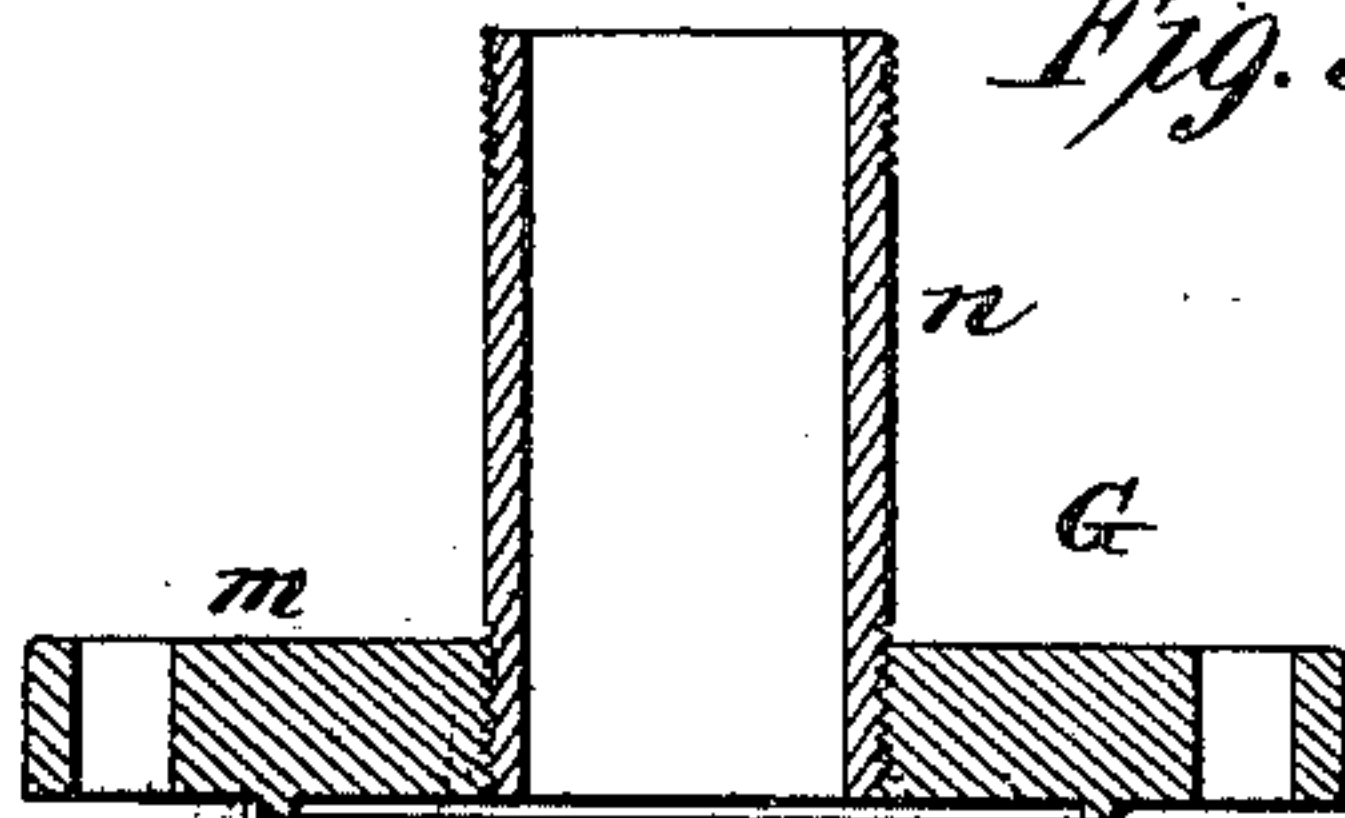
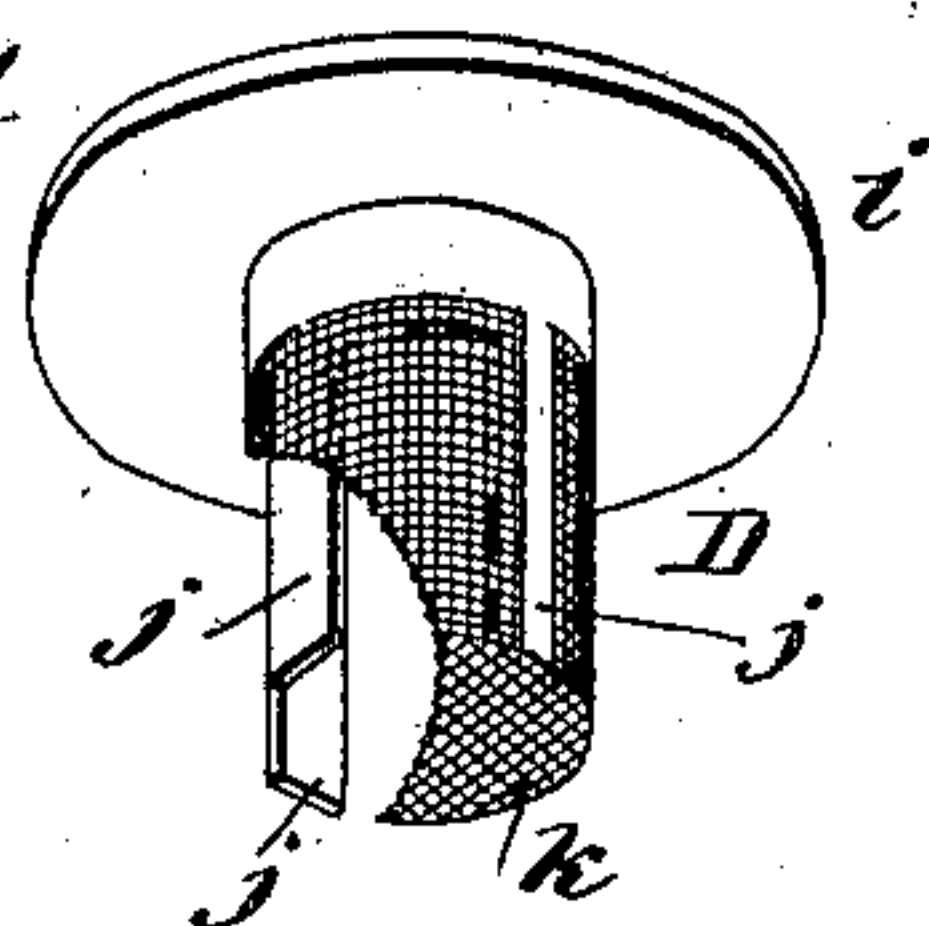
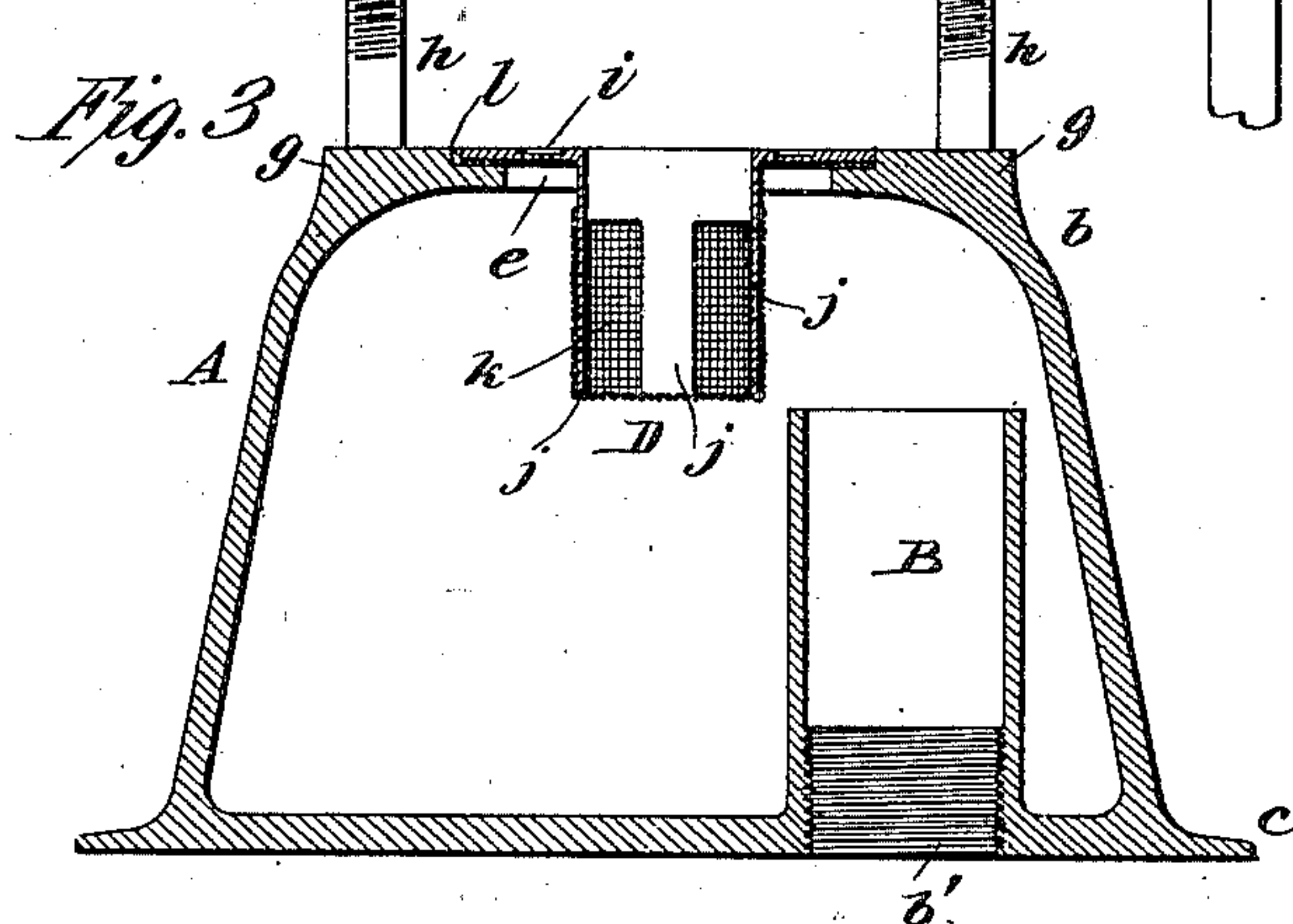
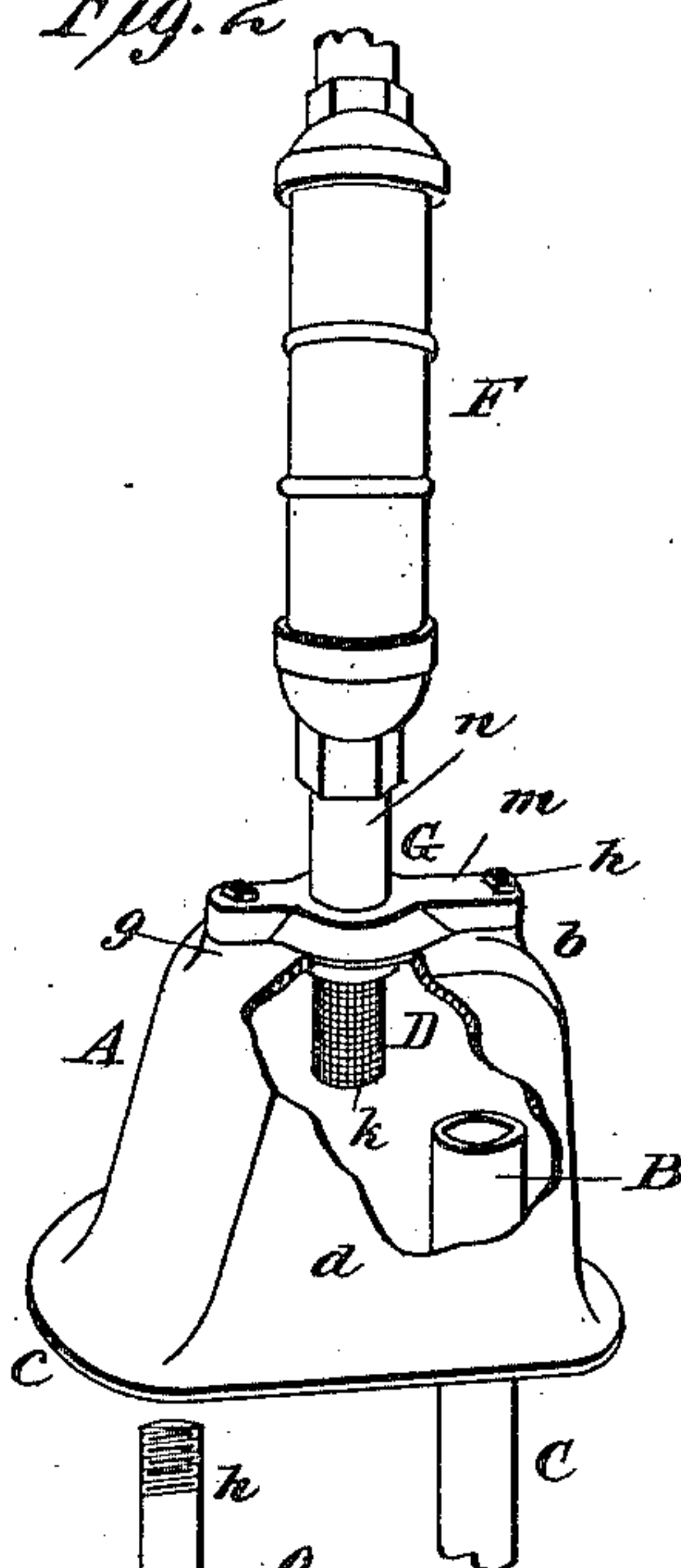
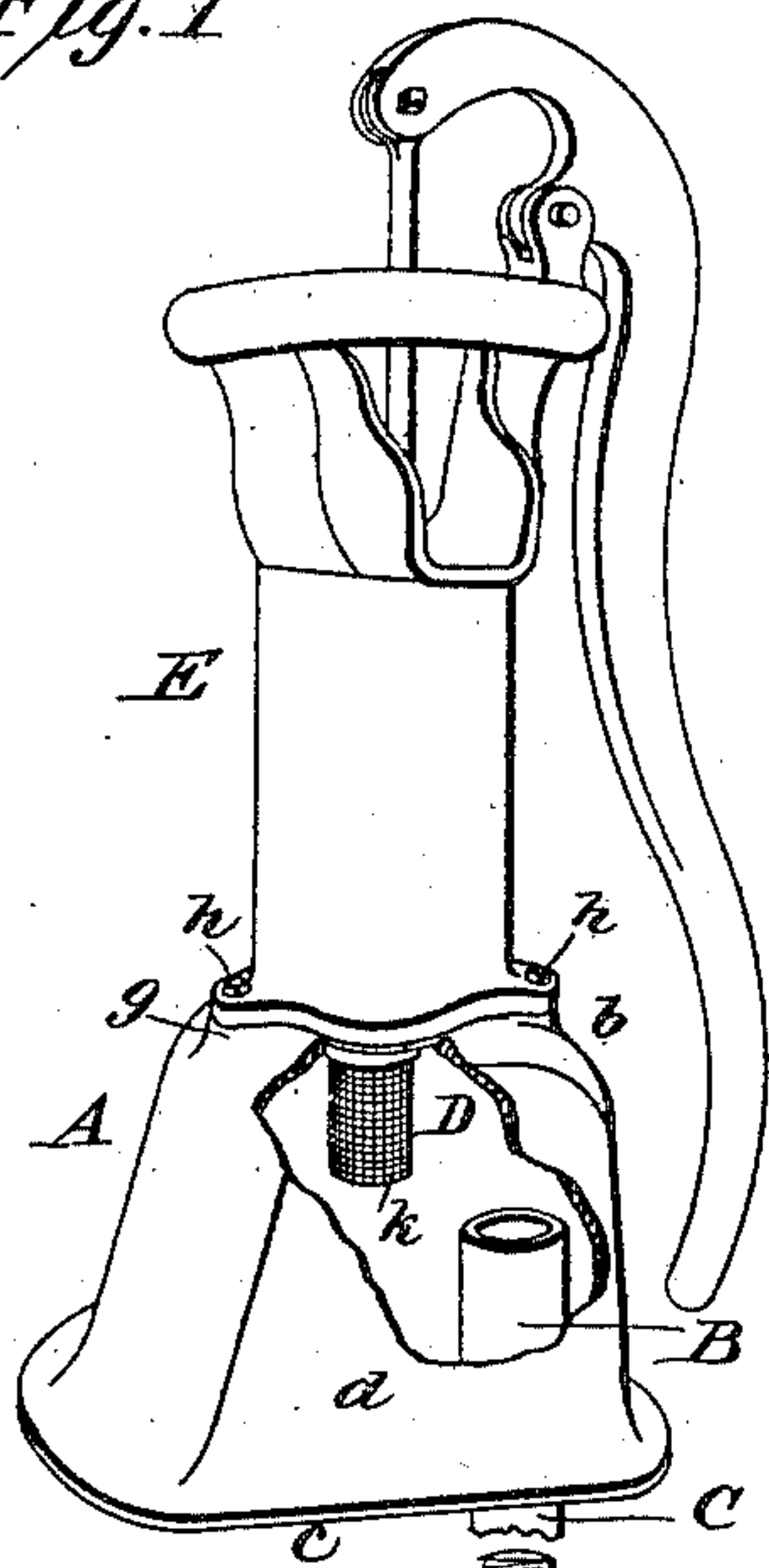


**No. 679,169.**

**Patented July 23, 1901.**

**A. E. HUNT.**  
**DRIVEN WELL FILTER.**  
(Application filed Oct. 30, 1900.)

(No Model.)



**Witnesses:**

Jas. S. Coleman  
 Geo. R. Taylor

***Inventor***

**Inventor**  
Arthur E. Hunt  
By *Dyer Edmonds & Dyer*  
Att'ys.



# UNITED STATES PATENT OFFICE.

ARTHUR E. HUNT, OF NICHOLS, NEW YORK, ASSIGNOR OF ONE-HALF TO  
ROBERT C. HARRIS, OF SAME PLACE.

## DRIVEN-WELL FILTER.

SPECIFICATION forming part of Letters Patent No. 679,169, dated July 23, 1901.

Application filed October 30, 1900. Serial No. 34,921. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR E. HUNT, a citizen of the United States, residing at Nichols, in the county of Tioga and State of New York, have invented a certain new and useful Improvement in Driven-Well Filters, of which the following is a specification.

The object I have in view is to produce a filter for attachment to driven wells, so as to separate the sand from the water before it reaches the pump or cylinder valves, which will be simple in construction and effective in operation.

Figure 1 is a perspective view of the filter, partly broken away, with a pump mounted thereon. Fig. 2 is a similar view illustrating the filter connected with a deep-well cylinder. Fig. 3 is a sectional view of the filter detached on a larger scale. Fig. 4 is a perspective view of the strainer with the gauze partly broken away, and Fig. 5 is a vertical section of the coupling for connecting a deep-well cylinder to the filter.

The filter is a chamber formed by a hollow casting A, of general cylindrical form, preferably made smaller and rounding at the top *b* and broader and flanged at the base *c* and also preferably having one of its sides *d* flattened, as shown. In the bottom plate of the filter-chamber is cast an upright pipe B, located on one side of the chamber and rising approximately to or somewhat above the vertical center of the chamber. The opening of this pipe in the bottom plate of the filter is screw-threaded at *b'* for attachment to the tubing C of the driven well. The top *b* of the filter is provided with a large central opening *e*, which is preferably recessed, and around the sides of this opening the top of the filter is extended to form an annular seat *g*, with wings, which are provided with upright bolts *h*, cast therein for the attachment of the pump or the coupling for a deep-well cylinder. In the central opening *e* is placed the strainer D. This strainer consists of an annular plate *i*, which sets in the opening *e*, and from this plate depend a number of flat fingers *j*, which project down into the filter-chamber. These fingers *j* are cast in one piece with the plate *i* and form a cylindrical cage for supporting the straining-gauze. At-

tached to the fingers *j* by soldering is the gauze *k*, formed of a gauze strip, which is wound around the fingers *j* and soldered thereto, and a disk of gauze which is soldered at its edges to the ends of the fingers *j* and to the cylinder formed by the strip placed around such fingers. The strainer projects centrally into the filter-chamber from the top and out of line with the pipe B, which rises from the bottom of the chamber. A washer *l* is preferably placed between the annular plate *i* of the filter and the top of the casing A, around the opening *e*.

When a deep-well cylinder is not used, the filter has a pump attached directly to it, such as the pitcher-pump E. (Shown in Fig. 1.) The pump is secured in place by means of the bolts *h*, a washer being preferably placed between the lower end of the pump-cylinder and the annular plate *i* of the strainer. The pump is secured upon the filter so that the handle of the pump shall come on the same side of the filter as the upright pipe B. This arrangement brings the pivot of the pump-handle approximately in a vertical line with the upright pipe B and with the tubing of the driven well, which enters the bottom of said pipe, thus decreasing the strain caused by the working of the pump upon the joint between the filter and the driven-well tubing. To secure this arrangement in case of both right-hand and left-hand pumps, I make my filter also right and left handed—that is to say, when my filter is constructed for left-hand pumps the pipe B is located on the opposite side of the filter from that shown, so as to be approximately in line with the fulcrum of the pump-handle.

When my filter is used in connection with a deep-well cylinder F, Fig. 2, a coupling G is provided for securing the deep-well cylinder to the filter. This coupling is composed of a winged casting *m*, which rests on the seat *g* on the top of the filter and is secured thereto by the bolts *h*, as in the case of the pump. This winged casting *m* has a central opening, in which is secured a short section of pipe *n*, having a screw-threaded upper end for the attachment of the deep-well cylinder thereto.

The filter being secured in position between the tubing of a driven well and the pump or



deep-well cylinder to which the pump is attached, the water will be drawn into the casing A on one side and in passing through the strainer D will have the sand separated from it. The sand will settle in the bottom of the casing, which will require cleaning out at infrequent intervals. To accomplish this, the casing will be removed from position and being turned upside down the strainer will drop out of it and the sand will run out through the top opening. The construction is one which is not only extremely simple, but has been found very effective in use.

What I claim is—

1. A driven-well filter, having in combination a hollow cast-iron casing A, provided with an upright pipe B cast in one piece with the casing and rising from the bottom plate of the casing within and on one side of the chamber, a central opening in the top of said casing, and a strainer D projecting centrally into the casing from the top, substantially as set forth.

2. In a driven-well filter, the combination with the casing A, of the internal pipe B rising from the bottom of the casing on one side,

the removable strainer D projecting centrally into the casing from the top, and the seat *g* on top of the casing, provided with bolts *h* for receiving and securing a pump or coupling for a deep-well cylinder, substantially as set forth.

3. In a driven-well filter, the combination with the casing A, of the pipe B rising from the bottom plate of said casing on one side thereof, the driven-well tubing C screwed into said pipe B, the removable strainer D depending in said casing centrally from the top thereof, and the pump E secured to said casing with its handle on the same side of the casing as the pipe B, substantially as set forth.

4. In a driven-well filter, the removable strainer D, consisting of an annular plate *i* with depending fingers *j* and wire-gauze *k* surrounding and secured to said fingers, substantially as set forth.

This specification signed and witnessed this 26th day of October, 1900.

ARTHUR E. HUNT.

Witnesses:

C. BLIVEN,

WM. DE BOLDER.