

(No Model.)

J. F. HOTCHKISS.

BOILER CLEANER.

No. 276,410.

Patented Apr. 24, 1883.

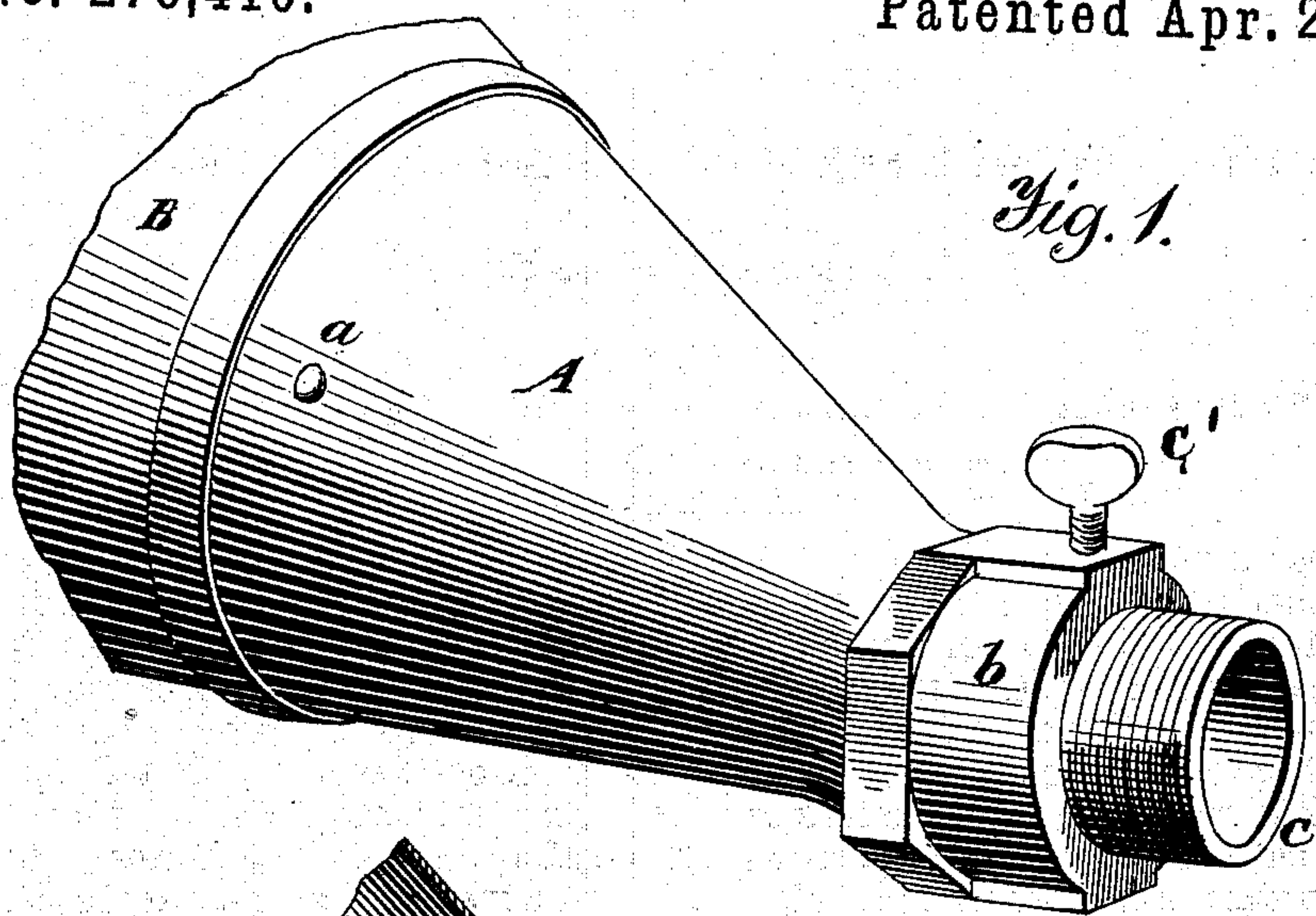


Fig. 1.

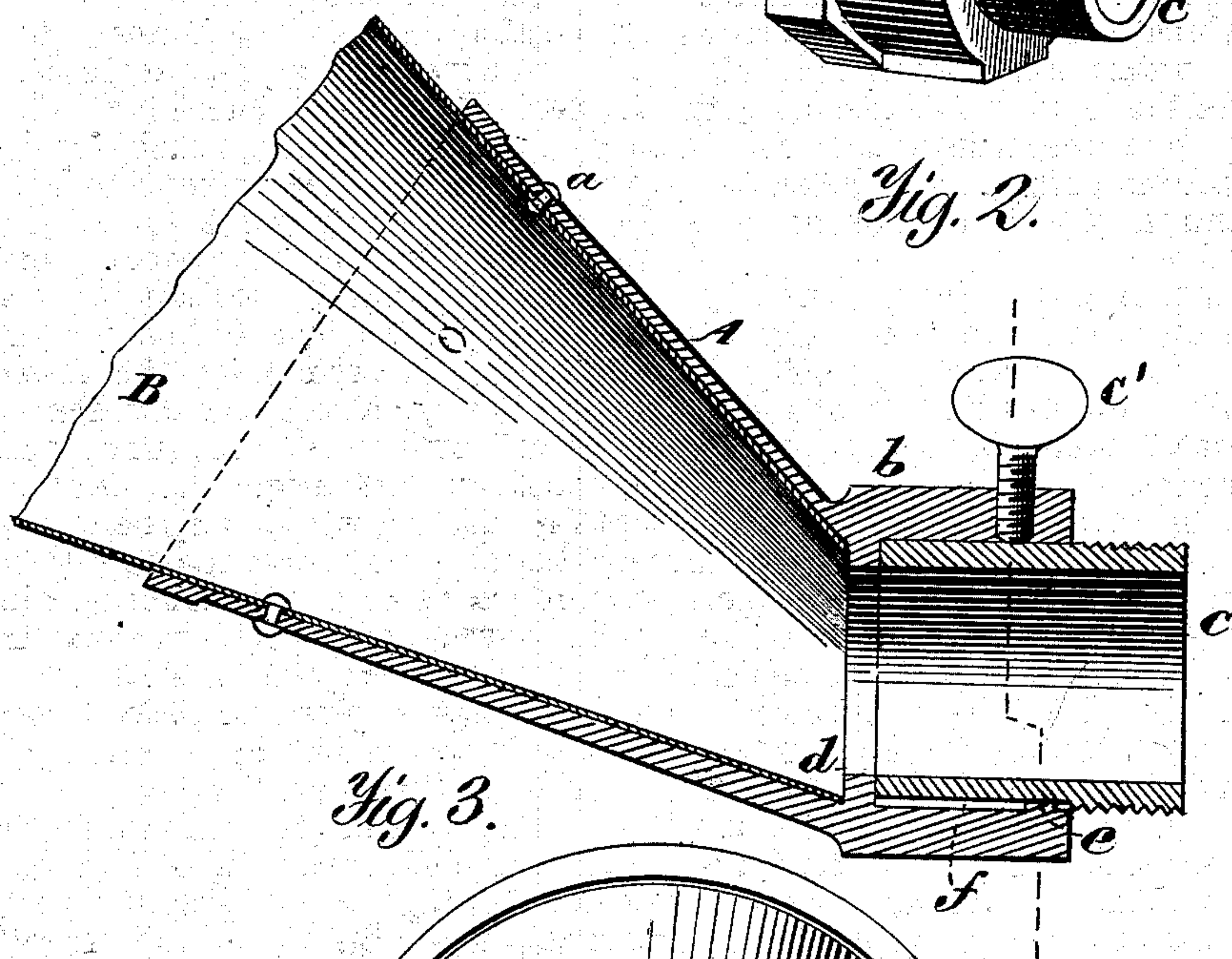
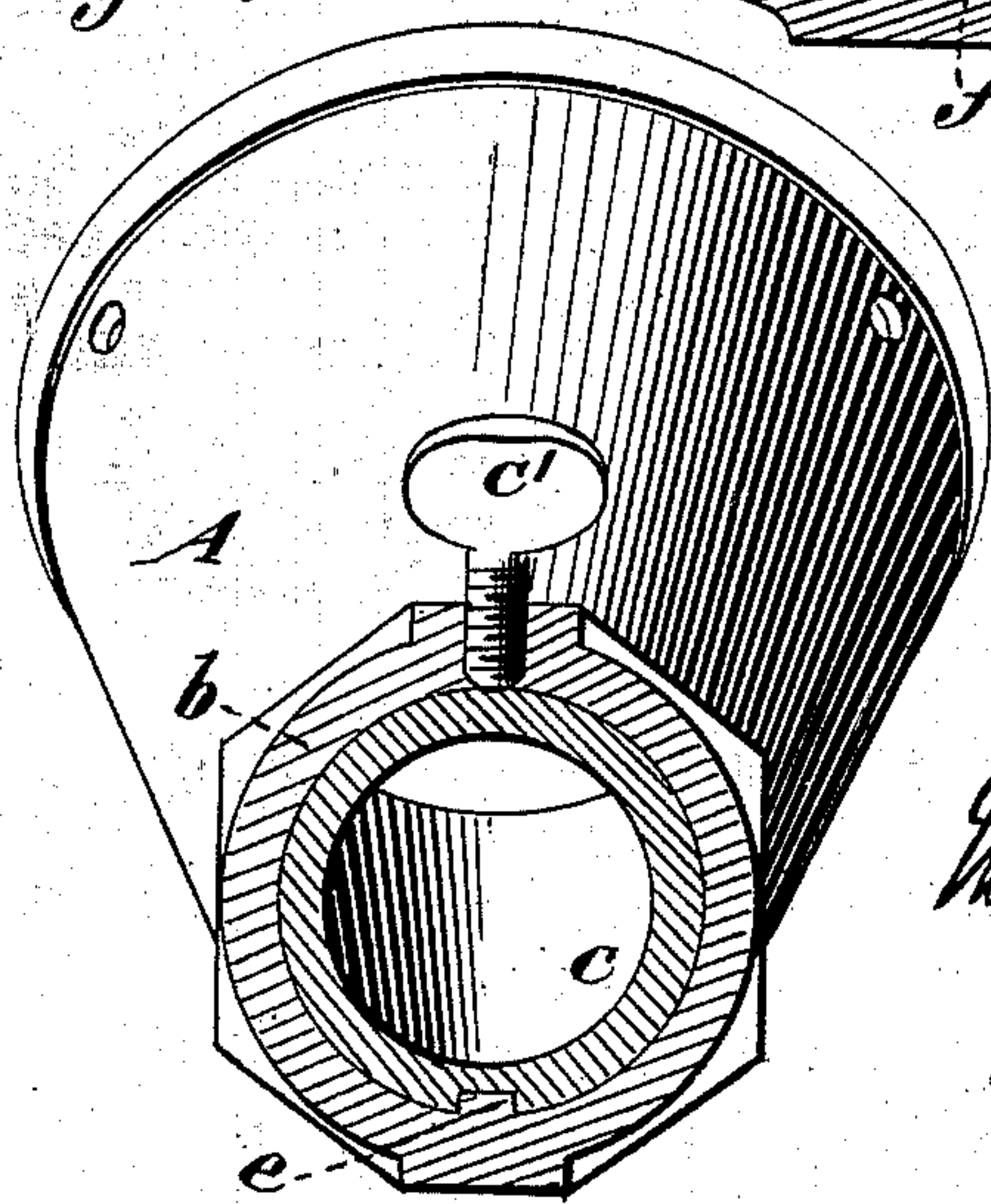


Fig. 2.

Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES F. HOTCHKISS, OF PLAINFIELD, NEW JERSEY.

BOILER-CLEANER.

SPECIFICATION forming part of Letters Patent No. 276,410, dated April 24, 1883.

Application filed March 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. HOTCHKISS, of Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Boiler-Cleaners, of which the following is a specification.

My invention has reference to that class of cleaners in which the scum or impurities thrown to the surface of the water by ebullition are received into a funnel connected with a pipe leading to a depositing-tank; and it consists in improvements in the construction of the funnel and its pipe-connection, as hereinafter specified.

In the accompanying drawings, Figure 1 is a perspective view of the invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a transverse section upon the line *xx* of Fig. 2.

Similar letters of reference indicate similar parts in the respective figures.

A is the hub or support for the funnel B. The support A is made of cast-iron, and in the form of a frustum of a cone, the wider portion extending upward at an angle, and receiving the apex or small end of the conical sheet-iron funnel B. The latter is attached to the support A by rivets *a* or equivalent devices. The small or lower end of the support A unites with a part, *b*, cast therewith, and standing in a horizontal line, its axis being that of the connecting-pipe or screw-thimble *c*. The thimble *c* attaches to the pipe into which the water of the boiler first flows on its passage to the sediment collector or tank. The portion of the part *b* which immediately adjoins the small end of the support A is preferably of hexagonal or other polygonal form, the remainder being circular, except at the top and bottom, where it is flat-sided, the said flat surfaces being, as shown, continuations of the upper and lower sides of the hexagon. The bore of the part *b* is circular, terminating at its inner end at a shoulder, *d*. A short vertical pin, *e*, preferably cast with the part *b*, is

placed near its outer end, and engages with a slot, *f*, cut in the pipe or screw-thimble *c*. A set-screw, *c'*, is tapped into the opposite side of the hexagon and secures the support A and its funnel to the pipe or screw-thimble *c*. The object of the pin *e*, slotted pipe or thimble *c*, and set-screw *c'* is to effect a certain connection between the funnel and its pipe, and to insure the proper adjustment of the former. It has been found that where means are not taken to prevent such result the funnel may by unskilled persons or inadvertence be placed in an improper position upon its pipe; or the funnel may become loosened and slip from the correct position in which it was first placed. The use of the pin *e* and slot *f* renders it impossible for the funnel to be placed in any but the true position. By making the funnel with a cast support or hub and a sheet-iron extension the device may be readily inserted within any boiler. The support or hub, being of comparatively small size, can be put through any small opening of the boiler—as a hand-hole, &c.—and the sheet-iron extension may be flattened and inserted, and then again given its shape and attached to the support or hub by screws, if desired.

I claim as my invention—

1. A funnel and pipe-connection for the purpose described, consisting of a funnel-support or hub having a pipe bore or aperture, and a fixed pin or projection, combined with a slotted pipe, substantially as set forth.

2. In a funnel and pipe-connection for the purpose described, a funnel-support or hub having a pipe bore or aperture, and a fixed pin or projection extending within the same, combined with a slotted screw-thimble or pipe and a set-screw, substantially as set forth.

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Witnesses:

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