No. 775,215. PATENTED NOV. 15, 1904.

L. G. GLAZIER.

RIVETING MACHINE.

APPLICATION FILED MAY 17, 1904.

NO MODEL.

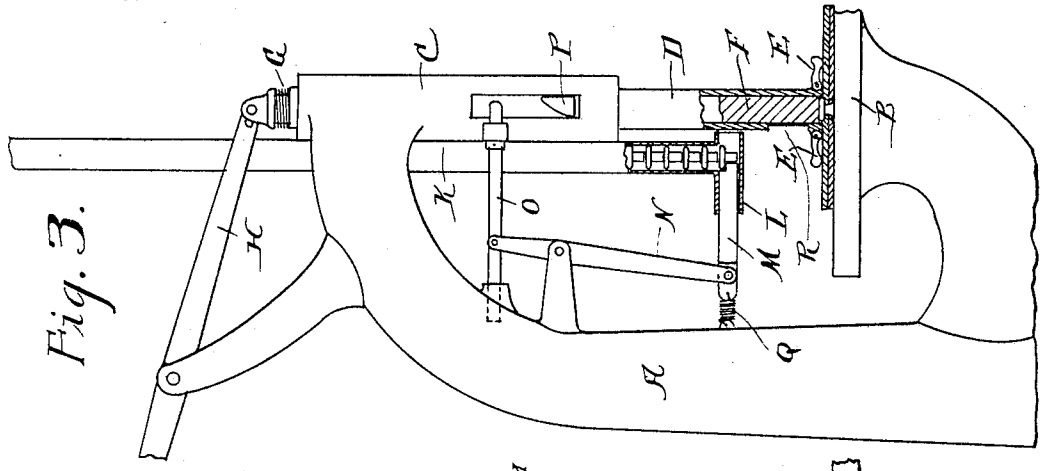


Fig. 3.

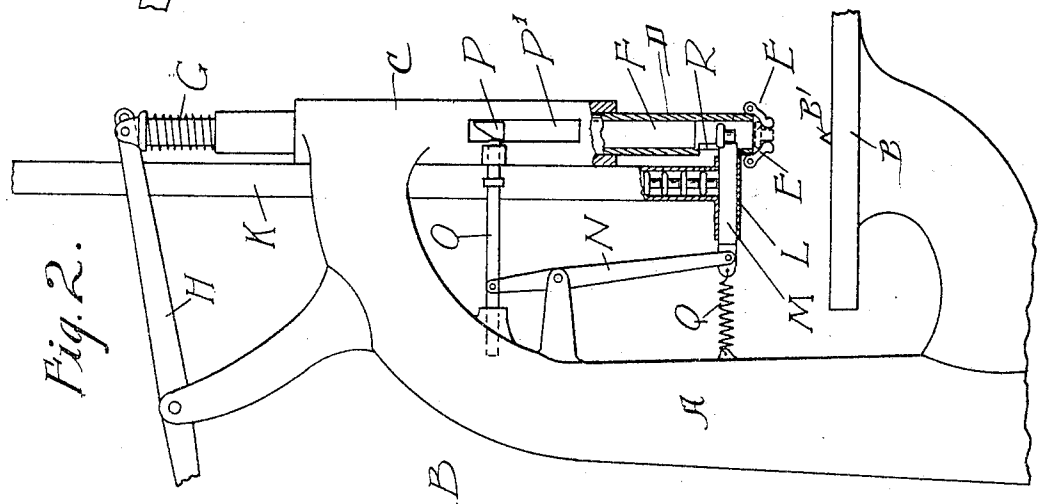


Fig. 2.

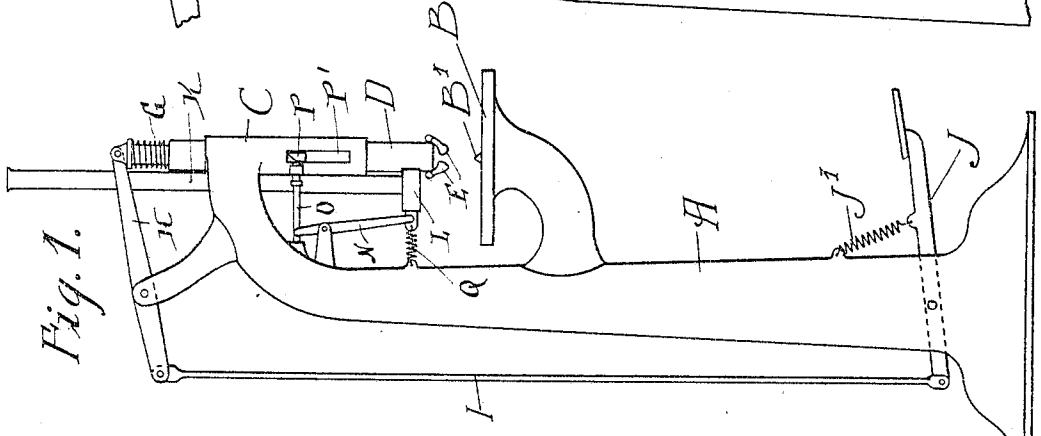


Fig. 1.

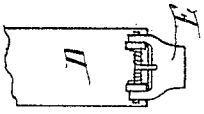


Fig. 4.

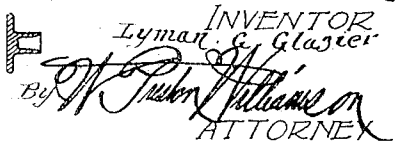


Fig. 5.

WITNESSES
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No. 775,215. Patented November 15, 1904.

UNITED STATES PATENT OFFICE.

LYMAN G. GLAZIER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO THOMAS H. BAMBRICK, OF PHILADELPHIA, PENNSYLVANIA.

RIVETING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 775,215, dated November 15, 1904.

Application filed May 17, 1904. Serial No. 208,353. (No model.)

To all whom it may concern:

Be it known that I, LYMAN G. GLAZIER, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Riveting-Machines, of which the following is a specification.

My invention relates to a new and useful improvement in riveting-machines, and has for its object to construct a power riveting-machine by which the rivets are fed automatically to the machine, said rivets being forced through the material to be riveted and turned all at one operation.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of my improved machine; Fig. 2, a side elevation of the upper portion of the machine, a portion of the parts being shown in section; Fig. 3, a similar view to Fig. 2, showing the machine in the act of setting a rivet; Fig. 4, an elevation of one of the spring-jaws; Fig. 5, a vertical section through one of the rivets.

A represents the standard of the machine, which may be of any suitable shape or design.

B is a table upon which the riveting is done, a point B′ being formed with the table in the center for spreading the rivets.

C is the vertical head of the machine, through which is adapted to slide the tube D. Said tube has secured upon each side at its lower end two spring-jaws E, adapted to hold the rivet while the tube D is forced downward to the material to be riveted.

F is a plunger adapted to slide vertically within the tube D, and the upper end of the plunger F extends above the upper end of the tube D, and coiled about this upper end of the plunger is a spring G, interposed between a collar upon the upper end of the plunger and the upper end of the tube.

H is a lever pivoted intermediate of its two ends to the standard. One end of the lever is connected to the upper end of the plunger F, and the other end of the lever is connected to a link I, extending downward to a foot-lever J, by which the machine is operated. J′ is a spring for returning the foot-lever and other parts to their normal position. Thus it will be seen that, if a rivet is held by the spring-jaws E and the foot-lever depressed the tube D will first travel downward until the spring-jaws come in contact with the material to be riveted. Then on a continued motion of the lever H the plunger F will be forced downward against the tension of the spring G, forcing the rivet into the material, spreading the spring-jaws, and as the hollow end of the rivet comes over the point B′ upon the table B the rivet will be spread, as shown in Fig. 3. Then as the pressure is released from the foot-lever all the parts will return automatically to their normal position.

In order to feed the rivets automatically to the machine, I have provided a rivet-receptacle in the form of a tube K, which extends downward alongside of the head C, and the lower end of the rivet-receptacle terminates in the horizontal guideway L, adapted to guide a plunger M, the rearward end of said plunger being connected to one end of a lever N, said lever being pivoted intermediate of its two ends to the standard and the upper end of the lever N being connected to a rod O, slidably mounted in the framework of the machine, the forward end of said rod lying within the path of travel of a beveled projection P, extending outward from the tube D through a slot P′, formed in the head.

Q is a spring tending to pull the plunger M rearward and force the rod O forward. When the plunger M is pulled rearward by the spring Q, the forward end of the plunger M lies rearward of the rivet-receptacle, so that the lowermost rivet within said receptacle may fall downward in front of the plunger. Then as the tube D travels upward and

just before it has reached the limit of its movement the beveled lug P strikes the rod O and forces the same rearward, which through the lever N will force the plunger M forward, and said plunger will carry the lowermost rivet through an opening R into the lower end of the tube D below the plunger F. Then upon the first movement of the tube D downward the plunger M will be withdrawn, which allows the rivet to drop downward into the spring-jaws, and the operation of riveting will be performed as before described.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

In a device of the character described, a standard, a tube adapted to slide vertically within said standard, a plunger fitted to slide within the tube, a spring interposed between the tube and the plunger tending to force the plunger upward relative to the tube, a foot-lever pivoted to the standard, mechanism adapted to depress the plunger when the foot-lever is depressed, a spring for raising the foot-lever when pressure is released, two spring-jaws pivoted upon opposite sides of the lower end of the tube adapted to normally hold the rivet against its own weight but adapted to spread under pressure to allow the rivet to pass between the same, a table secured to the standard, a rivet-spreading point secured in the center of the table, the lower end of the tube provided with an opening formed through the same, a vertical rivet-receptacle, a horizontally-sliding plunger at the lower end of the rivet-receptacle, the forward end of said plunger adapted to lie rearward of the lowermost rivet when said plunger is at its limit of movement in one direction, a horizontally-sliding rod mounted in the framework, a beveled lug formed with the tube adapted to force said rod rearward when the tube is raised, a lever connection between said rod and the horizontal plunger adapted to force said plunger forward to carry a rivet through the opening into the tube when the rod is forced rearward, and a spring for returning the feeding parts to their opposite position when the beveled lug is removed from in front of the rod, as specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

LYMAN G. GLAZIER.

Witnesses:
ROBERT J. PATTERSON,
CHARLES LORBER.