

(No Model.)

F. COQUY.
RESPIRATOR.

No. 492,980.

Patented Mar. 7, 1893.

Fig. 3.

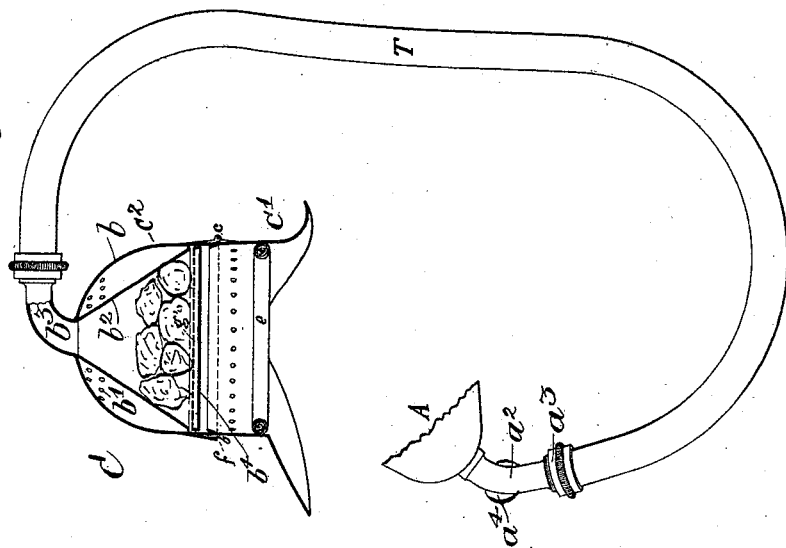


Fig. 2.

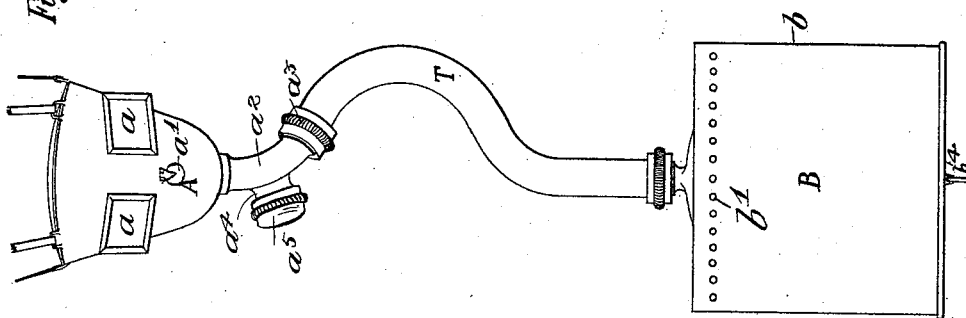
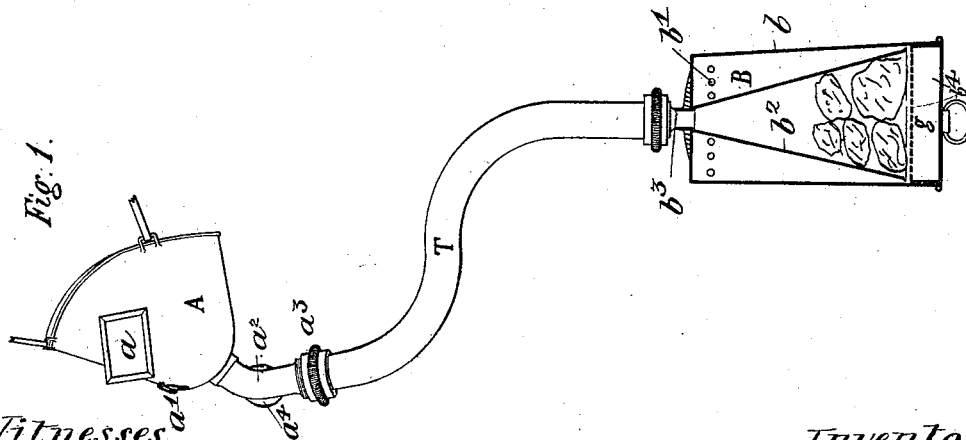


Fig. 1.



Witnesses:

H. Haddan
A. Melhuish

Inventor.

Francois Coquy.

by his Attorney *H. Haddan.*

UNITED STATES PATENT OFFICE.

FRANCOIS COQUY, OF LYONS, FRANCE.

RESPIRATOR.

SPECIFICATION forming part of Letters Patent No. 492,980, dated March 7, 1893.

Application filed August 15, 1892. Serial No. 443,092. (No model.) Patented in France May 4, 1892, No. 221,429, and in England May 11, 1892, No. 8,955.

To all whom it may concern:

Be it known that I, FRANCOIS COQUY, a citizen of the French Republic, and a resident of Lyons, in France, have invented certain
5 new and useful Improvements in Respirating Apparatus, (for which I have obtained patents in France, No. 221,429, under date of May 4, 1892, and in Great Britain, No. 8,955, under date of May 11, 1892,) of which the following is a specification, reference being made
10 to the annexed drawings, in which—

Figure 1 is a side elevation partly in section and Fig. 2 is a front elevation of the apparatus and Fig. 3 is a side elevation partly
15 in section of a modified part thereof.

The general object of this invention is to provide an apparatus which may be carried by firemen, sappers, miners and all other persons whose occupation calls them into places
20 where the atmosphere is charged with smoke or noxious gases or vapors, the same being capable of being used in conjunction with an air pump or reservoir of compressed air when the aforesaid atmosphere contains no
25 air suitable for breathing, or without said air pump or reservoir of compressed air when the aforesaid atmosphere may be breathed after filtration to absorb the smoke or noxious vapors or gases therein.

30 The apparatus in common with other apparatus in this class comprises a mask for the face, with windows for the sight, a filtering vessel, a pipe connecting these, a branch pipe connection to be carried to the air pump or
35 air reservoir and an outlet valve in the mask for use when compressed air is employed. The air filterer may be made as or in a helmet to be worn by the person using the apparatus.

40 A is the mask with suitable strap or chain connections for securing it air tight over the face of the wearer. a are glass windows therein.

a' is a valve opening outward for use when
45 compressed air or pump driven air is used.

On the mask is the pipe branch a^2 having the union a^3 by which the flexible pipe T is attached which leads to the air filterer B. On the pipe a^2 is the lateral branch a^4 for the
50 purpose of attachment of the pipe from the air pump or reservoir of compressed air when either of these is used. At other times it may be closed by a cap a^5 or by a valve.

The air filterer B consists of an outer cas-

ing b with holes b' near the top and an inner
55 conical partition b^2 which communicates above with the pipe b^3 to which the flexible tube T is attached and extends down to near the bottom of the casing b which is closed by
60 a removable bottom b^4 with a gauze or grating g extending across it the latter forming a perforated bottom to the cone b^2 . In the cone are placed pieces of sponge soaked in water acidulated, if desired, with vinegar or acetic acid. Chemical absorbents for the
65 deleterious gases present could be employed if required in this filter.

In applying the filter to the helmet C which thus constitutes an important feature in this invention the upper part of the latter forms
70 the casing B and the cone b^2 , pipe b^3 , bottom b^4 with grating g are arranged within the upper part of the helmet exactly as before described. The lower part C' of the helmet
75 which gives space for the head of the wearer fits easily but air tight by reason of the rubber or other pad e with which it is provided. For convenience of access for cleaning the filter the helmet is made in two parts
80 the lower C' hinged to the upper C² at c and fixed by a catch at f .

The shapes and forms may be varied and the pipes a^2 a^4 may start separately from the mask, but

What I claim is—

85 1. In air respirating apparatus;—the combination of a mask A, a flexible pipe T thereto, and a helmet consisting in its upper part of a casing b with holes b' a conical partition b^2 , a bottom b^4 with perforated screen g the
90 whole forming an air filter for the purposes described.

2. The combination of a mask A, valve a' therein pipes a^2 and a^4 for purpose described flexible pipe T, and a helmet C consisting of
95 an upper part C² forming a casing b with holes b' , a conical partition b^2 , a bottom b^4 with perforated screen g and a lower part C' hinged to the upper part and connected thereto by a catch, the whole substantially as and
100 for the purpose set forth.

In witness whereof I have signed this specification in presence of two witnesses.

FRANCOIS COQUY.

Witnesses:

ROBT. M. HOOPER,
L. RUMBAUD.