

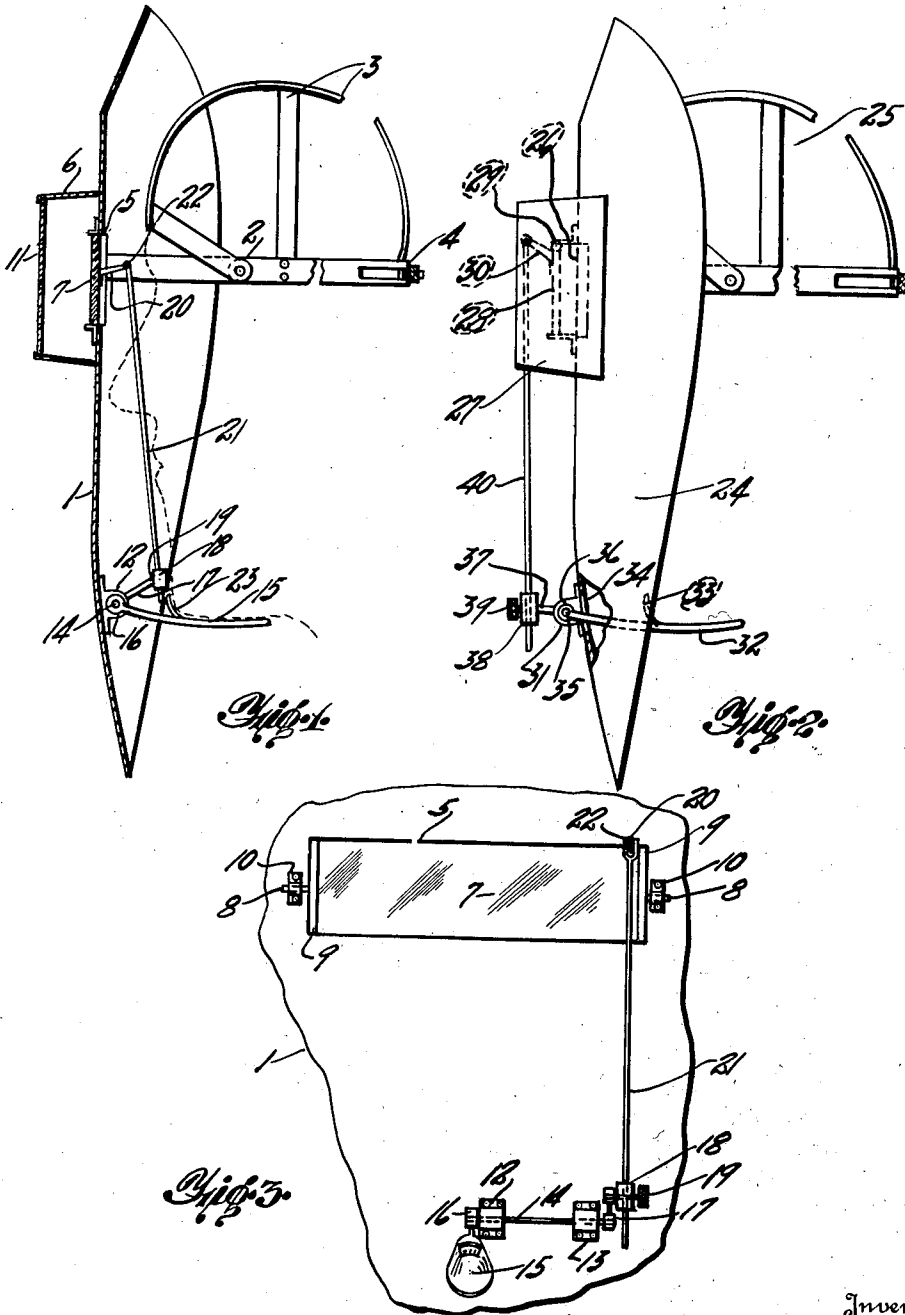
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WELDING MASK

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WELDING MASK

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This invention relates to improvements in masks for welders.

The main object of the invention is to provide a means whereby the lens may be opened by movement of the wearer's chin obviating the necessity of throwing the entire mask back from the face to obtain a clearer view of the work when such is necessary or when the point being welded is above the welder's head.

Another object is the provision of a mask of the foregoing characteristics which will be simple and durable in construction and efficient and convenient in operation.

The foregoing and other objects together with means whereby the same may be carried into effect will best be understood from the following description of certain preferred embodiments of the invention taken in connection with the accompanying drawing wherein:

Figure 1 is a vertical section through my invention in position for use.

Figure 2 is a side view, partially broken away and in section, of a modified form of the invention.

Figure 3 is an enlarged rear view of the embodiment shown in Figure 1, parts thereof being broken away.

Referring now more particularly to the drawing the reference numeral 1 denotes a mask plate or face of conventional form which is pivotally attached at 2 to a head frame 3 which is made adjustable at 4 as will be understood. A rectangular sight aperture 5 is provided in the plate 1 and a hood 6 is extended outwardly from the plate 1 around this aperture, the said hood being substantially larger than the said aperture as shown. A lens 7 is provided with stub shafts 8 extended medially from the side pieces 9 affixed to the ends of the lens and these shafts 8 are journaled in bearings 10 upon the margins of the aperture 5 as shown in Figure 3. This lens is formed of glass of suitable color and translucency to prevent injury to the eyes of the wearer from the welding flame yet at the same time allow him to see the flame while welding. A clear glass protective lens 11 is mounted in the forward portion of the hood 6 in order to protect the relatively more expen-

sive lens 7 from sparks and the like. Secured to the rear side of the plate 1 below the aperture 5 are the bearings 12 and 13 through which is journaled the shaft 14, the said bearings 12 and 13 being both secured to one side of the vertical axis of the mask plate so that the chin plate 15 which is secured at 16 to the inner end of the shaft 14 will be in position to engage the chin of the wearer as shown in Figure 1. An arm 17 is secured to the other or outer end of the shaft 14 and a swiveled adjusting sleeve 18 with a set screw 19 is provided upon the end of this arm. An arm 20 is secured to one of the side pieces 9 upon the lens 7 and a rod 21 is pivoted at 22 to this arm, the other end of the said rod being adjustably secured in the sleeve 18 by means of the set screw 19.

In the use and operation of the mask it is worn upon the head in the usual manner with the chin resting upon the chin plate 15, a tongue 23 being provided to prevent the lower portion of the mask from swinging inward as will be understood. The position of the chin plate 15 may be varied by means of the adjusting sleeve 18 and set screw 19.

When it is desired to open the lens 7 to afford a clear view of the work being done the wearer lowers his chin which action rotates the shaft 14 and arm 17 pulling downward on the rod 21 and opening the lens by means of the arm 20. As the wearer raises his chin to its normal position the lens assumes its closed position and if found to be necessary a small spring may be incorporated at any convenient place in the operating mechanism to aid in returning the lens to the closed position. Since the lens when open swings to a horizontal position medially of the aperture 5 the wearer may obtain a clear view of work above his eye level without a tiresome tilting of the head or raising the mask. Also it will be readily appreciated that the lens may be opened only slightly when the welding tools are in operation so that the operator may obtain a momentary clear glimpse of the work without injury to his eyes.

The embodiment shown in Figure 2 comprises the mask plate 24, the head harness 25 and the sight aperture 26 with its hood 27 all

substantially the same as set forth for the first embodiment. The lens 28 is pivoted at 29 to the top of the sight aperture 26 and has its arm 30 directed outwardly or forwardly as shown. The bearings 31 are secured to the front face of the mask plate 24 and the chin plate 32 with its tongue 33 passes through an aperture 34 in the plate 24, the said chin plate being secured at 35 to the shaft 36 upon the opposite end of which is the outwardly directed arm 37 with its adjusting sleeve sleeve 38 and set screw 39. The rod 40 is pivoted at its upper end to the arm 30 on the lens and is adjustably secured at its lower end in the sleeve 38. In this embodiment the various operating elements are arranged on the front of the mask and the operation will be obvious.

While I have herein set forth certain preferred embodiments of my invention it is understood that I may vary from the same in minor structural details not departing from the spirit of the invention and within the scope of the appended claims.

I claim:

1. In a welder's mask, a mask plate having a slight aperture, a lens having stub shafts extended from a medial point of its sides and pivotally engaging the sides of the said sight aperture at a medial point thereof, a rearwardly directed arm secured to the lens, bearings secured to the mask plate below the said sight aperture, a shaft journaled in the said bearings, a rearwardly directed chin plate secured to the said shaft, an arm secured to the said shaft and a rod connecting the said arm on the lens and the arm on the shaft.

2. In a welder's mask, an elongated face plate having a transverse sight aperture, a protective lens pivotally mounted in the sight aperture, an arm extended at an end of the lens, bearings arranged upon the lower portion of the face plate and to one side of the major axis thereof, a shaft journaled in said bearings, a chin plate secured to the inner end of said shaft, an arm secured to the outer end of the said shaft and a rod extended between the said lens arm and shaft arm.

In testimony whereof I affix my signature.

WALTER E. JOHNSTON.