

(No Model.)

2 Sheets—Sheet 1.

A. W. HARTLOVE.

MACHINE FOR MAKING SHEET METAL CANS.

No. 497,542.

Patented May 16, 1893.

Fig 2.

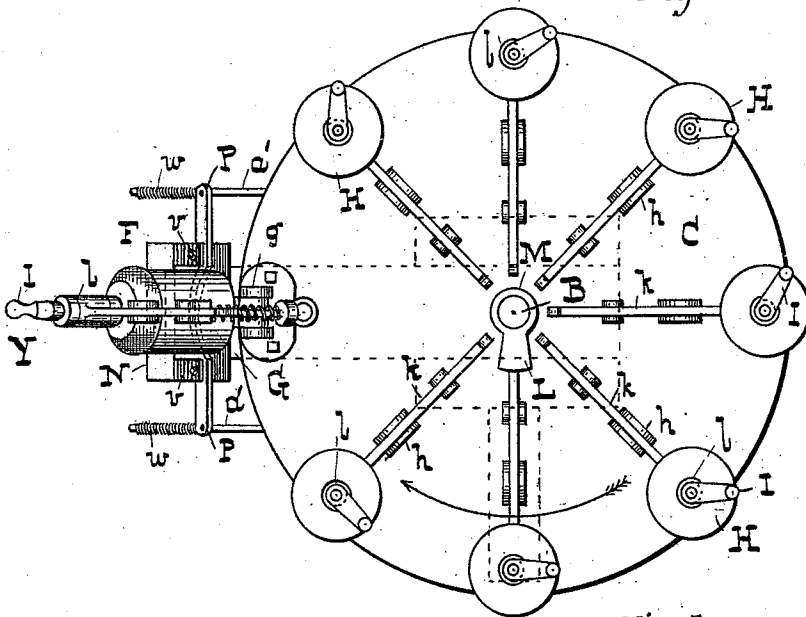
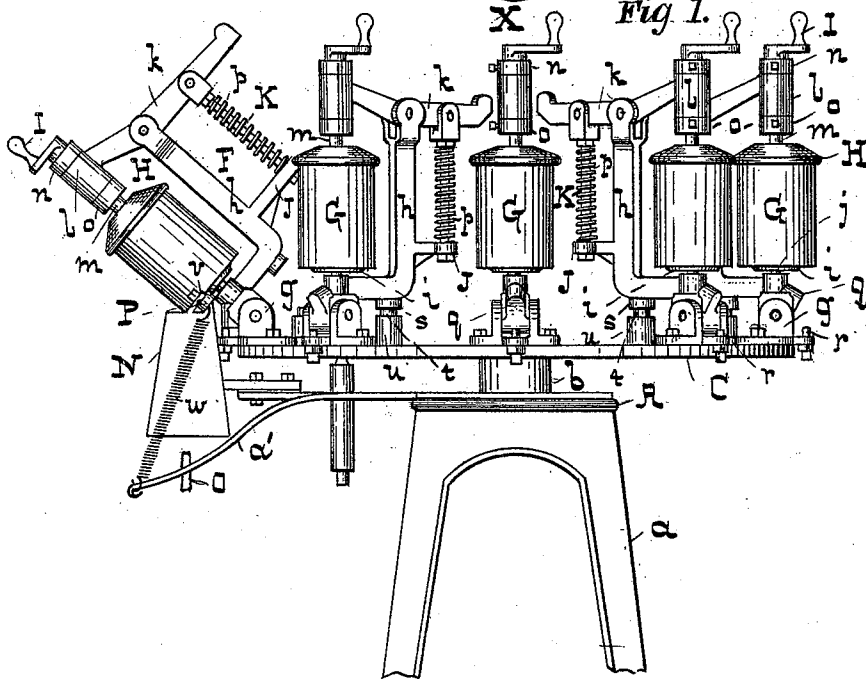


Fig 4.



Fig 1.



-WITNESSES-

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ASBURY W. HARTLOVE, OF BALTIMORE, MARYLAND.

MACHINE FOR MAKING SHEET-METAL CANS.

SPECIFICATION forming part of Letters Patent No. 497,542, dated May 16, 1893.

Application filed June 28, 1892. Serial No. 438,256. (No model.)

To all whom it may concern:

Be it known that I, ASBURY W. HARTLOVE, of Baltimore, Maryland, have invented certain Improvements in Machines for Making Sheet-Metal Cans, of which the following is a specification.

This invention relates to certain improvements in a machine whereby the heads and bottoms are soldered to the body of a sheet metal can, as will hereinafter fully appear.

In the description of the said invention which follows, reference is made to the accompanying drawings forming a part hereof and in which—

Figure 1 is a side view of the improved machine with the lower part thereof removed, and Fig. 2 a top view of the same. Fig. 3 is a side elevation of a part of the machine on an enlarged scale and Fig. 4 is a top plan of the trough for containing melted solder.

Referring to the drawings, A is a table supported by the legs *a* and having on its face a central hub, *b*.

B is a spindle which passes loosely through the hub *b*.

C is a plate with a central hub *c* adapted to turn on the table and about the central spindle B. At the lower end of the spindle B is an eye *d* and to this eye is attached a hooked rod D the lower end of which is connected to a treadle E pivoted to the floor or to some stationary part of the frame. A spiral spring *e* unites a portion of the rod D having an eye *f* to the under side of the table, and serves to retain a spindle B and the treadle in an elevated position.

Secured on the plate C near its circumference and at equal distances apart are lugs provided with bearings *g* to which the can-holders F are pivoted. These can holders consist each of a bar *h* having a revoluble disk *i* with its stem *j* seated so as to turn in a boss *j'* formed as a part of the bar. This revoluble disk supports the can, one only of which is shown in Fig. 3 and denoted by G. Another part of the can holder consists of a second bar *k* hinged to the upper end of the lower other one *h*. The outer end of this second bar is provided with a sleeve *l* through which a stem *m* loosely passes. The stem *m* at its lower end has a disk H which fits over the top of the can and to the upper end of this

stem is secured a crank handle I whereby the said disk and with it the can is turned by hand. Two collars *n* and *o* prevent endwise motion of the stem *m*. The rear end of the bar *k* is attached to a bracket J on the bar *h* by means of a stem K having a spiral spring *p*, and the extreme end of the said bar is adapted in one position of the plate carrying the can seats to pass under a lug L projecting from a hub M attached to the top of the spindle B. The spiral spring *p* is confined endwise on the stem K between the bracket J and the head of the stem, and its office is to keep the disk H tightly in contact with the top of the can when the same is in position on the seat *i*. The hinging of the can holders to the lugs *g* admits of the cans being tilted so as to bring their lower edge into a trough N containing melted solder. This trough is secured to a bracket extending from the top of the table, and the contained solder is retained in a melted condition by means of a gas flame issuing from a burner O. One can is shown as tilted in Figs. 1 and 2. When a can is tilted a lug *q* strikes the end of an adjustable bolt *r* and prevents any further tilting, and limits the depth to which the can edge is immersed in the melted solder. As the can is returned to its vertical position, a lug *s* on the bar *h* seats itself on a rubber block *t* resting in a cavity in a boss *u* on the plate C.

P P are bars hinged to lugs *v* on the trough N with their outer ends connected by springs *w* to rods *a'* extending from the table. The inner ends of the bars P or the portions of them within the trough are curved to fit the body of the can and they are so placed that the lower head seam rests on them. These curved ends are tinned and answer the purpose of a soldering tool, see Fig. 4. The object in having two bars coming together in the melted solder trough is to give a yielding pressure on the seam, and also to allow for any difference in size of the cans or inequality in shape.

Supposing the machine to be in operation and the attendant who feeds the cans to the machine to be standing at X, he places his foot on the treadle so as to raise the disk of the can holder immediately in front of him, and then places an unsoldered can on the can seat. He then releases the treadle and moves

the plate around in the direction indicated by the arrow until the next can seat comes before him when another unsoldered can is placed in position. Another attendant stands at Y and as the cans on their seats stop before him, he draws them down into the position shown in Fig. 1 and rotates them in the melted solder in the trough. As soon as this soldering operation is completed the can is raised to its original position and by the time it reaches the first attendant the solder will have cooled and it may be removed with safety.

From the foregoing description it will be seen that the first named attendant merely removes soldered cans and fills their places with other unsoldered ones.

I claim as my invention—

1. In a machine for soldering the heads and bottoms to the bodies of sheet-metal cans, a stationary trough for melted solder, and a yielding soldering-iron supported therein, in combination with a revoluble plate carrying upward projecting bearings or lugs, and a series of can-holders having each a boss at its lower end working between the lugs and supporting a can-holding disk.

2. In a machine for soldering the heads and bottoms to the bodies of sheet-metal cans, a stationary trough for melted solder and a spring-actuated soldering-iron supported therein, in combination with a revoluble plate carrying a series of can-holders occupying normally a vertical position and adapted to be tilted into the said trough to bring the portions to be united into engagement with the said iron, and stops for limiting the movement of the said holders, substantially as described.

3. In a machine for soldering the tops and bottoms to the bodies of sheet metal cans, a can-holder which consists of the bar *h* carrying a can-seat, hinged to a lug, *g*, and having the bracket *J*, combined with a second bar *k* having a sleeve *l*, a spindle *m* adapted to turn in the said sleeve and provided with a disk *H* and a stem *K* having a spring *p* which connects the bar *k* with the said bracket, substantially as specified.

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Witnesses:

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