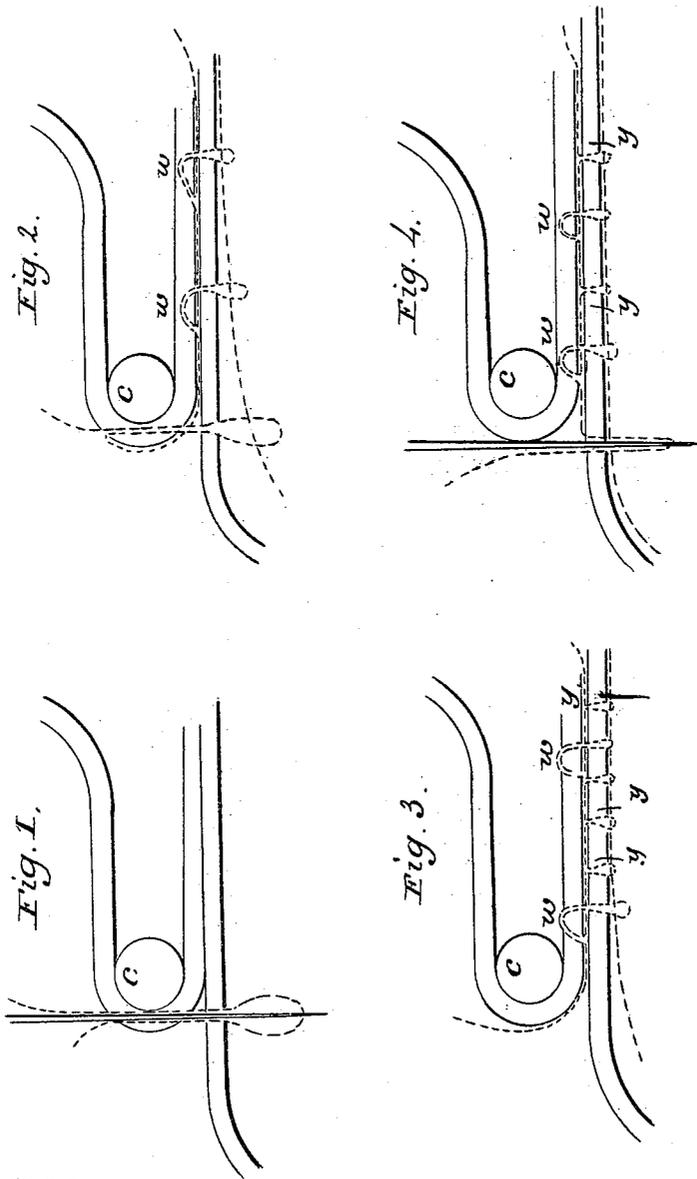


C. F. BOSWORTH.
Sewing Machine Stitch.

No. 38,806.

Patented June 9, 1863.



Witnesses:
Horace H. Chittenden
J. C. Clarkmaster.

Inventor:
C. F. Bosworth

UNITED STATES PATENT OFFICE.

C. F. BOSWORTH, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN SEWING-MACHINE STITCHES.

Specification forming part of Letters Patent No. 38,806, dated June 9, 1863.

To all whom it may concern:

Be it known that I, C. F. BOSWORTH, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful seam or concatenation of threads or succession of stitches uniting together two pieces of material, chiefly useful in the attachment of braids of straw, hair, and vegetable fiber either to each other or to other material; and I do hereby declare that the following, in connection with the drawings, is a full, clear, and exact description thereof.

In the drawings, Figure 1 is a section through a seam, and Figs. 2, 3, and 4 are views of modifications thereof.

This stitch may be made in any ordinary sewing-machine by attaching thereto proper appliances, substantially such as are described in an application for a patent made by me and now pending in the Patent Office. It may also be made by hand; but the process would be so slow that the cost would be too great for any practical purpose. This stitch is to be made by an eye-pointed needle, in connection with some other instrument, to secure loops of thread governed by that needle, these loops being secured either by another thread or by loops of the same thread, the manner of securing the loops being immaterial. I prefer, however, to secure them by another thread passed through them, as shown in the drawings. In making this stitch one piece of the braid is to be turned around a bar or roller, as shown in Fig. 1, or it may be held in any convenient way in a bent position. The needle is then to be entered, as shown in the same figure, and passes into the braid and out of it again on the same side, and then through the piece to which the first piece is to be attached the thread passes with the needle, and its loop is to be secured by passing another thread or a loop of thread through it. When the needle is retracted the thread is drawn tight, drawing one piece of the braid down upon the other. A bend in a new spot is then to be made in the upper braid and another stitch taken. The needle may pass into the braid from one side or surface thereof and out again on the same side without perforating the other surface, as shown at *w*, Fig. 2, or it may in its passage perforate the other surface, so that when it is withdrawn thread shall appear thereon, as at *w*, Fig. 3; and the stitch was invented in order to sew braid to-

gether without any thread or with very little thread appearing on one surface of one of the braids, each braid being united to the other by a double thread at the point where the needle perforates both the braids.

In sewing braids together it is not necessary that they should be attached to each other at frequent intervals; but it is necessary, or at any rate expedient, in order to avoid fraying of the stitch on the side that the under thread appears upon, that the under thread should be caught and held at frequent intervals. I therefore intend at times to pass the needle through the lower braid only, as seen at *y*, in Figs. 3 and 4, and to make one or more interlockings of thread, as there shown, in the lower piece of braid or other goods only. These interlockings serve to confine the lower thread, or the thread that appears below the lowest braid, and such interlockings are to alternate between interlockings uniting both braids, and shown at *u u* in the various figures.

The stitch is best and most conveniently made in an ordinary shuttle sewing-machine, in which the shuttle carries a thread through and secures loops of needle-thread, and the machine requires to have adapted to it a contrivance around which one braid can be bent, a roller like *c* serving the purpose; and it should also have a proper guide or support for the needle applied just above the roller, so that the needle may be forced to preserve the required direction in passing through the upper braid.

In case it is desired to make the stitch with intermediate interlockings, as at *yyy*, the needle-guide should have a vibrating motion, which shall cause the needle at times to pierce, as shown in Figs. 1 and 2, going into one surface and out again through the same surface of the upper braid, and shall cause the needle at other times in its descent to miss the upper braid and pierce the lower braid only. The vibratory motion thus described can be communicated by any proper machinery.

The distinguishing peculiarity of the stitch is that a double thread or light of thread passes into one surface of a braid, then out again through that same surface, and then through another braid, and is then secured either by another thread, as in a shuttle-stitch, by a loop of another thread, as in the Grover & Baker stitch, or by a loop of its own thread, as in a

crochet-stitch, and this peculiarity is to be found both when the thread appears on the upper surface of the upper braid, as at *w*, Fig. 3, and when it does not appear on that surface, as represented at *w*, Fig. 2. The seam invented by me may have in it stitches of other kinds interposed between those having the distinguishing peculiarities or characteristics above defined, such other stitches being like or different from those shown at *y y*.

What I claim as of my invention is—

A seam or succession of stitches having the

distinguishing characteristic above set forth, formed in and uniting two pieces of braid or other material, said seam being chiefly useful in uniting braids for hats and like fabrics.

In testimony whereof I have hereunto subscribed my name on this 8th day of August, A. D. 1861.

C. F. BOSWORTH.

In presence of—

HORACE H. CHITTENDEN,
J. H. STARKWEATHER.