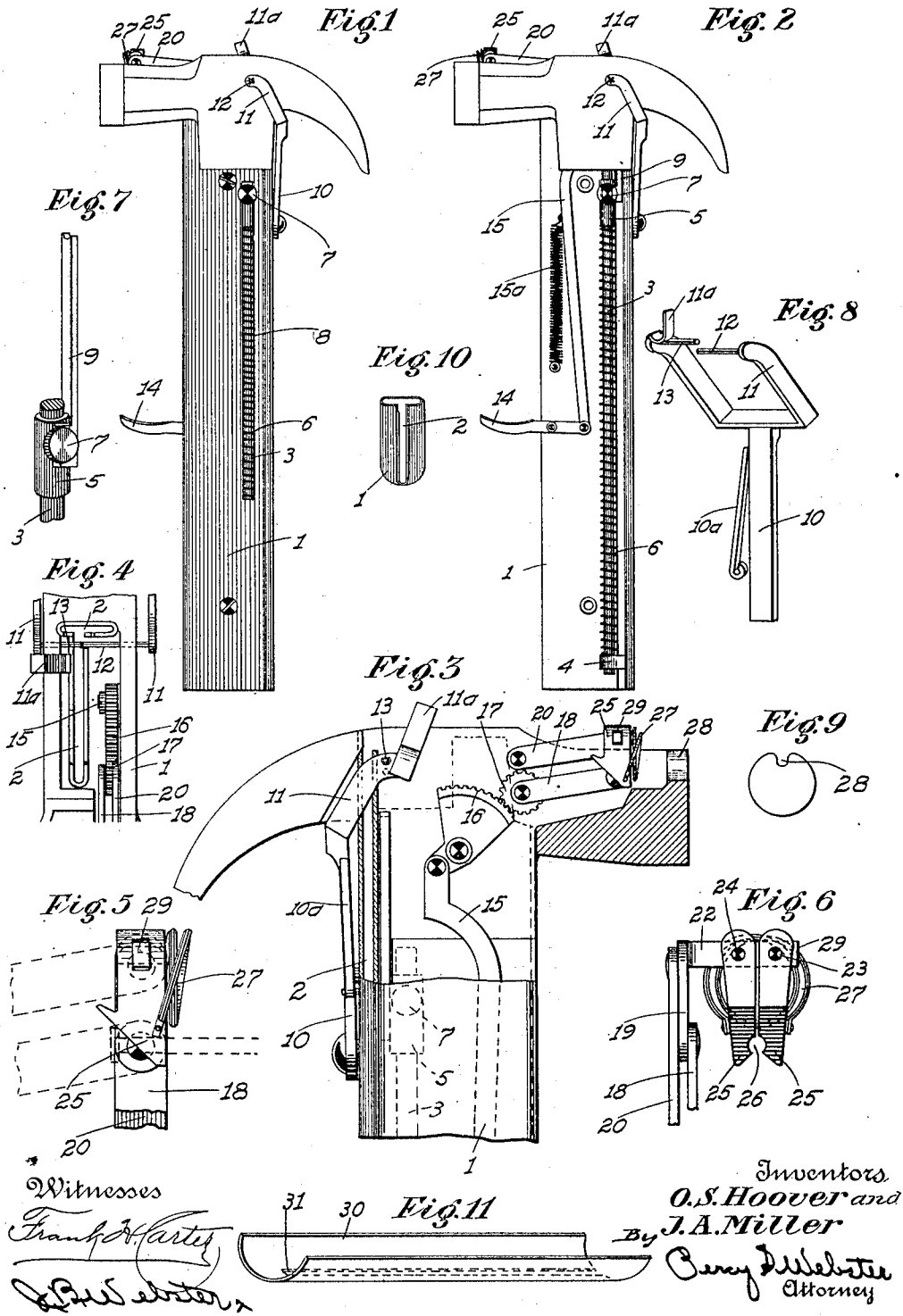


O. S. HOOVER & J. A. MILLER.
 AUTOMATIC HAMMER,
 APPLICATION FILED NOV. 21, 1910.

1,048,535.

Patented Dec. 31, 1912.



UNITED STATES PATENT OFFICE.

OLIVER S. HOOVER, OF LATON, AND JAMES A. MILLER, OF PALO ALTO, CALIFORNIA.

AUTOMATIC HAMMER.

1,048,535.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed November 21, 1910. Serial No. 593,411.

To all whom it may concern:

Be it known that we, OLIVER S. HOOVER, residing at Laton, in the county of Fresno, State of California, and JAMES A. MILLER, residing at Palo Alto, in the county of Santa Clara, State of California, citizens of the United States, have invented certain new and useful Improvements in Automatic Hammers; and we do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in carpenter tools, and particularly to hammers, the object of the invention being to produce an automatic hammer whereby the nails will be contained in the hammer and fed from within the hammer to the head of the hammer as desired.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects we accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation of the complete hammer. Fig. 2 is a similar view with one side member removed. Fig. 3 is an enlarged view of the head of the hammer partly in section showing the internal mechanism. Fig. 4 is a fragmentary view of the head of the hammer looking at the same from the rear end. Fig. 5 is a detached side view of a nail grabber. Fig. 6 is an end view of the same. Fig. 7 is a perspective view partly in section of a nail follower and feeder. Fig. 8 is a perspective view of a nail shifter. Fig. 9 is a front elevation of the head of the hammer. Fig. 10 is an end elevation of the handle of the hammer. Fig. 11 is a perspective view of a nail feed used in connection with the filling of the hammer.

Referring now more particularly to the characters of reference on the drawings, 1 designates the handle of the hammer having

a substantially T-shaped slot 2 into which the nails may be fed.

3 is a guide rod secured to a shoulder 4 within the handle 1.

5 is a sliding sleeve, there being a spring 6 interposed between the member 4 and the sleeve 5. On the sleeve 5 is a button 7 projecting outside of the handle 1 through a slot 8, such button being used to operate the sliding sleeve 5 on the rod 3, the sliding sleeve being provided with a follower or feed rod 9 adapted to impinge against the nails projecting from the slot 2 and with the coöperation of the spring 6 to force them continually toward the head of the hammer. At the head of the hammer, outside the same, is pivotally mounted an arm 10, having a yoke 11 disposed over the head of the hammer, which yoke has two pins 12 and 13, projecting within the head of the hammer, one disposed in a lower plane than the other, and the free end extremities of each projecting slightly within the vertical plane of each other.

Normally the nails abut against the lower pin 12. When it is desired to use the hammer a trigger 14 is pulled which operates a link 15 to cause a quadrant gear 16 to revolve a gear wheel 17 carrying an arm 18 to which is secured a link 19 having another arm 20 pivoted to the inside of the head of the hammer. The link 19 carries an arm 22 to which are pivotally mounted, as at 23 and 24, grabbing jaw members 25, each having a semi-circular bottom recess forming a receiving slot as at 26, such jaw members 25 being held in normal closed position by means of a spiral spring 27 bearing on the outer side of each member 25 as shown in Fig. 6. By pulling on the trigger 14 as aforesaid, it drives the member 15 forward causing quadrant 16 to revolve and revolve the wheel 17, which in turn causes the arm 18 to move backward, which, through the link 19 drives the arm 20 backward and this motion carries these grabber jaws 25 backward. As the jaws 25 move backward they engage the nail which engagement forces the jaws 25 apart and permits the nail to be received into the slot 26. Then when the trigger is released the spring 15^a pulls the parts back into normal position and this throws such nail into a slot 28 in the hammer head, and then by giving a slight tap the nail will engage the wood sufficiently

to permit it to be readily disengaged from the jaws 25, and then it can be driven in the usual manner. As the jaw members 25 throw backward a lug 29 thereon strikes
 5 an arm 11^a on the yoke 11 and moves such yoke over sidewise causing the nail impinging against the member 12 to be driven up against the member 13, and then when the
 10 lug 11^a is again free a spring 10^a returns the yoke 11 to normal position, thus causing the pin 13 to leave the nail which has been driven against it free to be picked up by
 15 the jaws 25. A spring 15^a pulls the link 15 and its corresponding parts and the jaws 25 back to their normal position after each operation.

To feed the nails into the slot 2 at the end of the handle 1, we provide a trough-like member 30 having a slot 31 into which
 20 the nails can be placed and then by registering this slot 31 with the slot 2 the nails may be fed into the handle of the hammer in a rapid manner.

From the foregoing description it will
 25 readily appear that we have produced such a device as provides an automatic hammer which will substantially fulfil the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction
 30 of the device, still in practice, such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

35 Having thus described our invention what we claim as new and useful and desire to secure by Letters Patent is:

1. An automatic hammer comprising the combination with a hammer head having a
 40 hollow handle and means for moving nails through said handle in alinement, of an arm mounted in the head of said hammer, means for moving such arm in a substantial arc longitudinally of said hammer head, two spring
 45 pressed jaws secured on said arm, such jaws having a nail receiving recess, and means for operating said arm to cause it to throw said

jaws across the head of said hammer to cause them to feed said nails from said handle to the head of said hammer as described.

2. An automatic hammer comprising a hammer head having a slotted handle and adapted to receive nails through said handle, a spring pressed arm pivoted on the out-
 55 side of said handle and having a yoke disposed over the head of said hammer, two pins on said yoke projecting within the head of said hammer, one of said pins being disposed in a lower plane than the other and
 60 the free end extremity of each pin projecting slightly within the vertical plane of the other, an upwardly projecting arm on said yoke, a nail receiving jaw arranged to be
 65 thrown back and forth from said yoke to the head of said hammer such jaw being arranged to strike said upwardly projecting arm, said jaw being also arranged to transfer nails from said yoke and pin mechanism
 70 to the head of said hammer, as described.

3. An automatic hammer comprising a hammer head having a hollow handle adapted to receive nails in alinement, means for pressing said nails toward the head of
 75 said hammer, a trigger pivotally mounted to said handle, a link connecting with said trigger, a quadrant connecting with said link, a small gear wheel intermeshing with said quadrant, a projecting arm secured to said
 80 gear wheel, a lever fulcrumed in the head of said hammer, a link connecting said arm with said lever, an arm projecting from said link and carrying two spring pressed jaw members having a nail receiving recess, and means for feeding said nails into said recess
 85 as described.

In testimony whereof we affix our signatures in presence of two witnesses.

OLIVER S. HOOVER.
 JAMES A. MILLER.

Witnesses:

PERCY S. WEBBSTER,
 FRANK H. CARTER.