Le Count & Boynton,

Making San-Spiles.

No. 39,155. Patented July 7, 1863.

Fig. 1

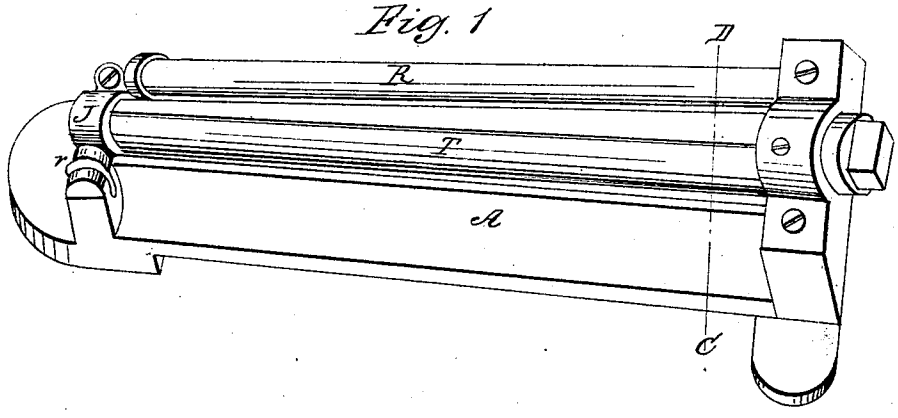


Fig. 2

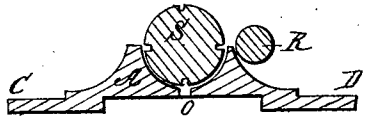
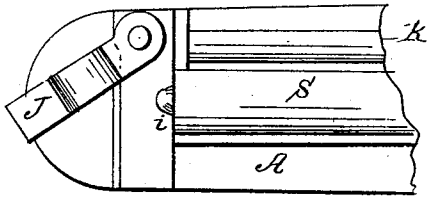


Fig. 3



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J. M. LE COUNT, OF HARTFORD, WISCONSIN, AND G. R. BOYNTON, OF CHICAGO, ILLINOIS.

IMPROVED SAP-SPILE.

Specification forming part of Letters Patent No. **39,155**, dated July 7, 1863.

To all whom it may concern:

Be it known that we, J. M. LE COUNT, of Hartford, county of Washington, State of Wisconsin, and G. R. BOYNTON, of the city of Chicago, county of Cook, State of Illinois, have invented a new and useful Machine for Forming Sap-Spiles from Sheet Metal; and we do hereby declare that the following is a full 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 is a perspective view; Fig. 2, a cross-section through the line C D; and Fig. 3, a plan of the narrow end of said machine, showing the movement of the hinged journal-box.

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

A, Fig. 1, is a block of metal constructed in any suitable manner, so that it may be secured to a bench for convenience and facility of operation. Said block A has a cylindrical tapering groove or seat through its entire length suitable to receive within said groove the taper spindle or shaft S. At the broad end of A there is a journal-box to support the large end of the shaft S, and at the opposite end of A is a hinged bearing for the conical journal on the small end of said shaft. The shaft S is operated by a crank attached to the large end outside of the journal-box, and has running through its entire length between the journal-boxes one or more splines or channels of sufficient size to receive the edge of the piece of metal to form the spile. When a spile is to be formed, a piece of metal of suitable dimensions for said spile is inserted into one of the aforesaid channels. Then a revolution of the shaft S is made, which gives the piece of metal a concave form and turns a flange on one edge. Then said piece is taken out of the channel and the other edge inserted into the same, when a reversed motion is given to the shaft sufficient to turn a flange on the opposite edge, and the spile is complete.

R is a roll with a bearing at either end. Its use is to prevent the piece of metal as it is drawn under the shaft S from making a short bend, and to remove friction in the operation thereof.

J is a hinged bearing for the small end of the shaft S. It is seen at Fig. 3 partly thrown open. There is a conical journal on S at *i*, Fig. 3, which fits into a corresponding bearing in J. When J is in its proper position, as seen at Fig. 1, it is secured by a bail, *r*, thrown over the end, to hold it from swinging or rising when the machine is in use. The object of said hinged journal is that a complete cylinder may be formed by inserting one edge of a piece of metal into one of the channels in S. Then by giving S a revolution the piece of metal is turned completely around it. The bail *r* is then thrown back and J swung outward, when the cylinder may be readily slipped off the small end of the shaft S.

Fig. 2 is a section of A through the line C D, Fig. 1.

o, Fig. 2, is a slot or opening through the bottom of A to allow the escape of scales and dirt which may gather under the shaft S. The cylindrical groove in A is deeper at the right hand or crank end than at the opposite end, which gives an inclination to the bottom of said groove toward the crank end, so that scales and dirt work toward the opening and fall through at *o*.

Fig. 3 is a plan view showing the location of the shaft S, roll R, and the swing of the journal-box J.

These several parts need no further description, having been fully described on Fig. 1.

What we claim as our invention is—

1. A machine for forming sap-spiles from sheet metal when constructed in a similar manner, and for the purposes herein described.

2. The combination of the several parts of said machine when constructed in like manner, and for the purposes hereinbefore described.

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