Aug. 29, 1950 L. LESSER 2,520,643

CAP

Filed March 11, 1947 2 Sheets-Sheet 1

FIG.1.

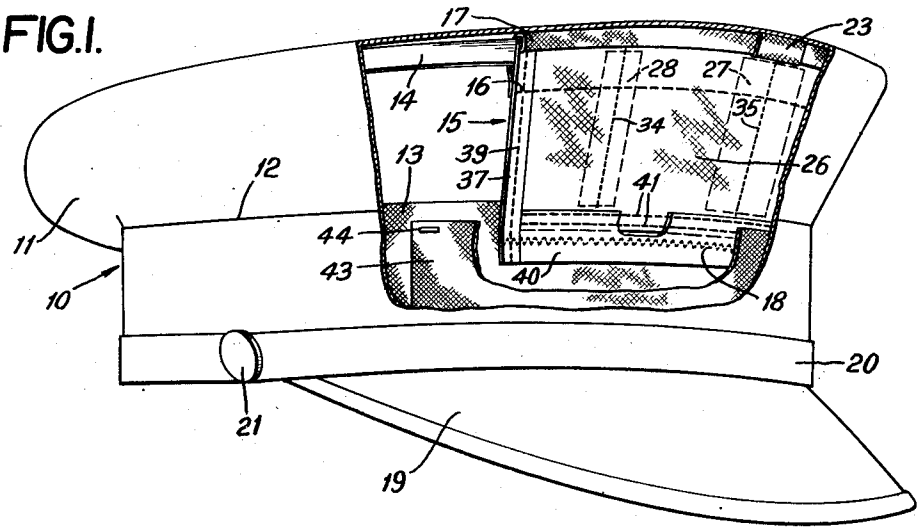
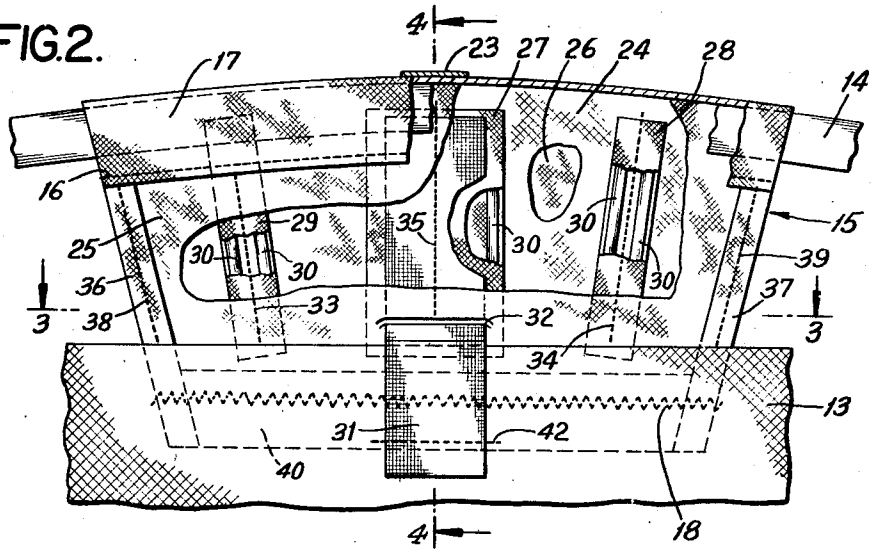


FIG.2.



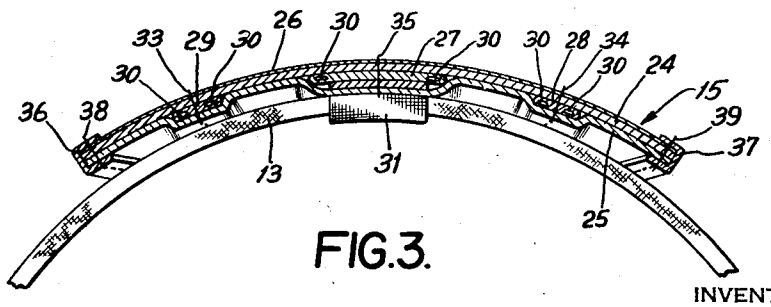


FIG.3.

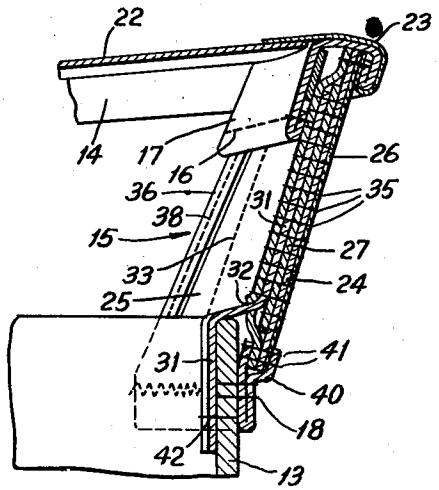
INVENTOR
LAWRENCE LESSER
BY Albert Zalkind
ATTORNEY

Aug. 29, 1950 L. LESSER 2,520,643

CAP

Filed March 11, 1947 2 Sheets-Sheet 2

FIG.4.



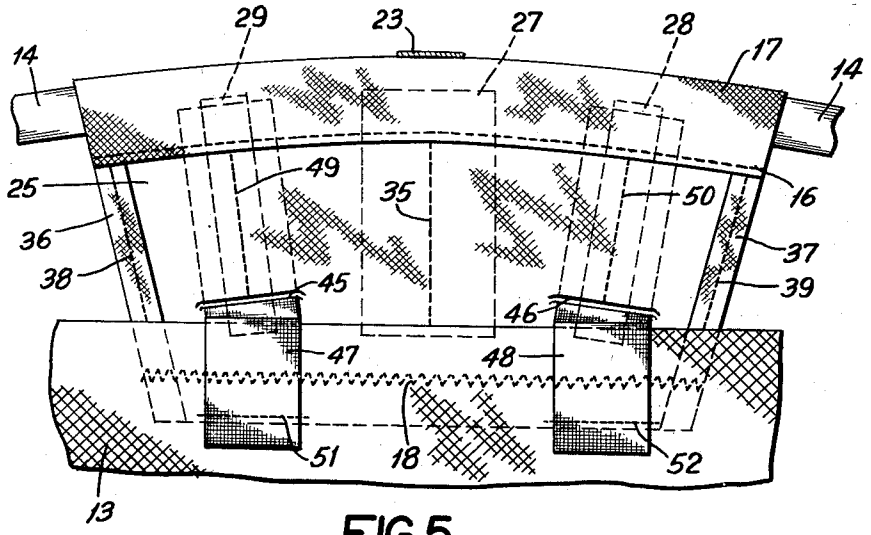


FIG.5.

INVENTOR
LAWRENCE LESSER
BY Albert W. Gaskins
ATTORNEY

Patented Aug. 29, 1950 2,520,643

UNITED STATES PATENT OFFICE

2,520,643

CAP

Lawrence Lesser, New York, N. Y., assignor to L. Lesser & Co., a partnership

Application March 11, 1947, Serial No. 733,941

3 Claims. (Cl. 2—195)

1

This invention relates to a uniform cap and relates more particularly to an improved uniform cap of a highly resilient structure and adapted to resume its normal shape quickly and completely after distortion, as during packing and the like.

An object of this invention is to provide a uniform cap having an upstanding front supported by a stayer which is capable of being collapsed to permit economical packing and storage yet is of a sufficiently resilient structure to be capable of returning the cap fully and completely to its original smart and clean lines.

Other objects of this invention will appear from the following detailed description and the accompanying drawing.

In the drawing,

Fig. 1 is a side-elevational view of the novel cap structure of my invention, partly broken away, showing the means provided to support the crown of said cap,

Fig. 2 is a detail view, partly broken away, of the flexible and resilient structure supporting the crown, looking forward from the inside of the cap,

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 2, looking downward,

Fig. 4 is another sectional view of the crown supporting means taken along the line 4—4 in Fig. 2, and

Fig. 5 is a detail view of another embodiment of my novel crown supporting structure.

Like reference numerals indicate like parts throughout the several views of the drawing.

Referring now to the drawing and more particularly to Fig. 1, the cap, generally indicated by reference numeral 10, comprises an outside fabric covering 11 seamed at 12, the covering being detachably secured in fixed position on a stiff, woven, circular cane body 13, which constitutes the head enveloping portion of said cap, by a flat circular spring 14. The latter, which stretches fabric covering 11 taut, is attached to the cane body 13 by means of a semi-stiff and resilient supporting front piece or stayer, generally indicated by reference numeral 15, and comprising a plurality of individual plies associated together in a manner hereinafter described in detail. Stayer 15 is taped along the upper portion thereof and seamed at 16 to form a spring-retaining loop 17 and is attached to cane body 13 by suitable stitching 18.

A visor or peak 19 stitched to said cane body 13 and a chin strap 20 affixed thereto by means of suitable fasteners 21 cooperating with grommets (not shown) set in cane body 13, complete

2

the general structure. If desired, an oil-proof liner 22, as shown in Fig. 4, suspended from spring 14 by loops 23 may also be provided to prevent the natural oils of the hair from staining the fabric covering 11. The fabric covering 11 may be removed when desired by flexing spring 14 and drawing it forward and downward through the cane body 13. The release of the spring tension from the inside of fabric covering 11 allows it to collapse and to be slipped off cane body 13 after fasteners 21 are released.

The semi-stiff but resilient stayer 15, as shown in Figs. 2, 3, and 4, is formed of several fabric plies or layers. It will be appreciated, of course, that the vertical sections shown in Figs. 3 and 4 considerably exaggerate the thickness of the individual plies the exaggeration being, however, only for the sake of clarity, the layers actually being only of a normal fabric thickness.

Thus, stayer 15 comprises a central fan-shaped section 24, of haircloth, the latter being of the usual construction, as well known in the art, and comprising a warp of cotton yarns having a filling of horsehair or other similar semi-stiff monofilamentary material. The haircloth section or ply 24 is backed with a cotton duck panel 25 and faced with a light, loosely woven net fabric 26. Between the haircloth fabric section 24 and the cotton duck panel 25 are a plurality of stiffening members 27, 28 and 29. Each of said stiffening members is of like construction and comprises a pair of flexible sections 30 of spring steel provided with a suitable, semi-stiff covering material such as paper or the like. The paper or other material not only covers said spring steel sections 30 but also acts to separate and space the latter. A short strip of elastic material 31 is inserted through a slit 32 in cotton duck backing 25 so that a portion protrudes as shown in Fig. 2, and is available for attachment to the cane body 13 in a manner hereinafter described. The elastic strip 31 is normally placed between stiffening member 27 and the cotton duck backing 25.

Stiffening members 27, 28 and 29 are assembled with haircloth section 24, cotton duck panel 25, net fabric 26 and the elastic section 31 by suitable stitching. Stitching 33 holds stiffening member 29 in position, stitching 34 holds stiffening member 28 in position, while stitching 35 holds stiffening member 27 and elastic strip 31 in suitable position relative to the other fabric sections and panels. The whole stayer or front piece indicated, as stated above, by reference numeral 15, is taped at the sides with cotton or other fabric tapes 36 and 37 which are stitched at 38 and 39

respectively. The lowermost portion of stayer 15 is also taped with a section of cotton or other fabric tape 40 attached thereto by stitching 41. Tape 40 is doubled over and extends below the lowermost edges of haircloth section 24, cotton duck panel 25 and net fabric 26 so that said tape may act as a hinge in the final assembly.

While my invention resides in part in the combination of elements, heretofore described, which are employed in forming the stayer or front piece 15, an exceedingly important feature of my invention also resides, however, in the particular manner in which stayer 15 is assembled with cane body 13 and the structural relation which the several elements comprising stayer 15, including stiffening elements 27, 28 and 29, bear to cane body 13 in the final assembled cap structure.

In order to impart the desired flexibility and resiliency to stayer 15 relative to cane body 13, the assembly of stayer 15 and cane body 13 must be effected in a very precise manner. Stiffening member 27 as well as elastic strip 31 must be properly aligned and positioned in the final structure if the improved result is to be attained. Thus, in attaching stayer 15 to cane body 13, the doubled and stitched tape 40 is placed on cane body 13 so that the lowermost portion of stiffening elements 27, 28 and 29 extend just below the uppermost portion of said cane body 13, as shown in Figs. 1, 2 and 4. With stayer 15, stiffening elements 27, 28 and 29 and doubled tape hinge 40 in this position relative to cane body 13, the assembled sections are stitched together by means of seam 18. The insertion and placement of seam 18 must also be effected precisely and, as shown clearly in Fig. 4, said seam 18 is placed as close to the lowermost edges of haircloth section 24, cotton duck panel 25 and net fabric 26 as possible without piercing the same. The dependent portion of elastic strip 31 is then drawn down so that it is under tension and is then stitched to cane body 13 by a seam 42. If desired, a loosely woven, stiffened fabric 43 attached to cane body 13 by staples 44 (only one of which is shown) may be employed for covering the several seams.

When assembled in the particular and precise manner described, an extraordinary degree of resiliency and flexibility is imparted to the crown of the cap. Thus, when the crown of the cap is forced downward and forward so that it is substantially flattened, as during packing and the like, regardless of the nature and extent of such deformation, upon release of the pressure causing such deformation, the crown of the cap springs upward with little or no manual aid due to the innate flexibility and resiliency of the stayer 15, and the elements associated therewith. The crown assumes a neat, clean and miliary line similar in every respect to the crown of a cap which is of a rigid construction. Accordingly, my novel cap structure provides outstanding advantages. Not only may it be packed conveniently so that the space it occupies is at a minimum, but the degree of deformation it undergoes under such conditions may be substantially disregarded since the resilient structure I provide eliminates all permanent distortion.

In lieu of employing a single elastic strip in forming the novel cap structure of my invention, a plurality of symmetrically disposed elastic strips may be employed, as shown in Fig. 5. Thus, referring to Fig. 5, it will be observed that the elements provided are associated together in the manner heretofore described but instead of a single elastic strip therein, cotton duck panel is provided with a pair of narrow openings or slits 45 and 46 and elastic strips 47 and 48 are inserted therein. Said elastic strips are placed in register with stiffening elements 29 and 28, respectively, and a portion of said strips is allowed to protrude from said slits, as shown. Stiffening element 29 and elastic strip 47 are stitched to each other and to the assembly of fabric plies or layers, including the haircloth fabric section 24, cotton duck panel 25 and net fabric 26 by means of stitching 49. Stiffening element 28 and elastic strip 48 are stitched to each other and to the assembly of fabric plies or layers comprising stayer 15 by stitching 50.

In attaching the resilient stayer 15 to cane body 13, the lowermost edges of stiffening elements 27, 28 and 29 are set just below the upper edge of cane body 13. Stayer 15 is then joined to cane body 13 by stitched seam 18. As described above, the stitched seam 18 is inserted in doubled tape 40 and as close as possible to the lowermost edges of the fabric plies forming the stayer 15, namely, haircloth fabric section 24, cotton duck panel 25 and net fabric 26. The protruding portions of elastic strips 47 and 48 are then stretched so that they are under tension and stitched to cane body 13 by stitched seams 51 and 52. When flat circular spring 14 is flexed and inserted into fabric covering 11, as described above, the latter is stretched taut and the upright stayer 15 gives the cap the desired smart, clean military lines. The symmetrically disposed elastic strips 47 and 48 aid in maintaining stayer 15 upright. The final cap structure possesses the extraordinary flexibility and resiliency of the structure described above and when the crown is bent downward and forward, as during packing and the like, the release of the force causing the deformation allows the stayer 15 and the crown to flex upward and to stand upright with little or no manual aid.

It is to be understood that the foregoing detailed description is given merely by way of illustration only and that many variations may be made therein without departing from the spirit of my invention.

Having described my invention what I desire to secure by Letters Patent is:

1. In a uniform cap including a head-encircling member, an enclosed covering therefor and flat circular spring means fitted within said covering for stretching and shaping the same to form a crown, a flexible, substantially upright stayer attached at its lower end to a frontal segment of the head-encircling member and to said flat circular spring means for spacing said spring means from the head-encircling member and raising the front of said crown whereby the plane of said flat circular spring means is at an angle to the plane of said head-encircling member, said flexible, substantially upright stayer comprising a plurality of assembled, coextensive fabric plies, and including in said assembly, at least one vertically disposed stiffening member associated with and in fixed relation to said fabric plies, flexible hinge means connecting the lower edge of said stayer to the outer side of the head-encircling member so that the lower end of the vertically disposed stiffening member associated therewith extends below the upper edge of the head-encircling member, tensioned elastic means having one end attached to said stayer and the other end to the inner side of the head-encircling member to aid in maintaining the stayer in a normally upright position, but permitting said stayer and crown to be flattened and the plane of the flat circular spring

means to be brought substantially parallel to the plane of the head-encircling member when a distorting force is applied thereto.

2. In a uniform cap including a head-encircling member, an enclosed covering therefor and flat circular spring means fitted within said covering for stretching and shaping the same to form a crown, a flexible, substantially upright stayer attached at its lower end to a frontal segment of the head-encircling member and at its upper end to said flat circular spring means for spacing said spring means from the head-encircling member and raising the front of said crown whereby the plane of said flat circular spring means is at an angle to the plane of said head-encircling member, said flexible substantially upright stayer comprising a plurality of assembled, coextensive fabric plies in fixed relation to each other, and including in said assembly a centrally disposed stiffening member comprising a pair of flat flexible spring means spaced apart in parallel relation associated with and in fixed relation to said fabric plies, flexible hinge means connecting the lower edge of said stayer to the outer side of the head-encircling member so that the lower end of the centrally disposed stiffening member associated therewith extends below the upper edge of the head-encircling member, tensioned elastic means substantially in alignment with the centrally disposed stiffening member having one end attached to said stayer and the other end to the inner side of the head-encircling member to aid in maintaining the flexible fabric ply means in a normally upright position, but permitting said upright means and crown to be flattened and the plane of the flat circular spring means to be brought substantially parallel to the plane of the head-encircling member when a distorting force is applied thereto.

3. In a uniform cap including a head-encircling member, an enclosed covering therefor and flat circular spring means fitted within said covering for stretching and shaping the same to form a crown, a flexible, substantially upright stayer attached at its lower end to a frontal segment of the head-encircling member and at its upper end to said flat circular spring means for spacing said spring means from the head-encircling member and raising the front of said crown

whereby the plane of said flat circular spring means is at an angle to the plane of said head-encircling member, said flexible substantially upright stayer comprising a plurality of assembled coextensive fabric plies in fixed relation to each other, and including in said assembly a centrally disposed stiffening member and a pair of outer stiffening members in substantial alignment therewith, one on each side thereof, associated with and in fixed relation to said fabric plies, each of said stiffening members comprising a pair of flat flexible spring elements spaced apart in parallel relationship, flexible hinge means connecting the lower edge of said stayer to the outer side of the head-encircling member by stitching closely adjacent to the lower edge of the stayer without piercing the same, the lower edge of the stayer being positioned so that the lower ends of the vertically disposed stiffening members associated therewith extend below the upper edge of the head-encircling member, a pair of tensioned elastic means each being substantially in registered alignment with the outer stiffening members, said tensioned elastic means having the upper end of each attached to said stayer and the lower end of each to the inner side of the head-encircling member to aid in maintaining the flexible fabric ply means in a normally upright position, but permitting said upright means and crown to be flattened and the plane of the flat circular spring means to be brought substantially parallel to the plane of the head-encircling member when a distorting force is applied thereto.

LAWRENCE LESSER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
563,053	Pachner	June 30, 1896
1,721,332	Caplan	July 16, 1929
2,076,169	Wipperman	Apr. 6, 1937
2,368,825	Goldman	Feb. 6, 1945
2,393,270	Schlesinger	Jan. 22, 1946
2,428,639	Springer	Oct. 7, 1947