

(No Model.)

J. W. HYATT.
APPAREL COLLAR OR CUFF.

No. 419,259.

Patented Jan. 14, 1890.

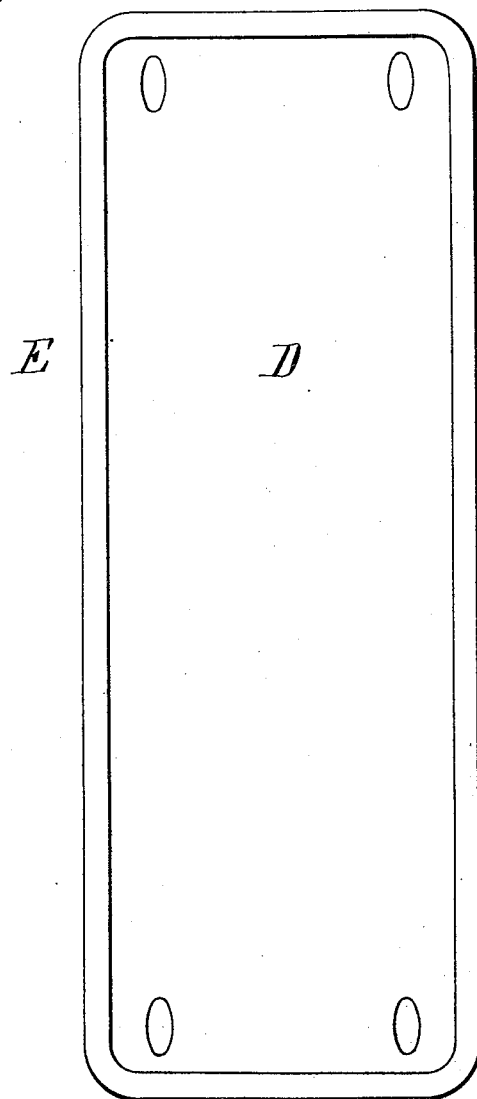


Fig. 1.

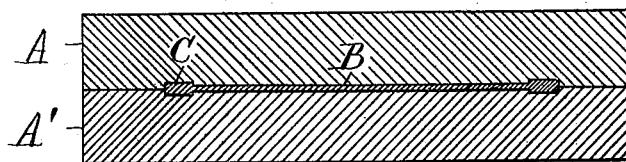


Fig. 2.

Attest:
Lo. Lee.
Thos. S. Crane

Inventor.
John W. Hyatt, per
James Miller attys.

UNITED STATES PATENT OFFICE.

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

APPAREL COLLAR OR CUFF.

SPECIFICATION forming part of Letters Patent No. 419,259, dated January 14, 1890.

Application filed March 28, 1889. Serial No. 305,159. (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 Compressed 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 furnish a collar or cuff of cheap materials that may be cleansed by soap and water with a sponge, and having a thickened border in imitation of genuine linen goods; and the invention consists in a piece of porous fabric compressed within the border to produce the excess of thickness at the edges, and waterproofed with a suitable water-proof material, as a solution of pyroxyline.

20 It also consists in a piece of porous fabric sized, then compressed within the border to produce a thickened edge, and finally waterproofed to make it resist dirt and moisture. The porous fabric for the manufacture of this article may consist in a sheet of thick porous paper, a sheet of thick porous muslin, or of any other suitable fabric of loose texture adapted to yield under compression sufficiently to form a perceptible difference in thickness between the body and the border. A thick fabric is essential, as the thickened edge, which, for convenience, I will term herein the "border," is not subjected to any re-enforcement, as by binding or folding over to increase its initial thickness. When a coarse woven fabric is used, the surface of such fabric is preferably hackled before compression to obliterate the coarse grain of the surface.

35 The nature of my invention will be understood by reference to the annexed drawings, in which Figure 1 is a plan of a cuff having a border thicker than its body, and Fig. 2 is a transverse section of the compressing-dies with the cuff between them. The cuff is shown with body D and a raised border E shaped by the treatment I employ to project upon one or both sides of the article. The piece of material is preferably sized with fine glue or gelatine cut to the finished form, and being thus prepared for compression is subjected to dies A A', having operative faces B

adapted to press the body of the cuff within the border, one or both of the dies being formed with grooves C of suitable depth to embrace the border and press slightly upon the same. By grooving both the dies at the border C, as shown in Fig. 2, the body B is compressed upon both sides equally and the border C is raised upon both sides of the body. If a fabric of coarse grain is employed, the border is subjected to a sufficient pressure in the dies to produce a smooth surface to obliterate the coarse grain of the fabric. The border is not, however, exposed to any such pressure as the body of the cuff which I subject to a pressure of at least one ton per square inch, which operates in conjunction with the size to produce a body of great stiffness and elasticity. The article is then treated all over, including the outer edges, with several coats of a drying vegetable oil, as linseed or poppy mixed with a white earthy pigment as oxide of zinc, which treatment renders the article wholly water-proof and adapted for cleansing with soap and water by a sponge in the desired manner. It will be noticed that the water-proof coating, being applied to the article after the latter is cut to the finished form, protects the edges as effectively as any other portion, and thus renders them impervious to moisture and incapable of fraying out in use.

I have in another patent application, No. 305,160, filed March 28, 1889, for improvement in cuffs or analogous articles, claimed generically a collar treated with drying-oil and sized to stiffen the body, and have stated in the said application that bleached oil was necessary to produce the desired result, and I do not therefore claim herein the mere treatment with oil and size.

As my present claim is to the finished article, it is obviously immaterial in what order the fabric is sized, compressed, or treated with water-proof material, and I do not limit myself, therefore, to any particular order in which the steps of the process shall be practiced to produce the desired result.

The article itself when finished is readily distinguished by a border of greater thickness and lesser texture than the compressed body, and by the presence of the size if used in the

body, and of the water-proof material upon the surface to protect the article from dirt and moisture.

My present invention is intended to cover any thick fabric of suitable material having a loose texture adapted to compress within the border, so that the body of the cuff may appear of lesser thickness than the border and treated with water-proof material, and, if desired, also with size, to produce an elastic article impervious to moisture.

I am aware that it is common to emboss the edges of so-called "paper" collars and cuffs (which are sometimes formed by pasting paper and muslin together) to produce an imitation of a thickened border; but in such constructions the border is simply bent to one side of the article outside a line of imitation stitching, and the border is not therefore rendered any thicker than the body of the article. By such construction the imitation of a thickened border can only be produced upon one side of the article, and my invention will be readily distinguished from such construction, as it presents a border or edge perceptibly thicker than the body of the article, and, when desired, projected beyond the surface of the body upon both sides of the article, as is the case with a hem upon a genuine laundered linen cuff.

I am aware of United States Patent No. 147,588, dated February 17, 1874, in which an article is described with two or more layers united by a paste of starch and spermaceti and coated externally with starch and bluing, and I do not therefore claim such a construction.

A mixture of starch and spermaceti is commonly used in polishing laundered goods, but is not known to protect them from water or to impart any water-proof qualities, whereas my invention is adapted to furnish a perfectly water-proof article, which may be washed with water and a sponge or even immersed in water for hours without alteration or injury.

I am also aware that it is common to thicken the edges of collars and cuffs by making a fold upon the border of the same, as in United States Patent No. 288,955, dated November 20, 1883, and Patent No. 252,341, dated January 17, 1882; but my invention differs from such construction in having only the same amount of substance in the border as in the body of the article. The thickness of the border is secured in my invention by using a porous absorbent material to construct the article, and compressing the body at a suitable distance from the edge to make the body thinner than the border and of denser texture.

I do not claim, broadly, a thickened edge, as that is old; and I wholly disclaim an article having the edge folded over or otherwise

re-enforced to increase the number of layers or the substance in the border. In my collar or cuff the border has precisely the same substance as the body of the article, and its substance is not augmented by folding or any increase in the number of layers, and the difference in the density of the body and the border, which produces the appearance of thickness in the latter, is a difference in constitution and quality that is readily distinguished by suitable tests.

It will therefore be understood that my improvement relates exclusively to water-proof collars and cuffs having only the same number of layers, and therefore only the same actual substance in the border as in the body of the article.

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

1. An article of wearing-apparel, as a collar or cuff, consisting in porous absorbent material coated with water-proof varnish, with thin body and thick border, the body being of denser texture than the border, and the border being unprovided with any re-enforcement and having only the same amount of substance as the body of the article, substantially as herein set forth.

2. An article of wearing-apparel, as a collar or cuff, consisting in porous absorbent material coated with water-proof varnish, with thin body and thick border projecting upon both sides of the body, the body being of denser texture than the border, and the border being unprovided with any re-enforcement and having only the same substance as the body of the article, substantially as herein set forth.

3. An article of wearing-apparel, as a collar or cuff, consisting in porous absorbent material coated with dissolved pyroxyline, with thin body and thick border, the body being of denser texture than the border, and the border being unprovided with any re-enforcement and having only the same amount of substance as the body of the article, substantially as herein set forth.

4. An article of wearing-apparel, as a collar or cuff, coated with water-proof material, with thin body and thick border, the body being of denser texture than the border and sized to stiffen the same, and the border being unprovided with any re-enforcement and having only the same amount of substance as the body of the article, substantially as herein 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,
HENRY J. MILLER.