T. W. McKEEVER.

SHEET-METAL SEAMING-MACHINE.

No. 192,381. Patented June 26, 1877.

Fig. 1.

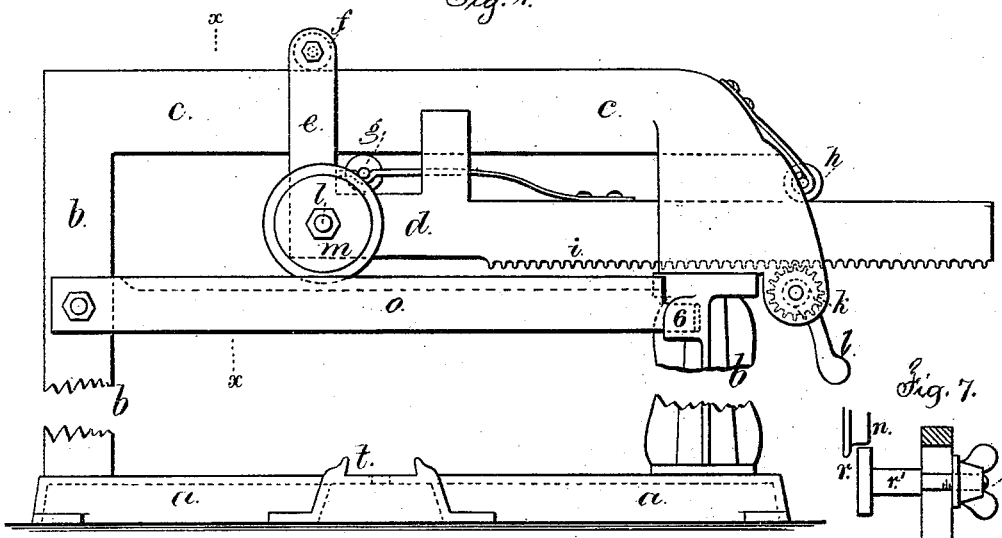

Fig. 7.

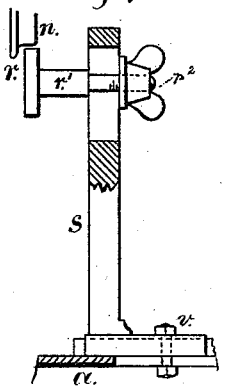

Fig. 5.

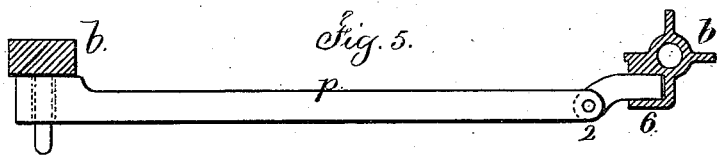

Fig. 2.

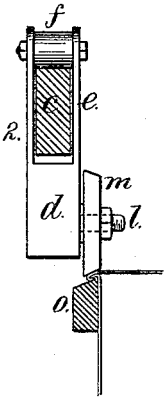

Fig. 3.

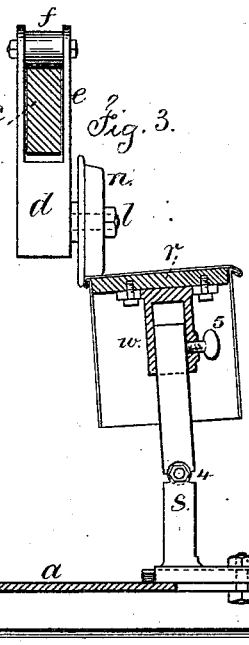

Fig. 6.

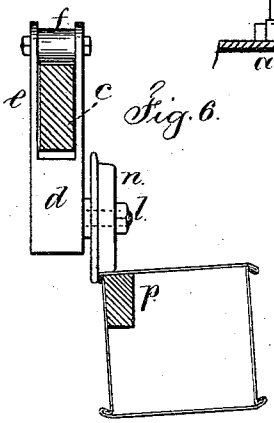

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

TIMOTHY W. McKEEVER, OF NEW YORK, N. Y., ASSIGNOR TO BENHAMS & STOUTENBOROUGH, OF SAME PLACE.

IMPROVEMENT IN SHEET-METAL-SEAMING MACHINES.

Specification forming part of Letters Patent No. **192,381**, dated June 26, 1877; application filed March 22, 1877.

To all whom it may concern:

Be it known that I, TIMOTHY W. McKEEVER, of the city and State of New York, have invented an Improvement in Tinman's Seaming-Machines, of which the following is a specification:

This machine is for double-seaming articles of tinware that are made with straight sides, such as boxes, cans, pans, &c.

The article to be seamed is held stationary while the seaming or closing roller passes back and forth over the folded edges of the sheet metal in closing down the seam. In forming the first part of the double seam the folded edges of the sheet metal are supported upon a beveled bar, and are passed over by a roller with a beveled edge. The beveled bar and roller are now removed from the machine, and the beveled roller is replaced by a flanged roller. The article is placed upon an adjustable form-block if the seam to be pressed is at the bottom of the article, and the flanged roller is passed back and forth over the folded edge and closes it down against the side or bottom of the article and completes the double seam. In forming the seams at the corners of the article, the article is sustained upon a bar that is hinged at one end, in order that the other end may be moved outwardly a sufficient distance to slip the article on and off the bar. The seaming-roller is upon a stock suspended by slings from a head-block, and provided with a rack to be moved by a pinion and crank.

In the drawing, Figure 1 is an elevation of the machine with the beveled roller in place forming part of the double seam. Fig. 2 is a cross-section of the same at the line *x x*. Fig. 3 is a similar section with the flanged roller in place for completing the double seam. Fig. 4 is a section representing the usual fold that is made at the edges of the sheet metal previous to commencing the double-seaming.

a represents the base of the machine, and *b b* are columns upon the same supporting the head-block *c*. Beneath this head-block there is a stock, *d*, supported by slings *e*, and a roller at *f* is provided, running upon the top of the head, to allow the stock to be moved back and forth with freedom. Rollers *g* and *h* are also provided; they are upon springs, in order that the stock may rise slightly and accommodate the seaming-tool to the thickness of metal acted upon and prevent the parts binding or breaking. Upon the bottom of the stock there is a rack, *i*, and a pinion, *k*, and a crank employed for moving the stock back and forth. The stud on the stock *d* is adapted to receive either the roller *m* or *n*.

In making the first part of the double seam the conical roller *m*, Figs. 1 and 2, is employed in connection with the beveled bar *o*, that is supported at one end in a socket, 6, in one column, *b*, and retained in place at the other end by a bolt and nut to the other column. This bar is vertical at one side and the top inclined. The edges of the sheet metal are folded by the usual folding-machine, and the pieces slipped together, as shown in Fig. 4, and the folded edge is placed upon the bar *o*. The roller *m* is then passed back and forth over the folded edge by the attendant turning the crank, and the fold is very firmly compressed; at the same time the fold is bent at an angle corresponding to the bevel of the top of the bar *o*, and this bend lessens the labor in the next operation of bending the fold against the side or bottom the article.

In making a box or can, the seams of the body are first operated on, as aforesaid, and after a sufficient number have been thus prepared, the roller *m* and bar *o* are removed and the hinged bar *p* (shown in the sectional plan, Fig. 5, and cross-section, Fig. 6) is inserted in place of the bar *o*, and the flanged wheel *n* takes the place of the roller *m*. This bar *p* is secured in place the same as the bar *o*, except that a latch may take the place of the screw-bolt, and it is hinged at 2, in order that one end of the bar may be swung aside and the article slipped on and off. When the article has been positioned the flanged roller is passed back and forth over the folded seam or angle, and the same is pressed down against the side of the box, as illustrated in Fig. 6, to complete the double-seaming of the body of the box or can.

For double-seaming the bottom of a pan, box, or similar article, a form-block is necessary to support the article. This form-block *r* is upon a vertical standard, *s*, that is pro-

vided with a base that can be adjusted in the ways *t*, and clamped by the nut *v* when properly positioned. The standard *s* is pivoted at 4, so that the upper part of the standard may be swung back and forth and the edge of the form-block be adjusted with reference to the seaming-roller *n*. The form-block is made with slides upon its under surface to receive the upper part of the socket *w*, and said block can be moved back and forth to adjust it to position. The socket *w* is square and sets upon the top of the standard *s*, and it can be moved up and down to bring it to its proper place, and it is clamped by the screw 5.

The form-block *r* is rectangular, and preferably of the same shape as the interior of the box or can to be seamed, and if the box is rectangular the seam is first closed down upon two sides of a number of the articles, and then the socket *w* is removed from the standard and replaced with the form-block at right angles to its former position. The standard *s* is also adjusted in the ways *t* to accommodate the changed position of the form-block. The seams can now be closed down upon the other sides by running the closing-roller *n* over the folded edge of the sheet metal, which presses it against the side of the article, as illustrated in Fig. 3.

In case it is necessary to press the folded edge against the bottom of the article, the face of the form-block *r* must be in a plane parallel with the face of the wheel *n*, as shown in Fig. 7. In this instance the form-block is made with an arm, r^1, that enters a vertical slot in the standard *s*, and is clamped by a set-screw, r^2, after being adjusted.

I claim as my invention—

1. The conical closing-roller *m* upon a stock fitted to be moved back and forth, in combination with the beveled bar *o*, that is vertical, or nearly so, at one edge and the top at an inclination, upon which the folded edge of the sheet to be closed is supported, substantially as and for the purposes specified.

2. The rectangular form-block *r* upon the adjustable standard *s*, in combination with the flanged closing-roller *n* upon a stock fitted to be moved back and forth, substantially as and for the purposes specified.

Signed by me this 14th day of March, A. D. 1877.

T. W. McKEEVER.

Witnesses:
GEO. T. PINCKNEY,
GEO. D. WALKER.