

A. H. DE VOE.
PLAITED FABRIC.
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1,164,790.

Patented Dec. 21, 1915.

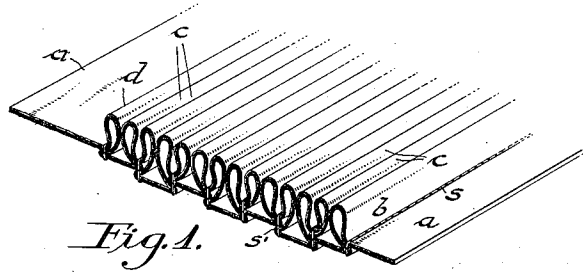


Fig. 1.

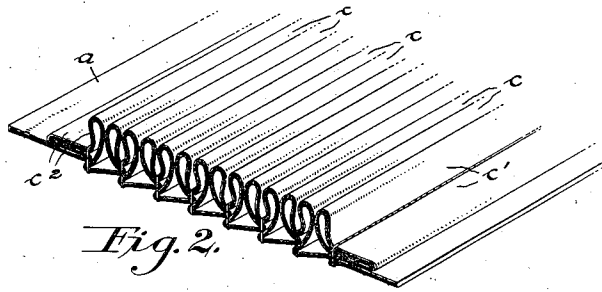


Fig. 2.

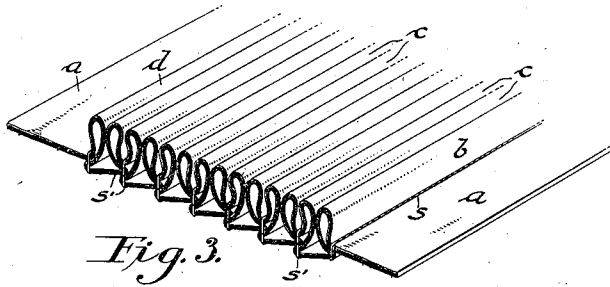


Fig. 3.

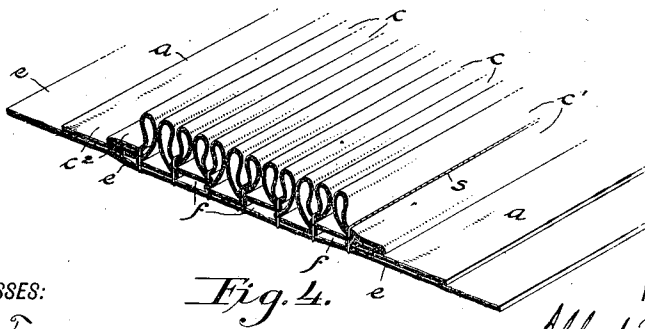


Fig. 4.

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PLAITED FABRIC.

1,164,790.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT H. DE VOE, a citizen of the United States, residing at Westfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Plaited Fabrics, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has for its primary object to provide economically and effectively a species of "mushroom" tucking for application to the bosoms of shirts and to other garments.

15 It has for a further object to provide a means for producing a plurality of tucks or plaits by means of a single line of stitching.

20 In its preferred form, the improvement is embodied in a fabric formed upon one face thereof with a plurality of box-plaits of which the bases are connected together and to the adjacent portions of the fabric by a single fastening seam passing through both
25 plies of each fold of the plait and the body of the fabric. The width of each box-plait preferably exceeds its distance from the adjacent box-plait, so that each of the component folds is deflected at an angle with
30 the body portion of the fabric and is supported in such position by the contiguous fold of the adjacent box-plait. In some cases the plaited fabric is secured by the described lines of stitching to a second or
35 backing fabric.

In the accompanying drawings, Figure 1 is a perspective view of a plaited fabric embodying the present improvements. Figs. 2, 3 and 4 are similar views of the plaited
40 fabric with the plaits formed slightly differently from those represented in Fig 1.

Referring to Figs. 1 and 3 the body portion *a* of the fabric is shown provided with an initial single plait *b* followed by a series
45 of box-plaits *c* and succeeded by a final single plait *d* adjoining a portion of body fabric *a*. The initial plait is produced by forming an uncreased fold in the body of the fabric and applying to the base of the
50 same the fastening seam *s* penetrating both its overlapped plies and the body of the fabric. At a distance less than one-half the

width of the initial plait from the base thereof, a box-plait is produced by folding
the fabric in opposite directions in such
55 manner as to avoid creasing at the free edges and to form tubular plaits of rounded cross-section, the opposite edges of the box-plait at the bases of its component folds being
60 slightly overlapped and the portion of fabric intermediate such folds being stitched thereto by a fastening seam *s'* passing through each, the seam being completed while the component folds of the box-plait
65 are standing or at substantially right angles with the body of the fabric, so that the folds have a tendency to retain their shapes and positions under the influence of the line of
70 stitchings *s'*. The adjacent box-plaits are formed and stitched in position similarly to that above described, and the final single
75 plait is produced in a manner similar to the initial plait. The plaits are so crowded together in their tubular form that each pair of adjacent and oppositely directed
80 plaits rest against each other and are thereby caused to maintain their upright positions, and the effect of the closely spaced series of standing plaits is therefore to practically cover the entire area of the body of
85 the fabric by which they are connected together. In each of the figures referred to, the component folds of each box-plait have their bases doubled over upon the adjacent fabric and superposed to provide four thick-
90 nesses or plies of fabric, which, with the single ply of the middle portion intermediate such folds, receive the fastening stitches *s'*. As represented in Fig. 1, the bases of the contiguous folds of two adjacent
95 box-plaits are extended below the bases of the other component folds of the same box-plaits; while the contiguous component folds of each of said box-plaits with another adjacent box-plait have their bases overlapped upon and stitched to underlying
100 bases of contiguous folds. As represented in Fig. 3, the superposing of the bases of the component folds of each box-plait is the same throughout the series, the base of the left-hand fold being stitched upon that of the right-hand fold.

In Figs. 2 and 4 the folded portion of the fabric is shown beginning and terminat-

ing with the box-plaits c' and c'' . These box-plaits are produced in substantially the manner described above in connection with the plaits c , but the outer fold is shown flattened out and creased to lie closely upon the body of the fabric, the line of stitching s being applied to the several plies while positioned as represented in the said figures, so as to insure their permanence in such initial positions. The flattened outer folds of the initial and final box-plaits obviously form a finish to the series of standing plaits with rounded free extremities disposed between them. In Fig. 2 the component folds of the box-plaits are represented as stitched together as shown in Fig. 3, while the manner of stitching together the box-plait folds in Fig. 4 is similar to that represented in Fig. 1. In Fig. 4 the primary or plaited fabric a is shown secured to a secondary or backing fabric e by means of the fastening stitches for securing together the bases of the component folds of the box-plaits. It will be observed that spaces f are formed alternately between the bases of the box-plaits and the backing fabric e which may be utilized for insertion of stay-strips extending longitudinally of the plaits. With such backing to receive the fastening stitches, it is, however, not essential that the bases of the component folds of the box-plaits should be overlapped and stitched directly together, as they would be suitably connected by the backing fabric if stitched independently to the latter in a manner well-known.

From the foregoing description, it is evident that the present improvement may be considerably varied in the form and arrangement of the tucks and the manner in which they are secured in position, without departure from the scope of the invention.

Having thus set forth the nature of the invention, what I claim herein is:—

1. A fabric having upon one face plaits arranged in a plurality of pairs of which the component plaits extend oppositely from each other with their bases overlapped and secured together by common lines of stitching.

2. A fabric having upon one face thereof plaits arranged in a plurality of pairs with the component plaits of each pair extended oppositely from each other and the adjacent portions of fabric at opposite sides of their bases formed in overlapped folds and the portion of fabric intermediate their bases secured to said overlapped folds by lines of fastening stitches passing through both of said folds.

3. A fabric formed upon one face thereof with a plurality of plaits each having its component plies overlapped and stitched together at and lengthwise of its base and to

the base of an adjacent plait from which it is oppositely directed.

4. A fabric formed upon one face thereof with a plurality of plaits each having its component plies stitched together at its base and to the bases of the component plies of an adjacent plait from which it is oppositely directed, the aggregate widths of adjacent plaits exceeding their spacing apart.

5. A fabric formed upon one face thereof with a plurality of plaits arranged in pairs of which the component plaits are stitched together at their bases and to the adjacent portions of fabric which they overlap by a single fastening seam extending lengthwise thereof.

6. A fabric formed upon one face thereof with a plurality of standing plaits arranged in pairs of which the component plaits are stitched together at their bases and to the adjacent portions of fabric by a single fastening seam extending lengthwise thereof.

7. A fabric formed upon one face thereof with a plurality of tubular plaits of rounded form disposed at substantially right angles with the body of the fabric and arranged in pairs of which the component plaits are stitched together and to and in overlapping relation with the adjacent portions of fabric by a single fastening seam extending lengthwise thereof.

8. A fabric formed upon one face thereof with a plurality of plaits arranged in pairs of which the bases of the component plaits are stitched together and to the adjacent portions of fabric by a single fastening seam extending lengthwise thereof, in combination with a second fabric secured to the first-named fabric by said fastening seams.

9. A fabric formed with a plurality of box-plaits exceeding in width their spacing apart with the middle portions stitched to the bases of their component standing folds, and an additional box-plait having its middle portion stitched to the bases of its component folds of which one stands substantially parallel with those of the other box-plaits and the other fold lies flat upon the adjacent portion of the fabric.

10. In combination with a body fabric, a superposed plaited fabric formed upon one face with plaits arranged in a plurality of pairs with the component plaits of each pair extended each oppositely from the other, and a portion of fabric adjacent a plait of each of said pairs being extended in a fold beneath and stitched to the portion of fabric intermediate the component plaits of said pair and to the body fabric by a common line of stitching.

11. In combination with a body fabric, a superposed plaited fabric formed upon one face with plaits arranged in a plurality of pairs with the component plaits of each

pair extended each oppositely from the other, and portions of fabric adjacent both of the plaits of each of said pairs being extended toward each other in overlapped
5 folds beneath and stitched to the portion of fabric intermediate said plaits.

In testimony whereof, I have signed my

name to this specification, in the presence of two subscribing witnesses.

ALBERT H. DE VOE.

Witnesses:

HENRY J. MILLER,

H. A. KORNEMANN, Jr.