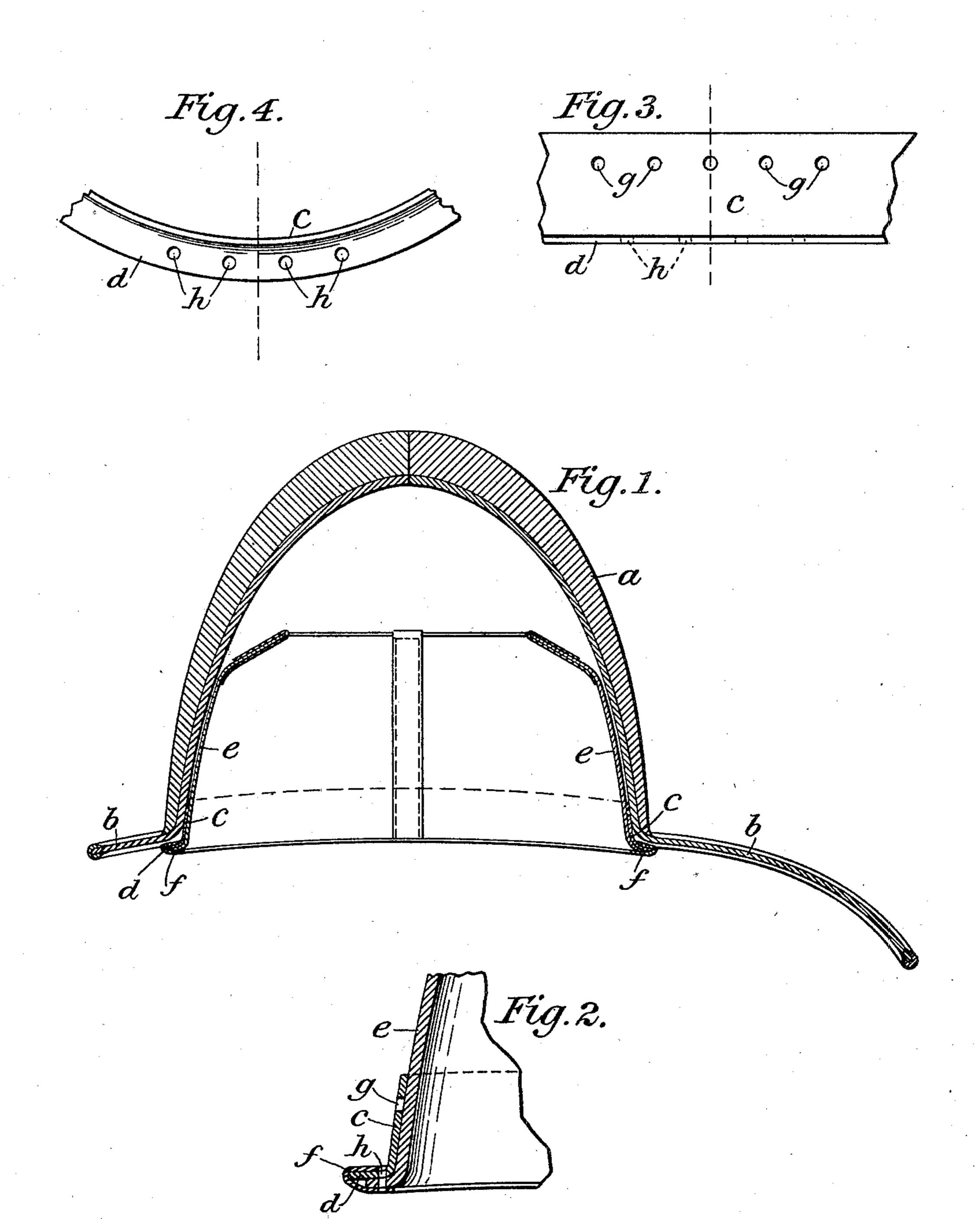
## I. CAIRNS.

#### FIREMAN'S HAT.

(Application filed May 9, 1902.)

(No Model.)



Witnesses Edgeworthstring A.M. Jestera. By his Attorneys Redding, Kiddle Freeley

# UNITED STATES PATENT OFFICE.

## IRVING CAIRNS, OF MONTCLAIR, NEW JERSEY.

### FIREMAN'S HAT.

SPECIFICATION forming part of Letters Patent No. 705,032, dated July 22, 1902.

Application filed May 9, 1902. Serial No. 106,513. (No model.)

To all whom it may concern:

Be it known that I, IRVING CAIRNS, a citizen of the United States, residing in Montclair, in the county of Essex, State of New Jersey, have invented certain new and useful Improvements in Firemen's Hats, of which the following is a specification, reference being had to the accompanying drawings, form-

ing a part hereof.

fire-hats or hats intended for the use of firemen are designed primarily to afford protection to the head and face from the heat and shock of falling objects and are generally made chiefly of leather, as this material (being a non-conductor of heat and electricity, as well as strong and somewhat elastic in its nature) has been found to answer most satisfactorily to the requirements. Nevertheless, hats made of leather after they have been in service for some time and subjected to repeated wetting and drying are liable to shrink, thus reducing the size and making it necessary to have the hat reshaped in order that it may be restored to its full size.

It is the object of this invention to improve the construction of firemen's hats so that, although of leather, they shall not shrink out of shape or size after repeated wetting and drying, but shall retain their original size, and also to add strength and rigidity to the hat. To accomplish this, the hat is provided with an incompressible preferably rigid or substantially rigid band, which when once conformed to the head of the wearer retains its shape and resists the tendency of the leather hat-body to shrink out of shape.

The invention will be more fully described hereinafter with reference to the accompanying drawings, in which it is illustrated, and

40 in which—

Figure 1 is a longitudinal central section of a fireman's hat to which the invention is applied. Fig. 2 is a detail view of the hatband in section on the same plane as Fig. 1, but on a larger scale. Fig. 3 is a detail view of the hatband in front elevation and on a larger scale. Fig. 4 is a detail view of a hatband in plan and on a larger scale.

The body a and brim b of the hat may be constructed in any suitable manner and of any suitable material, it being understood that the invention is applicable to a hat made of any material which is liable to shrink out

of shape.

Within the body of the hat, in the position 55 occupied by an ordinary hat-band, is secured a band c, which is preferably of metal in order that it may best serve its intended purpose. In order that this band may be practically incompressible, so as to resist the 60 shrinkage of the hat-body, it is endless, the ends of the strip of metal from which it may be formed being brazed, riveted, or otherwise secured together, so that they shall not slip. It is desirable that the band shall be 65 not only incompressible, but substantially rigid, in order that it may resist lateral indentation, and for this purpose it is formed with an outwardly-turned flange d, which imparts the necessary rigidity. The flange 70 d also provides a convenient mode of attachment of the band and the usual felt lining e, the edge of the latter being stitched to a narrow band f of leather which is stretched over the flange and secured thereto by cement or 75 any other suitable means. For the ventilation of the hat holes may be formed in the band, as at g, and also in the flange, as at h. The band and the lining may be secured in place within the body of the hat by stitching, 80 cement, or any other suitable means.

It will be obvious that a leather hat provided with such a band as described herein cannot so change its shape through wetting and drying as to fail to fit the head of the 85 wearer to which the band has been conformed and also that such a band does not add materially either to the cost or to the weight of

the hat.

I claim as my invention—

1. A fireman's hat having a body of shrinkable material and an endless metal band extended upward within the body and flanged

outwardly at its lower edge beneath the brim, substantially as described.

2. A fireman's hat having a body of shrinkable material, an endless metal band extended upward within the body and flanged outwardly at its lower edge beneath the brim, and a lining secured to said flange and extended upwardly within the band and to the hat-body, substantially as described.

This specification signed and witnessed this 6th day of May, A. D. 1902.

IRVING CAIRNS.

In presence of—
ANTHONY N. JESBERA,
M. A. BRAYLEY.