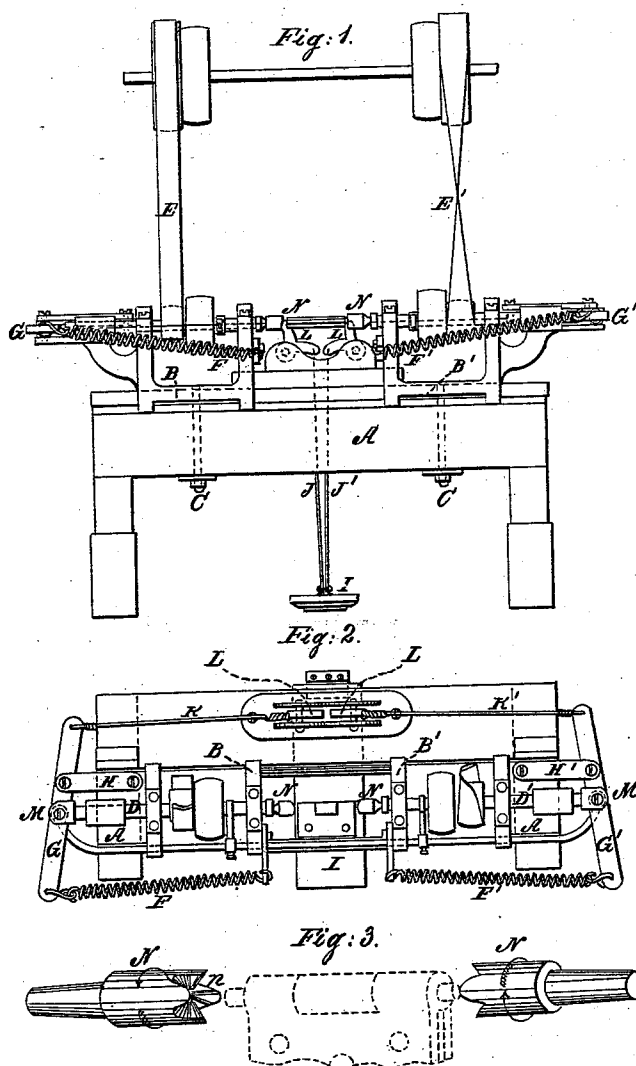


H. M. RITTER.

Riveting Hinges.

No. 84,907.

Patented Dec. 15, 1868.



Witnesses:

Chas. B. Beyer
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United States Patent Office.

HENRY M. RITTER, OF COVINGTON, KENTUCKY.

Letters Patent No. 84,907, dated December 15, 1868.

IMPROVED MACHINE FOR RIVETING HINGES.

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

To whom it may concern:

Be it known that I, HENRY M. RITTER, of Covington, Kenton county, and State of Kentucky, have invented a new and useful Mode of Heading Pins and Bolts; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention relates to a mode of riveting or heading pins, bolts, &c., at one or both ends, without heating or percussion, by the action of a peculiar milling-tool, or a pair of oppositely-revolving and pressing milling-tools, and is particularly intended for riveting the pintles of but-hinges, casters, and the like.

Figure 1 is a front elevation of a machine embodying my invention.

Figure 2 is a top view thereof.

Figure 3 is a full-size representation of a pair of milling-tools, detached.

A is a lathe-bed, supporting a pair of head-stocks, B B', which can be secured at any desired distance apart, by customary screw-bolts C C'.

The head-stocks carry a pair of slidable and rotary line-spindles, D D', which are revolved in opposite directions by means of belts E E', or otherwise, and are pressed toward each other, so as to bear against opposite ends of the pin or bolt to be headed, by means of spiral springs F F', operating through levers G G', connected to the frame by means of shackles H H', and retracted by means of a treadle, I, connected with said levers by means of rods J K and bell-cranks L L'.

The spindles D D', being hollow, receive rods M M', which are pivoted to the levers G G'.

The front end of each spindle is socketed, to carry and rotate a milling-tool, N N', whose radial corrugations, n, serve both to grasp and to spread the ends of the pintle, rod, or bolt being operated upon.

The operator, placing his foot upon the treadle, thereby retracts the milling-heads or tools N N', and the hinge, with its unheaded pintle, (see dotted lines, fig. 3,) being placed in position, the tools N N' are allowed to close upon the ends of the pintle, and form heads upon the same, when, the treadle being again depressed, the tools N N' are thereby separated, so as to liberate the finished hinge and permit the insertion of another one.

The above is my preferred form of apparatus for heading but-hinges, but where only one end requires heading, as in case of a caster, for example, the pintle, or that to which it is attached, is grasped in a vise or clamp, and held at rest, and the heading is effected by a single milling-tool operating in the same manner as the tool N or N', and even the pintles of the but-hinges may be thus clamped and headed, if desired.

The milling-tools may be advanced by the positive action of a treadle or otherwise, and may be retracted by springs or weights.

I claim herein as new, and of my invention—

1. A riveting-tool, composed of a rod having v-shaped grooves and intervening rounded projecting spurs on the end thereof, said grooves crossing one another at and in a direction at right angles to the longitudinal axis of said rod, substantially as described.

2. Also, a pair of riveting-tools, constructed as specified in the foregoing claim, in combination with mechanism for operating the same, arranged substantially as described.

In testimony of which invention, I hereunto set my hand.

HENRY M. RITTER.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.