Dec. 22, 1953 A. CANTOR 2,663,024

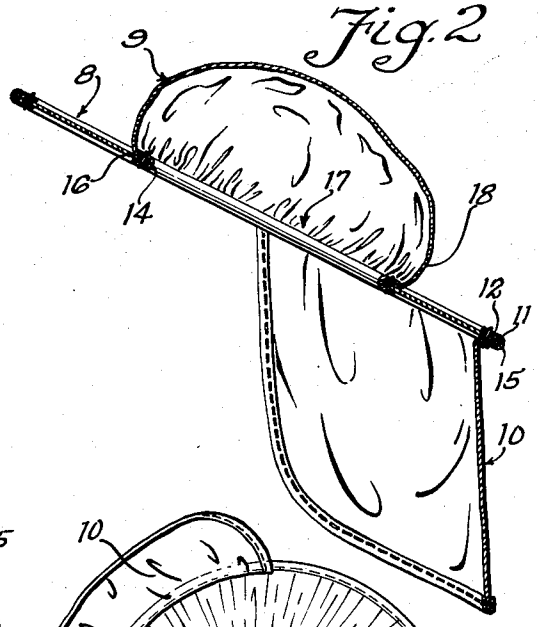
COLLAPSIBLE HAT

Filed Sept. 6, 1951

Fig. 1



Fig. 2



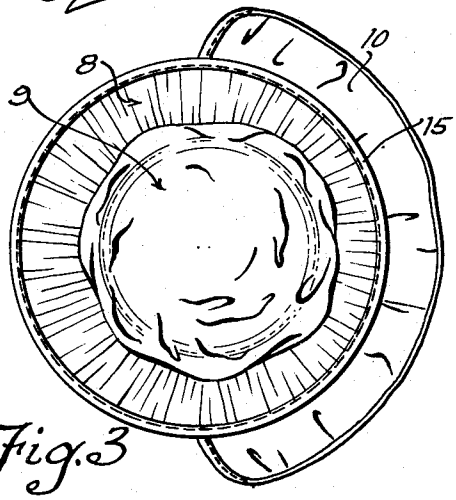


Fig. 3

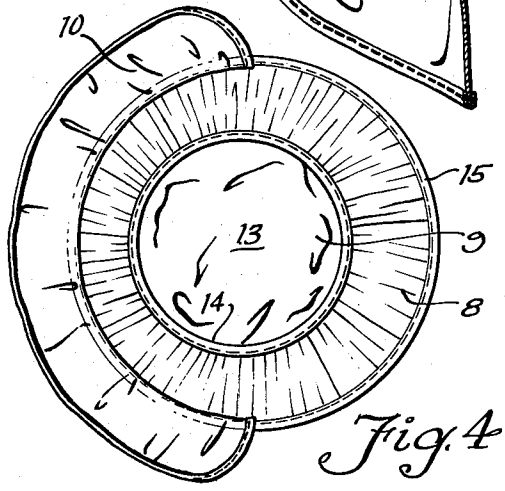


Fig. 4

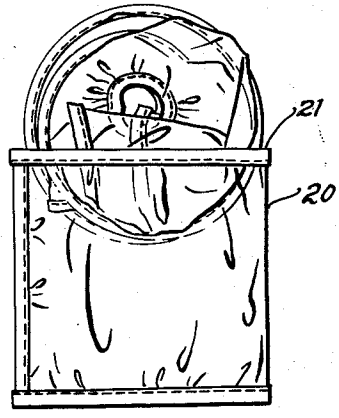
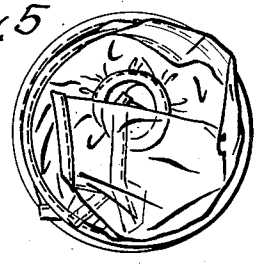


Fig. 6

Fig. 5



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COLLAPSIBLE HAT

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Application September 6, 1951, Serial No. 245,342

3 Claims. (Cl. 2—177)

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The present invention relates to collapsible hats, particularly for emergency rain wear, and especially to a hat presenting desirable shape and characteristics to protect the hair of a wearer from rain, and that is readily collapsible to a flat, small condition. The invention also relates to provision of a neat, small and fairly flexible package for ready disposition in a pocket or purse so that it may be carried habitually for emergency wear in case of rain. The hat herein disclosed, when in uncollapsed condition for wear, presents the advantages of adequate hair protection, attractive appearance, and the very important feature of material of such great flexibility, compliance and thinness, and of such arrangement of the hair-covering structure, as to have very little tendency toward compressing or otherwise disarranging the hair dress of the wearer. Furthermore the hat herein disclosed is very inexpensive and easy to manufacture from conventional materials, and by machinery and methods commonly used in production of a wide variety of conventional products.

In the accompanying drawings:

Fig. 1 is a perspective view showing the hat in wear.

Fig. 2 is a vertical, median section of the hat in expanded condition for wear.

Fig. 3 is a top plan.

Fig. 4 is a bottom plan.

Fig. 5 is a plan, showing the hat in collapsed condition.

Fig. 6 is a plan showing the package unit, with the hat partially removed from a containing envelope.

Describing the drawings in detail, the hat comprises a brim 8, a crown 9, and preferably a skirt 10 that in use depends from a rearward reach of the brim edge to cover the hair that is below the brim.

The structure of brim 8 includes a supporting wire 11 that is longitudinally formed to a desirable, generally ring-like shape of a size to surround, in outwardly spaced relation thereto, the hat line of average human heads, that is the peripheries of human heads along a line extended across the forehead approximately at the hair line, over the ears and about the back of the neck. In collapsing the hat from its wearable form of Figs. 1 to 4, to its folded form of Figs. 5 and 6, this wire is grasped at opposite sides of the ring or loop that it forms, and by relative twisting of the opposite loop sides in opposite directions the wire is placed in a "figure eight" form. Following this, the two loops of the twisted form are

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folded together about the crossed reaches that extend between them. It is therefore important that the wire be sufficiently thin and flexible to permit easy manual accomplishment of this folding distortion from its formal ring-like shape. For purposes of the invention, the wire must be of sufficient resilience to prevent substantial permanent distortion by repeated folding operations, and to maintain itself, and brim 8 to which the wire is attached, when the brim and wire are not confined in a distorted condition. Steel piano wire of approximately one thirty-second inch diameter is suitable material for wire 11.

Brim 8 and crown 9 are of thin, flexible material that has high compliance, and preferably are waterproof. The highly plasticized and calendered thin sheet vinyl chloride and acetate copolymer material that is commercially available under many trade names is a highly suitable material, thicknesses of the order of five one-thousandths of an inch being suitable.

The brim 8 is cut with its peripheral edge 12 in a suitable shape, somewhat larger than the average human hat line mentioned above, and the size of the brim and that of the ring of wire 11 correspond. Brim 8 has an inner, head-receiving opening 13, which is cut somewhat larger than the average human hat line. An elastic 14 is secured to the edge of brim 8 that defines opening 13, and is of contracted length to comfortably grip a head thrust into the opening. Wire 11 is secured to brim 8 in surrounding relation to opening 13, as by the indicated arrangement of a doubled binder strip 15 having wire 11 and the peripheral brim edge 12 enclosed in its channel and its margins stitched to the brim.

In the brim structure, the ring-like wire and the elastic 14 tend to maintain the brim flat, but somewhat puckered, and in somewhat annular shape, all as suggested in Figs. 2 to 4. However, the compliance of the brim material permits it to twist and fold to accommodate the above-described twisting and folding of wire 11 to the collapsed condition of Figs. 5 and 6, without imposing any appreciable strain on the wire due to the twisting and flattening of the brim material, and without undue bulkiness resulting from the twisted brim.

Crown 9 is cut from a sheet of the stock material and has its edge secured to the brim in surrounding relation to head opening 13. The sheet blank of which crown 9 is formed has a periphery the length of which exceeds the length of the peripheral edge 16 of the crown as it is secured to the brim. This condition is accom-

plished by uniformly puckering the marginal portion of the crown, as suggested at 17, Fig. 2, to make the crown edge and inner brim edge of substantially equal lengths, and results in an outwardly bulging portion 18 of the crown adjacent brim 8. This puckered and outwardly bulged crown wall makes the crown have a slight self-sustaining tendency when it has been manually extended to the Fig. 2 condition. The extremely light nature of thin sheet artificial plastic, and this slight self-sustaining quality of the crown, and the extremely flexible and compliant nature of the plastic material, all are cooperative in giving the crown a marked characteristic of surrounding and protecting a wearer's hair without compressing, disarraying or otherwise disturbing the hair dress or coiffure of the wearer. The high compliance of the somewhat bowl-shaped crown also permits it to accommodate itself to twisting and folding of the brim, without straining the wire and without undue bulkiness of the collapsed hat.

Conveniently the edge of the crown is secured to the inner edge of the brim that defines opening 13. They may be secured by folding elastic 14 over both of them and stitching through all of the plies.

Skirt 19 preferably is a simple sheet of the same stock as the brim and crown, and may be simply stitched to the brim edge and binding 15. In use, the skirt is adequately supported by wire 11, in suspended relation to the elastic that grips the wearer's head. In folding, the upper edge of skirt 19 readily accommodates twisting and folding of the wire, and as an incident to collapsing the hat the skirt is simply wadded up and compressed along with the brim and crown.

As a package for sale of the hat, and to maintain it collapsed for carrying in a pocket or purse for emergency wear, the collapsed and flattened hat structure, shown in Fig. 5, is simply slipped into a flat envelope 20, Fig. 6, having a single open side 21. Conveniently envelope 20 is made of the same sheet stock as are brim 8, crown 9, and skirt 19, since such material is highly flexible, adequately strong to maintain wire 11 in its twisted and folded condition, and being transparent or translucent, provides a package of pleasing appearance. The entire package is quite flexible, and ideally suited to carrying in purse or pocket for emergency use, as suggested above.

I claim:

1. In a collapsible hat that includes a ring-like brim of flexible material having an inner opening defined by a continuous inner edge of said brim, and said brim having an outer peripheral edge, and a loop of flexible resilient wire secured to said brim along said outer peripheral edge and normally maintaining the brim in extended condition; a crown of thin flexible material of larger size than said inner opening and having an edge longer than said inner brim edge, said crown being formed to bowl

shape and having a marginal portion puckered to a length substantially equal to that of said inner brim edge, and turned inwardly in surface to surface contact with a marginal portion of said brim immediately adjacent its said inner edge, and a peripherally elastic laterally inelastic strip shorter than said inner edge, surrounding said inner opening and doubled over and secured to said marginal brim and crown portions to define a single reinforced head engaging edge, thereby maintaining said brim taut between itself and said wire and providing a flange-like inner rim structure extended inward about said inner opening substantially in alignment with said brim.

2. In a collapsible hat that comprises a ring-like brim of flexible material having an inner opening defined by a continuous inner edge of said brim, and said brim having an outer peripheral edge; a loop of wire of substantially circular cross section secured to said brim along said peripheral edge and normally maintaining the latter in the shape of said loop, and said wire being sufficiently flexible to be easily folded to a double loop formation by manually twisting opposite sides of said loop to a figure eight form and then folding said opposite sides of said figure together, a flexible elastic strip shorter than said inner brim edge, folded into channel form over the marginal portion adjacent said inner edge, continuously surrounding said inner opening and secured to said marginal portion to normally maintain it taut and substantially flat between itself and said wire, a bowl shape crown of flexible material having a marginal portion secured within said folded elastic strip and normally maintained by the latter in parallel relation to said taut and flat brim, and a line of stitching securing said strip, brim and crown together to define a single reinforced head engaging edge.

3. The invention as set forth in claim 2 wherein a flap depends from a substantial portion of said outer peripheral edge of said brim.

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