Sept. 19, 1944. S. A. CROSBY 2,358,317

STAPLING MACHINE

Filed July 10, 1939 3 Sheets-Sheet 1

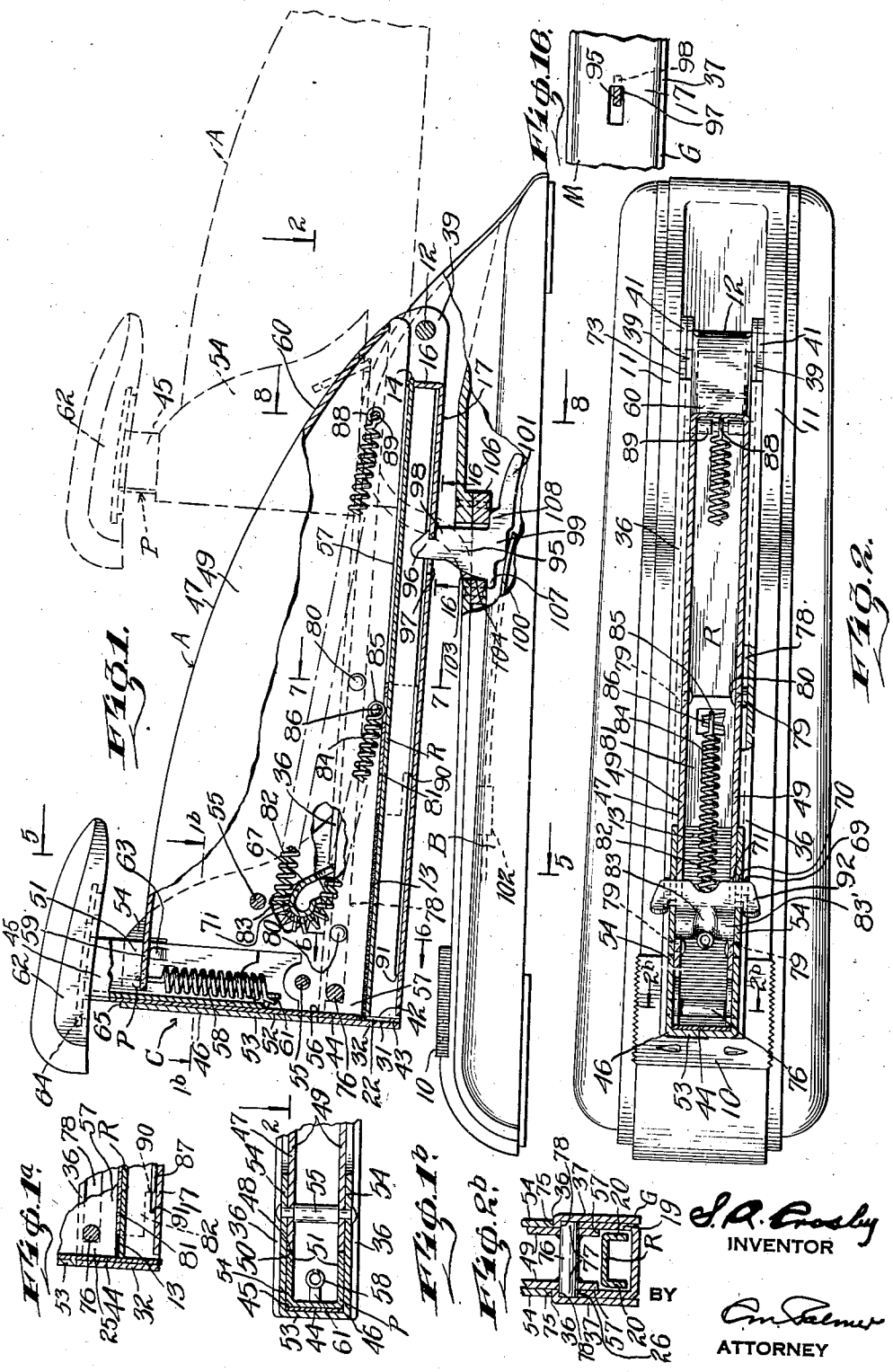


Fig. 1.

Fig. 1a.

Fig. 1b.

Fig. 2.

Fig. 2b.

Fig. 16.

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STAPLING MACHINE

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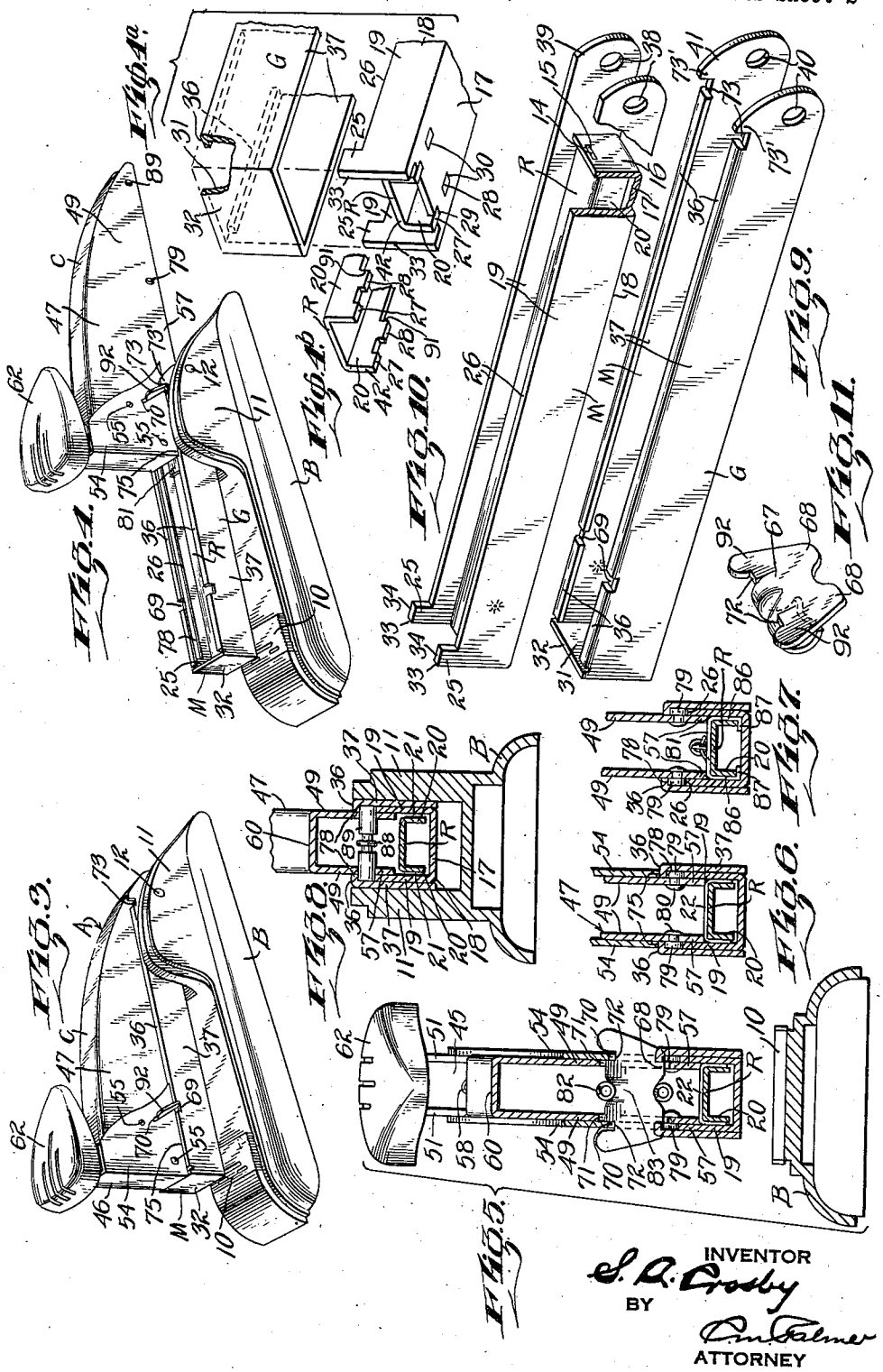


Fig. 1a.

Fig. 1.

Fig. 1b.

Fig. 10.

Fig. 9.

Fig. 11.

Fig. 3.

Fig. 8.

Fig. 7.

Fig. 6.

Fig. 5.

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STAPLING MACHINE

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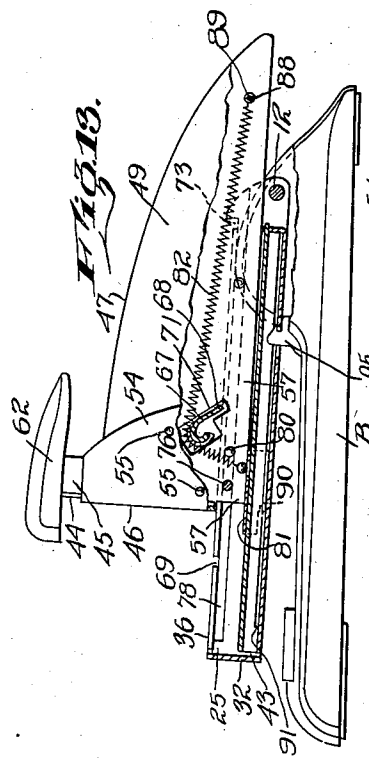


FIG. 13.

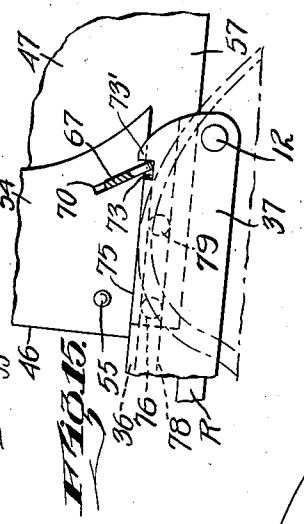


FIG. 15.

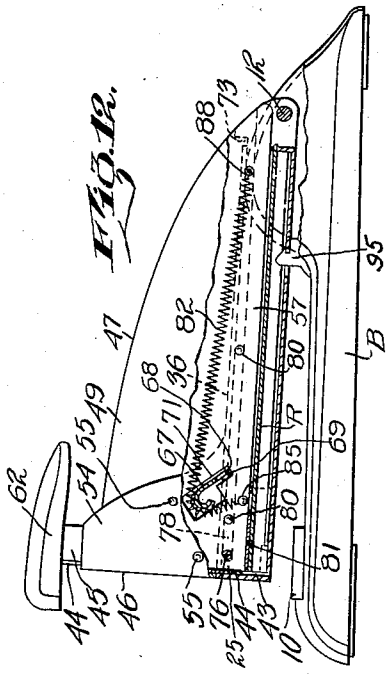


FIG. 12.

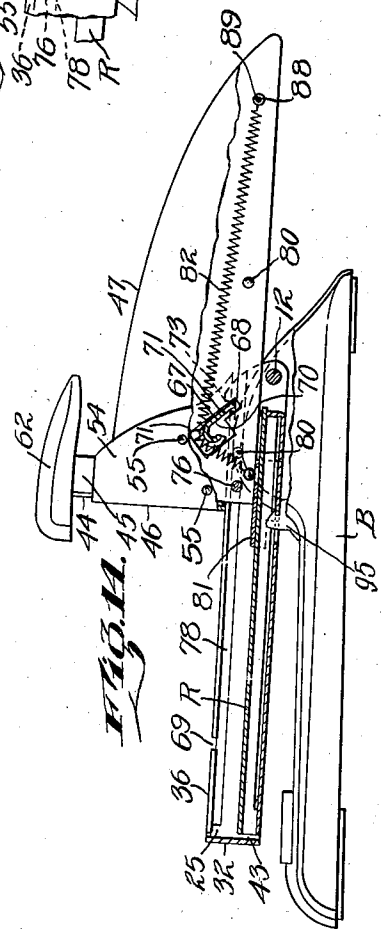


FIG. 14.

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UNITED STATES PATENT OFFICE

2,358,317

STAPLING MACHINE

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Application July 10, 1939, Serial No. 283,693

20 Claims. (Cl. 1—3)

The present invention pertains to stapling machines and the dominant object thereof is realized in the provision of an improved and serviceable stapling machine wherein the swingable arm thereof comprises complementary sections defining a staple magazine and a cover slidably or reciprocably connected to the magazine whereby convenient access may be readily had to the staple carrying rail in the magazine by rearwardly and rectilinearly displacing the cover relative to the magazine. Another object of the invention is to provide a stapling machine wherein the magazine has track means for slidably and rectilinearly guiding the cover and wherein a slidably guided follower is reciprocated upon reciprocation of the cover due to the action of an extendible spring trained over manually shiftable latch means adapted to interlock with keeper means on the magazine to sustain the cover in a closed or open position relative to the magazine. A further object of the invention resides in the provision of means for automatically shifting the cover rearwardly of the magazine to open the latter upon releasing the shiftable latch means when the cover is in a position closing the magazine. Further objects, features and functional and structural advantages of the invention will be readily understood from the teachings of the following detailed description considered in the light of the accompanying drawings wherein:

Fig. 1 is a side elevational view of the stapling machine according to my invention, shown partly broken away and in section to illustrate the interior construction, and to illustrate the normally raised position of the staple driving blade.

Fig. 1^a is a fragmentary view of Fig. 1 illustrating the staple driving blade at the completion of its downward stroke.

Fig. 1^b is a horizontal sectional view on the line 1^b—1^b of Fig. 1.

Fig. 2 is a horizontal sectional view on the line 2—2 of Fig. 1.

Fig. 2^b is a transverse sectional view on the line 2^b—2^b of Fig. 2.

Fig. 3 is a perspective view of the stapling machine showing the complementary sections of the swingable arm thereof in a closed relation.

Fig. 4 is a perspective view of the stapling machine illustrating the complementary upper and lower sections of the swingable arm thereof in an open relation.

Fig. 4^a is a fragmentary exploded view of the magazine in perspective.

Fig. 4^b is a fragmentary perspective view of the rail.

Fig. 5 is a transverse sectional view substantially on the line 5—5 of Fig. 1.

Fig. 6 is a sectional view on the line 6—6 of Fig. 1.

Fig. 7 is a sectional view on the line 7—7 of Fig. 1.

Fig. 8 is a sectional view on the line 8—8 of Fig. 1.

Fig. 9 is a perspective view of the inner part or rail housing of the magazine.

Fig. 10 is a perspective view of the outside part or guard of the magazine.

Fig. 11 is a perspective view of the butterfly locking latch for the complementary sections of the swingable arm.

Fig. 12 is a view similar to Fig. 1 but illustrating the relation of the upper and lower sections or components of the swingable arm at a time when these components are closed and at a time when the lower section or magazine is without any staples.

Fig. 13 is a view similar to Fig. 12 showing the upper section or cover in a position partly opening the magazine of the swingable arm.

Fig. 14 is a view similar to Fig. 13 showing the cover shifted to its most rearward position where it is automatically locked.

Fig. 15 is an enlarged fragmentary view of Fig. 14, and

Fig. 16 is a sectional view on the line 16—16 of Fig. 1.

The stapling machine according to the invention comprises an arm A swingably carried by a base B having a suitable anvil 10 and the rearwardly disposed and spaced ears 11 sustaining a fulcrum pin 12 rotatably or pivotally supporting the rear end of the magazine M to which the cover C is slidably or reciprocably connected. For purposes of specification, the swingable arm A may be said to include complementary upper and lower components, the upper component or section being the cover C for magazine M which may be said to be the lower component or section.

The magazine embodies means for fixedly sustaining an inverted U shaped rail R which forms a part of the magazine and on which a strip of staples 13 are slidably guided. The rear end of the rail includes a lug 14 fitting closely into a rectangular opening 15 in the rear vertical wall 16 bent up from the bottom wall 17 of the U shaped channeled member or housing 18 having the spaced vertical sides 19 which

are spaced from the depending sides 20 of the rail and define therewith longitudinal channels 21, the walls of which slidably guide the depending legs of the staples 22 of the staple strip 13.

By the present arrangement, the rear end of the rail is fixedly anchored to the rear end of the inner channeled member or rail housing 18, the sides 19 of which each include at the front part thereof stop lug 25 and an upper horizontal face 26 and the front end of the rail is likewise fixedly retained but at the front end of the inner rail housing 18. For this purpose each of the sides 20 of the rail is provided with spaced depending lugs 27 and 28 which fit closely into the locating recesses and notches 29 and 30 respectively in the bottom wall 17 of the rail housing 18. Thus the rail is prevented from longitudinal and lateral displacement relative to its housing and to prevent displacement of the front end of the rail, lugs 28 are riveted or slightly upset as is well understood.

With the rail positioned in the rail housing 18, the latter is arranged in the outer channeled member or one piece guard G in such a way that the inner transverse face 31 of the front wall 32 is against the front transverse faces 33 of the sides 19 and the projecting lugs 25 thereof. Thus arranged, the upper faces 34 of lugs 25 are under and against the forward ends of the inwardly overhanging interrupted flanges 36 of the sides 37 of the guard which are spot welded to the spaced sides 19 of the rail housing 18 and with the rail housing so located and fixedly attached to the guard, openings 38 of the ears 39 of sides 19 of the rail housing 18 are in alinement with openings 40 of the ears 41 of the sides 37 of the guard and the bores of these alined openings are rotatably associated with and are guided by the fulcrum pin 12. Hence the magazine may be said to be pivotally sustained by the base B.

Where the rail is located in respect to the housing 18 and the latter is fixed to the outside guard G the forward transverse face 42 of the rail is spaced from the inner transverse face 31 of the front wall 32 of the guard, thus providing a vertically arranged staple raceway 43 in which the forward staple 22 of the staple strip 13 is arranged at the completion of each complete return stroke of a staple ejecting blade 44 carried by the slidably guided plunger or driver generally designated P comprising the U shaped member 45, reciprocably guided between the sheath 46 and the case 47 of the cover C, that is, end faces 48 (Fig. 1^b) of the sides 49 of the case 47 serve as rectilinear bearings for the end faces 50 of the sides 51 of the U shaped member 45 of the driver P to which the blade 44 is fixedly attached.

The blade 44 is also slidable relative to the inner transverse face 52 of the front transverse wall 53 of the sheath 46 having its rearwardly extending sides or wings 54 closely straddling sides 51 of the driver P and the sides 49 of the case 47 and suitable dowel pins or rivets 55 are utilized to fixedly fasten or hold together the sheath 46 and case 47 each of which may be said to be a channeled member, the channel of the sheath facing rearwardly while the channel of the case faces downwardly.

In the assembled relation of the driver or plunger P, sheath 46 and case 47, the front end faces 56 of the lower portions 57 of sides 49 of the case 47 cooperate with the transverse face 52 of the front wall 53 of the sheath to characterize a gap to vertically guide and facilitate the reciprocation of the blade 44 which is normally held in a fully raised position by the helicoidal spring 58 having its upper end appropriately retained by the suitably notched and fixed extension 59 projecting forwardly from the downwardly and rearwardly curved upper wall 60 which is integral with the spaced depending side walls 49 which have their lower portions or margins 57 projecting appreciably below the sides 54 of the sheath 46 while the lower end of spring 58 is retained or held by the offset lug 61 extending rearwardly of and carried by the movable U shaped member 45 of the plunger P to the upper end of which is fastened at metal plate 64 to which cap 62 is secured. Hence upward displacement of the plunger is limited by the fixed extension 59 which cooperates with a lug 63 projecting from each wall 51 of the plunger P while the upper face 65 of the sheath 46 acts as a stop for plate 64 to limit downward displacement of the plunger.

As previously stated, the cover C can be slidably and bodily shifted to the rear of the magazine in order to obtain access to the fixed rail, provided of course, the slidably guided liftable inclined locking latch 67 which is carried by the cover has its lower lip portions 68 removed from the front and alined notches 69 which interrupt the flanges or seats 36 of the guard. This so called butterfly latch 67 is disposed transversely of the cover and extends through the alined inclined and elongated guide slots 70 and the enlarged irregularly shaped relief slots 71 (Fig. 5) in the sides 54 and 49 of the sheath 46 and case 47 respectively and portions of the spaced side 54 of sheath 46 adjacent the alined slots 70 are receivable in the reentrant recesses 72 and are straddled by the walls of the latter when lips 68 are removed from notches 69 of the guard. When so removed, the cover is unlocked from the magazine and may be rearwardly and rectilinearly displaced from its fully closed position shown in Fig. 3 or 12 to its fully opened position shown in Figs. 4, 14 or 15 in which case latch 67 automatically drops into alined notches 73 at the rear of the guard by virtue of the pressure exerted by the follower spring 82.

During slidable displacement of the cover in respect to the magazine, the lower faces 75 (Figs. 2^b, 3, 4 and 6) of the sides 54 of the outside sheath 46 movably rest on the seats or flanges 36 of the guard, while the transverse pin 76 fixedly carried by the marginal portions 57 has its ends 77 (Fig. 2^b) slidably guided in the longitudinally disposed slots 78 defined by the lower horizontal faces of the tracks or flanges 36 of the guard G and the upper faces 26 of the sides 19 of the rail housing 18. Moreover the outer enlarged disc shaped ends 79 (Figs. 1, 4, 6 and 7) of pins or rivets 80 fastened to the marginal portions 57 of the sides 49 of the case 47 are also slidably guided by the upper and lower horizontal walls or track means of the long slots 78 in the spaced sides of the magazine as the cover is moved forwardly to close the magazine or rearwardly to expose the rail.

According to the invention, a staple carrying channeled shaped follower block 81 is slidably guided on the rail and is moved automatically rearwardly as the cover is moved to its open position and is moved automatically forwardly as the cover is urged and moved to its closed position. In this connection it will be observed

that a helicoidal spring 82 is looped or trained over the curved grooved bearing 83 of latch 67 so that its lower end 84 has its terminal eye 85 connected to a hook 86 projecting from the upper wall of the follower which has its sides 86 (Fig. 7) provided with inwardly turned flanges 87 thus interlocking with the bottom faces of the rail to preclude upward displacement of the follower as it reciprocates during opening and closing of the cover. The upper leg of spring 82 has its terminal 88 (Figs. 1 and 8) fastened to a central reduced part of a transversely arranged pin 89 fixedly carried by the marginal portions 57 of the case 47 and the outer ends of pin 89 are receivable in the alined and long spaced slots 78 and slidably guided by the walls or track means thereof when the cover is rectilinearly displaced relative to the magazine.

Where the rail supports no staples (Fig. 12) and the cover is closed, the lower leg of spring 82 has urged the follower to its extreme forward position, that is the forward end of the follower is in alinement with the forward end of the rail in that alined shoulders 90 of the follower abut the rear vertical shoulders 91 formed in the sides of the rail. Thus even though the magazine is exhausted of staples the follower 81 cannot project into raceway 43.

In the closed relation of the cover, latch 67 is held downwardly by the spring 82 so that lips 68 of this latch are retained in notches 69. Consequently the magazine and cover are held locked against relative rectilinear displacement. Also in the closed relation of the cover and magazine the enlarged ends 79 of the rivets 80 as well as the overhanging ends of the rear pin 89 are within the long slots 78 in the spaced sides of the magazine.

In case access is desired to the rail, the latch 67 is first unlocked. This is accomplished by grasping wings 92 of the latch and lifting upwardly to remove lips 68 from the notches or keeper means 69. Thereafter the cover may be moved rearwardly whereby the lower faces 75 (Figs. 2[b] and 4) of the sheath slidably move over the guide flanges 36. As the cover moves rearwardly the rear end of the case 47 starts to overhang the rear end of the magazine. Therefore the outer ends of pin 89 as well as the outer ends or discs 79 or heads (Fig. 4) of rivets 80 fastened substantially centrally of the lower margins 57 of the case leave the guide slots 78 while other disc portions 79 of the remaining rivets 80 carried by the case together with the outer terminals 77 of the pin 76 remain in these guide slots 78 at a time when the latch 67 reaches the rear notches 73 at which time the latch drops automatically therein to prevent further rearward displacement of the cover (Figs. 4 and 15). Hence the cover and magazine are again locked against relative displacement. Where however the cover overhangs the magazine, the cover cannot be fully detached from the magazine in that lips 68 of latch 67 cannot be passed over the stop lugs 73' (Figs. 9 and 15) at the rear of the guard.

During rearward displacement of the cover the lower leg of spring 82 slidably drags the follower 81 rearwardly. Thus the rail is accessible to mount thereon a staple strip 13. To retract the cover after a staple strip is supplied to the rail, the operator thereafter again lifts locking latch 67 from notches or keeper means 73 to unlock the latter from the rear end of the guard and shifts the cover towards the front part of the magazine. Discs or heads 79 and the outer terminals of rear pin 89 which were previously out of the alined slots 78 when the arm was open now reenter these slots to be guided thereby as the cover is moved to its fully closed and predetermined position which takes place when terminals 77 (Fig. 2[b]) of the front pin 76 (Fig. 12) strike stop lugs 25 of the magazine in which event lips 68 of the latch fall automatically into front notches 69 of the magazine and again the cover and magazine are locked.

It should be observed however that as the cover is moved forwardly the follower 81 due to the action of spring 82 urges the foremost staple of the staple strip across the raceway 43 and the tension in the lower leg of spring 82 is such as to continuously urge the follower forwardly when the cover is closed. In such closed relation the staple strip 13 is prevented from upward displacement by the lower margins 57 (Fig. 1[a]) of sides 49 of the case 47 and these margins may be said to be telescopically associated with the magazine. With the cover closed and locked the plunger may be depressed to cause its blade 44 to eject the foremost staple against appropriate clinching indentations in the anvil 10 at which time arm A has pivoted downwardly in instances of course where the clearing latch 95 has its notched nose 96 disposed in the narrow opening 97 and interlocked with bottom wall 17 of the magazine (Fig. 16) in which case if the arm is tilted downwardly it depresses shoulder 98 (Fig. 1) causing seat 99 of this latch to also move downwardly against the free end of a fixed leaf spring 100 which becomes stressed, and upon removal of hand pressure from cap 62, the leaf spring 100 automatically and pivotally retracts arm A which may be readily disconnected from the clearing latch 95 by manipulating tail 101 whereby this latch is tilted counter clockwise causing nose 96 to become disengaged from the lower wall 17 of the magazine and ultimately become free of the elongated opening 97. Under such circumstances the base B may be swung approximately one hundred and eighty degrees in respect to the arm A to permit the latter to be used as a tacker.

More particularly clearing latch 95 is movably guided in alined slots 103 and 104 in the base and in a plate 106 fixed to the base and spring 100 normally holds shoulders 107 and 108 of the clearing latch 95 against the fixed plate 106. Of course as far as the follower spring 82 is concerned, the latter has a double function as is well appreciated, to wit, one, it normally urges the follower forwardly when the cover is moved to a closing position, and two, it automatically urges latch 67 downwardly, the bearing ends 83' of which are movably guided between sides 54 (Fig. 2) of sheath 46 and in the relief slots 71 in sides 49 of the case 47 of the cover C. It should be understood of course that where the magazine is appreciably filled with staples, and latch 67 is removed or unlocked from the magazine, the cover automatically moves rearwardly to open the magazine due to the automatic contraction of the extendible helicoidal spring 82. Thus the latter may be said to have an additional function of automatically shifting the cover rearwardly to open the magazine when the latch is removed from the front notches or keeper means 69. For purposes of specification leaf spring 100 may be said to be secured to an inner face of the channeled base B by the suitably anchored strap 102 (Fig. 1).

As many changes could be made in the above described construction and many widely different species of structural embodiments could be devised without departing from the scope thereof, it is intended that all matter hereinbefore described in the specification and illustrated in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. In combination, a magazine having a rail for supporting staples, a follower slidably mounted on said rail, a rectilinearly reciprocable cover for opening and closing said magazine and including plunger means for ejecting a staple from said magazine, liftable latch means for disconnectably locking said cover and magazine against relative movement, and spring means cooperating with said follower and latch means to reciprocate said follower during opening and closing of said magazine by said cover and to urge said latch means towards said magazine.

2. In combination, a magazine having a rail for supporting staples, a follower slidably interlocked with said rail, a rectilinearly shiftable cover for closing said magazine and including plunger means for ejecting a staple from said magazine, a liftable latch carried by said cover and disconnectably associated with said magazine to lock the latter, and spring means cooperating with said follower and latch means to hold the latter removably interlocked with said magazine in the fully opened or closed relation of said cover and to slidably displace said follower during opening or closing of said magazine by said cover.

3. In combination, an arm comprising a magazine having a rail for supporting staples, a follower slidably mounted on said rail, a rectilinearly displaceable cover for opening and closing said magazine and including plunger means for ejecting a staple from said magazine, means to limit forward and rearward rectilinear displacement of said cover relative to said magazine, liftable latch means carried by said arm, and spring means cooperating with said follower to shift the latter during opening and closing of said magazine by said cover and cooperating to hold said latch interlocked with said magazine in the fully closed or open relation of said cover.

4. In combination, a magazine for holding staples and including keeper means, a cover for said magazine, means rectilinearly guiding said cover relative to said magazine, a staple follower in said magazine, latch means for removably cooperating with said keeper means to prevent displacement of said cover relative to said magazine, driving means for ejecting one of said staples from said magazine, spring means secured to said cover and follower for reciprocating the latter during reciprocation of said cover and cooperating with said latch means for automatically shifting said cover bodily rearwardly relative to said magazine upon removal of said latch means from said keeper means, and means to limit forward and rearward rectilinear displacement of said cover relative to said magazine.

5. In a stapling machine, a magazine, a staple supporting rail in said magazine, track means in said magazine above said rail, a reciprocable cover comprising a front sheath and a rearwardly disposed case extending below said sheath and into said magazine adjacent said track means, and means projecting from said case and rectilinearly and reciprocably guided by and receivable on said track means to permit bodily rectilinear displacement of said cover relative to said magazine.

6. In a stapling machine, a magazine having spaced sides including front and rear spaced notch means, a staple supporting rail in said magazine, a slidable follower on said rail, track means in said magazine above said rail, a reciprocable cover comprising a front sheath rectilinearly displaceable on said sides and having a rearwardly disposed case extending below said sheath and into said magazine adjacent said track means, latch means carried by said cover and extending laterally of said sheath and adapted to ride along said sides, means projecting from said case and rectilinearly and reciprocably guided and receivable on said track means, and spring means common to said follower and latch means connected to said cover and for displacing said follower towards the rear of said magazine when said cover is bodily moved rearwardly relative to said magazine, said latch means adapted to interlock with said rear notch means to limit said rearward displacement and adapted upon forward displacement to interlock with said front notch means.

7. In combination, a magazine for holding staples and including keeper means, a follower slidably mounted in said magazine, a rectilinearly reciprocable cover for opening and closing said magazine and including plunger means for ejecting a staple from said magazine, means for rectilinearly guiding said cover relative to said magazine, liftable latch means cooperating with said keeper means for disconnectably locking said cover and magazine against relative movement, and spring means operable on displacement of said cover relative to said magazine and cooperating with said follower and latch means to shift said follower in a direction away from said plunger means during opening of said magazine by said cover and to urge said latch means towards said magazine.

8. In combination, a magazine for holding staples, and including keeper means, a follower slidably mounted in said magazine, a cover on said magazine, means for rectilinearly guiding said cover for opening and closing said magazine, plunger means for ejecting a staple from said magazine, liftable latch means cooperating with said keeper means for disconnectably locking said cover and magazine against relative movement, and spring means secured to said cover and cooperating with said follower and latch means and trained over said latch means to reciprocate said follower during opening and closing of said magazine by said cover and to urge said latch means towards said magazine.

9. In combination, a magazine for holding staples and including keeper means, a follower slidable in said magazine, a shiftable cover for opening and closing said magazine and including plunger means for ejecting a staple from said magazine, means for rectilinearly guiding said cover relative to said magazine, a liftable latch carried by said cover and disconnectably associated with said keeper means, and spring means connected to said follower and cover and trained over said latch means to hold the latter interlocked with said keeper means in the fully opened or closed relation of said cover and to slidably displace said follower during opening or closing of said magazine by said cover.

10. In combination, a magazine having a rail for holding staples and including keeper means,

a follower slidable on said rail, a shiftable cover substantially coextensive with the length of said magazine for closing said magazine and including plunger means for ejecting a staple from said magazine, means for rectilinearly guiding displacement of said cover longitudinally of said magazine, a liftable latch carried by said cover and disconnectably receivable in said keeper means to lock said magazine, and extendible spring means connected to said follower and cover and looped over said latch means to hold the latter interlocked with said keeper means in the fully opened or closed relation of said cover and to slidably displace said follower during opening or closing of said magazine by said cover.

11. In combination, a magazine for holding staples and including keeper means, a follower slidable in said magazine, a displaceable cover superimposed on said magazine for opening and closing said magazine and including plunger means for ejecting a staple from said magazine, means for rectilinearly guiding said cover relative to said magazine, means to limit forward and rearward displacement of said cover relative to said magazine, liftable latch means carried by said cover, and coiled spring means connected to said cover and follower and looped over said latch means to shift said follower during opening and closing of said magazine by said cover and cooperating to hold said latch means interlocked with said keeper means in the fully closed or open relation of said cover.

12. In combination, a magazine for supporting staples and comprising front and rear keeper means, a follower slidable in said magazine, a displaceable cover for opening and closing said magazine and including plunger means for ejecting a staple from said magazine, means for slidably and rectilinearly guiding said cover relative to said magazine, means to limit forward and rearward displacement of said cover, liftable latch means slidably carried by said cover and having winged means accessible outside of said cover and including a curved body having upper and lower portions, and coiled spring means connected to said cover and follower and trained over said body to straddle said portions for shifting said follower during opening and closing of said magazine by said cover and cooperating to hold said latch means interlocked with said front keeper means in the fully closed relation of said cover and cooperating to hold said latch means interlocked with said rear keeper means substantially in the fully opened relation of said cover.

13. In combination, a magazine for supporting staples and having spaced sides including inwardly over hanging flanges, a cover for said magazine seated on said flanges and including outwardly projecting means, driving means for ejecting a staple out of said magazine, means for slidably and rectilinearly guiding said projecting means longitudinally of said magazine, a slidable follower in said magazine, liftable latch means, and a spring trained over said latch means and connected to said follower and cover for driving said follower to the rear of said magazine upon opening of said magazine by said cover and for driving said follower to the front of said magazine upon closing of the latter by said cover.

14. In combination, a magazine for supporting staples and having spaced sides including inwardly overhanging flanges, a cover comprising a sheath seated on said flanges and including a case straddled by said sheath and projecting into said magazine, track means, means projecting from said case slidably and rectilinearly guided by said track means longitudinally of said magazine, a liftable latch carried by said cover, driving means for ejecting a staple out of said magazine, and a spring connected to said follower and cover and trained over said latch for urging said follower rearwardly when said magazine is opened by said cover and for urging said follower forwardly when said magazine is closed by said cover.

15. In combination, a magazine for supporting staples and having spaced sides including inwardly overhanging flanges, a cover comprising a sheath seated on said flanges and including a case straddled by said sheath and projecting into said magazine, track means, means projecting from said case slidably and rectilinearly guided by said track means longitudinally of said magazine, a liftable latch mounted on said cover, and a spring connected to said follower and cover and trained over said latch for urging said follower rearwardly when said magazine is opened by said cover for urging said follower forwardly when said magazine is closed by said cover, said flanges having means for interlocking with said latch to limit displacement of said cover relative to said magazine, said driving means for ejecting a staple out of said magazine.

16. In a stapling machine, a magazine for supporting staples and having track means, a rectilinearly reciprocable cover comprising a front sheath and a rearwardly disposed case extending below said sheath and into said magazine adjacent said track means, means projecting from said case and rectilinearly and reciprocably guided by said track means to permit bodily linear displacement of said cover relative to said magazine, means to limit linear displacement of said cover relative to said magazine, and driving means for ejecting a staple out of said magazine.

17. In a stapling machine, a magazine for supporting staples and having track means disposed lengthwise of said magazine, a reciprocable cover comprising a front sheath and a rearwardly disposed case extending below said sheath and into said magazine adjacent said track means, means projecting from said case and rectilinearly and reciprocably guided by said track means to permit bodily linear displacement of said cover relative to said magazine, a staple follower in said magazine, a latch carried by said cover, spring means trained over said latch and connected to said follower and cover for reciprocating said follower in response to the reciprocation of said cover, and driving means for ejecting a staple out of said magazine.

18. In a stapling machine, a magazine for supporting staples and having spaced sides including front and rear spaced notch means, a slidable follower in said magazine, track means in said magazine, a reciprocable cover comprising a front sheath and a rearwardly disposed case extending below said sheath and into said magazine adjacent said track means, latch means carried by said cover and extending laterally of said sheath and adapted to be shifted along said sides, means projecting from said case and rectilinearly and reciprocably guided by said track means, and spring means interposed between said follower and latch means and trained over said latch means for displacing said follower rearwardly relative to said magazine when said cover is bodily moved rearwardly, said latch means

adapted to interlock with said rear notch means to limit said rearward displacement and adapted upon forward displacement to interlock with said front notch means, and driving means for ejecting a staple from said magazine.

19. In a stapling machine, a staple carrying member having an open top, a rectilinearly displaceable cover member mounted upon said staple carrying member for longitudinal sliding movement relative thereto adapted in a forwardly moved position to enclose said top and in a rearwardly moved position to expose said top for the loading of a staple strip in said member, a locking member movably mounted upon said cover member and movable between locking and unlocking positions and adapted in locking position to removably interlock with said staple carrying member, stop means effective to limit forward or rearward rectilinear displacement of said cover member, a slidably guided follower in said staple carrying member, a spring interposed between said follower and staple carrying member and trained over said locking member to automatically shift said follower in response to rectilinear movement of said staple carrying member, and driving means for ejecting a staple out of said staple carrying member.

20. In combination, a magazine for supporting staples, a cover substantially coextensive with the length of said magazine and superimposed thereon, means for rectilinearly guiding said cover relative to said magazine, means to limit forward or rearward rectilinear displacement of said cover relative to said magazine, shiftable latch means cooperating with said magazine to preclude rectilinear displacement of said cover relative to said magazine, a rectilinear displaceable follower in said magazine, extendible spring means looped over said latch means and connected to said cover and in part projecting into said magazine and connected to said follower for displacing the latter in a direction corresponding to the rectilinear displacement of said cover and for overhanging said magazine during rearward rectilinear displacement of said cover relative to said magazine, said cover having means projecting into said magazine to prevent displacement of said staples in a direction upwardly towards said cover when said cover closes said magazine, and driving means for ejecting a staple out of said magazine.

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