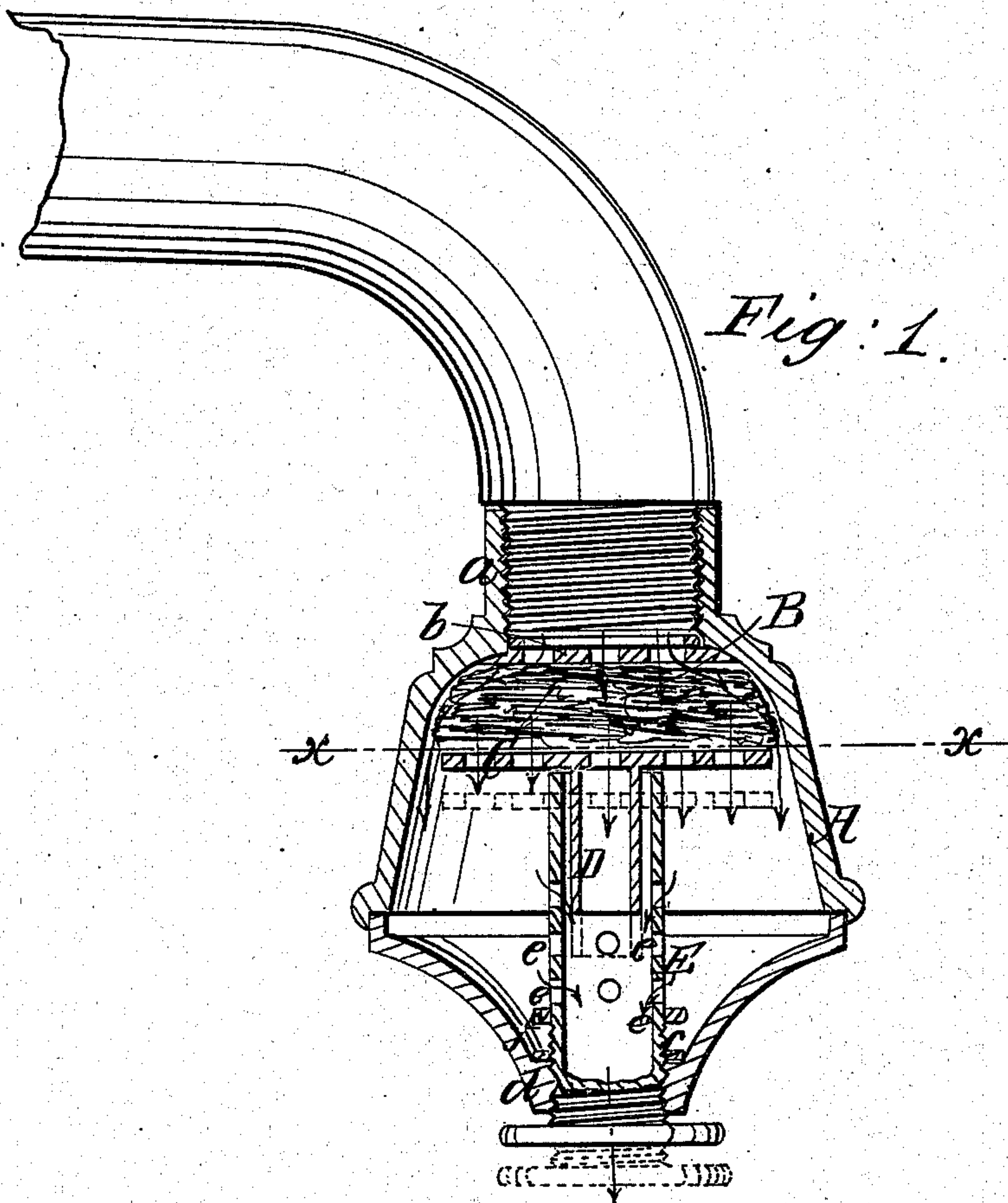


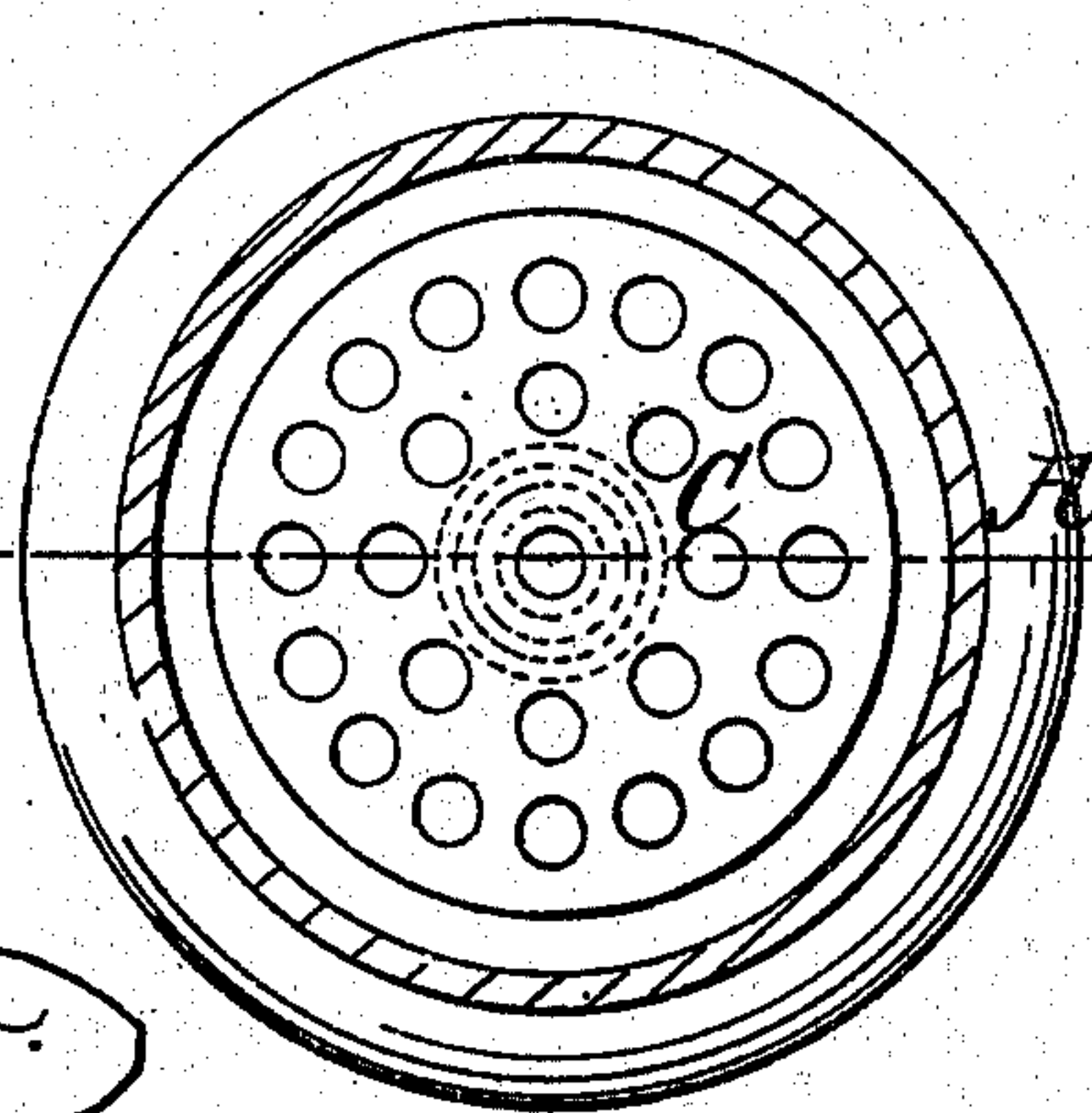
G. NORRIS.  
FILTER.

No. 32,202.

Patented Apr. 30, 1861.



*Fig: 2.*



Witnesses  
C. W. Crotan  
M. J. Thompson.

Inventor  
George Norris.



# UNITED STATES PATENT OFFICE.

GEORGE NORRIS, OF NEW YORK, N. Y.

## FILTER.

Specification of Letters Patent No. 32,202, dated April 30, 1861.

*To all whom it may concern:*

Be it known that I, GEORGE NORRIS, of the city, county, and State of New York, have invented a new and Improved Filter; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1. is a vertical central section of my invention, taken in the line *x, x*, Fig. 2; Fig. 2, a horizontal section of the same taken in the line *y, y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents the case or body of the filter which may be of any desirable form, and provided at its upper end with a screw socket *a*, for attaching it to the water pipe, the bottom of the socket *a*, being perforated as shown at *b*.

B, is a sponge which is fitted in the upper part of the case or body A, the upper part of the sponge being in contact with the perforated bottom of the socket.

C, is a perforated plate which bears against the under side of the sponge and has a tube D, extending down from its center.

E, is a tube which passes vertically through the lower end of the case or body A. This tube has a screw thread *c*, on it which works in an internal screw *d*, in the lower part of the case or body A.

The tube D, of plate C, extends down within the tube E, the upper part of the latter being perforated as shown at *e*.

The tube E, within the case or body A, has a ring *f*, on it which prevents it casually dropping from the case or body A.

From the above description it will be seen that by screwing up the tube E, the perforated plate C, is made to press against the

sponge B, and the latter is compressed and rendered compact so as to form a perfect filtering medium, the water passing down through the perforations of plate C, into the lower part of the case or body and through the perforations of tube E, into the latter, through which it escapes from the filter. When filtered water is not required, the tube E, is screwed down and the sponge B, is allowed to expand so that the water will pass freely through it. Thus by this very simple arrangement the water may be filtered or not as desired and therefore no time lost by the comparatively slow discharge of filtered water when the same is not required. This arrangement it will be seen does not admit of any leakage of the water from the case, or body of the filter, as the latter may be made of a single piece. The invention therefore differs materially from those filters which are provided with cases made in two parts, and which require said parts to be unscrewed in order to shift the position of the filtering medium, that the water may run through in an unfiltered state. Filters of this kind are liable to leak around the case or body at the joint or screw and are altogether more complex and more expensive to construct than those constructed according to my invention. The tube D, serves as a guide for the plate C, keeping the same in proper position within the case or body A.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is;

The combination of the perforated compression and discharge screw or tube E and plate C, with the filtering material B and case A in the manner and for the purposes substantially as described.

GEORGE NORRIS.

Witnesses:

M. M. ZROMPTON,  
C. W. COWTAN.