April 25, 1933. F. A. LACKS ET AL 1,906,212

PROCESS FOR MAKING HATS

Filed Jan. 21, 1927

Fig. 1.

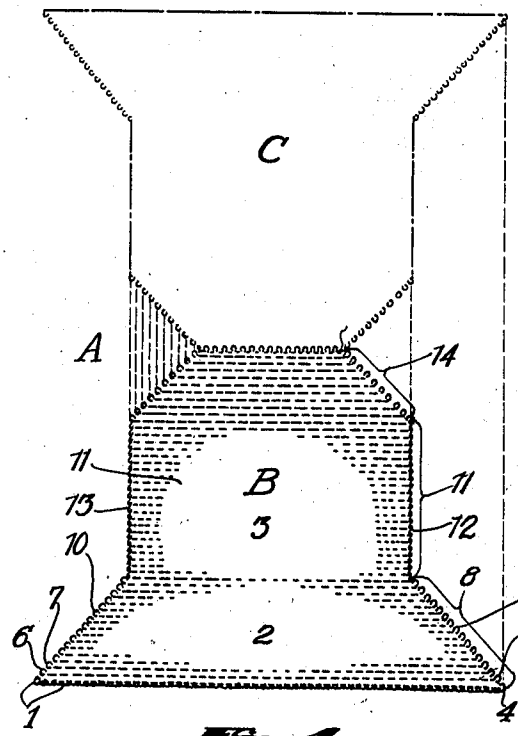


Fig. 2.

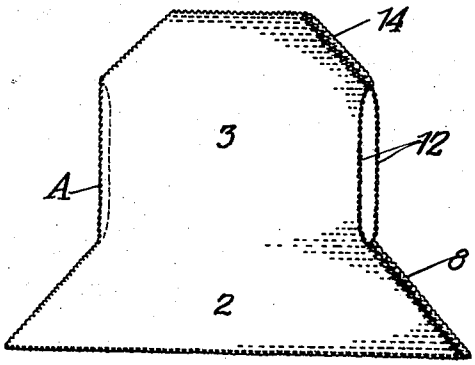


Fig. 3.

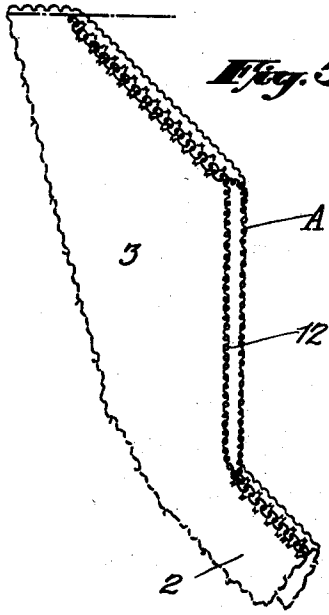


Fig. 4.

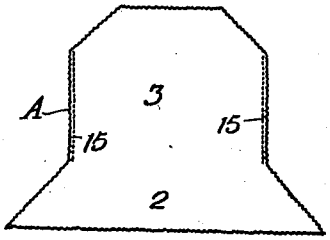
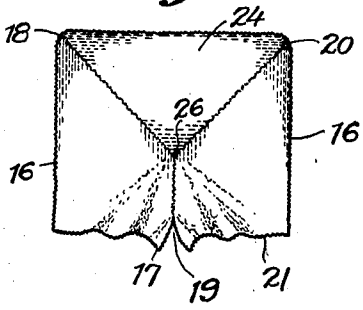


Fig. 5.



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UNITED STATES PATENT OFFICE

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PROCESS FOR MAKING HATS

Application filed January 21, 1927. Serial No. 162,486.

The invention relates generally to the manufacture of hats and particularly to construction of hat bodies which are capable of being modified into numerous styles, shapes and sizes although if desired, the bodies may be worn just as they are manufactured, that is, without modification of any sort.

The invention has for an object the production of an article of that character which may be constructed by a minimum number of operations whether manufactured by hand or mechanically.

Another object is to eliminate the possibility of creating waste or surplus material in the production of the article.

Another object is to produce an article of that character from any flexible material that is capable of being knitted or crocheted.

Another object is to produce such an article mechanically, thereby imitating articles of the same character which heretofore could only be produced by hand.

To these ends the invention consists in forming a portion of a blank for the hat and then forming a similar or corresponding portion so that when the portions are connected, a perfect hat or hat body is formed.

These and other objects will appear and be better understood as the specification proceeds, reference being made to the accompanying drawing forming a part thereof, in which:—

Figure 1 is a diagrammatic view showing one half of the hat and its corresponding half connected thereto at the line of fold, the latter being shown in outline;

Figure 2 is an elevation of the hat showing edges of the brim and edges of the top connected and the side edges of the crown unconnected;

Figure 3 is an enlarged detail showing the connection of the top and the brim with the side edges of the crown open, the latter edges being selvedged;

Figure 4 is an elevation showing the hat complete with all edges connected; and

Figure 5 is an elevation of a modified form.

Referring more specifically to the drawing, letter A designates the hat or hat body composed of side B and its similar or corresponding side C. The sides are formed preferably by knitting or crocheting a single strand of material such as straw, silk or wool, and by referring to Figure 1, it will be seen that continuous reciprocating knitting or crocheting is employed as distinguished from circular.

The first course 1 is knitted or crocheted from left to right for a length which will be that of the semi-circumference of brim 8 of one portion or side of the hat C. When the last stitch 4 of course 1 has been made, that stitch is dropped or cast off if the hat is being made by hand knitting or crocheting and the next course 5 is knitted or crocheted up to the beginning stitch in the first course which is dropped so that the second course has two less stitches than course 1. The last stitch 6 of course 5 is also dropped or cast off and the third course 7 is knitted or crocheted up to the beginning stitch of the second course with two less stitches than the preceding course 5. Similar operation is continued with similar narrowing in each course until brim portion 8 is formed, the edges 9 and 10 of which will be unselvedged by reason of the cast off or dropped stitches.

The operation of knitting or crocheting is then continued to construct side crown portion 11 with courses of equal length thereby providing selvedged edges 12 and 13.

When the side crown portion 11 is completed, top portion 14 thereof is formed in a manner similar to that by which brim portion 8 was constructed, thereby completing side B of the hat A.

To form corresponding side C of the hat A, the operation of knitting or crocheting is resumed, but the portions composing said side are made in reverse order from that in which side portion B was formed. This is accomplished by forming the corresponding rows of the portion of the side C with the same number of stitches comprising the courses of the side B. In hand knitting or

crocheting the dropped stitches at the ends of the courses in top portion 14 and brim portion 8 of the hat portion B are successively taken in connection with the knitting of corresponding courses of hat portion C and interknitted with the end stitches of such corresponding courses. Some means may be employed for retaining the dropped loops such as a spare needle or the like, in a manner known to knitters.

In knitting the hat on a circular knitting machine we prefer to pick up automatically the end stitches of the top portion at 14 and the end stitches of the brim 8 in connection with the knitting or crocheting of the corresponding courses of side C, whereby a blank as in Fig. 2 will be formed, the selvedged edges, as at 12, being afterward connected by sewing, if desired, the lines of sewing being indicated in Fig. 4 at 15.

In so knitting on a circular machine, the end needles are successively put out of action or idled in a manner well-known to knitters, said needles continuing to hold their stitches. It will be seen that when corresponding courses of the portion C are knitted and the needles are successively returned to operation for widening the top and brim, the stitches held by the needles previously rendered inoperative will be knitted to the end stitches of corresponding portions of the hat portion C, thereby automatically seaming the sides of the hat together at said top and brim portions.

It will be obvious that the selvedged edges 12, 13, and the unselvedged edges 9, 10 and 14 may be connected to like parts on the portion C by sewing, or the unselvedged edges may be connected by looping or crocheting, if preferred, after the blank is completed.

The result whether the hat is made by hand or by machine is that hat or hat body A is formed with brim, crown and top portions of sides B and C simultaneously seamed to each other during construction of side C.

While we have described a hat made with the crown side portions having selvedged edges, it will be understood that such edges can be unselvedged if it is so desired. In order to form the hat in such manner it would merely be necessary to form the entire sides in the same manner as was described in forming the brim and top portions 2 and 14. The result in this instance would be that the hat or hat body would have the shape of a frustum of a cone.

In Fig. 5 we have shown a hat of another form, having side portions 16 knited or crocheted with courses of equal length and with selvedged edges from the beginning course e.g., at 17, to the point 19, then narrowed step by step to the narrowest point 18, then widened from 18 to the center of the crown on a vertical line passing through the point 26 and a corresponding point at the opposite side, then narrowed to 20, then widened to the point 19, and then formed with courses of equal length and with selvedged edges to course 21, corresponding to course 17.

Preferably, though not necessarily, the stitches of the suture seams are interknitted in similar manner to that above described, i.e., the left-hand side portion 16 is formed with unselvedged edges, then the dropped or idled stitches are picked up as the crown portion 24 is made, then as the crown portion is narrowed stitches are again idled or dropped, which stitches are picked up as corresponding courses of the right-hand side portion 16 are formed. The selvedged edges below point 19 are left unconnected. The process of forming the hat of Fig. 5 will be seen to be in effect precisely the same as in the form first described except that a hat of different shape is made.

Other shapes and modifications will suggest themselves to those skilled in the art without departing from the spirit of the invention and the scope of the claim.

What we claim as new and desire to secure by Letters Patent of the United States is:

The method of knitting a hat blank on a machine having a series of needles, comprising knitting reciprocatingly to form a brim portion and a side crown portion, progressively narrowing during such knitting and retaining the terminal loops of discontinued wales on the idled needles, then knitting a top crown portion with progressive resumption of knitting on idled needles to widen the said portion, then narrowing to form another crown portion, and then widening until all the idled needles are restored to action to form a side crown portion and a brim portion corresponding to the portions first formed.

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