

(No Model.)

2 Sheets—Sheet 1.

L. W. COUNSELMAN.
CAN SOLDERING MACHINE.

No. 277,011.

Patented May 8, 1883.

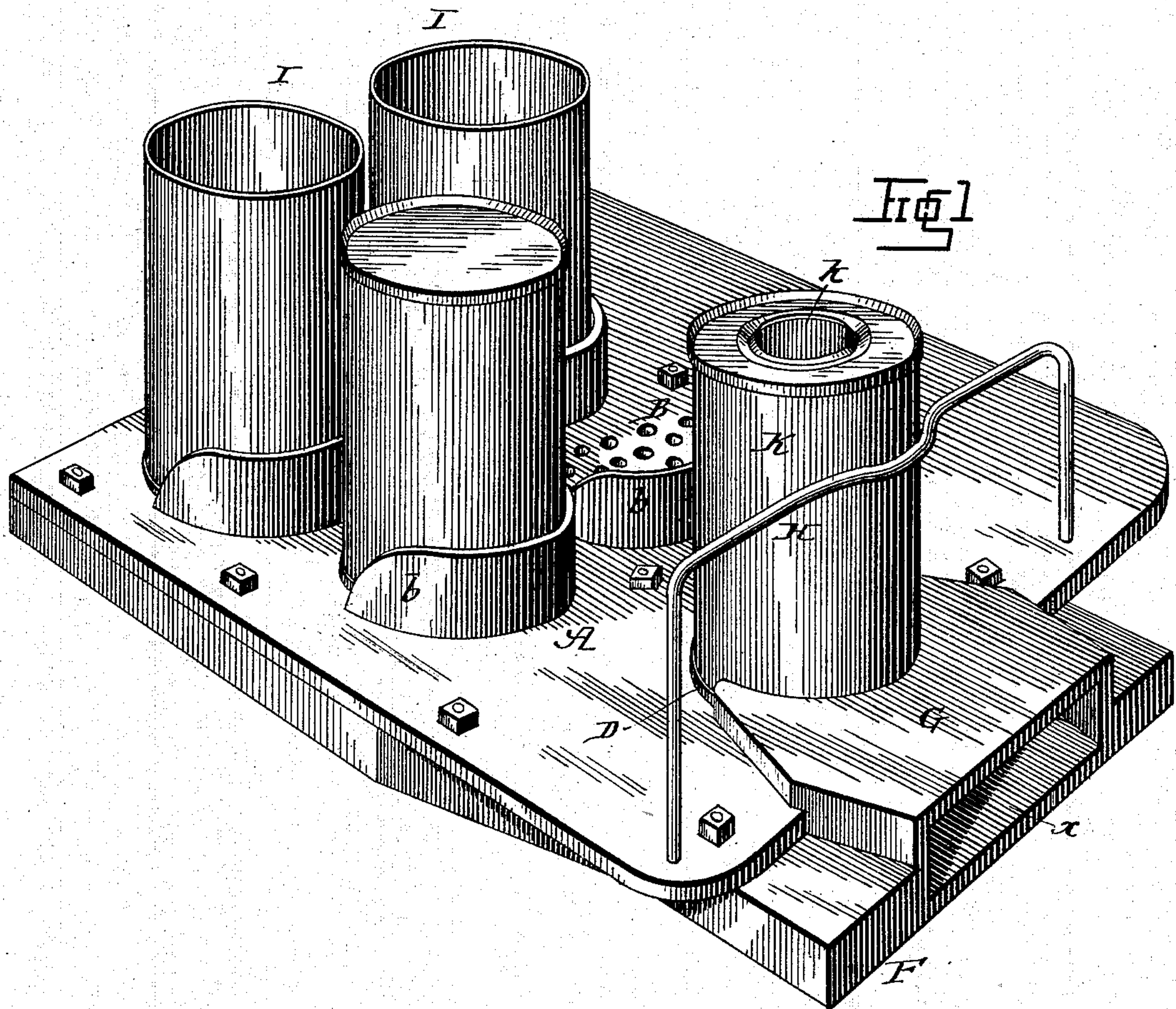
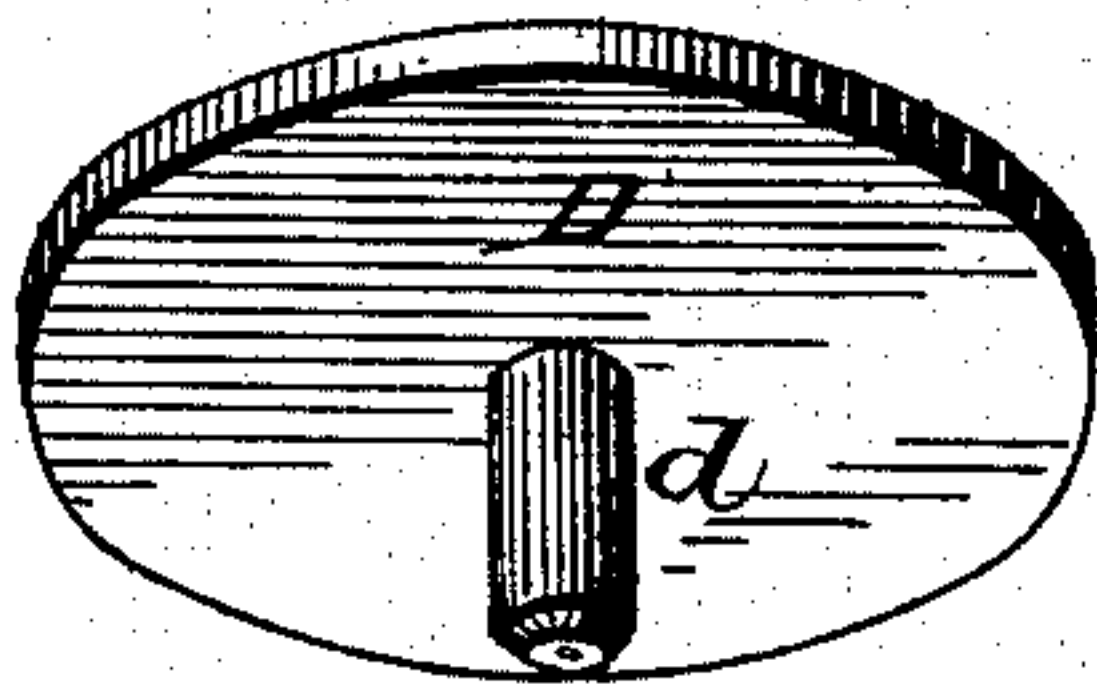


Fig 4



WITNESSES:

Ad. S. Dieterich
Jno. G. Hinkel

INVENTOR.

Lawrence M. Counselman
By Wm. Henry Brown
ATTORNEY.

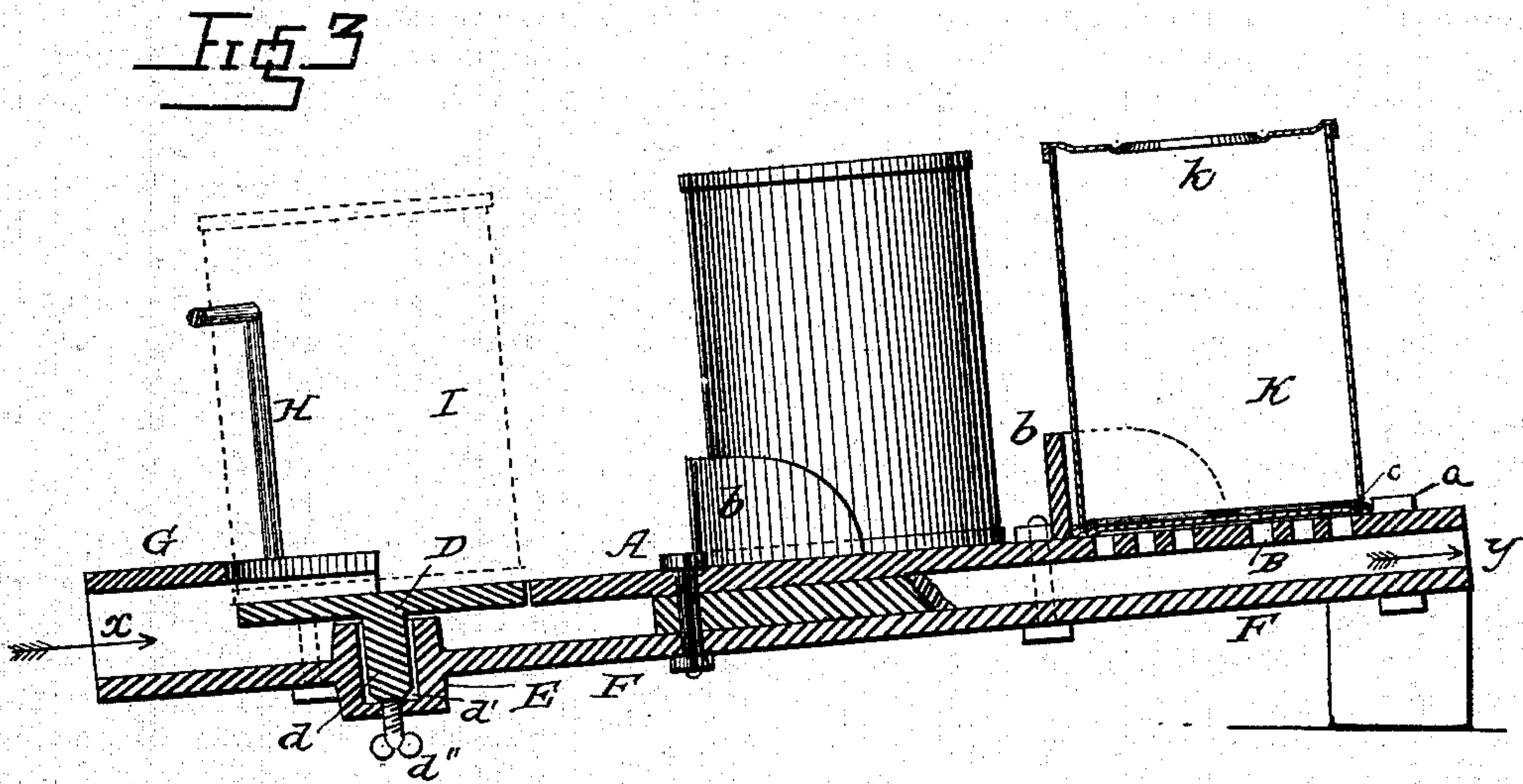
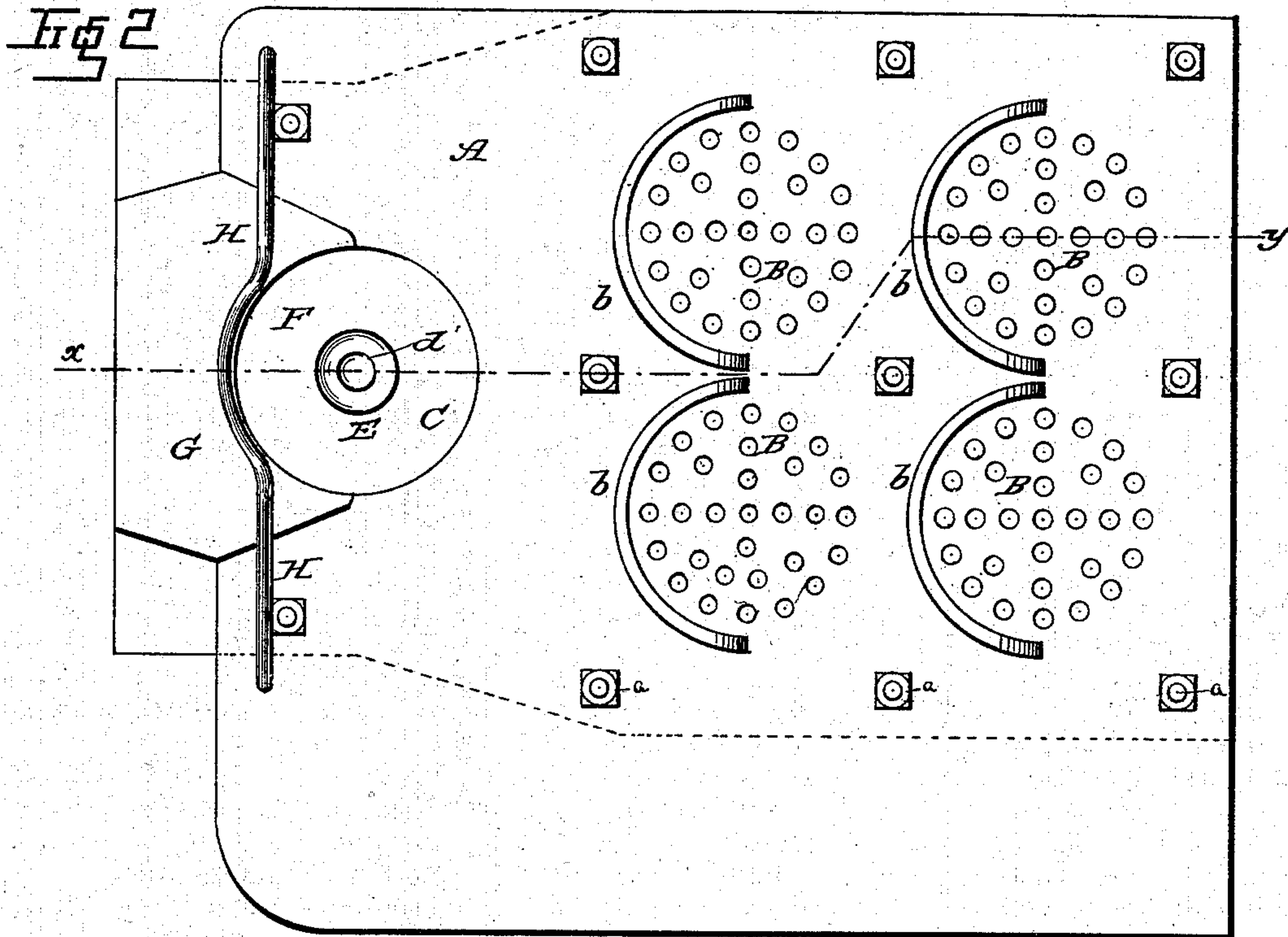
(No Model.)

L. W. COUNSELMAN.
CAN SOLDERING MACHINE.

2 Sheets—Sheet 2.

No. 277,011.

Patented May 8, 1883.



WITNESSES:

Fred. G. Dieterich
Geo. G. Hinkel

INVENTOR.

Laurence W. Counselman
By Henry House
ATTORNEY.

UNITED STATES PATENT OFFICE.

LAWRENCE W. COUNSELMAN, OF BALTIMORE, MARYLAND.

CAN-SOLDERING MACHINE.

SPECIFICATION forming part of Letters Patent No. 277,011, dated May 8, 1883.

Application filed March 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE W. COUNSELMAN, a citizen of the United States, residing in the city of Baltimore, in the State of Maryland, have invented certain Improvements in a Machine for Soldering Cans, of which the following is a specification.

My invention relates to that class of machines which are employed for soldering the tops and bottoms of tin and other metallic cans so much used for containing meats, vegetables, fruits, jellies, and other articles of food, and for other purposes.

An advantage that I claim is cheapness in the soldering of the cans by the saving of time and labor by means of the simple mechanism that I have invented and employ.

To enable all persons versed in the art to which my invention appertains to readily understand its construction and mode of operation, I will now describe it with reference to the accompanying drawings, in which—

Figure 1 is a top perspective view of my machine. Fig. 2 is a top plan view with the disk removed. Fig. 3 is a sectional view through the dotted line *x y* of Fig. 2. Fig. 4 is the pivoted revolving disk, the pin of which loosely fits into the hole sunk in the bottom or bed plate of the machine.

In Fig. 1 of these drawings I show my machine in the act of performing its functions. It will be observed that it is higher by a few degrees at the back, whence the flame or heat issues, than in front, into which it is blown, so that the heated current may the more readily pass through after doing its work. The machine may, for the convenience of the operator, be placed on a table or stand.

Similar letters refer to similar parts throughout the several views.

A represents the upper plate, through which pass screws at *a*.

B represents perforations that permit a portion of the flame or heated air to issue from below, and thus heat the part of the can intended to be soldered, *b* being guards to prevent the cans from slipping down the inclined surface.

C is a circular opening, in which the revolving disk D easily turns when its pin *d* is inserted in the corresponding hole, *d'*, in the pro-

jection E in the lower plate, F. The pin *d* has at its end a thumb-screw, *d''*, whereby the height of disk D may be regulated. This lower plate, F, constitutes the bed or bottom part of my machine, and it is closely bolted to or otherwise firmly united with the upper plate, A, so that the flame or heated air may not find vent at the joints.

G is an elevation on plate A, against which the lower part of the can rests when on the revolving disk D, and H is a guard or rest to prevent the can from falling forward.

I represents a can before the top is placed on it, and K is a can with the top on, *k* showing the hole in which is soldered a cap after the can is filled.

It is of course to be understood that, although in the drawings perforations are shown in plate A for but four cans, provision may be made for any other desired number. The material best adapted for the making of the principal parts A and F is cast-iron.

Having, as I believe, sufficiently described the construction of the various parts of my invention, I will now describe the mode of operating it.

The principal parts having been firmly joined and the disk D having been placed in proper position so as to readily revolve on its pivot inserted in the hole in the lower plate, a flame of gas or other convenient heating medium is blown into the opening at *x* and partly escapes through a narrow circular opening in plate A, outside the edge of said disk D, and is intended to encircle the lower part of the can when it is placed on the said disk. The flame also partly escapes through the perforations B, and finally issues at the vent *y*. The heating apparatus used with the machine is that known as "Hill's Patent Burner," used for heating purposes, and having a flame spreader attached to it, so that the heat can be spread fully around the revolving disk. The fuel used is gasoline, street-gas, or equivalent means of melting the solder. Having dropped into the can a piece of solder, (preferably in the form of a curved wire, *c*, Fig. 3,) the workman places the cans that are ready for soldering over the perforations, so that both solder and tin become heated. Then, transferring a can to the disk D, he turns it by hand and with great fa-

cility and at such speed as to allow the solder time to fuse and flow to the lower edge. By such means the work is done evenly, and the effect of the external flame is to draw the solder through the seam, and practice shows that none or nearly none of the solder is left inside the can, and the parts are firmly seamed and sealed. The work may thus go on continuously, several cans being heated while one is being soldered. The tops and bottoms are done in the same manner. After soldering the top the cap *k* must of course be fastened by hand after the can is filled.

What I claim, and desire to secure by Letters Patent, is—

1. In a soldering-machine, the plate A, having perforations B and guards *b*, circular opening C, elevation G, and guard H, in combination with plate F, and revolving disk D, having pin *d*, all constructed, combined, and operating substantially as described.

2. The soldering-machine composed of plate A, having perforations B, and guards *b*, circular opening C, elevation G, guard H, and plate F, all as described.

LAWRENCE W. COUNSELMAN.

Witnesses:

H. REMINGTON,
MURRAY HANSON.