

R. VENNER.  
RESPIRATOR AND INHALER.  
APPLICATION FILED OCT. 17, 1907.

958,569.

Patented May 17, 1910.

FIG. 1

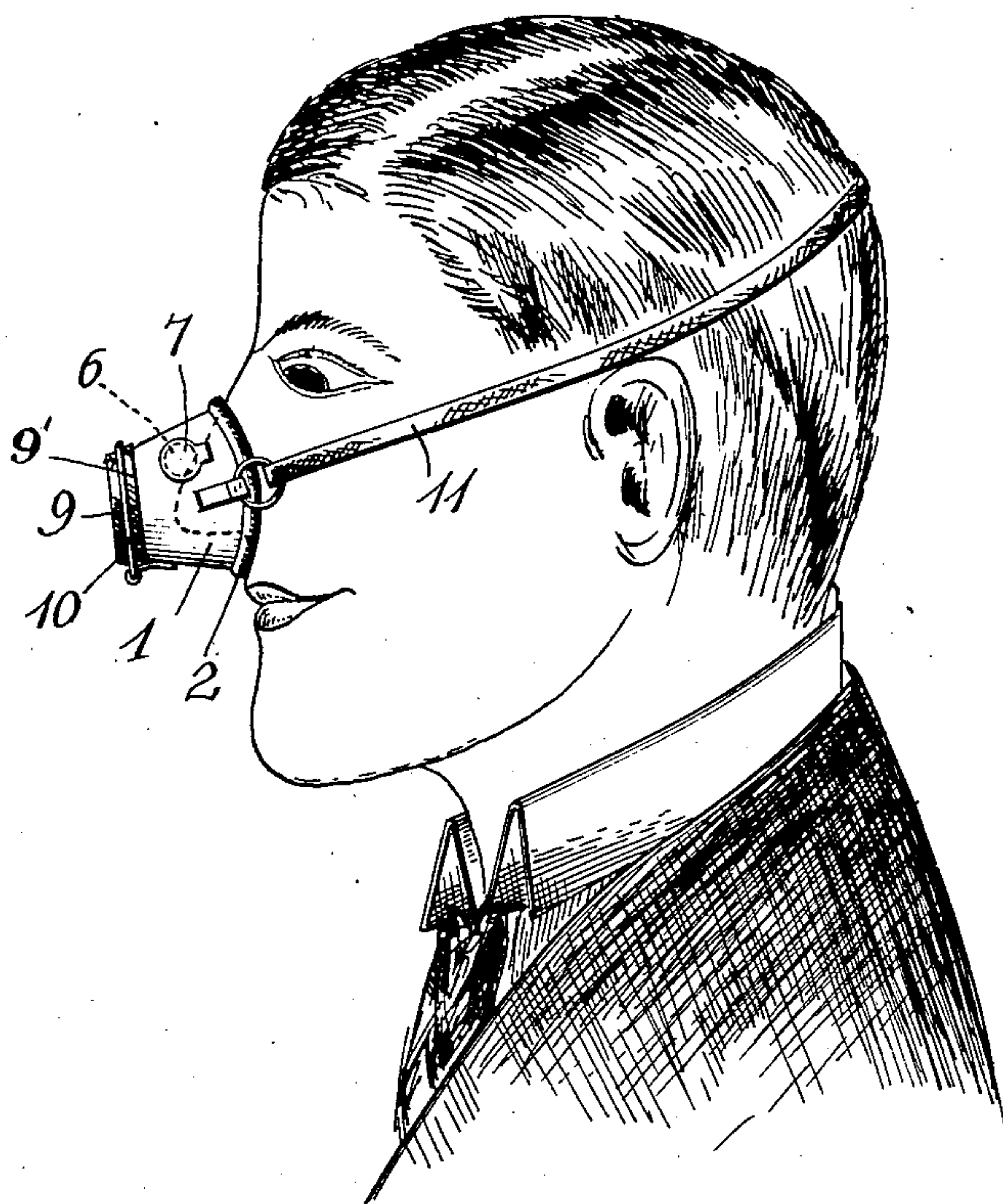


FIG. 2

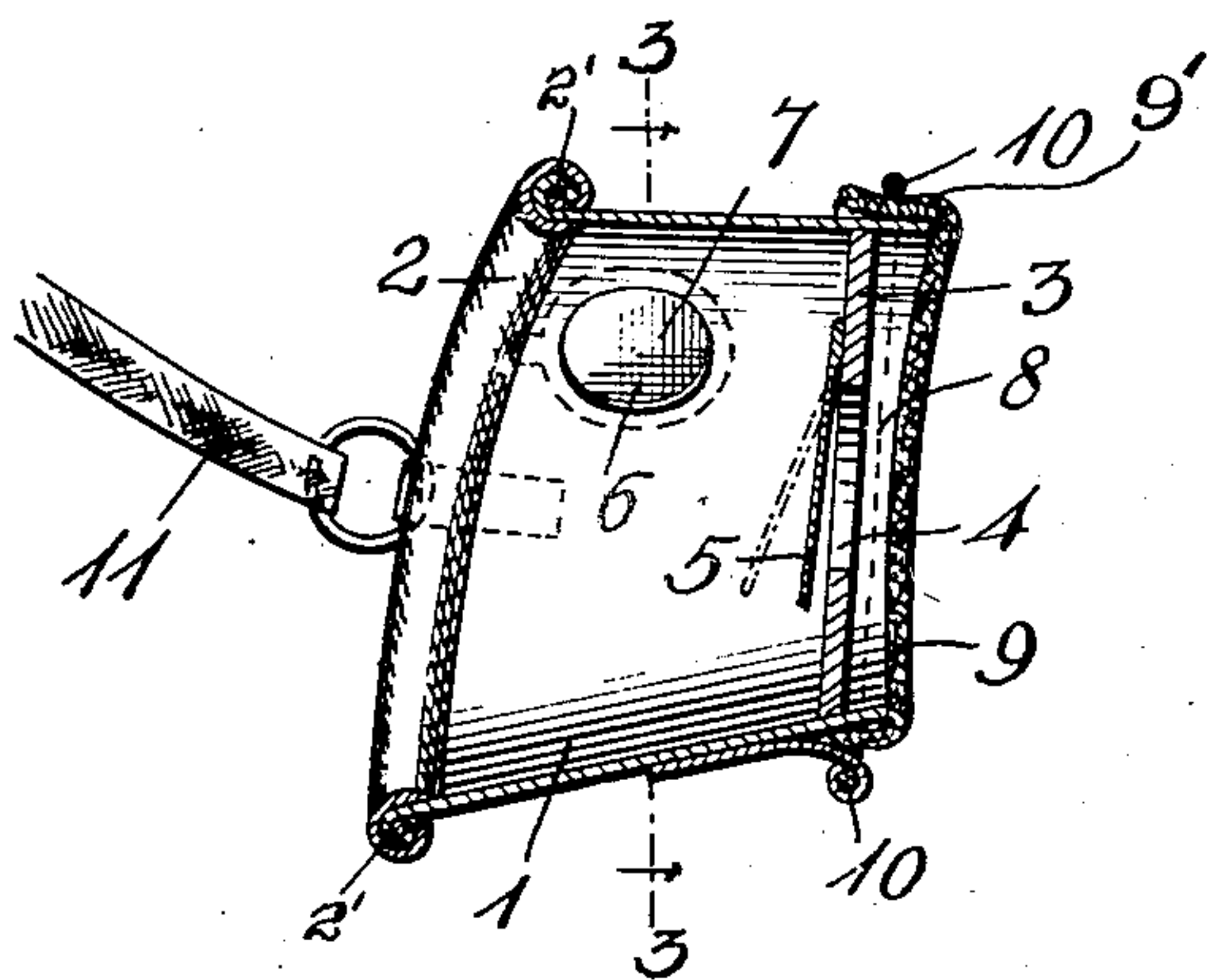
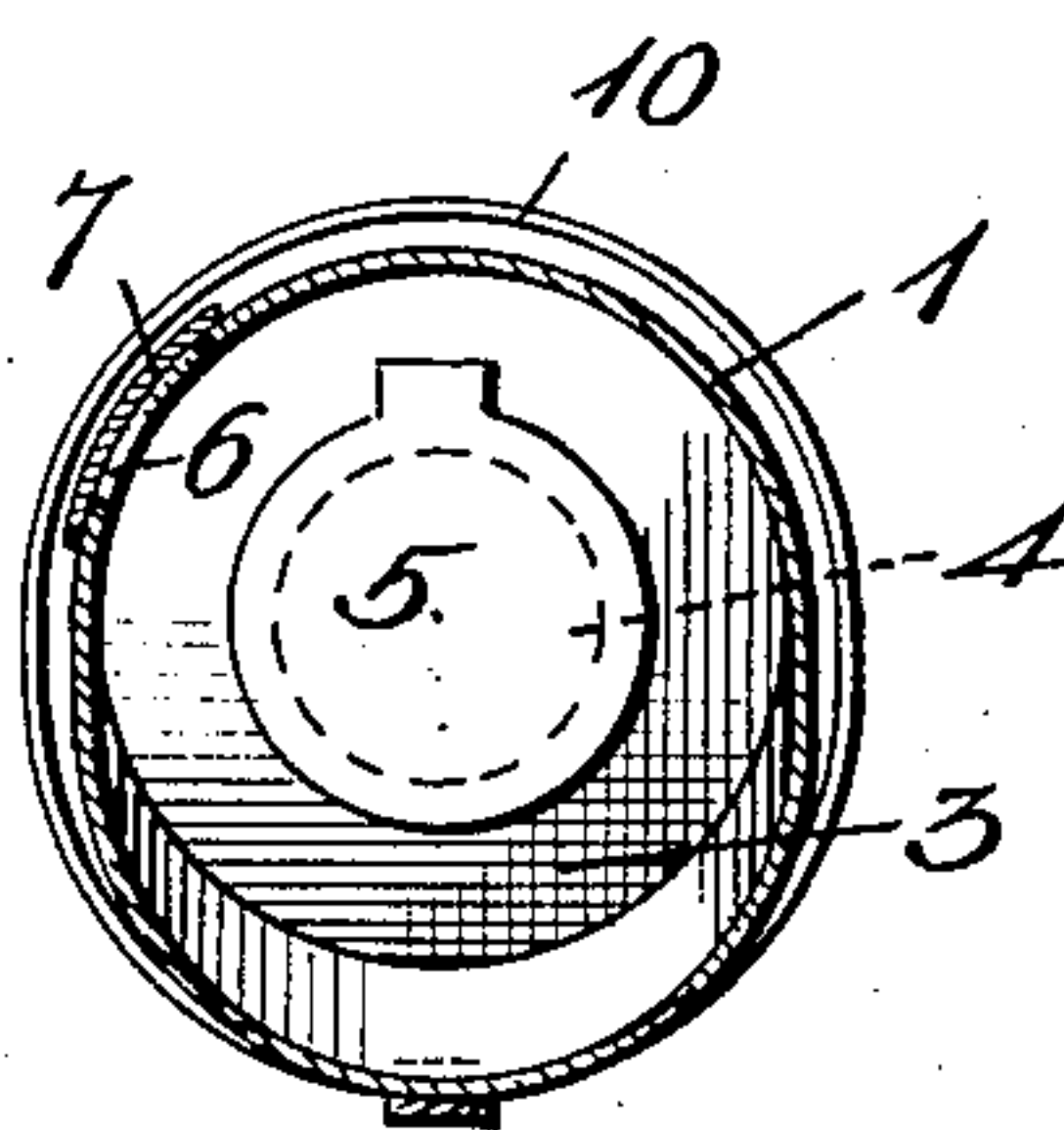


FIG. 3



Witnesses  
S. Clement  
L. O. Hilton

Inventor  
Richard Verner  
by *A. B. Wilson & Co.*  
Attorneys



# UNITED STATES PATENT OFFICE.

RICHARD VENNER, OF BARRE, VERMONT.

RESPIRATOR AND INHALER.

958,569.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed October 17, 1907. Serial No. 397,805.

*To all whom it may concern:*

Be it known that I, RICHARD VENNER, a citizen of the United States, residing at Barre, in the county of Washington and State of Vermont, have invented certain new and useful Improvements in Respirators and Inhalers; and I do 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.

This invention has relation to new and useful improvements in respirators and inhalers, and has for its object the production of a simple and economical device of this character whereby the air may be strained of its unhealthful particles, such as dust and the like, before being taken into the lungs.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a view of the device applied; Fig. 2 is a central longitudinal sectional view taken through the nose piece; and Fig. 3 is a cross sectional view taken through the outwardly opening flap valve.

In the embodiment illustrated a hollow nose member 1 is shown which may be made of suitable metal, and is preferably of circular form at its front end and of somewhat elliptical form at its inner or opposite end, so as to be readily accommodated to the nose, the inner edge of said member being lined with felt 2, or other suitable material. The felt 2 is secured to one end of the device by a bead 2' which clamps the fabric between its curled outer end and the side of the casing. The fabric is then turned over the bead and secured thereto in any suitable manner such as gluing or the like, with its inner edge well within the casing.

A wall 3, having a central transverse valve opening 4 is arranged in the nose-piece a little distance in rear of the extreme front end thereof, an inwardly opening flap valve 5 being arranged at the inner face of the wall in position to close the valve opening 4 thereof. The nose-piece is also provided at a suitable point, preferably at a point near its inner end and top, with a valve

opening 6, adapted to be closed by an outwardly opening flap valve 7, arranged at the outer face or surface of the nose-piece. A piece of cotton or other air straining material 9, of preferably circular form, is arranged over and closes in the front end of the nose-piece, and is preferably held in position by bending its edge over said end of the nose-piece to form an inwardly extending engaging portion 9', and clamping said portion against the outer surface of the nose-piece body by a clamping member 10, preferably in the form of a ring hingedly connected to the nose-piece in position to encircle the front end thereof.

The numeral 11 represents a strap or piece of elastic material fixed at its ends to the outer face or surface, and at the inner end to the nose piece, preferably at points diametrically opposite to encircle the head of the wearer to secure the nose piece in position.

The inwardly opening flap valve opens when the air is inhaled into the lungs, while the outwardly opening flap valve is closed, and when the air is exhaled the inwardly opening flap closes and the outwardly opening flap valve opens and permits the air to escape from the nose piece.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described my invention, I claim:—

A respirator comprising a substantially cylindrical member, a filtering fabric secured over one end thereof, an outwardly curved bead formed on the other end of said member, a cushioning fabric having one edge clamped between the member and the edge of said bead, the other edge of said fabric lying over the bead within the member, and means to secure the device to the person.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RICHARD VENNER.

Witnesses:

JOHN W. GORDON,  
THOMAS G. VENNER.