

Shepard & Stow,

Sheet-Metal-Working Machine.

N<sup>o</sup> 14,738.

Patented Apr. 22, 1856.

Fig. 1.

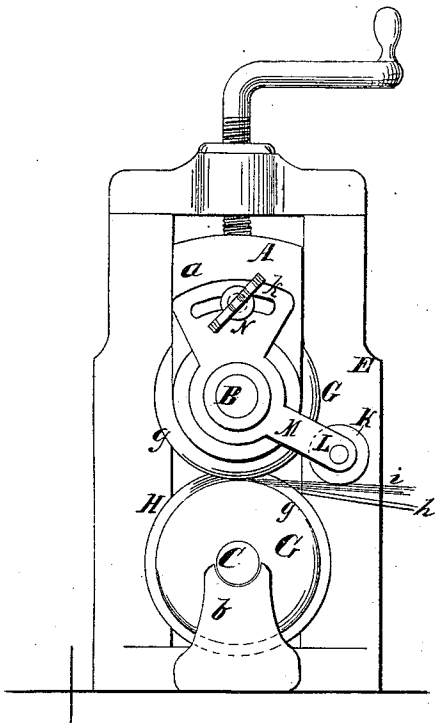
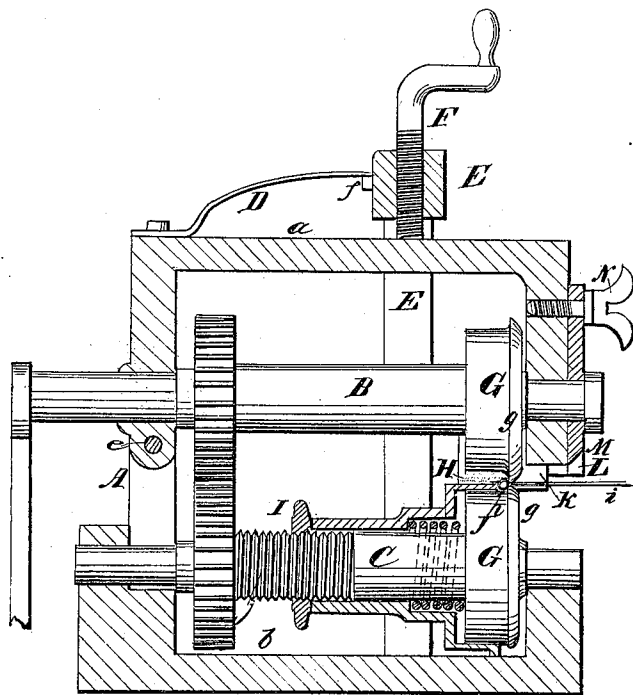


Fig. 2.



# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN WORKING IN SHEET METAL.

Specification forming part of Letters Patent No. 14,738, dated April 22, 1856.

*To all whom it may concern:*

Be it known that we, SAMUEL R. SHEPARD and ORSON W. STOW, of Plantsville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Machines used in the Manufacture of Tinware, for Wiring, Beading, &c.; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is an end view of a wiring-machine with our improvements applied to it. Fig. 2 is a side view of the working parts of the same, the frame being bisected vertically, and also the adjustable rotating guide.

Similar letters of reference indicate corresponding parts in both figures.

Our invention consists in the employment or use of an adjustable rotating guide, which is placed on one of the rollers of the machine, as will be presently shown and described, whereby the box, kettle, or other article being operated upon will be fed through the machine without the aid of the operator.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a framing, which may be constructed of cast-iron, and is of the usual construction, the upper part, *a*, of the frame being jointed to the lower part, *b*, at *c*, and the upper part, *a*, having a shaft, B, fitted within it, and the lower part, *b*, having a shaft, C, fitted within it.

D represents a spring attached to the upper surface of the part *a* of the framing. The outer end of this spring bears upon a projection, *f*, on the upper part of a guide-frame, E, in which the upper part, *a*, of the framing is fitted.

F represents a screw by which the upper part, *a*, of the framing is forced down toward the lower part, *b*.

To the end of each of the shafts B C there is attached a metallic roller, G.

The above parts are all of the usual construction, and therefore do not require a minute description.

The rollers represented in the drawings have lips *g* on their outer edges, as shown clearly in Fig. 2. These rollers, thus formed,

are used for wiring the rims or edges of sheet-metal vessels—such as pails, coal-hods, &c. The lips *g* of the rollers, as the rollers rotate, bend the sheet metal or close it around the wire, the vessel and wire being passed between the rollers, as shown in red in both figures, *h* representing the wire and *i* the sheet metal.

H represents a guide which is fitted over the lower roller, G, and a portion of the shaft C. The guide H may be described as being of cylindrical form, so as to correspond with the shaft C and roller G, and fit snugly on them, as shown clearly in Fig. 2. The lower shaft, C, has a screw-thread, *j*, cut upon it, on which a nut, I, is fitted, and a spiral spring, J, is fitted around the shaft C within the guide. By turning the nut I the outer edge of the guide H may be moved nearer to or farther from the lip *g* on the lower roller, as will be readily seen by referring to Fig. 2, the nut I, when turned in one direction, forcing the guide H outward or toward the lip *g* on said roller, and when the nut I is turned in the opposite direction the guide is thrown back from said lip by the spring J. The edge of the article being wired of course rests or bears against the edge of the guide H, and the guide must be adjusted according to the thickness of the wire used, as the wire must fit between the lip *g* on the roller and the edge of the guide.

By the above improvement the vessel or other article being wired will be fed through or passed around by the pressure of the rollers and guide H, as the guide rotates with the lower roller. No force or aid will be required from the operator. In the machines used at present the guide is stationary or fixed, and is attached to the framing of the machine, and so much friction is created thereby that the operator is obliged to force the article around between the rollers as they rotate.

K represents a forming-roller, which is fitted on an axis, L, attached at a right angle with one end of an arm, M, which is fitted on the end of the upper shaft, B. The opposite end of the arm M has a slot, *z*, made through it, through which slot a set-screw, N, passes into the framing A. By means of the set-screw the roller K may be secured in a higher or lower position, so as to curve the sheet metal as it is passed between the rollers. As the roller is attached to the upper shaft, B, it will be

seen that the roller rises with it and the metal is relieved at once of its pressure as soon as the upper roller, G, is raised.

The forming-roller K is now used on machines; but it requires a separate adjustment in order to be raised from the metal or article between the rollers G G.

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

The adjustable rotating guide H, attached to either of the rollers G, constructed and arranged substantially as described, for the purpose specified.

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Witnesses:

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