

W. H. Singer,

Rolling Bevels on Circular Plates.

No. 109,953.

Patented Dec. 6, 1870.

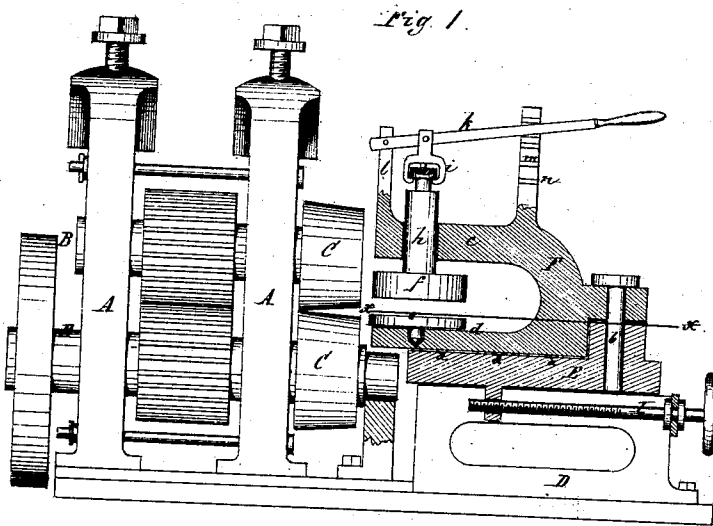
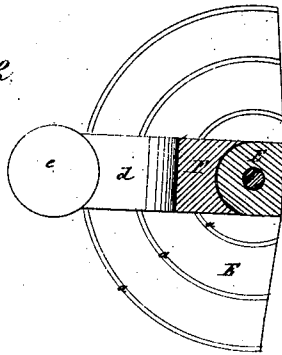


Fig. 2.



Witnesses:

H. J. Smith
Thos. D. O'Connell
E. A. Pettit

Inventor:

Wm. H. Singer
PER [Signature]

Attorneys.

United States Patent Office.

WILLIAM H. SINGER, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 109,953, dated December 6, 1870.

IMPROVEMENT FOR BEVELING THE EDGES OF CIRCULAR PLATES OF METAL.

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, WILLIAM H. SINGER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and improved Machine for Beveling Circular Plates of Metal; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a sectional elevation, and

Figure 2 is a detached horizontal section.

This invention is an improvement on that for which Letters Patent No. 97,450, dated November 30, 1869, were granted me.

That invention consists of tapering rolls placed upon rotatory shafts, for the purpose of producing beveled edges upon metal implements, in combination with a sliding rest for supporting the blanks while undergoing the beveling operation. If the blanks are circular they are placed on a vertical pin, stepped in such sliding rest, said pin passing through a central hole in each blank, and forming the axis around which the blank revolves under the bite of the rolls upon its edge.

Since obtaining said patent, I have found that during the revolution of the circular blank upon the pin, the central hole of the blank is enlarged considerably beyond its proper size, owing to the drawing of the blank by the rolls against the pin.

The object of this invention is to provide a mechanism that holds the circular blank while its edges are beveling, without enlarging the central hole, and the mechanism by which this object is accomplished also secures another advantage, namely, that of introducing the whole of that part of the blank that is to be beveled, between the rolls at once.

The aforesaid mechanism is hereinafter fully described.

Referring to the drawing—

A are the roll-housings;

B, the shafts;

C, the rolls;

D, the guide-rest; and

E, the sliding rest; the arrangement of all which is fully described in the patent above referred to.

F is a frame, pivoted by a pin, *b*, at its rear end, to the rear end of the sliding rest E.

Parallel ribs *a*, curved in arcs, the centers of which are at the center of the pin *b*, are formed on the upper side of the sliding rest E.

The design is that the frame F shall swing laterally as far as may be necessary to the removal and insertion of the blanks, the function of the ribs *a* being to diminish the friction of such swinging.

The frame F is formed in two branches *c d*, one above the other, the branch *d* supporting the horizontal disk *e*, by means of a pin from the latter entering a hole in the branch, of size sufficient to admit of the free rotation of the disk, and the branch *c* supporting the horizontal disk *f* which is attached to the lower extremity of the stud *h*, that passes through a vertical orifice in the branch *c*, and is swiveled at its upper end in a socket, *i*, that is jointed to a lever, *k*, the front extremity of which is pivoted in an arm, *l*, that projects upward from the branch *c*, while the rear part of the lever *k* is sustained adjustably in a rack, *m*, formed in a second arm, *n*, that likewise projects upward from the branch *c* in rear of the arm *l*.

The disk *f* is placed immediately above the disk *e*, and between the two disks the circular blank is inserted while the frame F is swung aside, the blank being clamped between the disks by pressing down the lever *k*.

The frame bearing the blank is then swung in until the part of the blank that is to be beveled is introduced between the rolls.

The rotation of the latter produces the rotation of the blank whose edge is beveled between the rolls as it revolves.

The disks *e f* rotate freely with the blank, and the latter centers itself with the utmost accuracy between the disks.

By means of the screw I the sliding rest is adjusted lengthwise to suit blanks of different sizes.

In my former invention this screw was the only means for introducing the blank between the rolls, and hence the blank could only be inserted gradually.

The swinging frame admits of introducing the whole of the desired width of blank between the rolls at once.

Having thus described my invention,

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

The rolls C C, in combination with the swinging frame F, rotatory disks *e f*, and the lever *k*, or its equivalent, substantially as described.

WM. H. SINGER.

Witnesses:

SOLOM C. KEMON,

THOS. D. D. OURAND.