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J. G. GROSSHEIM

PUNCHING BAG SUSPENSION HANGER

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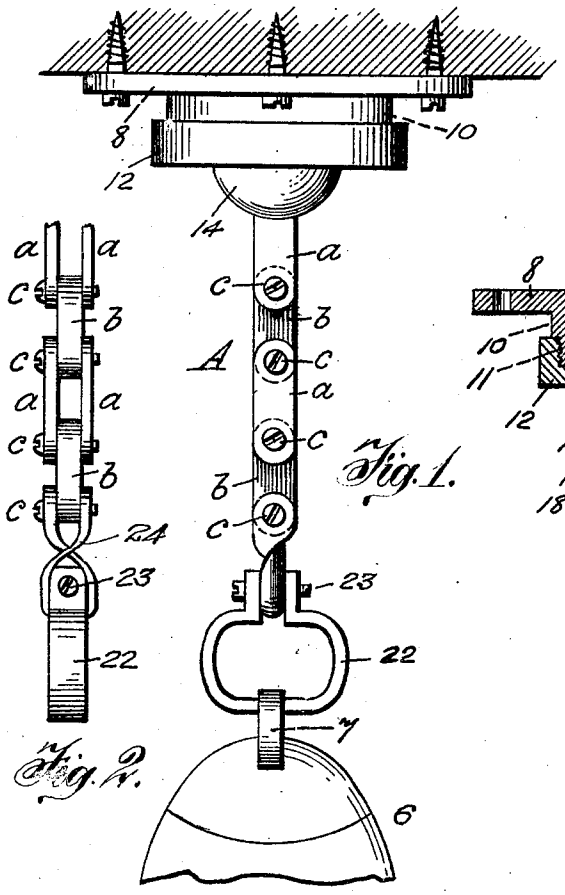


Fig. 1.

Fig. 2.

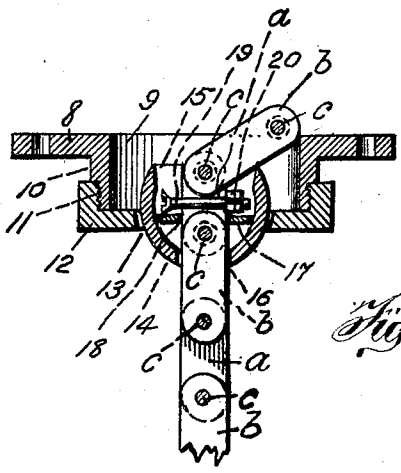


Fig. 3.

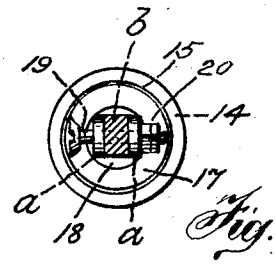


Fig. 4.

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PUNCHING-BAG SUSPENSION HANGER.

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This invention relates to suspension devices for punching or fist-striking bags used in athletic exercise, especially for boxers or sparrers, and the object of the present improvement herein is to provide strong, flexible and extensible chain devices for suspending the strike-bag before the user in readily adjusted vertical position to suit his height or stature and to meet the requirements as to lasting and wearing strength, as well as the greatly desired flexibility.

In the accompanying sheet of drawings—

Figure 1 is a front elevation, showing a fragmentary portion of the upper end or tip of the punching-bag; Fig. 2, a detached elevation, taken at right-angles to Fig. 1, showing the suspension link-chain and stirrup, with the upper end of the said chain broken off; Fig. 3, a vertical, central-section of the supporting-cup and hollow bearing-ball, showing one form of chain-suspension with adjusting means in said hollow bearing-ball, but omitting the punching-bag, and having the lower end of the chain broken off; and Fig. 4, a plan view of the said bearing-ball showing the upper middle-link of the chain in section.

In these views:—

6 indicates the ordinary punching-bag (the upper, tip portion only being shown) having a suspending-loop 7.

8 indicates a circular disk or plate having a large orifice 9 that extends downwardly in a deep, circular flange 10, the latter, in turn, having a lower external screw-thread 11 for the attachment of an orificed bottom-cap 12 that is internally screw-threaded and has a large circular opening or orifice 13.

14 indicates a hollow bearing-ball, slightly more than hemispherical and having an open top 15, with a central orifice 16 in its bottom. This bearing-ball has a pivotal rolling-support in said orifice 13 whose edge is beveled inwardly to properly accommodate said bearing-ball and form a circular axis therefor.

17 indicates a circular washer arranged in the hollow bearing-ball and having a chain A extending downwardly through its central opening 18, such chain being made up of strong flat links *a*, *a*, and *b*, the series of links *a*, *a*, being spaced twin or double outer ones and alternating with a single course or series of spacing middle ones that are connected in such series by means of short horizontal pins or screws *c* that may be readily removed, to either lengthen or shorten the chain vertically, when desired, and thereby suit the height and reach of the user, and then simply adding or removing one or more links, as the case may be.

At the upper end of the chain A, within the chamber provided by the deep flange 10 and the bottom-cap 12, is inserted a transverse, horizontal bolt or screw 19 having a pair of lock-nuts 20 thereon and extending beyond the opposite vertical sides of the outer links *a*, *a*, so as to hold the chain in suspended position from the bearing-ball 14, the said washer 17 forming a stop-platform within the ball for the upper end of the chain, and said bolt 19 allowing for longitudinal extension or contraction of said chain to compensate for the varying heights of those using the punching apparatus. Fig. 3 shows this chain A and its adjusting structure very clearly, especially with the omission of the near side-links of the twin series.

A stirrup 22 is attached, for free oscillatory movement, to the single half-twisted plate link 24 at the lower end of chain A by means of the transverse bolt or screw 23. The said stirrup 22 is removably-engaged by the hereinbefore-named punching-bag loop 7.

I claim:—

In a punching-bag suspension-hanger device, the combination of a punching-bag having attached thereto an upwardly-extending supporting-member, an overhead attaching-disk, a circularly-orificed cup detachably-secured to the said disk, an open-top semispherical hollow bearing-ball journaled in said orifice of the cup and having a central circularly-orificed bottom, a flat centrally-orificed disk freely supported and arranged within the said hollow bearing-ball, whose orifice is aligned with the centrally-orificed bottom of the bearing-ball, a flexible chain composed of alternating single and double plate-links and with a half-twisted plate-link at its lower end, a swivel-stirrup coupled with the said lower half-twisted end of the chain and adapted for swinging-engagement with the said upwardly-extending supporting-means of the

punching-bag and said chain thence projecting at its upper end through the orificed bottom of said bearing-ball and the aligned internal freely-supported orificed disk in the bearing-ball, and a transverse bolt detachably-engaging any select one of the upper links of the chain within the said bearing-ball to adapt the chain to vertical longitudinal extension or contraction to suit differing heights and reaches of users of the device, substantially as shown and described.

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