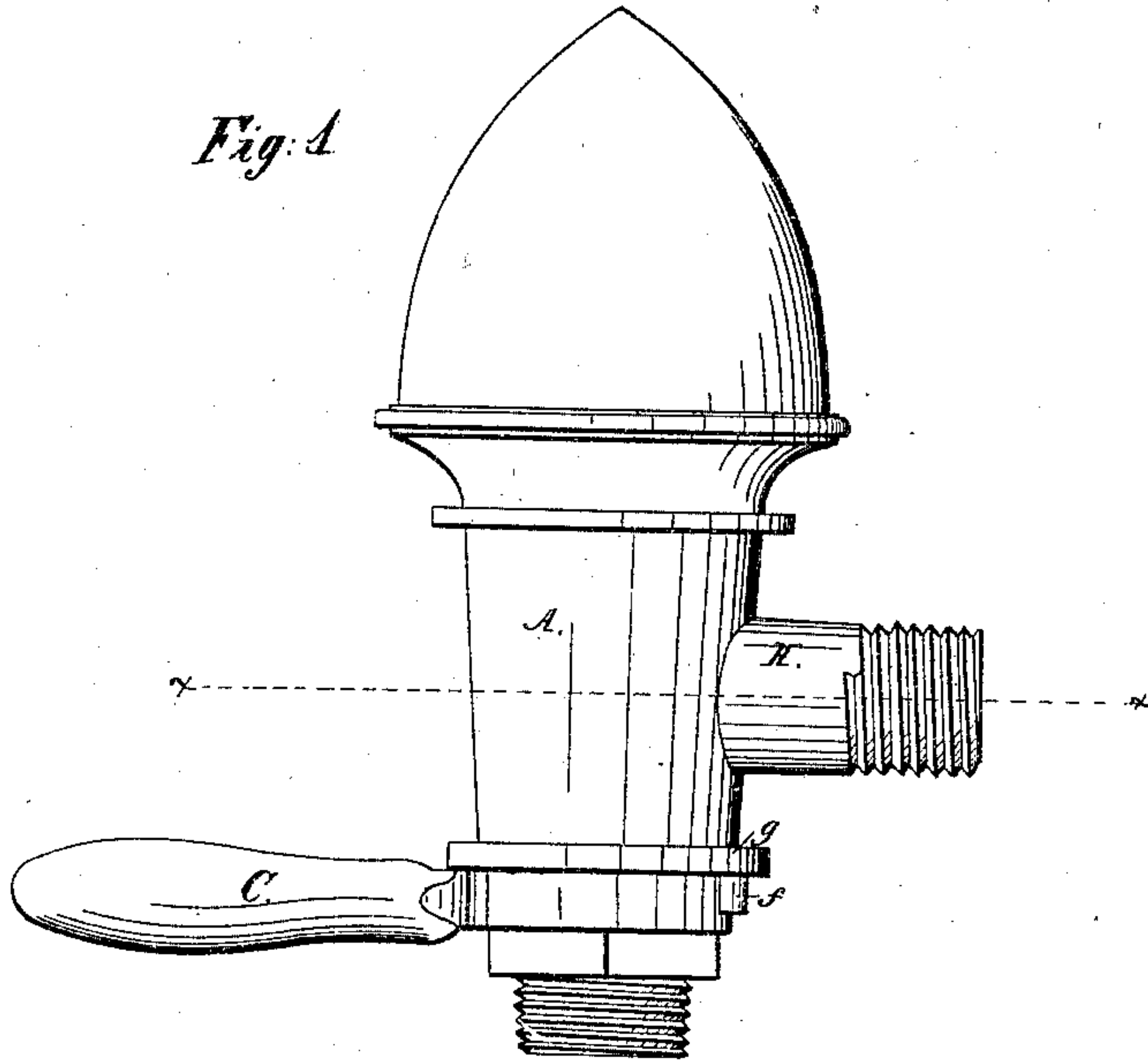


No. 16,232.

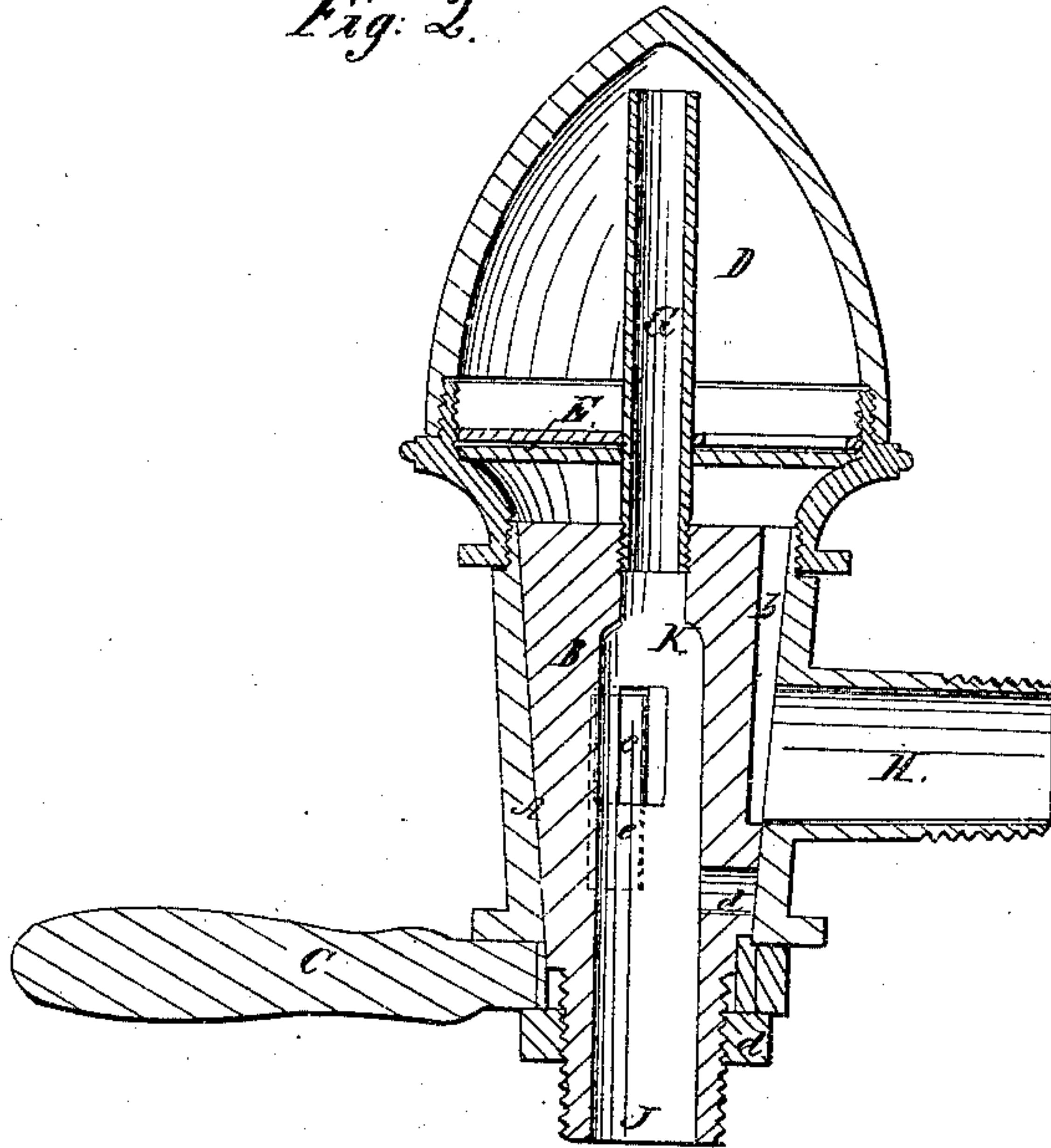
PATENTED DEC. 16, 1856.

G. H. FOX & H. J. SILLER.  
SELF CLEANSING FILTERING COCK.

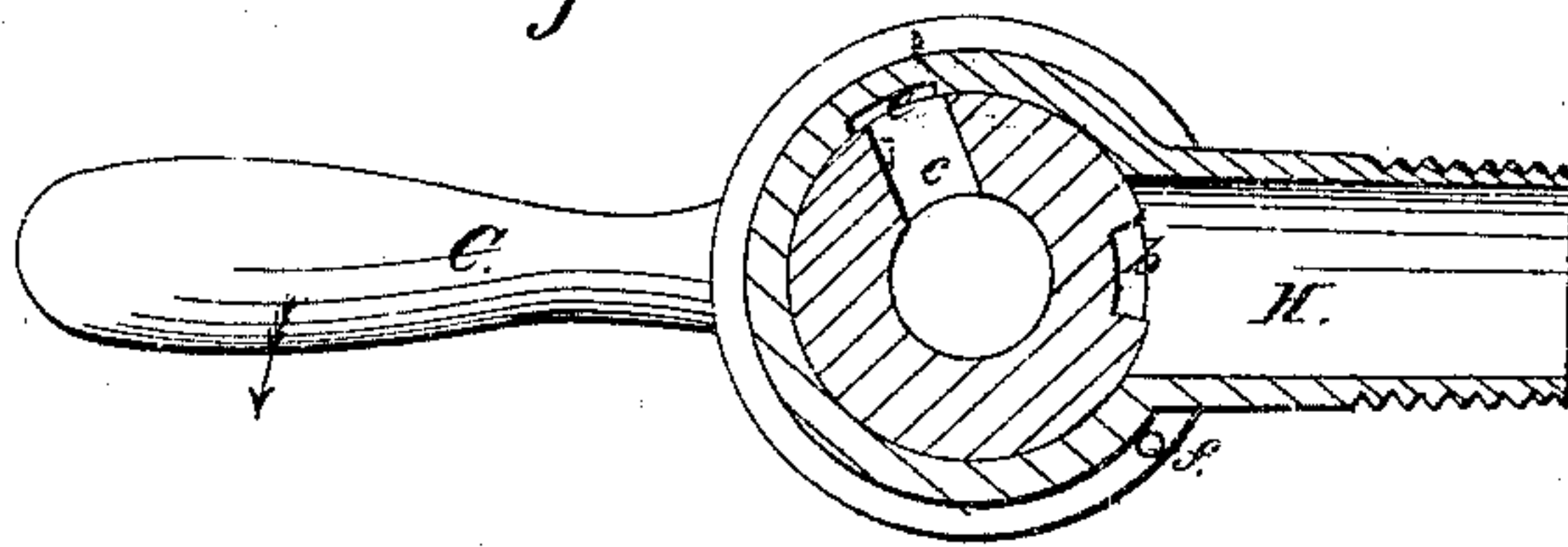
*Fig. 1*



*Fig. 2*



*Fig. 3*



C

# UNITED STATES PATENT OFFICE.

GEO. H. FOX, OF BOSTON, AND HENRY J. SILLER, OF EAST CAMBRIDGE, MASSACHUSETTS.

## FILTERING-FAUCET.

Specification of Letters Patent No. 16,232, dated December 16, 1856.

*To all whom it may concern:*

Be it known that we, G. H. Fox, of Boston, in the county of Suffolk and State of Massachusetts, and H. J. SILLER, of East Cambridge, in the county of Middlesex and State aforesaid, have invented a new and Improved Self-Cleansing Filtering-Cock, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the cock; Fig. 2, a longitudinal section through the same; Fig. 3, a transverse section upon the line  $x x$  of Fig. 1.

A great desideratum in hydrant cocks for water or other fluids for which a filter is used, is to have the filter so arranged that it may be self cleansing and not required to be removed for the purpose of cleaning it from the dirt or sediment which may collect on that side from which the water or other fluid is forced through it. This end we have obtained in the improved filtering cock which we have invented.

To enable others skilled in the art to understand our invention we will proceed to describe the manner of carrying out the same.

A is the shell or casing of the cock, into which is fitted the conical plug B, which extends a short distance below it. To the bottom of the plug is secured by means of the nut  $a$  the handle C, by which it is turned. Above the plug and between it and the chamber D, is placed the filter E. As the peculiar construction of this filter forms no part of our invention, it need not be further described. Secured to the top of the plug and in continuation of a hole or passage K, passing longitudinally through the center of it, is the pipe G, which passes up through the middle of the filter nearly to the top of the inside of the chamber D. The plug B has cut in its surface a groove or water way  $b$ . The passages  $c$  and  $d$  are cut through from the exterior to the interior of the plug. The shell A has cut in its interior surface a groove  $e$ , seen dotted in Fig. 2.

H is the pipe through which the water flows into the cock and J the outlet or nozzle.

The operation is as follows: The water enters the pipe H, the plug being in the position shown in the drawings. It ascends through the groove  $b$  and passes through

the filter E, leaving its sediment on the lower side of the filter, fills the chamber D, and flows over the top of the pipe G, and down through it and the opening through the center of the plug and out at the nozzle J. When the plug is turned by the handle in the direction shown by the arrow Fig. 3 part way around, the groove  $b$  is moved away from the pipe H and the flow of water up through the filter is stopped. The groove  $b$  is brought opposite and in correspondence with the groove  $e$ . The hole or passage  $d$  is also opposite to the lower part of the groove  $e$ . Thus a passage for the water is established from the lower side of the filter through  $b$ ,  $d$ , and K to the outlet at J, allowing all the water contained in the chamber D to flow back through the filter and out at the nozzle, washing off any sediment that may have collected on its lower side. As this cleansing operation is repeated each time the cock is used, it is evident that no amount of dirt can collect on the filter. The person using the cock cannot by any neglect omit the cleansing of the filter, as the operation of stopping off the water necessarily causes it to flow back through the filter. It is sometimes desirable to allow a free passage to the water without passing it through the filter, as when a hose is to be attached to the nozzle. This is accomplished by turning the handle in the opposite direction from that shown by the arrow in Fig. 3 till the opening  $c$  through the plug is opposite to the pipe H, which gives a free course to the water through  $c$  into K and out at J. To secure having the grooves  $b$  and  $e$  in correspondence when the passage of the water through the pipe H is stopped off, a small screw or pin  $f$  is secured to the collar  $g$ . The arm C strikes against this pin or stop and prevents it from being turned too far.

What we claim as our invention and desire to secure by Letters Patent, is—

Causing a portion of the water which has passed through the filter, to return in the opposite direction whenever the cock is closed after using it, for the purpose of cleansing the filter as set forth.

GEO. H. FOX.  
HENRY J. SILLER.

Witnesses:

THOS. R. ROACH,  
SAM. COOPER.