

Nov. 25, 1952

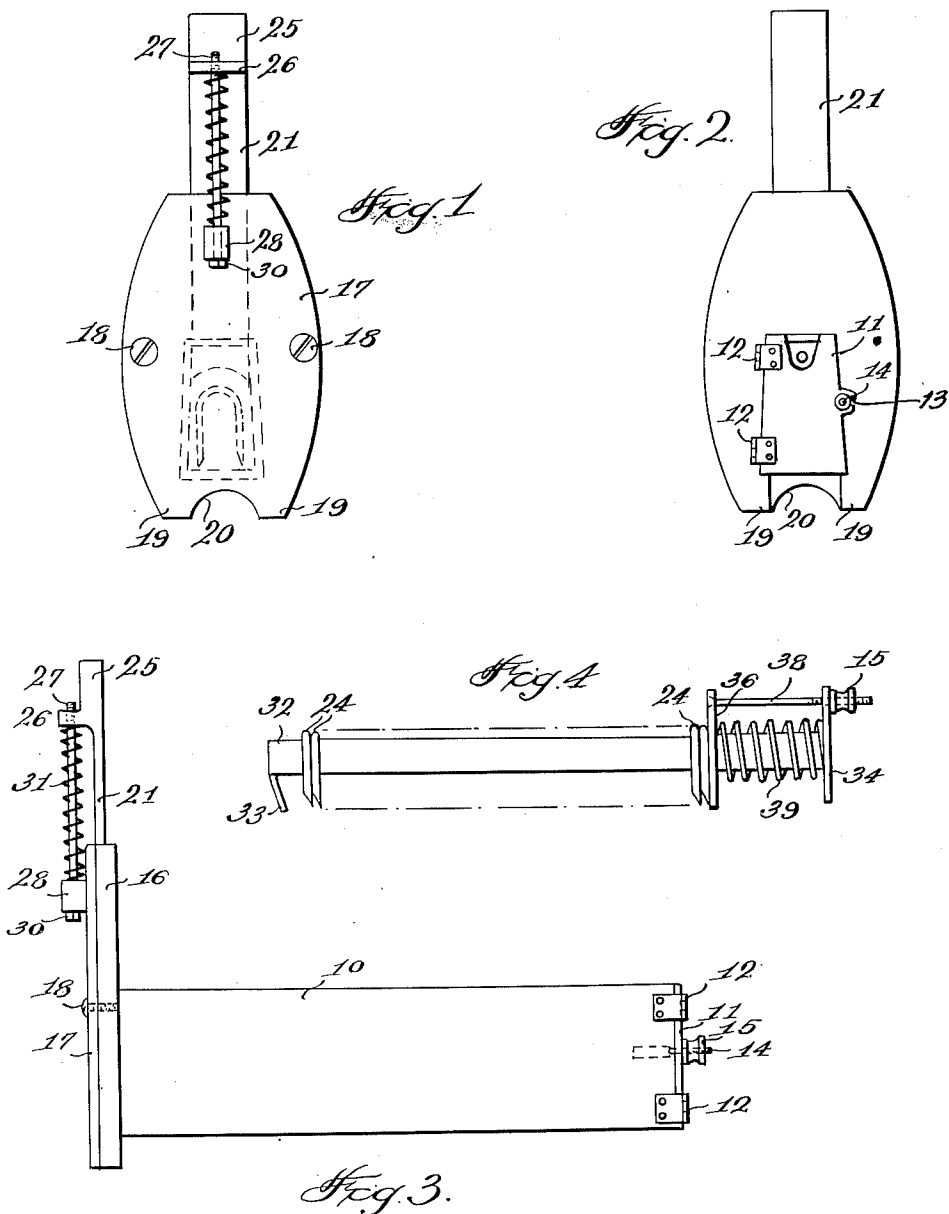
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2,618,779

FENCE STAPLING MACHINE.

Filed March 26, 1948

2 SHEETS—SHEET 1



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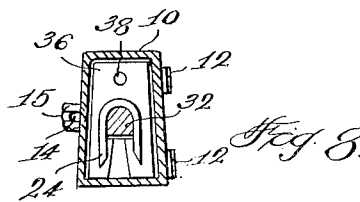
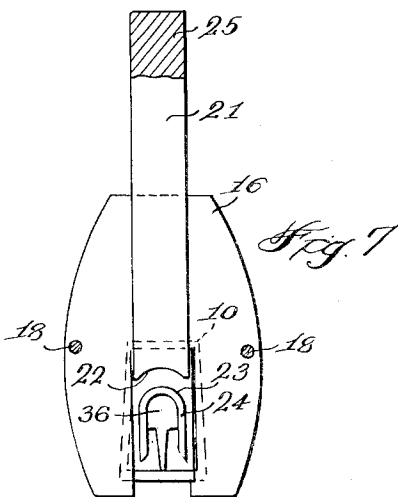
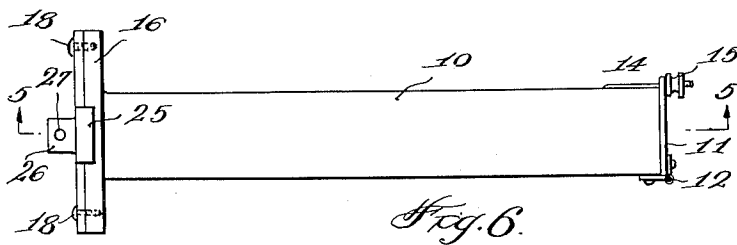
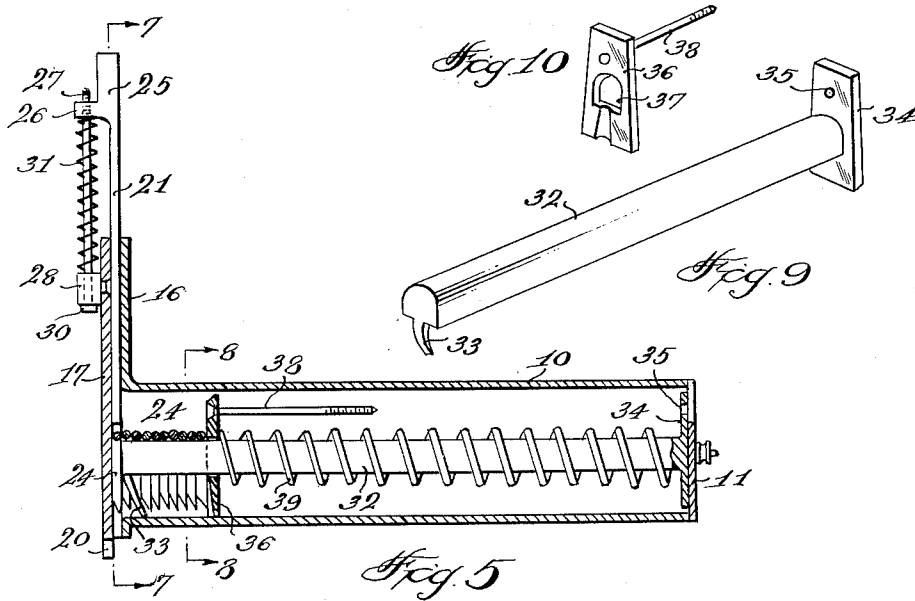
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FENCE STAPLING MACHINE

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2 SHEETS--SHEET 2



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UNITED STATES PATENT OFFICE

2,618,779

FENCE STAPLING MACHINE

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Application March 26, 1948, Serial No. 17,172

4 Claims. (Cl. 1-49)

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The present invention relates to fence stapling machines and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

It is an object of the present invention to provide a fence stapling machine having a magazine for the storage of staples and having means for driving such staples into a fence post or the like.

A further object of the invention is the provision of novel means for assembling and loading staples into a magazine forming a part of the invention.

Another object of the invention is the provision of novel means for locking out of engagement a follower forming a part of the invention.

Another object of the invention is the provision of a novel guide and returning means for a reciprocating plunger forming a part of the invention.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawings, in which:

Figure 1 is a front elevational view of an embodiment of the invention,

Figure 2 is a rear elevational view thereof,

Figure 3 is a side elevational view of the device shown in Figures 1 and 2,

Figure 4 is a side elevational view showing a guide bar, a follower and attendant mechanisms forming parts of the invention,

Figure 5 is a sectional view taken along line 5-5 of Figure 6,

Figure 6 is a plan view of the device,

Figure 7 is a sectional view taken along line 7-7 of Figure 5,

Figure 8 is a sectional view taken along line 8-8 of Figure 5, and

Figure 9 is a perspective view of a guide bar forming a part of the invention, and

Figure 10 is a perspective view of a follower forming a part of the invention.

Generally, there is provided a fence stapling machine particularly adapted to insert staples into fence posts to retain thereon strands of barbed wire. The device comprises a magazine having a hinged door at its rear end in which may be inserted a guide member upon which may be mounted a plurality of staples. A spring-pressed follower is slidably mounted upon the guide member and is provided with a rearwardly extending locking rod which, in locked position, is adapted to protrude through a plate affixed to

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the rear end of the guide member and is adapted to receive a nut whereby to hold the follower in inactive condition while staples are loaded. The nut is also adapted to be utilized, when the follower is released for a locking means for the hinged door at the rear of the magazine. The forward end of the magazine is provided with a head in which is reciprocally mounted a plunger having a striking surface upon its outer end and having its inner end formed to accommodate the rounded end of a staple. The head is provided with a forwardly extending bracket in which is mounted for reciprocal movement a guide rod carried adjustably by the plunger. A compression spring is provided for normally urging the plunger in an outward direction.

Referring more particularly to the drawing, there is shown therein, a fence stapling machine comprising a magazine 10 of generally elongated structure and being rectangular in cross section. The magazine is provided with a door 11 which is hinged, as indicated at 12, to the rear thereof and which is provided with a laterally extending slot 13 at its free end. A shaft 14 is welded or otherwise affixed longitudinally along the rear of the magazine and is adapted to extend through the slot 13 when the door 11 is in closed position.

A screw 15 is threadably mounted upon the outer end of the shaft 14 whereby to hold the door in locked position. The forward end of the magazine is formed into a head 16 having a cover plate 17 affixed thereto by means of screws 18 or the like. The cover plate is formed into a pair of guide legs 19 at its lower end and is provided with a cut out portion 20 which is adapted to straddle barbed wire or the like to be stapled by the mechanism.

Reciprocably slidable in the head 16 is a plunger 21 whose inner end is curved, as indicated at 22, to receive the bridge portion 23 of a staple 24. The upper end of the plunger 21 is provided with an anvil 25 having a forwardly extending bracket 26 in which is threadably mounted a guide rod 27 which extends in parallel relation to the plunger 21 and is slidably mounted in a bracket 28 carried on the forward side of the plate 17. The movable end of the rod 27 is provided with a nut-shaped detent 30 and a compression spring 31 is interposed between the brackets 26 and 28.

An elongated guide rod 32 of inverted U-shape in cross section is provided at its forward end with a guide tongue 33 the lower end of which tongue 33 is bent slightly rearwardly. The rod

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32 is provided at its rear end with a plate 34 which is adapted to snugly engage the inner walls of the magazine 10 and is provided in its upper portion with a centrally disposed circular opening 35.

Slidably mounted upon the rod 32 is a follower 36 having an inverted U-shaped opening 37 for the reception of the rod 32 and a rearwardly extending threaded lock rod 38 and which rests upon the bottom of the magazine 10. A compression spring 39 is interposed between the follower 36 and the plate 34.

In operation, it will be apparent that, in order to load the magazine 10 with staples, the door 11 is first opened by removing the screw 15 from the shaft 14 thereby allowing the door to swing open upon its hinges 12. The guide rod 32 together with its associated parts may then be easily removed from the magazine. The follower 36 is then brought rearwardly toward the plate 34 against the action of the spring 39 until the lock rod 38 passes through the opening 35 whereupon the screw 15 is threaded upon the same thereby to lock the follower in spaced relation to the plate 34 and to hold the spring 39 in check in order that staples 24 may be placed upon the guide rod 32 forwardly of the follower 36. The guide rod 32 may then be inserted into the magazine whereupon the screw 15 is removed from the lock rod 38, the door 11 closed and the screw replaced upon the shaft thereby to lock the door and prevent the spring 34 from moving the door outwardly. In this condition the spring 39 will now cause a forward movement of the plate 36 and consequently a pressure will be exerted upon the series of staples 24, the outermost of such staples being pressed against the inner side of the plate 17. The device may be placed then over a piece of wire in such manner that the wire lies within the opening 20 and between the legs 19. The legs 19 are held against a post or the like to which it is desired to fasten the wire and a hammer may then be struck against the anvil 25 to drive the plunger 21 against the staple in position against the plate 17 thereby imbedding the staple in the post or the like. The spring 31 will then cause the plunger 21 to return to its initial position whereupon another staple will be forced into position beneath the same and ready for the next action. It will be noted that the tension of the spring 31 may be regulated by means of the guide rod 27 which, since it is threaded in the bracket 26 will act to lengthen or shorten the distance between the brackets 26 and 28 in the normal position of the plunger 21. It will also be noted that carelessness in the operation of the device is kept at a minimum due to the fact that the identical screw 15 is utilized not only to lock the door 11 but to lock the follower 36 when the magazine is being loaded.

While but one form of the invention has been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claims.

What is claimed is:

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1. A device of the character described comprising a magazine, a head at the front end of the magazine, a door at the rear end of the magazine, a guide rod for staples removably mounted in the magazine, a plate affixed to the rear of the guide rod, a follower slidably mounted upon the guide rod, a spring for urging the follower in a forward direction whereby to move staples to the head, a plunger reciprocally mounted in the head for upward and downward movement, an anvil formed at the outer end of the plunger and a spring for urging the plunger to an upward position.

2. A device of the character described comprising a magazine, a head at the front end of the magazine, a door at the rear end of the magazine, a guide rod for staples removably mounted in the magazine, a plate affixed to the rear of the guide rod, a follower slidably mounted upon the guide rod, a spring for urging the follower in a forward direction whereby to move staples to the head, a plunger reciprocally mounted in the head for upward and downward movement, an anvil formed at the outer end of the plunger, a guide member affixed to the plunger and slidably carried by the head and a spring associated with the guide member and adapted to urge the plunger to an upward position.

3. A device of the character described comprising a magazine, a head at the front end of the magazine, a door at the rear end of the magazine, a guide rod for staples removably mounted in the magazine, a plate affixed to the rear of the guide rod, a follower slidably mounted upon the guide rod, a spring for urging the follower in a forward direction whereby to move staples to the head, a plunger reciprocally mounted in the head, an anvil formed at the outer end of the plunger, a bracket formed integrally with the plunger, a bracket affixed to the head, a guide member threadably mounted in one of the brackets and slidably mounted in the other bracket, a nut-shaped detent at the free end of the guide member and a compression spring interposed between the brackets.

4. In a magazine for staples, a door pivoted to the rear end of the magazine and having an opening therethrough, a guide rod for staples removably mounted in said magazine, a plate affixed to the rear of the guide rod and having an opening therein, a follower slidably mounted in the guide rod, a rearwardly extending threaded lock rod affixed to the follower and adapted to protrude through the opening in the plate when said follower is moved rearwardly, a nut threadable upon said lock rod and a compression spring surrounding said guide rod and bearing against the plate and the follower.

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