United States Patent [19]

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[54] **INSERTABLE SKI CUFF FOR STRETCH PANTS**

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[52] **U.S. Cl.** **2/232**

[51] **Int. Cl.** **A41d 1/08**

[58] **Field of Search** ..... 2/232, 232 A, 227, 2/231

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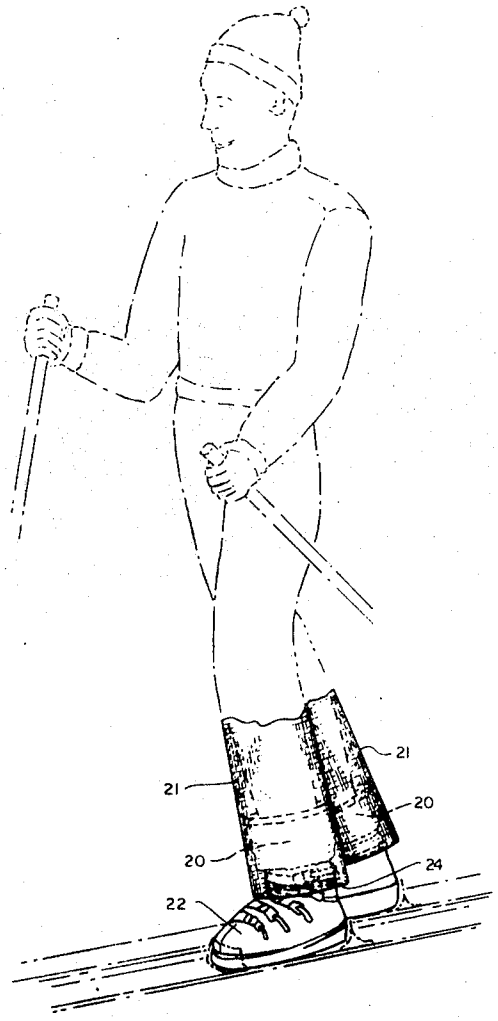
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[57] **ABSTRACT**

A form of skiing and sports apparel, having an insertable cuff piece attachable inside each leg portion of a pair of vertical stretch pants, the cuff piece extending from approximately two inches above the bottom edge downward and out of the leg of the trouser and over the user's ski boot, having a pair of elastic bands designed to firmly hold the cuff piece onto the ski boot. The cuff piece is attached to the inside of the trousers by a pair of Velcro type fasteners, and may be easily removed so that the pants may be worn without the insertable cuff pieces in normal non-skiing wear.

5 Claims, 5 Drawing Figures



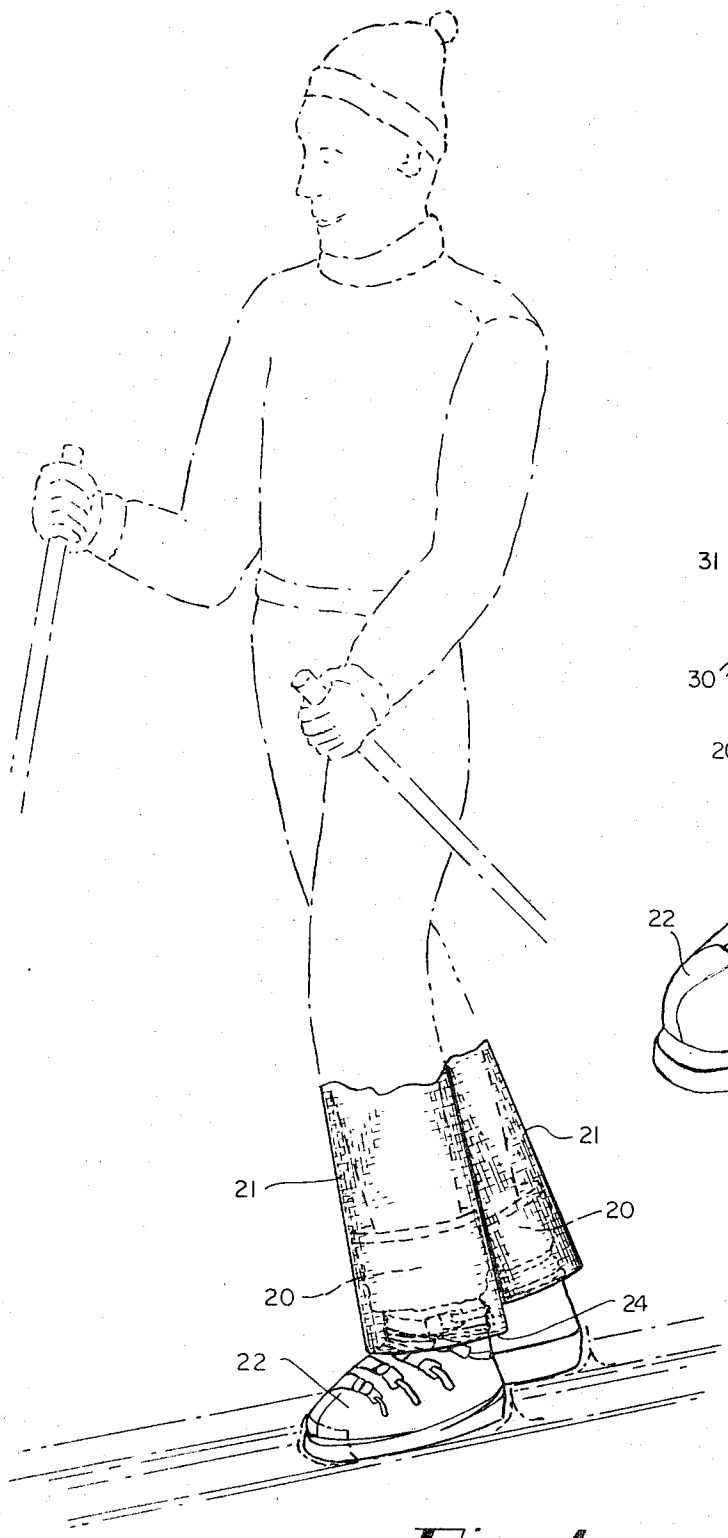


Fig. 1

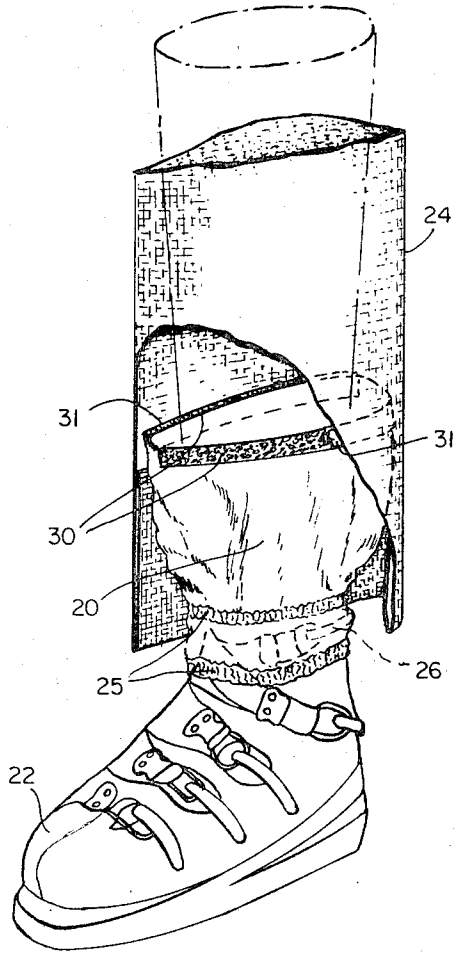


Fig. 2

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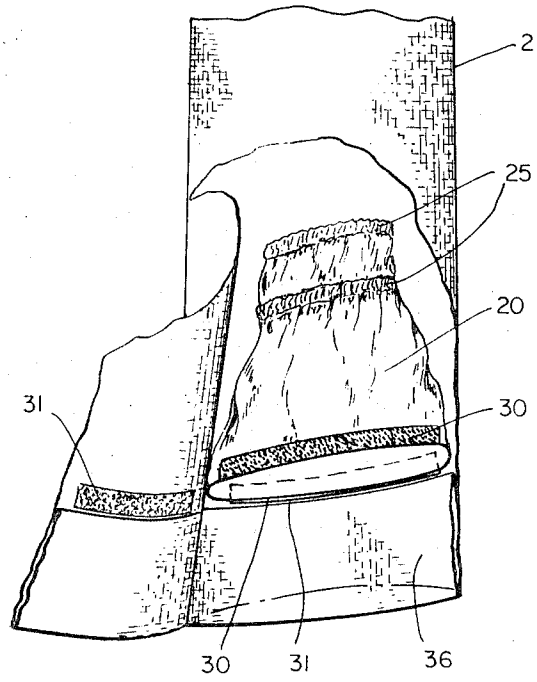


Fig. 3

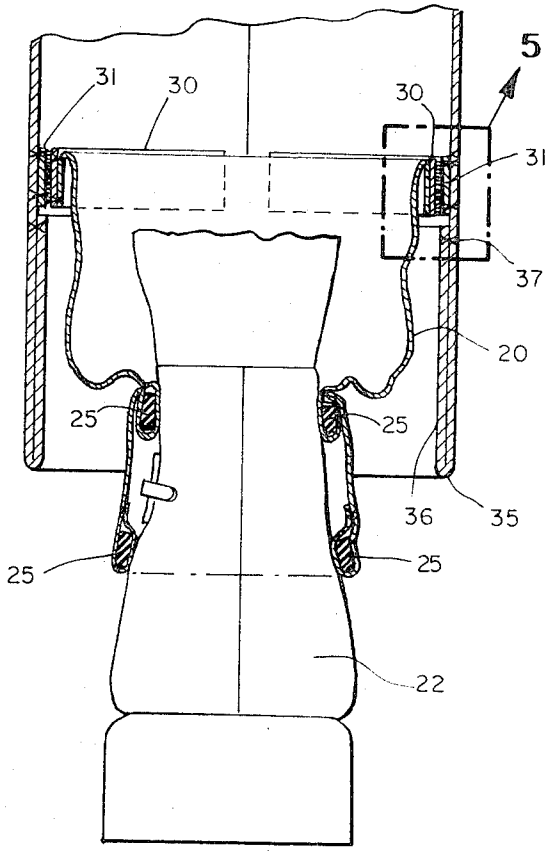


Fig. 4

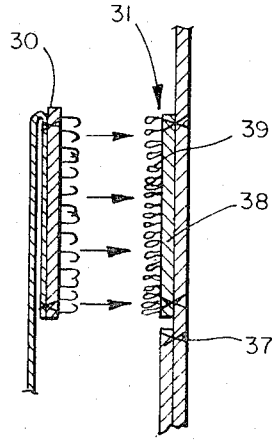


Fig. 5

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INSERTABLE SKI CUFF FOR STRETCH PANTS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention lies in the field of ski and sports apparel and, more particularly, an insertable cuff for adapting a pair of regular, or normal dress and sports pants for tight fitting to ski boots.

2. Description of the Prior Art

As is well known to skiers, it is very undesirable to wear a pair of regular trousers for skiing, due to the fact that snow can enter the bottom opening of the trouser legs and cause substantial discomfort to the skier. For this reason, ski pants are designed which are tucked within the ski boot, and normally have a strap which fits under the foot to hold the pants firmly within the boot. However, such ski pants are generally not adapted for normal non-ski wear, because they are tapered toward the lower portion to permit efficient tucking of the pants into the ski boots, and also because of the strap on the bottom. Thus, for many skiers, the ski pants are used only infrequently, and accordingly are an economic luxury. There is thus a need for a type of apparel which can be worn normally, as a pair of dress or sports trousers, and which also can be readily adapted for ski or other outdoor wear.

SUMMARY OF THE INVENTION

It is a purpose of this invention to provide wearing apparel having the stretch characteristics of ski pants and which can be tightly and firmly attached to ski boots to prevent entry of snow through the leg openings during skiing, and which is adaptable for normal dress or sports wear.

Accordingly, there is provided an insertable cuff piece which may be attached on the inside leg of a pair of trousers several inches above the bottom edge of such leg, e.g., above the normal cuff, the cuff piece in an attached position extending down and out of the leg, and having a pair of elastic bands around the lower portion thereof with a circumference and elasticity suitable for firm, snug and tight fitting over a ski boot. The insertable cuff piece is of a sufficient length that it is in a generally relaxed condition and permits substantial play, or extension when and as the trouser leg is pulled upward away from the ski boot, so that the cuff piece remains firmly in place during falls, spills, etc. The insertable cuff piece is attached to the trouser leg by a Velcro type fastener, and may be easily detached and stored elsewhere, such that the pants are available for normal dress and sports wear.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing the placement of the insertable cuff piece with respect to the trouser leg and the ski boot.

FIG. 2 is an enlarged perspective view, partially cut away, showing the insertable cuff piece as worn, attached at the top to the inside of the trouser leg and at the bottom to the ski boot.

FIG. 3 is an enlarged view, partially cut away, showing the insertable cuff piece attached within the trouser leg and in an upward inverted position.

FIG. 4 is a rear plan view, partially cut away, showing the insertable cuff piece in relation to the ski boot and the bottom of a trouser leg.

FIG. 5 is a detailed diagrammatic view of a fastener as used with the apparel of this invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIGS. 1 and 2, an insertable cuff piece 20 is shown as used in relation to a leg 21 of a pair of ski pants and a ski boot 22. The cuff piece is composed of any suitable synthetic fabric, preferably a fabric having good water repellant characteristics. The insertable cuff piece 20 is attached to the interior of the leg 21 at a point above the bottom opening 24 of such leg by a fastener 30 which is described in detail hereinbelow. The fastener is positioned preferably about two inches above the opening 24, but the exact location of the fastener may be varied according to the length of the cuff piece 20. Insertable cuff 20 is of sufficient length that its lower portion may extend downward and out of opening 24. The bottom portion has a pair of elastic bands 25 which are sewn into the synthetic material (see FIG. 4), and which are aligned around the circumference of the cuff piece. Each band 25 is held in the cuff piece by looping said cuff piece around the band, and then stitching the loop closed, as shown in FIG. 4.

For ski wear, the trouser leg 21 extends downward over and encompasses the upper ankle portion of ski boot 22. The lower portion of insertable cuff piece 20 is stretched around and over the upper portion of the boot, preferably such that the bands 25 surround the upper buckle 26 of the ski boot. The bands 25 are normally shrunk to a diameter less than the diameter of the upper portion of the ski boot, such that when the elastic bands are stretched for placement of same over the ski boot, a firm and snug fit is obtained. Further, the unstretched cuff piece 20 has a length, from the upper fastener portion to the lower band, which is substantially greater than the distance from the fastener material on the trouser leg 21 to the bottom opening 24, such that when inserted the cuff piece is generally relaxed and in a folded, or baggy unstretched condition.

The pants as used in the apparel of this invention are composed of vertical stretch fabrics, having, for example, a 40 percent vertical stretch, and a 3% bagginess limit. The pants may be produced with a front and back crease, and are otherwise finished as a fine set of dress pants.

Around the upper edge of insertable cuff piece 20 there is stitched a band 30 of a commercially available fastener, commonly known as a "Velcro" type fastener. A second, mating band 31 is fastened, as by sewing or stitching, to the inside of the leg 21. The two bands 30 and 31 are caused to adhere to each other by pressing them one against the other, and can be disengaged simply by pulling them apart. The structure of the fastener is illustrated diagrammatically in FIG. 5. Such fasteners are commercially available, and any like fastener which obviates the use of buttons or zippers, may be employed in this apparel. Although piece 31 has been described as a "band," it is preferably in at least two pieces, with gaps left at the front and back creases.

As seen in FIG. 4, the bottom of the trouser leg is constructed by folding the material as at 35 to form an inside portion 36 which is sewed to the outside portion as at 37. Band 31, comprised of backing 38 and adhesive section 39, is stitched onto the trouser leg just

above stitch **37.** As shown in FIG. **5,** band **30** may be stitched on the inside edge of insertable cuff piece **20,** such edge then being folded over the engagement with band **31.** Alternately, band **30** may be stitched directly on the outside of the upper periphery of cuff piece **20.**

In use, the insertable cuff piece **20** may be placed in an inverted position as shown in FIG. **3,** with the user inserting his foot downward through the trouser leg **21** and into the banded opening of the piece **20,** as indicated by the arrow. In so doing, the banded end is carried downward through the bottom opening **24** of the trouser leg. The foot is then placed in the ski boot which is buckled. Following the buckling operation, the bands **25** are stretched and placed firmly around the top of the boot, preferably placing the upper buckle **26** between the two bands **25.**

In practice, the apparel as disclosed and claimed provides a highly efficient and inexpensive manner of quickly and easily adapting a conventional pair of dress trousers into a pair of ski trousers. By making the trousers of stretch material, substantial strains may be absorbed by the pants, without ripping or tearing. Further, the amount of relaxation, or bagginess in insertable cuff piece **20,** (see illustration of FIG. **4**) permits substantial vertical movement of the trouser leg without imparting jerks or tensions to cuff piece **20** which would cause it to become disengaged either from the trouser leg or from the boot. Due to the ease with which the insertable cuff piece is attached and detached from the trouser leg, it may be easily stored separately when not in use, and easily applied when it is desired to convert the pants into ski pants.

It is noted that the pants and insertable cuff of this invention may be used for other purposes than skiing. For example, the insertable cuff may be used without ski boots, with the user simply placing the lower banded portions of a pair of insertable cuffs around his socks at or just above the ankles. This arrangement permits an effective "seal" between the users' socks and his trousers, to keep out cold air. This is a highly suitable arrangement for such activities as attendance at football games and other outdoor events performed in cold weather, where dress or sports pants are desired. Also, the apparel of this invention is ideally adapted for use while participating in a wide variety of other outdoor sports, including ice skating and ski mobiling.

I claim:

1. Wearing apparel, adapted interchangeably for normal wear and for use when skiing, comprising:

a. a pair of trousers, having two legs, and composed of a stretch material permitting vertical stretch of the pants;

b. said trousers having sewn thereto, substantially around the circumference of each leg and at the lower portion thereof, a first fastener portion;

c. two insertable cuff pieces, each having circumferentially sewn around one end thereof a second fastener portion, and having sewn around the other end thereof at least one elastic band;

d. each cuff piece adapted for attachment to the inside of a respective one of said trouser legs, by engaging said first and second fastener portions;

e. a pair of ski boots, adapted for being worn by said user, each boot having a series of buckles;

f. said lower portion of each said cuff piece being adapted for attachment to said ski boot, with at least said one elastic band tightly fitted around said ski boot; and,

g. said cuffs cooperating with said trousers and said ski boots to provide efficient snow-tight apparel, and said cuff pieces being efficiently detachable from said trousers and said ski boots to render said trousers in a normal condition for wear when the user is not skiing.

2. The apparel as described in claim **1,** wherein said trousers are composed of a vertical stretch fabric having substantially a 40 percent vertical stretch, and the legs of said trousers have front and back creases.

3. For use with a pair of pants, an insertable cuff piece composed of a water repellant synthetic fabric and adapted to be detachably connected to a lower inside leg of said pants, said cuff piece having circumferentially sewn around one end thereof a fastener portion for engagement with said lower inside leg, and having sewn around the other end thereof at least one elastic band for holding said cuff around the user's leg, to provide a tight apparel connection between the inside leg of said pants and the respective leg of the user, the detachable property of said cuff rendering said pants usable for normal wear when they are not inserted in connection with the pants.

4. The invention as described in claim **3,** comprising in addition said pants having sewn thereto, substantially around the circumference of each lower inside pants leg, a receiving fastener which engages said fastener portion, and comprising a pair of said insertable cuffs for use with the pair of legs of said pants.

5. The invention as described in claim **4,** wherein said elastic band of each said cuff is attached to a boot worn by the user.

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