L. Cutting,

Cutting Solder Wire.

No. 111,912. Patented Feb. 21. 1871.

Fig. 2

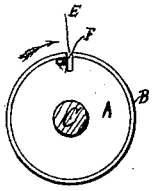


Fig. 1

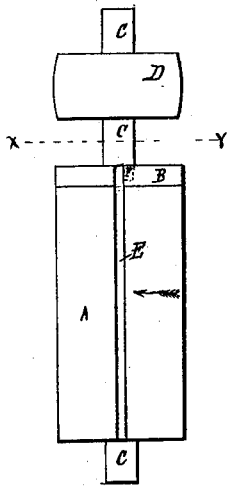
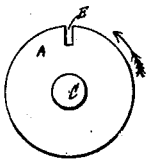


Fig. 3



Witnesses

C. M. Smith

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LEWIS CUTTING, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO HIMSELF AND FRANCIS CUTTING.

Letters Patent No. 111,912, dated February 21, 1871.

IMPROVEMENT IN MANDRELS FOR GAUGING AND CUTTING SOLDER-WIRE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LEWIS CUTTING, of San Francisco, in the county of San Francisco and State of California, have invented an Improved Roll or Mandrel for Gauging and Cutting Solder-Wire; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to an improved device for curving, gauging, and cutting wire for cans, tin ware, and other purposes, that shall be more certain, exact, and efficient in its operation than any of the machines heretofore employed.

The invention consists in providing a cylinder or roll upon which the wire is wound, with a recess so arranged that the end of the wire may be hooked into it in such a manner that it cannot escape; and further consists of providing said cylinder with a longitudinal slot or groove, along which the wires are cut, as hereinafter more fully described and shown.

In the accompanying drawing—

Figure 1 is an elevation of a roll or mandrel having my improvements.

Figure 2 is a section on line *x y* of fig. 1.

Figure 3, an end view of fig. 1.

Like letters refer to like parts in all of the figures.

To enable others skilled in the art or science to which it most nearly appertains to make and use my invention, I will proceed to describe more fully its construction and operation.

A is the cylinder, about which the wire is wound.

B is a stout metallic band, used when the cylinder A is made of wood.

C is the shaft, that must be provided with suitable bearings or boxes in which to revolve.

D is a pulley by which the shaft may be driven.

E is a longitudinal slot or groove, parallel with the axes, extending the whole length of the face of the cylinder A and through the band, as shown.

F is a recess under the end of the band B for receiving the end of the wire.

Only one recess, F, is shown in the drawing, and consequently the roll can only be operated in one direction, as shown by the arrows, but if a recess, F, is provided under each end of the band B the roll can be worked in either direction.

When the roll A is made of metal the band B may be dispensed with, and the recess F, or its equivalent, may be formed in the end of the roll.

The operation of my invention is as follows:

The end of the wire to be gauged and cut is placed in the recess F, and held firmly, while the mandrel or roll is turned in the direction of the arrow so that the wire, by bending short over the end of the band B, will form a hook around said end of the band and be prevented from flying up.

As the roll continues to revolve the wire will be wound up on the roll until its whole surface is covered, after which, by means of a chisel, file, or other cutting instrument, the wire can be cut along the groove E without injuring the roll; and it is evident that all the pieces of wire thus produced will be of exactly the same length.

I am aware that rolls or mandrels operating in a similar manner to the one herein described have been used for gauging wire; but these have not been provided with a recess, F, and band, B, or other equivalent device for hooking the end of the wire in such a manner as to prevent it from flying up or slipping around on the shaft.

Neither have said rolls heretofore used been provided with the longitudinal slot or groove E of my invention.

Having thus described my invention,

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

The cylinder A, with recess F and slot E, when operated as described, for the purpose set forth.

In witness whereof I have hereunto set my hand and seal.

LEWIS CUTTING. [L. S.]

Witnesses:

C. W. M. SMITH,

H. S. TIBBEY.