UNITED STATES PATENT OFFICE.

ERNEST KINGSCOTE, OF LONDON, ENGLAND.

MANUFACTURE OF ARTIFICIAL MATERIAL.

SPECIFICATION forming part of Letters Patent No. 632,723, dated September 12, 1899.

Application filed April 9, 1898. Serial No. 677,083. (Specimens.)

To all whom it may concern:

Be it known that I, ERNEST KINGSCOTE, physician, a subject of the Queen of Great Britain and Ireland, and a resident of 31 Lower Seymour street, Portman Square, London, England, have invented a new and useful Method of Manufacture of Artificial Material, (for which I have applied for a patent in Great Britain, No. 22,475, dated September 30, 1897,) of which the following is a specification.

My invention has for its object to provide a new material to be employed in place of wood, iron, leather, and the like in the construction of various articles, the said new material being extremely strong, very durable and practically indestructible in ordinary use, and having a considerable amount of resilience.

According to my invention I manufacture the improved material by taking wool fibers, preferably the wool of lambs or of sheep, and I subject the said fibers to a high degree of felting by felting and refelting, accompanied or not by mechanical compression, until the material assumes about the consistency and strength of leather. The wool fiber after being thus treated is subjected to a process of tanning, preferably with oak bark, or to a tanning process known as "crome" tanning, whereby the felted wool fibers require a high degree of rigidity and whereby a material is formed from the said wool fibers which can be used as a substitute for wood, leather, or metal, for instance, in the construction of railway-wheels and other parts of railway rolling-stock or in the making of sleepers or other parts of the permanent way. The said material will also be suitable for use in making such articles as gun-stocks, soles for boots, and various other articles which have hitherto been made of wood, leather, or metal.

The wool fibers may be felted and compressed in molds to give the requisite shape or a shape approximating to the article or articles to be produced, or the material may be made in blank sheets or the like and afterward the required article or articles be cut or fashioned therefrom.

When it is required that the material be waterproof, I may subject it to any well-known process for securing this result; but I prefer to treat the material for this purpose with a solution of nitrated oil and cellulose.

I claim—

1. The manufacture and production of a new material from wool fiber by first felting said fiber, and then subjecting said felted fiber to a process of tanning, substantially as described.

2. The manufacture and production of a new waterproof material from wool fiber by first felting said fiber, then subjecting the felted fiber to a process of tanning, and finally rendering the same waterproof, as set forth.

3. As a new article of manufacture, felted wool which has been subjected to a process of tanning, substantially as set forth.

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

ERNEST KINGSCOTE.

Witnesses:
PERCY EBENEZER MATTOCKS,
WILLIAM OSWALD BROWN.