

(No Model.)

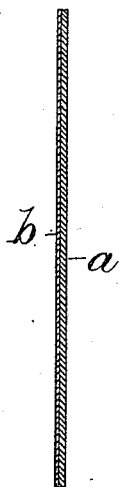
J. W. HYATT.

WATER PROOF PAPER COLLAR OR CUFF.

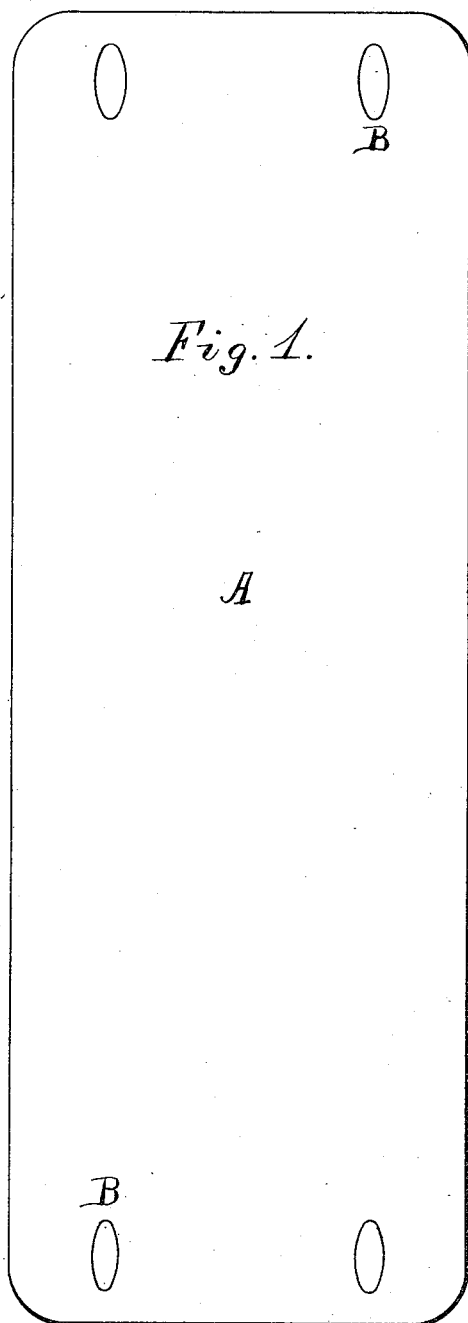
No. 419,261.

Patented Jan. 14, 1890.

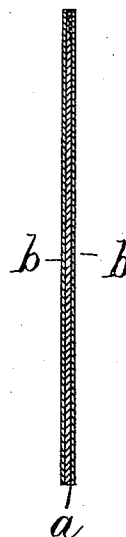
*Fig. 2.*



*Fig. 1.*



*Fig. 3.*



*Attest:*  
*A. C. Fischer*  
*Frank A. Sommer*

*Inventor.*  
*John W. Hyatt per*  
*Crane & Miller, attys.*

# UNITED STATES PATENT OFFICE.

JOHN W. HYATT, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE CELLULOID MANUFACTURING COMPANY, OF NEW YORK, N. Y.

## WATER-PROOF PAPER COLLAR OR CUFF.

SPECIFICATION forming part of Letters Patent No. 419,261, dated January 14, 1890.

Application filed August 30, 1889. Serial No. 322,472. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. HYATT, a citizen of the United States, residing at Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Water-Proof Paper Collars and Cuffs, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 The object of this invention is to provide an entirely water-proof collar having an outer paper surface embossed in imitation of muslin; and the invention is designed as a cheap substitute for the article made of woven fabric  
15 with a water-proof body and waterproofed surface heretofore invented by me, and claimed in my patent applications Serial No. 270,546, filed April 13, 1888, and Serial No. 290,674, filed November 13, 1888. In my said inventions a  
20 suitable body of porous material was first waterproofed by coating it with a water-proof substance, and a fine-grained surface was then secured by cementing with a water-proof cement a fine muslin fabric upon both the  
25 outer sides of such water-proof body, and finally finishing the surface of such woven fabric by parchmmentizing the surface or coating it with water-proof varnish. Such construction was adopted because it had not yet  
30 been discovered that a paper-surfaced collar or cuff could by any means be so protected from moisture that it could be soaked in water repeatedly and cleaned with a brush or sponge without impairing its appearance or  
35 constitution. I have, however, discovered that a paper of strong texture may be adapted for use upon the outer face of such an article by securing it to a muslin body with water-proof cement, then saturating the paper, and  
40 coating its surface with a water-proof varnish.

It is obvious that water may soften and penetrate somewhat through any varnish that may be used, and the treatment described renders the article proof against injury, because any water which penetrates into the article cannot separate the layers as it would if they were united by paste, as heretofore in such constructions. The article may have the muslin body, which gives toughness and  
45 strength to the article, exposed upon the inner side of the article; or the muslin may be

wholly concealed by facing both its sides with paper. Both constructions are shown in the annexed drawings, in which—

Figure 1 shows a side view of a cuff; Fig. 2, 55 a cross-section of the same made with one layer each of paper and muslin, and Fig. 3 is a cross-section of a similar article having paper cemented to both sides of the muslin.

In Fig. 1, A is the cuff and B the button- 60 holes. In Fig. 2 the muslin body *a* is covered on one side only with the paper *b*; and in Fig. 3 on both sides, forming three layers. The paper-facing *b* is cemented to the body by water-proof cement. The article is then preferably cut out and wholly finished by the 65 formation of button-holes or otherwise before waterproofing externally, so that no portion of its surface will be broken after it has received its final coating. The entire exterior, 70 including the edges as well as the button-holes, would then be coated with water-proof varnish, which, when dry, protects the button-holes and exterior edges of the article, as well as the flat surfaces, from injury by moisture. 75 The article is then preferably pressed between suitable embossing-dies adapted to impart the grain of fine starched linen to the surface, and is ready for use.

I have found that any strong drying oil 80 forms a suitable cement for attaching the paper to the muslin body, as well as a suitable varnish to finish the surface; but pyroxyline varnish is still better adapted for both of these purposes, as it is much firmer and whiter. 85 I therefore prefer to use pyroxyline cement in attaching the paper to the muslin and pyroxyline varnish for finishing the surface.

I am well aware that so-called "paper collars" have been formed by securing paper upon 90 a muslin body with paste, and I do not therefore claim anything new in the combination of muslin and paper for such purposes. Such articles are, however, only adapted for a few days' use, and are readily affected by moisture. 95 Any attempt to waterproof such articles is successful for only a short time, as the water used in cleansing the article always penetrates below the surface at some point, and then separates the layers or splits open 100 the edges of the article by softening the paste.

In my construction I take pains to saturate

the paper with the water-proof material applied to its inner and outer sides, and as no paste or other soluble substance is used between the several layers my article is not injured at all by the moisture that may be able to penetrate the surface.

In the articles claimed by me heretofore two layers of muslin were required to produce the article; but, as the muslin is the chief expense in such articles, the economy in my present construction is in the use of only one layer of muslin, and this layer may be much coarser and cheaper than that required for an outside coating, because the outside coating is made wholly of paper in my present invention.

Having thus set forth my invention, what I claim herein is—

As a new article of manufacture, an article of wearing-apparel, as a collar or cuff, composed of a muslin body having paper attached to one or both of its surfaces by water-proof cement and the entire surface of the article, including the edges, coated with water-proof varnish, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN W. HYATT.

Witnesses:

THOS. S. CRANE,  
FRED C. FISCHER.