H. LLOYD.

RIVETING MACHINE.

APPLICATION FILED MAR. 21, 1910.

1,000,272. Patented Aug. 8, 1911.

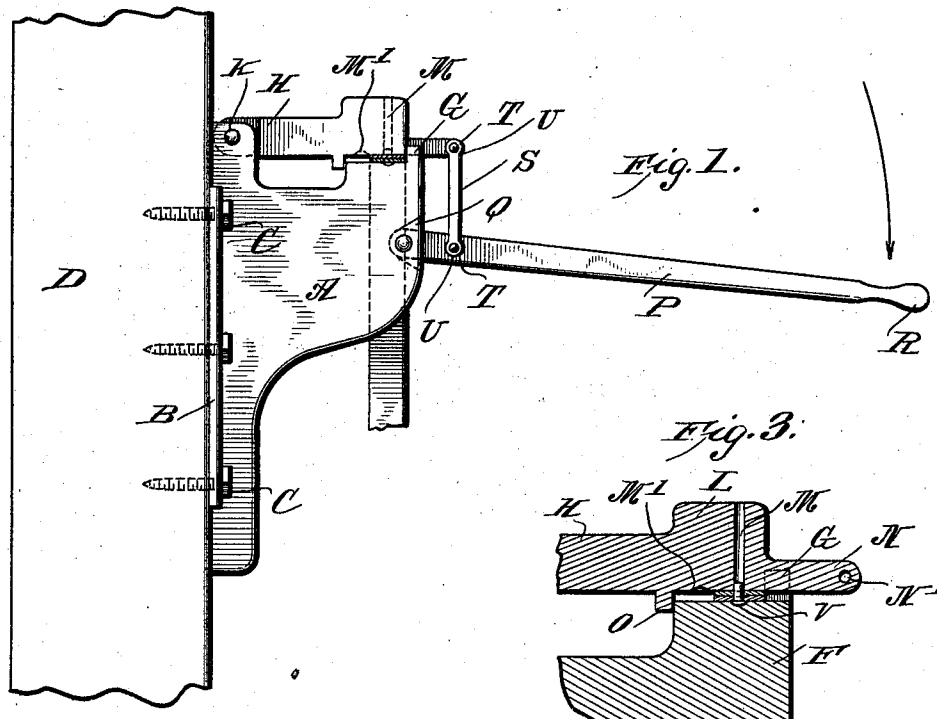

Fig. 1.

Fig. 3.

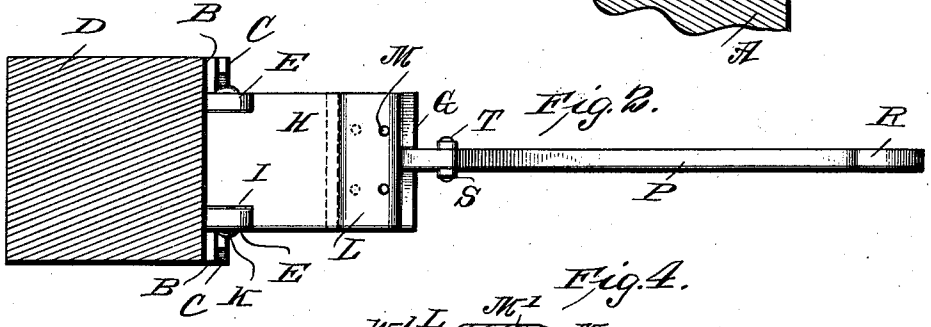

Fig. 2.

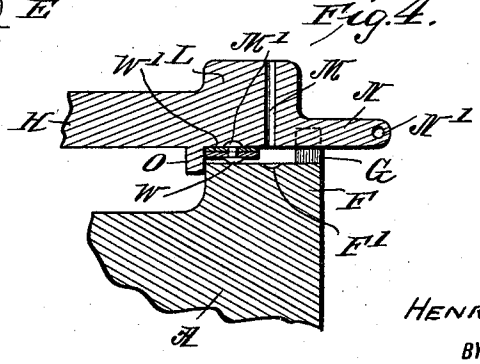

Fig. 4.

WITNESSES:
E. M. Callaghan
C. E. Trainer

INVENTOR
HENRY LLOYD
BY Munn & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY LLOYD, OF LEXINGTON, KENTUCKY.

RIVETING-MACHINE.

1,000,272. Specification of Letters Patent. **Patented Aug. 8, 1911.**

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To all whom it may concern:

Be it known that I, HENRY LLOYD, a citizen of the United States, and a resident of Lexington, in the county of Fayette, State of Kentucky, have invented certain new and useful Improvements in Riveting-Machines, of which the following is a specification.

My invention is an improvement in riveting anvils, and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

The object of the invention is to provide a very powerful hand operated device of the character specified which will be light, compact and handy, easy to operate, and consisting of but few parts.

Referring to the drawings forming a part hereof: Figure 1 is a side view of the improvement; Fig. 2 is a top plan view; Fig. 3 is a vertical section showing the parts in one position; and Fig. 4 is a similar view showing them in another position.

The embodiment of the invention shown in the drawings comprises a base A having at each side of one edge a longitudinal flange B, and the flanges are provided with openings for receiving lag screws C whereby to mount the base on a support D, in the present instance a vertical post. At its upper end and adjacent to the support the base is provided with spaced transversely perforated ears E, and in front of the ears the anvil proper F is arranged, the said anvil extending above the level of the upper face of the base and being provided with spaced guides G for a purpose to be presently described. A bar H is pivoted or hinged between the ears by one end and rests upon the upper face of the base. The rear end of the bar is notched on each side, as at I, to receive the ears, and a rivet K passes through the perforations of the ears and the bar. At its outer end the bar is provided with an enlargement L constituting the hammer for coöperating with the anvil and the hammer is provided with a plurality of spaced vertical passages M and with a longitudinally extending lug N having a transverse perforation N′ at its outer end. The bar is also provided with depending lugs O which, when the hammer rests upon the anvil, engage the rear face of the anvil, as shown in Figs. 3 and 4, while the guides G engage the sides of the lug N, the said lug fitting between the guides, as shown in Fig. 2. A lever P is pivoted by one end within a recess Q in the base A, the other or outer end being formed into a grip R, and a link S connects the lever with the lug N. The link is forked at each end, as at T, the arms of the forks embracing the sides of the lug and lever, and pins U pass through the arms and the lug and bar for connecting the parts together. It will be evident that when the lever is lifted the hammer will also be lifted, and when the lever is depressed the hammer will be forced downward on the anvil.

In operation the rivet V is placed on the anvil, which is provided on its upper face with a recess F′ for receiving the head of the rivet, and the material W′ is placed over the rivet. The recess F′ is in alinement with the channel or passage M, and when the hammer is brought down on the material by means of the lever P the stem of the rivet is forced through the material, as shown in Fig. 3. The bar is now lifted and the rivet is moved rearwardly on the anvil into alinement with a recess M′ in the lower face of the hammer behind the passage M. The hammer is again depressed, thus forming a head on the rivet, as shown in Fig. 4. The recess M′ is shaped to form the head, and two recesses are provided, one corresponding to each passage M. Two recesses F′ are also provided, and either or both may be used. The lugs O and the guides G insure the correct placing of the hammer on the anvil. The lever P is of such length that a great amount of pressure obtains between the hammer and the anvil when the lever is depressed.

It will be evident that the improved device acts as a punch as well as a riveting machine, the rivet serving as the punch and punching its own hole.

It will be evident that the edges of the recess M′ act as a die for assisting the rivet to punch the metal. The device is in fact a die having an anvil coöperating therewith provided with means for holding a rivet in position to coöperate with the die to perforate a sheet of metal, the hammer and anvil being further provided with means for heading the rivet.

I claim:

1. A device of the class described, comprising a base provided with means whereby it may be attached to a support, a pair of spaced ears on the upper face of the base, said face having an enlargement forming

an anvil at the front thereof, said anvil having a plurality of recesses in its upper face for receiving the head of the rivet, a bar pivoted between the ears and having an enlargement forming a hammer coöperating with the anvil, said hammer having a plurality of vertical passages alining with the recesses of the anvil and having heading recesses in rear of said passages, said bar having a longitudinally extending lug at its outer end, a lever pivoted by one end to the base at the front thereof and below the anvil, a link connecting the lever with the lug on the bar, said base having spaced guides between which the lug fits when the hammer engages the anvil, and the hammer having depending lugs engaging the rear of the anvil.

2. A device of the class described, comprising a base provided with means whereby it may be attached to a support, a pair of spaced ears on the upper face of the base, said face having an enlargement forming an anvil at the front thereof, said anvil having a plurality of recesses in its upper face for receiving the head of the rivet, a bar pivoted between the ears and having an enlargement forming a hammer coöperating with the anvil, said hammer having a plurality of vertical passages alining with the recesses of the anvil and having heading recesses in rear of said passages, and means for guiding the bar in its movement.

3. A device of the class described, comprising a base provided with means whereby it may be attached to a support, a pair of spaced ears on the upper face of the base, said face having an enlargement forming an anvil at the front thereof, said anvil having a plurality of recesses in its upper face for receiving the head of the rivet, a bar pivoted between the ears and having an enlargement forming a hammer coöperating with the anvil, said hammer having a plurality of vertical passages alining with the recesses of the anvil and having heading recesses in rear of said passages, means for moving the bar, and means for guiding the bar in its movement.

HENRY LLOYD.

Witnesses:
C. O. PICKETT,
JNO. C. ADAMSON.