

J. F. LAMB.
 ATTACHING MEANS.
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Patented Dec. 31, 1918.

1,289,481.

Fig. 1.

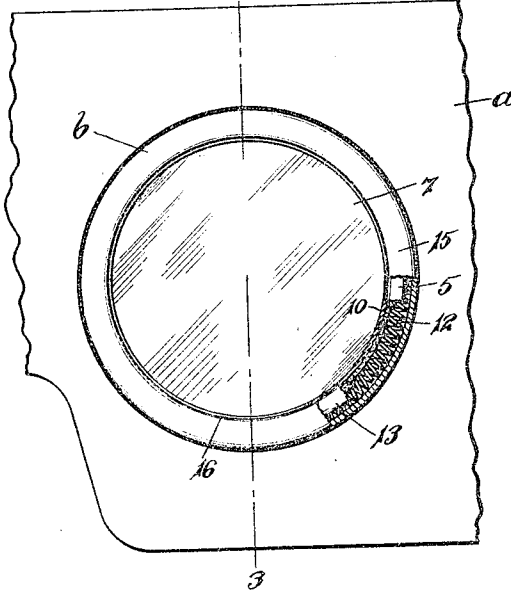


Fig. 2.

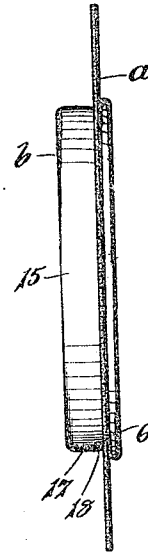
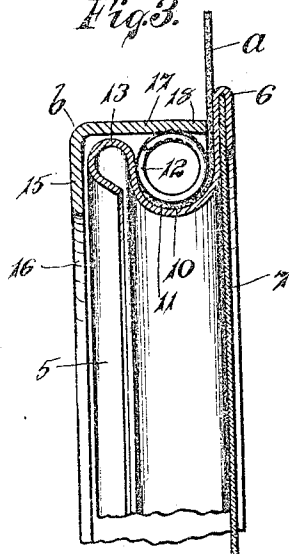


Fig. 3.



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ATTACHING MEANS.

1,289,481.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH F. LAMB, a citizen of the United States, and a resident of New Britain, in the county of Hartford, State of Connecticut, have invented certain new and useful Improvements in an Attaching Means, of which the following is a specification.

This invention relates to a novel means for attaching parts to flexible material such as cloth or rubber and has particular reference to a means for securing parts to close an opening formed in the fabric. An instance of such a use is in the provision of an eye piece or shield in a mask.

In the drawings—

Figure 1 is a front view partly in section of such a shield positioned in a piece of fabric.

Fig. 2 is a side view thereof.

Fig. 3 is a sectional view in the line of 3, 3, of Fig. 1.

Referring to the drawings:—*a*, denotes the fabric and *b*, may denote generally the securing means.

The securing means in detail comprises an annular base 5, provided at its front with a projecting lip 6, which is grooved in its inner edge, as by folding the material over on to itself, to receive the edge of a disk 7, of celluloid or other transparent material, the material being crimped down to grip and hold a disk in place. Back of this lip and of less diameter is an annular groove 10, which is of greater diameter than the aperture in the fabric so that the edges of the aperture in the fabric *a* may be folded in around the annular groove 10, as indicated at 11. A resilient member, such for instance as a spiral spring 12, is then sprung into the groove lying against the fabric as clearly indicated in Fig. 3. The interior diameter of this resilient member is less than the diameter of the bottom of the annular groove, so that due to its own resiliency it will exert some pressure on the fabric and hold it in place. The width of this member, represented in the illustration by the diameter of the spiral turns, is such that the member projects beyond the edge of the rear wall 13 of the annular groove. A clamping ring 15, centrally apertured as at 16, has a projecting flange 17, the front edge of which as at 18, is crimped in slightly or reduced in diameter. As this clamping

ring is forced on over the resilient member 12, it compresses that resilient member distorting it slightly and causing it to bind on the edge of the fabric practically throughout its contact therewith.

It will be seen that all parts of this device can be very readily disassembled but that a very secure grip on the edge of the fabric is obtained eliminating to a great extent any possibility of the accidental displacement of the device.

In accordance with the provisions of the patent statutes I have described the principle of operation of my invention, together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the apparatus shown is only illustrative, and that the invention can be carried out by other means.

I claim as my invention—

1. In a device of the character described the combination with an apertured fabric, of a base provided with an annular groove within which the edge of the fabric is laid, a member located in said groove against said fabric, and means separate from but adapted for compressing said member to cause it to bind the fabric into said groove.

2. In a device of the character described the combination with an apertured fabric, of a base provided with an annular groove in which the edge of the fabric is laid, a resilient member sprung into said groove and lying against said fabric, and means separate from but adapted for compressing said resilient member to cause it to bind against said fabric.

3. In a device of the character described the combination with an apertured fabric, of a base provided with an annular groove in which the edge of the fabric is laid, a resilient member sprung into said groove and lying against said fabric, and a clamping ring engaged with said resilient member.

4. In a device of the character described the combination with an apertured fabric, of a base provided with an annular groove in which the edge of said fabric is laid, a resilient member sprung into said groove and lying against said fabric, and a clamping ring provided with an inwardly inclined flange adapted to fit over and engage said resilient member.

5. In a device of the character described

the combination with an apertured fabric, of a base comprising an annular lip, a rearward extension therefrom annularly grooved the edge of the fabric being laid in said
5 groove, an endless ring formed by a spiral spring sprung into said groove and lying against said fabric, and a centrally aper-
tured clamping ring provided with a rearwardly projecting flange reduced in diameter near its end which engages and com- 10
presses the spirals of said ring to cause it to bind against the edge of the fabric.

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Washington, D. C."