No. 819,450. PATENTED MAY 1, 1906.

F. C. OVERBURY.

WATERPROOF FABRIC.

APPLICATION FILED MAY 26, 1905.

Fig. 1.

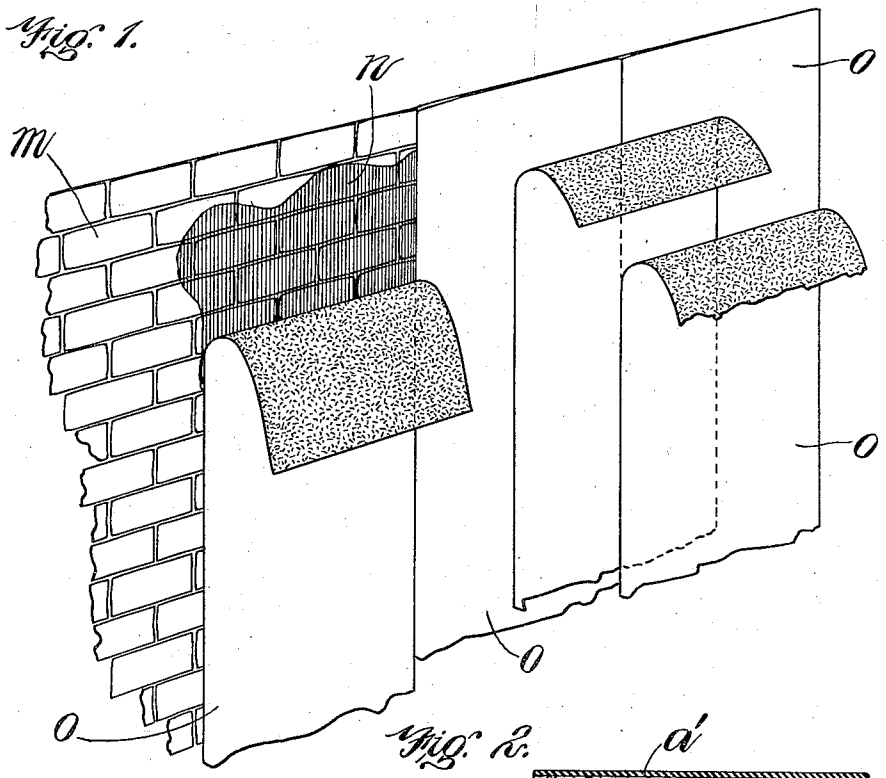


Fig. 2.

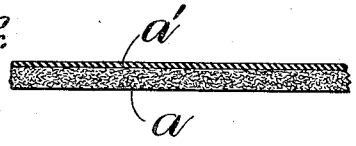
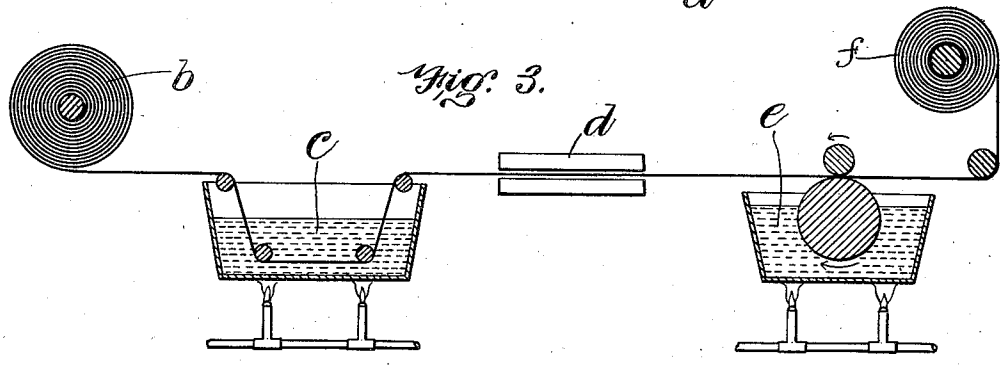


Fig. 3.



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UNITED STATES PATENT OFFICE.

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WATERPROOF FABRIC.

No. 819,450. Specification of Letters Patent. Patented May 1, 1906.

Application filed May 26, 1905. Serial No. 262,429.

To all whom it may concern:

Be it known that I, FREDERICK C. OVERBURY, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Waterproofing Fabrics, of which the following is a specification.

This invention has relation to waterproofing fabrics for buildings and other purposes.

Heretofore waterproofing fabrics of the general class to which this invention relates have been made by saturating a layer or body of wool felt or other suitable fabric in a suitable waterproofing material, such as asphaltum, tar, pitch, or any other hydrocarbon body that it was seen fit to employ. After such saturation in order to provide the fabric with a coating it has been customary to pass the fabric through a mass of waterproofing substance, so that both faces of the fabric became coated with a relatively thick layer of the waterproofing material. In the use of waterproofing fabrics of this general character it has been the practice to coat the wall to be covered with a heated cement—such as asphaltum, tar, pitch, or any other suitable hydrocarbon body—and to then cover the coated wall with a layer of the waterproofing material, and then coat each succeeding layer with the cement to bind the layers together.

Experience has demonstrated that the waterproofing material as heretofore constructed has had several disadvantages. In the first place the coating of the more or less sticky hydrocarbon material on both faces of the fabric renders it difficult to ship the fabric in rolls for the reason that the superimposed convolutions are apt to stick together to such an extent as to render it impossible to unroll the fabric after it has reached its destination. It has been attempted to obviate this difficulty by covering one or both faces with talc or soapstone or some other dry powder; but this is detrimental in that in the subsequent use of the waterproofing fabric the cement does not readily adhere to the talc-covered surface. Furthermore, even where the waterproofing material has not been coated with talc I have found that it is very difficult to cause layers of the material to adhere, for the reason that the imposition of one coated surface upon another coated surface with an intermediate layer of cement does not result in a firm adherence of the two layers. When the coated surface is covered with the cement by the aid of a brush, (the cement usually being employed while hot,) the cement adheres to the surface which it covers; but before the next layer is laid upon it it becomes more or less chilled and does not adhere to the coated face of the superimposed layer. This occurs even when cold cement is used. I account for it by the fact that the coated face of the waterproofing material prevents the cement from reaching the fibers or interstices in the felt or fabric, so that there is no firm adherence between the cement and the waterproofing material. Furthermore, when the superimposed layer of fabric is placed upon the cement-covered face of the first layer of the material there is more or less air between them and the cement is not spread and wiped upon the face of the superimposed layer as it is upon the first or under layer. I obviate these difficulties by constructing the waterproofing material in the following manner:

I first saturate a body or layer of wool felt, fabric, paper, or other fabric that is to be used with waterproofing substance—such as asphaltum, pitch, tar, or other hydrocarbon—so that when it is dried its faces are not sticky, but are dry. Then I coat only one of the faces with a layer of waterproofing substance such as referred to, so that there is a relatively thick coating thereof upon it which has a shiny, smooth, more or less sticky surface, leaving the other face with a more or less rough surface that is not sticky. As a result of this a length of this material may be rolled, in which case the coated face comes into contact with the uncoated face and does not adhere thereto. Again, by leaving the one face uncoated it readily adheres to the cement with which the coated face is treated when the material is put in place or being built up.

On the drawings, Figure 1 represents a wall to which layers of the material are being applied. Fig. 2 represents a section through a strip of fabric. Fig. 3 represents conventionally instrumentalities by which the waterproof fabric may be produced.

The same reference characters indicate the same parts in all the figures.

On the drawings in Fig. 2 I have illustrated an enlarged section of the finished fabric, in which *a* is the saturated body of the fabric, and *a'* the coating of waterproofing material. This finished fabric may be produced by an apparatus such as conventionlly illustrated in Fig. 3, in which the roll of fabric is indicated at *b*. The fabric is drawn through a saturating-vat *c*, through driers *d* (if desired) to a coating device *e*. In the last-named device the fabric is not submerged in the liquid waterproofing material, but is coated therewith only on the under face, so as to leave the upper face dry and comparatively rough. After being dried the material is wound upon a roll *f*. Of course any other suitable instrumentalities may be employed in lieu of those referred to.

In the use of the finished fabric the wall to be covered thereby, such as that indicated at *m* in Fig. 1, is first covered with a coating of cement *n* by the aid of a brush or otherwise, and upon the coating is laid the rough face of a layer of waterproofing material *o*. The layer is pressed firmly against the wall, the smooth, shiny, and more or less sticky face of the layer being outermost. The wall is covered with one layer of the fabric by placing strips thereof side by side. Then the exposed face of the first layer is coated with cement and the rough uncoated face of a second layer is placed thereon, so as to "break joint" therewith, and then a third layer, and so on until the desired number is reached.

The cement is preferably used while heated and is preferably asphaltum; but some other cement may be utilized, and, if desired, in a cold state.

Having thus explained the nature of the invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, I declare that what I claim is—

As a new article of manufacture, a waterproof material consisting of a fibrous body saturated with a hydrocarbon waterproofing substance and having one surface substantially non-adhesive, the other surface being coated with an adhesive hydrocarbon waterproofing substance.

In testimony whereof I have affixed my signature in presence of two witnesses.

FREDERICK C. OVERBURY.

Witnesses:
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