

No. 828,784.

PATENTED AUG. 14, 1906.

W. M. STEVENSON.

WOVEN FABRIC.

APPLICATION FILED AUG. 3, 1905.

Fig. 1.

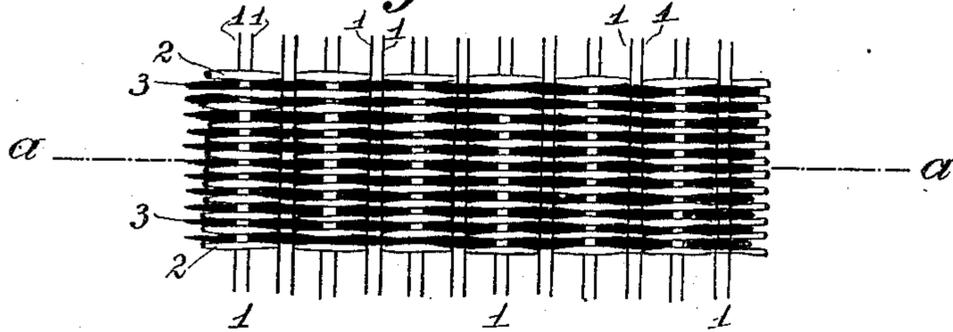


Fig. 2.



Fig. 3.

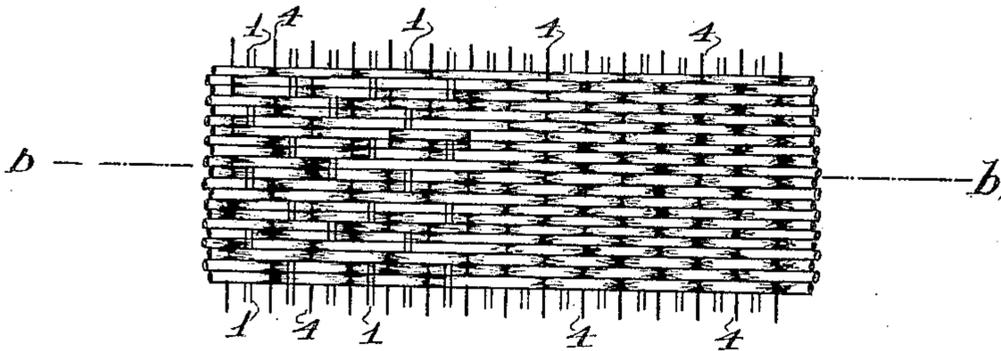
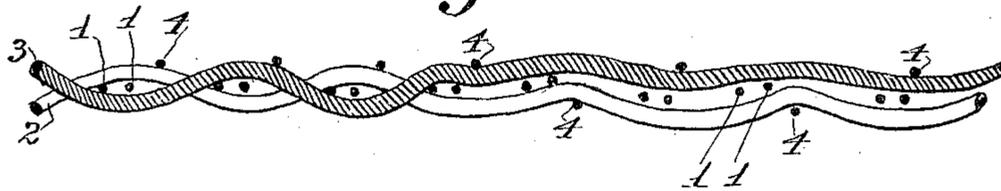


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM M. STEVENSON, OF INDIAN ORCHARD, MASSACHUSETTS.

WOVEN FABRIC.

No. 828,784.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed August 3, 1905. Serial No. 272,547.

To all whom it may concern:

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

My invention relates to that class of woven fabrics in which twisted strands of paper are used as weft-threads, the object of my invention being to permit of the weaving of such fabrics having weft-threads of relatively harsh or inferior character without injury to such weft-threads. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 represents a face view of a piece of fabric embodying my invention. Fig. 2 is an exaggerated sectional view of part of the same on the line *a a*, Fig. 1. Fig. 3 represents a face view of another piece of fabric embodying my invention; and Fig. 4 is an exaggerated sectional view of the same on the line *b b*, Fig. 3.

In weaving fabrics having weft-threads composed of strands of twisted paper some difficulty has been experienced, especially in the use of paper of a harsh or brittle character, owing to the splitting or tearing of the paper if the same is sharply or abruptly bent in passing over or under the warp-threads, and this is especially the case if the warp-threads are relatively coarse in order to impart the necessary longitudinal strength to the fabric. In order to overcome this objection, I use a plurality of fine warp-threads spaced apart by the reed, but shedded as a unit, instead of the single heavier warp-thread heretofore employed, so that in weaving the fabric the bends or curves assumed by the paper weft-threads are not so abrupt as to cause fracture or tearing of the

same however inferior in character the paper may be.

In the accompanying drawings I have shown in Fig. 1 a fabric in which each set or group of warp-threads is composed of two threads 1 1, these two threads being spaced apart by the reed, but shedded as a unit and being interwoven with the paper weft-threads 2 and 3 in an ordinary plain weave.

In the fabric shown in Figs. 3 and 4 I have combined with each pair of warp-threads 1 1 an additional warp-thread 4, which is used for tying or binding the weft-threads 2 and 3 in those portions of the fabric in which such weft-threads would otherwise float for a considerable space, the pair or group of warp-threads 1 1 being thus relieved from this tying duty and prevented from appearing prominently on either face of the fabric.

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

1. A woven fabric in which paper weft-threads are interwoven with fine warp-threads disposed in sets or groups, each set consisting of a plurality of threads spaced apart but shedded as a unit, substantially as specified.

2. A woven fabric in which weft-threads of paper are combined with fine warp-threads disposed in sets or groups, each set comprising a plurality of threads spaced apart but shedded as a unit and an additional thread which serves to tie the weft-threads in those portions of the fabric in which they would otherwise float, 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:

WALTER CHISM,
JOS. H. KLEIN.