

No. 151,857.

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Witnesses.
E. A. Bates.
Phil C. Masi.

Inventor.
P. J. Lambach
Chipman & Sonner & Co
Attys.

UNITED STATES PATENT OFFICE.

PHILIP J. DAMBACH, OF SHAWNEE, OHIO.

IMPROVEMENT IN TINNERS' MACHINES.

Specification forming part of Letters Patent No. **151,857**, dated June 9, 1874; application filed September 20, 1873.

To all whom it may concern:

Be it known that I, PHILIP J. DAMBACH, of Shawnee, in the county of Perry and State of Ohio, have invented a new and valuable Improvement in Seaming-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my seaming-machine, partly sectioned. Fig. 2 is a view of the standard for circular shears.

This invention relates to an improved machine which is designed for tinner's use in shearing and double-seaming circular work, as will be hereinafter described and claimed.

In the accompanying drawing, A represents the base of the supporting-frame A', which is adapted for being secured upon a table or bench, and which has a cruciform groove, *a*, formed horizontally into it, for receiving and holding in place an adjustable standard, G. Rising from one end of the base A is a fixed standard-bracket, B, which affords bearings for the horizontal shafts C E. The shaft C is supported in vertically-adjustable bearings *c c'*, which are applied in grooves formed in the overhanging portion of the standard-bracket B. On one end of this shaft C is keyed a large spur-wheel, C¹, to which a crank-handle, C², is applied, and on the adjustable end of this shaft a circular disk, D, is keyed, having a rabbet, *d*, in its periphery, as shown in Fig. 1. The bearings *c c'* rest on springs *s s*, and are held down by means of cranked adjusting-screws *c*². The shaft E carries on one end a spur-wheel, E¹, and on the opposite side a circular cutter, F. The ends of the shaft E are supported, respectively, by the vertical portion of the standard-bracket B and a hanger, B', depending therefrom. On this shaft E is also keyed a spur-wheel, *e*, which engages with a shaft, E², that is supported by standards *g g*, rising from the base A. On this shaft E² is keyed a circular cutter, F', which is held in cutting position with the circular cutter F by means of a spring, N, one end of which bears against a standard, *g*, and the

other end against a flange, *h*, on the shaft E², as shown in Fig. 1. The rabbeted disk D operates in conjunction with a horizontal disk, D', for turning the edges of the tin and forming the double seams. The disk D' is keyed on the upper end of a shaft, G', which is stepped in a standard, G, rising vertically from the base A, and applied thereto by an inverted T-shaped tenon fitting into the groove *a*. By means of a set-screw, *h*, tapped into the base A, the standard G can be rigidly fixed in any position desired, so as to bring the disks into proper relation one with the other for double-seaming the edges of the metal.

Fig. 2 represents a device for holding the metal sheets while they are being cut circular by the cutters or shears F F'. This device consists of a C-shaped frame, H, having a T-shaped tenon, *a'*, formed on its bottom edge, which is adapted to fit into the groove *a* in base A. This frame H affords bearings for the shafts I *u'* of two circular clamps, *u u*. The shaft of the lower clamp *u* is stepped into the lower base portion of the frame H, and the shaft I of the upper clamp is held by the upper overhanging portion of frame H. A spring, S, is coiled around the shaft I, and a crank-screw, *t*, is applied so as to act on the upper end of this shaft I. The spring S lifts the clamp *u* free from the lower clamp, and the screw *t* is used to force the upper clamp down upon a sheet of metal placed between the two clamps to be trimmed circular. Into one side of the frame H a pointer, *r*, is fixed, and on the corresponding vertical side of the frame A an index-scale, *y*, is marked off, which, with the pointer *r*, indicates the given diameter of the plates required to be sheared, and allows the clamps and their frame to be quickly adjusted accordingly.

The operation is as follows: The standard G is removed from the frame A, and the frame H adjusted in this frame according to the diameter of the sheets required. The frame H is then fixed by the set-screw *h*, and the sheets cut circular by giving rotation to the shears F F', as described. To double-seam the circular sheets thus prepared with their cylinders, the frame H is removed, and the standard G applied in its place and fixed in proper position for the double-seamers D D' to per-

form their work by lapping the edges of the metal.

It will be seen from the above that in a single supporting-frame, A, I combine shearing-cutters for trimming the sheets of metal circular, and of any given diameter, and that I also combine therewith circular seamers, the rabbeted one of which is applied on a shaft which is vertically adjustable, and the plain-edged one of which is supported in a standard which can be readily removed from the said frame A when it is desired to apply therein the frame which carries the sheet-clamps.

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

The supporting-frame A, having the groove *a*, bracket B, horizontal shafts C E E², with the gearings C¹ E¹ *e*, rabbeted disk D, and rotary shears F F', as specified, adapted to receive the interchangeable frames G and H, for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

PHILIP J. DAMBACH.

Witnesses:

E. P. ABBOT,

W. R. WILLIAMS.