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A. V. MOTSINGER

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RIFLEMAN'S GAS MASK

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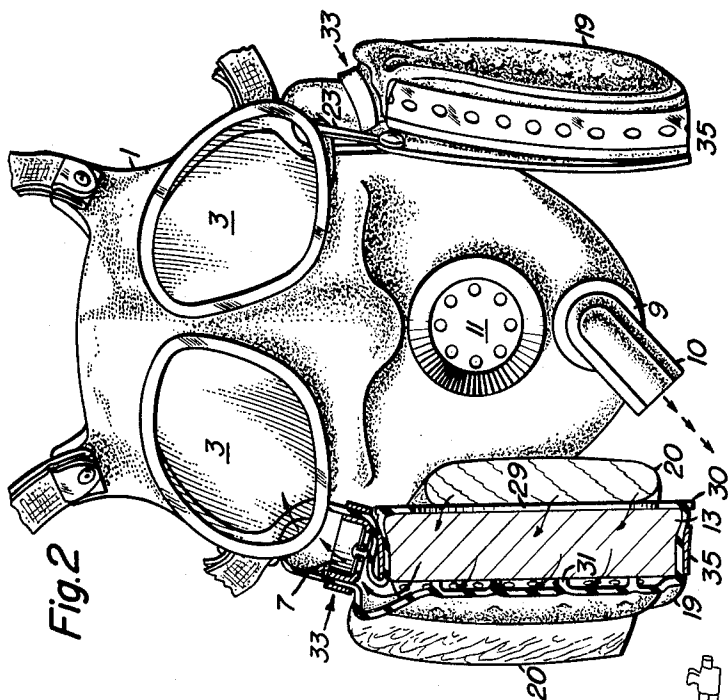


Fig. 2

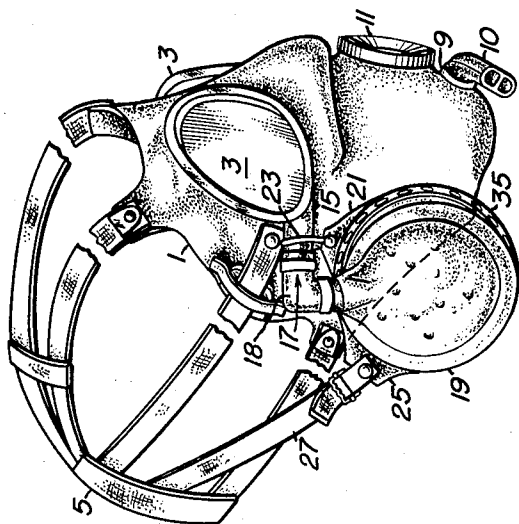


Fig. 1

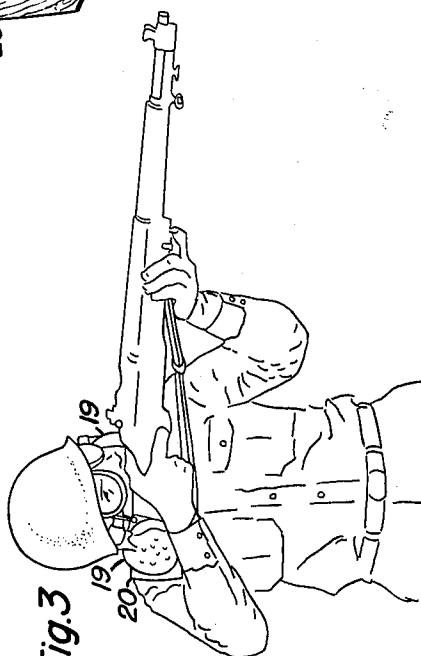


Fig. 3

INVENTOR
Armard V. Motsinger

BY *Edward J. Kelly*

ATTORNEY

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RIFLEMAN'S GAS MASK

Armard V. Motsinger, Aberdeen, Md., assignor to the
United States of America as represented by the Secre-
tary of the Army

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4 Claims. (Cl. 128—141)

The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment to me of any royalty thereon.

This invention relates to improvements in protective or gas masks. It has for its object the provision of means of suspending dual canisters from a facepiece so that they can be raised to straddle a rifle stock and not interfere with sighting a rifle as have all previous side canisters to some extent. A further object of this invention is to provide canisters which are carried with a low center of gravity with respect to the head. Another object of this invention is to provide a protective mask wherein the dual canisters are supported in place so that they do not swing with motion of the body so as to displace the facepiece or cause discomfort to the wearer.

A still further object of this invention is to provide a protective mask which can be used by either a right handed or left handed rifleman with no changes to the mask. A final object of this invention is to provide a rifleman with a protective mask which can be used when the rifle is fired and which insures accuracy since the rifle is held in its normal position close to the cheek of the rifleman.

With the foregoing in view, the invention consists in certain novel features of construction and arrangement of parts as will be more fully disclosed in connection with the accompanying drawing.

In the drawing:

FIGURE 1 is a side view of the protective mask embodying my invention.

FIGURE 2 is an enlarged front view of the protective mask, showing a vertical section through the canister and a cross section of the rifle stock.

FIGURE 3 is a diagrammatic representation of the invention in use.

In the drawings the numeral 1 designates a facepiece which may be any approved type or form of construction and which is provided with the conventional type eyepieces, head harness 5, inlet valve 7, outlet valve 9, having cover 10, speech diaphragm 11, and dual canisters 13. The canisters 13 which consist of the usual casing, filter elements and filter retainers may be of a type similar to those which are specified in the patent to Gross, 2,671,528, or in the patent to Monro et al., 1,789,262 and dual canisters are used to balance the weight comfortably on the head. However, in this instance, the components for the present canisters should be made somewhat thinner than those of the latter since this invention utilizes dual canisters which more than suffice or equal the filtering capacity of the former single canister generally utilized with a mask. It is therefore not required that the canisters of the instant invention be as deep or thick as in the latter case. The facepiece 1 has extended from the lower portion of the eyepieces, integral inlet tubes 15 of which only one is shown. These tubes are in communication with the eyepieces 3 inside of the facepiece 1.

The inlet tubes are so formed that they will at all times tend to be close to the sides of the facepiece or cheeks.

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Each inlet tube has fastened at its end a right angled tube 18 and a canister retainer 19 designed to straddle the rifle stock 20. The canister retainers are preferably made of the same resilient material as the facepiece 1, and substantially of the same general configuration as the canisters 13.

The canister retainers are fastened to the inlet tubes 15 by conventional binding wire and tape 17. This binding is illustrated by Monro et al. in Patent #2,586,851. Each canister retainer has an ear 21 integral with the base 30 of the retainer 19 having a supporting loop strap 23, an ear 25 integral with the base 30 having a retaining adjustable elastic web strap 27, an opening 29 in the inner wall, a plurality of rubber studs 31, and the aforementioned inlet valve 7, the latter being firmly secured in the neck portion of the canister retainer at 33. The canisters 13 are firmly secured inside of the retainers 19 by means of metal clamps 35. The studs 31 serve the purpose of maintaining the outer wall of the canister retainers in raised position for the passage of inhaled air. The canister retainers are supported and held close to the cheeks of the rifleman by means of the loop straps 23 which are looped over the inlet tubes 15 and then fastened by means of conventional type fasteners onto the ears 21, and by means of the adjustable elastic web straps 27 located on the ears 25 and attached onto the head harness 5.

In the use of the protective mask, air enters the canister 13 through the opening 29. The air is drawn through the canister as shown by the arrows in FIG. 2 and enters the stud created space between the canister's surface and the outer wall of the canister retainer. The air continues on through the inlet valve 7, through the inlet tube 15 into the facepiece 1 where the air is then deflected over the eyepieces 3. The air is inhaled, then exhaled as shown by the arrows, through the outlet valve 9 and outlet valve cover 10 which provides dead space to prevent inward leakage of contaminated air through the outlet valve.

It will be understood that the invention is not limited to the precise details herein shown and described by way of illustration, since many changes and variations may be made therein by those skilled in the art without departing from the spirit of the invention nor exceeding the scope of the appended claims.

I claim:

1. A protective gas mask having particular use during the firing of a rifle, having in combination:

(a) Facepiece means having eyepiece means and integral flexible inlet tube means communicating with said eyepiece means and extending outwardly from said facepiece means;

(b) Head harness means to hold said facepiece means in engagement with the face of the wearer;

(c) Flexible canister retainer dependently mounted on each exterior end of said tube means laterally of said facepiece means and having an imperforate outer wall and an inner perforate wall, whereby said canister retainer means may swing away from the side of said facepiece means, and whereby a rifle stock can be inserted between said canister retainer means and said facepiece means for the accurate firing of said rifle during the use of said mask;

(d) Supporting means for said retainer means attached to said facepiece means and to said retainer means; and

(e) Canister means operatively mounted in said canister retainer means.

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2. A protective gas mask as defined in claim 1 wherein said tube means extend rearwardly of said eyepiece means.

3. A protective gas mask as defined in claim 1 wherein the supporting means for said retainer means includes means attached to said head harness means and to said retainer means. 5

4. A protective gas mask as defined in claim 1 wherein said canister retainer means includes right angled outlet tube means. 10

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RICHARD A. GAUDET, *Primary Examiner.*

W. E. KAMM, *Assistant Examiner.*