

1,146,209.

Fig. 1

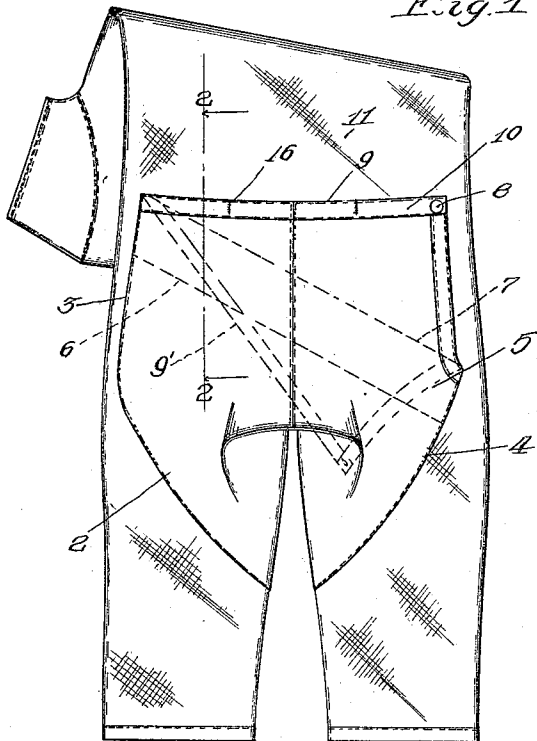


Fig. 2.

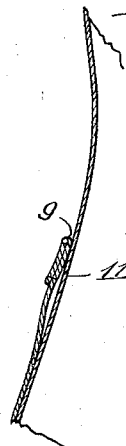


Fig. 7.

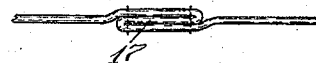


Fig. 3.

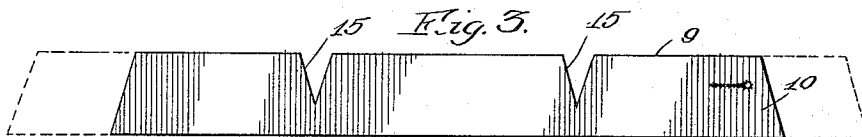


Fig. 4.

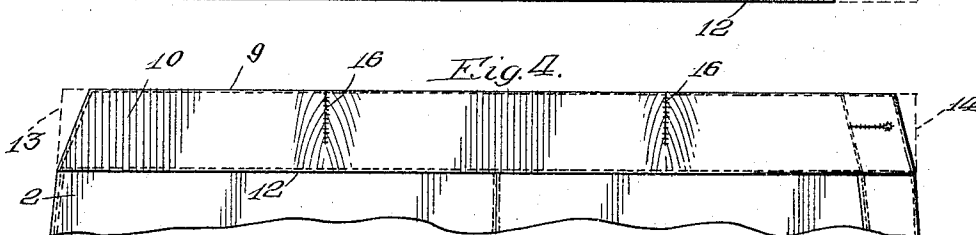


Fig. 5, 18

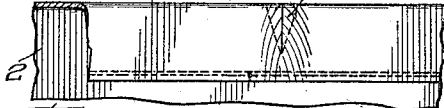
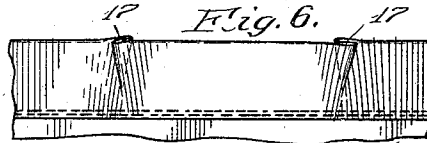


Fig. 6. 17



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COMBINATION-UNDERGARMENT.

1,146,209.

Specification of Letters Patent.

Patented July 13, 1915.

Application filed June 13, 1914. Serial No. 844,901.

To all whom it may concern:

Be it known that I, JOSEPH R. SHEFFER, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combination-Undergarments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to undergarments and more particularly to so-called union suits for men's and boys' wear, its particular object being to provide a flap construction which will afford the required extensibility and elasticity while exposing the posterior opening of the garment, and which will avoid both a gaping of the upper edge of the flap when the latter is in its normal position and an undue strain upon the portions of the garment disposed forwardly of the said flap.

More detailed objects of my invention are those of providing a flap for a garment of the class described with an upper edge portion of relatively greater elasticity and expansibility than the main portions of the flap, and of equipping such an upper edge portion with means for affording a more powerful contractility thereof than that of the adjacent portions of the flap member, thereby insuring a snug bearing of the said upper edge portion of the flap member against the adjacent portion of the main member of the garment.

Still another object is to provide a band or upper edge portion for the flap of an undergarment with means for placing the extreme upper edge thereof under greater tension than the lower edge of the said band, thereby causing the upper edge portion of the band to be flexed inwardly so as to avoid gaping.

Still other objects are to provide a simple method of constructing the said upper band and of securing the same to the adjacent portions of the garment for accomplishing the aforesaid purposes.

While the flap construction of my invention may be used with a large variety of constructions of garments and flaps therefor, it is particularly suitable for use in connection with the garment shown in my copending

application Serial No. 823481 filed March 9, 1914, and is shown in this embodiment in the accompanying drawings, in which:

Figure —1— is a rear elevation of a union suit embodying my invention. Fig. —2— is an enlarged fragmentary longitudinal section through Fig. —1— along the line 2—2. Fig. —3— is a view of the band of the flap of Fig. —1— before being attached to the main member of the flap. Fig. —4— is a fragmentary view of the flap member with the band of Fig. —3— secured thereto. Figs. —5— and —6— are fragmentary views of the upper portion of a flap member showing alternative embodiments of my invention. Fig. —7— is an enlarged fragmentary plan view of the embodiment of Fig. —6—.

In Fig. —1—, my invention is shown as applied to a garment comprising a main member 1 having sleeve and leg portions integral therewith and having a posterior opening extending along both legs through the crotch and forwardly slightly upward along the front of the garment as more particularly described in the above-mentioned copending application. The said opening is normally closed by a flap member 2 secured to the main member 1 of the garment along one entire lateral edge 3 and along the lower portion of the opposite lateral edge 4 up to a point 5 disposed near the hip joint of the wearer of the garment. The back of the body member preferably depends under the flap and terminates along a diagonal line 6 disposed slightly below and substantially parallel to the line 7 upon which the flap member is folded back upon itself when dropped loosely, that is to say, when its free corner is loosened from the button 8. When the flap is thus dropped loosely, the upper edge 9 depends in approximately the position shown at 9', thus crossing some of the portions of the flap member which provide the fullness or convexity needed in the posterior portion of the garment. It will be evident from Fig. —2— that in order to secure the desired posterior opening after the free portion of the flap member has thus been allowed to depend, the edge 9' must be stretched over the said portions of the flap which afford the necessary fullness; in other words, the portion of the flap which normally constitutes the upper

edge must be distended greatly beyond its normal length. In practice, if this is done with flap members having the upper edge portion integral with the main member of the flap (as shown in Figs. —1— and —2— of the said copending application) the unusual amount of expansion thus required will soon overstrain the upper edge portion of the flap, so that this will no longer be able to contract to its normal length when the flap is buttoned in its usual closure position. Moreover, this failure to contract to its normal length will be augmented by the strains of laundering the garment, so that the upper edge portion of the flap will bag, gape and even curl or roll in a manner which is both unsightly and uncomfortable to the wearer. To avoid this, I equip the main portion 2 of the flap member at its upper edge with a band 10 so constructed as to provide a relatively much more powerful contractility than the adjacent portions of the flap member 2, but sufficiently elastic to permit the required expansibility. Then, since the said band 10 normally bears against a body portion 11 which tapers upwardly, I preferably also construct or foreshorten the extreme upper edge 9 of the said band with respect to the lower edge 12 thereof, so as to cause the said band to assume an approximately conical formation, thereby forcing the said upper edge 9 to closely hug the adjacent portion of the body member of the garment, as shown in Fig. —2—. Both the increase in contractility and the relative foreshortening of the upper edge portion of the band of the flap member may be accomplished in a number of different ways. For example, Fig. —3— shows the outlines of a band 10 before being secured to the upper edge of the flap member 2, which latter is shown in its corresponding size in Fig. —4—, the said band being cut relatively shorter at its upper edge 9 than at its lower edge 12, and the said lower edge 12 being shorter than the width of the upper portion of the flap part 2 to which the said edge portion is to be secured. In assembling the said flap parts, the band 10 is stretched to a length corresponding to the width of the flap part 2 and is sewed to the latter while thus extended; or, in other words, while under a considerably greater tension laterally of the flap member than the adjacent portions of the flap. Moreover, in securing the assembled flap to the body member of the garment, the permanently secured end of the band 10 is stretched to overcome the relative shortening of the same in its said end, as shown in dotted lines in 13, in Fig. —4—, while the button 8 also preferably is so located as to extend the upper edge of the band at the end carrying the button-hole, as shown in dotted lines at 14. Consequently, the said band 10 will

be under a considerably greater tension laterally of the garment than the adjacent portions of the flap and will bear tightly against the adjacent portions 11 of the body member, while the greater tension placed upon the extreme upper edge 9 will cause the latter to be flexed inwardly of the garment. By suitably proportioning the contractility of the band with respect to the main portions of the flap, I can readily produce these desired effects without depending on the elasticity of the forward portions of the garment, as has heretofore been necessary when using flaps of any considerable width. To make the said inward flexing of the upper edge of the band extend substantially along the entire length of the said band, I preferably supplement the diagonal cutting of the ends of the band by an added foreshortening of the intermediate portions. This may be done by cutting V-shaped notches 15 in the band as shown in Fig. —3— and securing the edges of the said notched portions by stitches 16, as shown in Fig. —4—. Or, it may be done by forming tapering tucks or so-called darts 17 in the upper edge portion of the band, as shown in Fig. —6—.

In order to combine the greater contractility of the band with the desired amount of extensibility, I preferably make the same of material knit with a relatively tighter stitch than the main portions 2 of the flap member and with the wales of the said band extending substantially vertically of the garment, it being evident from the drawings that the number of wales exposed at the upper edge of the band will be considerably smaller than those exposed at the lower edge thereof. However, I do not wish to be limited to the use of a separately knit band, as the increased contractility as well as the inward curving of the upper edge of the band might be secured by forming the band integral with the main portions of the flap member. For example, Figs. 5 and 6 show a flap member in which the main portion 2 is folded over upon itself to form a band, thereby doubling the amount of material in the band portion of the flap, and consequently increasing the contractile power of this portion. In this case, the desired shortening of the upper edge portion of the band may be secured either by overlapping portions 18 adjacent to a vertical slot in the band, or by forming darts, as shown in Fig. —6—.

It will be obvious that the method of making my invention may be used with materials differing widely in texture and also that the details may be varied considerably without departing from the spirit of my invention, although I have found the same particularly adapted for use with knitted garments.

I claim as my invention:

1. In a combination undergarment having a posterior opening, a flap for closing said opening, comprising a main member and a band secured to the upper edge thereof, both thereof of elastic material, the said band being of material affording greater contractility laterally of the flap than the adjacent portion of the main member.
2. In a combination undergarment having a posterior opening, a flap for closing said opening, comprising a main member and an elastic band secured to the upper edge thereof, the said band being cut from material normally shorter than the adjacent upper edge of the main member and being secured to the latter while the said band is distended to a length substantially equal to the said upper edge of the main member.
3. In a combination undergarment having a posterior opening, a flap for closing said opening, comprising a main member and an elastic band secured to the upper edge thereof, the said band equipped with substantially vertical wales, there being a smaller number of wales along the upper than along the lower edge of said band.
4. In a combination undergarment having a posterior opening, a flap for closing said opening, comprising a main member and an elastic band secured to the upper edge thereof, the said band being made of material relatively shorter along its upper than along its lower edge and being distended while being secured to the garment so as to make the said upper edge of the band substantially equal in length to the lower edge thereof.
5. In a combination undergarment having a posterior opening, a flap for closing said opening, comprising a main member and an elastic band secured to the upper

edge thereof, the said band being under greater tension along its upper edge than along the edge secured to the said main member.

6. In a combination undergarment having a posterior opening, an elastic flap for closing said opening, the upper edge of said flap being foreshortened laterally of the garment to place the said upper edge under greater tension than the portions therebelow.

7. A combination undergarment comprising a main member having leg portions integral therewith and equipped with a posterior opening, and a flap member of elastic material normally closing said opening and presenting an upper edge disposed near the waist line; said flap member permanently secured to the main member along one entire lateral edge and along the opposite lateral edge below a point near the hip joint of the wearer, and detachably secured at the upper end of its last named edge, and adapted when released from the said detachable securing to fold back upon a line reaching from the said point near the hip joint to the upper corner of the opposite lateral edge of the flap member; the said flap member including a band disposed along its upper edge and normally shorter than the said line; said band providing an extensibility enabling the same to be stretched to a length exceeding that of the said line, thereby enabling the flap member to afford the required posterior opening.

In testimony whereof I have signed my name in presence of two subscribing witnesses.

JOSEPH R. SHEFFER.

Witnesses:

ALBERT SCHEIBLE,
G. M. NEVILLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."