

(No Model.)

U. D. ALEXANDER.
CRIMPING AND BEADING MACHINE.

No. 537,429.

Patented Apr. 16, 1895.

FIG. 1.

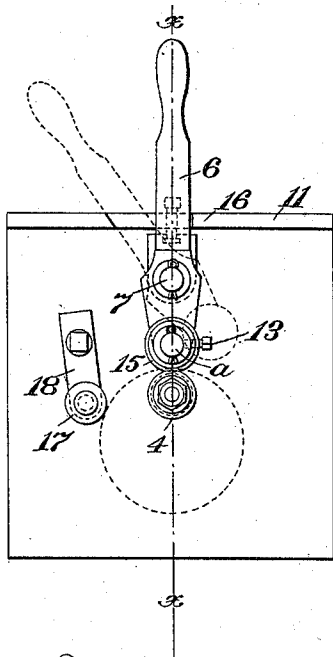


FIG. 3.

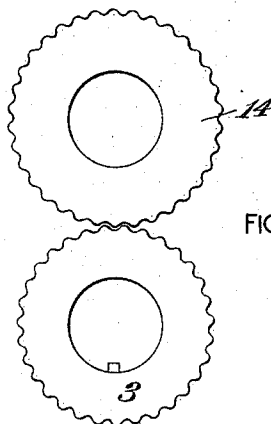


FIG. 2.

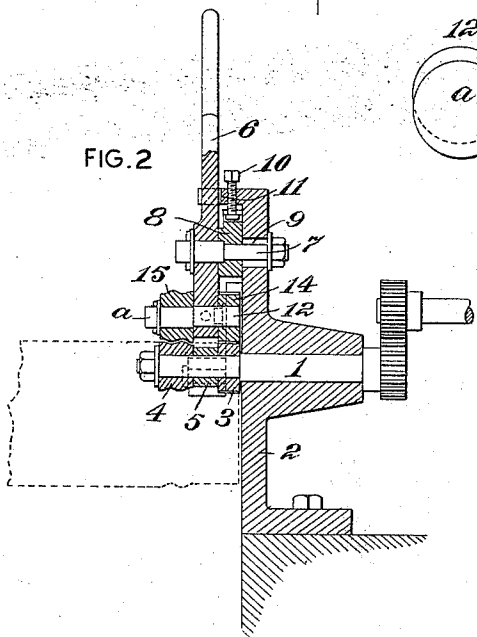


FIG. 5.

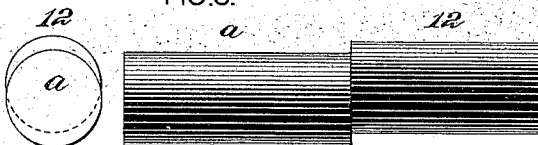
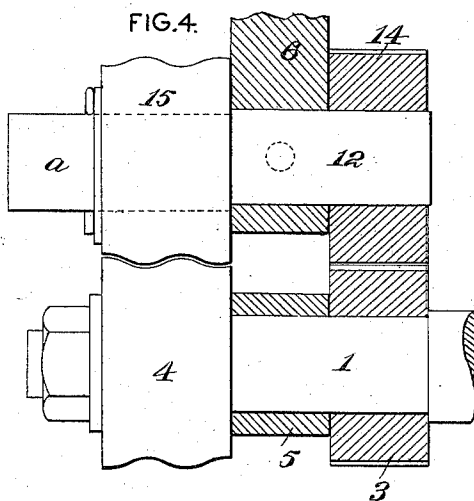


FIG. 4.



WITNESSES:

Chas F. Miller
F. E. Gaither

INVENTOR,

Urbana D. Alexander
by *Darius S. Wolcott*
Att'y.

UNITED STATES PATENT OFFICE.

URBANA D. ALEXANDER, OF CANNONSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO THE CANONSBURG IRON AND STEEL COMPANY, OF SAME PLACE.

CRIMPING AND BEADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 537,429, dated April 16, 1895.

Application filed September 17, 1894. Serial No. 523,238. (No model.)

To all whom it may concern:

Be it known that I, URBANA D. ALEXANDER, a citizen of the United States, residing at Cannonsburg, in the county of Washington and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Crimping and Beading Machines, of which improvements the following is a specification.

The object of the present invention is to provide for the easy and rapid movement of crimping and beading rollers toward each other, without any liability of their being nearer together at one time than at another while operating on the same thickness of metal.

It is also an object of my invention to provide for the use of different sizes of crimping and beading rollers, thereby avoiding the necessity of replacing both crimping and beading rollers when one or the other is worn out.

In general terms the invention consists in the construction and combination substantially as hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a front elevation of my improved machine. Fig. 2 is a sectional elevation of the same, the plane of section being indicated by the line x, x , Fig. 1. Fig. 3 is an end elevation of the crimping rollers. Fig. 4 is a view partly in section and partly in elevation of the beading and crimping rollers, on an enlarged scale, illustrating the manner of mounting the upper rollers; and Fig. 5 is a detail of the journal pin of the upper rollers.

The power shaft 1 is mounted in a suitable bearing in the support plate 2, and on the outer projecting end of said shaft are keyed the crimping roller 3 and the beading roller 4, a collar 5 equal to the thickness of the lever 6 being interposed between said rollers, as shown in Figs. 2 and 4. The lever 6 is mounted on a pin 7 passing through a block 8 and a slot 9 in the plate 2. The pin is provided with a shoulder bearing against the front face of the block, so that by screwing up the nut on the bolt the block will be tightly clamped against the plate 2. The block is adjusted up and down by a screw 10 passing through the flange 11 on the plate 2 and connected by a

swivel joint with the block. A pin 12 provided with an eccentric portion a at one end is passed through an opening near the lower end of the lever 6, and is held from rotation therein by a set screw 13. On the portion of the pin projecting to the rear of the lever is loosely mounted the crimping roller 14, and the beading roller 15 is similarly mounted on the portion a of the pin projecting to the front of the lever, as shown in Figs. 2 and 4. It will be readily understood that by shifting the pin 12 in the lever both rollers 14 and 15 may be adjusted to the same distance from the corresponding rollers 3 and 4 on the shaft, when their diameters do not exceed the eccentricity of the two portions of the pin.

The axis of the pivot pin 7 is in or approximately in the plane passing through the axis of the power shaft 1, so that when the lever is swung into said plane, the rollers on the lever will be at their points of greatest proximity to the corresponding rollers on the shaft 1.

In using my improved device, the lever is shifted to the position shown in Fig. 1, and the block 8 shifted by its screw 10 until the two rollers are brought into proper proximity to the rollers on the shaft, when the block is clamped by tightening up the nut on the pin 7. If one of the rollers on the lever is not in proper relation to its corresponding roller on the shaft, when the block 8 has been shifted as stated, the pin 12 is adjusted in the manner described. To operate the machine the lever is shifted to an angular position, the end of the pipe placed over the rollers on the power shaft, and the lever swung to its vertical position as shown in Fig. 1, thereby clamping the pipe between the two sets of rollers. It will be observed that the lower end of the lever when being shifted to bring its rollers into operative position is moved in the direction of rotation of the rollers on the power shaft and consequently of the pipe operated on, so that if the operator fails to shift the lever to full operative position, it will be brought to such position by the movement of the pipe against which the rollers 14 and 15 bear. The lever is prevented from being shifted beyond operative position by a stop or shoulder 16 on the flange 11 of the frame.

A guide roller 17 mounted in a frame 18 is adjustably mounted on the supporting plate 2, in proper relation to the beading and crimping rollers.

5 When it is desired to bead without crimping or crimp without beading, one of the pairs of rollers may be omitted, or a plain faced roller substituted therefor.

I claim herein as my invention—

10 1. The combination of a power shaft having one or more shaping rollers keyed thereon, a lever, and one or more shaping rollers carried by the lever, the lever being pivoted in such relation to the rollers on the power shaft as
15 to be shifted by the article being operated on, to bring the rollers carried thereby into operative position, substantially as set forth.

2. The combination of a power shaft having one or more shaping rollers keyed thereon, a

lever having an adjustable pivotal support, 20 and one or more shaping rollers carried by the lever, said lever being pivoted in such relation to the rollers on the power shaft as to be shifted to bring the rollers carried thereby into operative position substantially as set 25 forth.

3. The combination of a powershaft having one or more shaping rollers keyed thereon, a lever, a pin having eccentric portions, adjust- 30 ably mounted in said lever and shaping rollers mounted on said pin, substantially as set forth.

In testimony whereof I have hereunto set my hand.

URBANA D. ALEXANDER.

Witnesses:

DARWIN S. WOLCOTT,
F. E. GAITHER.