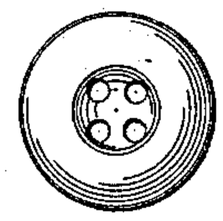
(No Model.)

W. F. NILES.

BUTTON.

No. 384,064. Patented June 5, 1888.



Witnesses.
George Cook.
Fred. C. Riekers.

Inventor:
William F. Niles,
by Rowland Cox.
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM F. NILES, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO THE VULCANITE MANUFACTURING COMPANY, OF NEW YORK, N. Y.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 384,064, dated June 5, 1888.

Application filed February 27, 1888. Serial No. 265,502. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. NILES, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Buttons, &c., of which the following is a specification.

My invention relates to an improvement in buttons and other analogous molded articles from fibrous material, and more particularly to articles produced in accordance with methods described and claimed in patents granted to me November 18, 1879, No. 221,852, and February 3, 1880, No. 224,036.

In practicing the methods set out in the patents above referred to I have found that the articles after completion have a tendency to shrink, due to the evaporation of the water used in carrying out the processes.

The object of this invention is to discard the use of water in manufacturing the articles and thus overcome all danger or liability of the article shrinking or changing its shape or form after completion.

With this end in view my invention consists in substituting for the water used, as described in the patent before referred to, a mixture of a non-volatile character, and consisting of glycerine and molasses in proportions of two-thirds of the former to one-third of the latter.

I have shown in the accompanying drawing the representation of a button, but do not limit my invention to such, as it will appear from the following description that the invention is applicable to the manufacture of many other small articles.

In carrying out my invention I prepare the fibrous material substantially as described in the patents before referred to, with the exception of the use of a solution of albumen or gelatine, which in this instance is not essential, but which in carrying out the processes as described in said patents is used to saturate the pulp or fibrous material. After this fibrous material has been reduced to a pulp, dried, and then reduced to a soft linty substance and finally mixed with dried powdered hoof, as fully described in said patents, I add to the same and thoroughly combine therewith a mixture consisting of two-thirds glycerine and one-third molasses in the proportion of about one pound of the fibrous material, treated as described, to about one and one-half ounce of said above mixture.

The accompanying drawing shows a button formed of my improved composition, as above described. The form of the button, as shown in the drawing, is of the ordinary type; but I would have it understood that I in no wise limit my invention to the button or other particular article, nor to any certain form of such, as it is obvious that my improved composition may be employed for the manufacture of many other small articles.

Although I prefer to use molasses in conjunction with glycerine, I do not limit my claim to such substance, as sugar, glucose, or other saccharine substance may be substituted therefor with good results; or, if desired, glycerine alone may be used; but I have found that it does not harmonize so well with the fibrous material and hoof, the saccharine substance used therewith acting as a vehicle for the glycerine and also combining with the lime, entering as a constituent of the hoof employed to ultimately form a hard and durable material. If it is desired to produce an especially hard substance, a small quantity of lime may be added to the mixture. Buttons or other articles thus formed will be found to be much more elastic, and consequently easier to drill or work, than articles formed in accordance with the methods set out in the patents above referred to, in which water is used to saturate the material before molding.

Instead of using fibrous material treated as above described and mixed with powdered hoof, I have found by experiment that a good and desirable result may be effected by the use or employment of the powdered hoof and glycerine without such fibrous material, and also by the use of powdered hoof and a mixture of glycerine and saccharine substance.

It will be understood that articles of any shape—such as buttons, martingale-rings, ornaments to be worn by ladies, &c.—may be molded of this material.

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

1. A button or other article formed of or containing a compound consisting of powdered hoof and a mixture of glycerine and saccharine substance.

2. A button or other article formed of a compound consisting of a fibrous material, powdered hoof, and a mixture of glycerine and saccharine substance.

3. A button or other article formed of a compound consisting of a fibrous material, powdered hoof, and a mixture of glycerine and molasses.

Signed at New York, in the county of New York and State of New York, this 24th day of February, A. D. 1888.

WILLIAM F. NILES.

Witnesses:
GEORGE COOK,
HERMAN GUSTOW.