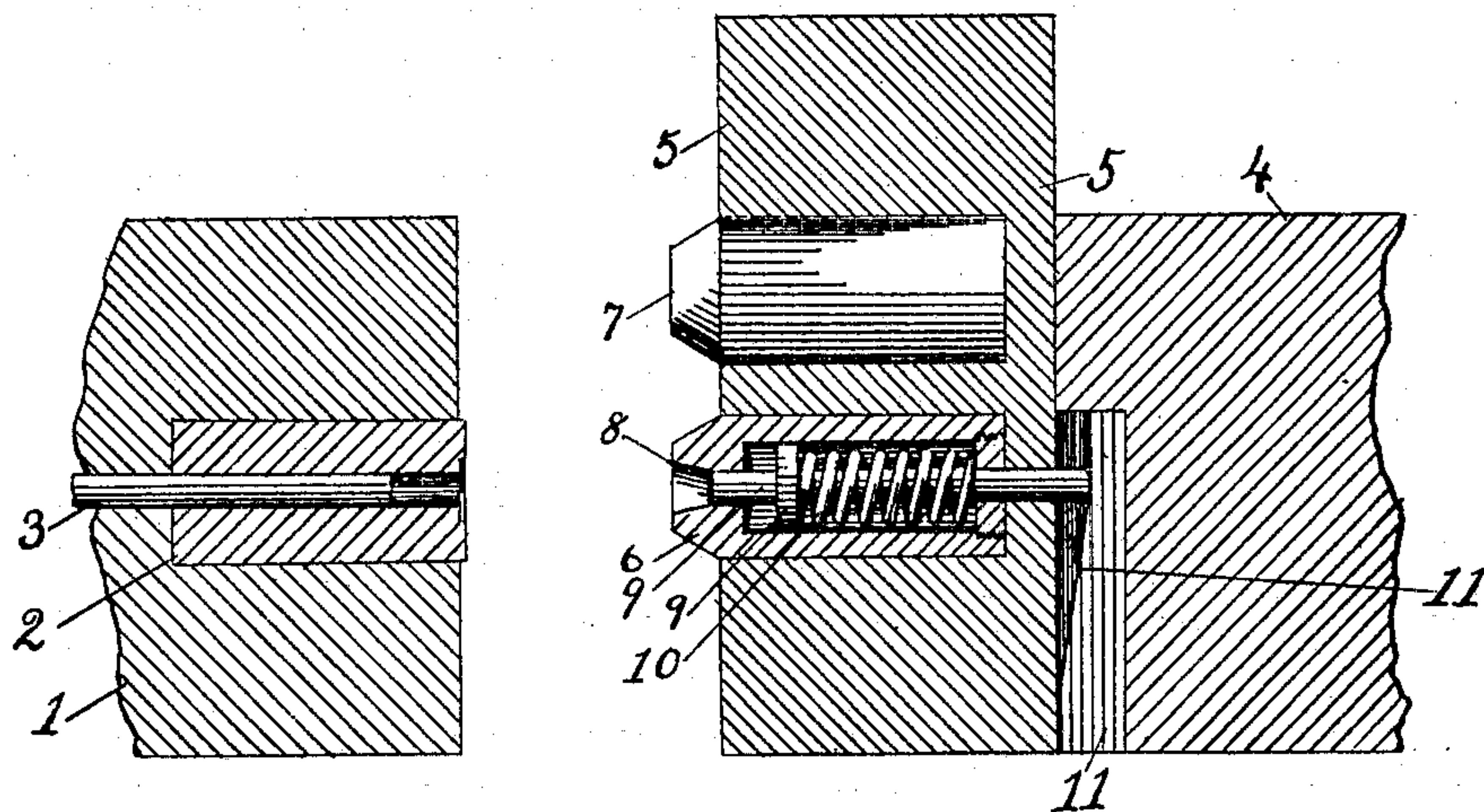


A. C. PILCHER.
RIVET EJECTOR FOR HEADING MACHINES.
APPLICATION FILED JAN. 8, 1909.

929,628.

Patented July 27, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

ALLEN C. PILCHER, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO BLAKE & JOHNSON CO., OF WATERBURY, CONNECTICUT.

RIVET-EJECTOR FOR HEADING-MACHINES.

No. 929,628.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed January 8, 1909. Serial No. 471,361.

To all whom it may concern:

Be it known that I, ALLEN C. PILCHER, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Rivet-Ejectors for Heading-Machines, of which the following is a specification.

This invention relates to that class of machines in which a reciprocating hammer or press is employed to head rivets; and in which two dies are carried by the hammer to form the head of the rivet by giving one or more blows with each die.

In this process of rivet making, a rod of metal of the size of the rivet body is fed into the machine and a piece long enough to form a rivet is sheared therefrom. This shearing leaves the end which is to form the head of the rivet, a little slanted, and if, in that condition, it were struck by the heading die it would wedge itself to slip across the face of the die, and a crooked rivet head would be formed.

To insure the forming of true heads, one of the hammer dies is socket-shaped. This precedes the heading die and holds the body of the rivet in line while it trues the face thereof, then this straightening die is slid out of line of the work and the heading die is slid into line and the next blow of the hammer upsets therewith, the rivet head, in proper shape. But irregularities in metal rods sometimes cause a rivet to stick in the socket of the straightening die, and, as the machine operates automatically and very rapidly, this mashes and spoils the work until the machine is cleared, and the object of my invention is to positively remove, before the next stroke of the hammer, any rivet that may thus stick in the die.

To this end my invention consists in the construction and combination of parts forming a rivet ejector for heading machines, hereinafter more fully described and particularly set forth in the claims, reference being had to the accompanying drawing, which represents a portion of the hammer and the anvil of a rivet-heading machine and the dies carried thereby according to my invention.

Numerals 1 represents the anvil, 2 any suitable die fixed therein to hold the piece

to be headed, and to shape the under side of the rivet head. 3 represents the common ejector rod for this stationary die. The hammer 4, is arranged to reciprocate toward and away from the anvil 1, at each stroke while at work. A die carrier 5, is fitted in the hammer to reciprocate laterally to the line of its stroke, to bring the dies 6 and 7 alternately in line of the fixed die 2. The die 6, has the usual socket 8, formed in it, and an ejector 9, provided with the usual spring 10, to push the rivet out of this die and leave the rivet in the die 2, when the hammer recedes after striking the first blow on the rivet.

What has thus far been described is common, but, to insure the positive ejecting of the rivet if it gets stuck in the die socket 8, I extend the stem of the ejector 9, out at the rear side of the carrier 5, and I provide an inclined base 11, in the hammer for the ejector to rest against in service, and to push the ejector forward by the end of the ejector sliding up the incline of the base when the lateral movement of the carrier carries this die aside and brings in the heading die 7, ready for work. This pushing of the ejector 9, forward at every outward lateral movement of the socket die, crowds out any rivet that may have stuck too tightly to be removed by the regular action of the spring 10. The inclined base piece 11, may be a portion of the stock of the hammer, but I prefer to make it of a separate piece of steel and harden it to endure the wear of service, and secure it in the hammer. Any sort of a base piece located in the lateral path of the projecting rear end of the ejector 9, to push the ejector forward by the lateral movement of the die 6, would be an equivalent of the inclined base 11.

Having thus fully described my invention, what I believe to be new and desire to secure by Letters Patent is the following claim:

1. In rivet-heading machines, a reciprocating hammer and a die carrier fitted for lateral movement therein; a fixed anvil die; dies located in the said carrier, one of these dies having a socket in it; an ejector in the socket and extending through the die and projecting beyond the rear side of the die carrier; a spring impelling the ejector forward, and an inclined base located in the

lateral path of the projecting end of the ejector.

2. A riveting hammer; a socket die mounted in a carrier having lateral movement in
5 said hammer; an ejector in the die and projecting beyond the path of the carrier, and a base piece located in the lateral path of the projecting end of the ejector, whereby the lateral movement of the die forces the

ejector forward, substantially as shown and 10 described.

In testimony whereof I affix my signature in presence of two witnesses.

ALLEN C. PILCHER.

Witnesses:

K. KUNTZ,

J. V. PILCHER.