(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 705 450 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
27.09.2006 Bulletin 2006/39

(51) Int Cl.:
F41C 7/02 *(2006.01)*

(21) Application number: **05006603.4**

(22) Date of filing: **24.03.2005**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR LV MK YU

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(54) Detachable tubular magazine for a firearm

(57) Magazine tube containing cartridges that is detachable from the firearm. The set consists of a receiver base (1) for the magazine tube (2). The rear end is screw shaped for attaching to the receiver frame of the firearm, the other end has a mechanism to lock the magazine tube in place by means of spring loaded catch. The magazine tube (2) contains a cartridge feeding spring (6) with stop collar. The magazine tube mouth has tapered collar that blocks the cartridge from ejecting unless the collar is pressed into the receiver base.

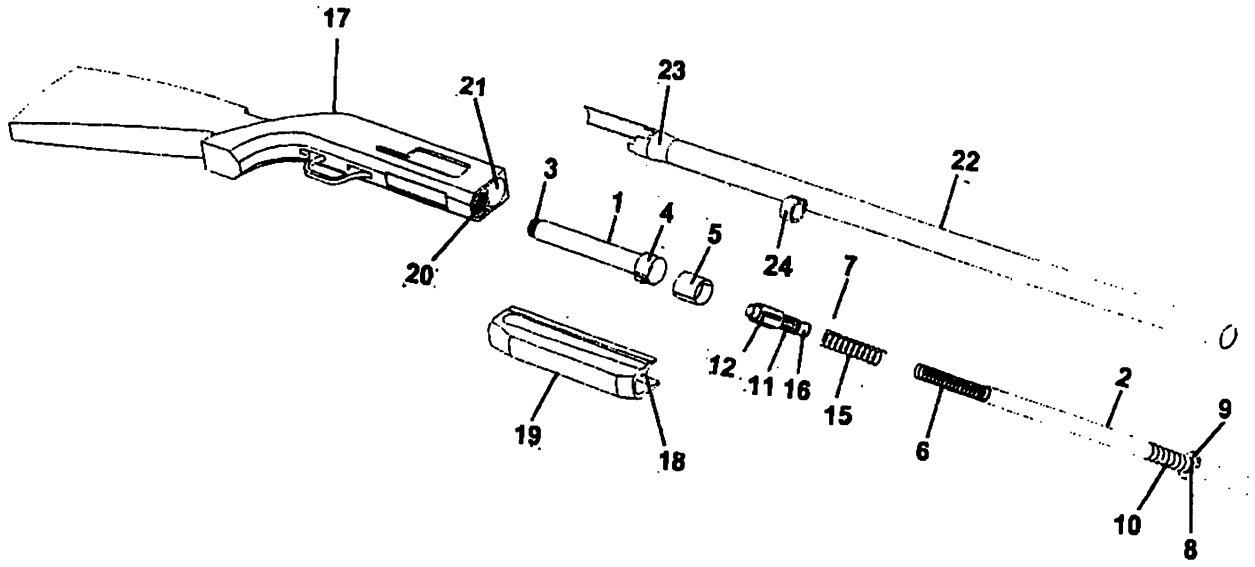

Figure 2

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Description

Field of knowledge concerning the invention

[0001] Mechanical engineering in the part of tube magazine that is detachable from the firearm.

Description of the prior art

[0002] Figure 4 shows ordinary firearm today that has receiver frame (31) that contains firing mechanism inside, with feeding port (32) at the side to feed cartridge into the receiver frame (31).

[0003] Rear end (33) of the firearm has an extension to assist holding while operating the firearm.

[0004] Front end of the receiver (34) has an exit port for the bullet/pellets from the receiver frame (31) through the barrel (35) and the lower portion of the barrel (35) has fore-end grip (36) for holding while operating the firearm.

[0005] The firearm described above can be fired and reloaded one shot at a time, wasting a lot of time to reload resulting in discontinuity of firing.

Purpose of the invention

[0006] The invention concerns magazine tube that can be detached from the firearm, consisting of a magazine tube containing cartridges that is detachable from the firearm, The set consists of a receiver base for the magazine tube. The rear end is screw shaped for attaching to the receiver frame of the firearm and the other end has a mechanism to lock the magazine tube in place by means of spring loaded catch. The magazine tube contains cartridge feeding spring with stop collar. The magazine tube mouth has tapered collar that blocks the cartridge from ejecting unless the collar is pressed into the receiver base.

[0007] The purpose of the invention is to provide a receiver base that is attached to the firearm's frame allowing the magazine tube to be attached and detached quickly, increasing the rate of fire for continuous firing.

Brief description of the illustrations

[0008]

Figure 1 shows the magazine tube set of this invention.

Figure 2 shows the magazine tube set of this invention and the firearm.

Figure 3 shows the magazine tube set as attached to the firearm,

Figure 4 shows an embodiment of the firearm.

Detailed Disclosure of Invention.

[0009] Figure 1 shows component parts of magazine tube containing cartridges that is detachable from the firearm, consisting of.

[0010] Receiver base (1) to accept the insertion of the magazine tube (2) of which is screw shaped (3) at one end or as an attachment set (not shown) for attaching to the opening. (20) of the receiver's frame (17) (as in Figure 2).

[0011] At one end is a holding mechanism (4) for locking the magazine tube (2) that can be attached or detached. Split tube (5) inside will hold the installation ring (24) of the barrel (22) (as in Figure 2) by means of mechanical lock.

[0012] Split tube (5) that can be taken apart and reassemble to form tube shape after placing inside the holding mechanism (4).

[0013] The magazine tube (2) is a tube with feeding spring (6) inside to push cartridges out through releasing mechanism (7) of which the inside of one end is a catch shoulder blocking the feeding spring (6) and the cartridges from ejecting out of magazine tube (2).

[0014] Screw groove (8) is machined to the external surface of the magazine tube (2) to provide distance adjustment for the adjustment ring (9).

[0015] The magazine tube (2) has external coil spring (10) installed to assist ejection of the magazine tube (2) when released from the receiver base holding mechanism (4).

[0016] The other end of magazine tube (2) has internal screw groove (not shown) to accept attachment of the releasing mechanism (7).

[0017] Releasing mechanism (7) consists of lock-tube (11) that is inserted inside the external tube (12). The tube has one end that is screwed shaped (13) or as an attachment (not shown) to one end of the magazine tube (2) by means of mechanical lock.

[0018] The other end of the lock-tube (11) is a number of finger-locks (14) having a slight curvature to hold and prevent cartridge from ejecting from the magazine tube (2) while the external tube (12) is pressed with tube-spring (15) to hold against finger-lock (14) and the inside of the lock-tube (11) has a push rod (16) that is meant to send the next cartridge into the receiver base (1).

[0019] Figure 2 shows detachable magazine tube set as attached to the firearm.

[0020] The set consists of receiver base (1) that is placed inside the channel (18) of the fore-end grip (19) which is screw shaped (3) at one end or as an attachment set (not shown) for attaching to the opening (20) of the receiver's frame (17) by mean of mechanical lock.

[0021] At one end is a holding mechanism (4) for locking the magazine tube (2) that can be attached or detached, Split tube (5) inside will hold the installation ring (24) of the barrel (22) by mean of mechanical lock.

[0022] The magazine tube (2) is a tube with feeding spring (6) inside to push cartridges out through releasing mechanism (7) of which the inside of one end is a catch shoulder blocking the feeding spring (6) and the cartridges from ejecting out of magazine tube (2).

[0023] Screw groove (8) is machined to the external surface of the magazine tube (2) to provide distance adjustment for the adjustment ring (9).

[0024] The adjustment ring (9) helps in locking the receiver base holding mechanism (4).

[0025] External coil spring (10) assists ejection of the magazine tube (2) when released from the receiver base holding mechanism (4).

[0026] One end of the magazine tube (2) that mates to the releasing mechanism (7) will be the passage for cartridges to the receiver base (1) triggering the mechanism that feeds the cartridges to the breech opening (21) through receiver's frame (17) to the barrel (22).

[0027] The barrel (22) has a muzzle end for bullet to exit, the other end, breech end, has shoulder and breech cone (23) to attach to the breech opening (21) of the receiver's frame (17).

Claims

1. Detachable magazine tube for a firearm, consisting of:

- Receiver base (1) for magazine tube whose one end is an opening for inserting the magazine tube (2), the other end being attached to the opening (20) of the receiver frame (17) by means of mechanical lock;
- Magazine tube (2) as a tube for inserting into the receiver base (1), the tube having cartridge feeding spring (6) inside the tube (2) at which the tube mouth has a cartridge releasing mechanism (7). The other end of the magazine tube is blocked to hold cartridge inside. Screw groove (8) is machined to the external surface of the magazine tube (2) to provide distance adjustment for the adjustment ring (9);

characterized in that:

- At one end of the receiver base (1) is a holding mechanism (4) for adjustment ring (9) of the magazine tube (2) by means of mechanical lock that is removable. Inside of this device is split-tube (5) to hold the installation ring (24) of the barrel (22);
- The magazine tube (2) has external coil spring (10) installed to assist ejection of the magazine tube (2) when released from the receiver base holding mechanism (4);
- Holding mechanism (7) consists of lock-tube (11) that is inserted inside the external tube (12), The tube has one end that is attached to one end of the magazine tube (2) by means of mechanical lock and the other end of the lock-tube (11) is a number of finger-locks (14) that has slight curvature to hold and prevent cartridge from ejecting from the magazine tube (2) while the external tube (12) is pressed with tube-spring (15) to hold against finger-lock (14) and the inside of the lock-tube (11) has a push rod (16) that is meant to send the next cartridge into the receiver base (1).

2. Detachable magazine tube for a firearm according to Claim 1, having a split-tube (5) that can be split in to parts and re-assemble to form a tube when installed inside the holding mechanism (4).

3. Detachable magazine tube for a firearm according to Claim 1, having a receiver base (1) that is placed inside the channel (18) of the fore-end grip (19).

4. Detachable magazine tube for a firearm according to any one of Claims 1-3, in which the barrel (22) attached to the receiver frame (17) has long dimension.

5. Detachable magazine tube for a firearm according to any one of Claims 1-4, in which the barrel (22) attached to the receiver frame (17) has short dimension.

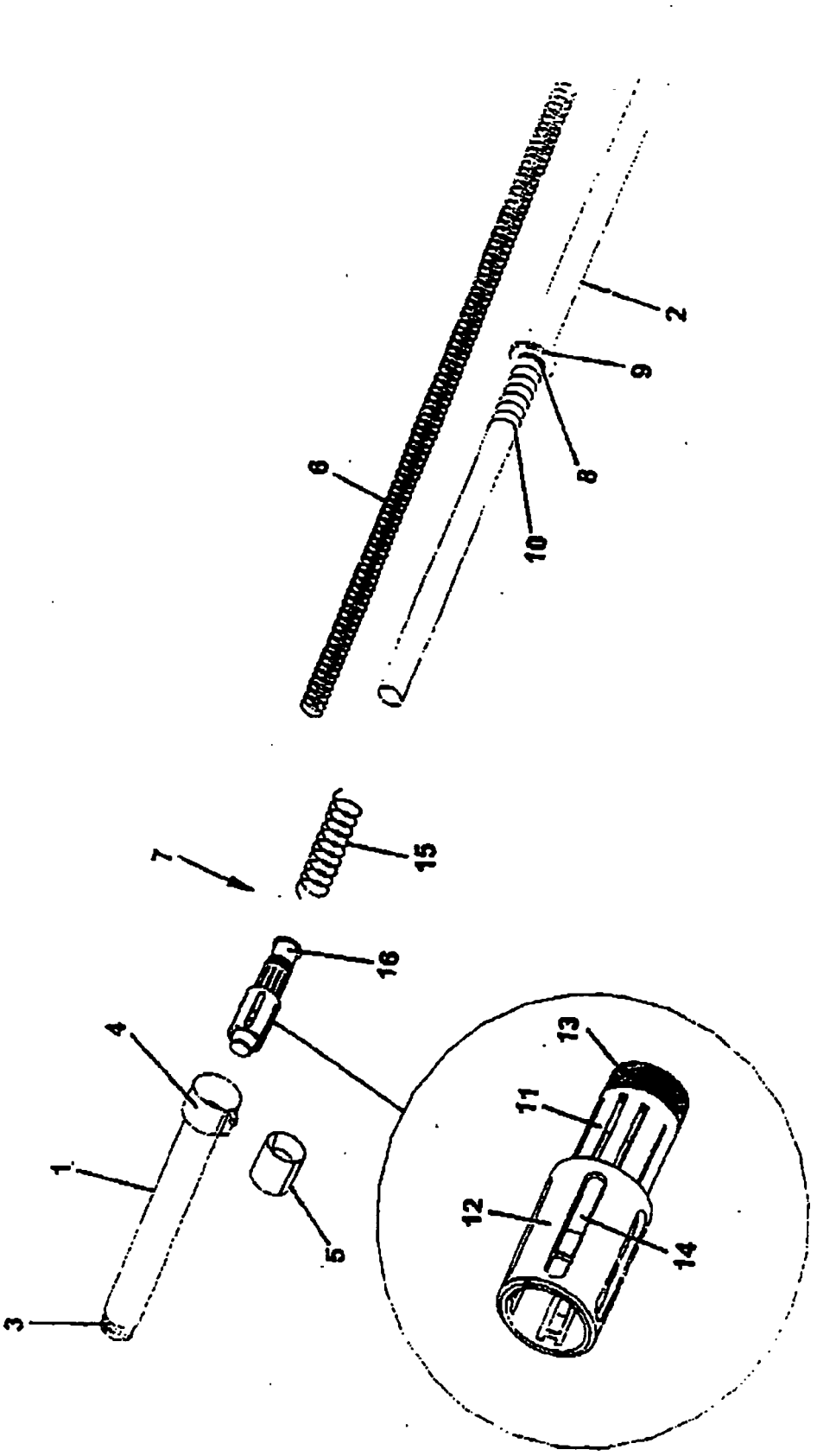

Figure 1

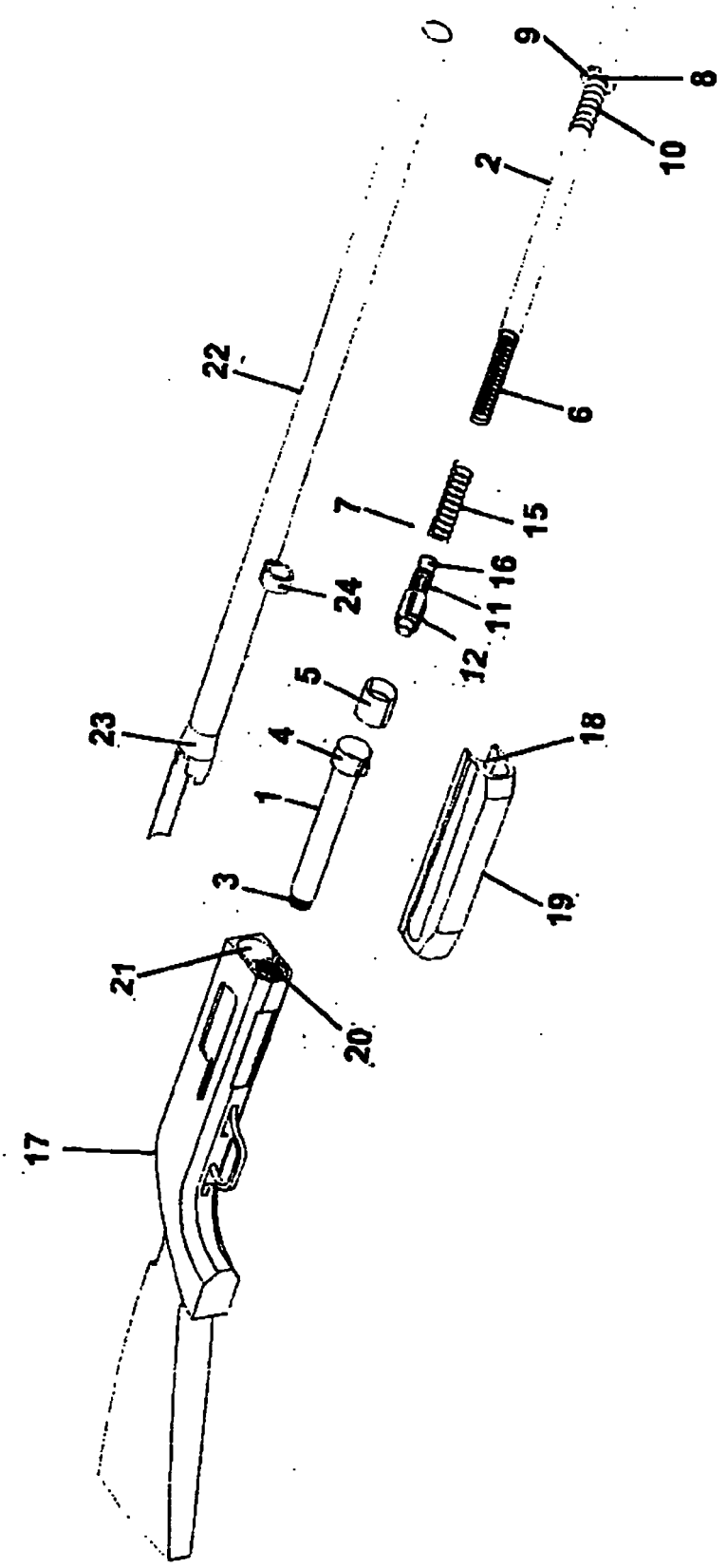

Figure 2

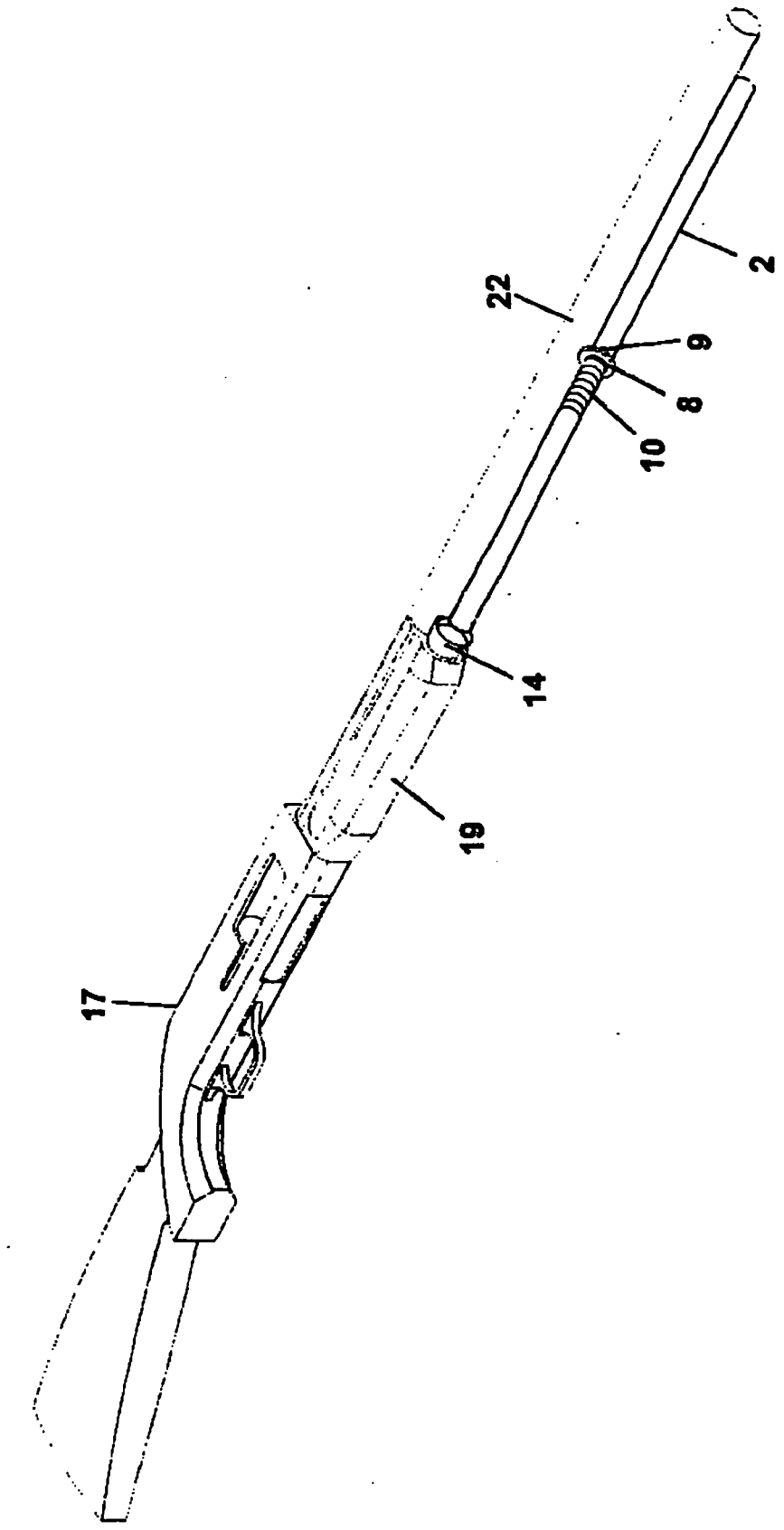

Figure 3

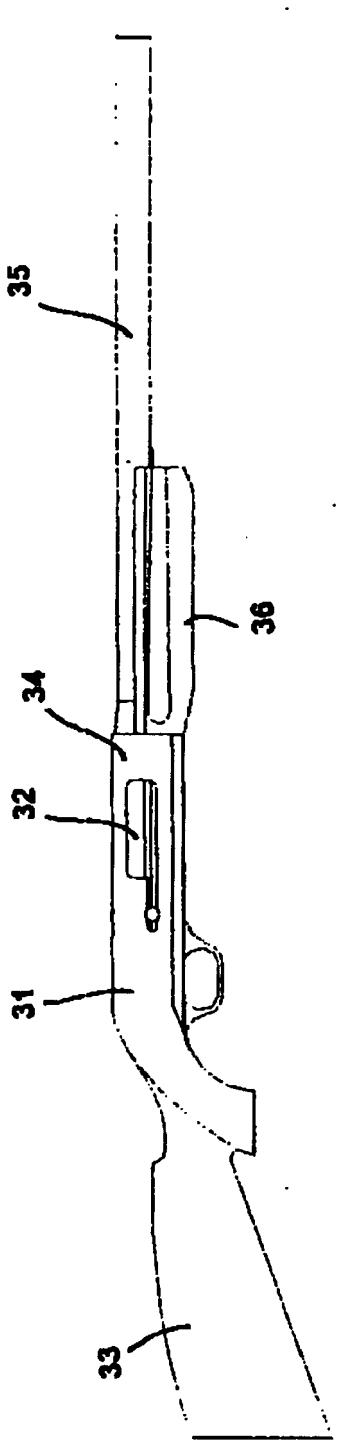

Figure 4

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 00 6603

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	WO 91/18255 A (IRIYE, ALBERT) 28 November 1991 (1991-11-28) * page 1, line 22 - page 7, line 12 * * figures 1,2 *	1-5	F41C7/02
A	US 5 054 221 A (OZOLS ET AL) 8 October 1991 (1991-10-08) * column 4, line 34 - column 6, line 26 * * column 7, line 28 - column 8, line 15 * * figures 1,2B,8,11B *	1-5	
A	FR 2 572 507 A (GUIBERT FRANCOIS) 2 May 1986 (1986-05-02) * page 4, line 28 - page 5, line 31 * * page 6, line 14 - line 24 * * figures 1,9-13 *	1-5	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

F41C
F41A

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	23 August 2005	Bridge, S

CATEGORY OF CITED DOCUMENTS

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23-08-2005

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