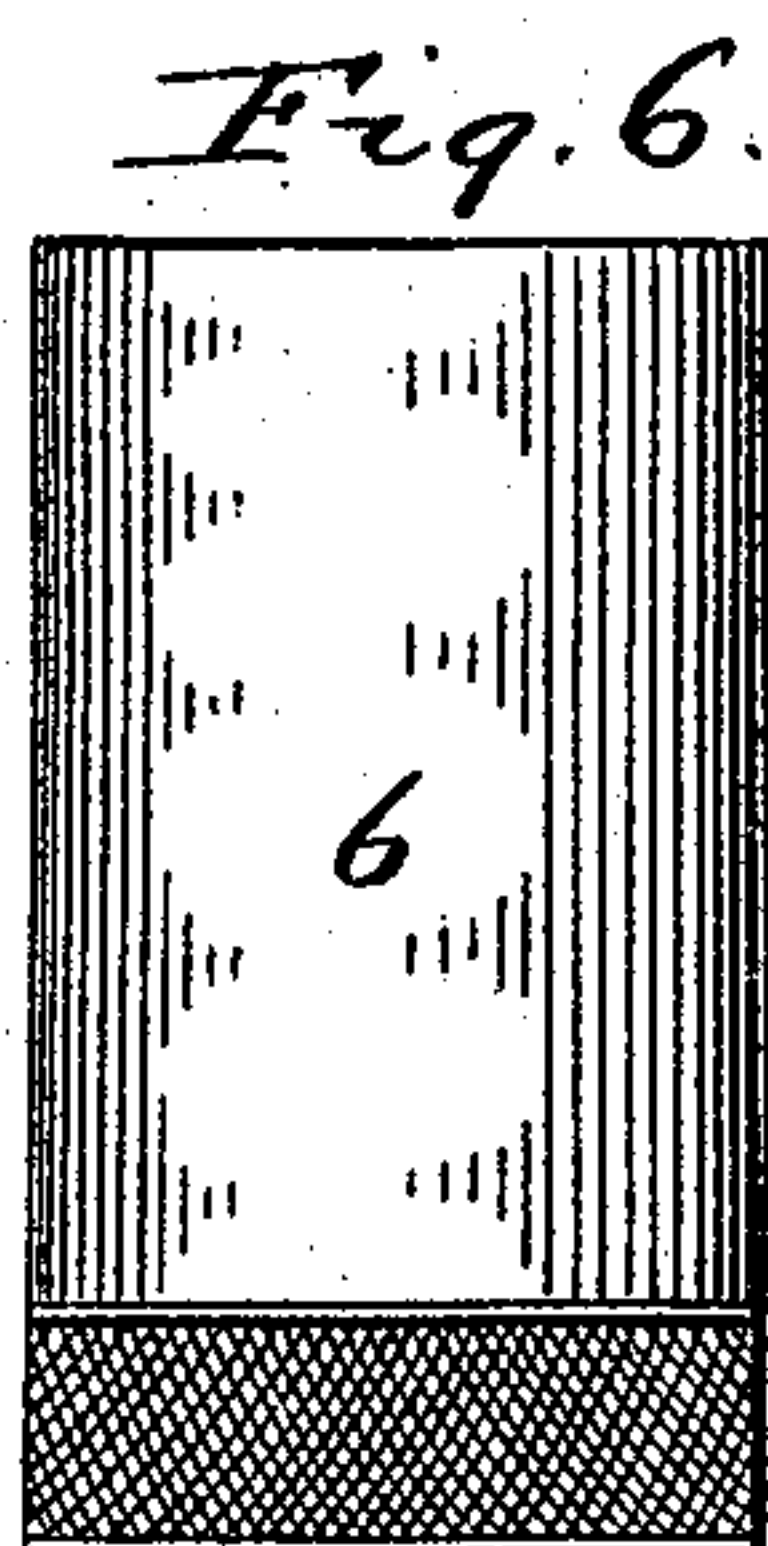
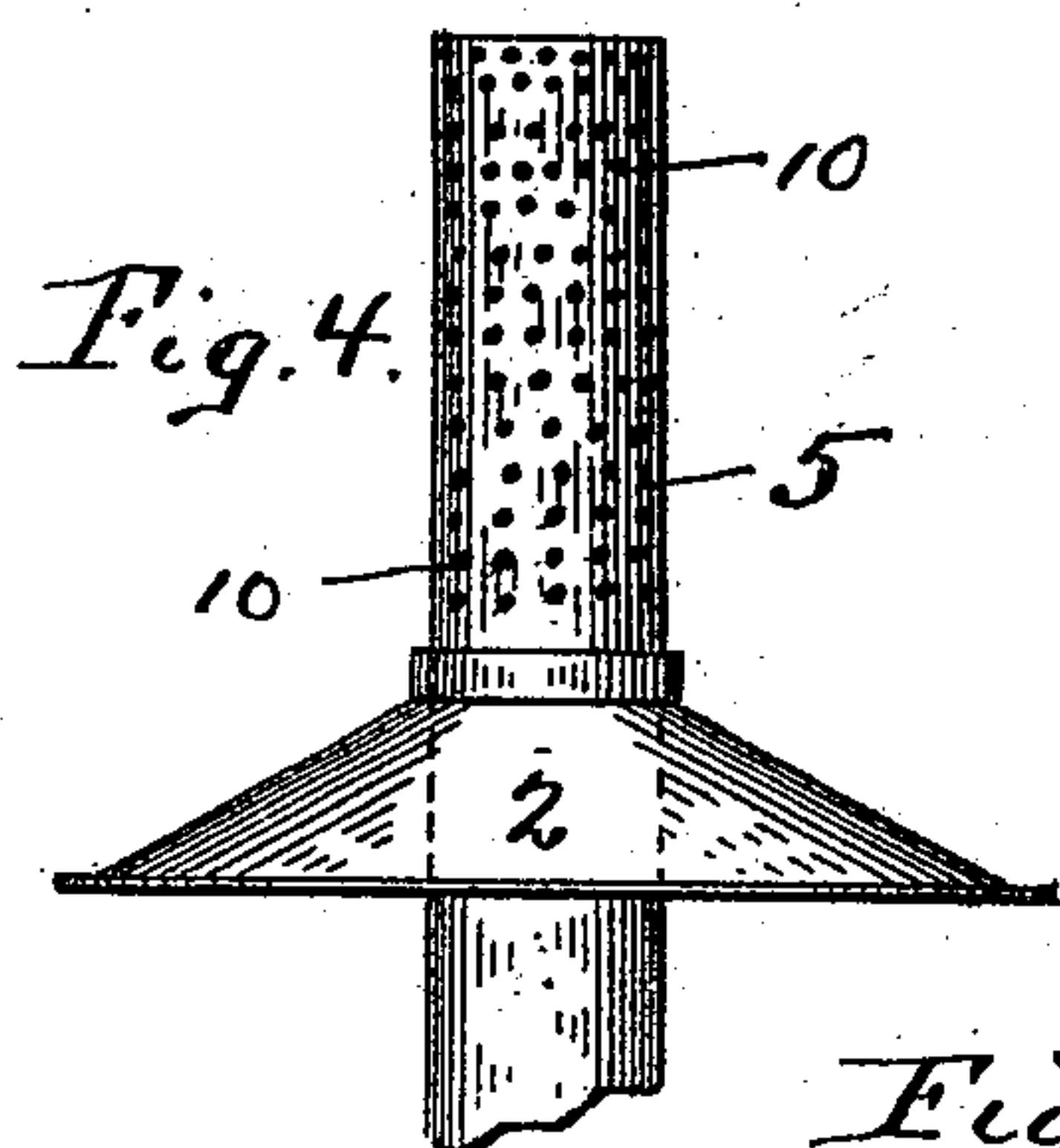
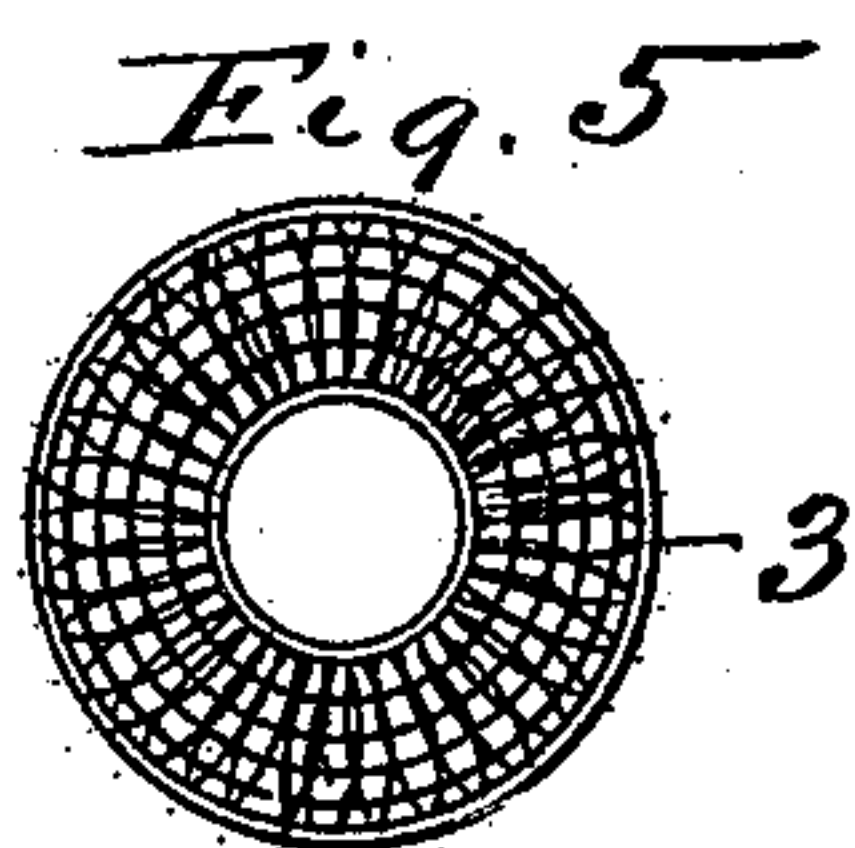
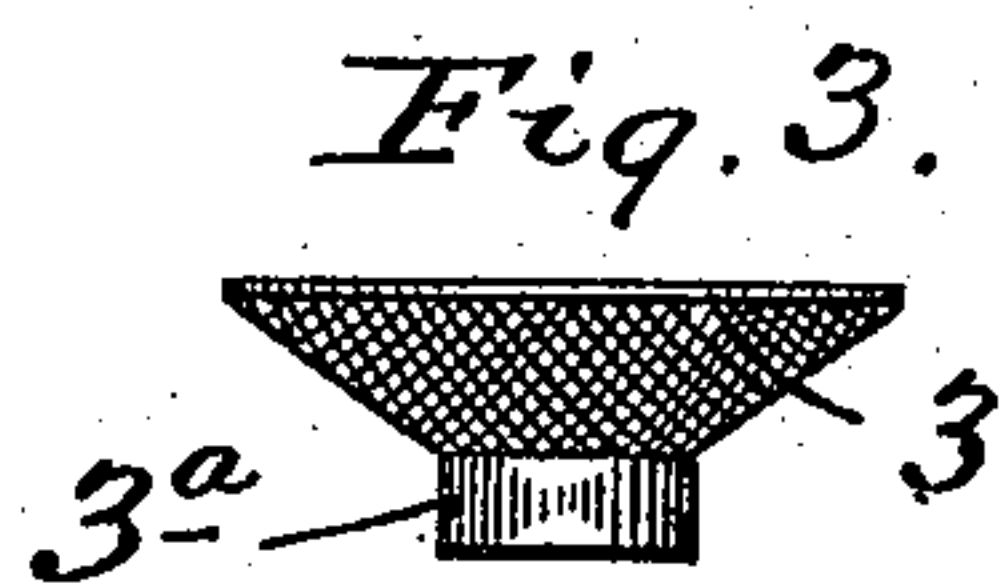
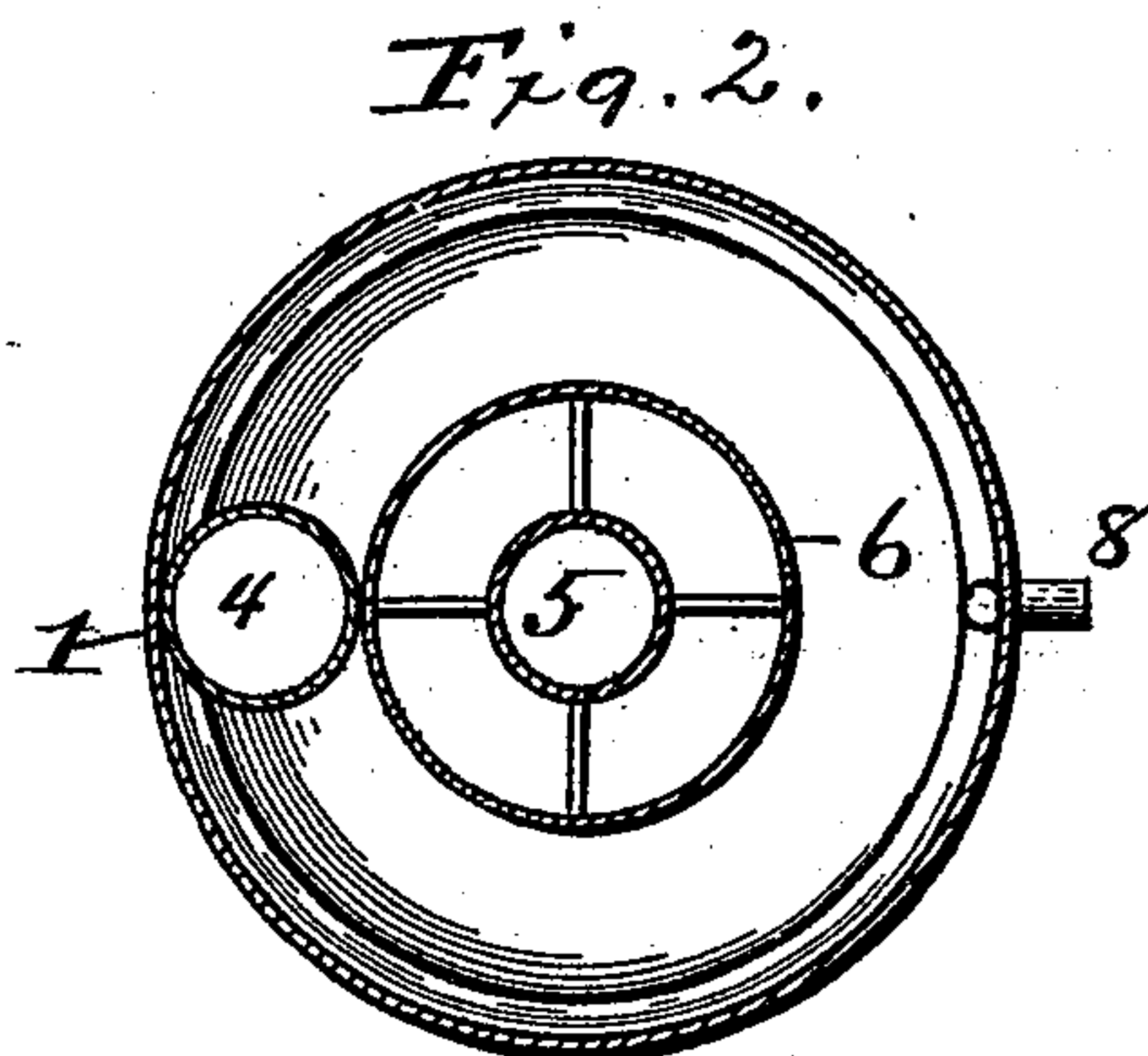
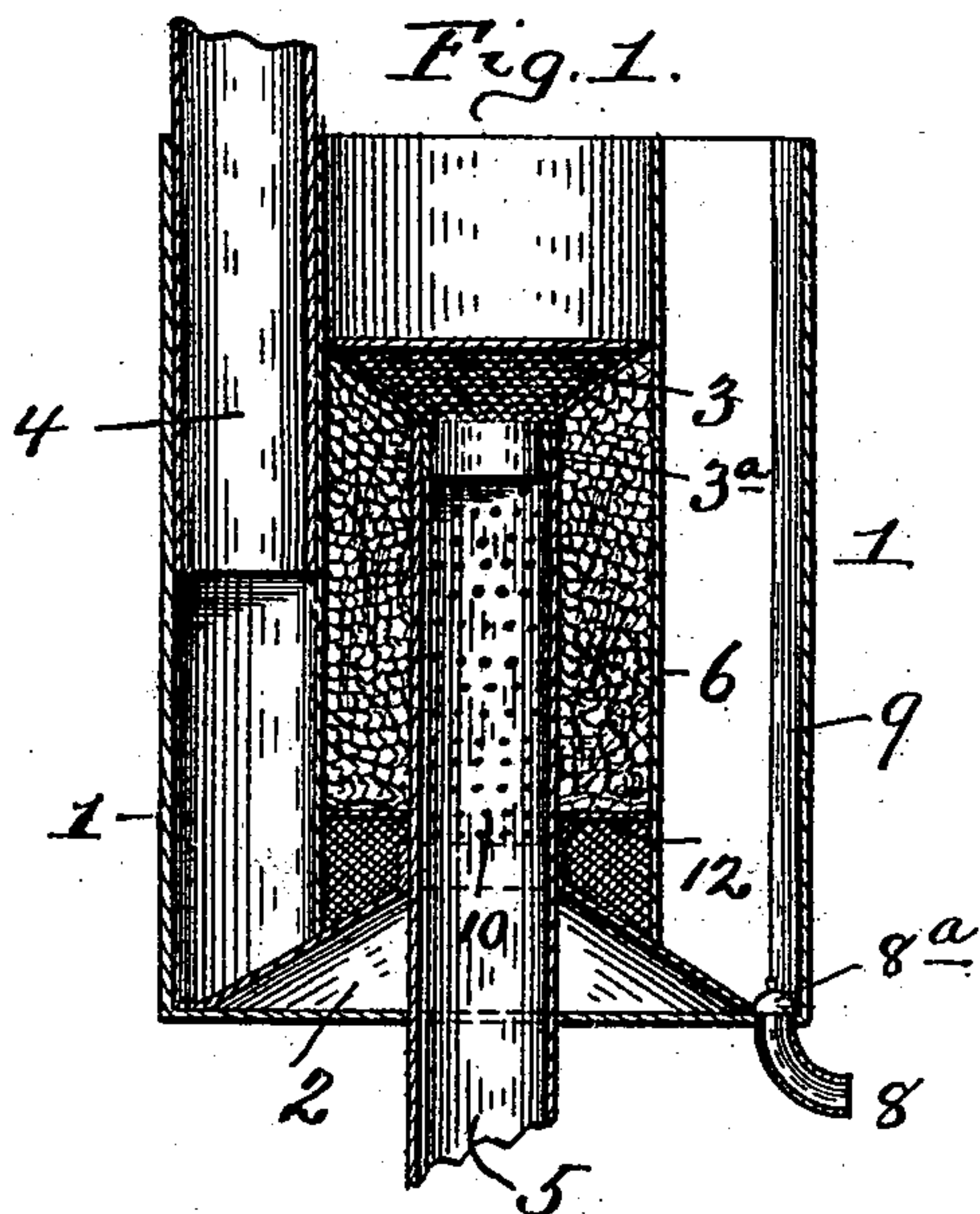


(No Model.)

J. E. WELLING.
WATER FILTER.

No. 516,981.

Patented Mar. 20, 1894.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN EDWARD WELLING, OF CYNTHIANA, KENTUCKY, ASSIGNOR OF TWO-THIRDS TO OTERIA E. FRISBIE AND D. L. EVANS, OF SAME PLACE.

WATER-FILTER.

SPECIFICATION forming part of Letters Patent No. 516,981, dated March 20, 1894.

Application filed June 19, 1893. Serial No. 478,171. (No model.)

To all whom it may concern:

Be it known that I, JOHN EDWARD WELLING, a citizen of the United States, and a resident of Cynthiana, in the county of Harrison and State of Kentucky, have invented certain new and useful Improvements in Water-Filters, (on which I received Letters Patent in this, the United States of America, No. 489,354, dated January 3, 1893,) and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of the specification.

My invention relates to water filters of that class or description designed to be used in connection with cisterns or other receptacles, whereby the water is filtered before entering the same.

The object of the invention is to provide an improved device for the above named purpose which shall possess superior advantages with respect to efficiency in use.

In the accompanying drawings—Figure 1 is a central longitudinal section of a filter constructed in accordance with my invention. Fig. 2 is a horizontal section of the same. Fig. 3 is a detail view of the wire gauze or perforated metal cap or cover for the outlet pipe. Fig. 4 is a detail view of the central perforated outlet pipe. Fig. 5 is a plan view of wire cap or cover shown in Fig. 3. Fig. 6 is a view of the inner cylinder detached. Fig. 7 is a sectional view of the elbow outlet pipe.

In the said drawings, the reference numeral 1 designates a receptacle, of wood, metal or other suitable material, and, in the present instance is shown as being cylindrical in shape, although it may be of any other form desired or found convenient.

The numeral 2 designates the bottom of said receptacle, conical in shape and formed with a central aperture for the passage of the central outlet pipe 5, which extends down below said receptacle. This pipe extends upwardly about two thirds the height of said receptacle and at its upper end is provided with a wire or perforated metal cap or cover 3, formed with a cylindrical sleeve 3^a which fits in the upper end of pipe 5. The upper

part of this cap is in the form of an inverted truncated cone.

The numeral 6 designates a cylinder located within the receptacle 1, and extending from top to bottom thereof its lower end being formed of wire gauze or perforated metal, while the remaining portion is imperforate. This cylinder is concentric with pipe 5, and rests upon the conical bottom 2, of the receptacle, and is of a diameter corresponding with that of the cap 3, so that the latter fits snugly therein, with its periphery abutting against the inner surface thereof.

The numeral 4 designates the inlet pipe which extends about half-way down the receptacle 1, between the inner surface of the same and the outer side of the cylinder 6.

The numeral 8 designates an elbow connected with the conical bottom 2, at the periphery thereof. This elbow is provided with a valve 8^a and an operating rod 9.

The numeral 7, designates a packing of charcoal or other filtering material interposed between the cylinder 6 and pipe 5. This pipe 5, above the conical bottom is formed with numerous perforations 10. A perforated metal plate 12, corresponding in diameter with that of the cylinder 6, is located in the latter a short distance above the conical bottom, and is formed with a central aperture for the passage of pipe 5.

The operation will be readily understood. The water enters the receptacle 1 through pipe 4, and escaping into the cylinder 6 through the perforated lower end thereof will rise up into the filtering material from whence it escapes in a clean and pure condition through the perforations in the outlet pipe 5, and from thence to the cistern. The water will also escape through the perforated or wire cap, the latter preventing the filtering material from escaping through the outlet pipe.

By means of the elbow outlet pipe, the sediment and impure and dirty water may be drawn off from the receptacle, by raising the valve 8^a by means of rod 9.

Having thus fully described my invention, what I claim is—

1. In a filter the combination with the receptacle having a conical bottom, of the cyl-

inder located in said receptacle and extending from top to bottom thereof and having its lower end perforated, the perforated central outlet pipe extending through said bottom up into said cylinder, the inverted conical cap at the upper end of said pipe, the filtering material between said pipe and cylinder, and the inlet pipe, substantially as described.

2. In a filter the combination with the receptacle having a conical bottom and an elbow outlet pipe at the lower end thereof provided with a valve and an operating rod, of the inner cylinder extending from top to bottom of said receptacle and having its lower end perforated, the central perforated outlet

pipe extending up through said bottom into the said cylinder, the inverted conical perforated cap, the perforated plate in the lower part of said cylinder, the packing or filtering material interposed between said cylinder and the receptacle and the inlet pipe, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in the presence of two witnesses.

JOHN EDWARD WELLING.

Witnesses:

M. C. SWINFORD,
H. H. JEWETT.