Jan. 10, 1939. H. WALTON 2,143,337

MANUAL EXERCISING AND PHYSICAL DEVELOPING DEVICE

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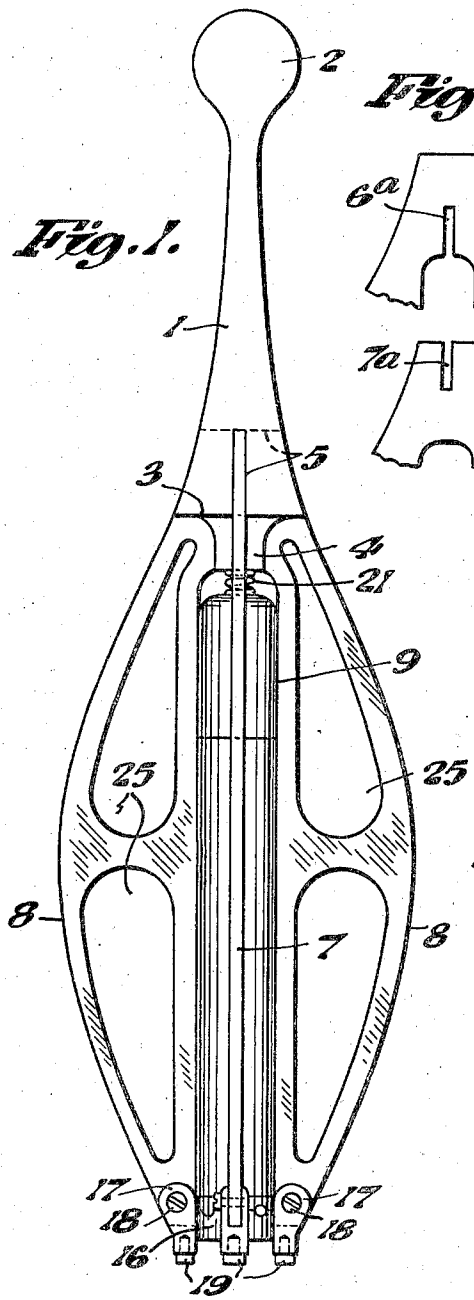


Fig. 1.

Fig. 3.

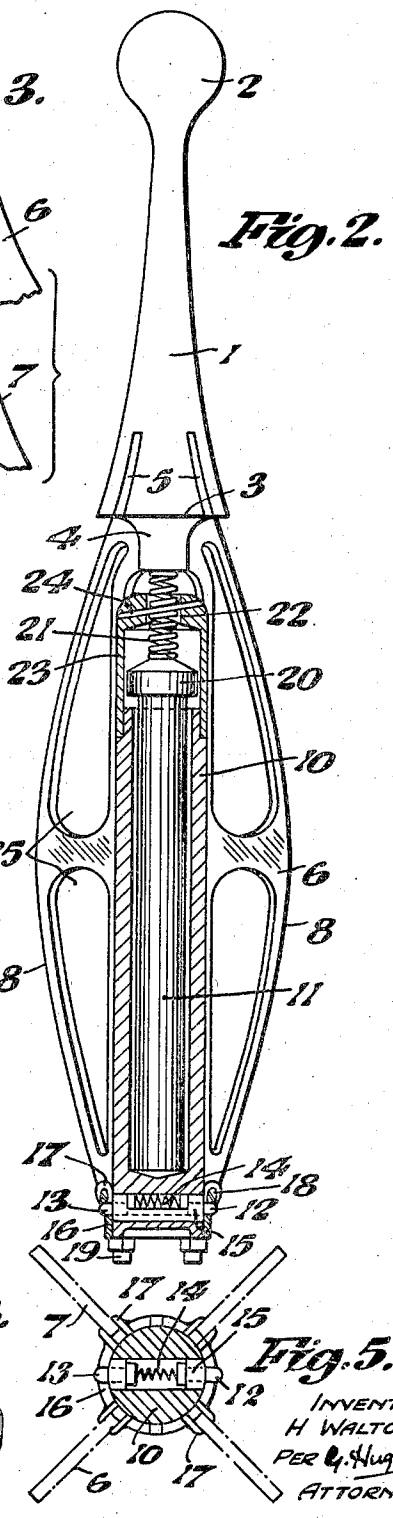


Fig. 2.

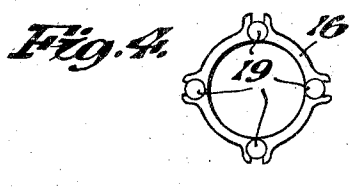


Fig. 4.



Fig. 6.

Fig. 5.

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MANUAL EXERCISING AND PHYSICAL DEVELOPING DEVICE

Hamlet Walton, Sheffield, England

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In Great Britain May 18, 1937

1 Claim. (Cl. 272—84)

This invention relates to Indian clubs and like exercising and developing devices. The object of my invention is to provide improved means for varying the effective weight of the clubs. Another object of this invention is to improve upon Indian clubs of the type composed of a plurality of radiating vanes attached to a handle.

Broadly my present invention consists in the provision of a substantially axial weight receiving compartment in the club combined with means for removing and replacing the weight.

The preferred form of my invention consists of an Indian club in the form of a handle to one end of which are affixed a suitable number of radiating vanes shaped to the desired contour appropriate to an Indian club and provided at the end remote from the handle with a detachable cap, said detachable cap forming an abutment for a removable container for a weight or weights, said container being provided with spring means to form an abutment for the weight or weights to normally restrain the weight or weights against movement relatively to the club.

In a method of carrying out the invention a handle member of wood is provided with a knob at one extremity as a means of retaining the handle in the closed palm, and a swelling at the other end terminating in a more or less plane surface perpendicular to the axis of the handle and of a diameter preferably somewhat greater than that of the handle portion. Two or more equi-angularly spaced slits, clefts or kerfs are cut in the swelled head portion in the planes of the axis but do not reach the axis and they thus form an axial cavity. In each of such kerfs is fixed in any known manner by nails, glue or the like for instance, a vane member (which may be perforated) of flat wood or other suitable material: one edge (that nearest the axis) of each such vane member is preferably straight lined and the outer edge may approximate more or less to the bulbous surface configuration of the well known Indian club. The inner straight edges are equally disposed apart from the axis of the device to form a longitudinal opening or cavity for the accommodation and reception of a lidded container for receiving loadings of various sizes and weights of metal rods or the like. The outer ends of the vanes are spacedly fixed, as by riveting, in radially disposed jaws around and about an annular metal frame whose aperture is a combination and continuation of the axial cavity formed by the inner straight line edges of the vanes. The hollow lidded container made of wood for instance or other suitable material is of a suitable length to approximately fill the centre of the vane formed cavity and carries, may be at its outer end, one or more radially spring urged plungers or the like members which when the container is in position take below, into or within the annular metal frame which secures the outer ends of the vanes and thus securely retains the container within the device during any evolution of operation. The interior of the container is bored and may be counterbored to receive singly any one of various lengths and/or diameters and varying weights of metal rods or the like and one or both ends of the container is or are fitted with an axially disposed spiral spring (retained by a transverse pin not necessarily at right angles to the axis) so as to be axially adjusted as to its longitudinal position by the roational screw motion of the same for the purpose of restraining or preventing any longitudinal movement of the contained weight within the container and/or the container itself within the framed cavity of the device.

In order that my invention may be clearly understood and readily carried into effect a sheet of drawings is appended hereto illustrating an embodiment thereof, and wherein,

Fig. 1 is a side elevation view of the club ready for use.

Fig. 2 is a sectional elevation at 45 degrees to Fig. 1.

Fig. 3 is a broken detail view showing the outer ends of a pair of vanes.

Fig. 4 is an inverted plan view of the base member of the club.

Fig. 5 is a plan view of the base member of the club, and

Fig. 6 is an underneath perspective of a suitable weight loading element for balancing purposes.

Referring to the drawing the club comprises a handle 1 with the customary knob 2 at one end, and flared or progessively enlarged in diameter at its other end where it is terminated by a radial plane end face 3. This end face can be provided with a concentric boss 4. The flared end of the handle is slotted diametrically at two or more points, the arrangement shown being slotted at two intersecting points at right angles to each other, these slots being indicated by the reference numeral 5.

Fitted into the slots 5 are two pairs of vanes 6 and 7 having outer edges 8 of arcuate form which also merge in curvilinear continuity into the periphery of the flared end of the handle 1,

whereby the vanes afford the customary substantially elliptical configuration appropriate to Indian clubs. The two vanes are interlocked by slots 6a and 7a which engage in each other in well known manner to form a cruciform cross section corresponding to the arrangement of the slots 5 in the handle 1, whereby the rigid assembly of vanes equi-angularly spaced and a handle is provided, the vanes being glued, pinned, wedged or otherwise secured in position.

Each vane is provided with a longitudinal centre slot 9 of substantial width, so that the intersecting vanes afford two pairs of parallel spaced opposed edges forming in effect a compartment or space within which is accommodated a sleeve 10 comprising a space for a weight 11. This sleeve 10 is closed at its base and is secured in the space 9 by suitable spring detent locking means provided at the lower end of the sleeve. This spring detent locking means comprises a pair of diametrically opposed plungers 12 and 13 between which is interposed a coiled compression spring 14 accommodated within a concentric recess in a disc 15 which may be located against the sleeve 10 or affixed thereto.

The plungers 12 and 13 have arcuate free ends so that they pass freely upwards against the inside of an annular base member 16 to which the vanes are fixed.

Any suitable means may be provided for affixing the base member 16 to the vanes, but it is preferred to provide it with two pairs of bifurcated lugs 17 which receive the lower edges of the vanes, screws 18 being passed transversely through these lugs and the vanes. Suitable rubber or other studs 19 can be affixed to the annular member 16.

The weight 11 may be a single member as shown or a plurality of metal rods, and the upper end, or uppermost member thereof, is preferably formed with an integral conical head 20 the apex of which affords a seating for a coiled compression spring 21 passed through a central hole 22 in a cap 23 detachably fitted on the upper end of the sleeve 10. This coiled compression spring abuts against the centre of the boss 4 and consequently normally restrains the weight or weights 11 from movement relatively to the club. The effective compressive effort of the spring 21 can be adjusted by passing substantially diametrically across it a pin 24 fixed in the cap 23, a threading motion of the spring 21 varying the length of spring available beneath the pin 24 to engage the conical head 20.

It is preferred to afford a plurality of openings 25 in the vanes, and the various parts, such as the vanes and the annular member 16, sleeve 10 and cap 23 which are composed of aluminium or other suitable metal or alloy.

For the purpose of adjusting the balance of the club one or more dished discs 26 of heavy metal such as shown in Fig. 6 can be fitted into the top of the cap 23.

The dished disc can be loaded with lead shot or other weighty articles to enable a wide range of adjustment to be effected.

The discs 26 have central openings to allow for the passage of the spring 21 therein.

I claim:

An Indian club or the like comprising a handle, a plurality of vanes formed in prolongation of the handle and having opposed inner edges spaced radially, a tubular compartment fitted closely in the space between said edges, one or more weights in said compartment, said edges being extended to the free ends of the vanes, an annular fastening member attached to said free ends, means in said fastening member for removably securing the said compartment in position, and a plurality of projections on said annular member which receive the free ends of the vanes.

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