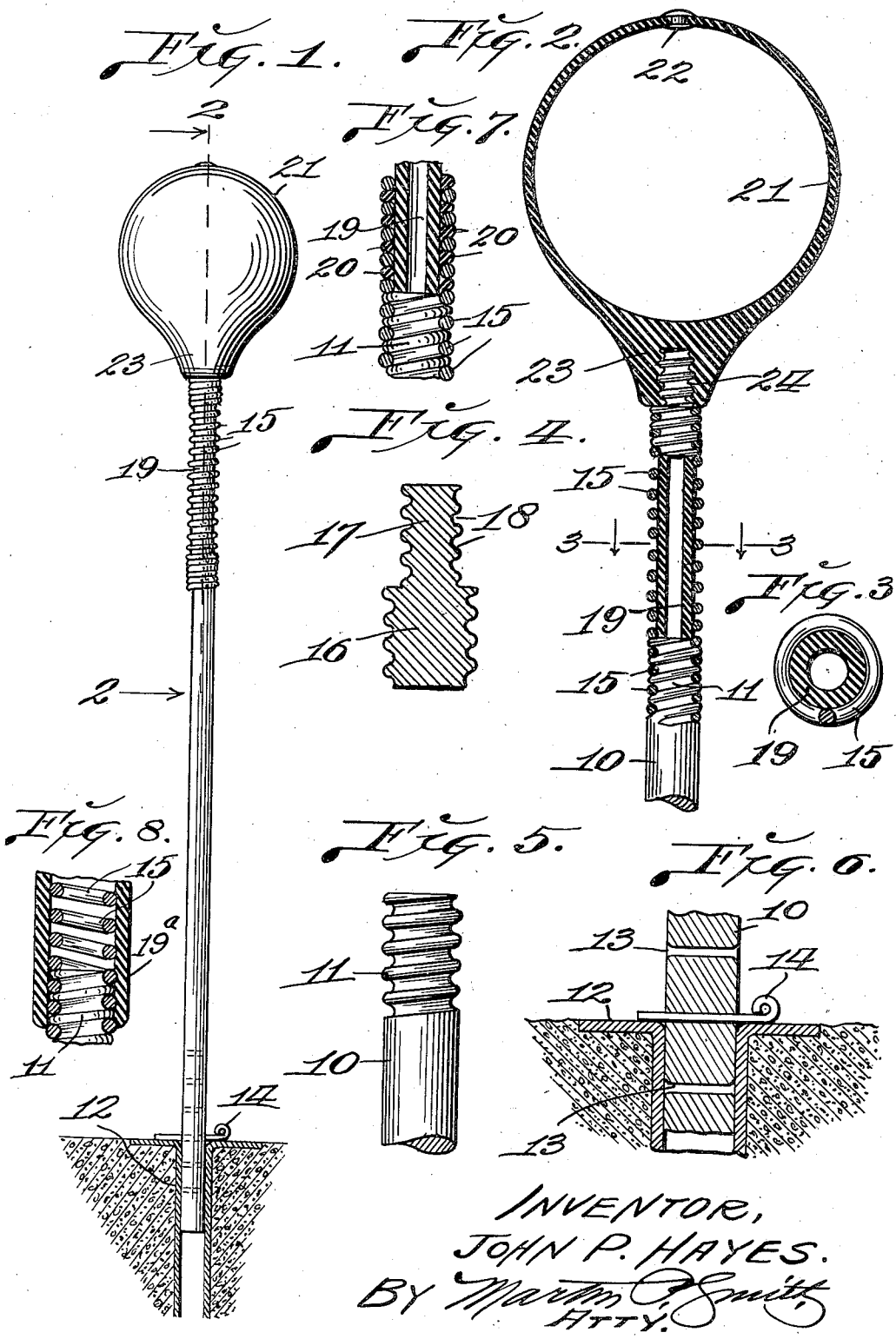
Dec. 26, 1939. J. P. HAYES 2,184,453

PUNCHING BAG

Filed Dec. 27, 1938



INVENTOR,
JOHN P. HAYES.
BY Martin O. Smith
ATTY.

Patented Dec. 26, 1939

2,184,453

UNITED STATES PATENT OFFICE

2,184,453

PUNCHING BAG

John P. Hayes, Los Angeles, Calif.

Application December 27, 1938, Serial No. 247,798

5 Claims. (Cl. 272—78)

My invention relates generally to exercising apparatus, particularly of the type generally referred to as punching bags and the principal object of my invention is, to provide a punching bag of simple, strong and sturdy construction, that will enable the user to derive exercising benefits that are practically equal to boxing, without the attendant danger of injury.

Further objects of my invention are, to provide a punching bag of the character referred to that is mounted on the upper end of a resilient standard and to provide simple and efficient means whereby the lower portion of the standard may be adjustably positioned in the floor, ground, or pavement, in order that the bag mounted on the upper end of the standard may be located at different heights so as to be conveniently struck by persons of different heights, further, to provide a highly resilient neck connection between the upper end of the resilient standard and the ball that is struck by the users of the appliance, which resilient neck permits the ball to yield readily when struck and to instantly return to its normal position and further, to provide a punching bag wherein the so-called bag comprises an inflatable ball of rubber provided at its lower end with a depending extension of solid rubber that is connected to the upper end of the resilient member that is connected to and extends upwardly from the resilient standard.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts that will be hereinafter more fully described and claimed and illustrated in the accompanying drawing in which:

Fig. 1 is a side elevational view of a punching bag constructed in accordance with my invention.

Fig. 2 is an enlarged vertical section taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged horizontal section taken on the line 3—3 of Fig. 2.

Fig. 4 is a vertical section taken through the member that connects the lower end of the ball or bag to the resilient extension on the upper end of the standard.

Fig. 5 is an enlarged elevational view of the upper end of the resilient standard.

Fig. 6 is an enlarged detail section showing the adjustable mounting for the lower end of the resilient standard.

Fig. 7 is a vertical section taken through the lower portion of the flexible connection used between the standard and the ball or bag.

Fig. 8 is a detail vertical section of a further modified form of the flexible connection.

Referring by numerals to the accompanying drawing which illustrates a preferred embodiment of my invention, 10 designates a standard that is composed of material having a certain degree of resiliency, for instance, wood such as hickory or ash, and formed on the upper end portion of this standard is a thread 11. The lower end of the standard is adapted to enter a tubular socket 12, preferably formed of metal, and which may be located in the floor, ground, or cement.

In order that the bag may be adjusted into different vertical positions so as to be conveniently used by persons of different heights, a number of transverse apertures 13 are formed through the lower portion of the standard and which apertures are adapted to receive a pin or key 14, which latter rests on top of the socket 12.

Screw seated in the thread 11 and projecting upwardly from the standard 10, is the lower portion of a coiled spring 15, the convolutions of which are spaced slightly apart. Three or four of the convolutions at the upper end of the spring are screw seated in the threaded portion of a connecting plug member 16, which member includes an integral upwardly projecting portion 17 of slightly reduced diameter and which is externally threaded as designated by 18.

Disposed within the spring 15 between the upper end of standard 10 and the lower end of connector plug 16, is a tube 19 composed of practically pure rubber and having a fairly thick wall and which co-operates with the coil spring in producing a substantial degree of resiliency between the standard 10 and the inflated ball or bag that is mounted on the upper end of the coil spring.

In order to control the degree of resiliency of the connection between the standard and bag, tubes having walls that vary in thickness may be utilized and, in some instances a tube having an external diameter slightly greater than the internal diameter of the convolutions of the spring may be used. In order to insert a tube of this character within the spring, it is necessary to utilize clamps or the like and unwind the spring to a sufficient degree to permit the tube to be inserted therein and, when the ends of the spring are released and the convolutions thereof contract slightly they will grip the inserted tube and produce a strong and substantial connection having the desired degree of resiliency.

In some instances, it may be found desirable to wrap a narrow strip 20 of resilient material, such as practically pure rubber, between the convolutions of the spring 15 and to retain this resilient strip in position, it may be cemented or vulcanized directly to the rubber tube 19 (see Fig. 7).

A further modified construction is illustrated in Fig. 8 wherein a tube 19a of practically pure rubber encloses the coil spring 15.

The bag or ball utilized in my improved exercising appliance comprises a hollow substantially spherical body 21 of rubber which may, if desired, be reinforced with fabric or other suitable material.

Located in the top of the ball is a conventional valve 22, which when open permits the ball to be inflated after which the valve is closed to maintain said ball in such inflated condition.

The lower half of the wall of the ball or bag gradually increases in thickness and the lower portion of said wall unites with an integral depending member 23 that gradually tapers toward its lower end.

Formed in this depending tapered member 23, is an internally threaded recess 24 which receives the externally threaded extension 17 of plug 16.

By providing a detachable connection between the ball or bag and member 16 and a detachable connection between the lower end of spring 15 and standard 10, the parts of the bag may be readily disassembled so as to occupy comparatively little space when packed for storage or transportation.

To set the bag up for use, the lower end of standard 10 is inserted in tubular socket 12 and said standard is adjusted vertically to position the ball so as to be conveniently punched by the user and, the standard is maintained in such adjusted position by positioning the key or pin 14 in one of the apertures 13, with said key resting on top of the socket. It is to be understood that when the device is in use, the ball or bag 21 is inflated and which operation is accomplished through the valve 22 and, that the latter is closed after the ball has been inflated to the desired degree.

The person using the exerciser strikes the ball with the clenched fists and due to the resiliency of the standard 10 and particularly the resiliency of the spring and rubber connection between the standard and the ball, the latter will readily yield as a result of the impact of the fist against the ball so that the latter will swing away from the fist and immediately return to its normal position as the resilient standard and resilient connection between the stndard and ball return to their normal positions.

To disassemble the apparatus for storage or transit, it is only necessary to unscrew the lower portion of the spring 15 from the upper end of the standard and to unscrew the upper portion 17 of the plug connection from the tapered body 23 that depends from the bottom of the ball or bag.

Thus it will be seen that I have provided a punching bag that is relatively simple in construction, inexpensive of manufacture, and very effective in performing the functions for which it is intended.

It will be understood that minor changes in the size, form and construction of the various parts of my improved punching bag, may be made and substituted for those herein shown and described, without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. In a punching bag, the combination with a resilient standard, of an inflatable bag, a coil spring connecting the upper end of said resilient standard with the lower end of said bag, a resilient tube disposed within said coil spring between said standard and bag and a strip of resilient material laid between the convolutions of said coil spring and enclosing said resilient tube.

2. In a punching bag, a standard, an inflatable bag, a body integral with and depending from the lower portion of said bag, said body being provided with a threaded recess, a threaded plug having its upper portion screw seated in said recess, a coil spring having its upper portion screw seated on the lower portion of said plug, the lower portion of said spring being detachably connected to the standard, a tube of resilient material disposed between the lower end of said plug and the upper end of said standard and a strip of resilient material laid between the convolutions of said spring and enclosing said resilient tube.

3. In a punching bag, a standard, an inflatable bag having an integral depending neck portion in which is formed a threaded recess and a flexible connection between the upper end of said standard and said depending neck portion, which flexible connection includes a threaded plug having its upper end screw seated in the threaded recess in the depending neck portion of the bag, a coil spring having its upper portion screw seated on the lower portion of said plug and a tube of rubber associated with said coil spring.

4. In a punching bag, the combination with a resilient rod standard, of an inflatable bag having an integral depending neck portion in which is formed a recess and a resilient connection between said standard and inflatable bag, which resilient connection comprises a plug having one end seated in the recess in said depending neck portion, a coil spring, one end of which is connected to said plug, the other end to said resilient rod standard and a rubber tube associated with said coil spring and providing a resiliency control therefor.

5. In a punching bag, the combination with a resilient rod standard, of an inflatable bag having an integral depending neck portion in which is formed a threaded recess and a resilient connection between said standard and bag, which resilient connection comprises a threaded plug having one end screw seated in the threaded recess in the depending neck portion of the bag, a coil spring having one end screw seated on said plug below the depending neck portion of the bag, the other end of said coil spring being screw seated on the upper portion of said resilient rod standard and a rubber tube associated with said coil sprng between said plug and standard for controlling the resiliency of said coil spring.

JOHN P. HAYES.