H. S. SADTLER.

METHOD OF SMOCKING.

APPLICATION FILED MAY 1, 1915.

1,185,245. Patented May 30, 1916.

FIG. 1.

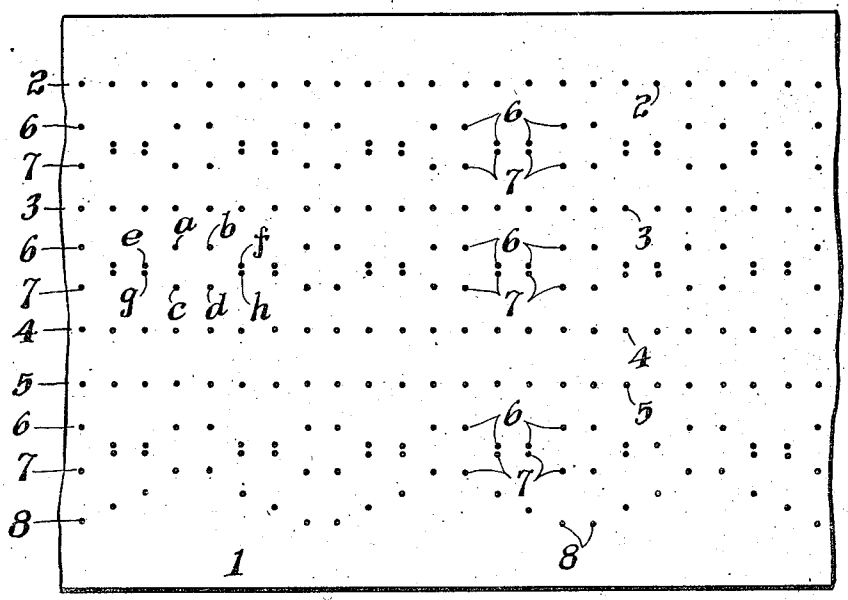
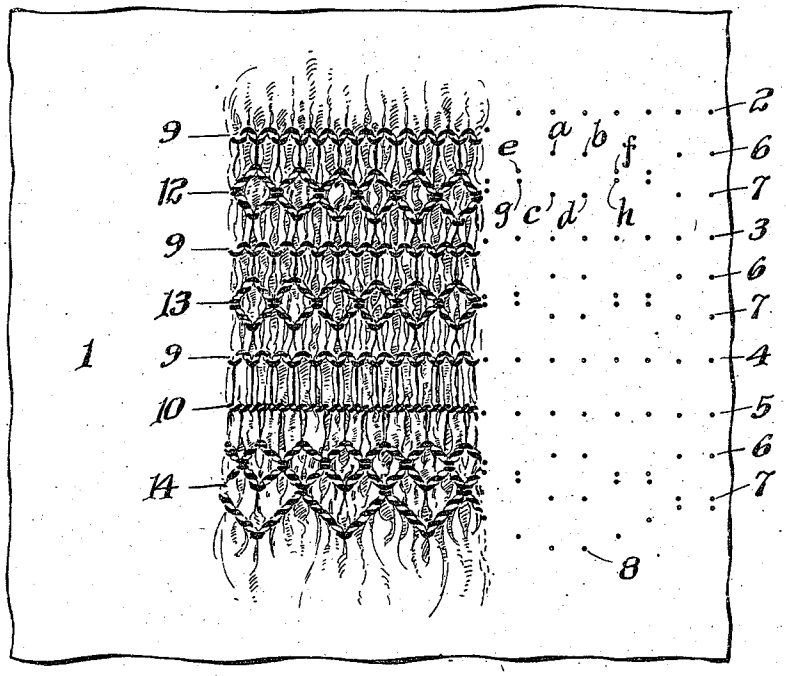


FIG. 2.



WITNESSES

Daniel Webster, Jr.

C. E. Kleinfelder

INVENTOR

Helena S. Sadtler

BY Cyrus N. Anderson

ATTORNEY

UNITED STATES PATENT OFFICE.

HELENA S. SADTLER, OF SPRINGFIELD TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA.

METHOD OF SMOCKING.

1,185,245. Specification of Letters Patent. Patented May 30, 1916.

Application filed May 1, 1915. Serial No. 25,132.

To all whom it may concern:

Be it known that I, HELENA S. SADTLER, a citizen of the United States, and a resident of Springfield township, Montgomery county, State of Pennsylvania, have invented certain new and useful Improvements in the Method of Smocking, of which the following is a specification.

One of the objects of my invention is to simplify the art or method of smocking so that the beautiful designs and effects capable of being produced thereby may be readily wrought and constructed.

Heretofore in smocking it has been the practice first to fold or plait at proper intervals the material or fabric to be smocked. After such preliminary folding or plaiting the stitches heretofore have been taken in the material, connecting the folds at different points. The operative, however, has had no guiding means to indicate where the stitches should be taken with the result that the work has lacked that precision and definiteness of design necessary to the best and most artistic results.

By the employment of my invention these objectionable difficulties have been overcome. I have provided a means whereby the preliminary folding may be omitted and whereby the folding and the taking or formation of the stitches in the construction of the smocking design may be effected simultaneously; and also whereby the design may be constructed and formed with definiteness and precision.

For the purpose of more easily comprehending my invention and understanding the principle of the same reference should be had to the accompanying drawing in which I have illustrated the way in which my invention may be carried out and the result and appearance of the design after a fabric has been smocked in accordance with my invention.

In the drawings:—Figure 1 is a plan view of a section of fabric having means thereon for indicating the points at which the stitches should be taken; and Fig. 2 is a plan view of the same section of fabric, a portion of which has been smocked in accordance with my invention.

Referring to the drawing, 1 designates a flat sheet of fabric having thereon a plurality of indicating media for the purpose of informing and, as it were, instructing the operative as to the points at which the stitches should be taken in order to produce the design intended to be produced from the pattern outlined by the said indicating media. In the present construction these indicating media consist of dots arranged in horizontal and vertical rows, the dots in the latter rows being in alinement. Horizontally considered the rows of dots 2, 3, 4 and 5 are in alinement. The rows of dots 6, 7 and 8 are, however, out of alinement horizontally considered.

In the operation of smocking in accordance with my invention the threaded needle should be inserted from the under side of the material through a dot in a line, as for instance 2, after which it is inserted downwardly through the material at a point preferably a short distance to the right of the next succeeding dot in the line 2 and upwardly through the said next succeeding dot and so on throughout the length of the said line 2. The same is true with respect to lines 4 and 5 and for that matter with respect to all of the other lines, 6, 7 and 8. As the thread is drawn through the material it is given a slight pull sufficient to fold the material, as desired. If the loop of thread between a dot and the next succeeding point of insertion of the needle through the fabric should be above the point of emergence of the needle as it is returned upwardly through the fabric the pull upon the needle and the thread should be in a downward direction in general parallel relation to the surface of the fabric. On the other hand, if said loop should be below the point of emergence of the needle the pull upon the needle and the thread should be in an upward direction in general parallel relation to the surface of the fabric.

The appearance of the stitches may be varied by varying the positions of the loops thereof as will be apparent upon an inspection of the line of stitches 9 and 10 in Fig. 2 of the drawings. These stitches are taken along the lines 2, 4 and 5 of Fig. 1. The appearance of the rows of stitches 9 differs from that of the row of stitches 10. In the first the stitches are looped first above and then below a horizontal line, that is, above and below the point of emergence of the needle upon the front face of the fabric,

whereas in the second row of stitches 10 the thread is looped over and over so as to form a spiral effect.

The stitches along the rows 6 and 7 by reason of the fact that the threads are pulled so as to fold or plait and pucker the material produce the diamond shaped figures shown at 12 and 13 in Fig. 2 of the drawings. The upper and lower apices of these figures are formed by drawing together the portions of the fabric at the points of the dots *a* and *b* and *c* and *d*.

The line of stitches 14 indicates the appearance when the stitches are taken in the manner described at the dots in the line 8 of Fig. 1.

In the design as illustrated in the drawing the dots in the several rows are separated from each other in a horizontal direction a distance of substantially one-fourth of an inch though this distance of separation may be increased or diminished within reasonable limits as desired. It should be observed, however, in connection with lines 6, 7 and 8 that the step up or step down of a dot should be substantially one-eighth of an inch; that is, the vertical distance of the dot *a* above the dot *e* should be substantially one-eighth of an inch and the vertical distance of the dot *f* below the dot *b* should also be substantially one-eighth of an inch. The same relation should exist between the dots *g* and *c* and *d* and *h* and so on throughout the rows 6 and 7.

While the horizontal distance between the dots may be varied the vertical distance up or down should in all cases be substantially one-eighth of an inch.

In the design illustrated the diamond-shaped figures formed by the rows of stitches at 12 and 13 are produced by taking a stitch at the dot *e* then at the dot *a* thence horizontally to the dot *b* and then downwardly to the dot *f*. The opposite side of the diamond-shaped figure is formed by taking a stitch from the dot *g* to the dot *c* then horizontally to the dot *d* and thence upwardly to the dot *h* and so on throughout the lines 6 and 7. I designate this as a single step design but it will be understood that the size of the diamond-shaped figures may be varied by increasing the number of steps up and down. It will also be understood that the design may be varied by varying the relative positions of the dots or other indicia.

I claim:—

1. The method of smocking which consists in inserting a needle downwardly through a fabric and then upwardly through the same at a point in rear of its point of insertion, having reference to the direction in which the line of stitching is progressing, the point of emergence of the needle upon the front face of the fabric being upon one side or the other of the adjacent preceding stitch and thereafter tightening the thread by pulling the same away from the stitch last formed and in a direction in general parallel relation to the surface of said fabric to fold or plait the latter simultaneously with the formation of the smocking stitches.

2. The method of smocking which consists in forming upon a suitable sheet of fabric indicating media to indicate the design to be formed upon the fabric by smocking and thereafter forming stitches in rows in accordance with the said indicating media to carry out said design and in pulling upon the thread in forming said stitches to simultaneously fold or plait the fabric as required and form the pattern or design desired, said folds or plaits being in parallel relation to each other and extending transversely of the rows of stitches.

3. The method of smocking which consists in inserting the thread through a sheet of fabric and forming stitches in rows therein and drawing the thread to a tightness after each stitch sufficient to cause the folding or plaiting of said fabric simultaneously with the taking of the stitches, the said stitches being taken so as to cause the adjacent ends of adjacent stitches to overlap and to occupy positions in opposing relation to each other.

4. The method of forming geometrical figures in the operation of smocking which consists in forming the stitches in adjacent rows each stitch being taken at a predetermined point in each row with respect to the immediately preceding and succeeding stitches in said row and forming the stitches in one row in complementary relation to the corresponding stitches in the adjacent row and pulling upon the thread as the stitches are formed to simultaneously fold the fabric, said pull upon the thread being in a direction in general parallel relation to the surface of the said fabric.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 30th day of April, A. D. 1915.

HELENA S. SADTLER.

In the presence of—

CYRUS N. ANDERSON,

FLORENCE DEACON.