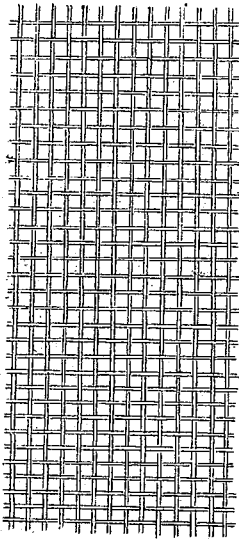


*G. Johnson,*  
*Hat.*

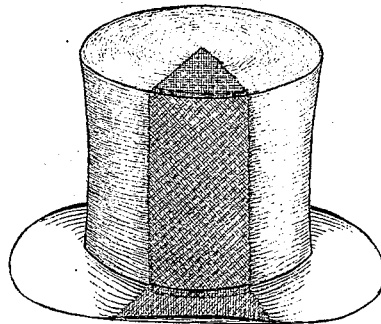
*No 110570.*

*Patented Dec. 27. 1870.*

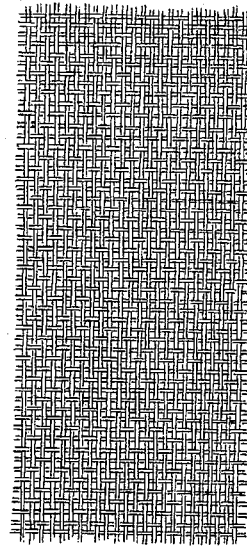
*Fig. 2.*



*Fig. 1.*



*Fig. 3.*



**WITNESSES,**

*John Lepper*

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**INVENTOR :**

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# UNITED STATES PATENT OFFICE.

GEORGE JOHNSON, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN HATS.

Specification forming part of Letters Patent No. **110,570**, dated December 27, 1870.

*To all whom it may concern:*

Be it known that I, GEORGE JOHNSON, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in the Manufacture of Hats; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, making a part of this specification.

In the hat-manufacture the need of a light yet strong and elastic material for the manufacture of hat-bodies—one which, furthermore, will afford proper ventilation—has long been felt by the community, and many ingenious devices have been from time to time adopted to obviate the evil results which follow the use of a heavy and ill-ventilated hat.

The devices heretofore adopted have failed signally to fully meet the exigencies of the case, and have, for the most part, furnished mere apertures or ventilators in the crown of the hat; or, where the whole of the body or foundation has been made of an open woven or plaited material, the material selected has been unfortunate and unsuited for the purpose to which it was applied.

My invention is one which not only secures a free and perfect ventilation through the apertures left in the woven material, but that material, selected by me after long and patient experiment, guided by a life-long experience in the practical manufacture of hats, will commend itself at once to the most casual observer as furnishing a hat-body not only of a much lighter but more durable and elastic material than any which is now in use.

Having thus described the nature of my invention, I will now proceed to set forth in detail its peculiar excellencies, and also the manner in which manufacturers can best carry it into effect in the practical making of hats.

My invention consists of a new and improved hat-body made of an open-woven fabric, composed of strips or slips of wood, both warp and woof. The mesh may be contracted or enlarged at pleasure. The strips of the fabric may also be varied in width, density of fiber, or thickness. I prefer, however, for practical use, a fabric which is woven with a uniform warp and woof, and an equality of mesh,

the whole system being based upon the principle of keeping the fabric open, to afford free ventilation.

I propose to use the open-woven fabric thus described for the manufacture of hat-bodies, the same to be covered with plush, silk, or such suitable material as the judgment of the manufacturer may select.

Of the accompanying drawing, Figure 1 shows a profile view of the manufactured hat, covered with plush or other material, a section of which is removed to show the open-woven fabric beneath, and which is cut diagonally for the "side crown." This shows, further, the "tip," of similar fabric, and the "brim," of closer or heavier material, and the joints of the tip, side crown, and brim. Fig. 2 is an enlarged bird's-eye view of the open-woven material used for the side crown and tip. Fig. 3 shows the somewhat thicker or heavier fabric, analogous in character, which is used for the brim.

I do not, however, confine myself to a fabric woven precisely as shown in the drawing, with the slips crossing each other at right angles, as I propose, if necessary, to use the same material woven differently—twilled, for example, or as I may find expedient.

With regard to the exact method of manufacture, I have found it best to proceed after the following fashion: Having charged the material for the side crown with shellac or some other water-proof gum, as a preservative from atmospheric action, I cut the proper length to fit the block, close the "join" with a slight "lap" covered with a strip of gummed muslin, slipping in the block as is done in blocking an ordinary gossamer crown. The tip is then put on in the usual way, with a strip of gummed muslin ("Robbin") around the square. I next put on the brim in the usual way, covering the whole side crown and tip with an open-woven cotton or other fabric, such as "Swiss mull" or bobinet, (sometimes called bonnet-net,) said covering being properly stiffened with gum. The body is now ready to receive the varnish, after which it is covered with the material selected for that purpose.

I am well aware that hair, wire, grass, straw, bass-wood chips, palm-leaf, or Brazilian chip, and other vegetable fibers of a like nature,

have been used in the manufacture of hat-bodies, and I utterly disclaim the use of them, either plaited or woven, not only as being different from my own material, but as being quite unsuited to the object which I desire to attain, and I restrict myself wholly to the use of an open-woven fabric of strips or splits of wood.

*Claim.*

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

A new and improved hat, the body or foundation of which is made of an open-woven fabric of strips or splits of wood, as shown and described, and to which a suitable covering is attached.

GEO. JOHNSON.

Witnesses:

W. D. SMITH,

WM. W. WHEELER.