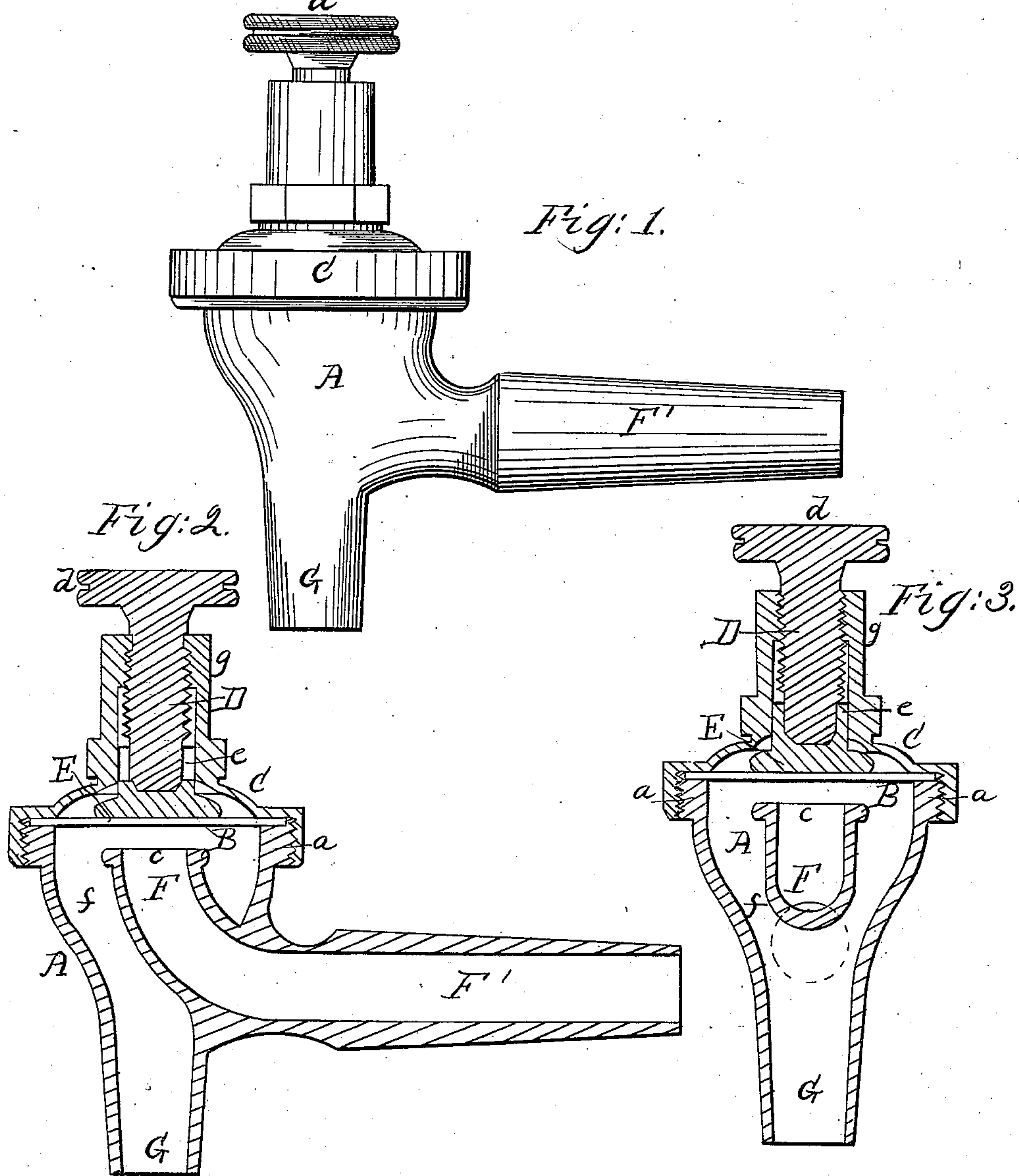


W. Blake,
 Globe Valve,
 No 59,346, Patented Nov. 6, 1866.



Witnesses.

H. P. Hale Jr.
 H. E. Fisher.

Inventor.

William Blake

by his attorney
 R. M. Eddy

UNITED STATES PATENT OFFICE.

WILLIAM BLAKE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN DIAPHRAGM-FAUCETS.

Specification forming part of Letters Patent No. 59,346, dated November 6, 1866.

To all whom it may concern:

Be it known that I, WILLIAM BLAKE, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Diaphragm-Faucet; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a side view, Fig. 2 a longitudinal section, and Fig. 3 a transverse section, of it.

In the drawings, A denotes the chambered body of the faucet as covered by an elastic or vulcanized india-rubber diaphragm, B, which is held in place by means of a cap, C, which is screwed on the body A and the diaphragm, and so as to force the latter, at or near its circumference, with a water-tight joint upon an annular seat, *a*, formed on the top of the body.

A screw, D, provided with a milled head, *d*, is screwed into a female screw, *g*, of the cap C, and at its foot it has a point, *e*, which enters a step, *b*, formed in a valve, E. This valve rests directly on the diaphragm B and over the open mouth *c* of a tubular extension, F, of the induction pipe F' of the faucet. The said part F is projected into the interior of the body A, and is carried upward and terminates at a short distance below the diaphragm in manner as shown in Figs. 2 and 3, and serves as a seat for the valve.

A discharge or eduction pipe or passage, G, leads downward out of the chamber of the body A.

By revolving the screw D, so as to cause it to descend within the cap C, the valve E and the diaphragm B may be forced downward conjointly in such manner as to so compress the diaphragm on the end of the tube F as to

close such end. On unscrewing the screw the elastic force of the diaphragm will cause such diaphragm and the valve simultaneously to rise away from the mouth *c* of the tube F, and so as to open the said mouth and allow a fluid, when under pressure in the tube F', to flow through the extension F and into the chamber *f* of the faucet-body, from whence it will escape by the pipe or passage G.

The water-proof diaphragm B not only serves to lift the valve off the mouth *c* of the tube F and to aid the valve in closing the said mouth under circumstances as described, but it prevents the fluid from passing into the cap C and escaping through the female-screw passage thereof.

I do not claim the elastic diaphragm with its valve and elevating-screw as applied to a valve opening and seat, as I am aware that such is found in Letters Patent No. 1,189 of British patents for the year 1846. My improved faucet has, however, peculiarities of structure which cause it to materially differ from any of the devices exhibited in the said patent, and adapt it to special uses for which such devices are not conveniently applicable.

What I claim as my invention is—

The improved diaphragm-faucet, constructed with the tubular extension F, the chambered body A, the exit pipe or passage G, and the inlet-pipe F', arranged together and with the diaphragm B, the valve E, the screw D, and the cap C substantially in manner and so as to operate as hereinbefore explained.

WM. BLAKE.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.