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HUNTING AND SPORTSWEAR TROUSER

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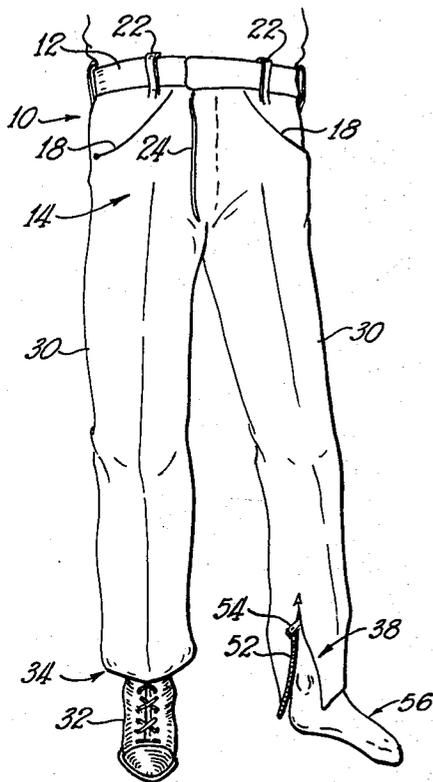


Fig. 1

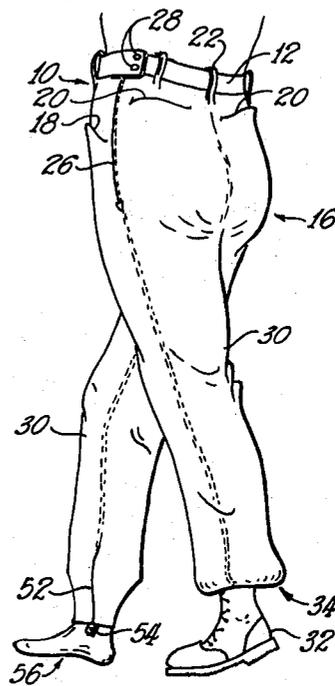


Fig. 2

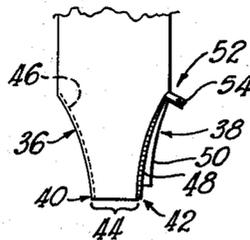


Fig. 3

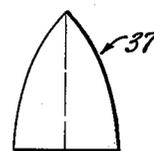


Fig. 4

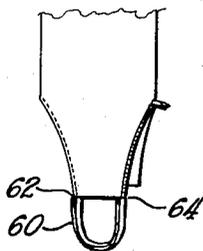


Fig. 5

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HUNTING AND SPORTSWEAR TROUSER

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1 Claim. (Cl. 2-227)

This invention relates to an article of wearing apparel, and more particularly to hunting and sportswear trousers having the lower ends of the legs fabricated in a particular manner to facilitate insertion into and retention in hunting boots, ski boots, riding boots or the like.

In the prior art, hunters and sportsmen such as skiers who utilize boots where the bottom ends of the trouser legs must be tucked into the boots to protect against the bottom end of the trouser leg being caught or entangled and to protect the boot against being filled with snow or other foreign material, have generally folded or wrapped the bottom end of the trouser leg around the ankle and then pulled the boot onto the foot and up over the fold or wrap with the other hand while holding the trouser fold in the first hand. This has provided a number of disadvantages, to wit:

(1) The fold is pressed against the wearer's ankle and foot when the boot is laced over the bottom of the trouser leg and causes discomfort;

(2) The trouser has a tendency to creep out of the boot when the wearer walks, necessitating that he stop, remove the boot, re-fold the trouser leg and re-apply the boot to provide the original and desirable condition.

Admittedly, a number of efforts have been made to overcome this cumbersome condition and the prior art efforts have included elastic cuffs, straps attached to the bottom of the trouser leg and passing beneath the arch of the foot, various and sundry lacing devices, including buckles, etc. However, these prior art attempts and efforts have generally been directed toward securing the garment around the outside of the top of a boot and, because of their bulk, have not provided a concise structure that would be comfortable and effectively hold the garment in place on the inside of a boot while facilitating passage of the wearer's foot therethrough for putting on the trousers for dressing.

Accordingly, it would provide a substantial step forward in the art of trouser construction to provide an improved trouser leg bottom that would be form-fitting to the ankle to provide comfort in wearing and at the same time prevent creeping of the trouser leg upwardly out of the boot during use as in athletic sports such as skiing and hunting where crouching conditions are encountered that tend to pull trousers upwardly and out of boots.

It is accordingly an important object of the present invention to provide a novel trouser leg construction.

A further object is to provide an improved trouser leg construction that is simpler, more functional and much less expensive to manufacture than related structures of the prior art.

A further object is to provide a trouser leg bottom construction that is less bulky and that fits into a hunting or similar boot more easily and more comfortably than analogous structures of the prior art.

A further object of the present invention is to provide an improved trouser leg construction wherein the lower end of the trouser leg is adapted to be tucked into and remain fast against creeping, in surrounding relationship to a wearer's ankle within a boot.

A more particular object is to provide a hunting and sportswear trouser having the bottom end of the leg contoured in ankle-fitting relationship and provided with a separable closure whereby the foot can be readily inserted through the contoured portion and the closure then closed, fastening the trouser leg snugly around the

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wearer's ankle, but facilitating insertion of the foot into the boot and retaining the trouser leg during extended periods of wear by the user.

Another and particular object of the present invention is to provide a hunting and sportswear trouser wherein the legs are longer than normal and the bottom ends of the legs are contoured in ankle-fitting relationship to be inserted in a boot without creeping during extended periods of wear, and the excess length of the leg is draped over the top of the boot to protect against entry of foreign matter such as snow or the like.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawings forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

In the drawings:

FIGURE 1 is a front perspective view of a pair of man's trousers embodying the present invention and showing the manner in which a stocking covered foot is readily inserted for dressing;

FIGURE 2 is a three-quarter rear perspective view of a pair of lady's trousers embodying the present invention showing the manner in which the "cuff" end of the trouser leg is closed around the ankle before the foot is inserted into a boot;

FIGURE 3 is a fragmentary detail view of the manner in which the lower end of the trouser leg is configured in accordance with the present invention;

FIGURE 4 is a plan view showing the particular shape of the piece of material removed in forming the present trouser leg construction; and

FIGURE 5 is a fragmentary detail view showing an alternate construction of the lower end of the trouser leg.

Before explaining the present invention in detail it is to be understood that the invention is not limited in its application to the details of construction 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 and terminology employed herein is for the purpose of description and not of limitation.

Brief Perspective

Briefly, the present invention relates to an improved hunting and sportswear trouser and particularly to such trousers wherein the bottom ends of the legs are contoured in ankle-embracing manner and provided with a separable closure permitting ready and easy insertion of the foot through the contoured end, followed by securement of the closure to provide an ankle-embracing fit to retain the bottom end of the trouser leg securely within a boot worn by the wearer to prevent creeping of the trouser leg out of the boot during use.

Also, in accordance with the present invention, the trouser legs are cut two to three inches longer than normal so that after the improved lower end is tucked into the boot, the trouser leg will drape over the top of the boot in a manner to prevent entry of foreign material such as snow, dust, dirt and the like into the boot that would otherwise irritate the foot of the wearer.

Also, in accordance with the invention, the improved closure-fitted end may be utilized in combination with a strap passed beneath the instep of the wearer's foot, utilizing a trouser leg of normal length or slightly longer than normal length.

The Environment

As shown in FIGURES 1 and 2 of the drawings, there are illustrated trousers for both men and women that em-

body the leg construction of the present invention. Thus, the trousers include a waist-embracing portion 10, including a waistband 12, trouser front 14 and a seat portion 16. The waist-embracing portion 10 also includes front pockets 18 and rear pockets 20. In the man's construction as shown in FIGURE 1, a belt can be utilized with belt loops 22 of the waistband 12 with a conventional fly 24. The lady's structure may be somewhat different in providing the fly at the side, as at 26, closed by a separable closure such as a zipper, also optionally used in the man's construction. In the lady's waistband construction it will be noted that at 28, buttons or analogous separable closures are used at the top of the fly 26 in analogous structure to that of the man's construction.

In addition to the waist-embracing portion 10, each of the trousers include generally tubular legs 30. Upon this environment, the present invention is superimposed, as a particular configuration or formation of the lower end of the trouser leg 30 in an improved manner as will be set forth hereinbelow in detail.

The Invention

In the preferred embodiment of the invention, the trouser legs 30 are made about two or three inches longer than normal to provide a drape over the top of the boot 32 as illustrated at 34. This allows for freedom of movement such as crouching or the like.

As better shown in FIGURE 3, the formation at the bottom end is made by laying the leg flat and making diametrically opposed cut-outs 36 and 38 of particular configuration as shown in plan view at 37 in FIGURE 4. These cut-outs 37 are of generally semi-elliptical or cathedral shaped configuration and extend from a point about four to six inches above the bottom end of the leg to the bottom, tapering inwardly from the diameter, about one-fourth of the diameter of the leg as at 40 and 42, leaving a bottom terminal portion 44 that is approximately one-half of the original diameter of the leg.

As an example, assuming an original leg diameter of ten inches, cut-out portions 36 and 38 of approximately six inch length are made, tapering inwardly about one-fourth the diameter of the leg or about 2½ inches each. This would mean that the bottom terminal portion 44 is of about five inch width. Of course, these particular dimensions are subject to variation to suit various sized wearers for whom they are made, but in general that proportions described will be utilized for greatest effectiveness in the present invention.

After the cut-out 36 is made, the raw edges are folded neatly and sewed to provide a seam as at 46. This is suitably done at the outside of the leg so that the closure is most conveniently located on the "instep" side. To provide the closure, the cut-out 38 has the halves 48 and 50 of a zipper 52 fastened therealong, as by sewing, and, due to the curvature of the cut-out as described, a zipper longer than the vertical length of the cut-out is necessitated. Thus, utilizing a six inch high vertical cut-out, due to the curvature, a zipper of about eight inch length is required or used.

Operation of Invention

As shown in FIGURE 1, the zipper is opened by pushing the slider 54 to the top end of the cut-out 38 and this permits the foot 56 of the wearer to be readily inserted through the bottom of the trouser leg when he is dressing himself. As shown in FIGURE 2, the zipper slider 54 is thereafter moved to the bottom of the cut-out 38 to close the bottom end of the trouser leg securely around the wearer's ankle. Thereafter, the boot 32 is applied over the foot and the trouser leg is draped over the top of the boot as shown at 34.

Alternate Embodiment

It is also to be included within the scope of the invention to pass a strap 60 from the bottom of the trouser

leg 30 around and beneath the instep of the foot as shown in FIGURE 5. This strap 60 may be of either elastic or non-elastic material and will have one end fastened to the bottom of the closed side of the trouser leg, as at 62, and the other end fastened to one side at the bottom of the zipper or other separable closure as at 64. Strap 60 will be preferably positioned at the front side of the zipper opening so that the wearer can readily insert his foot underneath the end of the leg and over the strap for a positive fit, in dressing. If instead, the strap were attached at the inner end to the back half of the zipper opening, the strap would probably need to be pulled forwardly into accurate position beneath the instep during closing of the zipper. Though a little less convenient, this would nevertheless work and accordingly is within the scope of invention.

Extended Scope of Invention

Although the foregoing description has related to the use of a separable closure in the form of a zipper, it is to be included within the broad scope of invention to include other forms of separable fastener for closing one side of the bottom of the trouser leg. Thus, buttons, hooks and eyes, snaps, laces and others can be used at the position of the zipper shown.

Also, it is to be included within the scope of the invention to place an elongated pad along one side of the zipper opening so that when closed, the pad is brought into alignment beneath the zipper to provide comfort and prevent the zipper or button or other closure member from being pressed uncomfortably against the instep when the boot is laced snugly thereover.

Still further, it is to be included within the scope of the invention to make the trousers warmer by applying a lining, with a water-repellent, but, perhaps lighter weight outer layer, being used. Thus sporting pants, typified by ski pants, and pants typified by those used by hunters can be provided with the present leg construction to very good advantage, in addition to the hiking and general purpose trouser or western style pocketed jean shown. Still further the present construction is applicable to warriors' combat trousers, the bottoms of rubberized rainwear pants such as firemen's trousers and the like.

The foregoing drawings have shown the separable closure, such as the zipper, placed on the instep side of the wearer's ankle, this configuration being preferred for greatest ease and convenience of dressing. However, it is to be included within the scope of the invention that the separable closure can be placed on the outside of the leg if desired. Also, in some instances it may be desired to place a separable closure at each side of the bottom of the trouser leg and this is also to be included within the broad scope of the invention.

Advantages of the Invention

From the foregoing description, it will be apparent that the present invention provides an improved construction for hunting and sportswear trousers that is of simplified construction and one advantage of the improved ankle-embracing configuration of the invention is that the separable closure facilitates entry of the foot of the wearer into and through the fabricated portion of the trouser leg to ease the wearer's dressing.

Thus, in accordance with the present invention, the bottom ends of trousers are contoured to hold them inside a wearer's boot for sportswear, hunting wear, riding and the like, and they are angle-fitted by having a separable closure at the bottom end of the leg.

Further advantage resides in the fact that the novel ankle-embracing structure of the bottom of the trouser leg prevents creeping of the trouser leg upwardly and out of the boot during wear. Further, this anti-creeping construction maintains the drape shape as at 34, providing a satisfactory and presentable appearance over long periods of wear.

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As regards the configuration of the zipper 54, it will be noted that this is generally the reverse of the configuration of zipper ordinarily used for closing a garment such as a jacket front or the like. It is to be noted that the zipper closes from the top down and as it closes, draws the bottom of the trouser leg in and around the ankle of the 5 wearer. As contrasted to a jacket or sweater closure where the zipper opens from the top and utilizes a guide pin for threading purposes at the bottom. This would mean that the trouser bottom would first be drawn together and then the rest of the bottom configuration would be tightened as the zipper was moved upwardly. In the 10 present invention the zipper is closed by downward movement to provide a smooth-flowing and ankle-embracing construction, snugging the trouser leg as the zipper slider moves downwardly.

Having thus described my invention, I claim:

In a trouser construction, a generally tubular leg having opposed cutouts of generally semielliptical configuration

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in the bottom end thereof, one of said cutouts being sewn and positioned to contact the outside of the wearer's ankle, the other cutout being positioned to contact the inside of the wearer's ankle, and a zipper closure secured to said 5 other cutout whereby closing of said closure causes the bottom end of said leg to snugly embrace the ankle of the wearer and maintain the bottom of the leg in anticreeping position inside a boot placed thereover, and the extra 10 length causes the trouser leg to drape over the top of the boot in protective relation against entry of foreign material into the boot.

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