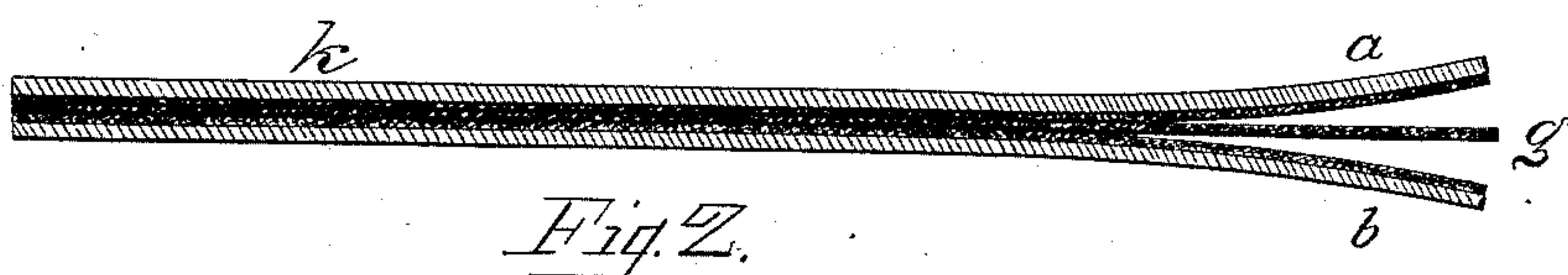
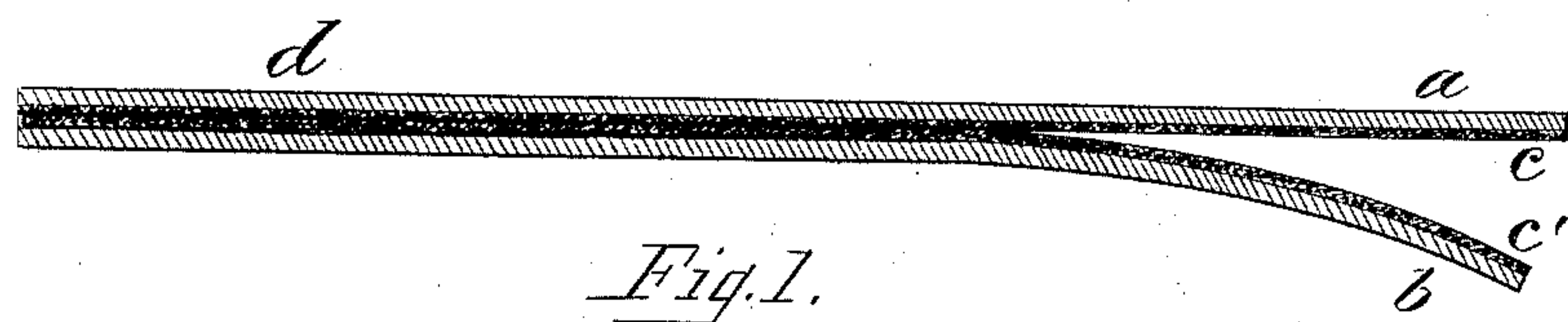


(No Model.)

E. ANDREWS.
TEXTILE FABRIC.

No. 433,388.

Patented July 29, 1890.



Witnesses.
J. S. Hutchins
J. E. Horn

Inventor.
Emery Andrews
by Stephen Moore
his attorney

UNITED STATES PATENT OFFICE.

EMERY ANDREWS, OF KENNEBUNK, MAINE, ASSIGNOR TO THE LEATHEROID MANUFACTURING COMPANY, OF MAINE.

TEXTILE FABRIC.

SPECIFICATION forming part of Letters Patent No. 433,388, dated July 29, 1890.

Application filed March 21, 1889. Serial No. 304,184. (No model.)

To all whom it may concern:

Be it known that I, EMERY ANDREWS, of Kennebunk, in the county of York and State of Maine, have invented a new and useful Improvement in Textile Fabrics, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to an improved textile fabric, and has for its object the production of a superior material for use in various manufactures, especially in the fabrication of heel-stiffenings for boots or shoes.

My invention consists of an improved manufacture produced by a process of treating woven and such like fabrics with a parch-mentizing liquid—such, for instance, as is set forth in Letters Patent of the United States No. 198,382, dated December 18, 1877, whereby two or more layers of such fabric may be united to form an improved manufacture, as hereinafter fully described and claimed.

I am aware that heretofore textile fabrics have been parchmented, as set forth in Letters Patent to Karcheski, No. 137,452, and to Hanna, No. 198,382, and I claim nothing therein described, as my improved material differs in that its interior portion only is parchmented, and the outside is left with its original elasticity and porosity, thus forming a material of unique and valuable properties.

In the drawings, Figure 1 illustrates a double, and Fig. 2 a triple, fabric made by my process.

In making the material constituting my invention I take two pieces of woven fabric composed of vegetable fiber—such as cotton canvas—and treat one side of each with any suitable parchmentizing liquid—for instance, that mentioned in the patent to Hanna, before mentioned. I then place the treated surfaces together and unite them by rollers or other means of pressure. The double fabric is then immersed in water, which readily penetrates the untreated portion of the fabric and dilutes and removes the parchmentizing liquid in the central portion of its thickness, and the two surfaces are united without the formation of blisters, which is liable to occur by the use of the old methods. The fabric is then dried, and if further treatment is de-

sired one or both its surfaces may be treated to a waterproofing compound or composition, or left untreated, according to the nature of the fabric and the use designed.

In Fig. 1, *a* and *b* represent two such fabrics. The inner surfaces *c c'* being parchmented, are united to form the double fabric *d*. If I wish to unite three thicknesses of fabric, I parchmentize one (the middle) layer *g*, Fig. 2, on both sides and the two others *a* and *b* on one side only, and unite the surfaces so treated, thus forming a compound fabric *k*, which has its central portion parchmented. The outer sides may be treated as in the case of the double fabric above mentioned.

The term "waterproofing compound" or "composition" used in this specification is understood to apply to the solutions of gums or resins in spirits, usually used for similar purposes, being of the nature of spirit varnish. I refer to that described in Letters Patent No. 154,185, dated August 18, 1874, as one that may be used for this purpose.

By parchmentizing or treating "one side" or "surface" of a fabric I mean so applying the treating compound to such side or surface that only a portion of the entire thickness of the fabric will be affected, leaving the other side or surface for a subsequent operation.

I claim—

1. An improved manufacture composed of two or more layers of woven fabric, the adjacent surfaces of such layers being united by parchmentizing, the outside surfaces being unparchmented, substantially as set forth.

2. An improved manufacture consisting of two or more layers of woven fabric united by parchmentizing the adjacent surfaces only of such layers, and having one or both its outside surfaces treated with a water-proof compound, substantially as specified.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 12th day of March, A. D. 1889.

EMERY ANDREWS.

Witnesses:

W. P. ADAMS,
C. W. GOODNOW.