

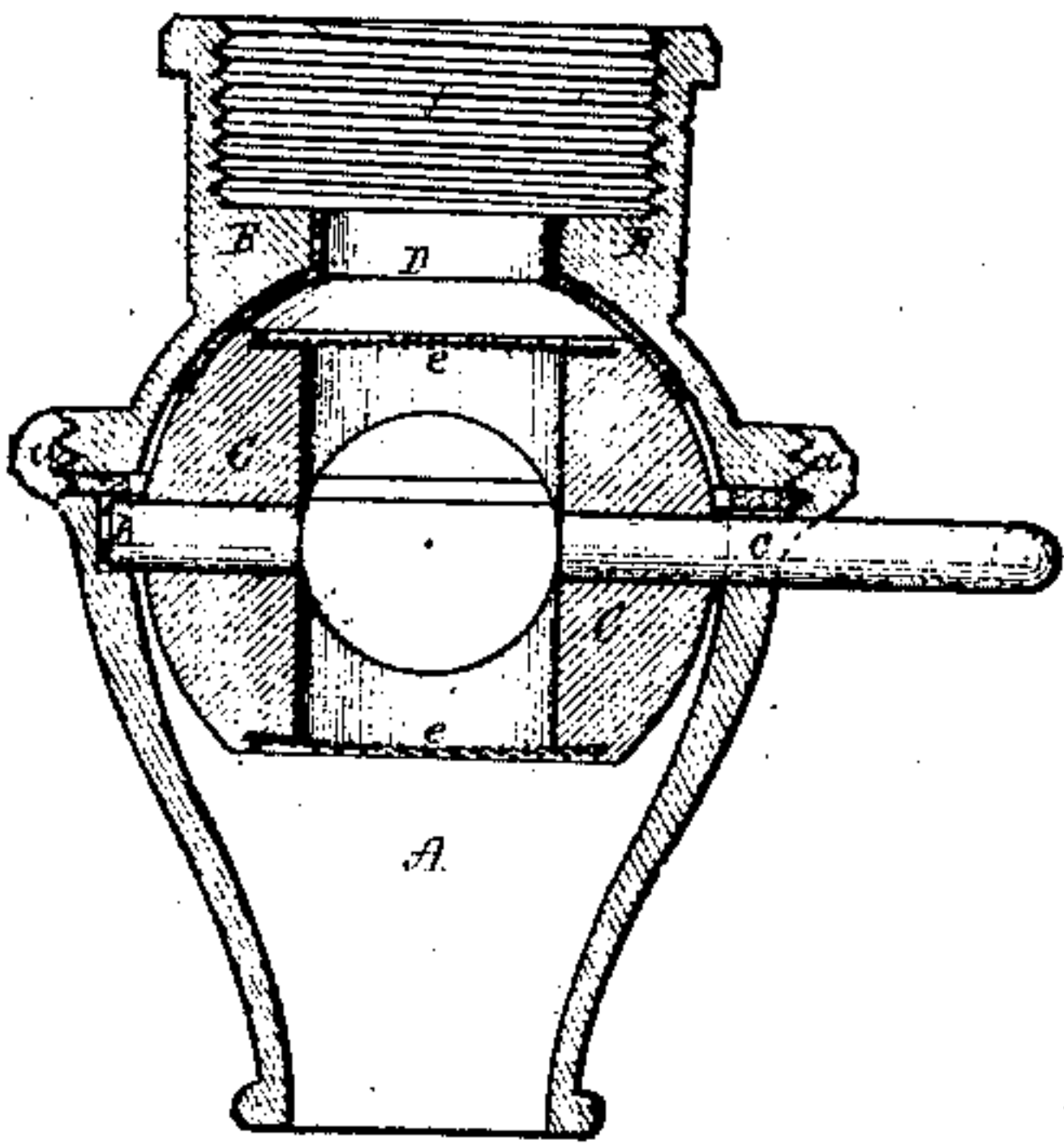
*T. S. Hudson,*

*Filter.*

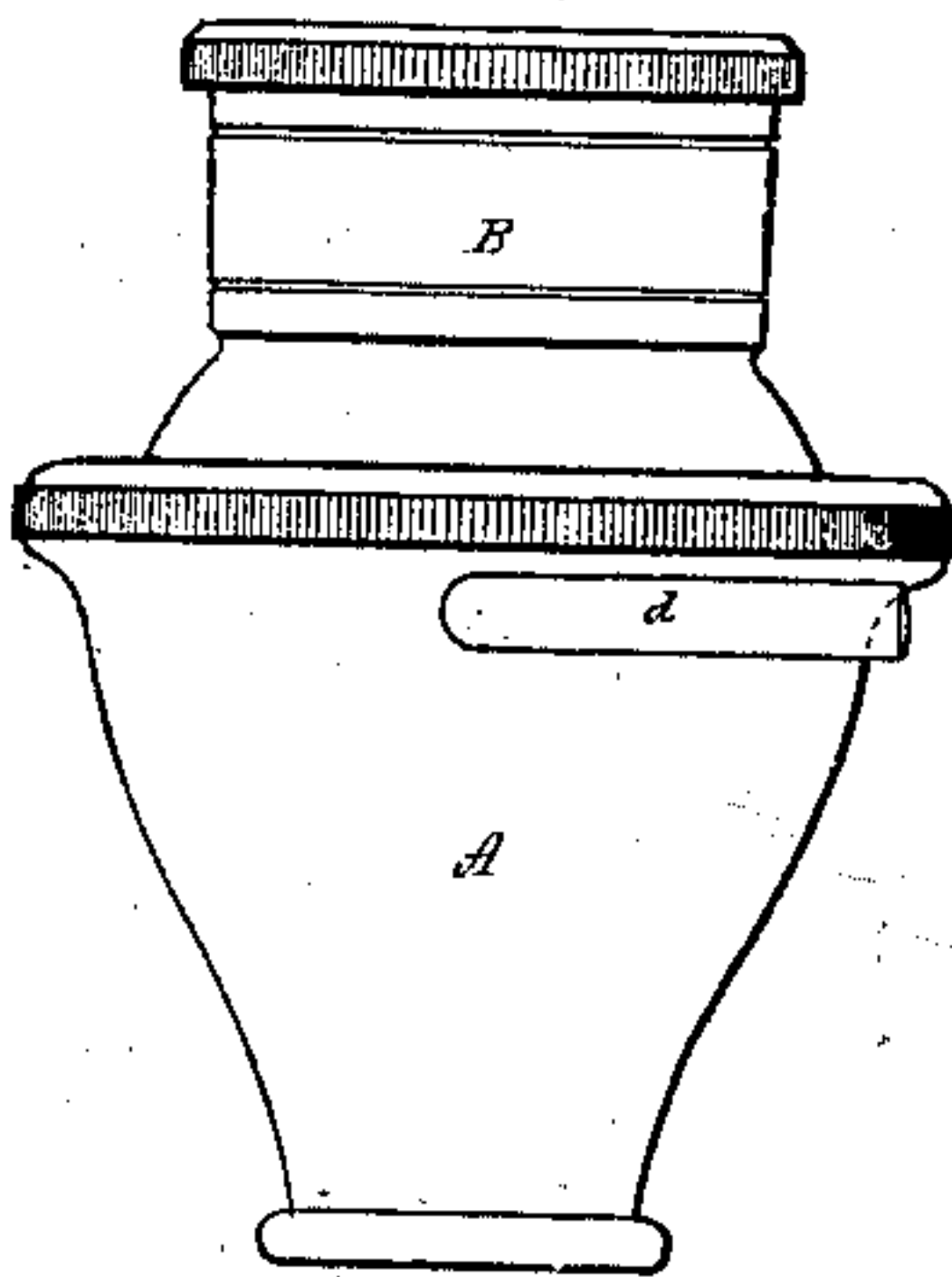
*No. 98,596.*

*Patented Jan. 4. 1870.*

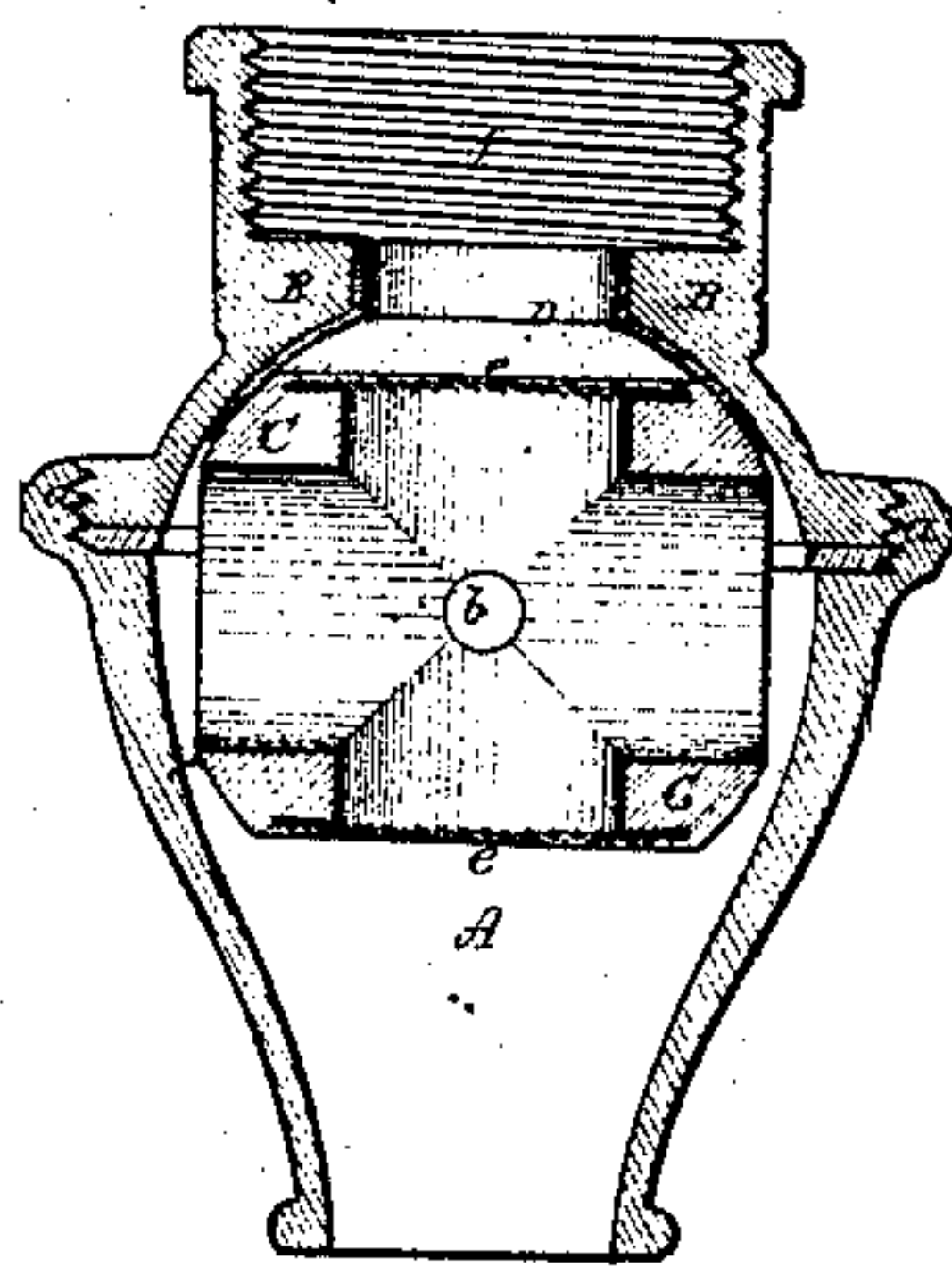
*Fig. 2.*



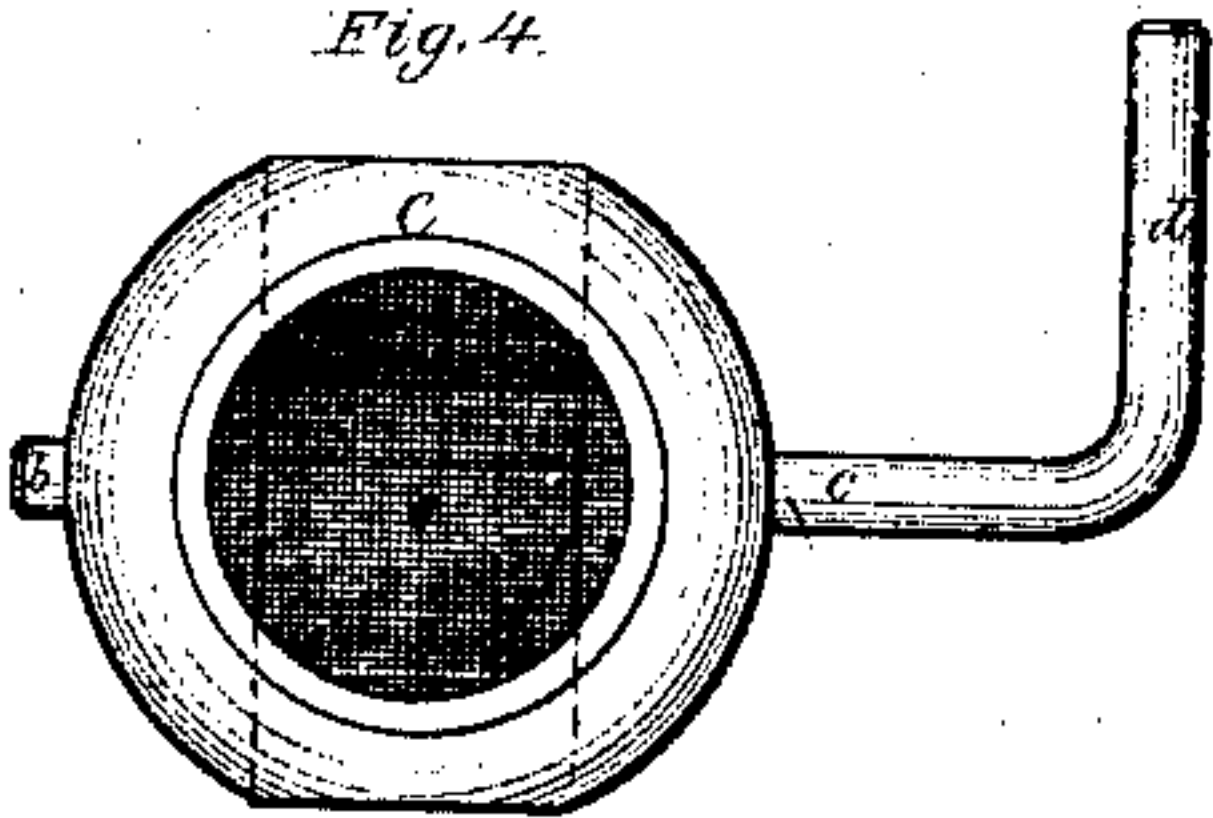
*Fig. 1.*



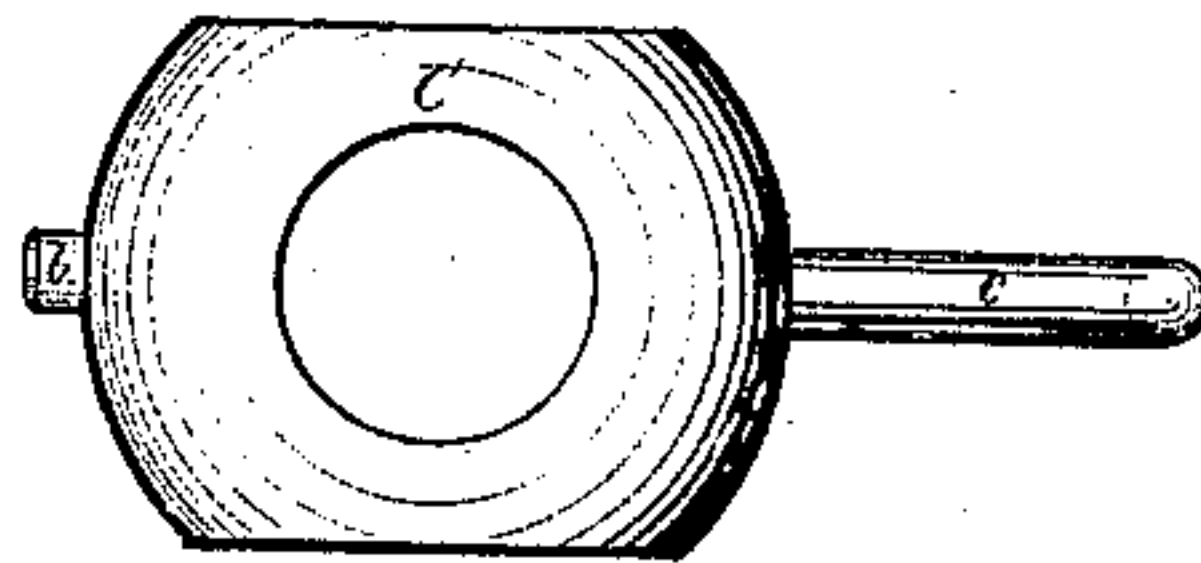
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Witnesses.*

*S. V. Piper.*  
*J. R. Brown.*

*T. S. Hudson*

*by his attorney.*

*R. W. Werry*

# United States Patent Office.

THOMAS SMITH HUDSON, OF EAST CAMBRIDGE, MASSACHUSETTS.

*Letters Patent No. 98,596, dated January 4, 1870.*

## IMPROVEMENT IN FILTERING-APPARATUS FOR PIPES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all persons to whom these presents may come:*

Be it known that I, THOMAS SMITH HUDSON, of East Cambridge, of the county of Middlesex, and State of Massachusetts, have invented a new and useful or improved Apparatus for Straining or Filtering a Fluid; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a front elevation, and

Figures 2 and 3, vertical sections of the said apparatus.

Figure 4 is a top view.

Figure 5, a side view of its double-truncated straining-globe.

The body A, of the filter, has a shape which is a close approximation to the frustum of a cone, it being hollow from top to bottom, and open at each.

At top, it is provided with a female screw, *a*, to receive a cap, B, and connect it with the body.

Within the body is a double-truncated globe, C, which is so pivoted to the body, as to be capable of being revolved within the upper part thereof.

The pivots or journals of the globe, are shown at *b* and *c*, one of which is extended through the globe, and furnished with a handle, *d*, extended from it at a right angle.

This globe is bored through transversely, in two directions, at right angles to each other, there being a strainer or filtering-medium, *e*, fixed in one or each of the ends of one of such bores. The other bore is open at each extremity and throughout its length.

There rests on the filtering-globe, a thin metallic cap, D, having the shape of a common wash-basin, without a bottom, or with an opening or passage through its bottom. The said cap D is intended to fit closely upon the outer curved surface of the globe C, and also against the contiguous inner surface of the cap B.

The cap B has a female screw, *f*, made in its upper part, to enable it to be connected or screwed to the

lower end of a water-faucet, of the kind usually provided with a male screw at its discharging-extremity. By screwing the cap B into the body A, and down upon the cap D, so as to force the latter into close contact with the globe C, water, when flowing under pressure, through the cap B, and into the cap D, will be caused to pass through the superior or upper filtering-medium or strainer, or both of the strainers, and be discharged through and from the body A. By revolving the globe ninety degrees, the water will flow directly through its open passage, without going through the strainers, as before, except it be in opposite directions, and will wash or cleanse the latter of any foreign matters which at any time may have collected on them.

The cap B enables a strainer of a larger diameter to be used in the globe than could well be employed without such cap, but the cap D may be dispensed with, and the cap B, be secured closely down upon the globe. It may be remarked, that the position of the handle will indicate that of the strainers in the body A or case of the filter.

An apparatus, as above specified, has been found to be very efficient for the purpose for which it is designed.

I claim—

1. The combination of the rotary globe, provided with strainers and crossed passages, as described, with the body A and cap B, the whole being substantially as and to operate as set forth.

2. The combination and arrangement of the perforated cap D with the body A and cap B, and the rotary straining-globe, made and applied to the body, substantially in manner, and so as to operate as specified.

THOMAS SMITH HUDSON.

Witnesses:

R. H. EDDY,  
S. N. PIPER.