

No. 715,052.

Patented Dec. 2, 1902.

M. B. GOODWIN.
MOUTH AND NOSE GUARD.

(Application filed June 19, 1902.)

(No Model.)

Fig. 1.

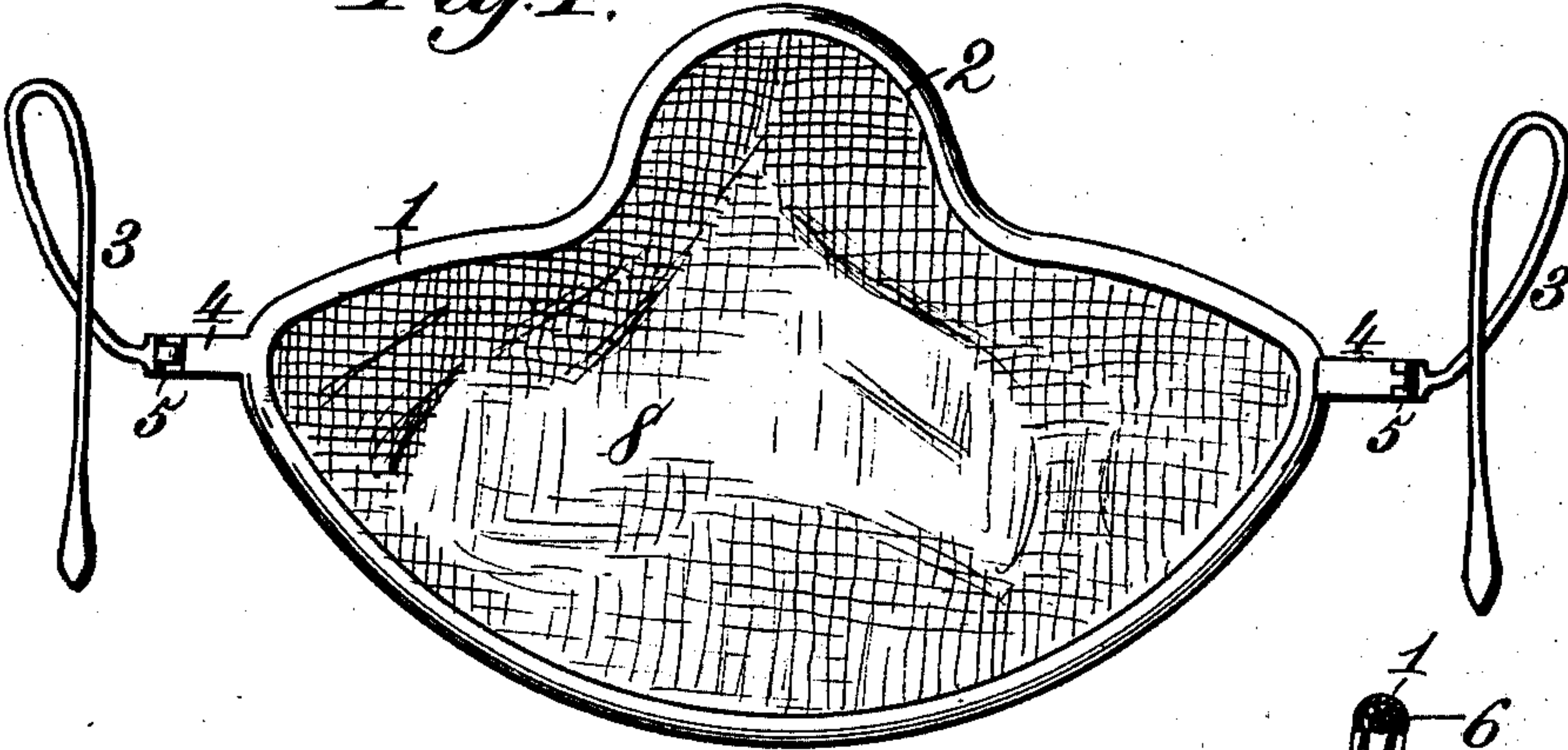


Fig. 2.

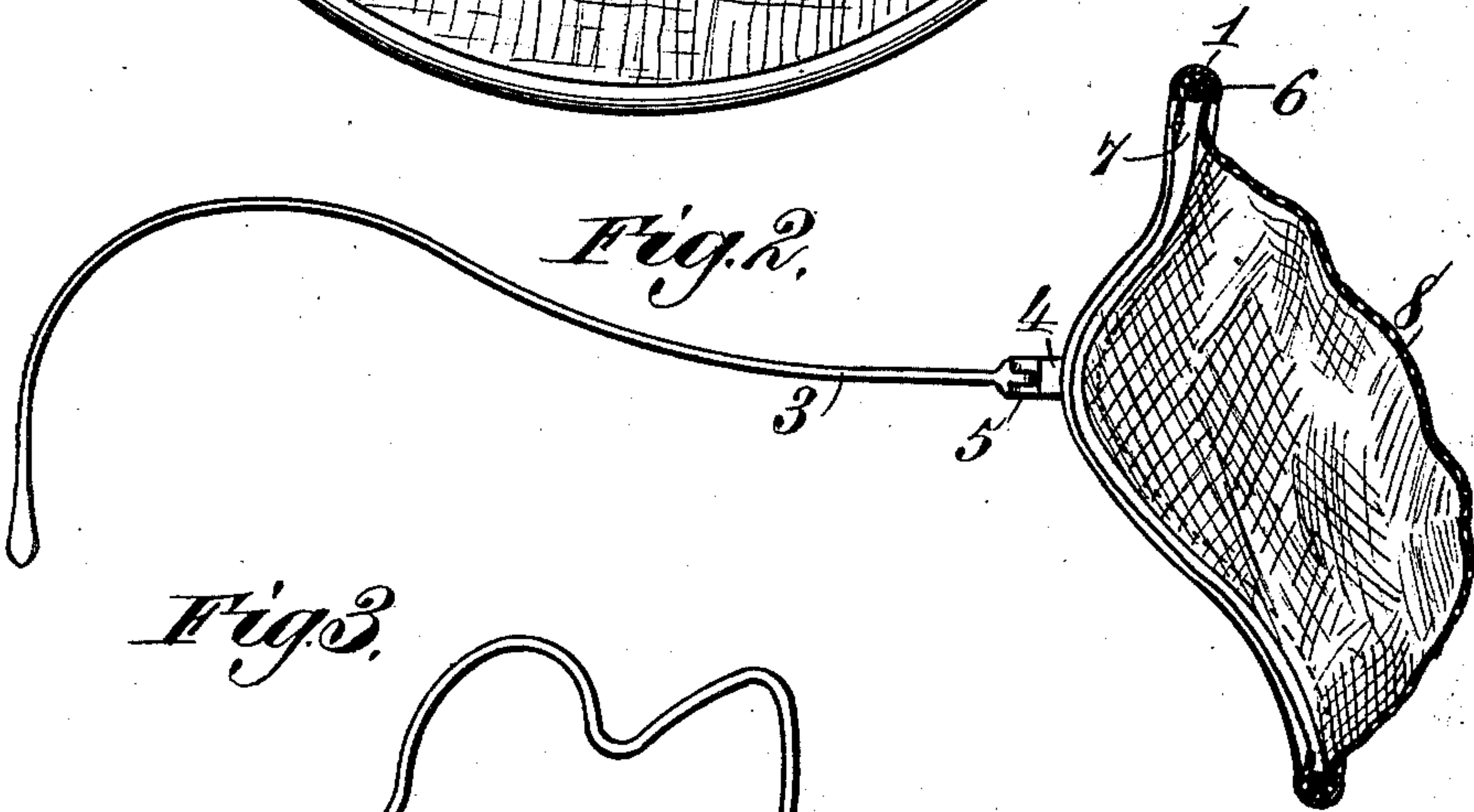


Fig. 3.

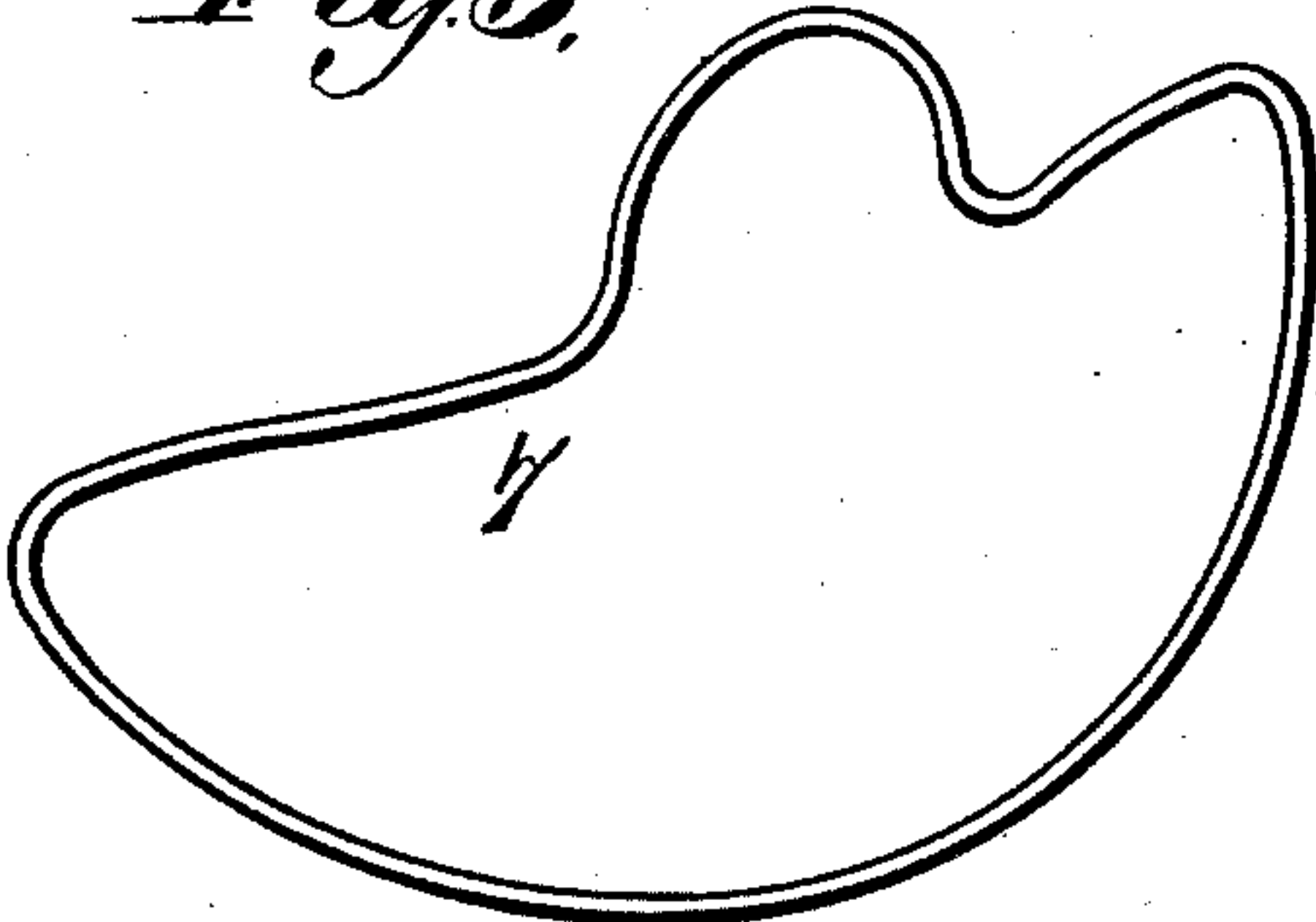


Fig. 5.

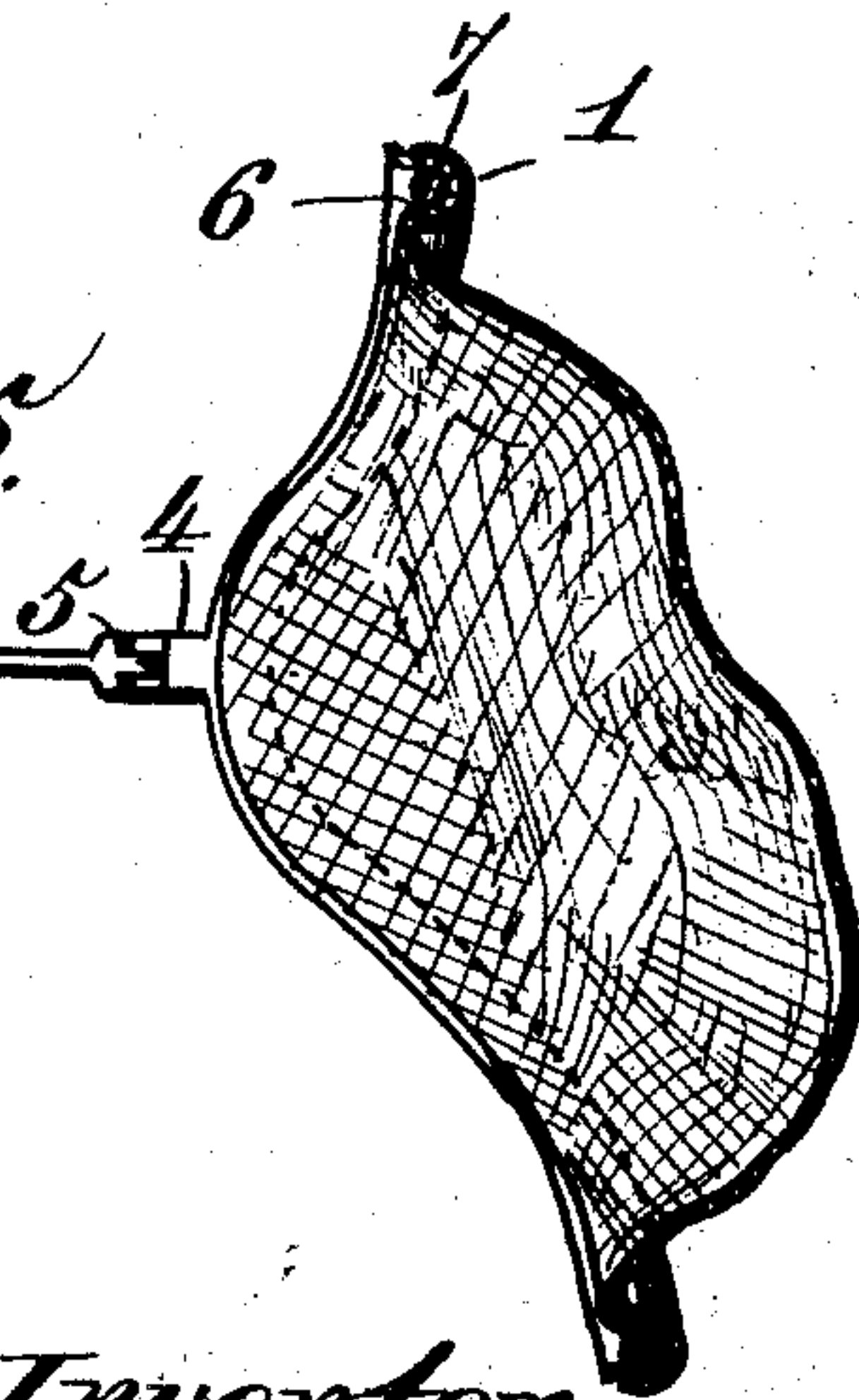
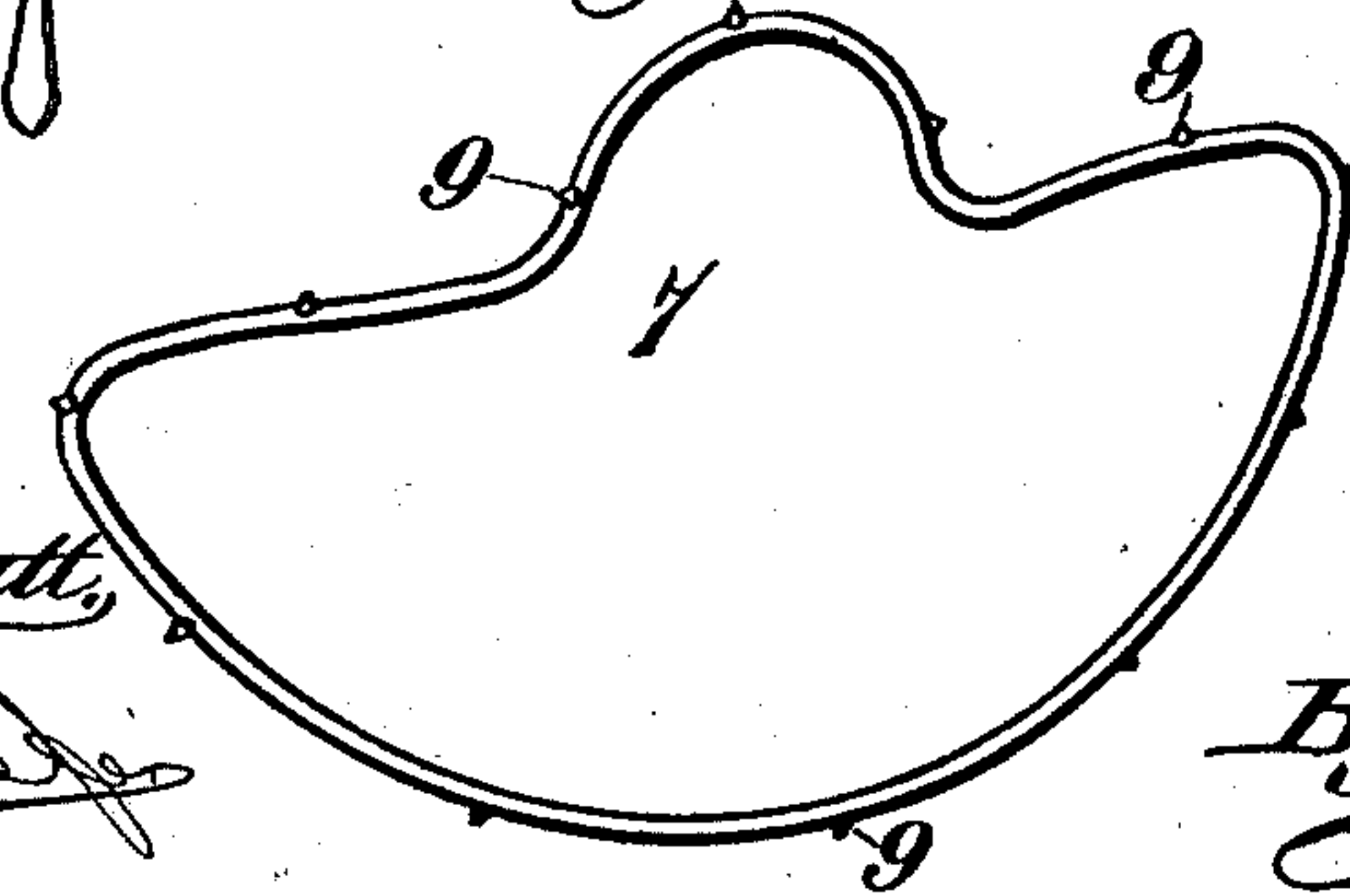


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

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MOUTH AND NOSE GUARD.

SPECIFICATION forming part of Letters Patent No. 715,052, dated December 2, 1902.

Application filed June 19, 1902. Serial No. 112,359. (No model.)

To all whom it may concern:

Be it known that I, MARGARET B. GOODWIN, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented new and useful Improvements in Mouth and Nose Guards, of which the following is a specification.

My invention relates to an improved mouth and nose guard, and has for its object to provide a device which shall be light in weight, simple and durable in construction, which may be readily applied to and removed from the face, and which shall comprise in its construction means for detachably securing to the frame of the guard a piece of open-work fabric, such as lint or cotton, or suitable material to act as a filter or as a carrier for a suitable disinfectant to prevent the entrance of disease germs through the mouth or nose to the throat and lungs.

My invention is primarily intended for use in the latter manner and will find its widest application in its use by the medical fraternity in the treatment of diseases of a contagious nature or by nurses or others caring for those sick of tubercular troubles or any throat or contagious disease or by dentists to prevent the direct inhalation of the breath of the patient. Likewise patients having tubercular throat or any other contagious disease may use the device. Other applications, however, will readily suggest themselves—as, for instance, to prevent the inhalation of dust in mills, grinding establishments, and the like. In such other applications more than one layer of the gauze fabric may be used; but in its use by physicians, surgeons, or dentists, where the fabric is to be saturated with a disinfectant, a single layer of cotton, lint, or similar fabric will ordinarily suffice.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a rear elevation of the device. Fig. 2 is a vertical section of the same. Fig. 3 is a detail view of a wire clamp for holding the fabric in the frame. Fig. 4 is a similar view of a modified form of clamp; and Fig. 5 is a section similar to Fig. 2, showing the channel located in the side of the frame next to the wearer's face.

Referring now to the drawings, 1 indicates a metal frame, substantially elliptical in shape, except centrally of its upper side, where it is provided with a curved raised portion 2, which is adapted to fit over and rest upon the nose. At opposite ends or sides the frame has hinged thereto temples 3 in the manner of spectacles. I wish here to state, however, that I do not wish to be limited to the use of the temples 3 for holding the guard to the face of the wearer, as I may use an elastic cord or a strap, or, in fact, any preferred means for this purpose. In connecting the temples to the device I solder or otherwise secure lugs 4 to the sides of the frame and form a hinge connection between these lugs and the inner ends of the temples, as indicated at 5. The frame 1 may consist of a single strip of metal bent upon itself to the shape described and shown in Fig. 1 and having its ends brazed together at some convenient point—say opposite one of the lugs 4—or said frame may be made of two strips of metal, with their corresponding ends united opposite the lugs 4. Under either form the strip of metal of which the frame is composed is bent or doubled over transversely upon itself to provide a continuous channel 6. As shown by Fig. 2, this channel is disposed around the inner side of the frame. It may, however, if preferred, be disposed around the side of the frame next to the wearer's face, as shown by Fig. 5. This channel is for the purpose of receiving an endless spring-wire clamp 7, having the same contour as the frame and of a size when sprung into the channel 6 to press firmly against the bottom or the side thereof, according as the channel is disposed, as shown by Fig. 2 or as shown by Fig. 5. The purpose of this clamp 7 is to hold the fabric 8 in the frame, the edge of the fabric being pressed between the clamp and frame within the channel 6, as will be understood. In order to render this connection more secure—that is, to prevent the fabric from pulling out, as well as to facilitate arranging the edge of the fabric about the clamp before the latter is sprung into the channel of the frame—I may provide pointed projections or teeth 9 at more or less frequent intervals about the clamp, which teeth will

pierce the fabric and prevent its being pulled from between the clamp and frame, as will be understood. As stated, the fabric 8 is intended to be saturated before use with a suitable disinfectant, and as the frame 1 is of a size to fit well over the nose and mouth and of a shape to lie fairly close to the face in use all air inhaled by the operator will pass through the fabric 8, whereby any germs carried by the inhaled air will be either arrested by the fabric or destroyed or rendered harmless by the disinfectant carried by the fabric. The spring-clamp 7 may be readily removed from the frame to facilitate placing a fresh piece of fabric therein, and this may be done as often as the judgment of the user dictates. Preferably a fresh cloth should be used with each patient.

It will readily be seen that with the use of my device not only will the operator be protected from inhaling disease-germs, but the chances of the transmission by him of such germs by the act of breathing or by carrying them in the mustache or whiskers will be greatly reduced, if not entirely prevented.

Having thus fully described my invention, what I claim as new is—

1. A mouth and nose guard comprising a continuous skeleton frame and a spring-clamp of like contour with, and located entirely within, the frame and adapted to press outward against the wall thereof to clamp the edges of a strip of fabric thereto.

2. A mouth and nose guard comprising a continuous channeled frame, and a spring-clamp of like contour with the frame and adapted to be sprung into the channel and to press outward against the walls thereof to clamp a strip of fabric in the frame.

3. A mouth and nose guard comprising a frame having a channel and a spring-clamp of like contour with the frame and adapted to be sprung into the channel thereof to clamp a strip of fabric in the frame, said clamp being provided with pointed projections for piercing the fabric.

4. A mouth and nose guard comprising a skeleton frame having a continuous channel on its inner side, and a spring-clamp of like contour with the frame and adapted to be sprung into the channel and to press outwardly against the walls thereof to clamp a strip of fabric in the frame.

5. A mouth and nose guard comprising a skeleton frame having a continuous channel, a spring-clamp of like contour with the frame and adapted to be sprung into the channel and to press outwardly against the walls thereof to clamp a strip of fabric into the frame, and means carried by said frame for holding the guard to the face.

6. A mouth and nose guard comprising a continuous frame of substantially elliptical shape having a curved raised portion on one side to receive the nose, and being provided with a continuous channel, a continuous spring-clamp of like contour with the frame adapted to be sprung into said channel for the purpose described, and means carried by said frame to hold the guard to the face.

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

MARGARET B. GOODWIN.

Witnesses:

O. B. NICHOLS,
W. D. WATTS.