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Ventilating Hats.

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Fig. 1

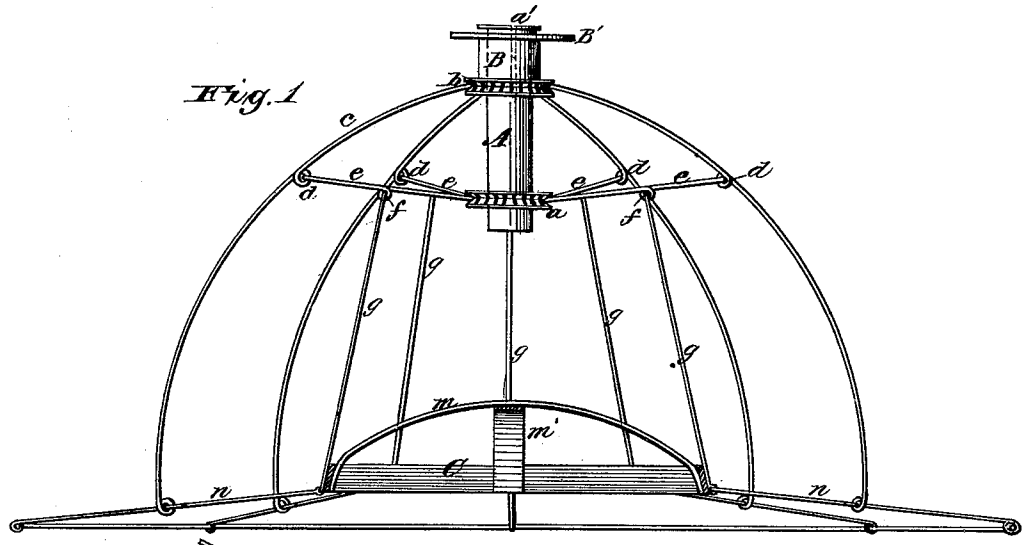


Fig 2

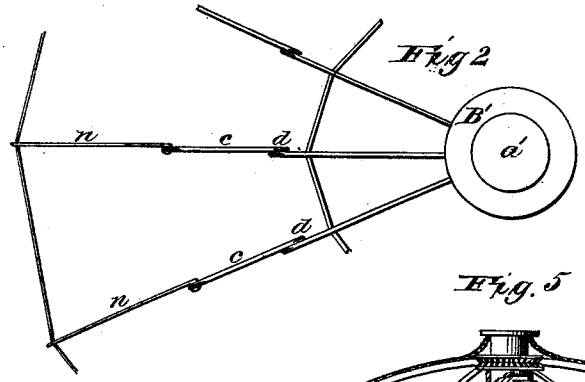


Fig 3

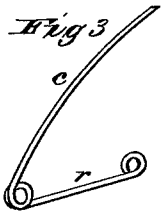


Fig 4

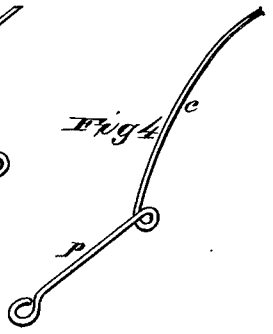
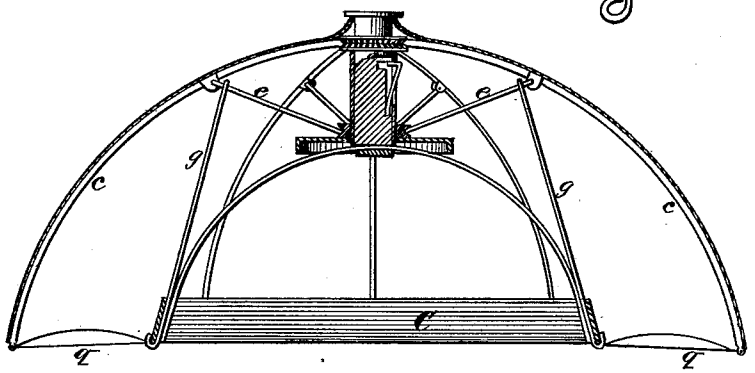


Fig. 5



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Fig. 6

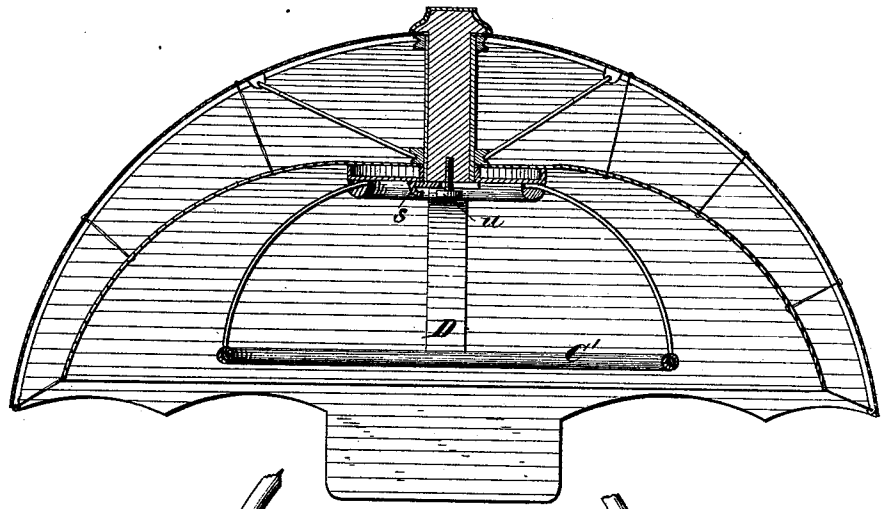
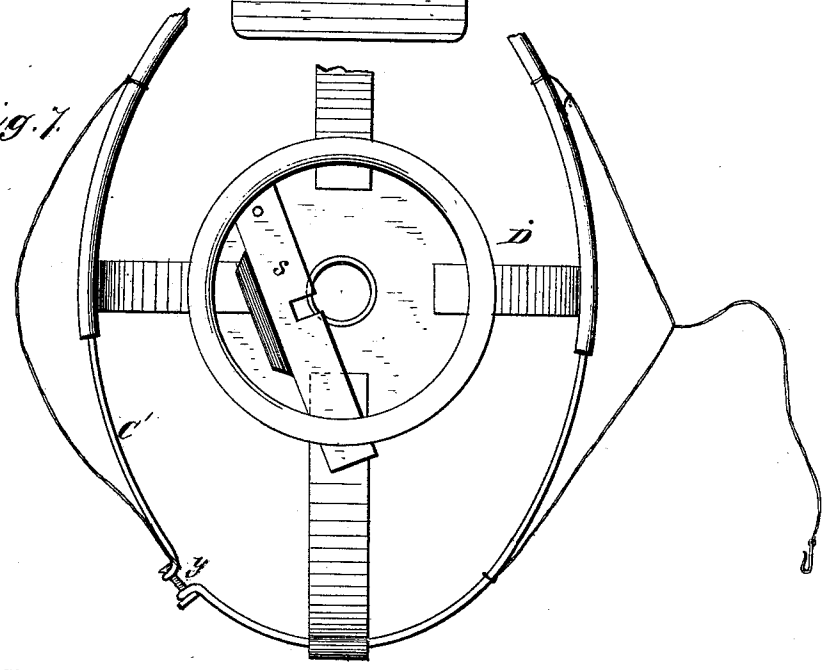


Fig. 7.



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Fig. 8

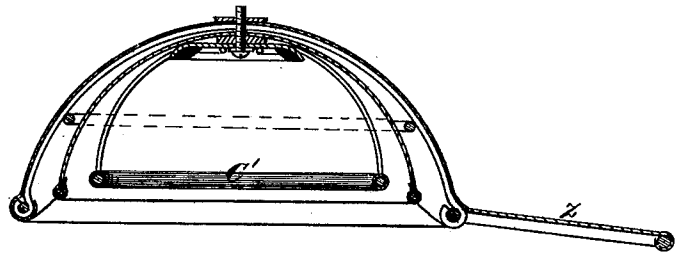


Fig 9.

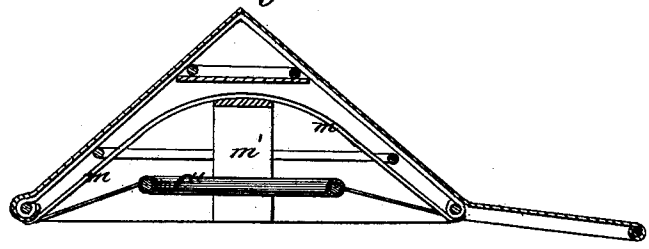


Fig. 10.

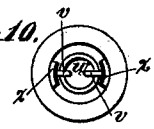
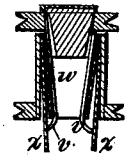


Fig. 11



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UNITED STATES PATENT OFFICE.

RICHARD RAY, OF LAKE CITY, FLORIDA.

VENTILATING-HAT.

SPECIFICATION forming part of Letters Patent No. 229,464, dated June 29, 1880.

Application filed June 10, 1879.

To all whom it may concern:

Be it known that I, RICHARD RAY, of Lake City, in the county of Columbia and State of Florida, have invented certain new and useful Improvements in Ventilating-Hats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of hats adapted to be worn in warm climates; and it consists in constructing the same so as to provide ample space around the wearer's head for the free circulation of air, while the pressure occasioned by the weight of the hat is evenly distributed over the top of the wearer's head by means of cross-straps so adjusted as to allow the circulating air free access to the head.

It further consists in so constructing the body of the hat as to admit of the folding up or collapsing of the same, the peculiar construction and arrangement of the parts composing the frame forming an automatic brace or lock, whereby the hat is retained in an open or stretched state, as will be hereinafter more fully set forth.

In the drawings, Figure 1 is a vertical section cut through the frame of one form of my improved folding hat. Fig. 2 is a plan view of a portion of the crown. Fig. 3 is a side view of outer end of modified form of hat-rib. Fig. 4 is a side view of a modified form of the same. Fig. 5 is a vertical section cut through a modified form of folding hat. Fig. 6 is a vertical section cut through a double-covered detachable crown and head-rest. Fig. 7 is a bottom-plan view of the head-rest. Fig. 8 is a vertical section cut through a modified form of rigid double-covered detachable crown and head-rest. Fig. 9 is a vertical section cut through a modified form of rigid single-covered crown and head-rest. Fig. 10 is a bottom-plan view of a modified form of locking-joint, and Fig. 11 is a vertical section cut through the same.

In Figure 1, A represents a sliding post having rigidly attached thereto a runner, *a*, at its lower end, and a thumb-piece, *a'*, at the upper end thereof. Loosely encircling this post is a sleeve, B, upon which is constructed an upper runner, *b*, to which are pivoted the upper ends of ribs *c*. At a convenient distance from their tops the ribs are provided with eyes *d*, into which the outer ends of braces or stretchers *e* are hooked or looped, the inner ends of the stretchers being pivoted to the lower runner, *a*.

From eyes *f*, located upon stretchers *e*, either brace-rods or connecting-strings *g* fall and connect at their lower ends to a head-band, C.

For the purpose of providing an automatically opening and closing rim, I construct a frame consisting of a series of radial arms or connecting-rods, *n*, pivoted at or near their centers to the bottom or outer end of the ribs *c*, and at their inner ends to the band C, at the points of its intersection with the rods *g*.

Assuming the hat shown in Fig. 1 to be in a folded or collapsed state, the post A will protrude from the top of the hat. To open the same two fingers are placed under the upper flange upon the top of the sleeve B, the thumb-piece *a'*, located upon the top of the sliding post, being pressed downward by the thumb. The inner ends of the stretchers *e*, being pivoted to the runner attached to the sliding post, will be carried down with the runner *a*, thus forcing out the ribs *c*.

The limit to the movement of the runner *a* is so regulated that it is arrested in its descent just after it has passed beyond or below the plane of the outer pivoted ends of the stretchers *e*, thus converting the stretchers into braces, by which the ribs *c* are securely retained or locked in a stretched position.

When the folding rim is used the rods *g* are carried down with the stretchers *e*, forcing downward the inner ends of the rods *n*, thus throwing upward the outer ends of the same, by which adjustment the rim is formed, as shown in Fig. 1.

The band C, connected to the stretchers *e* by rods *g*, and to the outer ends of the ribs *c* by the inner end of rods *n*, or by means of a thread, is stretched open simultaneously with the hat-body.

For the purpose of equally distributing the pressure occasioned by the weight of the hat

upon the head, I provide two or more cross-bands, *m* and *m'*, which rest upon the top of the wearer's head, and are either connected at their ends to the band C, as in Fig. 1, or to the lower or outer edge of the crown, as in Fig. 9.

It is obvious that the crown may be rimless, or that the lower ends of ribs *c* may be angled outward, forming projections *p*, upon which a rim is attached to the folding crown, without changing the spirit of my invention. Should the projections *p* be used the connecting-rod *n* is dispensed with, and the head-band is attached to the outer edge of the crown by means of threads *q*, as shown in Fig. 5.

As a substitute for the pliable thread *q* a rigid connecting-rod, *r*, Fig. 3, formed by bending inwardly the outer end of rib *c*, can be used for the purpose of connecting the head-band and inner cover of the double-canopied hat.

A modified form of folding hat is shown in Fig. 6, wherein a double cover is provided, so located in relation to each other as to provide an air-passage between them.

By means of a lower runner, to which is attached the central portion of the inner cover, as also the inner ends of stretchers which operate the ribs carrying the outer cover, the hat is stretched open, and is retained in that position by a latch, *s*, pivoted to the top of an attachable and detachable head-rest, D, which engages with a headed projection, *u*, located upon the folding crown, as shown in Fig. 6.

By disengaging the latch from the headed projection the head-rest becomes detached and the cover automatically collapses.

The circumference of the rigid head-band C', Figs. 6 and 7, can be increased or diminished by means of a screw-and-nut clamp, *y*, whereby the head-band is made to conform to the size of the wearer's head.

A modified form of latch is represented in Figs. 10 and 11, wherein the upper runner, carrying the ribs, and the lower runner, carrying the stretchers, are locked together by means of spring hooks or latches *v*, secured to the upper runner, which hook over the lower edge of an inner tube, *w*, attached to the lower runner. These hooks, when desired, are disengaged by means of spring-plates *x*, also attached to the tube carrying the lower runner. The free ends of these plates are forced together by the fingers of the wearer, carrying with them the hooks *v*, until they ride free of the tube *w*, when the hat-crown becomes detachable from the head-rest.

A rigidly-constructed doubly-covered hat-crown may be securely pivoted to the head-rest, as shown in Fig. 8, in such a manner as to allow the segmental drooping rim *z*, forming a part of the hat-crown, to be swung around upon the head-rest.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a folding hat, the post A, stationary runner *a*, sleeve B, runner *b*, ribs *c*, and stretchers *e*, whereby the hat is automatically locked in an open state, substantially as described.

2. In a hat provided with folding mechanism, substantially as described, the rib *c* and outwardly-projecting end *p*, whereby a frame for a rim-extension is provided, in the manner set forth.

3. In a hat provided with folding mechanism, substantially as described, the ribs *c*, stretchers *e*, brace-rods or connecting-strings *g*, and pivoted rim-connecting rod *n*, all operating as and for the purpose set forth.

4. In a ventilated hat, the band C, in combination with cross-tapes *m*, so constructed and arranged as to evenly distribute over the head of the wearer the pressure occasioned by the weight of the hat, substantially as described.

5. In a hat composed of an outer and an inner cover forming a ventilating-passage, and provided with a rigid segmental drooping rim, the head-rest D, constructed as described, and pivoted to the center of the hat-crown in the manner substantially as set forth.

6. In a folding hat, the crown composed of an outer and an inner cover, forming a ventilating-passage, and the attachable and detachable head-rest D, provided with a take-up mechanism for the band C', for the purpose and in the manner specified.

7. In a ventilating-hat provided with a single cover and segmental drooping rim, the tapes or cross head-rests *m'*, attached at their ends to the edge of the hat-crown, in combination with the band C, substantially as described.

8. In a folding hat, substantially as described, the stretchers *e*, hangers *g*, ribs *c*, head-band C, and pliable connecting-threads *q*, whereby the head-band is stretched open simultaneously with the opening of the hat-body, in the manner set forth.

9. In a folding hat, substantially as described, the ribs *c*, provided at their outer or lower ends with inwardly-projecting ends *r*, in the manner and for the purpose set forth.

10. In a hat, substantially as described, the rim-extension constructed upon a pivot-frame, whereby the said rim automatically closes upon the folding up of the hat-body, in the manner set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of June, 1879.

RICHARD RAY.

Witnesses:
HARRY KING,
GEO. F. GRAHAM.