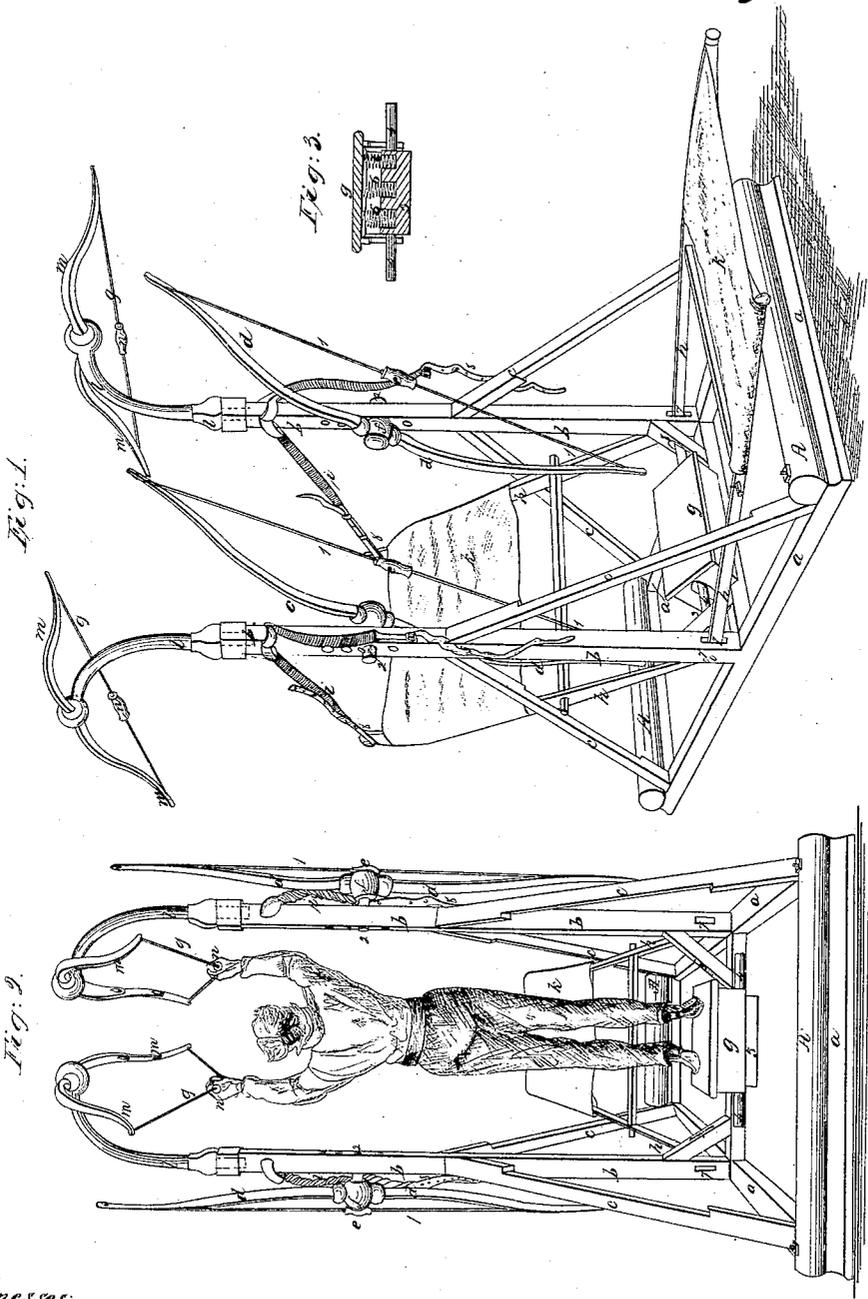


*R. L. Hinsdale*  
*Exercising Machine.*

*N<sup>o</sup> 9695.*

*Patented May 3, 1853.*



*Witnesses:*  
*John Van Schaack*  
*Samuel W. Small*

*Inventor:*  
*R. L. Hinsdale*

# UNITED STATES PATENT OFFICE.

RICHARD L. HINSDALE, OF NEW YORK, N. Y.

## ELASTIC EXERCISING-MACHINE.

Specification of Letters Patent No. 9,695, dated May 3, 1853.

*To all whom it may concern:*

Be it known that I, RICHARD L. HINSDALE, of the city, county, and State of New York, have invented, made, and applied to use certain new and useful improvements in elastic exercising-machines, which consist of elastic bows applied in such a manner as to sustain the person exercising and tend to strengthen the muscles of the body and expand the chest of the operator; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1, is a perspective view of the machine as applied to the exercising of the arms and body horizontally. Fig. 2, is an end perspective view of the bows as applied to the exercising of the muscles and body vertically, and Fig. 3, is a cross section of the spring platform on which the person exercising stands.

The like parts of reference denote the same parts.

$a, a$ , is a frame or may be a platform or floor receiving the posts  $b$ , which are to be supported by any number of proper braces  $c$ .

$d, d$ , are two bows made of wood, metal or other substance with the requisite strength and elasticity.

1, is the string of the bows, and  $e$ , is a handle fixed on the string of each bow and secured by knots on each side, so that the handle  $e$ , can turn on the middle of the string.

Each bow  $d$ , passes through a hub  $f$ , where it is secured but allowed to rotate by collars or pins on each side of the hub.

2, is a short stud or journal on the hub  $f$ , by which the hub is attached to the uprights  $b$ , the journal 2 being entered through holes and secured by a pin at the height required.

3, 3, are journal boxes formed by a notch cut vertically into the inclined braces, which receive the shaft 4, connected to a platform 5, see Fig. 3. This platform 5, has recesses in its upper surface receiving helical expansive springs 6, that take and support the spring platform  $g$ , which is formed as a box, inclosing the sides of the platform 5, and having slots in its sides to pass the shaft 4.

The operation of this part is that the user stands on the platform  $g$ , takes the

handles  $e$ , in his hands, and coming into an inclined position backward his weight tends to bend the bows  $d$ , and on throwing himself forward the bows  $d$ , partially rotate in the hubs  $f$ , the handles  $e$ , passing clear of hubs, and the weight of the user being now on the other side of the center line the bows and hubs  $f$  turn on the journals 2, coming to an inclined position on the opposite side of the posts  $b$ , and the weight of the person is supported by his arms as they are extended backward, tending to expand the chest. This alternating backward and forward motion can be repeated as often as desired, the platform  $g$  springing by the weight of the person and also vibrating on the shaft 4, as the party throws himself back and forth. This style of exercise may be too violent for some persons, and to partially support the body, I place what I term "reciprocators" either before or behind the person or both, so that a portion of their weight can be borne by these, either by leaning the chest or back against them, and from the spring of these reciprocators a vibration to the body can be obtained, and in case a bow or string breaks these reciprocators support the body. In Fig. 1 one of these reciprocators is shown in place, the other laid down out of the way and in Fig. 2 one reciprocator is removed to show the operation of the spring platform more clearly.

$h, h$ , are two side pieces jointed at 7 to the posts  $b$ , forming a frame over which a cloth or similar pad  $h$ , is stretched to receive the chest or back of the person exercising.

$i, i$ , are india rubber or similar springs of the requisite strength attached to the posts  $b$ , and by buckles and straps 8, are connected to the ends of the frame  $h$ , so as to give the motions and effect the purposes before set forth.

The weight  $A, A$ , may be applied to keep the platform  $a$ , steady where it is not attached to the floor.

To use the second part of my apparatus the bows  $d$  and hubs  $f$  may be removed or the journal 2, entered from the outside, as in Fig. 2. The spring platform  $g$ , is to be lifted up out of its journals 3, and placed on the floor see Fig. 2, the thickness of the platform 5, being sufficient to allow the springing while in this position, and the reciprocators  $h$ , may be lowered out of the

way or to any desired point at which they may be retained by clamp screws or similar means to the braces *c*.

5 *l, l*, are brackets, the lower ends being set in sockets in the tops of the posts *b*. These brackets receive through their upper ends bows *m*, similar to the bows *d*, *l* being the string and *n*, the handle in the middle. When these are to be used the brackets *l*,  
10 are to be turned toward the center of the machine, and the party exercising with these bows stands on the spring platform *g*, and taking hold of the handles *n*, exercises himself vertically, as shown in Fig. 2.

15 The bows *m*, may be supported by a frame instead of the brackets *l*.

By having the height of the platform *g*, from the shaft 4 increased this vibrating spring platform will describe a greater arc  
20 of a circle and give the person exercising more motion as he throws himself backward and forward while holding on to the handles *e*.

I am not aware that the elastic bows have

ever been applied solely to the purposes of 25 exercising and aside from the discharge of arrows.

What I desire to secure by Letters Patent is—

1. I claim the bows *d*, on their hubs *f*, 30 and the strings *l* and handles *e*, either alone or in combination with the spring and vibrating platform *g* as described and shown.

2. I claim the elastic reciprocators *h*, 35 made and operating as described and shown.

3. I claim the bows *m*, on the brackets *l* or their equivalents either alone or in combination with the spring platform *g*, for the purposes of vertical exercise as described and shown. 40

In testimony whereof I have hereunto set my signature this seventh day of September, one thousand eight hundred and fifty-two.

R. L. HINSDALE.

Witnesses:

PETER VAN SCHAACK,  
LEMUEL W. SERRELL.