2 Sheets--Sheet 1.

R. H. SMITH.

Soldering-Machine.

No. 161,289. Patented March 23, 1875.

Fig. 1.

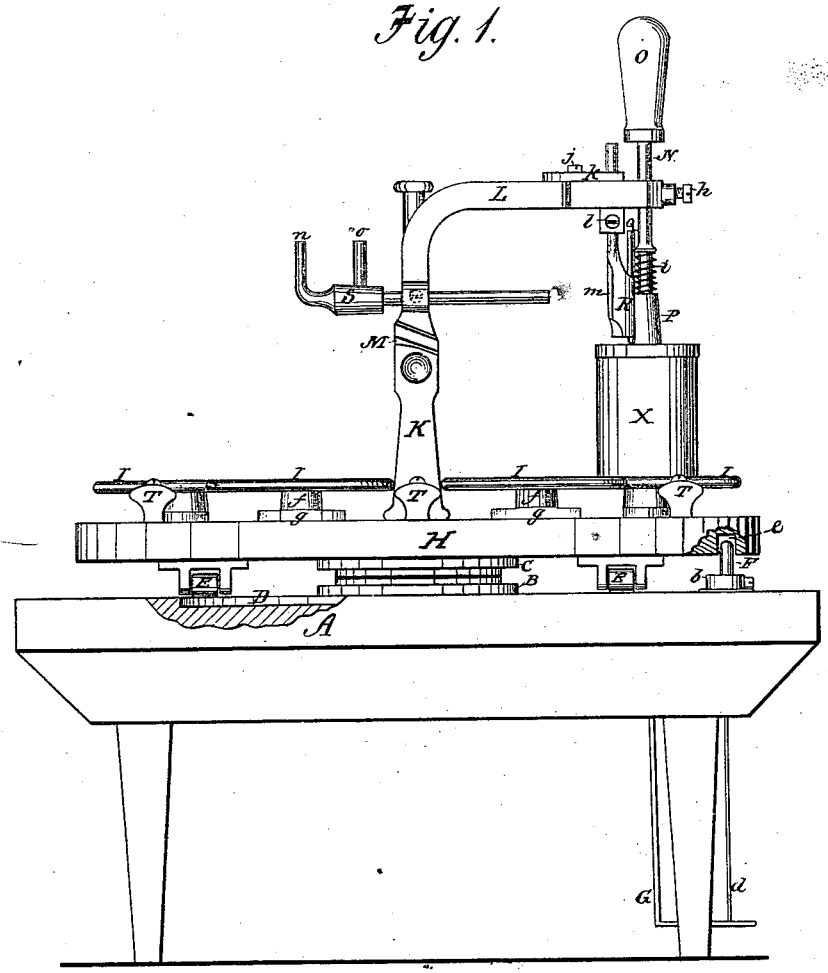
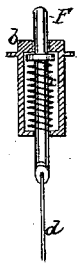


Fig. 5.



WITNESSES:

W. W. Hollingsworth

Solon C. Kemon

INVENTOR:

R. Henry Smith

BY Munn & Co

ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

2 Sheets--Sheet 2.

R. H. SMITH.

Soldering-Machine.

No. 161,289. Patented March 23, 1875.

Fig. 2.

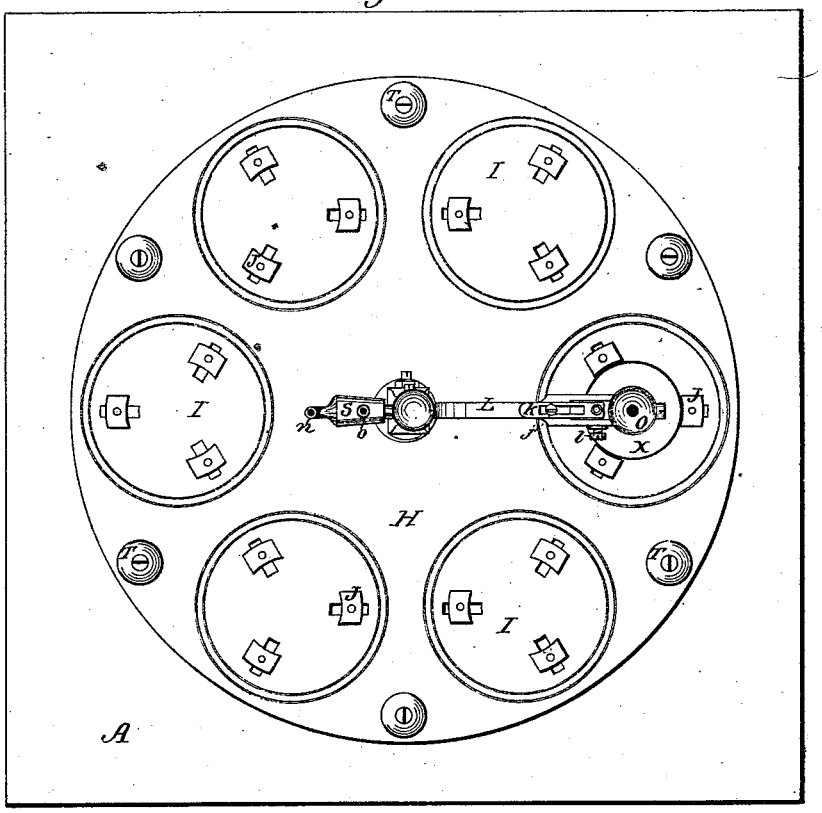
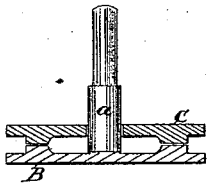


Fig. 3.

Fig. 4.



WITNESSES:

W. W. Hollingsworth.

Solon C. Kemon

INVENTOR:

R. Henry Smith

BY Munn & Co

ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

RICHARD HENRY SMITH, OF BALTIMORE, MARYLAND, ASSIGNOR TO MRS. SARAH JANE SMITH, OF SAME PLACE.

IMPROVEMENT IN SOLDERING-MACHINES.

Specification forming part of Letters Patent No. **161,289**, dated March 23, 1875; application filed January 4, 1875.

To all whom it may concern:

Be it known that I, RICHARD HENRY SMITH, of Baltimore city, State of Maryland, have invented a new and Improved Machine for Capping Cans; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a vertical side elevation; Fig. 2, a plan view; Fig. 3, a rear elevation of the soldering-iron holder; and Fig. 4, a sectional view of the central bearing-plates.

This invention relates to certain improvements in machines for capping-cans; and it consists in the adjustment of the soldering devices, and in the combination, with the turn-table, of independently-rotating detachable seats for the cans, having adjustable clamping devices for the different sizes of cans.

In the drawing, A represents the supporting-table provided with a central plate, B, to which is attached a vertical pin or stud, *a*. The said plate forms a bearing upon which, and the said stud a journal around which, moves the plate C, attached to the turn-table. D is a circular railway attached to table A, upon which run the rollers E, attached to the turn-table. F is a short vertical bolt contained inside a case, *b*, and held up by a spiral spring, *c*. Said bolt engages with recesses *e* in the turn-table, and locks the same in proper position. G is a treadle attached, by a wire, *d*, or other suitable connection, with the lower end of bolt F, so that, by depressing the said treadle, the bolt is withdrawn from the recess and the turn-table allowed to rotate. H is the turn-table, provided upon its outer edge with a series of independent detachable rotary seats, I, for holding the cans. The said seats are provided with studs *f*, which fit into sockets *g*, and render the said seats detachable. J are adjustable clamping devices moving in slots in the seat, whereby the same is adapted to different-sized cans, round or square. K is an adjustable standard, which is attached to the stud *a*, and is connected with the frame L by means of a hinge or joint, M, by means of which arrangement the soldering devices are applied to or removed from the can X. N is an adjustable tube, held in the frame L by means of the binding-screw *h*. Said tube is intended to clamp the perforated cap, and to allow the steam to escape through the same while the cap is being soldered. O is a handle attached to the upper end of the said tube by means of which the same is manipulated; and P is a yielding sleeve which, with the aid of the spiral spring *i*, clamps the can and forms an axis upon which the can rotates upon the seat. Q is an arc-shaped soldering-iron; and R the soldering-iron holder, which is vertically adjustable in the piece *k* by means of the binding-screw *j*, and horizontally adjustable by means of the binding-screw *l* and the slotted piece *k*. Said soldering-iron holder has a slot or recess, *m*, in the rear, through which the flame from a compound blow-pipe, S, is directed upon the soldering-iron. Said blow-pipe consists of the ordinary form of concentric tubes, of which *n* and *o* are the connections for the air and gas respectively.

In the operation of my machine I employ the services of two hands, generally a man to operate the soldering devices, and a boy on the opposite side of the machine to remove and replace the cans, and place bits of solder upon the same ready for the capper. The turn-table is rotated by the capper by means of the knobs T, and the cans when brought upon the seat directly below the soldering devices, is locked and held in position by the spring-bolt in the recess under the turn-table. The soldering devices are now pressed down upon the can, with the clamping-sleeve around the perforation in the cap, and the can is rotated upon the seat, which motion brings successively different portions of the periphery of the cap under the soldering-iron and fastens the said cap. The treadle is now depressed, the turn-table rotated, and the same action repeated.

Having thus described my invention, what I claim as new is—

1. The soldering-iron holder R, having a rear opening, *m*, and adjustable vertically and

longitudinally by the slotted piece *k* and binding-screws *j* and *l*, in combination with the hinged frame L and compound blow-pipe S, substantially as and for the purpose described.

2. The independently rotating and detachable seats I, having the adjustable clamping devices J and the studs *f*, in combination with the sockets *g*, substantially as and for the purpose described.

RICHARD HENRY SMITH.

Witnesses:
C. H. PALMER,
BENJ. THOMAS, Jr.