

E. H. ANGIER.
TRANSLUCENT FABRIC.
APPLICATION FILED JAN. 17, 1903.

Fig. 1:

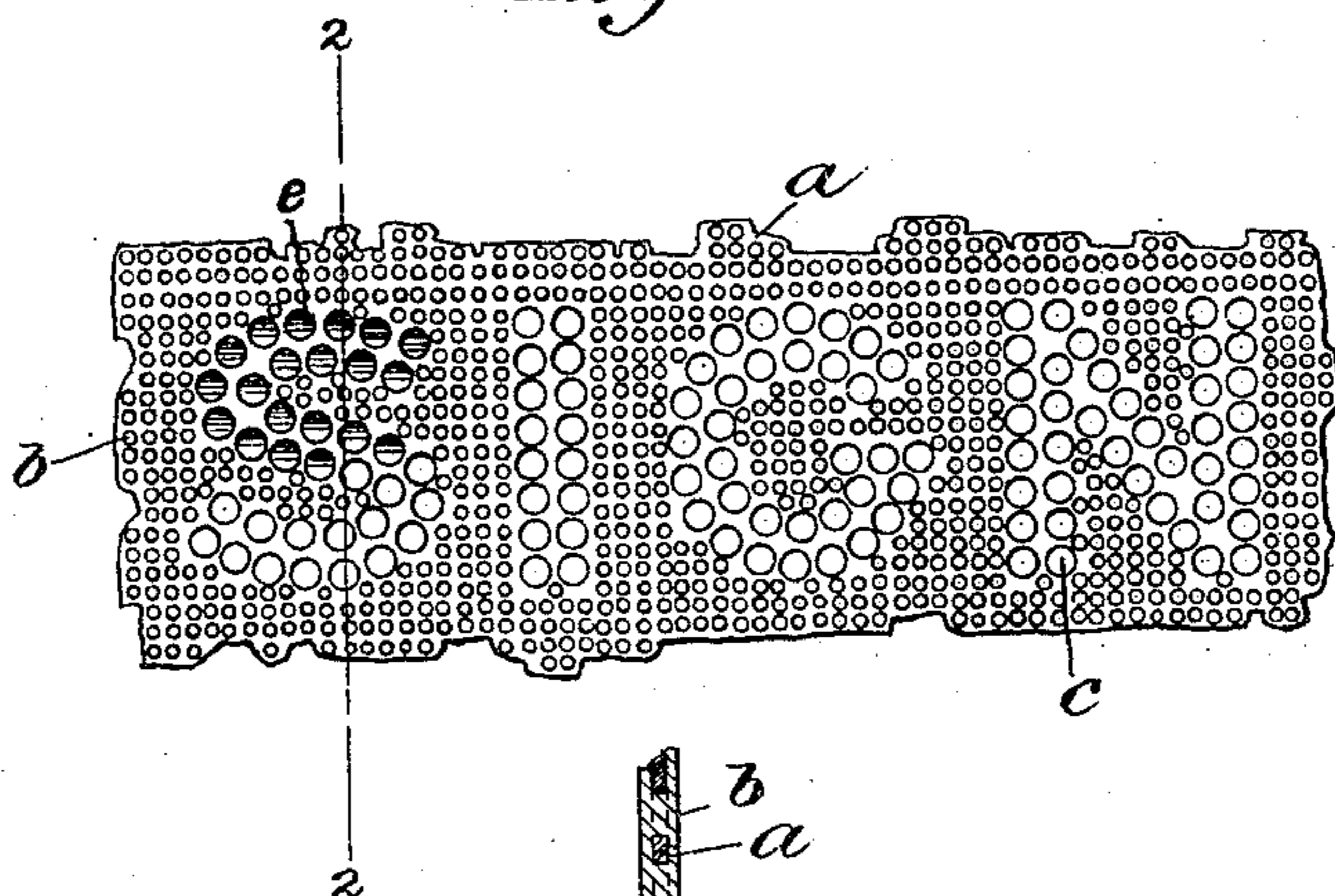
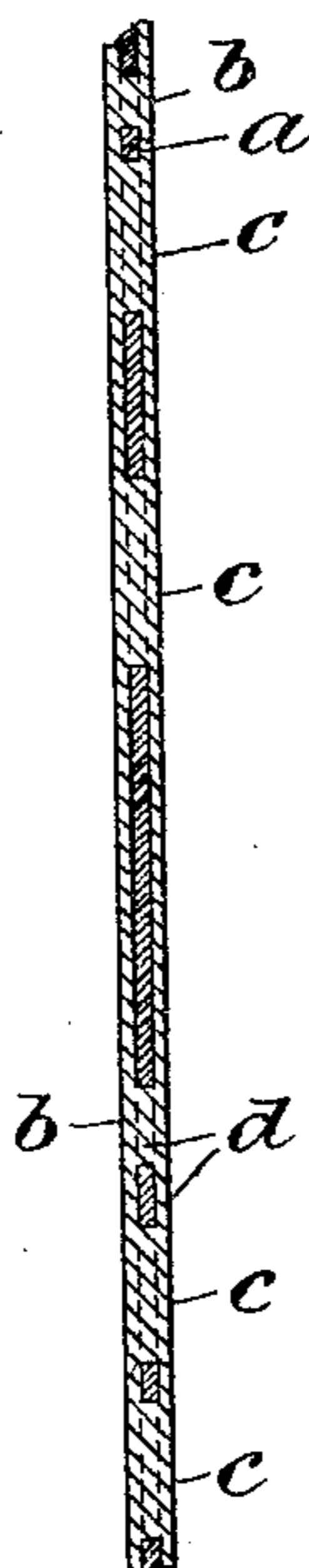


Fig. 2:



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UNITED STATES PATENT OFFICE.

EDWARD H. ANGIER, OF QUINCY, MASSACHUSETTS.

TRANSLUCENT FABRIC.

No. 799,367.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed January 17, 1903. Serial No. 139,426.

To all whom it may concern:

Be it known that I, EDWARD H. ANGIER, a citizen of the United States, residing at Quincy, in the county of Norfolk and State of Massachusetts, have invented an Improvement in Translucent Fabrics, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to translucent or semi-transparent fabric of a character adapted for many uses, such as translucent or illuminated signs and the like; and the object is to provide a translucent fabric which shall be exceptionally durable and capable of a great variety of effects. Heretofore such fabric has been constructed usually with a foundation of woven material, such as woven wire, and covered with some translucent material, such as a linseed-oil composition. Fabric of this construction is capable only of limited utility, since the conventional arrangement of the wires of the foundation admit of but limited variation, if any, and consequently it is practically impossible with such fabric to vary the translucent effects by different arrangements of the foundation material. Such fabric is also susceptible to damage because of the frail nature and lack of rigidity of the foundation.

In the drawings, which illustrate one embodiment of my invention, Figure 1 is a plan view, and Fig. 2 is a sectional view, of a fragment of material representing one embodiment of my invention on the sectional line 2-2, Fig. 1, and on enlarged scale.

For the foundation *a* of the improved fabric I use sheet material, preferably sheet metal or other material, which may be easily worked, but yet is comparatively rigid and which for some purposes may be opaque. This foundation material is perforated in any desired manner, as by innumerable small holes *b*; but the size, shape, and arrangement of the perforations may be varied to any desired extent to produce different effects. The foundation thus prepared is then treated with a suitable material *c*, such as a linseed-oil composition, into which the foundation material may be dipped and then allowed to dry or harden by oxidation to form a flexible and elastic covering therefor, or the translucent material may be pressed into and fill the perforations of the foundation and may form a film of greater or less thickness on one or both sides thereof, the foundation being embedded in the translucent material. The translucent ma-

terial thus becomes intimately engaged or interlocked with the foundation and closely adheres to the same. The fabric so prepared presents a field or ground more or less translucent, according to the character of the material of the foundation or to the number, size, and shape of the perforations and also according to the character of the covering composition. Illuminated or translucent effects may be produced in a variety of ways with such a fabric—as, for instance, by perforating portions of the foundation with larger holes, as shown at *c* in the drawings, to form letters or other designs, or by filling certain of the perforations, as indicated at *e*, with some opaque material in definite arrangement, or, again, certain portions of the foundation may be left unperforated. Designs or signs may also be produced upon this fabric by painting the translucent portions of the completed article with translucent colored paint or with an opaque paint or by cutting out figures or letters of opaque or colored translucent material and affixing them to the surface of the translucent fabric. In each such case, however, the fabric will form a translucent field or background, in contrast with which, by reason of the general perforation of the sheet material forming the said field or background, the symbols are each displayed to the eye in their full detailed configuration.

The fabric when ornamented in a desired manner may be cut into sheets and fitted into the frames of “transparencies;” also, it may be so used without any framing or may be used in window-sashes or as the covering for dust-proof inclosures in show-windows.

A translucent fabric so constructed is stronger and more durable than that having a foundation of woven material, since such material is susceptible to twisting strains, as the separate wires thereof are more or less free to move. With a foundation of perforated sheet material, on the other hand, a fabric may be made strong enough to resist such twisting strains and may be adapted for use in shop-windows or other exposed places where signs would be useful. The foundation material may be of any desired thickness for strength, according to the use to which the fabric is to be put, and by reason of the greater stiffness thereof such fabric may also be used for lantern-slides without framing of any kind by simply cutting the material to the desired size and shape, or the sheet-material foundation

may be first cut to the desired size for such slides and then so perforated as to leave a solid border of unperforated material as a frame, and then the translucent composition may be applied.

Fabric constructed in accordance with my invention is stiffer than the woven wire fabric, and hence presents a smooth plane surface when mounted in frames without the necessity of stretching it.

Many variations in the structure of my invention may be made without departing from the spirit thereof.

What I claim, and desire to secure by Letters Patent, is—

1. A translucent fabric consisting of a foundation of perforated sheet material having cer-

tain of its perforations filled with an opaque material and the whole covered with an inter-engaging translucent material.

2. A translucent fabric comprising a foundation of sheet material having a field composed of uniform perforations and a covering of translucent material, and having perforations obstructed by opaque material to form a design upon said fabric.

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

EDWARD H. ANGIER.

Witnesses:

RALPH C. POWELL,
ALICE RICHMOND BROWN.