

(No Model.)

J. R. HAMILTON.
EXERCISING MACHINE.

No. 443,631.

Patented Dec. 30, 1890..

FIG. 1.

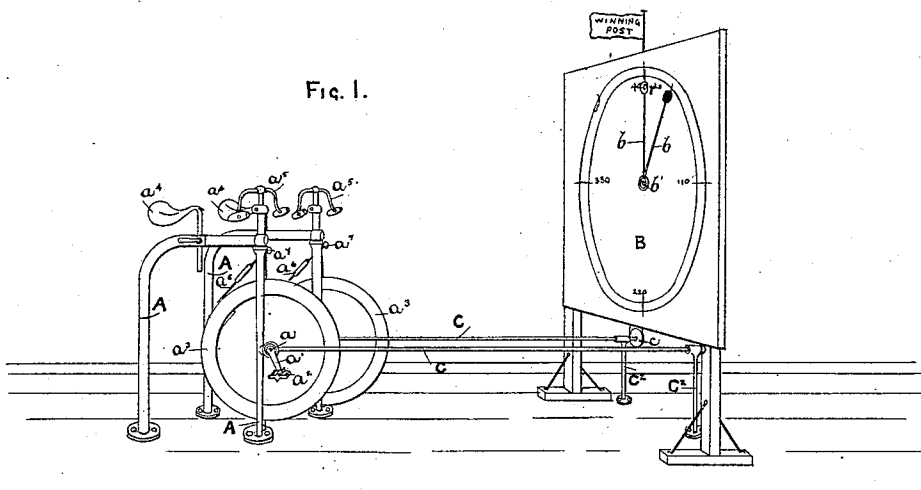


FIG. 3.

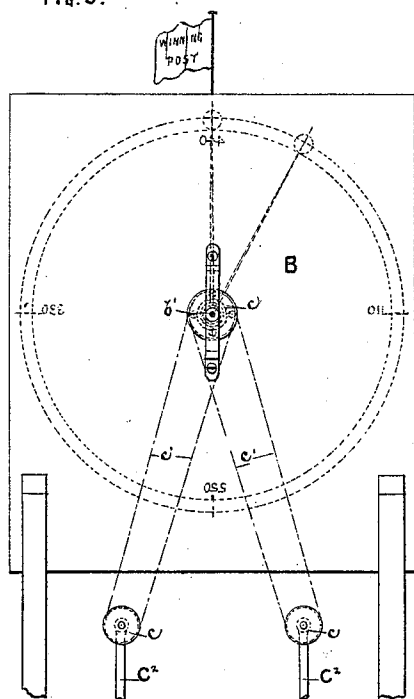
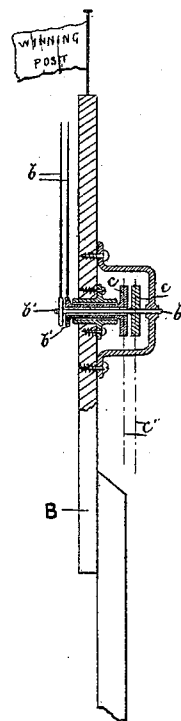


FIG. 2.



WITNESSES:

Arthur M. Black.
Edward L. Hammond

INVENTOR.

John Randolph Hamilton.
By his Attorney.
Robert D. Phillips

UNITED STATES PATENT OFFICE.

JOHN RANDOLPH HAMILTON, OF CHARLESTON, SOUTH CAROLINA.

EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 443,631, dated December 30, 1890.

Application filed September 20, 1890. Serial No. 365,585. (No model.) Patented in England November 20, 1888, No. 16,891.

To all whom it may concern:

Be it known that I, JOHN RANDOLPH HAMILTON, a citizen of the United States of America, residing at Charleston, South Carolina, United States of America, have invented certain new and useful Improvements in Home-Trainers or Exercising Apparati Analogous to Cycle Riding, (for which I have obtained a patent in Great Britain, dated November 20, 1888, and numbered 16,891,) of which the following, taken in conjunction with the accompanying drawings, is a full, clear, and exact description of the same.

My improvement relates to apparatus for obtaining exercise analogous to that of cycle riding, technically known as a "home-trainer;" and it consists in an improved device for recording and showing the distance covered equivalent to the number of revolutions of the said machines, the object being to better adapt these machines for use in competitions by recording the revolutions of each machine, so that the competitors can see at a glance their respective performances. I attain this end by fixing two or more home-trainers of any suitable pattern adjacent to one another and preferably side by side and parallel with each other, by mounting a large dial having as many arbors carrying hands as there are machines in any convenient manner in front of them, and by connecting these arbors with the pedal crank-axles of the home-trainers by means of worm-wheels and screws and chain or spur gearing or their equivalents, so arranged and geared as to make each hand travel at the same speed of rotation for a given number of revolutions of the crank-axle.

In the accompanying drawings, Figure 1 is a perspective view of the apparatus adapted for two riders. Fig. 2 is a transverse section of the recording-dial, and Fig. 3 is a back view thereof.

The home-trainers, which may be of any well-known pattern and consisting essentially, of a frame A, carrying an axle a , fitted with cranks a' , pedals a^2 , a fly-wheel a^3 , a seat or saddle a^4 , and a transverse handle-bar a^5 , are fixed to the ground or floor in close proximity to one another, as shown.

In close proximity to these machines, preferably in front of them, is a dial B, of any

suitable size. This dial carries hands or indices b , the arbors b' of which are connected with the axles a of the home-trainers by means of small shafts C C, receiving motion from the axles by means of worm-wheels and screws or equivalent devices, and communicating it to the arbors b' by means of chain-wheels c and a chain c' or their equivalents. It will be understood that there are as many hands or indices on the dial as there are home-trainers. In order that the vibrations set up by working the home-trainers may not be transmitted to the dial B, the shafts C are mounted in bearings C^2 , fixed to the ground or floor independent of the dial. Each hand carries a disk or is otherwise marked with a color, mark, or number, corresponding with a similar color, mark, or number on the home-trainer which operates it.

If desired, friction may be applied to the fly-wheel a^3 by means of straps a^6 , encircling the said wheels and adjusted by means of hand-screws a^7 , as illustrated, or by any other suitable means—such, for instance, as increasing the size of the said wheel and making them with spokes or vanes to create a wind resistance.

The face of the dial is subdivided into suitable divisions to denote miles, meters, kilometers, or other measurements of distance.

It will be seen that with this apparatus riders can compete against one another, thus rendering it suitable for competitions, for the purpose of training or for the purpose of pleasure.

I wish it to be clearly understood that I do not limit myself to the precise details of construction herein set forth and shown by the accompanying drawings, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

I am aware that home-trainers of many different types have already been made, and I therefore do not broadly claim such as my invention; but

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination, with two or more exercising-machines technically called "home-

trainers," of a dial carrying two or more hands, preferably rotating about one common center and each receiving motion through suitable gearing from one of the exercising-machines, 5 all combined, arranged, and operating as and for the purpose set forth.

2. The combination, with one common dial, of two or more home-trainers or equivalent machines, each operating a hand or index 10 adapted to travel independently round the said dial through suitable gearing, and so de-

note the speed at which each home-trainer or equivalent machine is being ridden or operated, as set forth.

In witness whereof I have hereunto signed 15 my name in the presence of two subscribing witnesses.

JOHN RANDOLPH HAMILTON.

Witnesses:

THOMAS L. PHILLIPS,
FREDERICK J. RYDER.