[0005] Often, the ability to keep firing is limited by barrel overheating. When the barrel of a firearm overheats, accuracy of the firearm is substantially reduced. Further overheating of the barrel can result in malfunction of the firearm. For example, cartridges chambered into an overheated barrel can detonate prematurely, i.e., cook off, particularly in closed bolt firearms. If the barrel is overheated sufficiently it can deform, thereby resulting in a catastrophic failure of the firearm.

[0006] Even after the barrel has returned to an acceptable operating temperature, the firearm may be unusable. The barrel and/or other components of the firearm may have been permanently damaged. Changing the barrel of a contemporary firearm such as the M16 or M4 takes a substantial amount of time and is not generally performed in the field. When the firearm is unusable due to overheating and while the barrel is being changed, a soldier or police officer cannot shoot the firearm and is thus undesirably vulnerable to attack.

[0007] The inability to shoot a firearm can have disastrous consequence in battlefield and police situations. The inability to shoot has resulted in loss of life in such instances. Therefore, it is desirable to provide systems and methods for facilitating the quick change of the barrel of a firearm and for otherwise enhancing the reliability and utility of the firearm, for example.

BRIEF SUMMARY

[0007a] According to an aspect, there is provided a firearm comprising: a backbone disposed within a receiver and having a slot formed therein; a barrel having a barrel extension; and a swinging wedge configured to engage a cross pin on the barrel to pull the barrel upward into a plurality of v-blocks on the backbone and to pull a flange on the barrel extension upward into a groove in the backbone to center the barrel and lock the barrel extension from fore and aft motion in relation to the backbone.

[0008] In accordance with embodiments further described herein, features are provided that may be advantageously used in one or more firearm designs. According to an embodiment, a firearm can have a backbone, a barrel, a swinging wedge, and a barrel latch. The barrel latch can be in mechanical communication with the swinging wedge such that moving the barrel latch will move the swinging wedge. The barrel latch can have a first position and a second position and the swinging wedge can be configured to maintain attachment of the barrel to the backbone when the barrel latch is in the first position and can be configured to release the barrel from the backbone when the barrel latch is in the second position.