July 11, 1961 H. G. ALLEN 2,991,475

MAGAZINE FOR FASTENER APPLYING MACHINES

Filed Aug. 4, 1959 4 Sheets-Sheet 1

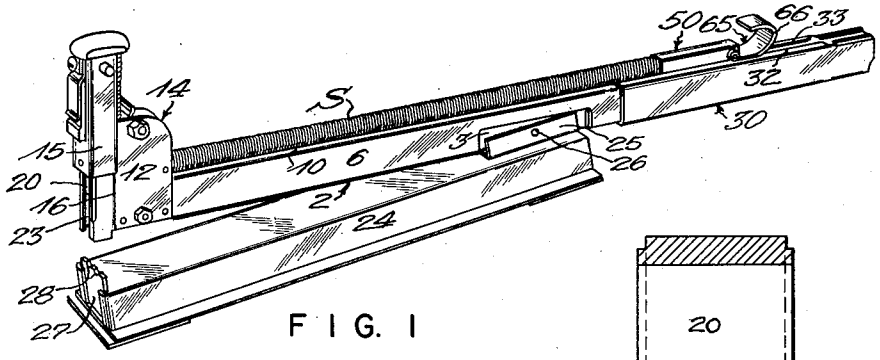



FIG. 1

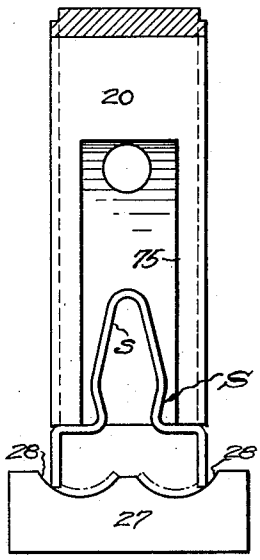



FIG. 3

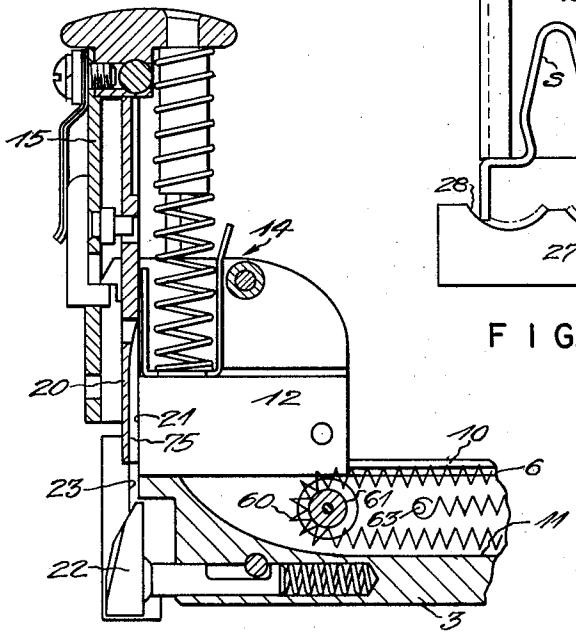



FIG. 2

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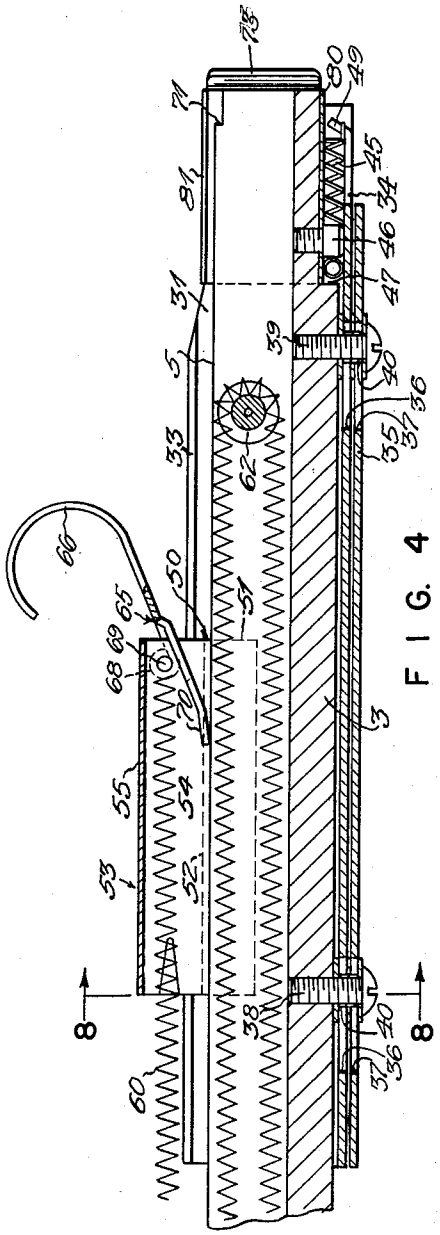


FIG. 4

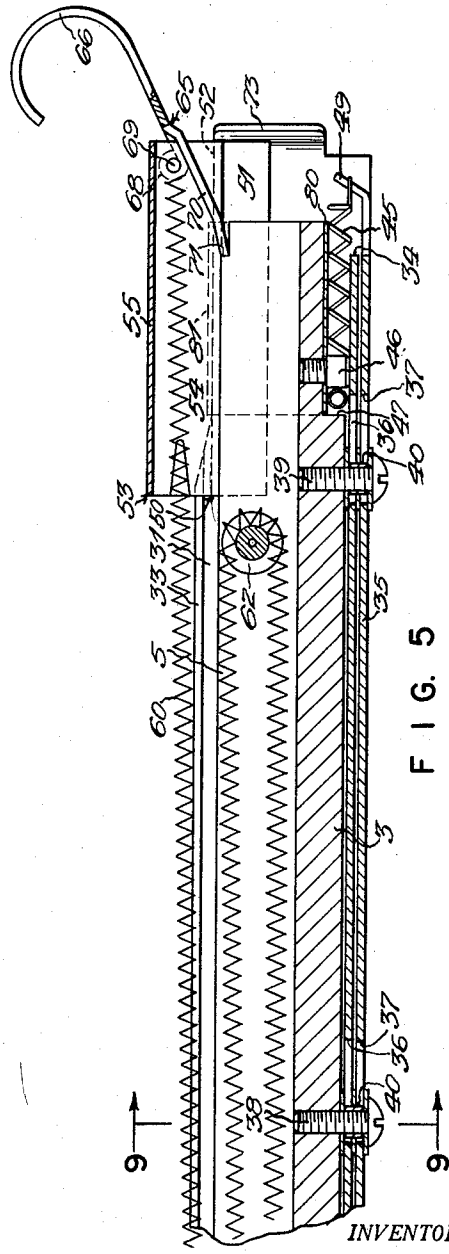


FIG. 5

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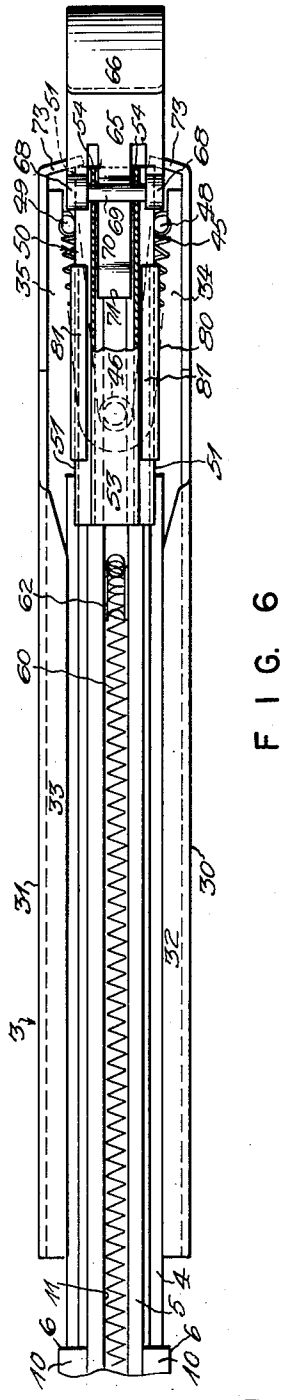


FIG. 6

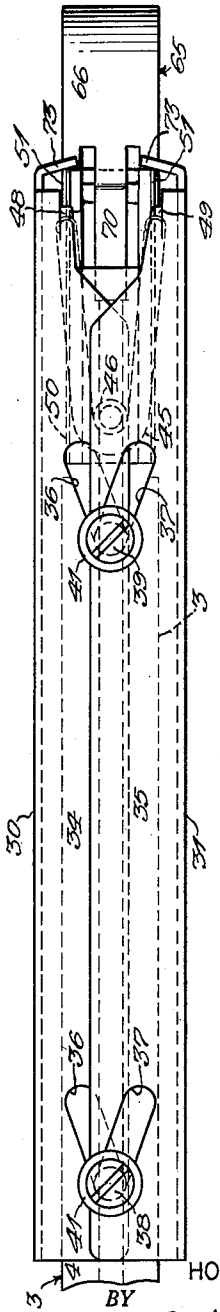


FIG. 7

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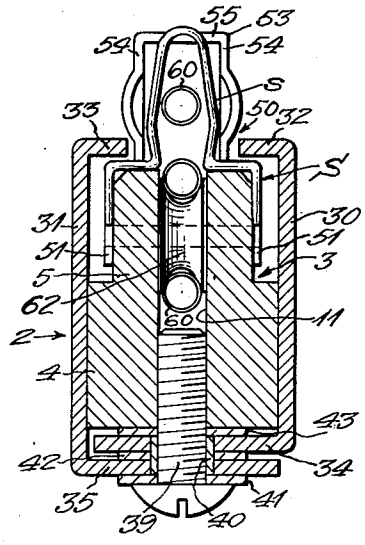


FIG. 8

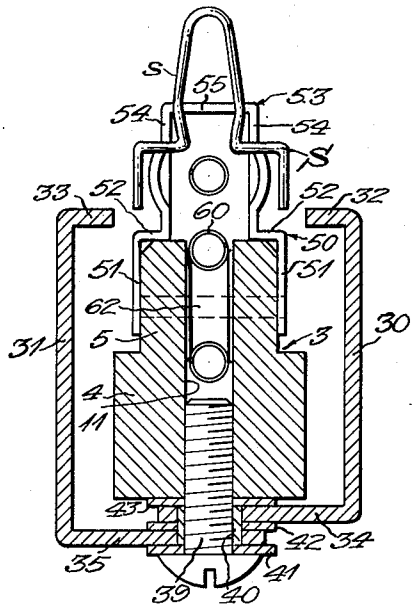


FIG. 9

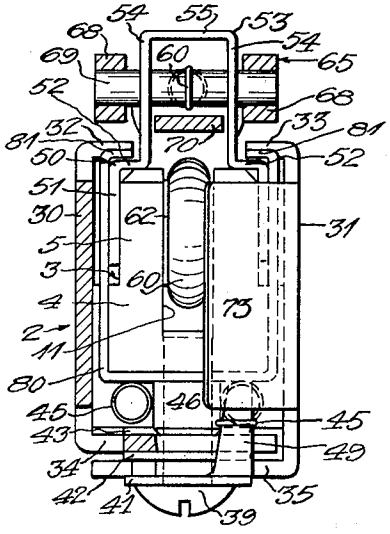


FIG. 10

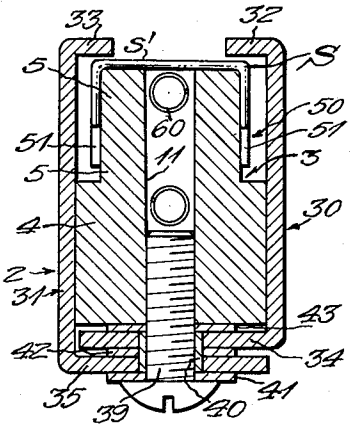


FIG. 11

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United States Patent Office 2,991,475 Patented July 11, 1961



# 2,991,475
# MAGAZINE FOR FASTENER APPLYING MACHINES

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Filed Aug. 4, 1959, Ser. No. 831,629
11 Claims. (Cl. 1—3)

This invention relates to fastener applying machines or implements and more particularly to the magazine thereof for containing a large supply of fasteners such as wire staples. The magazine is usually provided with a central rail or core extending longitudinally thereof for supporting staples in sliding relationship thereon to adapt them to feed to the driving means of the implement. The present invention is concerned especially with hold-down means adapted to overlie the staples on the core or support to maintain them in parallel contacting relationship and to prevent them from rising, becoming displaced or otherwise disorganized during the feeding action. The present hold-down means are arranged to slide laterally away from the sides of the core to open a space at the top of the magazine for convenient loading of staples therein. Means are provided for automatically displacing said hold-down means away from the core when the pusher that feeds the fasteners is withdrawn to the rearward end of the magazine.

One object of the invention is to provide hold-down members slidably mounted in parallel spaced relation to the sides of the core and extending longitudinally thereof with separate sections at their ends adapted for displacement away from the core to open the magazine for loading it with fasteners.

Another object is to provide cam-means for sliding said hold-down members laterally away from the core and means operated automatically by retraction of the staple-pusher for actuating said cam-means to displace the hold-down members.

Another object is to provide slidable hold-down members actuated by withdrawal of the staple feeding means or pusher for actuating said cam-means.

Another object is to provide means including angularly-related slots at the bottom of the hold-down members and means engageable with said slots for shifting said hold-down members laterally outward in relation to the core of the magazine.

Anoher object is to provide operating means for the hold-down members of relatievly simple construction yet efficient in action and proof against derangement or getting out of order in use.

Further objects of the invention are set forth in the following specification which discloses a preferred form of construction of the machine or appliance and its operating mechanism, by way of example, with one alternative form thereof as illustrated in the accompanying drawings. In the drawings:

FIG. 1 is a perspective view of the complete fastener applying machine or implement showing the present invention as applied to use therewith;

FIG. 2 is an enlarged vertical sectional view of the fore part of the machine showing the head with the staple driving means therein;

FIG. 3 is a rearward view of the driver-blade showing its slotted construction adapted for use with fasteners of a certain shape having loops extending upwardly from their crowns and illustrating the legs of the staple in position to be clinched by the anvil of the machine;

FIG. 4 is a longitudinal sectional view of the rearward end of the magazine of the implement showing the hold-down members in closed relationship at the sides of the core;



FIG. 5 is a similar sectional view showing the staple-pusher retracted and the hold-down members displaced away from the sides of the magazine core;

FIG. 6 is a top plan view of the magazine showing the hold-down members retracted or displaced outwardly from the sides of the core;

FIG. 7 is a bottom plan view of the rearward portion of the magazine showing the cam-means as actuated to displace the hold-down members outwardly away from the sides of the magazine core;

FIG. 8 is a further enlarged transverse sectional view on line 8—8 of FIG. 4 showing the hold-down members in operative relationship closed against the sides of the magazine core;

FIG. 9 is a similar transverse sectional view on line 9—9 of FIG. 5 showing the hold-down members as displaced away from the sides of the core to open the magazine for loading it with staples;

FIG. 10 is an end view of the staple magazine, part sectional through one of the hold-down members and showing said members in closed relationship; and

FIG. 11 is a transverse sectional view similar to FIG. 8 showing an alternate form of the staple magazine for use with inverted U-shaped staples having straight crowns and illustrating the hold-down members as closed against the sides of the core to cooperate therewith.

Fastener applying or staple driving machines and appliances have come into very general use in many different industries for fastening various and sundry materials in the building trades and also in the manufacture of automobile bodies and other metal structures. For example, stapling or tacking machines may be used for attaching siding, roofing, screening and insulating materials to buildings, and also for fastening in place interior wall board and finishes. In the manufacture of automobile bodies insulating material or so-called air-strips are fastened around windows and other openings by staples applied by machines operated manually or driven by power. The present invention as herein illustrated relates to an implement of this latter type and it is desirable for all industrial machines that the magazine be of extremely large capacity for holding a maximum number of the fasteners so that the implement may be operated continuously over long periods of time without reloading.

The present machine is generally of a conventional form of construction as regards the fastener driving mechanism which may be operated either mannually or driven by power means such as fluid pressure. As before noted, however, the present invention relates to the magazine of the machine and therefore the staple applying means will be described only briefly.

The magazine 2 may be generally of conventional construction comprising a central longitudinally-extending rail or core 3 for supporting the staples in straddled relation thereon and of very considerable length to provide maximum capacity as shown more particularly in FIG. 1. The core 3 has a lower base portion 4 (FIG. 8) of greatest width surmounted by a narrower portion 5 dimensioned to fit between the legs of the staples S with their shoulders resting on its upper surface. Preferably, the sides of the upper portion 5 of the core have the corners beveled to provide clearance for the bent portions of the shoulders of the staples so that their crowns may rest snugly against the top of the core. Extending along the forward part of the core 3 in contact with the sides of its lower portion 4 are vertical side plates 6, 6 (FIG. 1) formed of sheet-metal and welded or otherwise suitably fastened to the lower sides of the core 3. The side plates 6, 6 may extend, for example, approximately two-thirds of the distance from the forward end of the core 3, being formed at the top with flanges 10 projecting in-

wardly above the top of the narrower portion 5 of the core (FIG. 2) and thus forming fixed or stationary hold-down means for overlying the top of the shoulders of the staples. The core 3 is formed with a central slot 11 extending throughout substantially its full length for housing a helical spring, later described, which advances the staple-pusher to feed the staples forwardly on the core.

With a conventional type of hollow magazine having a bottom and upstanding side walls with flanges at the top overlying the whole length of a central core, loading the magazine is usually accomplished by opening a door or gate at either its forward or rearward end. Such arrangements require manual operation for opening and closing the door or gate which is sometimes inconvenient and in any event time-consuming. In the present improved construction of the magazine the side walls 6, 6 extend only a portion of the length of the magazine 2, being interrupted for substantially one-third of its complete length to provide a space for loading the staples on the core 3. The present improvement contemplates the use of a pair of separate plate-like hold-down members extending longitudinally at the sides of the core 3 for approximately one-third of its length, and formed with flanges overlying the top thereof above the shoulders of the staples. Automatically-operated means are provided for displacing said hold-down members laterally outward to open the magazine for receiving a supply of staples.

At the forward end of the magazine 2 are vertical side plates 12 forming a housing 14 for the staple driving mechanism which may consist of a slidable plunger 15 reciprocable in a guideway 16 on the housing. A staple-driver 20 (FIG. 2) in the form of a relatively flat blade is fastened at its upper end to the plunger 15 to adapt it to slide in grooves or guideways 21 at the sides of the housing 14. The forward end of the magazine 2 may be provided with a retractible staple-supporter 22 (FIG. 2) for sustaining the foremost staple in position to be driven during the decent of the driver 20. The staple is driven through a vertical throat 23 after it feeds off from the end of the core 3; the throat being in alinement with the guideways 21 to adapt the lower end of the staple-driver 20 to slide therethrough. The staple driving mechanism is described only briefly herein since it has no direct relation to the present invention and is shown in U.S. Letters Patent No. 1,780,530 of November 4, 1930 to A. H. Maynard.

The present improved magazine with the staple driving mechanism at its forward end may be used in many different applications, being herewith shown pivoted to the rearward end of a base 24 to adapt it to rock downwardly against the work held on the base. For this purpose the base 24 has fastened thereto a trough-shaped hinge-element 25, the sides of which straddle the sides of the magazine 2 with a pin 26 projecting therethrough for pivoting the magazine thereon. At the forward end of the base 24 is a clincher anvil 27 formed with concaved recesses 28 (FIG. 3) for receiving the legs of a staple to bend them around in a clinching operation. In other instances, however, the magazine 2 and the fastener driving mechanism may be applied to a hammer-type machine without the use of clinching means, such a form of construction being especially adapted for industrial use in tacking and nailing parts in place.

Referring to FIGS. 6, 7 and 8, the pair of hold-down members 30, 31 are of similar construction in the form of sheet-metal plates adapted to normally abut the sides of the base portion 4 of the core 3 and spaced from the sides of its upper portion 5 to accommodate the legs of the staples S therebetween. Inturned flanges 32, 33 at the top of the members 30, 31 extend longitudinally in spaced relation to the top of the upper portion 5 of the core to overlie the shoulders of the staples. The sides of the two right and left-hand hold-down members 30, 31, respectively, are bent inwardly at the bottom to form supporting base portions 34, 35 (FIG. 7) arranged in overlapping relationship under the bottom of the core 3. Each of the base portions 34, 35 of the hold-down members 30, 31 is provided with a pair of longitudinally-spaced cam-means comprising inclined slots 36, 37 (FIG. 7), through which extend a pair of spaced studs 38, 39 screwed into the under side of the core 3 (FIG. 4). The studs 38, 39 are inserted through bushings 40 with washers 40 (FIG. 8) underlying the base portion 35 of the member 31 for supporting it by engagement with the heads of the studs. Additional washers 42 space the bottom base portions 34, 35 of the members 30, 31 with other washers 43 underlying the core 3 above the base of the member 30.

As shown in FIG. 7, the two slots 36, 37 of each pair diverge outwardly away from the longitudinal axis of the magazine and with the studs 38, 39 engaging through their inner overlapping ends the hold-down members 30, 31 are positioned in open relationship; that is, displaced away from the sides of the core 3. By reference to this latter view it will be observed that when the members 30, 31 are slid towards the forward end of the magazine the studs 38, 39 will engage the outer ends of the slots 36, 37 to draw the two members together with their side walls abutting the sides of the lower portion 4 of the core 3. Stated briefly, when the hold-down members 30, 31 are slid to the right as viewed in FIGS. 6 and 7, they are displaced laterally away from the sides of the core 3 to open the magazine for loading it with staples; whereas, on the other hand, by sliding the hold-down members in the opposite direction or toward the forward end of the magazine the two members will be drawn together and closed against the sides of the core 3 in cooperative relation therewith.

For normally retaining the hold-down members 30, 31 in closed relationship, resilient means are provided in the form of a helical spring 45 (FIG. 5) looped around a stud 46 screwed into the base of the core 3 which is formed with a recess 47 for housing the spring. The spring 45 is arranged with the ends of its two divergent legs fastened to prongs 48 and 49 bent upwardly at the ends of the base portions 33, 34 of the members 30, 31, see also FIG. 7.

As before stated, the hold-down members 30, 31 are adapted to be slid rearwardly along the core 3 to actuate the cam means for displacing them outwardly away from its sides by engagement of the staple-pusher 50 therewith when it is withdrawn toward the rearward end of the magazine. The pusher 50 is generally of conventional form, being constructed of sheet-metal (FIGS. 4, 5, 9, 10) and comprising spaced lower side walls 51 adapted to straddle the upper narrower portion 5 of the core 3. The right-angular shouldered portions 52 of the pusher 50 seat against the top of the core 3 beneath the flanges 32, 33 of the hold-down members 30, 31 to adapt it to slide longitudinally thereon. In the form of construction of the pusher 50 above referred to it is provided with an upstanding hollow extension 53 having side walls 54 connected by a top wall 55. With this particular type of pusher its lower walls 51 are dimensioned to conform to the legs of the staples S for sliding them along the core 3 to feed the foremost staple into position for driving. A relatively long helical spring 60 having one end fastened to the pusher 50 extends toward the forward end of the magazine within the central slot 11 of the core 3 and is looped around a pulley 61 fast in said slot (FIG. 2). Thence, the continuing length of the spring 60 extends rearwardly in the slot 11 and is looped around a pulley 62 at the rearward end of the slot. From the rearward pulley 62 the spring is continued forwardly with its end anchored to a pin 63 (FIG. 2) at the forward end of the slot. Thus the spring 60 is adapted to draw the pusher 50 forwardly along the full length of the magazine.

Pivotally mounted on the rearward end of the pusher

50 is a latch-lever 65 formed with a circular loop 66 at its end for grasping with the fingers to draw the pusher rearwardly on the core 3. The sides of the lever 65 are formed with tabs 68 (FIG. 6) sheared from the metal and curled around to provide spaced bearings encircling the ends of a cross-pin 69 held in holes in the upstanding walls 54 of the pusher. The mid-portion of the lever 65 extends forwardly in a length 70 inclined upwardly at its end to form a pawl engageable in a notch 71 at the end of the core 3 (FIG. 5) to retain the pusher in its retracted position. The ends of the upstanding walls 51 of the pusher 50 are adapted to engage against inwardly-bent angular ears 73 at the ends of the hold-down members 30, 31 (FIGS. 5 and 6) when the pusher is slid rearwardly against the tension of its spring 60. Thus, when the pusher 50 is withdrawn toward the rearward end of the magazine 2, its ultimate travel will engage it with the ears 73 on the hold-down members 30, 31 and slide them into position to cause the cam-slots 36, 37 to act to spread said members apart for exposing the top of the magazine (FIGS. 6, 7).

The present improved magazine of the machine having now been described in detail, its method of operation for loading it with staples is explained as follows: It will be understood that normally the pusher 50 is drawn forwardly by its spring 60 for sliding a whole series of staples along the core 3 to deliver the foremost one into the throat 23 beneath the staple-driver 20 (FIG. 2). With staples of the shape or contour shown in FIGS. 8 and 9 the staple-driver 20 is formed with a slotted recess 75 (FIG. 3) in its rearward face to accommodate the upstanding loop *s* of the staple S; while at the sides of the slot are relatively thicker portions for engaging the outwardly extending shoulders of the staple. FIG. 11 shows a conventional type staple S' of inverted U-shape, in which case its crown or crossbar *s'* extends across the whole width of the upper portion 5 of the core 3 and in such instances it is unnecessary that the driver-blade be formed with a recess in its rearward face. In either case the staples slide easily along the top of the core 3 with their depending legs received in the space between the sides of the core 3 and the sides of the hold-down members 30, 31, and as thus disposed the inwardly projecting flanges 32, 33 at the top of said hold-down members overlie the shoulders of the staples to prevent them from rising up.

With the conventional type of staple S' illustrated in FIG. 11 it is not essential to provide a relatively long spring 60 extending around the pulleys 61 and 62 with the end of its third length brought back from the pulley 61 and attached to the staple-pusher. That is to say, only two lengths of the spring may be used with one end fixedly attached at the rear end of the magazine 2 and its other end brought forward around the pulley 61 and then rearwardly with its end fastened to the pusher by suitable means such as a prong projecting downward into the slot 11 in the staple-core 3. By this arrangement both lengths of the spring are located beneath the crossbars of the U-shaped staples S' and the spring will operate satisfactorily for feeding the pusher forwardly as used generally in machines of the prior art.

To load the magazine initially, or after a supply of staples therein has been exhausted, it is only necessary to grasp the finger loop 66 on the lever 65 and draw the pusher 50 rearwardly along the core 3. The retraction of the pusher is continued slightly beyond the rearward end of the core 3 (FIG. 5) to engage it with the ears 73 on the ends of the hold-down members 30, 31 and slide said members rearwardly into the relationship shown in FIG. 6. The pusher then may be locked in position against the force of its spring 60 by tilting the latch-lever 65 to engage its end in the notch 71 in the core. During the final rearward withdrawal of the pusher 50 the cam-means is actuated to spread the members apart for opening the top of the magazine in a manner as next explained: As the cam-slots 36, 37 slide along the studs 38, 39 the slots are drawn together with their inner ends in alinement, one above the other as shown in FIG. 7. It will be understood that the different cam-slots 36, 37 of each pair are so located and arranged that in closing together to move their inner ends into register (FIG. 7), the respective members 30, 31 are shifted outwardly away from the core 3 to open the magazine. More specifically, the sliding of the members 30, 31 toward the right as shown in FIG. 7 causes the inner ends of the slots 36, 36 to approach the inner ends of the slots 37, 37 for displacing the hold-down members outwardly away from the core 3; and vice versa, when the outer ends of the slots 36, 37 are moved toward each other by sliding the members 30, 31 in the reverse direction both members 30 and 31 will be shifted inwardly to cause them to abut the opposite sides of the core 3 for closing the magazine.

It should be explained that when the pusher 50 is retracted to the rearward end of the core 3 the force of its spring 60 will have a tendency to tilt or rock its rear end upwardly as it passes beyond the control of the flanges 10 on the side plates 6, 6 and the flanges 32 and 33 of the hold-down members 30, 31. To avoid such a contingency, means are provided for guiding the pusher to hold it down on the core 3 comprising a U-shaped sheet-metal element 80 (FIGS. 6, 10) folded around the sides of the core 3 at its reduced end and formed with inwardly projecting flanges 81 at the top overlying the shouldered sides of the pusher.

The staples S are usually cemented together in "sticks" or strips of convenient length and when the magazine is opened several of these may be placed on the exposed rearward end of the core 3 with their legs straddling the sides of the upper portion 5 thereof. If desired, enough of the sticks of staples may be placed on the exposed end of the core and slid forward manually to fill the whole length of the magazine in advance of the pusher 50. When this is accomplished the latch-lever 65 is released from its detent notch 71 by tilting its forward end upwardly so that the spring 60 will draw the pusher 50 forwardly into contact with the end of the rearmost staple strip; whereafter the pusher will be actuated intermittently to advance the staples along the core 3 and feed the foremost one into the throat 23 beneath the driver 20.

Immediately the staple-pusher 50 is unlatched it will be slid forwardly by the spring 60 to release its engagement with the ears 73 on the ends of the hold-down members 30, 31 whereby the spring 45 attached to the ends of said members will slide them forwardly and actuate the cam-means 36, 37 for closing the members against the sides of the core 3. To reiterate, the hold-down members are slid toward the forward end of the magazine automatically and the cam-slots 36, 37 slide forwardly along the studs 38, 39 to cause the outer ends of the slots to approach each other for drawing the members 30, 31 inwardly against the sides of the lower portion 4 of the core 3. The hold-down members 30, 31 are thus returned to initial operative relationship for positioning them with their flanges 32, 33 overlying the shoulders of the staples S to hold them down on the core 3 and prevent them from becoming disorganized or displaced from their parallel adjacent relationship.

It will be observed from the foregoing specification that the present invention provides an improved magazine for containing a large supply of fasteners such as staples or the like, with automatically actuated means for uncovering the core of the magazine to place the fasteners thereon. The device is of simple construction and operates efficiently with automatic response by manually withdrawing the staple-pusher, an operation essential in practically all machines of the present type.

While the improvement is herein shown and described as embodied in a preferred form of construction with one modification thereof, it is to be understood that changes may be made in the structure and arrangement of the

parts of the device without departing from the scope of the invention as expressed in the accompanying claims. Therefore, without limiting myself in this respect, I claim:

1. A magazine for fastener applying machines comprising a longitudinally-extending support for receiving the fasteners, a pair of hold-down members having upstanding walls adjacent the sides of said support with inwardly-projecting flanges at the top for overlying the fasteners, means for mounting said hold-down members to move bodily laterally away from said support, cam-means comprising inclined slots in said hold-down members, stationary means engageable with said cam-slots to displace said hold-down members away from the sides of said support, and means for causing longitudinal movement of said hold-down members relative to said engaging means to cause said cam-slots to bodily displace said hold-down members laterally outward away from said support to open the magazine.

2. A magazine for fastener applying machines comprising a longitudinally-extending core for receiving fasteners slidably mounted thereon, stationary side walls extending a portion of the length of said core and formed with inwardly projecting flanges at the top for overlying the fasteners on said core, hold-down members extending beyond the end of said stationary side walls and formed with flanges at the top for overlying the fasteners on the remaining length of the core, means for mounting said hold-down members to slide bodily away from said core, cam-means for displacing said hold-down members away from the sides of said core, and means for sliding said hold-down members longitudinally to operate said cam-means for sliding said hold-down members laterally away from said core to open the magazine for loading fasteners onto said core.

3. A magazine for fasteners comprising a longitudinally-extending support for receiving a plurality of fasteners to slide thereon, hold-down members overlying the sides of said support in spaced relation thereto and formed with means at the top for overlying the fasteners to hold them in place on said support, a pusher mounted to slide on said support for feeding the fasteners into driving position, means for mounting said hold-down members for sliding movement outwardly away from said support, cam-means for bodily displacing said hold-down members laterally outward from said support, and means engageable by said pusher as it is withdrawn rearwardly on said support to slide said hold-down members longitudinally in one direction for actuating said cam-means to displace the hold-down members outwardly from said support, said hold-down members being slidable longitudinally in the opposite direction to actuate said cam-means for sliding said hold-down members inwardly toward said core for cooperation therewith.

4. A magazine for fasteners comprising a longitudinally-extending rail for receiving a supply of fasteners thereon, a pusher slidable on said rail to advance the fasteners to feed them into position for driving, a pair of hold-down members mounted to slide longitudinally of said rail adjacent each side thereof, said hold-down members being also slidable laterally away from said rail, cam-means for displacing said hold-down members bodily laterally away from said rail as they are slid longitudinally thereof in one direction, means engaging between said pusher and said hold-down members to slide them longitudinally to actuate said cam-means for displacing said hold-down members away from said rail, and resilient means for sliding said hold-down members longitudinally in the opposite direction to actuate said cam-means for shifting said hold-down members bodily inward toward said rail to return them to cooperative relationship therewith.

5. In a fastener applying machine having a longitudinally-extending magazine for containing a supply of fasteners with driving means at its end for applying the fasteners to the work, a pusher slidable on said magazine for feeding fasteners to said driving means, hold-down members at the sides of said magazine mounted to slide bodily longitudinally thereof and laterally in relation thereto, means on said hold-down members overlying the fasteners in the magazine, cam-means for sliding said hold-down members laterally outward to open said magazine for loading fasteners therein, means on said hold-down members engageable by said pusher when it is retracted in the magazine for sliding said hold-down members longitudinally in one direction to actuate said cam-means for displacing said hold-down members to open the magazine, and resilient means for sliding said hold-down members longitudinally in the opposite direction to actuate said cam-means for sliding said members toward each other to close the top of the magazine.

6. A magazine for fasteners comprising a longitudinally-extending core for supporting the fasteners, a pusher slidable forwardly to feed the fasteners along said core, a hold-down member slidably mounted at each side of said magazine to slide bodily both longitudinally thereof and laterally away from said core, said hold-down members formed with divergent cam-slots, means on said core in engagement with said cam-slots, said pusher when retracted along said core adapted to engage said hold-down members to slide them longitudinally in one direction for actuating said cam-means to displace said members laterally away from the sides of the core to expose it for loading fasteners thereon, and resilient means for sliding said hold-down members in the opposite direction to actuate said cam-means for moving said members toward each other in cooperative relation to said core.

7. A magazine for fasteners comprising a central longitudinally-extending core for supporting the fasteners, hold-down members slidable longitudinally at the sides of said core and laterally away from the sides thereof, said hold-down members having means overlying the top of the core to retain the fasteners in place thereon and portions underlying the bottom of said core with divergent cam-slots therein, and means fast on the core for engaging said cam-slots to displace said hold-down members laterally outward when said members are slid in one direction longitudinally of said core, said hold-down members being slidable longitudinally in the opposite direction to actuate said cam-means for returning said hold-down members to first position adjacent said core for cooperation therewith.

8. A magazine for fasteners comprising means for slidably supporting a series of fasteners therein, hold-down members at the sides of said magazine having means overlying the fasteners to hold them in place in said magazine, means for mounting said hold-down members to slide longitudinally of said magazine and laterally away from the sides thereof, cam-means for sliding said hold-down members laterally for opening the magazine, and means engageable with said cam-means when said hold-down members are slid longitudinally in one direction to displace said hold-down members outwardly for opening said magazine, said cam-means being actuated to move said members bodily inward toward each other to close said magazine when said hold-down members are slid longitudinally in the opposite direction.

9. In a magazine for fastener applying machines, a longitudinally-extending core in said magazine for slidably supporting a series of fasteners, hold-down members at the sides of said magazine having means for overlying the fasteners, means for mounting said hold-down members to slide both longitudinally and laterally relatively to said core in said magazine, cam-means for sliding said hold-down members laterally outward from the sides of the magazine to open it for loading staples therein, means on the magazine engaging said cam-means to displace said hold-down members laterally away from the sides of the magazine when said members are slid longitudinally in one direction, a pusher for feeding the fasteners adapted

to engage said hold-down members when it is retracted in the magazine to slide said members longitudinally in the same direction for operating said cam-means to open the magazine, and resilient means for sliding said hold-down members in the opposite direction to actuate said cam-means for sliding said members toward each other in overlying relation to the fasteners in the magazine.

10. In a fastener applying machine, a longitudinally-extending magazine for supporting a supply of fasteners, fastener-driving means at one end of said magazine for applying the fasteners to the work, a pusher slidable along the magazine to feed the fasteners to said driving means, hold-down members extending longitudinally of the sides of said magazine and having means for overlying the fasteners to retain them in place in said magazine, means to mount said hold-down members to slide longitudinally relative to said magazine and also to slide laterally away from the sides thereof, cam-means for sliding said hold-down members laterally, said pusher being engageable with said hold-down members to slide them longitudinally to actuate said cam-means for displacing said hold-down members away from the sides of the magazine to open it for loading fasteners therein, detent-means for latching said pusher in engagement with said hold-down members to releasably retain them in displaced relationship, and automatically actuated means for sliding said hold-down members in the opposite direction upon release of said pusher therefrom to actuate said cam-means for sliding said hold-down members to cause them to close against the sides of said magazine.



11. In a fastener applying machine comprising a magazine for containing a supply of fasteners, a pusher slidable to feed the fasteners along said magazine, a hold-down member slidably mounted at each side of said magazine to move longitudinally thereof and laterally outward therefrom, said hold-down members having means overlying the fasteners to retain them in place in said magazine, cam-means for displacing said hold-down members laterally away from the sides of said magazine, said pusher when retracted on the magazine being engageable with said hold-down members to slide them longitudinally for actuating said cam-means, means to latch said pusher in position to retain said hold-down members in displaced relationship at the sides of the magazine, and a spring for sliding said hold-down members in the opposite direction to actuate said cam-means for returning said members to initial position upon release of said pusher therefrom.

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