F. J. MUHLFELD.

PROCESS OF MAKING TWO PIECE FELT HATS FROM A SINGLE BODY.

APPLICATION FILED MAR. 21, 1907. RENEWED JUNE 12, 1909.

946,975. Patented Jan. 18, 1910.

Fig. 1.

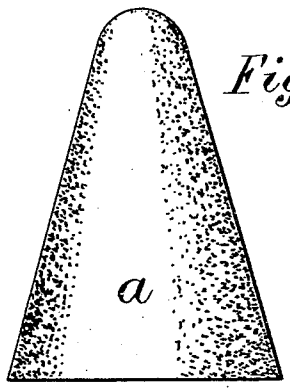



Fig. 2.

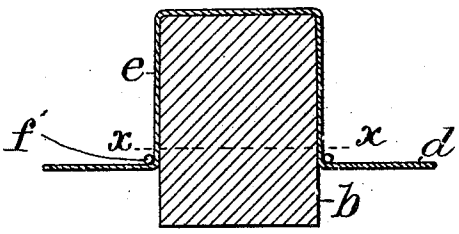



Fig. 5.

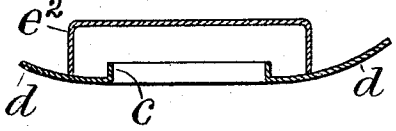



Fig. 3.

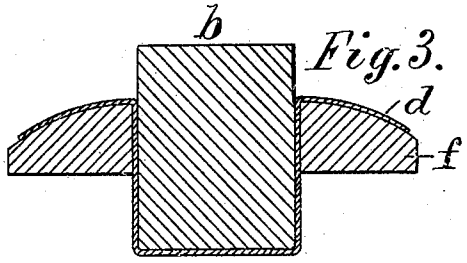



Fig. 8.

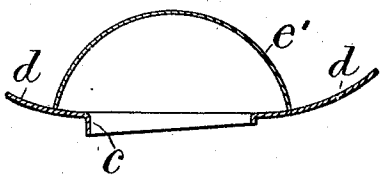
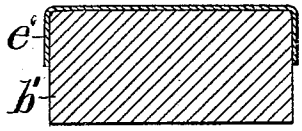



Fig. 4.



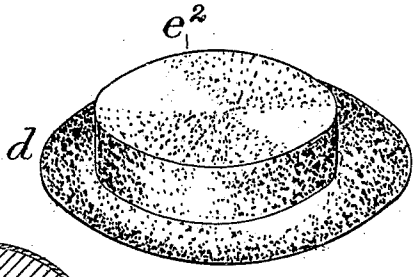
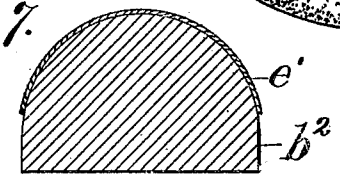




Fig. 6.

Fig. 7.

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# UNITED STATES PATENT OFFICE.

FRANK J. MUHLFELD, OF NEW YORK, N. Y.

## PROCESS OF MAKING TWO-PIECE FELT HATS FROM A SINGLE BODY.

946,975. Specification of Letters Patent. Patented Jan. 18, 1910.

Application filed March 21, 1907, Serial No. 363,563. Renewed June 12, 1909. Serial No. 501,871.

*To all whom it may concern:*

Be it known that I, FRANK J. MUHLFELD, a citizen of the United States, residing at 1117 Dawson street, New York, county of New York, and State of New York, have invented certain new and useful Improvements in Processes of Making Two-Piece Felt Hats from a Single Body, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to a process of making that kind of two-piece felt hats in which the crown is made larger than the head-band. In such two-piece hats the crown is not attached to the head-band but is attached to the brim outside of the head-band, and it requires a larger amount of stock than a crown of the same height having the same size as the head-band. I secure such excess of stock and produce the finished hat with a crown larger than the head-band by first blocking a single hat body with a crown narrower than the final shape that is desired, but forming such crown with a band of the final head size desired, making the crown tall enough to contain sufficient area for making a larger crown-piece by a separate treatment.

My invention also includes a two-piece felt hat with a shaped brim and a crown-piece larger than the head-band upon the brim.

In practicing my invention, I block the hat to form a temporary crown and contract a portion of the fabric to the size of the head-band. I fasten or clamp such head-band upon the hat-block and hold the band in shape while shaping the brim. By this method, I utilize the first formed head-band as a point of resistance in stretching the part of the body below the band to form a brim of any desired shape. After the brim is shaped, the portion above the clamped head-band is severed, and this severed portion may, by reason of the excess of material already provided herein, be readily expanded to enlarge the crown which is desired for the finished hat.

The method of procedure is illustrated in the annexed drawing, in which—

Figure 1 represents the single hat-body which is required; Fig. 2 represents the body upon a block with a flat brim and a crown tall enough to form the head-band and the enlarged crown-piece desired; Fig. 3 shows the shaping of the brim upon a flange with the hat-block remaining inside the crown to assist in securing the head-band during such shaping; Fig. 4 shows the block with the crown-piece enlarged and shaped thereon to form a flat crown; Fig. 5 is a cross section of a hat made with such a crown-piece attached to the shaped brim; Fig. 6 is a perspective view of such a hat with flat crown and concave brim; Figs. 7 and 8 show the crown-piece of hemispherical form; Fig. 7 showing the crown-piece stretched upon the hat-block which is necessary to enlarge and shape it, and Fig. 8 shows such crown-piece attached to the brim.

*a* designates the hat-body and *b* a hat-block of the size desired for the head-band, which band is shown at *c* in Fig. 5. The body is shown blocked in Fig. 2 with the crown *e* of the size desired for the head-band *c*, and the brim *d* projected from the block prior to its being shaped.

*f* represents a flange for shaping the brim, the flange being shown of convex curve adapted to form a concave brim; the block *b* being retained within the crown and the brim secured thereon to hold the band in shape during the shaping of the brim. Such shaping may be effected upon the flange *f* by any suitable or ordinary means, and it is obvious that when the portion intended for the head-band is thus clamped or fastened, the portion of the hat-body which is below the band may be readily flanged or shaped by stretching into the form of brim desired.

To hold the band firmly during the shaping operation, a cord *f'* (shown in Figs. 2 and 3) or other suitable fastening may be applied to the base of the crown to clamp the band firmly to the hat-block, and thus hold the head-band in the desired size during the shaping of the brim.

It is immaterial what means be used to hold or clamp the head-band during the shaping operation, and a metal strap upon the outside of the felt and a ring upon the inner side (instead of a hat-block) may be used, as shown in the parts *b* and *d* of my Patent No. 796,923 granted August 8, 1905 for manufacture of hats.

A dotted line *x—x* is shown in Fig. 2 extended across the crown above the brim, at which line the crown would be divided to leave the head-band *c* upon the brim, and to furnish the crown-piece which is shown at *e'* in Fig. 4 expanded and shaped upon a

block $b'$ larger than the block $b$, so as to form the enlarged flat crown shown at $e^2$ in Fig. 5. Such a crown-piece is sewed or secured to the brim over the head-opening in the head-band $c$, but not in contact with such head-band and the two-piece hat is thus completed.

The crown $e$ first blocked upon the hat (as in Fig. 2) is made of sufficient height and area above the dotted line $x$ to permit the stretching necessary to form the finished crown-piece $e'$ shown in Figs. 5 and 8, and the body $a$ is made of sufficient size to furnish the desired brim and a crown of such area.

In practicing the invention, the brim can be made into any desired fancy or irregular shape, by pressing upon a suitable flange, and the crown-piece can in like manner be blocked to any desired size, shape or style before it is secured upon the brim. To illustrate, Fig. 7 shows a hemispherical block $b^2$ with the crown-piece $e'$ of similar shape, and such a crown-piece is shown secured upon the brim in Fig. 8. In Fig. 5, the head-band $c$ is shown projecting upwardly from the brim within the crown, while in Fig. 8 it is shown projecting downwardly and made of greater depth at one edge than the other, as is common in supporting a hat a little above the head to introduce trimmings or flowers. In both cases, the crown piece is attached to the brim outside of the head-band, and is not attached to such head-band nor dependent upon the same in any manner for its support. In order to facilitate the printing upon a hat crown, the same has been severed from the brim at the band after blocking to its final shape, and then flattened by the usual steaming and "putting-out," so as to give it the flat form required to receive a printed impression with facility.

My invention differs entirely from such an operation, in the provision of an excess of material in the crown to permit the enlargement of the same, and in place of flattening the crown to print thereon, I stretch the same upon a larger block, so as to expand the crown materially beyond the size of the original head-band. The crown piece when flattened for printing, has always been restored to its original shape and secured to the head-band; while mine is not restored to its original shape, nor secured to the head-band but may be fitted over the head-opening in the band in an eccentric position, or in any desired relation to the brim to which it is then directly secured upon a line outside of the head-band to produce the style of hat desired.

Having thus set forth the nature of the invention what is claimed herein is:

1. The process of making a two-piece felt hat with crown larger than the head-band, which consists first, in forming a crown upon the hat-body of the size desired for the head-band and such crown having an excess of height over the finished crown desired, second, shaping the band to the final size and form desired, third, shaping the brim, fourth, separating the crown part of the body from the brim leaving the finished head-band upon the brim, fifth, expanding such separated crown-piece materially larger than the said head-band, and securing the periphery of the enlarged crown-piece to the upper surface of the hat-brim upon a line outside of the head-band.

2. The process of making a two-piece felt hat with crown larger than the head-band, which consists first, in forming a crown upon the hat-body of the size desired for the head-band, such crown proportioned with an excess of material to provide for an expansion of the crown, second, shaping the band to the final size and form desired, third, shaping the brim and holding the band in its final shape while thus shaping the brim, fourth, separating the crown part of the body from the brim leaving the finished head-band upon the brim, fifth, expanding such separated crown-piece materially larger than the said head-band, and sixth, securing the periphery of the enlarged crown-piece to the upper surface of the hat-brim eccentrically to the said head-band.

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

FRANK J. MUHLFELD.

Witnesses:

R. A. PIPER,

NORMAN HENDERSON.