

No. 677,112.

Patented June 25, 1901.

E. BROWN.
CARD CLOTHING.

(Application filed Jan. 17, 1900. Renewed Nov. 10, 1900.)

(No Model.)

Fig. 1.

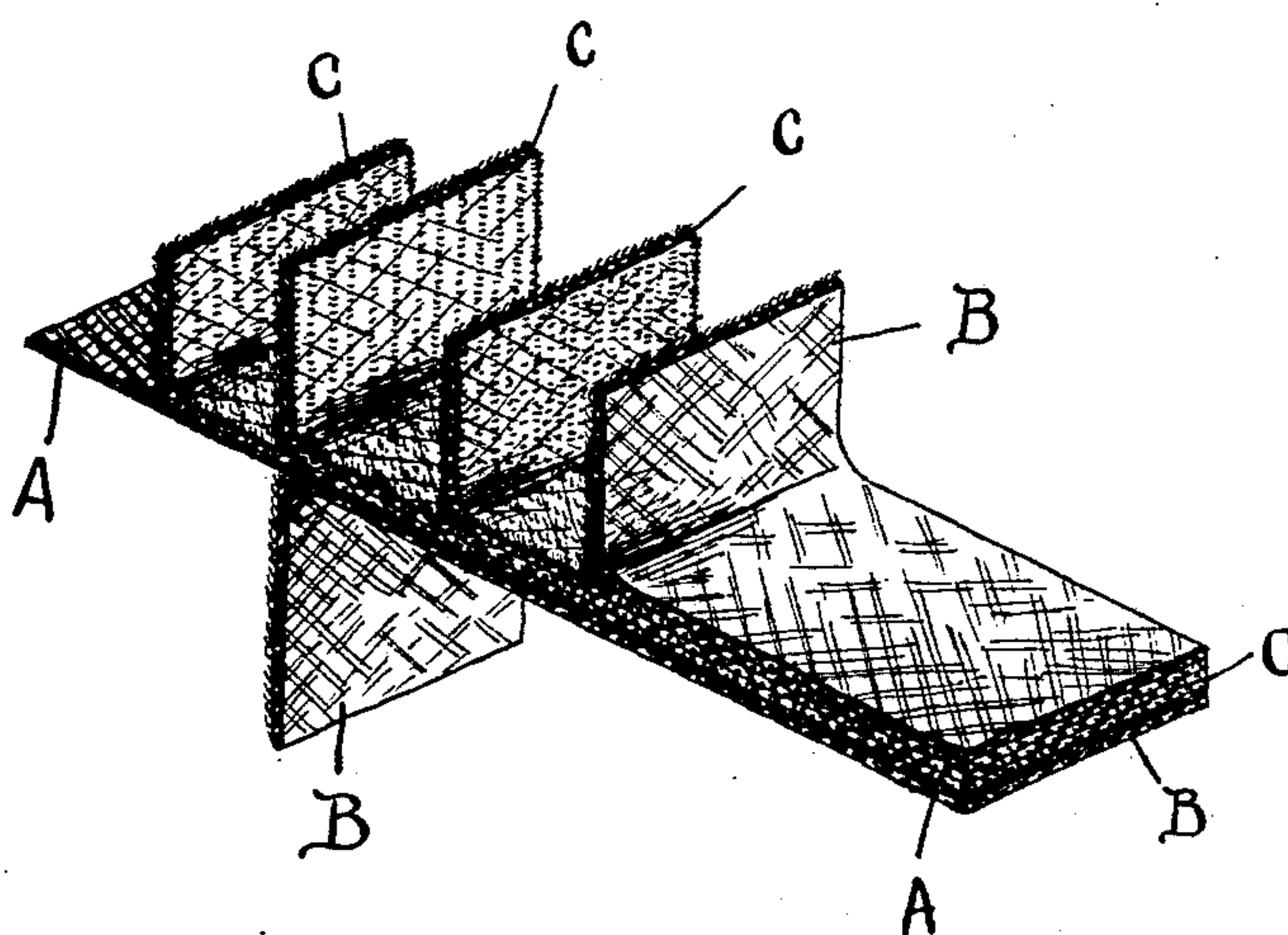


Fig. 2.

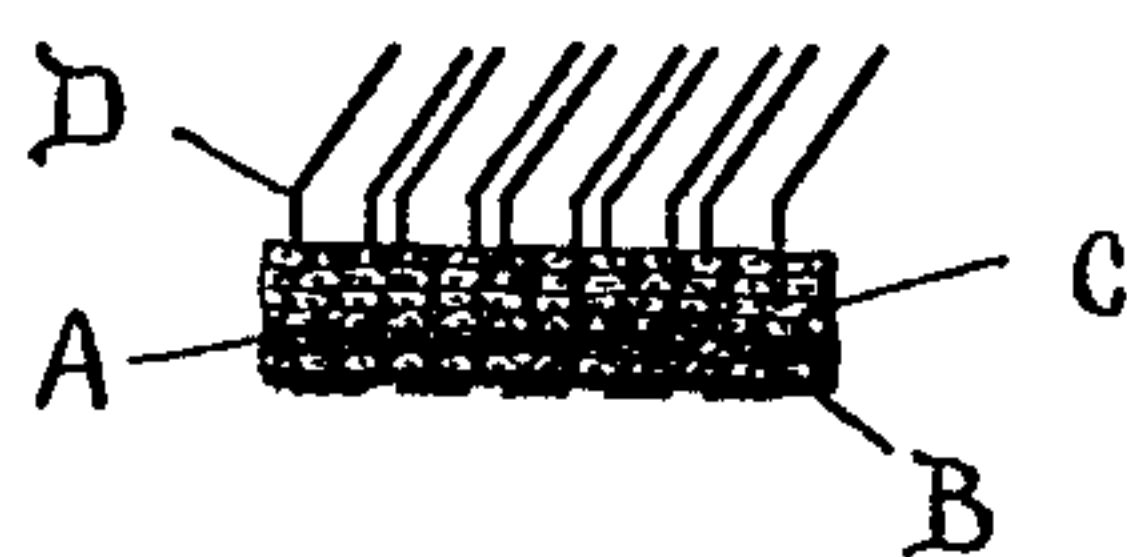


Fig. 3.

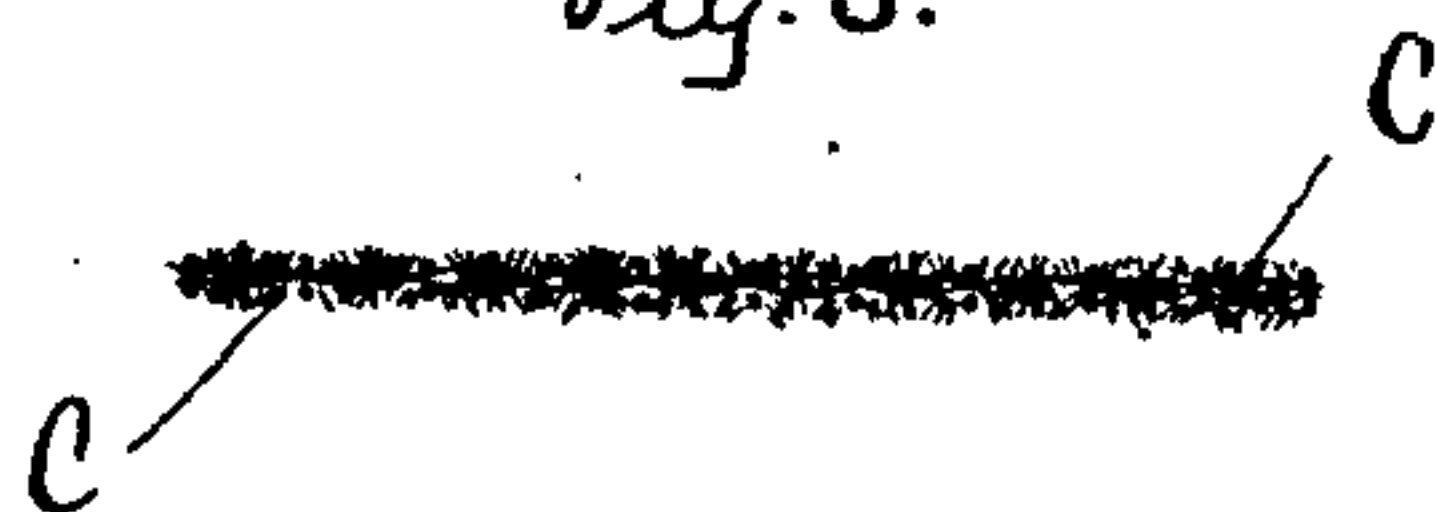
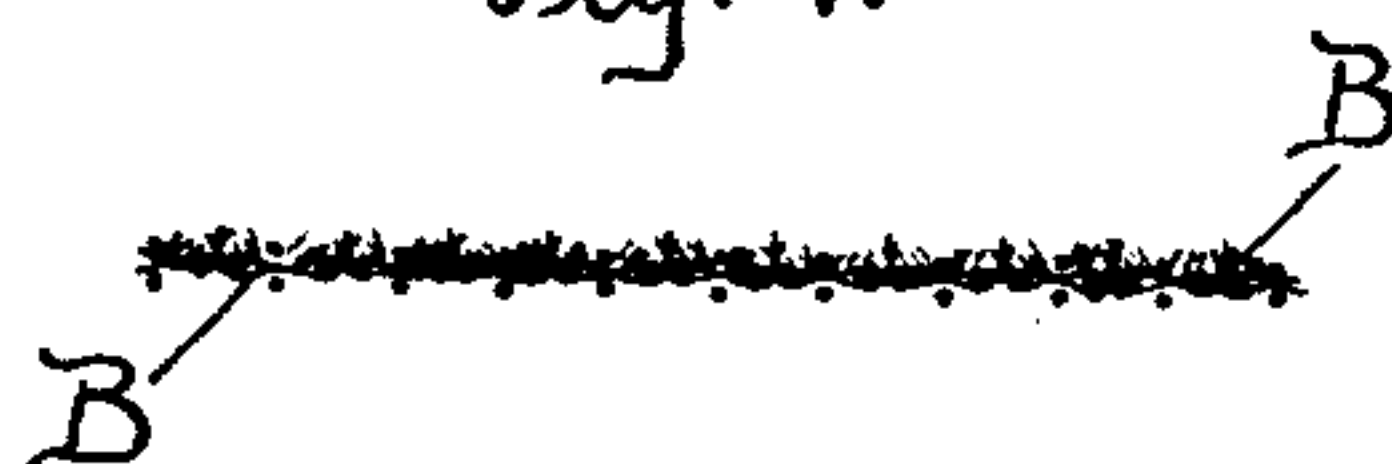


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

EDWIN BROWN, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO AMERICAN
CARD CLOTHING COMPANY, OF SAME PLACE.

CARD-CLOTHING.

SPECIFICATION forming part of Letters Patent No. 677,112, dated June 25, 1901.

Application filed January 17, 1900. Renewed November 10, 1900. Serial No. 36,084. (No model.)

To all whom it may concern:

Be it known that I, EDWIN BROWN, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Card-Clothing, of which the following is a specification.

This invention relates particularly to an improved backing for card-clothing; and the especial object of this invention is to provide a strong, inexpensive, and uniform backing which will be more durable and reliable than composite backings heretofore employed, because no rubber is used therein.

To this end this invention consists of the backing for card-clothing, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a perspective view of a backing for card-clothing, the different layers thereof being turned to show their construction. Fig. 2 is a sectional view of a complete piece of card-clothing constructed according to this invention. Fig. 3 is a sectional view of one of the intermediate cloth-layers, and Fig. 4 is a sectional view of one of the outer cloth-layers.

In the manufacture of card-clothing leather backings or expensive cloth backings are usually employed.

To make good leather card-clothing, it is necessary to employ especially expensive high-grade leather. The objections to the use of leather arises principally from its want of uniformity and elasticity. A strip of leather will be finer or coarser grained and will stretch more or less, according to the part of the animal from which it is taken.

The disadvantages of the use of leather as a backing for card-clothing have been recognized for many years, and attempts have been made to provide a composite backing which will be equally efficient and which at the same time may be made more uniform and at a less cost than a leather backing. A number of these composite backings have been made out of a number of layers of cotton cloth; but heretofore when several layers of cotton cloth have been employed it has always been found necessary to use rubber-ce-

ment for uniting the layers, because ordinary cotton cloth is stiff and unyielding, and if the layers are glued together with oil-glue the backing would not possess the requisite degree of flexibility and the several layers could also be readily pulled apart. The use of rubber-cement and, in fact, any composition containing rubber has proven to be unsatisfactory because of variations under different atmospheric conditions and because rubber in any form deteriorates and perishes quickly, especially if oil is dropped onto or is brought into contact with or near the same.

The especial object of the present invention is therefore to provide a backing for card-clothing in which a plurality of layers of cotton cloth are so formed and united as to constitute a backing having the requisite degree of flexibility and which can be produced without the use of rubber. To accomplish this object, a backing for card-clothing constructed according to this invention comprises a plurality of layers of cotton cloth having one or both sides napped, so that the backing will have the requisite degree of flexibility and the several layers thereof when cemented together with oil-cement will adhere, so that they cannot be readily pulled apart.

Referring to the drawings and in detail, a backing for card-clothing as herein illustrated comprises a body portion A, of firm cloth of any description. On top of the body portion A are a plurality of intermediate layers C of cotton cloth, having one and preferably both faces thereof napped or roughened, as shown most clearly in Fig. 3. On top of the intermediate layers C is a top layer B, having its inner face napped or roughened, as shown in Fig. 4, and cemented on the bottom of the body portion A is a bottom facing B similar to the top layer. The several layers of this backing for card-clothing are preferably united by oil-cement, and by napping or roughing the faces of the several layers of cotton cloth employed I not only produce a backing having the requisite amount of flexibility, but I also provide for securing the layers together without the use of rubber. The cement which I have employed to best advantage for securing the several cotton-cloth

layers together consists, essentially, of a solution of the best quality of glue in linseed-oil. In some instances I have found it desirable to thin or reduce this cement by various quick-drying liquids, and the proportions and ingredients of my cementing liquids may of course be considerably varied. In the use of the backing wires D may be set therein in the ordinary manner to complete the card-clothing, as shown in Fig. 2.

I am aware that changes may be made in constructing my backing for card-clothing by those who are skilled in the art without departing from the scope of my invention as expressed in the claims. For example, the number of layers of cotton cloth employed or their relative arrangement may be widely varied, or the intermediate layers may be napped or roughened on one face only. I do not wish, therefore, to be limited to the construction herein shown; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. As an article of manufacture, a backing for card-clothing comprising a plurality of

layers of cloth napped and cemented together, substantially as described.

2. As an article of manufacture, a backing for card-clothing comprising a body portion of firm cloth, outer layers of cotton cloth having napped inner faces, and intermediate layers of cotton cloth napped on both faces, substantially as described.

3. As an article of manufacture, card-clothing comprising a composite backing consisting of a body portion of firm cloth, outer layers of cotton cloth having napped inner faces, and intermediate layers of cotton cloth napped on both faces, the several layers being joined together by oil-cement, and wires set into said backing, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDWIN BROWN.

Witnesses:

LOUIS W. SOUTHGATE,
PHILIP W. SOUTHGATE.