

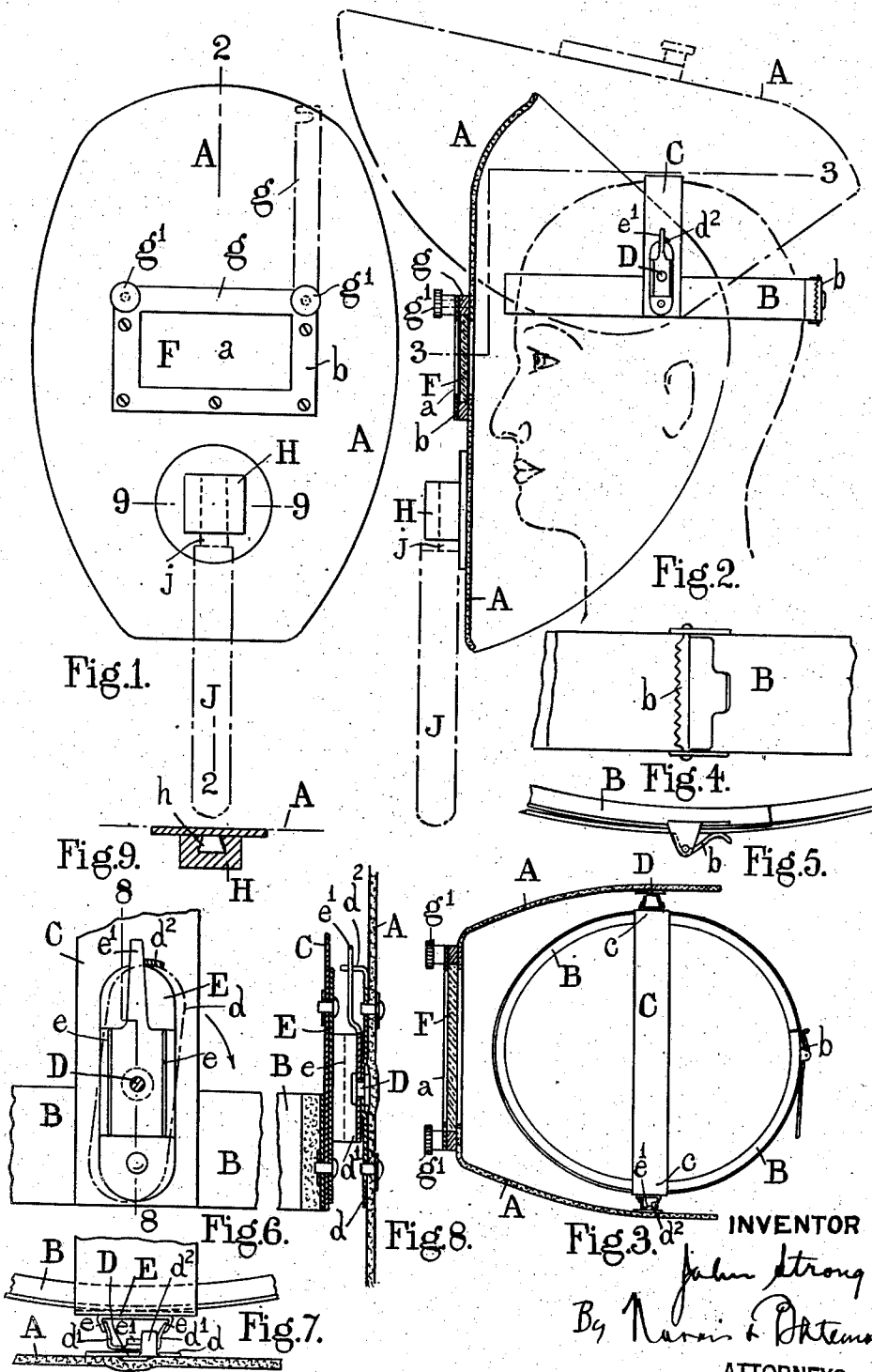
Aug. 12, 1947.

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2,425,690

WELDING HEAD SHIELD OR HELMET

Filed March 14, 1944



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2,425,690

WELDING HEAD SHIELD OR HELMET

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Application March 14, 1944, Serial No. 526,361
In Great Britain April 7, 1943

2 Claims. (Cl. 2-8)

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This invention relates to improvements in welder's head shields or helmets of the kind comprising a mask portion provided with an aperture for the insertion of a protective glass screen, and a head harness comprising an adjustable head band of flexible material adapted to encircle and rest on the head of the wearer, and a band adapted to pass over the head of the wearer, and the object of the invention is to provide novel and improved means between the mask and head harness for supporting the mask in relation to the head band to allow the mask to be moved away from the face of the wearer without completely removing it from the head.

The invention is illustrated in and will be described with reference to the accompanying drawings in which one embodiment is shown. In these drawings:

Fig. 1 is a front view of the helmet.

Fig. 2 is a section on line 2-2, Fig. 1.

Fig. 3 is a section on line 3-3, Fig. 2.

Fig. 4 is an elevation of a portion of the head band showing the adjusting means thereof.

Fig. 5 is a plan of Fig. 4.

Fig. 6 is a side elevation of the pivoted means supporting the mask in relation to the head band.

Fig. 7 is a plan of Fig. 6.

Fig. 8 is a section on line 8-8, Fig. 6.

Fig. 9 is a section on line 9-9, Fig. 1.

The mask portion A of the helmet is pressed to the desired shape from a single sheet of felt-like or other suitable material so that it forms an integral whole without rivets or other means such as are necessary when it is built up of a number of separate parts.

A head band B adapted to encircle the head of the wearer has affixed to it the ends c of a second band C adapted to pass over and rest on the crown of the head of the wearer. The band B is adjustable in size by means of the pivoted serrated clip b attached near one end of the band, the other end of the band passing between the clip b and the end to which the clip is attached as shown in Figs. 4 and 5. The effective size of the band B can thus be adjusted and after adjustment held by the clip b.

In order to allow the mask A to be turned up from the face of the wearer, i. e. into the position shown in dotted lines in Fig. 2, two pivots D are secured to the inner surface of the mask A one at one side of the mask and the other at the other side thereof. Each pivot D is preferably carried by a thin flat plate d secured to the surface of the mask. A channel shaped member d¹ (see Figs.

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6 to 8) is mounted on each pivot D so that it can rotate thereon.

A plate E with two parallel flanges e is secured to each end of the band C on the outer surface thereof, the distance between the flanges e being such that the legs of the channel shaped member d¹ can slide between them and by reason of the inherent resiliency of these legs be held when in position therein. The head band B and the band C are thus secured to the mask by sliding the flanges e of the plate E over the legs of the channel shaped member d¹, the assembled position being shown in Figs. 6, 7 and 8. When the parts have been assembled the pivots D carried by the mask A can rotate in the channel shaped member d¹ thus allowing the mask to be turned up whilst on the head of the wearer into the position shown in dotted lines in Fig. 2 thus allowing the wearer to raise the mask clean of his face without removing the whole helmet from his head.

To prevent any tendency of the mask A to rotate beyond the normal working position as shown in Fig. 2 and so come into contact with the face of the wearer one of the plates d is formed with a stop d² which engages a projection e¹ on the corresponding flanged member d' when the mask is in its normal position and prevents the latter from falling forward if the pivot pins D are a loose fit in the channel shaped members d¹.

The aperture a in the mask A for the glass screen F is surrounded by a rectangular frame b of compressed fibre or like material in front of the mask. The top horizontal member g of the frame is loose and adapted to be secured to the side members by screws g¹ one at each end. The glass screen F or screens is or are inserted behind the frame through the top thereof and are held in position by tightening up the screws g¹ securing the top member g to the sides of the frame. The frame b is riveted or otherwise securely fixed to the mask A so that no light can pass between it and the mask.

The mask A may be provided with means to enable it to be used, when required, as a hand held shield instead of as a helmet. As shown in Figs. 1 and 2 and 9, such means may comprise a socket member H affixed to the front of the mask A, the socket member H having a vertical hole h preferably of dovetail shape to receive a correspondingly shaped end j of a handle J. Alternatively the socket member may be secured inside the mask. When it is desired to use the helmet as a hand held shield, the bands B and C are prefer-

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ably removed from the mask and the end *j* of the handle *J* inserted into the hole *h* in the socket member *H*.

I claim:

1. A welder's helmet comprising the combination with a mask portion, of a head harness including an adjustable head band and a second band secured at its ends to the head band and adapted to fit over the crown of the head of the wearer, and means at each side of the mask portion for removably and pivotally attaching the head harness thereto, each of such attaching means comprising a plate secured to the mask portion, a pivot pin projecting therefrom and a channel shaped member having resilient legs rotatably mounted on the pivot pin, a plate secured to the head harness and having two parallel flanges spaced at such a distance apart that the channel shaped member mounted on said pin can slide between them and be held by reason of the inherent resiliency of the legs thereof.

2. A welder's helmet comprising the combination with a mask portion, of a head harness including an adjustable head band and a second band secured at its ends to the head band and adapted to fit over the crown of the head of the wearer, means at each side of the mask portion

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for pivotally attaching the head harness thereto, each of such attaching means comprising a plate secured to the mask portion, a pivot pin projecting therefrom and a channel shaped member having resilient legs rotatably mounted on the pivot pin, a plate secured to the head harness and having two parallel flanges spaced at such a distance apart that the channel shaped member mounted on said pivot pin can slide between them and be held by reason of the inherent resiliency of the legs thereof, and cooperating stop elements carried by said first plate and said channel shaped member to prevent the mask portion from falling forward beyond a vertical position in front of the face of the wearer.

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