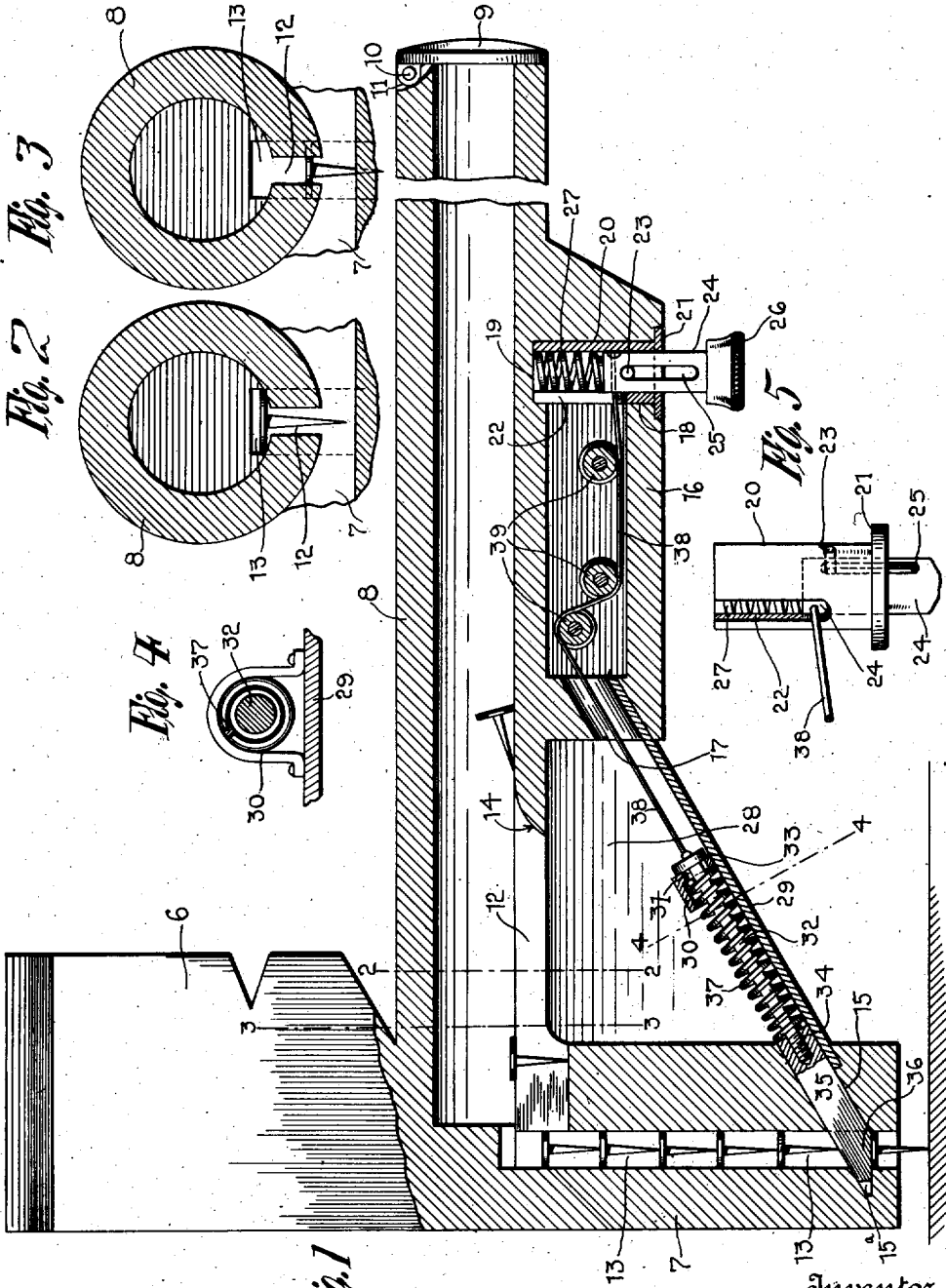


I. J. BROWN.
MAGAZINE NAILING TOOL.
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1,018,478.

Patented Feb. 27, 1912.



Witnesses

Robert M. Sutphen
H. Joseph Doyle

Fig. 1

Inventor
ISAIAH J. BROWN

By E. E. Stroman
his Attorney

UNITED STATES PATENT OFFICE.

ISALAH J. BROWN, OF JERSEY CITY, NEW JERSEY.

MAGAZINE NAILING-TOOL.

1,018,478.

Specification of Letters Patent.

Patented Feb. 27, 1912.

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To all whom it may concern:

Be it known that I, ISALAH J. BROWN, a citizen of the United States of America, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Magazine Nailing-Tools, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a nail or tack driving tools, such as hatchets, hammers, and the like, and the principal object of the same is to provide a magazine driving tool in which the nails or tacks are fed through the handle of the tool and the driving head thereof. By the employment of novel setting means which are controlled by the user, the tacks are quickly and singly set in position to be driven into holding positions.

In carrying out the objects of the invention generally stated above it will be understood, of course, that the essential features thereof are susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawings, wherein:—

Figure 1 is a vertical longitudinal sectional view of a hatchet constructed in accordance with this invention, the blade thereof being shown in elevation. Fig. 2 is a transverse sectional view taken on the line 2—2, Fig. 1. Fig. 3 is a similar view taken on the line 3—3, Fig. 1. Fig. 4 is a detail transverse sectional view taken on the line 4—4, Fig. 1. Fig. 5 is a fragmentary detail view in elevation of the thumb operated trigger for controlling the setting implement.

For illustrative purposes, and as a showing of one practical use of the invention the same has been shown in the accompanying drawings as a hatchet such as is commonly used by lathers.

Referring to the said drawings by numerals, 6 designates the usual blade, 7 the driving head, and 8 a hollow tubular handle which is preferably integral with the head and blade. Said handle has a lid or cover 9 for its open rear end that is hinged to a pivot stud 10 in a recess 11 in said rear end. The hollow handle 8 is provided with a longitudinally extending base guide slot 12 that extends to and is in communication with the inner end portion of a discharge passage 13 that extends longitudinally through the head 7. The rear end wall 14 of the slot 12

is rounded to provide a guideway to cause the shank of the nail or tack to enter said slot 12. Slot 12 is wide enough to permit the shanks of the nails or tacks to be freely moved therein, but too narrow to permit the heads thereof to enter said slot. Adjacent the driving surface, head 7 is provided with an inclined transverse opening 15 the inner end of which is in communication with passage 13 and is disposed opposite and in alinement with a side recess 15^a of said passage 13.

At an intermediate point the handle 8 is provided with a pendent housing 16 the forward end wall of which is provided with an inclined opening 17 that is in alinement with the opening 15 of head 7. The rear end portion of the housing 16 has an opening 18 through its bottom that is in alinement with a recess 19 in the top of said housing. A guiding sleeve 20 extends through opening 18 and has its inner end seated in recess 19. The flanged head 21 is counter-sunk in the opening 18. Sleeve 20 has its body provided with a longitudinal slot 22 and adjacent the outer end of said slot, a pin 23 extends transversely through said sleeve. A thumb operated trigger, which is in form of a bolt, has its shank 24 longitudinally slidable in sleeve 20, said shank being provided with a longitudinal slot 25 through which pin 23 extends for limiting the sliding movements of said trigger. An enlarged and preferably flattened head 26 is provided for the shank 24, said head being at all times projecting outward relative to the bottom of the housing 16 so that the same is accessible to the fingers or thumb of the user of the tool. A spiral spring 27 is inclosed by the sleeve 20 and is interposed between the shank 24 and the top of the recess 19 and exerts a tension tending to retain the trigger at the limit of its outward movement.

A casing 28 is provided between head 7 and the forward end wall of housing 16, and the inclined bottom 29 of said casing provides a slideway between openings 15 and 17. At an intermediate point, the slideway 29 carries an arched spring seat 30 the flanged rear end of which is provided with a transverse guide opening 31. A rod 32 is slidable through the opening 31 and its rear end carries an abutment collar 33 that contacts with the outer surface of the rear end of the spring seat 30 to limit the movement of said rod in one direction. The for

ward end of rod 32 is threaded for engagement with the threaded socket 34 in the rear end of a combined cut-off and nail setter 35 that is slidable through opening 15 and 5 has a flattened end 36 for engaging the head of a nail to be set. The forward end edge of the flattened end 36 of the setter normally rests in the side recess 15^a of passage 15, as is clearly shown in Fig. 1 of 10 the accompanying drawings, so that it will prevent nails dropping from said passage 15. The rod 32 has a spring 37 coiled about it, one end of which bears against the rear end of the combined cut-off and setter 15 and the other end resting in the spring seat 30. The tension of spring 37 is constantly exerted to retain the cut-off and setter across the passage 15.

The end collar 33 of rod 32 has one end 20 of a cable 38 fastened thereto, said cable extending into housing 16 through the end opening 17 and passing about idler pulleys 39 and into sleeve 20 through the slot 22 therein and being suitably fastened to the 25 shank 24 of the thumb operated trigger. The tacks are held by any suitable means in position beneath the plunger before being driven in place.

In operation, the tool is charged by placing 30 the nails or tacks in the hollow handle 8 and sealing the said handle by means of the end closure 9. The nails feed through the handle and enter the guide slot 12 and slide along the same to the passage 13 of 35 head 7 until said passage is filled. The cut-off and setter 35 is normally held across the base of passage 13 by the tension of spring 37 so that but one nail at a time is in position to be set. When the initial nail 40 has been set, the trigger 24 is forced inward by thumb pressure against the tension of spring 27 causing cable 38 to retract the combined setter and cut-off against the tension of spring 37 so that the next nail 45 will drop to a setting position. The thumb pressure on the trigger 24 is then released, and the tension of spring 27 forces the trigger 24 outward so that the strain on the cable 38 is removed, whereupon the spring 37 50 instantaneously slides the cut-off and setter across passage 13, to prevent the inner nails dropping and at the same time, the flat end of said cut-off and setter contacts with the head of the outermost nail and firmly 55 sets the same in the work. This operation

can be quickly and constantly repeated so that a row or rows of nails can be set in the work and afterward firmly driven to holding positions.

What I claim as my invention is:—

1. A device of the character described 60 comprising a head having a longitudinally extending passage formed therethrough, said head being also provided with a transverse passageway communicating with said 65 longitudinal passage, and with a seat formed in alinement with said transversely extending passage, a hollow handle extending from said head and communicating with said longitudinal passage, a housing formed between said head and handle, the bottom of 70 said housing being in alinement with said transversely extending passageway, a plunger passing through said transversely extending passageway, and into said seat, 75 means in said housing for normally holding said plunger within said seat, and means for drawing said plunger into said housing to form a clear passage through said head.

2. A device of the character described 80 comprising a head having a longitudinally extending passageway and a transversely extending passageway intersecting said longitudinally extending passageway, a plunger 85 slidably mounted in said transverse passage and extending across said longitudinal passage, a hollow handle extending from said head and communicating with said longitudinal passage, a housing formed upon said handle, a sleeve mounted in said housing at 90 right angles to said handle, said sleeve being provided with a longitudinally extending slot and with a pin mounted in its wall and extending into its interior, a plunger 95 mounted in said sleeve and provided with a longitudinally extending slot through which said pin passes, a spring mounted in said sleeve beneath said plunger and a cable connected with said plunger at one end and at the other end with said first- 100 mentioned plunger, whereby said first mentioned plunger may be drawn through said transverse passage.

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

ISAIAH J. BROWN.

Witnesses:

SANDY G. HAMLIN,
CHAS. KELLY.