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WAISTBAND SYSTEM****Publication Classification**(71) Applicant: **UNI&FORMA d.o.o.**, Trzin (SI)(72) Inventor: **Armin WAGNER**, Vodice (SI)(73) Assignee: **UNI&FORMA d.o.o.**, Trzin (SI)(21) Appl. No.: **18/003,120**(22) PCT Filed: **Jun. 25, 2021**(86) PCT No.: **PCT/EP2021/067581**

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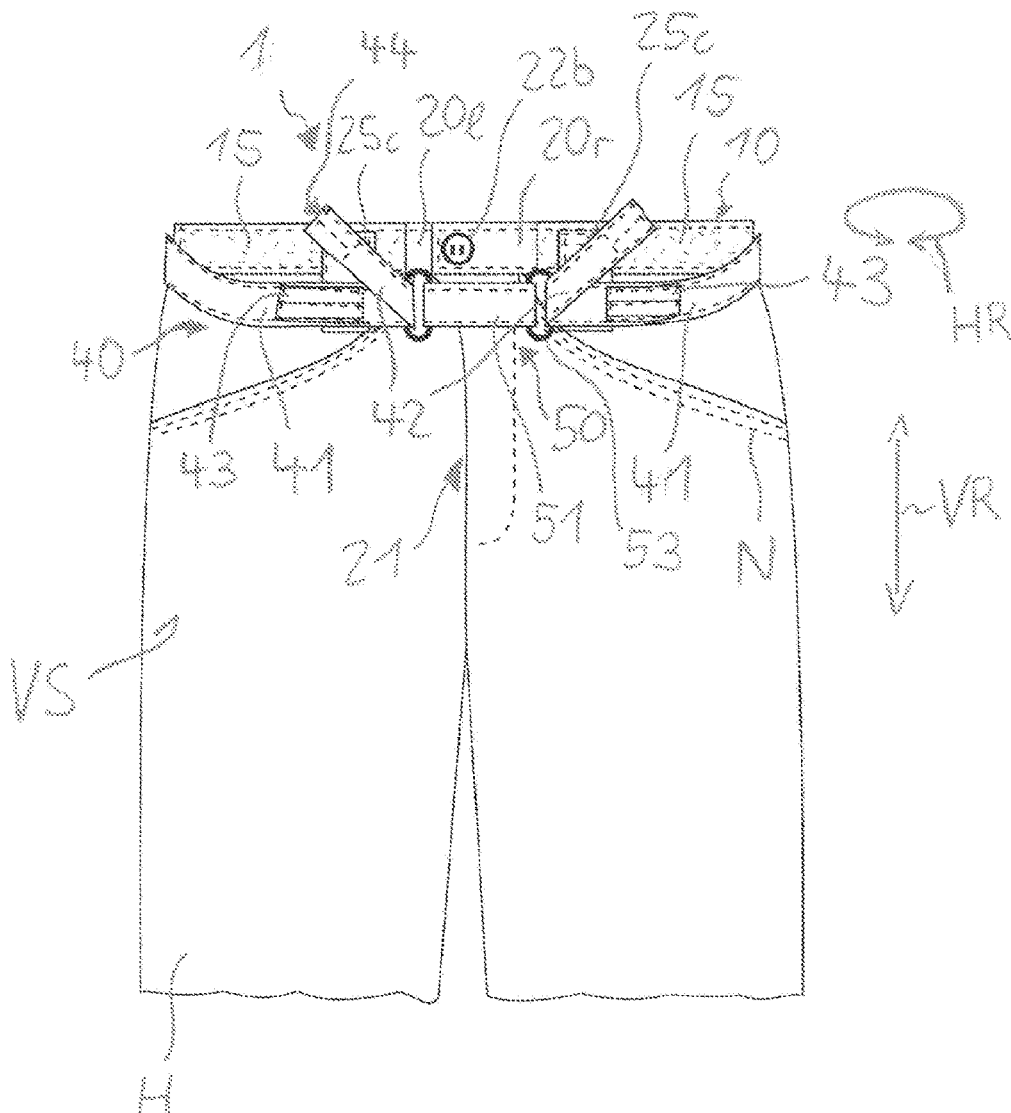
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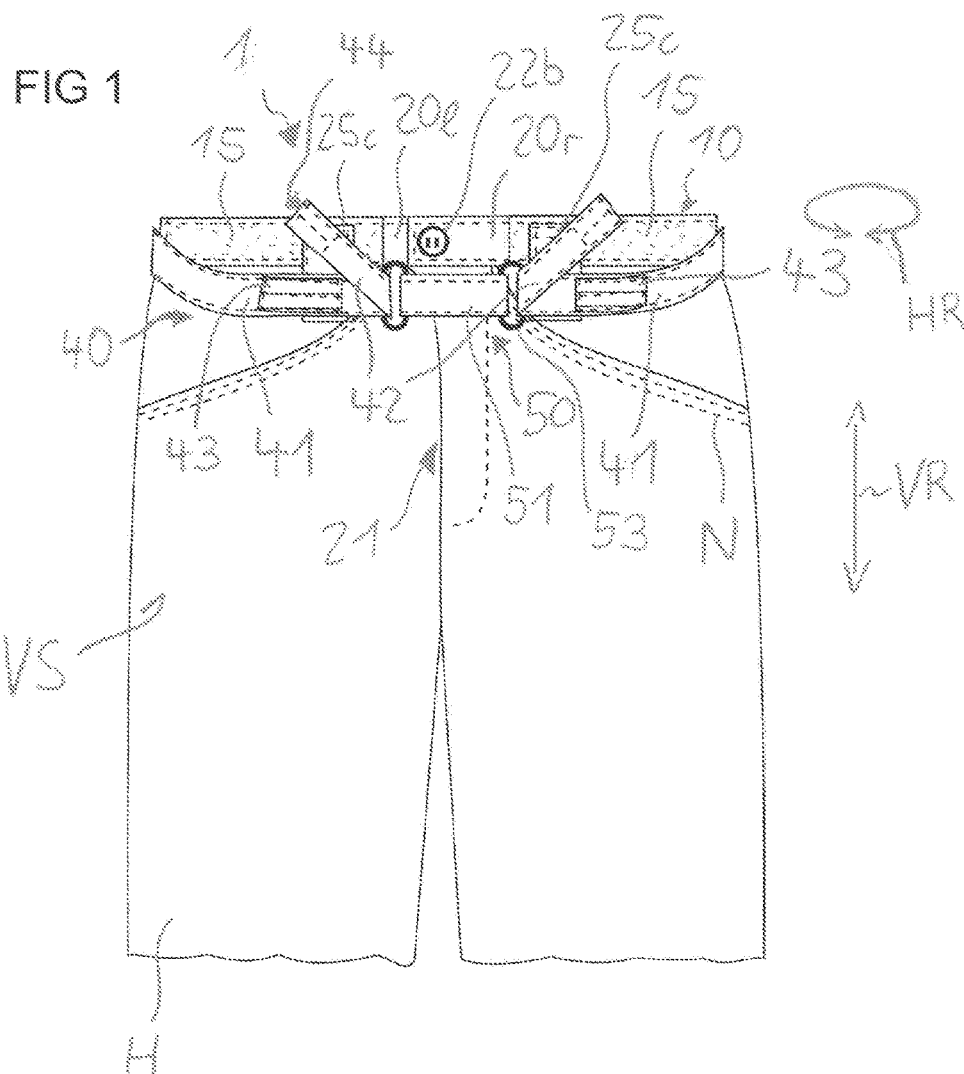
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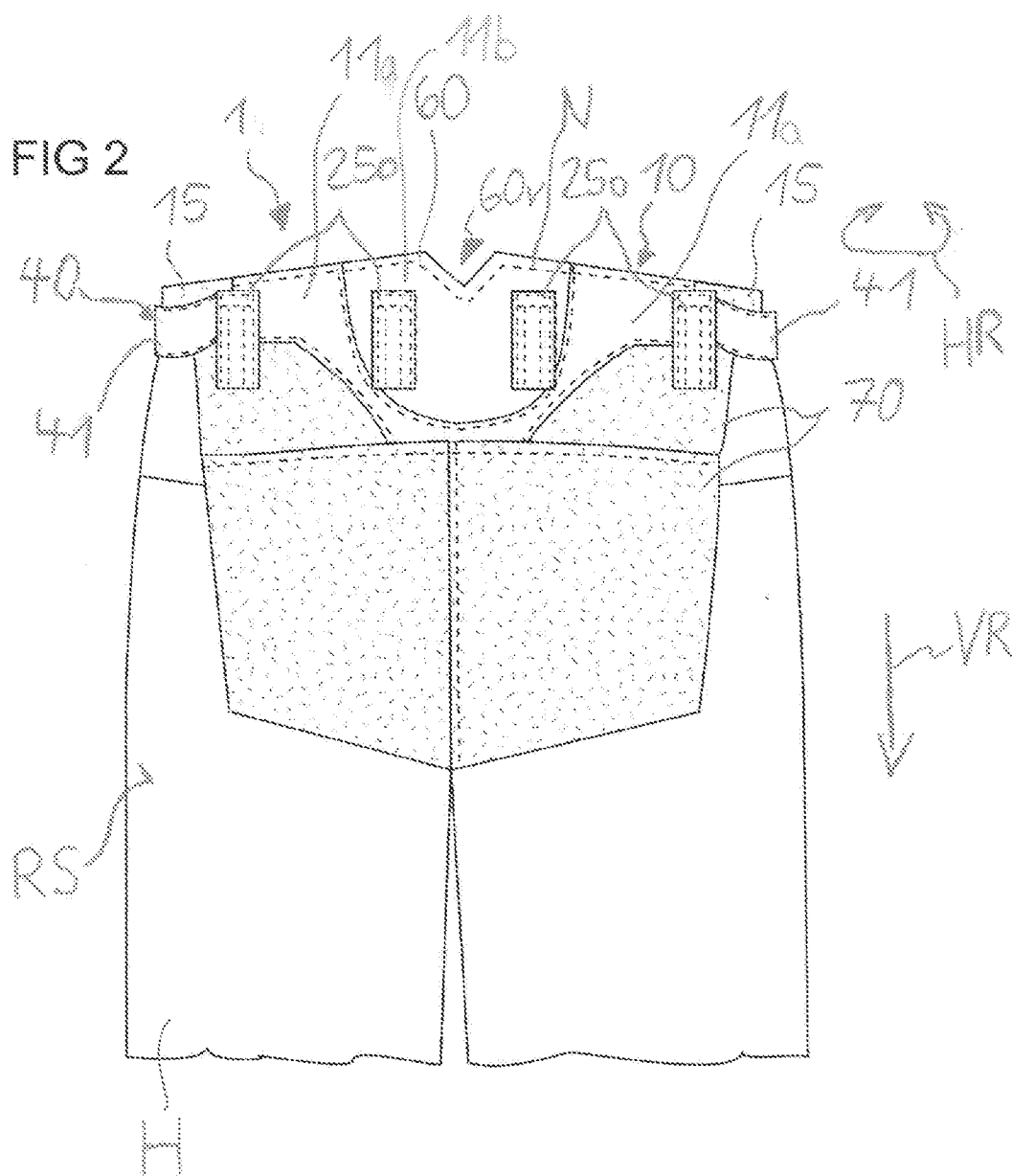
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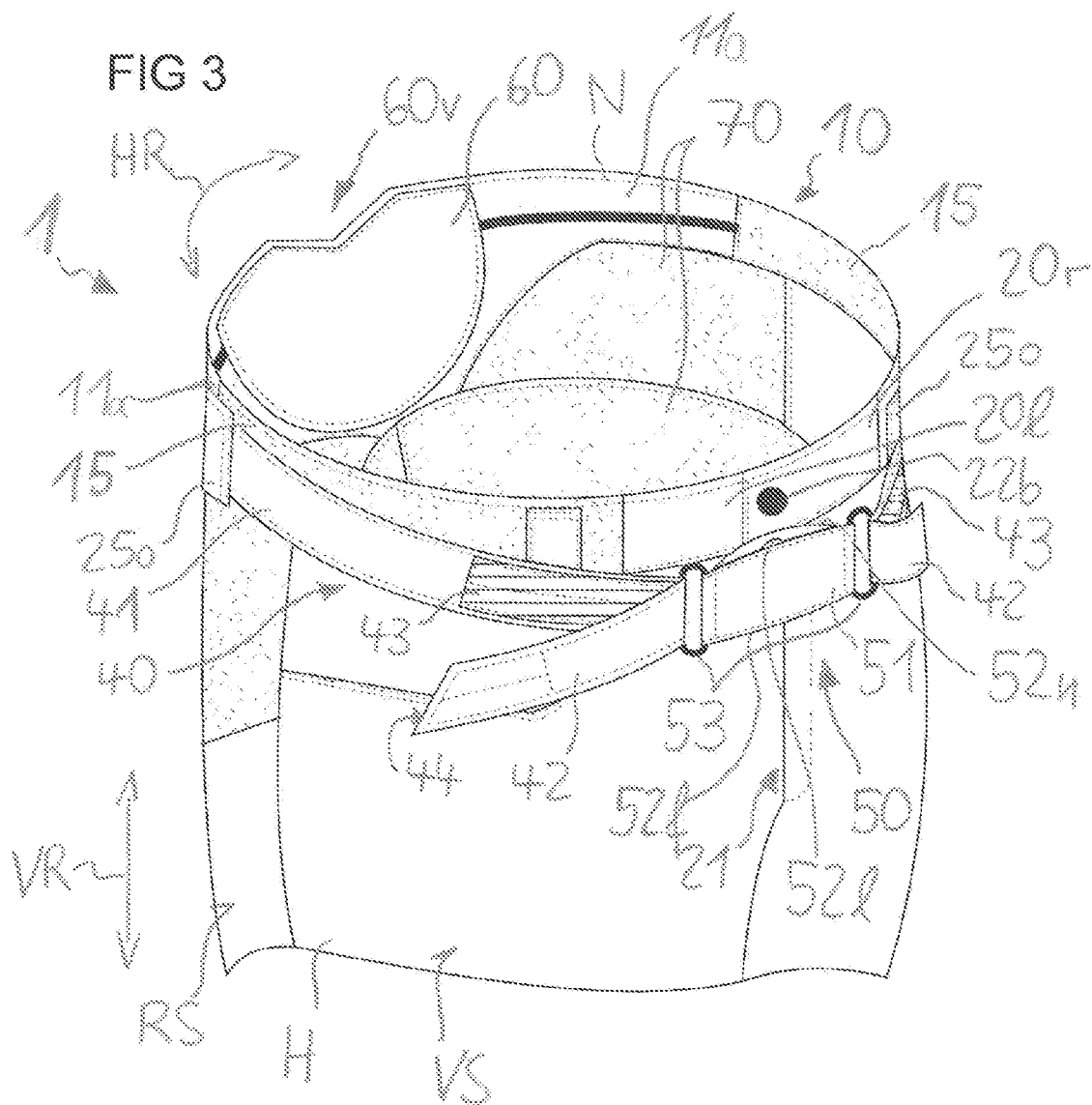
ABSTRACT

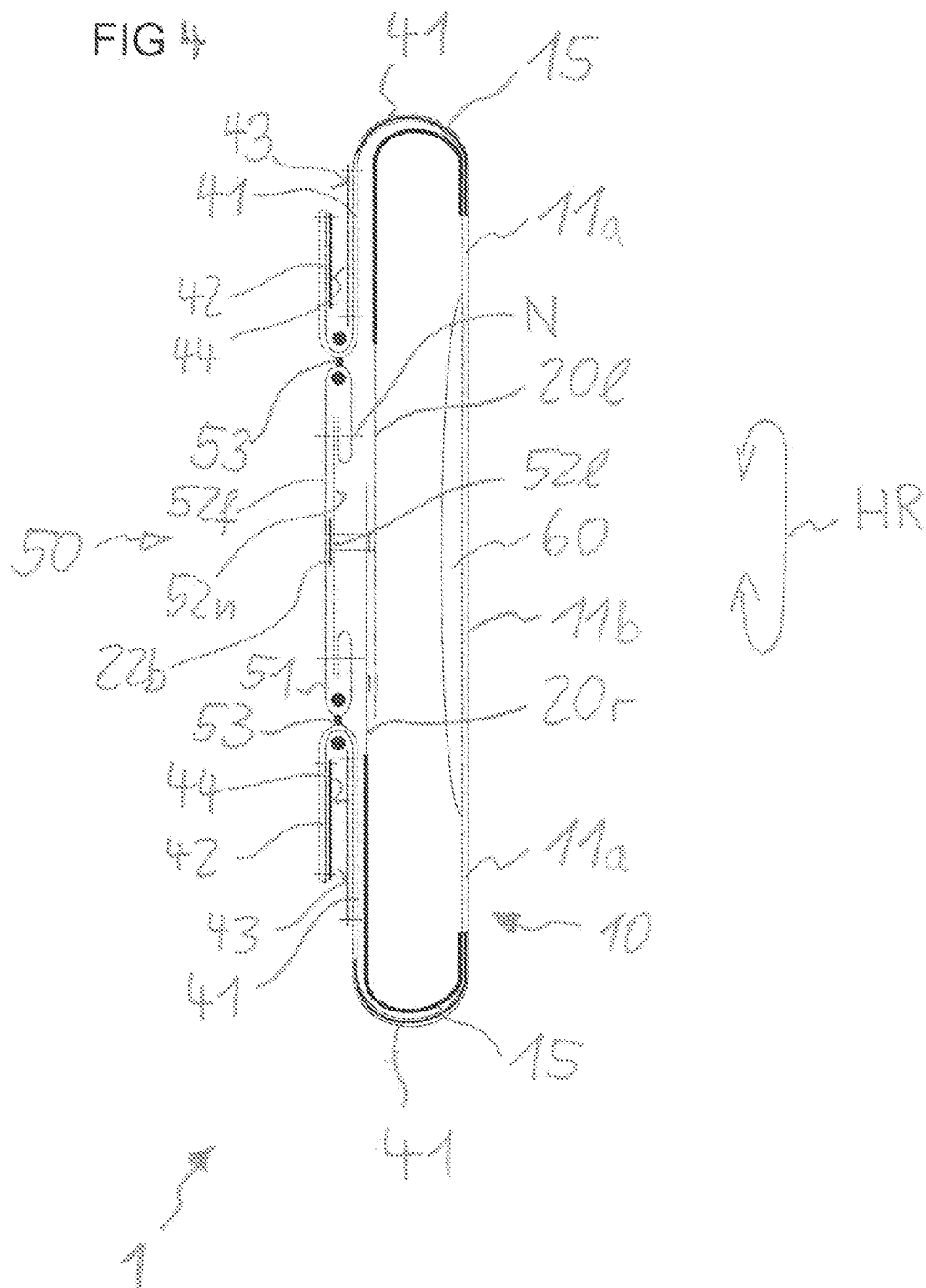
The invention relates to a pair of trousers (H) comprising a waistband system (1) having an encircling waistband (10) and a non-elastic closable belt (40), which, at least on a rear side (RS) of the pair of trousers (H), is integrated, in the form of a non-elastic waistband portion (11 a, 11 b), in the waistband (10), wherein the waistband (10) has at least one waistband portion (15), which is monoelastic at least in the longitudinal direction (HR) and can be bridged by, means of the belt (40), which runs parallel to it. The invention also relates to a method for producing such a pair of trousers (H) and to the use of the latter.











PAIR OF TROUSERS COMPRISING A WAISTBAND SYSTEM

[0001] The invention relates to a pair of trousers comprising a waistband system, a method of producing such a pair of trousers and a use of such a pair of trousers.

[0002] Hip-hugging garments such as pairs of trousers, shorts, jeans and the like are common pieces of lower body clothing in everyday life. They cover the lower body and, if necessary, the legs down to the feet with so-called trouser legs. Lower body garments typically include a waistband, e.g., in the case of a pair of trousers, a waistband which, when worn, rests on a wearer's hip or waist and from there downwards, the wearer's lower extremities are then fully or partially covered. The waistband is usually designed for a certain hip width (which in turn corresponds to a certain clothing size) and can be opened or closed at the front, e.g. by means of a press stud, for undressing or dressing at the so-called fly, the closing of the waistband, which rests more or less loosely on the hip, being intended to prevent it from slipping down, if possible. Additional support for the waistband is provided, for example, by a waist belt or belt that can be held and tightened by waistbelt loops along the waistband, e.g. if the waistband no longer corresponds exactly to the dimensions of the hips or if external circumstances cause wetness or perspiration which unfortunately results in the fact that the waistband permanently is prone to or tends to slip.

[0003] In normal use, the wearing of a slipping, not ideally fitting garment may still be justifiable by tightening the waistband by means of an additional waistbelt—even if it is not necessarily comfortable, since wrinkles and/or resulting pressure points on the wearer's hips often form in the waistband. However, in special, in particular tactical use, for example in the fire department, THW, police, military and the like, where such clothing is often also used to carry several deployment-related objects or payload, e.g. in trouser pockets or additional holsters, (i. e. additional weight), this is an obstacle possibly restricting or jeopardising the deployment. Providing new suitable clothing is not only expensive, but often also not a solution, since the waist size of the wearer naturally varies from time to time depending on the daily condition of the body as well as due to the mostly physical strain. Also, it is often logistically impossible to carry a change of clothing.

[0004] From practice, a pair of trousers having a waistband with elastic parts is known. It is true that in this way the pair of trousers rests against the hips of the wearer. However, this does not solve the problem that in use, the pair of trousers nevertheless slips down in the lumbar vertebra region during extreme movements in which the human body stretches and contracts, such as bending, squatting or deep knee bends, and thus usually restricts the wearer's freedom of movement. In particular in the case of anatomically cut clothing, this means that the fit and ergonomic qualities are no longer optimal.

[0005] From U.S. Pat. No. 1,959,486 A, for example, a pair of trousers having a split, multi-part waistband for adjusting the width of the pair of trousers is known. In this case, in the lateral hip regions of the pair of trousers, a front waistband part, which overlaps a rear waistband part on the outside in an additional layer of material, is pulled partially over the rear, inner waistband part by means of a construction comprising a fabric flap sewn to the outside of the rear waistband part and an endless loop sewn therein. In this

case, the inner rear waistband part, which is additionally connected to the front waistband part in the lateral hip regions of the pair of trousers via a short elastic portion on the inside of an overlapping portion of the front waistband part, is at least partially pleated or gathered together when the split waistband is tightened, so that this construction results in noticeable wrinkling in the lateral hip regions of the pair of trousers. This pleating of layers of material creates uncomfortable pressure points or pressure spots on the skin when the pair of trousers is worn. In addition, this wrinkling occurs in areas where, due to the construction, there is already a massive accumulation of several overlapping layers of material on top of each other. This multi-layer construction in the hip areas in itself is therefore not particularly comfortable to wear. This disadvantage is even more pronounced if, as usual, a waistbelt is worn over the waistband since the belt additionally presses these thickened areas in the waistband against the hips. Moreover, the adjustment means under the waistbelt for lateral width adjustment of the split waistband would then no longer be freely accessible, i. e. the wearer would first have to remove the waistbelt in order to adjust the pair of trousers to the respective situation.

[0006] It is therefore an object of the present invention to provide a pair of trousers which can be individually adjusted and/or adapted to a certain hip width and/or, in special deployments involving additional weight, provide a firm but at the same time comfortable hold on the hip of a wearer.

[0007] This object is achieved by a pair of trousers according to claim 1, a method for producing the pair of trousers according to claim 14 and the use thereof according to claim 15.

[0008] For this purpose, the pair of trousers according to the invention comprises a special waistband system according to the invention. As is usual for pants, the pair of trousers according to the invention, in addition to the waistband system, can also have two trouser legs which, for example, can be firmly sewn or be zipped off, as long or short as needed, and designed with or without a turn-up. Furthermore, the pair of trousers can have other usual functional parts, such as a plurality of trouser pockets and the like or accessories.

[0009] Said waistband system of the pair of trousers comprises a circumferential waistband. This waistband is basically comparable to a waistband of an ordinary pair of trousers. As is generally the case, the side of the pair of trousers will hereinafter be referred to as a front side of the pair of trousers which normally rests against the abdomen of the wearer of the pair of trousers. Accordingly, an opposite side of the pair of trousers, or more specifically the waistband thereof, which normally rests against the back of the wearer of the pants, will be referred to as a rear side.

[0010] At this point, it should be noted that relative directional indications such as “front” or “front-side”, “rear” or “rear-side”, “top”, “bottom”, “lateral” or “left and right along the hips”, “outside”, “inside”, “horizontal”, “vertical”, etc., refer to a pair of trousers as it would be present in the intended state or rest against the body of an upright person (or the wearer) when worn.

[0011] Thus, in the state worn as intended, said waistband extends from the rear side in the lumbar vertebra region of the wearer above and along the hips (laterally) to a front region on the front side of the pair of trousers. This horizontal direction along the waistband (or hip circumference)

is therefore also referred to as the “waistband extending direction” or longitudinal direction of the waistband (or hip circumference direction).

[0012] In this case, the waistband comprises a plurality of different portion along its extent. For example, a non-elastic waistband portion extends along the waistband at least on the rear side. According to the invention, the non-elastic waistband portion integrated into the waistband is part of a non-elastic belt, which can be closed, preferably at the front, particularly preferably laterally on the front side, which will be explained further below. This waistband portion of the belt integrated into the waistband can therefore also be referred to hereinafter as the “belt waistband portion” since it practically forms a common part of the waistband and the belt.

[0013] Furthermore, the waistband comprises at least one waistband portion which is monoelastic, optionally bielastic, at least in the extending direction of the waistband or at least in the longitudinal direction (of the circumferential waistband), by means of which the waistband automatically adapts without wrinkles to small changes in the respective hip circumference of the wearer. The position and length of this elastic waistband portion along the waistband are in principle freely selectable. However, preferred refinements in this regard will be explained further below.

[0014] It is true that the waistband system of the pair of trousers is substantially relaxed in a normal, upright body posture. That means, without the application of an external force, the waistband system is in a more or less relaxed state depending on a waistband width of the waistband relative to the hip circumference of the wearer. However, the waistband system can be brought into a stretched position by an external application of force, for example, by a movement of the wearer, such as “bending forward” or “squatting down”. Likewise, the waistband system can be brought into a stretched position by loading the trouser pockets or by an additionally attached load. In this case, at least the previously described monoelastic waistband portion of the waistband system is stretched, i. e. the waistband system undergoes a change in length in relation to its original length, thus, its length in the relaxed state. The length of the waistband system here refers to a dimension in the direction of stretching or perpendicular to the waistband extending direction. The term stretching here mainly comprises positive stretching, thus, elongation. Nevertheless, negative stretching, thus, compression due to yielding of the elastic material, on the opposite side of the waistband is not excluded here.

[0015] At this point it is noted that in the context of the invention, such fabrics are regarded as “elastic” which are also regarded as elastic in corresponding circles of experts (irrespective of their type of processing). These include in particular fabrics which contain a certain proportion of elastic fibers (elastane, Lycra and the like) in the direction of stretching.

[0016] Materials with so-called mechanical stretch properties could in principle also be used in this context if they have sufficient stretch properties.

[0017] Typical elastic fabrics are Schoeller®-dynamic or similar.

[0018] In contrast, fabrics that are not elastic, in particular traditional fabric constructions such as plain weave fabrics, which have no elastic fiber components or mechanical stretch properties, are to be regarded as “non-elastic”.

[0019] Typical non-elastic fibers include cotton, silk, viscose, polyamide or polyester fibers. These materials have no to almost no stretch content.

[0020] This monoelastic waistband portion in turn can be bridged according to the invention by means of the aforementioned belt in that the belt, for example with its two loose ends or belt end portions, is firmly pulled together. In this case, the belt extends, in each case separately from the non-elastic waistband portion on the rear side, parallel to the waistband and likewise into a front region of the pair of pants. In this case, the belt can preferably also be slightly curved or extend in a slightly curved manner substantially parallel to the waistband in order to adapt even better to the anatomical and physiological conditions, i. e., for example, to the anatomical hip shape of the wearer. In the intended closed state of the belt, the elastic waistband portion is therefore “bridged, i. e. the belt, which is integrated into the waistband on the rear side, forms a kind of “bypass” at the front for the front part of the waistband, thus, it preferably extends around the entire abdomen at the front. As a result, the waistband system according to the invention can be fixed.

[0021] If—as mentioned above—the belt is then tightened as intended, a maximum degree of stretch of the underlying elastic waistband portion can thus be set. The pair of trousers with the waistband system is thus held in place above the hips (usually in the region of the wearer’s hip bone) even when additional loads are applied (e.g. loads attached directly or indirectly to the belt), without the elastic waistband portions having to carry the additional load and thus becoming stretched out or forming wrinkles due to the excessive load. A combination of an elastic waistband and a non-elastic fastenable belt arranged thereon also ensures that both the elastic waistband portion can be adjusted in stretch by means of the non-elastic belt and that small shape-related variations in hip circumference are automatically compensated for by the elastic waistband itself. In addition, the belt does not form additional wrinkles in the lateral hip area and is much less bulky than a construction with a multi-part waistband, such as the construction of U.S. Pat. No. 1,959,486 A, in which the various parts of the waistband are gathered together into several layers of pleated fabric when tightened. Tests have shown that such constructions create a large number of pressure points, which are perceived as uncomfortable and annoying when wearing the pair of trousers, and even painful in the long term.

[0022] In this case, the pair of trousers according to the invention with the waistband system can be adapted to the greatest possible number of individual hip sizes at any time during use. For example, even if the hip circumference of the same wearer varies slightly from time to time, or in special deployments involving variable or varying additional weight during a deployment, it holds firmly but at the same time comfortably against the wearer’s hips.

[0023] Due to the fact that the belt is integrated into the waistband in the lumbar vertebra region (or is in direct contact there with the body, in particular by means of the preferred back pad still to be described below), this part in particular is pulled well against the body.

[0024] Unlike waistbands according to the invention with elastic material, which are common in practice, the pair of trousers according to the invention with the waistband

system thus achieves a consistently good hold even during extreme movements, such as deep knee bends, during climbing, etc.

[0025] A method according to the invention for producing a pair of trousers according to the invention with a waistband system comprises at least the following steps:

[0026] First, as is customary for pairs of trousers, the outer fabric cut parts, lining and inserts of a pair of trousers are cut out from the corresponding fabrics or are provided cut to size. Then, the waistband system of the pair of trousers is sewn or stitched together with a circumferential waistband and a non-elastic closable belt. In doing so, at least one waistband portion which is monoelastic at least in the longitudinal direction is worked into the waistband, preferably under pretension (as will be explained below), which is bridged by means of the belt extending parallel thereto. In this case, the closable belt is integrated or sewn as a non-elastic waistband portion into the waistband of the pair of trousers at least on a rear side thereof.

[0027] Optionally, at least the monoelastic waistband portion can be sewn into the waistband slightly in pre-tensioned manner or under slight pre-tension. “Slight” pretension it is to be understood to mean that such a waistband portion is sewn in a slightly tensioned, i.e. elongated, state. The elastic waistband portion is thus slightly lengthened, i.e., by about 1 to 2 cm, while it is sewn to the remaining part of the pair of trousers located below the waistband, e.g., the front trouser and rear trouser cut parts of the trouser legs. Accordingly, after sewing, the remaining part of the pair of trousers located below the waistband slightly gathers together again as the pre-tension is released. This ensures that the pair of trousers will still fit the wearer perfectly even if the wearer has slightly increased the circumference of the abdomen or hips, as both the elastic waistband portion yields accordingly when the wearer puts on the pants and the slightly gathered part below the waistband is smoothed out or pulled back to its original maximum length.

[0028] The use according to the invention of a pair of trousers according to the invention with a waistband system and preferably a back pad integrated into the inside of the waistband in the lumbar vertebra region of the wearer, as a particularly flat, non-slip, body-hugging substructure also allows an additional waistbelt or body belt for small additional loads as well as items of use to be worn particularly well, as is frequently required by the police, fire department, military and the like. This additional waistbelt can be detachably attached or secured to the waistband system of the pair of trousers.

[0029] Further, particularly advantageous embodiments and refinements of the invention result from the dependent claims as well as the following description, wherein the independent claims of one claim category can also be refined analogously to the dependent claims and exemplary embodiments of another claim category and, in particular, individual features of different exemplary embodiments or variants can also be combined to form new exemplary embodiments or variants.

[0030] There are different possibilities for the design of the waistband of the pair of trousers.

[0031] Preferably, the waistband has two elastic waistband portions that laterally adjoin the non-elastic waistband portion of the belt or the belt waistband portion, respectively, each extending forwardly along the waistband. By “laterally” is meant that in this case, the elastic waistband portions

extend in lateral regions substantially along the hip/waist of the wearer. More specifically, the elastic waistband portions thus extend substantially from the lumbar vertebra region around the respective hip bone into a front lower abdominal region of the wearer. They can be formed symmetrically relative to a sagittal plane (generally, directions on the body are indicated below with anatomical directions known from medicine science) through the wearer or through the pair of trousers for the wearer. Thus, when looking at the pair of trousers from the front (i.e., when the trousers are worn, also at the frontal plane of the wearer), accordingly, the left part can be formed symmetrically to the right part. In the meaning of the invention, “adjoining” is to be understood as meaning that the respective portions transition directly into one another, i.e. are sewn together or otherwise linked, for example.

[0032] There are various possibilities for the elastic properties of the elastic waistband portions.

[0033] Preferably, the elastic waistband portions can be formed with a material that is stretchable in the longitudinal direction of the waistband by at least 30%, more preferably at least 35%, most preferably at least 40%. In the stretched state, this material is thus longer by the corresponding percentages than in the relaxed state. Preferably, a material can be used for this purpose which, for a particularly long time, returns to its original state as good as possible, i.e. even after a large number of stretches, without noticeably wearing out.

[0034] Thus, the material already adapts very well to a varying hip circumference of a wearer of the waistband system during use. For example, when a wearing position is changed or in the course of a change in body posture.

[0035] Preferably, the waistband can also have a non-elastic waistband portion at the front in the crotch area or lower abdominal area. This non-elastic waistband can be formed similar to the non-elastic waistband portion integrated into the pair of trousers on the rear side of the pants. Preferably, however, it can be significantly shorter, namely extending only in a small middle region. Particularly preferably, it can adjoin the elastic waistband portions at the front end, i.e. connect the two elastic waistband portions in each case.

[0036] With such a solution—without the usual fly—it is in principle also possible to form the entire front area elastically, i.e. without the previously mentioned non-elastic waistband portion of the waistband.

[0037] Particularly preferably, the waistband can be interrupted in the front region (in which the fly is also located in commercially available pairs of trousers) perpendicular to the waistband extending direction by at least one fly.

[0038] Preferably, the non-elastic waistband portion of the waistband can be in two parts for this purpose, i.e. can have two non-elastic end portions or waistband end portions. The fly separates the non-elastic waistband portion into the two waistband end portions in question. Preferably, these non-elastic waistband end portions can be joined together by means of two cooperating fastening means.

[0039] For example, the fly can be closed along its extent by means of a zipper or Velcro fastener, so that then the two inelastic waistband end portions are held together in the closed state.

[0040] Alternatively or additionally, said fly can preferably be connected or closed by means of two, particularly preferably interlocking, punctiform fastening means. On top

of that, they can be designed to be able to detachably fix further components as well. Specifically, one of the two waistband end portions, for example, can have a fastening eyelet, the other then having a corresponding trouser button. In this manner, both can be releasably connected to each other as intended. The fastening eyelet can be, for example, a simple buttonhole formed accordingly in the respective trouser waistband end portion. In the closed state, the trouser button is then simply guided from the inside through the buttonhole and projects forward from the waistband away from the pair of trousers. It is thus available to receive further layers of material, in particular fastening eyelets, as will be explained further below.

[0041] For the design of an elastic or a non-elastic waistband portion, the respective end regions can be formed entirely or partially with the corresponding materials, if necessary also only in the end portions of the waistband portions overlapping each other in the closed state.

[0042] Consequently, as preferred, at least one fastening means suitable for coupling with at least one coupling element can be provided centrally on the outer side of the front non-elastic waistband portion—even without an existing fly to be closed. Specifically, as a possible coupling element for coupling a fastening eyelet, for example, a trouser button or a similar protruding element can be fastened as a fastening means, for example, to a middle part of the belt, which is described further below. Conversely, for coupling a trouser button or the like, a fastening eyelet may be incorporated centrally on the outer side of the front non-elastic waistband portion.

[0043] Moreover, the invention is in principle not limited to the described arrangement or sequence of elastic and inelastic portions. Likewise, a plurality of elastic and non-elastic portions can alternate or be arranged in alternation with each other along the waistband. This could be useful, e.g., for attaching a plurality of firmer load loops for heavier items, since the material of the non-elastic portions would presumably provide a better base for the load loops than would be the case with elastic, resilient material.

[0044] The waistband system has the aforementioned closable belt, primarily in order to better tighten the waistband system in the lumbar vertebra region, but also, among other things, to be able to regulate the degree of stretching—both in the event of possible overstretching due to particularly heavy loads and in order to reduce material wear, e.g. becoming loose—and thus to improve the overall hold of the waistband system.

[0045] In this case, the belt can preferably cover the waistband, in particular the elastic waistband portions, when the waistband system is worn as intended. In normal use or prior to the intended tightening of the belt, the belt may also lie only loosely over the elastic waistband portions. However, at the latest when the belt is tightened, it lies directly over the elastic waistband portions, so that they are then no longer visible from the outside and are physically protected.

[0046] This means that any coloured materials can be used for the elastic waistband portions without negatively affecting any camouflage properties of the clothing, for example when used as tactical clothing. In addition, this means that elastic materials which have very good elastic properties but are sensitive to superficial stress or sharp edges can also be used. This is because the elastic waistband portions cannot

be damaged directly from the outside during use, which in turn ensures a fit of the waistband and thus the hold of the waistband system.

[0047] There are also various possibilities for the design of the belt.

[0048] For example, a plastic stiffener can be formed in the belt to increase rigidity. This ensures that the belt does not unintentionally roll, turn, or twist about its longitudinal direction when, e.g., additional weight or additional holsters or the like are attached to it.

[0049] For example, a commercially available fastener, such as a belt buckle or the like, could be used for the belt.

[0050] Preferably, however, the belt can have two loose belt end portions which are variable in length relative to one another and can be fixed at least in certain sections. They can be fixed against each other, e.g. centrally in a front region of the waistband system, if necessary, also slightly offset laterally.

[0051] Preferably, the waistband system can have a separate middle part to which the belt end portions can each be indirectly fixed with respect to each other in a length-variable manner.

[0052] Here, the middle part can be coupled to the waistband, preferably by means of a coupling element on a corresponding fastening means of the waistband. In the state attached as intended, the middle part is then coupled to the waistband, whereby an undesired sliding up of the middle part or of the belt relative to the pair of trousers or to the body can be prevented.

[0053] In principle, the middle part is an independent part. However, it can also be seen as a separate part of the belt.

[0054] More preferably, the middle part may comprise a number of endless material strips, more particularly preferably endless plastic or metal elements. Accordingly, the middle part forms at least one closed loop or endless material strip through which the two belt end portions—each coming from the outside—can be passed, subsequently folded back to the outside, fixed with loop and hook tape and thus indirectly fixed with respect to each other in a length-variable manner.

[0055] Most preferably, the middle part can have at least three endless material loops or loops linked in the manner of chain links, e.g., a flexible middle fabric loop and two outer closed, substantially rigid, inflexible ring loops for passing through the belt end portions. Suitable ring loops include, for example, round rings, half-round rings or D-rings, rectangular rings, or square rings, or the like. With the appropriate arrangement of the middle part between the two belt end portions, the two loose belt end portions of the belt, each coming from the outside, can be threaded or passed through the lateral ring loops and then folded over again to the outside for fixing. When fixing, the length of the belt end portions can be indirectly adjusted with respect to each other in a length-variable manner, i. e. via the two ring loops connected to the fabric loop in the manner of chain links. For this purpose, the surfaces of the belt end portions facing each other in the folded state can be provided, for example, with corresponding Velcro surfaces.

[0056] Preferably, the two outer ring loops can each be enclosed in two lateral subregions of the middle fabric loop. The remaining region of the middle fabric loop between the two ring loops can then have two layers of material arranged parallel to the pair of trousers at a minimum distance from one another and placed in front of each other. In this case,

one material layer is closer to the pair of trousers, the other one further away. The material layers are flat structures, i. e. they have comparatively large dimensions in the direction of their surface, whereas their extent in a direction perpendicular to the surface, i. e. their thickness, is relatively small.

[0057] Preferably, the material layer close to the trousers can be formed with a fastening eyelet in order to be able to fasten or button the middle part from the front to the above-mentioned fastening means (e.g. trouser button) of the waistband in a visually protected manner in the state closed as intended of the waistband system. Likewise, however, a reverse arrangement of the fastening means or the fastening eyelet on the respective other part is also conceivable. For a visually clean overall appearance, the outer material layer can also be formed without openings or fastening means, i. e. smooth and flat.

[0058] For example, producing the middle part described above could be as follows: A suitably made-up material strip is sewn together enclosing the ring loops to form a closed, continuous endless belt or fabric loop. Subsequently, the two ring loops are then pulled apart to the maximum extent possible under slight tension, so that the fabric loop is substantially in the form of two elongated material layers extending parallel and close to each other. In this state, the two predominantly parallel material layers of the fabric loop are then sewn together perpendicular to the longitudinal extent of the fabric loop to form two smaller loops enclosing the ring loops along a seam inside the two ring loops. As a result, the fabric loop is thus divided in the longitudinal direction into three regions, namely the two lateral subregions or ring loop regions with the ring loops (outside) and a middle region with two layers of material placed in front of each other.

[0059] In this manner it is ensured that the waistband width of the pair of trousers can be adjusted on either side and that due to the belt end portions being folded over to the sides, there are no further material layers or buckles in the region of the middle part that are placed over the latter. Such an accumulation of material layers in the lower abdominal region would be perceived as annoying, particularly when bending over. Therefore, the particularly flat construction described here is noticeably more comfortable compared to ordinary constructions with a belt buckle or the like, and on top of that it facilitates the use of an additional waistbelt for accommodating holsters, bags, or the like.

[0060] However, the construction is not only particularly flat in the front lower abdominal region, but also does not have any additional wrinkling material layers in the lateral hip areas which could be perceived as annoying by the wearer of the pair of trousers—in particular when carrying additional lateral holsters during deployment, e.g. for objects such as pistols, knives, batons, lamps, etc.—as this could result in pressure points, bruises and sore spots forming on the skin, especially during longer deployments.

[0061] There are also various possibilities for the further design of the waistband and/or regions of the pair of trousers adjacent to the waistband. For example, a plurality of trouser pockets or pockets can be formed below the waistband, in particular in lateral regions on the front and rear side of the pair of trousers, to allow the wearer to carry items therein as needed, for example, for deployment purposes.

[0062] Preferably, the circumferential waistband can have at least one waistbelt loop on the outside thereof.

[0063] A single waistbelt loop can extend, e.g. even in tunnel-like manner (for the passage or insertion of a belt), at least over the region of the non-elastic waistband portion on the rear side of the pair of trousers. It is particularly advantageous if the waistbelt loop in this case is also made of an elastic material or is sewn with appropriate play for a stretching or compressing of the elastic material underneath. Thus, for example, a waistbelt loop could also extend in each case into the region of the elastic waistband portions on the front side or the sides of the pair of trousers, provided that it does not substantially impair their elastic behaviour.

[0064] In the case of several single waistbelt loops, they are preferably shorter “loop strips” or waistbelt loops arranged at regular intervals from one another on the outside along the waistband, as are known, for example, from conventional pairs of trousers. Such loop strips can run predominantly perpendicular to the waistband, thus, they can connect an upper edge of the waistband with a lower edge of the waistband in a band-like manner in each case. The waistbelt loops, alone or also together with the waistband, can form a respective loop, e.g. in each case for passing through the belt end portions or an additional waistbelt.

[0065] Preferably, at least one, and more preferably at least two, such waistbelt loop(s) can be formed to be (re)closable, e.g. by means of (in each case) two loop strip portions to be connected to each other. They can preferably be arranged in each case in the region of the non-elastic belt end portions on the front side on the waistband so that in the closed state, they span the belt end portions which are folded over or fixed to one another. This facilitates both the (at least front-side) threading and fixing of the belt according to the invention and the application of an additional waistbelt along the entire course of the waistband.

[0066] More preferably, all waistbelt loops can be formed for opening and closing in order to be able to conveniently thread the belt and/or a possible additional waistbelt, in particular a waistbelt already provided with a payload or additional weight, into individual or several waistbelt loops or unthread it from individual or several waistbelt loops in an almost arbitrary manner. At least the additional waistbelt can thus be put on or taken off completely (including in a closed, merely slightly loosened state) without any problems.

[0067] It should be noted here, however, that the waistband system according to the invention is not limited to a single type of the waistbelt loops described above. For example, a combination could also be provided, such as a single, tunnel-shaped waistbelt loop on the rear side of the waistband and several, closable and/or non-closable waistbelt loops on the front side of the waistband of the pair of trousers.

[0068] Preferably, the waistband system has an internal back pad on the rear side in the region of the non-elastic waistband portion that is also integrated into the waistband. By this is meant that the back pad on the rear side of the pair of trousers is arranged on the inside of the waistband. By the back pad is meant, for example, a padding element or cushion that has almost no elastic properties or padding properties in a radial direction away from the wearer but is highly permeable to air.

[0069] The back pad can comprise at least one spacer fabric as known, for example, from DE 10 2016 103 588 A1, which, in the course of sewing it to the inside of the

waistband, is surrounded by a pleasant inelastic fabric for reasons of comfort. For production reasons, however, the back pad could also be sewn into the pair of trousers as such a finished padding element (in a suitably adapted shape and size), as described in DE 10 2016 103 588 A1.

[0070] According to its intended use, when a pair of pants with such a waistband system with a back pad is worn by a wearer, the back pad is placed exactly in such a manner that it rests against the lumbar vertebra region substantially above the sacrum, i. e. ends or runs out with its lower end approximately at the level of the sacrum of the wearer. In this case it serves for filling a more or less pronounced “hollow” in this region, which is anatomically induced in humans. This is because if it fills this hollow, the waistband of the waistband system also rests against the body in the region of the hollow just as well or tightly as in the rest of the course along the waistband. When tightening the belt of the waistband system according to the invention, the waistband of the pair of pants thus rests even more evenly and firmly against the body of the wearer so that an even more comfortable, optimized hold of the pair of trousers is achieved. This creates connection between the pair of trousers and the wearer’s body that is flexible but uniformly firm and rests closely against the body, resulting in greatly improved adhesion of the waistband system to the body. Thus, among other things, on the rear side of the pair of trousers, slipping in the direction of the wearer’s sacrum or beyond, i. e. in the direction of gravity in the case of an upright person, can be prevented or avoided as far as possible with the aid of the synergetic effect created by the back pad (pressure or pressure distribution) and the belt (tension or tension distribution).

[0071] Preferably, the back pad can be substantially heart-shaped or semicircular without a tip for optical reasons but with a V-shaped cutout. The semicircular underside of the back pad is where the tip would normally be in the case of a heart shape. In contrast, in the middle of the rear side at the level of the edge of the waistband (opposite the fly), there is the V-shaped cutout facing towards the ground on an upper edge of the waistband, which makes the back pad look heart-shaped. Incidentally, the shape of the back pad roughly resembles a shovel blade of a “Frankfurt shovel”. The shape of the back pad fits particularly well into a more or less strongly, anatomically pronounced hollow in approximately the region of the sacrum between the ilium and the lumbar vertebra region.

[0072] The back pad of the waistband system is also designed such that it preventively counteracts the development of sweat in that it is made of a particularly breathable, i. e. air-permeable, (3D) material or spacer fabric with many pores, as already mentioned above.

[0073] Preferably, the non-elastic waistband portion of the belt on the rear side of the pair of trousers may have a lumbar vertebra portion widened towards the buttocks.

[0074] Such a widened lumbar vertebra portion can preferably extend beyond the inside back pad, i. e., it can cover, e.g., a region of the waistband immediately adjacent to the back pad on the rear side of the pair of trousers, more specifically in a rear region to the right and left of the back pad and behind it. In this case, the entire region, in particular on the outside (thus, e.g., the outer fabric of the pair of trousers), can consist predominantly of an non-elastic material in order to increase the tension or adhesion of the waistband system in this region or to widen the adhesion

area with the contact pressure area in order to achieve an even better overall hold of the pair of trousers. Thus, when the belt is tightened, the back pad is optimally pulled against the body over the entire surface, so that the pair of trousers with the waistband system fits more comfortably overall but also more tightly at the same time.

[0075] Preferably, the widened lumbar vertebra portion of the non-elastic waistband portion can, on the one hand, have a fabric part on the outside which covers the back pad sewn on the inside. On the other hand, the lumbar vertebra portion can have a further arcuate fabric portion which widens the lumbar vertebra portion beyond the back pad. As a result, at least one boundary or marking seam of the back pad that is visible from the outside additionally runs around this fabric portion on the rear side of the pair of trousers, which has a visually appealing effect.

[0076] Preferably, on the rear side below the non-elastic belt integrated into the waistband (preferably below the widened lumbar vertebra portion and in part laterally around it) the pair of trousers can have a material portion that is monoelastic, preferably bielastic, at least in the distal direction. In medicine, “distal” is always used to refer to a direction “away from the centre of the body”, i. e. here, for example, the direction from the buttocks to the feet.

[0077] Preferably, the material portion on the pair of trousers can have a roughly rectangular outer contour, e.g. roughly in the shape of a “Geestemünder spade blade”, so that at least the buttocks region is covered. The material portion can be embedded in the adjacent material cuts or cut parts of the pair of trousers in such a manner that the edges overlap in each case such that there is a hardly visible overlap between the adjacent regions, thereby forming a closed surface when viewed perpendicular to the material portion and the surrounding cut parts of the pair of trousers.

[0078] Preferably, the material portion can be bielastic or bidirectionally elastic, i. e. in the distal as well as horizontal direction. As a result, when the wearer bends, stoops or squats, the elastic material portion below the waistband can be advantageously stretched in this stretch region, in particular joint area, of the garment. As a result, there is also less slippage of a part, in particular the back pad, of the pair of trousers in the distal direction towards the feet, which in turn synergistically supports the waistband system. Mainly in the stretch area, such as the buttocks, the greatest possible mobility and comfort can therefore be ensured. Fewer wrinkles are formed and fewer pressure points or the like occur.

[0079] In the other regions outside this material portion, the pair of trousers, as is usual for a pair of trousers, can also have flatly extending, substantially arbitrary single or multiple add-on material layers, which can be, for example, cut from one part, joined from multiple parts or sewn along seams (quilting seams, waistband seams, hem seams and the like). This includes the other features of a pair of trousers, e.g., material layers each cut hollow-cylindrical and sewn together to form two trouser legs.

[0080] However, in addition to the elastic or non-elastic properties of the materials used already explained in detail above, the materials for the waistband system can also have the following properties:

[0081] An outer layer or outer material layer of the garment preferably consists here of a resistant outer material, which particularly preferably is windproof, water-repellent and breathable. An inner layer or inner material layer of the

waistband is preferably configured such that wearing comfort increases, i. e., it prevents rubbing of the garment and allows compensating transpiration.

[0082] The invention is thus advantageously suitable in particular for functional clothing or turnout gear. If a heat-resistant material is used as the non-elastic outer material, the invention can be used not only in police, military or technical relief operations, but correspondingly also in heat, such as firefighting by the fire department.

[0083] The invention is explained again in more detail below with reference to the attached figures by means of exemplary embodiments. In then various figures, identical components are denoted by identical reference numerals. The figures are generally not to scale. In the figures:

[0084] FIG. 1 shows a perspective front view of an exemplary embodiment of a pair of trousers according to the invention (upper part is shown) with a waistband system according to the invention, with threaded, partially applied belt,

[0085] FIG. 2 shows a perspective rear view of the upper part of the pair of trousers of FIG. 1,

[0086] FIG. 3 shows a perspective, lateral oblique view of the upper part of the pair of trousers of FIG. 1,

[0087] FIG. 4 shows a schematic top view of a horizontal section through the pair of trousers of FIG. 1, at the level of the waistband,

[0088] FIG. 5 shows a perspective construction drawing of the structure of a front detail of the waistband system of FIG. 1.

[0089] FIG. 1 shows a pair of trousers H according to the invention with a waistband system 1, in a slightly perspective front view of a front side VS of an upper part of the pair of trousers H. For waistband system 1 according to the invention, the lower part of the trousers below the knees does not play a significant role. For the sake of simplicity, this part is therefore not shown in any of the figures.

[0090] As can be seen from FIGS. 1 to 3, in addition to a circumferential waistband 10, the waistband system 1 further comprises a slightly curved or ergonomically extending belt 40 which, at least in sections, extends parallel on the outside around the waistband 10 and with which the waistband 10 can be fixed, adjusted, or tightened in the manner of a “waistbelt”. Furthermore, on a rear side RS of the pair of trousers in the region of the waistband 10, the waistband system 1 comprises a back pad 60 on the inside, which will be explained in more detail later.

[0091] Overall, said waistband 10 is subdivided along its waistband extending direction HR, i. e., a horizontal longitudinal direction of the waistband 10, into several waistband portions 11a, 11b, 15, 201, 20r, which can be seen particularly well from the schematic top view of the horizontal section through the waistband system 1 according to FIG. 4.

[0092] On the rear side RS of the pair of trousers H shown in FIG. 2, a non-elastic waistband portion 11a, 11b begins, which in this case is additionally widened in an arcuate manner and additionally extends at the bottom around the inside side back pad 60, which waistband portion unites the waistband 10 and the belt 40 in certain sections (on the rear side RS of the pair of trousers H) into one part. This waistband portion 11a, 11b thereby extends from the rear side RS to the sides of the pair of trousers H, being widest slightly outside the middle (along the upper edge of the waistband 10 perpendicular to the waistband extending direction HR at the beginning and end of a V-cut-out 60v of

the back pad 60) of the rear side RS of the pair of pants H. There (on the rear side RS of the pair of trousers H), said belt 40 is a part of the waistband 10, that is, integrated into the waistband 10.

[0093] As can also be seen in particular in FIG. 2, said waistband portion 11a, 11b is at least visually divided into two fabric parts or fabric portions by means of a marking seam or boundary seam, in order to indicate the inside back pad 60 on the rear side RS in a visually appealing manner. To make the appearance even more appealing, the waistband portion 11b can also be made of a special fabric cut sewn on or in, preferably of a material (possibly of a different colour) having the same properties, in particular of the same material as the rest of the adjacent waistband portion 11a.

[0094] At the lateral “ends” of the non-elastic waistband portion 11a, 11b facing away from a back pad 60, which will be explained later, the elastic waistband portions 15 of the waistband 10 emerge from the latter on the inside in each case, and the belt main portions 41 of the belt 40 emerge on the outside, as can be seen particularly well in FIG. 4. The above-mentioned portions 15, 201, 20r along the waistband extending direction HR of the waistband 10 thereby extend the inside waistband 10 of the waistband system 1 towards the front.

[0095] This initially involves two lateral, elastic waistband portions 15 which directly adjoin the non-elastic waistband portion 11a, 11b at the sides and which thus extend above or in the region along the hips or hip bones when the pair of trousers H is worn. At the ends of the waistband portions, in turn, two further non-elastic waistband end portions 201, 20r, which can be releasably coupled to one another on the front side VS of the pair of trousers H, are connected, as can be seen in particular in FIG. 4. For closing the entire circumferential waistband 10 or these non-elastic waistband end portions 201, 20r, respectively, they comprise interlocking fastening means 22. In the case of the left non-elastic waistband portion 201 shown here in FIG. 3, the fastening means 22 is formed as a fastening eyelet 22a or a buttonhole 22a, respectively (see FIG. 5). In the case of the right non-elastic waistband portion 20r, it is correspondingly formed as a trouser button 22b. Thus, the waistband 10 can be opened or closed, consequently (without restriction of generality), e.g., buttoned together in the present case.

[0096] Starting from the non-elastic waistband portion 11a, 11b integrated in the rear side of the waistband 10, the belt 40 already mentioned above extends parallel to the inner elastic waistband portions 15 just mentioned into a front region of the pair of trousers H and runs around the latter at the front. For this purpose, the belt 40 likewise comprises in each case two portions 41, 42 which adjoin or merge into one another and are guided centrally on the front side VS of the pair of trousers H through a middle part 50 and outwards again, as can again be seen particularly well with reference to FIG. 4. That means, when tightening the belt 40, no gathering wrinkles or the like are formed. In other words, the belt 40, as well as the underlying material layers can be tightened around the side and front of the waistband 10 without wrinkles.

[0097] A main (lateral as well as partly front) part of the belt 40 is formed by the two so-called belt main portions 41 of the belt 40, each of which leads towards the middle on the front side VS of the pair of trousers H and finally end in a left and right so-called belt end portion 42. When the belt 40 is not put on (see, for example, FIG. 1), the belt end portions

42 are not connected to each other or to themselves, i. e., fixed to themselves. However, they can be tacked against the belt main portions **41** to fix the belt **40**. For this purpose, they are each formed long enough to be either detachably knotted together or—as indicated here—to be fixed against the belt main portions **41** after being threaded through a middle part **50** provided for this purpose (explanation further below) and folded down outwardly. For a particularly user-friendly connection, the belt end portions **42** can therefore be threaded through the middle part **50**, for example, and attached to the belt main portions **41** by means of a hook-and-loop fastener. For this purpose, for example (as shown here), a respective belt end portion **42** can be provided with a hook strip **44** and the associated belt main portion **41** can be provided with a loop strip **43** on the radially outer outside, or vice versa. That means, in an outwardly folded state of the belt end portion **42** in question, the loop strip **43** on the belt main portion **41** faces the hook strip **44** of the belt end portion **42**, so that they engage with one another in a positive-locking manner when pressure is applied.

[0098] As can be seen in FIG. 3, for an even more variably adjustable connection that can be adjusted substantially one-handedly in each case, the belt **40** can comprise the aforementioned middle part **50** which is arranged on the front side VS of the pair of trousers H between the two belt end portions **42**, as already mentioned. For this purpose, this consists substantially of a fabric loop **51** which is sewn into a circularly closed material layer **52f**, **52n**, as can also be seen in particular in FIG. 5. Furthermore, the middle part **50** comprises two ring loops **53** enclosed or threaded into the fabric loop **51**. For this purpose, the two ring loops **53** (e.g. made of plastic, metal or the like) are preferably threaded into the still open fabric loop **51** prior to the circular sewing of the material layer **52f**, **52n** of the fabric loop **51** to form an “endless belt”. In order that the ring loops **53** are not only subjected to tension, i.e., for example, in use with the belt end portions **42** threaded in and folded down outwardly, at two opposite points of the fabric loop **51**, they are each sewn in or enclosed laterally in a seam transverse to the fabric loop direction (parallel to their main direction of extent) in the right and left end portions of the fabric loop **51**.

[0099] In accordance with their intended use, as mentioned, the two ring loops **53** then serve to enable a wearer to easily and conveniently thread each of the belt end portions **42** through the ring loops **53** and thus to tie them again in each case against the belt main portions **41** by folding them down outwards or to fix them, for example, in the manner described above, e.g., by means of a hook-and-loop fastener.

[0100] As can be seen from FIG. 5, in use, the fabric loop **51** is “compressed” to be (flat) parallel to the waistband extending direction HR or is pulled apart or pulled flat in the waistband extending direction HR such that the fabric loop **51** forms two material layers **52n**, **52f** lying directly in front of each other and substantially elliptical in horizontal section (see FIG. 3) rather than a true circle. A material layer **52f** facing away from the pair of trousers or spaced from the pants has a smooth and visually appealing design. In material layer **52n** located therebehind and close to the pair of trousers, which is covered in normal use, a fastening eyelet **521** or a buttonhole **521** is incorporated or formed. As usual, the buttonhole **521** is a short narrow slit by means of which the fabric loop **51** can be attached to the waistband **10**, or

more specifically, to a trouser button **22b** of the waistband **10** like the one mentioned above.

[0101] Consequently, in addition to closing the waistband **10**, the above-mentioned trouser button **22b** also ensures that the fabric loop **51** of the middle part **50** can be tied thereto for advantageously attaching the belt **40**. Thus, the belt **50**, in particular the fabric loop **51**, can be retained on the front side VS of the pair of trousers H on the waistband **10** without the need that the belt end portions **42** have to be threaded through the ring loops **53** of the middle part **50** and fastened in place to fix this separate part of the belt **40** to the waistband system **1**.

[0102] The above-mentioned back pad **60** of the waistband system **1** extends over a large area, in one piece, in the form of a semicircle or a heart along the circumference of the wearer's body in a horizontal as well as vertical direction on the inner side of the rear side RS of the pair of trousers H. Perpendicular to the waistband extending direction HR or to a resulting plane of the waistband **10** (from the rear side RS to the front side VS of the pair of trousers H, i.e. in the direction of the fly **21**), the back pad describes a padding which thickens arcuately from the sides to the centre, as can be seen particularly well in the top view of the horizontal section through the waistband **10** according to FIG. 4.

[0103] At this point, it should be noted without limiting the generality that the back pad **60** shown here is preferably a padding element integrated into the waistband **10** as is known from DE 10 2016 103 588 A1. Thus, this is a padding element having at least one knitted spacer fabric or spacer fabric surrounded or wrapped by a fabric layer. Specifically, in section, it consist of four textile layers, for example, i.e., an outer fabric layer, a first spacer fabric, a second spacer fabric and another outer fabric layer which, as already described in detail herein, are arranged parallel to one another and adjacent to one another in order to fill the more or less pronounced hollow in the lumbar vertebra region of a wearer of the waistband system **1**, so that the waistband **10** has less play and the waistband system **1** slips as little as possible.

[0104] As can be seen in particular in FIG. 1, in addition to the aforementioned essential features in the hip or waist area, the pair of trousers H comprises exemplarily on the front side VS at least two trouser pockets on the right and left side of the fly **21**, as is also common for most pair of trousers. Additionally or alternatively, however, the pair of trousers H can also have such trouser pockets on the rear side RS shown in FIG. 2. However, they would then be formed accordingly from the bottom material present at these locations, i.e. below the back pad in the region of an elastic material portion **70**, for example, likewise from an elastic material, as will be explained later.

[0105] Finally, it should be noted again that the device described in detail above is merely an example of an exemplary embodiment which could be modified by the person skilled in the art in a wide variety of ways without leaving the scope of the invention. For example, the invention is not limited to a particular type of trousers, such as long pants, short trousers or shorts, trouser suits, etc., or to a particular use, but can be used with any type of trousers. However, the construction according to the invention is particularly advantageous in the field of tactical clothing for professionals, such as the police, military, special forces, etc., where its advantages really come into their own. Furthermore, the use of the indefinite articles “a” or “an”

does not exclude the possibility that the features in question can be present multiple times. Similarly, the terms “arrangement”, “element” and “system” do not exclude the possibility that the component in question consists of several interacting subcomponents which can also be spatially distributed.

REFERENCE LIST

- [0106] 1 waistband system
- [0107] 10 waistband
- [0108] 11a, 11b waistband portion, non-elastic
- [0109] 15 waistband portion, elastic
- [0110] 20/, r waistband portion/waistband end portions, non-elastic
- [0111] 21 fly
- [0112] 22 fastening means
- [0113] 22a fastening eyelet
- [0114] 22b trouser button
- [0115] 25c waistbelt loops on waistband, closable
- [0116] 25o waistbelt loops on waistband, closed
- [0117] 40 belt
- [0118] 41 belt main portions
- [0119] 42 belt end portions
- [0120] 43 loop strip
- [0121] 44 hook strip
- [0122] 50 middle part
- [0123] 51 fabric loop
- [0124] 52n material layer, close to pair of trousers
- [0125] 52f fastening eyelet/buttonhole
- [0126] 52f material layer, distant from pair of trousers
- [0127] 53 ring loops
- [0128] 60 back pad
- [0129] 60v V-cutout
- [0130] 70 material portion
- [0131] H pair of trousers
- [0132] HR waistband extending direction/longitudinal direction of waistband
- [0133] N seams/waistbelt loop seams/trouser pocket seams/back pad seams
- [0134] RS rear side of pair of trousers
- [0135] VR distal direction/vertical direction of pair of trousers
- [0136] VS front side of pair of trousers

1. A pair of trousers (H), comprising a waistband system (1) with a circumferential waistband (10) and a non-elastic closable belt (40) which, at least on a rear side (RS) of the pair of trousers (H), is integrated as a non-elastic waistband portion (11a, 11b) in the waistband (10), wherein the waistband (10) has at least one waistband portion (15) which is monoelastic at least in the longitudinal direction (HR) and can be bridged by means of the belt (40) which extends parallel thereto.

2. The pair of trousers according to claim 1, wherein the waistband (10) has two elastic waistband portions (15) each of which laterally adjoins the non-elastic waistband portion (11a, 11b) while extending towards the front.

3. The pair of trousers according to claim 2, wherein the elastic waistband portions (15) are formed with a material that is stretchable in the longitudinal direction (HR) preferably by at least 30%, more preferably at least 35%, most preferably at least 40%.

4. The pair of trousers according to claim 2, wherein the waistband (10) has a non-elastic waistband portion (201,

20r) in a front region which preferably adjoins the elastic waistband portions (15) at the ends in each case,

wherein preferably centrally on the outer side of the non-elastic waistband portion (201, 20r) at least one fastening means (22b), preferably a trouser button (22b), suitable for coupling with at least one coupling element (521), more preferably a fastening eyelet (521), is fastened.

5. The pair of trousers according to claim 1, wherein the circumferential waistband (10) is interrupted in a front region by at least one fly.

6. The pair of trousers according to claim 1, wherein the belt (40) covers the waistband (10), in particular the elastic waistband portions (15), in the front region when the waistband system (1) is worn as intended.

7. The pair of trousers according to claim 1, wherein the belt (40) has two loose belt end portions (42) which can be coupled with respect to one another in a length-variable manner.

8. The pair of trousers according to any one of the preceding claimsclaim 1, with a separate middle part (50) to which each of belt end portions (42) of the belt (40) can be indirectly fixed with respect to each other in a length-variable manner, which middle part (50) can be coupled to the waistband (10), preferably by means of a coupling element (521) on a corresponding fastening means (22b) of the waistband (10).

9. The pair of trousers according to claim 8, wherein the middle part (50) comprises a number of endless material strips (51, 53), wherein each of the belt end portions (42) can be passed through at least one endless material strip (51, 53) and thereby fixed with respect to each other,

wherein preferably the middle part (50) has three loops (51, 53) linked in the manner of chain links, including a middle fabric loop (51) and two outer ring loops (53) for passing through the belt end portions (42), wherein the two outer ring loops (53) are more preferably each enclosed in two lateral subregions of the central fabric loop (51) and the remaining region of the middle fabric loop (51) forms two material layers (52n, 52o) lying in front of one another, wherein a material layer (52n) close to the pair of trousers has a fastening eyelet (521) for fastening a trousers button (22b) of the waistband (10).

10. The pair of trousers according to claim 1, with at least one, preferably multiple waistbelt loop(s) (25c, 25o) arranged parallel to one another on the outside along the waistband (10),

wherein preferably at least one, more preferably two closable waistbelt loop(s) (25c) is/are arranged on the waistband (10), most preferably in each case in the region of outwardly folded, non-elastic belt end portions (42) of the belt (40).

11. The pair of trousers according to claim 1, with a back pad (60) on the inside of the rear side (RS) in the region of the non-elastic waistband portion (11a, 11b) of the pair of trousers (H), which back pad comprises at least one knitted spacer fabric,

wherein the back pad (60) is substantially heart-shaped, preferably with a V-shaped cutout (60v) arranged centrally on the rear side (RS) at the level of the upper edge of the waistband (10).

12. The pair of trousers according to claim 1, wherein on the rear side (RS) of the pair of trousers (H), preferably

beyond the inside back pad (60), the non-elastic waistband portion (11a, 11b) of the belt (40) has a lumbar vertebra portion widened towards the buttocks.

13. The pair of trousers (H) according to claim 1, wherein on the rear side (RS) below the belt (40) integrated into the waistband (10), the pair of trousers (H) has a preferably substantially rectangular material portion (70) which is monoelastic at least in the distal direction (VR), preferably bielastic.

14. A method for producing a pair of trousers (H) according to claim 1, wherein the pair of trousers (H) is provided with a waistband system (1) having a circumferential waistband (10) and an non-elastic closable belt (40) which, at least on a rear side (RS) of the pair of trousers (H), is integrated as a non-elastic waistband portion (11a, 11b) in the waistband (10), wherein the waistband (10) has at least one waistband portion (15) which is monoelastic at least in the longitudinal direction (HR) and is bridged by means of the belt (40) which extends parallel thereto,

wherein preferably at least the monoelastic waistband portion (15) is sewn in under pretension.

15. A use of a pair of trousers, comprising a waistband system (1) with a predominantly elastic waistband (10) and a non-elastic belt (40) at least partially integrated into the waistband (10) and preferably a back pad (60) integrated into the inside of the waistband (10) in the lumbar vertebra region of the wearer, in particular as a non-slip, body-hugging substructure for wearing a hip belt or waistbelt for attaching further holsters or holsters for payloads as well as objects used in deployment.

16. The pair of trousers according to claim 4, wherein the circumferential waistband (10) is interrupted in a front region by at least one fly,

wherein preferably the non-elastic waistband portion (201, 20r) of the waistband (10) is in two parts,

wherein the non-elastic waistband end portions (201, 20r) of the non-elastic waistband portion (201, 20r) can preferably be connected to each other by means of two preferably interlocking fastening means (22a, 22b), in particular by means of a fastening eyelet (22a) and a trouser button (22b).

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