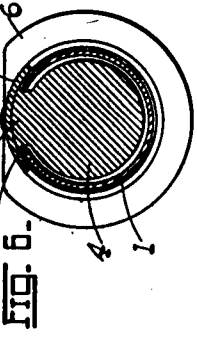
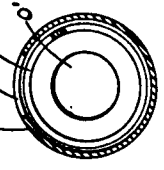
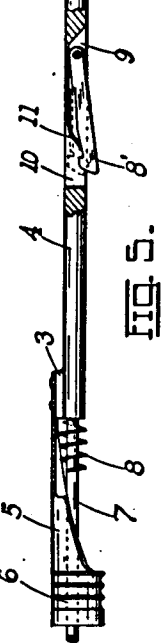
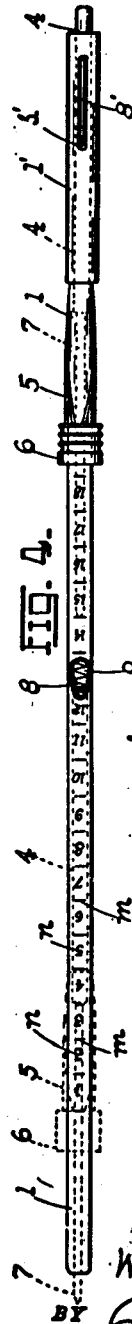
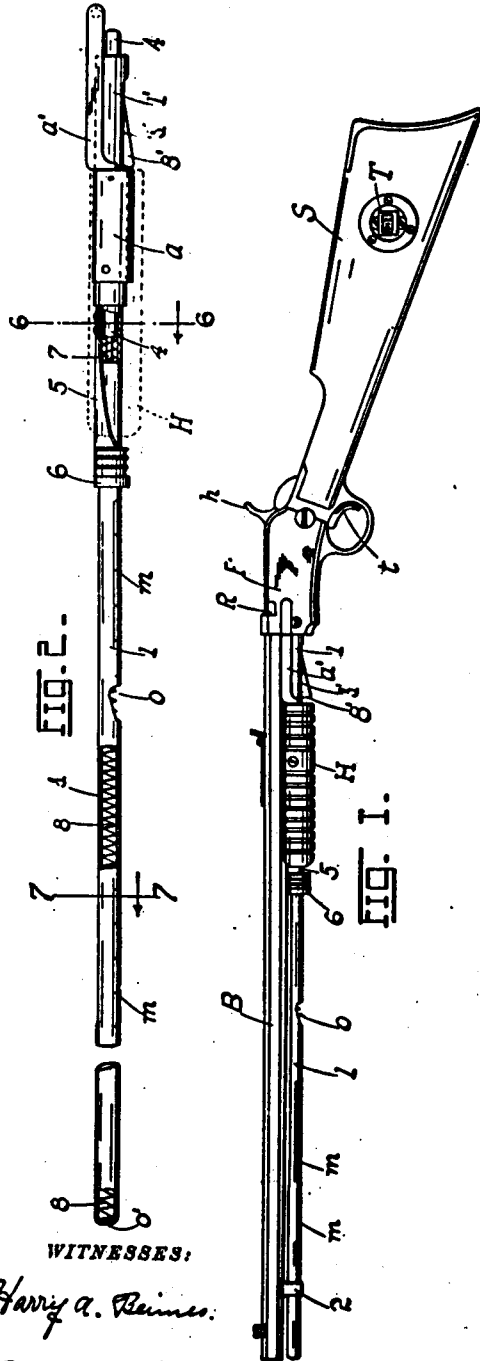


W. P. PINKSTON.
 COMBINED REGISTERING AND FEEDING MAGAZINE FOR GUNS.
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COMBINED REGISTERING AND FEEDING MAGAZINE FOR GUNS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM P. PINKSTON, citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Combined Registering and Feeding Magazines for Guns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention consists in the novel details of construction more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a gun showing my invention applied thereto; Fig. 2 is a side view of the magazine detached showing also the action-slide in position; Fig. 3 is an inside plan of Fig. 2 with action slide omitted; Fig. 4 is an outside plan of Fig. 2 with action-slide omitted; Fig. 5 is an enlarged side view of the sliding ferrule and its split tube and ejecting plunger; Fig. 6 is an enlarged cross-section on the line 6-6 of Fig. 2; and Fig. 7 is an enlarged cross-section on the line 7-7 of Fig. 2.

The present improvement is particularly directed to the registering and feeding magazine for repeating rifles on the order of the Winchester and has for its object to provide an automatic load or cartridge feed which, upon the exhaustion or firing of the last cartridge but one, will automatically arrest the movement of the action slide by which, as well understood in the art, the breech-bolt and cartridge carrier are manipulated both for discharging the empty shell or hull of a fired cartridge, and for delivering a fresh cartridge to the barrel. By arresting the movement of the action slide as stated, the hammer cannot be automatically cocked, and hence the objection of releasing the hammer against the firing pin when there are no more cartridges to shoot, is avoided, because a person will not deliberately cock a hammer by hand and release it against the firing pin after the cartridges are once exhausted. The present invention has a distinct advantage too, in guns equipped with a counter or "totaler" actuated by the release of the hammer, preventing as it does the counting and recording of shots after the cartridges are exhausted. Such a counter though here illustrated is however, not claimed, constituting at it does a distinct invention and in no

wise controlling the action of the magazine forming the subject-matter of the present application.

The advantages of the invention will be fully apparent from a detailed description thereof which is as follows:—

Referring to the drawings, B represents the barrel of the gun, S the stock, F the frame, *t* the trigger, *h* the hammer, R the breech-bolt, *a*, *a'*, the action slide, and H the action slide handle, all as well understood in the art. A movement of the handle H (which carries the action slide *a*, *a'*) toward the stock S manipulates the breech-bolt so as to eject the shell, elevate the cartridge-carrier (not shown) and cock the hammer, a movement from the stock lowering the breech-bolt, injecting the cartridge (in the carrier) into the barrel opposite the firing pin, all as fully understood in the art.

In the present embodiment of my invention the action slide and action slide handle are mounted loosely on the magazine cylinder or tube 1 secured in position at one end along the bottom of the barrel by a strap 2, and embedded at its inner end in a socket in the front end of the frame or in any equivalent mechanical manner. Marked or stamped on the walls of the cylinder 1 are a series of properly spaced division marks or graduations *m* identified by symbols or numbers *n* (from one to eighteen in the present example) to correspond with the number of cartridges with which the cylinder is charged, said cartridges being inserted lengthwise into the cylinder through a feed opening *o* formed in the lower peripheral wall of the cylinder, a suitable distance beyond the action slide handle. The cartridges lie in the cylinder end to end as obvious from the drawing. Formed in the top peripheral wall of the cylinder 1 and facing the barrel is an elongated slot *s* traversed by a rib 3 which couples the plunger or cartridge follower 4 to the diagonal split segment or sleeve 5 secured to the ferrule or ring 6 which slides along the magazine cylinder. As seen from the drawings, the slot *s* being in the upper side of the cylinder or facing the barrel, and the register numbers *n* and their division marks *m* being on the opposite side (or away from the barrel) it is desirable that these numbers and division marks be always exposed to the observer, and for this purpose the tubular member 5 is cut substantially on a diagonal from end

to end, the portion removed by the cut being opposite the register symbols, the rib 3 traversing the slot *s* preventing the member 5 from turning so that the cut-away portion thereof is permanently opposite the register. The inner edge of the ferrule 6 may be used as an index or pointer with the assistance of which the numbers on the graduated scale or register may be read.

Received by the ferrule 6 and its split-tubular extension or sleeve 5 is a rod 7 whose outer pointed terminal is free to pass through an opening *o'* in the outer end of the cylinder 1, the inner blunt end of the rod being adapted to rest on the adjacent end of the follower 4 within the cylinder. To the blunt end of the rod 7 is secured one end of a compressible spring 8 coiled about the rod, the opposite end of the spring bearing against the outer or free end of the cylinder. The main object of the rod 7 is to preserve the trueness of the coil of the spring, and protect the same against lateral displacement, and to insure its uniform expansion and contraction with the manipulation and operation of the plunger 4. The expansion of the spring obviously forces the rod against the plunger and tends to force the latter toward the frame F or feed end of the magazine cylinder. The plunger 4 is provided at its feed end with a spring-controlled latch 8' which is mounted between the walls of an elongated socket 9 formed in the plunger, one end of the latch being pivoted at one end of the socket and its free end being free to enter a slot 10 formed at the opposite end of the socket, a flexed spring 11 at the bottom of the socket normally tending to eject the latch out of the socket and beyond the peripheral wall of the plunger. This ejection of the latch is made possible by the slot *s'* formed in the lower peripheral wall of the enlargement 1' of the magazine-cylinder adjacent the feed or cartridge-discharge end, the slot *s'* being so positioned that the latch emerges out of it by the time the last cartridge has been expelled by the plunger from the cylinder into the cartridge carrier.

It will be noted that the action-slide is composed of a tubular portion *a* enveloping the portion 1' of the magazine tube 1, and of the arm *a'* extending toward the frame F and operating the breech-bolt. The base of the portion *a* is removed a suitable distance from the frame F and the slide (and its handle 11) may move to and from the frame through this distance in the loading of a cartridge and the expulsion of a shell. The slot *s'* is formed in the path of movement of the slide, the outer end of the slot terminating at the base of the portion *a* of the slide. It is apparent therefore that when the plunger has been advanced its full feeding limit toward the frame, and the last car-

tridge has been pushed out of the feeding magazine into the carrier in the frame, the latch 8' will, under the action of the spring 11, be automatically forced out of the slot *s'*, causing the free end of the latch to come opposite the base of the tubular portion *a* of the action slide and thus arrest or lock the same against movement toward the frame F. It follows therefore that the breech-bolt can not be actuated and hence the hammer is not cocked. The operator thus knows that the magazine has been exhausted and has the same recharged. To charge the magazine the operator seizes the ferrule 6 (first however depressing the ejected latch 8' so it will pass inside the action slide sleeve *a*) and pulls it outwardly until the free end of the plunger 4 has been pulled past the charging opening *o* (dotted position Fig. 3). The cartridges are then introduced end to end until the portion of the tube or cylinder 1 between the plunger and discharge end of the tube is full. By then releasing the ferrule, the base thereof will come opposite the numeral or division mark 1 on the scale or register. As the cartridges are fired one by one, the spring 8 will force the plunger against those remaining in the tube, the plunger following up the column of cartridges and forcing them one at a time into the cartridge carrier in the frame, with successive manipulations of the action slide, until the last cartridge has been pushed into the carrier, by which time the latch 8' springs into place and arrests the loading movement or manipulation of the action slide, as already described. The magazine is then ready to be recharged. As a cartridge is expelled, the ferrule 6 will advance along the register scale indicating the number of cartridges discharged from the magazine.

T represents the counter or "totaler" not here described, constituting as it does, a distinct invention and forming subject-matter for an independent application for patent.

Having described my invention, what I claim is:—

1. In combination with a gun provided with an action slide and frame, a magazine tube adapted to deliver cartridges to the frame, and means operating through the walls of the tube for locking the action slide against movement upon exhaustion of the contents of the tube.

2. In combination with a gun provided with an action slide and frame, a magazine tube adapted to deliver the loads to the frame and supporting said action slide, means within the tube for automatically feeding the loads to the frame, and devices carried by said means and operating through the walls of the tube for locking the action slide against movement upon the exhaustion of the loads from the tube.

3. In combination with a gun provided with an action slide and frame, a magazine tube adapted to deliver the loads to the frame and supporting said slide, a spring-controlled plunger within the tube for automatically feeding the loads to the frame, said tube being provided with a charging opening for the loads, a spring-actuated latch carried by the plunger, the walls of the tube being provided with an opening through which the latch operates for arresting movement of the action slide upon exhaustion of the loads from the magazine tube.

4. In combination with a magazine tube, an action slide therefor, a spring-actuated plunger, a spring-controlled latch on the plunger, the walls of the tube being provided with an opening to allow for the passage therethrough of the latch and limit the movement of the slide in one direction.

5. In combination with a gun provided with an action slide and frame, a magazine tube provided with a peripheral charging opening for the loads and discharging into the frame, a ferrule slidably mounted about the tube, the latter being provided with a longitudinal slot, a plunger on the inside of the tube, a rib connecting the plunger to the ferrule, a spring for forcing the plunger toward the discharge end of the tube, the wall of the latter being provided with a slot between the frame and the action-slide, a spring-controlled latch on the plunger adapted to be forced through the last named slot to arrest the movement of the action slide upon exhaustion of the contents of the tube.

6. In combination with a gun provided with an action slide comprising a sleeve or tubular portion and an extension therefor, a

frame having a breech-bolt actuated by said extension, a magazine tube loosely embraced by the sleeve portion of the action slide, and provided with a peripheral charging opening for the loads and discharging into the frame, a ferrule slidably mounted on the tube, the latter being provided with a longitudinal slot opposite the charging opening, a diagonally split tube extending from the ferrule toward the frame, a plunger in the tube, a rib connecting the plunger to the split tube and traversing the longitudinal slot, a coiled spring in the tube, a rod resting on the plunger and positioned within the coil, one end of the latter being secured to said rod, a pivoted spring-controlled latch on the plunger contiguous to the loads-engaging end thereof, the wall of the tube being provided with a slot between the sleeve portion of the action slide and frame to allow for the free passage of the latch for engaging said sleeve portion and arrest movement of the action slide upon exhaustion of the loads from the magazine tube.

7. In combination with a gun-barrel, a magazine tube provided with a longitudinal slot facing the barrel and with a register on the opposite face, a ferrule movable along the tube, a diagonally split sleeve coupled to the ferrule, for exposing the register, a spring-actuated loads-ejecting plunger in the tube, and a connection between the plunger and sleeve traversing the slot and preventing rotary displacement of the ferrule and sleeve.

In testimony whereof I affix my signature, in presence of two witnesses.

WILLIAM P. PINKSTON.

Witnesses:

EMIL STAREK,

FANNIE E. WEBER.