



(11) **EP 1 592 941 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
13.08.2008 Bulletin 2008/33

(51) Int Cl.:
F41C 23/12 ^(2006.01) **F41C 23/14** ^(2006.01)
F41C 23/20 ^(2006.01) **F41A 19/09** ^(2006.01)

(21) Application number: **03815569.3**

(86) International application number:
PCT/IL2003/000069

(22) Date of filing: **28.01.2003**

(87) International publication number:
WO 2004/068057 (12.08.2004 Gazette 2004/33)

(54) **HANDLE FOR FIREARM**

HANDGRIFF FÜR SCHUSSWAFFE

POIGNEE POUR ARME A FEU

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IT LI LU MC NL PT SE SI SK TR**

(43) Date of publication of application:
09.11.2005 Bulletin 2005/45

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Description**FIELD OF THE INVENTION**

[0001] The present invention relates generally to firearms accessories, and particularly to handles that may be fitted on a firearm, which among other things, may permit firing the firearm when held at a distance (e.g., arms length) or at any angle from the shooter's body.

BACKGROUND OF THE INVENTION

[0002] In order to fire a firearm and hit a target, it is necessary to aim towards the target and fire a bullet projectile with sufficient force to reach and damage the target. With conventional firearms, such as pistols, revolvers and other handguns, rifles, submachine guns and the like, an elongate barrel is provided to direct the bullet in the direction in which the firearm is aimed, and to provide a path along which the bullet is accelerated.

[0003] In many cases, it would be desirable to hit a target lying at an angle to, or around a corner shelter or cover from, the person firing the gun. With conventional firearms, this is impossible, since the barrel is straight and can only be fired forwards or backwards. Holding the firearm extended from the body is not practical, since the user must still press the trigger, thereby exposing the hand or finger to enemy fire, and the target is not readily visible for aiming thereat

[0004] In GB-A-754040, on which the two-part form of independent claim 1 is based, there is disclosed a firearm wherein a handle is provided at or near the center of the firearm and is adapted to swivel to the left and right of the line of sight, and wherein a rotatable mirror is provided which is used in conjunction with the sights of the firearm to facilitate accurate fire in a concealed aiming position i.e. around a corner. Again, to press the trigger the user must expose his hand or finger to enemy fire.

SUMMARY OF THE INVENTION

[0005] The present invention seeks to provide a novel firearm comprising side extending handles, as is described more in detail hereinbelow. The firearm accessory of the invention, among other things, may permit firing the firearm when held at a distance (e.g., arms length) or at any angle from the shooter's body. The handles may be particularly useful for shooting the firearm around corners. The handles may also be used as carrying handles or other useful features, such as but not limited to, steadying the firearm against a surface when firing. The object of the invention is achieved with the firearm/apparatus defined in claim 1.

[0006] The handles may be supplied as a separate kit for attachment to an existing firearm. Alternatively, a firearm manufacturer or dealer may supply the firearm already equipped with the handles.

[0007] There is thus provided in accordance with the

present invention apparatus comprising:

a butt, a trigger, an ammunition firing portion and a barrel, wherein said butt and said barrel define a plane and a longitudinal axis of said firearm lies in said plane;

characterized by further comprising:

a handle pivotally attached to said butt, rearward of said ammunition firing portion, wherein in a stored position said handle is generally parallel to said plane and in a deployed position said handle angularly extends away from said plane, said handle being pivotally attached to said butt with a pivoting connector that permits pivoting said handle about an axis that does not lie in said plane;

wherein said handle comprises a trigger coupled to said trigger of said firearm, wherein pulling said trigger of said handle pulls said trigger of said firearm.

[0008] In accordance with an embodiment of the present invention said pivoting connector is fixable at a plurality of angles.

[0009] Further in accordance with an embodiment of the present invention an auxiliary sight is attached to said firearm for viewing a target at an angle to said plane. Preferably, the auxiliary sight is attached to said firearm for viewing the target generally perpendicular to said plane. The auxiliary sight may be foldable with respect to said firearm.

[0010] Still further in accordance with an advantageous embodiment of the present invention another handle is pivotally attached to said firearm forward of said ammunition firing portion. The other handle may be pivotally attached to a handguard of said firearm.

[0011] In accordance with an embodiment of the present invention at least one handle is telescopic.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The present invention will be understood and appreciated more fully from the following detailed description, taken in conjunction with the drawings in which:

Fig. 1 is a simplified pictorial illustration of a firearm with side handles, constructed and operative in accordance with an embodiment of the present invention, with the handles in a stored position; and Fig. 2 is a simplified illustration of the firearm of Fig. 1, with the side handles in a deployed position.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

[0013] Reference is now made to Figs. 1 and 2, which illustrate a firearm 10, constructed and operative in ac-

cordance with an embodiment of the present invention.

[0014] Firearm 10 may comprise a butt 12, a trigger 14, an ammunition firing portion 16 (which may include, but is not limited to, a chamber, a bolt carrier, a magazine and the like), a pistol grip 17, a handguard 18, a carrying handle 19 and a barrel 20. Firearm 10 is illustrated for exemplary purposes only as a Colt M-16 automatic rifle, but the invention is not limited to this firearm and may be carried out with other firearms, such as but not limited to, assault rifles, sniper rifles, handguns, pistols, revolvers, etc. The butt 12 and barrel 20 define a plane 22 and a longitudinal axis 24 of firearm 10 lies in plane 22. Firearm 10 may comprise front and rear sights 26 and 28, respectively, which individually or in combination allow viewing a target 29 along longitudinal axis 24 in plane 22.

[0015] In accordance with an embodiment of the present invention, one or more additional handles are attached in any manner (fixed or pivoted) to firearm 10. In the illustrated embodiment, one handle 30 is pivotally attached to butt 12, rearward of ammunition firing portion 16, and another handle 32 is pivotally attached to handguard 18, forward of said ammunition firing portion 16. However, the invention is not limited to this arrangement, and the handles may be attached at other positions on firearm 10 (e.g., on a top portion thereof and arranged to swing outwards, or on pistol grip 17 and/or the magazine holder). As another alternative, the pistol grip 17 may itself serve as one of the handles 30 or 32, wherein pistol grip 17 is pivotable with respect to firearm 10 about axis 24. In such an embodiment, pistol grip 17 is pivotable from a position parallel with plane 22 to a gripping position angularly extending away from plane 22.

[0016] Fig. 1 illustrates handles 30 and 32 in a stored position, wherein they are generally parallel to plane 22. Fig. 2 illustrates handles 30 and 32 in a deployed position (i.e., gripping position, wherein the handles may be gripped to fire firearm 10). In the gripping position, the handles 30 and 32 angularly extend away from plane 22. In the illustrated embodiment, handles 30 and 32 are generally perpendicular to plane 22 in the gripping position, but the invention is not limited to this angle.

[0017] The handles 30 and 32 may be pivotally attached to firearm 10 with a pivoting connector 34. Pivoting connector 34 may be fixed at a plurality of angles, such as by means of a ratchet mechanism, locking mechanism, pawl and detents and the like (not shown). Pivoting connector 34 may permit pivoting the handles 30 and 32 in a plurality of directions, such as about axis 24 (which lies in plane 22), as indicated by an arrow 36 (elevational rotation), or about an axis that does not lie in plane 22, such as a vertical axis 37, as indicated by an arrow 38 (azimuthal rotation).

[0018] Handle 30 and/or 32 may be telescopic, wherein it comprises one or more telescopic sections 40. The handles 30 and 32 may be of any shape or size, and may be constructed of any suitable material. The handles 30 and 32 may be of identical or different shapes or sizes. The handles 30 and 32 may be arranged to swing out-

wards towards either end of firearm 10.

[0019] Either one of the handles, such as handle 30, may comprise a trigger 42 coupled to trigger 14 of firearm 10. For example, a wire 44 may connect trigger 14 of firearm 10 to a linkage assembly 46, which is connected to trigger 42 of handle 30. Pulling trigger 42 in a direction perpendicular to axis 24 pulls trigger 14 to fire firearm 10. It is appreciated that the invention is not limited to this arrangement and other coupling arrangements may be used instead. Alternatively, in the embodiment wherein pistol grip 17 may serve as one of the handles, the trigger 14 may be adapted to pivot together with the pistol grip 17 to the gripping position angularly extending away from plane 22 and serve as the trigger 42.

[0020] In accordance with an embodiment of the present invention, an auxiliary sight 48 may be provided attached to firearm 10, for viewing target 29 at an angle to plane 22, such as but not limited to, generally perpendicular to plane 22. Auxiliary sight 48 may be foldable with respect to firearm 10, and may comprise, without limitation, a mirror or camera device or combination thereof.

[0021] In use, handles 30 and 32 may be folded out from the stored position shown in Fig. 1 to the deployed position shown in Fig. 2. Firearm 10 may then be held by handles 30 and 32 and fired when held at arms length from the shooter's body, with the target 29 sighted by auxiliary sight 48. This may be particularly useful for shooting around corners and the like.

[0022] It will be appreciated by persons skilled in the art that the present invention is not limited by what has been particularly shown and described hereinabove. Rather the scope of the present invention includes both combinations and subcombinations of the features described hereinabove as well as modifications and variations thereof which would occur to a person of skill in the art upon reading the foregoing description and which are not in the prior art.

Claims

1. Apparatus comprising:

a firearm (10) comprising a butt (12), a trigger (14), an ammunition firing portion (16) and a barrel (20), wherein said butt (12) and said barrel (20) define a plane (22) and a longitudinal axis (24) of said firearm (10) lies in said plane (22);
characterized by further comprising:

a handle (30) pivotally attached to said butt (12), rearward of said ammunition firing portion (16), wherein in a stored position said handle (30) is generally parallel to said plane (22) and in a deployed position said handle (30) angularly extends away from said plane (22), said handle (30) being piv-

otally attached to said butt (12) with a pivoting connector (34) that permits pivoting said handle (30) about an axis (37) that does not lie in said plane (22);

wherein said handle (30) comprises a trigger (42) coupled to said trigger (14) of said firearm (10), wherein pulling said trigger (42) of said handle (30) pulls said trigger (14) of said firearm (10).

2. The apparatus according to claim 1, **characterized in that** said pivoting connector (34) is fixable at a plurality of angles.
3. The apparatus according to claim 1 or claim 2, **characterized by** further comprising an auxiliary sight (48) attached to said firearm (10) for viewing a target (29) at an angle to said plane (22).
4. The apparatus according to claim 3, **characterized in that** said auxiliary sight (48) is attached to said firearm (10) for viewing the target (29) generally perpendicular to said plane (22).
5. The apparatus according to claim 3, **characterized in that** said auxiliary sight (48) is foldable with respect to said firearm (10).
6. The apparatus according to any of claims 1-5, **characterized by** comprising another handle (32) pivotally attached to said firearm (10) forward of said ammunition firing portion (16).
7. The apparatus according to claim 6, **characterized in that** said other handle (32) is pivotally attached to a handguard (18) of said firearm (10).
8. The apparatus according to claim 6 or 7, **characterized in that** said other handle (32) is telescopic.
9. The apparatus according to any one of claim 1-8, **characterized in that** said handle (30) pivotally attached to said butt (12) is telescopic.

Patentansprüche

1. Vorrichtung, umfassend :

eine Schusswaffe (10), umfassend einen Kolben (12), einen Abzug (14), einen Munitionsabschussteil (16) und einen Lauf (16), wobei der Kolben (12) und der Lauf (20) eine Ebene (22) definieren und eine Längsachse (24) der Schusswaffe (10) in dieser Ebene (22) liegt ;
dadurch gekennzeichnet, dass sie weiter umfasst :

einen schwenkbar an dem Kolben (12), hinter dem Munitionsabschussteil (16), befestigten Handgriff (30), wobei in einer Aufbewahrungsp position der Handgriff (30) generell parallel zu der Ebene (22) ist und in einer Einsatzposition der Handgriff (30) sich angewinkelt von der Ebene (22) weg erstreckt, wobei der Handgriff (30) schwenkbar an dem Kolben (12) befestigt ist, mit einem Schwenk-Verbindungsstück (34), welches das Schwenken des Handgriffs (30) um eine Achse (37), die nicht in der Ebene (22) liegt, zulässt ;
wobei der Handgriff (30) einen mit dem Abzug (14) der Schusswaffe (10) gekoppelten Abzug (42) umfasst,
wobei das Betätigen des Abzugs (42) des Handgriffs (30) den Abzug (14) der Schusswaffe (10) betätigt.

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2. Vorrichtung nach Anspruch 1, **dadurch gekennzeichnet, dass** das Schwenk-Verbindungsstück (34) in einer Mehrzahl von Winkeln fixierbar ist.

3. Vorrichtung nach Anspruch 1 oder Anspruch 2, **dadurch gekennzeichnet, dass** sie weiter eine zusätzliche Visiereinrichtung (48) umfasst, die an der Schusswaffe (10) befestigt ist, um ein Ziel (29) unter einem Winkel zu der Ebene (22) anzuvisieren.

4. Vorrichtung nach Anspruch 3, **dadurch gekennzeichnet, dass** die zusätzliche Visiereinrichtung (48) an der Schusswaffe (10) befestigt ist, um das Ziel (29) generell senkrecht zu der Ebene (22) anzuvisieren.

5. Vorrichtung nach Anspruch 3, **dadurch gekennzeichnet, dass** die zusätzliche Visiereinrichtung (48) in Bezug auf die Schusswaffe (10) einklappbar ist.

6. Vorrichtung nach einem der Ansprüche 1-5, **dadurch gekennzeichnet, dass** sie einen anderen Handgriff (32) umfasst, der vorwärts von dem Munitionsabschussteil (16) schwenkbar an der Schusswaffe (10) befestigt ist.

7. Vorrichtung nach Anspruch 6, **dadurch gekennzeichnet, dass** der andere Handgriff (32) schwenkbar an einem Handschutz (18) der Schusswaffe (10) befestigt ist.

8. Vorrichtung nach Anspruch 6 oder 7, **dadurch gekennzeichnet, dass** der andere Handgriff (32) teleskopartig ausziehbar ist.

9. Vorrichtung nach einem von Anspruch 1-8, **dadurch gekennzeichnet, dass** der schwenkbar an dem Kolben (12) befestigte Handgriff (30) teleskopartig

ausziehbar ist.

(16).

Revendications

1. Appareil comprenant :

une arme à feu (10) comprenant une crosse (12), une détente (14), une portion de tir de munition (16) et un canon (20), ladite crosse (12) et ledit canon (20) définissant un plan (22), l'axe longitudinal (24) de ladite arme à feu (10) se trouvant dans ledit plan (22) ;

caractérisé par le fait qu'il comprend en outre :

une poignée (30) fixée en pivotement à ladite crosse (12), à l'arrière de ladite portion de tir de munition (16), ladite poignée (30), dans la position de repos, étant généralement parallèle audit plan (22), et ladite poignée (30), dans la position déployée, s'étendant à l'écart dudit plan (22) en formant un angle, ladite poignée (30) étant fixée en pivotement à ladite crosse (12) avec un raccord pivotant (34) qui permet de faire pivoter ladite poignée (30) autour d'un axe (37) qui ne se trouve pas dans ledit plan (22) ;

dans lequel ladite poignée (30) comprend une détente (42) couplée à ladite détente (14) de ladite arme à feu (10), une traction s'exerçant sur ladite détente (42) de ladite poignée (30) exerce une traction sur ladite détente (14) de ladite arme à feu (10).

2. Appareil selon la revendication 1, **caractérisé en ce que** ledit raccord pivotant (34) peut être fixé en formant plusieurs angles.

3. Appareil selon la revendication 1 ou 2, **caractérisé par le fait qu'il** comprend en outre une hausse auxiliaire (48) fixée à ladite arme à feu (10) pour viser une cible (29) en formant un angle par rapport audit plan (22).

4. Appareil selon la revendication 3, **caractérisé en ce que** ladite hausse auxiliaire (48) est fixée à ladite arme à feu (10) pour viser la cible (29) généralement perpendiculairement audit plan (22).

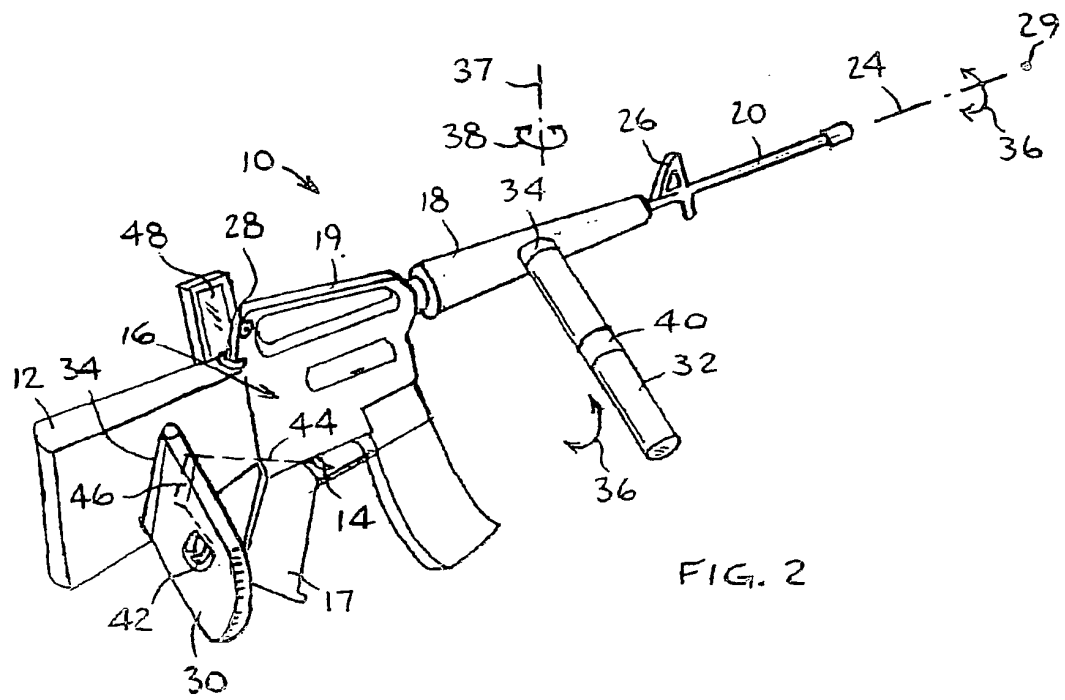
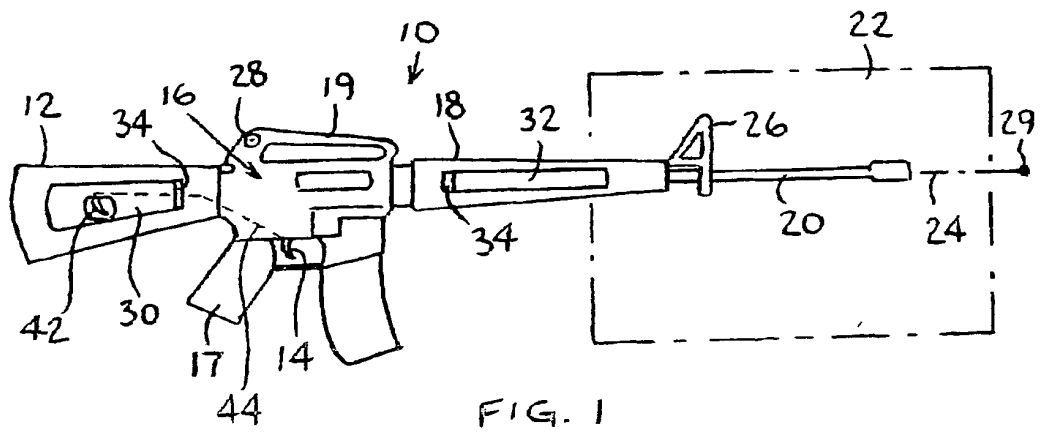
5. Appareil selon la revendication 3, **caractérisé en ce que** ladite hausse auxiliaire (48) peut être repliée par rapport à ladite arme à feu (10).

6. Appareil selon l'une quelconque des revendications 1 à 5, **caractérisé par le fait qu'il** comprend une autre poignée (32) fixée en pivotement à ladite arme à feu (10) à l'avant de ladite portion de tir de munition

7. Appareil selon la revendication 6, **caractérisé en ce que** ladite autre poignée (32) est fixée en pivotement à un protège-main (18) de ladite arme à feu (10).

8. Appareil selon la revendication 6 ou 7, **caractérisé en ce que** ladite autre poignée (32) est télescopique.

9. Appareil selon l'une quelconque des revendications 1 à 8, **caractérisé en ce que** ladite poignée (30) fixée en pivotement à ladite crosse (12) est télescopique.



REFERENCES CITED IN THE DESCRIPTION

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