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(54) **BATON HOLSTER AND AN ARRANGEMENT
IN A BATON HOLSTER**

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(57) **ABSTRACT**

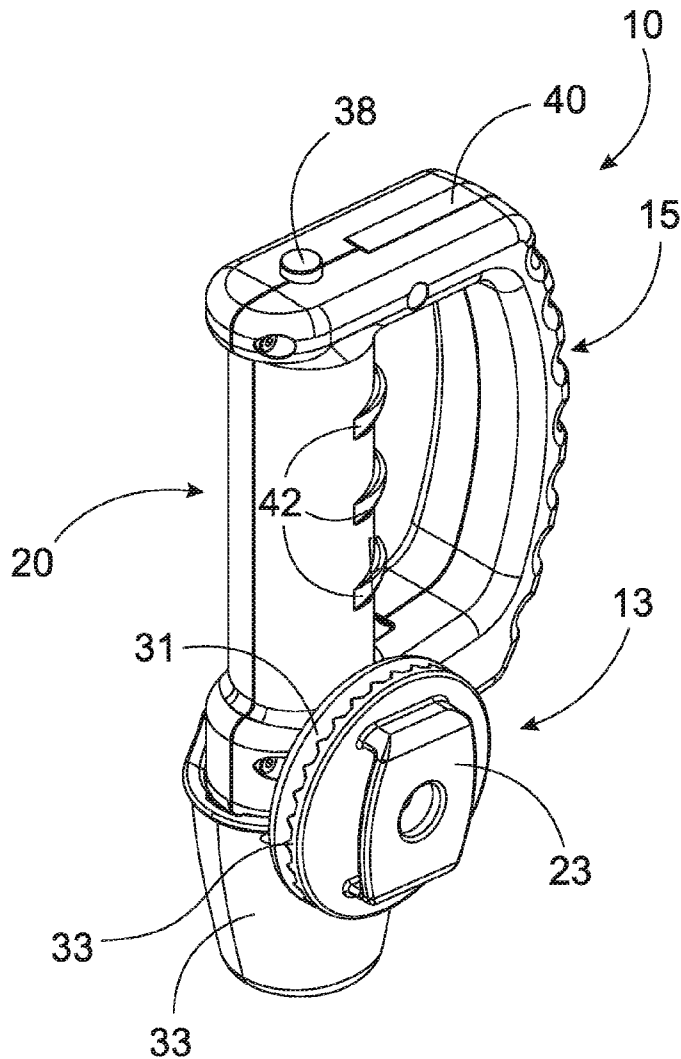
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A baton holster includes a cylindrical body part for keeping a baton, an attachment attached to the body part, and locking means for locking the baton into the body part. The baton holster further includes a frame arranged to be locked at least partly on top of the baton. In an arrangement in the baton holster a lower end of the baton includes locking stops and the body part of the baton holster includes a catch for locking the baton into the body part.

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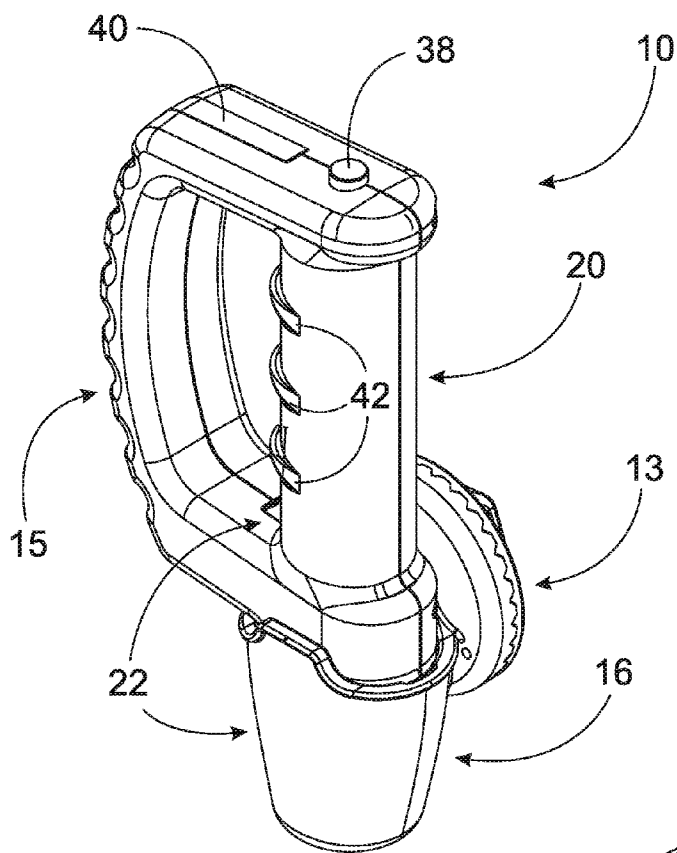


Fig. 1a

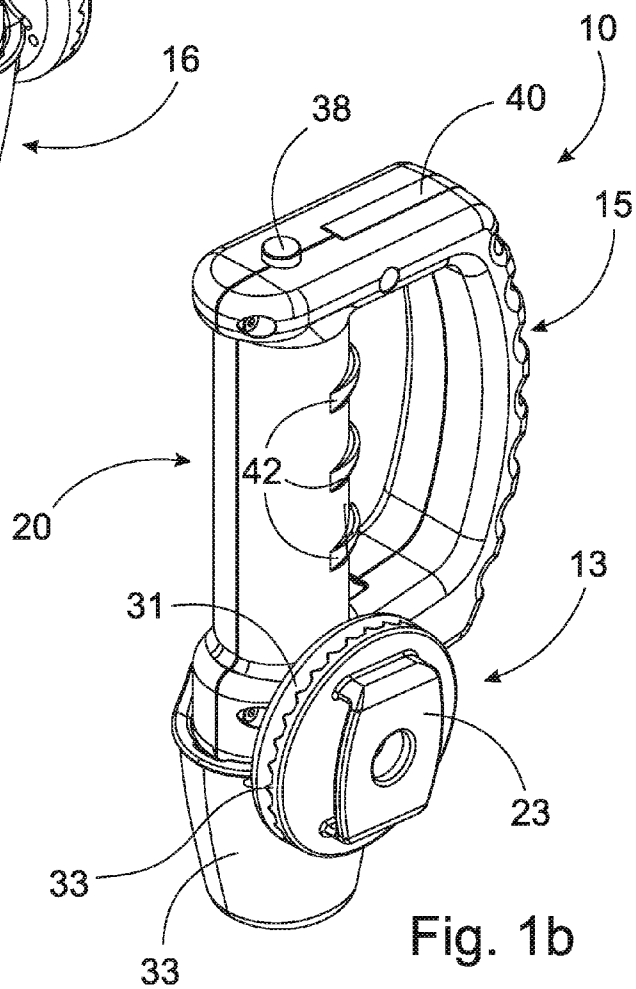


Fig. 1b

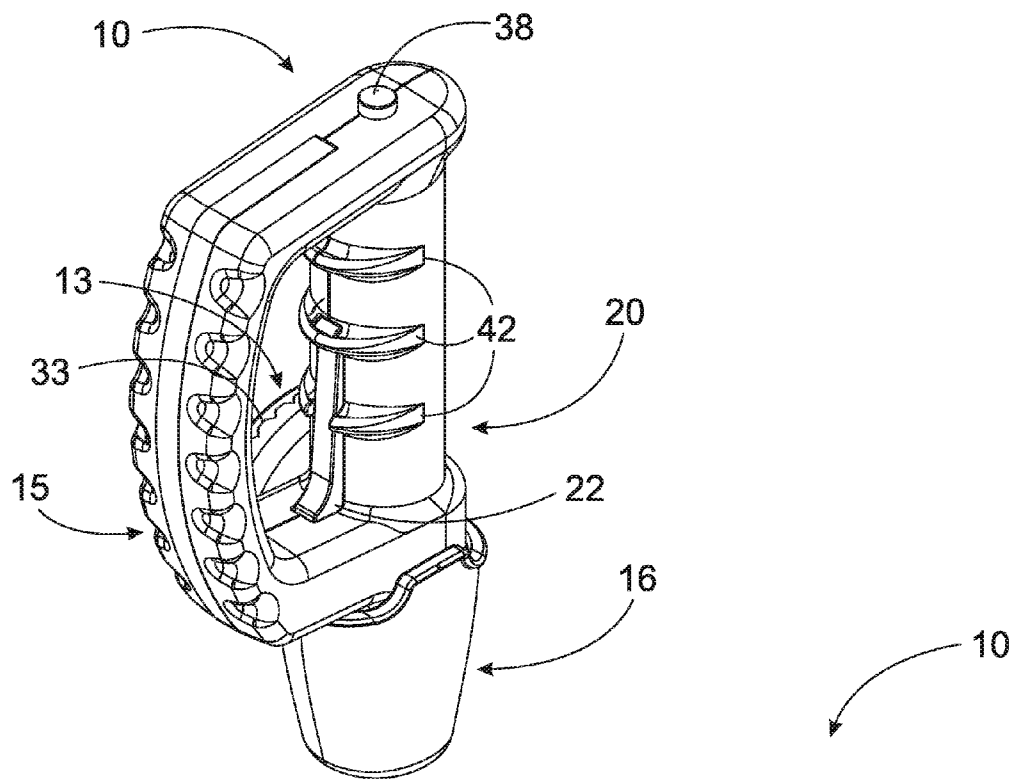


Fig. 1c

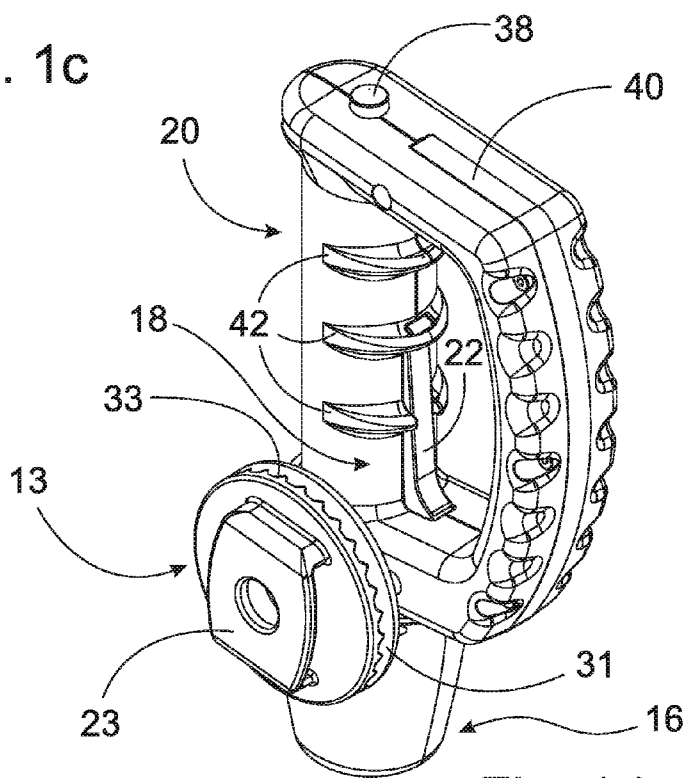


Fig. 1d

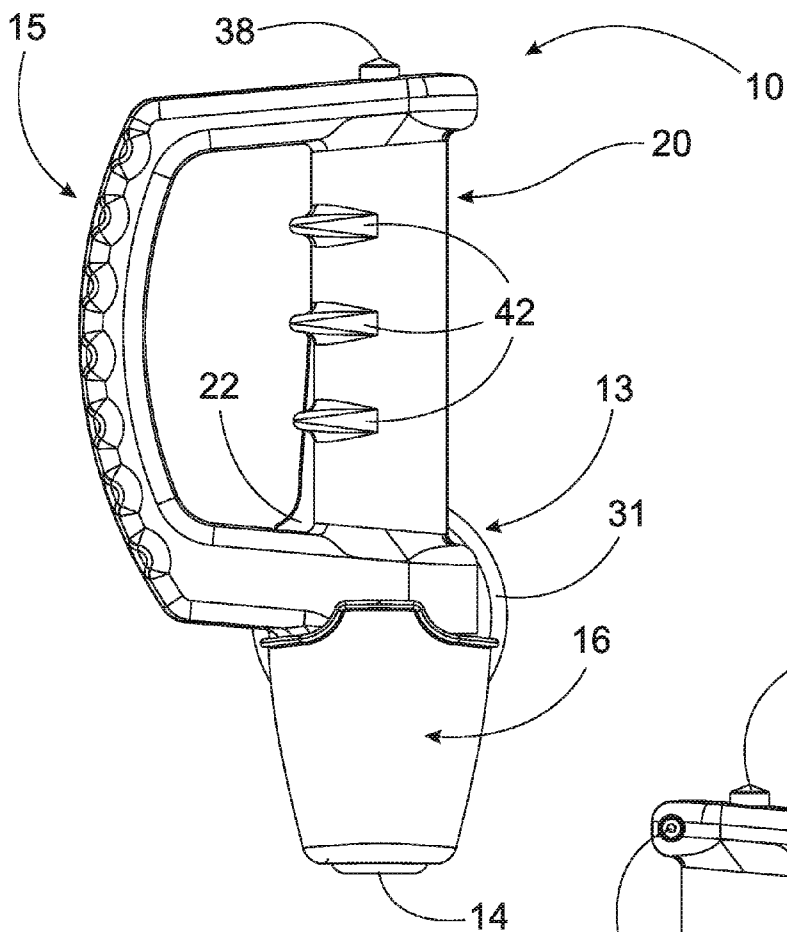


Fig. 2a

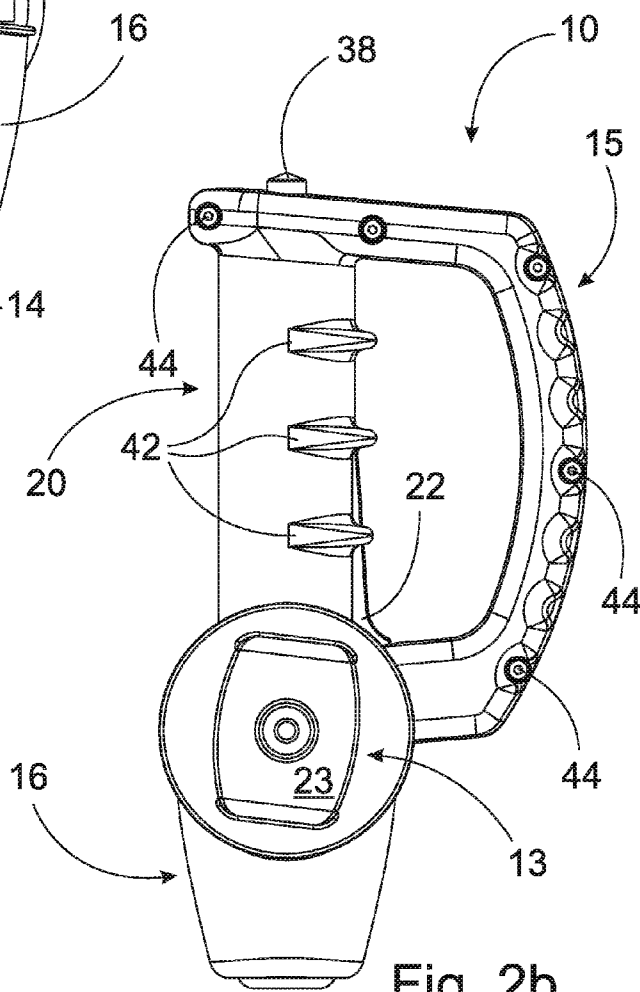


Fig. 2b

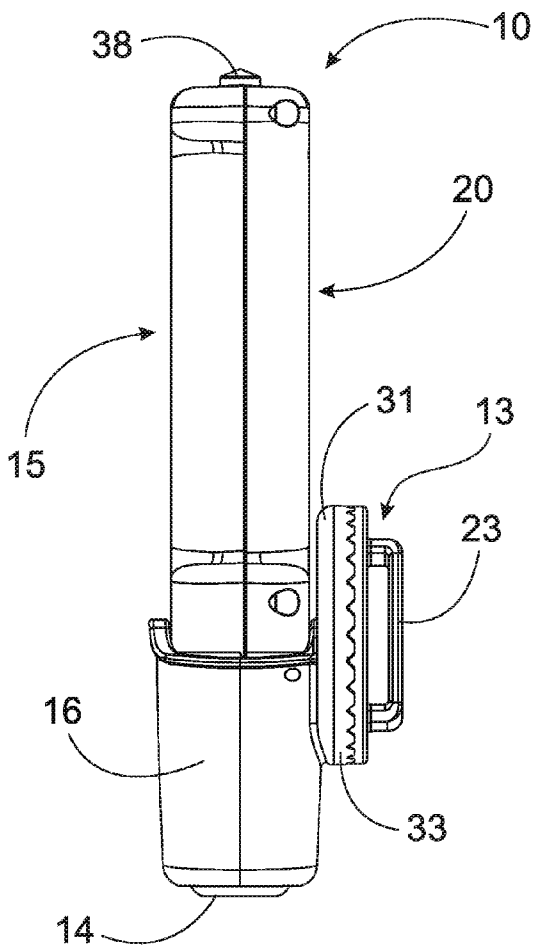


Fig. 2c

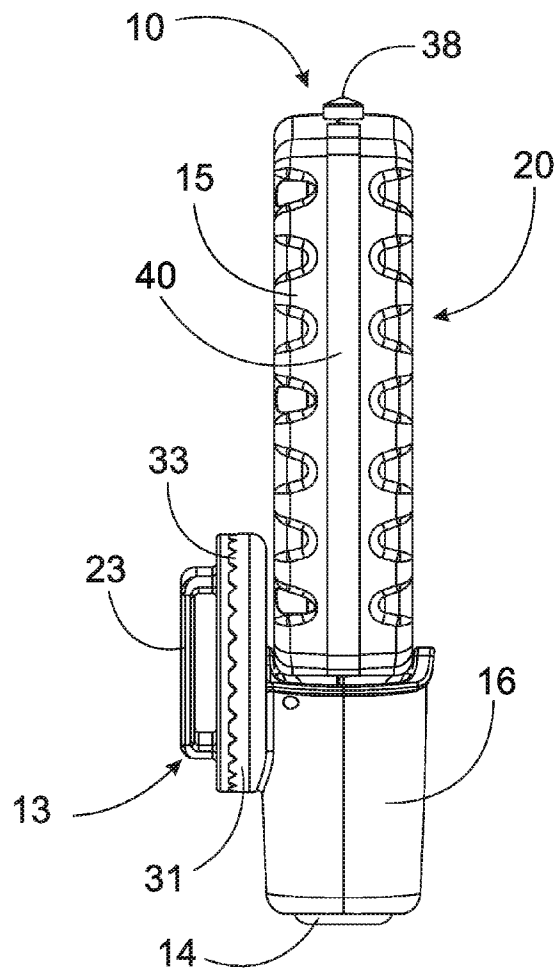


Fig. 2d

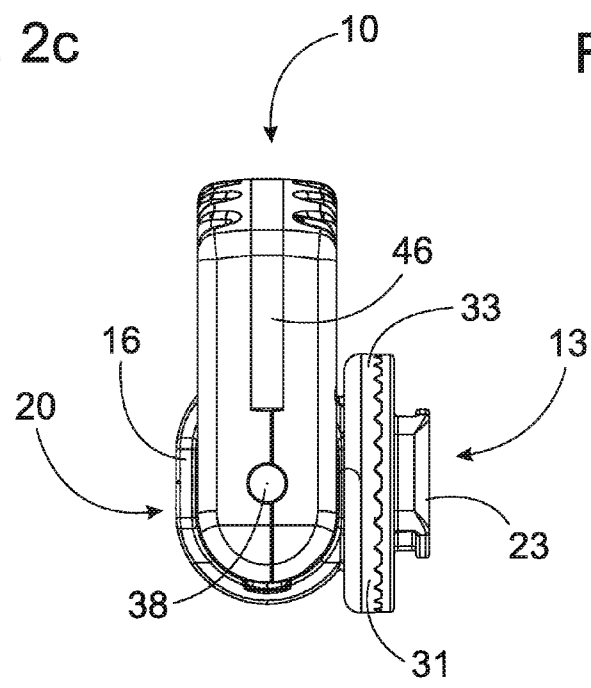


Fig. 2e

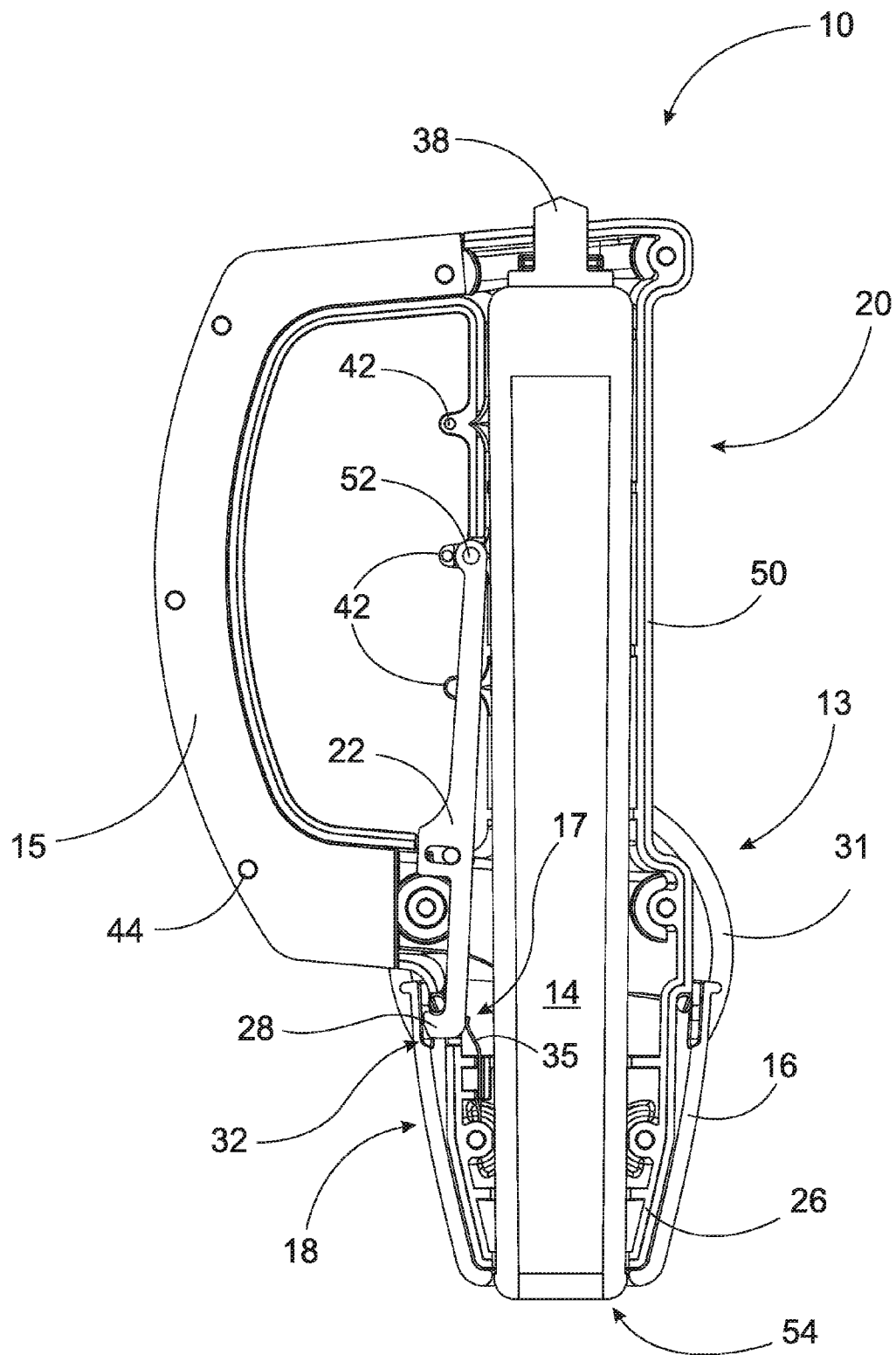


FIG. 3

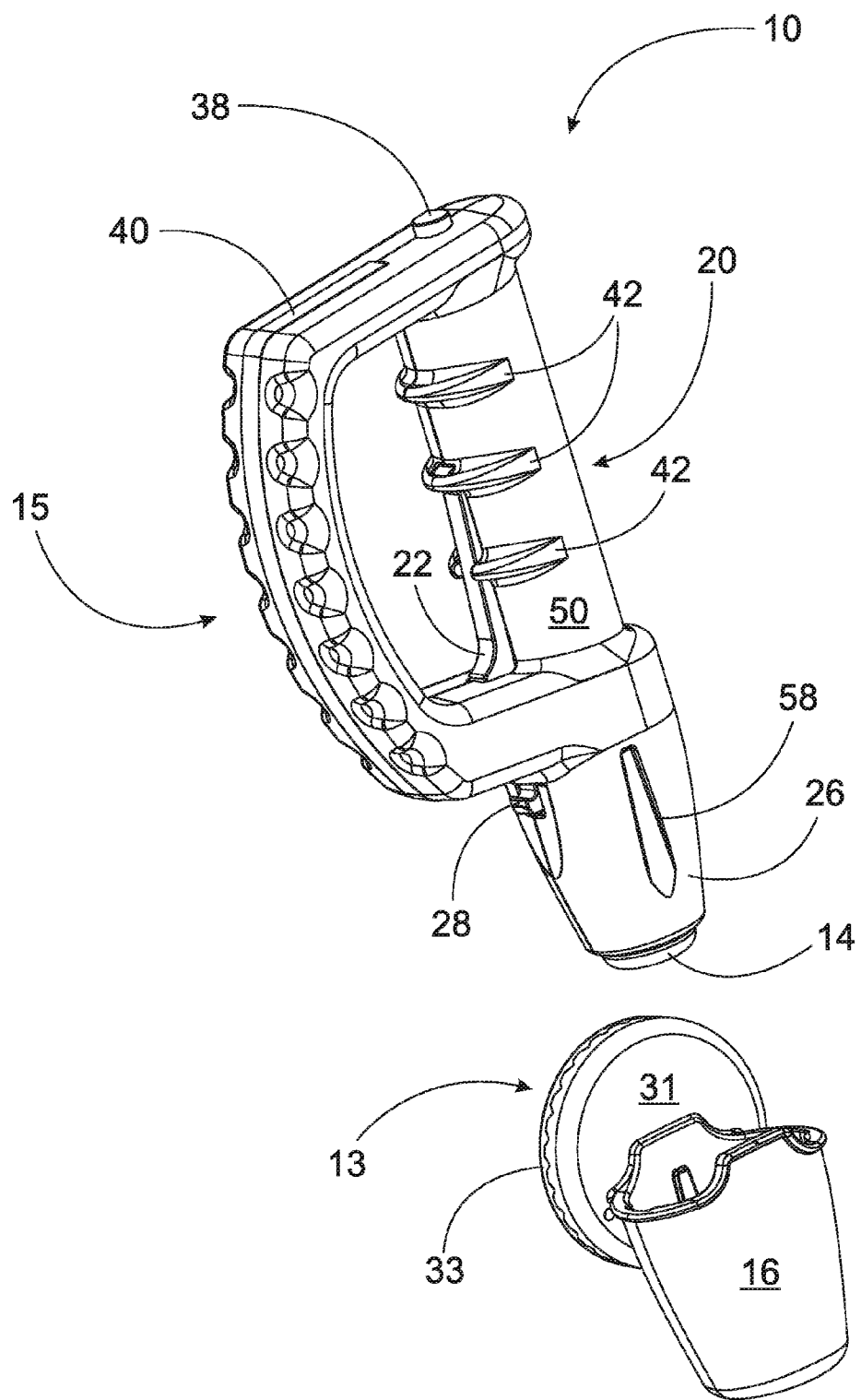


FIG. 4

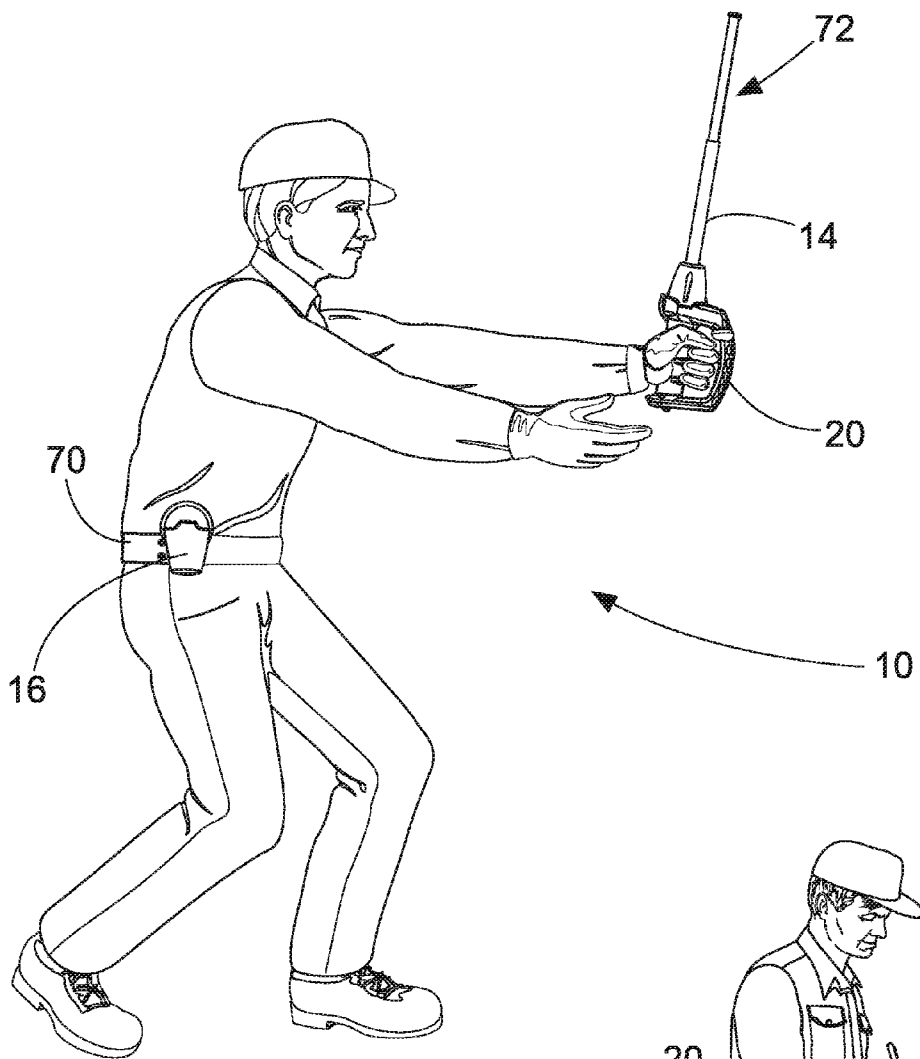


Fig. 5a

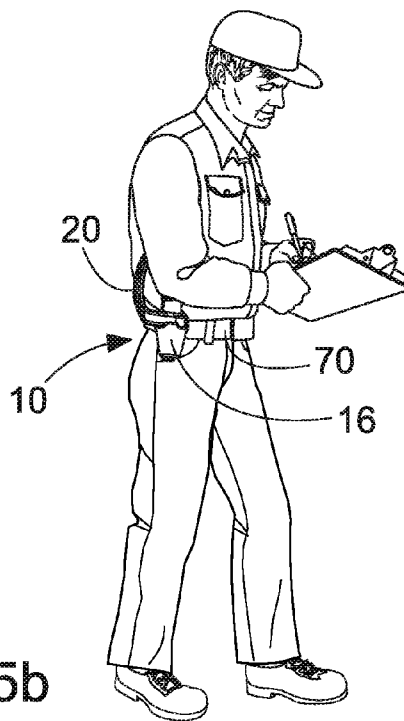


Fig. 5b

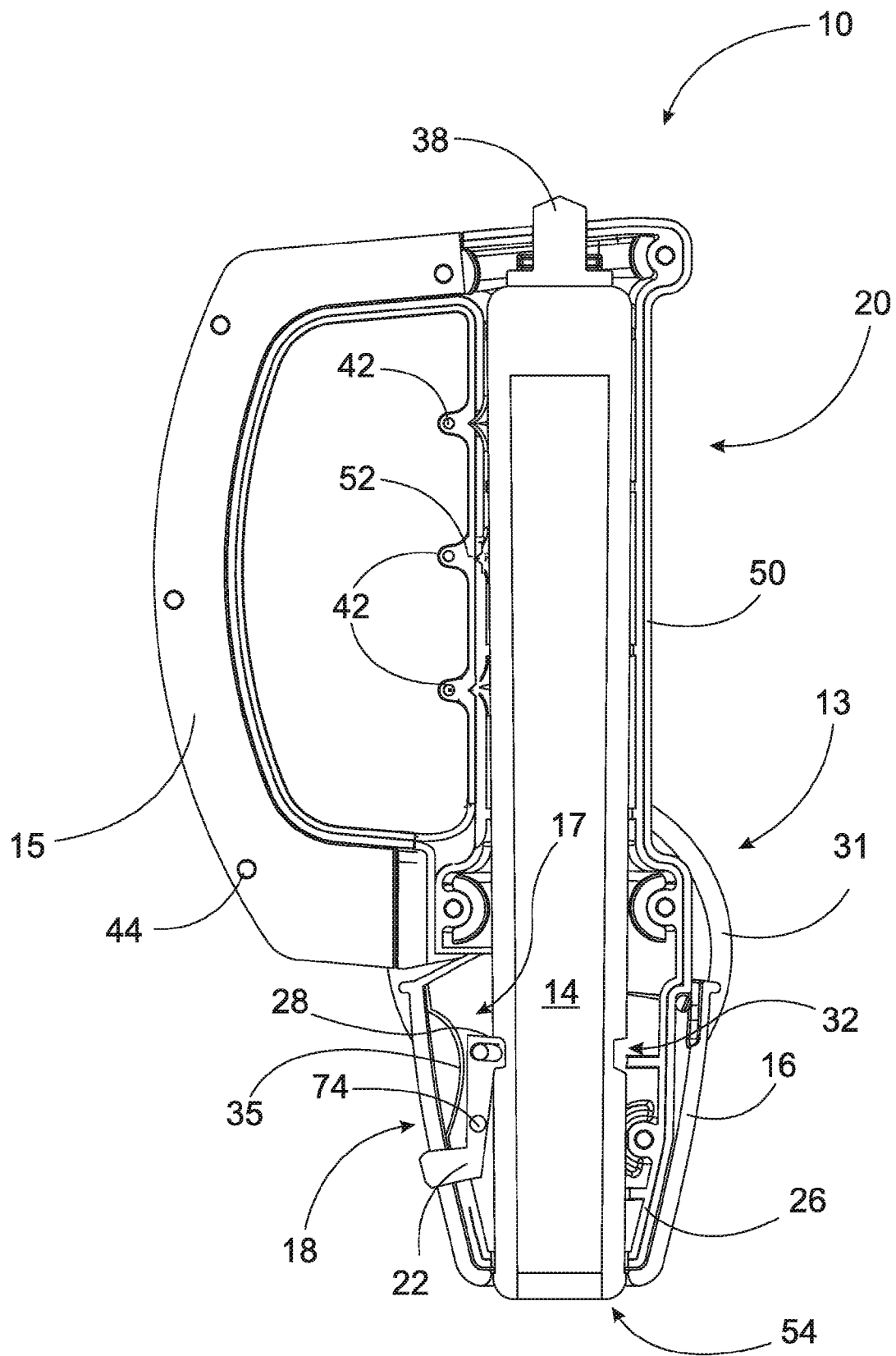


FIG. 6

**BATON HOLSTER AND AN ARRANGEMENT
IN A BATON HOLSTER**

[0001] The present invention relates to a baton holster, which baton holster includes a cylindrical body part for keeping a baton, an attachment attached to the body part, and locking means for locking the baton into the body part. The invention also relates to an arrangement in a baton holster.

[0002] In situations requiring the use of force, police have various means for pacifying a menacing person. One such means is a baton, also referred to as a truncheon. Using it, a policeman can pacify a menacing person in a situation, in which the use of a pistol, for example, is not justified. A baton can be an ordinary solid baton or a telescopic baton. A baton is generally carried in a holster attached to the belt of the user.

[0003] Various types of baton holster attached to the belt of the user are known from the prior art, in which the baton rests by the force of gravity. A problem with such a holster is that the baton can easily be wrenched out in certain situations.

[0004] Application publication US 2007/0090138 A1, which discloses a baton holster to be attached to the belt of the user, is known from the prior art. In this case, the baton is locked as such into the baton holster, using the stiffness of a spring for locking. In some situations it is also easy to wrench a baton out of such a holster. In addition, when using the baton as such, the user's fingers are exposed to injury, as the baton does not protect the user's fingers and hand in any way.

[0005] The invention is intended to create a baton holster with locking that is more secure than that of the solutions of the prior art, and which also provides protection for the user's hand in situations in which the baton is being used. The characteristic features of the baton holster according to the present invention are stated in the accompanying Claim 1. The invention is also intended to create an arrangement with locking that is more secure than that of the solutions of the prior art, which will also provide protection for the user's hand in situations in which the baton is being used. The characteristic features of the arrangement according to the invention are stated in the accompanying claim 14.

[0006] This intention can be achieved with the aid of a baton holster, which includes a cylindrical body part for holding the baton, an attachment attached to the body part, and locking means for locking the baton to the body part. The baton holster further includes a frame, which is arranged to be locked at least partly on top of the baton. With the aid of the frame, the user can get a good grip on the baton.

[0007] The frame is preferably a handle frame, which is equipped with a curved shield for protecting the user's fingers. When using the baton attached inside the handle frame, the curved shield of the handle frame protects the user's hand and fingers from blows.

[0008] The attachment is preferably a belt attachment for attaching the baton holster to the user's belt. On the belt, the baton holster is easily carried and the belt forms a sturdy location for the attachment.

[0009] The baton is preferably arranged to be locked to the body part by means of the frame. Thus, the baton used in the baton holster can be any standard-model baton, without alterations.

[0010] The end of the handle frame next to the body part preferably includes essentially a cylinder part the width of the internal diameter of cylindrical body part, which is fitted inside the body part, in order to lock the handle frame to the body part.

[0011] The baton attached inside the handle frame can be locked to the body part of the baton holster with the aid of the handle frame.

[0012] The locking means preferably include instant-locking means fitted inside the handle frame, for locking the handle frame in a forcing manner into the frame part, and the internal surface of the frame part includes locking stops. With the aid of the instant locking means, the baton holster is easy and quick to use, but at the same time it is also secure.

[0013] According to one embodiment, the instant-locking means include a release trigger equipped with a locking tongue protruding from the cylinder part of the handle frame and a locking spring inside the handle frame, for pressing the locking tongue into the locking stop, in order to lock the handle frame into the body part. The locking tongue and the locking stop form a mechanical obstacle, which as a forced locking prevents the baton from being wrenched from the baton holster. The baton cannot be wrenched out of the baton holster without pressing the release trigger.

[0014] The locking means are preferably arranged to be locked with the aid of a locking spring and to be released with the aid of the movement of a release trigger. Such a construction is simple and reliable in operation. At the same time as the user grips the baton by the handle frame around it, they press the release trigger, when the instant-locking devices open. In this way, the use of the baton holster is extremely fast.

[0015] According to one embodiment, the belt attachment includes an attachment point, a belt-loop part for rotating the baton holster by 360° relative to the user's belt, as well as toothing to lock the attachment point and the belt-loop part relative to each other. If necessary, the belt-loop part can be changed according to different belt widths, so that the baton holster is suitable for use with all types of belts.

[0016] The handle frame is preferably hollow, to allow the baton to be placed at least partly inside the handle frame.

[0017] According to one embodiment, the handle frame includes means for locking the baton into the handle frame. The handle frame is locked securely around the baton.

[0018] The opposite end of the body part of the handle frame can include a glass-breaking spike for breaking glass. This is a very useful feature, which permits the user to break windows safely when required.

[0019] According to one embodiment, the baton holster is manufactured from a polymer mixture. A polymer mixture has sufficient strength and is also a light material for a baton holster.

[0020] The curved shield is preferably unified and includes a curved reinforcement piece. The unified curved shield together with the curved reinforcement piece ensures that the user's hand will be protected from even powerful blows.

[0021] According to one embodiment, the attachment is a thigh attachment for attaching the baton holster to the user's thigh panel. Attached to a thigh panel, the baton holster will be carried conveniently and the belt will then remain free for attaching other objects.

[0022] The intention of the arrangement according to the invention can be achieved by means of the arrangement in a baton holster according to the invention, in which the lower end of the baton includes locking counter-pieces and the body part of the baton holster includes catch means for locking the baton to the body part. The baton can then be locked by its own locking counter-pieces directly to the body part of the baton holster.

[0023] In the following, the invention is described in detail with reference to the accompanying drawings depicting some embodiments of the invention, in which

[0024] FIG. 1a shows a slanting front axonometric view of the baton holster according to the invention,

[0025] FIG. 1b shows a slanting front axonometric view of the baton holster according to the invention, seen from the belt-attachment side,

[0026] FIG. 1c shows a slanting rear axonometric view of the baton holster according to the invention,

[0027] FIG. 1d shows a slanting rear axonometric view of the baton holster according to the invention, seen from the belt-attachment side,

[0028] FIG. 2a shows the baton holster according to the invention, seen as a projection from the side,

[0029] FIG. 2b shows the baton holster according to the invention from the side of the belt attachment, seen as a projection from the side,

[0030] FIG. 2c shows the baton holster according to the invention, seen as a projection from the rear,

[0031] FIG. 2d shows the baton holster according to the invention, seen as a projection from the front,

[0032] FIG. 2e shows the baton holster according to the invention, seen as a projection from above,

[0033] FIG. 3 shows a cross-section of the baton holster according to the invention, seen from the side,

[0034] FIG. 4 shows a slanting rear axonometric view of the baton holster according to the invention, when the handle frame is separated from the body part,

[0035] FIG. 5a shows the baton holster according to the invention in the use position, when the baton is in the user's hand,

[0036] FIG. 5b shows the baton holster according to the invention in the use position, when the baton is locked onto the belt,

[0037] FIG. 6 shows a side view of a second embodiment of the invention, seen as a schematic cross-section.

[0038] FIGS. 1a-1d show the baton holster according to the invention axonometrically. The baton holder 10 includes a cylindrical body part 16 for retaining the baton 14 (shown in FIG. 3), an attachment 13 attached to the body part 16, and locking means 18 (shown in FIG. 3) for locking the baton 14 to the body part 16. Further, the baton holster 10 includes a frame 20 for protecting the fingers of the user of the baton, which frame is arranged to lock at least partly on top of the baton and by means of which frame 20 the baton is arranged to be locked into the body part 16. The frame 20 is preferably a handle frame and hereinafter the term handle frame 20 will be used for the frame. The handle frame is preferably equipped with a curved shield 15. In other words, the baton is attached at least partly to the inside of the handle frame 20 and, with the aid of the handle frame 20 the baton is locked to the cylinder of the body part of the baton holster 10. The end 21 of the handle frame 20 at the body part 16 side includes a cylinder part 26 with essentially the same outer diameter as the internal diameter of the cylindrical body part 16, which is arranged inside the body part 16 for locking the handle frame 20 to the body part 16. The handle frame is preferably open at the cylinder part end, as is also the body part 16, so that the baton can continue through the cylindrical body part. This also permits fixed batons to be used with the baton holster according to the invention.

[0039] According to FIG. 1b, the attachment 13 is preferably a belt attachment. Hereinafter, the attachment 13 will be

referred to 35 by the term the belt attachment 13. The belt attachment 13 can include an attachment point 31, which is attached to the body part 16. Further, the belt attachment 13 can include a belt-loop part 23 for rotating the baton holster 10 to the angle desired by the user relative to the user's belt, which can vary through 360°. In addition, the belt attachment 13 can include tothing 33 for locking the attachment point 31 and the belt-loop part 23 relative to each other. A screw or bolt 60, with the aid of which the attachment point 31 and the belt-loop part 23 are tightened relative to each other, can run through the belt attachment 13 at right-angles to the longitudinal axis of the baton. The tothing 33 prevents the aforementioned parts from rotating relative to each other, in which case the angle of the baton holster would change. On the other hand, by loosening the screw, the belt-loop part 23 can rotate through 360° relative to the attachment point 31.

[0040] According to FIG. 3, the locking means 18 include instant-locking means 17 fitted inside the handle frame 20, for locking the handle frame 20 in a forcing manner to the body part 16, and the internal surface 30 of the body part 16 includes locking stops 32. With the aid of the instant-locking means, the user can release the baton from the baton holster using the same hand movement, by which they grip the handle frame around the baton. At the same time as the user tightens their fingers around the handle frame, they press the release trigger 22 according to FIG. 1c, which releases the instant-locking means, thus permitting the baton to be pulled out of the baton holster 10. Correspondingly, when placing the baton 14 back into the baton holster 10, the user only pushes the cylinder part 26 of the handle frame 20 into the body part 16, when the handle frame 20 finally locks with the aid of the locking means 18.

[0041] The instant-locking means 17 preferably include a release trigger 22, equipped with a locking tongue 28 protruding from the cylinder part 26 of the handle frame 20, and a locking spring 35 inside the handle frame 20, for pressing the locking tongue 28 into the locking stop 32 of the body part 16, in order to lock the handle frame 20 into the body part 16. The locking spring can be, for example, a leaf spring or similar. The locking spring 35 pushes the locking tongue 28 continuous outwards from inside the handle frame 20, so that the instant-locking means 17 lock automatically, when the handle frame 20 is pushed inside the body part 16. The locking stops 32 can be, for example, cylindrical pins with a circular cross-section, which together with the shaping of the release trigger 22 create a movement pushing the release trigger 22 towards the handle frame 20, which permits the handle frame 20 to be locked into the body part 16, without the release trigger 22 being pressed by hand down to the bottom.

[0042] The locking stops 32 on both sides of the handle, i.e. in this case the cylindrical pins, permit the release trigger to be moved from one side to the other, which in turn permits both right and left-handed use. It is also possible to change the curved shield 15 from one side to the other. According to FIG. 3, the release trigger 22 is preferably pivoted at one end to the handle frame 20 with the aid of a transverse shaft 52. The release trigger 22 can include a loop 56, with the aid of which the movement of the release trigger 22 is guided with the aid of a loop pin 54.

[0043] According to FIG. 3, the interior of the handle frame 20 is hollow, allowing the baton 14 to be attached inside the handle frame 20. Thus, the hollow internal part of the handle frame 20 too is shaped in its principal features to correspond

to the shape of the outer surface of the baton. In the figures, only the handle part of the baton **14** is shown. According to the figure, both the body part **16** and the cylinder part **26** of the handle frame **20** are open at the bottom, so that the baton **14** can continue downwards from the baton holster **10**. Further, both the body part **16** and the cylinder part **26** of the handle frame **20** can have surfaces that are mainly parallel and slightly conical.

[0044] According to FIGS. **1a-2b**, the handle frame **20** can include finger grips **42**, with the aid of which the user can get a better grip on the handle frame and through it on the baton **14**. The finger grip can be a groove-like shaping, which improves the hand's grip on the handle part **50** of the handle frame **20** and thus make it easier to pull the baton out of the baton holster.

[0045] For securing the baton, the handle frame **20** preferably includes means **34** for locking the baton **14** to the handle frame **20**. According to one embodiment, the handle frame **20** can be manufactured in such a way that it is a hollow piece, made from two symmetrical halves, in which the symmetrical parts are pivoted to each other on the opposite side of the handle part **50** relative to the release trigger **22**. Thus, the handle frame can be opened for fitting, so that the baton can be easily placed inside the handle frame. After this, the attachment means **44** shown in FIG. **2b**, for example screws or bolts, are tightened and the baton **14** is locked inside the handle frame **20**. According to a second embodiment, the handle frame **20** can be a unified piece, in which case the baton is pushed into the handle frame **20** from the open end **62** of the cylinder part **26** of the handle frame **20** and is tightened shut with the aid of the screw attachment means.

[0046] According to one embodiment, the opposite end **36** of the handle frame **20** relative to the cylinder part **26** of the handle frame includes a glass-breaking spike **38**. The glass-breaking spike **38** can be, for example, a metal cone known from hammers intended for breaking glass, which causes the controlled disintegration of glass. The glass-breaking spike can be an additional accessory, or it can also be able to be retrofitted later to the handle frame.

[0047] The curved shield **15** belonging to the handle frame **20** is preferably unified and includes a curved reinforcement piece **40**. The unified curved shield effectively protects the user's fingers, so that the baton can also be used more effectively for defence. The curved reinforcement piece can be, for example, a reinforcement made from aluminium or acid-resistant steel, which distributes the blow more evenly over the entire curved shield and thus prevents the curved shield from breaking due to an impact. According to one embodiment, the curved shield can also be made from only a fibre-reinforced polymer. The curved shield can then be made without the metal curved reinforcement piece.

[0048] According to FIG. **4**, there is a single release trigger **22**, which extends under the user's fore and middle fingers when the user grips the handle frame. The release trigger **22** can also be moved to the other side of the handle part. There can be several release triggers, in which case the locking can be made even more certain. The cylinder part **26** of the handle frame **20** can include guide rails **58**, with the aid of which the handle frame is guided straight into the body part **16**. The internal surface of the body part **16** can include counter-guides **64** for the guide rails **58**. The guide rails can be, for example, ridges and the counter-guides can be ridge grooves.

[0049] FIG. **5a** shows the baton holster **10** according to the invention in a use situation, in which the baton **14** attached to

the handle frame **20** is in the user's hand. Here, the telescopic baton **14** has been extended to its use position. Unlike in the figure, the user will usually grip the handle frame **20** with the hand on the side on which the baton holster **10** is. FIG. **5b**, for its part, shows the baton holster **10** in a use situation, when the handle frame is attached to the body part **16** and the baton **14** is being kept on a belt **70**. Then the baton **14** is generally the telescopic part **72** retracted.

[0050] The baton holster according to the invention is suitable for use with already existing batons, as well as with conventional fixed batons and telescopic batons. It is particularly advantageous to use the baton holster according to the invention with telescopic batons conforming to standards. The baton holster is suitable for use both left and right-handedly.

[0051] The baton holster can be preferably manufactured from a polymer mixture, in which case the baton holster will be light and durable. The baton holster can also be manufactured from some other corresponding material, which is suitable for the purpose in question.

[0052] According to one of the widest embodiments, the invention can be considered as an arrangement, which includes the baton holster **10** according to the invention and in which the locking stops **32** are manufactured in the actual baton **14**, according to FIG. **6**. In this embodiment, the locking means **18** are formed in the body part **16**, in such a way that the body part **16** includes the release trigger **22**, which is pivoted to the body part **16** with the aid of a transverse shaft **74**. One end in relation to the release-trigger pivot includes a locking tongue **28** and the other end a part, which the user presses when they wish to release the baton **14** from the body part **16**. The release trigger **22** then rotates around the shaft **74**, when the locking tongue **28** rises out of the baton's **14** locking stop and compresses the locking spring **35**. In this embodiment, the handle frame **20** can be such that it leaves the lower end of the baton **14** free, in such a way that the release trigger **22** can make contact with the baton's locking stop **32**. The handle frame can also be a permanent part of the baton.

[0053] However, the embodiment according to FIG. **6** requires a specially manufactured baton. Thus, the embodiment according to FIGS. **1-5b** is considerably more versatile, as it can be used in standard batons, without alterations. In addition, it is easy to press the release trigger inside the handle frame at the same time as gripping the handle frame.

[0054] According to one embodiment, the attachment of the baton holster can also be an attachment for attaching the baton holster to a thigh panel, i.e. to a separate panel attached to the user's thigh. More space will then remain on the user's belt for other devices.

1-13. (canceled)

14. Baton holster comprising a cylindrical body part for keeping a baton, an attachment attached to the body part, and locking means for locking the baton into the body part, wherein the baton holster further comprises a frame forming a grip on the baton, which frame is arranged to be locked at least partly on top of the said baton and the baton is arranged to be locked to the body part by means of the frame.

15. Baton holster according to claim **14**, wherein the frame is a handle frame, which is equipped with a curved shield for protecting the fingers of a user of the baton.

16. Baton holster according to claim **14**, wherein the said attachment is a belt attachment for attaching the baton holster to a user's belt.

17. Baton holster according to claim 15, wherein the end of the handle frame next to the body part comprises a cylinder part, with a width that is essentially that of the internal diameter of the cylindrical body part, which is arranged inside the body part to lock the handle frame to the body part.

18. Baton holster according to claim 15, wherein the said locking means comprises instant-locking means arranged inside the handle frame, for locking the handle frame in a forcing manner to the said body part, and locking stops included in the internal surface of the body part.

19. Baton holster according to claim 17, wherein the instant-locking means comprises a release trigger equipped with a locking tongue protruding from the cylinder part of the handle frame, and a locking spring inside the handle frame for pressing the locking tongue to the locking stop of the body part, in order to lock the handle frame to the body part.

20. Baton holster according to claim 17, wherein the said locking means are arranged to be locked with the aid of a locking spring and to be released with the aid of the movement of a release trigger.

21. Baton holster according to claim 16, wherein the belt attachment comprises an attachment point, a belt-loop part for rotating the baton holster through 360° relative to the user's belt, as well as tothing for locking the attachment point and the belt-loop part relative to each other.

22. Baton holster according to claim 15, wherein the handle frame comprises means for locking the baton to the said handle frame.

23. Baton holster according to claim 15, wherein the opposite end in relation to the body part of the handle frame comprises a glass-breaking spike for breaking glass.

24. Baton holster according to claim 14, wherein the baton holster is manufactured from a polymer mixture.

25. Baton holster according to claim 15, wherein the said curved shield is unified and it comprises a curved reinforcement piece.

26. Arrangement in a baton holster according to claim 14, wherein the lower end of the baton comprises locking stops and the body part of the baton holster comprises catch means for locking the baton into the body part.

* * * * *