

Sept. 15, 1925.

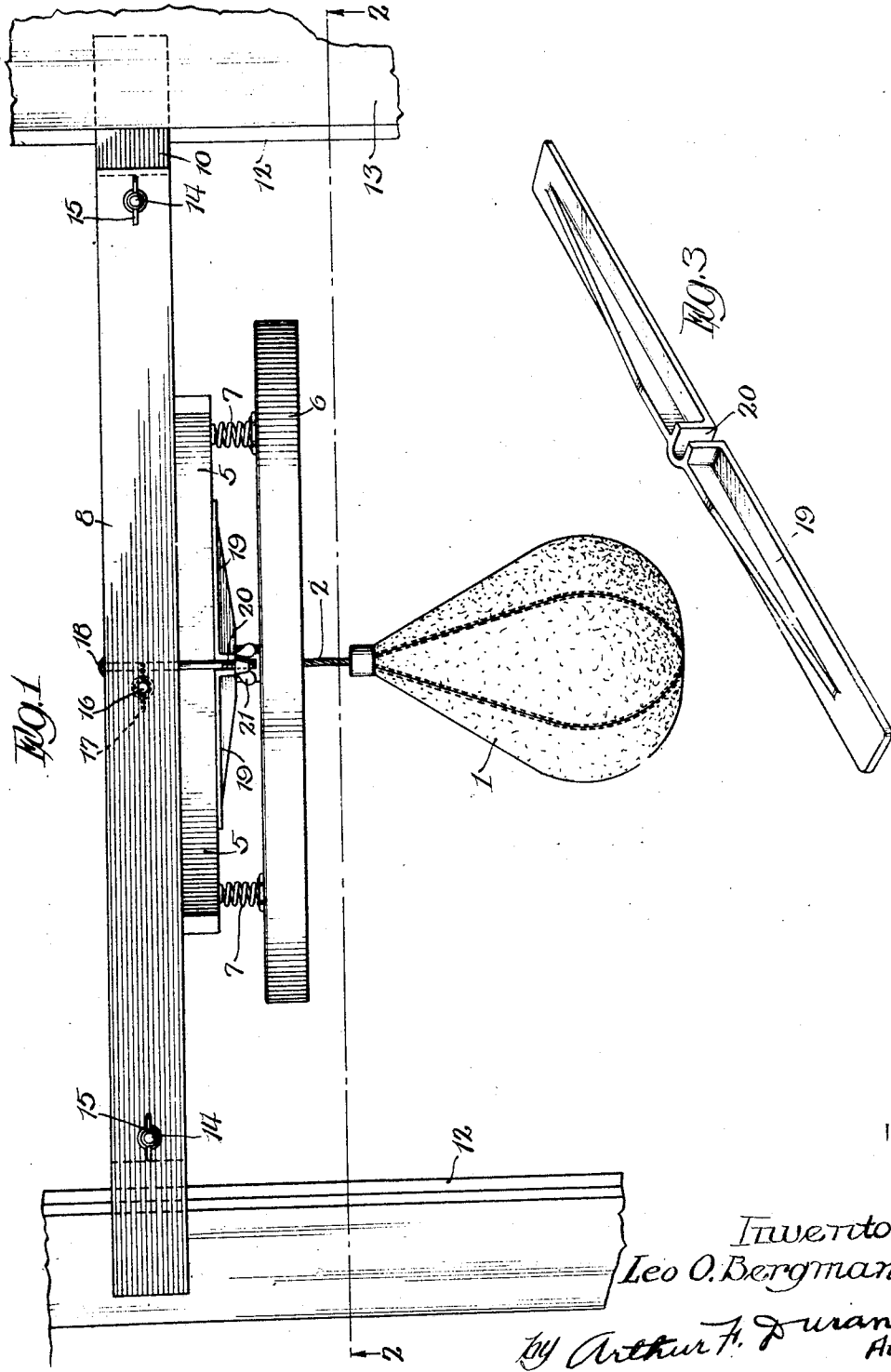
1,553,664

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PUNCHING BAG SUPPORT

Filed Feb. 23, 1923

2 Sheets-Sheet 1



Inventor:  
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Att'y.

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2 Sheets-Sheet 2

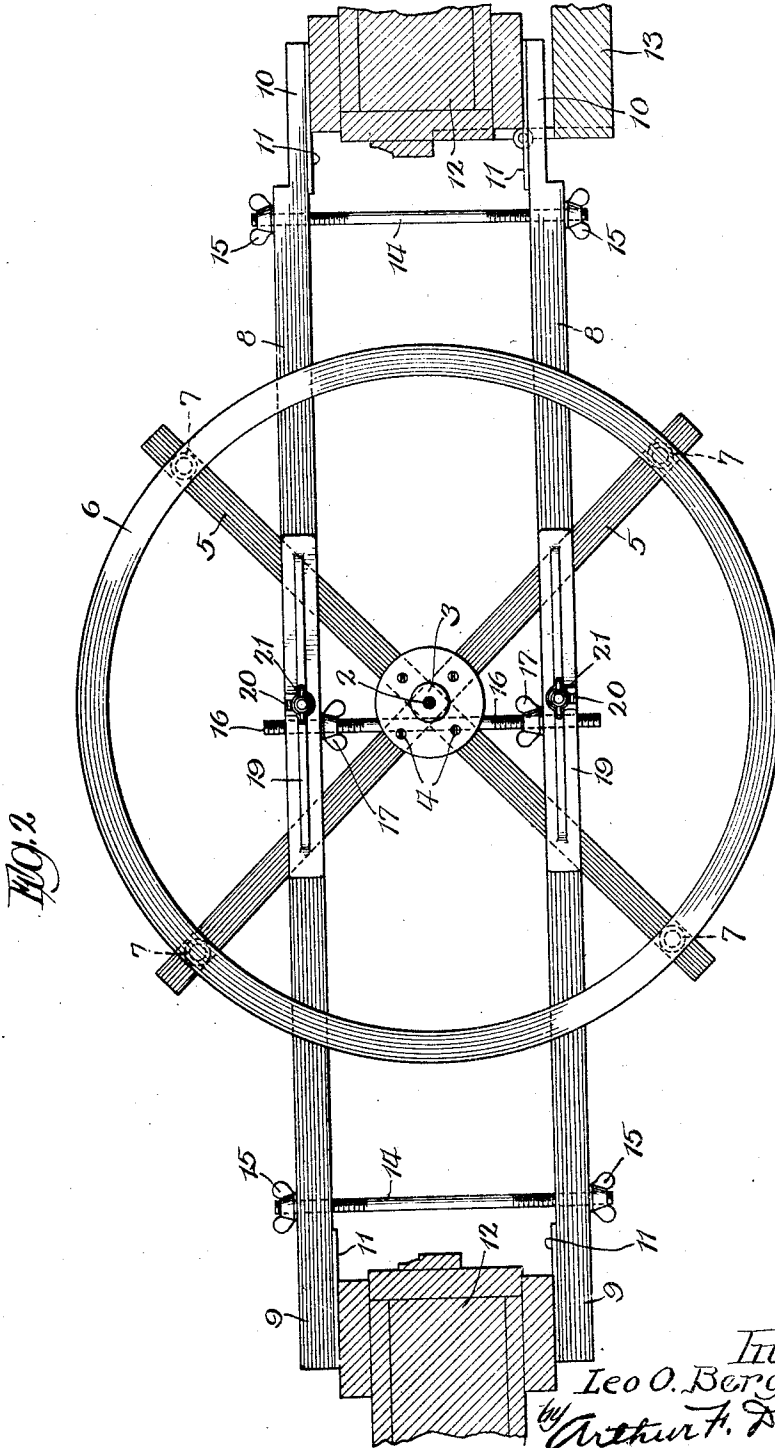


FIG. 2

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# UNITED STATES PATENT OFFICE.

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## PUNCHING-BAG SUPPORT.

Application filed February 23, 1923. Serial No. 620,632.

*To all whom it may concern:*

Be it known that I, LEO O. BERGMANN, a citizen of the United States, and resident of Coloma, Berrien County, Michigan, have invented a certain new and useful Improvement in Punching-Bag Supports, of which the following is a specification.

This invention relates to punching bag supports for supporting a punching bag in a doorway, or in a similar opening, or any space between two uprights, whereby the bag may be adjusted up and down and securely retained at the desired height.

Generally stated, the object of the invention is to provide a novel and desirable punching bag support of the foregoing general character, having means for utilizing the sides of the doorway or a similar structure as guides for the up and down adjustment of the support, in such a way that tightening of the support in place will not tend to push the sides of the doorway away from each other, or to distort the doorway in any other manner, as will hereinafter more fully appear.

It is also an object to provide a novel construction and arrangement whereby the bag reacts against a ring which can be readily taken off or removed, to permit use thereof by holding the ring in the hands and swinging the bag first to one side and then to the other, or for other purposes, as will hereinafter more fully appear.

It is also an object to provide certain details and features of construction and combinations tending to increase the general efficiency and the desirability of a punching bag support of this particular construction.

To these and other useful ends the invention consists in matters hereinafter set forth and claimed and shown in the accompanying drawings in which—

Figure 1 is a front elevation of a punching bag support embodying the principles of the invention, showing the punching bag support thereon, and showing the support clamped in place upon the sides of the doorway—that is to say, upon the two sides of the door frame.

Figure 2 is a section on line 2—2 in Figure 1, looking upward, as indicated by the arrows, so that the bag support is shown in bottom plan view.

Figure 3 is a perspective of one of the clamps employed to clamp the spokes of the

wheel-like support to the bottom of the cross bars which are clamped to the door frame.

As thus illustrated, the punching bag 1 may be of any suitable character, and is supported by a rope or other flexible connection 2, from the metal hub 3 secured by screws 4 to the spokes 5 and the ring 6, the ring and the spokes forming a wheel-like support for the bag, and the bag reacting against the under side of said ring. To provide resilience, the ring 6 is connected to the spokes 5 by means of coil springs 7 secured to the spokes and the ring in any desired or suitable manner. The structure thus described can be used as an exercising apparatus, by grasping the two opposite sides of the ring 6 in the hands, and by then swinging the bag from one side to the other, so that the bag will strike first one hand and then the other, each hand being gripped around the ring at such time.

To support the punching bag in a doorway, or on a similar structure, horizontal clamping bars 8 are provided, these bars having relatively thick end portions 9 at one end, and having relatively thin end portions 10 at the other end, with facings 11 for all of said end portions, these facings preferably comprising sections of rubber to engage the door frame. The relatively thin portions 10 are desirable in order that either one of these ends may be inserted between the door frame 12 and the swinging door 13 at one side of the doorway. Thus the door can be at either side of the doorway, and still the clamping bars can be applied in position as shown. Transverse tie bolts 14 extend through the clamping bars adjacent the doorway, and are provided at their ends with thumb nuts 15 which, when tightened, will cause the clamping bars to tightly clamp the two sides of the door frame. These bolts when tightened, of course, tend to bring the middle portions of the two bars toward each other, the bars being somewhat flexible when made, for example, of wood, or other similar material. To counteract the tendency of the bars to bend toward each other, a transverse metal bolt 16 is provided and inserted through the two bars, and thumb nuts 17 are applied to said bolts to press against the inner sides of said bars, so that the latter cannot be sprung toward each other at this point. The bars 8 extend straight across from one vertical member 12

to the other member 13, and the clamping means 14 and 15 are between the two vertical members. Thus the bag 1 hangs in the plane of the vertical members 14 and 15, and the apparatus is well balanced. Vertical bolts 18 are inserted through the two bars at about the middle of the structure thus formed, and metal clamps 19, such as the one shown in Figure 3, are provided with notches 20 to receive these bolts. Thumb nuts 21 are applied to the lower ends of said bolts 18, to draw the clamps 19 upward against the lower sides of the spokes 5 previously mentioned. Thus the radial bars or spokes 5 are clamped tightly against the lower edges of the bars 8 in the manner shown. A slight loosening, however, of the thumb nuts 21, will permit removal of the clamping bars 19, so that the entire wheel-like support formed by the spokes 5 and the ring 6 can be detached from the overhead supporting bars 8, without removing the latter from the doorway. In use, the apparatus is placed in a doorway, as shown in Figure 1, with the nuts 15 just tight enough to moderately clamp the bars 8 to the door frame. If the height is not right for the user, the bars are pushed upward or downward until the desired height is obtained. Then the nuts are tightened to prevent any displacement of the apparatus when thus clamped in position on the two sides of the door frame. The clamping of the apparatus in place does not tend to push the two sides of the doorway away from each other, and does not tend to distort the doorway in any manner, and will not mar or injure the woodwork of the door frame. The two sides of the door frame serve as guides, each side being interposed between two compression jaws (formed by the opposing end portions of the bars 8 of the support) but the compression of the two sides of the frame does not tend to do any harm. Moreover, the support is thus firmly secured in place, without danger of displacement, no matter how violently the bag may be punched and caused to rapidly react against the under side of the ring 6 in the customary manner. By loosening the nuts 21, as previously explained, the bag and the bag ring can be removed intact for use in the manner described, without loosening or disturbing the bars 8 in their adjusted position on the door frame. It will be seen that the two sides of the doorway are compressed, as explained, and that the compression is in a direction at right angles to the plane of the doorway.

It will be seen that the frame member 5 is removably clamped to the bottom of the support 8, and that the ring 6 is hung from the bottom of said frame member 5, whereby when viewed from above, or from below, said member 5 in effect forms the spokes of a wheel or wheel-like member of which said

ring 6 is the rim or periphery. The supporting members 8 are movable up and down on the sides of the doorway, without any limitation of adjustment, so that the punching bag can be used by a small child or by a tall man. The springs 7 serve to resiliently support the ring on the supporting member 5, and this supporting member and the ring are removable with the bag, so that the ring and supporting member and bag are removable intact from the bottom of the overhead support 8 which is adjustable vertically on the two vertical members 12, in the manner explained. The members 8 form a connection from one member 12 to the other member 12, so that this overhead support is not destroyed or disturbed by the removal of the frame 5 and the ring 6 and the bag 1, as the frame 5 forms no part of the vertically adjustable support which reaches from one side of the doorway to the other. The overhead supporting structure formed by the bars 8 is adjustable up and down, practically without limitation, except for the limitation imposed by the height of the side members 12, as the latter form the sole and only supporting means for said bars. As shown, a punching bag is supported on the frame member comprising the radial portions 5, but it is obvious that the vertically adjustable overhead supporting structure formed by the clamping bars 8 can be used to support an athletic or gymnasium device of any suitable, known or approved character.

What I claim as my invention is:—

1. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, said clamping means forming a horizontally disposed connection between said members, and instrumentalities to support the bag on the middle portion of said connection, substantially in the vertical plane of said members, said upright members forming guides for the vertical adjustment of the punching bag between them, said clamping means comprising parallel and horizontally disposed bars having end portions to bear against the opposite sides of each upright member, and said tightening means comprising transverse bolts extending through said bars at points adjacent to said members.

2. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction

at right angles to the vertical plane of the two members and the space between them, said clamping means forming a horizontally disposed connection between said members, and instrumentalities to support the bag on the middle portion of said connection, substantially in the vertical plane of said members, said upright members forming guides for the vertical adjustment of the punching bag between them, said clamping means comprising parallel bars having end portions to bear upon the opposite sides of the two members, and said tightening means comprising transverse elements for drawing the bars together at points adjacent said upright members, in combination with an element extending through the middle portions of said bars and having means to prevent said middle portions from being sprung inward toward each other by the action of said tightening means.

3. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, said clamping means forming a horizontally disposed connection between said members, and instrumentalities to support the bag on the middle portion of said connection, substantially in the vertical plane of said members, said upright members forming guides for the vertical adjustment of the punching bag between them, said instrumentalities comprising a wheel-like support for the bag and means to adjustably secure said wheel-like support to said clamping means, so that said ring-like support can be adjusted laterally on said supporting means; there being a ring which forms the rim of said wheel-like support, against the under side of which ring the punching bag is adapted to react.

4. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, said clamping means forming a horizontally disposed connection between said members, and instrumentalities to support the bag on the middle portion of said connection, substantially in the vertical plane of said members, said upright members forming guides for the vertical adjustment of the punching bag between them, said instrumentalities comprising a ring against the under side of which the punching bag is adapted to react, and means to detach both

the ring and the bag together from said clamping means.

5. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, said clamping means forming a horizontally disposed connection between said members, and instrumentalities to support the bag on the middle portion of said connection, substantially in the vertical plane of said members, said upright members forming guides for the vertical adjustment of the punching bag between them, said instrumentalities comprising a ring and bars forming a wheel-like support for the bag, said bars forming the spokes of the wheel-like support, vertical bolts, and clamps supported by said bolts to releasably clamp said spokes against the under side of said clamping means.

6. In a punching bag apparatus, a ring and means to support the bag thereon, against the under side of which ring said bag is adapted to react, a frame member attaching means to hang the ring on the bottom of said frame member, a support for said frame member, and means whereby the ring and bag and frame member are detachable intact from the bottom of said support.

7. A structure as specified in claim 6, said frame member comprising radially arranged bars forming spokes for said ring, with coil springs interposed between said spokes and the top of said ring to form said attaching means.

8. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, said clamping means forming a horizontally disposed connection between said members, and instrumentalities to support the bag on the middle portion of said connection, substantially in the vertical plane of said members, said upright members forming guides for the vertical adjustment of the punching bag between them, said instrumentalities comprising a wheel-like support for the bag, there being bars forming spokes of said wheel-like support, and a ring forming the rim thereof, with coil springs interposed between said spokes and the top of said ring.

9. In a punching bag support, the combination of clamping means to compress

two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, and instrumentalities to support the bag on said clamping means, said upright members forming guides for the vertical adjustment of the punching bag between them, said clamping means comprising parallel and horizontally disposed bars having end portions to bear against the opposite sides of each upright member, and said tightening means comprising transverse bolts extending through said bars at points adjacent to said members.

10. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, and instrumentalities to support the bag on said clamping means, said upright members forming guides for the vertical adjustment of the punching bag between them, said clamping means comprising parallel bars having end portions to bear upon the opposite sides of the two members, and said tightening means comprising transverse elements for drawing the bars together at points adjacent said upright members, in combination with an element extending through the middle portions of said bars and having means to prevent said middle portions from being sprung inward toward each other by the action of said tightening means.

11. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, and instrumentalities to support the bag on said clamping means, said upright members forming guides for the vertical adjustment of the punching bag between them, said instrumentalities comprising a ring and bars forming a wheel-like support for the bag, said bars forming the spokes of the wheel-like support, vertical bolts, and clamps supported by said bolts to releasably clamp

said spokes against the under side of said clamping means.

12. In a punching bag support, the combination of clamping means to compress two vertical members spaced apart to provide a space between them for the bag, having tightening means for causing compression of each upright member in a direction at right angles to the vertical plane of the two members and the space between them, and instrumentalities to support the bag on said clamping means, said upright members forming guides for the vertical adjustment of the punching bag between them, said instrumentalities comprising a wheel-like support for the bag, there being bars forming spokes of said wheel-like support, and a ring forming the rim thereof, with coil springs interposed between said spokes and the top of said ring.

13. In combination, two vertically disposed members spaced a distance apart, an overhead supporting structure provided with means for clamping said members, extending straight across from one member to the other, having provisions between said members for holding said supporting structure in any position of vertical adjustment on said members, whereby said members form the sole and only supporting means for said overhead supporting structure, and an athletic device hung from said supporting structure, said supporting structure comprising parallel bars embracing said members between them, at the opposite ends of said bars, and clamping bolts extending horizontally and transversely through said bars.

14. In an apparatus of the class described, a frame member having rigid radial portions, a ring below said rigid portions, means to support said radial portions in rigid position, bearing against the tops of said radial portions, devices to hang said ring on said radial portions, and a punching bag hung from the center of said frame member.

15. A structure as specified in claim 14, said devices comprising coil springs which resiliently support said ring.

16. A structure as specified in claim 14, comprising clamps engaging the lower edges of said radial portions, and tightening bolts to pull said clamps upwardly against the bottom of said frame member, thereby forming said supporting means for said frame member.

LEO O. BERGMANN.