(No Model.)

J. S. SNEDEKER.

RIVETING MACHINE.

No. 360,178. Patented Mar. 29, 1887.

Fig. 1

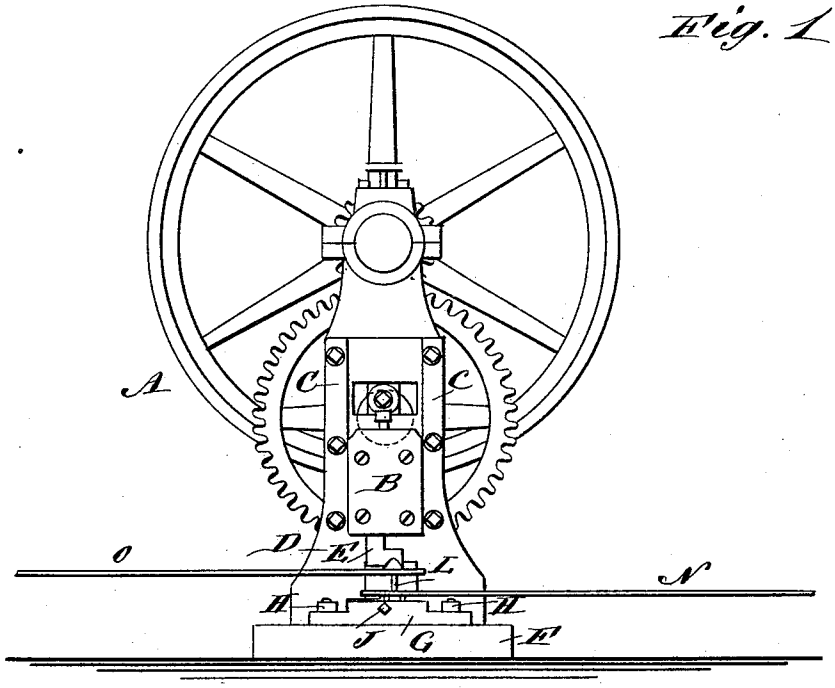


Fig. 3

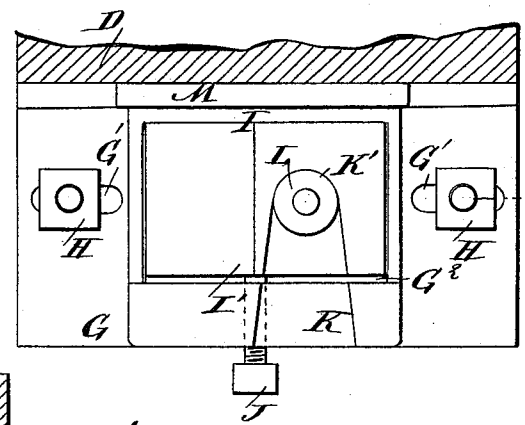


Fig. 2

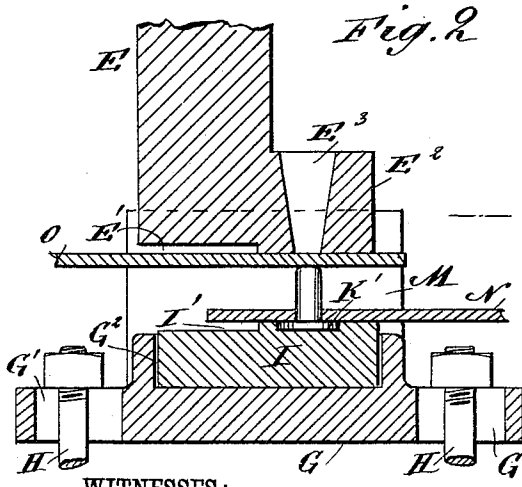
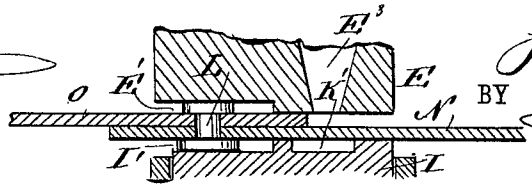


Fig. 4



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UNITED STATES PATENT OFFICE.

JOHN S. SNEDEKER, OF NEW YORK, N. Y.

RIVETING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 360,178, dated March 29, 1887.

Application filed July 19, 1886. Serial No. 208,421. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. SNEDEKER, of the city, county, and State of New York, have invented a new and Improved Riveting-Machine, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved machine specially adapted for riveting the ends of hoop-iron together without first punching a hole.

The invention consists of a vertically-sliding tool-holder carrying the tool, and of an adjustable rivet-block having a seat for the head of rivet.

The invention also consists in various parts and details and combinations of the same, as will be described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of my improved machine. Fig. 2 is an enlarged front sectional elevation of the same. Fig. 3 is a plan view of the rivet-holder. Fig. 4 is a front sectional elevation of my improvement, showing the hoop-irons riveted together.

My improved riveting-machine A is provided with a suitable mechanism of any approved construction for imparting a vertically-sliding motion to the tool-holder B, mounted in the guideways C, formed on the main frame D.

In the tool-holder B is secured the tool E, provided on its lower part with the recess or offset E′, and with a right-angular extension, E^2, in which is formed the conical aperture E^3.

On the base-plate F of the main frame D rests the rivet-holder G, which is adjustable by means of the bolts H, passing through the elongated slots G′.

The rivet-holder G is provided on top with a recess, G^2, in which is placed the resting-block I, adjustable in the recess G^2 by the set-screws J. A wedge-shaped slot, K, is formed in top of the rivet-holder G, and extends into the block I, and terminates at its inner end in the rounded-off seat K′, which conforms to the circular shape of the head of the rivet L, which is placed and rests in this seat K′ on the block I. On the top of the block I is also formed an offset, I′, directly under the offset E′ on the tool E.

The rivet-holder G butts against a guide-plate, M, resting on the base-plate.

The operation is as follows: The rivet L is placed with its head in the seat K′, so that it stands upright, and one hoop-iron, N, is held against the under side of the tool E, resting with its inner edge against the guide-plate M, and having the aperture E^3 located centrally on the hoop-iron N. A downward-sliding motion is now imparted to the tool-holder B by any suitable means, whereby the hoop-iron N comes first in contact with the upper shank end of the rivet L, and as the latter acts then as a punch and the lower end of the aperture E^3 acts as a cutting-edge, then the shank of the rivet L is forced through the hoop-iron N, being its own punch. The piece punched out of the hoop-iron passes into the aperture E^3, and the downward stroke of the tool-holder B forces the hoop-iron N to seat itself on the head of the rivet L, as shown in Fig. 2. The tool-holder B then returns to its former position, and the hoop-iron O, which is to be riveted to the hoop-iron N, is now placed under the tool E, and is forced on the top of the hoop-iron N, in a similar manner as above described in relation to the hoop-iron O, and as soon as the tool-holder is on the end of its upward stroke then the hoop-irons N and O, with their rivet L, are lifted up and moved a short distance to the left, so that the head of the rivet L rests in the recess I′ on the block I. As soon as the tool-holder B moves downward the shank end of the rivet L, which projects above the hoop-iron O, comes in contact with the tool E, and is formed by the latter into a head, whereby both hoop-irons N and O are firmly riveted together, as seen in Fig. 4. The height of the head of the rivet last formed corresponds to the height of the recess E′.

By my improved machine I am enabled to use common rivets, which are softer than the hoop-irons riveted together. The diameter of the lower end of the aperture E^3 corresponds with the diameter of the shank of the rivet L, and the rivet-holder G and the blocks I are both made adjustable, so as to bring the shank of the rivet L directly under the aperture E^3

on the tool E, as the rivet-shank would otherwise be crushed.

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

1. In a riveting-machine, the combination of a vertically-sliding tool having a conical aperture with an adjustable rivet-block having a seat for the head of the rivet, substantially as described.

2. In a riveting-machine, the combination of a vertically-sliding tool having a conical aperture and an offset on its lower end, with an adjustable rivet-block having a seat for the head of the rivet and having an offset on its top, substantially as described.

3. In a riveting-machine, the vertically-sliding tool-holder B and the tool E, having the conical aperture E^3 and the offset E′, in combination with the adjustable rivet-holder G and the adjustable rivet-block I, having a seat, K′, for the head of the rivet, and also an offset, I′, substantially as described.

4. In a riveting-machine, the tool-holder B, having a vertically-sliding motion, the tool E, fastened in the said holder B and having the conical aperture E^3 and the offset E′, and the guide-plate M, in combination with the adjustable rivet-block I, having the seat K′ and the offset I′, substantially as described.

JOHN S. SNEDEKER.

Witnesses:
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