

UNITED STATES PATENT OFFICE.

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SPARRING APPARATUS.

No. 835,796.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES LINDSLEY, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Sparring Apparatus, of which the following is a specification.

This invention relates to improvements in exercising or amusement apparatus; and the especial object of same is to produce a boxing or sparring device which when constructed in suitable size and material can be used in the training of boxers, in developing the art of defense against bodily assault, and generally in facilitating and making interesting physical exercise. When constructed in small size, the device can be used as a toy, as will be readily apparent.

In the accompanying drawings I have shown a preferred embodiment of my invention in the following views: Figure 1 is a side elevation of the apparatus complete, portions being shown in section. Fig. 2 is an enlarged fragmentary view of the upper portion of the lay figure which forms a portion of the apparatus. Fig. 3 is a rear elevation of the apparatus. Fig. 4 is a view, partly in longitudinal section, of the upper part of the lay figure on the line 4 4 of Fig. 2. Fig. 5 is a longitudinal section through one of the arms of the figure, and Fig. 6 is a fragmentary detail showing the connection for the head of the figure.

Referring to the details of the drawings, A represents a suitable floor or foundation for supporting my improved apparatus.

B is a base-plate, which is secured to the floor by a bolt b' .

D is a standard, which is suitably secured to the base and is formed with two upwardly-extending parallel arms d' d^2 , which are connected and braced by a cross-arm d^3 . Journalled in the standard and in a drum E are crank-shafts e^2 e^3 , and on the end of e^2 is secured an operating-crank e' . In the face of the drum, which is arranged between the arms d' d^2 , is a cam-groove e^4 , in which works a pin h' , set in the lower end of the rocking lever H, which is pivoted on pin d^4 , set in the cross-bar d^3 .

Journalled in the upper ends of the standard D are shafts F and G, on the outer ends of which are respectively mounted crank-arms

f' g' . On the shaft F is fixed a disk g^2 , and loosely mounted thereon is a grooved pulley g^3 , and similar parts f^2 and f^3 are arranged on the shaft G. Between the said pulleys is mounted a grooved wheel or friction-disk P, in the face of which an annular groove h^3 is formed. In said disk are journalled the inner ends of the shafts F and G. A pin h^2 in the upper end of the lever H projects into the groove h^3 . Traveling in the grooves e^6 and e^5 and in the grooves of the pulleys g^3 and f^3 are endless ropes I and J, respectively, by which motion is transmitted from the drum E to said grooved pulleys. To communicate motion from the pulleys to the shafts F or G, the lever alternately brings the pulleys f^3 g^3 in frictional contact with the adjacent faces of the disks f^2 g^2 , respectively.

To the outer end of the crank-arm g is pivoted a tubular arm g^4 , in which is housed a compression-spring g^9 . Slidably mounted in the arm g^4 is a piston-rod g^5 , having a suitable head on its inner end, which bears against the spring g^9 . On the rod g^5 is slidably mounted a collar g^8 , which forms a bearing for the inner end of a compression-spring g^7 , which surrounds a portion of said rod and has its outer end bearing against a block g^6 , which is pivotally connected with the outer end of the rod g^5 . Pivotally connected with the collar g^8 is a vertical rod l^2 , which is slidably mounted in a tube L and bears against a spring l^3 , which is housed in the spring. The tube is bent at right angles, and its horizontal part is mounted on the shaft K.

With the outer end of the crank-arm f' are connected parts which correspond in all particulars with the parts just above described, some of said parts being shown in full and some in dotted lines in Fig. 1. On the end of the shaft K is mounted a tubular shaft M, which corresponds to the tube L, except that it is provided with a crank-arm k^3 and an extension k^4 , in which the arm k^2 is pivoted. On the horizontal part of the tubular shaft L is mounted a collar k' , in which a bearing is provided for the trunnion n^4 of the head-supporting collar N, the other trunnion n^3 being journalled in the breast portion of the shell C, which forms the casing or covering of some of the movable parts of the device and is formed with thickened walls c' c^2 , in which the parts L and M are journalled. The collar N is formed with an extension n' , in the outer

end of which plays the crank k^3 of the shaft M. Secured in the collar N is a coiled spring n^2 , which is arranged vertically and extends up into and supports the head n^3 of the figure.

5 O represents a lever pivotally connected at its rear end with the crank-shaft e^2 , extending forwardly and by a pin o' , pivoted to the lower end of a bar o^4 , the upper end of which is pivoted on a pin o^2 , set in the upper portion
10 of the leg of the figure. Connected with the end of the lever o is a spring o^3 , the lower end of which is connected with a block in the foot of the figure. While I have shown only one leg of the figure as movable, it will be appar-
15 ent that the other leg may be similarly constructed and arranged.

The body and limbs of the figure may be made of any suitable material, depending upon what use is to be made of it; but, generally speaking, portions will be solid and
20 portions of rubber or flexible material, so as to permit the free movements of the arms, the head, and legs of the figure.

By turning the crank e' motion will be
25 transmitted to the shafts e^2 and e^3 , the drum E, the lever H, and the parts operated thereby. The springs provide for variability in the movements of the arms and provide the necessary yielding when the apparatus is
30 used as a sparring-machine. The head will move from side to side and when struck by

the fist of the person using the apparatus will yield and rebound through the action of the spring n^2 .

Various modifications may be made in the
35 construction and arrangement of parts, all within the scope of the essential principles of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Let-
40 ters Patent, is—

1. In a sparring device, a figure in the shape of a man and provided with movable head, arms and legs, a standard having shafts
45 journaled therein, means for operating said shafts, levers connected respectively with the head, arms and legs of said figure, and means for operating said levers from said shafts.

2. In a sparring device, a figure in the shape of a man and provided with movable
50 head, arms and legs, a standard having shafts journaled therein, means for operating said shafts, levers having resilient connections respectively with the head arms and legs of said figure, and means for operating said le-
55 vers from said shafts.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES LINDSLEY.

Witnesses:

G. A. MOORE,
R. A. MOORE.