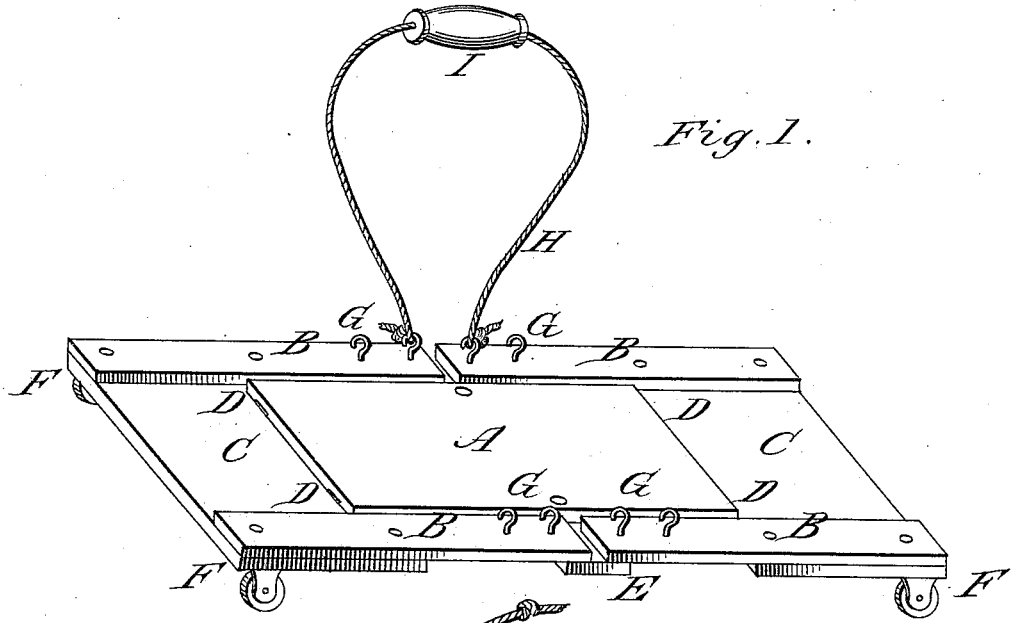
J. G. NICOLAY.
Exercising Machine.

No. 208,485. Patented Oct. 1, 1878.

Fig. 1.



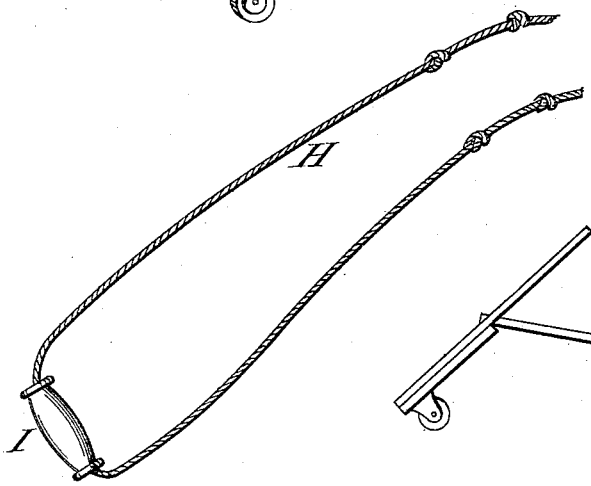


Fig. 2.

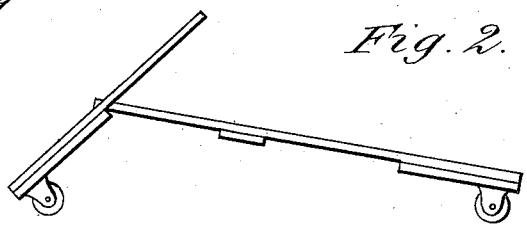
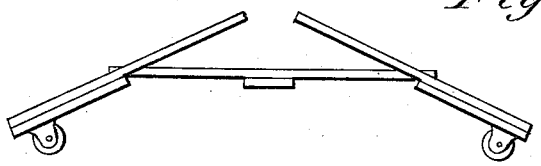


Fig. 3.



Attest:
Jas. D. Maher
H. C. McKenney

Inventor
Jno. G. Nicolay

UNITED STATES PATENT OFFICE.

JOHN G. NICOLAY, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN EXERCISING-MACHINES.

Specification forming part of Letters Patent No. **208,485**, dated October 1, 1878; application filed April 27, 1878.

To all whom it may concern:

Be it known that I, JOHN G. NICOLAY, of Washington, in the District of Columbia, have invented a new and useful Improvement in Health-Lifts, of which the following is a specification:

My invention belongs to a class of machines for gymnastic exercise known as "health-lifts;" and consists of pieces described and marked with letters of reference as follows:

Figure 1 of my drawing is a perspective view of my machine when not in use; Fig. 2, a side elevation, representing the levers of one end raised and the platform lifted at the end to which they are hinged, while the levers and cross-piece of the other end, remaining at rest, form, practically, a part or extension of the platform, as if they were solid with or rigidly fixed to the same; and Fig. 3 is also a side elevation, representing the levers of both ends raised and the platform lifted at both ends.

A is the platform upon which the operator stands. B B are the levers, firmly fastened to the cross-pieces C C, which are attached to the platform by the hinges D D. E is the rest-bar, firmly fastened to the platform, upon which the power ends of the levers rest loosely; F F, the friction-rollers at the fulcrum of the levers, resting upon the floor and moving easily to any position required by their inclination when raised; G G, the hooks, firmly fixed in the power end of the levers; H H, the knotted ropes, serving when hitched into the hooks to connect the levers with the hands of the operator when standing nearly erect upon the platform; and I I, the handles, through which the ropes loosely pass, so as to allow them to slide freely to any required place.

The whole machine used together enables the operator, standing upon the platform and pulling the levers upward by means of the ropes hitched into the hooks and securely held therein by their knots, to lift his own weight and person, and to do so with different degrees of leverage, which are adjustable, some by merely changing his position on the platform and others by changing the arrangements of the ropes and knots in the hooks.

This machine can be used in two distinct ways:

First, by attaching the ropes only to the levers at one end of the platform. In that case the other levers remain at rest, and in practical effect become simply a rigid extension of the platform itself, which may thus be lifted by one end only. This method of use has the advantage that the pull or lift becomes heavier or lighter as the operator stands near to or distant from the point at which the friction-rollers touch the floor. By simply changing position the operator can make the pull necessary to lift himself, more or less. (See Fig. 2.)

Secondly, by attaching the ropes to the levers at both ends of the platform. In this way both ends of the platform may be lifted simultaneously, and the weight becomes correspondingly heavier. In this manner of using it a change of position on the platform affects only the distribution of the weight between the levers. (See Fig. 3.)

In either case, whether by the use of the first or second method, the ropes may be changed to different hooks, so as in effect to lengthen or shorten the levers, and thus increase or decrease the pull or force required to raise the operator.

The position of parts of this simple mechanism might be greatly varied without any change of principle or invention.

What I claim as my invention is—

1. In an exercising-machine, the combination of a movable platform with one or more levers hinged to one of its ends, the fulcrum of said lever or levers acting directly upon the floor, substantially as herein set forth.

2. In an exercising-machine, the combination of a movable platform with one or more levers hinged to each of its ends, the fulcrum of said levers acting directly upon the floor, substantially as herein set forth.

3. In an exercising-machine, the combination of a sliding handle, rope, and the knots in the ends of the rope, as an adjustable attachment for raising the levers, substantially as herein set forth.

4. In an exercising-machine, the combination of the hook or hooks with the levers and knotted ropes, for the purpose of attachment and adjustment, substantially as shown and described.

5. In an exercising-machine, the combination of the friction-rollers with the fulcrum ends of levers acting directly upon the floor, substantially as herein set forth.

6. In an exercising-machine, the combination of the rest-bar E with the platform, substantially as herein set forth.

7. In an exercising-machine, the combination of the movable platform A, its hinged levers B, their connecting cross-pieces C, the hinges D, the rest-bar E, the friction-rollers F, the hooks G, the knotted ropes H, and the sliding handles I, all constructed as specified, and acting together substantially as and for the purpose herein set forth.

JNO. G. NICOLAY.

Witnesses:
JAS. D. MAHER.
H. C. MCKENNEY.