B. F. Brady,

Exercising Machine.

No. 63,846. Patented Apr. 16, 1867.

Fig 1

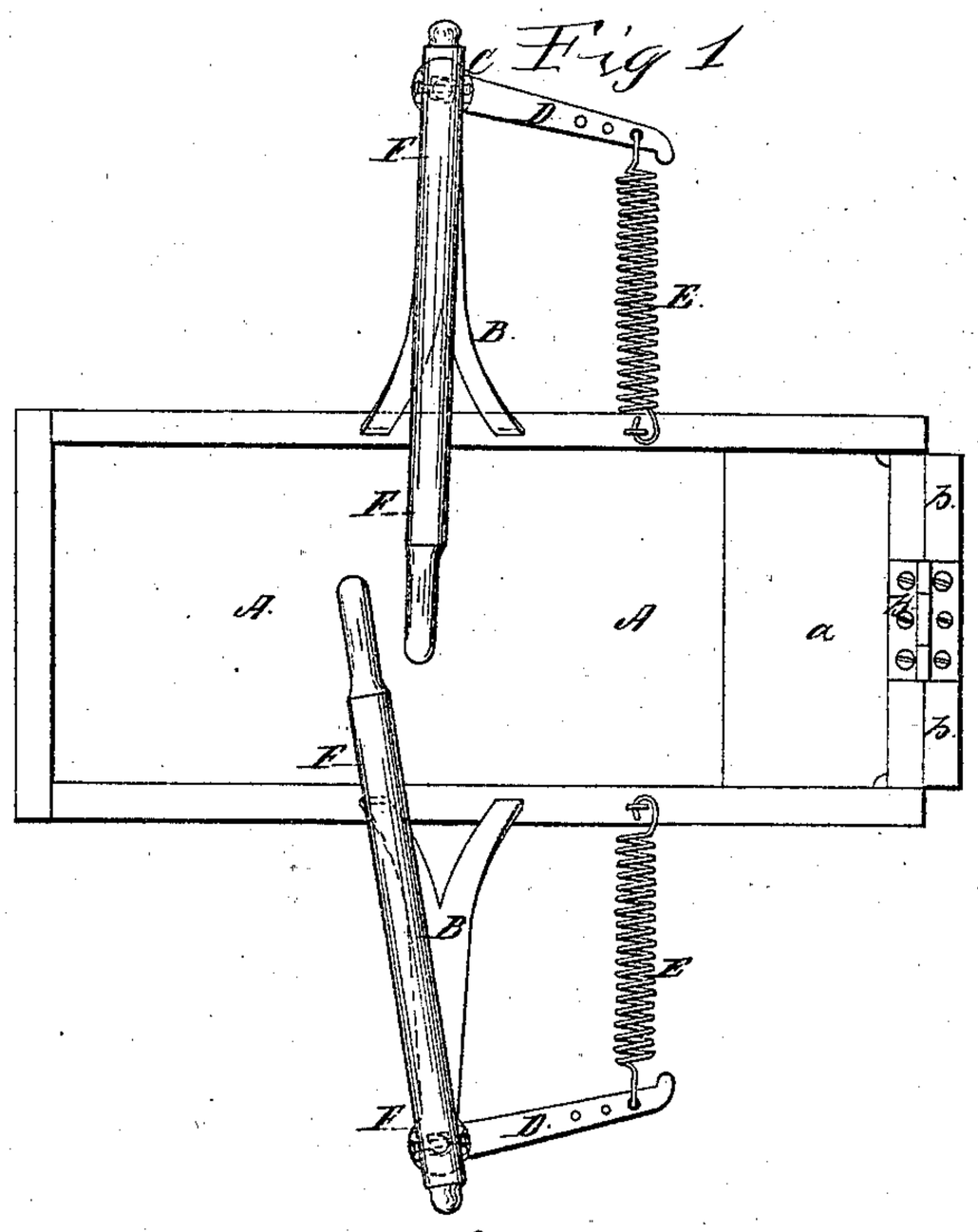
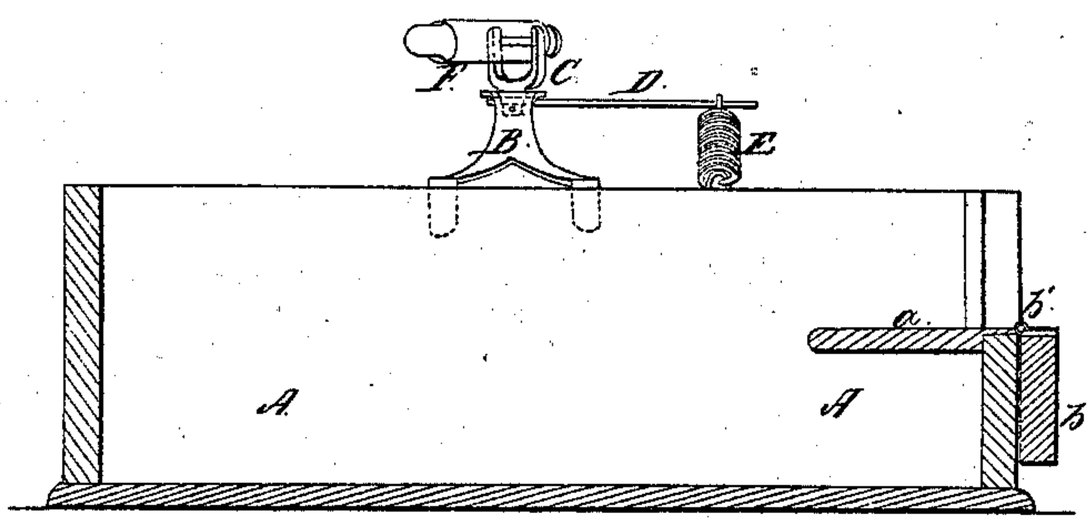


Fig. 2.



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Letters Patent No. 63,846, *dated April* 16, 1867; *antedated April* 8, 1867.

EXERCISING APPARATUS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, BENJAMIN F. BRADY, of the city, county, and State of New York, have invented a new and improved Exercising Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan or top view of an exercising apparatus constructed according to my invention.

Figure 2 is a central vertical longitudinal section of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention is designed to furnish a means of physical or gymnastic exercise of a character similar to that of rowing; and it consists in the construction of an apparatus whereby such exercise may be very conveniently taken or performed within doors with a beneficial effect equal to that derived from rowing in the usual manner.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

A represents an oblong rectangular box, which, when the apparatus is in use, is open at the top, and in one end of which is fixed a horizontal seat, *a*. The upper part *b* of that end of the box behind the seat *a* is hinged to the lower part of the said end, as shown at *b'*, in order that it may be let down out of the way when desired, as shown in both the figures. B are long, nearly horizontal brackets or outriggers, which may be made of metal, and the innermost ends of which are turned downward in a vertical position, and are fitted into vertical mortises in the upper edges of the sides of the box A, at or near the centre thereof, as shown more clearly in fig. 1. C are short forked bearings, of which there is one at the outer end of each outrigger B. Each of the bearings C is furnished with a short, downwardly projecting pin or pivot, which passes through a suitable circular hole in the end of the outrigger to which it is attached, as shown in dotted lines in fig. 2, and has firmly secured upon its lower end, under the outrigger, a long, horizontal arm, D, the outer end of which is connected with the contiguous side of the box A by means of a spiral spring, E, of suitable strength and stiffness. F represents two levers, which work in a nearly horizontal position, and serve the purpose of oars. The outer end of each of these levers is pivoted in one of the forked bearings C by means of a transverse pin, in such a way that their inner ends or handles may be moved up or down at the same time that the said levers may be moved horizontally around the axis of the forked bearings C, pivoted in the ends of the outriggers as just herein set forth. The spiral springs E, acting upon the arms D to draw them inward, force the levers F forward after they have been brought back by the operator, and also to resist such backward movement of the levers as will be presently fully explained.

In the employment of the apparatus as a means of exercise, the person using the same takes his seat upon the seat *a*, and grasps the handles of the levers F, and alternately draws them back and allows them to move forward, thus giving them the same motion with which the oars of a boat are worked in the operation of rowing, the tension of the spiral springs E, as the arms D are moved outward by the backward movement of the levers F, resisting the said backward movement of the levers F, and requiring the same exertion of muscular force as the resistance of the water to the oars in rowing, so that by working the levers in the same manner as oars, as just hereinbefore fully set forth, the same muscles of the body and arms are brought into active use as in the ordinary exercise or labor of rowing. Instead of causing the springs to act upon the levers through the agency of the arms D, the springs may be coiled around the pivots of the forked bearings C, or applied in any other manner whereby their tension will be caused to resist the backward movement of the levers F when worked as hereinbefore described. By removing the outriggers from the mortises in which their inner ends are placed, and detaching the springs E from the sides of the box A, the levers F, with the outriggers and other appurtenances thereof, may be placed within the said box, the hinged end piece *b* of which is then turned up into its place to close the end of the box, and the box is covered by a suitable lid, which may be cushioned on its upper side or surface, so that the box may be used for sitting or recumbent purposes if desired.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the levers F with the seat *a*, and with springs applied in such manner that their tension will oppose the backward movement of the said levers, substantially as herein set forth for the purpose specified.

2. The outriggers B, levers F, arms D, and springs E, combined in relation with each other and with the box A and seat *a*, substantially as herein set forth for the purpose specified.

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