

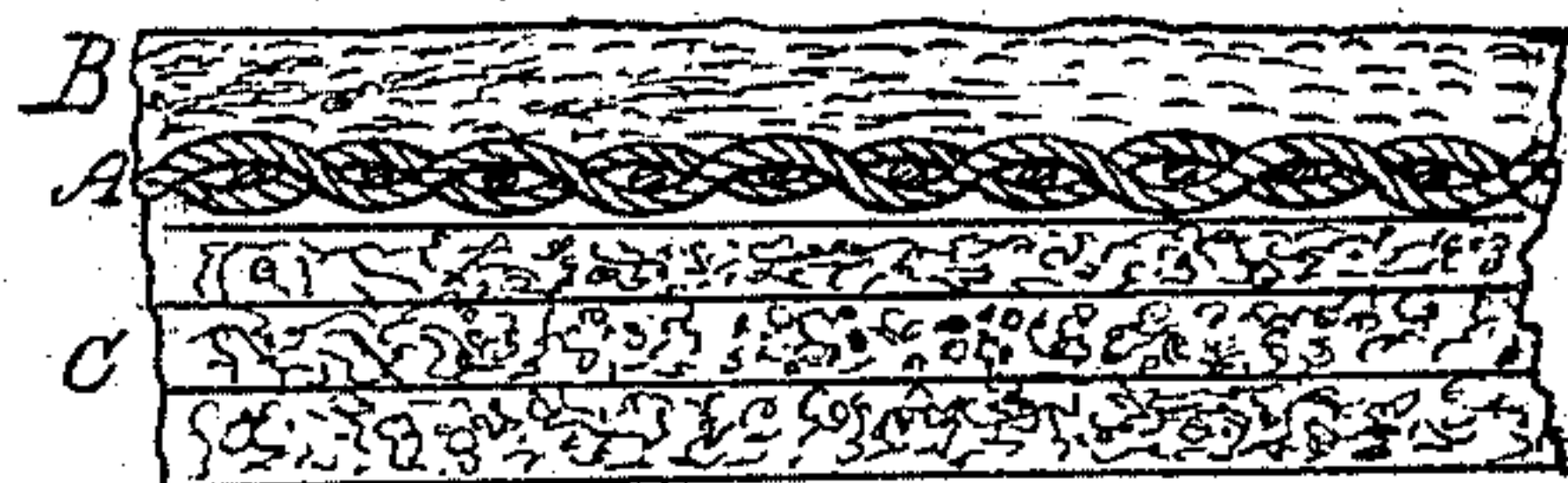
*E. Waite.*

*Felted Fabric.*

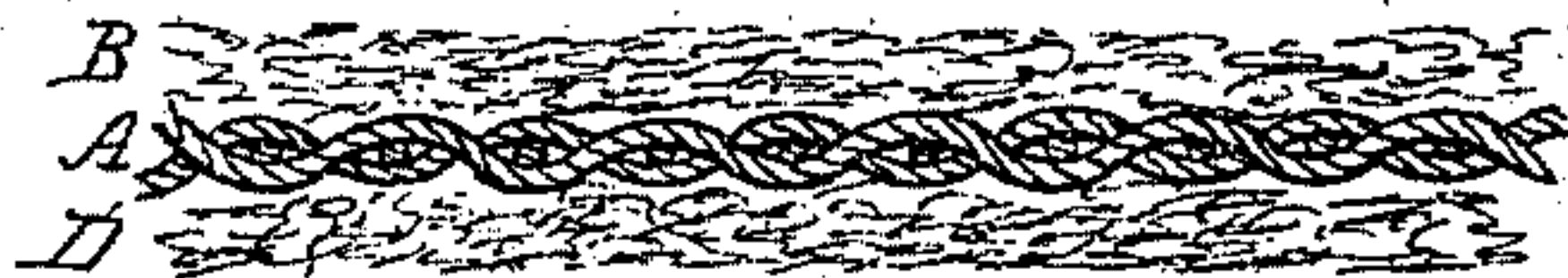
*Nº 49353*

*Patented Aug. 8, 1865*

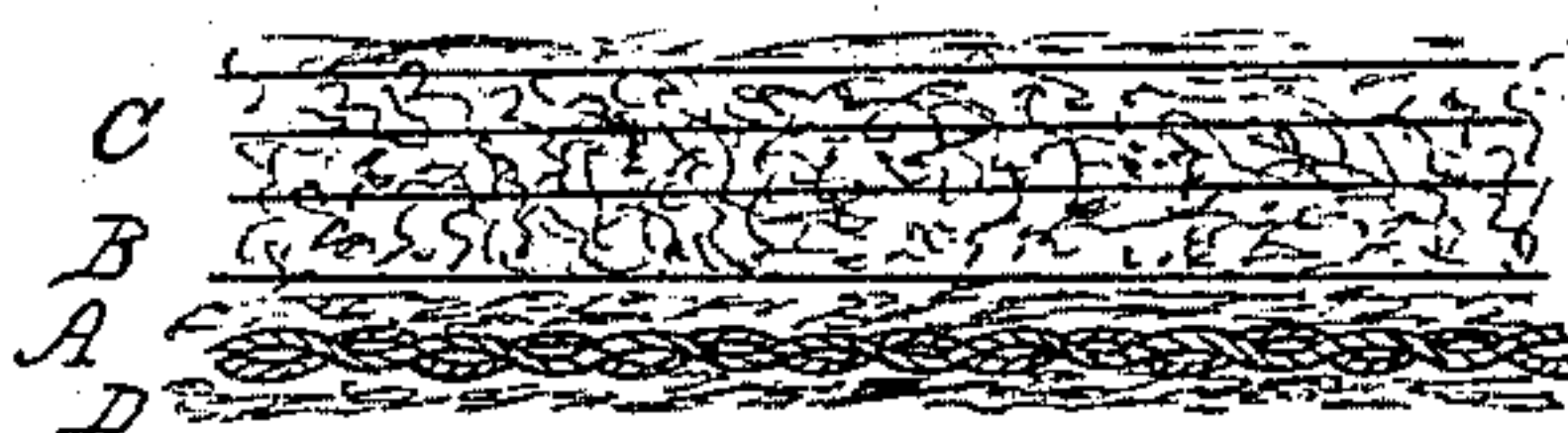
*Fig. 1*



*Fig. 2*



*Fig. 3*



*Witnesses*

*J. P. Hale*

*Frederick Curtis*

*Inventor*

*Enoch Waite*

*by his attorney*

*R. H. Ledy*

# UNITED STATES PATENT OFFICE.

ENOCH WAITE, OF FRANKLIN CITY, MASSACHUSETTS, ASSIGNOR TO THE  
ELLIOT FELTING MILLS, OF SAME PLACE.

## IMPROVEMENT IN FELTED FABRICS.

Specification forming part of Letters Patent No. **49,353**, dated August 8, 1865.

*To all whom it may concern:*

Be it known that I, ENOCH WAITE, of Franklin City, in the county of Norfolk and State of Massachusetts, have invented an Improved Manufacture or Fabric for Covering Steam-Boilers; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a longitudinal section of a piece of the said fabric, having one stratum of felt, a stratum of burlap, and a stratum of hair. Fig. 2 is a section exhibiting a piece of cloth and two strata of felt arranged on opposite sides of it, preparatory to the addition of the stratum of hair, as shown in Fig. 3.

My invention consists not only of one or more layers of felt and a knitted or a woven fabric or cloth—such as burlap, for instance, or any other suitable material composed of threads either interwoven or knit together to form cloth—but of one or more thicker layers of hair.

In manufacturing the said compound fabric I take a piece of burlap and by means of a felting-machine throw and make upon it a stratum or sheet of felt, uniting the two by the process of felting. In the same or in any similar manner I can apply felt to the opposite sides of the cloth, whether it be a woven or knitted fabric. Afterward to such I affix a stratum or series of strata of hair.

In Fig. 1, A denotes the woven cloth, B the

stratum of felt, and C the mass or stratum of hair. The thickness of the stratum of felt may be either equal or less or greater than that of the cloth.

In Fig. 2, A denotes the woven cloth, and B D the layers of felt.

In Fig. 3, A denotes the stratum of burlap, B and D those of the felt, and C that of hair.

The thickness of the mass of hair I usually make very much greater than that of the other strata combined with it.

By my invention I am enabled to produce coverings of great strength and utility for steam pipes and boilers, such being employed thereon in order to reduce the loss of heat therefrom, the combination of the stratum of burlap with the thick stratum of hair and either one or two strata of felt imparting to the fabric a great degree of tenacity and strength, whereby it may be bent without danger of rupture.

I do not claim merely the combination of felt and cloth, whether the latter be netted or woven.

I claim as my invention—

The compound fabric made of felt, cloth, and hair, combined or arranged substantially in manner as described.

ENOCH WAITE.

Witnesses:

R. H. EDDY,  
F. P. HALE, Jr.