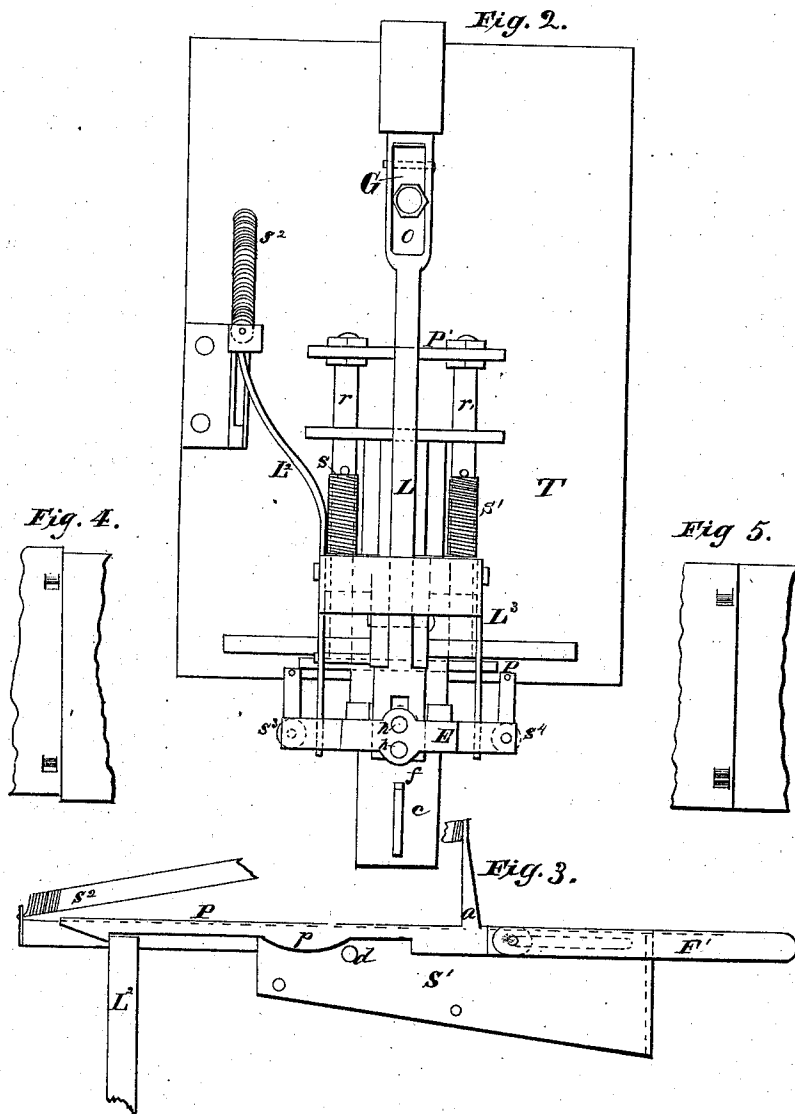


2 Sheets-Sheet 1.

*Pollock & Diedrick,*  
*Making Metal Cans.*  
*N<sup>o</sup> 83,660. Patented Nov. 3, 1868.*



*Witnesses:*  
*James H. Catford,*  
*Henry Pollock,*

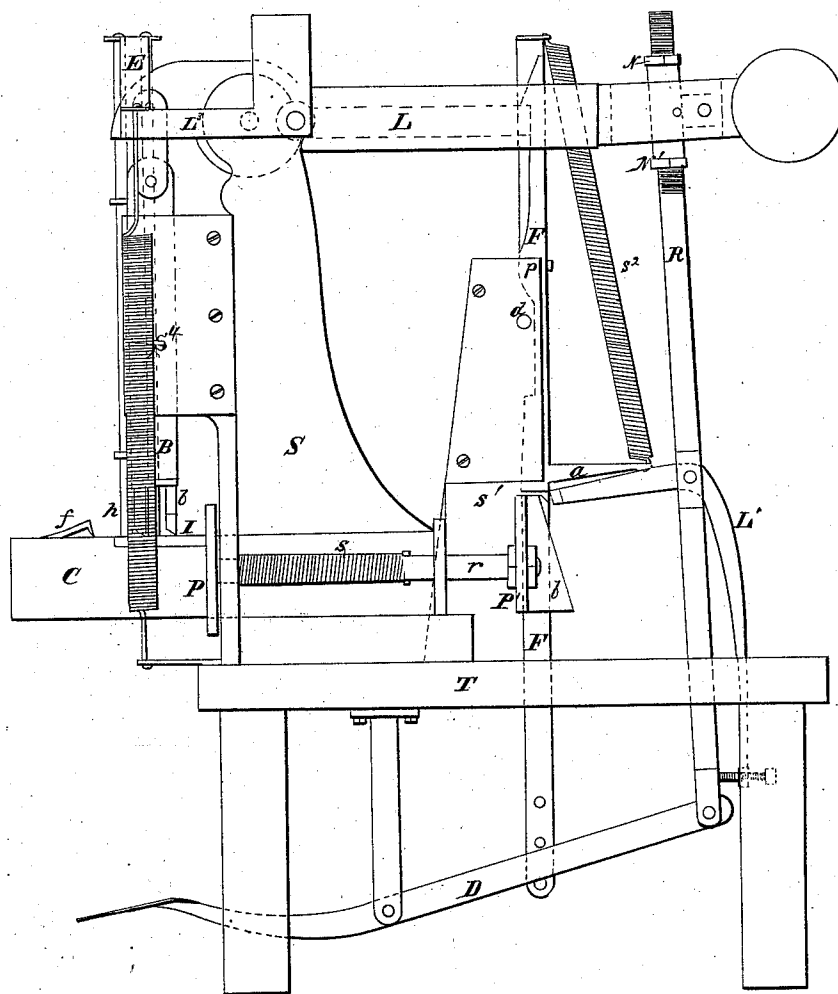
*Inventor:*  
*John Pollock*  
*Therese J. Diedrick*

2 Sheets-Sheet 2.

*Pollock & Diedrick,*  
*Making Metal Cans.*

*N<sup>o</sup> 83,660*

*Patented Nov. 3, 1868.*  
*Fig. 1.*



*Witnesses:*  
*Leage R. Oakford,*  
*Henry Tooley*

*Inventor:*  
*John Pollock*  
*Shedue J. Diedrick*

# United States Patent Office.

JOHN POLLOCK AND THEODORE J. DIEDRICK, OF PHILADELPHIA,  
PENNSYLVANIA.

Letters Patent No. 83,660, dated November 3, 1868.

## IMPROVEMENT IN THE MANUFACTURE OF METAL CANS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that we, JOHN POLLOCK and THEODORE J. DIEDRICK, both of the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Manufacturing Metal Cans; and we 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 accompanying drawings, making a part of this specification, in which—

Figure 1, plate 1, is a side elevation of our machine.

Figure 2, plate 2, is a plan view of same.

Figure 3, plate 2, is a detached view of rod and lever.

Figure 4, plate 2, is a view showing how the tongues are cut on the side seam of the cans.

Figure 5, plate 2, is a view showing the tongues interlocked preparatory to being pressed together.

The object of our invention consists in joining together the edges of the metal, which forms the sides of cans, by means of tongues interlocking and fastening into each other, this process being accomplished by the machine hereinafter described.

To enable others skilled in the art to make and use our invention, we will now proceed to describe its construction and operation.

T, figs. 1 and 2, represents the table, on one end and in the centre of which is placed an upright or standard, S. The upper end of said standard is made with an open jaw in which is placed and centred a lever, L.

Secured to and projecting out from the standard S is a cylinder, C, on which is placed, and encircles it, a plate, P.

At the rear of the standard S is a plate, P', which is connected to plate P by means of rods *r* and *r'*, on which are placed spiral springs *s* and *s'*.

On the back, and in the centre of plate P', is cast a lug, *l*, which forms an inclined plane.

On the end or short arm of lever L is connected a sliding block, B, which works in guides, secured to the front part of the standard S.

On the opposite end, or on the end of the lever L, which forms the long arm, is affixed an excess of metal in order to drop or lower that end of the lever.

The end of the long arm of the lever L is provided with a slot, O, in which is centred a vibrating guide, G.

Passing through the said guide is a rod, R, with the part above and below the slot O provided with a thread, on which are placed set-screws or jam-nuts N and N'.

The lower end of the rod R is made with an open jaw in which works a treadle, D.

On the rod R, and directly opposite to the lug *l*, on the plate P', is placed a right-angle lever, L', the long arm of which is provided with a set-screw which touches on the lower part of the rod R, and the short arm slides on the lug *l*.

On the lower part of the block B are placed two or

more bits or punches *b*, with their cutting-edges made bevelled.

On the left-hand side of the table T is fastened a standard, S', made with a slot or guide, in which is placed and works a flat bar, F.

Connected with the lower end of the bar F, by means of a loose joint, is a bar, F'.

On the bar F, and immediately above the ends which connect with F', is an arm, *a*.

The upper end of the bar F is made with an offset, which rests on a lever, L<sup>2</sup>, said lever having its fulcrum placed on the upper part of the standard S.

Lever L<sup>2</sup> is connected to a lever, L<sup>3</sup>, placed on the right-hand side of the standard S by means of a curved bar passing over the lever L. In order to throw the bar F off of the lever L<sup>2</sup>, when it is down to its full throw, the part *p*, of the bar F, which works in the guide, is made larger and rounded off so as to slide over the pin *d*.

Running from the end of the arm *a* to the upper end of the standard S', and connected thereto, is a spiral spring, *s*<sup>2</sup>.

Resting on the levers L<sup>2</sup> and L<sup>3</sup>, and passing over the short arm of the lever L, is a saddle, E, connected to the centre of which are hammers *h*, which pass down on the inner and outer sides of the block B, on to the cylinder C. The ends of the saddle E, which rest on the levers L<sup>2</sup> and L<sup>3</sup>, have attached to them spiral springs *s*<sup>3</sup> and *s*<sup>4</sup>, the lower ends of which are attached to the top of the table T.

On top of cylinder C, and at the part where the points of the punches and hammers fall, is secured a steel die, I, provided with sockets corresponding to the punches.

On the end of the cylinder C is placed a flexible tongue, *f*.

In securing the edges of the metal that is to form the sides of the can, the ends are overlapped, and one side pressed slightly in advance of the other, as shown in fig. 4. The overlapped part of the metal is then placed on top of the cylinder C, and immediately under the punches *b*. The punches are now forced down through the metal, by means of the treadle D, which operates the lever L, the cutting-edges of the punches being bevelled, cut the metal only on three sides, and the parts so loosened or separated by the cutting on the three sides are driven through and form a tongue. During this process the ends are still one in advance of the other. The foot is now removed from the treadle, and the lever L drops, carrying with it the rod R, on which is placed the lever L'. The short arm of said lever presses on the lug *l*, and presses forward the plate P', and also the plate P, by means of the rods *r* and *r'*. The plate P now presses against the edges of the metal and forces the edges up square, as shown in fig. 5, and at the same time interlocks the tongues.

The cans during this operation are retained in position on the cylinder by means of the tongue *f*. The plates *P* and *P'* are now forced back into their original position by means of the springs *s* and *s'*. The tongues are now secured together and slightly spread by the hammers *h*, which are operated by a treadle connected to the bar *F'*. The spring *s*<sup>2</sup>, attached to the arm *a*, draws the bar *F* back into the guide after the pressure on the treadle is taken off. The force of the blows given by the hammers *h* is regulated by means of springs *s*<sup>3</sup> and *s*<sup>4</sup>, and set-screws placed on the saddle *E*.

Having thus described our invention, its construction and operation,

What we claim, and desire to secure by Letters Patent, is—

1. Table *T*, levers *L*, *L*<sup>1</sup>, *L*<sup>2</sup>, and *L*<sup>3</sup>, plates *P* and *P*<sup>2</sup>, lug *l*, standards *S* and *S'*, rods *r* and *r*<sup>1</sup>, springs *s*, *s*<sup>1</sup>, *s*<sup>2</sup>,

*s*<sup>3</sup>, and *s*<sup>4</sup>, block *B*, and its bevelled punches *b*, saddle *E*, and its hammers *h*, cylinder *C*, flexible tongue *f*, flat bar *F* and *F'*, arm *a*, rod *R*, vibrating guide *G*, and treadle *D*, all arranged, constructed, and operating in the manner and for the purpose set forth..

2. The combination of the sliding plates *P* and *P'*, rods *r* and *r'*, and springs *s* and *s'* with the cylinder *C* and flexible tongue *f*, for the purpose of interlocking the tongues, and bringing the edges of the can together, as herein set forth.

In testimony whereof, we have hereunto signed our names, in the presence of two subscribing witnesses.

JOHN POLLOCK.

THEODORE J. DIEDRICK.

Witnesses:

CHARLES H. EVANS,  
ISAAC R. OAKFORD.