

No. 704,467.

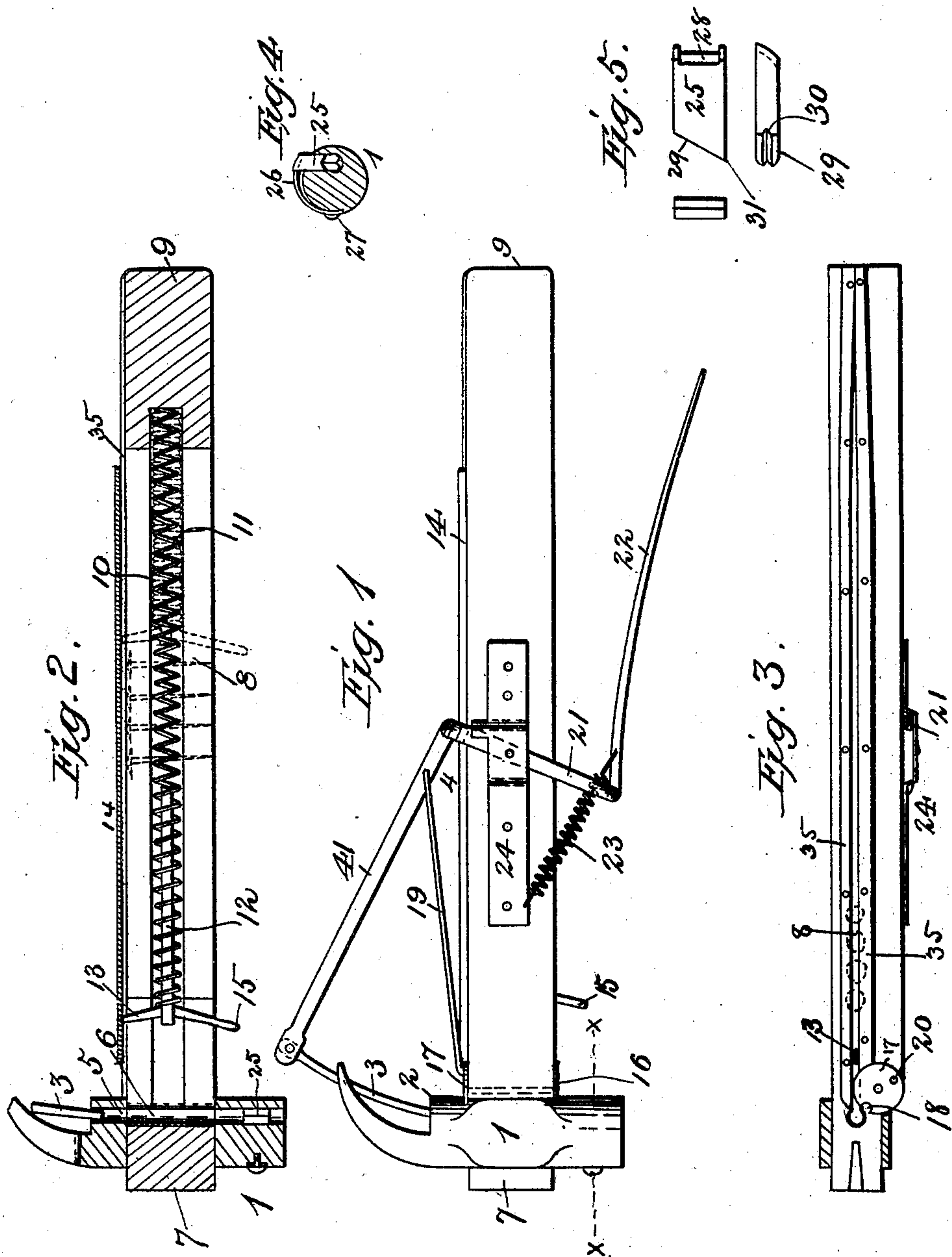
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G. I. SMITH.

MAGAZINE NAILING HAMMER.

(Application filed Aug. 9, 1900. Renewed Mar. 6, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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MAGAZINE NAILING-HAMMER.

SPECIFICATION forming part of Letters Patent No. 704,467, dated July 8, 1902.

Application filed August 9, 1900. Renewed March 6, 1902. Serial No. 96,972. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ISREAL SMITH, a citizen of the United States, residing at Mayview, in the county of Jewell and State of Kansas, have invented certain new and useful Improvements in Nailing-Hammers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to nailing-machines, and more particularly to a nailing-hammer.

The object of my invention is to provide a hammer of the character specified which will be provided with a nail-magazine in the handle portion and with feeding mechanism whereby the nails may be fed successively into the hammer portion proper and delivered therefrom.

Other objects and advantages will be made fully apparent from the following specification, considered in connection with the accompanying drawings, of which—

Figure 1 is a side elevation of my invention complete. Fig. 2 is a central longitudinal vertical section of my invention with the escape-plates removed. Fig. 3 is a top plan view of the handle or magazine, showing the cover removed and the hammer-head in section. Fig. 4 is a detail in cross-section of Fig. 1 on line *xx*. Fig. 5 is a detail view of a portion of the feeding mechanism removed from the hammer.

In order to conveniently refer to the several parts of my invention and their cooperating accessories, numerals will be employed, of which—

1 indicates the body of my improved hammer, which in exterior appearance is constructed substantially as now common except that adjacent to the claw-section I provide the tubular extension 2, which is designed to receive the plunger 3, controlled by the lever 4, as will be hereinafter particularly set forth.

The bore 5, adapted to receive the plunger 3, preferably extends entirely through the body of the hammer and through a contiguous portion of the handle, as indicated by the numeral 6. The handle 7, as will be seen by reference to Fig. 2, extends entirely through

a suitable opening provided in the body of the hammer, as is usual, and may be anchored therein by rivets or wedges, as deemed most desirable. A slotted opening, vertically disposed, is provided in the handle and indicated by the numeral 8, the outer extreme end of the handle being left solid, as shown by the numeral 9. Centrally disposed within the slotted opening 8 is the tubular opening or bore 10, within which I dispose the compression-spring 11, the latter being designed to control the plunger-shaft 12, having the cross-head 13, which extends vertically and has its lower end extended below the slot or opening 8 sufficiently far to form a handle 15, by means of which the cross-head is drawn backward to allow the slot or opening to be filled with nails or tacks, as shown in Fig. 2.

The slotted opening 8 is covered by the sliding cover 14, which is designed to hide from view and retain in position the nails inserted in the magazine 8. This cover 14 catches over the two guiding-bars 35, arranged upon opposite sides of the slot or opening 8 and which serve no other purpose than merely to retain the cover in position and guide it in its movements.

In order to fill the magazine full of nails, tacks, or the like, the downwardly-extending end or handle 15 of the cross-head is grasped and drawn toward the free end of the handle, which will result in compressing the spring 11 and withdrawing the head 13, as shown in dotted lines, when the slot thus cleared may be filled with the desired quantity of nails. After the magazine has been filled the handle 15 may be released, when the force of the spring 11 will be brought to bear upon the row of nails thus located in the slotted opening or magazine 8, and since the said magazine extends inward into communication with the bore 6 it becomes necessary to provide means for admitting but one nail at a time within said bore. The means I have provided to accomplish this purpose of individually feeding the nails into the bore 6 consists of a pair of cooperatively-mounted feeding-disks 16 and 17, which are provided upon their edges with registering notches 18

of sufficient size to receive the wire or body portion of the nail. In order to place the said disks under the complete control of the operator, I provide the link-section 19, which is
 5 pivotally connected to the disk 17 by means of the aperture 20, provided near the edge of said disk, while the other end of the link is pivotally connected to the controlling-lever 4, as clearly set forth in Fig. 1. By properly
 10 determining the length of the link-section 19 it will insure that the disks 16 and 17 will be automatically rotated in unison with the movement of the feeding-plunger 3. The disks 16 and 17 are rigidly connected to a shaft
 15 extending from one to the other, and it follows that it is unnecessary to connect them individually with the controlling-lever 4.

The controlling-lever 4 is preferably constructed substantially as shown in Fig. 1, and
 20 therefore consists of the section 41, the substantially vertically disposed section 21, and the handle 22, and in order that the lever 4 may be held normally upward I provide the spring 23, one end of which is connected at a
 25 convenient point to the handle 22 or section 21, while the other end is attached to the anchoring-plate 24, by means of which the section 21 is pivotally secured in its operative position. The handle 22, being substantially
 30 parallel with the handle portion of the hammer, may be readily grasped by the fingers of the operator when it is desired to feed the nail through the bore 6 into a position ready to be driven. In order to check the free
 35 downward movement of the nail, I interpose across its path, near the lower end of the hammer, the stop or arrester 25, which is spring-controlled, as shown in Fig. 4. The stop or arrester 25 is designed to play loosely
 40 in a suitable aperture and is disposed horizontally across the lower end of the bore 6, being held normally inward by the spring 26, the latter being held in place by any suitable means, as by the set-screw 27. The outer
 45 end of the arrester 25 may be provided with a recess 28 in order to hold the free end of the spring against lateral movement. The inner end of the arrester is beveled from above downward, thereby providing the inclined face 29, which preferably has the
 50 centrally-disposed groove 30, designed to receive the point of the nail and direct it downward.

Having thus fully described the construction of my improved nailing-hammer, the operation or manner of using the same may be stated to be as follows: After the magazine 8
 55 has been properly filled with the desired variety of nail or tack the handle 15 is released, which will insure that the nails will be fed forward toward the hammer portion as the forward ones are used, the plunger 3 being employed to hold the nail while being started, and in order to accomplish the individual
 60 feeding or delivery of the nails as they are

required the handle 22 is drawn upward, which will cause an oscillation of the disk through the mediation of the link 19, and since the disk is normally disposed so that
 70 it will receive a nail within the notch or recess 18 said nail will be moved by said disk until it drops downward in the bore 6, when it will be arrested by the stop 25. The nail is supported by the arrester until the plunger
 75 3 has been actuated, whereupon the plunger 3 will force the nail or a portion thereof past the arrester and into the position in which the point of a nail projects below the striking-face of the hammer, and the plunger remains in contact with the head of the nail
 80 while it is being struck into the board, and therefore prevents the return of the nail into the hammer-head.

It will be understood that various equivalents and substitutes may be adopted in the
 85 production of the several features of my invention, and I therefore desire to comprehend in this application all such substitutes and equivalents as may be considered to fall fairly within the scope of my invention. 90

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A self-feeding nailing-hammer comprising in combination a handle provided with a
 95 nail-magazine, a hammer-head provided with a tubular bore extending to the striking-face of the hammer, an oscillatory notched disk to deliver the nails individually from the magazine into the bore of the hammer-head, a plunger
 100 to advance the nails through said bore, a lever, and connections therewith to oscillate said disk to deliver a nail on the movement of the lever in one direction and to advance the plunger to force the nail along the bore on
 105 the movement of said lever in the other direction, as set forth.

2. A self-feeding nailing-hammer, comprising in combination, a handle provided with a
 110 nail-magazine, a spring-actuated follower in said magazine, a hammer-head having a tubular bore extending to the striking-face thereof, an oscillatory notched disk to feed the nails individually from the magazine to said bore, a yielding detent extending across said
 115 bore to support the nail therein, means to force the nail through said bore past the detent and project the point of the nail beyond the striking-face of the hammer-head, a lever and connections therewith to operate said
 120 disk and said last-mentioned means to feed the nail from the magazine and to advance the same into position to be driven, as set forth.

3. A self-feeding nailing-hammer comprising a hammer-head provided with a tubular
 125 bore extending to the striking-face thereof, a handle provided with a nail-magazine, a spring-actuated follower adapted to force the nails toward the hammer-head, an oscillatory 130

disk having a peripheral recess and adapted
to deliver the nails individually from the
magazine to said bore, a spring-actuated de-
tent extending across the bore and means to
5 advance the nails through said bore and past
the detent to deliver them in position to be
driven, as set forth.

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

GEORGE ISREAL SMITH.

Witnesses:

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