

July 26, 1927.

A. OBERSTEBRINK

1,637,201

SHOULDER STRAP

Filed Feb. 8 1926

Fig. 1

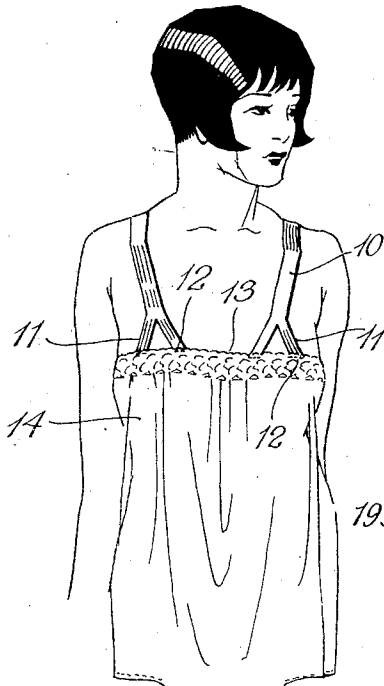


Fig. 5

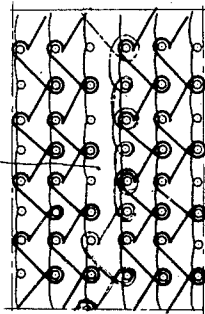


Fig. 2

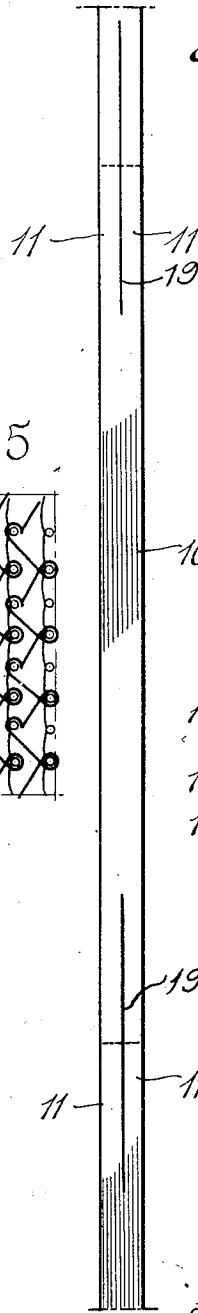


Fig. 4

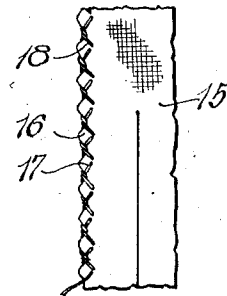
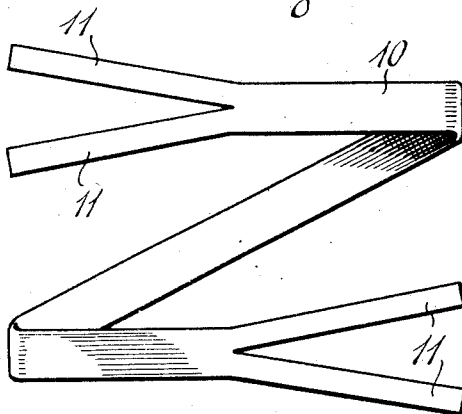


Fig. 3



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UNITED STATES PATENT OFFICE.

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SHOULDER STRAP.

Application filed February 8, 1926. Serial No. 86,897.

My said invention relates to a shoulder strap for ladies' undergarments and primarily for the type of lingerie usually called step-ins. The upper edge of the step-in is ordinarily fairly low-cut and comes in line somewhere below the arm-pit. The present practice is to provide the upper edge of a garment of this kind with shoulder straps which consist of very thin bands passing over the shoulder and attached to the garment at front and back. A serious defect with this kind of strap is that they slip down over the shoulder causing discomfort to the wearer and when worn with sleeveless or short-sleeved dresses they are apt to present a somewhat unsightly appearance.

It is an object of my invention to provide an exceedingly simple shoulder strap which will remain securely in position and which may be quickly and easily attached to and detached from the garment.

Another object of my invention is to provide a simple and inexpensive shoulder strap of a textile fabric, the ends of which may be spread or splayed out without causing the fabric to wrinkle or bulge and so detract from the appearance of the shoulder strap. The splayed out ends serve to hold the strap securely in place and prevent it from slipping off the shoulder, said ends being attached to the front and rear of the garment at the upper edges thereof, as is usual with devices of this character.

Referring to the drawings, in which similar reference characters indicate similar parts:

Fig. 1 illustrates the manner in which the device of my invention is used.

Fig. 2, is a plan of a strip of fabric from which the shoulder straps of my invention are made,

Fig. 3, a similar view of a strap with the ends spread out to a limited extent,

Fig. 4, a plan of a portion of a modified form, and

Fig. 5, a detail on an enlarged scale.

In the drawings, reference character 10 indicates the body or web of the strap, with splayed end members 11 which are preferably integral, the whole being made as a warp knitted fabric on a Raschel knitting machine. As shown in the drawings the splayed ends are all equal in length and relatively short as compared with the body

portion. However, these dimensions may be varied to secure the best results, as for example the two portions 11 at one end of the strap may be different in length or may vary in other respects. Warp knitted fabric is characterized by the fact that it is made of a number of interknitted yarns all extending substantially lengthwise of the fabric instead of a single yarn (or in some instances of a relatively small number of yarns) running across the fabric in rows or courses of stitches.

Such fabric is advantageous in that it is strong, it has sufficient elasticity to prevent it from tearing loose from the garment to which it is attached, it may be produced at minimum expense, and it lies flat when the ends are spread out. Ordinary knitted fabric is too elastic and does not keep its shape well, while a shoulder strap of woven fabric with splayed ends will wrinkle or bulge when the ends are spread out even to a relatively small extent, but the strap of warp knitting lies flat with its ends spread far enough apart so that the opposed pull of the ends holds the strap against slipping off the shoulder.

In use the web or body member 10 lies flat on the shoulder of the wearer and the splayed forked or divided ends are secured by stitches 12 or otherwise to the upper edges 13 at the front and back of the garment 14. The shoulder strap may, of course, be attached permanently to the garment but for the purpose of easy interchangeability the line of stitching is preferably rather loose so that it can be taken out with a minimum of trouble.

The fabric referred to is knitted on a warp machine with yarn-guide supporting bars above the needle rows. To make the slits in the fabric one yarn of each strip or ribbon is guided by a separate bar and is shogged so as to leave a needle bare of yarn at the points where slits are desired. It will be noted that the edges of the slits, as well as the outer edges of the strip, are selvage edges.

Fig. 5 shows a portion of the fabric on a scale of sufficient size to indicate the individual yarns in a manner conventional for the illustration of warp knitted fabrics. It will be seen that the yarns are so controlled as to leave apertures at 19, corresponding to the indication of slits at 19, 19 in Fig. 2.

The fabric of Fig. 4 differs from that so far described in that the edges are indented so that a body 15 is provided with ornamental indented edges 16. This is done by means of threads or yarns 17 and 18 so located in the fabric as to draw in the edges at regular intervals. While these yarns or threads are introduced primarily for ornament they are also useful in that they serve to limit the elasticity of the strap to a certain extent, they increase its durability and they limit diagonal stretch. They may be carried around the ends and up the inner sides of the splayed portions, if desired, and the ornamental features may be varied in many other ways. A convenient way of applying the yarns or threads 17 and 18 is by means of a special sewing machine, but I do not confine myself to this method.

Among other advantages of straps made of warp knitted fabric may be mentioned the facts that they do not ravel and cannot get out of shape. Due to their elasticity they give according to the movements of the body and they are so flexible as to lie always at all parts of their length directly against the body so as to present the best possible appearance in this respect. The splayed portions may be varied in length, and in some instances it may be found desirable to make one of the parts 11 at each end longer than the other to increase their holding action. Many other variations will occur to those skilled in the art, and therefore I do not limit myself to the specific form of the

invention shown in the drawings and described in the specification, but only as indicated in the appended claims.

The present application is a continuation, in part, of my application Ser. No. 75,516, filed Dec. 15, 1925.

Having thus fully described my said invention, what I claim as new and desire to secure by Letters Patent, is:

1. As a new article of manufacture, a shoulder strap for women's undergarments comprising a body portion of warp knitted fabric adapted to rest on the shoulder of the user, and integral knitted splayed ends for attachment to the garment at the front and back of the shoulder.

2. A shoulder-strap of warp-knitted material for attachment to garments, said strap having an intermediate portion adapted to rest on the shoulder of the user and being divided lengthwise at each end to provide splayed portions for attachment to the upper edges of a garment, substantially as set forth.

3. A strip of textile material having relatively long solid sections extending the full width of the strip to form shoulder portions of a shoulder strap for garments, and having longitudinal threads displaced for relatively short intervals midway of the width of the strip to provide short forked portions at each end for attachment to a garment in splayed relation.

In testimony whereof I affix my signature.
AUGUST OBERSTEBRINK.