De L. SHEPLIE.

Paper Hat Binding.

No. 161,067. Patented March 23, 1875.

Fig. 1

Fig. 2.

Fig. 3

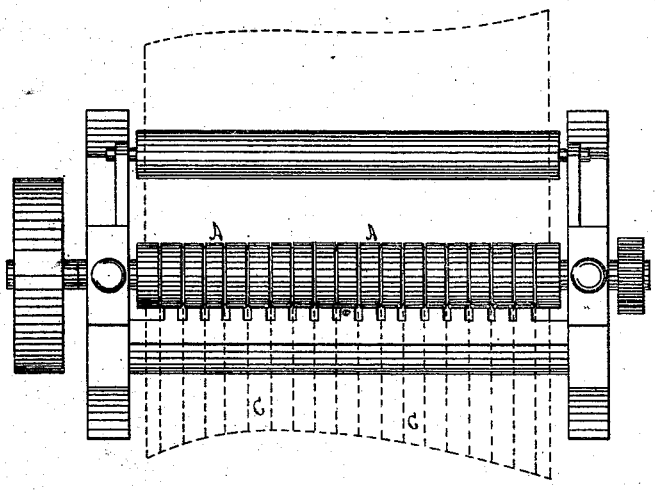


Fig. 4

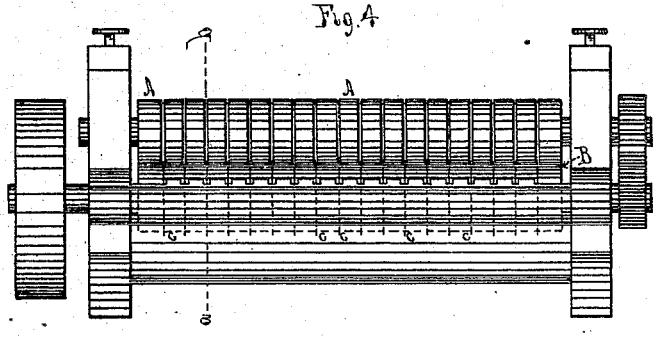
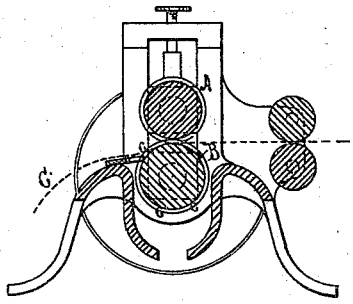


Fig. 5



Witnesses

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UNITED STATES PATENT OFFICE.

DE LANA SHEPLIE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN PAPER HAT-BINDING.

Specification forming part of Letters Patent No. **161,067**, dated March 23, 1875; application filed February 4, 1875.

To all whom it may concern:

Be it known that I, DE LANA SHEPLIE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain improvements in the preparation and manufacture of an improved paper hat-binding, of which the following is a specification:

This invention relates to a binding for hats and other articles of dress as a new article of manufacture, made of paper; and its object is to provide a binding for hats, &c., which is cheap, easily applied, neat in appearance, and sufficiently durable for the purpose.

Heretofore ladies and children's hats have been bound with strips of woven fabric, such as cloth or braid. The expense of such material, as well as of its application to the hat, owing to the necessity of employing heat in the operation and the spoiling of the hats and material in binding, have been serious obstacles to its application.

In the drawing, Figure 1 represents a strip of my prepared material. Fig. 2 represents an edge view of the same. Fig. 3 is a top plan view of my machine used to cut the binding into suitable strips ready for use, showing the stock in dotted lines. Fig. 4 is an elevation of the rollers and knives, and other parts of the same. Fig. 5 is a section of the same in the line *a b*.

In the use of paper for binding hats three things are essential; first, that the paper be cheap; second, that it be not only of tensile strength, but that it will resist the action of the weather in dissolving it, or causing its color to run; and, thirdly, that the paper shall be of the tint and shade in color of the cloth-bindings used for hats.

Any paper which possesses the above requisites may be used for making my paper binding, and paper may be prepared and colored from different materials for that purpose, and I will proceed to describe a process of preparing what is known as manila paper; but I do not confine my invention to the use of such paper alone. Manila paper is cheap and durable to the weather, as well as strong, and holds its colors, but it has heretofore been deemed impossible to color it to the shade of the black and white bindings of woven fabrics heretofore used, because of the yellow tinge of the original paper stock, which cannot be removed.

In making my hat-binding of this paper I proceed to make manila-paper stock in the ordinary way, and for my white hat-binding I bleach the paper-stock to remove as much of the colors as possible, and then add one-fourth of a pound of aniline-blue color to about five hundred pounds of the stock, and when added in this proportion the aniline blue unites with the yellow color of the stock and forms a white paper of the shade of woven white hat-binding.

Ultramarine may be used instead of aniline blue, but it requires a large proportion to accomplish the result, and the proportion of the blue coloring must be varied somewhat, as the stock has more or less of a yellow color.

This method of making a white paper of the stade of woven hat-binding I regard as new.

For forming a paper of the shade of the black hat-binding of woven fabric I prepare the manila-paper stock in the usual way, and I then add one hundred pounds of logwood, and one hundred and fifty pounds of copperas to about one ton of paper-stock, mixing and uniting it to the paper-stock in the usual way, and the logwood and copperas uniting with the yellow color of the manila-stock, produces a permanent blue black color of the shade of woven hat-binding.

The proportions of the logwood and copperas may be varied in accordance with the amount of yellow in the stock. I consider these proportions and this result new.

After the colors have been formed in the paper-stock, as described, it is made into paper in the usual way, and when finished I take it and apply to one side of it an adhesive material, suitable when wet to cause it to adhere firmly to the brim of the hat to be bound. I then pass the sheets of paper through the machine shown in Fig. 3, and cut or divide it into strips by the knives of the machine. The strips are then rolled or wound on bobbins, and are ready for the market.

In Figs. 3 4 5, A is the upper or pressure roller of the machine. B is the lower roller, armed with knives *c c*, to divide the paper into strips of proper width for hat-binding. C, Figs. 1, 2, and 3, is a portion of a strip of my

prepared binding; and D is the adhesive material upon one of its surfaces.

By covering my paper while in the sheet with this adhesive material, and then cutting it into strips suitable for the binding, the adhesive material extends over its surface perfectly to the very edges.

This binding is exceedingly cheap, easily applied to hats without the use of heat, which is necessary to apply bindings of woven fabric, and is very strong and durable in its body and colors.

What I claim as new and my invention is—

As a new article of manufacture, paper binding for hats and other articles of dress, consisting of a strip or web of paper of proper width, coated on one side with an adhesive composition, substantially as described.

DE LANA SHEPLIE.

Witnesses:
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