

No. 708,907.

Patented Sept. 9, 1902.

A. McLEAN.
STIFF FINISHED WOVEN FABRIC.

(Application filed May 12, 1900.)

(No Model.)

Fig. 1.

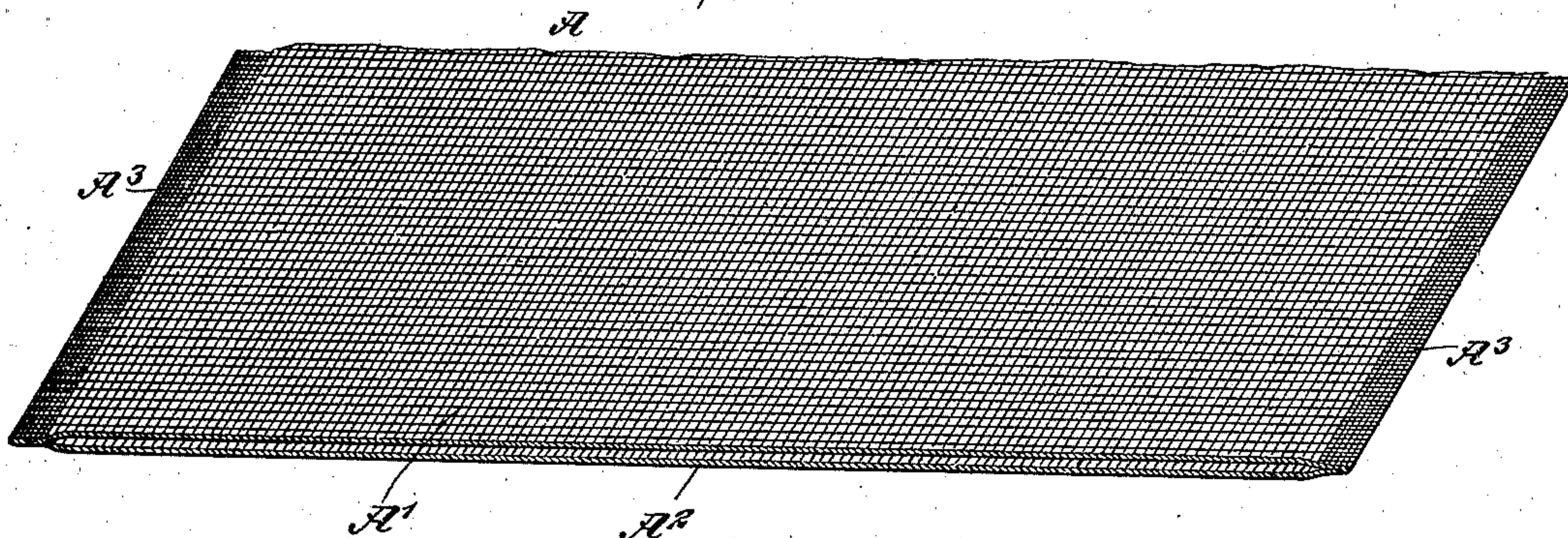


Fig. 2.

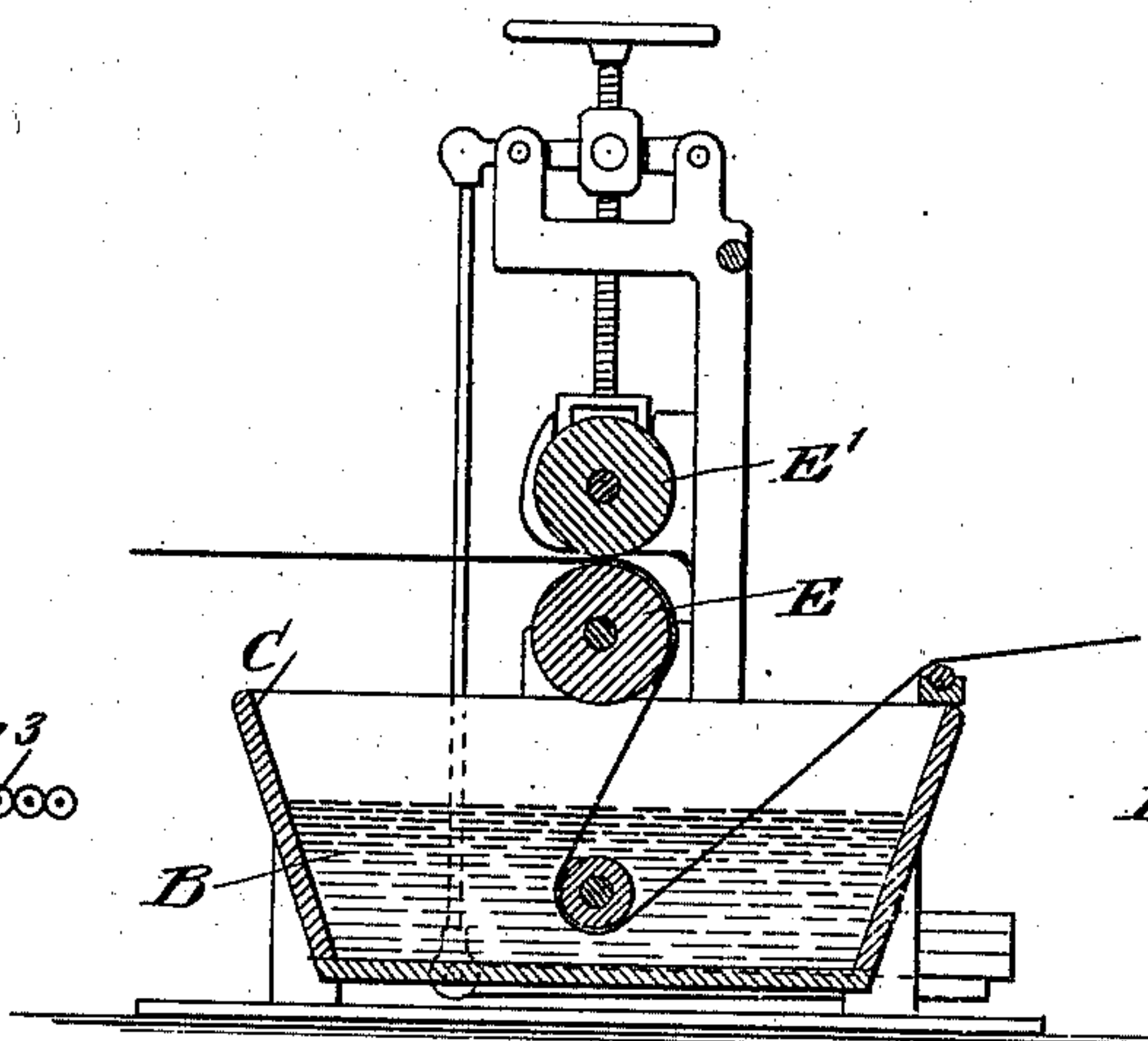


Fig. 4.

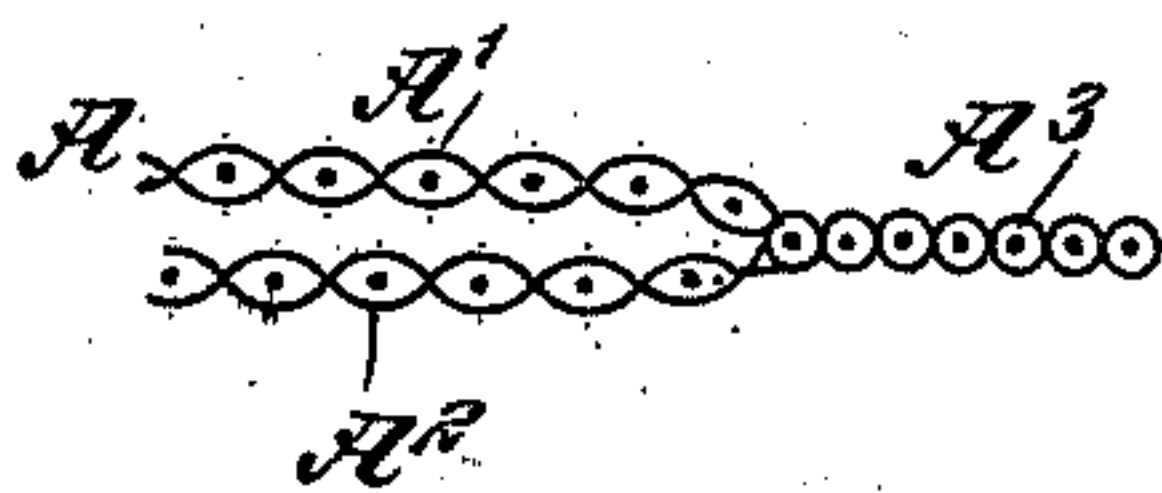


Fig. 5.

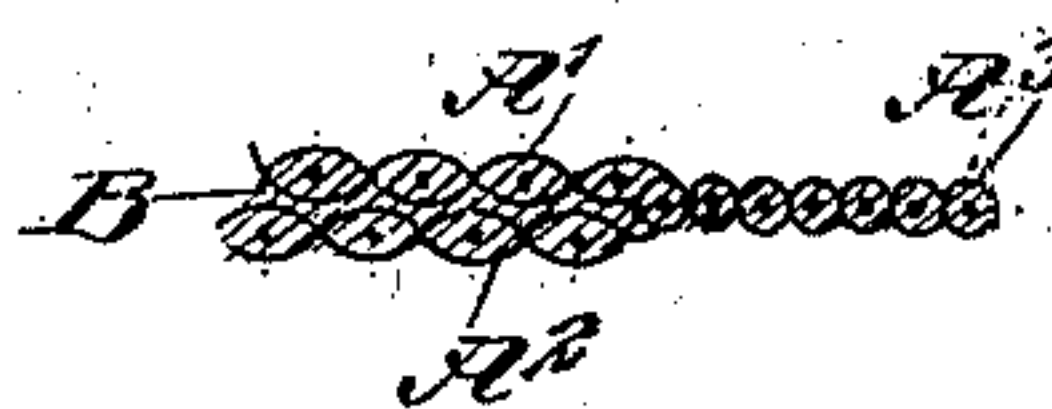
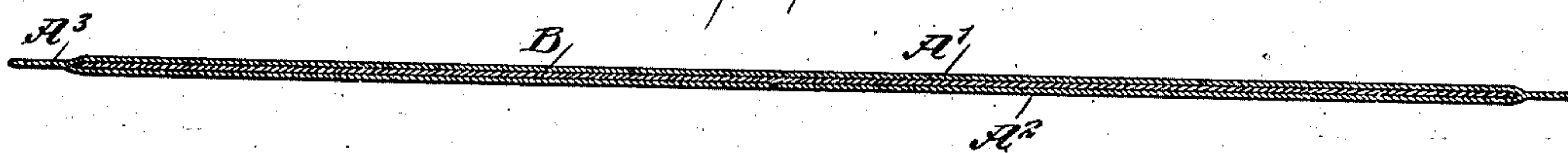


Fig. 3.



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UNITED STATES PATENT OFFICE.

ANDREW McLEAN, OF PASSAIC, NEW JERSEY.

STIFF-FINISHED WOVEN FABRIC.

SPECIFICATION forming part of Letters Patent No. 708,907, dated September 9, 1902.

Application filed May 12, 1900. Serial No. 16,442. (No specimens.)

To all whom it may concern:

Be it known that I, ANDREW McLEAN, a citizen of the United States, and a resident of Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Stiff-Finished Woven Fabrics, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in the manufacture of stiff-finished fabrics, such as buckram, whereby a very fine and uniform appearance is given to the fabric and its body is rendered homogeneous throughout to form a fabric of a very high quality.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the tubular weave. Fig. 2 is a side elevation of the ordinary sizing-machine for sizing the fabric, the rollers of which squeeze out the surplus sizing and at the same time press the two fabrics of the tubular weave together. Fig. 3 is a cross-section of the finished article. Fig. 4 is an enlarged cross-section of one side of the weave. Fig. 5 is an enlarged cross-section of one side of the finished article.

In manufacturing buckram as heretofore practiced usually two or more fabrics were employed which were separately sized first and then placed or fed one over the other on the ordinary drying frames or machines used for drying fabrics, or the separate fabrics would be run together through the ordinary sizing-machine one over the other before being subjected to the drying operation; but this means or process does not keep the sides or selvages in register and produces an irregular effect. Furthermore, in drying the sized fabrics the sides are engaged by supporting pins or clamps, and as no special means are provided on the sides or selvages it is evident that the weight or tension of the fabric pulls sufficiently on the pins or clamps to cause the latter to tear holes or curl up and make a

thick and uneven side or selvage, so that the latter appears ragged on both selvages, and these ragged portions have to be cut off and wasted when the buckram is used. With my improvements, presently to be described in detail, the above defects are overcome and a buckram having a very fine appearance on either side and having a homogeneous body throughout is produced.

In manufacturing buckram, for instance, I first produce a tubular weave A, having the fabrics A' A² located one above the other, and united with each other at the sides by selvages A³ of a single weave. This weave A, with the fabrics A' A² uniformly above one another, and thereby in register with each other, is passed through a sizing B, contained in the tank C. The sized fabric then passes between rollers E E' for removing surplus sizing, and at the same time unites the two fabrics A' A² firmly upon one another to produce a homogeneous body, the fabrics registering with each other. The selvages A³, which are comparatively strong, form a very serviceable means for properly supporting the fabric upon pins or clamps on drying tenter-machines or tenter-frames during the process of drying, which takes place after the fabric leaves the sizing-rollers E E'. The selvages A³ are sufficiently strong to resist the pull of the weight or tension of the united fabrics to prevent the tearing of holes in the selvages during the drying operation, and consequently the finished buckram has a very fine and uniform appearance on both faces, with a homogeneous body throughout its entire length and width.

Between the upper and lower fabrics A' A² there remains, after the fabric is sized and pressed, a thin layer or pellicle B of the sizing, which holds the two fabrics together and partakes of the conformation of the grained surfaces of said fabrics. In Fig. 3 this pellicle of sizing is shown as very thick; but of course the thickness can be varied for different kinds of fabrics and can be made so thin, if desired, that the upper and lower fabrics are virtually in contact with each other.

In the matter of bleaching or dyeing preparatory to the sizing operation as heretofore practiced the single fabric is run through the various processes or machines to produce

the desired result, while with the improved tubular fabric practically double the amount of fabric passes through the necessary operations in bleaching and dyeing as with the single fabric, thereby making a very material saving in labor and time.

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

10 1. An article of manufacture, comprising two fabrics, the edges of which are woven together into single-ply selvages, the threads in said selvages being woven back upon themselves so as to prevent unraveling, the two
15 fabrics being secured together by sizing.

2. An article of manufacture, comprising two fabrics, the edges of which are woven together into single-ply selvages containing threads woven back upon themselves to pre-

vent unraveling, said two fabrics being permanently secured together by sizing so as to form a two-ply cloth. 20

3. An article of manufacture, comprising a middle portion and edge portions of woven cloth, said edge portions terminating in threads woven back upon themselves to prevent unraveling, and said middle portion being composed of a plurality of fabrics secured together by sizing so as to form a compound cloth. 25

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 30

ANDREW McLEAN.

Witnesses:

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