M. S. HAMMER.

MAGAZINE HAMMER.

APPLICATION FILED JUNE 8, 1908.

917,291.

Patented Apr. 6, 1909.

2 SHEETS—SHEET 1.

FIG. 1.

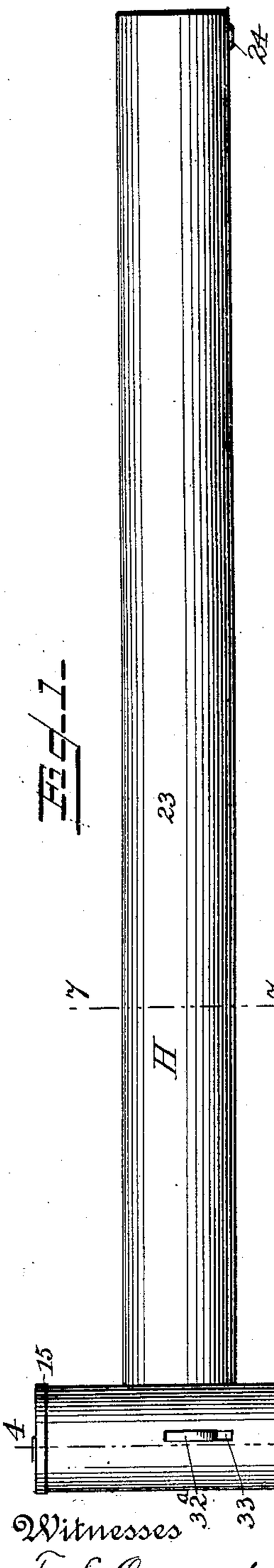
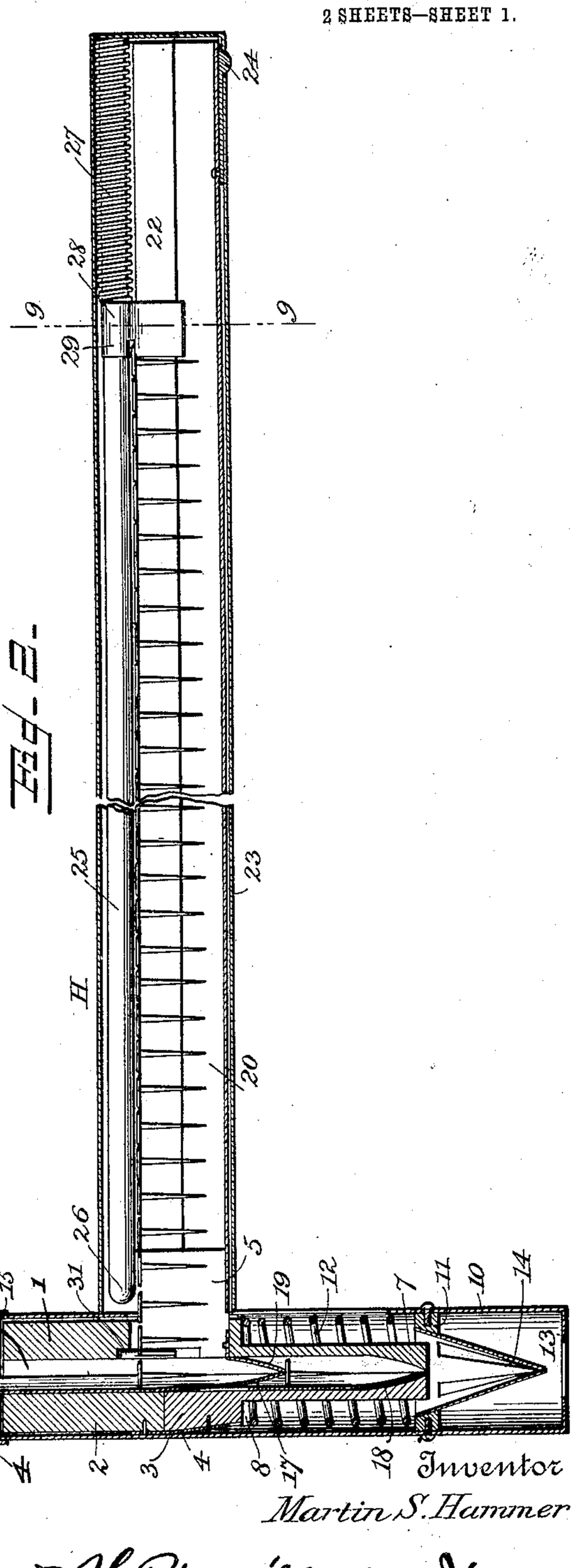


FIG. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

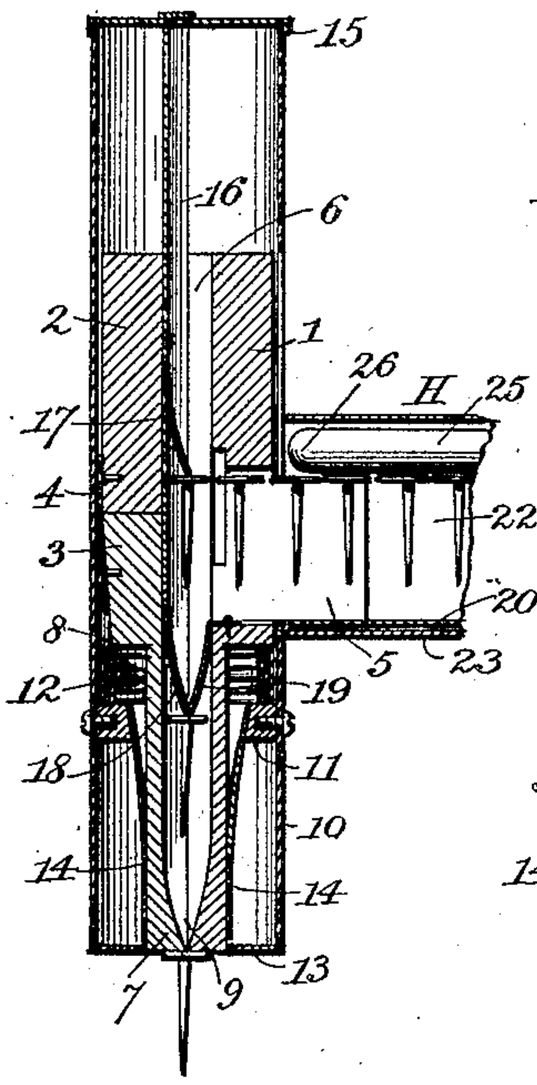


Fig. 4.

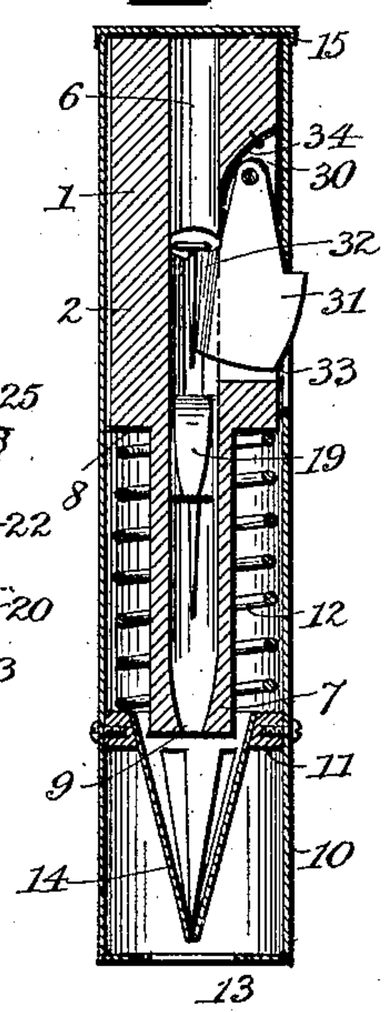


Fig. 5.

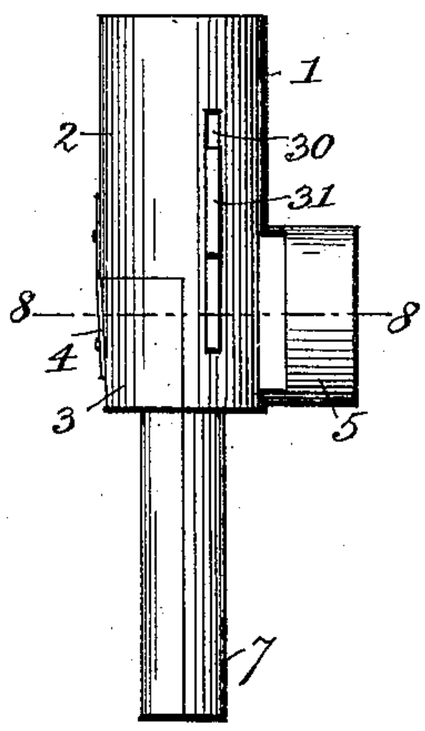


Fig. 6.

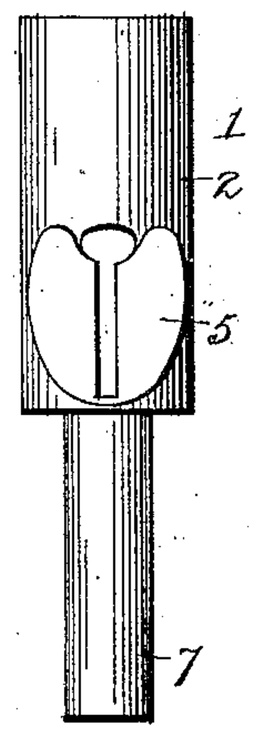


Fig. 7.

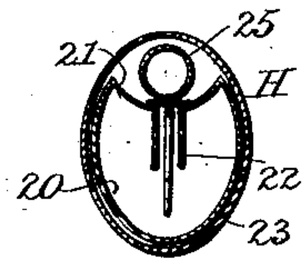


Fig. 8.

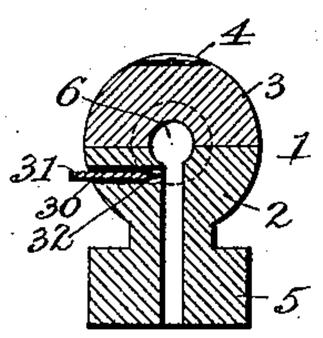


Fig. 9.

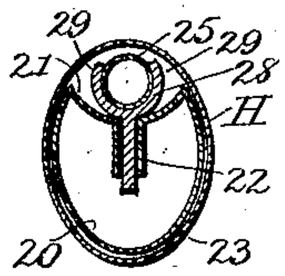
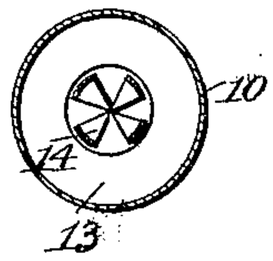


Fig. 10.



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UNITED STATES PATENT OFFICE.

MARTIN S. HAMMER, OF COEUR D'ALENE, IDAHO.

MAGAZINE-HAMMER.

No. 917,291. Specification of Letters Patent. Patented April 6, 1909.

Application filed June 8, 1908. Serial No. 437,370.

To all whom it may concern:

Be it known that I, MARTIN S. HAMMER, a citizen of the United States, residing at Coeur d'Alene, in the county of Kootenai and State of Idaho, have invented certain new and useful Improvements in Magazine-Hammers; and I do 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 hammers, and particularly to magazine hammers.

One of the objects is to provide a device of this character which will be cheap to manufacture, and which will be efficient and thorough in its operation.

A further object of the invention is the provision of means for feeding the tacks or nails through the plunger, and of subsequently closing the plunger for its driving stroke.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of the device, Fig. 2 is a longitudinal section thereof showing the plunger in retracted position, Fig. 3 is a similar section with the handle broken away showing the parts in driving position, Fig. 4 is a section on the line 4—4 of Fig. 1, Fig. 5 is a detail elevation of the plunger removed from the tube, Fig. 6 is a similar elevation taken transversely, Fig. 7 is a transverse sectional view of the handle on the line 7—7 of Fig. 1, Fig. 8 is a transverse sectional view on the line 8—8 of Fig. 5, Fig. 9 is a transverse sectional view on the line 9—9 of Fig. 2, and Fig. 10 is a transverse section taken on the line 10—10 of Fig. 1.

Referring more especially to the drawings, 1 represents the plunger which is formed in two parts 2 and 3 connected together by a flat spring 4, which is riveted or otherwise secured to the parts opposite the handle securing lug 5. The plunger is provided with a vertical aperture 6, extending throughout its length and is reduced at its lower end to form a striking plunger 7, and a spring receiving shoulder 8. The aperture 6 is constricted at its discharge end 9, for a purpose which will be hereinafter described. Surrounding the plunger 1 is a casing or tube 10, having secured internally thereto a ring 11, adapted to support one end of the compression spring 12, whose other end abuts against the shoulder 8, and normally holds the plunger in retracted position. This ring 11 is located adjacent the open or discharge end 13 of the tube 10 and has secured around its inner periphery a plurality of springs 14, which converge to a point adjacent the open end 13, so as to form a tack receiving funnel. The tube 10 is provided with a cap 15, screwed thereto and depending from and secured to the cap 15 is a semi-cylindrical guideway or tubular extension 16, which has secured within its body a pair of springs 17 and 18, both of them having their points extending out into the aperture 6, and the latter having its point disposed slightly below the lower end of the plunger when the latter is in retracted position. A similar spring 19 is secured upon the upper side of the shoulder 8 and has its point projecting in the opposite direction to the point of the spring 18, and suspended in approximately the same plane.

Secured to the handle receiving lug is the inside tube 20 of the handle H, and this tube is provided with a tack receiving groove 21 and a tack receiving slot 22, depending therefrom as will be seen clearly in Fig. 7. This tube extends back the entire length of the handle and is surrounded by the outside tube 23, which is connected when in normal position to the inside tube by a spring catch 24. The outside tube carries a small inner tube 25, which is rounded at 26, at its forward end and is seated in the groove 21 over the channel 22 so as to hold all the tacks in position. Surrounding this tube 25 is a light spiral spring 27 which carries a follower 28, best shown in Fig. 9, where the upper arms 29, straddle the tube 25 and the lower leg extends down into the channel 22. By withdrawing the outer tube 23 the channel 22 and the groove 21 are exposed so that the magazine may be filled with tacks lath-nails or any similar fastening devices which may be driven with one stroke of a hammer. The outer tube 23 is then slid back over the entire tube until the catch 24 engages the notch of the outer tube and holds the device in position. At this time the spiral spring 27 is compressed behind the follower 28 and the tube 25 overlies and holds all the tacks in position. The first tack of the series of

the magazine is forced into the channel or aperture 6 ready to be received by the springs carried upon the semi-cylindrical tube 16. In order to separate these tacks and to prevent clogging at this point I slot the plunger as at 30, and pivot therein a pawl 31, having a sharp entering edge 32, adapted to pass in between the tacks. This pawl has its outer cam face 32ª, extending through a slot 33 in the tube 10, and the catch is normally spring pressed in the position shown in Fig. 4 by a spring 34. Upon the downward movement of the plunger and the relative upward movement of the tube the cam face 32ª engages the lower edge of the slot 33 to force the pawl 31 between the tack in the channel 6 and the succeeding tack so as to prevent congestion at this point and further feeding of the tacks into the magazine until the parts have assumed their normal position. The tube 10 is of course slotted in the side adjacent the handle so as to permit the passage of the handle lug 5.

In setting the device for operation, the tube 10 is pressed up by the plunger so as to bring the spring 17 over the head of the first tack, as shown in Fig. 3. This movement also brings the pawl 31 in between the first and the second tack and prevents further feeding until the tube 10 is released. The spring 12 will then force the tube to the original position and the spring 17 will carry the tack down to the position of the second tack, shown in Fig. 3, where it will be engaged by the spring 19. Upon the second raising of the tube 10 the first tack has its head engaged by the spring 18 and the second tack has its head engaged by the spring 17 as before. Upon the release of the tube the second time the first tack is carried down to the position shown in Fig. 3, where it drops into the funnel-shaped members 14 and is ready for driving. Upon striking the hammer the tack is driven into the body with one stroke, springs 14 opening to allow the passage of the plunger and at the same time pressing upon the plunger to hold the parts 2 and 3 of the reduced portion 7 closely together. It will of course be understood that with each succeeding stroke of the hammer the tacks are fed to the springs 14, and are struck by the closed jaws of the plunger. The parts 2 and 3 of the plunger of course open and close under the influence of the spring 4, as the tacks are forced therethrough by the action of the springs 17, 18 and 19. The slot in which the handle lug 5 travels is preferably covered by a shield.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described my invention what I claim and desire to secure by Letters Patent is:—

1. A magazine hammer comprising a driving plunger, a guiding tube surrounding said plunger, means carried by the guiding tube and extending through the plunger for feeding fastening devices to the driving plunger, and means carried by the plunger for regulating the supply of fastening devices to the feeding means.

2. A magazine hammer comprising a striking plunger, a driving tube surrounding said plunger, means for holding the plunger in normally retracted position, a magazine handle connected to said plunger, means carried by the handle for feeding fastening devices to said plunger, means operated at each stroke of the hammer for limiting the number of fastening devices fed to the plunger, means carried by the tube and extending through the plunger for feeding the fastening devices to a point in position to be operated upon by the plunger, and flexible means for holding the fastening devices in driving position, said flexible means being displaced by the plunger at each stroke of the hammer.

3. A magazine hammer comprising a striking plunger, a driving tube surrounding said plunger, means for holding the plunger normally in retracted position, a magazine handle connected to said plunger, means carried by said magazine handle for feeding fastening devices to said plunger, means operated at each stroke of the hammer for limiting the number of fastening devices fed to the plunger, means carried by the tube and extending through the plunger for feeding fastening devices to a point in position to be operated upon by the plunger, and means to hold the fastening devices in driving position.

4. A magazine handle for wood working tools comprising an inner channel body adapted to receive a plurality of fastening devices, an outer protecting cover, a retaining device carried by said cover, and means surrounding said retaining device for feeding fastening devices to the tool.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MARTIN S. HAMMER.

Witnesses:
OTTO H. OLSSON,
AHL DAHLGREN.