

No. 658,293.

Patented Sept. 18, 1900.

W. M. STEVENSON.
WOVEN FABRIC.

(Application filed June 19, 1900.)

(No Model.)

Fig. 1.

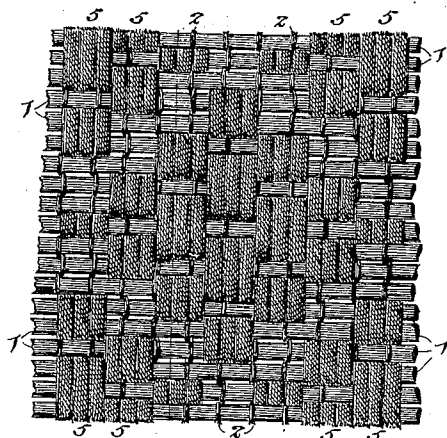


Fig. 2.

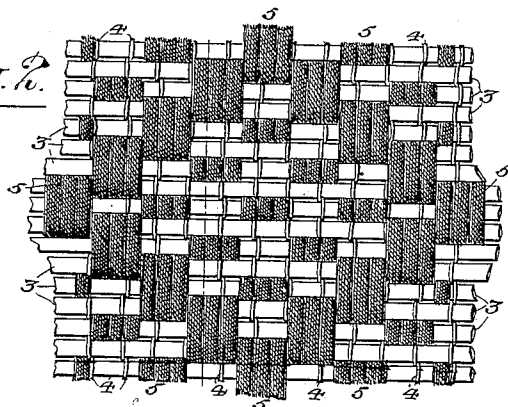


Fig. 3.

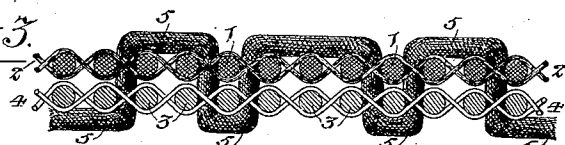


Fig. 4.

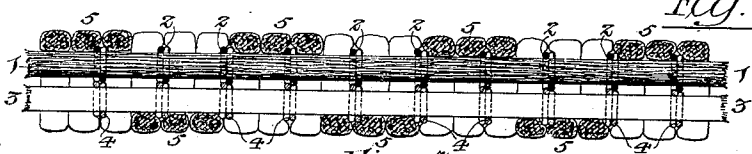
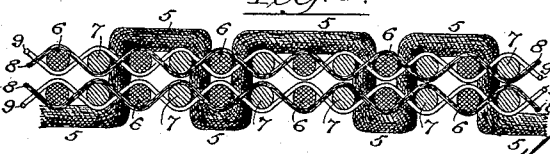


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM M. STEVENSON, OF SPRINGFIELD, MASSACHUSETTS.

WOVEN FABRIC.

SPECIFICATION forming part of Letters Patent No. 658,293, dated September 18, 1900.

Application filed June 19, 1900. Serial No. 20,844. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM M. STEVENSON, a citizen of the United States, and a resident of Springfield, Massachusetts, have invented certain improvements in Woven Fabrics, of which the following is a specification.

The object of my invention is to provide a durable and attractive woven fabric for carpets, rugs, upholstery, or like uses, said fabric having independent face and back plies firmly bound together and having on each face a pattern of pleasing effect produced by a simple method of weaving and by the combination of a single set of figuring warp-threads with the weft-threads of the front and back plies of the fabric.

In carrying out my invention I prefer to use for the weft-threads twisted strands of paper, as in the single-ply fabric forming the subject of my application, Serial No. 2,324, filed January 22, 1900, so that the textile figuring warp-threads will, owing to the incompressibility of these paper weft-threads, be brought prominently into relief on the faces of the fabric, although my invention may be embodied in a fabric in which textile weft-threads are employed instead of such paper weft-threads.

In the accompanying drawings, Figure 1 is a face view of a piece of fabric embodying my present invention. Fig. 2 is a view of the corresponding portion of the back of the fabric. Fig. 3 is an exaggerated section of the fabric, taken in the direction of the warp. Fig. 4 is a like section of the fabric, taken in the direction of the weft; and Fig. 5 is a view similar to Fig. 3, but illustrating a fabric which, while structurally similar to that of said Fig. 3, has greater diversity in coloring.

Each of the fabrics shown and described comprises a face web or ply consisting of weft-threads 1 interwoven with warp-threads 2 and a back ply similarly composed of weft-threads 3 interwoven with warp-threads 4, each of these plies being thus structurally complete in itself and independent of the other. In connection with the two plies of fabric thus produced I use a set of figuring warp-threads 5, by preference considerably larger or heavier than the warp-threads 2 and 4, these figuring warp-threads alternating with the finer warp-threads and being carried

from one face of the fabric to the other in accordance with the requirements of the pattern, so that they not only perform their intended patterning duty on each face, but also serve to firmly tie or bind together the face and back plies of the fabric, thereby rendering the latter firm in texture and durable in character.

In order to preserve purity or solidity of coloring in the pattern, each of the weft-threads of the fabric is by preference bound or crossed on the face by a warp-thread of corresponding color. For instance, in the fabric shown in Figs. 3 and 4 the weft-threads 1 of the face ply may be red, the warp-threads 2 being also red, while the weft-threads 3 and warp-threads 4 of the back ply may be white. Hence if the figuring warp-threads are green a pattern in green and red will be produced upon one face of the fabric and a reverse pattern in green and white on the opposite face. Greater diversity of coloring may, however, be obtained by using in either or both plies alternate weft-threads differing in color and likewise coloring the warp-threads, so that each weft-thread will be crossed or bound on the face by a warp-thread of its own color. For instance, the weft-threads and warp-threads may be alternately red and white. Thus in Fig. 5 each ply is composed of alternate red weft-threads 6 and white weft-threads 7, interwoven with alternate red warp-threads 8 and white warp-threads 9, the red warp-threads crossing the faces of the red weft-threads and passing behind the white weft-threads and the white warp-threads crossing the faces of the white weft-threads and passing behind the red weft-threads.

In carrying out my invention I can produce by a simple method of weaving and in a simple form of loom a fabric having opposite faces widely differing in appearance, this difference being due partly to the reversal of the pattern and partly to the change in coloring of the weft-threads of the two plies.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A woven fabric composed of interwoven warp-threads and weft-threads forming two independent plies and a single set of figuring warp-threads which passes from face to face

of the fabric, but not between the plies whereby it performs the double duty of patterning each face in relief and tying the two plies of the fabric firmly together, substantially as specified.

5 2. A woven fabric comprising independent face and back plies each consisting of weft-threads of alternating colors and warp-threads of like alternating colors, whereby the face
10 of each weft-thread is crossed by a warp-thread of corresponding color, and a single set of figuring warp-threads passing from face to face of the fabric but not between the plies whereby it serves the double duty of pattern-
15 ing in relief on each face and of tying the two plies of the fabric firmly together, substantially as specified.

3. A woven fabric consisting of weft-threads of paper interwoven with warp-threads to form two separate and independent plies and 20 a single set of figuring warp-threads of textile material, said warp-threads passing from face to face of the fabric but not between the plies, and serving to form a pattern in relief on each face and also to tie the two plies 25 of the fabric firmly together, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM M. STEVENSON.

Witnesses:

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HENRY S. NEYES.