

Feb. 14, 1939.

C. SEAMAN

2,147,463

SHIRRED MATERIAL

Original Filed Jan. 4, 1938

Fig. 1.

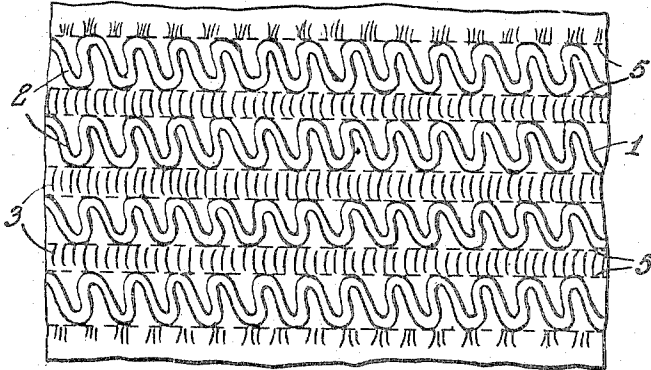


Fig. 2.

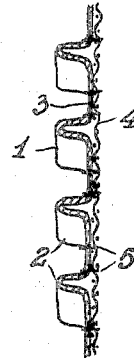


Fig. 3.

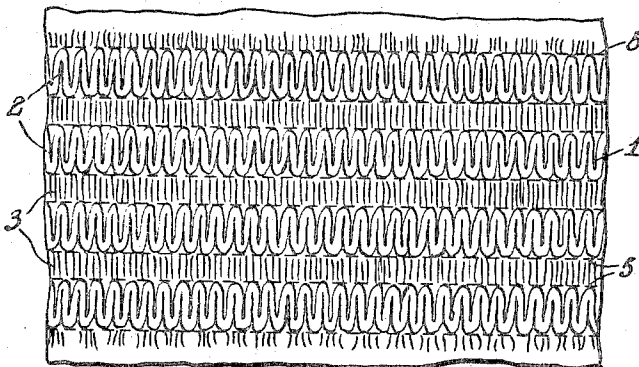


Fig. 4.

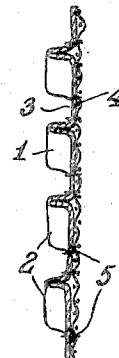


Fig. 5.

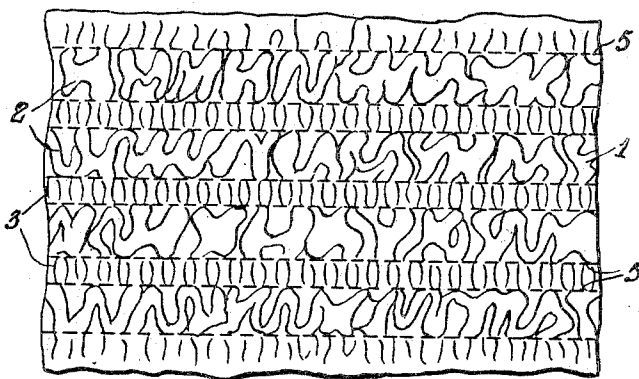
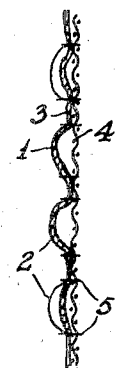


Fig. 6.



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UNITED STATES PATENT OFFICE

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SHIRRED MATERIAL

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Original application January 4, 1938, Serial No. 183,281. Divided and this application January 4, 1938, Serial No. 183,282

6 Claims. (Cl. 2-278)

This invention relates to shirred materials, and more particularly to a puffed shirred material having a highly ornamental and decorative appearance.

5 In accordance with the principles of this invention, a shirring material is formed, as by passage through a suitable passage, with alternate ridges and furrows. The shirring material in this condition is fed beneath an appropriately designed presser foot toe, whereby the ridges and furrows of the material are substantially maintained during the feeding of the material to the needles of a multiple-needle sewing machine and during the stitching thereof.

15 The presser foot and the feed dogs are so designed and arranged that the material is fed at a greater speed to the needles than away from the needles. As a consequence, the material, prior to the stitching operation, is shirred.

20 The presser foot is also so designed that the needles of the machine stitch the material while it is still in cooperative engagement with the presser foot toe. More particularly, the presser foot is mounted in the machine so that the material will be stitched at approximately each bottom bend between the ridges and furrows of the material.

25 In order to retain the puffed shirred and flat shirred areas in position, the shirred material is stitched to a suitable base material. In one form of the invention, the base material is fed beneath the shirring material under the presser foot toe, whereby the said base material is flat shirred. The stitches penetrating the shirred material and the base material retain the puffed shirred and flat shirred areas in the product.

30 For a more complete description of the apparatus for producing the product of the instant invention, reference is directed to the copending application, Serial No. 183,281, filed January 4, 1938, of which this application is a division.

35 The product of the instant invention comprises puffed shirred areas and flat shirred areas, said areas preferably being alternate. In the preferred form of the invention, the puffed shirred areas project upwardly from the material and are substantially hollow.

40 In order to retain the form and shape of the shirred areas (both flat and puffed), there is provided a base material to which the shirred material is secured. The two materials are secured together by means of stitches, there being a single row of stitches at approximately each bottom bend between the puffed and flat shirred areas.

The puffed shirred areas may be formed in various designs. This depends on the nature of the material constituting the shirred material and/or the length of the stitch securing the materials and/or the adjustment of the presser foot with respect to the needles of the machine.

Further, different configurations of the puffed shirred areas are secured when the shirring material is bias-cut, cross-cut or cut longitudinally.

Any number of alternate puffed shirred areas and flat shirred areas may be produced. Of course, when the number of different alternate areas has been determined, the machine should be provided with the requisite number of needles as will stitch the materials as aforesaid.

45 The widths of the alternate puffed and shirred areas, or either thereof, also may be varied by the use of appropriate means for imparting the ridges and furrows in the shirring material and an appropriately shaped presser foot toe.

In order to more fully explain the invention, reference is now made to the accompanying drawing wherein several illustrative embodiments of the invention are shown and wherein:

Figure 1 is a top plan view of a shirred material constituting one embodiment of the invention;

Figure 2 is an end view of the material shown in Figure 1;

Figure 3 is a top plan view of a shirred material constituting another embodiment of the invention;

Figure 4 is an end view of the material shown in Figure 3;

Figure 5 is a top plan view of a shirred material constituting still another embodiment of the invention; and

Figure 6 is an end view of the material shown in Figure 5.

Referring now to the drawing wherein like reference numerals designate like parts, the reference numeral 1 designates a shirred material having alternate puffed shirred areas 2 and flat shirred areas 3. The shirred material is superposed on a suitable base material 4 and secured thereto by means of stitches 5.

It is to be noted that each row of stitches 5 is approximately at each bottom bend between the puffed and flat shirred areas. The stitches 5, together with the base material 4 to which the shirred material 1 is secured, serve to retain the puffed shirred areas and the flat shirred areas in position.

The puffed shirred areas 2 project from the base material and are substantially hollow on

their under side, while the flat shirred areas 3 are in substantial contact with the base material.

The base material, due to the method of preparing the product, is also flat shirred and it extends over the space on the under side of the puffed shirred areas. Though in the preferred form of the invention the base material is substantially coextensive with the flat and puffed shirred areas of the material 1, if desired the base material may be formed of strip material or tapes disposed beneath the material 1 so that the stitches 5 will penetrate therethrough whereby said tapes and stitches serve to maintain the flat and puffed areas in position.

The puffed shirred areas 2 may be made of various designs. Different designs can be secured by different adjustments of the elements of the machine as aforesaid. Further, this can be secured by the nature of the goods constituting the shirred material 1. For example, if the shirred material 1 is formed of bias-cut material, then the puffed areas will assume a form substantially as shown in Figure 1. If the shirred material 1 is formed of cross-cut material, then the puffed areas will assume the form shown in Figure 3. When the shirred material 1 is formed of longitudinally cut material, then the puffed areas will assume the position shown in Figure 5.

In the preferred form of the invention, the base material 4 is formed of net and the shirred material 1 is formed of silk, satin or the like.

The product constituting the instant invention is highly ornamental and can be used as an attractive trimming on wearing apparel, particularly ladies' dresses and gowns, as an ornamental trimming on blankets, comfortables, bedspreads, and for any purpose where an attractive and ornamental trimming is desired.

Since it is obvious that various changes and modifications may be made in the above description without departing from the nature or spirit thereof, this invention is not restricted thereto except as set forth in the appended claims.

I claim:

1. An article of manufacture consisting of a material having puffed shirred areas and flat shirred areas and secured to a flat shirred base

material to retain the form and shape of said puffed shirred areas and said flat shirred areas.

2. An article of manufacture consisting of a material having alternate puffed shirred areas and flat shirred areas and secured to a flat shirred base material to retain the form and shape of said puffed shirred areas and said flat shirred areas.

3. An article of manufacture consisting of a material having puffed shirred areas and flat shirred areas and secured to a flat shirred base material by a row of stitches at approximately each bottom bend between said puffed shirred areas and said flat shirred areas to retain the shape and form of said puffed shirred areas and said flat shirred areas.

4. An article of manufacture consisting of a material having puffed shirred areas and flat shirred areas and secured to a flat shirred base material to retain the form and shape of said puffed shirred areas and said flat shirred areas, said puffed shirred areas projecting from said base material and said flat shirred areas being in substantial contact with said flat shirred base material.

5. An article of manufacture consisting of a material having puffed shirred areas and flat shirred areas and secured to a flat shirred base material by a row of stitches at approximately each bottom bend between said puffed shirred areas and said flat shirred areas to retain the form and shape of said puffed shirred areas and said flat shirred areas, said puffed shirred areas projecting from said base material and said flat shirred areas being in substantial contact with said flat shirred base material.

6. An article of manufacture consisting of a material having alternate puffed shirred areas and flat shirred areas and secured to a base material formed of a flat shirred net by a row of stitches at approximately each bottom bend between said puffed shirred areas and said flat shirred areas to retain the form and shape of said puffed shirred areas and said flat shirred areas.

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