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(54) **AN OVERALL**

(57) An overall is provided, the overall comprising  
- a pants section having a waist edge,  
- a bib section connected to the pants section at a front-side of the overall;  
- at least a first suspender connected by a first outer end to the bib section and adapted to be positioned over a shoulder such that the bib section is held in place when

worn;  
wherein the waist edge is elongatable along at least a first elongatable portion such that a rear portion of the pants section can be lowered over the buttocks of the wearer when the wearer is seating while a front portion of the pants section remains in place together with the connected bib section.

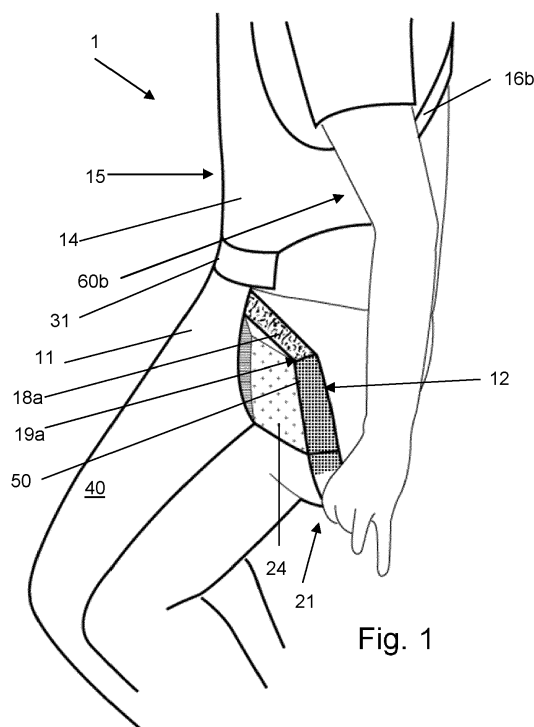


Fig. 1

## Description

### Field of the Invention

[0001] The present invention generally relates to overalls, i.e. a piece of clothing comprising a pants section and a bib section, the latter in general covering the belly and at least part of the chest of a wearer. The present invention relates to an overall adapted to be used as a piece of unisex-clothing, and adapted for use as, amongst others, workwear.

### Background of the Invention

[0002] Overalls are well known clothing items, and are known for their variety of uses, such as casual clothing, sportswear, clothing for workers or for staff members in a production environment and alike. As nowadays the population of staff members in working environments becomes more and more a mixture of male and female workers, there is a need for a unisex overall, i.e. adapted to be worn comfortably by both male and female staff members, taking into account the different physiques of male and female persons.

[0003] When wearing an overall, a toilet visit can become uncomfortable because the wearer needs to take-off the overall to sit on the toilet. The bib section and the suspenders then hang loose and may contact the floor in the sanitary room which can be perceived as unhygienic. It may take quite some time to visit the toilet when wearing an overall. The time taken for a toilet visit and the organization of a visit is seen as a weakness of presently known overalls.

### Summary of the Invention

[0004] It is an object of the present invention to provide an overall which overcomes some or all the drawbacks of presently known overalls. It is an object of the present invention to provide an overall which does not drag on the floor during a toilet visit. It is a further object of the present invention to provide an overall which can be used by male and female wearers, hence is a unisex overall.

[0005] According to a first aspect of the invention, an overall is provided, the overall comprises

- a pants section having a waist edge,
- a bib section connected to the pants section at a frontside of the overall;
- at least a first suspender connected by a first outer end to the bib section and adapted to be positioned over a shoulder such that the bib section is held in place when worn;

wherein the waist edge is elongatable along at least a first elongatable portion such that a rear portion of the pants section can be lowered over the buttocks of the wearer when the wearer is seating while a front portion

of the pants section remains in place together with the connected bib section.

[0006] According to some embodiments, the overall may comprise

- a pants section having a waist edge;
- a bib section connected to the pants section at a frontside of the overall;
- at least a first suspender connected by a first outer end to the bib section and adapted to be positioned over a shoulder such that the bib section is held in place when worn;

wherein the waist edge is elongatable along at least a first elongatable portion such that a rear portion of the pants section can be lowered over the buttocks of the wearer when the wearer is seating while a front portion of the pants section remains in place together with the connected bib section; and wherein either

- a second opposing end of the first suspender is connected to the overall other than to the rear portion of the pants section, or
- the overall comprises a second suspender connected by a first outer end to the bib section and adapted to be positioned over a shoulder such that the bib section is held in place when worn, the first and second suspender being connected to each other forming a loop around the neck of the wearer, the loop, optionally by means of the second opposing ends of the first and second suspender, is releasably connected to the waist edge of the overall.

[0007] According to a first particular facet of the first aspect of the invention, an overall is provided, wherein a second opposing end of the first suspender is connected to the overall other than to the rear portion of the pants section. The second opposing end of the first suspender may be permanently connected to the overall other than to the rear portion of the pants section.

[0008] According to some embodiments, the overall may comprise a second suspender connected by a first end to the bib-section and adapted to run over a shoulder of the overall user. A second opposing end of the second suspender is connected to the overall other than to the rear portion of the pants section.

[0009] The second opposing end of the second suspender may be permanently connected to the overall other than to the rear portion of the pants section. The second opposing end of the second suspender may e.g. be permanently connected to the overall at the side of the bib section or near or at the end of the elongatable portion, which end is closest to the rear portion of the waist edge

[0010] According to some embodiments, the two suspenders may cross at the backside of the overall.

[0011] The suspenders be connected one to the other at the backside of the wearer.

[0012] In the context of this invention, the suspenders

may be adjustable in length, e.g. by means of buckles. As such the suspender may be adapted to the body physiques of the wearer.

**[0013]** The second opposing end of the first suspender may e.g. be permanently connected to the overall at the side of the bib section or near or at the end of the elongatable portion, which end is closest to the rear portion of the waist edge.

**[0014]** According to some embodiments, the second, opposing end of the first suspender may be connected to the overall to the left-hand side or right-hand side of the bib section and is free of permanent connection to the waist edge.

**[0015]** The second end of the first suspender may be connected to the waist edge by means of a removable connection, e.g. a connection using a hook-and-loop system, like a Velcro® system. Alternatively or additionally, the second end of the suspender may be connected at this left-hand or right-hand side of the overall to the bib section by means of a piece of cloth via which it is connected to the bib-section. The second outer end is connected to this cloth. One part of the circumference of this cloth is connected to the bib section, while another part of the circumference of the cloth is provided with the hook- or loop part of a hook-and-loop system, the other part of a hook-and-loop system being provided on the waist edge. As such the second end of the suspender may be removably connected to the waist edge and exercise its suspending action at a place between the connecting point of the elastic strip to the waist edge and the middle of the waist edge near the back seam of the overall. This connection is first to be opened before the waist-belt at the left-hand and/or right-hand side is pulled to elongate the elastic strip.

**[0016]** Optionally, when a second suspender is present, the second end of the first suspender may be connected to the bib section via a back section of the overall. The first end of this second suspender is connected to the bib section and this second suspender being adapted to be positioned over a shoulder such that the bib section is held in place when worn. Preferably one of the suspenders is positioned over the left-hand shoulder of the wearer, the other suspender being positioned over the right-hand shoulder of the wearer. This back section may be connected to the second end of the first suspender, and the second end of a second suspender. The back section is then connected to the bib section at one or both sides of the overall, while no permanent connection is present between the back section and the waist band. The back section may have an edge part which is connected to the waist edge by means of a removable connection, e.g. a connection using a hook-and-loop system, like a Velcro® system. This connection is first to be opened before the waistbelt at the left-hand and/or right-hand side is pulled to elongate the elastic strip.

**[0017]** Alternatively the second end of the first suspender is connected directly to the left-hand or right-hand

side of the bib section, e.g. by a seam. This connection may preferably be near the waist edge at one of the left-hand or right-hand side of the bib section. A second suspender may be present, the first end of this second suspender being connected to the bib section. Also this second suspender is adapted to be positioned over a shoulder such that the bib section is held in place when worn. The second end of the second suspender is connected directly to the other of the left-hand or right-hand side of the bib section, e.g. by a seam. This connection may preferably be near the waist edge at the left-hand or right-hand side of the bib section.

**[0018]** Depending on which sides of the bib section the two second end of the suspenders are connected, the two suspenders may cross each other at the back of the wearer.

**[0019]** Alternatively the first end of the first suspender is connected to one of the left-hand or right-hand side of the bib section at the upper side of the bib section, the second end of the first suspender is connected directly to the other of the left-hand and right-hand side of the bib section at the upper side of the bib section. In this case, the suspender makes a loop around the neck of the wearer.

**[0020]** According to a second particular facet of the first aspect of the invention, an overall is provided, wherein the overall comprises a second suspender connected by a first outer end to the bib section and adapted to be positioned over a shoulder such that the bib section is held in place when worn. The first and second suspender are connected to each other forming a loop around the neck of the wearer, this loop, optionally by means of the second opposing ends of the first and second suspender, is releasably connected to the waist edge of the overall.

**[0021]** The first and second suspender may be parallel to each other along a defined length of the suspenders and be permanently connected to each other along this length. The two suspenders may cross at a crossing point and be permanently connected to each other at this crossing point. The first and second suspender may be coupled to the waist edge, e.g. to the rear portion of the waist edge by a releasable connection, e.g. by a snap coupling and/or by one or more clips. Each of the first and second suspender may have a length between the mutual coupling point and the second outer end, which second outer end is releasably connected to the waist edge, e.g. the rear portion of the waist edge, by a clip. Alternatively, the crossing point is releasably connected to the waist edge by a piece of fabric, like a tape of strip of fabric, and by means of a snap coupling and/or one or more clips.

**[0022]** When the releasable connection is released, the wearer can elongate the waist edge in order to allow the user of the overall to use the toilet, while still the overall is not to be opened completely by removing the suspender or suspenders from the shoulder or shoulders. The suspenders will continue to hang over the shoulders by means of the loop. The connection or coupling of the

two suspenders at the backside of the overall obstructs slipping of the suspenders beyond the neck of the wearer.

**[0023]** Optionally the waist edge is elongatable along a plurality of elongatable portions, such that a rear portion of the pants section can be lowered over the buttocks of the wearer when the wearer is seating while a front portion of the pants section remains in place together with the connected bib section; and wherein a second opposing end of the first suspender is connected to the overall other than to the rear portion of the pants section.

**[0024]** The waist edge of the pants section is the upper rim or upper end of the pants section. Often this waist edge or rim is provided by a waist band with a defined width.

**[0025]** A bib section of an overall is a front section of the overall, i.e. the part of the overall covering the belly and optionally at least part of the chest of the wearer.

**[0026]** When reference is made to a connection, these connections can be permanent, like being sewn one on the other, or non-permanent or releasably, making use of buttons, hook-and-loop systems, snap systems, zippers and alike.

**[0027]** For at least a first of the left-hand and right-hand side of the overall, the first end of the first suspender is preferably connected at this first of the left-hand or right-hand side of the overall at the upper front side of the bib section.

**[0028]** In case a second suspender is provided, for the other of the left-hand and right-hand side of the overall, the first end of the second suspender is preferably connected at this other of the left-hand or right-hand side of the overall at the upper front side of the bib section.

**[0029]** When reference is made to the left-hand or right-hand side of the overall, left-hand and right-hand is to be understood from the perspective of the wearer of the overall. Hence the left-hand side of the overall means the side of the overall covering and being present on the left-hand side of the wearer. The right-hand side of the overall means the side of the overall covering and being present on the right-hand side of the wearer.

**[0030]** The overall according to the present invention has the advantage that the user does not need to open the suspenders (also referred to as braces) when he or she wants to visit the toilet, e.g. to relief him- or herself. It is sufficient to grasp the waist edge left-hand and/or right-hand side and pull the waist edge such the waist edge elongates. As such, the waist edge can pass the buttocks and be positioned at the legs back while the wearer is sitting, i.e. taking a seated position. This allows the user of the overall to use the toilet, while still the overall is not to be opened completely by opening or disconnecting the suspenders, or by removing the suspender or suspenders from the shoulder or shoulders. The suspender or suspenders may remain on the shoulder(s), and they do not hang loose and/or drag on the floor. When the waist edge is brought back to its position along the waist, the at least first elongatable portion of the waist edge, and optionally the second and further elongatable

portion of the waist edge, will pull the waist edge back in its original position, such that the overall is again properly worn. The waist edge fits again to the waist of the wearer.

**[0031]** According to some embodiments, the first elongatable portion may be a portion of the waist edge located behind the bib section.

**[0032]** As such, the elongatable parts of the waist edge are neatly hidden and positioned at a position behind the bib section, while they will not hinder the wearer while he or she is using the overall.

**[0033]** According to some embodiments, the first elongatable portion of the waist edge may be provided by elastic strips.

**[0034]** The strip or strips, at least in unelongated state, may be located behind the bib section. The bib section may hide the elongatable portion or portions at the front-side of the overall.

**[0035]** The rear portion of the waist edge, covering the backside of the wearer when the overall is worn in pulled up state, and the side portions covering the left-hand side and right-hand side of the waist of the wearer when the overall is worn in pulled up state, together with the elongatable portion or portions, may encompass substantially the complete waist edge.

**[0036]** According to some embodiments, the at least first elongatable portion of the waist edge may be connected at one end to the inner side of the bib section. According to some embodiments the other, opposite end of the elongatable portion of the waist edge may be connected to one of the left-hand and right-hand side portion of the waist edge. This connection may be an adjustable connection, e.g. using buttons, snap buttons or a hook and loop system. As such the length of the waist edge may to some extent be adapted to the body physiques of the wearer. As a mere example, several buttonholes may be provided in the elongatable portion of the waist edge, such as one next to the other in the direction of the waist edge, while one or more buttons are provided at the inner side of the bib section. Or vice versa, one or more buttons may be provided to the elongatable portion of the waist edge, while several buttonholes may be provided at the inner side of the bib section, such as one next to the other in the direction of the waist edge.

**[0037]** According to some embodiments, the at least first elongatable portion of the waist edge may be connected at one end to one of the left-hand and right-hand side portion of the waist edge while the other, opposite end of the elongatable portion of the waist edge may be connected to other of left-hand and right-hand side portion of the waist edge.

**[0038]** According to some embodiments, the waist edge further may comprise a second elongatable portion.

**[0039]** Both first and second elongatable portions of the waist edge together may allow a rear portion of the pants section to be lowered over the buttocks of the wearer when the wearer is seating while a front portion of the pants section remains in place together with the connected bib section.

**[0040]** According to some embodiments, the waist edge may comprise a first and a second elongatable portion. The first elongatable portion of the waist edge may be connected at one end to the inner side of the bib section, the second elongatable portion of the waist edge may be connected at one end to the inner side of the bib section as well. According to some embodiments the other, opposite end of the first elongatable portion of the waist edge may be connected to one of the left-hand side and right-hand side portion of the waist edge, the other opposite end of the second elongatable portion of the waist edge may be connected to the other of the left-hand side and right-hand side portion of the waist edge.

**[0041]** According to some embodiments, the waist edge further may comprise a left-hand side portion and a right-hand side portion, the first elongatable portion of the waist edge being connected at one end to the inner side of the bib section and the other, opposite end of the first elongatable portion of the waist edge being connected to the left-hand side portion of the waist edge. According to some embodiments, the second elongatable portion of the waist edge may be connected at one end to the inner side of the bib section and the other, opposite end of the second elongatable portion of the waist edge being connected to the right-hand side portion of the waist edge. According to some embodiments, the waist edge further may comprise a left-hand side portion and a right-hand side portion, the first elongatable portion of the waist edge being connected at one end to the inner side of the bib section and the other, opposite end of the first elongatable portion of the waist edge being connected to the left-hand side portion of the waist edge, the second elongatable portion of the waist edge being connected at one end to the inner side of the bib section and the other, opposite end of the second elongatable portion of the waist edge being connected to the right-hand side portion of the waist edge.

**[0042]** When elongated, at least a part of the complete elongatable, elongated portion of the waist edge may remain hidden at the frontside of the overall by the bib section. This helps to bring the waist edge back in place once the elongation is lifted.

**[0043]** It is clear that all features provided for the first elongatable portion can be provided for the second elongatable portion as well.

**[0044]** Preferably the left-hand side of the overall is a mirrored view of the right-hand side of the overall. What is provided at the one of the left-hand or right-hand hand of the overall can be provided at the other of the left-hand or right-hand side of the overall as well. The left-hand hand side and the right-hand hand side of the overall may be executed similarly or identically, be it mirrored one side to the other.

**[0045]** The bib section is connected to the pants section at the frontside of the overall. This may be a connection between two pieces of fabric, one piece providing the pant section or a part of the pant section (e.g. the fabric for one leg), and a piece of fabric providing the bib

section. This connection, provided typically by means of seam lines, may be in the zone between the crotch and the waist edge. This seam line may have a V-shape (or chevron shape), the top of the legs of the V shape being provided at and connected to the waist edge, the lower point being near the crotch.

**[0046]** Alternatively the seam line may be a substantially straight line parallel to the waist edge, e.g. at the height of the hips of the wearer.

**[0047]** In the alternative, the pants section and the bib section are made from one single piece of fabric. The bib and pants section are connected through the fabric itself.

**[0048]** The bib section and optionally a part of the front side of the pants section, may be provided with a closure, like a zipper or a row of buttons or alike, in the front of the overall. The closure may extend from the upper edge of the bib section to the lower side or edge of the bib section or to the lower side of the pants section, which optionally may be the crotch of the overall. The closure can be used to open and close the overall, allowing to take off and put on the overall more easily. The closure may follow a straight line from the lower side of the bib section or pants section (e.g. the crotch) upwards or may follow an oblique line towards the left-hand or the right-hand side of the overall. The closure may comprise covered buttons or may be a covered zipper. A zipper is preferred. The zipper may be a two-way zipper. As such the zipper may be used to provide a fly to the overall.

**[0049]** A first outer end of elongatable portion of the waist edge may be connected to the bib sections inner side. As an example, the elongatable portion of the waist edge, such as an elastic strip, is connected to the bib section adjacent to the closure, e.g. zipper, e.g. at about the same height of the waist edge.

**[0050]** In case of two elongatable portions of the waist edge are present, a first outer end of the first elongatable portion of the waist edge, as an example an elastic strip, is connected to the bib section at one of the left-hand and right-hand side adjacent to the closure, e.g. zipper, e.g. at about the same height of the waist edge. The first outer end of the second elongatable portion of the waist edge, as an example an elastic strip, is connected to the bib section at the other of the left-hand and right-hand side adjacent to the closure, e.g. zipper, e.g. at about the same height of the waist edge.

**[0051]** In case the elongatable portions are provided by elastic strips, the elastic strips preferably are provided substantially in the extension of the waist edge.

**[0052]** The length and the possible elongation of the elongatable portion of the waist edge, e.g. an elastic strip which may e.g. be a woven elastic band, provides the possibility and defines the distance over which the waist edge can be pulled sideways and/or downwards. As an example, the elongatable portion of the waist edge, e.g. the elastic strip, in non-extended shape, may be e.g. in the range of 5 to 10 cm long. The elongatable portion of the waist edge, e.g. the elastic strip, may extend 200% to 300%.

**[0053]** 11.- According to some embodiments, the first elongatable portion may be connected to the inner side of the bib section at one of the left-hand and right-hand side of the overall, at said one of the left-hand and right-hand side of the overall, the pants section is provided with a first pocket, the first pocket having an open side and an open top.

**[0054]** The part of the first pocket closest to the body of the wearer, i.e. the inner wall of the pocket, may be connected to the waist edge. The open top of the pocket enables the cloth of the pants section forming the pockets inner wall to slide beyond the bib section inwards and outwards in a direction in the extension of the waist edge. This facilitates further the elongation of the waist edge and the lowering of the pants section over the buttocks of the wearer. The cloth of the inner wall of the pocket may become visible at the side of the wearer when the pants section is lowered.

**[0055]** In case of the presence of two elongatable portions of the waist edge, one at each of the left-hand and right-hand side of the waist edge, the second elongatable portion is connected to the inner side of the bib section at the other of the left-hand and right-hand side of the overall, at said one of the left-hand and right-hand section, the pants section is provided with a second pocket, the second pocket having an open side and an open top. This second pocket may be similar, but being the mirror image, to the first pocket.

**[0056]** The height and depth of the pocket or pockets may allow the part of the pants section to elongate when the waist edge is lowered and passes the buttocks of the wearer while seating. During this lowering, the pocket or pockets may partially or completely turn inside-out or unfold. Optionally, and also in absence of such pocket, a zone of the pants section under the waist edge, e.g. under a waist belt, may be provided from elongatable or stretchable cloth. This allows a more easily lowering of the pants section from the waist to the leg's backside of the wearer.

**[0057]** According to some embodiments, the first elongatable portion may be connected to the inner side of the bib section at one of the left-hand and right-hand side of the overall, the waist edge at said one of the left-hand and right-hand side of the overall being provided with a first part of a two part releasable connection system, the inner side of the bib section being provided with the second part of the releasable connection system, the waist edge is adapted to slide inwards the bib section, said first and second part of the releasable connection system being adapted to releasably connect in at least two positions of the first and second part of the releasable connection system.

**[0058]** Possibly this releasable connection system comprises a first and second button connected to the inner side of the bib section and one or more buttonholes present in the waist edge. Alternatively this releasable connection system comprises male and female elements of some snap button, one of the male or female elements being provided at the inner side of the bib section, the

other of the male and female part being provided to the waist edge. Most preferably this releasable connection system is a hook-and-loop system such as a Velcro® system. The provision of this releasable connection system allows the length of the waist edge to be adapted to the waist circumference of the wearer.

**[0059]** In case of the presence of two elongatable portions of the waist edge, this second elongatable portion may be connected to the inner side of the bib section at the other of the left-hand and right-hand side of the overall, the waist edge at said other of the left-hand and right-hand side of the overall being provided with a first part of a two part releasable connection system, the inner side of the bib section being provided with the second part of the releasable connection system, the waist edge is adapted to slide inwards the bib section, said first and second part of the releasable connection system being adapted to releasably connect in at least two positions of the first and second part of the releasable connection system. This connection of the second elongatable portion may be similar, but being the mirror image, to the first connection of the first elongatable portion.

**[0060]** The length of the circumference of the hips defines the size of an overall. For a given size of clothing, like an overall, the length of the circumference of the waist is related to and defined by this length of the circumference of the hips. The length of the circumference of the waist may not always fit the waist of the wearer having given hip dimension fitting with the size of the overall.

**[0061]** As a mere example, the average length of the circumference of the waist for a given circumference of the hips is different for men and women. As the length of the circumference of the waist edge is defined based upon the circumference of the hips for a given size of overall, for at least one of the male or female wearer, the length of the circumference of the waist edge does not fit. This mismatch leads to unpleasant and uncomfortable wearing of the overall. This mismatch may even cause parts of the waist edge hanging loosely to the body of the wearer, which may create safety issues for the wearer.

**[0062]** The connection system(s) allow(s) the length of the circumference of the waist to be adapted to the waist of the wearer during normal usage. It may allow to increase or decrease the length of the circumference of the waist, providing a better fit of the overall to the body physiques of the wearer, in general without forming pleats in the fabric of the overall. As for a given overall size, the waist circumference of a male and female wearer is on average different, the provision of this adaptable length of the circumference of the waist causes the overall to be unisex, hence suitable to be worn by both male and female persons in a comfortable way. This unisex overall may lead to more gender equality, a reduction on the risk on sexism and a larger well-being of the wearer.

**[0063]** It is understood that this varying of the position of connection between waist edge and bib section, may cause the elongatable portion of the waist band, such as

an elastic strip, to be not only unelongated or unstretched. The elongatable portion of the waist band, such as an elastic strip may be hanging loose during normal usage. This is not an issue as the bib section and the waist edge of the pants section are connected one to the other by means of the releasable connection. When the wearer wants to make use of the possibility to elongate the elongatable portion to enlarge the waist edge, this releasable connection system is simply to be opened or disconnected.

**[0064]** In general the elongatable portion or portions from the overalls according to the invention are to be elongatable enough in order to enable the rear portion of the pants section to be lowered over the buttocks of the wearer when the wearer is seating, and this while a front portion of the pants section remains in place together with the connected bib section. Extendible waist edges provided to adapt the waist edge's length to the waist circumference of the wearer in general do not fulfil this function. Such extendible waist edges typically provide pleats in the fabric of the pants section of the overall when not stretched to the maximum. Such pleats may cause safety risks for the wearer, as e.g. the wearer may be caught or can be hooked on by devices in the vicinity of the waist of the wearer, by means of the pleats of the overall.

**[0065]** According to a second aspect of the present invention, an overall is provided, comprising

- a pants section having a waist edge,
- a bib section connected to the pants section at a frontside of the overall;

wherein the waist edge at said one of the left-hand and right-hand side of the overall is provided with a first part of a two part releasable connection system. The inner side of the bib section is provided with the second part of the releasable connection system. The waist edge at this the left-hand and right-hand side of the overall is adapted to slide inwards the bib section. The first and second part of the releasable connection system are adapted to releasably connect in at least two positions of the first and second part of the releasable connection system.

**[0066]** According to some embodiments, the waist edge at the other of the left-hand and right-hand side of the overall is provided with a first part of a two part releasable connection system. The inner side of the bib section may be provided with the second part of the releasable connection system. The waist edge at this other of the left-hand and right-hand side of the overall is adapted to slide inwards the bib section. The first and second part of the releasable connection system is adapted to releasably connect in at least two positions of the first and second part of the releasable connection system.

**[0067]** The overalls according to this second aspect of the invention, is adapted to be worn by both male and female persons. The releasable connection system at

the left-hand and/or right hand of the overall may be used to increase or decrease the length of the waist edge, and as such allow the waist edge, in particularly the length of it, to be adapted to the body physiques of the wearer. As the overall may be worn and is adaptable in size to both male and female persons, the overall can be used as a unisex piece of clothing.

**[0068]** The features of the overalls of the first and second facet of the first aspect of the invention may be combined with the features of overalls according to the second aspect of the invention.

**[0069]** The overall according to the first and/or second aspect may also be called bib- and-brace overall, bib-top pants, suspender pants or dungaree, can be an American overall. The overall can be a pleated overall.

**[0070]** According to a third aspect of the invention, the overalls according to the first and/or second facet of the first aspect and/or overalls according to the second aspect of the invention are used as workwear, casual wear, formal wear, sportswear, safety clothing, designer wear, tailored wear, nightwear, etc.

**[0071]** The overalls according to the first and/or second facet of the first aspect and/or overalls according to the second aspect of the invention may be used as workwear for male and female users, e.g. workwear for dock workers, construction workers, painters/plasterers, workers in gardening, forestry and/or agriculture, welders, road workers or workers on infrastructure sites, installers like electricians, carpenters, boatmen, logistics workers, municipal workers, motorcyclists, firefighters, soldiers or military purposes and alike.

**[0072]** The overalls according to the first and/or second facet of the first aspect and/or overalls according to the second aspect of the invention may be used as unisex overalls.

**[0073]** Depending on the use of the overall according to the first aspect of the invention, the fabric from which the overall is made, may be chosen in function of the requirements. The fabric may be a denim fabric, typically for overalls to be used as workwear or casual clothing.

**[0074]** The fabric may be partially or completely provided from (organic) cotton, polyester, spandex, nylon, lycra, viscose, elastane, linen, silk, satin, wool, lyocell, tencel, (organic) bamboo, leather, flax, hemp, jute, modal, sinew, angora, mohair, alpaca, gatgut, acrylic, olefin, modacrylic, rayon, vinyon, aramids, sulfar, PBI (polybenzimidazool), PLA (polylactide, also known as polylactic acid), spectra, orlon, zylon, vectran, and alike and combinations thereof.

**[0075]** The fabric or fabrics from which the overall is made, may be partially or completely a woven fabric, a warp knitted fabric, a weft knitted fabric, such as circular or flatbed knitted fabrics, and alike. In particular, flatbed knitted fabrics can be used to provide a variety of physical and geometrical properties by one single fabric.

**[0076]** It is clear that many different overalls may be provided according to the invention. As an example, overalls of different sizes may be provided. Also overalls with

different lengths of the legs of the pants section may be provided, like an overall with a leg length similar to a short pants or knee pants, with midcalf length, a leg length up to or above the ankle, or full length legs.

**[0077]** Dependent on the final use of the overall, the overall may be provided with accessories as needed or wanted. Such accessories may be pockets (like bellow pockets, cargo pockets, kangaroo pockets, patch pockets, etc.), loops, reflector strips, knee pieces, logo's, etc. These accessories may be located on the bib section and/or on the pants section (like on the legs) at the front-and/or backside and/or the side of the legs.

### **Brief Description of the Drawings**

#### **[0078]**

Fig. 1 and 2 illustrate schematically an overall according to first particular facet of the first aspect of the invention from a side view.

Fig. 3 illustrate schematically the overall of figure 1 in front view.

Fig. 4 illustrates schematically an inner view of the overall of figure 1.

Fig. 5 illustrates schematically a back view of the overall of figure 1.

Fig. 6 illustrates schematically a back view of an alternative overall according to first particular facet of the first aspect of the invention.

Fig. 7 illustrates schematically an overall according to second particular facet of the first aspect of the invention in a view from the back.

**[0079]** In the different figures, the same references refer to the same or similar elements.

### **Detailed Description of Embodiment(s)**

**[0080]** An overall 1 according to first aspect of the invention is shown in figures 1 to 5. The overall 1 comprises a pants section 11 having a waist edge 12, in this embodiment provided by a waist belt 31. The waist edge 12 is elongatable along two elongatable portion 18a, 18b, one at the left-hand side of the waist edge, hence of the overall, and one at the right-hand side of the waist edge, hence of the overall. As shown in figure 1, the rear portion 21 of the pants section 11 can be lowered over the buttocks of the wearer when the wearer is seating. This while a front portion 40 of the pants section 11 remains in place together with the connected bib section 14. This bib section 14 is connected to the pants section 11 at a frontside 15 of the overall 1. The overall 1 is provided with a first suspender 16a connected by a first outer end 17a to the

left-hand upper side of the bib section 14 and is adapted to be positioned over the left-hand shoulder such that the bib section 14 is held in place when worn. The overall 1 is provided with a second suspender 16b connected by a first outer end 17b to the right-hand upper side of the bib section 14 and is adapted to be positioned over the right-hand shoulder such that the bib section 14 is held in place when worn. The second opposing end 20a of the first suspender 16a is connected to the overall 1 at the right-hand side part 60a of the bib section 14. The second opposing end 20b of the second suspender 16b is connected to the overall 1 at the left-hand side part 60b of the bib section 14. At the backside, the two suspenders 16a and 16b cross. They may be connected one to the other, or not, at crossing point 33.

**[0081]** Alternatively, but not shown in figure 1, the second opposing end of the first suspender may be connected to the overall at the first outer end 19a and 19b of the elongatable portions 18a and 18b. Alternatively, but not shown in figure 1, the second opposing end of the first suspender may be connected to the overall at the left-hand side portion 22a and/or the right-hand side portion 22b of the waist edge 12.

**[0082]** As best shown in detail on figure 1 and figure 4, the waist edge 12 of the overall 1 comprises two elongatable portions 18a and 18b which are provided from an elastic strip. The elastic strips are connected to the waist edge 12, more precisely to a waist belt 31, at the outer end 19a and 19b of the elastic strip. At the other outer ends 25a and 25b of the elastic strips, the elastic strips are connected to the bib section 14 adjacent a zipper 30.

**[0083]** The whole coupling at the left-hand side of the overall 1 is identical but mirrored at the right-hand side of the overall 1.

**[0084]** As best visible in figures 3 and 4, at the front side of the overall 1, a zipper 30 may be provided. The zipper 30 is a two way zipper. As the zipper 30 extends from the upper side of the bib section 14, and runs obliquely downwards, and ends near the crotch of the overall. The zipper 30 allows to easily pull on or pull off the overall, while at the lower side of the zipper 30, a fly is provided to the overall 1.

**[0085]** As best shown in figure 2 and 4, the elongatable portions 18a and 18b are connected to the inner side of the bib section 14 at the left-hand and right-hand side of the overall 1. At both sides, the waist edge 12 is provided with a first part 50 of a two part releasable connection system such as a hook-and-loop system. The inner side of the bib section 14 is provided with the second part 51 of the releasable connection system. When this first 50 and second 51 part of the releasable connection system are disconnected, the waist edge 12 may slide inwards behind the bib section 14. The first 50 and second 51 part of the releasable connection system are adapted to releasably connect in a plurality of positions. As such, the length of the waist edge 12 may be increased or decreased when the overall 1 is in pulled-up position. This



enables the wearer to adjust the length of the waist edge 12 to his or her waist circumference, defined by his or her body physiques. As such, since the waist dimensions differ for a male and a female person having the same hip size, the overall can be comfortably worn by both male and female persons.

**[0086]** As shown in figure 1, 4 and 5, this first 50 and second 51 part of the releasable connection system can be disconnected and the elongatable portions 18a and 18b can be extended or elongated, such the wearer can pull the waist edge over his or her buttocks to enable the wearer to use the toilet. The two pockets 24 may unfold and cover the side surface of the body of the wearer to some extent. The suspenders 16a and 16b may remain hanging on the shoulders of the wearer. The second ends 20a and 20b of the suspenders 16a and 16b remain connected, e.g. sewn, to the left-hand side part 60a and right-hand side part 60b of the bib part 14. The suspenders second outer ends 20a and 20b will not hang loose and will not drag on the floor during the toilet visit.

**[0087]** Figure 6 illustrates schematically a back view of an alternative overall 2 according to first particular facet of the first aspect of the invention. All features of the overall 1 of figures 1 to 5 are similarly provided for the overall 2 of figure 6. In overall 2, the backside of the waist edge 12, more precisely the waist belt 31, is provided at the left-hand side and the right-hand side with a strip of the loop-part 70 of a hook-and-loop connecting system. The left-hand side part 60a and the right-hand side part 60b of the bib section 14 is made larger and extends in a patch or cloth 71. The patches 71 are provided at the inner side with the hook-part of the hook-and-loop connecting system. Then worn pulled-up, the two parts of the hook-and-loop connection system may be connected one to the other. As such, the two suspenders 16a and 16b are connected to the waist edge closer to the back seam 32 of the overall 2, which may give a more comfortable and secure feeling when wearing the overall 2. Possibly, the hoop-and-loop system may be replaced by another connection system, e.g. clips.

**[0088]** As shown in figure 7, an overall 3 according to the second facet of the first aspect of the invention is shown. The same references refer to the same or similar features of the overall 1 as shown in figures 1 to 5.

**[0089]** The two suspenders 16a and 16b are connected at the backside 151 of the overall 3. In this embodiment, both suspenders 16a and 16b are connected to each other at crossing point 110As such a loop 130 around the neck of the wearer is formed. This crossing point 110 itself is connected by a strip 111 to the rear side 121 of the waist edge 12 near the back seam 32 of the overall 1 by means of a clip 112. All other features of the overall 3 are like the features of the overall 1 of figure 1 to 5. The outlook of the inner side of the overall 3 is identical to the view shown in figure 4. It is understood that e.g. as an alternative, the two suspenders 16a and 16b may be connected one to the other at the backside over a given length, while both second outer ends of the

suspenders may be provided with a clip to connect to the waist edge at the backside of the overall. Less preferred, the clips are replaced by another connection system, e.g. like a hoop-and-loop system.

**[0090]** Similarly as for the embodiment shown in figure 1, for overall 3, the first 50 and second 51 part of the releasable connection system can be disconnected and the elongatable portions 18a and 18b can be extended or elongated, such the wearer can pull the waist edge over his or her buttocks to enable the wearer to use the toilet. The suspenders 16a and 16b remain hung around the neck of the wearer.

**[0091]** Although the present invention has been illustrated by reference to specific embodiments, it will be apparent to those skilled in the art that the invention is not limited to the details of the foregoing illustrative embodiments, and that the present invention may be embodied with various changes and modifications without departing from the scope thereof. The present embodiments are therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein. In other words, it is contemplated to cover any and all modifications, variations or equivalents that fall within the scope of the basic underlying principles and whose essential attributes are claimed in this patent application. It will furthermore be understood by the reader of this patent application that the words "comprising" or "comprise" do not exclude other elements or steps, that the words "a" or "an" do not exclude a plurality, and that a single element may fulfil the functions of several means recited in the claims. Any reference signs in the claims shall not be construed as limiting the respective claims concerned. The terms "first", "second", "third", "a", "b", "c", and the like, when used in the description or in the claims are introduced to distinguish between similar elements or steps and are not necessarily describing a sequential or chronological order. Similarly, the terms "top", "bottom", "over", "under", and the like are introduced for descriptive purposes and not necessarily to denote relative positions. It is to be understood that the terms so used are interchangeable under appropriate circumstances and embodiments of the invention are capable of operating according to the present invention in other sequences, or in orientations different from the one(s) described or illustrated above.

## Claims

1. An overall (1, 2, 3) comprising

- a pants section (11) having a waist edge (12),
- a bib section (14) connected to the pants section at a frontside (15) of the overall;

- at least a first suspender (16a, 16b) connected by a first outer end (17a, 17b) to the bib section and adapted to be positioned over a shoulder such that the bib section is held in place when worn;

wherein the waist edge is elongatable along at least a first elongatable portion (18a, 18b) such that a rear portion (21) of the pants section can be lowered over the buttocks of the wearer when the wearer is seating while a front portion (40) of the pants section remains in place together with the connected bib section.

2. An overall according to claim 1, wherein a second opposing end (20) of the first suspender is connected to the overall other than to the rear portion of the pants section.
3. An overall according to claim 2, wherein the overall comprising a second suspender (16a, 16b) connected by a first end (17a, 17b) to the bib-section and adapted to run over a shoulder of the overall user and wherein a second opposing end of the second suspender is connected to the overall other than to the rear portion of the pants section.
4. An overall according to claim 3, wherein the two suspenders cross at the backside of the overall.
5. An overall according to any one of the claims 2 to 4, wherein the second, opposing end (20a, 20b) of the first suspender is connected to the overall to the left-hand side (60a, 60b) or right-hand side of the bib section and is free of permanent connection to the waist edge.
6. An overall according to claim 1, wherein the overall comprises a second suspender connected by a first outer end (17a, 17b) to the bib section and adapted to be positioned over a shoulder such that the bib section is held in place when worn, said first and second suspender being connected to each other forming a loop around the neck of the wearer, the loop is releasably connected to the waist edge of the overall.
7. An overall according to any one of the preceding claims, wherein the first elongatable portion (18a, 18b) is a portion of the waist edge located behind the bib section.
8. An overall according to any one of the preceding claims, wherein the first elongatable portion (18a, 18b) of the waist edge is provided by elastic strips.
9. An overall according to any one of the preceding claims, wherein said waist edge further comprises a second elongatable portion (18a, 18b).

10. An overall according to claim 9, wherein the waist edge further comprises a left-hand side portion (22a) and a right-hand side portion (22b), the first elongatable portion (18a) of the waist edge being connected at one end (25a) to the inner side of the bib section and the other, opposite end (19a) of the first elongatable portion (18a) of the waist edge being connected to the left-hand side portion (22a) of the waist edge, the second elongatable portion (18b) of the waist edge being connected at one end (25b) to the inner side of the bib section and the other, opposite end (19b) of the second elongatable portion of the waist edge being connected to the right-hand side portion (22b) of the waist edge.

11. An overall according to any one of the preceding claims, wherein the first elongatable portion (18a, 18b) is connected to the inner side of the bib section at one of the left-hand and right-hand side of the overall, at said one of the left-hand and right-hand side of the overall, the pants section is provided with a first pocket (24), the first pocket having an open side and an open top.

12. An overall according to any one of the preceding claims, wherein the first elongatable portion (18a, 18b) is connected to the inner side of the bib section at one of the left-hand and right-hand side of the overall, the waist edge at said one of the left-hand and right-hand side of the overall being provided with a first part (50) of a two part releasable connection system, the inner side of the bib section being provided with the second part (51) of the releasable connection system, the waist edge is adapted to slide inwards the bib section, said first and second part of the releasable connection system being adapted to releasably connect in at least two positions of the first and second part of the releasable connection system.

13. The use of an overall according to any one of the preceding claims, as workwear or safety clothing.

14. The use of an overall according to any one of the claims 1 to 12, as casual clothing or sportswear.

15. The use of an overall according to any one of the claims 1 to 12, as a unisex overall.

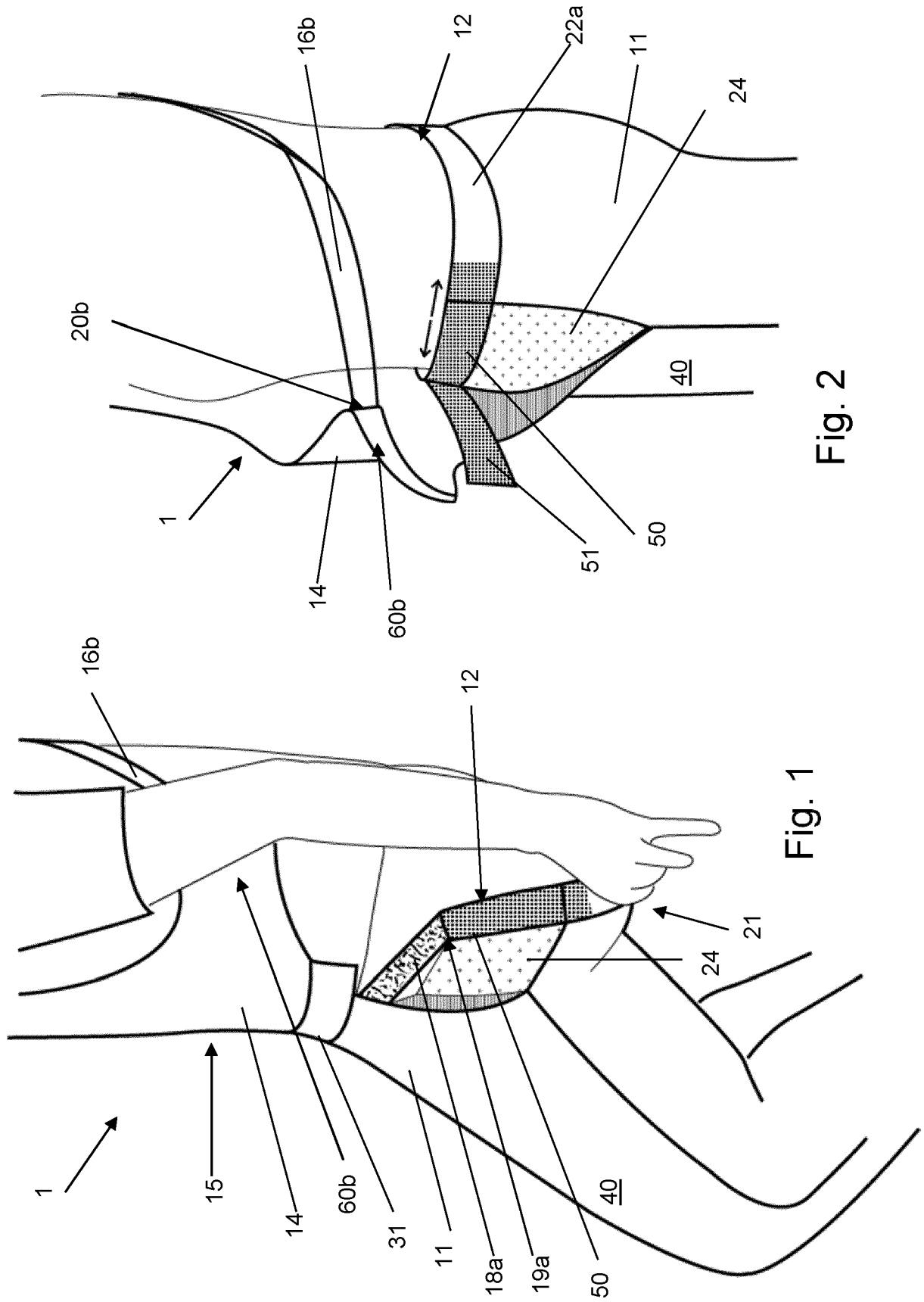


Fig. 2

Fig. 1

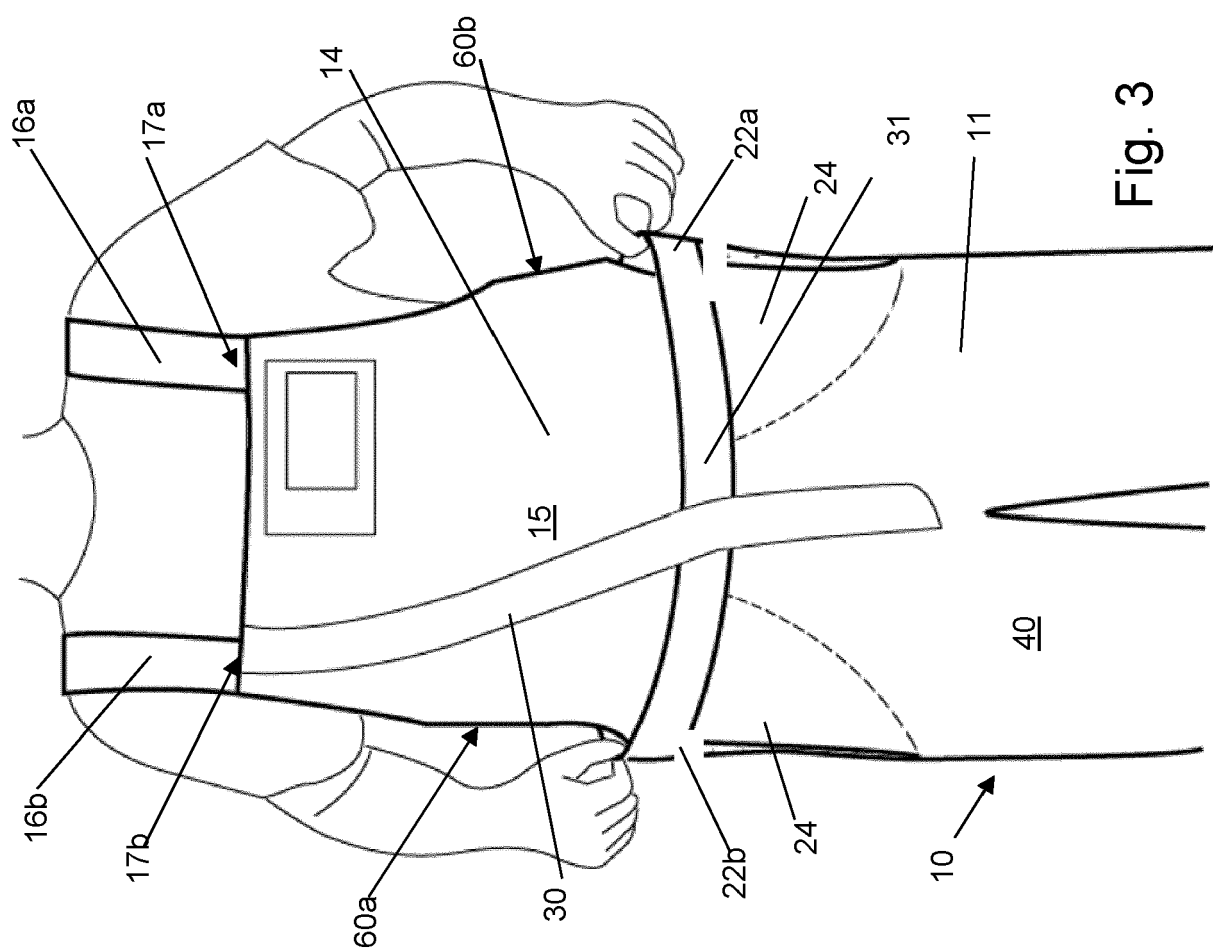


Fig. 3

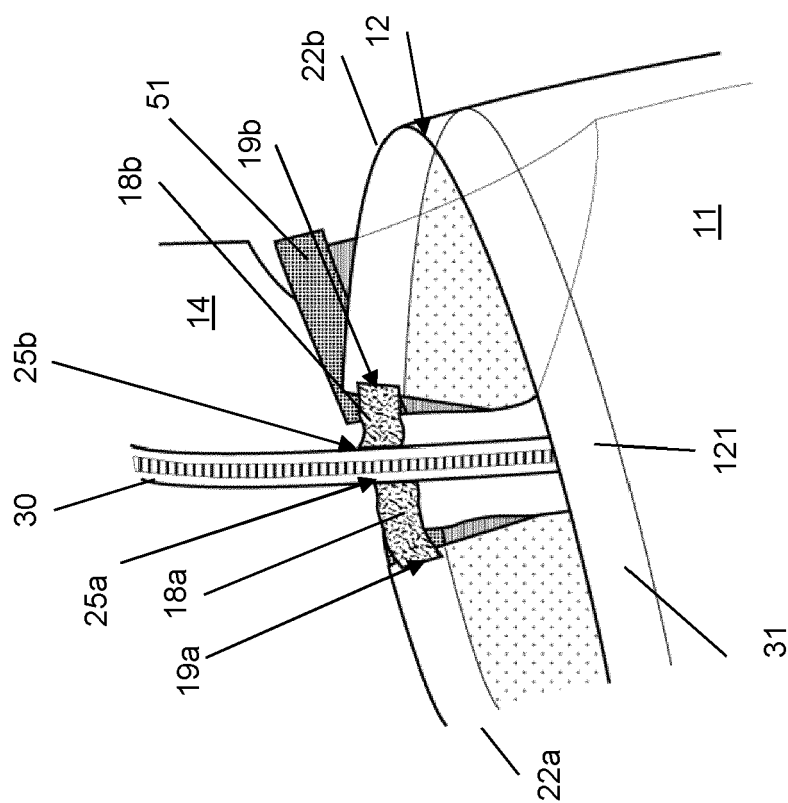


Fig. 4

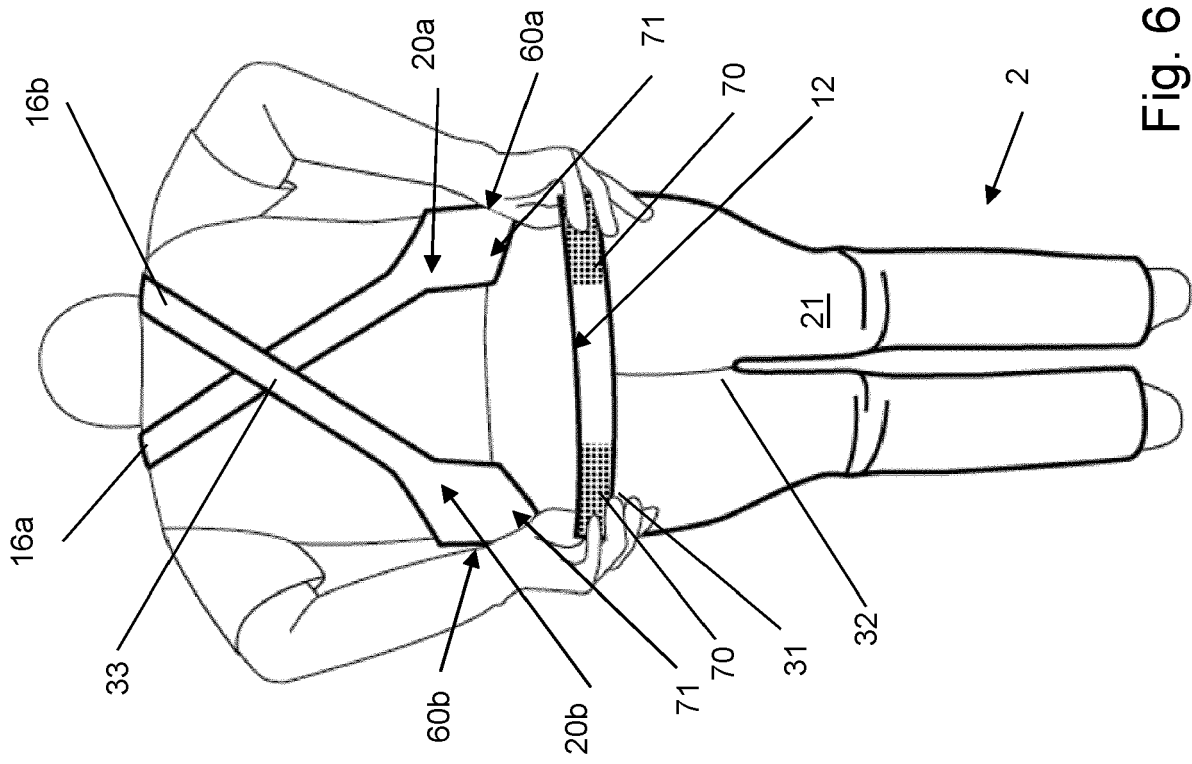


Fig. 6

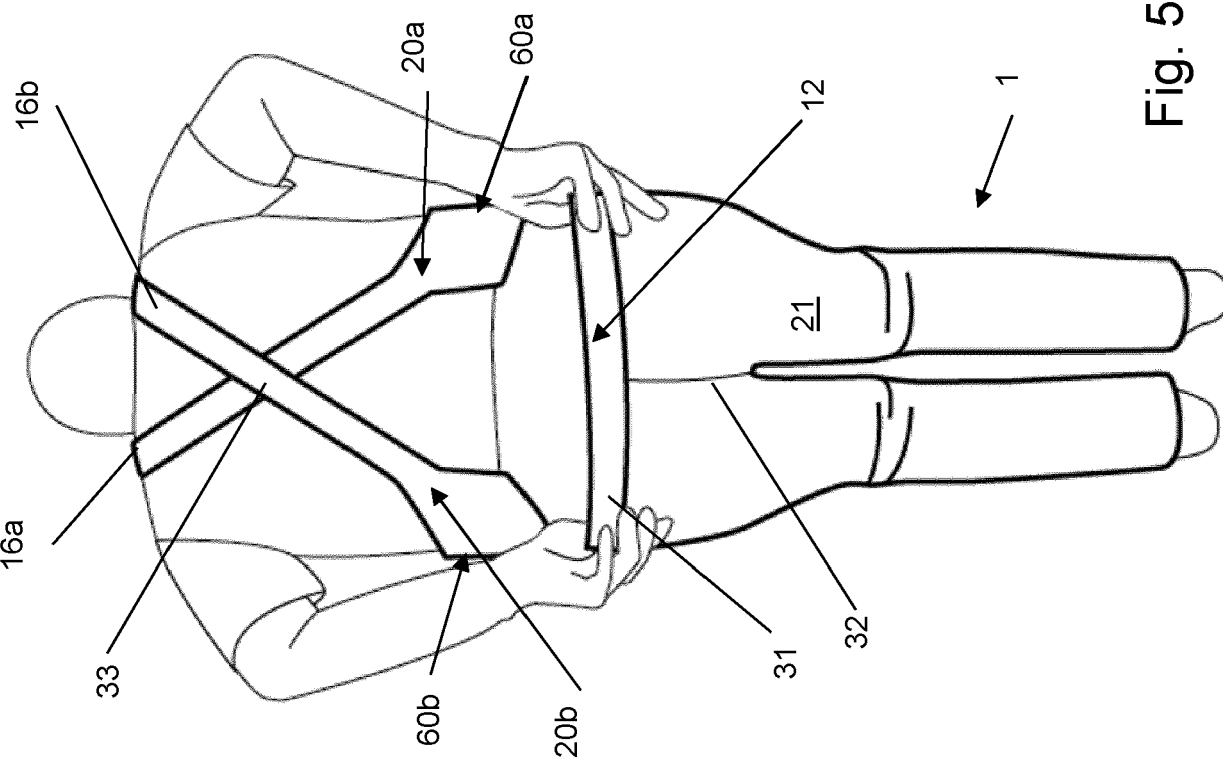


Fig. 5

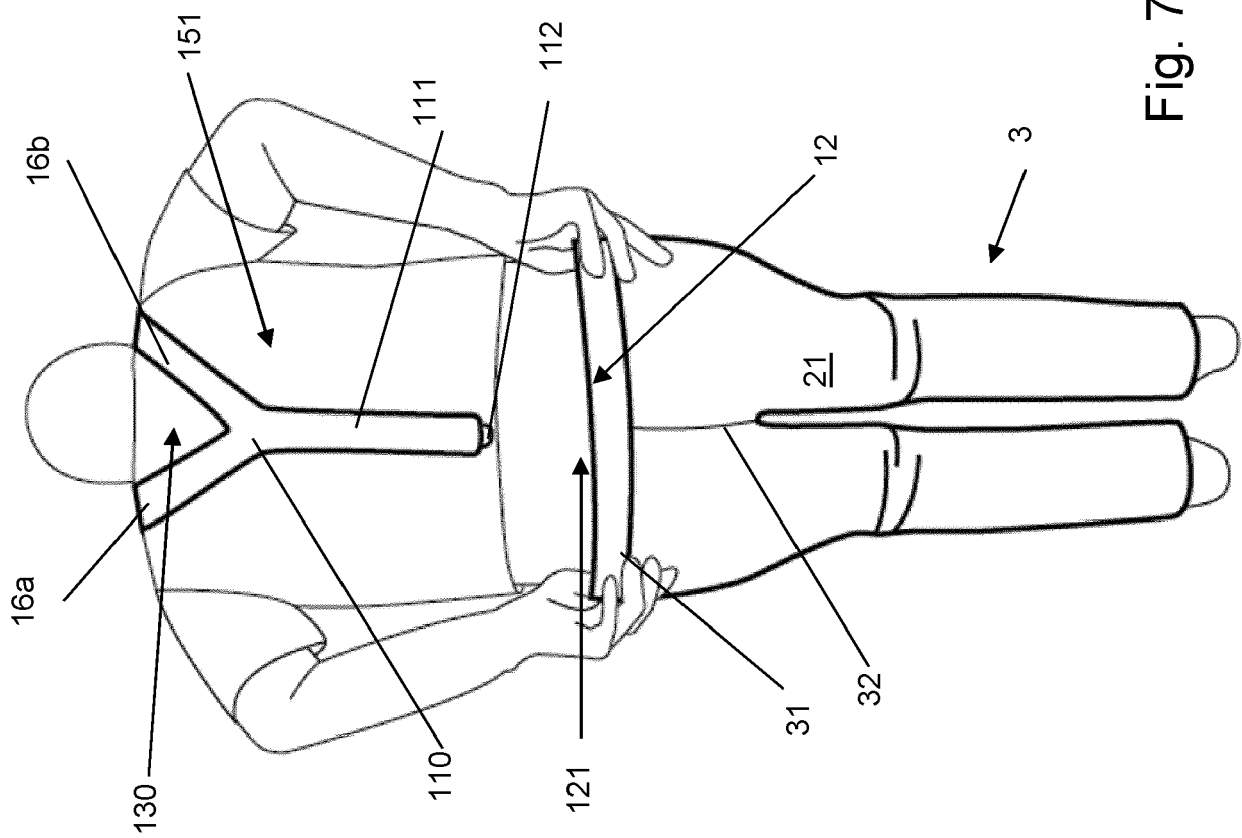


Fig. 7



## EUROPEAN SEARCH REPORT

Application Number

EP 21 20 6703

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	CN 1 785 079 A (CHEN GUBANG [CN]) 14 June 2006 (2006-06-14) * the whole document *	1-15	INV. A41D13/02
Y	US 5 163 182 A (FIVEASH SARA G [US]) 17 November 1992 (1992-11-17) * column 1, line 18 - column 2, line 32; figures 1-4 *	1-15	
A	US 2016/360806 A1 (THOMAS PATRICIA M [US]) 15 December 2016 (2016-12-15) * paragraph [0014] - paragraph [0023]; figures 1-5 *	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			A41D A41F
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		12 April 2022	Arboreanu, Antoniu
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 21 20 6703

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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12-04-2022

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
<b>CN 1785079 A</b>	<b>14-06-2006</b>	<b>NONE</b>	
<b>US 5163182 A</b>	<b>17-11-1992</b>	<b>NONE</b>	
<b>US 2016360806 A1</b>	<b>15-12-2016</b>	<b>NONE</b>	