

Slide stop, trigger device and grip for a weapon

The invention concerns a slide stop for a trigger device of a firearm, particularly a rapid-fire weapon, comprising a breech and safety mechanism, in which the slide stop can be adjusted between a locking position locking the breech and a position not locking the breech.

Position specifications such as “top”, “bottom”, “left”, “right”, “front” and “back” apply from the perspective of the shooter to a weapon in normal aiming position, firing horizontally to the “front”.

Rapid-fire weapons, such as machine guns or submachine guns, which are constructed for continuous fire, have a relatively simple trigger mechanism, which is subsequently described by means of figures 8 and 9:

Below the moving range of the breech (not shown) there is a grip in which a trigger (a) is swivel-mounted. The lateral swivel axis of the trigger is located in the upper midrange of the trigger so that, when the trigger is pulled, the rear upper part of the trigger covers a cam track. The rear upper part of the trigger impacts the front part of a slide stop (f) which, in turn, is swivel-mounted around a lateral axis and attached in the weapon housing or in the grip. The rear part of the slide stop (f) is designed as a sear arm (s). If a spring swivels the trigger (a) forward into a rest position, because of the spring load, the front part of the slide stop (f) swivels downward and the rear part together with the sear arm (s) swivels upward. This position of the sear arm is the locking position (see figure

8). The trigger (a) and the slide stop (f) respectively can be absorbed or preloaded by its own or by a mutual spring which pushes them into a rest position (trigger) or a locking position (slide stop).

If now the breech is pulled back from its frontal rest position, it moves with its underside the sear arm (s) and thus pushes the rear part of the slide stop (f) downward while moving above the sear arm (s). If a sear catch assembled at the underside of the breech has moved above the sear arm (s), it snaps upward, being positioned behind the sear catch. The weapon is now loaded and ready to fire.

If the trigger (a) is pulled, the sear arm (s) is lowered until it releases the sear catch; the breech is released and the weapon starts firing continuously. If the trigger (a) is released, the sear arm springs back into its locking position, being positioned behind the sear catch and keeping the breech in a position ready to fire (rear position). Thus, continuous fire is interrupted.

Frequently, the breeches consist of a trigger safety which prevents an unintentional pulling of the trigger. However, it does not prevent the sear arm from being released as a result of accelerating forces if, for example, the loaded, cocked and safety-engaged machine gun falls from a truck.

Therefore, there are breeches (w) which additionally or alone fix the slide stop (f) in its locking position at a safety finger. However, this involves the disadvantage that, if the weapon is secured, the breech cannot be pulled above the arrested slide stop (f), or that it can be jammed on the slide stop (f) because the slide stop cannot give way. Figure 8 shows a safety barrel (w) which supports a safety finger (i) of the slide stop (f) by means of its peripheral surface. A weapon comprising such a breech (w) cannot be fully loaded while the weapon is in safety position.

Fully automatic weapons operating according to the functional principle described above are increasingly used in so-called weapon stations. In these stations, mounted weapons are aligned by means of a remote controlled actuator and operated by means of actuators impacting trigger and safety mechanism (for example, in electromagnetic manner). In order to guarantee the highest possible degree of safety, these actuators are designed in such a way that trigger activation is interrupted in case of dysfunctions (for example, power failure) and that, independent of the condition of the weapon, the safety mechanism is adjusted to a "safe" position.

Besides the problem described above (no possibility of fully loading the secured weapon), another dysfunction can occur in that the weapon continues to fire uncontrollably despite interrupted trigger activation. Extreme actuating forces of the actuator can result in the fact that the breech jams the safety finger (i) in the slide stop (f) to such an extent that the sear arm (s) remains at the breech without engaging in the sear catch. This dysfunction can occur if the breech moves forward immediately after trigger activation and power failure results in the fact that simultaneously the trigger is released and the actuator, which impacts the breech, pushes it into its "safety" position. In this

condition of the weapon, slide stop (f) and sear arm (s) are in release position, and the safety finger (i) connects to the safety recess at the safety mechanism (i) (here: safety barrel (w)). If now the actuator moves the safety barrel (w) in the direction of the “safe” position, the safety finger (i) blocks its adjustment travel and the side of the safety recess can be pushed so tightly against the safety finger (i) that the slide stop (f) even though it is spring-loaded cannot move into its locking position. The slide stop (f) is jammed above the safety finger (i) and the breech moves back and forth, firing without interruption, until ammunition supply is interrupted (see figure 9).

In view on this problematic situation there are trigger devices in which the sear arm is assembled at a safety pawl that is swivel-mounted to the slide stop (see, for example, DE 101 63 003 A1 and US 2004/0194615 A1 or US 6,907,813 B2). If the breech is pushed back, said safety pawl is swiveled against spring load from its locking position into standby position in which the breech can move over the safety pawl. If the breech is moved forward, under the influence of a spring, the sear arm of the safety pawl engages in the sear catch and is held in this locking position also by the breech. The safety pawl is also equipped with a safety element which interacts with the safety mechanism (for example, a safety barrel) in such a way that they can be always returned into their safety position, regardless of the position of the breech or slide stop. At the same time, the safety mechanism can impact the trigger as well as the slide stop.

This particular trigger device requires an additional spring element in order to secure the catch function, and the safety pawl and its swivel attachment must carry the full force of

the forward traveling breech. In the process, the comparatively small safety pawl and its attachment are placed under extreme dynamic stress. In worst case scenario, a possible crack or malfunction of the safety pawl, its attachment in the slide stop and/or spring element have such an effect on the function of the weapon that the weapon, independent of the position of the safety device and trigger, continues to fire until the entire load of ammunition has been used up. Moreover, the actuating force of the spring element has to be precisely adjusted to the spring-load impacting the slide stop. Otherwise, the breech moving over the safety pawl also pushes the slide stop downward into the grip. This can impact negatively the interaction between the safety element and the safety barrel.

By way of contrast, the invention provides an improved slide stop, described in claim 1 of the present invention, i.e., a slide stop comprising the characteristics mentioned above. Said slide stop comprises a safety element which can be adjusted relative to the slide stop (21) against a spring force from a rest position into a safety position.

The safety element assumes its safety position if the breech engages or attaches to the slide stop and the breech exerts actuating force on the safety element in forward direction (and adjusting to the safety position). In this position (the safety position), the safety element engages on the safety mechanism if said safety mechanism assumes the safety position thereof at the same time and fixes the slide stop itself in the locking position.

However, in other respects, the safety element assumes its rest position (II) and releases the slide stop, independent of the position of the safety mechanism.

In this solution, the functions “locking the breech by means of the slide stop” and the actual safety function “fixing the slide stop in locking position” are constructively independent of each other, so that each component or structural element (in this case: the slide stop and the safety element) can be perfectly designed and constructed for their respective functions.

The slide stop can be designed in robust and sturdy fashion to adapt to the extreme stress to which it is exposed during interactions with the breech. The safety element, on the other hand, is not exposed to such extreme mechanical stress by the breech and can be mainly designed to interact reliably with the safety mechanism.

At the same time, this arrangement makes it possible that the safety mechanism can be operated in any functional condition of the weapon, without involving the danger that components of the safety mechanism collide with the safety mechanism as a whole.

Moreover, malfunction of the safety element does not affect the catch function of the sturdy sear arm at the slide stop. This means that, compared to prior art, the risk of uncontrolled shooting without activating the trigger is almost excluded, it is at least considerably reduced.

Ultimately it is possible to completely load a weapon comprising such a slide stop even in safety position, and the safety mechanism of the weapon can be activated in any functional condition.

Through the action of a spring it is guaranteed that the adjustable safety element assumes

its rest position (because of the spring effect) or that it assumes its safety position, because of the spring load affecting the breech.

The safety element comprises an actuator which interacts with the breech and by means of which it can be shifted to its safety position. Said safety element also comprises a locking part engaging at the safety mechanism. Thus, actuator and locking part can be designed and arranged in a suitable way to meet the requirements for the respective functions (claim 2). In this way it can be avoided that intermediate positions interfere with the function.

According to claim 3, the safety element (101; 201) has been arranged in the area of the sear arm (31), which is located at the slide stop (21) and engages in the locking position at the breech. Appropriately, this sear arm (31) engages in sturdy fashion at the breech. By arranging the safety element in this area, the same effective ranges that lock the breech to the sear arm or slide stop can be used to shift the safety element (101; 201) into a safety position.

By means of the further modification according to claim 4, the functional reliability of the safety element is additionally increased in that the stress of the actuator is reduced. This is achieved by placing the actuator with an adjacent breech inside the sear arm profile. Thereby the blocking or locking function at the breech is performed exclusively by means of the sear arm. The safety element is not exposed to additional stress and, in particular, does not accept any stress which the action spring applies to the slide stop or sear arm spring by means of the breech.

According to claim 5, the safety element is designed in the form of a slide which makes it possible that the safety element can be arranged in the slide stop in a functionally reliable and protected manner. Preferably, the sliding direction assumes approximately the direction of movement of the breech, keeping the stress level of the safety element when activating the breech as low as possible.

Claims 6 to 9 concern an embodiment in which the safety element is designed in the form of a pivoted lever.

In this case, the swivel axis extends transverse to the direction of movement of the breech (claim 6). Consequently, the actuating direction of the pivoted lever also corresponds to the direction of movement of the breech.

According to claim 7, the actuating device is designed in the form of a two-armed pivoted lever, which makes it possible that the actuating device (when the breech pushes against the slide stop) can be diverted to a different locking direction of the second lever arm. For this purpose, the two lever arms can form an angle to one another. In this way, it is possible to be flexible in considering certain constructive limiting conditions which might be predetermined by the safety mechanism.

If the lever arms are different in length, as shown in claim 8, the adjustment travel and safety travel can also be of different length. Especially if the first lever arm comprising the actuator is shorter than the second lever arm comprising the locking part, the adjustment travel can be comparatively short, and by respectively selecting the relation of lever arms, the required safety travel can be designed with sufficient length so as to

provide long enough ranges in order to leave or enter the effective range of the safety mechanism. Thus the required active surface of the locking part can be designed in such a way that it is large or sturdy enough to handle the mechanical stress.

According to claim 9, the swivel axis extends through the center of the pivoted lever so that the pivoted lever is dynamically balanced, i.e., lateral accelerations exerted on the weapon cannot interfere with the safety position of the pivoted lever.

According to claim 10, the retaining effect is further increased by the fact that the active surfaces relevant for the retaining effect are arranged at the locking part or the respective counter-surface at the safety mechanism. The self-restricting design prevents the active surface of the locking part and the counter-surface of the safety mechanism from slipping off each other and disrupting the safety function, even if the sear arm is under extreme stress toward the retaining effect. Such stress can occur, for example, if the weapon is exposed to extreme dynamic load (impacts) or if the trigger exerts high forces on the slide stop against the retaining effect, for example, if the trigger is motor-actuated against the safety mechanism.

Claim 11 concerns a trigger device comprising an invention-based slide stop.

Claim 12 concerns a grip comprising an invention-based trigger device which can, for example, be constructed in such a way that it is possible to exchange it with a conventional grip that does not have the above-mentioned safety functions. If, as described in claim 13, the grip is equipped with one or several interfaces by means of

which the trigger or safety mechanism can be connected to an actuator, such a weapon can be easily used in a so-called weapon station.

Finally, Claim 14 concerns a weapon comprising an invention-based slide stop, an invention-based trigger device or an invention-based grip.

The embodiments of the present invention are described in more detail by means of the drawings. It is shown:

Figure 1 a lateral view of a grip (partially opened) comprising an invention-based trigger device in which the safety element is designed in the form of a slide,

Figure 2 a lateral view of a grip comprising a different invention-based trigger device in which the safety element is designed in the form of a pivoted lever, the slide stop is in locking position with a captured breech and the safety mechanism is in a “safe” position A,

Figure 3 the trigger device from figure 2 in which the safety mechanism is in “firing” position B,

Figure 4 the trigger device from figure 2 in which the breech is released, the trigger is activated and the safety mechanism is in “firing” position B,

- Figure 5 the trigger device from figure 4 in which the trigger is released, the release lever is interlocked with the slide stop and the safety mechanism is in a “safe” position A,
- Figure 6 the trigger device from figure 5 in which the returning breech has brought the slide stop in locking position by activating the release lever.
- Figure 7 the breech arrangement from figure 6 in which the further returning breech has engaged at the sear arm and deflected the slide stop from its locking position, and in which the safety mechanism is in a “safe” position A,
- Figure 8 a cross-section of a customary trigger device in which a safety barrel is in a “safe” position, and
- Figure 9 the trigger device from figure 8 in which the slide stop is shown to be jammed in the safety barrel by means of its safety lug.

Figure 1 (first embodiment) and figures 2 to 7 (second embodiment) show two embodiments by means of which the assembly and function of the invention-based slide stop 21 or trigger device are explained. Similar reference numbers correspond to similar components.

According to figure 1, the grip 1 is attached to the housing (not shown) of a weapon in which a path of movement for a partially shown breech 3 is defined. The moving range of the breech extends along the bore axis 5.

On its front side, the grip comprises a trigger guard 7 to which a trigger 9 connects which comes from above out of the grip 1. Said trigger is swivel-mounted to a trigger axis 11 in the grip 1 which extends laterally to the bore axis 5. A hinge spring 13, which comprises two arms surrounding a cross pin 17 by means of which they are fixed in the grip 1, pushes with its lower spring arm 15 the trigger 9 forward. The upper spring arm 19 pushes a two-armed slide stop 21, which engages in the rear lever arm 23 counterclockwise upward into its locking position. The frontal lever arm 25 extends above the trigger axis 11 and a release reel 27, which is attached to the trigger 9. The slide stop 21 is swivel-mounted to a lever axis 29 in the grip 1, which lever axis extends lateral to the bore axis 5.

If the trigger 9 is activated and swiveled counterclockwise against the force of the hinge spring 13, the release reel 27 raises the frontal lever arm 25 against the force of the hinge spring 13 and lowers the rear part of the rear lever arm 25 (this position is shown in figure 4 in connection with the second embodiment). At the rear part of the rear lever arm 23, a sear arm 31 is shown which is positioned behind a sear catch 33 at the breech 3, keeping it in cocked position, ready to fire (figure 1). During the process of lowering the sear arm 31 by activating the trigger, the breech 3 is released, moving forward in the weapon housing under the impact of the breech spring (not shown), feeding ammunition

and finally firing (by means of the firing pin – not shown) the propellant (see position in figure 4).

During the process of lowering the rear part 23 of the slide stop 21, the front part 21 of the slide stop is raised, and at a trigger safety 51 provided at the slide stop the front end is engaged from below by a release lever 53. Against the force of a catch spring 55, the release lever 53 is suspended at the trigger 9 and can be swiveled around a pin 54. After releasing the trigger, the release lever 53 keeps the rear part 23 and the sear arm 31 of the slide stop 21 outside of the path of movement of the breech (position as in figure 5).

Only after the breech 3 is moved back, it strikes the release lever 53, pivoting the release lever clockwise against the force of the catch spring 55 and releasing the trigger safety 51 at the slide stop 21, which springs with its rear part 23 counterclockwise into the path of movement of the breech 3 (see figure 6). At the same time, one after another, the sear catch 33 (or the sear catches) of the breech 3 move over the sear arm 31, which resiliently slides into the grip (see figure 7) until the front sear catch 33 at the breech 3 completely moved over the sear arm 31, the slide stop 21 assumed its locking position and the sear arm 31 enclosed the sear catch 33, and engaging at the sear catch retains the breech in the rearmost position.

At the trigger device of the first embodiment (figure 1), a slide 101 has been arranged at the rear part of the rear lever arm 23. The rear surface 103 of the slide forms an actuator into which the adjacent sear catch 33 is able to engage. In rest position (II), under the influence of a spring arrangement 104 which extends inside the rear lever arm 23, the slide 101 protrudes by the value D backwards out of the rear lever arm 23.

The sear catch 33 of the breech 3 pushing from behind against the rear surface 103 of the slide 101 displaces the slide 101 by the value D against the effect of the spring arrangement 104 approximately in the direction of the bore axis 5 into the rear lever arm 23 in the safety position I of the slide. In this position, the rear surface 103 of the slide attaches to the rear surface of the sear arm 31 is completely situated inside the sear arm profile. In the process, the rear surface of the sear arm 31 prevents the breech from moving further forward if the sear arm 31 is in locking position (see figures 1, 2 and 3). At the same time, it is guaranteed that the slide 101 is only insignificantly exposed to the stress of the forward traveling or attached breech 3. The slide 101 is put under stress merely by the reset force of the spring arrangement 104 which the forward traveling breech 3 has to override. However, the breech 3 will exert most of the stress and load on the sear arm 31 or slide stop 21. In this way the risk of overstress and malfunction of the slide 101 is minimized.

Starting at the actuator (here: its rear surface 103), the slide 101 comprises a finger 105 extending downward. Said finger forms a locking part and interacts with the safety mechanism 40. The safety mechanism 40 shown consists of a safety barrel 41 which is equipped with a recess 43. A notch plate 45 and an adjusting lever protruding from the housing (not shown) are torque-proof connected to the safety barrel 41. By means of said adjusting lever, the safety barrel can be turned between the "safe" position and the firing position. These two positions are defined by two recesses 49 at the notch plate 45 and

one resilient and permanently fixed catch arrangement 47, each of which engages in one of the two recesses 49.

In addition, the stop notch plate comprises a safety flag 46. If the safety mechanism is in its “safe” position (position in figure 1), a respective safety appendage 10 is positioned behind the safety flag 46. Said safety appendage extends from the trigger 9 backwards into the housing 1.

The slide 101 interacts via a finger 105 with the safety mechanism in the following way:

- If a weapon is fully loaded, the breech 3 and its sear catch 33 rest against the rear surface of the sear arm 31 and the rear surface 103 of the slide 101 which assumes the safety position (position I). Here the finger 105 is in the effective range of the safety mechanism 40. The recess 43 in the safety barrel 41 is in the “safe” position (position A). The active surface 105a of the finger 105 rests against the outer peripheral surface of the safety barrel 41. As a result, the slide 101 supports the rear lever arm 23, as well as the sear arm 31 downward toward the safety barrel 41. The sear arm 31 cannot be removed from its locking position; not even if the additional trigger safety, which is formed by the safety flag 46 and the safety appendage, would be eliminated and the trigger 9 would be activated.
- If the safety mechanism 40 is placed into “firing” position by turning the safety barrel 41, the recess 43 assumes position B and is located in the area of the finger 105. At the same time, the safety flag 46 assumes a position outside

of the effective range of the safety appendage 10 (not shown in figure 1, see analogous figure 3).

- If the trigger 9 is activated, the frontal lever arm 25 of the slide stop 21 is pushed clockwise upwards via the release reel 27, and the lower lever arm 23 comprising the sear arm 31 and the slide 101 is deviated downward into the housing 1. At the same time, the finger enters the recess 43 in the safety barrel 41, the breech 3 is released and moves forward (see analogous figure 4).
- In the process, the frontal lever arm 25 comprising the trigger safety 51 is caught in the release lever 53, so that the slide stop comprising the sear arm 31 remains inside the grip 1 if the trigger 9 is enabled (this position is shown analogous in figure 5).
- The slide 101 assumes rest position in which its rear surface 103 protrudes out of the rear part of the sear arm 31 and the finger 105 extends outside of the effective range of the safety mechanism 40 (position II, shown in figure 1 by a solid line).
- During normal function of the weapon, the forward moving breech 3 loads a new cartridge. Subsequently, through the repercussion resulting from firing, said breech is again thrown backwards and releases the release lever 53, which, in turn, releases the trigger safety 51. Thus, under the effect of the upper spring arm 19 of the hinge spring 13, the slide stop 21 including its rear lever arm 23 moves upward. At the same time, the returning breech 3 displaces the rear lever arm 23 downward, namely via appropriately designed leading angles 32 which extend, for instance, at an angle from the edge of the

sear catch to the rear upper area. In the process, the breech spring is cocked until the movement of the breech 3 reverses and the sear catch 33 attaches to the rear surface of the sear arm 31. At the same time, the rear surface 103 of the slide 101 is moved forward into the rear lever arm 23.

- In the case of malfunction (misfire, dysfunction during forward travel, etc.) the breech 3 does not move back but remains between trigger arrangement and cartridge storage. Even in this case, the safety mechanism 40 can be activated because in rest position II, the finger 105 is situated outside of the effective range of the safety barrel 41. The slide 101 does not block the activation of the safety mechanism 40. The safety mechanism 40 can be adjusted from the “firing” position to the “safe” position.
- In order to correct the dysfunction, the breech is manually pulled back (fully loaded). During the process of fully loading, the release lever 53 is also activated and the rear lever arm 23 including the sear arm 31 moves upward out of the housing profile into the moving range of the breech. The process of fully loading is also possible in the “safe” position of the safety mechanism 40 since the slide 101 including the finger 105 in rest position II is situated outside the effective range of the safety mechanism 40. Also the lowering movement which the safety barrel exerts on the rear lever arm 23 during the process of fully loading is not obstructed.
- After the process of fully loading, the sear catch 33 of the breech 3 once again rests against the sear arm 31 of the slide stop 21, after first having displaced the slide 101 engaging at the rear surface 103 into the safety position I in the

slide stop 21. The finger 105 (shown in its safety position in dashed fashion in figure 5) is situated in the effective range of the safety mechanism 40. The weapon is immediately in a secured condition.

- Now all required operations can be performed in the front area of the weapon without running the risk that the breech 3 will be released through an accidental activation of the trigger 9.
- By means of the slide 101, which can be adjusted relative to the sear arm 31 and which comprises a finger 105 engaging at the safety mechanism 40, the following is guaranteed: On the one hand, the weapon can be fully loaded even in the safety position, since the slide 101 comprising the finger 105 is situated in the effective range of the safety mechanism 40 only if the breech 3 including its sear catch 33 has moved the rear surface 103 of the slide 101 so far into the slide stop 21 that it closes flush with the rear surface of the sear arm 31, and the sear catch 33 rests against the sear arm 31. On the other hand, the weapon can be secured in any condition, even if the breech 3 is located in front of the grip and the rear lever arm 23 is lowered into the grip 2 because the slide 101 in rest position II extends outside of the effective range of the safety mechanism 40.

In the second embodiment shown in figures 2 to 7, the slide 101 has been substituted with a two-armed pivoted lever 201, which is located at a swivel axis 202 in the rear lever arm 23 extending lateral to the bore axis 5. At the same time, an upper lever arm 203 of the

pivoted lever 201 forms the actuator by means of its rear surface. At said actuator, the sear catch 33, with the breech 3 resting against the sear arm, moves the pivoted lever 201 against the force of a spring arrangement 204 into the safety position so that a lower lever arm 205 of the pivoted lever 201 moves as a locking part into the effective range of the safety mechanism 40 (see figures 2 and 3). In this position, the upper pivoted lever arm 203 slides completely into the profile of the sear arm 31.

If the breech 3 including the sear catch 33 does not rest against the sear arm 31, the pivoted lever 201 under the influence of the spring arrangement 204 assumes rest position, in which the lower lever arm 205 is situated outside of the effective range of the safety mechanism 40, and the upper lever arm 203 protrudes partially out of the rear profile of the sear arm (figures 4-7).

The functionality of this safety mechanism is analogous to the safety mechanism described in the context of the first embodiment. However, the pivoted lever 201 is able to realize extremely short adjustment travels of the upper lever arm 203, because the lower lever arm 205 is designed longer than the upper lever arm 203. Thereby, the shorter swivel travel of the upper lever arm 203 produces the longer swivel travel of the lower lever arm 205.

The adjustment travel can become so short that the overlap with the sear catch 33 of the returning breech 3 extends backward only minimally longer than the slide stop (f) without pivoted lever 21, as shown in figures 8 and 9. As a result, the breech arrangement

according to figures 2-7 can be exchanged with the breech arrangement shown in figures 8 and 9 without having to make further adjustments. In practical terms it is only required to exchange the grip.

In the embodiments described above, the safety mechanism is designed as a rotatable safety barrel 41 including the respective recesses 43. There are other embodiments in which the safety mechanism is designed as a sliding lock, in which a respective safety profile is designed lateral or parallel to the bore axis 5. Such a sliding lock comprises respective safety profiles including recesses and effective ranges, interacting with the safety element (for example, a slide 101 or a pivoted lever 201) arranged at the slide stop 21, analogous to the safety barrel 41 described. Such sliding lock can also be connected directly to a respective actuator or actuating-drive which controls the weapon in a weapon station. There are also embodiments which provide separate interfaces at which such actuators or actuating-drives can be arranged.

The expert will be able to derive further embodiments and variations of the present invention from the claims.

Claims

1. A slide stop (21) for a trigger device of a firearm, particularly a rapid-fire weapon, comprising a breech (3) and a safety mechanism (40), at which the slide stop (21)
 - can be adjusted between a locking position locking the breech (3) and a position not locking the breech, and
 - which comprises a safety element (101; 201) that
 - can be adjusted relative to the slide stop (21) against a spring force from a rest position (II) into a safety position (I),
 - assuming its safety position (I) if the breech (3) overruns the slide stop (21) and the breech (3) exerts forward actuating force on the safety element (101; 201) and engages in this position (I) at the safety mechanism (40) if said safety mechanism assumes at the same time its safety position, fixing the slide stop (21) in its locking position,
 - otherwise, however, assumes its rest position (II) and releases the slide stop (21).
2. A slide stop (21) according to claim 1, in which the safety element (101; 201) includes: an actuator (103; 203) that can be carried along by the forward traveling breech (3) and, as a result, the safety element (101; 201) can be adjusted into its safety position, and a locking part (105; 205) located in the effective range of the

safety mechanism (40) if the safety element (101; 201) has assumed the safety position.

3. A slide stop (21) according to any one of claims 1 or 2, in which the safety element (101; 201) is arranged in the area of the sear arm (31), designed at the slide stop (21) and engaging in its locking position at the breech.
4. A slide stop (21) according to any one of the preceding claims, in which the actuator (103; 203) with an attached breech is situated inside the sear arm profile.
5. A slide stop (21) according to any one of the preceding claims, in which the safety element (101) is designed in the form of a slide and in which the sliding direction preferably corresponds to the direction of movement of the breech (3).
6. A slide stop (21) according to any one of claims 1 to 4, in which the safety element (201) is designed in the form of a pivoted lever which is located at a swivel axis (202) extending laterally to the direction of movement of the breech (3) and which can be swiveled in the slide stop (21).
7. A slide stop (21) according to claim 6, in which the pivoted lever (201) comprises a two-armed design and in which the first lever arm (203) comprises the actuator and the second lever arm (205) comprises the locking part.
8. A slide stop (21) according to claim 7, in which the first lever arm (203) is shorter than the second lever arm (205) and in which the aspect ratio preferably amounts to 1:2 to 1:3.

9. A slide stop (21) according to any one of claims 6 to 8, in which the swivel axis extends through the center of the pivoted lever (201).
10. A slide stop (21) according to any one of the preceding claims, in which the locking part (105; 205) including its effective range engages in self-restricting fashion at a respective counter surface of the safety mechanism (40).
11. A trigger device comprising a slide stop (21) according to any one of the preceding claims.
12. A grip comprising a trigger device according to claim 11.
13. A grip according to claim 12, comprising at least one interface by means of which the trigger (9) or safety mechanism (40) can be connected to an actuator for the purpose of activation.
14. A weapon comprising a slide stop (21) according to any one of claims 1 to 10 and comprising a trigger device according to claim 11 or a grip according to claims 12 or 13.