(No Model.)

S. M. BARNETT.

EXERCISING MACHINE.

No. 385,901. Patented July 10, 1888.

Fig. 1.

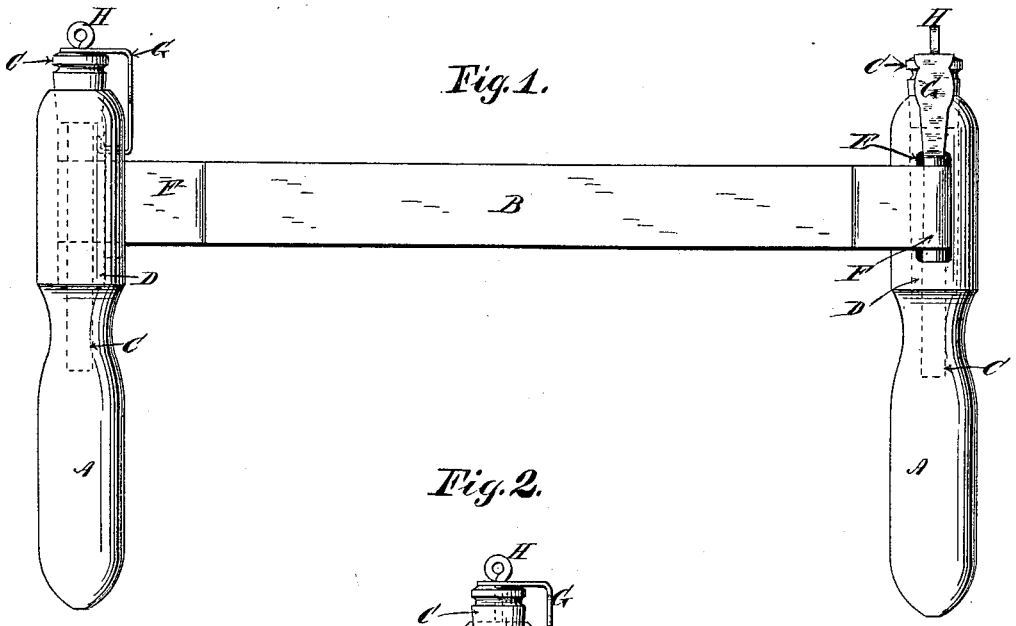
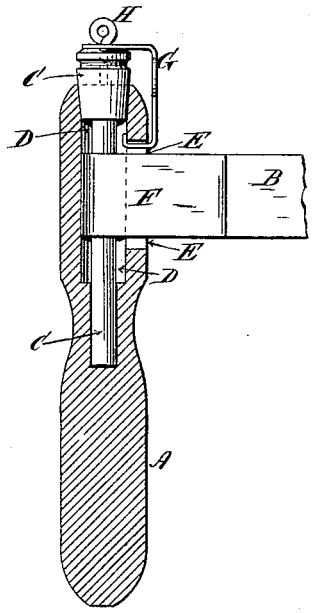


Fig. 2.



Witnesses:
W. W. Gardner
Wm. Cotterstick

Inventor:
Samuel M. Barnett by
Walter Edmonds
Atty.

UNITED STATES PATENT OFFICE.

SAMUEL M. BARNETT, OF NEW YORK, N. Y.

EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 385,901, dated July 10, 1888.

Application filed March 27, 1888. Serial No. 268,626. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL M. BARNETT, of the city, county, and State of New York, have invented a certain new and useful Improvement in Exercising-Machines or Chest-Expanders, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my said improved machine and apparatus, showing the two handles so turned that each occupies a different position relative to the spectator. Fig. 2 is a sectional view of one of said handles containing the other parts used in combination therewith.

My present invention relates to improvements in that class of exercising-machines in which a looped rubber band or stretcher constitutes the article against whose resistance muscular strength is exerted to produce a very non-injurious and strengthening exercise invented by me; and the object of my present invention is to provide a cheap, strong, and readily fastened and unfastened device, whereby the various parts constituting the said exercising machine or apparatus may be kept in the desired relation to each other at all times, and so as to overcome the tendency to separation of those parts incident to the application thereto of muscular force during the act of exercising; and the object of my said invention is also to produce such means of retaining the parts together, as aforesaid, that application thereof may be readily made to existing apparatus without changing the present standard of shape and style of construction at present made use of. I attain the objects desired by means of my invention as follows:

A A, Fig. 1, are handles, preferably constructed out of wood and of size sufficient to be conveniently held in the hands of the party exercising. The upper portions of these handles are cut so as to form cylindrical chambers D. The diameter of these chambers varies. Near their upper extremity the walls of the chambers are slightly flared, so as to enable them to be brought into close contact with the slightly-conical upper section or head of cylindrical pin C. The lower parts of said cylindrical chambers are of smaller diameter, so as to fit snugly the pin C at its lower and smaller extremity. The middle portions of said cylindrical chambers are of such diameter as to enable them to contain the looped end F of the rubber band B without friction when threaded upon said pin C.

C is a strong pin constructed of any suitable material possessing the required strength and lightness, though I find that the harder woods are sufficiently strong for the purpose. This pin is preferably shaped as shown in the drawings, Fig. 2, and is removable from the handle, as hereinafter described. The cylindrical chambers D are provided with slots E, of size sufficient to admit the rubber exercising-bands B and to give considerable play to the latter in all directions.

B is a flat band of rubber, having its ends bent backward and permanently secured upon itself, thereby making permanent loops F F at each extremity thereof.

The apparatus is put together by inserting the loops F from the outside through the slots E, and then inserting pins C and threading latter through the loops while contained in the cylindrical chambers D. The pins C, being now pressed firmly into place, will unite the bands and handles and admit of latter being seized in the hands and the rubber stretched in various directions by the exertion of muscular power. A very large number of different movements of the arms and body in relation to this apparatus have been devised by me, and among these are several in which it becomes necessary to detach one of the handles from the band and secure the band at that extremity thereof by slipping its loop F around some pin or other suitable device permanently fixed, as upon the wall or floor of a room. One end of the apparatus is thus secured, and the operator in exercising applies his force to the other end. The frequent removal and replacing of the pin C for the purpose of using the apparatus in the connection last mentioned serves to wear away the surfaces so as to loosen the fit of the pin within the handle and increase its undesirable tendency to be forced out of the cylindrical chambers by the pressure exerted upon it through the bands in violently exercising. This tendency may produce dangerous results, as the pin may fly out with great violence and cause injury by col-

lision, or harm may come to the muscles of the person exercising by the sudden relaxation due to such instant relief of the heavy strain exerted on the rubber. I partially prevent this undesirable tendency of the pin to be ejected from the chamber D by diminishing the diameter of said chamber at its lower extremity, as shown in the drawings, so as to make a snug fit between same and lower extremity of the pin, thereby diminishing the tendency of the pin to move within the chamber when pulled by the rubber bands; and I also provide the pin with a spring-catch, G, so shaped as to be readly applicable to the apparatus, easily adjustable, and constituting a complete barrier to the removal of the pin during the exercise on the apparatus, and so shaped as to avoid changing or injuring the appearance of the apparatus, at the same time admitting of easy separation of the parts when such separation is desired for the purpose of securing one loop of the rubber band to the floor or wall, as aforesaid.

The spring-catches G are constructed, preferably, of steel or other metal possessing the requisite amount of strength and resilience. The shape preferred by me is shown in the drawings. The fixed end of the spring is attached to the pin C by a small screw, H, or any other well-known means. The opposite end of the spring is bent around so as to pass through the upper part of the slot E, and is so shaped as to form a catch upon the inside wall of the cylindrical chamber D. The shape of the spring is such as to present an elbow, thereby admitting of considerable movement of its lower extremity both vertically and horizontally. Whenever it is desired to remove the pin C, as aforesaid, it is only necessary to exert pressure upon the upper part of the spring G, whereby same is deflected sufficiently within the slot so as to disengage the catch at its inner extremity from the wall of the chamber, whereupon a slight pull will withdraw the spring from the slot E, and the pin C being withdrawn simultaneously, the parts of the apparatus are separated. To restore the parts into position it is only necessary to insert the pin C, opening the spring G at the same time until its extremity re-enters the slot, when it will immediately adjust itself to its proper position as the pin C reaches its seat.

The spring-catches are easily applied to the apparatus, are very cheap, and do not disturb the present standard of form and construction.

What I claim as new, and desire to secure by Letters Patent, is—

An elastic exercising apparatus having handles provided with cylindrical chambers D and fitted with pins C, in combination with band B and retaining spring-catches G, substantially as and for the purposes described.

SAMUEL M. BARNETT.

Witnesses:
CHAS. H. EDGAR,
WM. COTTER DICK.