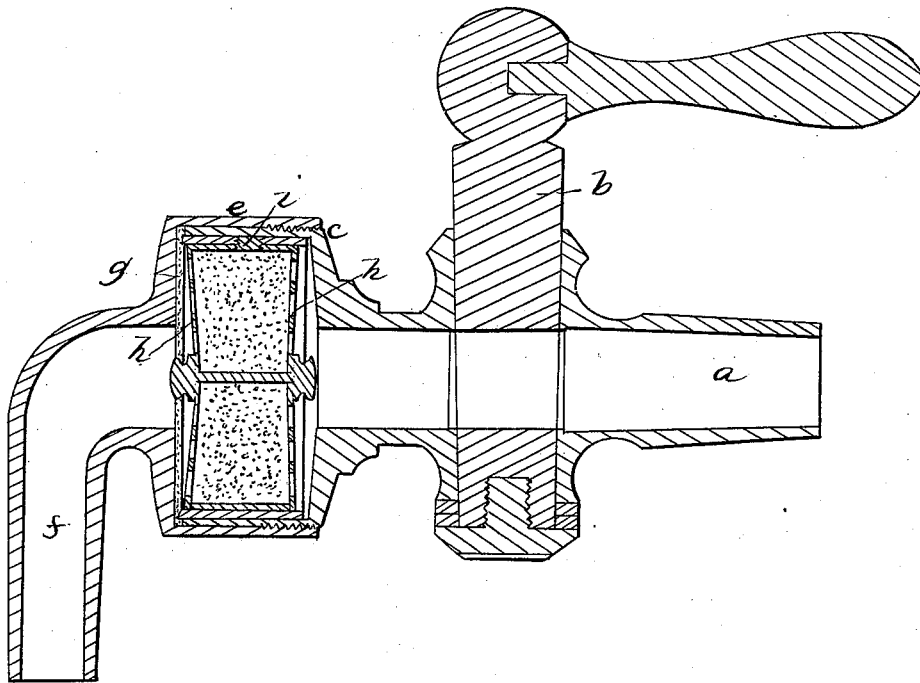
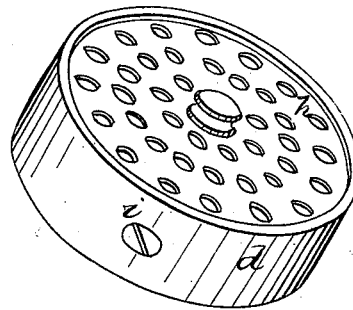
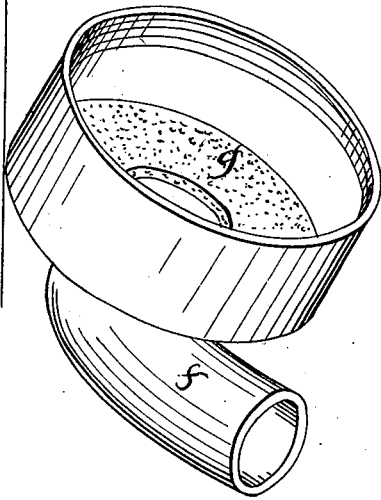


*W. Read,*

*Filtering Cock,*

*Nº 4, 824,*

*Patented Oct. 24, 1846.*



# UNITED STATES PATENT OFFICE.

WILLIAM READ, OF NEW YORK, N. Y.

## FILTERING STOP-COCK.

Specification of Letters Patent No. 4,824, dated October 24, 1846.

*To all whom it may concern:*

Be it known that I, WILLIAM READ, of the city, county, and State of New York, have invented a new and useful Improvement in Compound Filters and Stop-Cocks, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a longitudinal vertical section, and Fig. 2, a perspective view of the delivery spout and filter removed.

The same letters indicate like parts in all the figures.

Stop cocks and filters have been heretofore combined so as to filter the water in drawing it from the cock; but when so combined the filtering part has either been placed in or back of the valve of the stop cock, so that it (the stop cock) could not be employed separately, or the filterer has been so combined as to leave the stop cock without a discharge pipe when the filter was removed; and in no instance has the filter been so combined that the filterer could be conveniently reversed or changed or entirely removed, and the complete stop cock retained in perfect form. But by my improvement I attain all these ends in a more perfect and cheap manner than by any other means with which I am acquainted. It consists in employing a case perforated at each end and containing sand or other filtering material which is received in an enlargement made in the stop cock between the valve and the delivery spout, which are made separate and screw onto each other at the enlargement, so that by unscrewing the delivery spout, the filter can be removed and taken out or reversed, and the spout screwed on again with or without the filter, that face of the enlargement which is connected with the delivery pipe being provided with leather or other packing so that when the case of the filter is forced against this packing by the pressure of the column of water it shall form a perfectly water tight joint. And my invention also consists in making the case that contains the filtering material with a hole in its periphery provided with a screw plug through which the filtering material is introduced, or removed when

it is required to be changed, when this is combined with a stop cock provided with an enlargement such as above described for receiving and removing the filterer.

In the accompanying drawings (*a*) represents the pipe of the stop cock, and (*b*) the valve made in the usual manner. Beyond the valve the pipe is provided with a cylindrical enlargement (*c*) in which fits loosely the filterer (*d*). The outer surface of this enlargement is tapped and over it screws a corresponding enlargement (*e*) of the delivery spout (*f*), and the face of this latter enlargement is provided with a leather disk (*g*) or other packing against which the case of the filter is forced to constitute a water tight joint by the pressure of the column of water in passing through the filter.

The filterer (*d*) is composed of a metal cylinder with two perforated heads (*h, h*), within which are placed two disks or diaphragms of fine wire gauze—the space within being entirely filled with fine round sand which is introduced through an aperture in the cylindrical case closed up by a screw plug (*i*). By taking the filter from the chamber or enlargement in the cock and reversing it and then screwing on the delivery spout the sediment previously accumulated is carried off and discharged by the first flow of water. If it be removed the delivery spout can be screwed on and the instrument used as a stop cock only; and when the sand has accumulated too much dirt, by removing the screw plug (*i*), it can be taken out, washed, and replaced or other sand substituted.

What I claim as my invention and desire to secure by Letters Patent is—

Placing a filter in an enlargement or chamber of the stop cock between the valve and delivery spout, when these are connected by screwing on each other, and provided with packing, so that the pressure of the column of water shall press the filterer against it and thus form a water tight joint, all substantially as described whereby the filterer can be removed or reversed for cleansing, and the stop can be used independent of the filter, as described.

WILLIAM READ.

Witnesses:

A. W. METCALF,  
D. H. BUTZ.