Oct. 25, 1932. E. J. MORAN 1,884,106

PROCESS FOR PRODUCING GASSED SHEET RUBBER HAVING A SHAGGY OR HIRSUTE TEXTURE

Filed Oct. 29, 1930

Fig. 1

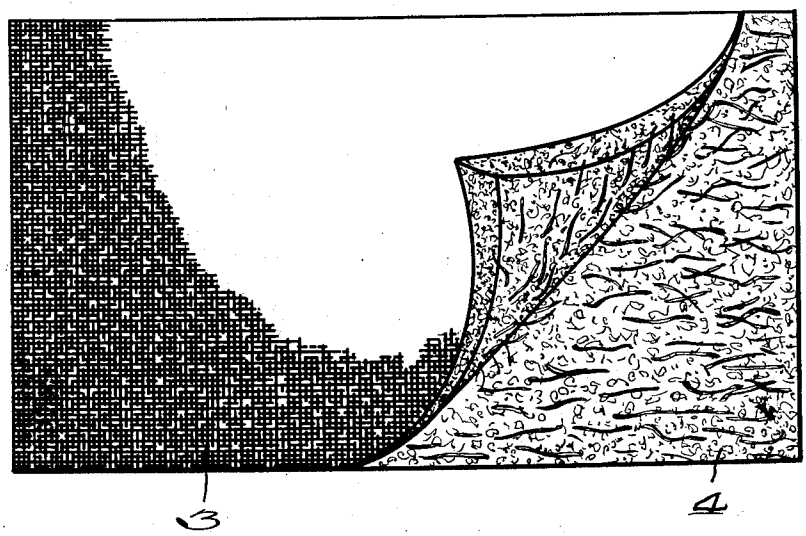
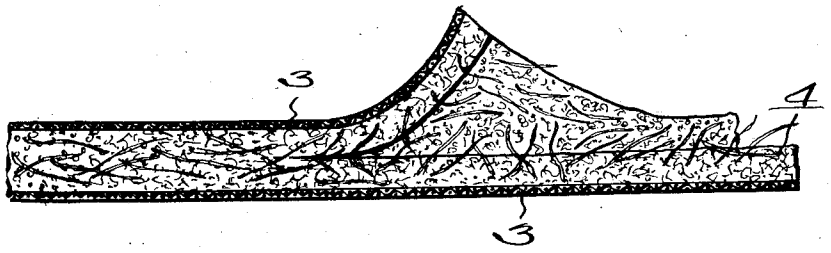


Fig. 2



Witness:
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UNITED STATES PATENT OFFICE

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PROCESS FOR PRODUCING GASSED SHEET RUBBER HAVING A SHAGGY OR HIRSUTE TEXTURE

Application filed October 29, 1930. Serial No. 491,987.

My present invention relates to the provision of a material for the putting greens and fairways of the diminutive golf courses now coming into popularity.

It is generally recognized that the playing surfaces should simulate as closely as possible a good grass putting green upon which the progress of the ball is retarded and rendered a trifle less certain in direction by the presence of the blades of grass. To secure such results flaxseed hulls and other similar materials presenting an uneven and slightly yielding surface have been employed.

It has been my object to provide a material which shall simulate very closely a grass putting green having the yielding character thereof and also the property of slightly impeding the progress of the ball.

I have had as a further object the provision of a material which will have the strength to stand the service and wear independently, it being understood that the service required not only constitutes the rolling of the balls but the walking of the players on the surface of the material.

I have attained the foregoing results by means of the structure shown in the accompanying drawing, in which:—

Fig. 1 is a plan view of a piece of the material to an exaggerated scale so as to clearly show the hairs or bristles protruding through the surface; and

Fig. 2 is a transverse section of the material also to an enlarged scale.

Similar reference characters refer to similar parts throughout the respective views.

The material is made by taking gassed or sponge rubber stock, in which there is an element to cause gasification during the process of vulcanization, and mixing therewith about twenty-five percent (25%) by weight of hog hair. This hog hair is obtained at slaughter houses or packing houses and consists of coarse hair or bristles in varying lengths from ¼″ to 1½″.

By placing the hog hair and gassed or sponge rubber stock in the variety of rubber mixer which is provided with a number of parallel rollers, it will be found after mixing that the hair fibers have been caused to assume a general parallelism. That is, by far the greater number of these hair fibers or filaments lie substantially parallel with one another. This parallelism has an important result in the final product as it will be found that the material has very little elasticity or stretch in the direction of the disposal of the hair, and that if the material is laid with the hairs disposed lengthwise of the play, the material will be more permanent and stable, and, in fact, have all the permanence and stability necessary both for the passage of the balls thereon and for the walking of the players in the direction that the hairs are disposed. As the players, however, are liable to turn upon their heels while standing upon the material or otherwise give it a sidewise thrust I have reinforced the bottom of the material with a layer of canvas.

The material is made by laying a piece of reinforcing canvas 3 upon the bottom of a mold then spreading a layer of the mixed gassed or sponge rubber stock and hair 4 and cover the same with another layer of canvas. The top is then placed on the mold and the product vulcanized at the required heat for the required length of time. The product when vulcanized is substantially ½″ thick after the vulcanization, but before the product is cool, I slit the same between the top and bottom surfaces with a band saw or in any of the known ways for so splitting the rubber. By so splitting the rubber before the product is cool, the hairs, which are less firmly held in one side than the other, are pulled out of the side in which they are less firmly held instead of being cut off by the saw or splitting instrument, which results in securing a surface from which hairs thickly protrude from ⅛″ to ¼″. Some of the hairs are uncovered for a much longer distance than ¼″ but their general parallelism results in that few, if any, of them protrude more than ¼″ from the surface of the rubber.

If the product is permitted to cool after vulcanization before it is split it will be found that the rubber is cut much smoother and that the hairs are also cut and do not extend as far from and effect the surface so

characteristically as when the material is split before it is cool.

Hog hairs are of a tough and durable nature and they will be found to add materially to the strength and sturdiness of the final product, and their presence will be found to effect a ball rolled or driven over the surface very much as the grass upon a putting green.

A suitable shade of green pigment may be added to the sponge rubber stock so that the final product will look like, as well as act like, a grass putting green.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

The process for producing gassed sheet rubber having a shaggy or hirsute texture consisting of mixing gassed rubber stock with commercial hair; the formation of said mixture in sheets; the subjecting of said sheets to sufficient heat to secure the curing thereof; and the splitting of said sheets while they are still warm, whereby the hairs intersecting said split are drawn from the side in which they are least embedded.

EDWARD J. MORAN.