E. P. HOYT.

Hat and Cap.

No. 221,313. Patented Nov. 4, 1879.

Fig. 1.

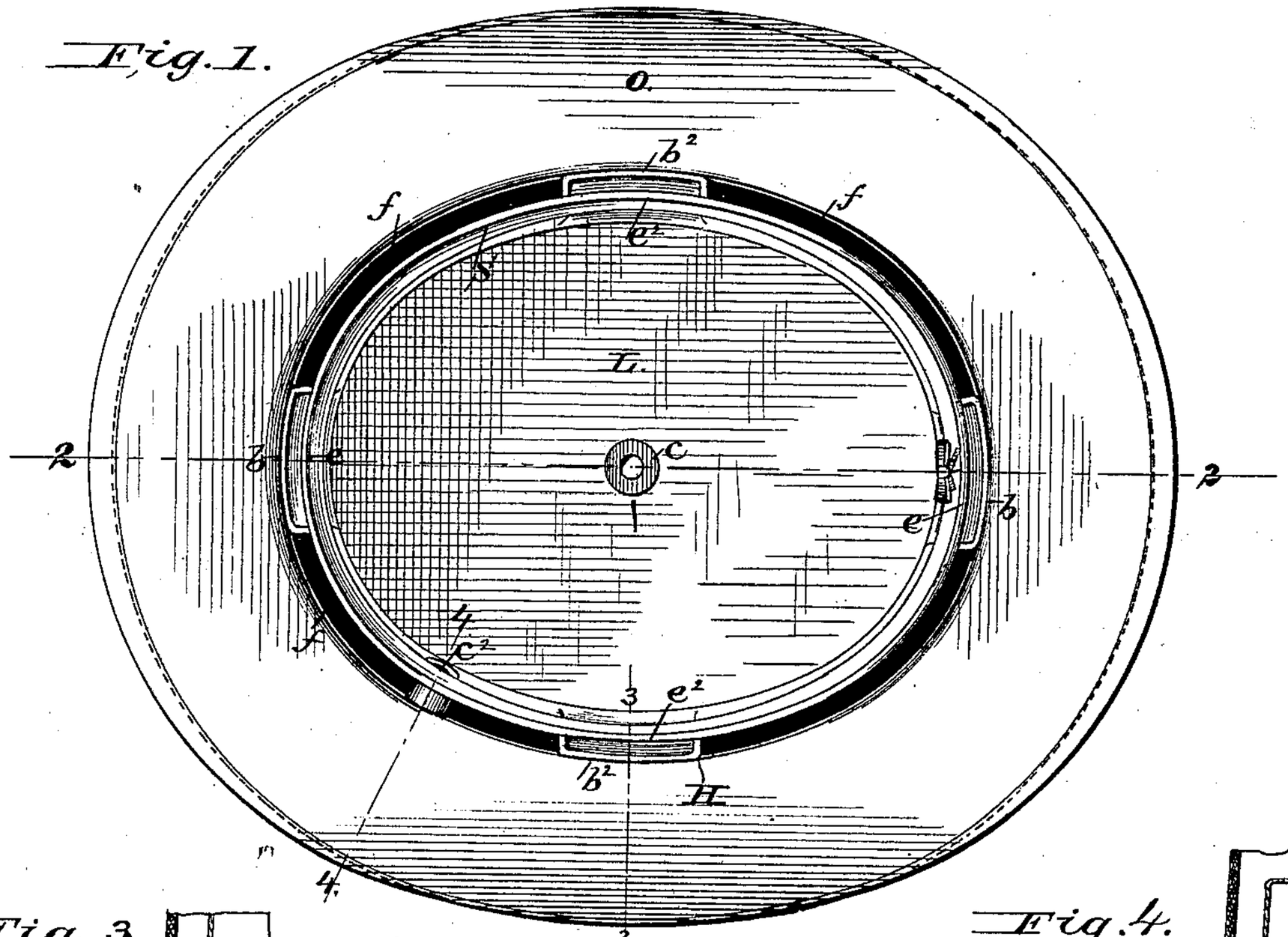

Fig. 3.

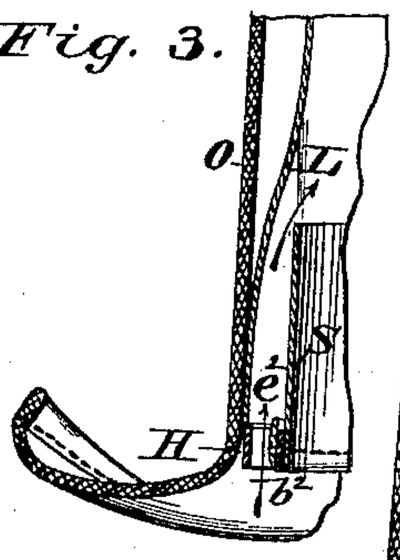

Fig. 2.

Fig. 4.

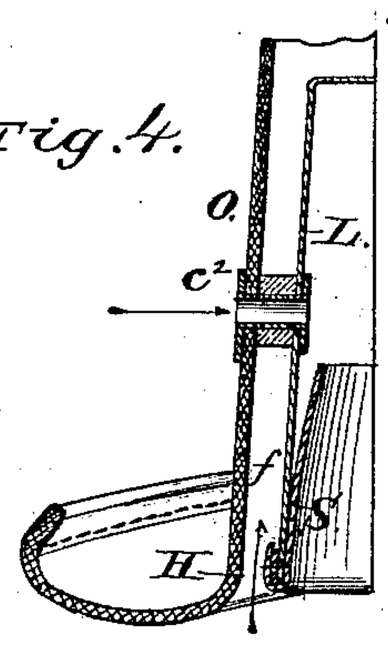

Fig. 5.

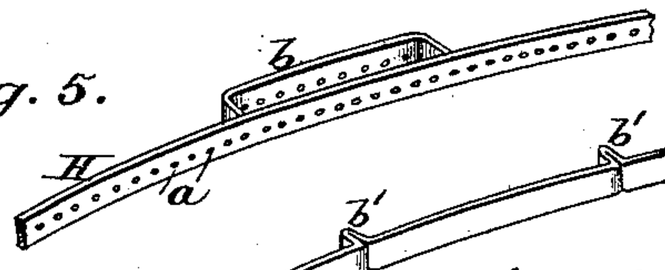

Fig. 6.

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IMPROVEMENT IN HATS AND CAPS.

Specification forming part of Letters Patent No. **221,313**, dated November 4, 1879; application filed September 11, 1879.

To all whom it may concern:

Be it known that I, EZRA P. HOYT, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Hats and Caps; and I do hereby declare the following to be a full, clear, and exact description of the said 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, which form a part of this specification.

This improvement relates to means for ventilating hats and caps, so as to keep the wearer's head cool in summer.

The heat within unventilated hats is of two kinds, namely: first, body-heat radiated from the head and confined by the hat; and, second, sun-heat absorbed by the hat and imparted to the inclosed air. The latter is, of course, intensified when the hat is black or of a dark color, owing to the well-known affinity of dark colors for the heat-rays of the sun; and hats of light colors are consequently resorted to; but dark colors are preferred by most persons. Expensive and unsightly non-conducting hats are also worn to a limited extent, and various ventilating arrangements have been devised for ordinary hats and caps; but so far as I am aware none of the latter provide for intercepting the said sun-heat, which is the primary object of the present invention.

My said invention consists, first, in the combination, with an ordinary body or outer shell, of a light inner shell or lining, forming above and around the head-space an air-chamber, with provision for the constant passage of air through said chamber to carry off the absorbed sun-heat, the heated air being kept from contact with the head by said lining.

My said invention consists, secondly, in a novel sweat-band wire, forming inlets to said air-chamber, while it also admits cool air to the head.

My said invention consists, thirdly, in the combination of said sweat-band wire, or its equivalent, and one or more escape-tubes, for ventilating the head-space of the hat or cap without communication between said space and said air-chamber, as hereinafter more fully set forth.

Figure 1 of the accompanying drawings is a bottom view of a hat illustrating this invention. Fig. 2 is a vertical section of the same on the line 2 2, Fig. 1. Figs. 3 and 4 represent fragmentary vertical sections in other planes, as indicated by the lines correspondingly numbered in Fig. 1. Figs. 5 and 6 are fragmentary perspective views, respectively, of the sweat-band wire shown in Figs. 1 to 4, and of a substitute sweat-band wire, illustrating a modification.

Like letters of reference indicate corresponding parts in the several figures.

In carrying out this invention an ordinary sweat-band, S, of a given size, is inserted within a lining-shell or lining, L, of corresponding size, and both are sewed at their lower edges to a peculiar sweat-band wire or hoop, H. The latter is shown in detail in Fig. 5. It is a flat metallic wire or narrow hoop, having perforations *a* to provide for sewing therethrough in attaching the same to the sweat-band and lining, as aforesaid, and external loops or open projections, *b* b^2, at front and rear and on each side, to provide for sewing the whole within a relatively larger ordinary body or outer shell, O. Before so uniting the parts said outer shell is provided with one or more inwardly-projecting tubes, *c* c^2, passing through perforations therein, and secured by flanges and riveting, as shown at *c*, or in any preferred way; also with perforations *d*. Said tubes pass through matching perforations in the lining L when the latter is inserted, and are secured thereto as to the outer shell, O. By means of said tubes *c* c^2 and the said loops *b* b^2 of the sweat-band wire said lining is supported concentrically within said outer shell, so as to form an air-chamber within the latter above and around said lining, and having no communication with the inner space, which receives the head. Said air-chamber and said head-space are provided with independent inlets by means of the sweat-band wire H, the lining L being projected outward by ducts *e*, to communicate with the said loops *b* b^2, to admit air to the head, while the

spaces *f* between said loops admit air to the outer chamber. Independent outlets are provided by the tube *c* and perforations *d*. The flow of air is represented by arrows in Figs. 2, 3, and 4.

A tube or tubes, c^2, may admit air to the head, as illustrated by Fig. 4, and makers may use therewith a sweat-band wire, H′, Fig. 6, having simply external projections, *b′*, to form the inlet-spaces *f;* or any of the ordinary sweat-band ventilators may be so used.

I also propose admitting air between the lining and outer shell by means of eyelets or perforations in the outer shell; and cool air may be admitted to the head from the inlet-spaces *f* by means of simple openings through the lining, or lining and sweat-band, near the lower edge, such openings to be located so far down as to preclude any mingling of the currents of air in the outer chamber and head-space.

The lining L may be of any light material sufficiently impervious to air to accomplish the described object, and its shape will vary somewhat with its material, and also with the style of head-covering in which it is used.

The loops *b* b^2 may be three or more, distributed as preferred; and it is only necessary that the outlet tube or tubes *c* shall extend from the upper part of the lining, and that the outlet-perforations *d* be located at or near the top of the outer shell.

The following is what I claim as new and of my own invention, and desire to secure by Letters Patent, namely:

1. A hat or cap having an ordinary body or outer shell and an inner shell or lining, with an air-chamber between, and provision for the constant passage of air through the latter to carry off sun-heat without permitting the heated air to come in contact with the head of the wearer, substantially as herein described.

2. In combination with outer and inner shells, forming an air-chamber between them, the sweat-band wire H, with its external loops, *b* b^2, and the independent air-ducts *e f*, communicating therewith.

3. In combination with outer and inner shells, forming an air-chamber between them, and inlets for admitting cool air to the head, the escape-tube *c*, extending through both shells, substantially as herein described, for the purpose set forth.

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