

Feb. 19, 1935.

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1,991,520

DUMBBELL

Filed June 21, 1933

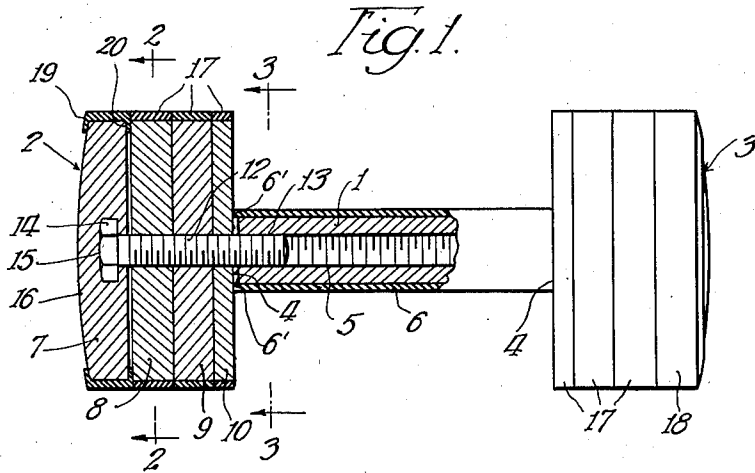


Fig. 2.

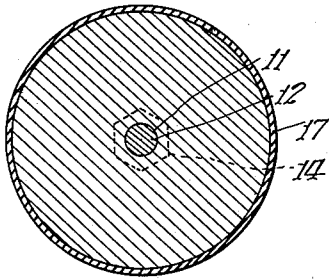
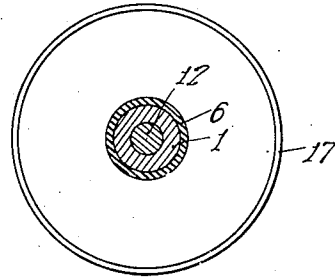


Fig. 3.



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1,991,520

DUMBBELL

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Application June 21, 1933, Serial No. 676,862

5 Claims. (Cl. 272—84)

My invention relates generally to exercising devices, and particularly concerns improved principles in the design and construction of dumb-bells and clubs.

5 One of the important objects of my invention is to design and construct a dumb-bell of which each end thereof is comprised of a plurality of plates or discs which are of various weights; in other words, it is an object to provide a dumb-
10 bell of a character whereby its weight may be increased or decreased according to the satisfaction of the user.

Another object of my invention is to provide improved means for locking the plates or elements forming the weights together, said locking means being concealed from view.

Another object is to provide a novel covering for the handle and ends of the dumb-bell.

15 A further object is to arrange and design one of the coverings in a manner whereby it will tend to serve as a lock washer.

20 A further object is to provide a structure in which the handle thereof is provided with a novel covering forming a gripping portion, the covering also being designed tending to serve as a lock washer.

25 A still further object is to provide a device of which the structure thereof is substantial and durable.

30 Many other objects and advantages of the device will appear after considering the description hereinafter set forth in connection with the drawing hereunto annexed wherein elements comprising the device are designated by certain numerals.

35 With reference to the drawing:—

Fig. 1 is a view disclosing a dumb-bell in elevation, a part thereof being in section for the purpose of illustration;

40 Fig. 2 is a section taken on line 2—2 through one end of the dumb-bell shown in Fig. 1; and

Fig. 3 is a section taken on line 3—3 through the handle shown in Fig. 1.

With reference to the drawing and considering the principles of design and construction involved in the production of the device, numeral 1 indicates a handle having ends respectively designated 2 and 3 secured thereto by novel locking means. The handle may obviously be constructed of any suitable material and of a diameter and length which will be convenient and adaptable to the hand of the ordinary user. The handle shown, however, is preferably of metal and is provided with butt ends 4. The handle is also preferably of tubular construction, however,
55 it is to be understood that it may be made tubular

adjacent the ends only. It is also to be understood that the handle may be tapered from the center towards the ends; or in other words, slightly rounded adjacent the central portion thereof, and may be made so as to be of a specific weight. The handle, as shown, is internally threaded as indicated at 5. A suitable covering 6 providing a gripping portion preferably of resilient material may surround the handle, if desired, and may obviously be made of any suitable material and of any design. As shown, the ends of the covering are extended a slight extent beyond the ends of the handles as indicated at 6', and thus the covering serves as a lock washer tending to hold the various parts in firm assembled relation.

Considering the principles of design and construction of the ends 2 and 3 which are secured to the handle, it will be noted that each end is comprised of a plurality of plates or discs of various weights, 7 in the present instance, being an end weight, and 8, 9, and 10, other weights, the latter weights each being provided with an aperture 11 in order that the threaded extension 12 provided on and extending from the end weight 7 may extend through the weights 8, 9, and 10, with the end 13 of the extension 12 threadably engaging the threads 5 of the handle in order to properly hold all of the weights in firm assembled relation. Obviously, the weights may be constructed of any suitable material and may be circular in shape or otherwise and be of any suitable weight. To illustrate, plates 8 and 9 may each weigh two pounds and the plate 10, one pound, and thus, it is evident that the weight of the dumb-bell may be increased or decreased as desired.

The novel locking means for holding the plates, forming the weights, together in assembled relation with respect to the handle as above referred to, includes a threaded extension 12. The threaded extension 12 is preferably provided with an enlargement 14 which is embedded in a seat 15 provided in the end plate or weight 7; thus the end plate serves as an operating member, the end 13 of extension 12 of the operating member 7, being engageable with the threads 5 of the handle, thus making it possible to vary the weight of the dumb-bell by adding or decreasing the weights. The threaded extension 12 may be of any suitable construction, however, in the present instance, is in the form of a bolt of which the head thereof is embedded in the end weight 7 in a manner whereby manipulation of the member 7 will correspondingly move the extension 12. It will be noted that the locking means thus dis-

closed is of a novel character, and is concealed from view. The end weight 7 may be of any suitable design, however, is shown with one face convex as indicated at 16.

5 As above referred to, one of the objects of my invention is to provide a suitable covering for the ends of the dumb-bell, and with this in view, it will be noted that the plates 8 to 10, inclusive, which form the weights are each encircled at the periphery by a band of resilient material 17, preferably of rubber.

10 The end plate operating member 7, as clearly shown, is provided with a covering 18, which is similar to each of the coverings 17, however, deviates therefrom, in view of the fact that it is more or less of channel shape in cross section, having a wall or portion such as 19, engaging the convex face 16 of the end operating member 7, and the wall or portion 20 thereof extending inwardly between the weights 7 and 8. The wall or portion 20 of the band 18 is designed to provide means which will serve as a lock washer, and thus tend to hold the various plates in firm, assembled relation with respect to the handle. It will thus be evident that the locking means are concealed from view and that there are no projections which extend outwardly from the confines of the ends. Obviously, either of the bands, such as 17, may be provided with an inwardly extending portion similar to that designated 20 of the band 18, in order to more or less tend to bind the adjacent weights with respect to each other.

Although the structure above referred to, is embodied in the construction of a dumb-bell, it is to be understood that the same principles may be involved in the construction of a club.

15 In view of the foregoing description, it will be evident that I have provided a dumb-bell involving novel principles of design and construction, and that the weight thereof may be varied as desired. It is also apparent that I have provided novel means for locking the various weights together; and also a novel covering for the various weights, including the handle, and that one of the coverings provide means tending to serve as a lock washer, and that the covering for the handle not only provides means for exercising the hand but may be of a character also tending to serve as a lock washer.

50 Having thus described the invention, it is obvious that various immaterial modifications may be made in the same without departing from the spirit and scope of the invention; hence, I do not wish to be understood as limiting myself to the exact form, construction, arrangement, and combination of parts herein shown and described, or uses mentioned.

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

60 1. A device of the kind described including a handle internally threaded and a plurality of weights, a threaded extension having an enlargement at one end and threads provided adjacent the other end of the extension, the enlargement of said extension being imbedded in one of said weights in a manner whereby the material of which the weight is made entirely surrounds said enlargement, the threaded end of said extension being of a character to extend through the other weights a sufficient distance for the threads of said extension to engage the threads of said handle and hold the weights in assembled relation to the handle, a covering for each of said weights and a covering for said handle, the covering for the end weight of said plurality of weights being

of channel shape in cross section in order to surround the edge and part of the faces of said weight and with a portion of said covering arranged between a pair of weights to provide a lock washer.

5 2. A device of the kind described including a handle internally threaded and a plurality of weights, a threaded extension having an enlargement at one end and threads provided adjacent the other end of the extension, the enlargement of said extension being imbedded in one of said weights in a manner whereby the material of which the weight is made entirely surrounds and engages said enlargement, the threaded end of said extension being of a character to extend through the other weights a sufficient distance for the threads of said extension to engage the threads of said handle and hold the weights in assembled relation to the handle, a covering for each of said weights and a covering for said handle, the covering for the end weight of said plurality of weights being of channel shape in cross section in order to surround the edge and part of the faces of said weight and with a portion of said covering arranged between a pair of weights to provide a lock washer, and the covering for said handle being extended to engage one of said weights to provide a lock washer tending to prevent movement of the weight with respect to said handle.

30 3. A device of the kind described comprising an elongated handle member having a threaded bore at each end, a member providing a cover for and projecting beyond the ends of the handle member, a pair of disc weights, a threaded member coaxial with and projecting from one face of each weight into the adjacent threaded bore, said weights being operable by rotation thereof to engage the adjacent projecting ends of said handle cover.

40 4. A device of the kind described comprising an elongated handle member having a threaded bore at each end, a member providing a cover for and projecting slightly beyond the ends of the handle member, a plurality of disc weights mounted on each end of said handle member, the outer weight at each end providing on its inner face an annular projection adjacent its outer periphery and a coaxial threaded member projecting into the adjacent threaded bore, the others of said weights each having a central aperture through which the adjacent threaded member extends, said outer weights being operable by rotation thereof to clamp the adjacent inner weights between said annular projections and the adjacent projecting ends of said handle cover.

55 5. A device of the kind described comprising an elongated handle member having a threaded bore at each end, a member providing a cover for and projecting slightly beyond the ends of the handle member, a plurality of disc weights mounted on each end of said handle member, the outer weights each having a channel shaped cover providing flanged edges projecting laterally beyond the faces of the weights, said outer weights each providing a coaxial threaded member projecting into the adjacent threaded bore, the others of said weights each having a central aperture through which the adjacent threaded members extend, said outer weights each being operable by rotation thereof to clamp the contiguous weights between the adjacent flanged edge of its cover and the adjacent projecting end of said handle cover.