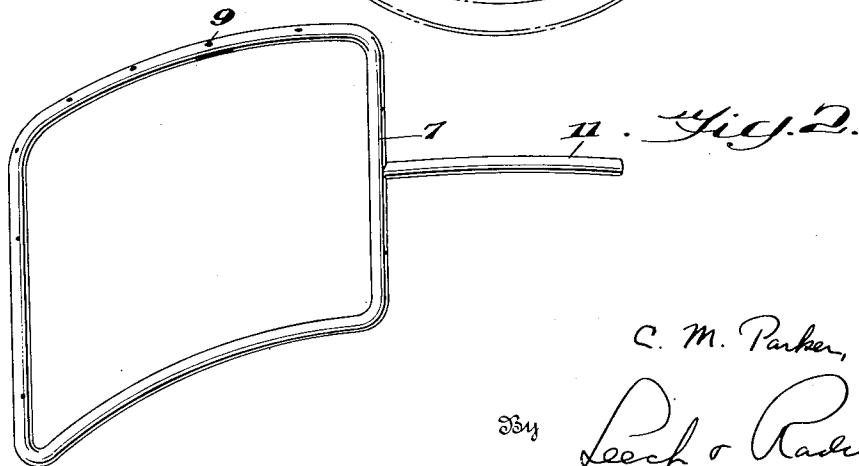
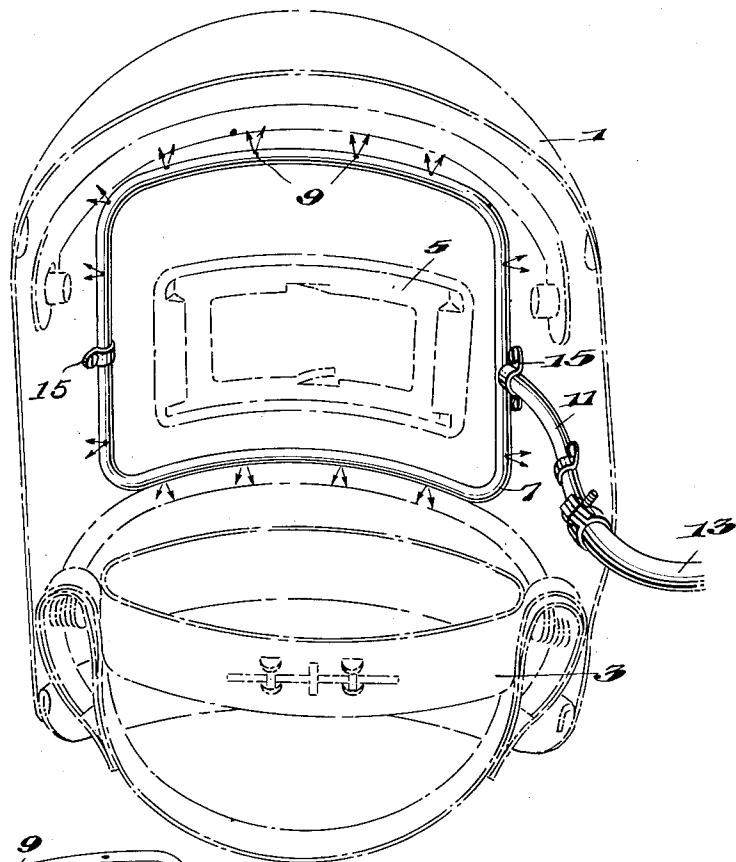


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WELDING MASK ATTACHMENT
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Fig. 1.



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WELDING MASK ATTACHMENT

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5 Claims. (Cl. 2—8)

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This invention relates to an attachment for use with welders' masks or hoods of the type wherein a fixed or pivoted face protecting shield is mounted in such a manner as to cover the operator's face while operating arc or flame welding equipment. More particularly, the invention pertains to an attachment which may be readily affixed to a conventional fixed or pivoted welder's hood whereby the mask or hood is ventilated and keeps the operator's face cool and thus permits him to work in restricted quarters such as the double bottom of a ship for comparatively long periods of time. In ship construction there is a large amount of welding necessary which must be done in inaccessible places that are difficult to ventilate, and consequently the heat in such restricted quarters and the noxious fumes created by the welding equipment prevents the welder from working except for a few minutes at a time when he must leave the space and go into the open air. With the attachment hereinafter described a conventional welder's mask or hood may be readily but economically ventilated and cooled and at the same time the interior of the mask is swept with fresh air without passing the air currents across the eyes and nose of the operator and consequently permits him to work over substantially long periods of time. It has been broadly proposed in the prior art to pipe air to a welder's mask so that the welder will have sufficient fresh air to breathe and remove any noxious fumes which may seep into the interior of the mask, but all of these prior attempts have been objectionable because they create windburn on the operator's head and face and in every instance these prior art devices are not designed to sweep the interior of the mask and create an air barrier against the ingress of smoke or noxious fumes thereto.

The salient feature of the present invention is the attachment to the interior of a conventional welder's mask or hood of an air supply pipe which is positioned in spaced relation around the sight opening provided in the mask and to so position the outlet jets or nozzles from this pipe that the air discharged therefrom is projected in an outwardly direction, that is, away from the operator's face, and in the plane of the front panel of the mask. This arrangement insures that an air barrier is created around the side edges of the mask which prevents noxious fumes and smoke from seeping therein and at the same time the air currents generated cool the welder's face and head while not ex-

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posing him to an air blast which would create windburn on his face.

In the drawings:

Fig. 1 shows an inverted representation of a conventional welder's hood of the type which is supported by a headband and in which the entire front protective panel may be pivoted upwardly when the mask is not in use and showing in solid lines the method of attachment and relation of the air jets which form the salient feature of this invention, and

Fig. 2 shows the preferred form of air discharge tube which is readily attached to a conventional welder's mask.

Specifically, numeral 1 denotes a conventional type of welder's mask held in position on the welding head by a headband 3 and adapted to be positioned in front of the welder's face while working and to be raised on side pivots above the face and over the wearer's head when not in working position. All type of welders' masks, whether they are removable as described or are fixed in front of the face, are provided with a transverse window or sight opening 5 which is usually provided with a light filter glass to prevent the dangerous ultra violet radiations created by the welding arc or flame from harming the welder's eyes. All of this is conventional and forms part of the prior art, and no claim is made thereto.

The present improvement relates particularly to a means of ventilating and cooling a welder's mask as described, and more specifically to a simple device for use with a welder's mask which will prevent noxious fumes from contacting the welder's eyes and nose. This improvement consists in surrounding the window or sight opening of the mask with a perforated air pipe 7 in which the lengthwise spaced perforations or discharge openings 9 in the pipe are made on the outer side thereof away from the sight opening 5. As shown in the drawings, the pipe 7 preferably takes the form of a rectangular frame of somewhat larger perimeter than the window 5 and is connected by side conduit 11 to an air supply tube 13. The pipe frame 7 may be attached within the mask 1 around the sight opening 5 in any suitable manner, as for instance, by clips 15 screwed to the inner face of the mask.

The air supply hose 13 is attached to a suitable source of compressed air and the air therefrom is preferably passed through an air cleaner or filter and reducing valve, not shown, so that the

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air is cleansed and its volume may be controlled by the operator.

In use, with the mask in place over the welder's face, air is introduced to the perforated frame pipe 7 through flexible hose 13 at a desired pressure and the air is discharged through the series of openings 9 around the entire pipe frame in an outwardly direction, as indicated. This arrangement of air openings permits the air to sweep the hood toward the outer edges of the mask so that the air does not cross the eyes or major portion of the face. The air breathed by the welder comes from this sweeping air without direct contact with his face. Furthermore, any noxious fumes seeping into the hood or mask are prevented from contacting the eyes or nose of the wearer due to the arrangement of the openings 9 forming an outwardly moving air barrier projecting outwardly from the region of the sight opening 5, and consequently this prevents any but a very heavy concentration of fumes or smoke from entering the mask and hindering the wearer.

I claim:

1. An attachment for use with welders' hoods of the type having a face-covering portion with a sight opening therethrough, the said attachment comprising a perforated air supply pipe adapted to be connected to a source of air under pressure positioned around the sight opening within the face-covering portion of the hood, the said perforations in the air supply pipe being positioned in the outer peripheral surface thereof and constructed for discharging air in an outward direction around the sight opening.

2. In a hood, a sight window in the front part of the hood, an air-supply line which leads into the hood from a source of air under pressure, and an air-dispersal tube which is connected with the air-supply line and is attached to the inside of the

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hood in a position in which it extends about the sight window, said tube being provided with a plurality of fine air-discharging openings which are directed away from the sight window.

3. In a hood, a face-covering panel having a sight opening therethrough, and a continuous air pipe adapted to be connected to a source of air under pressure and framing the sight opening of the face-covering panel on the inside thereof, said pipe being provided throughout its length with a plurality of spaced perforations disposed to discharge air away from the sight opening.

4. In a hood, a face-covering panel having a sight opening therethrough, and an air pipe adapted to be connected to a source of air and extending about the sight opening in spaced relation to the perimeter thereof inside the hood, said air pipe being provided with a plurality of perforations spaced along its length to project jets of air outwardly with respect to the perimeter of the sight opening.

5. In a hood, a sight window in the front part of the hood, an air-dispersal conduit which is associated with the hood and is adapted for communication with an air-supply line, said air-dispersal conduit extending about the sight window within the hood and being provided with a plurality of air-discharging openings, which openings are directed away from the sight window.

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