

Description

The present invention relates to a magazine for firearms according to the pre-characterizing clause of the independent Patent Claim 1.

Magazines of this type are known and described, for example, in CH-A-481,361 and in CH-A-500,462. Because especially combat ammunition with a high projectile muzzle velocity has cartridge cases, the diameter of which is larger at the bottom of the cartridge case than at the orifice closed by the projectile, difficulties arise when the magazines are to be enlarged beyond a specific dimension in order to receive a larger number of cartridges.

Because of the different diameters, the magazine box is curved, so that the projectile tips point at least approximately towards a common point. It has been possible to increase the number of cartridges by stacking them in two rows, so that the magazines can now conventionally receive 30 cartridges.

Since automatic precision firearms are used with increasing frequency instead of the earlier rapid-fire machine guns, the disadvantage that the number of cartridges per magazine is limited to a relatively low figure becomes clear. To increase the available number of cartridges, it has become known, as a remedy, to connect two magazines to one another by means of wire or adhesive tape. To change the magazines, the rifleman, after taking out the empty magazine, has had to turn over the two magazines coupled in this way in order to have a full magazine to hand again.

Turning them through 180° has been a disadvantage inasmuch as this has had to be done with one hand, with the result that it has been possible for the magazines to fall to the ground and become soiled.

It is therefore an object of the invention to provide a magazine which can be coupled to a second magazine in a simple way and with which the rifleman can change the magazine with one hand without difficulty.

According to the invention, this is achieved by means of the features in the characterizing clause of the independent Patent Claim 1.

An exemplary embodiment of the invention is described below with reference to the drawing. In this:

Figure 1 shows an elevation view of a magazine with a capacity of, for example, up to 30 cartridges,

Figure 2 shows a side view of a magazine according to Figure 2,

Figure 3 shows an elevation view of two magazines rotated slightly relative to one another in order to illustrate the coupling and separation, and

Figure 4 shows a side view of three magazines coupled to one another, the middle one of which is inserted into the magazine receiving orifice of a gun, one magazine being shown half uncoupled.

The magazine according to the invention is constructed on the basis of the known magazines for automatic firearms, especially hand firearms. Such a magazine 10, for example for 30 cartridges, has a baseplate 11 as a lower closure for the magazine box 12, on which a feeder spring, not shown in this illustration, is supported and presses against the feeder 13. The feeder 13 has a raised portion 14 and a lower portion 15, so that two cartridges can rest next to one another slightly offset vertically, in order thereby to prevent a loading fault which could otherwise occur if the bottoms of two cartridges were opposite the gun lock at the same time.

The casing 12 has two side walls 16, 17, a front wall 18 and a rear wall 19. The two side walls are each equipped with a longitudinal inwardly curved bead 20 for the lateral guidance of the cartridge column and of the feeder 13, and a third guide for the feeder 13 forms an outwardly curved bead 21 along the rear wall 19. The side walls 16, 17, each have an upper inwardly bent edge portion 22, 23, whilst the front wall 18, in its upper part, has an engaging nose 24 and the rear wall 19 a stop bar 25. These parts serve for introducing the magazine 10 into the receiving orifice of the firearm.

The front wall 18 and the rear wall 19 are curved in the region between the baseplate 11 and the engaging nose 24 and stop bar 25 respectively, the front wall 18 having a concave curvature and the rear wall 19 a convex curvature. As a result of this design, the 30 conventional cartridges tapering towards the tip can be received.

According to the invention, on such a magazine 10 there are retaining means 30, 31, 32, 33 for the releasable connection of two magazine boxes 12, 12' and spacers 10 34, 35, 36, 37, in order to maintain a clearance between the connected magazine boxes 12, 12'.

The retaining means are two female couplings 30, 31 on one side wall 16 and two male couplings 32, 33 on the other side wall 17. The female couplings 30, 31 are lugs 15 42 arranged projecting from the surface of the side wall 16 and having a slit recess 40, and the male couplings 32, 33 are designed as round mushroom-shaped pins having a body 50 and a head 51. Because the head 51 of the male couplings 32, 33 has a larger diameter than the body 50, 20 the male coupling can engage under the slit recess 40. Furthermore, the slit recess 40 has a keyhole shape, so that a constriction 41 is formed; a certain force is therefore needed to cause the two couplings to snap into one another.

25 The lugs 42 can be considered as strips bent in a U-shaped manner, of which the free ends of the legs are connected in one piece to the side wall. Should dirt penetrate under the lug when such a shape is used, it can be pushed out as a result of the connection of two magazines, 30 insofar as this is necessary for correct functioning.

The centre axes A, B of the slit recesses 40 in the lugs are arranged rotated relative to one another and intersect at an angle within the range of 80° to 100° . As a result, coupling and release each have to be carried out 35 by means of two movements. In Figure 3, the movements of the two magazines 10, 10' are represented by arrows 1, 2 for coupling and by arrows I, II for release. Accordingly, the two upper couplings 31, 33' first have to be joined as a result of displacement in the longitudinal direction of

the magazines, and then the two lower couplings 30, 32' have to be joined by means of a rotary movement, with the upper couplings 31, 33' as the pivot.

For release, the front magazine 10' must be rotated relative to the rear magazine 10 in the direction of the arrow II and then displaced in the direction of the arrow I.

The spacers provided are projecting ribs 34-37 extending transversely over the side walls 16, 17. These ribs run at least approximately in the radial direction in relation to the curvature of the front and rear walls 18, 19. The height of two ribs together, arranged on the two magazine boxes 12, 12', for example the ribs 35, 37 and 35, 37' in Figure 4, must be such that the walls 60 of the breech casing of a gun 61, represented by broken lines in Figure 4, can engage into the gap between two magazine boxes. So that the interaction of couplings and spacers takes place without friction, the ribs 35 - 37 must be less high than the pins 32, 33, but they must be higher than the lugs 30, 31.

As shown in Figure 4, the magazines 10' and 10" can be removed or attached on both sides of the magazine 10 inserted in the gun 12, this being made clear here by the magazine 10' which, as viewed from the rear, is rotated relative to the magazine 10 about the same angle of rotation as in Figure 3.

The magazine 10 consists of a plastic, such as, for example, a polymer or an elastomer, which has a certain elasticity, with the result that the snap connections can be joined in one piece to the walls.



1. Magazine for firearms with a magazine box (12) for holding a limited number of cartridges having a cross section which tapers from the base to the tip, said magazine box (12) having a base plate (11), a feeder with a pre-stressed spring, two parallel side walls (16, 17) and a front wall (18) and a rear wall (19), characterized in that the side walls (16, 17) are provided with retaining means (30 - 33) for the releasable connection of two magazines (10, 10', 10'') in the same position and spacers (34-37) determining the clearance between the magazine boxes.

2. Magazine according to Claim 1, characterized in that the retaining means are female (30, 31) and male (32, 33) couplings.

3. Magazine according to Claim 2, characterized in that one of the side walls (17) has two male couplings (32, 33) and the other side wall (16) has two female couplings (30, 31) in each case.

4. Magazine according to Claim 3, characterized in that the female couplings (30, 31) are lugs (42) mounted on and projecting from the outer surface of the side wall (16) and having a slit recess (40), wherein the slit recess (40) is open at one edge of the lug and closed at the opposite edge and that the male couplings (32, 33) are designed as round, mushroom-shaped pins having a body (50) and a head (51), with the head (51) having a larger diameter than the body (50) and being wider than the width of the slit recess (40).

5. Magazine according to Claim 4, characterized in that the lugs (42) are strips bent in a U-shaped manner in which the centre axis (A, B) of the slit recess (42 (sic)) is parallel to the bent edges of the strip.

6. Magazine according to Claim 5, characterized in that the centre axes (A, B) of the slit recesses (40) of the two female couplings (30, 31) form an angle of between 80° and 100° .

7. Magazine according to Claim 6, characterized in that the slit recesses (40) have a keyhole shape with a



constriction (41) to form a catch for the body (50) of the male couplings (32, 33).

8. Magazine according to Claim 1, characterized in that the positions of the spacers (34-37) on the two side walls (16, 17) of the magazine box (12) are matched to each other.

9. Magazine according to Claim 8, characterized in that the spacers are two ribs projecting from the side walls and running radially relative to the curve of the front and rear walls across the side walls (16, 17).

10. Magazine according to Claim 9, characterized in that the ribs (34-37) on the two side walls (16, 17) are identical and are arranged in a common plane perpendicular to the side walls.

11. Magazine according to Claims 4 and 10, characterized in that the height of the ribs (34-37) is greater than the distance between the lugs (42) and the side wall, but smaller than the height of the pins (32, 33) above the side wall.

12. Magazine according to Claim 11, characterized in that two couplings (30-34) are arranged on each of the side walls between the two ribs (34, 35; 36, 37).

13. Magazine according to one of Claims 1 to 12, characterized in that the magazine box (12) is made of plastic.

As printed.

Claims

1. A magazine for firearms with a magazine box (12) for holding a limited number of cartridges having a cross section which tapers from the base to the tip, said magazine box (12) being provided with a base plate (11), a feeder with a prestressed spring, two parallel side walls (16, 17) and a front wall (18) and a rear wall (19), characterised in that the side walls (16, 17) are provided with retaining means (30 - 33) for attaching two magazines (10, 10', 10'') in the same position and spacers (34-37) determining the clearance between the magazine boxes.
2. A magazine as in Claim 1, characterised in that the retaining means are female (30, 31) and male (32, 33) couplings.
3. A magazine as in Claim 2, characterised in that one of the side walls (17) has two male couplings (32, 33) and the other side wall (16) has two female couplings (30, 31).
4. A magazine as in Claim 3, characterised in that the female couplings (30, 31) are lugs (42) mounted on and projecting from the outer surface of the side wall (16) and having a slit recess (40), wherein the slit recess (40) is open at one end of the lug and closed at the other, and that the male couplings (32, 33) are round, mushroom-shaped pins having a body (50) and a head (51), with the head (51) having a larger diameter than the body (50) and being wider than the width of the slit recess (40).
5. A magazine as in Claim 4, characterised in that the lugs (42) are U-shaped strips in which the centre axis (A, B) of the slit recess (42) is parallel to the bent edges of the strip.
6. A magazine as in Claim 5, characterised in that the centre axes (A, B) of the slit recesses (40) of the two female couplings (30, 31) form an angle of between 80° and 100°.
7. A magazine as in Claim 6, characterised in that the slit recesses (40) have a keyhole shape with a constriction (41) to form a catch for the body (50) of the male couplings (32, 33).
8. A magazine as in Claim 1, characterised in that the positions of the spacers (34-37) on the two side walls (16, 17) of the magazine box (12) are matched to each other.
9. A magazine as in Claim 8, characterised in that the spacers are two ribs projecting from the side walls and running radially to the curve of the front and rear walls across the side walls (16, 17).
10. A magazine as in Claim 9, characterised in that the ribs (34-37) on the two side walls (16, 17) are identical and are disposed in a common plane perpendicular to the side walls.
11. A magazine as in Claims 4 and 10, characterised in that the height of the ribs (34-37) is greater than the distance between the lugs (42) and the side wall, but smaller than the length of the pins (32, 33).
12. A magazine as in Claim 11, characterised in that two couplings (30-34) are disposed on each of the side walls between the two ribs (34, 35, 36, 37).
13. A magazine as in one of Claims 1 to 12, characterised in that the magazine box (12) is made of plastic.

Revendications

1. Magasin pour armes à feu, comprenant une boîte de magasin (12) qui, pour le logement d'un nombre limité de cartouches dont la section transversale s'amincit de l'arrière vers l'avant, comporte une plaque de fond (11), un fournisseur avec un ressort précontraint, deux parois latérales parallèles (16, 17) ainsi qu'une paroi antérieure (18) et une paroi arrière (19), caractérisé en ce que les parois latérales (16, 17) sont munies de moyens de retenue (30 à 33) pour l'assemblage amovible de deux magazines (10, 10', 10'') avec la même disposition, ainsi que de moyens d'écartement (34 à 37) qui déterminent la distance entre les boîtes de magasin.
2. Magasin selon la revendication 1, caractérisé en ce que les moyens de retenue sont réalisés sous forme d'éléments d'accouplement femelles (30, 31) et mâles (32, 33).
3. Magasin selon la revendication 2, caractérisé en ce que pour chaque boîte de magasin, l'une des parois latérales (17) comporte deux éléments d'accouplement mâles (32, 33) et l'autre paroi latérale (16) comporte deux éléments d'accouplement femelles (30, 31).
4. Magasin selon la revendication 3, caractérisé en ce que les éléments d'accouplement femelles (30, 31) sont des attaches (42) fixées à distance de la surface extérieure de la paroi latérale (16) et munies d'une fente entaillée (40), la fente entaillée (40) étant ouverte au niveau d'un bord de l'attache et fermée près du bord opposé, et en ce que les éléments d'accouplement mâles (32, 33) sont réalisés sous forme de chevilles rondes en champignon comportant une partie pied (50) et une partie tête (51), la partie tête (51) ayant un plus grand diamètre que la partie pied (50) et étant plus large que la largeur de la fente entaillée (40).
5. Magasin selon la revendication 4, caractérisé en ce que les attaches (42) sont des bandes coudées en U, dans lesquelles l'axe (A, B) de la fente entaillée (42) s'étend parallèlement aux arêtes de pliage de la bande.
6. Magasin selon la revendication 5, caractérisé en ce que les axes (A, B) des fentes entaillées (40) des deux éléments d'accouplement femelles (30, 31) forment entre eux un angle compris entre 80° et 100°.
7. Magasin selon la revendication 6, caractérisé en ce que les fentes entaillées (40) sont réalisées sous forme d'entrées de serrure avec un resserrement (41), afin de former un enclenchement pour la partie pied (50) des éléments d'accouplement mâles (32, 33).
8. Magasin selon la revendication 1, caractérisé en ce que les moyens d'écartement (34 à 37) sont disposés sur les deux parois latérales (16, 17) de la boîte de magasin (12) en position mutuellement coïncidente.



9. Magasin selon la revendication 8, caractérisé en ce que les moyens d'écartement sont deux nervures (34 à 37) en saillie sur les parois latérales, nervures qui s'étendent transversalement d'un côté à l'autre des parois latérales (16, 17) et radialement par rapport à la courbure des côtés antérieur et postérieur.

10. Magasin selon la revendication 9, caractérisé en ce que les nervures (34 à 37) sont réalisées de manière identique sur les deux faces latérales (16, 17) et sont disposées perpendiculairement aux faces latérales dans un plan commun.

11. Magasin selon la revendication 4 ou 10, caractérisé en ce que la hauteur des nervures (34 à 37) est plus grande que la distance des attaches (42) à la paroi latérale, mais plus petite que la hauteur des chevilles (32, 33) à partir de la paroi latérale.

12. Magasin selon la revendication 11, caractérisé en ce que les deux éléments d'accouplement (30 à 34) sont disposés, sur les parois latérales respectives, entre les deux nervures (34, 35; 36, 37).

13. Magasin selon l'une quelconque des revendications 1 à 12, caractérisé en ce que la boîte de magasin (12) est faite de matière synthétique.

