

A. F. F. GILSON.
FASTENING DEVICE.
APPLICATION FILED DEC. 4, 1918.

1,378,946.

Patented May 24, 1921.

Fig. 1.

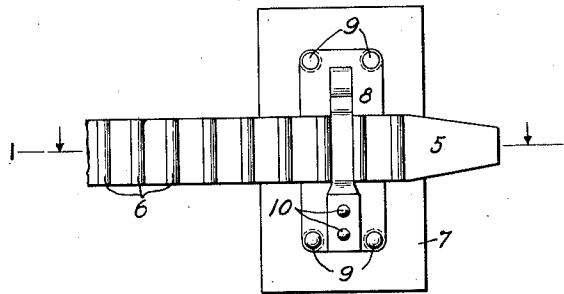


Fig. 2.

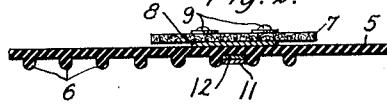
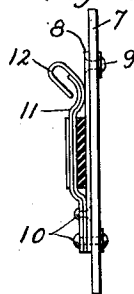


Fig. 3.



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UNITED STATES PATENT OFFICE.

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FASTENING DEVICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT F. F. GILSON, a citizen of the United States, residing at Closter, in the county of Bergen, State of New Jersey, have invented certain new and useful Improvements in Fastening Devices, of which the following is a full, clear, concise, and exact description.

This invention relates in general to fastening devices and more particularly to a two-part fastener especially suitable for use under conditions where ease of adjustment is of prime importance.

The object of the invention is to provide an adjustable fastening device that may be quickly and accurately manipulated and one that will remain in a given position even though subjected to severe conditions.

To accomplish this result and in accordance with a feature of this invention there is provided a two-part fastener comprising a strap member equipped with transverse corrugations and a hook member having a tongue portion adapted to fit between the corrugations of the strap and hold the two members together.

This and other features of the invention may be more clearly understood by referring to the accompanying drawing in which Figure 1 is a view showing the strap member and hook member in engagement; Fig. 2 is a sectional view taken along the line 1-1 of Fig. 1 and looking in the direction of the small arrows; and Fig. 3 is a side view of the arrangement shown in Fig. 1, the strap member in this case being shown in section.

Referring to the drawing, there is shown a strap member 5 provided with a series of transverse corrugations 6-6. This strap member is preferably of rubber or similar material in which case the corrugations are molded integral therewith but when desirable a leather strap having the corrugations stitched in place may be used. Coöperating with the strap member 5 is a hook member comprising a plate 7 of fiber or similar material to which a metal plate 8 is secured by means of the rivets 9-9. Also secured to the metal plate 8 by means of the rivets 10-10 are the spring members 11 and 12 which have their middle portion off-set from plate 8 a distance approximately equal to the thickness of strap 5. These springs are of the same form for the greater part of

their length and act as a double-leaf spring to permit ease of manipulation. The free end of spring 12 is bent back at an angle of 180 degrees as shown in the drawing. It will of course be obvious that a single spring could be employed to perform the same function as the double-leaf spring disclosed. The width of springs 11 and 12 is made approximately equal to the distance between adjacent corrugations on strap 5.

In operation, the plate 7 is securely fastened by riveting, sewing, or other means to one of the members to be fastened, and one end of the strap 5 is secured to the other member. Then to fasten the members together, the strap is drawn taut or until the desired adjustment is secured and it is then forced between the spring 12 and the plate 8 of the hook member. The shape of spring 12 is such as to prevent vertical movement between the two parts and horizontal movement is prevented by means of the corrugations 6-6.

It will be noted that the fastener described is not only simple in construction but is one that can be very easily manipulated to obtain a fine adjustment. This latter feature has been found to be particularly advantageous in connection with the securing of gas masks to aviators' helmets, since for this service it is often necessary to adjust the mask in position when the aviator's hands are incased in heavy gloves or benumbed with cold. For this service a hook member is secured at either side of the helmet and the mask is provided with a pair of strap members likewise secured at either side. The mask is placed in position and the strap members are given the proper tension and then slipped over the hook members between corrugations, thus securing the mask in position and with the desired adjustment.

What is claimed is:—

1. A fastener comprising a strap member having a plurality of resilient corrugations thereon, and a spring member adapted to coöperate therewith, said spring member having a tongue portion perpendicular to the strap member and fitting between adjacent corrugations to hold said members in locked engagement.

2. A fastener comprising a flexible strap member having a plurality of transverse corrugations thereon, and a spring member

including a tongue portion adapted to fit closely between said corrugations to hold said members in engagement in such a manner as to permit their being disengaged by relative transverse movement between said members.

3. A fastener comprising a flexible strap member having a plurality of resilient transverse corrugations thereon, and a spring member having a tongue portion adapted to fit closely between and engage the edges of adjacent corrugations.

4. A fastener comprising a flexible strap member having a plurality of resilient

transverse corrugations thereon, and a hook member including a plate and a spring member offset therefrom to permit the entrance of said strap member, the width of the spring member being approximately equal to the distance between adjacent corrugations of the strap member whereby said members when in locked engagement may be disengaged only by relative transverse movement between the members.

In witness whereof, I hereunto subscribe my name this 22nd day of November A. D. 1918.

ALBERT F. F. GILSON.