

UNITED STATES PATENT OFFICE

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CAULKING GUN WITH ATTACHING MEANS
FOR REPLACEABLE CARTON

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1 Claim. (Cl. 222—327)

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This invention relates to caulking guns.

An object of this invention is to provide in a caulking gun an improved means for supporting the magazine in a manner whereby the material within the magazine may be extruded or ejected from the nozzle.

Another object of this invention is to provide in a caulking gun having a movable plunger engageable within a magazine, an improved means whereby the nozzle will be correctly positioned with respect to the handle.

A further object of this invention is to provide in a caulking gun an improved magazine support and alignment means whereby the magazine with the nozzle may be easily and quickly snapped into and out of operating position.

A further object of this invention is to provide in a caulking gun an improved magazine support which will rigidly support the magazine in axial alignment with the plunger so that the magazine will not shift or get out of alignment during the use of the gun.

A further object of this invention is to provide in a caulking gun an improved magazine alignment device and support which is simple in construction and will not get out of order during the use of the gun.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claim.

In the drawings:

Figure 1 is a detailed side elevation partly broken away and in section of a caulking gun constructed according to an embodiment of this invention.

Figure 2 is a front elevation of the gun.

Figure 3 is a sectional view partly broken away taken on the line 3—3 of Figure 2.

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

Referring to the drawing, the numeral 10 designates generally a handle which has pivotally mounted thereto a plunger operating lever or trigger 11 adapted to move a plunger rod 12 forwardly into the magazine M. The plunger rod 12 is provided with ratchet teeth 13 on the lower side thereof, and the teeth 13 are engaged by a rear operating spring pressed pawl 14 movable forwardly with rearward rocking of the lever 11.

A holding spring pressed dog or pawl 15 also engages the teeth 13 so as to prevent rearward movement of the plunger rod 12 during the extrusion of the material from the magazine M. The rear end of the plunger rod 12 is provided with a

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right angular handle or extension 16 by means of which the rod 12 upon partial turning thereof to disengage the teeth 13 from the pawls 14 and 15 may be moved rearwardly to a starting position.

The magazine M which is of conventional construction is provided with a rear end head 17 having an annular flange 18 projecting rearwardly therefrom, and the magazine M is also provided with a forward head 19 having an annular flange 20. The head 19 is formed with a centrally disposed aperture 21 which is initially closed by means of a flap or closure 22.

The plunger rod 12 which is slidable through a guide opening 23 carried by the handle 10 is provided at its forward end with a plunger head or piston 24. The head or piston 24 is adapted to engage within the flange 18 and to bear against the rear side of the rear head 17.

The handle 10 has secured to the forward end thereof a plate 25 formed with an upper flange 26 and a lower arcuate flange 27. The front wall 28 of the handle 10 has projecting therefrom pairs of securing lugs 29 which engage through openings 30 formed in the plate 25.

A transversely arcuate magazine supporting arm 31 is fixedly secured to the flange 27 and projects forwardly beneath the magazine M to the forward end of the latter. An upwardly projecting plate 32 is formed integral with the supporting arm 31 and is provided with an upwardly opening slot 33 through which an extruding nozzle 34 is adapted to loosely engage.

The slot 33 forms a pair of fingers 35 at the upper end of the forward plate 32, and these fingers 35 are outwardly bent as indicated at 36 to facilitate the insertion and removal of the magazine M.

The nozzle 34 which is provided with an inclined mouth 37 is carried by a disc shaped plate 38 having an annular flange 39 telescoping over the forward end of the magazine M. The nozzle structure embodying the nozzle 34 and the cap which includes the plate 38 and flange 39 is retained in coaxial position with respect to the plunger rod 12 by means of a rearwardly projecting bead 40 which is formed in the plate 32 below the nozzle 34, and the bead 40 engages within a groove 41 which is formed in the cap plate 38.

The bead 40 and the groove 41 form a locking means for the nozzle structure so as to prevent this structure from disengagement with the plate 32 during the use thereof and also forms a means for holding the nozzle structure in axial alignment with the plunger rod 12.

In the use and operation of this gun structure

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the magazine M having the end caps 17 and 19 in the opposite ends thereof is inserted into the magazine holder, and at this time the plunger rod 12 with the plunger head 24 is disposed at its rearmost position.

At the time the magazine M is inserted into the holder the nozzle structure is slipped over the forward end of the magazine, and the nozzle cap is then snapped into position with the bead 40 engaging in the groove 41. The plunger operating lever 11 may then be rocked to move the plunger rod forwardly so as to thereby extrude the material through the nozzle member 34.

While the supporting arm or bar 31 is shown as being welded or otherwise fixedly secured to the arcuate flange 27 of plate 25 it will be understood that arm 31 may be made integral with flange 27 and plate 25.

What is claimed is:

In a caulking gun having a handle, a piston, and ratchet means for moving said piston, means supporting a magazine coaxial with said piston, said supporting means comprising an elongated transversely curved supporting arm, a right angular

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plate at the inner end of said arm, upper and lower magazine holding arcuate flanges on said plate means securing said plate to the forward end of said handle, a second plate carried by the outer end of said arm and formed with an upwardly opening slot, a nozzle seating in said slot, a cap secured to said nozzle adapted to engage over the outer end of the magazine, and a transversely disposed inwardly convexed bead carried by said second plate, said cap having an inwardly concaved groove within which said bead removably engages whereby said nozzle will be held in axial alignment with said piston.

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REFERENCES CITED

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