(No Model.)

W. E. FOREST.

EXERCISING MACHINE.

No. 434,439. Patented Aug. 19, 1890.

Fig. 1.

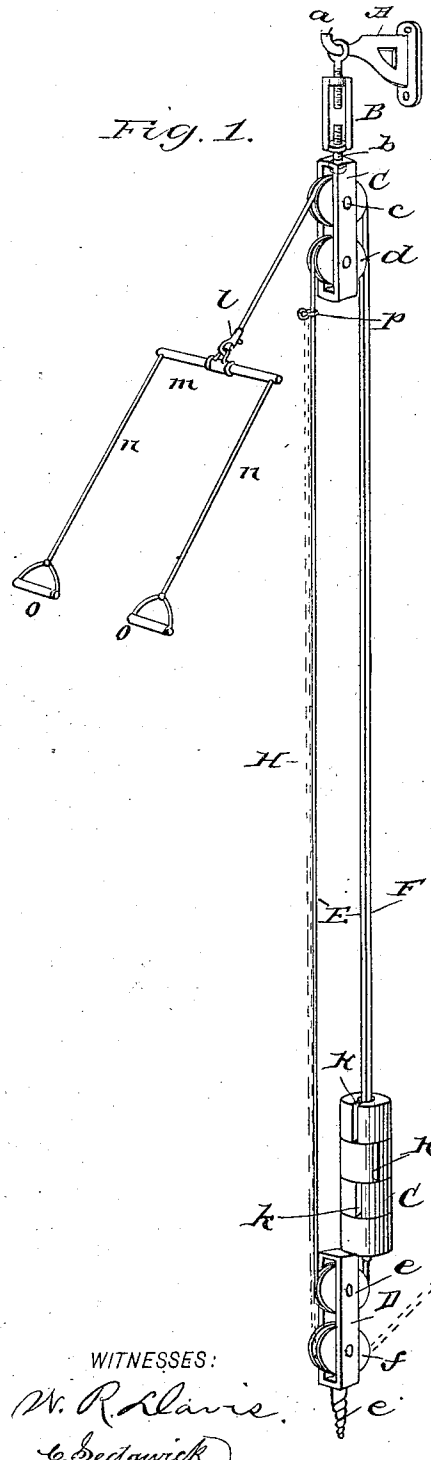


Fig. 2.

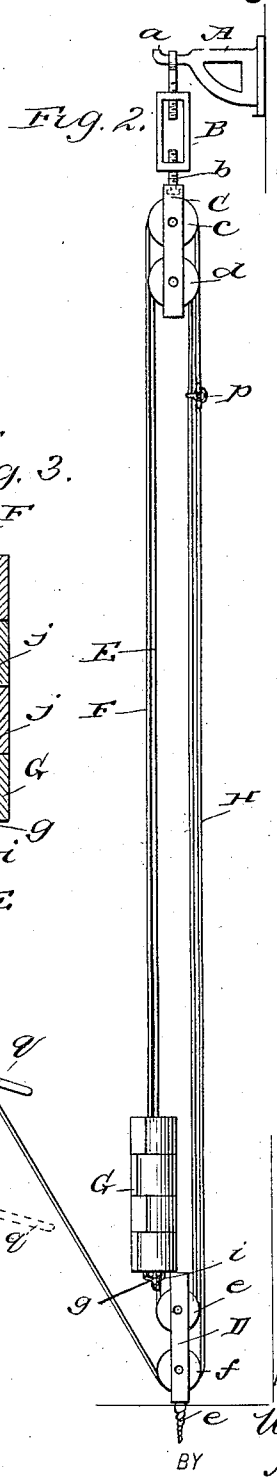
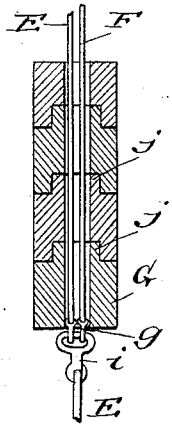
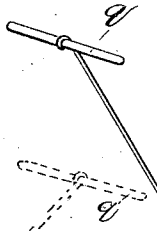


Fig. 3.





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EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 434,439, dated August 19, 1890.

Application filed December 13, 1889. Serial No. 333,611. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. FOREST, of New York city, in the county and State of New York, have invented a new and Improved Exercising-Machine, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a perspective view of my improved exercising-machine. Fig. 2 is a side elevation; and Fig. 3 is a sectional view of the weights used upon the machine.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide an exercising-machine in which the resistance-weights will be guided by a strained endless cord running over sheaves, and, further, to provide a machine which may be used for either a downward or upward pull.

My invention consists in the combination, with a pair of sheaves and an endless cord or cable, of a weight guided by the endless cord, a cord attached to the weight and extending above the sheave, and devices for supporting the apparatus and putting the endless cord under tension, all as will be hereinafter more fully explained.

The bracket A, which supports the mechanism, is fastened to the wall and provided with a hook *a*, for receiving the eye of the turn-buckle B. The lower screw *b* of the turn-buckle is secured to the upper end of the frame C, in which are journaled the sheaves *c d*, one above the other. In the floor is inserted the screw *e* of the frame D, in which are journaled the sheaves *e f*, one above the other. An endless cord E runs over the sheaves *d e*, and a cord F is connected with the cord E by means of a hook *g*, which engages an eye *i*, attached to the cord E. The eye *i* forms a support for the sectional weight G. The top of the lower section of the weight is provided with a boss *j*, which enters a corresponding recess in the bottom of the second section of the weight, and the second section is provided with a similar boss *j*, which enters a recess in the third section, and so on. The sections of the weights G are each provided with a slot *k* in one side thereof to facilitate placing them upon the cords E F. The cord F extends over the upper sheave *c*, and is provided at the free end thereof with a snap-hook *l*, of ordinary construction, which is hooked into the eye of the cross-bar *m*. To the ends of the said cross-bar are secured cords *n*, which are connected with the handles *o*. Arranged in this manner, the exercising-machine is used by grasping the handles *o* in the hands and alternately drawing up the weight and releasing it. When it is desired to get an upward pull, a cord H is attached to an eye *p*, fastened to the cord E, and the snap-hook *l* is detached from the bar *m* and connected with the eye *p*. The cord H extends downward underneath the sheave *f* and upward, the extremity of the cord being provided with a handle *q*. By an upward pull of the handle *q* the sectional weight G is raised. In either case the said weight is guided by the endless cord E, and the only friction of the machine is the turning of the sheaves upon their pivots. The endless cord E may be kept under any desired tension by the turn-buckle B. It is obvious that the cords F H may pass over the sheaves *d e*, thus dispensing with the sheaves *c f*.

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

1. In an exercising-machine, the combination of an endless guiding-cord, pulleys for supporting and guiding the endless cord, and a weight placed on the endless cord, substantially as described.

2. In an exercising-machine, the combination of the endless cord E, the sheaves *d e*, the cord F, and the weight G, substantially as described.

3. In an exercising-machine, the combination of the endless cord E, the sheaves *d e*, the sectional weight G, the sheave *c*, and the cord F, substantially as described.

4. In an exercising-machine, the combination of the endless cord E, the cords F H, and the eye *p*, substantially as described.

5. In an exercising-machine, the combination, with the endless guiding-cord E, of the sheaves *d e* and the turn-buckle B, substantially as described.

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Witnesses:
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