No. 835,075. PATENTED NOV. 6, 1906.

S. H. MAHAFFY.

APPARATUS FOR FRESH AIR TREATMENT.

APPLICATION FILED FEB. 19, 1906.

Fig. 1.

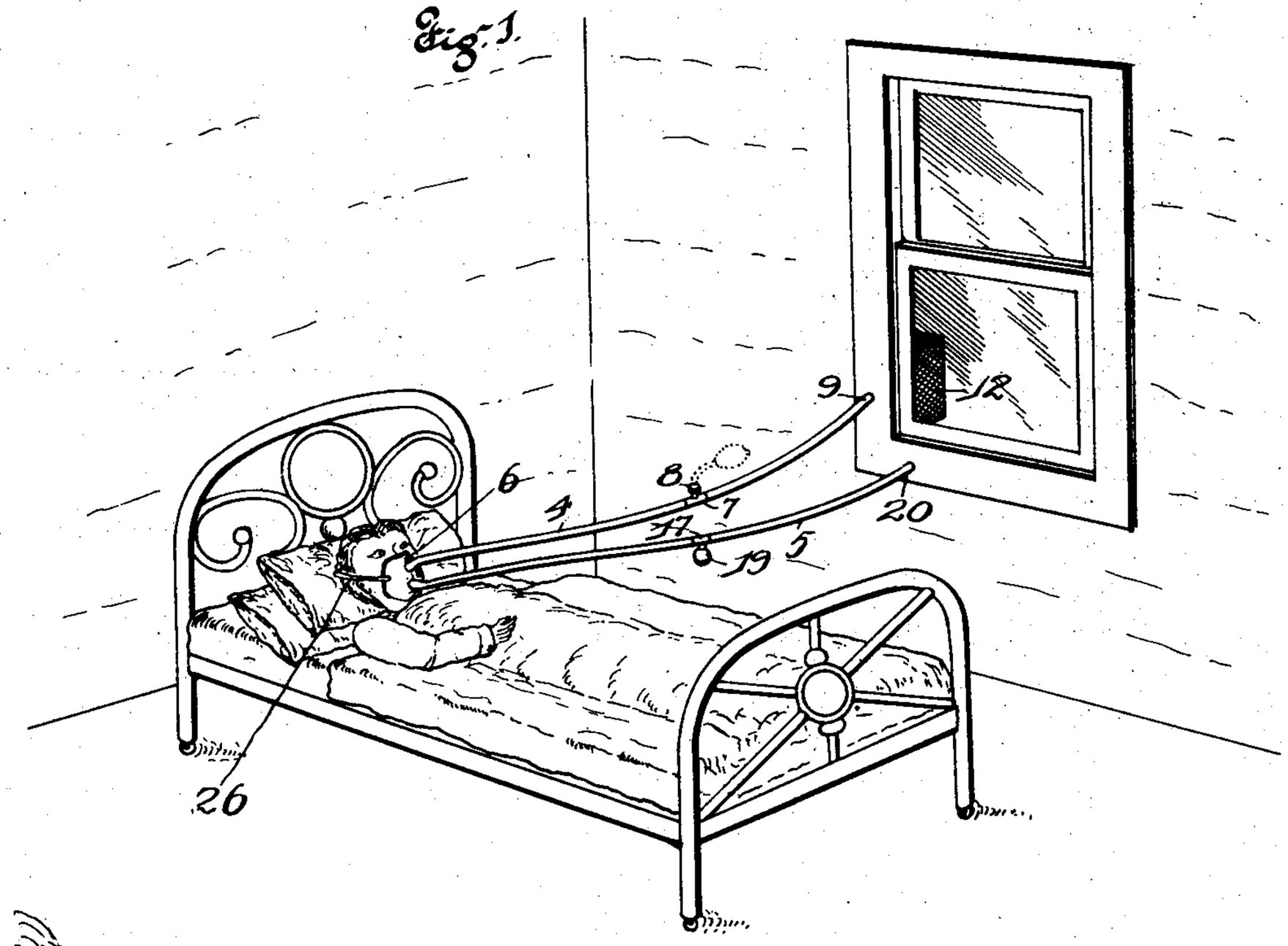


Fig. 2.

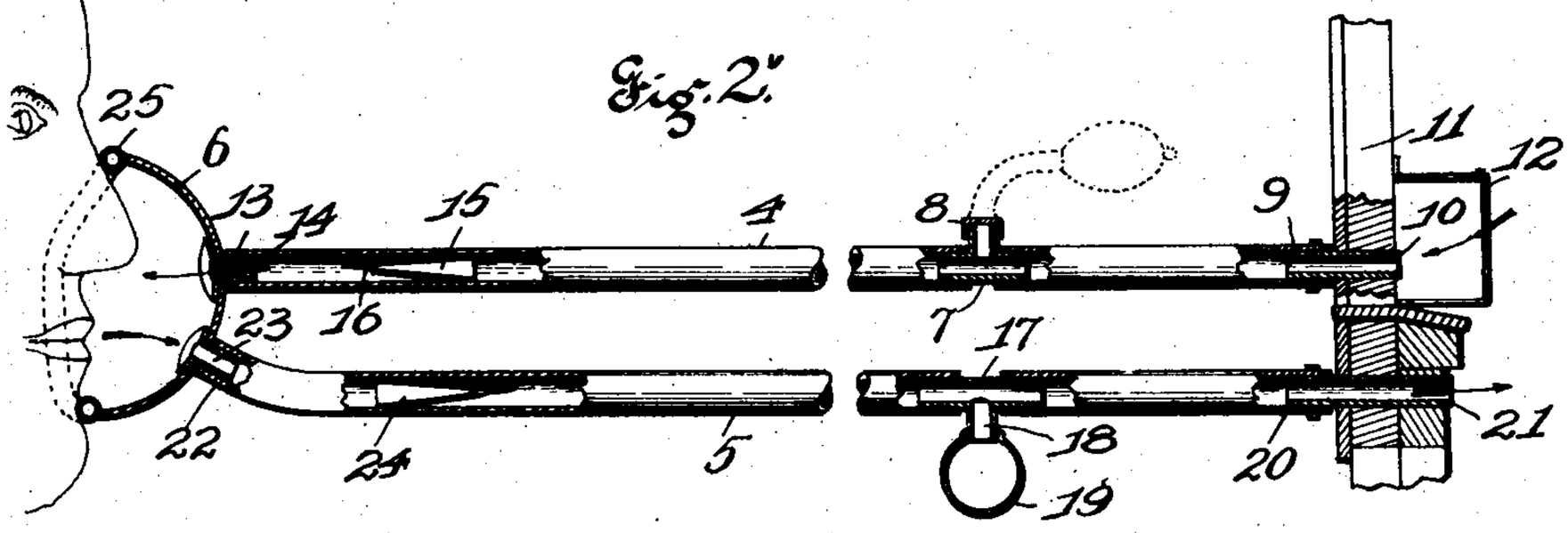
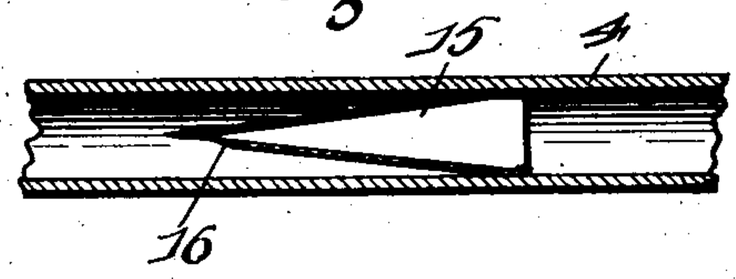


Fig. 3



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UNITED STATES PATENT OFFICE.

SAMUEL H. MAHAFFY, OF ST. LOUIS, MISSOURI.

APPARATUS FOR FRESH-AIR TREATMENT.

No. 835,075. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed February 19, 1906. Serial No. 301,929.

To all whom it may concern:

Be it known that I, SAMUEL H. MAHAFFY, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Apparatus for Fresh-Air Treatment, of which the following is a specification.

My invention relates to improvements in apparatus for fresh-air treatment; and it consists of the novel features hereinafter described and claimed.

The object of my invention is to construct a device consisting of a pair of tubes connected to a muzzle and held in position over the nose and mouth of a patient, whereby the patient may inhale fresh air received directly from the outside of the building without causing the windows to be opened.

A further object of my invention is to provide a means whereby a patient may breathe fresh air received from the exterior of the room and a means whereby the air is filtered before entering the apparatus.

In the drawings, Figure 1 is a view of the interior of a room, showing a bed and patient with my invention in operative position. Fig. 2 is a side view of my invention, with parts broken away and in section, showing the construction and application of the device. Fig. 3 is a detail sectional view of a portion of the tube, showing my valve in position.

My invention consists of a pair of tubes 4 and 5 and a mask 6. The tube 4 is provided with a T-joint 7, the outer projecting portion thereof being provided with a cap 8, which is so arranged as to be removed when desired. The end 9 of the tube is held in position upon a nipple 10, which is inserted through the casing 11 of a window, and the outer end of the nipple 10 extending into a filtering-box 12. This filtering-box 12 consists of a suitable casing covered with a very fine mesh of cloth to prevent any foreign substance—such as soot, insects, or the like—from entering into the nipple 10 and the tube 4. The end 13 of the nipple 4 is held in position upon a nipple 14, formed in the mask 6, and is arranged in alinement with the nostrils of the patient. (See Fig. 2.)

In the tube a short distance from the nipple 14 I provide a valve 15, which is composed, preferably, of a very soft rubber cone and held in the tube in any desirable manner, the point of the cone being provided with an opening 16, through which the air is permitted to pass from the exterior of the building by the inhalation of the patient.

The tube 5 is provided with a T-joint 17, its projecting end 18 being provided with a cup 19, into which the moisture is permitted to settle, caused by the condensation of the breath during the exhalation of the patient. The end 20 of the tube 5 is conneced to a nipple 21, extending through the window-casing. The end 22 of the tube 5 is connected to a nipple 23, formed in the mask 6 below the nipple 14 and in alinement with the mouth of the patient. In the tube 5 a short distance from the nipple 23 I provide a valve 24, the same in construction as the valve 15, but reversed in position.

The mask 6 is provided around its contacting edge with a tube 25, which is inflated and acts as a cushion and which is brought in contact with the face of the patient and arranged to conform with the configuration of the face, and the said mask 6 is held in position upon the face by the band 26, which is placed around the head.

The object of the T-joint 7, located in the tube 4, is to permit the application of an atomizer upon the free end thereof, to assume the position as shown by dotted lines in Figs. 1 and 2, by which medicine may be sprayed into the tube and permitted to mix with the fresh air for penetrating the lungs of the patient during the inhalation. The valves 15 and 24 are so constructed that during the breathing of the patient the valve 15 will permit the fresh air from the exterior of the building to pass through during every inhalation, at the same time closing the valve 24, and during each exhalation the valve 24 will open and the valve 15 close. The valves being made of a very soft rubber substance will close when pressure is brought against the point by compressing against the inner wall of the tube, thereby shutting off the opening. The circulation of air is admitted and discharged as indicated by the arrows in Fig. 2.

Having thus described my invention, what I claim as new, and desire to have secured to me by the grant of Letters Patent, is—

A device of the class described, comprising a muzzle arranged to be placed over the nose and mouth of a patient, a pair of tubes connected to the muzzle, both of said tubes extending through the wall of the room to permit the outer fresh air to circulate through the tubes during the inhalation and exhala-

tion of the patient, and a pair of valves for regulating the circulation of the air during the breathing of the patient, T-joints located in the tubes, one for admitting the application of medicine, and the other to receive the condensation of the breath during the exhalation, substantially as specified.

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

SAMUEL H. MAHAFFY.

Witnesses:

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