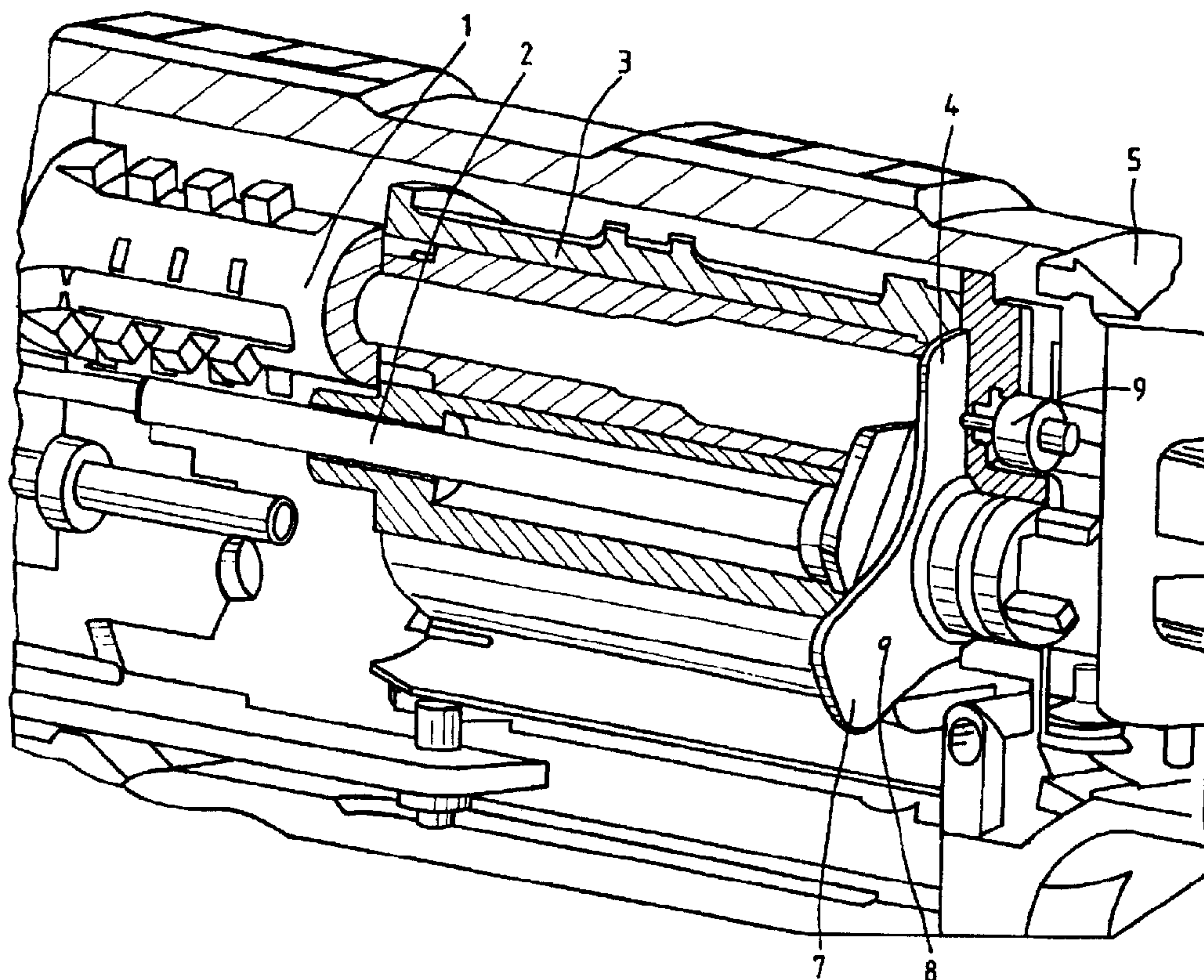




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(54) Titre : ARME DE POING DE TYPE REVOLVER
(54) Title: REVOLVER-TYPE SMALL ARM



(57) Abrégé/Abstract:

The invention relates to a revolver-type small arm comprising a cylinder (3), which executes a rotation about its longitudinal axis (cylinder axis 2), from shot to shot and a recoil plate (4), which supports the cartridges in the cylinder (3) from behind and which rotates with the cylinder about their axis. The recoil plate (4) remains essentially immobile in the weapon during ejection of the cartridge shells, whereby the cylinder (3) lifts away from the recoil plate (4) for ejecting cartridge shells and can, preferably, be tipped in relation to the recoil plate (4).



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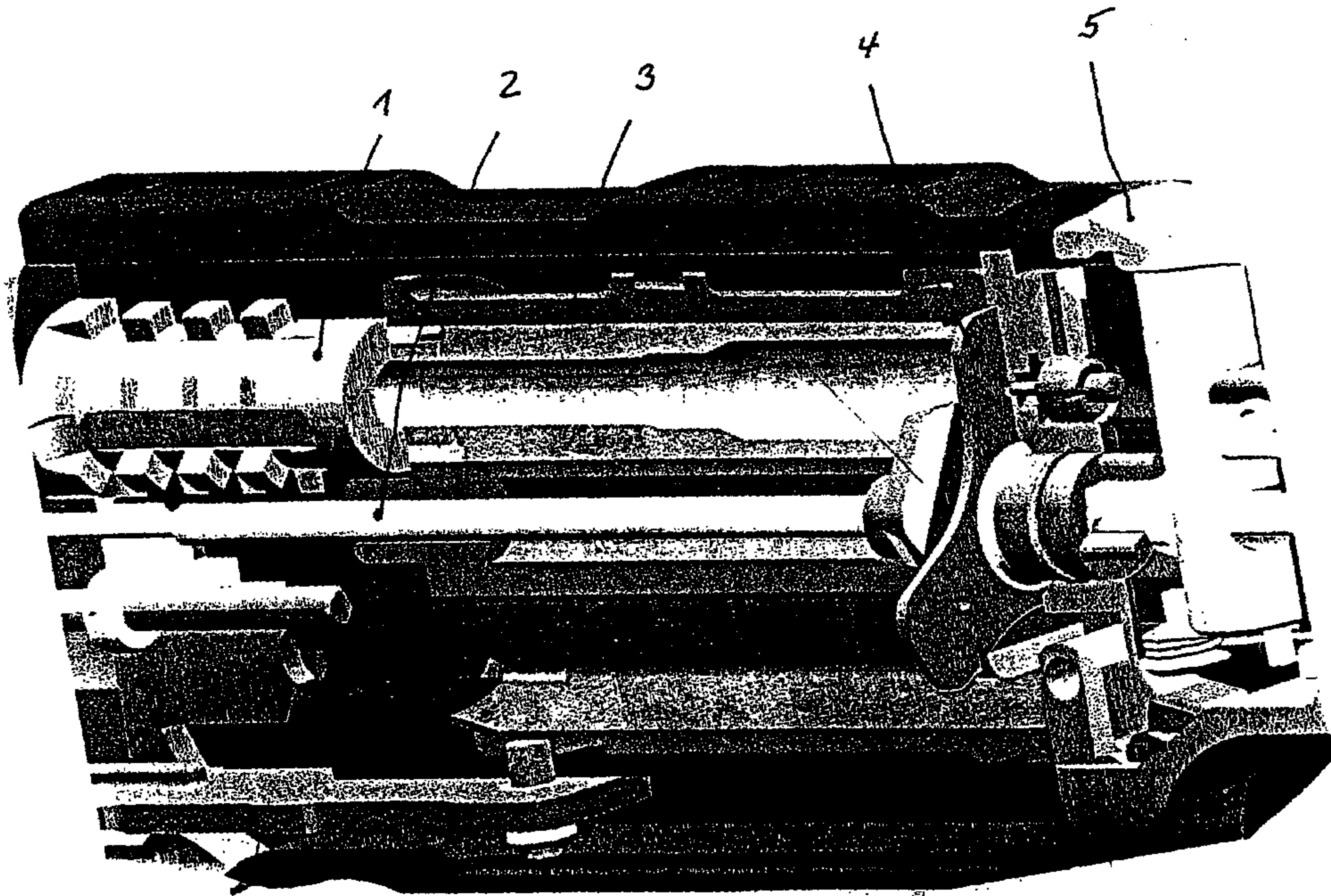
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[Fortsetzung auf der nächsten Seite]

(54) Title: REVOLVER-TYPE SMALL ARM

(54) Bezeichnung: REVOLVER-HANDFEUERWAFE



(57) Abstract: The invention relates to a revolver-type small arm comprising a cylinder (3), which executes a rotation about its longitudinal axis (cylinder axis 2), from shot to shot and a recoil plate (4), which supports the cartridges in the cylinder (3) from behind and which rotates with the cylinder about their axis. The recoil plate (4) remains essentially immobile in the weapon during ejection of the cartridge shells, whereby the cylinder (3) lifts away from the recoil plate (4) for ejecting cartridge shells and can, preferably, be tipped in relation to the recoil plate (4).

[Fortsetzung auf der nächsten Seite]

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Zur Erklärung der Zweibuchstaben-Codes, und der anderen Abkürzungen wird auf die Erklärungen ("Guidance Notes on Codes and Abbreviations") am Anfang jeder regulären Ausgabe der PCT-Gazette verwiesen.

(57) Zusammenfassung: Die Erfindung betrifft eine Revolver-Handfeuerwaffe mit einer Trommel (3), die von Schuß zu Schuß eine Drehung um ihre Längsachse (Trommelachse 2) ausführt, und mit einem Stoßboden (4), der die in der Trommel (3) befindlichen Patronen nach hinten abstützt und zusammen mit der Trommel (3) um deren Achse drehbar ist. Bevorzugt verbleibt der Stoßboden (4) beim Auswerfen von Patronenhülsen im wesentlichen ortsfest in der Waffe, wobei die Trommel (3) zum Auswerfen der Patronenhülsen vom Stoßboden (4) abhebt und bevorzugt gegenüber dem Stoßboden (4) abkippar ist.

Revolver handgun

The invention relates to a revolver handgun comprising a cylinder that completes a rotation around its longitudinal axis from shot to shot, and an impact base that supports the bullets in the cylinder from behind, as set forth in the introductory clause of claim 1.

During this rotation, the bullet bases of the bullet shells glide along the impact base which, for this reason, must be smooth, clean, and free of obstructions. The weapon becomes unusable if the material from a breaking ignition capsule penetrates into the bore of the striking pin. Such cases, however, are very rare. The penetration of sand into the weapon is more common; if a small grain of sand becomes lodged between the impact base and the bullet base when a shot is fired, it presses into the materials and obstructs the rotation of the cylinder. In this case, the marksman's hand must grip the cylinder and support its rotation.

If the weapon is a big game rifle, the reliability with which a second shot is made is of vital importance. The same applies to a weapon used for purposes of defense.

In modern cylinder revolvers, the cylinder usually swings out to the side. This is disadvantageous, because when the cylinder swings out the empty bullet shells must glide along the impact base, which, in the case of a damaged impact base, sand in the weapon, or problems such as a torn capsule of the type described above, causes problems.

To avoid such problems, one can provide that when the weapon is opened the cylinder lifts itself away from the impact base in its first movement, as is, for example, the case with a drop barrel revolver, or in antique revolvers, in which the cylinder moved axially away from the impact base.

Problems of the type mentioned above rarely occur in revolver bullets, which are relatively weak. For this reason, and for reasons of cost and weight, revolvers are now usually made with rigid frames in which the cylinder remains in place (the bullet shells are ejected individually and chamber by chamber) or in which the cylinder can swing out to the side.

By contrast, the bullet shell of a powerful bullet undergoes considerable plastic deformation in the bullet case. This deforms the bullet shell to such an extent that it is pressed against the walls of the bullet case. The fired bullet shell is then considerably pre-stressed when it comes to rest against the impact base. If this occurs in a revolver weapon, the elongated bullet shells can significantly impede the rotation of the cylinder. The problems described initially are intensified.

A revolver is known in which the problems described above do not occur or are substantially diminished (Russian military revolver, Nagant model). To provide a seal against gas, a block forming the impact base pushes against the cylinder immediately following each shot and presses the cylinder forward. Before the cylinder can rotate

further after the shot, the block is removed, thus permitting unobstructed rotation of the cylinder, as it is only the force of a spring that presses it against a rear cover plate. However, this design is complicated and not as well suited for high bullet power.

Otherwise, the impact base along which the fired bullet shells scrape is simply finely planed or polished. This is usually sufficient for small firearm bullets unless, for example, sand becomes lodged between the impact base and the bullet base. However, in a revolver gun that fires a modern high-powered hunting bullet, even larger-grained dust particles becoming lodged between the bullet base and the impact base is sufficient to impede or even prevent the rotation of the cylinder.

Thus, the object of the invention is to prevent this problem from occurring.

According to the present invention, this object is solved in that the impact base and the drum rotate around the same axis.

No matter how severely the impact base and the bullet shell base become jammed together, this does not affect the ease of motion with which the next shot can take place, as there is no relative motion between the bullet shell base and the impact base in the weapon according to the present invention.

According to an embodiment of the invention, to prevent any problems from occurring during unloading there is no parallel relative motion between the bullet shell bases and the impact base, but rather an almost perpendicular motion, which virtually rules out any abrasion or jamming.

The well-known drop barrel system is preferred. In this system, both the cylinder and the barrel are tilted downward relative to the impact base, wherein the impact base can follow the tilting motion of the barrel and cylinder through a short angular range, so that separation of the impact base from the cylinder only takes place when, following an initial, joint tilting motion, the mould seam between these parts is exposed and, if applicable, it is possible to use a tool to encourage separation of the impact base in the event of shell breakage.

The shell base is preferably made only of sheet metal, and contains holes which, when the cylinder and/or the impact base is in the firing position, permit a striker component to penetrate one hole in the impact base to ignite the bullet.

The impact base can be formed as a round, flat disk, but to economize on weight is preferably formed as an essentially flat disk with radial projections in front of each of the bullet wells.

The invention is advantageous when used with any excessively heavy revolver or modern revolver gun equipped to fire a powerful hunting bullet. However, it is preferably advantageous in a drop barrel revolver gun whose cylinder is inside a cover, at least during firing, and therefore cannot be gripped with the hand and rotated to support the

loading process when operation by means of a gas piston or by hand proves to be difficult.

The object of the invention is explained in greater detail on the basis of the appended schematic drawing. The single figure shows a section of a drop barrel revolver gun, comprising a gun barrel 1, a cylinder axis 2 parallel to it and positioned underneath said barrel, and a cylinder 3 pivoting on said cylinder axis, which cylinder features several bullet wells, with the bullet well arranged behind the barrel 1 depicted in cross section.

An impact base plate 4 that pivots on the cylinder axis 2 is arranged behind the cylinder 3, which base plate features three radial projections, one of which covers a bullet well from behind. A hole for the striking pin is arranged on each projection.

The back of the impact base plate 4 is supported by a rear locking component 5.

When the gun is opened, the barrel 1 and the cylinder 3 are tilted away relative to the impact base plate 4 and the rear section 5, during which procedure the empty shells located in the bullet wells are pulled out. Once the shells have been removed, new bullets can be introduced, and once the barrel 1 and cylinder 3 have been tilted back up and the rear section 5 is locked into place, the gun is once again ready to be fired.

CLAIMS:

1. Drop barrel hunting gun with a revolver cylinder (3) that completes a rotation around its longitudinal axis (cylinder axis 2) from shot to shot, and impact base (4) that supports the bullets in the cylinder (3) from behind, wherein the impact base (4), together with the cylinder (3), is rotatable around their axis and remains essentially fixed in the weapon for ejection of the bullet shells, and that for ejection of the bullet shells the cylinder (3) can be tilted downward in relation to the impact base (4).
2. Weapon according to claim 1, wherein the impact base (4) is a rotationally applied plate and/or a rotatable plate.
3. Weapon according to claim 2, wherein the plate (4) features radial projections, each of which is arranged behind one of the bullet wells of the cylinder (3).
4. Weapon according to one of claims 1 to 3, wherein the cylinder (3) is completely covered in the operating position.
5. Weapon according to any one of claims 1 to 4, wherein said weapon is formed as a drop barrel hunting gun whose cylinder (3) is completely covered in the operating position.

