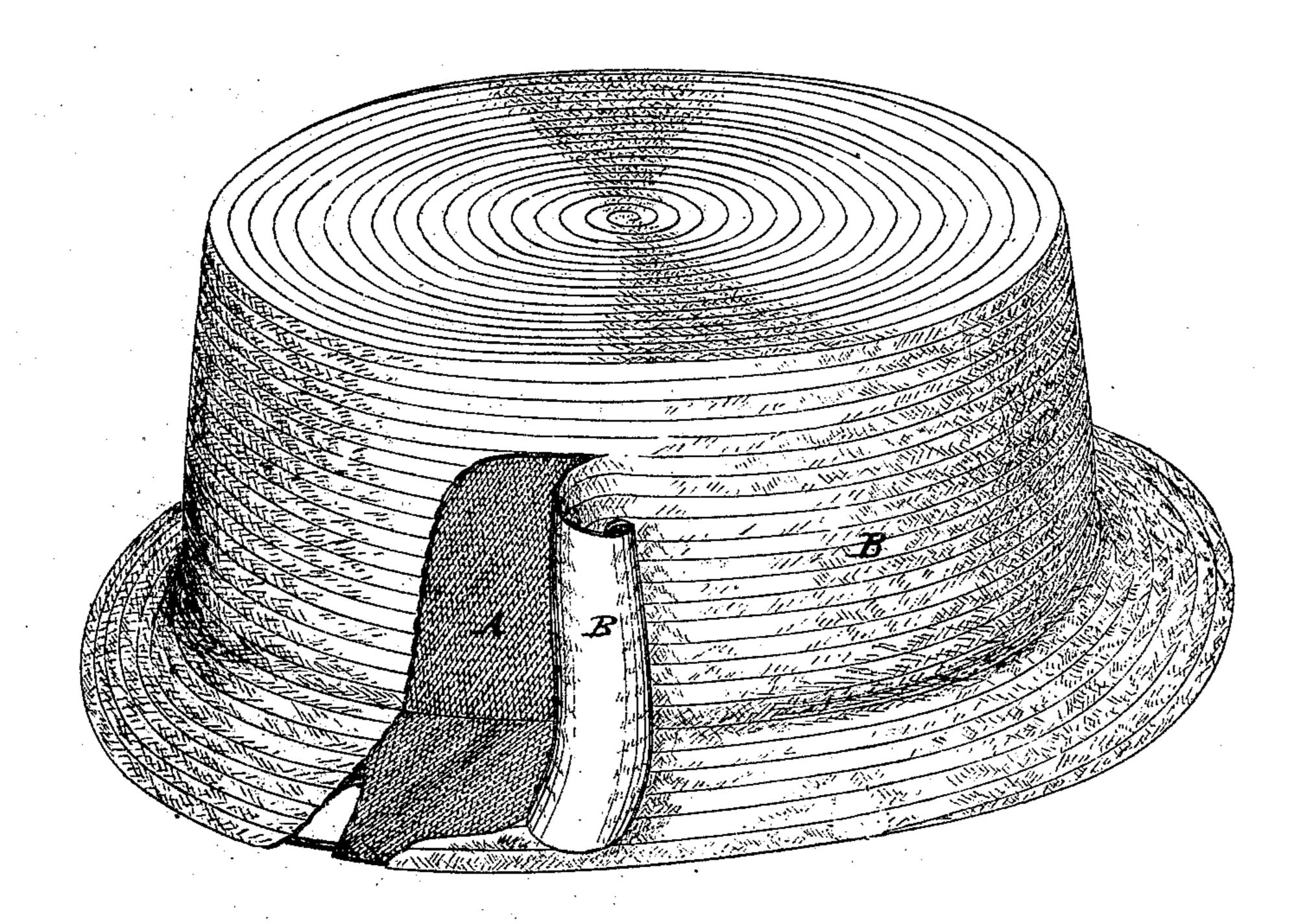
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DAVID SCRYMGEOUR.

Hats or Bonnets.

No. 121,668.

Patented Dec. 5, 1871.



Witnesses. Chas B. Nottingham Julian N. Nottingham Inventor. Dand Scrymgeour Ly alty, arlollok

## UNITED STATES PATENT OFFICE.

DAVID SCRYMGEOUR, OF FOXBOROUGH, MASSACHUSETTS.

## IMPROVEMENT IN HATS OR BONNETS.

Specification forming part of Letters Patent No. 121,668, dated December 5, 1871.

To all whom it may concern:

Be it known that I, DAVID SCRYMGEOUR, of Foxborough, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Hats or Bonnets made in imitation of straw, Leghorn, or Panama, and in the process of making the same, of which the following is a specification:

Hats and bonnets in imitation of straw, Leghorn, or Panama have heretofore been made of paper struck up in dies, of finished paper and cloth united, or of a textile fabric, such as buckram, covered with several coats of paint or composition, which received the impress of the dies, by which the appearance of straw, Leghorn, or Panama was imparted to the exterior surface of the bat or bonnet had-

the hat or bonnet-body.

The object of my invention is to obviate objections which have arisen in the existing manufacture of hat and bonnet-bodies of the kinds mentioned; and to this end I make an imitation straw, Leghorn, or Panama hat or body, of fabric and paper combined, in the manner which I shall now proceed to describe in detail, in order to enable those skilled in the art to understand

and practice my invention.

I take a piece of light woven fabric of any kind, preferably buckram, cotton-cloth, or muslin, of the size required for the hat or bonnet, saturate it with a preparation of starch or other sticky substance, and then form it up with a buckram-press and die or other suitable means. When thus formed up it is removed from the press and put on a block, usually of plaster, which has the shape of the hat or bonnet. I prepare a thin film or thin sheet of paper-pulp, which is made on a wire-gauze form of the shape of the block. This film of pulp thus shaped, and while still moist, I draw over the cloth on the plaster block, and the two are then pressed closely together either by hand or with a press or machine designed for the purpose. The moisture in the pulp softens the starch or other sticky substance incorporated with the cloth, and the contiguous surfaces of the two are thus closely and intimately united throughout their whole extent. The hat or bonnet is now dried and taken off the block; and I then prefer, in order to make it water-proof, to give it a coat upon

both outside and inside of any transparent varnish, such as a mixture of ether and collodion, in order to render it water-proof, although this coat may be omitted, if desired. The hat, when the varnish coating is nearly dry, is put into the electrotype braid-die, which is heated, and pressure is applied so as to impart to the exterior surface of the hat a clear and clean impression of the braid formed in the die, which is taken readily and quickly by the paper-film. After this the hat is ready to be shaped, lined, and wired for the market.

In order to obtain any of the conventional colors for the hat, instead of painting its exterior for this purpose, as is generally done, I dye the pulp the shade desired previous to its being formed up, either black, brown, buff, or strawcolor; by this method dispensing with the paint, reducing the weight of the hat, and obtaining uniform colors which will not fade. The hat may be stained after it is made; but I much prefer the mode just specified of dyeing the pulp.

By putting the hat in the electrotype-die before the varnish is entirely dry an advantage is gained, as the hat will take a better impression with a less amount of pressure, and the impres-

sion is clearer and holds better.

A hat or bonnet thus made is stronger, lighter, and more elastic than others made either of paper, of finished paper and cloth united, or of cloth painted. It is much less expensive than the cloth painted hats, presents a better appearance, and occupies less time in manufacture. It is better than the combined cloth and finished paper hat, in that the pulp takes the form of the article more readily, and admits of the hat or bonnet being formed up in a single piece with an exterior smooth and unwrinkled, and therefore perfectly adapted to receive the required impression in the electrotype-die.

For the better understanding of my invention I have represented in the accompanying drawing a hat made in accordance with my invention, a portion of the paper being broken away to show the cloth beneath. A is the cloth-backing, and B the film of paper-pulp united therewith, and treated to present the appearance external-

ly of a braided straw hat.

Having described my invention, and the man-

ner in which the same is or may be carried into effect, I would say, in conclusion, that I do not in illustration of my invention, as the same may be varied to some extent; but he had be to be

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

1. The process of manufacturing hats and bonnets in imitation of straw, Leghorn, Panama, or similar goods from paper-pulp and fabric combined, substantially in the manner herein set forth.

2. A hat or bonnet made of paper-pulp and fabric combined in imitation of straw, Leghorn, limit myself to the precise details herein described. Panama, or similar goods, substantially in the manner herein shown and described, as a new manufacture.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

DAVID SCRYMGEOUR.

EDM. F. BROWN, CHAS. B. NOTTINGHAM.