

PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Gunsight Mounting

We ETABLISSEMENT SALGAD, a corporation organised and existing under the Laws of Liechtenstein, of Vaduz, Liechtenstein. do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a gunsight mounting for attachment to part of a weapon, especially a mortar.

Such a mounting carries a telescopic sight, and generally includes means by which the telescopic sight can be adjusted through the three spatial directions. The mounting is often of the type which can be thrust on to the weapon, for example, by means of a groove-spring connection. In this case, care must be taken that the mounting, so attached, does not become loose as a result of shocks when the weapon is fired. For this purpose, a mounting has already been provided having a locking-part which bears by spring pressure on the part of the weapon on to which the mounting is thrust.

In the locking arrangement, there is a danger that the massive movements of the weapon arising during firing have such an effect on the locking part that the pressure exerted by the spring can be weakened, that is it becomes ineffective against the said pressure. Because of this, there is insufficiently secure, immovable positioning of the mounting on the weapon.

An object of the invention is to provide locking of a gunsight mounting on a weapon, especially a mortar, in such a way that it is not affected by movements arising during firing of the weapon.

According to the present invention we provide a gunsight mounting for attachment to a weapon, especially a mortar, the mounting comprising a formation for interengagement

with a complementary formation on the weapon when the mounting is moved in an attaching direction, and a locking part including a rotatable pin whose longitudinal axis lies in the attaching direction and which is provided with a cam adapted to bear by spring pressure on the weapon when the complementary formations of the mounting and the weapon are interengaged.

By means of this arrangement, the locking movement of the locking-part does not run parallel to the direction of the weapon on firing. The forces arising from the weapon and affecting the locking-part cannot therefore exert any influence on the locking force. Thus, extremely secure locking of the gunsight on the weapon is obtained. In addition locking and unlocking can be easily carried out, and the gunsight mounting can be easily and quickly mounted on the weapon, and withdrawn from it. It is also possible to increase considerably the locking force to be exerted by the spring, without incurring additional constructional cost.

The arrangement is preferably such that the pin is under the pressure of a torsion spring, one end of the spring being anchored in the mounting, and the other end in the pin. Thus, one end of the pin can project from the mounting, and the projecting end can be provided with an operating handle. Thus, the cam of the pin works transversely to the attaching-movement of the mounting on the weapon. The movements arising upon firing of the weapon are therefore prevented from influencing the spring pressure and, thus, the security of the lock.

An embodiment of the invention will now be described, by way of example, with reference to the accompanying drawings, in which:—

Fig. 1 is a front view of a gunsight mounting according to the present invention,

Fig. 2 is a section on the line II—II of Fig. 1.

Figs. 3 and 4 are detailed views,

Fig. 5 is a section on the line V—V of Fig. 1, with parts removed, and Figs. 6 to 8 are detailed views.

Referring to the drawings, a gunsight mounting 1 has a part 3, which can be pushed on to a holding-part 2 of a weapon, for example a mortar, and a casing 4 rotatably mounted on the part 3 by means of a hollow bush 4a of the casing and an intermediate part 5 and a screw 6. A worm 7 having a knob 8 engages a worm wheel 9 provided on the part 3. The intermediate part 5 is rigidly fixed to the casing 4 by screws 10. The casing 4 has a cylindrical part 4b whose axis is vertical to that of the part 4a. A holding-body 11, which can be turned by a worm 12 having a knob 13, around the cylindrical part 4a, rests on the cylindrical part 4b. The holding-body is provided with a conical portion 11a, in which another holder 14 is set under spring-pressure, and on which a telescopic sight 15 is mounted.

The part 3 of the mounting 1 engages with the part 2 of the weapon in the following way. The part 3 has inclined side walls 16, which engage in a corresponding groove 17 on the weapon 2 and which converge in the attaching direction of movement of the mounting. The part 3 is pushed in this direction from above into the groove 17. With a part 3a, the part 3 engages between the casing 4 and the part 5, which serves as a guide upon rotation of casing 4 around the axis of the part 3, upon turning of the worm 7, which engages in the threads 9 which are on the part 3a. The part 3 has a cylindrical through opening 18. A rotatable pin 20 is located in the longitudinal medial plane 19 between the side walls 16 of the part 3, the lower end of the pin 20 engaging in a hole 21 in the part 3. The pin 20 is provided with a cam 22 of which an upper surface 22a can engage in a recess 2a in the part 2 of the weapon in order to lock it. A part 20a of the pin 20 is located in the part 3 by an insert 23, which is held fast by screws 24 to the part 3. A torsion spring 25 is provided around the pin 20, the lower end 25a of the spring 25 engaging in a hole 26 in the part 3, while the upper end 25b, which is bent over in the axial direction, engages in a hole 27 in the cam 22. The pin 20 is constantly held in the safety position by the torsion spring 25. A crank-like handle 28 is provided at the upper end 20b of the pin 20, and is connected thereto by a pin 29 in a hole 30 in the handle 28.

The cam 22 can be adjusted axially of the pin 20, the pin 20 having a threaded portion 20c to this end, on which cam 22 is screwed.

The cam 22 is locked on the pin 20 by a grub-screw 22b engaging in a longitudinal groove 20d in the threaded portion 20c.

In order to attach the mounting 1 to the part 2 of the weapon by sliding the side walls 16 in the groove 17 of the weapon, the cam 22 on the pin 20 is pivoted by means of handle 28, so that the cam 22 lies inside an opening 3b in the part 3, and therefore clear of weapon 2. In the lowest position of the mounting 1 when attached to the weapon, the handle 28 is released. Under the action of the torsion spring 25, the pin 20 can thus rotate and the cam 22 engages in the corresponding opening 2a in the weapon, so that secure locking between the gunsight mounting 1 and the weapon 2 is obtained longitudinally along these parts. For release, the cam 22 of the pin 20 is turned by means of the handle 28, against the action of torsion spring 25, into the opening 3b, whereupon the mounting 1 can be removed from the weapon.

WHAT WE CLAIM IS:—

1. A gunsight mounting for attachment to a weapon, especially a mortar, the mounting comprising a formation for inter-engagement with a complementary formation on the weapon when the mounting is moved in an attaching direction, and a locking part including a rotatable pin whose longitudinal axis lies in the attaching direction and which is provided with a cam adapted to bear by spring pressure on the weapon when the complementary formations of the mounting and the weapon are interengaged.

2. A mounting as claimed in claim 1, in which said pin has a torsion spring, of which one end is secured to the mounting, and the other end is secured to the pin.

3. A mounting as claimed in claim 1 or 2, in which one end of the pin projects out of the mounting, and the projecting end has an actuating handle.

4. A mounting as claimed in any one of the claims 1 to 3, in which the cam is adjustable axially of the pin.

5. A mounting as claimed in claim 4, in which the cam is axially screw adjustable on the pin.

6. A mounting as claimed in claim 4 or 5, in which the cam is held in position on the pin by a set screw.

7. A gunsight mounting as claimed in claim 1 and substantially as hereinbefore described with reference to the accompanying drawings.

8. In combination, a gunsight mounting as claimed in any one of the preceding claims and a weapon, especially a mortar, including a formation complementary to and inter-engaged with the formation of the mounting and provision for interlocking with the cam.

Fig. 2 is a section on the line II—II of Fig. 1,

Figs. 3 and 4 are detailed views,

Fig. 5 is a section on the line V—V of Fig. 1, with parts removed, and

Figs. 6 to 8 are detailed views.

Referring to the drawings, a gunsight mounting 1 has a part 3, which can be pushed on to a holding-part 2 of a weapon, for example a mortar, and a casing 4 rotatably mounted on the part 3 by means of a hollow bush 4a of the casing and an intermediate part 5 and a screw 6. A worm 7 having a knob 8 engages a worm wheel 9 provided on the part 3. The intermediate part 5 is rigidly fixed to the casing 4 by screws 10. The casing 4 has a cylindrical part 4b whose axis is vertical to that of the part 4a. A holding-body 11, which can be turned by a worm 12 having a knob 13, around the cylindrical part 4a, rests on the cylindrical part 4b. The holding-body is provided with a conical portion 11a, in which another holder 14 is set under spring-pressure, and on which a telescopic sight 15 is mounted.

The part 3 of the mounting 1 engages with the part 2 of the weapon in the following way. The part 3 has inclined side walls 16, which engage in a corresponding groove 17 on the weapon 2 and which converge in the attaching direction of movement of the mounting. The part 3 is pushed in this direction from above into the groove 17. With a part 3a, the part 3 engages between the casing 4 and the part 5, which serves as a guide upon rotation of casing 4 around the axis of the part 3, upon turning of the worm 7, which engages in the threads 9 which are on the part 3a. The part 3 has a cylindrical through opening 18. A rotatable pin 20 is located in the longitudinal medial plane 19 between the side walls 16 of the part 3, the lower end of the pin 20 engaging in a hole 21 in the part 3. The pin 20 is provided with a cam 22 of which an upper surface 22a can engage in a recess 2a in the part 2 of the weapon in order to lock it. A part 20a of the pin 20 is located in the part 3 by an insert 23, which is held fast by screws 24 to the part 3. A torsion spring 25 is provided around the pin 20, the lower end 25a of the spring 25 engaging in a hole 26 in the part 3, while the upper end 25b, which is bent over in the axial direction, engages in a hole 27 in the cam 22. The pin 20 is constantly held in the safety position by the torsion spring 25. A crank-like handle 28 is provided at the upper end 20b of the pin 20, and is connected thereto by a pin 29 in a hole 30 in the handle 28. The cam 22 can be adjusted axially of the pin 20, the pin 20 having a threaded portion 20c to this end, on which cam 22 is screwed.

The cam 22 is locked on the pin 20 by a grub-screw 22b engaging in a longitudinal groove 20d in the threaded portion 20c.

In order to attach the mounting 1 to the part 2 of the weapon by sliding the side walls 16 in the groove 17 of the weapon, the cam 22 on the pin 20 is pivoted by means of handle 28, so that the cam 22 lies inside an opening 3b in the part 3, and therefore clear of weapon 2. In the lowest position of the mounting 1 when attached to the weapon, the handle 28 is released. Under the action of the torsion spring 25, the pin 20 can thus rotate and the cam 22 engages in the corresponding opening 2a in the weapon, so that secure locking between the gunsight mounting 1 and the weapon 2 is obtained longitudinally along these parts. For release, the cam 22 of the pin 20 is turned by means of the handle 28, against the action of torsion spring 25, into the opening 3b, whereupon the mounting 1 can be removed from the weapon.

WHAT WE CLAIM IS:—

1. A gunsight mounting for attachment to a weapon, especially a mortar, the mounting comprising a formation for inter-engagement with a complementary formation on the weapon when the mounting is moved in an attaching direction, and a locking part including a rotatable pin whose longitudinal axis lies in the attaching direction and which is provided with a cam adapted to bear by spring pressure on the weapon when the complementary formations of the mounting and the weapon are interengaged.

2. A mounting as claimed in claim 1, in which said pin has a torsion spring, of which one end is secured to the mounting, and the other end is secured to the pin.

3. A mounting as claimed in claim 1 or 2, in which one end of the pin projects out of the mounting, and the projecting end has an actuating handle.

4. A mounting as claimed in any one of the claims 1 to 3, in which the cam is adjustable axially of the pin.

5. A mounting as claimed in claim 4, in which the cam is axially screw adjustable on the pin.

6. A mounting as claimed in claim 4 or 5, in which the cam is held in position on the pin by a set screw.

7. A gunsight mounting as claimed in claim 1 and substantially as hereinbefore described with reference to the accompanying drawings.

8. In combination, a gunsight mounting as claimed in any one of the preceding claims and a weapon, especially a mortar, including a formation complementary to and inter-engaged with the formation of the mounting and provision for interlocking with the cam.



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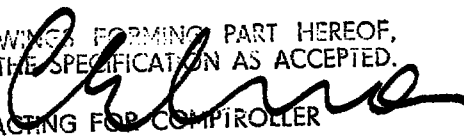
9. The combination as claimed in claim 8,
in which such interlocking provision is in the
form of an opening in the weapon.

H. D. FITZPATRICK & CO.
14/18 Cadogan St., Glasgow, C.2.
and
27 Chancery Lane, London, W.C.2.

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THE PATENT OFFICE, 25 Southampton Buildings, London, WC2A 1AY.

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