(No Model.)

J. M. LAFLIN.

EXERCISING APPARATUS.

No. 258,773. Patented May 30, 1882.

Fig. 1.

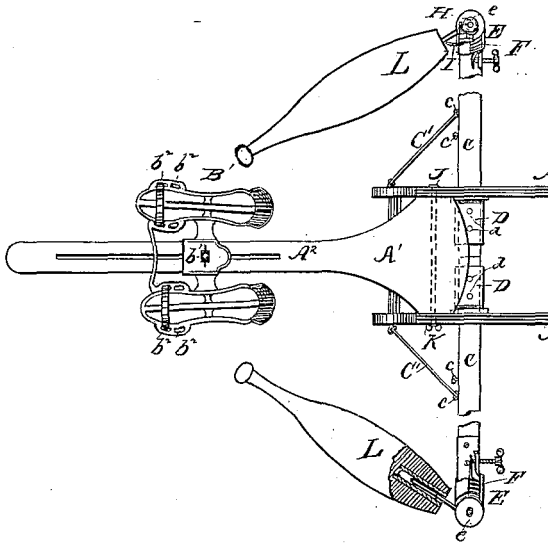


Fig. 5.

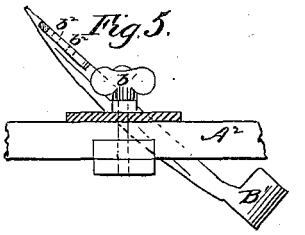


Fig. 2.

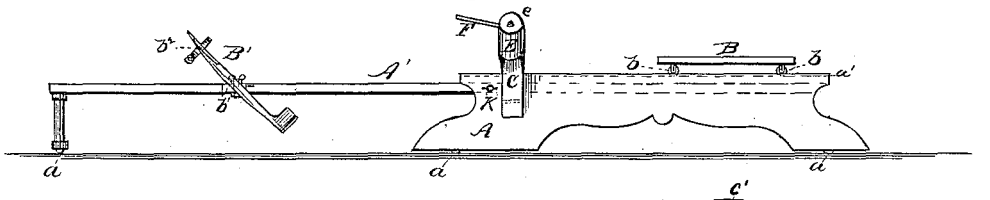


Fig. 3.

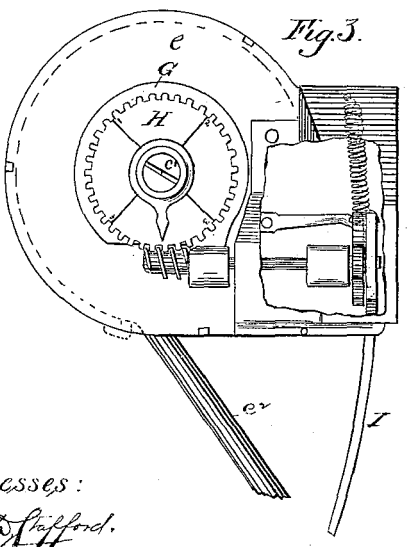
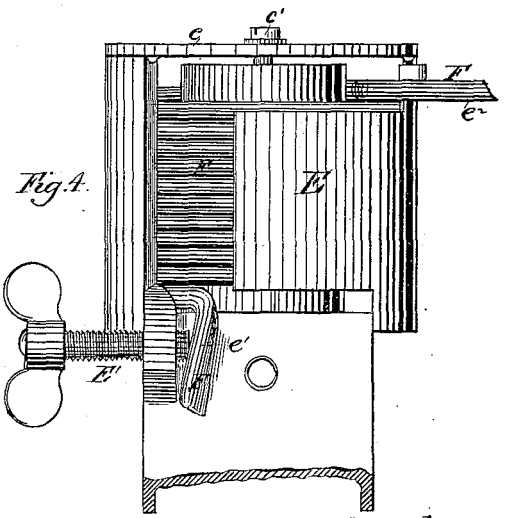


Fig. 4.



Witnesses:
B. E. Stafford.
H. A. Johnstone.

Inventor:
John M. Laflin,
by his attorney T. D. Stetson.

UNITED STATES PATENT OFFICE.

JOHN M. LAFLIN, OF NEW YORK, N. Y.

EXERCISING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 258,773, dated May 30, 1882.

Application filed April 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. LAFLIN, of New York city, in the county and State of New York, have invented certain new and useful Improvements in Exercising Apparatus, of which the following is a specification.

The principle of this invention is similar to that patented to me June 29, 1877, No. 192,271.

The new apparatus, when properly rigged, may serve as a rowing apparatus, which may be used in private houses, in a parlor or bedroom, or in gymnastic halls, &c.; but instead of using rubber or spiral metallic springs which extend and contract, as in the old patent, I provide outriggers, at the ends of which I arrange coiled springs, the protruding ends of which receive either Indian clubs or base-ball clubs, or some other similar devices, which, when detached, may be used independently of the other parts of the machine for various gymnastic exercises. These clubs or other devices serve instead of oars, the person who trains taking hold of them as he would of oars and performing the motions of rowing in a very exact manner. The springs which carry the clubs and serve to offer the desired resistance are made adjustable, so that their strength can be regulated according to the force of the person training. The outriggers also are made adjustable in the direction of their length, so that the performer can shorten or lengthen them, according to whether he wishes to practice as professional oarsman, in which case he does what is called "crossing the oars," or whether he only trains as amateur, in which case the crossing of the oars is not practiced.

The connection between the clubs and their supporting-springs is made in such manner that the "feathering" or turning the oars a quarter of a revolution at each stroke is rendered very easy.

The foot-rests are carried on a center piece, and are mounted adjustably on said center piece by means of a pinching-screw and a slot in the center piece, in which said pinching-screw slides.

In order to enable ladies or persons having small feet to use the apparatus, I cast the foot-rests with two sets of slots for receiving the foot-straps, so that the latter can be placed at a greater or less distance from the heel-supports, according to the length of the foot of the person using the apparatus.

The sliding seat, instead of being grooved, as is generally done on row-boats, &c., is provided with wheels made of rawhide, the said wheels running in grooves formed in the body of the machine. This arrangement is not only a very cheap one, but offers a great advantage, inasmuch as it avoids the necessity of greasing the slides for the seat.

In order to afford to the user of such an apparatus an easy means of keeping record of his performances, I provide a counter or registering-instrument. This counter is arranged in a convenient manner, so that its base-plate forms the cap of the socket for the oar-supporting spring. It is worked by a small lever depending from said cap in convenient position to be struck every time the club or oar is pulled sufficiently to make a movement equivalent to the full stroke of an oar.

I provide rubber cushions on the surfaces of the apparatus, which rest on the floor. By this means I prevent the gradual displacement of the apparatus which would occur with bearing-surfaces offering but slight friction when the apparatus is in use. The use of such rubber cushions enables me to dispense with the ordinary fastening means—such as screws, screw-eyes, and the like—which would tend to injure the floor or carpet or the base-board of the room in which the apparatus is placed.

The accompanying drawings form a part of this specification. Figure 1 is a plan view, and Fig. 2 is a side elevation, of the entire apparatus. The remaining figures represent details, and will be described farther on.

A is the body of the apparatus, consisting of two side pieces and a sufficient number of transverse stay-bars. At the bottom the side pieces are provided with rubber washers *a*, which are screwed or cemented on, so as to prevent the wooden parts from resting directly on the floor. On their upper edges the side pieces are grooved longitudinally, as shown at *a'*, the rawhide rollers *b* of the seat B running in said grooves.

C C are outriggers, which pass through suitable holes in the side pieces, and the interior ends of which are received in the cast-iron sockets D, fastened between the side pieces. The

outriggers C are capable of sliding in the sockets D, and may be removable therefrom altogether when the apparatus is not in use; but when it is desired to use the apparatus the outriggers C are held in their sockets D by means of pegs *d*, as shown. Each of the outriggers is formed with several holes for receiving its peg *d*, so that the length may be adjusted within considerable limits, according to the pleasure of the person who uses the apparatus. Hooks C′, engaging with eyes *c* on the outriggers, serve to additionally stiffen the latter under the severe strain to which they are subjected. The exterior ends of the outriggers carry cups or sockets E, of cast-iron or other suitable material, which receive the stout coiled springs F. A cap, *e*, covers each of the sockets E, being fastened thereto by a central screw, *c*′, and not only serves to protect the springs F, but serves also as a base-plate for the counter G. Each cup E is formed with a vertical slot allowing the insertion of the protruding arm *e*′ of the spring F. (See Fig. 4.) Near its base said vertical slot opens into a horizontal slot, in which the arm *e*′ of the spring can play, as will be seen farther on. The upper rim of each cup E is also cut out to receive and allow the play of the upper protruding arm, e^2, of the spring, which receives the club or oar L. The latter is for this purpose formed in the center of its base with a hole, which is preferably lined with a simple metallic tube, so as to prevent excessive wear.

The lower arm, *e*′, of the spring is preferably slightly flattened, and abuts against an adjacent screw, E′, which turns in an upwardly-projecting lug cast on the base of the socket or cup E. By turning this screw E′ in one direction or the other the arm *e*′ of the spring F is bent so as to increase or decrease the force of said spring.

By choosing a spring, F, of proper strength and shape I am enabled to adjust its force by the aid of the screw E′, so as to obtain a very wide range between the lowest and highest resistance. Thus one and the same apparatus can be successfully used by small children and by full-grown, strong persons.

The counter consists of a toothed wheel, H, mounted in the center of the cap *e*, and turned by means of a worm, to which an intermittent rotary motion is imparted from a pawl and ratchet, (see Fig. 3,) the pawl being impelled by the lever I. At each effective stroke of the club the wheel H is slightly turned, and a small hand stationary in the center of the wheel indicates how many strokes have been made, so that the user of the machine can easily see the rowing of what distance is equivalent to his exercise.

I prefer to so arrange the counter that the wheel H will complete one revolution at every two hundred and sixteen strokes, this number of strokes being equivalent to the rowing of one mile.

A scale on the wheel H may indicate quarters or other fractions of a mile; but it is evident that any other scale may be marked on the wheel H, and that the latter may be caused to complete one revolution at any other number of impulses communicated to the lever I.

The center piece, A′, which projects forward from the body and forms the support for the foot-rests, is held in grooves formed on the interior of the side pieces, and is confined in place by means of a transverse bolt, J, having a thumb-nut, K. This arrangement prevents in an effective manner all liability to warp of the side pieces, and thus keeps the grooves *a*′ for the sliding seat constantly parallel to each other. The center piece, A′, is formed with a slot, A^2, and the foot-rests B′, which are cast in one piece and formed with a socket, embrace the same.

In order to adapt the machine for persons of different height, the foot-rests are made to slide on the center piece, and when once adjusted in the proper position for a person they are clamped to the center piece by a thumb-screw, *b*′, passing through a T-piece which slides in the slot A^2, as shown in Figs. 1, 2, and 5. The foot-straps which serve to tie the foot of the user to the foot-rest may also be adjusted in different positions according to the length of the foot by simply taking them from one pair of the lugs b^2 and passing them through the adjacent pair, so as to bring them nearer to or farther from the heel part of the foot-rest, as the case may be.

At the bottom of the sliding seat are fastened short brackets which carry running wheels *b*, formed of strongly-compressed rawhide. These wheels *b* run in the grooves *a*′ formed on the tops of the side pieces.

It is a well-known fact that rawhide is a very effective self-lubricating material, and the arrangement described avoids, therefore, all greasing with fatty substances, which latter practice is objectionable, as it exposes the clothing of the user of the machine to injury by contact with the greasy surfaces.

Various modifications may be made in the details without departing from the principles of my invention. Some parts may be used without the others. I can, for instance, instead of making the foot-rests adjustable, use the same mode of adjustment of the center piece, A′, which is represented in my aforesaid patent of 1877.

I can use various other devices than Indian clubs for oars, preferably taking some device which, when detached from the machine, is useful for other gymnastic exercises.

A counter may be attached to each of the spring-sockets E; but for ordinary circumstances I believe that it will suffice to use only one fixed to one or the other of the sockets E.

Instead of rawhide wheels under the seat, I can use the ordinary runners and the grooved seat common in row-boats.

I prefer to cover the ends of the upper horizontal slot in the sockets E with a piece of

leather, rubber, or other elastic material, so as to deaden the force of the blow in case an inexperienced person should pull the oars or clubs, and then let go accidentally, so as to let them fly forward with the full force of the springs.

I claim as my invention—

1. In an exercising apparatus, the body A, having one or more outriggers, C, in combination with coiled springs F at the ends of said outriggers, capable of receiving Indian clubs or other similar devices to be used in guise of oars, substantially as herein specified.

2. In an exercising apparatus, the body A and one or more outriggers, C, in combination with coiled springs F and adjusting means E′, to regulate the force of said springs, substantially as and for the purpose specified.

3. In an exercising apparatus, the body A and one or more outriggers, C, adapted to receive oars or their equivalents, in combination with the slotted center piece, A′, and foot-rest B′, adjustably connected to the latter by means of a thumb-screw or its equivalent, substantially as herein specified.

4. In a rowing-machine, the counter H and its operating means, in combination with an oar or its equivalent, the whole arranged so as to co-operate substantially as herein specified.

5. In a rowing apparatus, the body A, carrying sockets D, in combination with suitable outriggers capable of sliding in said sockets, and with means for adjustably fixing the same in the latter, substantially as herein specified.

6. In an exercising apparatus, substantially as herein set forth, the rubber pieces *a*, fixed to the bottom parts of the apparatus, so as to be interposed between the latter and the floor, substantially as and for the purpose herein specified.

7. In a rowing apparatus, the body A, having grooves *a*′, in combination with the sliding seat B, having at its bottom a series of running wheels, *b*, formed of rawhide and adapted to run in the grooves of the body A, substantially as and for the purposes herein set forth.

In testimony whereof I have hereunto set my hand, at New York city, New York, this 31st day of March, 1882, in the presence of two subscribing witnesses.

JOHN M. LAFLIN.

Witnesses:

CHARLES R. SEARLE,

M. F. BOYLE.