

M. Decelle,

Spike Making.

No. 103025.

Patented May 17. 1870

Fig. 1.

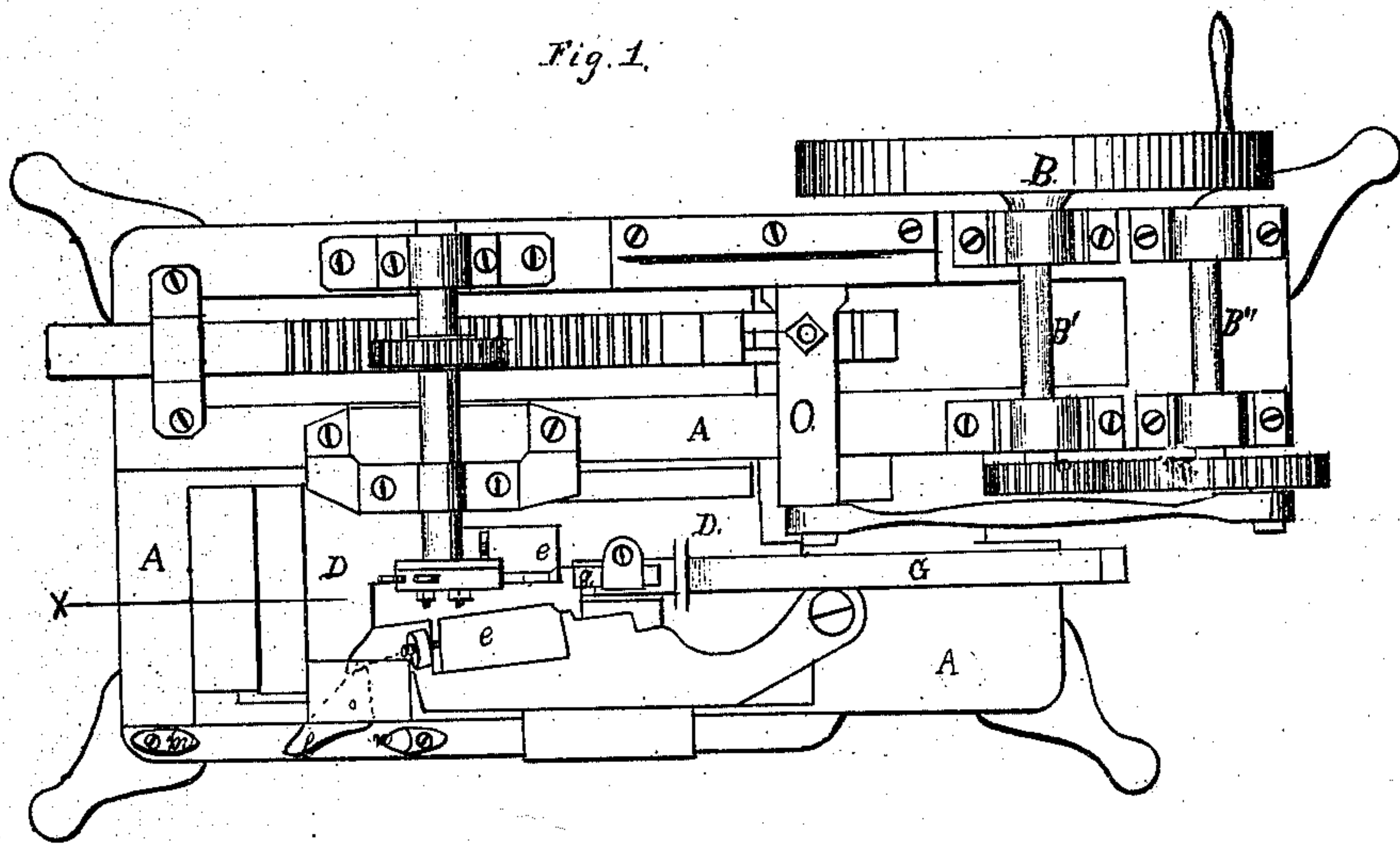
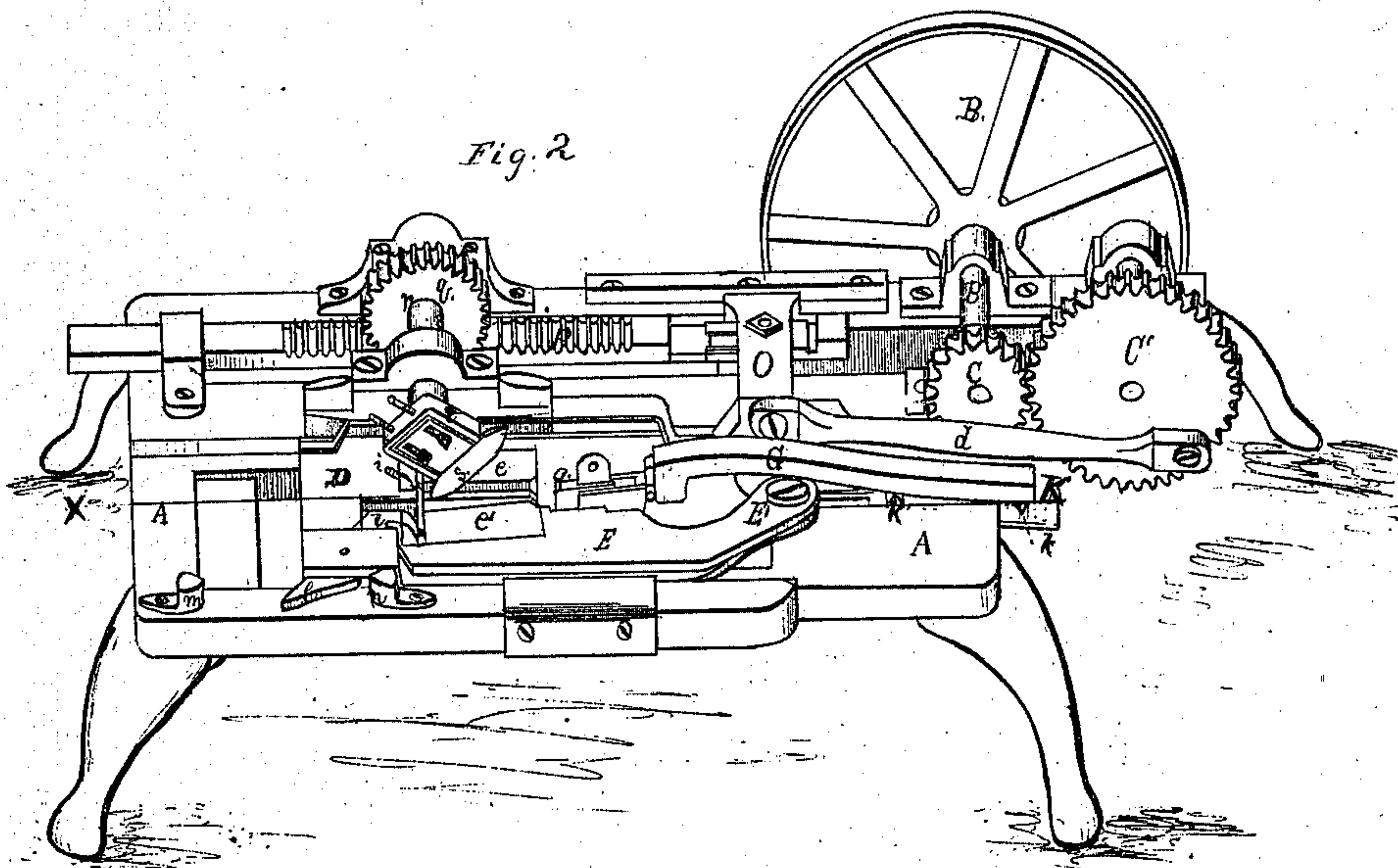


Fig. 2.



Witnesses.

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United States Patent Office.

MAXIME DECELLE, OF NEWBURG, OHIO.

Letters Patent No. 103,025, dated May 17, 1870.

IMPROVED SPIKE, BOLT, AND RIVET-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

I, MAXIME DECELLE, of Newburg, in the county of Cuyahoga and State of Ohio, have invented certain improvements in "Spike, Bolt, and Rivet-Machines," of which the following is a specification.

The nature of this invention relates to a machine for making spikes, bolts, and rivets; and consists of a pair of dies arranged to press the metal into form, in connection with a heading device for forming the heads of the spikes, bolts, and rivets.

In the drawings—

Figure 1 is a plan view.

Figure 2 is a perspective view.

A represents the frame-work of the machine.

B is a driving-wheel or pulley on the shaft B'.

A second shaft, B'', is arranged beside the shaft B', connected by gear-wheels C C'.

From said wheel C' motion is communicated to the other operating parts by a pitman, d.

D is a frame, sliding in suitable ways in the main frame A, to which the pitman is attached, in which frame are placed the dies e e', for forming the spikes.

The dies are removable, and different ones may be placed in the frame for making either spikes, bolts, or rivets.

One of the dies e' is placed in an arm, E, on the frame D, pivoted at E'.

The dies are held in place by screws i i.

On the under side of the frame D is placed a spring, f, for keeping the dies apart.

In the head of the frame D is pivoted a lever, G, having a heading-ram, g, hinged to it, which slides in a groove in the frame D.

The opposite end of the lever slides along a path, K, which has a projection, k', up and over which a similar projection, k, on the under side of the lever G passes, which causes the same to be carried toward the dies, pressing the head upon the spike. This operation is performed after the jaws have closed.

In the lower end of the frame D is a lever, l, pivoted in a slot which operates upon the arm E to close the dies, which is done by the lever coming in contact with the projection m on the frame A, as the frame D

moves along toward the left, turning the lever l and throwing the arm E inward.

When the frame D moves back again to the right, the lever strikes against the projection n, and the arm, being released, flies back, opening the dies.

To the side of the head of the frame D is an arm, O, having a slide bearing in the further side of the frame. To this arm is attached a rack, p, for operating the pinion q, said pinion being fixed on a shaft, r, set in bearings secured to the main frame A.

On the end of the shaft r, over the dies e e', is a chuck, t, in which is a swage, s.

The shaft r has a rocking motion, thus causing the swage s to wear on the spike from head to point, and the point of the swage bearing against the bottom of the die e cuts off the spike when done.

The operation of this machine is follows:

A bar of hot iron is placed part way between the jaws from the point x when the frame is advancing toward it.

The jaws are closed by lever l striking against the projection m. When the frame returns the jaws remain closed, and, carrying the bar along with it, the swage s at the same time bearing upon the top side of the spike, and the lever G passing over the projection k', forces the ram g up to the dies e e', forming the head to the spike, when the lever l, striking the projection n, releases the arm E, the jaws fly apart, and the spike drops out complete.

This machine may be made double by making the frame A wider, and by having another sliding frame and dies on the other side, all being propelled by the same driving-pulley, when both spikes and bolts may be made at the same time.

I claim the combination of the reciprocating frame D, oscillating swage s, dies e e', heading-ram g, lever G, studs k k', arm E, lever l, and studs m and n, as and for the purpose set forth.

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Witnesses:

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