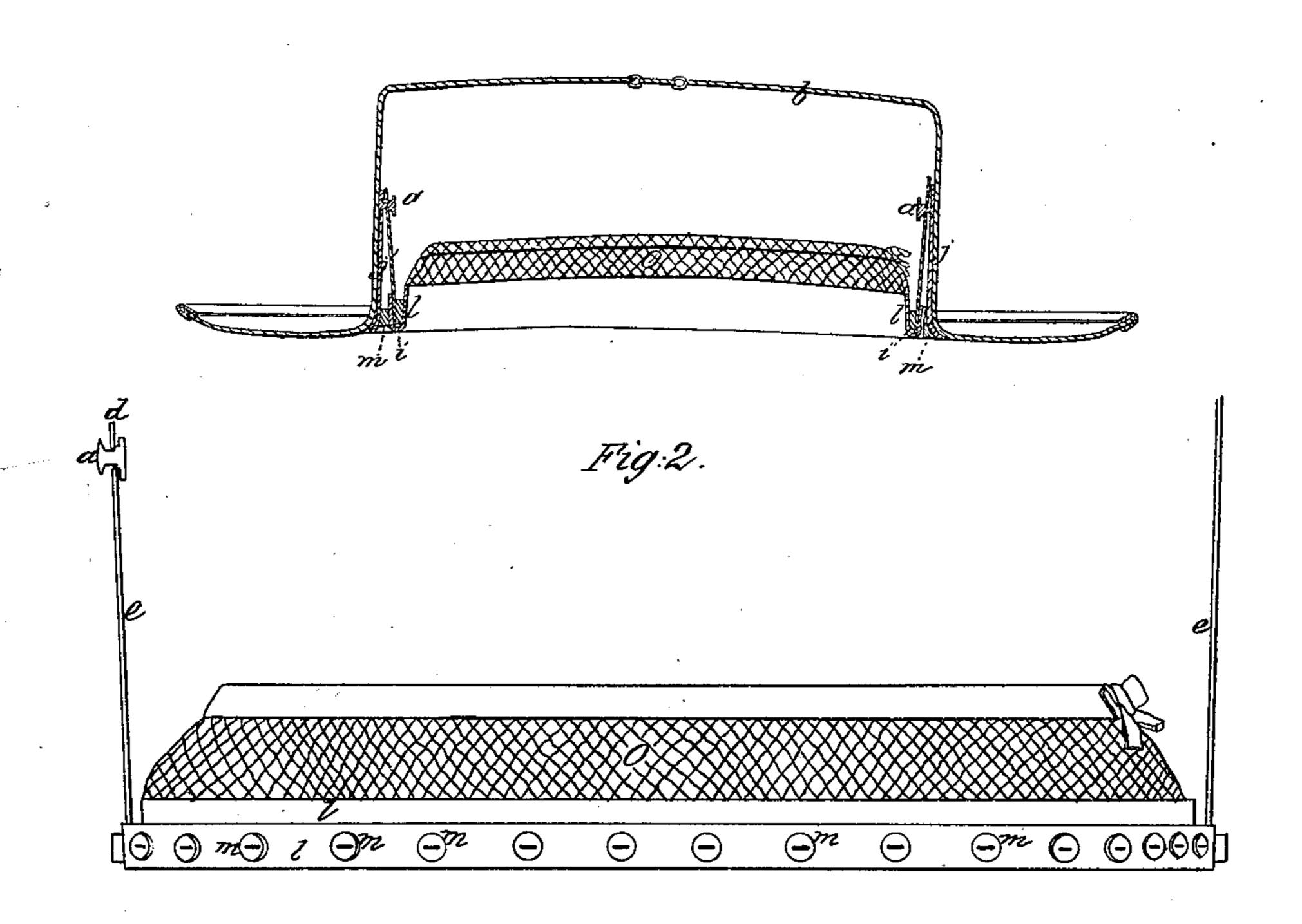
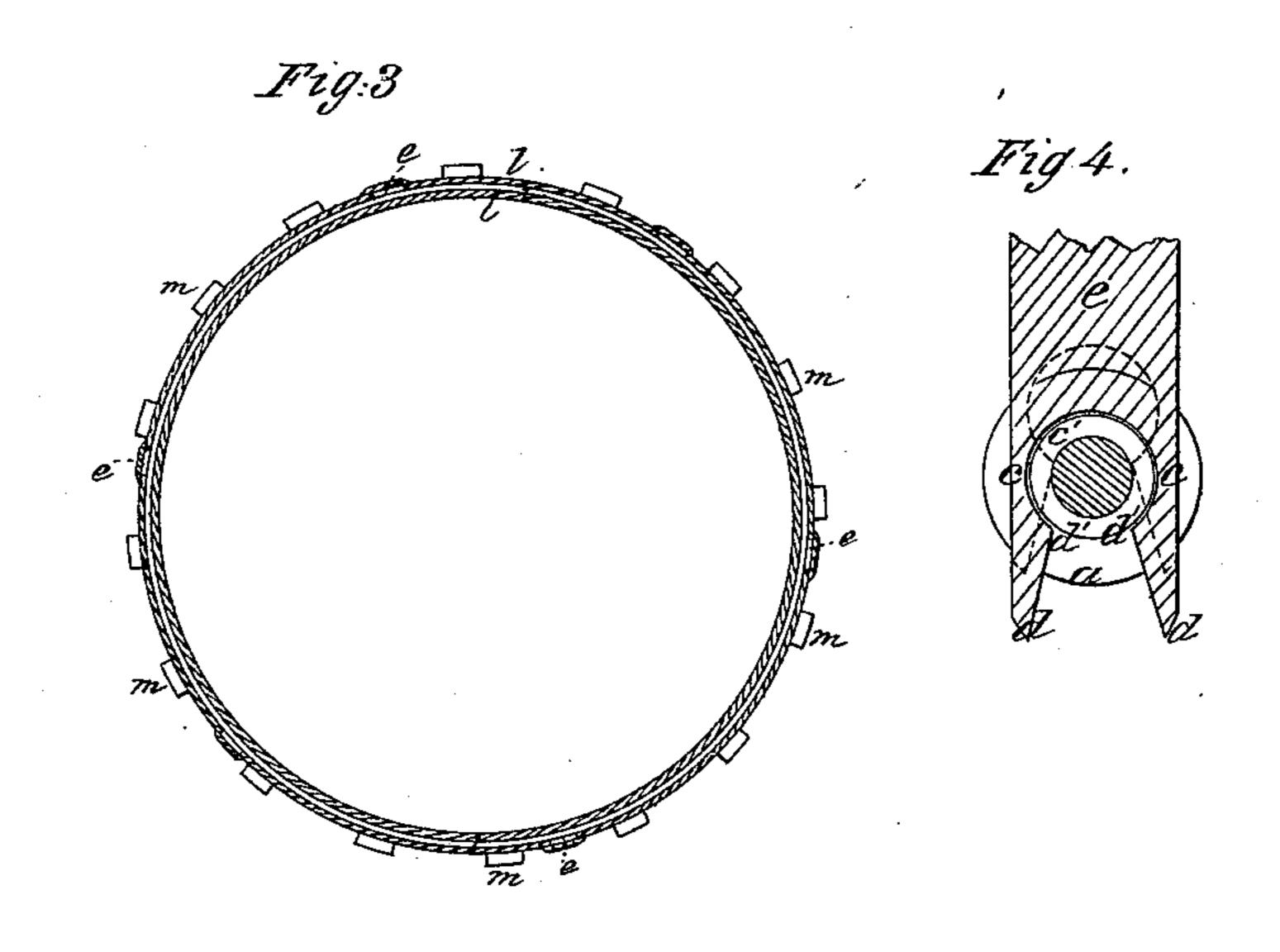
F. H. BELL.
PORTABLE VENTILATOR FOR HATS.





Witnesses.

Goodwin B. Alles. Nob! W. Huwich. Troventor. Francis H Bell

## UNITED STATES PATENT OFFICE.

FRANCIS H. BELL, OF WASHINGTON, DISTRICT OF COLUMBIA.

## HAT-VENTILATOR.

Specification of Letters Patent No. 29,050, dated July 10, 1860.

To all whom it may concern:

Be it known that I, Francis H. Bell, of the city of Washington and District of Columbia, have invented an Improved Portable Ventilator for Hats; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, represents a vertical central section of the hat and portable ventilator. Fig. 2, a side view of the ventilator, detached from the hat. Fig. 3, a top view of the ventilator without the netting, and Fig. 4, a side view of one of the springs (showing only the end of the spring) used for attaching the

ventilator to the hat.

Similar letters of reference, in each of the several figures indicate corresponding parts.

The nature of my invention consists in a new article of manufacture, to wit: a portable ventilator for hats, combining a narrow circular spring, a series of projections or knobs, attached to the material with which the spring is covered, a series of attaching strips, buttons and a net-work, the whole constructed in the manner and for the purpose described.

To enable others, skilled in the art, to make and use my invention, I will proceed to describe its construction and operation.

The portable ventilator for hats consists of a narrow steel spring; bent into the form of a cylinder and surrounded at bottom and 35 both sides, by a strip of leather or similar soft material l. A series of small projections or buttons m, are fastened to the outer side of the strip *l*. This device is introduced into the lower portion of the crown of 40 the hat at the place where the sweat leather is generally located. The steel spring being very light and flexible, causes the buttons m, to bear against the circumference of the bottom part of the crown at certain 45 points in such a manner that a free circulation of air through the open spaces between the strip l, and the lining j, of the crown and between each two of the buttons is allowed, when the hat is placed on the head. 50 A complete ventilation will thus be kept up while the head is in contact with no portion of the hat, but only with the narrow strip 1, and with the thin network o, attached to the

upper edge of the strip l.

The network o, just alluded to is coated 55 with shellac so that its threads will not absorb the perspiration and thus become wet and unpleasant to wear, but always remain dry. The meshes of this network being wide, the perspiration of the head freely 60 evaporates and passes out at the top of the crown and the cool external air admitted between the spring and the hat, comes in contact with the surface of the head the moment it rises to the top of the narrow 65 spring. The use of the net-work in connection with the narrow spring, renders my invention very useful and effective, for it allows of almost immediate contact of the fresh air with the head and as speedy an 70 escape of the impure air, and at the same time a finished appearance is given to the hat.

This ventilator which has the advantage of being light and of a very simple construction, can be attached to any hat by means of a number of vertical springs e, or strips of metal, which are riveted or otherwise fastened to the circular spring i, at one end, and have near the upper end a circular hole 80 e', terminating into tapering or flaring slot,

as represented in Fig. 4. Small buttons a, are attached to the upper portion of the lining j, of the crown of the hat. When the ventilator has been in- 85 troduced into the hat, the strips e, are pressed upward sufficient to cause the shanks of the buttons a, to slip through the flaring slots d, d', into the hole c'. The inner mouths d', d', of the slots being somewhat 90 narrower than the diameters of the shanks of the buttons, the ventilator cannot detach itself from the hat, until the wearer desires to remove it, which he can do by pulling down the strips e, with a force sufficient to 95 overcome the spring of the two sides c, d, c, d, of the slot, and thus withdrawing the strips e, from the buttons a.

The two sides of the slots of the strips e, are made to yield or spring by making them 100 quite narrow at c, c, as seen in Fig. 4.

The ventilator thus constructed when detached from one hat, can be attached to any other hat, the lining of which is provided

with buttons a, in a manner similar to the one described.

My invention furnishes the market with a new, simple and useful article which can be sold independently of the hat.

What I claim as my invention and desire to secure by Letters Patent, is—

A new article of manufacture to wit: a portable hat ventilator consisting of the nar-

row spring i, knobs m, anti-absorbent net 10 work o, slotted attaching strips e, and buttons a, the whole constructed in the manner and for the purpose set forth.

FRANCIS H. BELL.

Witnesses:

GOODWIN Y. AT LEE, ROBT. W. FENWICK.