T. M. POWERS.

Sheet Metal Pan Machine.

No. 201,827. Patented March 26, 1878.

FIG. 1.

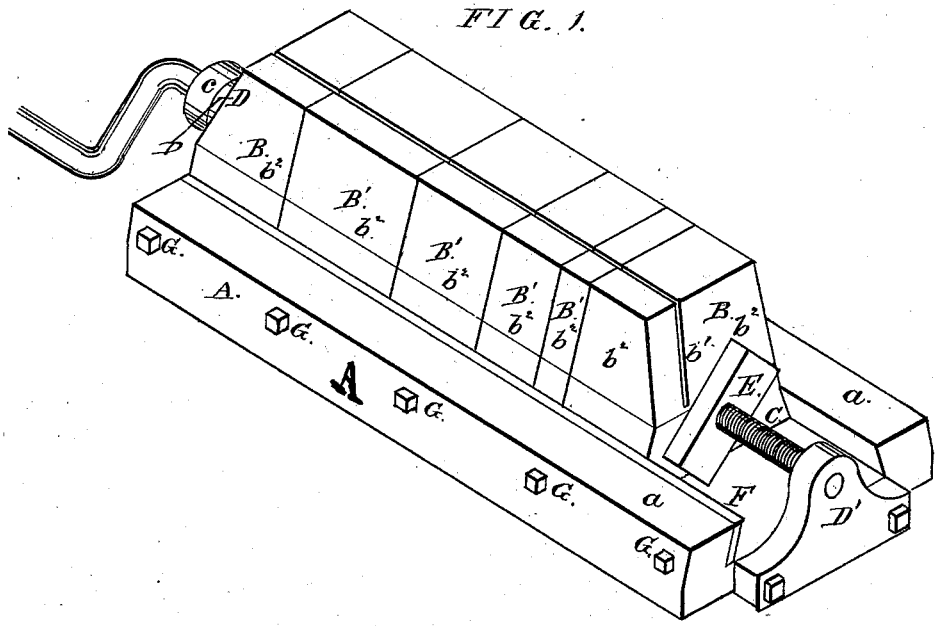
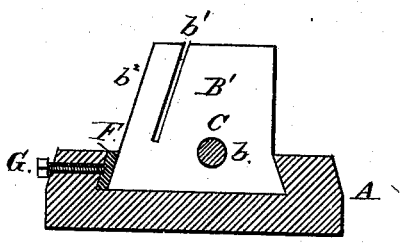


FIG. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS M. POWERS, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN SHEET-METAL-PAN MACHINES.

Specification forming part of Letters Patent No. **201,827**, dated March 26, 1878; application filed December 10, 1877.

To all whom it may concern:

Be it known that I, THOMAS M. POWERS, of the city of St. Louis and State of Missouri, have invented a certain new and useful Improvement in Machines for Forming Sheet-Metal Pans, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My improvement consists, first, in a metallic block or blocks containing a slot to receive the edge of the blank from which the pan is to be formed, the slot having the required inclination relatively to the top of the block to give the proper bevel to the sides of the pan.

My invention consists, also, in forming the block in sections, which are removable, in order to adjust the length of the block for the making of any size or shape of pan.

In the drawing, Figure 1 is a perspective view of my machine. Fig. 2 is a transverse section.

A is the bed-plate, having dovetail flanges or guides *a a*, embracing the dovetailed bottom portions of blocks B B′, so as to hold the blocks down to the bed-plate, but allow them to be moved longitudinally when required. Each block has a longitudinal hole, *b*, through which passes the stay-screw C. This screw turns in bearing-standards D D′ at the ends of the bed-plate, and has at the crank end a collar, *c*, bearing against the outside of the standard D. E is a nut in which the screw C turns, and which, by the turning of the screw, is made to bear against the outer block B at one end of the row of blocks, and thus the blocks are held firmly together between the nut E and the standard D. The nut E is made long, so as to bear against the bed-plate to prevent its turning with the screw C.

The blocks B and B′ have each a slot, b^1, extending down obliquely from the upper side. These slots are to receive the edge of the blank from which the pan is made, the parts of the blank entering the slots b^1 forming the sides of the finished pan. The slots have the same inclination to the top of the blocks as the sides of the pan have to the bottom of the same, so that when the edge of the blank has been inserted in the slot, and the rest of the blank malleted flat down upon the top of the blocks, the proper inclination is given to the edge.

Each of the end blocks B has two sides, b^2, beveled to the same inclination as the slot b^1, so that the corners of the pan may be made upon the corners between these beveled sides. Each of the inner blocks B′ has one side, b^2, beveled, as shown, so as to fit the interior of the pan.

F is a strip, which has direct bearing against the dovetailed lower parts of the blocks B B′, and this strip is forced against the blocks by screws G, so as to hold the blocks firmly in the bed-plate A.

The standard D′ is made removable to allow any number of the blocks B B′ to be slipped out or in at that end.

It will be seen that the blocks have equal transverse section, and that the slots b^1 are in line in all the blocks, so that any number of them may be used in line. The blocks B′ vary in length—say from one inch up to four inches—so that by the removal of one or more of the interior blocks the row may be made of any desired length, according to the length of the sides or ends of the pan which is being made.

The number of blocks, corresponding in length to the length of the pan to be made, having been placed in position, an ordinary oblong or other shaped blank is taken and the corners cut off. One side of this blank is then inserted in the slot in the upper part of the block to the depth it is required that the sides of the pan shall be. The remaining portion of the blank is then bent over the top of the block and hammered down flat. The blank is then withdrawn from the groove or slot, the other side of the blank is inserted in the slot to the requisite depth, and the middle portion hammered down onto the top of the block, thus forming the second side of the pan. The blank is then withdrawn, the blocks are separated, and a sufficient number removed to permit each end of the blank in turn being placed in the shortened slot and hammered down. The blocks being removable, the size of the machine can easily be regulated to suit any sized pan at either its side or end. The forming of the ends produces a protuberance or bulge at each corner. This is turned over

and flattened down (while on the block) on either the side or end of the pan, as may be found most desirable. The pan is then wired in the usual way, suitable handles are attached, and the pan is complete.

To remove any of the block-sections B′, the screwed shaft C is reversed, thus releasing the nut E from pressure on the end block-section. The end standard D′ is then removed, and the blocks, or any number thereof, slid out at the end.

I claim as my invention—

1. The block B, having the oblique side or sides b^2 and oblique slot b^1, for the purpose set forth.

2. The combination of two or more blocks, B B′, having slots b^1, and clamping-screw C, for the purpose set forth.

3. The combination of bed-plate A, two or more blocks, B B′, having slots b^1, and the clamping-screw C, for the purpose set forth.

THOMAS M. POWERS.

In presence of—

SAML. KNIGHT,

GEO. H. KNIGHT.