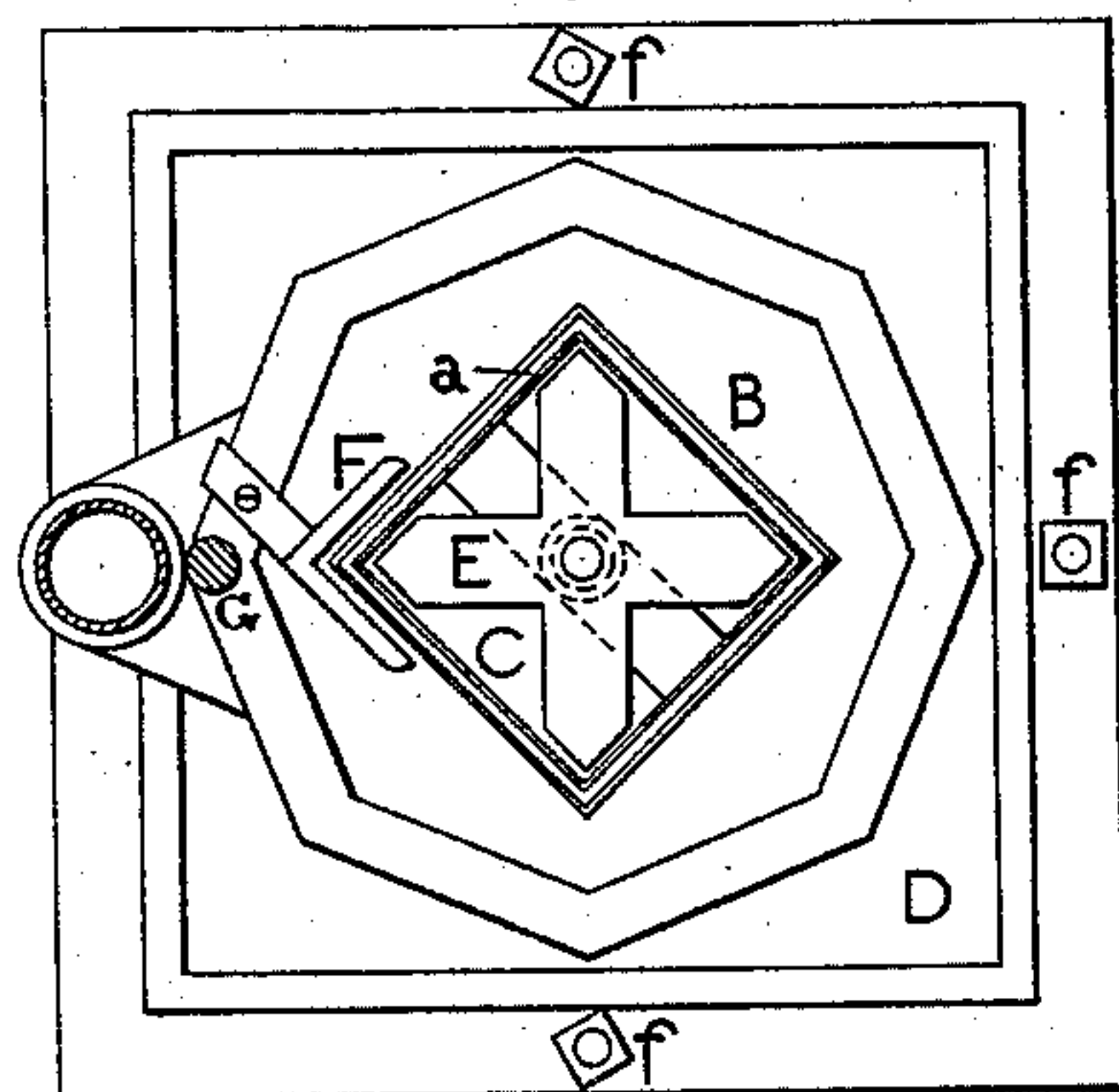
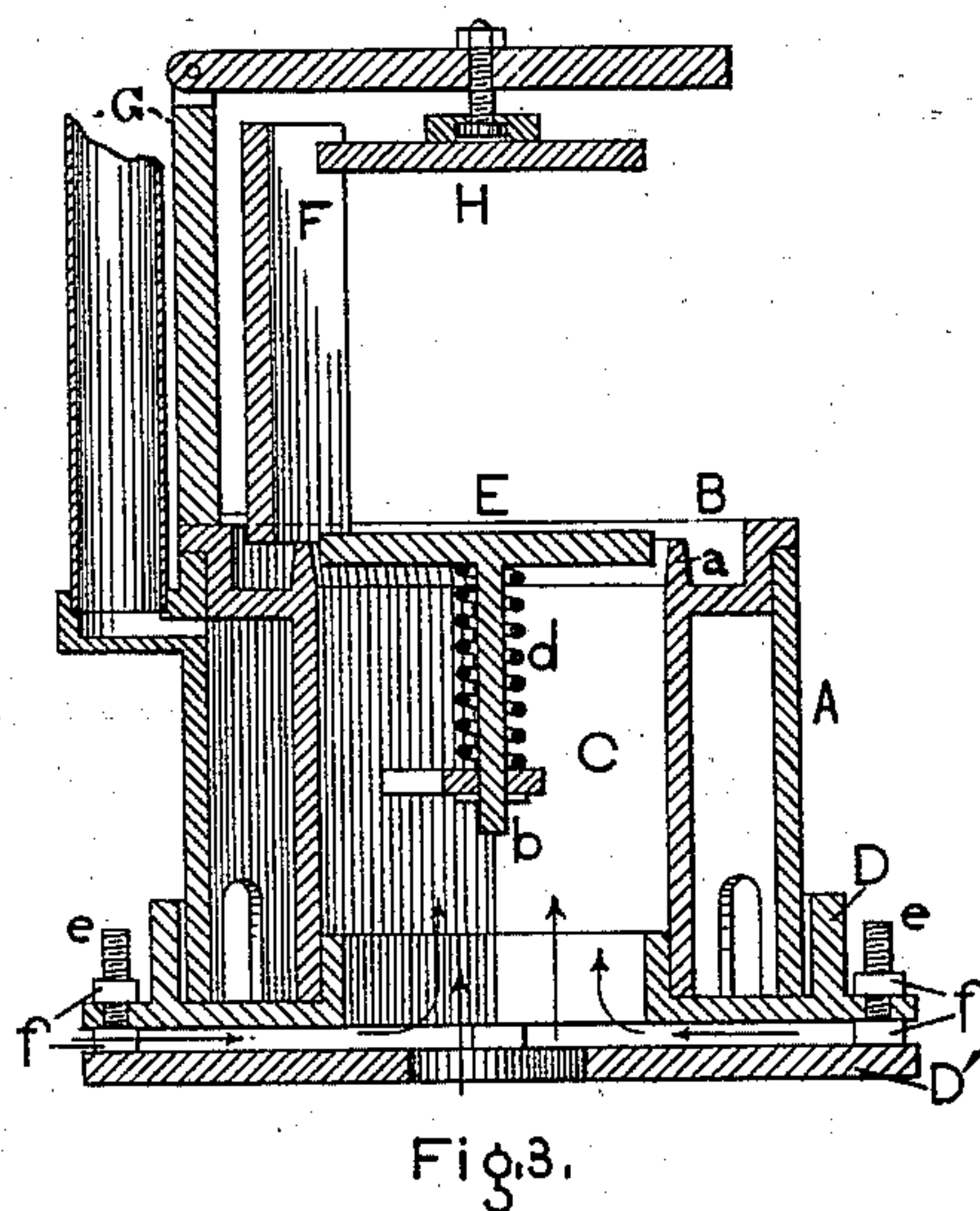
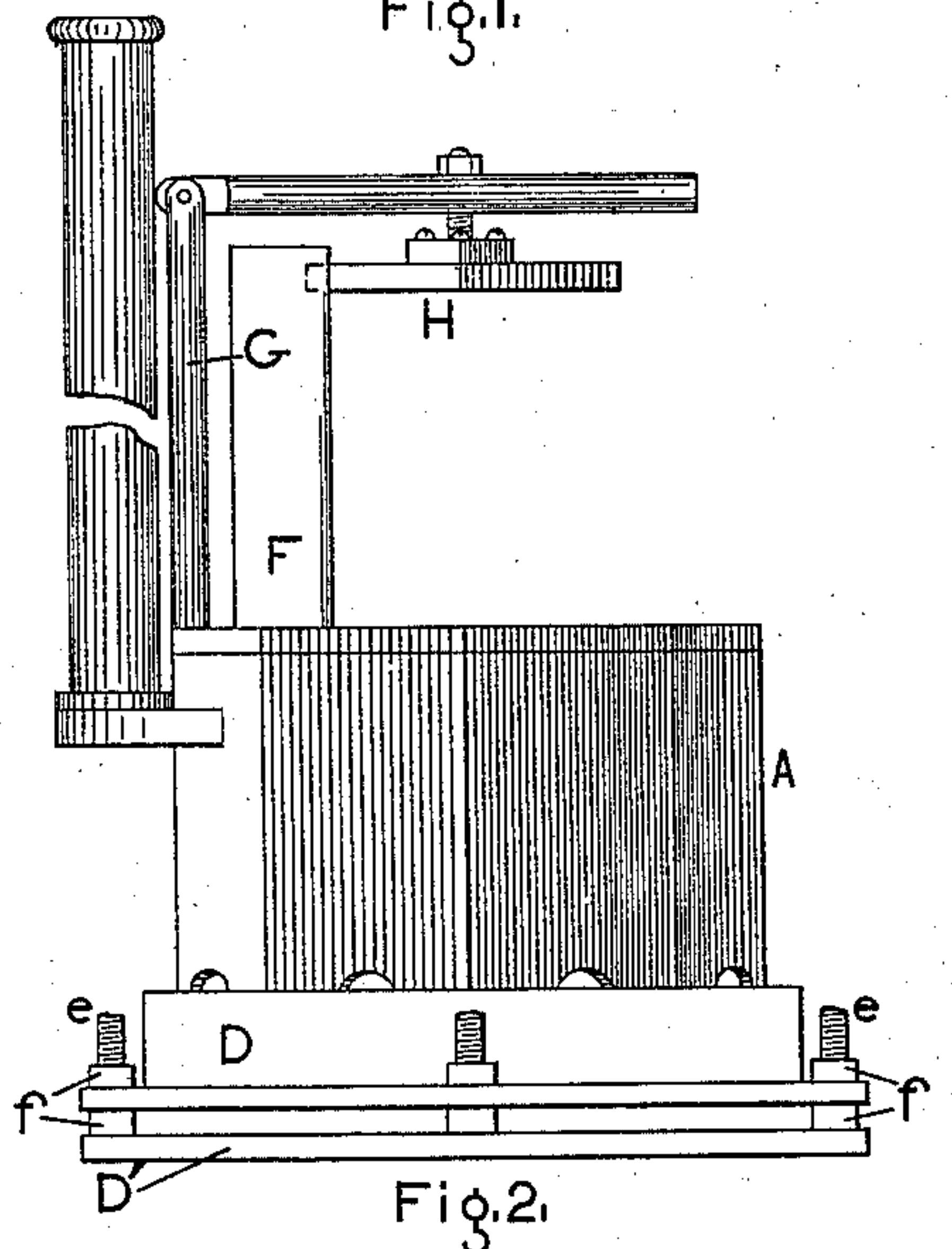


G. BROWNE.  
Soldering-Machine.

No. 222,005.

Patented Nov. 25, 1879.  
Fig. 1.



Witnesses:

*Ap. P. Grant,*

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ATTORNEY.

# UNITED STATES PATENT OFFICE.

GEORGE BROWNE, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN SOLDERING-MACHINES.

Specification forming part of Letters Patent No. **222,005**, dated November 25, 1879; application filed October 3, 1879.

*To all whom it may concern:*

Be it known that I, GEORGE BROWNE, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Dipping or Soldering Pots for Sheet-Metal Cans, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of the pot embodying my invention. Fig. 2 is a central vertical section thereof. Fig. 3 is a top or plan view thereof, a portion being removed.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in providing a dipping or soldering pot with a central flue, to which fresh or cool air is admitted, whereby the effects of the hot air on the top or bottom of the can to be dipped or soldered are counteracted, and of a yielding follower within said flue for elevating or throwing off the can after being dipped or soldered, such arrangement requiring but a single follower.

It also consists of an angular guide for directing the can true to the soldering-pot.

It also consists of means for leveling the pot, in order to cause cans to dip uniformly into the solder.

Referring to the drawings, A represents the furnace, on which is supported the solder pot or tray B.

C represents a flue, which is passed centrally through the furnace A and tray B, and rises from a pan, D, which supports the furnace and connected parts. The flue is open at top and bottom to the atmosphere, and its upper portion is formed with or supports a head or flange, *a*, for sustaining the can during the operations of dipping or soldering.

Within the flue C is guided the stem *b* of a single follower, E, whose normal position is at the top of the flange *a* of the flue, and it may be held elevated by the action of a spring, *d*.

Secured to a proper part of the tray B or furnace A is an angular guide, F, and likewise an upright, G, to which is pivoted the depressing-head H, which overhangs the center of the tray and, consequently, the can.

The operation is as follows: The furnace is heated by coal, gas, vapor, or other solid or liquid fuel, and a sufficient quantity of solder

placed in the tray B. The top or bottom of the can directed by the guide F to the flange *a* is rested on the follower E, the edge of said top or bottom projecting over said flange. The head H is now advanced and the can is thereby depressed, whereby the bottom edge is properly dipped or soldered. The head H is then elevated, and the yielding follower E, previously lowered by the descent of the can, raises the can and permits its removal either for dipping the other top or bottom or application of a fresh can.

As fresh or cool air is constantly admitted to the flue C, I obviate the creation of a vacuum beneath the can and material expansion of the metal, and thus prevent the wrenching or loosening of the bottom or top of the can, whichever is being dipped or soldered, and the open flue furthermore serves to relieve the face of the workman of intense heat, smoke, &c.

The pan D is rested on a table, D', and through the sides of the pan and table are passed screws *e e*, each of which is provided with nuts *f*, respectively above and below the pan, whereby the pan may be properly set or adjusted in order to level the pot or tray B, and, consequently, the solder therein, whereby cans may be uniformly dipped or soldered.

The flange *a* or top of the flue may be angular or circular, according to the shape of the can.

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

1. The furnace A, provided with the flue C and the tray B, in combination with the follower E, having a guide within said flue, substantially as and for the purpose set forth.

2. The furnace A and tray B, in combination with the angular guide F, rising from the pot, substantially as and for the purpose set forth.

3. The soldering pot or tray, in combination with the pan D and the leveling screws and nuts *e f*, substantially as and for the purpose set forth.

GEORGE BROWNE.

Witnesses:

JOHN A. WIEDERSHEIM,  
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