O. S. HARMON.
Exercising Machine.

No. 201,606. Patented March 26, 1878.

Fig. 1.

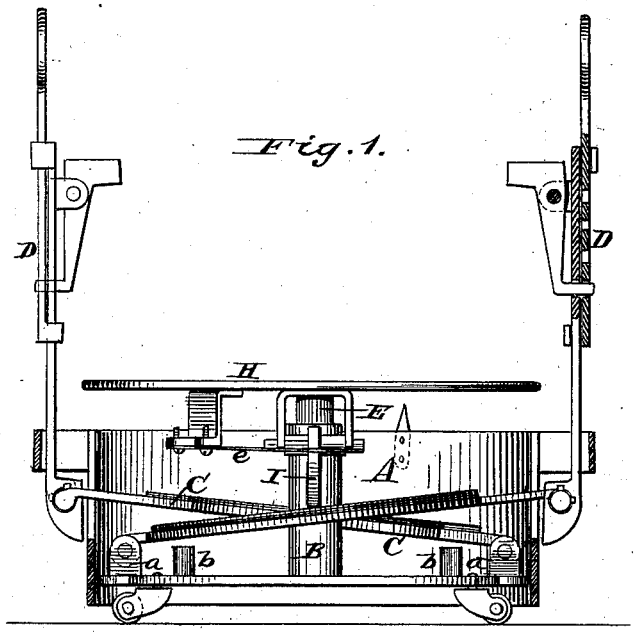


Fig. 2.

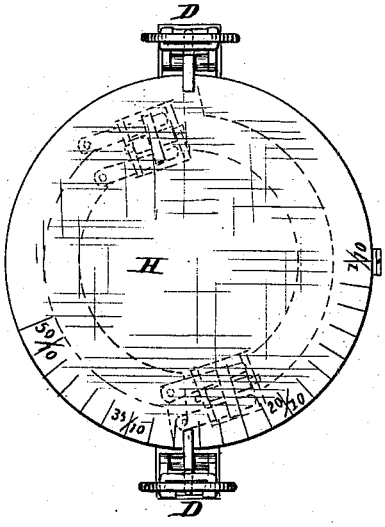


Fig. 3.

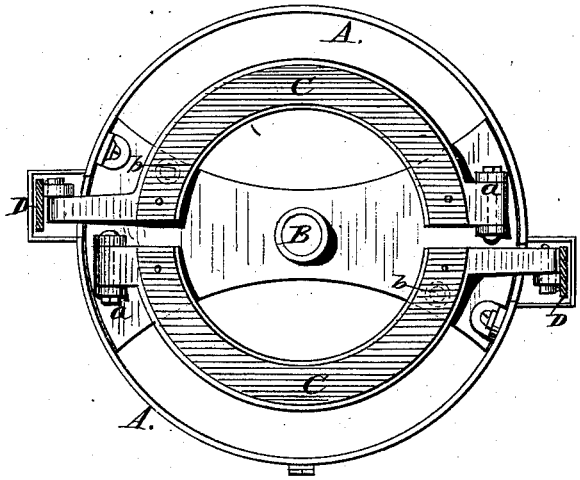
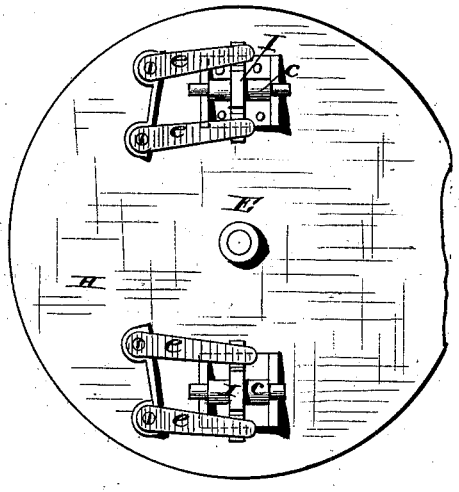


Fig. 4.



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UNITED STATES PATENT OFFICE.

ORVILLE S. HARMON, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN EXERCISING-MACHINES.

Specification forming part of Letters Patent No. **201,606**, dated March 26, 1878; application filed February 1, 1878.

To all whom it may concern:

Be it known that I, ORVILLE S. HARMON, of Brooklyn, Kings county, New York, have invented an Improvement in Health-Lifts; and I do hereby declare the following to be a full and a correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side view, partly in section. Fig. 2 is a top view. Fig. 3 is a top view with the platform removed, and Fig. 4 is a view of the bottom of the platform.

My invention relates to that class of devices known as "health-lifts;" and it consists in inclosing within a cylindrical body two circular levers, which, by means of adjustable hand-pulls, raise a revolving platform, said platform being made adjustable as to the weight it bears by the position its supports occupy upon said circular levers.

In the drawings, A represents a cylindrical body or case, and B a hollow standard in its middle. Pivoted upon one side of the bottom of said cylindrical case, as at *a*, are the circular levers C C. Said levers C C project through a slot in the sides of the cylindrical case A, and are actuated by the hand-pulls D D by the party standing on the health-lift.

Attached to the bottom of the cylinder A are two stops, *b b*, which limit the levers C C in their descent.

Freely revolving in the hollow center B is the center post E of the platform H. The platform H is thus allowed to revolve, and yet to rise and fall.

On the under side of the platform H are adjustable supports I I. These supports are secured to axles *c*, which revolve in suitable bearings, secured to the bottom of the platform H, and are held in position by springs *e e* bearing against projections at the sides of each support. The bearings I are therefore allowed to move longitudinally by the revolution of the axles *c*, and are held in place by the yielding springs *e e*. The bearings I I bear upon the circular levers C C, upon a surface of rubber or other yielding material, and as the platform H may be revolved the bearings I will occupy different places upon the circular levers C C, and so adjust the weight.

An index upon the side of the cylindrical case and a graduated scale upon the periphery of the platform will indicate the position of the bearings upon the circular levers, and consequently the amount of weight the platform will bear.

The operation of my device is as follows: A person desiring to use the health-lift will first adjust the hand-pulls D D to the proper length for his arms, and, by revolving the platform H to the weight he wishes to lift relatively to the weight of his body, he will prepare the lift for use.

The operation of the adjustment by the revolution of the platform is this: When the bearings I of the platform are, as shown in the drawing, about midway between the hand-pulls D and the fulcrums *a*, the levers C C will lift a certain weight; and it is obvious that if the bearings I are moved nearer to the fulcrums *a* by the revolution of the platform H in that direction, the levers will lift a greater weight, or it will take less power to lift the same weight, for the length of the lever between the resistance and the fulcrum is diminished, and the distance between the resistance and the power is increased, and so by revolving the platform in an opposite direction an opposite effect will be produced, and the lever will require more force to lift the same amount.

My health-lift can be provided with casters and other ornamentation, making it a very pretty piece of furniture, and also the hand-pulls may be turned down within the cylindrical case and the platform replaced, and it is very closely packed for transportation or storage.

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

1. A health-lift composed of a cylindrical body and a platform elevated by means of two circular levers operated by pull-handles at the sides, substantially as described.

2. A revolving platform of a health-lift made

adjustable as to weight by means of the revolution of said platform upon the circular levers which operate it, substantially as described.

3. The revolving platform of a health-lift having self-adjusting supports, in combination with circular levers faced with rubber, substantially as described.

The above specification of my said invention signed and witnessed, at Brooklyn, this 30th day of January, A. D. 1878.

ORVILLE S. HARMON.

Witnesses:
HENRY B. WALKER,
WALTER DE BENTON.