

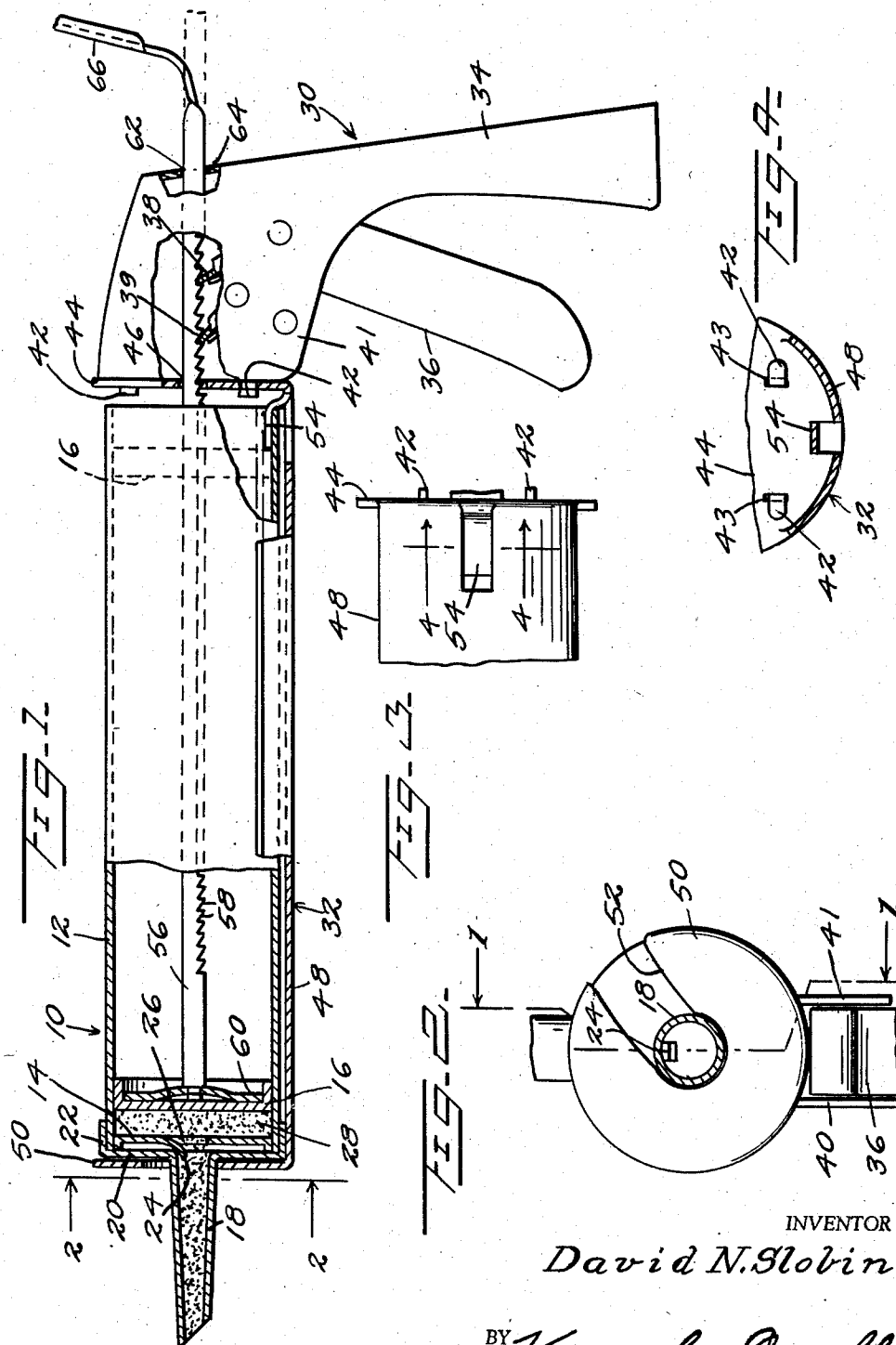
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CAULKING GUN

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2,801,775

CAULKING GUN

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2 Claims. (Cl. 222—326)

This invention relates to caulking guns and is a continuation-in-part of the invention disclosed and claimed in my U. S. Patent No. 2,720,345, filed November 12, 1952, Serial No. 320,051, and entitled Caulking Gun.

It is a primary object of this invention to provide an improved support member in a caulking gun for receiving therein a caulk magazine.

A further object of this invention is to provide a caulking support member in a caulking gun together with novel means for releasably securing caulking magazine therein.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawings, in which:

Figure 1 is a side elevational view, partly in cross section, taken on the line 1—1 of Figure 2, looking in the direction of the arrows;

Figure 2 is an end elevational view taken on the vertical plane of line 2—2 of Figure 1, looking in the direction of the arrows; and,

Figure 3 is an enlarged, detailed fragmentary bottom plan view of the inner end of the magazine support member.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3.

Referring now to the drawings in detail wherein like reference numerals indicate like parts throughout the several figures, the reference numeral 10 designates, in general, a caulking compound magazine of conventional construction. The magazine 10 includes a cylindrical wall 12 having closed end walls 14 and 16 at each end, respectively, thereof. A nozzle 18 of tapering configuration is carried by a cap 20 having an annular flange 22 which telescopes over the outer end of the magazine 10. The outer end wall 14 is provided with a closure flap 24 which upon pressure being applied to the caulking compound from the other end of the magazine 10 is adapted to be forced outwardly into the inner or rear end of the nozzle 18. Thus an opening 26 is formed in the end wall 14 which permits passage therethrough of the caulking compound 28 into the nozzle 18.

The above described magazine 10 is of conventional construction and, per se, forms no part of the present invention.

The instant invention is directed to the caulking gun generally designated at 30, and more specifically to the magazine support member 32. The gun 30 includes a handle 34 on which is pivotally mounted a lever 36 for actuation of a ratchet pawl 38. A holding pawl 39 is mounted in the handle 34 forwardly of the pawl 38. The upper forward end of the handle member 34 is open and the opposite sides thereof 40, 41 are provided with a plurality of tabs 42 which project forwardly through openings 43 formed in the cylindrical inner end wall 44. The tabs 40 are bent laterally to fixedly secure the inner end wall 44 to the handle 34, and the inner end wall 44 has centrally formed therein an opening 46.

An elongated arcuately shaped magazine support bar 48 is integrally connected with the lower side of the inner

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end wall 44 and projects forwardly therefrom and terminates in an integrally formed substantially cylindrical outer end wall 50 disposed in spaced confronting relation relative to the inner end wall 44. The outer end wall 50 is provided with a curvilinear slot 52 which extends inwardly from an upper circumferential edge portion and terminates in the central body portion thereof. For a purpose to be described, the width of the slot 52 diminishes as the slot extends to the center of the end wall 50.

The lower side of the bar 48 is formed with an elongated axially and forwardly extending struck line 54 adjacent the inner wall 44, and the gun is completed by loosely inserting one end of a plunger rod 56 having ratchet teeth 58 on a side thereof and into the upper end of the handle 34 through the opening 46. The opening 46 is sufficiently large enough so as to permit the plunger rod to rotate 360° about its longitudinal axis. The other end of the plunger rod 56 has fixedly secured thereto a substantially cylindrical plunger 60.

As is seen in Figure 1, the inner end of the plunger rod 56 has the ratchet teeth normally engaging the pawls 38, 39 when the gun 30 is in its operative condition, and the extreme inner end of the plunger rod extends loosely through an opening 62 formed in the rear wall 64 of the handle 34 and is bent laterally to form a manually operable lever 66.

The exact details of the construction of the operating ratchet pawls 38 and 39, and of the plunger rod 56 are set forth in detail in my United States Patent No. 2,720,345, filed November 12, 1952, Serial No. 320,051, and entitled Caulking Gun.

In operation, and referring specifically to Figure 1 of the drawing, the operator grasps the lever 66 and rotates it substantially 180° in either direction to disengage the pawls 38, 39 from the ratchet teeth 58. The lever 66 is then pulled away from the handle 34 to retract the plunger 60 from its shown position to a point proximate the inner wall 44. Thereafter the spent magazine 10 is removed. A new magazine 10 is placed on the support member 32 with the inner end thereof engaging under the line 54 and the inner end of the nozzle 18 engaging within the slot 52. The nozzle 18 is then forced into the slot 52 to wedge therein at the inner terminal end thereof whereby the magazine becomes firmly locked on the support member 48. The lever 66 is then rotated 180° to reengage the teeth 58 with the pawls 38, 39.

The operator then operates the lever 36 causing the pawl 38 to advance the piston rod 56 so that the piston 60 engages the inner end wall 16 of the magazine 10. Continued operation of the lever 36 effects detachment of the inner end wall 16 from the cylindrical wall 12 and exerts a force on the caulking compound 28, and this force, in turn is applied to the flap 24 causing it to open whereby the caulking compound enters and is discharged from the nozzle 18.

Having thus described the preferred embodiments of the invention, it should be understood that numerous modifications and structural adaptations may be resorted to without departing from the scope of the appended claims.

What is claimed is:

1. A caulking gun comprising a handle member, a plunger advancing lever rod pivotally carried by said handle member, a pawl driven by said plunger advancing lever, a plunger rod provided with ratchet teeth along a longitudinal extending side thereof, said pawl being adapted to engage said ratchet teeth to drive said plunger rod in one direction, said plunger rod being provided with an enlarged piston at one end thereof, the other end of said plunger rod being provided with a laterally extended handle, a supporting member for a cylindrical caulking

magazine having an end wall at one end thereof and a nozzle mounted on its other end, said supporting member comprising an elongated arcuately shaped support bar having integrally formed opposed circular end walls, one of said end walls having an aperture formed therein to receive said plunger rod for rotation and reciprocation therethrough, means for securing said one end wall to said handle member, said other circular end wall having a curvilinear slot formed therein diminishing inwardly in width to receive and wedge therein the inner end of said nozzle, and means on said supporting member detachably securing said one end of said magazine thereto.

2. A caulking gun as defined in claim 1, and said means comprising an upwardly and forwardly extending struck tine.

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