(No Model.)

J. GEIGER.

Bail and Rim Bending-Machine

No. 227,425. **Patented May 11, 1880.**

Fig. 1.

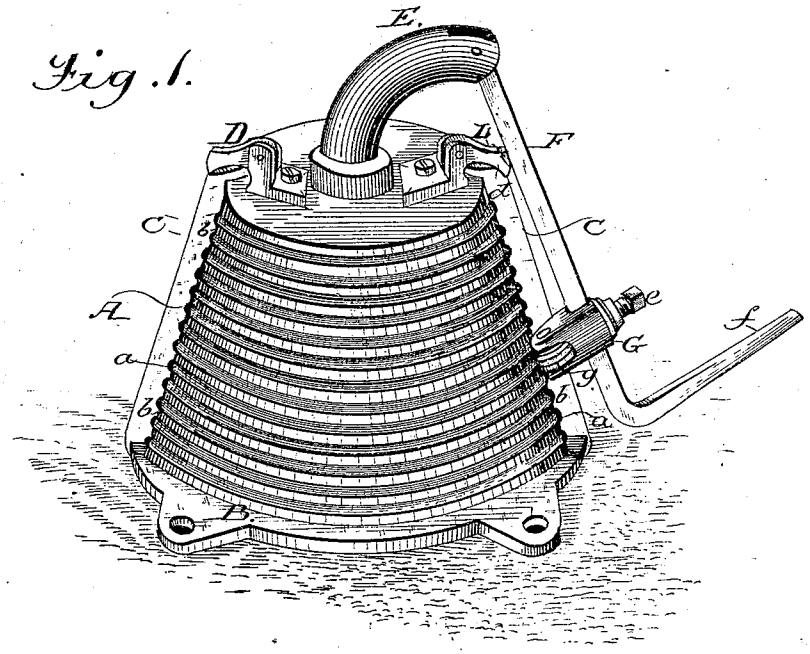
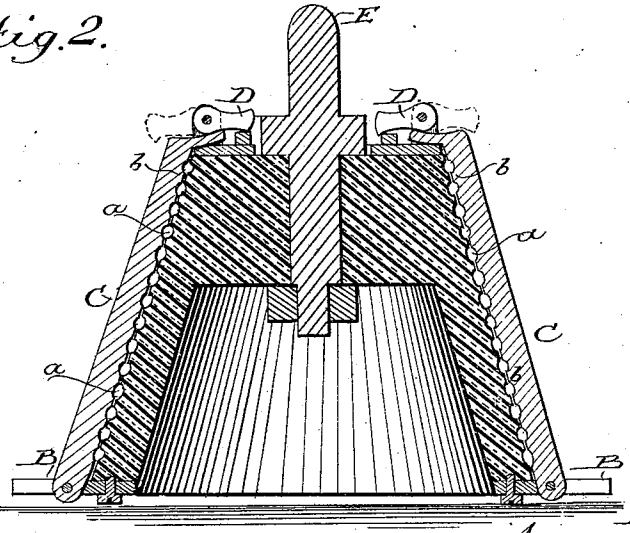


Fig. 2.



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BAIL AND RIM BENDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 227,425, dated May 11, 1880.

Application filed March 26, 1880. (No model.)

To all whom it may concern:

Be it known that I, JACOB GEIGER, of Bucyrus, Crawford county, Ohio, have invented certain new and useful Improvements in Bail and Rim Bending Machines; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a vertical section of the same.

My invention relates to that class of machines used for bending wire for the purpose of forming the bails for buckets and kettles and other similar articles, more especially brass and copper kettles, and for bending the wire or iron rods in forming and strengthening the rims of the same; and it consists in the combination of devices hereinafter described and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents the section of a metal cone having the grooves *a* running around it. This cone is cast with the base-plate B, by which it is secured in position on the work-bench, or at some other convenient place, by means of screws or other ordinary fastenings. On each side of the cone is pivoted a bar, C, provided with the notches *b*, corresponding with the grooves *a*, so that when the bars C are locked in position by means of the cam-levers D circular openings are formed for receiving and clamping the wire to be bent, as hereinafter explained.

The cam-levers D are pivoted in bifurcated plates secured on the top of the cone A, as shown in Fig. 2, and when the bar C is closed to clamp the wire the arm *d* of the lever is thrown outward, and the cam of the lever is brought to bear upon the bent point of the bar and securely locks it in position. Rising from the center of the cone A is the revolving bent standard E, slotted at its outer end to receive the pivoted bent arm F, on which slides another short bifurcated arm, G, carrying the grooved wheel *g*, for a purpose hereinafter explained. The arm G is provided with the thumb-screw *e*, for securing the arm in position on the arm F. The bent portion *f* of the arm F serves as a handle by which to manipulate grooved wheel *g*.

The operation of my invention is as follows: The end of the wire or metal rod is placed in one of the grooves on the cone A so as to be caught and held by the bar C, when the latter is locked by the cam-lever D. The wire is then passed around the cone, following the groove. The grooved wheel *g* having been placed in position on the arm F so as to rest on the wire, the arm F is moved around the cone with a sufficient pressure on the grooved wheel to make and fix the desired bend in the wire.

It is evident from the description of my machine that a few passes of the grooved wheel over the wire will accomplish the result.

In bending wire for bails only a half-circle is required, but in bending wire for rims the circle must be completed. In the latter case, after bending the wire a-half circle the opposite bar C is also called into requisition, and it holds the portion of wire bent until the circle is completed.

As the wire will necessarily spring back a little, in practice I use a groove higher up the cone and of smaller size than the size of the bail or rim.

It is evident that by varying the form of grooves to suit the article to be bent my machine may be used for bending small iron bars for other uses.

While my machine is designed more particularly for bending cold rods, it is evident that it is equally well adapted for bending heated rods.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A wire-bending device consisting of the cone A, provided with grooves *a*, in combination with a swiveled goose-neck standard, E, in which is pivoted a lever-arm, F, arm G, carrying wheel *g* and set-screw *e*, and grooved clamping-bars C, pivoted at one end and provided at the other with cam-fastenings D D, the whole constructed, arranged, and operated as set forth.

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Attest:

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