

No. 856,432.

PATENTED JUNE 11, 1907.

G. M. THOMSON.  
DEVICE FOR DEVELOPING THE LUNGS.  
APPLICATION FILED DEC. 7, 1905.

Fig. 1.

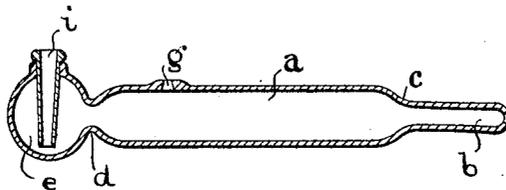
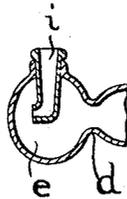


Fig. 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## DEVICE FOR DEVELOPING THE LUNGS.

No. 856,432.

Specification of Letters Patent.

Patented June 11, 1907.

Application filed December 7, 1905. Serial No. 290,764.

*To all whom it may concern:*

Be it known that I, GEORGE MORLEY THOMSON, a subject of the King of Great Britain and Ireland, residing at 10 Stone Buildings, Lincoln's Inn, London, W. C., England, sergeant instructor, have invented new and useful Improvements in Devices for Developing the Lungs, of which the following is a specification.

This invention relates to devices for developing the lungs by promoting deep breathing.

It is well known that persons who are not in the habit of taking violent exercise do not often work their lungs to their full capacity and consequently their lungs are but ill developed. Singing masters and other instructors when advising their students to practice deep breathing also advise them to inhale through the nostrils and exhale through the mouth, because the air in passing through the nasal organs becomes warmed. It is, however, often very difficult for some persons to inhale through the nostrils owing to some physical defect and it is one object of the present invention to enable such a person to breathe entirely through the mouth, while practicing deep breathing, without inhaling cold air.

Another object is to promote a tendency on the part of any person practicing deep breathing, to retain the air within the lungs for a maximum time so as to properly expand the lungs and enable the proper exercise to be attained.

The invention relates to an improved breathing tube adapted to be held in the mouth and so arranged that air can be fairly freely inhaled through it but that considerable resistance is offered to exhalation in order to promote a tendency to continued retention of the air within the lungs, the tube being also adapted so that the air inhaled is warmed to a certain extent in its passage therethrough.

In the accompanying drawings, Figures 1 and 2 illustrate in section two forms of the invention.

In carrying out the invention according to one form as shown in Fig. 1, a glass tube, *a*, is formed with a flat mouthpiece *b*, at one end, the mouthpiece being connected to the tube by a narrow neck, *c*. At the other end, the tube is formed with a narrow neck *d*, and the small orifice through the neck leads into a globe or bulb, *e*. An aperture *g*, is formed

in the tube *a*, the aperture being in a slight protuberance in order to facilitate location by the finger of the operator. The bulb, *e*, is provided with a small tube or plug, *i*, fitted in an opening therein and having a flange bearing on the bulb.

In operation, the user places the mouthpiece, *b*, in the mouth and inflates the lungs by drawing a very deep and prolonged breath through the tube. The opening *g* may be left open during the inhalation or not, as desired. During exhalation, the opening *g*, is closed by the finger and the exhalation is consequently delayed by the resistance offered by the device, therefore promoting complete exercise of the lungs and consequent development with its attendant advantages as regards the general health of the user.

In addition to the lung development, the air inhaled is warmed as the air entering through the conical plug or tube, *i*, strikes against the side of the bulb and is then diffused around the same so as to insure it taking up the heat in the bulb which the latter derives from the exhaled gases. The aperture in the plug, *i*, may be directed in an opposite direction to the neck, *d*, as shown in Fig. 2.

While it is preferred to make the device of glass so that the user can readily see the interior of the device and ascertain when it is necessary to clean the same which can be effected by the use of a few drops of carbolic acid and water, it is obvious that it may be made of vulcanite or other suitable material.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:—

The hereindescribed device for developing the lungs, consisting of the glass tube formed with the integral flattened mouth piece at one end and the contracted neck and integral bulb at the opposite end, said bulb being of greater diameter than the tube and said bulb and tube being provided with openings, and the inwardly tapering tube *i* extending into the bulb through the opening therein and having the flange bearing on the bulb, substantially as described.

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

GEORGE MORLEY THOMSON.

Witnesses:

FRANCIS J. BIGNELL,  
THOMAS J. LEAFORD.