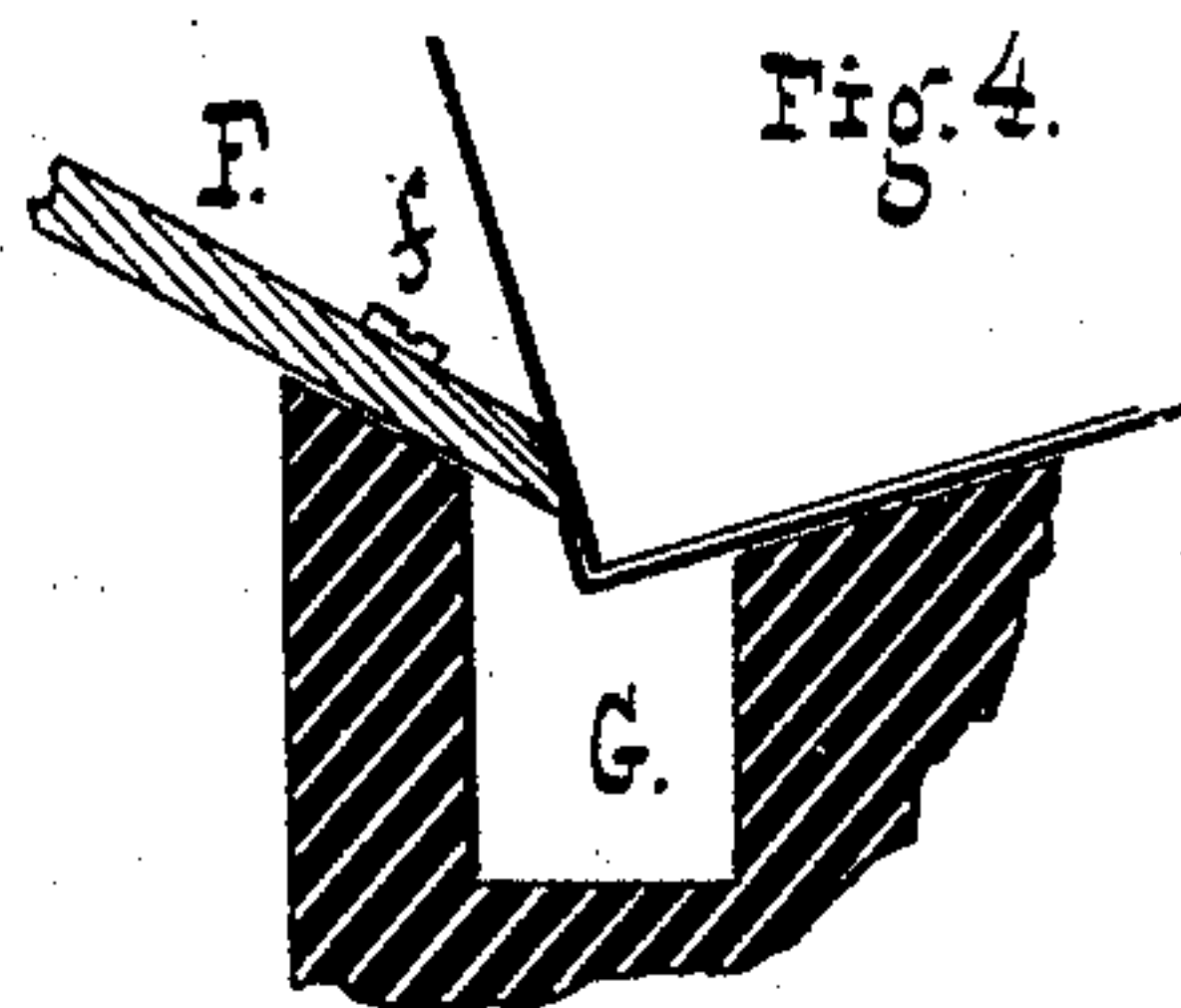
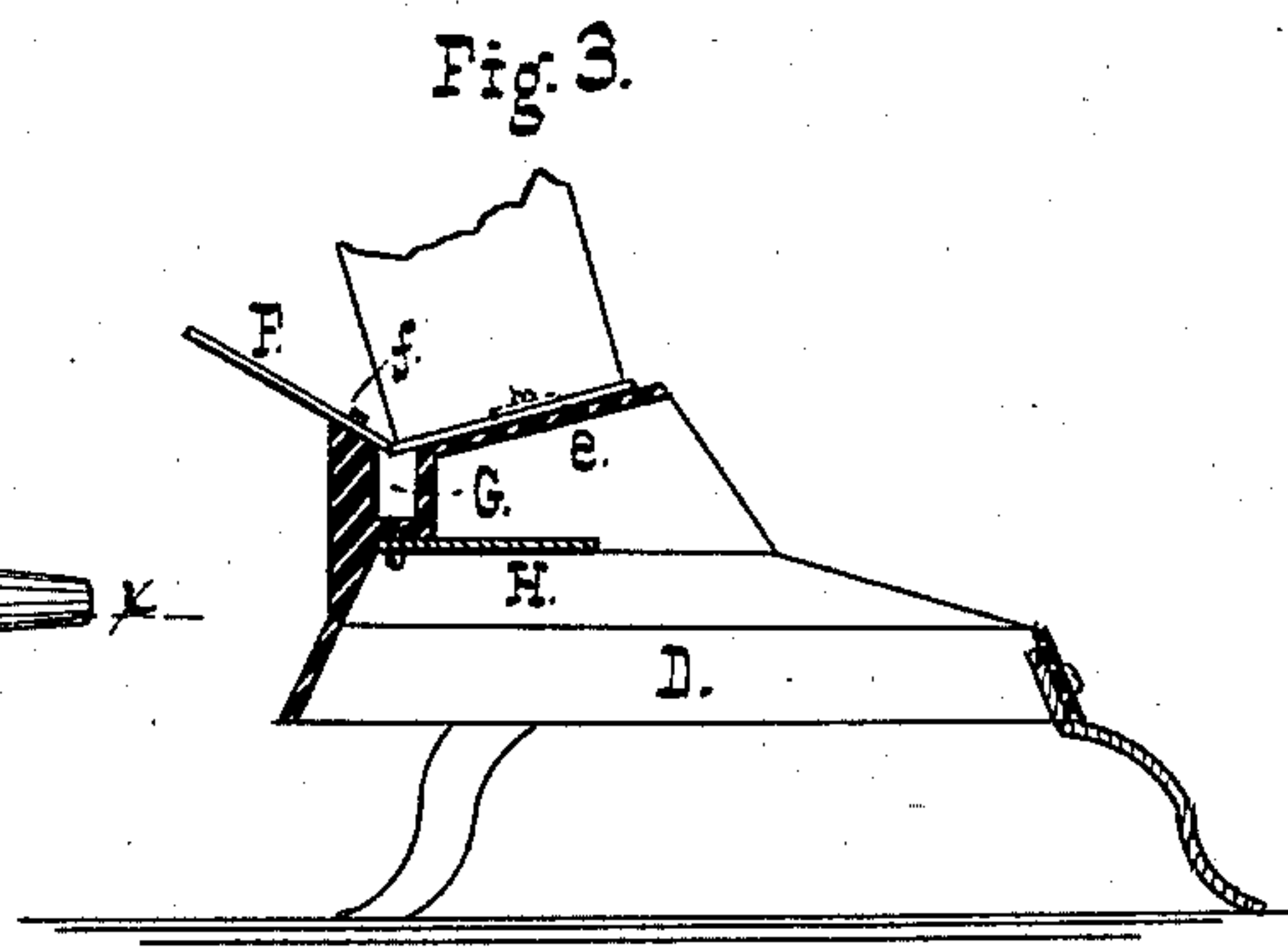
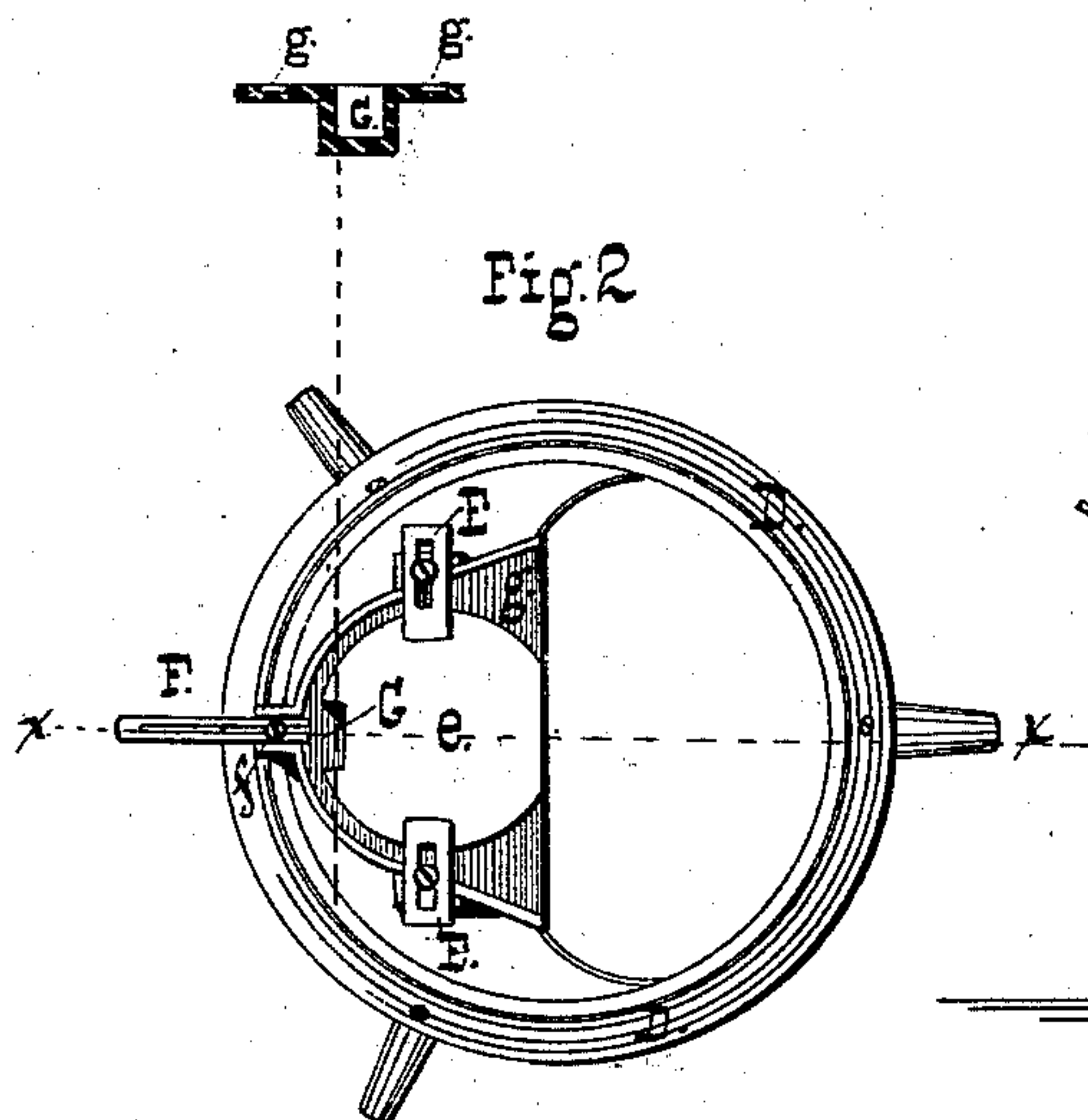
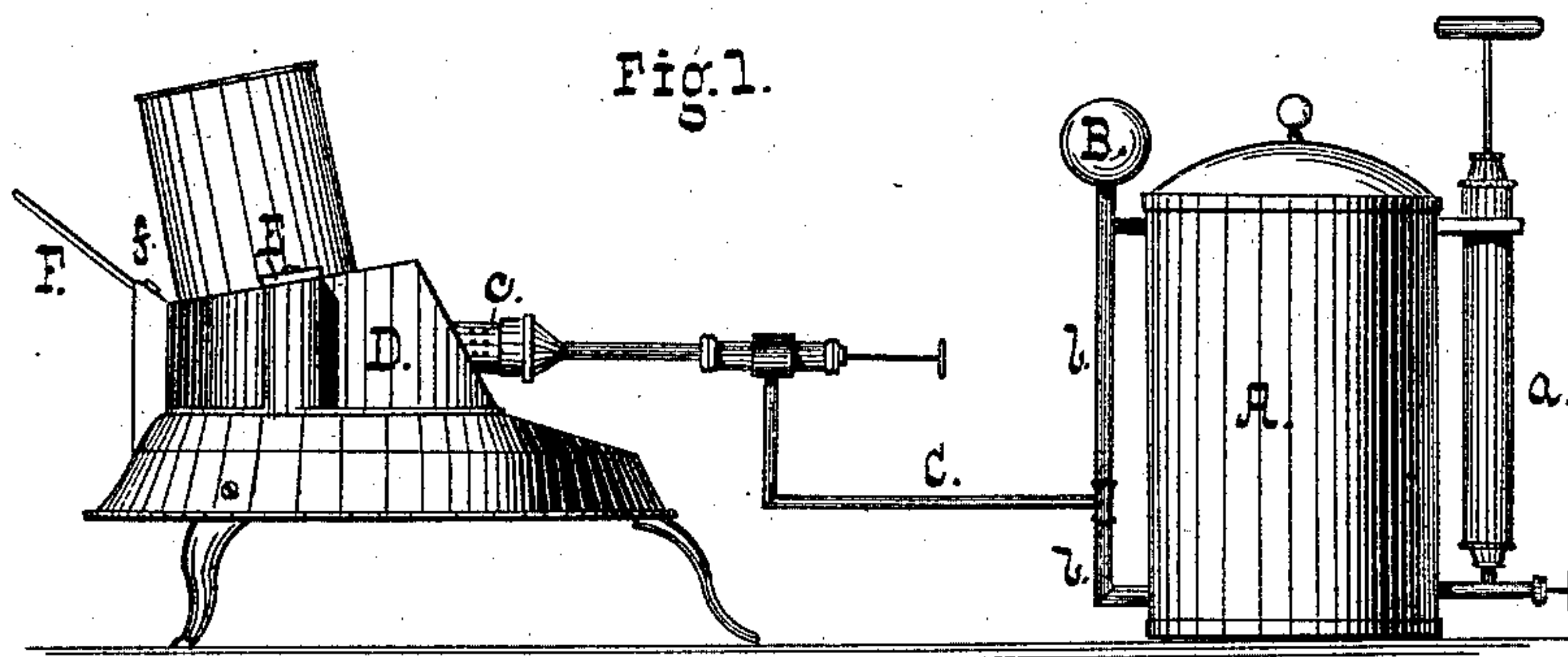


(No Model.)

J. S. HULL.
Can Soldering Machine.

No. 232,503.

Patented Sept. 21, 1880.



Witnesses,
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W. A. Bertram.

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by

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UNITED STATES PATENT OFFICE.

JOHN S. HULL, OF BALTIMORE, MARYLAND.

CAN-SOLDERING MACHINE.

SPECIFICATION forming part of Letters Patent No. 232,503, dated September 21, 1880.

Application filed July 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. HULL, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Can-Soldering Machines; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the device. Fig. 2 is a top plan of a part of the same. Fig. 3 is a sectional view on line X X of Fig. 2; and Fig. 4 is an enlarged sectional view, showing the application of the soldering-iron to the rim-seam of the can.

My invention has reference to that class of soldering devices used for soldering the heads to the bodies of cylindrical tin cans, and in particular to that subdivision of the class in which the can is sustained in an inclined position, while its head-seam is revolved in a bath of molten solder.

My invention consists in a device of the class named, constructed as hereinafter described, and possessing points of novelty, which are made the subject of the claims.

In the accompanying drawings, A is a tank for containing gasoline or other volatile hydrocarbon, and it is provided with a small condensing air-pump, *a*, for forcing a supply of air into the tank A, whereby the contents of the latter are driven through the supply-pipes *b* and *C* to the burner *c*. The pipe *b* is surmounted by a hollow ball, B, serving the end of a supplemental air-chamber and regulating the flow of oil. The burner *c* is a self-generating gas-burner, having a non-luminous Bunsen flame. Further description of it here will be unnecessary when it is stated to be similar to that described in Letters Patent No. 226,753, granted to me April 20, 1880.

The heater consists of a casting, D, open at one side for the admission of the burner, and having an inclined top, *e*. Around this top or disk is a channel, *g*, terminating at its lowest point in a well, G, for the solder. Opposite the well is adjustably secured, by means of a set-screw, *f*, the soldering-iron F, which is pitched at about an angle of forty-five degrees to the walls of the can. The end of the iron is beveled, as shown, so as to present its edge to the seam of the flanged head and force the sol-

der between the flange and the walls of the can. The iron is slotted longitudinally to admit of it being fed forward as it wears away, and this feature incidentally subserves another important end. The solder rises in the slot as well as on either side of the iron, so that the slotted iron is in effect two irons, the operation of the first limb being repeated by the second.

On either side of the disk *e* is a slotted adjustable gage, E, adapted to hold the can laterally in conjunction with the iron F. These gages are susceptible of a swiveling motion about their set-screws as well as of being adjusted toward the center of the disk, the object of which feature is to admit of their being so placed as to touch the can at points diametrically opposite, be the can a large or a small one. To the end that they shall present no sharp corners to the can, the inner ends of the gages are slightly rounded, as shown.

Immediately beneath the disk *e* is secured a plate, H, extending laterally to the walls of the casting D, and forming with them and the disk *e* a space inclosed except on one side, and there the burner is placed. The flame of the latter is thereby directed upon the solder-well G and escapes upward, sweeping over the lower side of the disk and out at the open side of the casting D and away from the operator.

In practice the heads of the cans are fitted upon the bodies, and each is placed in turn upon the disk *e*, where it rests between the gages or holders E and against the iron F, the lowermost point of the seam being immersed in the solder. The operator then quickly twirls the can around, causing the solder to be applied to every point of the seam, when the can is removed and set aside. With each can a little piece of solder, sufficient to secure its seam, is added to that in the well by being thrown anywhere upon the disk or cutter *g*, whence it runs down into the well, being instantly melted, so that a constant level is maintained in the well.

The advantages of the device are evident. It is light, portable, handy, and efficient. The operator is protected from the heat, and the latter is applied in a convenient form, and one that admits of the nicest regulation and adjustment.

What I claim is—

1. In a soldering-machine, an inclined disk or plate having at its lower edge a well for the solder, an adjustable soldering-iron opposite the well, and lateral gages, as set forth.

5 2. In a soldering-machine, an inclined disk having a well opposite its lower edge, a pair of swiveling gages, and a soldering-iron, all combined as set forth.

10 3. In a soldering-machine, an inclined disk having at its lower edge a well for the solder, and a slotted adjustable soldering-iron adapted, as described, to apply the solder to the seam.

4. In a soldering-machine, an inclined disk having a circumferential gutter and a solder-

well at the lower edge of the disk, and having 15
beneath the disk a partially-inclosed space for the entrance of the burner-flame, whereby the heat is concentrated on the well, as set forth.

5. In combination with the inclined disk having a circumferential gutter and solder- 20
well, as set forth, the soldering-iron F, gages E, and plate H, combined and operating as set forth.

JOHN S. HULL.

Witnesses:

R. D. WILLIAMS,

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