PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT2902799

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
SEQUENCE:	1

CONVEYING PARTY DATA

Name	Execution Date
MAG EOUIPMENT, LLC	06/04/2014

RECEIVING PARTY DATA

Name:	FOSTECH MFG LLC
Street Address:	2860 NATIONAL ROAD
City:	COLUMBUS
State/Country:	INDIANA
Postal Code:	47201

PROPERTY NUMBERS Total: 2

Property Type	Number
Patent Number:	7942091
Patent Number:	8245625

CORRESPONDENCE DATA

Fax Number: (440)448-4348

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 812-418-3663
Email: john@robertsiplaw.com
Correspondent Name: JOHN ROBERTS
Address Line 1: 624 3RD ST.
Address Line 4: COLUMBUS, INDIANA 47201

ATTORNEY DOCKET NUMBER:	FOSTECH-MAG
NAME OF SUBMITTER:	JOHN ROBERTS
SIGNATURE:	/John Roberts/
DATE SIGNED:	06/18/2014

Total Attachments: 12
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MAGAZINE CARRIER FOR FIREARMS

CROSS REFERENCES TO RELATED APPLICATIONS: None.

Statement as to rights to inventions made under federally sponsored research and development: Not Applicable.

BACKGROUND OF THE INVENTION

1. Field of the Invention.

The present invention relates generally to repeating firearms that use a replaceable magazine, and more particular to improvements of mechanisms used to retain or release magazines of automatic and/or semi-automatic firearms.

2. Brief Description of Prior Art.

Many modern firearms are equipped with magazines capable of holding dozens of cartridges. Such magazines must usually be manually released from the firearm when they become empty, at which time a full magazine must be inserted into the firearm before firing may be continued. A magazine release is a critical control that locks and releases the ammunition magazine from a firearm.

There are many firearms that incorporate a magazine locking mechanism engaging a locking recess on the front of the magazine. There are other known firearms having side-locking recesses for use. And, in an effort to accommodate both left and right handed shooters, there is also known structures that provide for actuation from both the left and right sides of the firearm by means of translational buttons. However, these release mechanisms generally include an internal catch or hook that extends inwardly to releasably engage the magazine. The Inventor has found these single-hook

configurations to be insecure allowing the magazine to shift forward and/or side-to-side while in the magazine carrier. Further, the prior art release mechanisms generally require a number of small, delicate parts, which may be detrimental to the durability and operation of the critical magazine release mechanism.

As will be seen from the subsequent description, the preferred embodiments of the present invention overcome disadvantages of the prior art. In this regard, the present invention discloses a magazine carrier with release mechanism that is relatively easy to manufacture and assemble, and that includes locking means to avoid the "shifting" that is prevalent with prior art mechanisms. Still other objects will become apparent from the more detailed description which follows.

SUMMARY OF THE INVENTION

A magazine carrier with release mechanism that is used with repeating firearms. The magazine carrier includes a pivot member that defines a receptacle for receiving an upper end of the magazine, an arm that is located on a first side of the pivot member, a first latch located on a rear side of the pivot member, and a second latch located on a second side that is opposite the first side. The magazine carrier further includes locking means for releasably securing the magazine carrier to a firearm.

The pivot member includes first and second locking lugs that can be manually set to an unlocked position for inserting or removing the magazine from the magazine carrier, or, set to a locked position, where the magazine is releasably secured within the carrier. Each of the locking lugs define a top side having a flat surface, and a bottom side having a tapered surface for engaging the exterior surface of the magazine.

The pivot member further includes a through-hole for receipt of a pivot pin attached to the arm allowing the pivot member to rotate about an axis. Rotating the pivot member about the axis sets the pivot member to the locked or unlocked position. Urging the first

latch in a side-to-side direction, or, pressing the second latch will allow the pivot member to rotate, and release the magazine from the magazine carrier, or, secure the magazine within the carrier.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is an exploded perspective view of the device of the present invention, a magazine carrier used with repeating firearms.

Fig. 2 is a side perspective view of the carrier of Fig. 1, shown in the unlocked position.

Fig. 3 is a side view of the carrier positioned on a firearm.

Fig. 4 is a top view of the carrier of Fig. 1, shown in the locked position.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The device of the present invention is directed to a magazine carrier with release mechanism that is used with repeating firearms. Unlike the prior art, the magazine carrier of the present invention defines a locking mechanism that includes a pair of locking lugs that engage a magazine when the magazine is locked within the magazine carrier, with means for pivotally releasing the magazine from the magazine carrier. As will be described, the magazine carrier as disclosed further consists of components configured and correlated with respect to each other so as to attain the desired objective.

From the outset, it should be understood that the present invention relates to a magazine carrier that receives and releases a magazine for holding cartridges. The present invention does not alter the loading or reloading process of using the magazine with a prior art repeating firearm. In this regard, the recoiling and counter-recoiling

motions of the firearm's piston or breech bolt which carries out the actions of ejecting the empty case of the shotshell which has just been fired, and loading the succeeding shotshell in the chamber from a magazine remains unchanged. This cycle of operation in receiving a magazine with cartridges and releasing the magazine from the firearm when it becomes empty is widely known and not altered by the present invention.

Further, the spirit of this invention is not limited to a particular type firearm, but is readily applicable to repeating firearms having magazines.

Referring now to the drawings, a magazine carrier 10 that is capable of receiving a magazine 11 is disclosed. The magazine carrier 10 includes a pivot member 20 that defines a receptacle 25 for receiving an upper end of the magazine 11. The pivot member 20 of the magazine carrier 10 may be made of sheet metal or another suitable strong and heat resistant material.

The pivot member 20 includes an arm 30 that is located on a first side 32 of the pivot member 20, and includes a first latch 35 located on a rear side 33 of the pivot member 20, and a second latch 38 located on a second side 34 that is opposite the first side 32. As illustrated, the magazine carrier 10 defines a housing 12 to support and protect the application of the pivot member 20.

The magazine carrier 10 further includes locking means 31 for releasably securing the magazine carrier 10 to a firearm 100.

As best illustrated in Figs. 1, 2 and 4, the pivot member 20 further includes first and second locking lugs 40, 42. As will be understood, Fig. 2 illustrates the locking lugs 40, 42 in the unlocked position, where the magazine 11 can be inserted or removed from the magazine carrier 10, and, Fig. 4 illustrates the locking lugs 40, 42 in the locked position, where the magazine 11 is releasably secured within the carrier 10. As illustrated, the first locking lug 40 is located at a rear, inner portion 32A of the first side

32 of the pivot member 20, and the second locking lug 42 located at a front, inner portion 34A of the second side 34. The first and second locking lugs 40, 42 are ordinarily engaged with the magazine 11 when the magazine 11 is in use in the firearm 100.

Referring to Fig. 1, each of the locking lugs 40, 42 define a top side 40A, 42A respectively, and a bottom side 40B, 42B. The top sides 40A, 42A having a flat surface, and, the bottom sides 40B, 42B each having a tapered surface for engaging the exterior surface of the magazine 11.

The pivot member 20 further includes a through-hole 45 defined in the first side 32. A pivot pin 46 is received in the arm 30 and the through-hole 45 of the pivot member 20 allowing the pivot member 20 to rotate about an axis 49. Rotating the pivot member 20 about axis 49 positions the pivot member 20 from the locked position (see Fig. 4) or the unlocked position (see Fig. 2). Urging either the first latch 35 in a side-to-side direction, or, pressing the second latch 38 will allow the pivot member 20 to rotate as described, and release the magazine 11 from the magazine carrier 10 or secure the magazine 11 within the carrier 10.

When in the locked position, the first locking lug 40 appropriately engages a first location (designated as L1) of the exterior surface of the magazine 11, and the second locking lug 42 engages a second location (designated as L2) of the exterior surface of the magazine such that, and in contrast with the prior art magazine mechanisms, the present invention releasably secures the magazine 11 when inserted in the magazine carrier 10 at two (2) locations. As a result, the magazine 11 is securely received within the magazine carrier 10 without shifting.

Although the above description above contains many specificities, these should not be construed as limiting the scope of the invention but as merely providing illustrations of some of the presently preferred embodiments of this invention. As such, it is to be

understood that the present invention is not limited to the embodiments described above, but encompasses any and all embodiments within the scope of the claims.

It would be obvious to those skilled in the art that modifications may be made to the embodiments described above without departing from the scope of the present invention. Thus the scope of the invention should be determined by the appended claims in the formal application and their legal equivalents, rather than by the examples given.

Claims

I claim:

1. A magazine carrier with release mechanism for a repeating firearms, said magazine carrier comprising:
a pivot member that defines a receptacle for receiving an upper end of a magazine,
an arm that is located on a first side of the pivot member,
a first latch located on a rear side of the pivot member, and,
a second latch located on a second side that is opposite the first side,
a locking means for releasably securing the magazine carrier to a firearm,
first and second locking lugs that can be manually set to an unlocked position for inserting or removing the magazine from the magazine carrier, or, set to a locked position, where the magazine is releasably secured within the carrier,
wherein each of the locking lugs defining a top side having a flat surface, and a bottom side having a tapered surface for engaging an exterior surface of the magazine,
wherein said pivot member further including a through-hole for receipt of a pivot pin that is attached to the arm allowing the pivot member to rotate about an axis,
wherein rotating the pivot member about the axis sets the pivot member to the locked or unlocked position,
wherein urging the first latch in a side-to-side direction, or, pressing the second latch will allow the pivot member to rotate to said locked or unlocked positions.

ABSTRACT OF THE DISCLOSURE

A magazine carrier with release mechanism that is used with repeating firearms. The magazine carrier includes a pivot member that defines a receptacle for receiving an upper end of the magazine. The pivot member includes a first release latch and a second release latch, and first and second locking lugs that can be manually set to an unlocked position for inserting or removing the magazine from the magazine carrier, or, a locked position where the magazine is releasably secured within the carrier. The locking lugs define a top side having a flat surface, and a bottom side having a tapered surface for engaging the exterior surface of the magazine. A pivot pin attaches the pivot member to an arm allowing the pivot member to rotate about an axis. Rotating the pivot member about the axis sets the pivot member to the locked or unlocked position. Urging the first latch in a side-to-side direction, or, pressing the second latch causes the pivot member to rotate to the locked or unlocked positions.

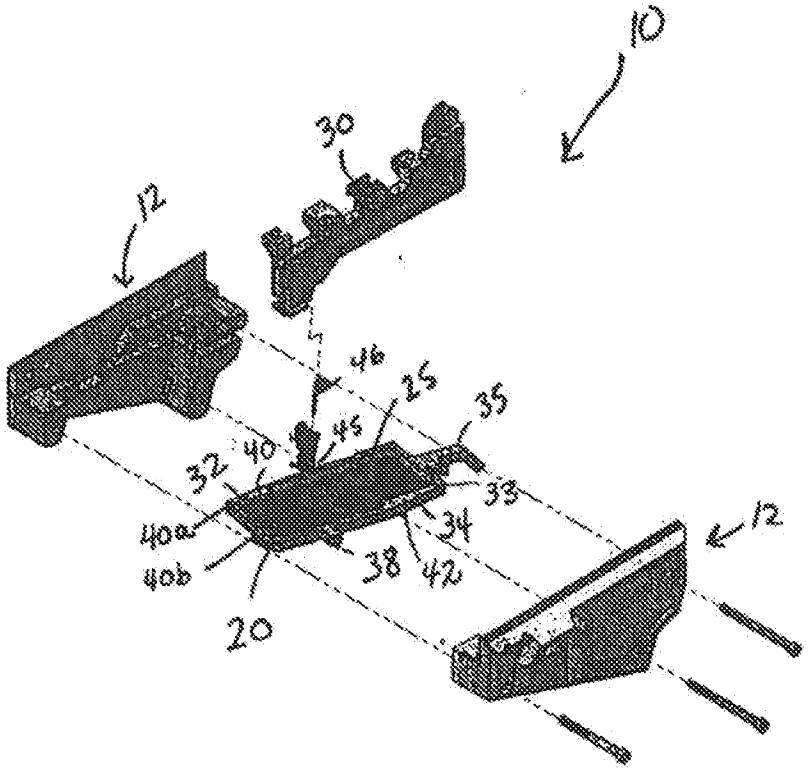

Fig. 1

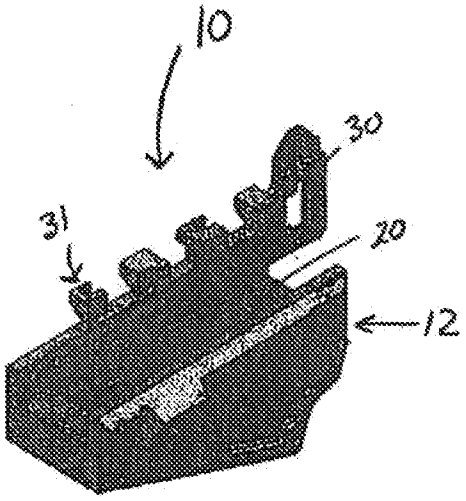

Fig. 2

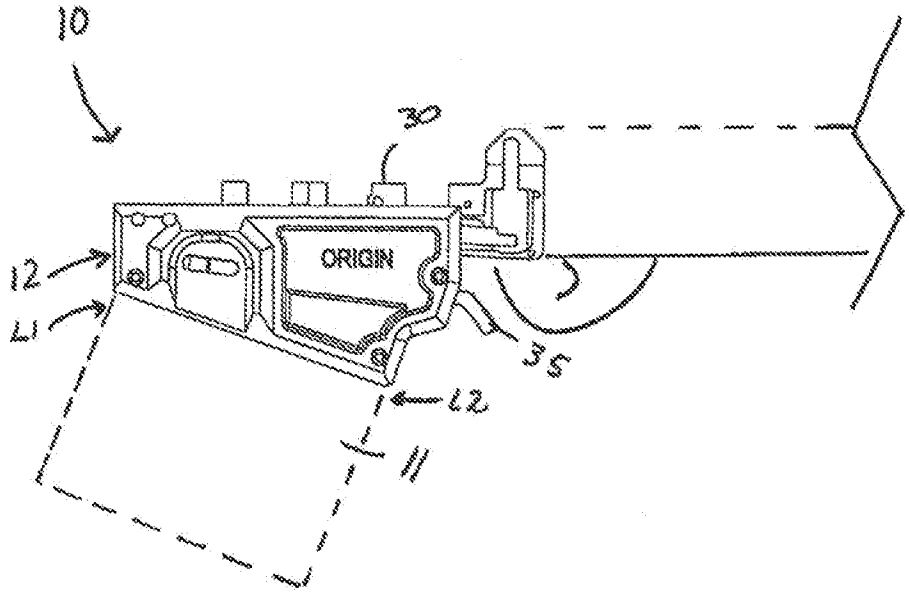

Fig. 3

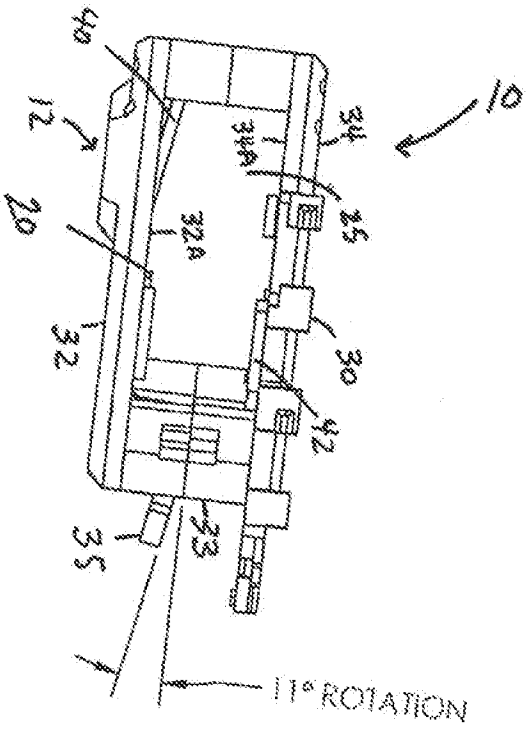

Fig. 4