Claims

1. A cartridge case (1) for ammunition, comprising a rotationally shaped case jacket (3) for receiving a projectile and an annular base piece (5) for receiving a primer and the case jacket (3), wherein an annular wall of the base piece (5) on the side of the case jacket is conically shaped at least in sections with respect to its axis of rotation, and a retaining section of the case jacket on the side of the base piece is adapted in shape thereto so that the retaining section engages at least in sections behind the annular wall for fastening the case jacket (3) and the base piece (5) to one another and distancing of the base piece (5) and the case jacket (3) from each other in the direction of the axis of rotation is prevented, the conical annular wall and the retaining section being formed by plastic deformation of the base piece (5).

2. The cartridge case (1) according to claim 1, wherein the plastic deformation of the annular wall takes place in such a way that the base piece (5) forms an undercut feature (41) and the case jacket (3) is deformed to form an undercut, wherein in particular the undercut (19) is located in a fastening engagement with the undercut feature(41) and/or is adapted in shape at least in sections to the undercut feature (41).

3. The cartridge case (1) according to claim 1 or 2, wherein the base piece (5) comprises a case section (25) facing away from the case jacket (3) and a bending wing (27) which adjoins the case section (25) and is bounded on the inside by the annular wall forming the undercut feature (41) and/or is made in one piece with the case section (25).

4. The cartridge case (1) according to claim 3, wherein the bending wing (27) is connected to the case section (25) via a pivot coupling and/or a predetermined folding point, wherein in particular the bending wing, the pivot coupling and/or the predetermined folding point and the case section (25) are manufactured from one piece and/or wherein the pivot coupling and/or the predetermined folding point is realized as a film hinge.

5. The cartridge case (1) according to one of the preceding claims, wherein the case jacket (3) comprises a hollow cylinder section (9) and an adjoining neck section (11) adjoining the latter and tapering in cross-section with respect to the cylinder section and whose underside facing the base piece (5) is closed at least in sections, in particular which comprises a thin-walled, planar base wall which consists of solid

material for at least 30%, in particular at least 40% or at least 50%, of the area of the base (23) .

6. The cartridge case (1) according to one of the preceding claims, wherein the case jacket (3) comprises a hollow cylinder section (9) and a neck section (11) adjoining the latter and tapering in cross-section with respect to the cylinder section, the neck section (11) having a support shoulder (15), which extends at least also radially, for the base piece, in particular the bending wing, and which opens into a conical section (49) widening in cross section in the direction of the base piece (5), in particular the conical section (49) comprising the undercut (19).

~~7. A cartridge case (1) for ammunition, in particular according to one of the preceding claims, comprising a rotationally shaped case jacket (3) for receiving a projectile and an annular base piece (5) for receiving a primer, the base piece (5) being produced by deforming, in particular non-chipping deforming, punching or chipping.~~

~~8. The cartridge case (1) according to one of the preceding claims, wherein the base piece (5) has an annular jacket and a through-bore, in particular a priming bore, extending through the jacket, which is produced at least in sections by deforming, in particular non-chipping deforming, punching or chipping.~~

~~9. The cartridge case (1) according to claim 7 or 8, wherein a bow section on the side of the case jacket with a recess (7) for receiving the case jacket (3) and/or a stern section on the side of the primer with an opening for receiving the primer are/is formed by means of cold forming, in particular by means of backwards extrusion.~~

~~10. The cartridge case (1), in particular according to one of the preceding claims, for ammunition, comprising an annular base piece (5) for receiving a primer and a rotationally shaped case jacket (3) for receiving a projectile, which case jacket has a circumferential jacket and a base (23) facing the base piece (5) which base is closed at least in sections, the case jacket (3) and the base piece (5) being fastened to one another by plastic deformation of the base piece (5).~~

~~11. The cartridge case (1) according to claim 10, wherein the base (23) comprises a thin-walled, planar wall which consists of solid material for at least 30%, in particular at least 40% or at least 50%, of the area of the base (23).~~

7.~~12.~~ An ammunition comprising a cartridge case according to one of claims 1 to ~~11~~6, and a primer accommodated in the base piece (5) and/or a projectile accommodated in the case jacket (3).

8.~~13.~~ A method for joining a base piece (5) and a case jacket (3) of a multi-part cartridge case (1), in particular according to one of the claims 1 to ~~11~~6, in which the base piece (5) and the case jacket (3) are inserted telescopically into one another and the base piece (5) and the case jacket (3) are plastically deformed in such a way that the case jacket (3) and the base piece (5) engage behind one another, so that distancing of the base piece (5) and case jacket (3) from each other in the insertion direction is prevented.

9.~~14.~~ The method according to claim 8~~13~~, in which an undercut feature (41) is formed during deformation of the base piece (5) and an undercut is formed during deformation of the case jacket (3), wherein in particular the undercut (19) is brought into fastening engagement with the undercut feature (41) and/or is adapted in shape at least in sections to the undercut feature (41).

10.~~15.~~ The method according to claim 8~~13~~ or 9~~14~~, in which the base piece (5) is pressed from radially outside to form the undercut feature, in particular to simultaneously form the undercut.

11.~~16.~~ The method according to one of the claims 8~~13~~ to 10~~15~~, in which a bending wing (27) of the base piece (5) facing the case jacket (3) is bent radially inwards about a pivot coupling, in particular a predetermined folding point and/or a film hinge, connecting the bending wing (27) to a case section (25), to form the undercut feature (41).

~~17. The method, in particular according to one of the claims 13 to 16, for joining a base piece (5) and a case jacket (3) of a multi-part cartridge case (1) formed in particular according to one of the claims 1 to 11, in which the base piece (5) is produced by deforming, in particular non-chipping deforming, punching or chipping, the base piece (5) and the case jacket (3) are inserted telescopically into one another and fastened to one another.~~

12.~~18.~~ The method according to one of the claims 8~~13~~ to 11~~17~~, adapted to produce a cartridge case (1) according to one of the claims 1 to ~~11~~6.

~~19. A tool (100) for joining a base piece (5) and a case jacket (3) of a multi-part cartridge case (1) formed in particular according to one of the claims 1 to 11, comprising a~~

shaping die (103) for receiving at least the base piece, which is shaped in such a way that during an axial pressing movement of the base piece (5) and the case jacket (3) as well as the shaping die (103) and optionally a press plunger relative to each other, the base piece (5) is plastically deformed relative to one another in such a way that the case jacket (3) and the base piece (5) engage behind one another, so that distancing of the base piece (5) and case jacket (3) from each other in the pressing direction is prevented.

20. The tool (100) according to claim 19, wherein the shaping die (103) is rotationally configured and has a central shaping opening (105) which is bounded by an opening wall (109) of the shaping die (103) which tapers or widens at least in sections in cross section, in particular continuously.

21. The tool (100) according to claim 20, which is configured in such a way that, in the course of the axial relative pressing movement, the cross section of the opening wall (109) tapers at least in sections, in particular continuously, and/or a deformation work acting on the base piece (5) increases at least in sections, in particular continuously.

22. The tool (100) according to one of the claims 19 to 21, further comprising a rotationally shaped press plunger (111), which is radially arranged between the base piece (5) resp. the case jacket (3) and the shaping die (103), wherein the press plunger (111) has an outer wall adapted to the opening wall (109), wherein in particular the outer wall is shaped in a form-complementary manner with respect to the opening wall (109), and/or the press plunger (111) wedges with the opening wall (109) in the course of the axial relative pressing movement in the shaping opening (105).

23. The tool (100) according to claim 22, wherein the press plunger (111) consists of at least two, in particular three, four, five or six, in particular identically formed, separate plunger segments (115), wherein in particular each two adjacent plunger segments (115) are arranged in a prefabrication state at a distance (117) from one another in the circumferential direction and in the course of the axial relative pressing movement the distance (117) decreases in particular continuously.