(No Model.)

J. D. O'BRIEN.

EXERCISING MACHINE.

No. 345,856. Patented July 20, 1886.

Fig. 1.

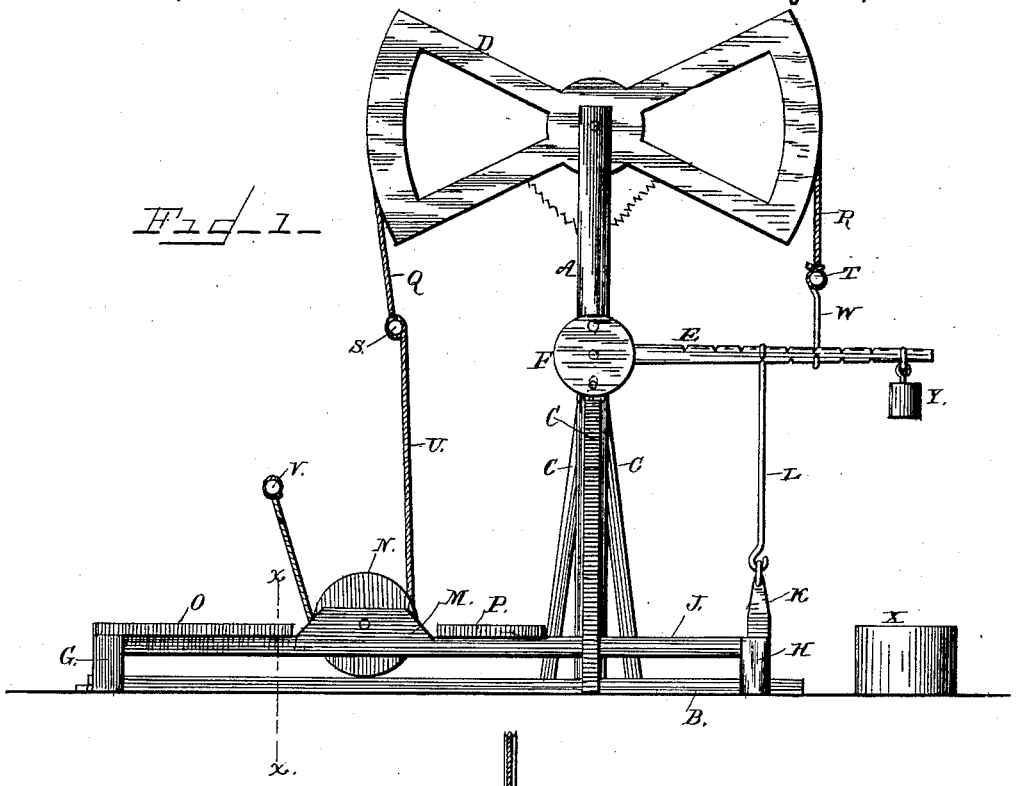
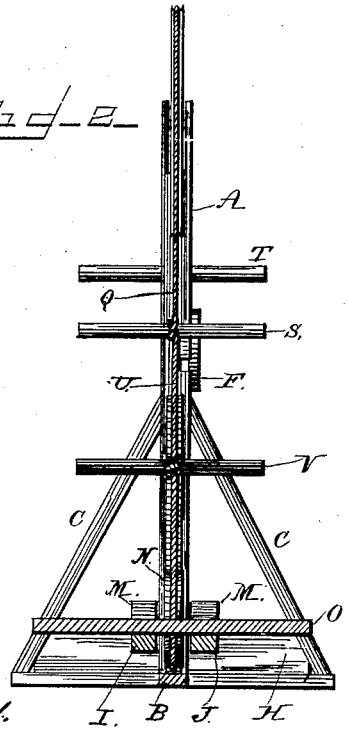


Fig. 2.



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JUNIUS D. O'BRIEN, OF PEMBROKE, KENTUCKY, ASSIGNOR TO MARTHA C. O'BRIEN, OF SAME PLACE.

EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 345,856, dated July 20, 1886.

Application filed November 16, 1885. Serial No. 182,992. (No model.)

To all whom it may concern:

Be it known that I, JUNIUS D. O'BRIEN, a citizen of the United States, residing in Pembroke district, in the county of Christian and State of Kentucky, have invented certain new and useful Improvements in Exercising-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention is an exercising-machine intended especially to develop the chest and perfect the action of the lungs.

It consists in the construction, combination, and arrangement of the several parts, as will be hereinafter more fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a machine constructed according to my invention; and Fig. 2 is an edge view of the same, the platform being shown in section on the line *x x*, Fig. 1.

A is a standard, the lower end of which is secured in a beam, B, and suitably braced by braces C, as shown. The upper end of this standard A is bifurcated, and the oscillating lever D is pivoted within the bifurcation. About midway the standard A a beam or lever, E, is pivoted thereto in a recess provided therefor in one side of the said standard. A keeper-plate, F, is secured to the standard over the end of the lever, and entirely covers the same and the recess provided therefor, thereby keeping the said parts free from the accumulation of dust, and insuring the easy operation of the same. The lever or beam E is graduated and provided with notches along its upper and lower edges, as clearly shown.

The platform-supporting frame consists of the two end supports, G H, and the connecting-beams I J, resting thereon, as will be understood from the drawings.

The supporting-piece H is provided midway its ends with an upward projection, K, which is connected to the lever E by a rod, L, as shown. The end support G is secured by hinges to the floor of the room in which the machine is placed, or may be secured in the same manner to the beam B. About midway the support G and the standard A the beams I J are constructed with the enlargements M, between which a grooved pulley, N, is supported. A platform, O, is secured on the beams I J at the end resting upon the support G, and another platform, P, between the pulley N and the standard A. The lever D is pivoted in the bifurcation of the standard midway its ends, which are made in the arc of a circle and grooved. Ropes Q R are secured at the upper corners of the ends of the lever, and fit within the grooves of the same. These ropes are used to impart motion to the lever D, and the ends of said lever are made in the arc of a circle, so as to reduce the wear on the ropes. Handles S T are secured at the lower ends of the ropes Q R, and are grasped by the operator or operators, as will presently appear. A rope, V, attached to the handles S extends downward, and therefrom around under the pulley N, and has a handle, V, secured to its end, as shown. A rod, W, connects the handle T with the lever E, as shown.

When so desired, coil-springs (indicated in dotted lines in Fig. 1) may be connected to the upper end of the standard and to the lever D, and will serve to increase the ease of operation of the machine, as will be appreciated.

The manner of using my machine will be readily understood and may be varied. The rod W may be disconnected from the handle T and the rope U detached from the handle S, when the said handles S T are each grasped by an operator, one standing on the platform P, and the other on a stand, X, placed at a proper point on the floor. An oscillating movement is given the lever D by the operators pulling down the opposite ends of the lever alternately, as will be understood. A third operator may use the machine by attaching the rope U to the handle S. The third operator stands on the platform O, and it will be seen that there will thus be two operators pulling on one end of the lever and only one on the other. In order to preserve a balance, I connect lever E with the handle T by the rod W, as before described, disconnect it from the projection K, and suspend a weight, Y, thereon. The position of this weight may be adjusted until the desired balance is effected. The same exercise as be-

fore described may now be taken by the three operators.

If the lever E be attached to both the handle T and the projection K, as before described, an operator standing on either of the platforms O or P, by pulling down on the free end of the lever D, will cause the platform-supporting frame to swing upward upon its end support G, which is secured by a hinge, as hereinbefore mentioned, as a pivot. When the machine is used in this manner, the operator will lift his own weight through a greater or less distance, accordingly as he stands farther from or nearer to the fulcrum, and the force exerted will be correspondingly more or less.

The use of my machine develops all the muscles of the body, and as it can be manufactured at a comparatively small cost, its advantages will be readily appreciated.

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

1. In an exercising-machine, the combination of a standard bifurcated in its upper end, a lever pivoted midway its ends within the bifurcation and having its ends made in the arc of a circle and grooved, and ropes secured at the upper corners of the lever and fitting within the grooves, and having handles secured at their lower ends, substantially as and for the purposes set forth.

2. The combination, in an exercising-machine, of a platform-supporting frame, a standard bifurcated at its upper end, a lever pivoted midway its ends within the bifurcation, ropes depending from the ends of the lever, a grooved pulley supported on the platform-supporting frame, and a rope provided with a handle, passed around under the pulley and secured to the rope depending from the oscillating lever, substantially as described and shown.

3. The combination of a platform-supporting frame, a standard bifurcated at its upper end and having a recess formed in one side, an oscillating lever pivoted midway its ends within the bifurcation and having operating-ropes depending therefrom, and a graduated beam or lever pivoted at one end in the recess in the side of the standard and connected with the rope depending from one end of the oscillating lever, substantially as set forth.

4. An exercising-machine comprising the following elements in combination: a platform-supporting frame carrying one or more platforms and secured by a hinge at one end, a standard, an oscillating lever pivoted at the upper end of the standard, ropes depending from the end of the said lever, a pulley supported in the platform-supporting frame, a rope passed around under the said pulley and connected to one of the ropes depending from the oscillating lever, and a graduated beam or lever pivoted at one end in the recess in the side of the standard and detachably connected to the platform-supporting frame and one of the ropes depending from the oscillating lever, all arranged and operating substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JUNIUS D. O'BRIEN.

Witnesses:
C. I. LANDER,
W. L. LANDER.