F. P. Flandgan.

Hats & Caps.

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Mitnesses M.S. Partridge Daniel Robertson

Inventor

## United States Patent Office.

FRANCIS P. FLANAGAN, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN HATS.

Specification forming part of Letters Patent No. 38,895, dated June 16, 1863.

To all whom it may concern:

Be it known that I, Francis P. Flanagan, of the city of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in the Manufacture of Hats; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a central vertical section of a hat constructed according to my invention. Fig. 2 is a vertical section of one side of the body

before the covering is put on.
Similar letters of reference indicate corre-

sponding parts in both figures.

This invention relates to the manufacture of hats with bodies of palm-leaf or other material of similar character, covered with felt, cloth, plush, or other woven fabrics. Its principal object is to produce a more perfect union of the covering with the body; and to this end it consists in coating the body with a solution of india-rubber, preparatory to the application of the coating of varnish, commonly known as "hatter's varnish," by which the covering is made to adhere. This coating of india-rubber solution makes a more perfect adhesion of the varnish to the body and prevents it from cracking off by the application to the hat of any pressure which indents and temporarily alters its shape.

It also consists in pasting a binding of muslin or other suitable woven fabric around and over the edge of the brim, for the purpose of confining the ends of the strips of palm-leaf or similar material of which the body is composed, and thereby insuring a smooth edge and giving greater firmness to the brim.

In carrying on my invention I take the palm-leaf body A, and, after blocking it, pounce the exterior surface with pumice-stone or sand-paper to give it a desirable grain or roughness to insure the adhesion of the indiarubber solution. I then cut or trim the brim to the desired shape and paste over the edge the binding strip, a, of muslin or other light woven fabric, with flour-paste or other suita

ble adhesive material. This strip may be of about half an inch in width, and I prefer to apply it so that the greater portion of its width is on the upper surface of the brim, leaving only a narrow margin to turn over the edge of and lap the under surface thereof. I then apply the india-rubber solution with a suitable brush all over the exterior of the body, or to such portion of it as is to be covered, and to the under surface of the brim also if that is to be covered. This solution may be made by adding to a suitable quantity of indiarubber sufficient benzine, camphene, or other suitable solvent to reduce it to a fluid state. When the coating has become set, I apply in the usual manner the coating of hatter's varnish. This is a varnish composed of lac and other gums dissolved in alcohol, and the mode of preparing and using it is well known to hatters. The covering b of felt cloth or plush is then applied and secured by ironing in the same manner as cloth or plush is applied to other hat bodies, and the hat finished and trimmed in the usual manner. When a covering of felt is used, it is made very much thinner than a felt hat body, as it is not required to add strength to the hat, but merely to produce a surface.

What I claim as my invention, and desire

to secure by Letters Patent, is—

1. The employment, in combination with a coating of hatter's varnish to secure a covering of felt, cloth, plush, or other woven fabric to a hat-body made of palm leaf or other material of similar character, of a coating of india-rubber solution applied to the body preparatory to the application of the hatter's varnish, substantially as and for the purpose herein specified.

2. The binding strip a, pasted over the edge of the brim preparatory to the application of and in combination with the covering b, substantially as and for the purpose herein

specified.

F. P. FLANAGAN.

Witnesses:

M. S. PARTRIDGE, DANIEL ROBERTSON.