

(No Model.)

E. P. H. MARTIN.

TUYERE.

No. 292,668.

Patented Jan. 29, 1884.

Fig. 3.

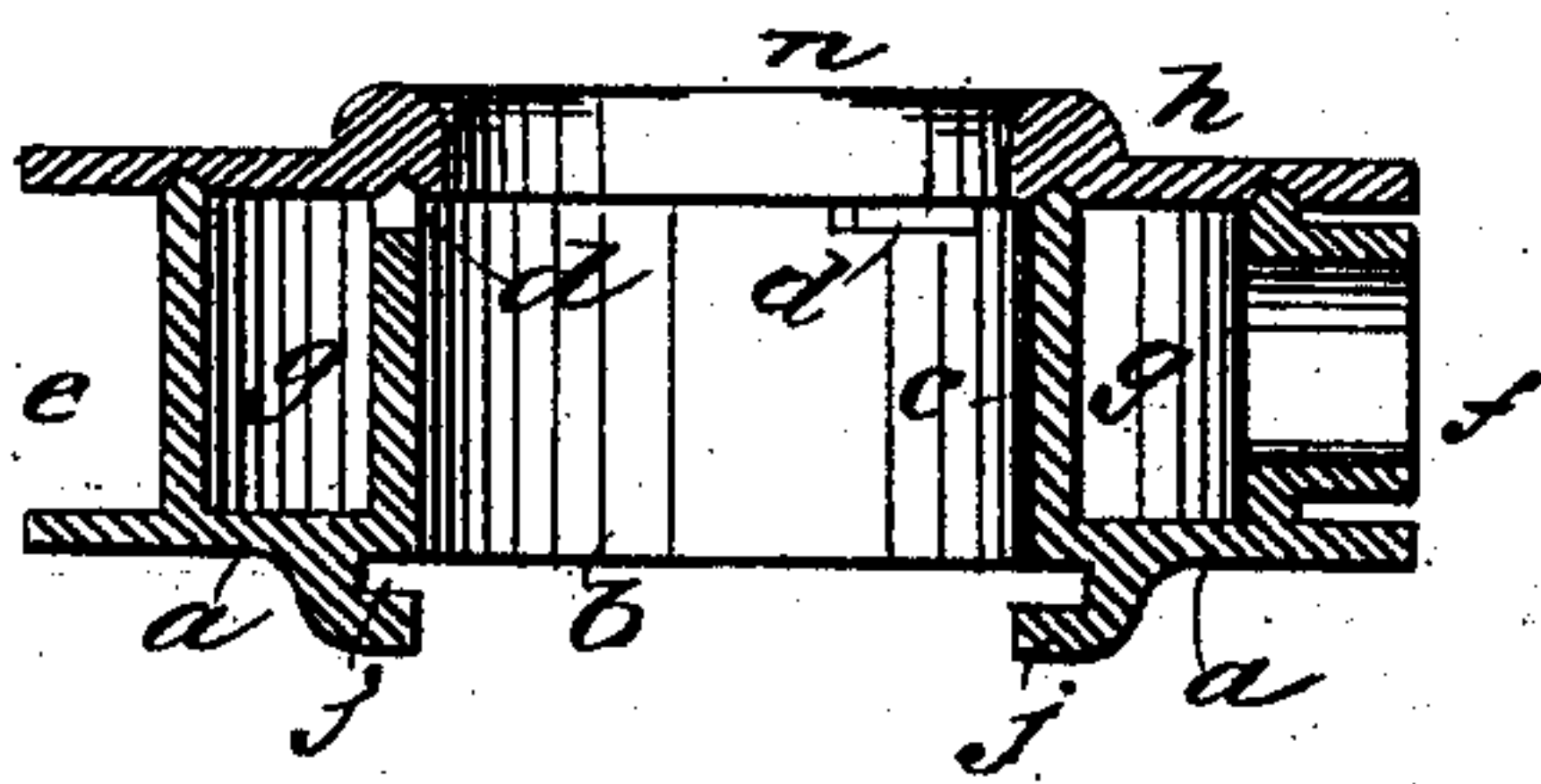


Fig. 1.

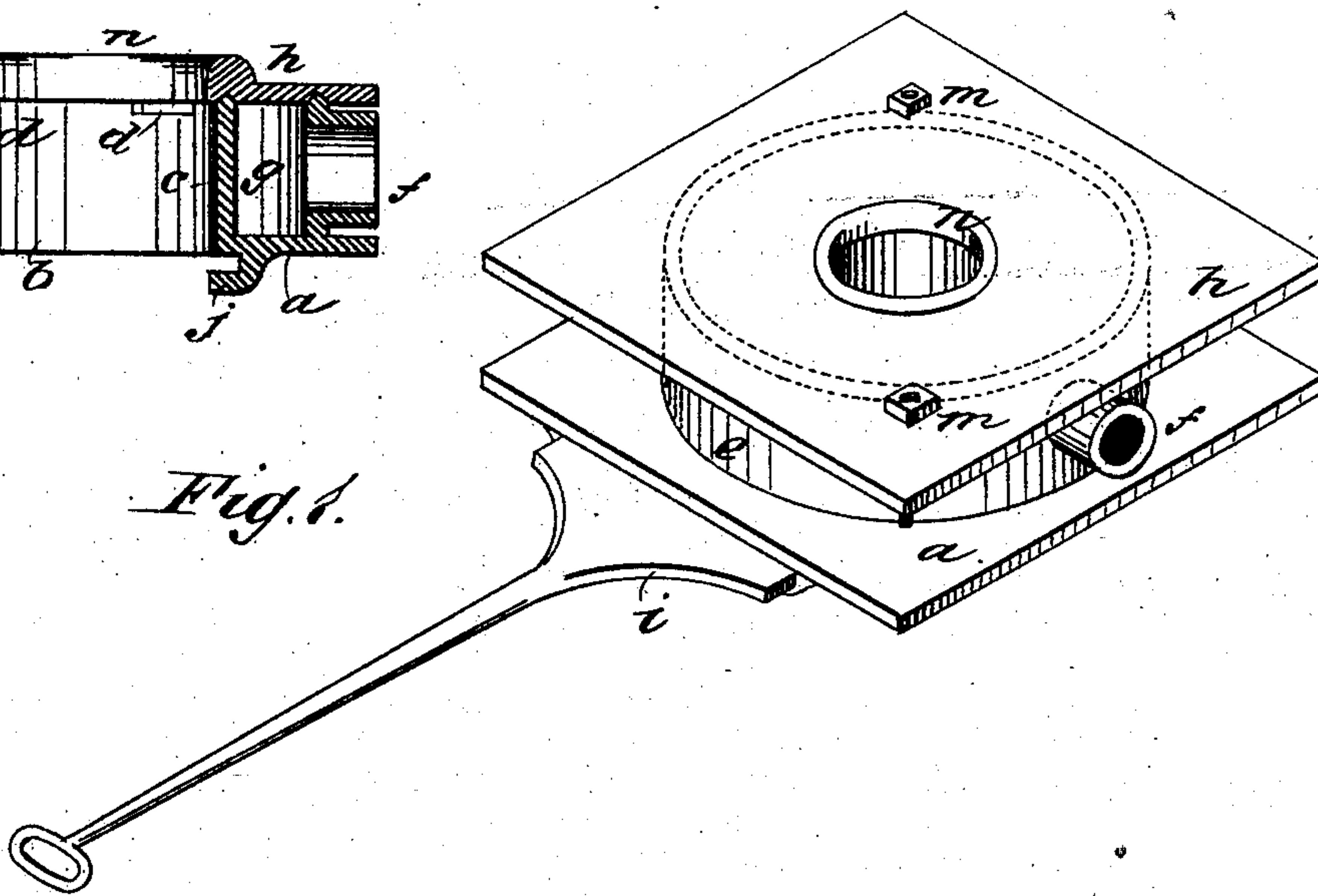
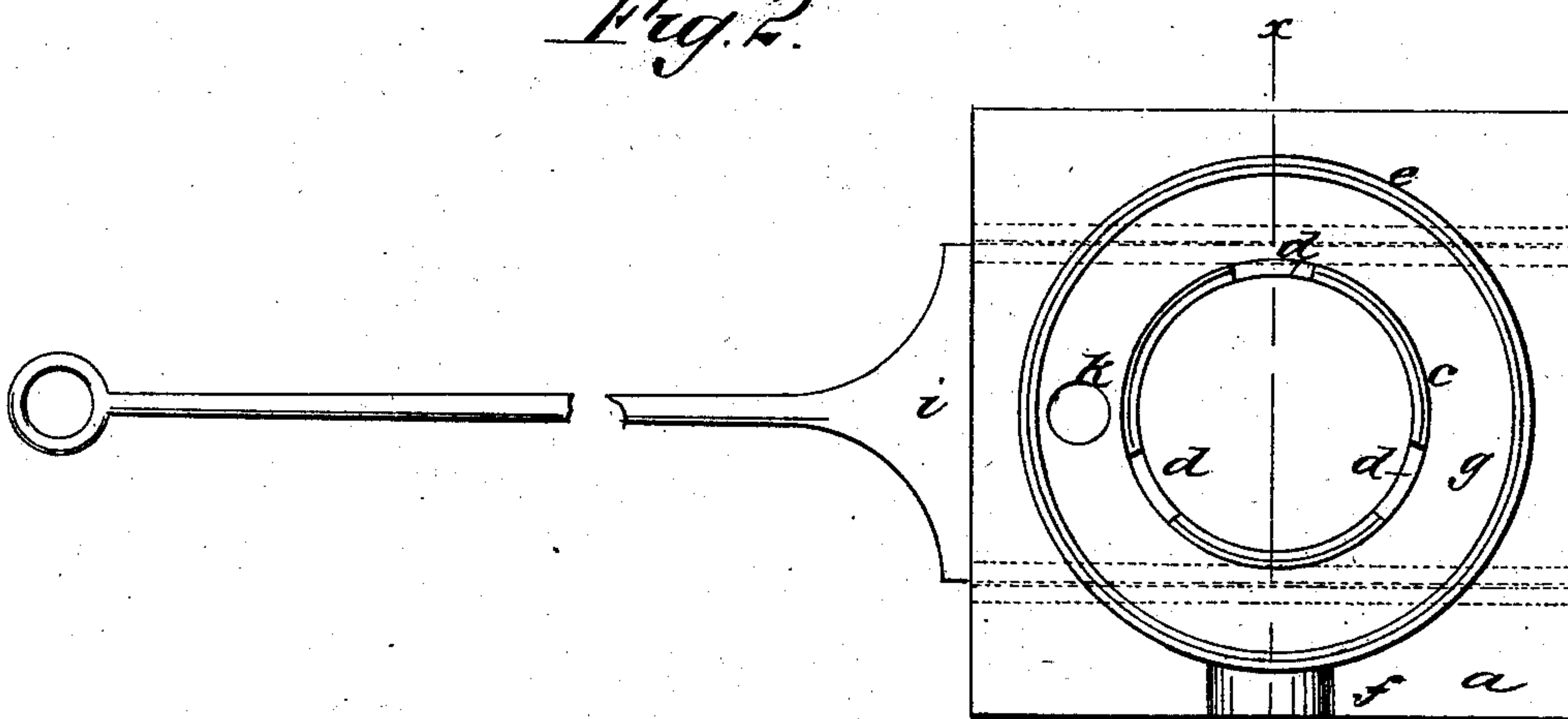


Fig. 2.



WITNESSES:

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TUYERE.

SPECIFICATION forming part of Letters Patent No. 292,668, dated January 29, 1884.

Application filed May 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, ENOCK P. H. MARTIN, of Wilmington, New Castle county, Delaware, have invented a new and Improved Tuyere, of which the following is a full, clear, and exact description.

My invention consists of a contrivance of an annular air-space surrounding the central space through which the cinders and ashes fall from the fire above, which space is protected from the cinders, and from which the air is distributed to the fire through passages so arranged that the cinders cannot fall from the fire into the said space, thus producing a tuyere that will not clog, and consequently will effect better combustion, economize coal, and save the labor of frequently cleaning out the ashes, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved tuyere. Fig. 2 is a plan view with the cover removed, and Fig. 3 is a transverse section on the line *x x* of Fig. 2.

I make a cast-metal bottom plate, *a*, with a central hole, *b*, surrounded by the vertical circular flange, *c*, in the top of which a series of notches, *d*, are formed. Outside of flange *d* is another similar vertical flange, *e*, except that it has a pipe-connection, *f*, and is not notched in the top. These flanges are located a suitable distance apart to form an annular air-space, *g*, which is closed above by the top plate, *h*, forming the cover, except at the notches *d*, which form apertures through which the air enters the open center space for blowing the

fire through the opening *n* of the top plate. Below the said open space is a gate, *i*, which slides in the grooves or ways *j* to close the space below the air-inlets *d* when the air is to be directed to the fire for blowing it. This gate may be drawn out from time to time to let the droppings from the fire lodging on it fall down. A small hand-hole, *k*, is made through the bottom plate into the annular space *g*, where it is covered by the slide, through which any light ashes that may float in the air through the apertures *d* may be discharged from time to time; but it is evident that its use will seldom be required.

The flanges *c* and *e* are formed with a narrow top edge, and the cover *h* has V-grooves in which the said top edges of the flanges rest for making close joints.

The plates are suitably fastened together by bolts *m*.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A tuyere having its bottom plate provided with an inner flange, *c*, notched at *d*, an outer flange, *e*, and a pipe-connection, *f*, made integral therewith to support the cover and form a wind-chest, as described.

2. The combination, in a tuyere, of the top plate, *h*, having a central hole through it, and the bottom plate, *a*, having the flanges *e e*, pipe-connection *f*, gateways *j*, and the hand-hole *k*, said hand-hole being located with relation to the gate *i* for being closed by it, substantially as described.

ENOCK P. H. MARTIN.

Witnesses:

JOHN B. MARTIN,
PETER SPRINGER.