

No. 669,011.

Patented Feb. 26, 1901.

N. E. KAHN.

FLAT KNIT CAP AND ART OF MAKING SAME.

(Application filed July 18, 1900.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1.

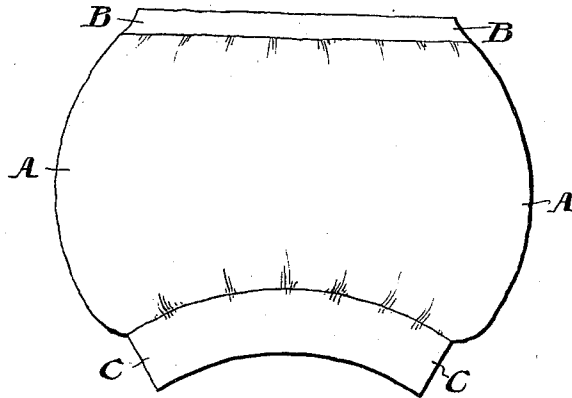


FIG. 2.

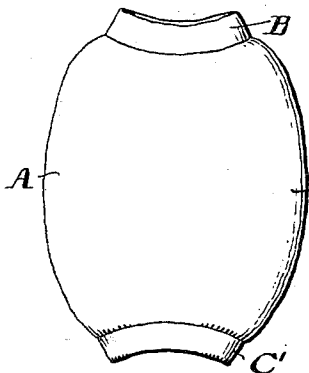


FIG. 3.

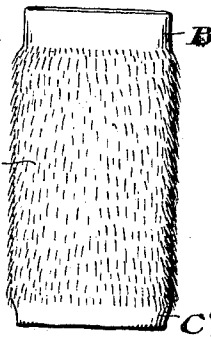


FIG. 4.

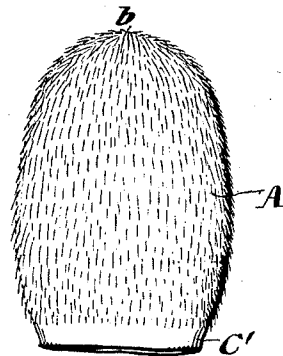


FIG. 5.

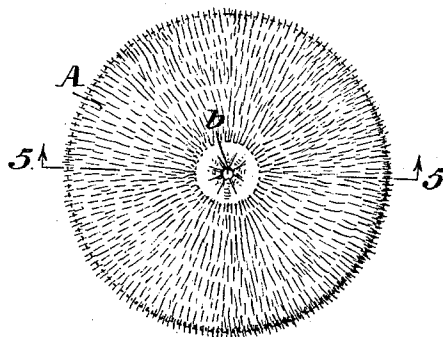
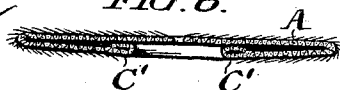


FIG. 6.



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2 Sheets—Sheet 2.

FIG. 7.

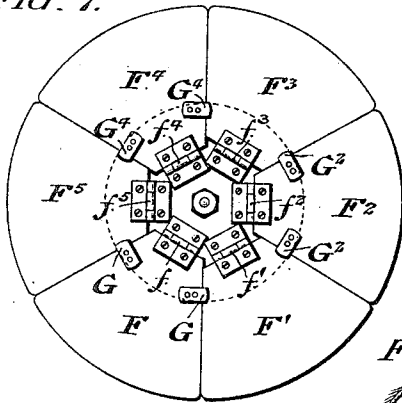


FIG. 8.

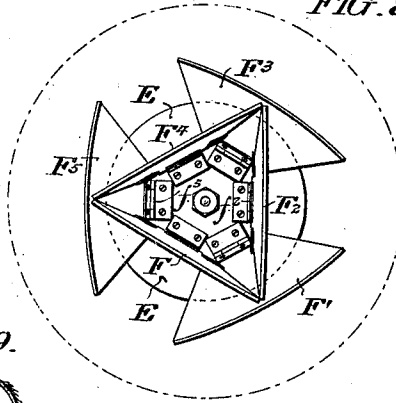
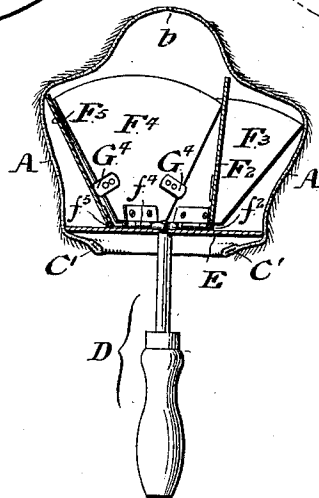
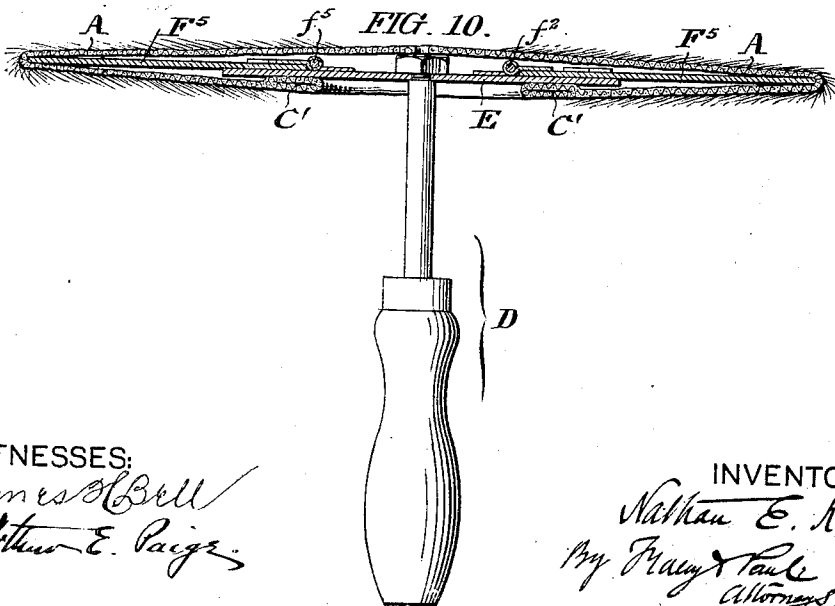


FIG. 9.



D



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UNITED STATES PATENT OFFICE.

NATHAN E. KAHN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
ADELLA KAHN AND ARTHUR H. STEPHENSON, OF SAME PLACE.

FLAT KNIT CAP AND ART OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 669,011, dated February 26, 1901.

Application filed July 18, 1900. Serial No. 23,989. (No model.)

To all whom it may concern:

Be it known that I, NATHAN E. KAHN, a subject of the Emperor of Russia, residing at No. 455 North Marshall street, in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in the Art of Making Flat Knit Caps, (commonly called "Tam-o'-Shanters,") whereof the following is a specification, reference being had to the accompanying drawings.

In said drawings, Figures 1 to 6, both inclusive, represent the article at successive stages in the method which I have employed for its manufacture, Figs. 1, 2, 3, and 4 being side elevations, Fig. 5 a top view, and Fig. 6 a section on the line 5 5 of Fig. 5. Figs. 7 to 10, inclusive, represent one of the implements employed in the manufacture, illustrating also the method of its use, Fig. 7 being a top or plan view of said implement when opened out to its full size, Fig. 8 a similar view of the implement in a folded or what may be termed "collapsed" position, Fig. 9 being a vertical section illustrating the implement in its collapsed condition inserted within the cap in the process of manufacture, and Fig. 10 being a vertical section, on an enlarged scale, showing the implement in its expanded condition within the cap.

The object of my invention is to produce a flat knitted cap of the kind commonly known as "tam-o'-shanters," with a napped or furry surface on the outside. Caps of this general character have heretofore been made by weaving, or else by more or less elaborate processes, which render them relatively costly. By my invention an organized method of manufacture is afforded, which is very simple and enables the article to be produced with great economy, while yet possessing all the desirable qualities of the more costly products.

I will now proceed to describe the method which I have employed in making the article, without, however, limiting myself to the exact details thereof.

I first knit (preferably upon a flat-knitting machine of the ordinary Lamb type) a piece of fabric, (represented in Fig. 1,) of which the main portion or body may be formed of half-cardigan or full-cardigan loops, as shown

at A, while the top and bottom edges are formed of selvage loops, as indicated, respectively, at B and C, the web being consequently narrower at those regions. The piece of fabric thus obtained is then formed into a tube, as shown at Fig. 2, by stitching the two longer sides together. The deep selvage edge C, which is intended to form the rim or band of the cap, fitting upon the head of the wearer, is then turned in and stitched around its inner edge, so as to make a double selvage, as shown at C'. This tube is then passed through a brushing-machine of any convenient type, adapted to raise a full nap upon the outer surface, and after passing through said machine the article has the appearance indicated in Fig. 3. The edge at the top opening of the tube is then gathered together about the central axis and sewed, so as to substantially close the upper end, as shown at *b* in Fig. 4. I then complete the cap by means of the implement shown in Figs. 7 to 10, which constitutes a flat collapsible "former." This implement consists of a shank or handle D, centrally secured to a disk E of stiff sheet metal. Upon the other side of this disk are mounted hinged leaves F F' F² F³ F⁴ F⁵, which are sectors whose outer peripheries together form a circle concentric with the disk E and of considerably larger diameter. In the instance shown six of these leaves are provided, attached by hinges, *f f' f² f³ f⁴ f⁵*, respectively, to the surface of the disk E. The hinges *f, f², and f⁴* are, as will be observed, mounted nearer to the center of the disk than the other three hinges, the leaves having a correspondingly greater radial extent than the other three leaves, so that when turned upward or away from the disk the three leaves F, F², and F⁴ will fold within the other three leaves, as indicated in Fig. 8, thus permitting the collapse of the former to small radial dimensions. I prefer to arrange upon the set of leaves which are hinged nearest the center stops G G² G⁴, which overhang the edges slightly, so as to engage with the other leaves when the group is opened out. This former is inserted within the cap when the latter has attained the stage indicated in Fig. 4, the method of insertion being shown in Fig. 9. The former is then opened out flat,

as shown in Fig. 10, so as to distend the cap diametrically to the desired extent. While thus held in its distended position, the cap is dampened and pressed with an ordinary iron and allowed to remain for a brief time after the operation until it has fully set or attained the desired flattened shape. The former is then again collapsed and withdrawn through the opening at the bottom of the cap, whereupon the article assumes the appearance indicated in Figs. 5 and 6.

If desired, a rosette or other ornament may be sewed over the gathered top portion at the center.

I do not in this application claim the former above described, as it constitutes the subject of another application, Serial No. 23,988, filed by me July 18, 1900.

Having thus described the preferred method which I have heretofore employed for carrying out my invention, I desire to state that I do not limit myself to the initial production of a flat web, as it is obvious that fabric might be originally knit in a tubular form by means well known to the knitting art, nor do I limit myself to the use of an iron for pressing the cap, as it is only necessary that proper means should be employed to set its figure while distended.

I claim—

1. The method of forming flat knit caps, which consists in forming an elongated tubular body with a band-forming selvage at its

lower open end, then flattening the tube by expanding it in a single narrow plane, at a point between its ends, said plane being at a right angle to the longitudinal axis of the tubular body and finally setting the article in its flat distended shape; substantially as described.

2. The method of forming flat knit caps, which consists in forming an open-ended tube of knit fabric with a band-forming selvage at one end, then raising a nap on the exterior of the tube, then closing the top of the tube by gathering the edge thereof together about its axis, then flattening the tube by expanding it or distending it at a point between its ends, the plane of such expansion being at a right angle to the longitudinal axis of the tubular body, and finally setting the article in its flat distended shape; substantially as described.

3. As a new article of manufacture, a flat knit cap formed from a single length of tubular fabric, having a band-forming selvage at its lower end, its upper end gathered and secured in closed position, said tubular body being expanded to flatten the same, and then set in a narrow plane at right angles to its longitudinal axis; substantially as described.

NATHAN E. KAHN.

Witnesses:

JOS. M. KAHN,
JAMES H. BELL.

DISCLAIMER.

669,011.—*Nathan E. Kahn*, Philadelphia, Pa. Patent dated February 26, 1901. FLAT KNIT CAP AND ART OF MAKING SAME. Disclaimer filed February 23, 1905, by *Stephenson and Company*, assignee.

Enter their disclaimer—

“To that claim in said specification which is in the following words, to wit:

“3. As a new article of manufacture, a flat knit cap formed from a single length of tubular fabric, having a band-forming selvage at its lower end, its upper end gathered and secured in closed position, said tubular body being expanded to flatten the same, and then set in a narrow plane at right angles to its longitudinal axis; substantially as described.” [*Official Gazette, February 28, 1905.*]