Herein is described an ambidextrous tactical latch that allows a left handed shooter the ability to charge an M-16 or AR-15 rifle or the like in the same manner as a right handed shooter. The left handed shooter grasps the pistol grip of the weapon with their left hand. With their right hand in regular fashion, they grasp the tactical actuator located on the right hand side of the charging handle and pull it in a backward motion to effect charging the weapon.
Killer Innovations Patent drawing 12-16-08
AR-15 Charging handle with ambidextrous tactical latches

right view
charging handle #1
roll pin #5
right tactical actuator #3
left tactical latch #2
spring #4

explosion view

right view
back view
front view
RIFLE CHARGING HANDLE WITH AMBIDEXTROUS TACTICAL LATCH MECHANISM

BACKGROUND

When left handed M-16 or AR-15 shooters cycle the charging handle of the weapon, they have to reach over the top of the receiver or change position of the weapon to activate the standard tactical latch. Currently all M-16 or AR-15 charging handles have the latch located on the left hand side of the weapon allowing a right handed shooter to keep his right hand on the handle and trigger while the left hand can cycle the weapon easily. A left handed shooter while holding the handle and trigger with the left hand has to reach over the weapon or change position of the weapon to reach the latch located on the left hand side.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows various views of an embodiment of the invention.

DETAILED DESCRIPTION

Herein is described an ambidextrous tactical latch that allows a left handed shooter the ability to charge an M-16 or AR-15 rifle in the same manner as a right handed shooter. The left handed shooter grasps the pistol grip of the weapon with their left hand. With their right hand in regular fashion, they grasp the tactical actuator located on the right hand side of the charging handle and pull it in a backward motion to effect charging the weapon.

The charging handle (1) is configured and designed to allow a user to charge the action of an M-16 or AR-15 rifle or the like. We have modified the design of the standard charging handle to allow the installation and function of a right tactical actuator (3) located at the right hand side of the charging handle (1). The charging handle (1) can be made of an alloy, metallic, plastic or composite material. The charging handle (1) is preferably shaped as a rounded tee, but could have another shape at the handle end such as, but not limited to, squaring or chamfering of the corners. The charging handle (1) may be approximately 6/4 inches in length front to back, the front shaft is approximately 0.395 of an inch in width, and the tee handle may be approximately 2.55 inches in width left to right. The handle at the back end of the tee has a machined radius slot (as detailed in FIG. 1) from the left side completely through to the right side to accept the left tactical latch (2) and right tactical actuator (3). The machined slot has a machined radius channel running from left to right that accepts any form of a spring (4) and the channel prevents the spring from escaping from the slot from front to back and can only be installed from the right or left sides with left tactical latch (2) or right tactical actuator (3) removed. The charging handle has two holes machined from top to bottom at the back end to accommodate roll pins (5) used to secure and allow free pivot of the left tactical latch (2) and right tactical actuator (3). The left tactical latch (2) is configured and designed to allow a user to easily grasp the latching mechanism that locks the charging handle.

The left tactical latch (2) is located at the left side of the machined slot at the back end of charging handle (1). It is preferably held in place by a roll pin that passes through the charging handle (1) and the left tactical latch (2). The roll pin could be replaced with a dowel pin or any appropriate pivoting mechanism. The right tactical actuator (3) is located at the right side of the machined slot at the back end of the charging handle (1). It is preferably held in place by a roll pin that passes through the charging handle (1) and the right tactical actuator (3). The roll pin may be replaced with a dowel pin or any appropriate pivoting mechanism. The spring (4) is preferably located in the radius channel that runs from right to left at the center of the machined slot in the back of the charging handle (1). However, it may be located elsewhere so long as it can apply pressure to tactical latch (2) and tactical actuator (3). The spring (4) is captured in place by the radius channel and the right tactical actuator (3) and the left tactical latch (2). However, it may be held in place by pins, plugs or different variations of a machined slot.

These components work together in the following manner: The charging handle (1) is installed in the upper receiver of an M-16 or AR-15 rifle or the like in standard fashion. The left tactical latch (2) is installed in the charging handle (1) in standard fashion. The right tactical actuator (3) is installed in the charging handle (1) on the right hand side in the same fashion as the left tactical latch (2). The spring (4) is installed in the machined radius slot at the back of the charging handle (1) before the left tactical latch (2) and right tactical actuator (3) are installed. The left tactical latch (2) can be disengaged from the upper receiver of the weapon in ordinary fashion by pulling the handle on the latch in a backward motion. The right tactical actuator (3) has a control arm or gear located between itself and the left tactical latch (2). When the right tactical actuator (3) is pulled in a backward motion, the control arm or gear actuates a lever or gear located on the left tactical latch (2) causing it to disengage from the upper receiver. The left tactical latch (2) and the right tactical actuator (3) are held in a latched and forward position by spring (4) located between them applying outward pressure.

This device can be used by pulling either the left tactical latch (2) or the right tactical actuator (3) to disengage the left tactical latch (2) from the upper receiver of the M-16 or AR-15 rifle. The latch handle on both the left tactical latch (2) and the right tactical actuator (3) can take any shape or size and can be made of any alloy, metallic, plastic or composite material. The position of these latches can be moved in any direction and can pivot from any point. Gas relief ports can be added to the back end of the charging handle (1). These parts can be painted or finished in any variation of colors or pigments.

Levers or gears may be replaced by a linkage mechanism. The charging handle (1) may take different shape but still offering the same function. The spring (4) may be made of any material that carries a spring like attribute and may take any shape. The spring (4) may be replaced by a torsion spring located at the pivot point of either the left tactical latch (2) or right tactical actuator (3).

What is claimed is:

1. An ambidextrous tactical latch for charging a rifle comprising:
   a charging handle for installation in the upper receiver of a rifle; said charging handle having a machined radius slot at the back;
a spring installed in the machined radius slot at the back of the charging handle;
a left tactical latch and a right tactical actuator installed in the charging handle;
where the left tactical latch and the right tactical actuator are held in a latched and forward position by the spring located between them applying outward pressure; and

where the right tactical actuator has a control arm or gear located between itself and the left tactical latch such that when the right tactical actuator is pulled toward the back of the rifle, the control arm or gear actuates a lever or gear located on the left tactical latch causing it to disengage from the upper receiver thus charging the rifle.