J. Eppley;

Beading Sheet-Metal.

No. 5,571. Patented May 16, 1848.

Fig. 1

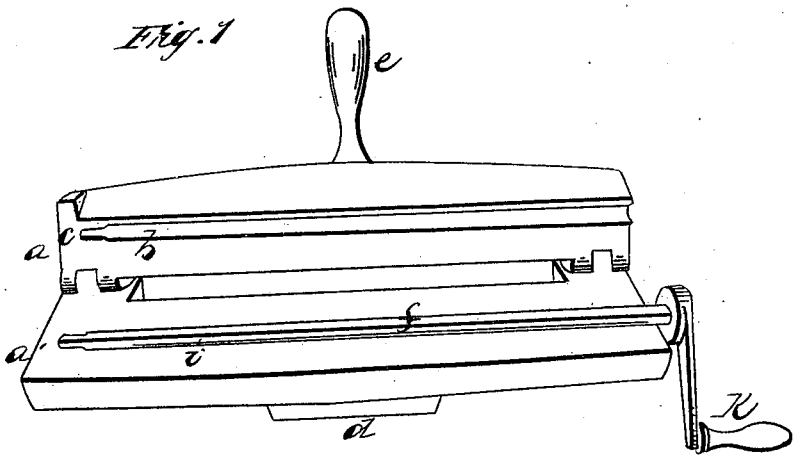
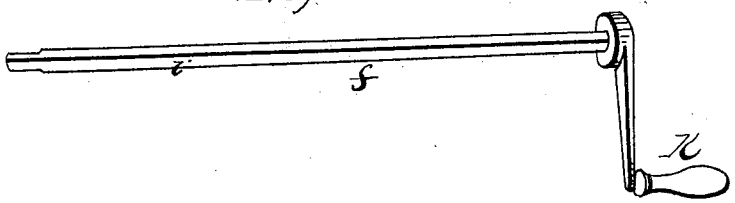
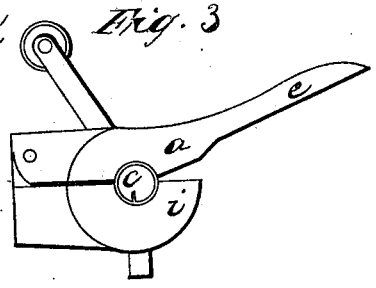


Fig. 2.



K Fig. 3



UNITED STATES PATENT OFFICE.

JOHN EPPLEY, OF YORK, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR BENDING SHEET METAL.

Specification forming part of Letters Patent No. **5,571**, dated May 16, 1848.

To all whom it may concern:

Be it known that I, JOHN EPPLEY, of York, in the county of York and State of Pennsylvania, have invented new and useful Improvements in the Machine for Beading Tin, &c.; and I do hereby declare that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known, and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the apparatus with the jaws open. Fig. 2 is the spindle detached, and Fig. 3 a cross-section.

The same letters indicate like parts in all the figures.

Several machines have heretofore been made for forming cylinders of sheet-iron and tin; but these would only answer for forming large cylinders—such as stove-pipe and other similar articles—where the mandrel or roller around which the material was bent was large enough to cause the sheet metal to bend without springing the roller. One of the best of these machines was composed of three rollers, one of which served as a mandrel. Other machines have been made with a stout roller and a concave to fit it, which, having the metal between them, were either pressed or hammered together till it assumed their curve; but it is obvious that neither of these machines would answer for small beading, which is found one of the most laborious operations of the practical tinman, and this my invention is made to simplify.

It consists of two jaws, *a a'*, connected by strong hinges, the faces of which have each a semi-cylindrical recess, *b*, in them of the proper size for the bead, so that when closed they will form a perfect cylinder. One end of this recess is contracted, as shown at *c*, for the purpose of forming a shoulder on the beaded tin sheet, by which it can be soldered to another. The other end of the recess extends out to the end of the jaw. The lower jaw may be furnished with a projection, *d*, cast on it, by which it can be held in a common bench-vise when in use; or it may be fixed in any other convenient way. The upper jaw has a handle, *e*, that serves to hold it down while the bead is forming. Within the recess of the jaws a mandrel or rod, *f*, is placed, (of proper size,) in the side of which there is a slit, *i*, from end to end. This rod is formed to correspond to the contraction of the inner end of the concavity *b* above described, and projects at the opposite end far enough beyond the jaws to attach a crank, *k*, to, by which it can be turned. This apparatus should be as long as the sheet to be worked, and when closed the front edges of the jaws do not quite touch, leaving space sufficient to insert the sheet metal between them and into the slit *i* above named in the mandrel. The crank is then turned once around and a bead is formed, the slender mandrel being supported on all sides during its revolution by the concavity of the jaws.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

Tbe combination of the revolving mandrel and concave recess, constructed substantially in the manner and for the purpose described.

JOHN EPPLEY.

Witnesses:

SAMUEL CRULL,

JAMES ADAMS.