

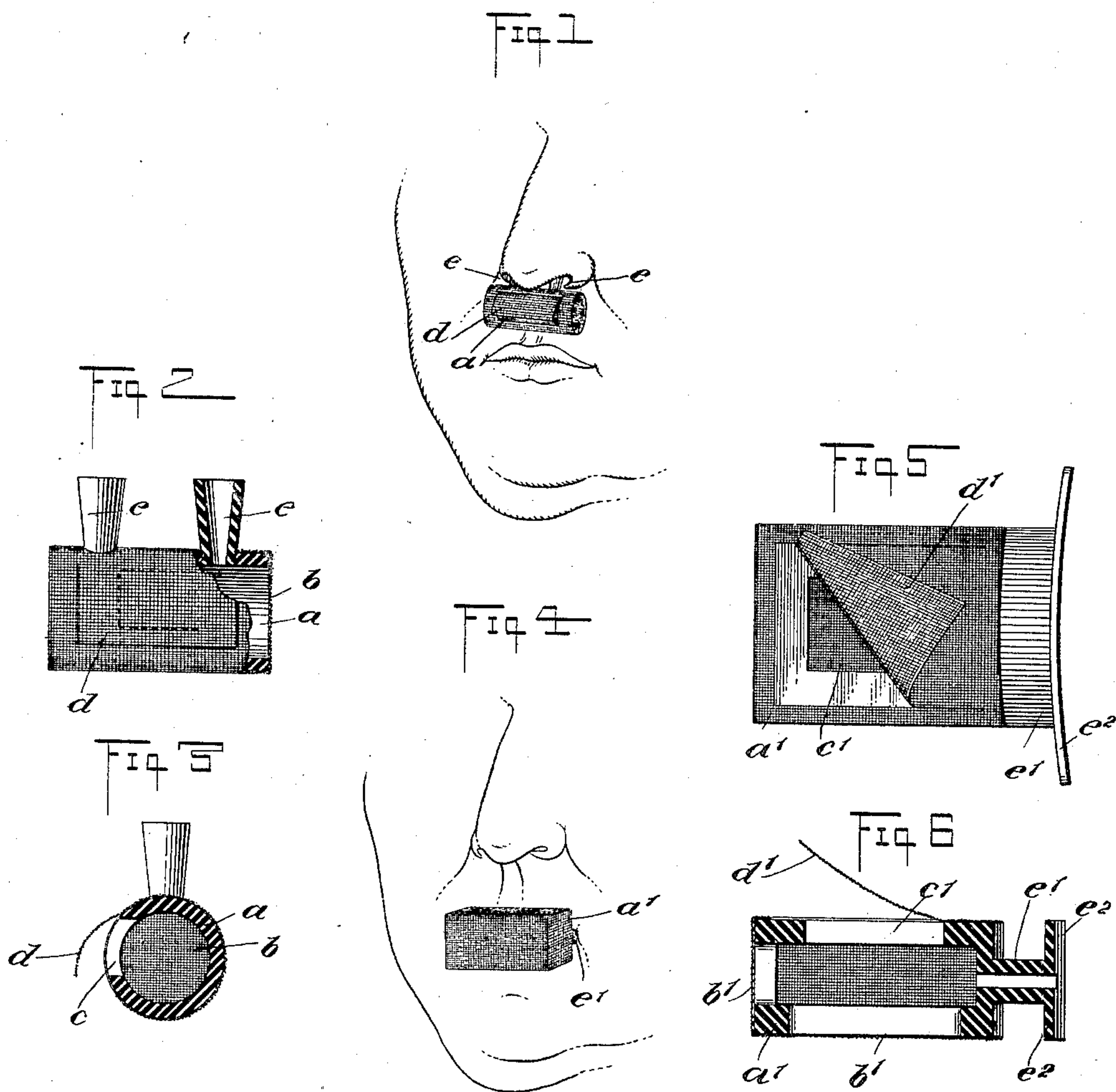
No. 682,478.

Patented Sept. 10, 1901.

J. P. MARTIN.
DUST EXCLUDER.

(Application filed Dec. 19, 1900.)

(No Model.)



WITNESSES:

John P. Martin

J. B. Owens

INVENTOR

John P. Martin

BY

Mum

ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN P. MARTIN, OF ELY, NEVADA.

DUST-EXCLUDER.

SPECIFICATION forming part of Letters Patent No. 682,478, dated September 10, 1901.

Application filed December 19, 1900. Serial No. 40,365. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. MARTIN, a citizen of the United States, and a resident of Ely, in the county of White Pine and State of Nevada, have invented a new and Improved Dust-Excluder, of which the following is a full, clear, and exact description.

This invention relates to a device adapted to be used by persons in a dusty atmosphere to prevent the dust from entering the throat and lungs during the process of inhalation, to which end it comprises a box or casing adapted to be placed in communication with the mouth or nostrils of the user and provided with devices for permitting the passage of air and at the same time excluding dust.

This specification is a specific description of several forms of the invention, while the claim is a definition of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a view showing the invention applied to the nostrils of a person. Fig. 2 is a partly-sectional detail view of the same. Fig. 3 is a cross-section thereof. Fig. 4 is a perspective view showing the device applied to the mouth of a user. Fig. 5 is a plan view of the device shown in Fig. 4, and Fig. 6 is a longitudinal section thereof.

Referring to Figs. 1, 2, and 3, *a* indicates the body part of the device, which is in the form of a box or casing constructed, preferably, of india-rubber. This casing *a* is here shown as cylindrical in form and its open ends are closed by a web of gauze *b*, which permits the passage of air and prevents the passage of dust. The body *a* is formed with an opening *c* in one side thereof, and this opening is covered by a valve-like flap *d*, also of finely-meshed fabric, which is movable to the open position shown in Fig. 3 or to the closed position shown in Fig. 2. When the user of the device exhales, the flap *d* is thrown open by the outrushing current of air, and when the person inhales the flap *d* is closed and all of the air drawn into the lungs of the person is forced to pass through the gauze *b*

and *d*. The casing *a* is provided with tubes *e*, preferably of soft rubber, which tubes are adapted to be fitted into the nostrils of the person using the device, as shown in Fig. 1. The dust-excluder thus constructed is carried under the nose, as the drawings show, and by breathing entirely through the nose the person may be adequately protected from the necessity of inhaling the dust contained in the atmosphere.

Referring to Figs. 4, 5, and 6, the box or casing *a'* is there shown to be rectangular in form, and this casing is provided with a number of openings in its walls, all of which are covered by gauze fabrics *b'*, so as to prevent the passage of dust through these openings. One of the various openings *c'* is covered by a valve-like flap *d'*, which operates in a similar manner to the flap *d*. (Shown in Figs. 1, 2, and 3.) Leading from the box or casing *a'* is a flat tube *e'*, formed of rubber, which may be integral with the box or casing *a'*. This flat tube *e'* is adapted to be held between the lips of a person, as shown in Fig. 4, and the tube *e'* is provided at its inner end with flanges *e''*, arranged to lie between the lips and the jaws of a person, and by this means the inhaler is held in the mouth in the manner indicated in Fig. 4.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A dust-excluder, comprising a body part in the form of a box or casing provided with two openings therein, a gauze fabric covering one of said openings, a tube leading from the box or casing and forming a means of communication between the box and the throat of the user and a gauze-fabric flap commanding the second opening in the body and forming an outwardly-opening valve, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN P. MARTIN.

Witnesses:

P. C. WEBER,
GEO. F. PARKER.