RAPID CLAMPING BASE FOR AN OPTIC RIFLE SIGHT

Inventors: Juha Aalto, Riihimaki (FI); Karl Kuparinen, Loppi (FI)

Correspondence Address:
BURNS DOANE SWECKER & MATHIS LLP
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404 (US)

Publication Classification

- Int. Cl. F41G 1/38
- U.S. Cl. 42/127

ABSTRACT

A rapid clamping base for an open rifle sights, the base includes a front frame and a rear frame, whose clamping rings retain the sight. The frames can be clamped by a retainer to a clamping rail in a gun. The claws provided in the front frame are provided at different locations relative to the longitudinal direction of the rails so as to be pressed in engagement with the edges of the rail when the optic sight is turned in the horizontal plane from the lateral direction to the central line of the gun. The front frame also includes a support tongue. The rear frame includes claws engaging the clamping rail. The rear frame includes a support tongue extending downwards and bearing against the front edge of the rear clamping rail.
RAPID CLAMPING BASE FOR AN OPTIC RIFLE SIGHT

[0001] The invention relates to a rapid clamping base for optic rifle sights, the base consisting of two clamping frames, a front frame and a rear frame, whose clamping rings retain the sight and which can be locked to a two-piece clamping rail of a gun, such as a sporting gun, by means of a rapid retainer.

[0002] There are various locking systems operating with various technical solutions including conventional rapid clamping bases of this type. All these have the inconvenience of the locking systems comprising some kind of female or male clamp member, which can be fastened to the gun, usually on top of the barrel or to the clamping rail. When it is desirable to use an open sight, the optic sight is removed using the rapid retainer, however, the member fastened to the barrel will remain on this, which considerably hampers aiming operations or prevents them altogether. The purpose of this invention is to eliminate this shortcoming. The rapid clamping base of the invention is characterised by the claws which are provided in the front frame to grip the clamping rail being provided at different locations relative to the longitudinal direction of the rail, so that the claws are pressed in engagement with the edges of the rail when the sight is turned in the horizontal plane from the lateral direction to the central line of the gun, and that the front frame additionally comprises a downwardly extending support tongue, which bears against the rear edge of the front clamping rail, and that the rear frame comprises second claws engaging the clamping rail, one of the claws being a stationary claw mounted in the rear frame and the other, i.e. the clamping claw, is movable and in position to be pressed against the edge of the rail, and that the rear frame also comprises a downwardly extending support tongue, which bears against the front edge of the rear clamping rail, both the frames having three pressing points relative to the clamping rails. The invention thus allows an optic sight to be fastened and removed directly on the clamping rail provided in the gun. No accessories hampering an open sight need to be fixed to the gun, nor are any other mechanical measures required.

[0003] A preferred embodiment of the invention is characterised by the clamping claw being spring-loaded, so that the clamping claw bears against the edge of the clamping rail under the spring force. A second embodiment of the invention is characterised by one claw of the front frame being spring-loaded so as to engage the edges of the clamping rail under the action of the spring force when the sight is turned in position.

[0004] The invention is described below by means of an example and with reference to the accompanying drawings, in which

[0005] FIGS. 1-4 show the front frame of the rapid clamping base viewed from different directions,

[0006] FIGS. 5-8 show the rear frame of the rapid clamping base viewed from different directions,

[0007] FIG. 9 is a top view of the fastening of the optic sight and

[0008] FIG. 10 shows the same as FIG. 9, but with the optic sight in retained position.

[0009] The rapid clamping base of an optic rifle sight consists of two clamping frames, a front frame 1 and a rear frame 2. The clamping rings 3, 4 of the clamping frames 1, 2 retain the optic sight 5. The frames can be fixed with a rapid retainer in engagement with a two-piece clamping rail 6 of a gun, such as a sporting gun. The claws 8, 9 provided in the front frame to engage the clamping rail 6 are provided at different locations relative to the longitudinal direction of the rail, so that the claws are pressed in engagement with the edges of the rail when the optic sight 5 is turned in the horizontal plane from the lateral direction to the central line of the rifle as shown with arrow 10. The front frame 1 also has a downwardly extending support tongue 11, which bears against the rear edge of the front clamping rail 6. The rear frame 2 comprises second claws 12, 13 engaging the clamping rail 7, one claw 12 being solidly mounted in the rear frame and the other, i.e. the clamping claw 13 being movable and in position to be pressed against the edge of the rail. The rear frame 2 also comprises a downwardly extending support tongue 14, which bears against the front edge of the rear clamping rail 7, both of the frames having three pressing points on the clamping rails. The clamping claw 12 is spring-loaded so as to bear against the edge of the clamping rail 7 under the action of the spring force, thus firmly clamping the whole optic sight to the gun. The other claw 8 of the front frame 1 is spring-loaded so that the claws 8, 9 engage the edges of the clamping rail 6 under the spring force when the optic sight is turned 10 in position.

1. A rapid clamping base for an optic rifle sight, the base consisting of two clamping frames, a front frame (1) and a rear frame (2), whose clamping rings (3, 4) retain the optic sight (5) and which can be locked in engagement with a two-piece clamping rail (6, 7) of a gun, such as a sporting gun, by means of a rapid retainer, characterised in that the claws (8, 9) provided in the front frame (1) for gripping the clamping rail (6) are provided at different locations relative to the longitudinal direction of the rail, so that the claws are pressed in engagement with the edges of the rail when the sight (5) is turned in the horizontal plane from the lateral direction (10) to the central line of the rifle, and that the front frame (1) additionally comprises a downwardly extending support tongue (11), which bears against the rear edge of the front clamping rail (6), and that the rear frame (2) comprises second claws (12, 13) engaging the clamping rail (7), one claw (12) being solidly mounted in the rear frame and the other, i.e. the clamping claw (13) being movable and in position to be pressed against the edge of the rail, and that the rear frame also has a downwardly extending support tongue (14), which bears against the front edge of the rear clamping rail (7), both of the frames thus having three pressing points relative to the clamping rails.

2. A rapid clamping base as defined in claim 1, characterised in that the clamping claw (13) is spring-loaded so as to bear against the edge of the clamping rail (7) under the action of the spring force.

3. A rapid clamping base as defined in claim 1 or 2, characterised in that the other claw (8) of the front frame (1) is spring-loaded so that the claws (8, 9) engage the edges of the clamping rail (6) under the spring force when the optic sight is turned (10) in position.