Jan. 12, 1926. 1,569,140

H. G. G. QUERNS

KNITTED FABRIC

Filed June 24, 1924

FIG. I.

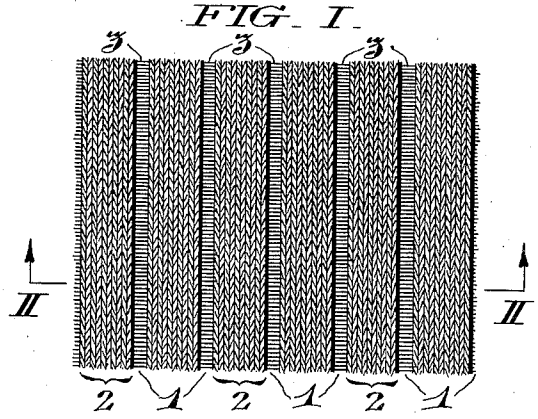


FIG. II.

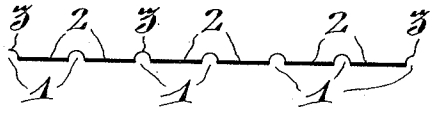


FIG. III.

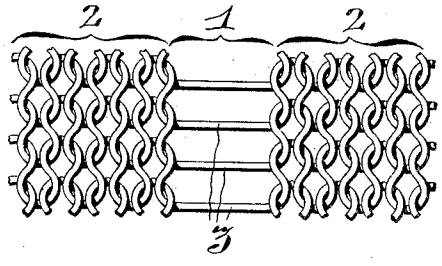
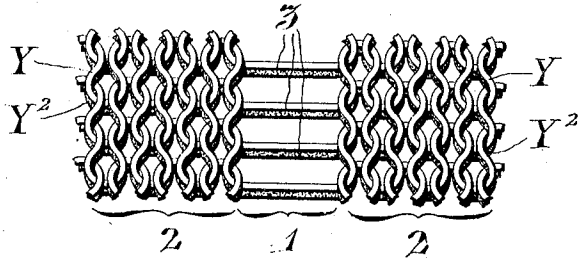


FIG. IV.



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Patented Jan. 12, 1926. 1,569,140

UNITED STATES PATENT OFFICE.

HARRY G. G. QUERNS, OF PHILADELPHIA, PENNSYLVANIA.

KNITTED FABRIC.

Application filed June 24, 1924. Serial No. 721,981.

To all whom it may concern:

Be it known that I, HARRY G. G. QUERNS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Knitted Fabrics, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to textile fabrics, more especially to knit fabrics useful in the manufacture of articles of apparel.

The object of my invention is to secure better accentuation of ornamental effects in fabrics useful for the purpose mentioned, thereby to improve the appearance and to enhance the saleability of garments made from the same.

One way in which this desideratum may be attained will be readily apparent from the detailed description hereinafter of a typical embodiment of my invention, the appended claims serving to define those features which I believe to be novel.

With reference to the drawings, Fig. I is an illustration, more or less diagrammatically represented, showing my improved fabric.

Fig. II is a sectional view taken as indicated by the arrows II—II in Fig. I.

Fig. III is a conventional representation to show the texture of the fabric when knit from a single yarn; and

Fig. IV is a similar view showing the fabric produced as a plaited structure.

As shown in Fig. I, the fabric is characterized by longitudinally extending intervals or spaces in the form of open stripes 1, 1 across which the yarn is floated between contiguous edges of intermediate solid portions 2, 2. A fabric of this sort may be produced by feeding a single yarn in any standard type of machine equipped to knit a plain web texture, and with one or two needles omitted or withdrawn at recurring intervals in the series to determine the spaces 1. The exact arrangement of the loops of a fabric knit in accordance with the above described scheme is shown in Fig. III, the floated portions of the yarn which connect the adjacent solid sections of plain fabric being indicated at 3. Per se, it is conceded that the texture of this fabric is old and well known; but I have found that by employing artificial or fiber silk in its making, that a new effect or result is produced in that, by virtue of the inherent characteristic springiness or stiffness of the material, the connecting portions across the spaces or intervals 1, round or arch inwardly as in Fig. II, thereby accentuating the depth of the stripes from the face side of the fabric, and conversely, causing the stripes to stand out or project from the rear face. As a result, the appearance of the fabric from the stand point of attractiveness is greatly improved, the stripes appearing as deep longitudinal grooves thereby accentuating or setting off the solid sections 2 so that the whole simulates a ribbed structure in effect. Articles of apparel of the type mentioned when made from my improved fabric are, as a consequence, rendered exceptionally attractive to the advantage of enhancing their saleability to a remarkable degree.

Fig. IV shows a fabric wherein a yarn Y of artificial silk, is plaited upon a backing of soft yielding yarn Y^2, for example cotton or the like preferably of a comparatively finer or lighter gauge, the two yarns Y—Y^2 being simultaneously fed to the needles of the producing machine in such a way as to determine the relative positions in the fabric in the order explained. In all other respects, the fabric of Fig. IV is structurally the same as the first described. This is also true with respect to its appearance, especially with regard to the stripe intervals 1, since the connecting or floating portions 3 of the cotton yarn Y^2 are obviously obliged to adapt themselves to the rounding or bowing of the silk yarns Y in bridging said intervals. It is possible to secure the identical structural texture by simply feeding two yarns simultaneously without regard to their ultimate positions in the fabric after the manner of splicing; but the purpose had in view in the present instance is much better served by plaiting to obtain the advantages of the sheen of the silk on the fabric face. The fabric knit with two yarns is of course more desirable than the first since the cotton backing serves to forestall disintegration or rupture of the fiber silk during laundering.

Having thus described my invention, I claim:

1. A plain knitted fabric produced by simultaneous feeding of fiber silk and a soft pliable cotton yarn, said fabric being characterized by intervals across which the two yarns are floated, the connecting portions of the silk yarn by virtue of its inherent

stiffness, bowing or rounding inwardly and imposing a like disposal of the cotton yarn thereby accentuating the depth of the intervals in the fabric.

2. A plain knitted fabric produced by plaiting fiber silk over a backing of soft pliable yarn, and characterized by intervals across which the two yarns are floated, the connecting portions of the silk yarn, by virtue of its inherent stiffness, bowing or rounding inwardly and imposing a like disposal of the soft yarn, thereby accentuating the depth of the intervals in the fabric.

3. A plain knitted fabric produced by plaiting fiber silk over a backing of soft pliable yarn, and characterized by longitudinally-extending stripe intervals across which the two yarns are floated, the connecting portions of the silk yarn, by virtue of its inherent stiffness, bowing or rounding inwardly and imposing a like disposal of the soft yarn, thereby accentuating the depth of the stripes in the fabric.

In testimony whereof, I have hereunto signed my name at Philadelphia, Pennsylvania, this 19th day of June 1924.

HARRY G. G. QUERNS.