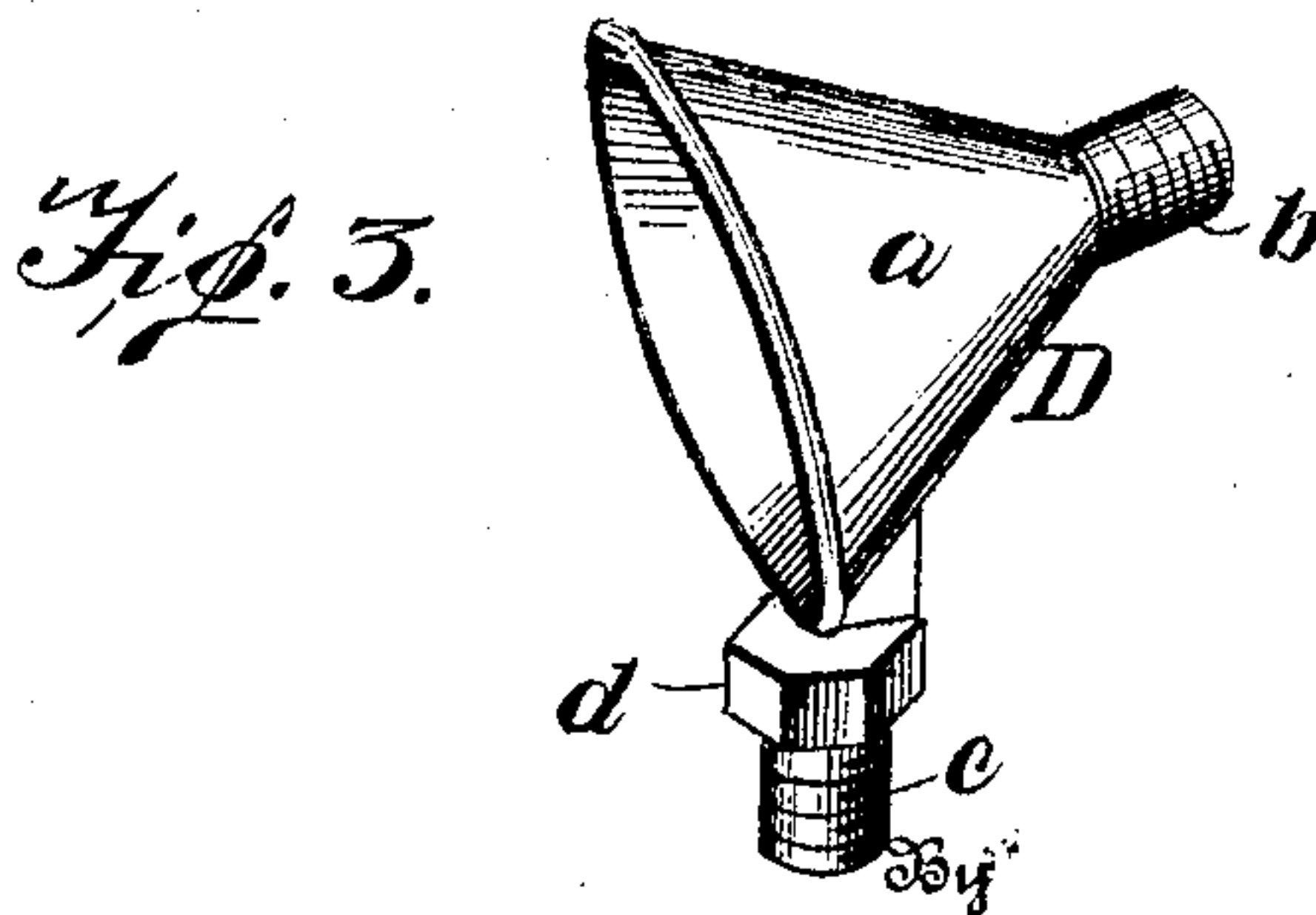
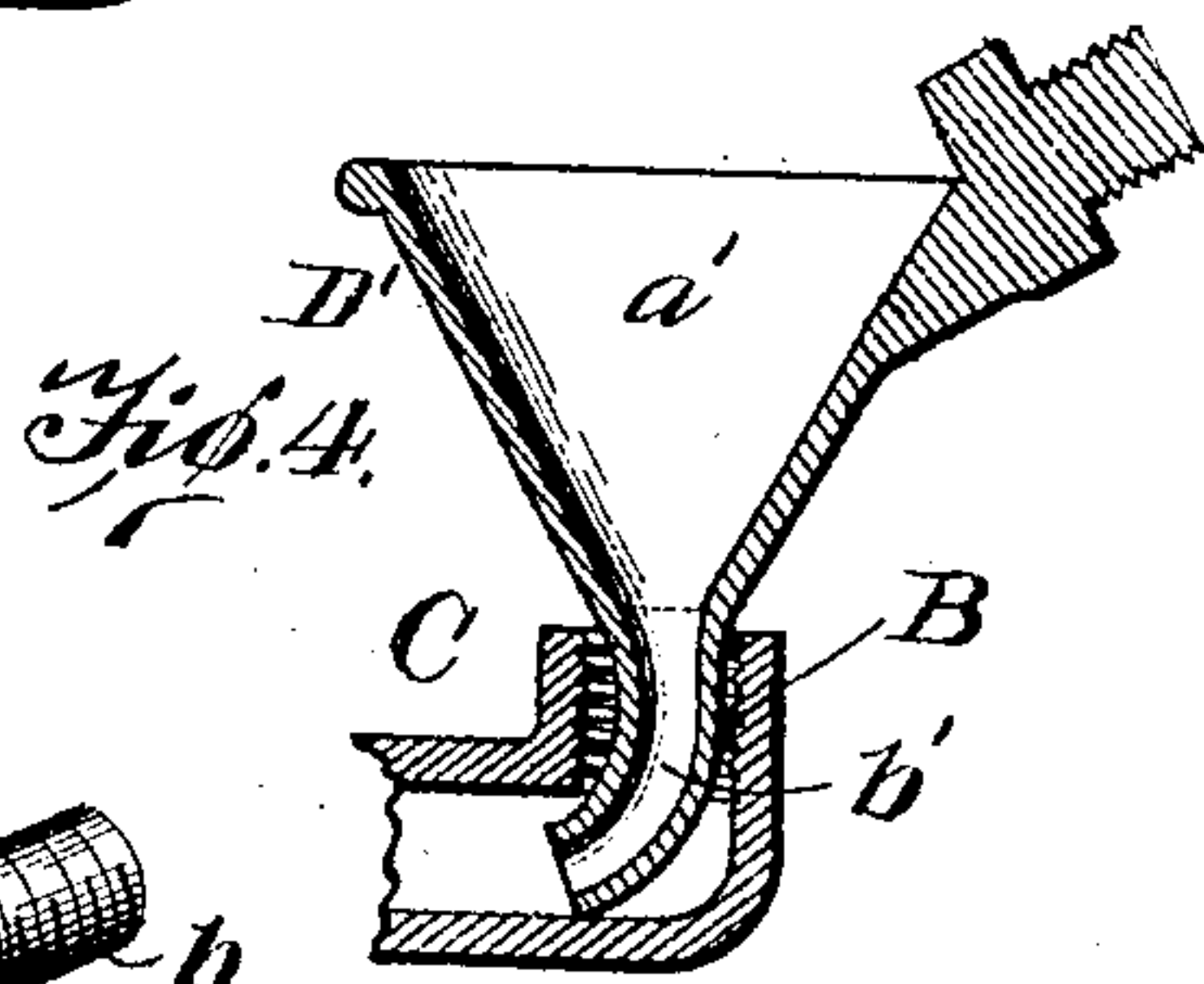
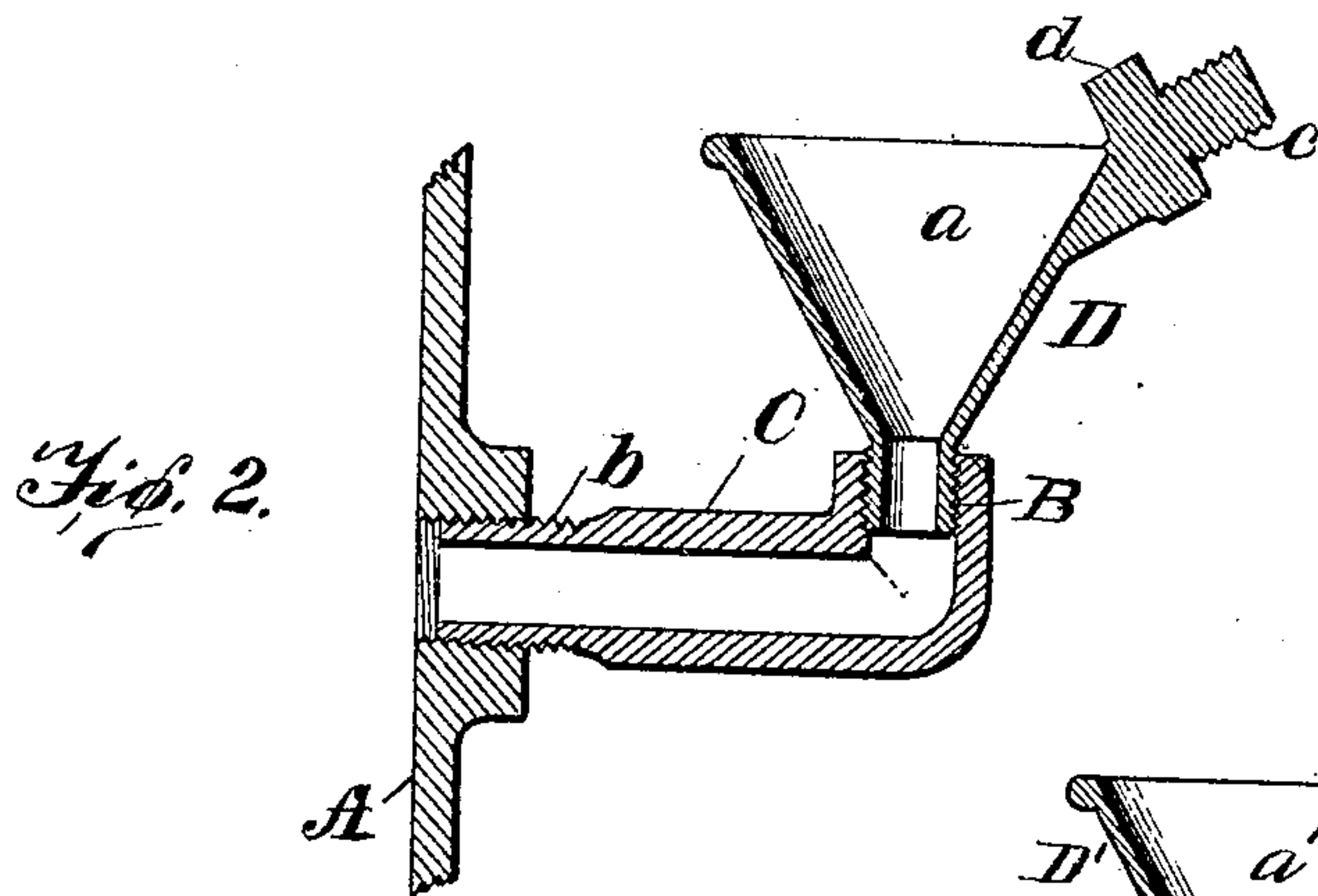
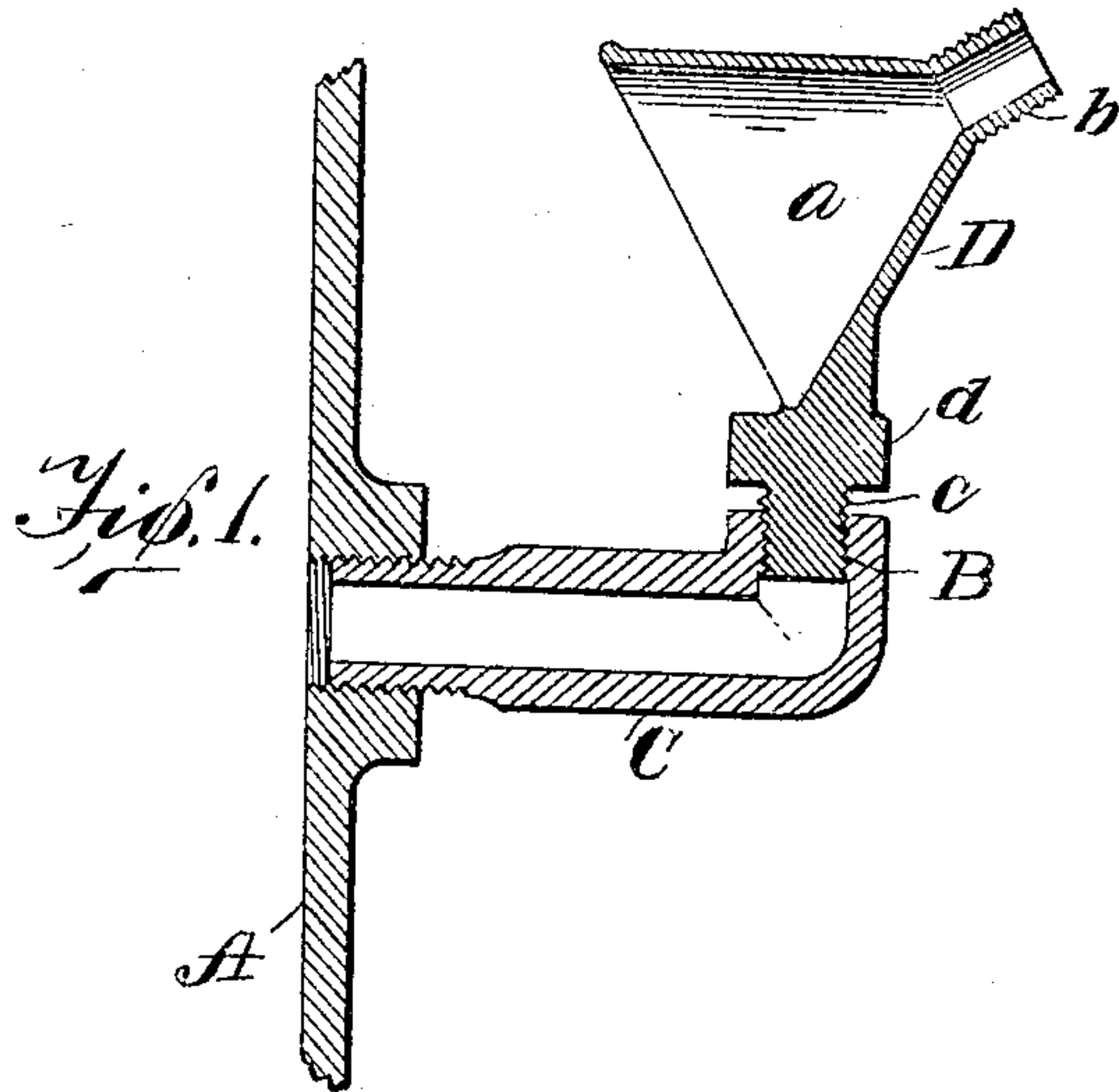


No. 822,854.

PATENTED JUNE 5, 1906.

P. H. COSGRAVE.
HOT WATER HEATER.
APPLICATION FILED DEC. 18, 1905.



Witnesses
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PATRICK H. COSGRAVE, OF COLORADO CITY, COLORADO.

HOT-WATER HEATER.

No. 822,854.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed December 18, 1905. Serial No. 292,257.

To all whom it may concern:

Be it known that I, PATRICK H. COSGRAVE, a citizen of the United States, residing at Colorado City, in the county of El Paso and State of Colorado, have invented new and useful Improvements in Hot-Water Heaters, of which the following is a specification.

My invention pertains to devices for closing the filling-openings of hot-water heaters, more particularly car-heaters, and for testing such heaters and facilitating the refilling thereof; and it has for its object to provide a simple, inexpensive, and easily-manipulated device calculated in one position to close the filling-opening of a heater in such manner as to preclude leakage and the dangers attendant thereon and in another position to facilitate testing and refilling of the said heater.

With the foregoing in mind the invention will be fully understood from the following description and claims when taken in connection with the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical section illustrating the device constituting the present and preferred embodiment of my invention in position to close the filling-opening of a hot-water heater. Fig. 2 is a similar view of the device as inverted—i. e., in a position to facilitate testing and refilling of the heater. Fig. 3 is a perspective view of the device removed. Fig. 4 is a view similar to Fig. 2 of a modified device hereinafter referred to in detail.

Referring by letter to the said drawings, and more particularly to Figs. 1 to 3 thereof, A is so much of a hot-water heater as is necessary to illustrate the application of my invention, and B is the interiorly-threaded filling-opening of the heater, which opening is preferably disposed vertically, as shown. The said opening B might be formed directly in the heater A without involving a departure from the scope of my invention; but I prefer to form it in the upturned end of a short pipe-section C, connected to the heater, as shown. D is my novel closure, testing, and refilling device. The said device is preferably formed in one piece, of suitable metal, and it comprises a funnel-shaped body *a*, an exteriorly-threaded nipple *b* of a diameter to occupy the filling-opening B, extending from the contracted end of the funnel-shaped body, and a threaded plug *c*, extending from the edge of the mouth of the funnel and preferably provided with a base *d* of angular form in cross-section.

In the practical use of my novel device the same is arranged as shown in Fig. 1 when it is desired to close the filling-opening B—that is to say, the plug *c* is screwed into the filling-opening B. With this done the filling-opening B is obviously closed in such a manner that leakage from the heater is absolutely precluded. This will be appreciated as an important advantage when it is remembered that it is leakage around the plugs of the combination filling-cocks generally employed which renders hot-water heaters unsafe unless the same are tested and refilled at frequent intervals. When the heater is to be tested or refilled, the device D is turned to remove the plug *c* from the filling-opening B. The end is then inverted and again turned to screw the nipple *b* into the said filling-opening B. With the device thus positioned the heater may be tested or refilled with facility, and at the completion of such operations the device may be again inverted and the plug *c* screwed into the opening B to effectually close the same.

The angular base *d* serves for the application of a wrench in turning the plug *c* in or out of the filling-opening. It is preferable, but not essential, to thread the reduced end of the funnel-shaped body of the device. For this reason the modified device D', Fig. 4, may be employed in lieu of that shown in Figs. 1 to 3. The said device D' differs from the device D in that its funnel-shaped body *a'* terminates in a plain reduced portion *b'*. This reduced portion *b'*, which may be crooked, as shown, or straight, in the discretion of the manufacturer, is designed to sit in the filling-opening B of the heater after the manner shown, and while it may not effect as secure a connection as the threaded reduced portion or nipple *b* it will suffice to properly retain the device in the opening B incident to testing and refilling of the heater.

I claim—

1. The combination with a heater having a threaded filling-opening; of a device comprising a funnel-shaped body, a threaded nipple, of a diameter to occupy the filling-opening, extending from the contracted end of the funnel-shaped body, and a threaded plug extending laterally from the funnel-shaped body and removably arranged in and closing the filling-opening of the heater.

2. The combination with a heater having a threaded filling-opening; of a device comprising a funnel-shaped body, a threaded nipple,

of a diameter to occupy the filling-opening, extending from the contracted end of the funnel-shaped body, and a threaded plug extending from the edge of the mouth of the
5 funnel-shaped body and having a base of angular form in cross-section; the said plug being removably arranged in the filling-opening of the heater to normally close said opening.

3. As a new article of manufacture, a device for the purpose described, formed in one
10 piece, and comprising a funnel-shaped body, a threaded nipple extending from the contracted end of said body, and a threaded plug, of the same diameter as the threaded
15 nipple, extending laterally from the funnel-shaped body.

4. As a new article of manufacture, a device for the purpose described, formed in one piece, and comprising a funnel-shaped body having a reduced portion adapted to rest in
20 the threaded filling-opening of a heater, and a threaded plug, of a diameter to engage the thread of the filling-opening, extending laterally from said funnel-shaped body.

In testimony whereof I have hereunto set
25 my hand in presence of two subscribing witnesses.

PATRICK H. COSGRAVE.

Witnesses:

GEORGE B. IVIN,
ERWIN T. BEYLE.