WILLIAM COOLEY & HENRY COOLEY.

Improvement in Machines for Bending Sheet-Metal.

No. 115,281. Patented May 30, 1871.

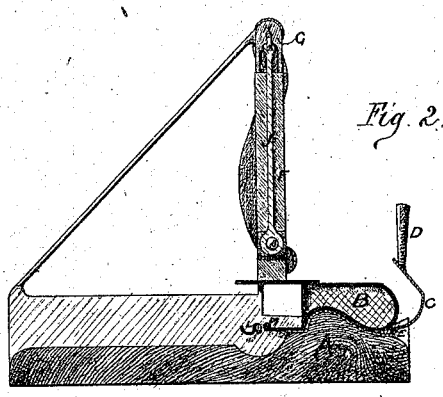

Fig. 2.

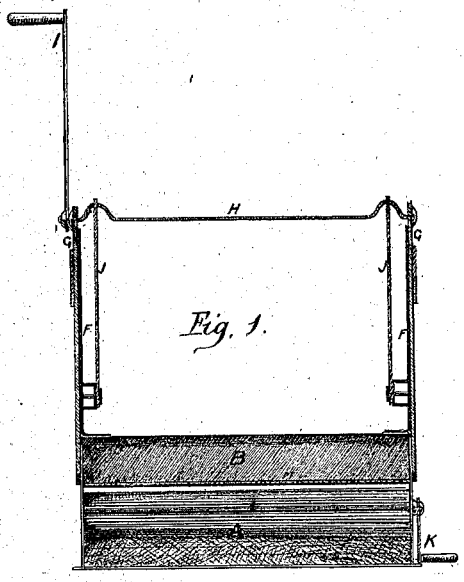

Fig. 1.

Inventors.

William Cooley &
Henry Cooley
by Ridout & Howard
their attorneys in fact.

Witnesses.

Donald Campbell

C. F. Cayley.

UNITED STATES PATENT OFFICE.

WILLIAM COOLEY AND HENRY COOLEY, OF TORONTO, CANADA.

IMPROVEMENT IN MACHINES FOR BENDING SHEET METAL.

Specification forming part of Letters Patent No. 115,281, dated May 30, 1871.

We, WILLIAM COOLEY and HENRY COOLEY, both of the city of Toronto, in the county of York, Province of Ontario and Dominion of Canada, tinsmiths, have invented a certain Improved Machine for Shaping the Sheets of Iron, Tin, or other material used out of which eaves-troughs are to be made, of which the following is a specification:

Nature and Objects of the Invention.

Our invention is a machine for shaping the sheets of iron, tin, or other material used out of which eaves-troughs are to be made, and consists in a frame, as represented in drawing, with dies or molds, made as shown in drawing, the shape of the intended eaves-trough, the length and strength being made to suit the material being used.

Description of the Accompanying Drawing.

Figure I is an end view. Fig. II is a sectional side view.

General Description.

We make the machine of iron or any other suitable material, each component part being formed to answer and perform the work required of it. A is the lower or stationary die or mold. B is the movable die or mold, and is worked as we will describe further on. C is the flanging piece, and is worked by the lever D being hinged at E. In the first place we should mention that the face or bottom side of B is shaped to correspond with A, and the part M is intended to wire the material being worked, as described further on. The mold or die B, as we have before mentioned, is movable, and is attached to the main portion of the machine by the upright pieces F, which are formed so as to fit into and slide in the perpendicular pieces G. The pieces F are fastened to the back or top of the die or mold B, and the pieces G to the main machine. The crank-shaft H binds the two pieces G together, and on one end of it is the crank-handle I. The rods J are connected, as shown in drawing, to the pieces F and to the cranks on the crank-shaft H; consequently, the whole being connected, as described, upon turning the crank-handle I, the die or mold B rises and falls as required. The crank-handle K is connected to and works the flanges L, which runs parallel with M, the two being so placed that, when the material being worked is in the machine, upon turning the crank-handle K a wire edge is formed, as desired, the said flanger L being attached to a spindle, which is not withdrawn, but is permanently attached to the body of the machine.

The operation is as follows: Turn the crank-handle I so as to lift the die or mold B, which will leave a space between the two dies A and B. Place the sheet of tin or whatever you are about to shape in this space between the two dies. The workman will readily understand how to place it to allow for wiring, &c., the sheet being, of course, a size which will correspond with the machine. Having placed the sheet between the dies, we now turn the crank-handle I, bringing the two dies A and B close, which will, of course, shape the sheet to their form. Having closed the flanger C and turned the crank-handle K, which makes L close on M, forming a wire edge on the sheet, the shape of the eaves-trough is complete, and upon turning the crank-handles before mentioned, and making the flanger C open out, the pressure is removed from the sheet, and it may be drawn out from the side of the machine. The process is repeated and every sheet formed alike.

Claim.

We claim as our invention—

The combination of the dies or molds A and B, the rods J, connected to the crank-shaft H, and turned by the crank-handle K, substantially as and for the purpose hereinbefore set forth.

City of Toronto, 20th August, 1870.

WILLIAM COOLEY.
HENRY COOLEY.

Witnesses:
DONALD C. RIDOUT,
C. T. CAYLEY.