A. W. VANDORSTON.

Sheet-Metal Flanging-Machine.

No. 201,305. Patented March 12, 1878.

Fig. 1.

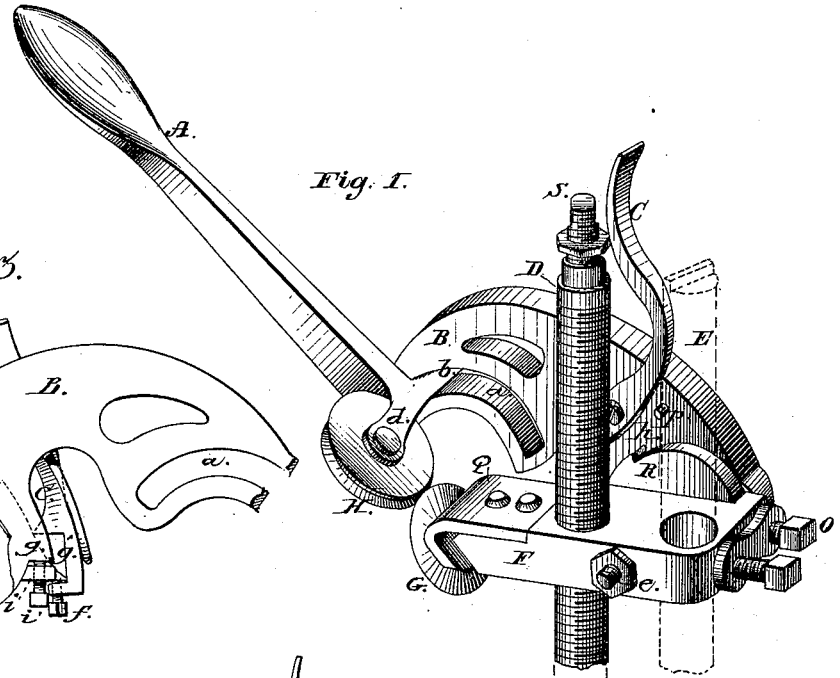


Fig. 3.

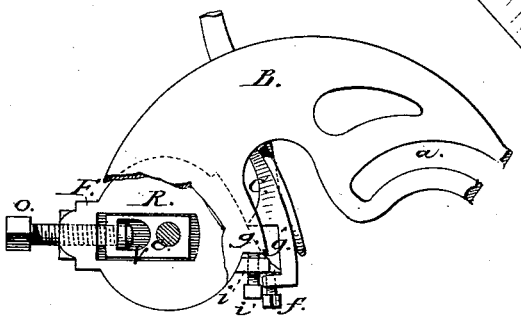
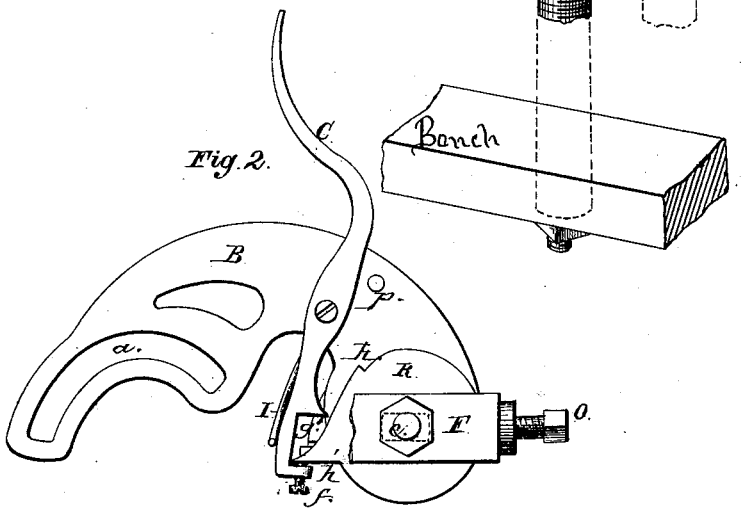


Fig. 2.



Attest.

J. E. Young.

J. F. Parrott.

Inventor.

Alvin W. Vandorston.

UNITED STATES PATENT OFFICE.

ALVIN W. VANDORSTON, OF SALEM, OREGON, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN W. CRAWFORD, OF SAME PLACE.

IMPROVEMENT IN SHEET-METAL-FLANGING MACHINES.

Specification forming part of Letters Patent No. **201,305**, dated March 12, 1878; application filed May 24, 1877.

To all whom it may concern:

Be it known that I, ALVIN W. VANDORSTON, of Salem, in the county of Marion and State of Oregon, have invented a new and useful Improvement in Burrs, which improvement is fully set forth in the following specification and accompanying drawings.

My invention is an improved device for edging or burring blanks for sheet-metal ware, said device to be used in connection with a circular shear to turn the edges of said blanks as they are fed automatically from the circular shear.

In the accompanying drawings, Figure 1 is a perspective view, showing my device as it would appear in the act of edging the plate as received from the shear. Fig. 2 is a side elevation of the same without the bevel and grooved wheels, and with a portion of the bed-plate broken away. Fig. 3 is a side view of the machine opposite to the view taken in Fig. 1, showing particularly the device for adjusting the arm B.

Similar letters of reference denote like parts in the drawings.

Referring to drawings, F is the bed-plate, mounted upon a hollow screw-threaded post, D, by which it may be raised or lowered, which has attached to it a beveled wheel, G, mounted on a bearing extending from said bed-plate. The bevel-wheel G is pivoted to its extended bearing Q by a screw-bolt, which forms its axis of motion. Extending from the bed-plate F is a notched projection or flange, R. This flange forms a part of said bed-plate, and extends above and below and at right angles to it. Said flange has notches or offsets *h h'* on its edges, above and below the bed-plate, to engage at proper times the curved lever C. B is a curved slotted arm, which is pivoted to bed-plate F in an adjustable bearing, and has pivoted to it a curved lever, C, which is acted upon by a spring, I, secured to said curved arm B.

A is a hand-lever, which has extending from it, at right angles, a lug, *b*, which traverses the curved slot *a* of the curved arm B. The hand-lever A is also provided with a bifurcated projection, *d*, forming jaws, into which is pivoted the grooved wheel H.

The wheels G and H move coincidently as the sheet metal being edged passes between them in its movement from the shear. The curved lever C, pivoted to the curved arm B, is provided with a notch at the lower end of its short arm, and entering into this notch is an adjustable set-screw, which bears against the lower notch of the flange R when the wheels are in position. By the adjustment of this screw a proper relation is preserved between the lower offset of the flange R and the curved lever C when the curved arm B is moved in its lateral adjustment. The short arm of curved lever C is kept bearing against flange R by the action of the spring I against it.

The lateral adjustment of the arm B is made to regulate the space between the wheels H and G to suit the thickness of the metal to be edged. This adjustment is effected by the bolt *o*, which moves the sliding bearing V in or out, and carries with it the arm B, which is fixed on the axle *e*. A nut on the bolt clamps the arm B, when properly adjusted, to the bed-plate F.

A stud, *p*, projects from the inner face of the curved arm B, which serves to limit the back movement of the curved lever C when thrown out of position by the hand-lever A. The arm B has an offset, which forms a contact-bearing for a corresponding projection, *i*, provided with a set-screw, *i'*, which extends at right angles from the lower offset of the flange R. This device is to prevent the curved arm B, with its attachments, from swinging below the point which gives the proper relation between the bevel and grooved rollers when they are in position for work. The adjustment by the screw *i* is to compensate for the lateral adjustment of arm B. A stationary bolt, *s*, which is intended to secure my device to a bench, is incased by the post D.

Having thus described my invention, its operation is as follows: As the disk of metal comes from the shear to which my device is attached, the edge to be turned comes against the bevel-wheel G, (the grooved wheel being lifted,) the grooved wheel is brought down and depressed to the proper angle, and, as the sheet moves, rotating about its axis, the edge is formed. When completed, the hand-lever A

is thrown back, and as its arm comes in contact with the curved lever C the lower arm of said lever is tripped from the lower offset in flange R, when the curved arm, being released, moves about its axis until the point in the curved lever in the upper part of the slot g' passes over the upper notch h of the flange R, where it is held out of the way until it is needed again. A slight pressure of the hand against the curved arm of lever C releases it from its hold, and allows the hand-lever A to carry the curved arm B down to the proper position to perform new work.

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

1. The bed-plate F, in combination with the arm B, when said arm is provided with the lever C, as and for the purpose set forth.

2. In combination with the bed-plate F and arm B, the hand-lever A and lever C, as and for the purpose set forth.

3. The edging-machine, as described, composed of bed-plate F, arm B, lever C, hand-lever A, and wheels G and H, to turn the edges of sheet-metal blanks as they are fed from a circular cutter, for the purpose set forth.

ALVIN W. VANDORSTON.

Witnesses:
J. E. YOUNG,
J. F. PARROTT.