W. B. & O. P. SCAIFE.

Machine for Corrugating Sheet Metal.

No. 167,412. Patented Sept. 7, 1875.

fig: 2.

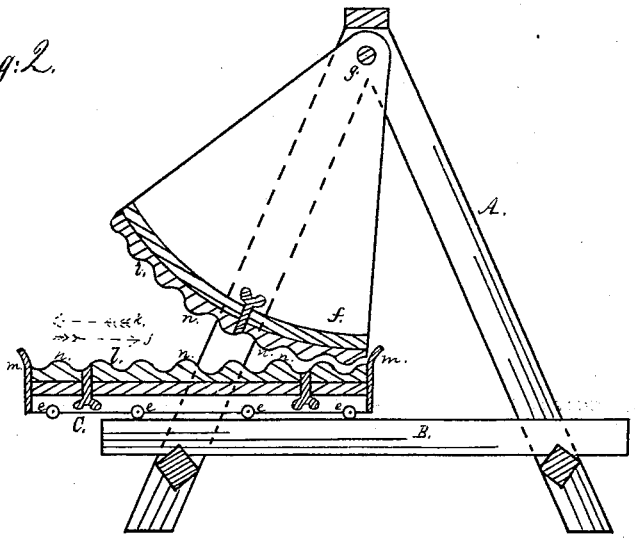
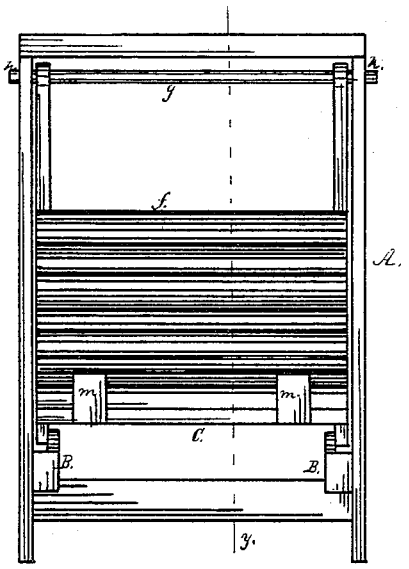


fig: 1.



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UNITED STATES PATENT OFFICE.

WILLIAM B. SCAIFE AND OLIVER P. SCAIFE, OF ALLEGHENY, PA.

IMPROVEMENT IN MACHINES FOR CORRUGATING SHEET METAL.

Specification forming part of Letters Patent No. **167,412**, dated September 7, 1875; application filed January 23, 1875.

CASE A.

To all whom it may concern:

Be it known that we, WILLIAM B. SCAIFE and OLIVER P. SCAIFE, both of the city and county of Allegheny, and State of Pennsylvania, have invented a certain new and useful Improvement in Machines for Corugating Sheet Metal; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Our invention relates to an improvement in corrugating-machines for sheet metal; and consists in a section of a cylinder pivoted in a suitable frame, said section being worked in combination with a table having a reciprocating motion, the periphery of one and the face of the other being furnished with detachable face-plates.

To enable others skilled in the art with which it is most nearly connected to make and use our invention, we will proceed to describe its construction and operation.

In the accompanying drawings, which form part of our specification, Figure 1 is a front elevation of our improvement in machines for corrugating sheet metal. Fig. 2 is a vertical section of the same at line *y*.

In the accompanying drawings, A represents the frame of the machine. Upon the bars B moves the table C, the bearings D of which are furnished with friction-rollers *e*, indicated by dotted lines. The upper surface of the table B is furnished with a detachable plate, the top face of which is corrugated. *f* represents a section of a cylinder, which is secured to the shaft *g*, pivoted at *h*. The periphery of the section *f* is provided with a detachable face-plate, *i*, held in position through the medium of set-screws or bolts. The manner of applying the power for moving the table C and section *f* we leave to the skill and judgment of the mechanic. The table C has a reciprocating motion and the section *f* an oscillating motion, and both move in the manner indicated by dotted lines or arrows *j* and *k*. The corrugated face-plates mesh into each other similar to the teeth of a rack and wheel, care being taken to have sufficient space between the plates and corrugations for the thickness of the sheet metal which is to be corrugated.

The operation of corrugating the sheet metal is as follows: When the edges of the plates *i* and *l* are in the position represented in Fig. 2 the operator places the edge of the sheet of metal to be corrugated against the stop *m*, and, the section *f* and table C moving in the direction indicated by the arrows, the ribs *n* of the plates *i* and *l* will impinge on the sheet metal and force it into the corrugations of the plates. If the operator desires a change in the form or size of the corrugations he removes the detachable plates *i* and *l*, substituting others having corrugations of the desired form or size.

By constructing a machine for corrugating sheet metal as hereinbefore described, the production of corrugated sheet metal can be greatly facilitated and its cost much diminished, for a single machine may be made to form any desired variety of forms and sizes of corrugations in the sheet metal by the simple change of the plates *i* and *l*, and substituting others in their place and stead.

Having thus described our improvement, what we claim is—

In a machine for corrugating sheet metal, the combination of the oscillating segmental section *f* with the reciprocating table C, the same being provided with detachable corrugated face-plates *i* and *l*, respectively, substantially as and for the purpose hereinbefore described and set forth.

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