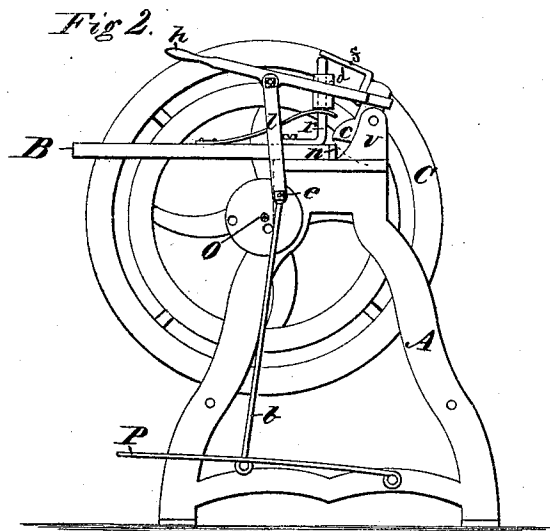
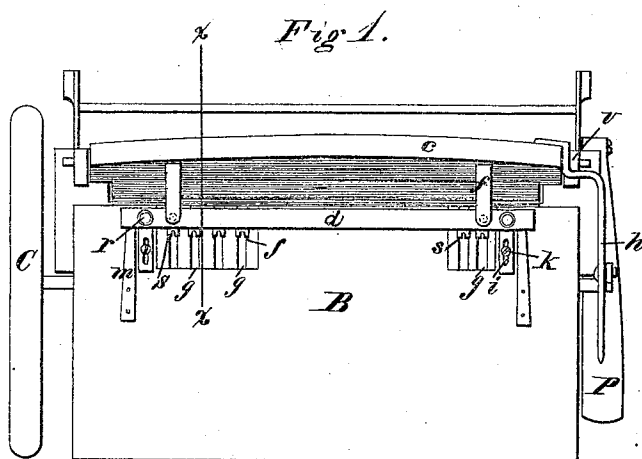


E. PERKINS & R. A. SMITH.

Improvement in Cutting and Punching Shingle-Bands.

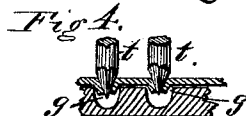
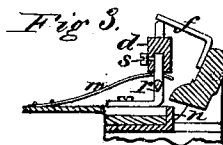
No. 131,024.

Patented Sep. 3, 1872.



Witnesses.

*Harry King*  
*W. H. Dodge.*



Inventors.

*E. Perkins &*  
*R. A. Smith.*  
*by Dodge & Munn*  
*Attys.*

# UNITED STATES PATENT OFFICE.

ELIAB PERKINS AND ROLLIN A. SMITH, OF FOND DU LAC, WISCONSIN.

## IMPROVEMENT IN CUTTING AND PUNCHING SHINGLE-BANDS.

Specification forming part of Letters Patent No. 131,024, dated September 3, 1872.

### SPECIFICATION.

*To all whom it may concern:*

Be it known that we, ELIAB PERKINS and ROLLIN A. SMITH, of Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented certain Improvements in Machine for Cutting and Punching Shingle-Bands, of which the following is a specification, reference being had to the accompanying drawing.

Our invention consists in certain improvements in machines for cutting and punching shingle-bands.

Figure 1 is a top-plan view of my machine. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical cross-section on the line *xx* of Fig. 1, showing the cutting and punching mechanism. Fig. 4 is a section view, representing the punches passing through the metal.

In constructing our machine we use a suitable frame, A, on which is mounted a table or platform, B, provided at its rear side with a stationary shear-blade, *n*, and two lugs, *v*, one at each end, on which is mounted or pivoted a movable shear-blade, *c*, as shown in Figs. 1 and 2. This movable blade has secured to it a hand-lever, *h*, running along by the side of the table, which lever is connected by a pitman, *l*, to a crank, *e*, on a shaft, O, mounted in suitable bearings underneath the table B, and provided at its opposite end with a balance-wheel, C. There is also a foot-lever, P, pivoted to the frame A, and connected with the crank *e* by means of a pitman, *b*, so that the machine may be operated either by the hand-lever, the foot-lever, or both, as desired. Directly in front of the movable shear-blade *c* is a bar, *d*, mounted loosely on the adjustable uprights *r*, and operated by two or more arms, *f*, which are connected rigidly to the movable shear-blade *c*, and also by the flat springs *m*, the arms forcing it down, and the springs raising it again as soon as the downward pressure is removed. This bar is provided at each end with a series of vertical holes to hold one or more punches, *t*, which are held in place by means of set-screws *s*. Directly below the punches and in the top of the table is a series

of elongated slots, into which the punches work. The punches, in passing through the metal, make a hole or perforation with flanged edges, as seen in Fig. 4, at *g*. This makes a good holding place for the nails, and, when driven into the wood, holds the band securely.

The operation is as follows: A sheet of metal is laid on the table and one side is pushed under the punches. When this is punched the sheet of metal is pushed a little further along and the strip that was first punched is cut off, the punches at the same time punching the next strip, and so on continuously. By this arrangement the strips are cut out of the sheet and punched at one operation, instead of cutting the strips and then punching them, as before.

The uprights *r*, on which the bar *d* which holds the punches is mounted, are held in place by means of a screw, *k*, passing through a slot, *i*, thereby making them adjustable to cut bands of different widths.

It is obvious that any sort of springs other than those mentioned may be used, and, therefore, we do not limit ourselves to any special form.

Having thus described our invention, what we claim is—

1. As an improvement in machines for punching and shearing shingle-bands, we claim, jointly, the two series of slots in the table, the two series of holes in the bar *d*, the latter being provided with set-screws for holding the punches, as shown and described.

2. The rocking shear-blade *c* provided with the arms *f*, in combination with the reciprocating bar *d* provided with punches *t*, the springs *m* or their equivalents, and the shear-blade *n*, all constructed and arranged to operate substantially as described.

3. The combination of the foot-lever P, pitman *b*, shaft O, pitman *l*, hand-lever *h*, and rocking blade *c* with the stationary blade *n*, and the reciprocating bar *d* provided with punches *t*, all arranged as described.

ELIAB PERKINS.

ROLLIN A. SMITH.

Witnesses:

I. R. SMITH,

WM. McDERMOTT.