

MAGAZINE LOCK FOR TAKE-DOWN REPEATING SHOTGUNS AND RIFLES.

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MAGAZINE-LOCK FOR TAKE-DOWN REPEATING SHOTGUNS AND RIFLES.

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To all whom it may concern:

Be it known that I, FREDERICK HARDY, a citizen of the United States of America, and a resident of Columbia, in the county of Maury and State of Tennessee, have invented certain new and useful Improvements in Magazine-Locks for Take-Down Repeating Shotguns and Rifles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The first object of my invention is to provide for the proper securing of the magazine in place, to facilitate its ready removal from its bearings, and insure its movements in predetermined paths to and from operative position.

A second object of my invention is to permit the magazine to have side play in one of its bearings to permit of its removal from a clamp or band rigidly secured to the barrel of the gun.

In order that my invention may be fully understood I will proceed to describe it with reference to the accompanying drawings in which:

Figure I is a side elevation of my improved magazine lock for a take-down repeating shot gun or rifle. Fig. II is a transverse section thereof taken on the line II—II of Figs. I and III. Fig. III is a longitudinal section of the same taken on the line III—III of Fig. II. Fig. IV is a transverse section showing a modification in the means for securing the spring catch to the magazine. Fig. V is a longitudinal section thereof taken on the line V—V of Fig. IV. Fig. VI is a transverse section taken on the line VI—VI of Fig. X. Fig. VII is a transverse section on the line VII—VII of Fig. XI. Fig. VIII is a perspective view of the liner. Fig. IX is an elevation of the clamp, the liner being removed therefrom. Fig. X is a longitudinal section taken on the line X—X of Fig. VI. Fig. XI is a transverse section taken on the line XI—XI of Fig. VII. Fig. XII is a longitudinal section taken on the line XII—XII of Fig. VII, the dotted parts of Fig. VII being shown in full lines.

1 is a magazine located in and adapted to rotate within the handle H of a shot gun or rifle having a barrel B. This magazine is formed with a longitudinal slot 1^a near its forward end.

4 is a spring catch adapted to play within the longitudinal slot 1^a of the magazine 1 and secured at its inner end by suitable fastenings 2^a either to the exterior of the magazine as shown in Figs. I and II or to the interior of the magazine as shown in Fig. V, in which instance the magazine is bulged outwardly at 1^b to accommodate the inner part of the spring catch so that it may be fitted flush with the interior surface of the magazine and not interfere with the bore thereof. The outer end 2 of the spring catch 4 is formed with a notch 3 providing a beveled inner tooth 3^a engaging the beveled outer end of the longitudinal slot 1^a for limiting the outward movement of the spring catch and with an outer tooth 3^b, for limiting the inward movement of the spring catch.

7 is a figure eight clamp or band for holding the outer end of the magazine to the barrel and is formed with a transverse groove 5 for receiving the spring catch, with a segmental recess 5^a in which the spring catch is permitted to play circumferentially of the magazine and with a radial notch 7^a receiving the end of the spring catch when the latter is thrown out from the magazine. The spring catch is also provided with a longitudinal recess providing an inner shoulder or stop 8 and an outer shoulder 9 between which the clamp or band is received when the magazine is withdrawn.

Within the segmental recess 5^a is located a removable segmental liner. This liner is formed with a cutaway part from 10 to 11 to provide a recess 6, with a triangular transverse tooth at one end, fitting in a triangular recess at the inner end of the segmental recess 5^a, and with a perforation at the outer end of the liner receiving a set screw whereby the liner is secured to the clamp within the segmental recess 5^a. 19 is a lip or handle formed upon the liner to limit its insertion into the segmental recess 5 and to provide means whereby it can be removed by hand.

Fig. I shows a magazine in locked position, ready for use, the end of the spring at 2 being engaged in the notch 3 preventing the magazine from turning, while it is held against forward movement by the engagement of the thread on its rear end with the thread in the gun frame.

To operate, hold the gun by the grip in the right hand, depress the spring 4 to the posi-

tion shown in Fig. X and revolve the magazine in the direction of the arrow in Fig. II, the upper projection 3^b on the end of the spring 2 passing through the recess 6, between the outside of the wall of the magazine and the clamp 7, until it reaches the groove 5 which limits the movement in that direction: In this position the thread on the rear end of the magazine (not shown) is disengaged from the thread in the gun frame and the magazine can be thrust forward until it also is detached from the frame and the forward movement is arrested by the shoulder 8 which engages the notch in one side of the clamp 7, while the shoulder 9 engages the opposite side of the clamp, preventing any backward movement of the magazine, the spring 4 in connection with the groove 5 acting as a guide to keep the thread on the rear end of the magazine in alinement for entering and leaving the thread in the gun frame. The spring 4 is then in the position shown in Figs. VII and XI, the magazine entirely free from the frame, so that the gun barrel can be turned in the usual manner and withdrawn from the frame; carrying the magazine with it. In this unlocked position the shoulder 8 engaging the notch at the end of the groove 5 prevents the turning of the magazine in either direction and does not release its engagement with this notch until the shoulder 9 has so far entered the groove 5, in the backward movement of the magazine, as to assume the duty of preventing the magazine from turning, thus acting as a guide to enter the thread on the rear end of the magazine in the correct position.

The magazine being held immovable in its position relative to the barrel, is ready for reentering the thread on its rear end when the barrel has been replaced in the frame; it being only necessary to depress the spring until the shoulder 9 is disengaged from the clamp 7, push the magazine home and revolve it until it returns to the first position, the thread on its rear end engaging with the thread on the frame and the spring at 2 engaging in the notch 3.

In Fig. III is shown the spring attached to the outside of the magazine and in Fig. V is shown the spring recessed within the magazine, the operation and action of the spring being precisely the same in both forms.

Figs. II, IV, VI, and VII show the clamp or band to hold the magazine in its relative alinement with the gun barrel with the notches, groove and recess referred to.

Fig. VIII shows a liner to be used in connection with a band shown in Fig. IX rigidly attached to the gun barrel, dispensing with the machine work necessary to produce the detachable clamp. The inside diameter of the circle of one half this rigid

band is greater than that of the other half by the thickness of the liner so that when the liner is in place the two together form a circle of the right diameter to hold the magazine. When this form of band is used, the recess 6 is formed by cutting out a portion of the liner as shown in Fig. VIII from 10 to 11 and the liner being shorter than the periphery of the circle from 12 to 13 Fig. IX, by the width of the groove 5, the end of the liner forms one side of this groove and the shoulder 13 Fig. IX forms the other, the depth of the groove being the thickness of the liner. This liner is held in place at one end by the point 14 which engages a suitable notch in the shoulder 12 and the other end by the point of a screw, threaded through the band 6 and entering the hole shown at 15 in Fig. VIII. This liner also provides for the entering and removal of the magazine into and out of, a band rigidly attached to the gun barrel. When this liner is removed the magazine can be entirely released from the gun frame by depressing the spring 4 until the shoulder 8 will pass under the clamp as shown in Fig. XII. This permits the magazine to be thrust forward far enough to clear the gun frame at the rear and the enlargement of one half of the band caused by the removal of the liner permits the magazine to be deflected from the line of the barrel sufficiently to pass clear of the frame when withdrawn from the band. The magazine is replaced by reversing this operation and is secured in its place by the insertion of the liner which is secured by the set screw.

The projections 3^a and 3^b seen in Figs. X and XI limit the up and down movement of the spring to the requirements by contact with the outer and inner side, respectively, of the wall of the magazine.

Having thus described my invention the following is what I claim as new therein and desire to secure by Letters Patent:

1. A magazine lock for a take-down repeating shot gun or rifle comprising a barrel, a magazine adapted to be rotated, a clamp or band for holding the magazine to the barrel, and a spring catch secured to the magazine and having a plurality of stops or shoulders adapted to engage the clamp or band in normal or withdrawn positions respectively and to permit the withdrawal from, and return to, the operating position by the depression of the spring catch.

2. A magazine lock for a take-down repeating shot gun or rifle comprising a barrel, a magazine adapted to be rotated, a clamp or band for holding the magazine to the barrel and having a groove and recess, and a spring catch secured to the magazine and having a plurality of stops or shoulders adapted to engage the clamp or band in normal or withdrawn positions respectively

and to permit the withdrawal from, and return to, the operating position by the depression of the spring catch.

3. The combination, with a barrel, and a
5 magazine; of a clamp or band having a groove and recess and a spring attached to the magazine and having stops or catches

for engaging the clamp, or band for holding and locking the magazine in either normal or withdrawn positions.

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