

**Connecting Piece and Connecting Piece Comprising a Sight**

The invention relates to a connecting piece for fixing on a profiled rail, comprising retaining elements that can be moved between a working and a release position, said elements engaging with corresponding receiving regions of the profiled rail releasing the connecting piece in the release position.

The invention also relates to a connecting piece comprising a sight with an adjustment element which can be moved in opposition to a spring force from a sight position into an adjustment position.

The invention further relates to a connecting piece comprising a second sight that can be mounted directly on the hand guard of a weapon and can be pivoted between an unused position and a working position.

It is known in the area of weapons technology to mount various special sighting devices, for example sniperscopes, telescopic sights, laser sights etc. on a weapon. The additional devices are usually firmly mounted on a weapon, for example using screw mechanisms.

Further different fastening elements for fastening of weapons add-on units on weapons are known. In the process for example US 7,107,716 shows a carrier element for weapons

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accessories in the style of a quick change system. The carrier element comprises profiles which engage in a Picatinny rail and are expandable at a right angle to the rail. For this purpose a lateral spring-loaded pivot lever is arranged on the carrier element which clamps the fastening element on the Picatinny rail like a clamp.

Also known are engagement profiles for fastening elements movably arranged in a guide rail for fastening on a Picatinny rail, for example from US 6,606,813. Here the locking takes place via an eccentric connected to a pivot lever.

From DE 199 186 35 C1 an assembly device is known in which case two parts movable to each other and transversely to the axis of the bore of the weapon are provided, which are movably loaded against one another by a spring arrangement in such a way that solely their loading as a result of the spring arrangement produces their engagement between a longitudinal mounting channel on a weapon and the mounting base. The spring force is in the process negotiable by compression of the two parts for neutralization of the engagement. Such an arrangement can if necessary be sensitive to violent ricochets and disengage from the weapon without additional interlocking.

From G9116166 a wedge arrangement is known which forms a clamping block whose strength is adjustable by two wedge elements sliding against each other, wherein the adjustment action is applied via a screw pushing through both wedge elements. This clamping device serves the purpose of fastening of plates of different strength in slotted hollow profiles. This device is not suitable as a fastening element for fastening of weapons add-on devices.

From US 2006 0,156,609 various variants are known for fastening a fastening element on a profiled rail or a Picatinny rail in vise-like manner using screw elements.

There are swivel mountable rear sight notches for hunting weapons. The front sight is in the process usually constructed rigid. For assembly line produced weapons, for example automatic weapons or the like, firmly mounted sighting devices are known which are sometimes designed to swivel in and out.

In the military sector often rear sight notches are designed as simple, more or less vertical plates with a sight notch which must be brought to a line of sight with a front sight. In the process the use of swiveling sighting devices and sometimes lateral or in the height adjustable sighting devices are known. The rear sight notch is frequently constructed as a sliding rear sight, in which the rear sight leaf is mounted on a sliding rear sight base plate, which can be adjusted in height to the respective range of firing.

For example DE 708101 (Walther) discloses a pivoting sight with multiple adjustable and interchangeable rear sight plate as well as a rough and fine height adjustment of the sighting device. The adjustment of the sights takes place via a spring-loaded screw spindle with locking slots. The lateral adjustment of the sighting device takes place with the help of screw and retaining bolts arranged oppositely. In the process preferred screw positions are fixed via ball catches.

The front sight part, the front sight is usually firmly mounted in the case of hunting weapons on the front end of the barrel on a front sight base. In the military sector the front sight is also screwed or otherwise rigidly fastened on the system box or a mounting rail. In the case of the American M16 the front sight is mounted on a distant base, since here the sight diopter is arranged in a high carry handle. In the case of the more modern AR 15 this carry handle can be removed and instead of this fit on a mounting rail, wherein then the front sight and the front sight base are removed.

From De 10 2004 007 916 A1 a weapon with a mounting rail for the addition of add-on units is known, in which case the front sight and the rear sight notch are designed to pivot in the mounting rail.

Known connecting pieces for the fastening of add-on devices have the disadvantage that usually additional tools are required for their fastening on a profiled rail and the assembly is laborious.

Known sighting devices often have to be elaborately and usually rigidly fastened. Thus in the case of hunting weapons the open sight becomes useless when a telescopic sight is attached over an assembly, since the assembly device collides with the open sight.

In the military sector often the rear sight and the front sight must be removed for the addition of add-on devices, for example a sighting device, since otherwise the add-on device cannot be fit on a fastening rail, such as for example a Picatinny rail. In the case of pivotable sights an exact guiding and arrangement of the pivotable front sight and its notch is not always ensured. However, said guiding and arrangement of the pivotable front sight and its notch is required in order to maintain the desired sighting and aiming accuracy.

The invention is based on the object of providing an improved fastening element in the form of a connecting piece for fastening to a profiled rail which can be mounted quickly and easily as well as being easily detachable and giving a secure support.

Further an improved adjustable sight is to be provided, which ensures the desired sighting and aiming accuracy.

The subjects of Claims 1, 14 as well as 32 respectively solve these problems. According to Claim 1 an inventive fastening element or connecting piece exhibits a coupling of the retaining elements by means of a guide slot which is designed in such a way that when the retaining elements are displaced in the longitudinal direction of the profiled rail, said elements are also moved obliquely, following the course of the slot.

According to Claim 14 the inventive connecting piece exhibits an adjustment element which is releasably fixed in the sighting position in relation to the sight by means of a detent mechanism and being able to be moved into various sight positions in the adjustment position.

According to Claim 32 an inventive connecting piece exhibits a second sight mounted on the hand guard with a safety element that fixes the sight in the working position against a stop, transversely to the axis of the bore.

The inventive connecting piece can be used on a variety of fastening devices, in particular profiled rails of all types.

In addition the inventive connecting piece is basically suitable for fastening on all types of weapons: handheld firearms; weapons mounted on gun carriages; automatic, semi-automatic, small caliber, large caliber weapons; assault weapons, machine guns, automatic pistols, repeating weapons; light automatic cannons or grenade launchers.

Likewise a sight can also be mounted directly on one of the above named weapons and used. Such a sight is naturally also suitable for other weapons which are not firearms, for example a crossbow and similar systems.

The inventive connecting piece can be mounted on a dovetail profile of a profiled rail. For this purpose its engagement profile is extendable via an obliquely arranged slide link

in such a way that in the release position of its retaining elements it can be fixed on the dovetail profile obliquely to the longitudinal axis of the profiled rail. There the connecting piece occupies its working position, in which it engages with its retaining elements on the receiving regions of the profiled rail.

The retaining elements are coupled by means of a guide slot in such a way that they are displaced in the longitudinal direction of the profiled rail; said elements are also moved obliquely, following the course of the slot. This has the advantage that the connecting piece can be easily fixed, since its diameter inside is greater than the outer circumference of the profiled rail. The inventive connecting piece can thus be placed on a profiled rail or removed from it quickly and easily. A combination of the connecting piece with a sight can in addition be adjusted on the respective sighting distance quickly and easily.

Claim 2 is based on a connecting piece in which case the retaining elements are held in the working position by means of a spring element. The spring element can be a helical compression spring, wherein other elastic elements can also be employed. Thus the fixing on the profiled rail is ensured without further actions.

Further the two retaining elements can be coupled to each other by means of random coupling mechanisms. In accordance with Claim 3 they are arranged and designed in such a way that a first retaining element exhibits a recess, into which a corresponding projection on the second retaining element engages in the manner of a tongue and groove guide. Such a guide facilitates a sufficient stability of the fixture and secures the positions of the retaining elements to each other.

In accordance with Claim 4 the guide slot of the connecting piece preferably comprises a groove determining the course of the guide and at least one guide element engaging with the guide slot. The guide slot can in principle run

slanted, linear and/or (in sections) curved. It can run obliquely to the longitudinal axis and in the process outlines a straight guideway which forms an angle of 2 to 50° to the longitudinal axis. Preferably the angle is 8 to 350° and especially preferably the angle is 8 to 15°. Such a course of the slot ensures that the connecting piece acts self-locking vis-à-vis transverse forces – in dependency on the friction – and cannot be spontaneously displaced in longitudinal direction. Too flat of an angle on the other hand aggravates the opening of the connecting piece and can lead to jamming.

The guide element is in accordance with Claim 5 constructed as cam and is assigned to the first retaining element. The cam can be constructed as a pin, bolt or the like and goes in the guide slot which is constructed as a groove in the second retaining element. This facilitates an especially compact and space-saving construction.

Preferably the retaining elements of the connecting piece are further constructed in such a way that the position of the connecting piece in the case of a force acting on the connecting piece in the direction of the longitudinal axis of the profiled rail is kept in the working position. In this way corresponding recoil effects of the connecting piece are prevented from loosening the connecting piece.

The connecting piece comprises in accordance with Claim 7 a handle arranged on one of the holding elements by means of which it can be brought into its release position. The handle can in the process be constructed in one piece as a projection or can be mounted on the connecting piece. In the process the handle can be screwed on, riveted, adhered or otherwise fastened and can be made of the same material as the connecting piece or also of another suitable material. Preferably it consists of the same material and is one-piece, for example co-extruded and cut out later.

Additionally according to Claim 8 the receiving regions of the retaining elements can be arranged on the profiled rail in such a way that their profile tapers obliquely to the longitudinal axis and the retaining element encompasses the profiled rail in the manner of a shoe. Alternatively the retaining elements can be arranged at least partially in the manner of a wedge in the profiled rail (Claim 9). In both cases a wedge effect can be achieved by means of a corresponding design of the receiving regions, said wedge effect improving the fixing on the profiled rail.

In the case of the improvement according to Claim 10 the connecting piece is provided with a formation which can be brought into engagement with a counter-formation arranged in the profiled rail. The formation can for example be constructed as a projection, top part, a retaining pin, a set bolt, a screw or the like. It engages for example in a recess positioned in the profiled rail or existing opening in order to lock the connecting piece in the profiled rail. The formation can be constructed in production as an opening, say as a groove or also as a recess, for example as a borehole.

If the formation is a cam-like twist lock and if the counter-formation is a transverse slot in the profiled rail designed as a Picatinny rail, the twist lock can engage in the transverse slot and fix the connecting piece in longitudinal direction coaxially to the bore of the axis. Recoil forces of weapons acting in longitudinal direction of the connecting piece then cause a displacement of the connecting piece in longitudinal direction (Claim 12).

If a location hole is constructed in the profiled rail a fastening of the connecting piece is only possible on one area of the profiled rail. For example a guard can only be arranged on a defined position even in the case of poor visibility conditions. This is in particular helpful in the case of Picatinny rails, which exhibit many transverse slots. Additionally such a borehole with

a transverse offset can be arranged to the longitudinal axis, so that the connecting piece can only be fixed on the profiled rail in defined direction.

In accordance with Claims 13 and 14 the connecting piece preferably comprises a sight. Any other add-on devices, for example such as a sniperscope can be mounted on the connecting piece. For this purpose the sight can be produced in one piece with the fastening element or be fastened on the connecting piece (e.g. screwed on, riveted, adhered). Also elements of the sight can be constructed in one piece on the connecting piece and additional subcomponents of the sight can be fastened on the connecting piece.

The sight comprises an adjustment element which can be moved in opposition to a spring force from a sight position into an adjustment position, said adjustment element being releasably fixed in the sight position in relation to the sight by means of a detent mechanism and can be moved into various sight positions in the adjustment position. For example the line of sight can be adapted to different target distances and the lock of the adjustment elements prevents a spontaneous adjustment of the line of sight (Claim 14).

According to improvements according to Claims 15 through 17 the sight exhibits a first and/or second adjustment element. The first adjustment element preferably serves the purpose of height adjustment of the sight. The second adjustment element preferably serves the purpose of lateral adjustment of the sight. Thus the sight can be adjusted in height or laterally adjusted transversely to the axis of the bore in order to set a line of sight with an additional sight, for example a front sight.

The first and second adjustment elements each comprise a threaded section which cooperates with a corresponding counter-threaded section for adjustment of height and/or lateral adjustment.

Threads are suitable in order to make the height adjustment and/or lateral adjustment of the sight precisely adjustable by means of thread pitch.

The first and second adjustment elements each comprise a handle by means of which the adjustment element can be brought from a sight position into an adjustment position. By means of a handle the respective adjustment element can be easily operated. Especially preferably the handle locks with a counter-formation in the sight, e.g. detachably in a positive fit the sight position. This makes possible a precise height and/or lateral adjustment, in the lock of corresponding, defined positions which correspond to a specified height or lateral adjustment of the sight. In addition, in this way a compact construction can be realized. (Claim 19).

The handle of the sight is in accordance with Claim 20 constructed as a rear sight notch. In the process the rear sight notch can be constructed as a simple, open rear sight notch or as a diopter sight of any dimension. In the case of a placement on a system box of a weapon or also further to the front, for example above the cartridge chamber the peephole of the diopter sight is usually designed with larger dimensions. Especially preferably however a diopter sight is arranged close to the eye of a marksman.

Further the height and/or lateral adjustment of the sight is preferably at a specified bevel, in particular by  $60^\circ$ ,  $90^\circ$  and/ or  $180^\circ$ . Defined bevels advantageously make possible a coordination of the thread adjustment with the detent mechanism. Thus in the case of a simple operation a precise setting of a line of sight is ensured. Especially preferably the first sight is adjustable for height adjustment by means of a turning by  $180^\circ$  degrees, in order to be adapted for example in the case of the testing of a weapon at a distance of 100, 200 or 400 m. (Claim 21).

Further the sight is preferably incrementally or progressively height and or laterally adjustable by means of the first and or second adjustment element by fixed, equal amounts. Especially preferably in this connection the thread pitch of the lateral and/or height adjustment is assigned to a line of sight. In the case of progressive adjustment the detent mechanism can be omitted.

The lateral adjustment can comprise any bevels. Especially preferably the adjustment takes place by 60 or 90 degrees. Also in the case of the lateral adjustment the thread pitch is coordinated on the detent mechanism. Especially preferably both the height as well as the lateral adjustment are adjustable counterclockwise or clockwise. (Claim 22)

Further the sight can be constructed as a notch or bead arrangement. Preferably the sight is constructed as a rear sight notch when it is supposed to form a line of sight in the rear end and is constructed as a bead arrangement when it is supposed to form a line of sight in the front end. (Claim 23)

In addition the handle of the adjustment element is constructed spring-loaded. The spring element can be arranged coaxially to the thread element within a coaxial spring guide, against which it supports itself. The spring element can be constructed as a helical compression spring or as a different elastic element.

For lateral or height adjustment of the sight the spring element advantageously acts on the first or second adjustment element in such a way that the detent arrangement is locked with a counter-formation and is releasable by means of a displacement or removal of the handle of the adjustment element against the spring action from the lock. Advantageously the handle locks as soon as the user releases it in the respective provided lock position. If the handle is not in the exact position, it cannot lock in

and therefore is above. This signals a defective setting to the user. (Claim 24)

The improvements according to Claims 25 through 29 relate to the adjustability of the sight against a spring-loaded locking element from an unused position to a working position. The adjustment takes place around a pivoting axis wherein the pivoting axis coincides with the adjustment axis of the second adjustment element. Thus it requires no additional pivoting elements and an especially compact construction is facilitated. Additionally a locking element detachably locks the sight in the unused position and in the working position. The sight thus stably occupies its working or unused position, but can be easily adjusted.

A recess in the connecting piece holds the sight in the unused position. This allows a protected, compact arrangement of the sight in the unused position. Further it is possible to slip on additional devices on a profiled rail or the hand guard, for example a weapon, wherein the swiveled sight is not in the way and/or must be removed.

The recess can be designed in such a way that the sight is only adjustable in the working position between sight position and adjustment position. Thus unintended lateral or height adjustment of the sight is prevented.

In addition the connecting piece comprises a second sight. The cooperation of the first and the second sight advantageously facilitates the provision of a line of sight. (Claim 29)

The second sight can be arranged at random positions on the housing, on the barrel or for example on a mounting rail of a weapon. In the case of free-swinging barrels if necessary a second shot can be imprecise on the basis of the barrel oscillations. An arrangement on the housing leads to a relatively short line of sight, in which case the target diagram can shift significantly further than

in the case of a long line of sight and thus decreases the aiming accuracy. For this reason the second sight is arranged directly on a hand guard of a weapon. Advantageously in this way an especially long line of sight can be produced. (Claim 30)

Further the second sight can be pivoted about a pivoting element from an unused position into a working position. For this purpose it preferably exhibits a second safety element which fixes the sight in the working position against a stop, transversely to the axis of the bore. The safety element can be a screw, a locking screw, a spring element or some other detent mechanism. (Claim 31)

Further the safety element, in accordance with Claim 32, engages in the working position of the second sight spring-loaded on a corresponding formation constructed on the pivoting element, in particular in a recess. This formation can be a projection, preferably however it is a recess which for example is milled in or bored. The safety element is for example a spring-loaded bolt.

The wedge-shaped active areas in accordance with Claim 33 permit a precise fixing of the sight via the sight without especially high demands having to be made on its shape tolerances and/or positional tolerances in the design of the active areas. This reduces the production costs.

In accordance with Claim 34 the safety element fixes the pivoting element in the second sight and in this way can also prevent its removal. In the process an additional secure retainer, for example a pin can be present. The pivoting element is fixed in its position and simultaneously prevents a removal or falling out. (Claim 34)

According to Claim 35 the sight and pivoting element occupy a defined reference position to the axis of the bore. The line of sight can be set with repeatable accuracy and reproducibly.

Additionally, in accordance with Claim 36 the sight can be pivoted against a spring-loaded locking element around the pivoting axis from the unused position into the working position. In the process the locking element detachably locks the sight preferably by means of a detent mechanism in the unused position and in the working position. This advantageously prevents an unintended pivoting/deviation of the sight. (Claim 37)

The sight can be pivoted by 90 degrees and in its unused position rest upon on a weapon or a hand guard or be immersible there in a recess. Preferably the connecting piece or the hand guard comprises a recess in which the sight is immersible in the unused position. This facilitates a compact construction. Add-on devices can be slipped on a Picatinny rail of a weapon or on another profiled rail in the case of a pivoted sight. Further the pivoted sight can be advantageously protected from damages when not in use. (Claim 38)

The second sight can in accordance with Claim 39 be constructed as a notch arrangement or as a bead arrangement.

Claims 39 and 40 relate to a hand guard for a weapon with an inventive connecting piece and a weapon with an inventive connecting piece.

Exemplary embodiments of the present invention will be described more closely in the following with the help of the drawings. The figures show the following:

Figure 1 shows a perspective representation of an inventive connecting piece in a diagonal view from the rear;

- Figure 2 shows a perspective representation of the connecting piece in a diagonal view from below
- Figure 3 shows a perspective representation of the connecting piece in a view from the top left, which is fastened on a Picatinny rail;
- Figure 4 shows a sectional view of the connecting piece from Figure 3 with exposed link mimicking means;
- Figure 5 shows the connecting piece from Figure 4 in release position;
- Figure 6 shows a view from the rear of the connecting piece in release position with a sight in working/sight position;
- Figure 7 shows the connecting piece from Figure 6 in opened, fitted state on a Picatinny rail;
- Figure 8 shows a perspective representation of the connecting piece from Figure 6 in working position with the sight in unused position;
- Figure 9 shows a cross section through the arrangement shown in Figure 1 with the connecting piece in working position;
- Figure 10 shows a perspective representation of the arrangement from Figure 9 with partially exposed sight;
- Figure 11 shows a perspective representation of a connecting piece with sight with handle released from the locking position

- Figure 12 shows a sectional view of the arrangement from Figure 11;
- Figure 13 shows another sectional view of the arrangement from Figure 11 with the sight in unused position;
- Figure 14 shows a perspective representation, similar to Figure 11, with the handle released from the locking position for lateral adjustment;
- Figure 15 shows a perspective detailed view of the mechanism for lateral adjustment;
- Figure 16 shows a perspective view of the retaining element in release position with the sight in working position;
- Figure 17a shows a view from above of an inventive connecting piece with an alternative adjustment mechanism;
- Figure 17b shows a sectional representation corresponding to Figure 13 of the arrangement from Figure 17a;
- Figure 18a shows a view from above of an inventive connecting piece with an additional alternative adjustment mechanism;
- Figure 18b shows a sectional representation corresponding to Figures 13 and 17b of the arrangement from Figure 18a;
- Figure 19 shows a lateral representation of a weapon with a plurality of sighting devices and a connecting piece;

- Figure 20 shows a perspective view of a second sight in unused position;
- Figure 21 shows a perspective view of a hand guard with the sight from Figure 20 in working position;
- Figure 22 shows a cross-section through the arrangement from Figure 21 with exposed safety mechanism; and
- Figure 23 shows a perspective view of the second sight in partial section with exposed locking mechanism.

Positional terms used in the following such as above, below, front, rear, right and left refer from the view of a marksman to a weapon ready to fire, held in normal firing position with horizontal barrel. The connecting piece is in the process arranged on a mounting rail running parallel to the axis of the bore.

Figure 1 shows an inventive fastening element or connecting piece 1 diagonally from the front. The connecting piece 1 comprises a first retaining element 3 and a second retaining element 5. The first retaining element 3 exhibits a clip-like projection 9 which runs in a slot-shaped recess 7 in the second retaining element 5, wherein both retaining elements 3, 5 are designed longitudinally displaceable to each other in the direction of the arrow.

In addition the connecting piece 1 comprises a handle (not shown) for moving on the second retaining element 5. A spring element 15 (compare Figure 4) is located within the connecting piece 1. The connecting piece 1 can be placed upon a profiled rail 19 (compare Figure 3). For this purpose a first receiving region 21 is provided on the first retaining element 3 as well as a second receiving region 23 being provided on the second retaining element 5.

A wedge-shaped segment 27 of the first receiving region 21 and a first linear running segment 33 are located on the underside 25 of the receiving region 21. The second retaining element 5 comprises a second wedge-shaped segment 29 as well as a second linear running segment 35. The wedge-shaped segments 27; 29 encompass counterfaces 22, 24 (Figures 6 and 7) of the profiled rail 19 when being placed upon it forming corresponding receiving regions in dovetailed manner, wherein the segments 27, 29 in the process come into contact with the flat surfaces of the counterfaces 22, 24 on the profiled rail 19. In other embodiments the segments 27, 29 or the profiled rail can be constructed in such a way that a point contact or line contact takes place between the elements 1 and 19.

In Figure 2 on the underside 25 of the connecting piece 1 a projection 15 is recognizable, said projection engaging into a transverse slot 37 (compare Figures 3 and 4) of the profiled rail serving as counter-formation and fixing the connecting piece 1 in longitudinal direction. The projection 15 is constructed here as a bolt, which can be inserted into a corresponding receiving opening 18 on the second retaining element 5 (Figures 4 and 5).

Figure 3 shows the connecting piece 1, which is fastened on a profiled rail 19 designed as a Picatinny rail. The Picatinny rail 19 can be used for fastening on a weapon 61 or also on other objects. For this purpose it exhibits a front fastening region 39 as well as a rear fastening region 40, by means of which it can be fixed with suitable fastening elements (not shown), for example bolts. Between the first and the second fastening regions 39 and 40 transverse slots 37 run between projections 38 at regular intervals. In the case of placement of the connecting piece 1 on the Picatinny rail the projection 15 (compare Figure 2) engages in one of the transverse slots 37 on the Picatinny rail 19. The connecting piece 1 is thus fixed on the Picatinny rail 19 in longitudinal direction. In place of the

transverse slot 37 a borehole with corresponding radius can be constructed. In the case of an eccentrically arranged borehole lateral to the longitudinal axis it can be ensured that the connecting piece 1 can be slipped on only in the correct orientation to the front or rear on the profiled rail 19. If the diameter of the borehole and of the bolt 15 is greater than the width of the transverse slot 37, the connecting piece can also be slipped on only in a specified position in longitudinal direction. This can in particular be helpful when the connecting piece bears sights.

Further in Figure 4 I the second retaining element 5 the circular receiving opening 18 is shown, which schematically shows the projection 15, which is in engagement with the Picatinny rail 19. The project 15 can with in the framework of the production process be placed into an opening or into a recess after production and can be constructed as a bolt or firmly connected to the retaining element or attached on said retaining element.

In order to remove the connecting piece 1 from the Picatinny rail 19 again both retaining elements 3 and 5 are moved with the handle (not shown) against each other in longitudinal direction. The opening mechanism can be seen from the subsequent Figures 4 through 7.

In Figure 4 a diagonally running guide slot 41 is recognizable in the first retaining element 3, said guide slot being constructed as a slot. A guide element protrudes from the second retaining element 5 into the guide slot 41, said guide element being constructed as a guide cam 43. The spring 13 runs parallel to the guide slot 41 in a recess 47 serving as a spring guide and acts between a front stop 49 in the first retaining element 3 and a rear stop 51 in the second retaining element (see also Figure 5). The stops 49, 51 are constructed here as projections which act on the ends of a helical compression spring. The spring is stabilized and guided by the boundaries of the recess 47 running parallel to the guide slot 41.

The second retaining element 5 exhibits a rectangular recess 11 on the right Rand, on which the handle (not shown) can be arranged.

Further in Figure 4 the diagonal course of the clip-like projection 9 of the first retaining element 3 is shown, said projection protruding into the slot-like recess 7 in the second retaining element 5. The guide cam 43 is connected to the second retaining element 5 on its ends and pushes through the guide slot 41, and the slot-like recess 7.

Within the guide slot 41 the first retaining element 3 is movably arranged in longitudinally displaceable manner opposite the second retaining element 5 and is guided by the guide cam 43 in its longitudinal movement (compare Figure 5).

Figure 5 shows the connecting piece 1 from Figure 4 in an opened state, arranged upon the Picatinny rail 19. The first retaining element 3 is moved against the second retaining element 5 in longitudinal direction. The guide cam 43 is located in contact with the rear end of the guide slot 41. A further opening movement is not possible. The spring 13 acts against the opening movement and pushes the first retaining element 3 in the direction of its original position. The rear stop 51 of the recess 47 is exposed. A bolt or a projection of other type can be arranged on the boundaries 49 and 51 in longitudinal direction parallel to the recess 47, said bolt or projection protruding into the interior of the spring for stabilization.

Additionally in place of the projection 15 shown in Figure 2 now an opening or recess 18 is exposed, said opening or recess receiving the projection or bolt 15 (not shown here), said projection or bolt being fastened for example by means of an interference fit or also by means of adhesives or welding or other fastening methods. In the opened state the connecting piece 1 can be removed from or placed upon the Picatinny rail 19, as Figures 6 and 7 show.

Figure 6 shows the connecting piece 1 in release position (compare Figure 5) in the case of being placed upon or removed from a profiled rail or Picatinny rail 19. The connecting piece 1 is provided here with a swiveled out sight 57.

Figure 7 shows the connecting piece 1 from Figure 6 in release position placed upon a Picatinny rail 19, wherein the first retaining element 3 is moved against the second retaining element 5 in longitudinal direction. The two retaining elements 3 and 5 are on the basis of the diagonal slotted guide of the guide slot 41 also laterally offset against one another. This lateral displacement is sufficient in order to place the connecting piece 1 above projects 53, 55 on the Picatinny rail 19. For this purpose the wedge-shaped segment 29 of the second retaining element 5 goes into engagement with the projections 55 of the Picatinny rail 19 and is in contact with the counterfaces 24 of the projections 55. The underside 25 of the connecting piece 1 goes on the Picatinny rail 19. It achieves its positive connection in Figure 7. Inclination and length of the slotted guide are set in such a way that in the release position the inside diameter between the wedge-shaped segments 27, 29 is sufficient in order to place or remove the connecting piece 1 above the projections 53, 55.

The inclination of the guide slot 41 is such that it acts self-locking in transverse direction, in other words: the retaining elements 3, 5 are only movable in longitudinal direction. The angle of inclination ranges between  $7^{\circ}$  and  $15^{\circ}$ . Transverse forces acting on the connecting piece 1 have no influence on the fixation. The orientation in longitudinal direction is selected in such a way that longitudinal forces in a preferred direction (e.g. recoil forces) support the closing effect of the spring 13, i.e. act additionally fixing.

After the relegating of the two retaining elements 3 and 5 to their unused position (compare Figures 1 through 4), the spring 13 relaxes and the receiving region 21 shown spaced apart in Figure 7 with the reversal of the transverse offset of the two retaining elements

3 and 5 to each other joins the counterface 22 of the projections 53 of the Picatinny rail 19. The projection 15 is in engagement with a recess 37 (compare Figure 2); so that no longitudinal displacement of the connecting piece 1 is possible. The guide cam 43 is spaced from the rear end of the guide slot 41, in order to guarantee tolerance compensation in mounted state.

In addition in Figures 6 and 7 a sight 57 is arranged on the connecting piece 1. Also a rudimentary reproduced weapon 61 is shown on which the Picatinny rail 19 is mounted for example on the housing of a hand guard assembly.

The sight 57 comprises a handle 67 on its upper end which is constructed as a rear sight notch and a second adjustment element 69 for lateral adjustment. The second adjustment element 69 is surrounded by a spring element 71 and forms a pivoting axis or adjustment axis for the sight 57.

In Figure 7 additionally the sight 57 is swiveled out (working position) and can be swiveled in to the rear (compare Figure 8) around a pivoting axis constructed as an adjustment axis (unused position). The sight 57 comprises a locking element 73 (compare Figure 13) for locking in working and unused positions. In order to move the sight 57 from one position to the other it must be swiveled against a spring force acting on the sight 57 via the locking element 73.

Further the sight 57 comprises a first adjustment element 75 which serves the purpose of the height adjustment of the sight. In Figure 7 the first adjustment element 75 is only partially visible and is surrounded by a spring element 77 (compare Figure 9).

Figure 8 shows the connecting piece 1 from Figure 6 in working position with swiveled in sight 57 (in unused position), which

is arranged within an opening or recess 58 in the top side of the connecting piece 1. Swiveled in the sight 57 is in contact with its rear side on the connecting piece 1.

Figure 9 shows the swiveled out sight 57 (in working position). In a hollow space of the swiveled out sight 57 the first adjustment element 75 for height adjustment surrounded by the helical compression spring 77 proceeds. An external threaded section 79 is coupled above a corresponding internal threaded section 80 in the handle constructed as a rear sight notch.

Figure 10 shows the swiveled out sight 57 with exposed adjustment element 75. The External threaded section 79 cooperates with the internal threaded section 80 on the rear sight notch 67 for height adjustment (see also Figure 12).

Figure 11 shows the rear sight notch 67 slightly distorted. On the upper end of the sight 57 there are recesses 87 running transversely to the axis of the bore 106 (compare Figure 19), said recesses being arranged opposite one another at both sides of the shaft region of the rear sight notch 67. The rear sight notch 67 is seated spring-loaded in these recesses 87. In the case of the extraction of the rear sight notch 67 from the sight 57 both recesses are freed up and the rear sight notch 67 is freely rotatable. The rear sight notch 67 can then be distorted on the threaded section 83 either clockwise or counter-clockwise for height adjustment (screwed in or out). In the recess 58, in which the sight 57 can be swiveled in, a bolt 15 which is not completely inserted is shown.

In Figure 12 the rear sight notch 67 is likewise shown laterally distorted. In the sight 57 the first adjustment element 75 for height adjustment runs in longitudinal direction at the upper end of the Threaded section 79, which cooperates for height adjustment

with a counter-threaded section 80. A torsion of the rear sight notch 67 causes a distortion of the threaded section 79 against the counter-threaded section 80 and hence a linear adjustment of the rear sight notch 67 either upward or downward.

The lower end of the first adjustment element 75 is seated spring-loaded on the second adjustment element 69. If the rear sight notch 67 is pulled upward, it can be rotated. By means of a turning of the sight 57 by 180° around the first adjustment element 75 the height sight is adjustable by specified increments, for example from 100 m to 150 m distance or in a fine adjustment to a specified distance. By means of an inverse turning the height adjustment is cancelled. After turning of the rear sight notch 67 by 180° it is withdrawn from the spring element 77 to the sight 57.

The first adjustment element 75 is arranged linearly displaceable in the sight body 59 and is secured from being pulled out by means of a base plate 70 base plate. The front and rear base plate region 82, 86 (compare Figure 15) in the process protrude into a guide slot and secure the adjustment element from distortion. The spring 77 supports itself between the base plate 70 and an inside wall 84 in the sight body. The spring 77 in this way holds the rear sight notch 67 above the first adjustment element 75 and the threaded coupling in the recesses 87 and prevents an unintentional adjustment (see also Figure 15).

The second adjustment 69 extends transversely to the first adjustment element 75, said second adjustment element being loaded with the spring element 71 and forming a handle 89. If the adjustment element 69 is pulled out on the handle 89 against the spring action from the connecting piece 1 (Figure 14) and brought to its adjustment position, the lateral adjustment of the sight 57 is possible. For this purpose in the front section of the adjustment element 69 an external threaded section 83 cooperates with counter-threaded sections 81 in the sight body 59 (compare Figures 12 and

13). In the case of the distortion of the adjustment element 69 and the threaded section 83 in the counter-threaded sections 81 the sight body 59 and with it the sight 57 are linearly adjusted to the left or the right. The torsion takes place by fixed, defined amounts so that a desired line of sight can be set with a front sight not shown.

Figure 13 illustrates the effect of a locking element 73 tensioned by a spring element 74. The spring element 74 is constructed here as a helical compression spring. The locking element 73 holds the sight 57 in its respective pivoting position. In the case of the swiveling of the sight 57 the locking element 73 pushes with the locking base 78 and spring load against the lower region of the sight body 59.

The friction action thus produced inhibits the pivoting mobility of the sight body 59 and with it of the sight 57. Flat surfaces on the sight body 59 define preferred pivoting positions, namely the unused position, in which the sight 57 fits folded on its holding fixture (Figures 8, 13, 17, 18), and the working position, in which the sight sticks out swiveled out or folded out from the holding fixture (Figures 6, 7, 9-12, 14, 16).

Depending on the design the spring 74 protrudes into a guide sleeve 72 of the locking element 73 and is positioned directly on the locking base locking base 78 (Figure 13), or is positioned on the end of the guide sleeve 72 (Figure 17b). In both designs the other end of the spring 74 supports itself in the holding fixture 76.

Figure 14 shows the swiveled out sight 57 during the adjustment operation. For lateral adjustment the second adjustment element 69 serving as pivoting axis or adjustment axis is pulled out from the connecting piece 1 and rotated here circa by 45°. Behind the handle 89 of the adjustment element 69 a square formed locking head 91 is arranged, which in this exemplary embodiment can engage in a corresponding recess 93 after torsion by 90°.

If the adjustment element 69 is as depicted rotated by less than 90 degrees, the locking head 91 cannot engage in the recess 92 and lies on top. This guarantees an exact incremental lateral adjustment of the sight 57. A spontaneous adjustment is ensured by the cooperation of spring 77, locking head 91 and recess 93.

Figure 16 shows a perspective view of the sight in sight position with the connecting piece 1. The two retaining elements 3 and 5 are longitudinally displaced to each other for removal from the Picatinny rail.

Figures 17a through 18b show alternative embodiments for lateral adjustment. The sight 57 is shown swiveled in and lies in the recess 58 within the connecting piece 1 in the upper section of the second retaining element 5.

The spring-loaded locking element 73 presses with its locking base 78 against the lower end of the sight 57. In the case of swiveling of the sight 57 the locking base 78 rubs by means of the spring pressure on the sight 57, blocking with this the swivel movement and in this way exerts an engagement effect – if necessary in combination with suitable flat surfaces on the lower end of the sight 57, which define preferred pivoting positions.

In the design in accordance with Figures 17a and 17b the first adjustment element 69' is fixed via a retaining element 97 axially but rotatable. For this purpose it engages in an annular recess 99 in the first adjustment 69'. On one end of the first adjustment element 69' an adjustment knob 89 is constructed, which protrudes laterally from the connecting piece 1. Via the adjustment knob 89 the axially fixed first adjustment element 69' is rotated and the sight 57 is correspondingly laterally adjusted via the threaded coupling 81, 83. On the internal surface of the adjustment knob 89 a spring-loaded detent ball 101 engages,

upon which the spring 103 acts. On the internal surface of the adjustment knob 89 correspondingly provided recesses correspond to specified torsional positions of the knurling wheel 89 or of the adjustment element 69' and with it specified lateral positions of the sight 57.

Figures 18a and 18b show a different embodiment of the detent mechanism: here instead of the detent ball 101 a spring-loaded locking bar 101' is constructed, said locking bar being able to be unlocked via a handle 101a' against the spring force of the spring 103' (this position is shown in Figure 18b). In this position the adjustment knob 89' and with it the first adjustment element 69' can be adjusted. In the adjustment knob recesses 89a' are provided, into which in the case of release of the handle 101a' a locking section 101b' engages. The adjustment knob 89' is now locked and cannot be accidentally adjusted (this position is shown in Figure 18a). The recesses 89a' are constructed in correspondence to preferred intervals of rotation of the first adjustment element 69' and in this way permit a lateral adjustment in specified increments.

Figure 19 shows a lateral view of a weapon 105 with an inventive connecting piece 1 with a first inventive sight 57, which is arranged on the Picatinny rail 19 fastened on the housing 107. A second inventive sight 104 is fastened directly on the hand guard 109. Further the weapon 105 comprises a scope 111, a grip 113, a trigger 115 above which a safety lever 117 is arranged. On the rear end, on the side averted from the scope end a shoulder support 119 is located on the shaft 120. A hand guard 109 is parallel to the barrel; an additional Picatinny rail 121 is arranged laterally.

The sights 57, 104 are swiveled out and the longitudinal axes of the connecting piece 1 and of the Picatinny rail 19 run parallel to the axis of the bore 106 of the weapon 105.

The second sight 104 represented in detail in Figures 20-23 comprises a front sight 129 and is pivotable around a pivoting element 125, which defines the pivoting axis. The pivoting element 125 can for example be constructed as a pin or bolt.

The front sight 129 is swiveled into the hand guard 109 (unused position) and positively terminates with the hand guard 109. The further course of the hand guard 109 is constructed on its upper side as a Picatinny rail 19. The sight 104 comprises a carrier region 127, which on its upper end bears the front sight 129 arranged within a ring 131.

The sight 104 protrudes swiveled in (unused position) on its upper end with the ring 131 slightly above the hand guard 109 (compare Figure 20). By means of this protrusion the sight 104 is operable and can for example be seized by a marksman and swiveled. Figure 21 shows the swiveled out sight 104 (working position), which is can be placed above the scope 111 (Figure 19). The rear end of the hand guard 109 exhibits four recesses 133 extending in longitudinal direction of the hand guard 109. These go in engagement with the housing 107, wherein the hand guard 109 is firmly connected to the housing by means of two fastening elements 135, 137 and is aligned to the weapon. The fastening elements 135, 137 can be screws, bolts, rivets or other fastening elements. Further the recess 139 is depicted with a counter-profile for the holding fixture of the sight 104.

Figure 22 shows the swivel mechanism of the sight 104. On the front end of the hand guard 109 a safety element 141 extends in longitudinal direction, said safety element being pre-tensioned by a spring element 143, constructed for example as a helical spring. The safety element 141 is constructed as a bolt and has a wedge-shaped, front end 142. Said end engages in a recess 145 on the lower end of the sight 104,

in order to prevent the sight 104 from being unintentionally swiveled in or out. In the case of swiveling out a contact surface 147 of the recess 145 acts on the corresponding wedge surface 151 of the wedge-shaped end 142 and displaces the bolt 141 in the direction of the spring element 143. In the process the contact surface 149 of the recess 145 goes out of engagement with wedge surface 153 of the wedge-shaped end 142. The safety element 141 is pushed back against the spring 143 so far, until it glides on the gliding surface 155.

Adjacent to the gliding surface 155 is a second recess 157 which exhibits a wedge-shaped counter-profile. While the second sight 104 approaches its vertical working position, the safety element 141 glides on the gliding surface 155 with its wedge-shaped end 142 into the second recess 157.

In the working position of the sight 104 the safety element 141 goes into a positive and with it non-positive engagement with the counter-profile of the recess 157 and fixes the sight 104 in the working position against unintentional swiveling in.

Figure 23 shows the lateral locking of the sight 104. The swivel bolt 125 comprises on its left end an annular head 159. On the shaft of the swivel bolt 125 a wedge-shaped, rotating snap ring groove 163 is constructed. In the carrier region 127 of the sight 104 a safety element 165 extends in longitudinal direction, said safety element being pre-tensioned by a spring element 167. The spring element 167 is constructed here as a helical compression spring.

The safety element 165 and the spring element 167 run in a hollow guiding space. The safety element 165 has a wedge-shaped end region 169 which engages in the snap ring groove 163 in the swivel bolt 125 and thus pulls the bolt 125 with the head 159 against a stop 171 and simultaneously causes a

lateral locking of the sight 104. This is caused as a result of the fact that wedge tip 169 is laterally offset to the notch root of the rotating snap ring groove 163 (In Figure 23 to the right). With this a wedge flank (in Figure 23 the right one) engages on the corresponding counter-flank of the snap ring groove 163 and pulls the swivel bolt 125 on the shaft with its head against the stop 171. Simultaneously also the sight 104 with the (in Figure 23 left) side of the carrier region 127 is pressed on the other side of the stop 171. As a result in the working position the sight 104 always occupies a defined (here with regard to the hand guard 109) lateral position to the axis of the bore 106 of a weapon.

Along with the exemplary embodiments described above further embodiments of this invention are possible:

The connecting piece 1 can as represented above be designed in combination with a sight 57. However it can also serve the purpose of holding other attachments not shown. The connecting piece 1 can also be provided for connection to other objects and facilities (not shown) as weapons. This is in particular the case whenever it is desirable to place the connecting piece on a profiled rail from the side without it being necessary to slip this connecting piece on from the ends.

The represented sight 57 can either be arranged on the represented connecting piece 1 or also above another suitable connecting piece on a weapon. The sight 57 can in the process be designed as a rear sight element or a front sight element.

The same applies for the sight 104, which along with the represented arrangement on a hand guard 109 can likewise be arranged above a connecting piece 1 or also directly on a weapons component (for example weapon scope, weapons housing).

Further embodiments and variations of the present invention arise for the person skilled in the art with in the scope of the following claims.

### Claims

1. A connecting piece (1) for fixing on a weapon profiled rail (19), comprising retaining elements (3, 5) that can be moved between a working and a release position, said elements engaging with corresponding receiving regions (21, 23) of the profiled rail (19) on corresponding counterfaces (22, 24) of the profiled rail (19) in longitudinal direction releasing the connecting piece (1) in the release position, wherein the retaining elements (3, 5) are coupled by means of a guide slot (41) running diagonally to the longitudinal direction of the profiled rail (19) which is designed in such a way that when the retaining elements (3; 5) are displaced in the longitudinal direction of the profiled rail (19), said elements also move obliquely, following the course of the slot.
2. The connecting piece (1) according to Claim 1, in which the retaining elements (3, 5) are held in the working position by means of a spring element (13).
3. The connecting piece (1) according to Claim 1 or 2, in which a first retaining element (3) exhibits a recess (7) into which a corresponding projection (9) on a second retaining element (5) engages in the manner of a tongue and groove guide.
4. The connecting piece (1) according to any one of Claims 1 through 3, in which the guide slot (41) comprises a groove (41) determining the course of the guide and at least one guide element (43) engaging with the guide slot (41).
5. The connecting piece (1) according to Claim 4, in which the guide element (43) is constructed as cam (43) and is assigned to the first retaining element and is coupled by means of the groove (41) with the second retaining element (5)..

6. The connecting piece (1) according to any one of Claims 1 through 5, in which the retaining elements (3, 5) are constructed in such a way that the position of the connecting piece (1) in the case of a force acting on the connecting piece (1) in the direction of the longitudinal axis of the profiled rail (19) is kept in the working position
7. The connecting piece (1) according to any one of Claims 1 through 6 which can be brought into its release position with a handle (11) arranged on one of the holding elements (3, 5).
8. The connecting piece (1) according to any one of Claims 1 through 7, in which the retaining elements (3, 5) encompass the counterfaces (22, 24) of the profiled rail (19) in the manner of a shoe
9. The connecting piece (1) according to any one of Claims 1 through 7, in which the retaining elements (3, 5) in the working position engage in the manner of a wedge in counterfaces (22, 24) of the profiled rail (19).
10. The connecting piece (1) according to any one of Claims 1 through 9 with a formation (15) which can be brought into engagement with a counter-formation (37) arranged on the profiled rail (19).
11. The connecting piece (1) according to any one of Claims 1 through 10 which is constructed for connection on a Picatinny rail (19).
12. The connecting piece (1) according to Claim 10, in which the formation (15) is a twist lock (15) which can be brought into engagement with a transverse slot (37) designed as a counter-formation in the Picatinny rail (19).
13. The connecting piece (1) according to any one of the preceding claims which comprises a sight (57; 104).

14. The connecting piece (1) according to Claim 13, in which the sight (57; 104) comprises an adjustment element (69; 75) which can be moved in opposition to a spring force from a sight position into an adjustment position, wherein the adjustment element (69; 75) is releasably fixed in the sight position in relation to the sight by means of a detent mechanism and can be moved into various sight positions in the adjustment position.
15. The connecting piece (1) according to Claim 13 or 14, in which the sight (57; 104) comprises a first and/or second adjustment element (69; 75).
16. The connecting piece (1) according to Claim 15, in which the first adjustment element (75) serves the purpose of height adjustment of the sight (57; 104).
17. The connecting piece (1) according to Claim 15, in which the second adjustment element (69) serves the purpose of lateral adjustment of the sight (57; 104).
18. The connecting piece (1) according to any one of Claims 15 through 17 in which the first and second adjustment elements (69; 75) each exhibit a threaded section (79; 83) which each cooperate with a corresponding counter -threaded section (80; 81) for adjustment of height and/or lateral adjustment.
19. The connecting piece (1) according to any one of Claims 15 through 18, in which the first and/or second adjustment elements (69; 75) each exhibit a handle (67; 89) with which the adjustment elements (69; 75) can be brought from their sight position into their adjustment position and exhibit a detent formation locks detachably in a positive fit in their sight position.
20. The connecting piece (1) according to Claim 19, in which a handle (67) of the adjustment (75) is constructed as a rear sight notch (67).

21. The connecting piece (1) according to any one of Claims 14 through 20, in which the height and/or lateral adjustment of the adjustment elements (69; 75) takes place at specified bevels, in particular by 60°, 90° and/ or 180°.
22. The connecting piece (1) according to any one of Claims 14 through 21, in which the sight (57; 104) is incrementally or progressively height and or laterally adjustable by means of the first and or second adjustment element (69; 75) by fixed, equal amounts.
23. The connecting piece (1) according to any one of Claims 13 through 22, in which the sight (57; 104) is constructed as a notch arrangement (67) or bead arrangement (129).
24. The connecting piece (1) according to any one of Claims 15 through 23, in which the adjustment element (69; 75) is spring-loaded and for lateral or height adjustment of the sight (57; 104) can be released from the locked position against the spring action.
25. The connecting piece (1) according to any one of Claims 13 through 24, in which the sight (57; 104) can be adjusted against a spring-loaded locking element (73) from an unused position to a working position.
26. The connecting piece (1) according to Claim 24, in which the sight (57; 104) can be pivoted around a pivoting axis (69) from an unused position to a working position, wherein the pivoting axis (69) corresponds to an adjustment axis (69) of the second adjustment element (75).
27. The connecting piece (1) according to Claim 25 or 26, in which the locking element (73) detachably locks the sight (57; 104) in the unused position and in the working position.
28. The connecting piece (1) according to any one of Claims 25 through 27 with a recess (58) which extensively holds the sight (57; 104) in the unused position.

29. The connecting piece (1) according to Claim 13, which comprises a second sight (104).
30. The connecting piece (1) according to Claim 29, in which the second sight (104) can be mounted directly on a hand guard (109) of a weapon (105).
31. The connecting piece (1) according to Claim 29 or 30, in which the second sight (104) can be pivoted about a pivoting element (125) from an unused position into a working position, wherein the second sight (104) exhibits a safety element (165) which fixes the sight (104) in the working position against a stop (171) transversely to the axis of the bore.
32. The connecting piece (1) according to Claim 31, in which the safety element (165) engages in the working position of the sight (104) spring-loaded on a formation on the pivoting element (125), in particular in a recess (163).
33. The connecting piece (1) according to Claim 32, in which the safety element (165) and pivoting element (125) each exhibit wedge-shaped active areas which in the working position spring-loaded, adjacent to one another in wedge-shape bring about precise fixing of the sight in the working position.
34. The connecting piece (1) according to any one of Claims 31 through 33, in which the safety element (165) fixes the pivoting element (125) with regard to the sight (104).
35. The connecting piece (1) according to any one of Claims 31 through 34, in which the sight (104) and pivoting element (125) in the working position each occupy a defined reference position to the axis of the bore (106).
36. The connecting piece (1) according to any one of Claims 31 through 35, in which the sight (104) can be pivoted against a spring-loaded locking element (165) around the pivoting axis (125) from the unused position into the working position.

37. The connecting piece (1) according to Claim 36, in which the locking element (165) detachably locks the sight (104) by means of a detent mechanism in the unused position and in the working position.

38. The connecting piece (1) according to any one of Claims 30 through 37 with a recess (139) in which the sight (104) is immersible in the unused position.

39. The connecting piece (1) according to any one of Claims 30 through 38, in which the second sight (104) is constructed as a notch arrangement (57) or as a bead arrangement (129).

40. A hand guard (109) for a weapon (105) with a connecting piece according to any one of the preceding claims.

41. A weapon (105) with a connecting piece (1) according to any one of Claims 1 through 39.