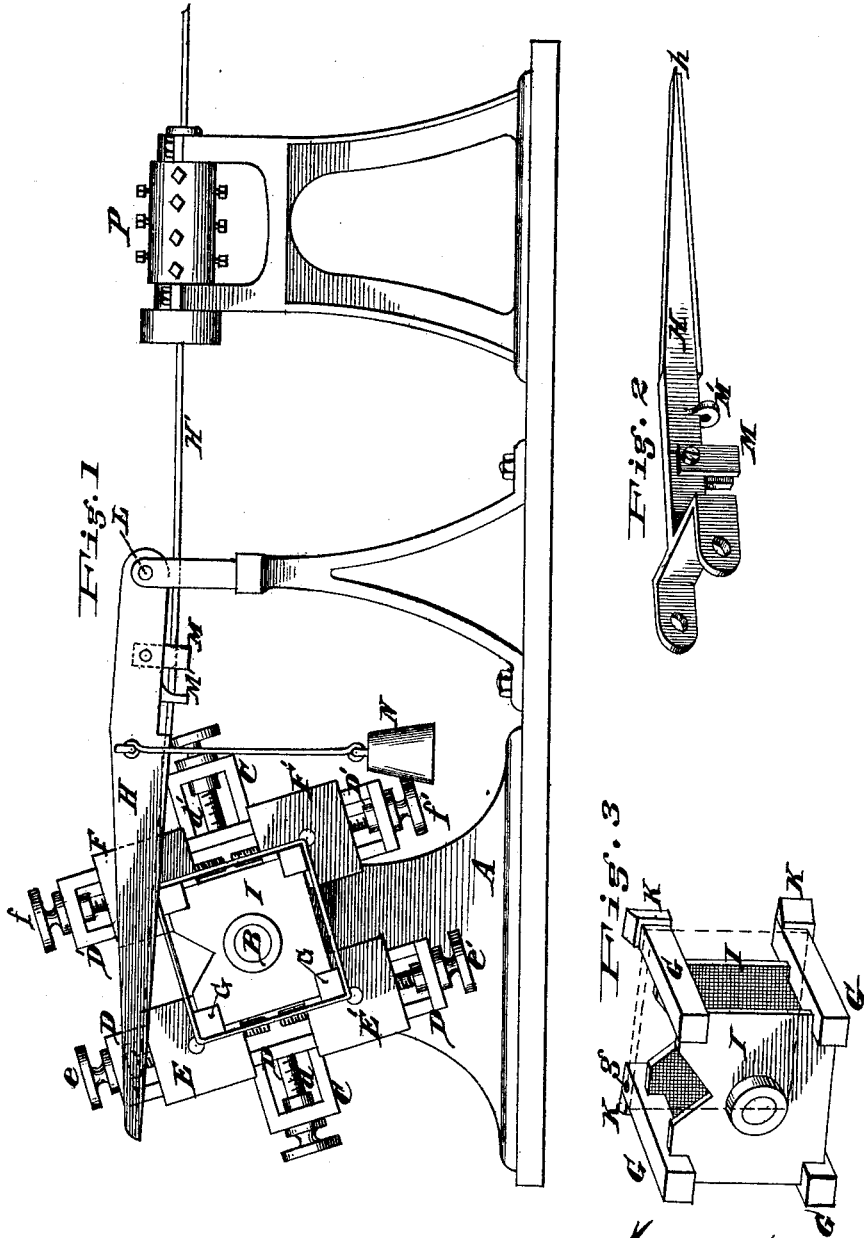


W. FOGLESONG.
WIRE-BENDING MACHINE.

No. 185,514.

Patented Dec. 19, 1876.



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UNITED STATES PATENT OFFICE.

WASHINGTON FOGLESONG, OF DAYTON, OHIO, ASSIGNOR TO THE
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IMPROVEMENT IN WIRE-BENDING MACHINES.

Specification forming part of Letters Patent No. 185,514, dated December 19, 1876; application filed
July 24, 1876.

To all whom it may concern:

Be it known that I, WASHINGTON FOGLESONG, of Dayton, Montgomery county, State of Ohio, have invented an Improvement in Machines for Bending Wire, of which the following is a specification:

My invention has for its object, principally, the bending of wire into regular shapes, rapidly and conveniently, for the wiring of sheet-metal pans; and it consists, in the first part, in the combination of a rotating spindle, carrying the form, with a pressure-arm to press the wire to the form as the latter revolves. My invention consists, in the second part, in connection with the rotating form, of a series of guides, set spirally upon the form, to give the proper guidance to the wire in the formation of the first turn. My invention consists, in the third part, in a certain combination of devices, by which the form may be increased or diminished in size, to make wires for different sizes of pans.

Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a perspective view of the pressure-lever. Fig. 3 is a perspective view of the form.

A is the main frame of the machine, having ordinary bearings, in which the shaft B is journaled, which may be driven by gearing or pulley, or, for small wire, turned by a crank. To the shaft B a head, C, is firmly secured, to which two heads, D D', are fitted to slide, the latter being adjusted to and from each other by separate screws *d d'*.

Upon each of the sliding heads D D' two other slides, E E' F F', are fitted to move, being adjusted to and from each other by separate screws *e e' f f'*.

To the four slides E E' F F' four posts, G, are firmly secured, and the outer surfaces of these posts constitute the form proper, upon which the wire is shaped, and they represent exteriorly the configuration of the pan or other article for which the bent wire is intended. Being attached to the slides E E' F F', the posts are expansible, so that the form may be increased or diminished from one size square to another, or changed from a square to a rectangle.

By the use of a different number of posts

the wire may be bent in triangular form, and by the use of non-expansible forms ellipses and like figures may be formed, the important active agent, in connection with the revolving form, being the reciprocating pressure-bar H, whose motion, following as it does the configuration of the form, causes, by its pressure, the wire H' to hug the form and adopt its shape.

It is proposed to wrap the wire in spiral shape, and to make as many wrappings as the posts G will contain, so that wires sufficient for quite a number of pans or vessels may be made at a single operation of the machine, the coil of wire, after being bent, being cut at one of the corners or sides.

To support the posts rigidly, I introduce gage-plates I, one or more, and these may be marked for standard-size pans, so that they may be used to set the posts up to, in effecting their proper adjustment.

To guide the wire in effecting the first turn, I fix guiding-steps K to the bases of the posts, which serve to push out the wire and lever H to the extent of one-fourth the thickness of the wire at each corner, and thus enable the wire to lap and pass the first end of the wire after making one turn, the first end being bent down and inserted in aperture *g* before the bending commenced.

The wire in the process of bending lies in in the rabbet *h* of the bar H, and as the bending proceeds the wire in being wrapped spirally gradually pushes out the lever laterally, the latter being fitted to swing loosely and move sidewise on the shaft or rod L.

Guides M M' are attached to the under side of the lever H, one of which, M, provides for vertical play, and the other confines it strictly to the path of the rabbet in every direction. The pressure of the lever may be regulated by the weight of the lever itself, or the addition of a weight, N, or by any other well-known expedient adapted to this end. The wire, before passing to the bending appliances, may be straightened continuously by the hollow rotary straightening-mandrel P, used commonly for this purpose.

I claim—

1. In a machine for bending wire, the com-

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bination of a rotary form or pattern, and a reciprocating pressure-bar acting upon the wire to compel it to follow the undulations of the pattern by pressing it directly against the same, substantially as described.

2. In combination with the form G, the series of ledges or guiding-steps K, substantially as and for the purpose specified.

3. In combination with the form-posts G, the sliding adjustable plates E E' F F', and

sliding adjustable heads D D', constructed and operating substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

WASHINGTON FOGLESONG.

Witnesses:

WM. C. McNAMARA,
JACOB FERLA.