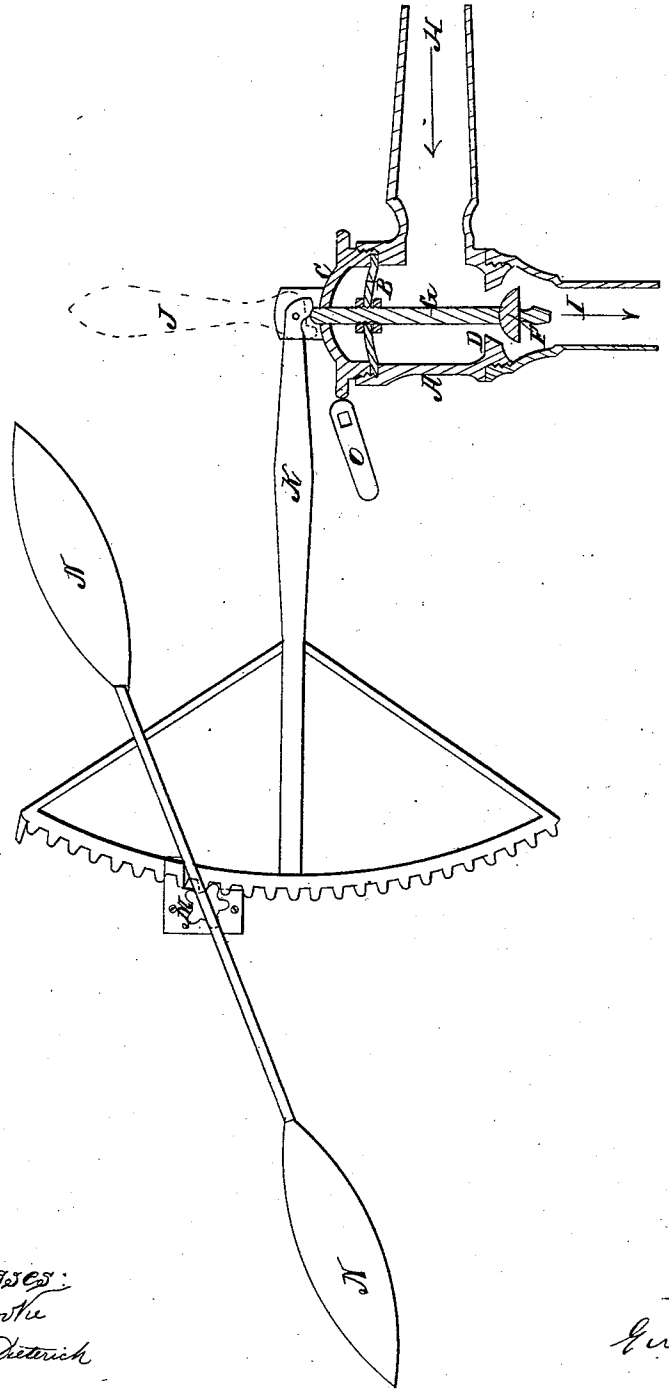
E. Osgood,

Faucet,

No. 38,269, Patented Apr. 21, 1863.



Witnesses:
Peter Coothe
Gustave Quetsch

Inventor:
Enoch Osgood

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ENOCH OSGOOD, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SELF-BALANCING AND SELF-CLOSING FAUCETS.

Specification forming part of Letters Patent No. **38,269**, dated April 21, 1863.

To all whom it may concern:

Be it known that I, ENOCH OSGOOD, of Boston, county of Suffolk, and State of Massachusetts, have invented a new and useful improvement in a self-balancing and self closing faucet for steam, water, air, or any other purpose; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings and letters of reference marked thereon.

In Figure 1, letter A is the body of the faucet, with the top of it larger than the bottom to receive the diaphragm B. Said diaphragm is to be fastened tight by means of a screw-cap, C, screwed down tight upon it. At the lower end of the body A is a valve-seat, D, concaved or beveled about forty-five degrees to receive the valve F.

G is a rod to connect the valve and diaphragm together.

The nature of my invention consists, first, in the combination and application of a valve and a diaphragm connected together in any manner to operate against each other to hold and balance any pressure that may come in between them and pass out through the valve for use, the diaphragm to be any desired size larger than the valve to possess power to close it.

The grand object of my invention, together with what is herein described, is that the water shall pass out through the valve for use, and the valve shall close against its current, it being useless when the water comes in through the valve and the valve closing with the current. For instance, if the diameter of the diaphragm is one inch and the valve a half-inch and the pressure of the water ten pounds, then the diaphragm will have five pounds or more pressure or power over the valve to close it, thus making a self-balancing and self-closing faucet. All friction being obviated, it cannot wear out or leak, but, to the contrary, if it wears at all, it will wear in and adjust itself more closely, as it opens and closes direct.

H is the inlet; I, outlet; J, short lever, and K long lever, to open the valve F.

Second. An arrangement for the purpose of retarding the closing the valve F, as desired, for the working of water-closets, so that the water can be made to run as long as wanted for that purpose, thereby saving all necessity of making water-tanks.

L is rack; M, pinion, with ratchet wheel the inside and fan O attached to pinion to retard its motion and the closing of the valve F, as desired; O, cam under lever K to raise it to open the valve F. The rack L on the lever K, connecting into the pinion M, and by the aid of fan O retards the closing of the valve F, as desired. The body of the faucet can be made in any form or manner to bring about the same result, and connecting the valve and diaphragm together in any manner to hold and balance the pressure that may come in contact with them to pass out through the valve for use, the diaphragm to be the longest to give it power to close the valve. In the drawing the valve and diaphragm are connected together by a rod, G, with a nut above and below the diaphragm screwed to it tight.

This faucet can be used in all kinds of water, whether sandy, muddy, or containing any kind of grit, without injury, and is safe against freezing. Should, however, any accident happen to it, the whole of the inside can be taken out in a few minutes and replaced again anew with but trifling cost without removing the body of the faucet. That is not all. The decompression of the diaphragm being greater than that of the valve in closing prevents water-hammering, making the best faucet now in use.

What I claim is—

1. A valve and a diaphragm connected together and arranged as herein described, to hold and resist any pressure of fluids that may come between them to pass out through the valve for use, the diaphragm to be any degree longer than the valve requisite to give it any closing power wanted; the valve closing against the current of water when relieved of the action of the lever K, or its equivalent.

2. In combination with the foregoing, an adjustable graduating pressure attached to resist the closing of the valve, as desired for water-closets and other purposes, substantially as and for the purpose herein described.

ENOCH OSGOOD.

Witnesses:

PETER COOKE,

GUSTAVE DIETERICH.