No. 775,718. PATENTED NOV. 22, 1904.

F. BITTER.

EXERCISING MACHINE.

APPLICATION FILED MAY 24, 1904.

NO MODEL.

Fig. 1.

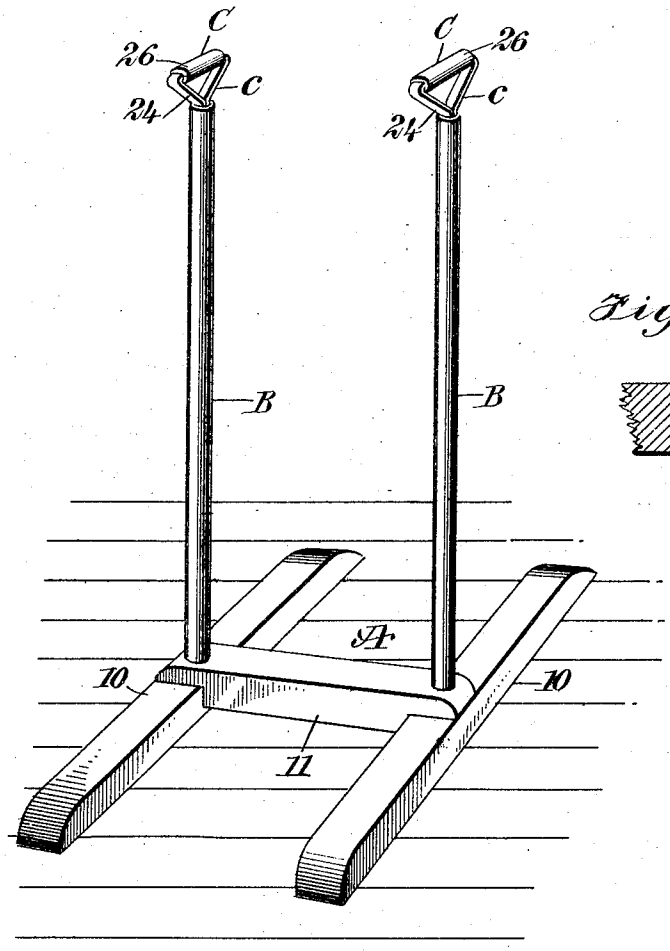


Fig. 2.

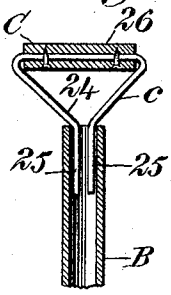
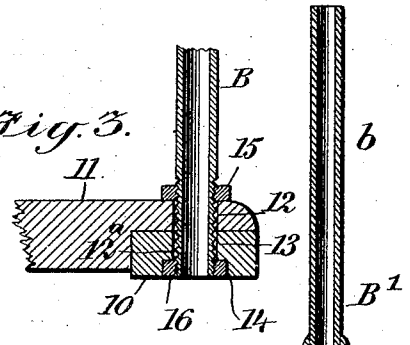


Fig. 3.



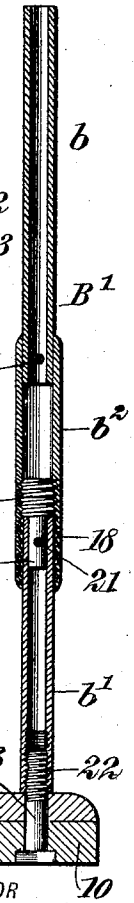


Fig. 4.

WITNESSES:

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No. 775,718. Patented November 22, 1904.

UNITED STATES PATENT OFFICE.

FREDERICK BITTER, OF NEW YORK, N. Y.

EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 775,718, dated November 22, 1904.

Application filed May 24, 1904. Serial No. 209,433. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK BITTER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Exercising-Machine, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide an exercising-machine in the nature of parallel bars and to so construct the machine that only two standards are employed, firmly supported at their lower ends, and to provide the upper ends of the standards with hand-grips having upper bar-sections.

Another purpose of the invention is to so construct the said hand-grips that they can be removed from the standards when not required and turned in the standards at the will of the exerciser while exercising on the machine, the said hand-grips being so supported in the standards that when subjected to direct downward pressure they will remain as stationary as though fixed in the standards.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improved machine. Fig. 2 is a vertical section through the upper portion of one of the standards and the hand-grip fitted thereto. Fig. 3 is a vertical section through the lower portion of the standard shown in Fig. 2 and a section through the base for the said standard, and likewise a section through the fastening devices employed to hold the standard firmly to the base at its lower end; and Fig. 4 is a vertical section through a portion of the base and through a standard, illustrating the said standard as vertically adjustable.

The machine consists, practically, of a base A, standards B, two in number, and hand-grips C, mounted to turn one in each standard B. The base A consists of parallel side sections 10, which are of sufficient length to have firm bearing on the floor or other support provided for the machine, together with a central cross-bar 11, which is rabbetted to the side sections 10. These standards B are shown as tubular throughout their length; but they may be tubular only at their upper ends, and a standard B extends upward from the base at each end portion of the cross-bar 11 of the said base, as is shown in Fig. 1.

One means of securing the side sections 10 of the base to the cross-bar 11 and at the same time securing a standard in position on the base is illustrated in Fig. 3, wherein it will be observed that registering openings 12 and 12^a are produced, respectively, in the cross-bar and in the side section of the base receiving the standard, and the lower end of the standard is provided with an exterior thread 13, and in the bottom of the side section receiving the standard a recess 14 is made at the bottom portion of the opening 12^a therein. The threaded portion of the standard extends through the aforesaid openings 12 and 12^a, and a nut 15 is screwed upon the standard above the cross-bar 11, having bearing on the upper face of the cross-bar, while a second nut, 16, is screwed upon the lower portion of the standard B, which nut when in place is received in the recess 14 in the side section 10 of the base above referred to.

In Fig. 4 I have illustrated a construction whereby a standard is vertically adjustable. To that end the standard, which is indicated by B′, is constructed in an upper section b and a lower section b', together with a central sleeve-section b^2. Both the upper and lower sections b and b' of the standard are tubular, and the sleeve-section b^2 receives the lower end of the upper section b of the standard, being secured thereto by a pin 17 or the equivalent of the same. At the inner lower portion of the central or sleeve section b^2 of a standard B′ a thread 18 is produced, and this thread 18 receives the exteriorly-threaded head 19 of a stem 20, which is passed down into the upper end of the lower section b' and is secured in place by a pin 21 or the like, while at the lower end of the said lower section b' of a standard B′ an interior thread 22 is produced, which receives the

threaded portion of a bolt 23, the said bolt being passed upward through a side section 10 of the base and the cross-bars 11, where the two connect, the head of the bolt 23 being countersunk in the under face of the side section 10. Thus it will be observed that by turning the sleeve or central section b^2 of a standard B' the standard may be increased or decreased in length to within prescribed limits.

The hand-grips C are removably located in the upper face of the standards employed, and each hand-grip consists of a frame *c*, made of a spring material, and the material employed is usually bar metal, polygonal in cross-section. The frame *c* comprises a body 24, which is above the standard and is of substantially triangular shape, yet open at its contracted lower portion, and from the sides of this body 24 legs 25 extend downward, being adapted to be fitted into a standard, and by reason of their expansion, as is shown in Fig. 2, a hand-grip is held in position until purposely turned. It is obvious that the hand-grips may be readily turned in their standards while a person is exercising at the option of such person and that when downward pressure is brought to bear on the body portion of the hand-grip C it will remain firmly in a set position in the standard into which it is fitted.

By reason of the hand-grips having the rotary movement in the standards B all of the movements usually practiced upon the ordinary parallel bar can be carried out with the aid of but two standards, the base and the two hand-grips, while at the same time a variety of movements which are impossible on fixed parallel bars are rendered possible by reason of the hand-grips having the aforesaid movement in their supporting-standards.

The upper member of each hand-grip is preferably provided with a bar-section 26, adapted to be gripped by the hand, and this bar-section, as shown, is constructed in two parts connected by screws. It will be understood, however, that the said bar-sections may be made in but one part and the material from which the frame of the hand-grip is constructed passed through the said bar before the said material is bent to the shape described and shown in Figs. 1 and 2.

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

1. In an exercising-machine, standards, hand-grips, and means for connecting the hand-grips to the standards, whereby the grips will be free to turn but will be held stationary when pressure is applied thereto, the said connecting means comprising spring portions on one of said parts which engage and press upon the other part.

2. In an exercising-machine, a base, standards secured to the base, and hand-grips removable from the standards and mounted to turn therein, having spring bearing at their lower ends against the inner faces of the said standards, as described.

3. In exercising-machines, a base, comprising side sections and a cross-bar, standards extending upward from the ends of the cross-bar, fastening devices for the standards, which fastening devices also serve to secure the cross-bar to the side sections of the base, and hand-grips having spring lower terminals and an upper cross-bar, the lower spring-terminals of the hand-grips being mounted to turn in the said standards, as described.

4. In an exercising-machine of the parallel-bar type, a base, standards extending upward from the base, and grip-bars consisting of triangular frames, hand-bars carried by the upper stretches of the frame, and fingers extending from the lower portion of the frame within the said standards, the frame being made of a spring material, as described.

5. In an exercising-machine of the parallel-bar type, a base, standards extending from the base, having tubular upper ends, which standards are in sections, a coupling connecting the said sections and having screw connection with one of them, and hand-grips mounted to turn in the upper ends of the said standards, the said hand-grips comprising an upper hand-bar and a frame of spring material having fingers which extend into the said standards, as set forth.

6. In an exercising-machine, standards having tubular ends, and hand-grips having spring members entering the standards.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK BITTER.

Witnesses:
J. FRED. ACKER,
JNO. M. RITTER.