plug H is fitted. The screw-threaded plug H is provided with a central guideway, into which the lower end of the valve-rod B is arranged and adapted to
60 play vertically.

In Fig. 3 the letters K indicate the projecting arms, arranged at the sides of the body A and extending to or above the plane of the ring I, which arms are designed to protect the
65 diaphragm when the hose to which the faucet may be attached is thrown or dropped upon the ground. It is, of course, obvious that these arms may be dispensed with when the faucet is used for basin purposes. It is also obvious
70 that, when desired, I can place a small metallic or other spring under the end of the valve-rod B to facilitate the closing of the valve, although the same is not shown in the drawings.

In operation the hose is coupled at the end 75 X and the nozzle at the end X', and the faucet is then ready for use. The water being turned on enters the chamber *c*, and pressing against the lower side of the valve *c'* forces it upward into the passage-way *d* and cuts off the egress
80 of the water. When the valve is raised the button or head *d'* of the valve-rod is raised and touches lightly against the inner face of the yielding diaphragm J. When it is desired to permit the escape of the water through the
85 faucet it is only necessary to press down on the diaphragm with the thumb or finger, and the valve is depressed away from the passage-way *d*. When not in use it is impossible for the water to escape, and the simplicity of the
90 arrangement prevents the faucet from easily becoming inoperative.

It is obvious that when I desire to use the faucet for basin purposes I suitably extend the outlet and inlet branches. 95

By the use of this faucet all overflows are prevented and avoided, because the faucet will not permit the passage of water unless the diaphragm is depressed, and immediately on releasing the same the pressure of the water
100 automatically closes the valve.

What I claim is—

1. The casing or body of a faucet provided with the recessed top wall, and the flexible

imperforated diaphragm arranged over the same and adapted to be depressed by the thumb or finger, in combination with the loose-sliding valve-rod extending through the top wall of the casing and terminating below the diaphragm, substantially as and for the purpose described.

2. A faucet-casing, A, constructed with the inlet and outlet chambers *c* and *b*, and having the exterior of its top wall provided with the concave recess, and the opening *e*, in combination with the sliding valve-rod B, the diaphragm J, arranged over the concave recess, and the ring I, retaining the diaphragm in place, substantially as described.

3. In a faucet such as described, the body A, having the chambers *b* and *c*, perforated concaved top wall, the threaded shoulder *f*, the threaded coupling-extensions F, F', and F², and the exterior laterally-projecting arms K K, all substantially as shown and described.

In witness whereof I have hereunto set my hand and affixed my seal this 24th day of February, 1881.

JOHN C. G. HÜPFEL. [L. S.]

In presence of—

H. C. KINKLE,
JOHN E. BURKE.