

J. M. McGARGILL.
 GAS MASK.
 APPLICATION FILED NOV. 7, 1919.

1,362,766.

Patented Dec. 21, 1920.

Fig. 5.

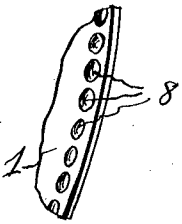


Fig. 1.

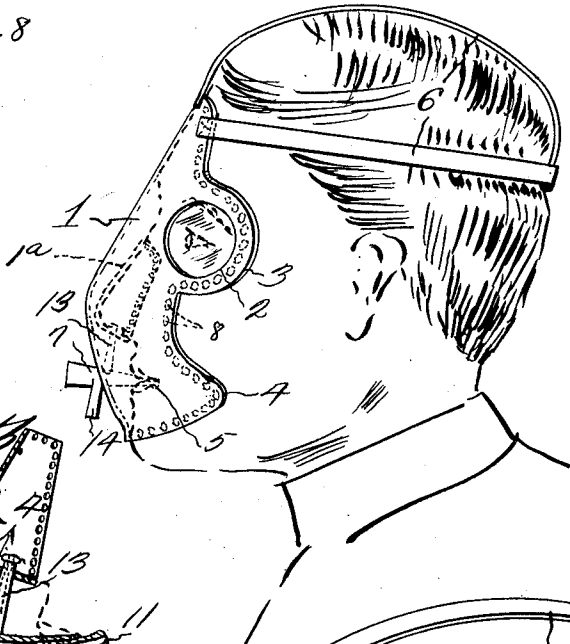


Fig. 4.

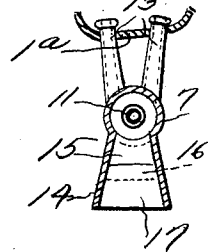


Fig. 3.

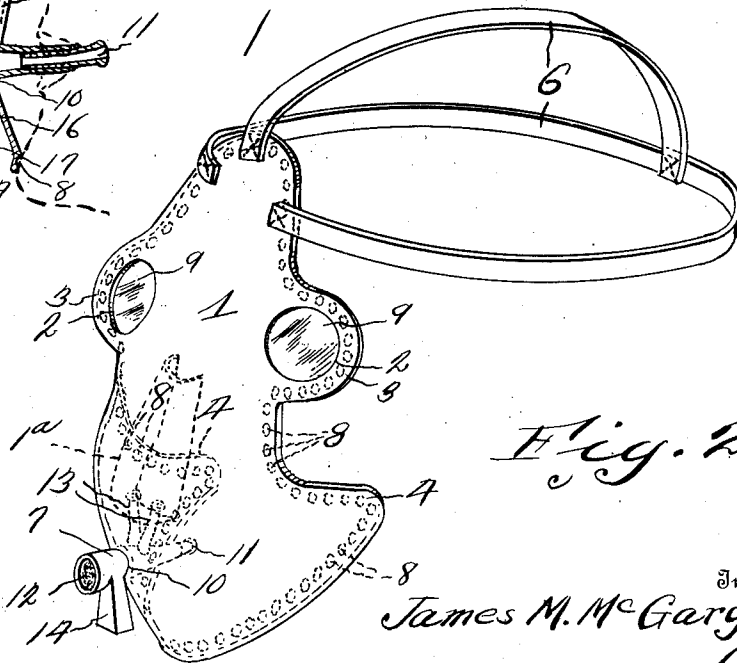
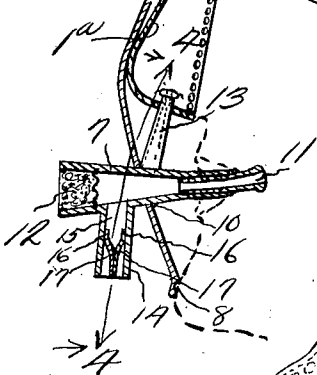


Fig. 2.

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GAS-MASK.

1,362,766.

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To all whom it may concern:

Be it known that JAMES MARTIN MCGARGILL, a citizen of the United States, residing at Imogene, in the county of Fremont and State of Iowa, has invented certain new and useful Improvements in Gas-Masks, of which the following is a specification, reference being had therein to the accompanying drawing.

The invention relates to gas masks and has for its object to provide a mask formed from a single piece of pliable material shaped so as to cover the nose, mouth and eyes of the user and having eye openings which may be covered with any form of transparent material so as not to obstruct the vision. Also to provide the marginal edges of the mask with a series of vacuum suction cups so that said mask may be held in position on the face of the user, for preventing the entrance of gas under the edges of the mask.

A further object is to provide a member through which air may be inhaled or exhaled from the nose or mouth, simultaneously or independently. The exhaling being through a flutter valve comprising a pair of pliable pieces of material which automatically open during an exhaling operation and automatically close during an inhaling operation.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawings, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings:—

Figure 1 is a side elevation of the mask showing the same in position for use.

Fig. 2 is a perspective view of the mask.

Fig. 3 is a sectional view through a portion of the mask and the air controlling valve.

Fig. 4 is a transverse sectional view through the air controlling valve taken on line 4—4 of Fig. 3.

Fig. 5 is a perspective view of one of the marginal edges of the pliable masks showing the vacuum cups.

Referring to the drawings, the numeral 1 designates the gas mask which is formed

from a pliable material, such for instance as rubber or rubberized cloth, and 2 are eye openings formed in extensions 3, which extensions overlie the eye. Near the bottom of the mask extensions 4 are provided substantially opposite the mouth 5 of the user. Secured to the upper end of the mask 1 is a head yoke 6, which yoke comprises members adapted to encircle the head and also arch the head. The yoke 6 may be formed of pliable material such for instance as rubber but the yoke as a whole primarily serves the purpose of allowing the quick and rapid placing of the mask in position, so that the eye pieces and the nozzle 7 will be in proper position for use. The marginal edges of the mask 1 are provided with a series of vacuum cups, which allow the mask to be quickly secured to the face by simply running the finger along the marginal edges thereby expelling the air from the cups and allowing the mask to be held, in close engagement with the face by the vacuum created in said cups. By the provision of the vacuum cups it will be seen that gas will be prevented from entering under the mask or around its marginal edges. Gas cannot enter through the eye openings 2 for the reason that said eye openings are covered with celluloid, or any other suitable transparent material 9.

Nozzle 7 is disposed in any opening in the mask 1 and is vulcanized or otherwise secured therein as at 10. One end of the nozzle is provided with an adjustable mouth engaging portion 11, which portion is adapted to be received in the mouth, while the other end thereof is provided with a canister 12, in which any form of gas neutralizing material may be placed. Extending upwardly from the nozzle 7 are nostril engaging members 13 which are adapted to be disposed within the nostrils of the user, said members 13 having air passages therein in communication with the chamber of the nozzle 7. Extending downwardly from the nozzle 7 and disposed on the outside of the gas mask is a rectangular shaped member 14 having a preferably rectangular shaped chamber 15 therein. Secured as at 16 to the outer walls of said chamber 15 are flexible members 17, said members being preferably made of rubber and forming together a flutter valve through which the exhaled air from the nose or mouth will readily pass, but which will immediately close when the

user inhales thereby causing the air conveyed to the nostrils or mouth to enter the nozzle through the canister 12.

To further prevent gases that may get behind the mask from reaching the nose, a nose guard is provided, said nose guard being designated by the numeral 1^a and is held in place by means of suction cups of the type used for the edges of the mask 1.

10 The invention having been set forth what is claimed as new and useful is:—

1. A gas mask comprising a member formed from pliable material adapted to engage the face and cover the eyes, nose and mouth of the user, transparent material carried by said mask and forming portions adapted to register with the eyes, a series of vacuum cups around the marginal edge of the mask, head gear carried by the mask at its upper end and adapted to engage the head, a nozzle carried by said mask and adapted to engage the nostrils and mouth of the user, means carried by said nozzle for neutralizing the gas when the user inhales and valve means for allowing the easy emission of the air from the nozzle when the user exhales.

2. A gas mask comprising a member

formed from pliable material adapted to engage the face and cover the eyes, nose and mouth of the user, transparent material carried by said mask and forming portions adapted to register with the eyes, a series of vacuum cups around the marginal edge of the mask, head gear carried by the mask at its upper end and adapted to engage the head, a nozzle carried by said mask adapted to engage the nostrils and mouth of the user, said nozzle having nose engaging members carried thereby and disposed within the mask and in communication with the chamber of the nozzle, one end of said nozzle being adapted to engage the mouth of the user, the outer end of the nozzle being provided with a gas neutralizing material, a valve casing depending from the nozzle and disposed on the outer side of the mask, and a flutter valve carried in said valve casing through which air exhaled will pass, said flutter valve during an inhaling operation automatically closing and causing the inhaled air to pass through the gas neutralizing material.

In testimony whereof I hereunto affix my signature.

JAMES MARTIN McGARGILL.