Nov. 5, 1935. W. KATZ 2,020,191

HAT

Filed Oct. 2, 1934

Fig. 1.

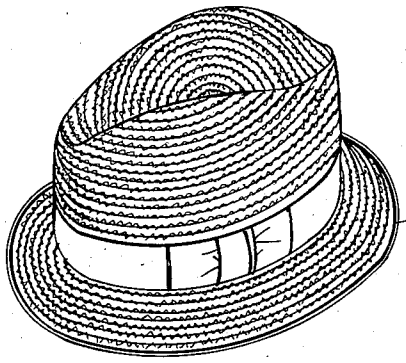


Fig. 2.

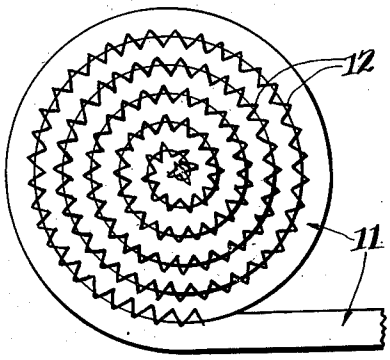


Fig. 3.

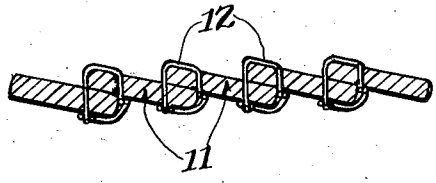


Fig. 4.

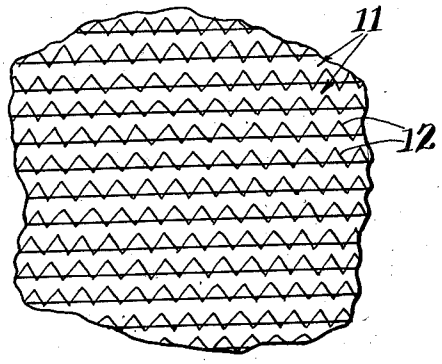
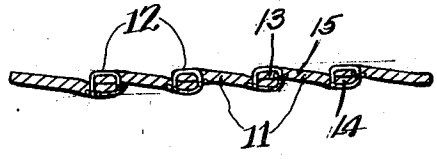


Fig. 5.



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UNITED STATES PATENT OFFICE

2,020,191

HAT

William Katz, St. Louis, Mo.

Application October 2, 1934, Serial No. 746,587

1 Claim. (Cl. 2—194)

My present invention relates generally to hats, and more particularly to hats of the soft or felt type, my primary object being the provision of a hat which will be lighter in weight and superior in many other ways to the usual felt hat and which will in its manufacture obviate, and dispense with, a number of substantially expensive operations necessary in the manufacture of the ordinary wool hat that is blown.

According to my invention, a hat body or hood is made in the first instance by sewing together the contiguous edges of a spirally coiled strip of wool felt or similar material in which wool either predominates or forms a part, and, while I am aware it is not broadly new to do this, I propose the accomplishment thereof in a novel way and otherwise finish the hat so that it has an entirely new appearance, has a fine feel, is thoroughly waterproof and equally effective as headwear for men and women.

Generally speaking, I join the edges of the spirally coiled strip of material by sewing the same on a zig-zag loop end machine with a thread which matches the material in color and with the edges of the strip slightly overlapped, and then, after the hood or body is thus formed, I roughly impart the ultimate desired shape thereto by pressing the same in an aluminum die or an ordinary hydraulic hat press. The roughly shaped body is then dipped into a regular wool hat sizing and after drying is repressed into the ultimate shape and subsequently sprayed with a waterproof solution which not only produces a fine feel, but thoroughly waterproofs the finished product.

With the above general statements in mind my invention may be better understood and more thoroughly appreciated in the course of the following detailed description reference being had to the accompanying drawing, which forms a part of this specification, and in which

Figure 1 is a perspective view of a finished hat for men constructed in accordance with my invention;

Figure 2 is an enlarged detail view of a small section of the hat material at the start of operations;

Figure 3 is a sectional view through the material of Figure 2;

Figure 4 is an enlarged view of a fragmentary portion of the finished hat of Figure 1, and Figure 5 is a sectional view through Figure 4.

Referring now to these figures, the finished hat generally indicated at 10 in Figure 1 is made up of a spirally coiled strip of felt 11, see in Figure 2, which strip is preferably cut from a roll of wool felt cloth, or a mixture of wool and cotton, or wool and rayon or any other material which can be mixed with wool in the making of cloth, and it is to be understood that in referring to strip 11, and the hat 10 made thereby, as felt, I intend to include all such materials.

The felt strip 11 is spirally coiled and sewed in the slightly edgewise overlapping relation plainly seen in Figure 3 on a zig-zag loop end machine, leaving the single zig-zag thread 12 in uniformly alternate directions across the overlapped edges on one side of the hood which ultimately forms the outer surface of the hat. The strip may, however, be sewed on a regular chain stitch machine, known as a pony machine. However, the strip is sewed in such a manner that the juxtaposed portions of the successive convolutions lie flat each upon the other, without any puckering or cording.

When the hood as above formed has reached the required size it is pressed to form of the hat body in an aluminum die or an ordinary hydraulic hat press being given any desired shape, and then dipped into a regular wool hat sizing, after which it is thoroughly dried. After drying, it is repressed into the desired final shape and is then sprayed with a waterproofing solution with the result that the then finished hat presents a fine feel, is thoroughly waterproof, and at the same time is soft and pliable and in these respects superior to the regular blown wool hat.

Each spiral or convolution after the hat is completed is formed of an inner and an outer straight flat side portion 13, 14, respectively disposed substantially in parallel planes and an intermediate portion 15 extending at an inward inclination from the portion 13 to the portion 14, as is shown in Fig. 5, the inward direction extending to the right. The outer side portion 13 of a smaller spiral is arranged in superimposed relation throughout with respect to the inner side portion 14 of the next following larger spiral. The outer side portion of a smaller spiral is disposed in the same plane as the outer side portion of the next following spiral. Each spiral has its side portions disposed at a slight angle with respect to the intermediate portion thereof. In the completed form a substantially smooth lay of the material with only a slight corrugated effect is obtained.

It will be noted by a comparison of Figures 2 and 3 with Figures 4 and 5, that the outermost stretches of the zig-zag threads 12 on the upper or outer surface of the strips, though of the same

color as the felt, show very plainly in Figs. 2 and 3 since they are wholly on the surface of the felt and shine by reason of catching the light rays upon the major portion of their surface. After the several finishing operations, however, a different appearance is presented, since these outermost strips of the threads 12 (Fig. 5) have been countersunk or pressed into and are flush with the outer surfaces of the spirals and neither shine nor show as threads to the casual glance, but seem more in the nature of mere ornamentation.

The hat so made and finished forms a soft, pliable and entirely waterproof article of headwear and is a substantial improvement over the regular wool hat, in addition to the fact that it is capable of being made by a simple method which does away with the more expensive blocking, pouncing, buffing and finishing steps necessary with the ordinary blown wool hat.

What I claim is:

The method of forming a felt hat which comprises coiling a felt strip and stitching the edges of the successive convolutions in slightly overlapping relation to form a hood of predetermined size, pressing the hood to body shape and thereby preliminarily pressing the juxtaposed edges of the felt strip with the stitches therein into a union substantialy merging with the respective adjacent portions of the felt strips, dipping the preliminarily shaped hood into a sizing solution, drying the hood, finally pressing the hat to its finished shape and imparting thereto a substantially smooth lay, and spraying thereon a coating of waterproofing material.

WILLIAM KATZ.