

No. 826,029.

J. E. HARPER.

PATENTED JULY 17, 1906.

RAREFIED AIR APPARATUS FOR THE TREATMENT OF PULMONARY
TUBERCULOSIS.

APPLICATION FILED NOV. 21, 1904.

Fig. 2.

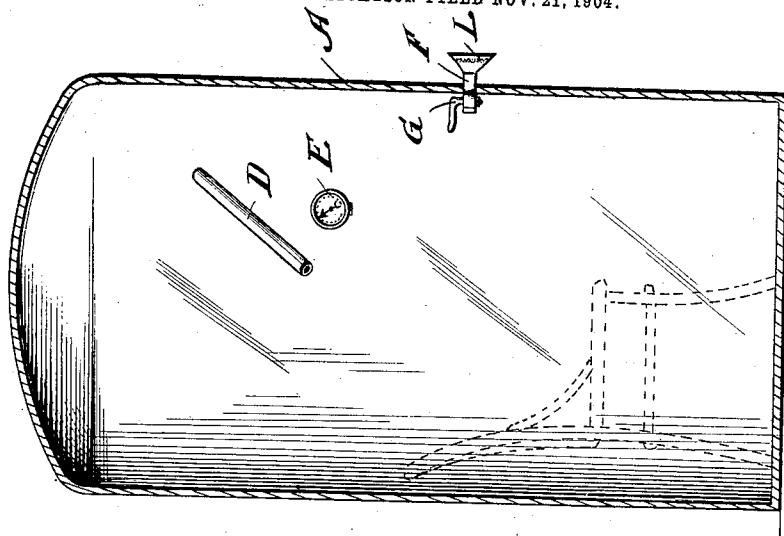
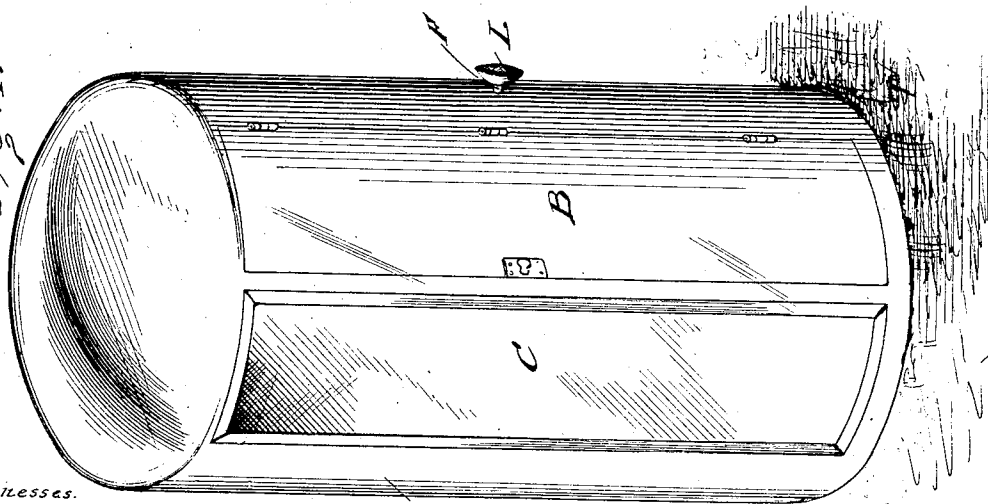


Fig. 1.



Witnesses.

Wm. Miller
Geo. Robt.

Inventor.

J. E. Harper.
by *Phl. B. Racy.*
Attorneys.

UNITED STATES PATENT OFFICE.

JAMES EDWARD HARPER, OF ASSUMPTION, ILLINOIS.

RAREFIED-AIR APPARATUS FOR THE TREATMENT OF PULMONARY TUBERCULOSIS.

No. 826,029.

Specification of Letters Patent.

Patented July 17, 1906.

Application filed November 21, 1904. Serial No. 233,766.

To all whom it may concern:

Be it known that I, JAMES EDWARD HARPER, a citizen of the United States, residing at Assumption, in the county of Christian and State Illinois, have invented an entirely new apparatus known as the "Rarefied-Air Apparatus for the Treatment of Pulmonary Tuberculosis," of which the following is a specification.

This invention consists of an apparatus designed especially for treatment of tuberculosis or pulmonary diseases of a similar nature. The benefit generally derived by persons afflicted with diseases of this character through living in high altitudes is chiefly due to the reduction of external pressure because of the rarefaction of the air, such condition of the atmosphere inducing deep respirations, developing the lungs, and promoting circulation of the blood and lymph by increase or more free expansion of the chest.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view of the apparatus embodying the invention. Fig. 2 is a vertical sectional view of the invention.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In carrying out the invention a suitable cell or cabinet A is used, the construction of which makes the same practically air-tight, this being necessary in securing the beneficial results accomplished by use of the invention. The cell or cabinet A is of a size sufficient to receive a person either in standing or sitting posture and is provided with a door B and a transparent side or window C.

In the practical use of the apparatus it is designed that the air within the cell or cabinet A be withdrawn, so as to rarefy the same, a partial vacuum being created therein in order to reduce the external or bodily atmospheric pressure, the person being treated exhaling the air inhaled in the cell or cabinet A through a tube D, which communicates with the atmospheric exterior of the cabinet A, passing through a side of the latter. An inlet-tube F leads through a side of the cell or cabinet A and is provided with a valve G,

which may be operated to regulate the amount of air passing into the cell in a manner which will be obvious. The patient in the cell A inhales the rarefied air within this cell and exhales through the tube D, leading to the exterior atmosphere. The patient himself therefore forms a pump in securing the rarefaction of the air, since the exhalations of the person being treated may be greater with regard to the quantity of air forced from the cell than the amount of air which is being admitted through the inlet-tube F. While the valve G regulates the amount of air passing into the cell through the tube F, the latter also may serve as a medium for administering medicine to the patient in the cell by medicating air, if necessary, by passing it through a thin screen upon which a volatile medicament may be spread.

The cell or cabinet A may have a suitable barometer or gage E of any suitable nature for determining the atmospheric pressure within the cell to facilitate regulation thereof in the customary manner.

Having thus described the invention, what is claimed as new is—

The herein-described rarefied-air apparatus for the treatment of pulmonary tuberculosis, comprising an air-tight cell or cabinet, an inlet-tube F extending through one wall of the cabinet and provided on its inner end with a hand-operated valve G whereby the flow of air into the cabinet may be regulated by the patient, the said tube being designed to admit air into the cabinet, the outer end of said tube F being bell-shaped and being provided with a thin screen, and a volatile medicament spread upon said screen whereby the air admitted from said tube and controlled by said valve will be medicated as it passes to the patient, and an exhaling-tube D leading from the interior of the cabinet to the exterior atmosphere and being so located in the cabinet that it will be in convenient location for the patient to exhale the air therethrough that has been inhaled in the cabinet.

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

J. EDWARD HARPER.

Witnesses:

J. W. HARPER,
JOHN W. MOORE.