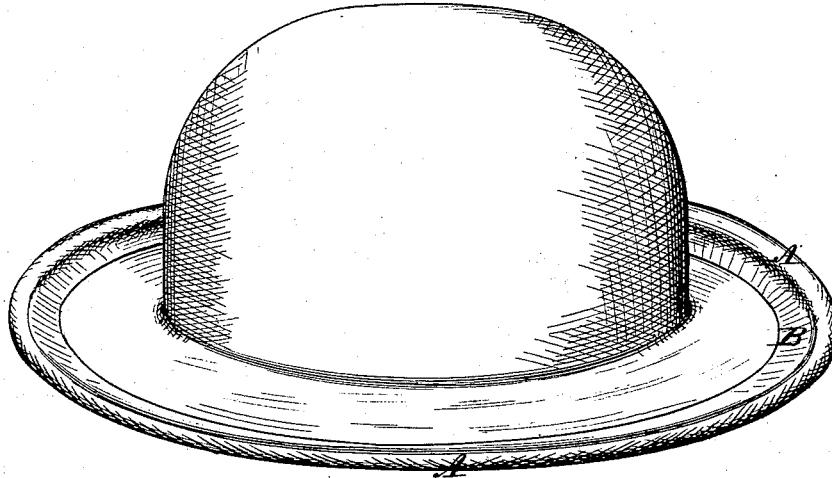


J. THOMAS.  
Manufacture of Felt Hats.

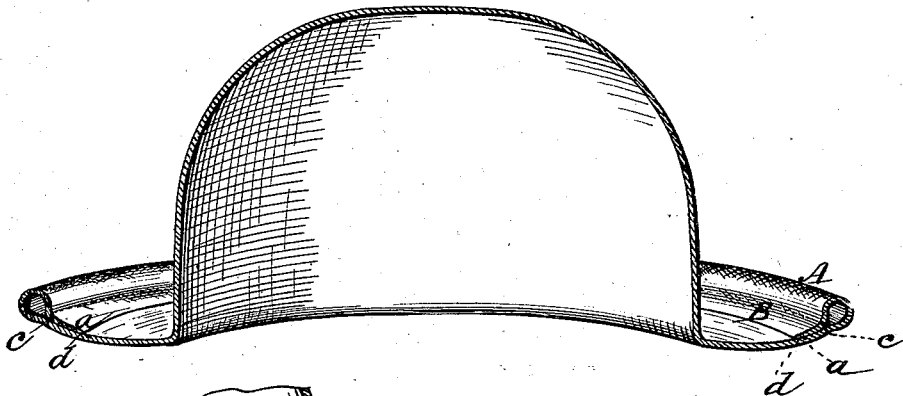
No. 215,411.

Patented May 13, 1879.

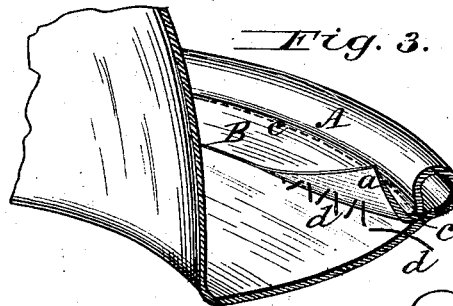
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Attest:*  
*H. G. Penning,*  
*Floyd Norris*

*Inventor.*  
*James Thomas*  
*By Johnson & Johnson*  
*Atty's*

# UNITED STATES PATENT OFFICE.

JAMES THOMAS, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN THE MANUFACTURE OF FELT HATS.

Specification forming part of Letters Patent No. **215,411**, dated May 13, 1879; application filed April 10, 1879.

### *To all whom it may concern:*

Be it known that I, JAMES THOMAS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in the Manufacture of Felt Hats, of which the following is a specification.

The said improvements relate to a soft felt hat having a circumferential tubular bead-edge to the brim.

In a patent granted to me for a hat of manila or analogous material I have claimed a circumferential tubular bead-edge to the brim; but in the manufacture of my soft felt hat I use certain novel steps in the process, which shall be hereinafter described and specifically claimed.

The following description will enable those skilled in the art to make my new soft felt hat, which is represented in the accompanying drawings, wherein—

Figure 1 is a perspective, Fig. 2 a section, of my said hat; and Fig. 3, a detail of the brim.

The hat-body is made in a manner commonly used in the trade.

All soft felt hats are either rolled or flanged, and in doing this it is necessary to bind the edge, the binding being drawn tight, causing the brim to curl up toward the crown. The hat is then placed in a former, with the crown dropping through, and finished from the under side to the shape of the required roll or flange. I avoid this binding, which is objectionable in many respects and unsightly, and I substitute for it a most elegant turned tubular circumferential bead-edge, A, which, while being produced by my hereinafter-described method, gives the desired roll or flange to the brim.

The crown being finished in the usual way, with the brim flat, I turn the brim on a metallic former having a raised bead on its edge, said former being dropped over the crown of the hat, and the lap B of the brim being turned over the bead. Then a guttered iron is used to conform the felt to the bead, after which the former is removed and the lap B stitched down, the contraction of the felt on the metal bead causing the edge of the brim to curl up toward the crown. The hat is then dropped

into another former with a countersink to receive the formed bead A, and is finished from the under side.

The formation of the edge-bead is, in a felt hat, capable of being formed either by an upward and over turn lap or by a downward and under, the formation of the bead being the same. In hats where the brim is considerably rolled, I prefer the upward and over lap; but where there is only a slight roll, a better appearance would be presented by the downward and under lap.

One or more tubular beads could be formed; but one is all that is necessary to give a finished appearance and hold the hat in shape.

To make an edge-joining of the lap B, I skive that part *a* of said lap which joins the brim with a flat surface. Such joining I prefer to have of a sufficient width to receive two rows of stitching, *c d*, one of which, *c*, is along the inner line of the edge-bead and goes through the brim, the other, *d*, being a re-enforcing blind-stitch at or near the edge of the lap, and thus assimilate that part of the lap not forming a part of the tube to the surface of the brim, in order to present a neat appearance, and to prevent edge puckering and fraying.

I have described the manufacture of a felt hat for men's wear; but the hat may be made of any of the various cloths and fabrics commonly used in hat manufacture.

My method of producing a tubular edge to the brim of felt hats is notably valuable in the making of women's felt hats, which latter are in all the various shapes of the milliner's art. These hats now have rounded edges turned over wires, and in case of accidental distortion the brim must be reshaped by a skilled person. With my improvements this difficulty does not occur.

I claim—

1. The method herein described of producing a circumferential tubular bead-edge to a felt hat or hat of analogous material by lapping the edge of the brim over a bead-former, stitching the lap, and finishing the hat upon a countersunk former, substantially as described.

2. In the method herein described of producing a circumferential tubular bead-edge to a felt or other hat by lapping the edge over a bead-former, and by stitching the lap and fin-

ishing the hat upon a countersunk former, the skiving of the lap to assimilate it to the surface of the brim, and to prevent puckering, &c., substantially as set forth.

3. In a hat made with a circumferential tubular bead to the brim, substantially as described, the double row of stitching, one row bounding the inner edge of the bead and the other securing the skived portion down, as set forth.

4. A soft felt hat provided with a circumferential tubular bead-edge to the brim.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

JAMES THOMAS.

Witnesses:

E. H. THOMAS,

H. S. BARRY.