

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Utility Patent Application (Provisional)

TITLE: Protective Mask/Shield With Fan

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FIELD OF THE INVENTION

[0001] The present invention relates to a novel approach to protecting people in toxic, dusty, and/or contaminated areas where air-borne pathogens could cause harm. More particularly, the invention is aimed at a very current issue. The invention adds a distinct layer of protection by blowing away damaging air-borne particles that can circumvent the protection of shields and masks.

BACKGROUND

[0002] The world is awash with the Covid-19 virus that is killing people, cratering economies, and disrupting daily life. While current protective masks and shields are helping, the contaminants can still get under fixed shields and inside gaps in masks.

[0003] By forcefully blowing air down the outside of the shield, the contaminants cannot get to the users. This invention does just that. An

added benefit is by blowing air down the front of the face mask/shield the shield is kept clean and fog-free.

BRIEF SUMMARY OF THE INVENTION

[0004] The present invention comprises a novel approach to inserting a small battery-powered motor with a fan in a headset. The fan's air is directed into ducting that causes the air to blow down the outside face of the clear mask/shield. As the air is blown down the outside of the shield, all airborne pathogens are forced away from the user. This keeps the user safe and protected. The negative particles cannot get under/around the mask/shield or inside a gap in the mask.

BRIEF DISCRIPTION OF THE DRAWINGS

[0005] Some embodiments of the present invention are illustrated as an example and are not limited by the figures of the accompanying drawings, in which like references may indicate similar elements and in which:

[0006] FIG 1 – Figure 1 depicts an exploded X-ray perspective of the placement of the major components.

[0007] FIG 2 – Figure 2 illustrates how the air stream flows down the outside of the face shield.

[0008] FIG 3 – Figure 3 shows the slot where the air flow exits and flows down the outside of the face shield.

DETAIL DESCRIPTION OF THE INVENTION

[0009] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to the limiting of the invention. As used herein, the term “and/or” includes any and all combinations of one or more of the associated listed items. As used herein the singular forms “a”, “an”, and “the” are intended to include the plural forms as well as the singular forms, unless the context clearly indicates otherwise. It will be further understood that the terms “comprises” and/or “comprising” when used in this specification, specify the presence of stated features, steps, operations, elements, and/or other components, but do not preclude the presence or addition of one or more other features, steps, operations, elements, components, and/or groups thereof.

[00010] Unless otherwise defined, all terms (including technical and scientific terms) used herein have the same meaning as commonly understood by one having ordinary skill in the art to which this invention belongs. It will be further understood that terms, such as those defined in commonly used dictionaries, should be interpreted as having a meaning that is consistent with their meaning in the context of the relevant art and the

present disclosure and will not be interpreted in an idealized or overly formal sense unless expressly as defined herein.

[00011] In describing the invention, it will be understood that a number of techniques and steps are disclosed. Each of these has individual benefit and each can also be used in conjunction with one or more, or in some cases all, of the other disclosed techniques. Accordingly, for the sake of clarity, this description will refrain from repeating every possible combination of the individual steps in an unnecessary fashion. Nevertheless, the specification and claims should be read with the understanding that such combinations are entirely within the scope of the invention and the claims.

[00012] The present invention that causes air to be blown down the outside face of a shield/mask is discussed herein. In the following description, for the purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the present invention. It will be evident, however, to one skilled in the art that the present invention may be practiced without these specific details.

[00013] The present invention is to be considered as an exemplification of the invention, and is not intended to limit the invention to the specific embodiments illustrated by the figures or descriptions below.

[00014] The present invention will now be described by referencing the appended figures represent preferred embodiments. Fig.1 shows the placement of the header 1 and the placement of the clear shield 2. In the

head section there is placed the motor and fan assembly 3. The motor is powered by the batteries 4. For the sake of clarity, the controller and on/off switch is not showed but is understood to be part of the assembly. A top section covering with an input for the air to be drawn in by the fan is also not shown, but would be used. These additional parts would be designed to fit the easiest methods for manufacture but would still be part of the present invention.

[00015] Figure 2 shows the assembly and how the air flow created by the fan flows down the outside of the face shield 6. The vertical flow is illustrated using the arrows 7.

[00016] Figure 3 shows the slot 10 through which the air stream flows from with the header section 8 and down the outside of the face shield 9.

ABSTRACT

[00017] The present invention comprises a novel method for adding more protection to clear masks/shields. The protection is achieved by blowing air down the outside face of the shield/mask. The flow of air prevents contaminants of pathogens from entering the face of the user.

CLAIMS

What is claimed is:

1. A face shield/mask that prevents contaminants and/or pathogens from affecting the user by blowing air down the outside of the shield/mask comprising:

- a. A fan and motor
- b. Ducting to direct the air flow down the outside of the shield/mask
- c. Batteries to power the motor, whether rechargeable or standard
- d. Control circuitry to turn on/off and to adjust the speed of the air flow

FIG. 1

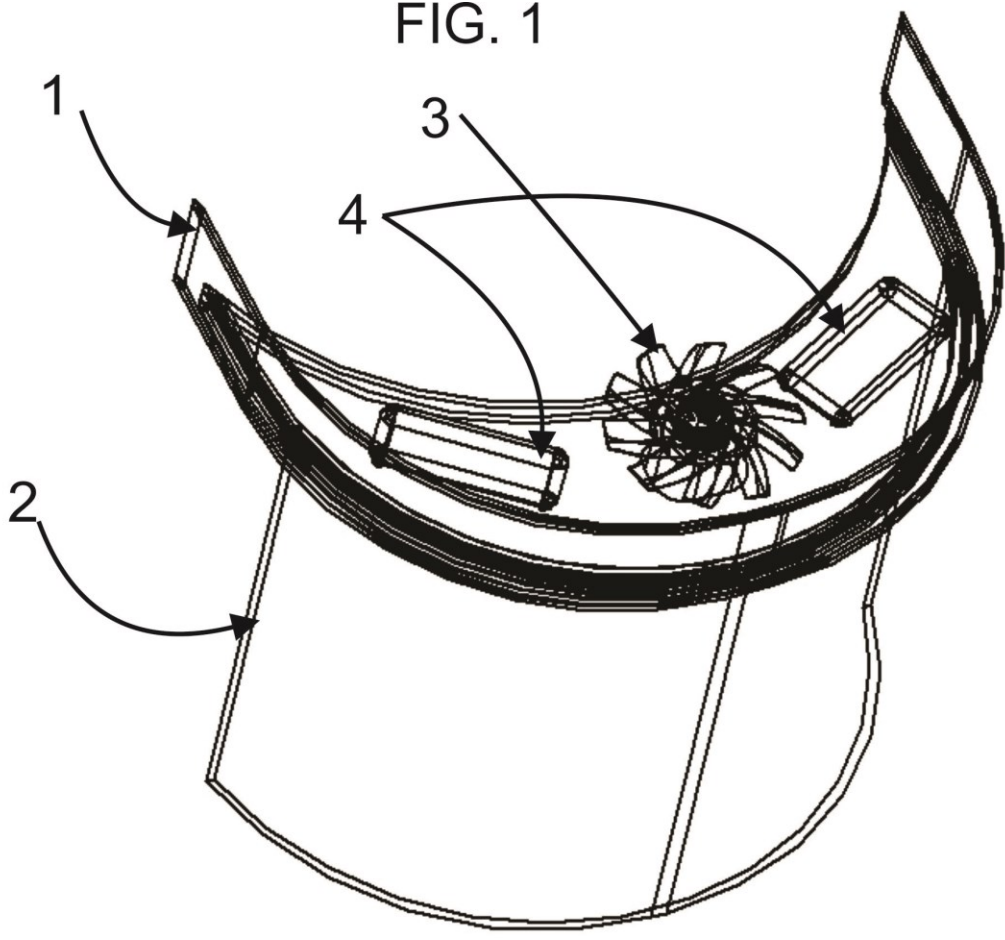


FIG. 2

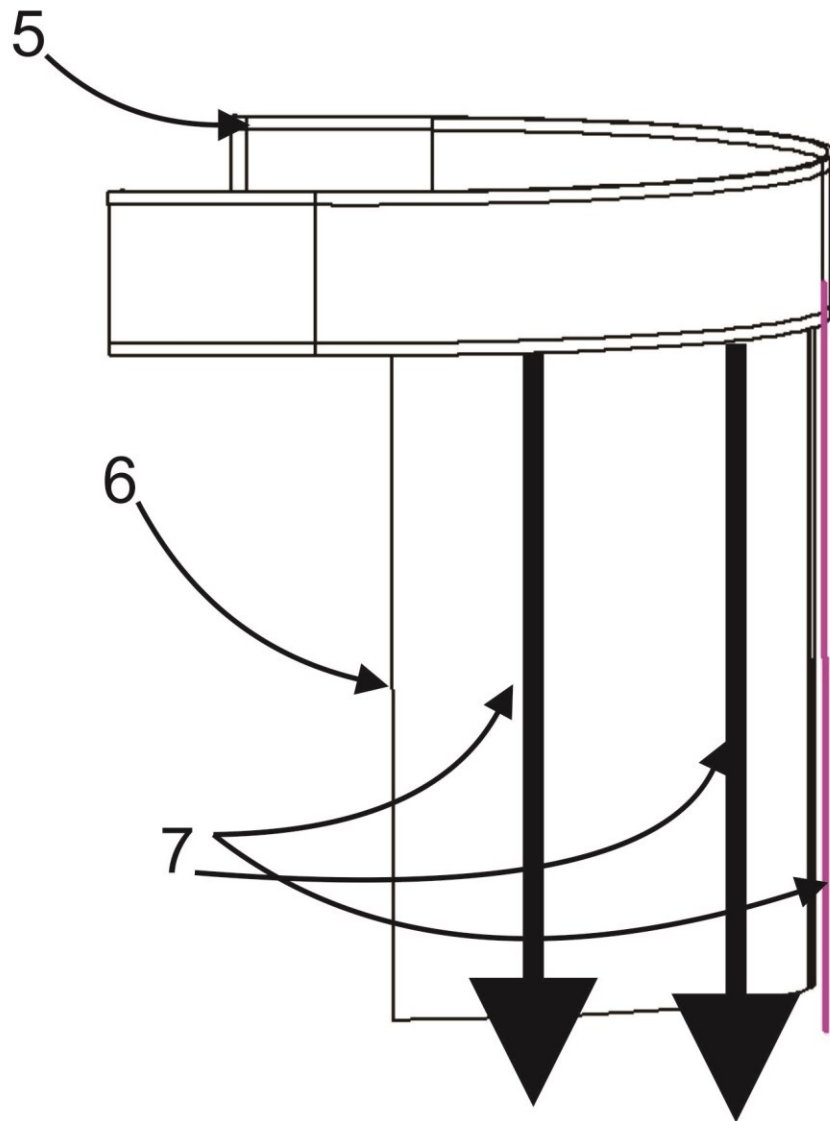


FIG.3

