Dec. 22, 1953 D. G. POSSON 2,663,027

ELASTIC BELT AND SUPPORT THEREFOR

Filed March 30, 1950

Fig. 1.

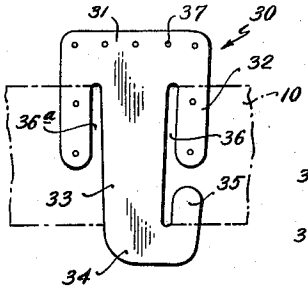


Fig. 2.

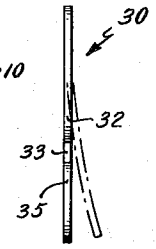


Fig. 3.

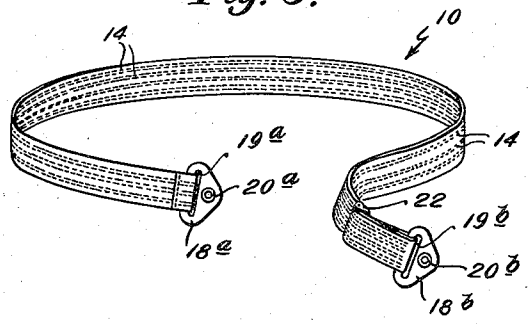


Fig. 4.

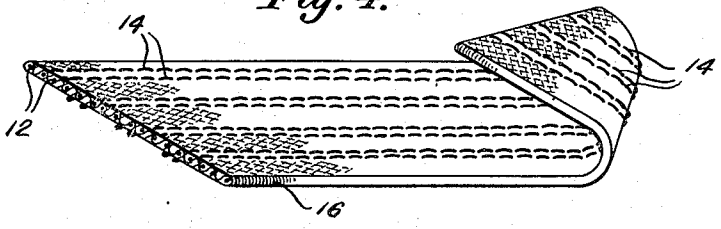


Fig. 5.

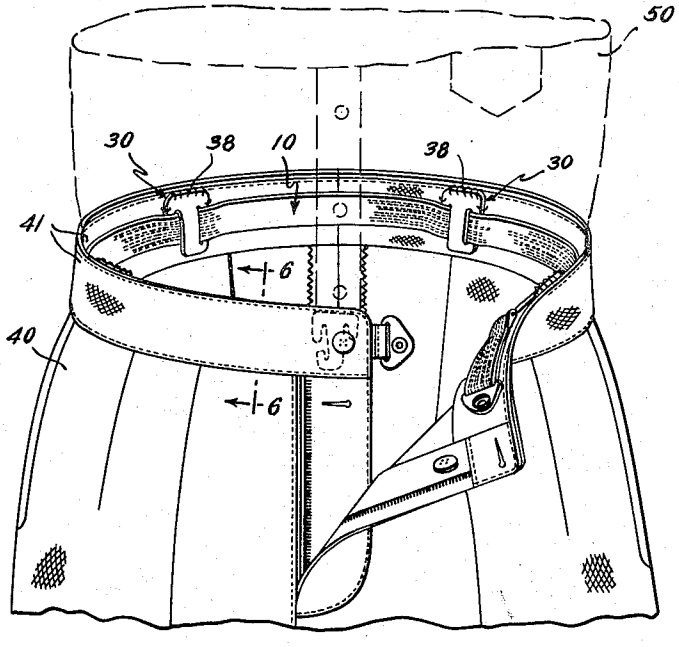
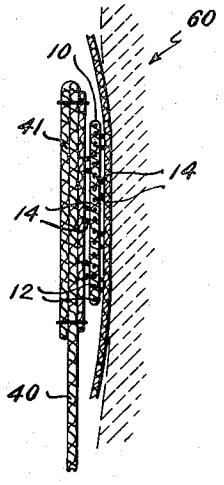


Fig. 6.



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2,663,027

ELASTIC BELT AND SUPPORT THEREFOR

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Application March 30, 1950, Serial No. 152,772

3 Claims. (Cl. 2—237)

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This invention relates to an elastic belt and support therefor, and particularly to a belt and support to be worn preferably on the inside of a pair of trousers or skirt, to support the trousers or skirt without showing from the outside. Such a belt is commonly known as an inner-belt or "invisible belt" and is designed of course to support the trousers or skirt on the body of the wearer, and it also has the additional function of holding down the shirt or shirtwaist of the wearer and to keep it from pulling up and out at the waist This application is a continuation-in-part of applicant's copending application Serial No. 134,508, filed December 22, 1949 now abandoned.

Inner or invisible belts as such are old, but they have generally been non-elastic or non-stretchable, and when worn on the inside of the trousers or skirt at the waist-band loops are provided for holding the belt in position. Another inner belt or band which has been sold commercially is made from a woven non-stretchable piece of fabric and is made slip-resisting by having a series of uncovered and exposed rubber strands interwoven with the fabric and forming protuberances extending above the surface of the fabric. This belt or band is normally sewn into the garment at the waist-band, or is used as the apron of the garment. Such inner belts, whether elastic or non-elastic, have not proved satisfactory for one reason or another. One of the difficulties has been that ordinary fabric loops commonly attached at top and bottom on the inside of the waist-band and through which the belt extends, are not satisfactory because the trousers (or skirt) tend to pull down from the belt leaving the belt exposed, or the belt may roll up and not remain flat, which pulls the trousers (or skirt) in at the waist, and thus spoils the appearance and hang of the trousers (or skirt).

I have discovered, however, by careful study and research, that an elastic and stretchable belt can be made (i. e. having elastic warp threads in its construction) which would yield, stretch and contract with the movements of the wearer, and that such a belt was much more satisfactory than a non-elastic belt. In addition, such a belt should be made slipresisting (i. e. having exposed rubber protuberances on its surface) and thus tend to prevent the shirt or shirt-waist of the wearer from pulling up at the waist. Further, to make the device practical, a suitable belt support had to be provided, which could be readily attached to the waist-band and trousers or skirt, and in which the belt could be readily inserted

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and removed therefrom in which the belt may slide longitudinally and which would hold the belt flat and prevent it from curling and rolling. I have succeeded in overcoming and solving the various problems presented by such a belt, and have succeeded in making an elastic and stretchable belt of woven fabric, and having a slip-resisting surface, to be used in combination with a belt support having the characteristics mentioned, and which has proved thoroughly practical in use. My belt has approximately a two inch stretch, and is worn with a slight tension. It stretches and yields comfortably to the movements of the wearer and particularly when he is sitting down. It is not generally realized that an increase of 1 to 2 inches in the waistline occurs when an individual sits down in a relaxed position, for instance. The belt is so constructed that it will not curl, or twist, and its slip-resisting surface causes it to cling to the shirt when bending, stretching or breathing, and will bring it back to its original position without binding the wearer. The belt supports are clips of wafer thin sheet nylon, which are permanently sewn to the inside of the waist-band of the trousers or skirt, in position to properly hang the lower garment. They are designed so that the belt is held below the top of the garment line—out of sight. The garment thus cannot ride up or down, but it can be moved around to adjust it evenly. The belt gives a straight line appearance to the waist-band which makes the wearer look slimmer.

Briefly, my invention includes an elastic and stretchable belt having a slip-resisting surface provided by exposed rubber protuberances extending above the surface of the fabric, and a support for the belt which includes an attaching body of sheet material for attachment to the garment and having a central leg extending downwardly from the body portion and a toe extending upwardly from the lower end of the leg toward the body portion, whereby the belt may be extended under the leg and held supported by the toe. The lower end or foot of the leg is unattached or unsupported, and hence is free to bend outwardly or inwardly, and the length of the leg from the attaching body portion to the upturned toe is approximately the width of the belt. It will be clear that the belt is then readily inserted in the belt supports, or clips, which have been previously attached to the garment waistband, by slipping the belt under each leg and over the upturned toe of the clip. The belt is then connected at its two ends by a suitable fastener.

Before explaining in detail the present invention it is to be understood that the invention is not limited in its application to the details of constructon and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation, and it is not intended to limit the invention claimed herein beyond the requirements of the prior art.

In the drawings:

Fig. 1 is a front elevation of my belt support;

Fig. 2 is a side elevation of the belt support with a dotted line position indicating the flexibility of the support;

Fig. 3 is a perspective view of my belt;

Fig. 4 is a sectional view of a piece of elastic webbing from which the belt is made;

Fig. 5 is a perspective view showing my belt and belt support in position and in use on a pair of trousers; and

Fig. 6 is a vertical section on line 6—6 of Fig. 5.

As shown in Figs. 3, 4, 5 and 6, the belt 10 comprises a strip of stretchable woven fabric webbing which webbing is woven with inextensible body warp threads of yarn or fiber (not shown), extensible rubber body warp threads 12 (Figs. 4 and 6) which are woven into the body of the fabric and covered by the filling threads 16, exposed rubber protuberances 14 which may be in the form of extensible warp threads raised above the body of the webbing and providing a slip-resisting surface, and filling threads 16. It will be noted that the exposed rubber protuberances 14 are formed on both surfaces of the belt 10. As shown in Figs. 3 and 4 the exposed rubber protuberances 14 are warp threads arranged in a series of rows, with a pair of such rubber protuberances 14 forming a row, and with four such rows on the inside of the belt and three rows on the outside. It is to be understood, however, that the precise number, arrangement, or formation of the exposed rubber protuberances 14, and whether in the form of warp threads, or not is immaterial, they may be varied as desired and that my invention is not limited in that respect. Suitable means is further provided at the ends of the belt for connecting the ends together and which as shown in Figs. 3 and 5 comprises two flat buckles 18*a* and 18*b* which are flat, substantially triangular pieces of suitable sheet material, such as metal, plastic or the like having a transverse slot 19*a* and 19*b*, respectively, through which a loop formed in the end of the belt is passed, and loop is then closed in any suitable manner, as by stitching. A snap fastener comprising the cooperating parts 20*a* and 20*b* is provided in the buckles 19*a* and 18*b*, respectively, whereby the two ends of the belt are connected. A suitable separate adjusting buckle 22 is preferably provided on one end of the belt for adjusting the length of the belt, which holds a buckle such as 18*b* for instance. As such an adjusting buckle 22 is well known and commonly used on extensible suspender webbing, garters and the like, it need not be described in detail. It will be understood that the length of belt 10 is normally adjusted by buckle 22 to fit under slight tension around the waist of the wearer, and will thus yield or stretch with the movements of the wearer.

The belt support or clip, to be used in supporting my extensible belt 10 with the exposed rubber protuberances 14 providing a slip-resisting surface thereon, comprises a single sheet of flexible material 30, such as plastic or metal having springy qualities, and is relatively thin. Preferably the support 30 is made of sheet nylon because of its flexibility, toughness and imperviousness to water, perspiration, dry cleaning solvents and the like. The support 30 includes the body portion 31 and preferably a pair of arms 32 extending downwardly from the sides of the body portion 31. A central leg 33 extends downwardly from the attaching body portion 31 and between the two arms 32 thereof. The lower end or foot portion 34 of the leg 33 is unattached or unsupported except from the body portion 31 and hence is free to be bent outwardly or inwardly. In the side elevation of the belt support 30 (Fig. 2) the dotted line position indicates how the lower end of the leg 33 may be bent or flexed. The foot portion 34 of the central leg 33 carries, preferably at one side, an upturned toe 35, extending upwardly toward one of the side arms 32 but leaving space and clearance between them. It will be understood, of course, that a toe 35 may be provided extending laterally from both sides of the foot 34 if desired, without departing from my invention. A slot 36 is thus formed between a side arm 32, and the toe 35, and the leg 33, and a similar slot 36*a* is formed between the opposite side arm 32 and leg 33, through which the belt 10 may be passed. A series of holes 37 is provided around the outer edge of the body portion 31 and down the arms 32, whereby the body portion 31 may be attached to the garment 40, which in this case is a pair of trousers. The belt support 30 is attached at its body portion 31 to the inside of the waist-band 41 of the garment in any suitable manner, as by stitching 38, or by rivets, snap fasteners or the like. Preferably five of my belt supports 30 are attached to the inner waist-band 41 of the garment, spaced more or less evenly apart, and as indicated in Fig. 5, two supports 30 are attached at the back of the waistband and three at the front. It will be understood, of course, that the number of supports 30 to be used can be varied as desired.

To insert the belt 10 in each support 30 the belt 10 is first pushed up under the leg 33 and over the arms 32, and then over the toe 35, to occupy the slots 36 and 36*a* as shown in Figs. 1 and 5. The heighth of the slot 36 is preferably approximately the width of the belt 10. In inserting the belt 10 the flexibility of the sheet nylon material out of which the support 30 is preferably made permits the leg 33 to be lifted outwardly (as indicated by the dotted line position in Fig. 2) and the inherent resiliency of the material then causes the leg 33 to snap back in substantially the same plane as the rest of the support 30. It will thus be noted that the belt 10 is held supported by the toe 35 hooked up under the belt 10 and that the belt is held flatwise and is supported against rolling up or twisting by the leg 33. But at the same time the belt 10 is free to move or slide longitudinally in the slots 36 and 36*a* of the belt supports 30.

As previously stated my elastic belt 10 is designed particularly to be worn on the inside of the waistband of the garment 40 as an inner or invisible belt, and that for this purpose the supports 30 are likewise attached to the inside of the waistband 41 of the garment 40. When worn in this manner the belt, of course, lies inside the waistband of the garment 40, and between the

waistband 41 and the shirt 50 (represented in dotted lines in Fig. 5), when the shirt 50 is worn tucked in at the waist. In Fig. 6 a vertical section through the waistband, generally indicated at 41, of the garment 40 is shown with belt 10 worn on the inside of the garment and between the waistband 41 and shirt 50. The body of the wearer is generally indicated by the dotted lines at 60. The exposed rubber protuberances 14 on the inside of the elastic belt 10 thus provide a friction or slip-resisting surface tending to prevent the shirt 50 from pulling up at the waist. At the same time the resilient belt 10 is free to stretch and yield with the movement of the body of the wearer and to slide longitudinally in the belt supports 30. With this arrangement the waistband of the garment can be fitted comfortably and even loosely, and it hangs evenly and will not roll or wrinkle as in a tightly fitting garment. A very comfortable garment support is thus provided by means of my elastic belt 10 and belt supports 30, which belt is very easily placed in the garment 40 and as readily removed. It will be understood, of course, that the belt 10 and belt supports 30 may, if desired, be worn outside of the garment 40 at the waistband, but in so doing many of the advantages of my elastic belt and support therefor are not realized.

I claim:

1. In combination, an inner elastic belt for supporting a garment from the inside thereof, said belt having a slip-resisting surface thereon, a buckle for connecting the ends of the belt, and a support for said belt adapted to be fastened to the inside of the garment at the waistband thereof, said belt support comprising an integral member of flexible material having a body portion and downwardly extending arms at the sides thereof for attachment to the garment, a central leg extending downwardly from the body portion and between said arms, said leg having a foot extending laterally thereof in the same plane and said foot having a toe open at the top extending upwardly, and said leg being capable of being flexed outwardly at its lower end whereby the belt may be passed over said arms and behind said leg and be held supported on said toe.

2. In combination, an inner elastic belt for supporting a garment from the inside thereof, said belt having exposed rubber protuberances forming a slip-resisting surface raised above the surface of the belt, a buckle for connecting the ends of the belt, and a support for said belt adapted to be fastened to the inside of the garment at the waistband thereof, said belt support comprising a body portion for attachment to the garment having downwardly extending arms at the sides thereof, a central leg extending downwardly from the body portion and between said arms, said leg having a foot extending laterally thereof in the same plane and said foot having a toe open at the top extending upwardly toward one of said arms, whereby the belt when extended behind said leg and foot may be held supported on said toe.

3. In combination, an inner elastic fabric belt for supporting a garment from the inside thereof, said belt having covered extensible body warp threads therein, and a slip-resisting structure interwoven therein comprising rubber warp threads having exposed portions raised above the surface of the belt, a buckle for connecting the ends of the belt, and a support for said belt adapted to be fastened to the inside of the garment at the waistband thereof, said belt support comprising a body portion for attachment to the garment having downwardly extending arms at the sides thereof, a central leg extending downwardly from the body portion and between said arms, said leg having a foot extending laterally thereof in the same plane and said foot having a toe open at the top extending upwardly toward one of said arms, whereby the belt when extended behind said leg and foot may be held supported on said toe.

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