

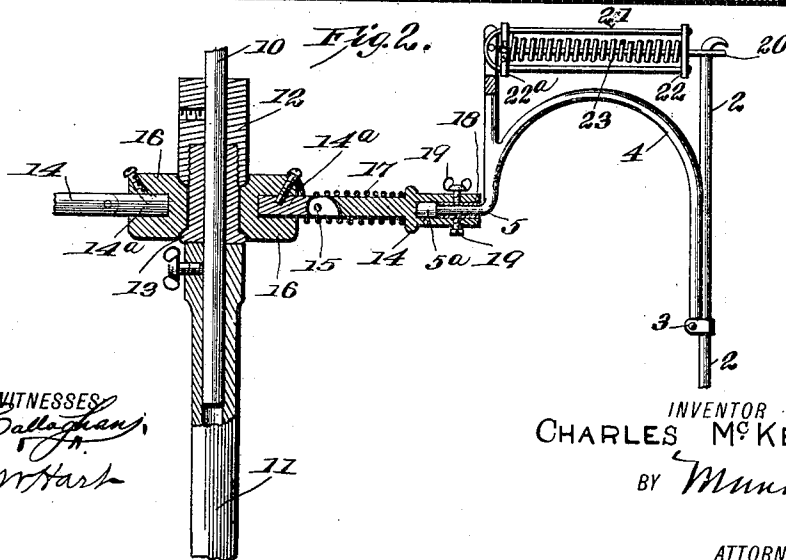
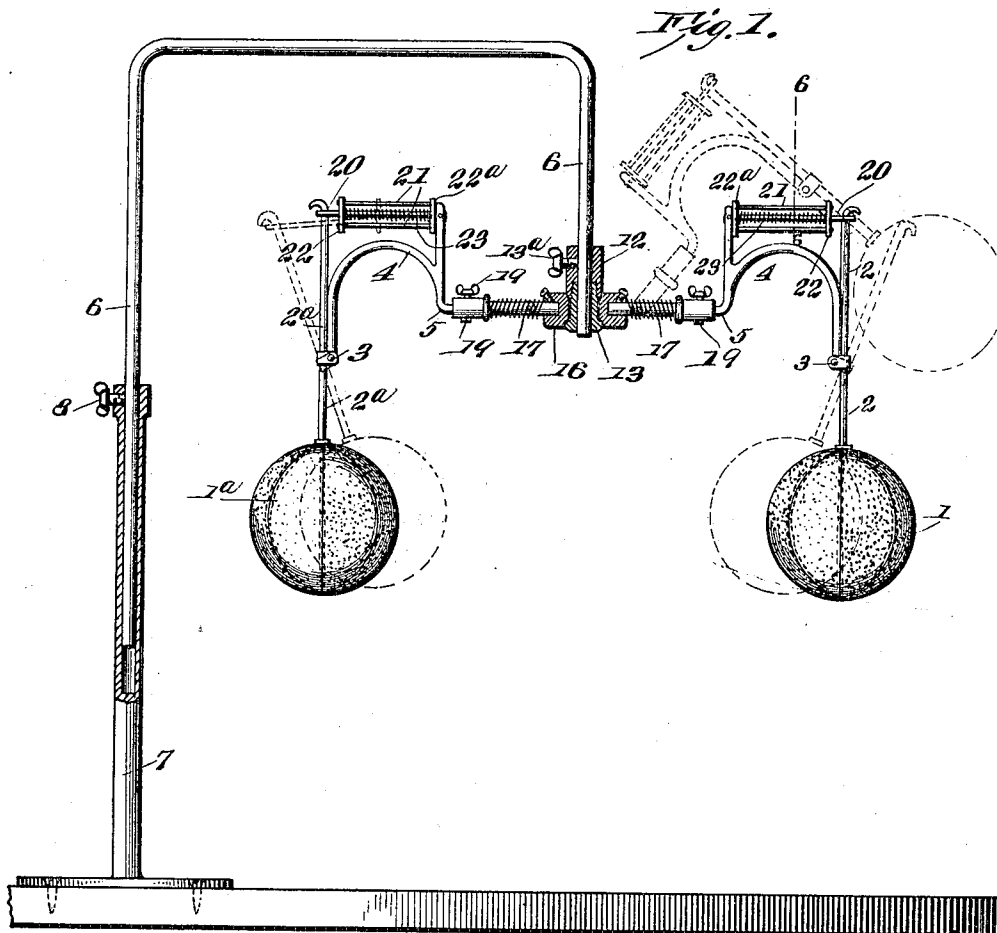
No. 825,860.

PATENTED JULY 10, 1906.

C. McKENZIE.  
PUNCHING BAG.

APPLICATION FILED MAR. 13, 1906.

2 SHEETS—SHEET 1.



WITNESSES  
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Fig. 3.

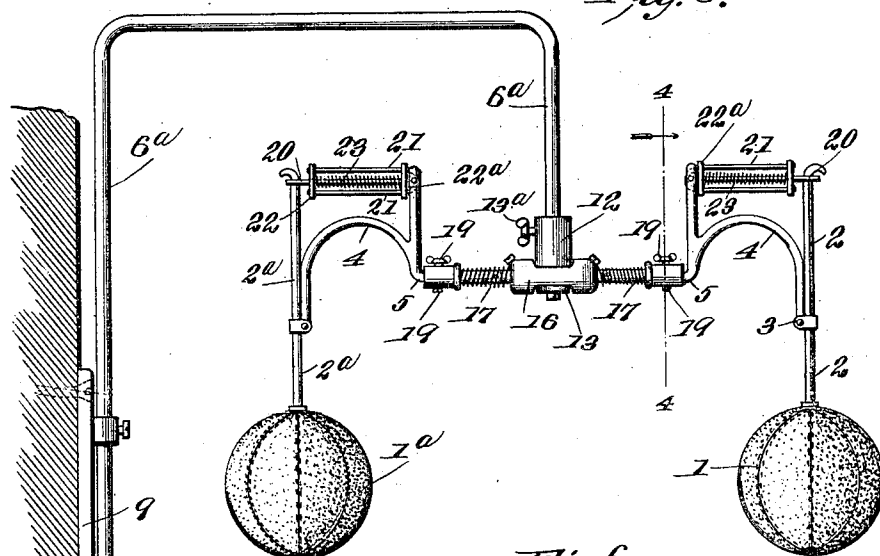


Fig. 6.

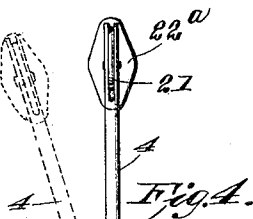
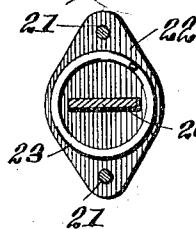


Fig. 5.

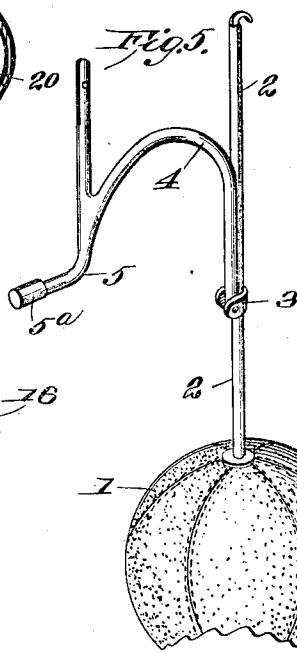
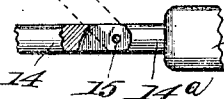


Fig. 7.



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# UNITED STATES PATENT OFFICE.

CHARLES McKENZIE, OF BUTTE, MONTANA, ASSIGNOR OF ONE-HALF TO  
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## PUNCHING-BAG.

No. 825,860.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed March 13, 1906. Serial No. 305,845.

*To all whom it may concern:*

Be it known that I, CHARLES McKENZIE, a citizen of the United States, and a resident of Butte, in the county of Silverbow and State of Montana, have made certain new and useful Improvements in Punching-Bags, of which the following is a specification.

My invention is an improvement in punching-bags, such as are used for practice in boxing and exercising.

The apparatus embodying the invention includes two bags which are so suspended and adapted to revolve and swing laterally in vertical planes as to afford special advantages for instruction in boxing and exercise in general.

The details of construction, operation, and combination of parts are as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is in part an elevation and in part a section of one form of the apparatus. Fig. 2 is a similar view of a modification. Fig. 3 is an elevation or side view of a modification. Fig. 4 is a vertical section on the line 4 4 of Fig. 3. Fig. 5 is a perspective view of a portion of the apparatus separated from the parts to which it is normally attached. Fig. 6 is an enlarged vertical section on the line 6 6 of Fig. 1, and Fig. 7 is a detail view of a hinge connection.

In the illustration shown in Fig. 1 two punching-bags 1 1<sup>a</sup>, which may be inflated or solid, are attached to the lower ends of vertical rods or arms 2, which are pivoted at 3 to curved arms 4, having on the inner side horizontal journals 5, by which they are connected rotatively with a support adapted to revolve around a hanger 6. This hanger may have various forms and attachments. In Fig. 1 the hanger is a rod which is bent twice at a right angle, the longer vertical arm being supported in a hollow standard 7, that may be secured to the floor and which may be held from rotation by a clamp-screw 8.

In Fig. 3 the punching-bags and the parts with which they are immediately connected are suspended from a hanger 6<sup>a</sup>, that has its bearings and support on a bracket 9, secured to a vertical wall. In Fig. 2 the attachment is made to a rod 10, that is supported and clamped in a vertical standard 11. The construction and operation of the punching ap-

paratus proper is in all cases the same, the means of support alone differing. A block or hub 12 (see Fig. 1) is secured on the short pendent arm of the hanger 6 by a clamp-screw 13<sup>a</sup> and a tapered nut 13, having its lower end enlarged to form a head which is screwed into such block 12, so that in use the two form practically one device which may be readily adjusted higher or lower on the hanger, so as to accommodate the height of the punching-bags to tall or short persons or to conditions of work and exercise.

The arms 14, with which the journals 5 are rotatably connected, are hinged at 15 to extensions 14<sup>a</sup>, which are secured radially in a hub 16, that is adapted to rotate freely on the nut 13, whereby it is also supported by means of the flanged head of the latter. The two parts 14 14<sup>a</sup> of the horizontal arms are connected by a rule-joint, so that they maintain normally an alined horizontal position, as shown by full lines in Figs. 1, 2, 3. Thus while the rule-joint 15 allows the outer portion of the arm 14 to rise or be thrown up at an angle, as shown by dotted lines, Fig. 1, a downward movement beyond the horizontal is not permitted. The upward movement only occurs when the bags 1 1<sup>a</sup> are struck from below. To aid gravity in returning the bags and their immediate attachments quickly to the normal position, (indicated by full lines,) I apply spiral springs 17 to the articulated arms 14 14<sup>a</sup>, the same extending over the rule-joints 15, as shown in several figures. The journal 5 of the curved arms 4 has an enlarged head 5<sup>a</sup>, and a sleeve 18 is applied to the journal between such head and the adjacent upward bend of the arm 4. The head 5<sup>a</sup> and sleeve 18 are fitted somewhat loosely in a socket proper in the outer end of the horizontal hinged arm 14, and the sleeve is clamped therein by screws 19. By this means the arms 4, from which the bags are suspended, are held securely and yet adapted to rotate freely in a vertical plane.

It will be seen that by the construction and arrangement of parts thus far described the bags 1 1<sup>a</sup> are adapted to rotate in a horizontal plane around the axis provided by the hanger and are also adapted to swing outward and upward in vertical planes on the hinges 15 and that the bags may also oscillate or swing laterally, as indicated by dotted

lines, Fig. 4. To provide for an inward movement of the bags, as illustrated by dotted lines, Fig. 1, I extend the arms 2 upward beyond the pivots 3 and connect their upper ends with a spring attachment which holds the arms normally vertical or allows their upper ends to swing outward, and thus the bags to swing inward. The said spring attachment comprises a flat bar 20, (see Fig. 6,) which is adapted to slide in a horizontal bearing formed by two parallel rods 21 and a head 22 and whose outward movement is resisted by a spiral spring 23, the same acting between the head 22 and a corresponding head 22<sup>a</sup>, which slides on the rod 21.

The following statement will serve to further explain and illustrate the practical operation and use of the apparatus. It will be noted that neither of the bags 1 1<sup>a</sup> when struck comes in contact with any other object, such as an overhead platform, as is usual in the case of other apparatus of this character; but, on the contrary, each bag when struck swings in whatever direction the impetus of the blow forces it and immediately returns for another blow. If, for instance, the bag 1 be struck directly on the front side, (as the parts appear in Fig. 1,) the result will be to drive the two bags in a circle, and the puncher must immediately duck his head to avoid a blow from the bag 1<sup>a</sup>. It is obvious that this will afford practice in ducking or throwing or dropping the head, which contributes to skill and exercise. As the bag 1 comes around and approaches the original position it may be struck with the other hand, and thus by blows with the two hands alternately the revolution of the bags will be continued and the necessity of ducking occur at each blow. Thus great accuracy and skill in leading and ducking may be quickly acquired. It is also apparent that facility in footwork and side-stepping may be easily attained by use of this apparatus, since the boxer may step out of the way of the second bag 1<sup>a</sup> after hitting the first, 1, and then step in again and hit the first bag 1 with the other hand. In other words, the boxer may strike bag 1 with the right hand, then step back or sidewise out of the way of bag 1<sup>a</sup>, then step quickly in again and strike bag 1 with the left hand, and so on. It will be further seen that upper cuts may be made or practiced with great facility and that in such case the bags will swing laterally or directly upward, as the case may be. Thus either bag is adapted to swing right or left laterally and upward and also to swing upward only. It is apparent that since the bags may circle around the central support a boxer may practice in following them the same as if in a sixteen-foot ring, since he may adjust the apparatus to suit his purpose. It will also be seen that a number of boxers may practice on the revolving bags all at the same time, each

punching one or the other as he gets opportunity. The hangers 6 and 6<sup>a</sup> may be clamped so as to be movable; but the bags and their immediate supports or attachments are in each case left free to revolve on the nut 13. Whether the hanger is fixed or stationary, the two bags will still turn thereon.

The clamp-screws 19 are ordinarily so adjusted as to merely hold the sleeves 18 in place, leaving the journals 5 of the bag-suspending arms 4 to revolve freely; but the said suspending-screws may be so adjusted as to clamp directly upon the journals 5, and thus hold the arms 4 from revolving. For this purpose the sleeves 18 are provided with opposite openings to receive the points of the screws 19. Thus in practice if the set-screws holding the arm of bag 1 be screwed down and those connected with bag 1<sup>a</sup> be loosened then if bag 1<sup>a</sup> be struck first it would revolve and pass over the head of the party who struck it, while the necessity of ducking to avoid the bag 1 would be apparent.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An improved apparatus of the class indicated comprising two bags, a support therefor, and means connecting the two bags with said support whereby the bags are adapted to revolve around the support and to swing laterally in vertical planes, substantially as described.

2. The improved apparatus for the purpose specified, comprising a suitable support, a device adapted to rotate thereon, two punching-bags arranged opposite each other, and means connecting them flexibly with the said device, substantially as described.

3. In an apparatus of the class indicated, the combination, with a support, of a device which is rotatable thereon, means for supporting said device, lateral arms projecting from the latter and provided with joints to enable them to yield vertically, bag-supports which are connected with said arms, and bags attached to and pendent from such supports, substantially as described.

4. In an apparatus of the class indicated, the combination, with a vertical support and a device adapted to rotate around the same as an axis, of a punching-bag, and means for connecting it with said device and adapting it to yield vertically, substantially as described.

5. In an apparatus of the class indicated, the combination with a suitable support and a device which is rotatable thereon, of a punching-bag and means connecting it with the said device, such means comprising a jointed horizontal arm attached to the device, a rod to which the bag is secured, an arm connecting such rod with the said horizontal arm and adapted to rotate thereon, as described.

6. In an apparatus for the purpose specified, the combination, with a suitable support and a rotatable device applied thereto, of a punching-bag and means for connecting it with said device which comprise a horizontal arm adapted to rotate, a rod suspending the bag and pivoted to said arm, and a spring attachment holding the rod normally vertical but allowing it to yield laterally, substantially as described.

7. In an apparatus of the class indicated, the combination, with a suitable support, of a punching-bag and means for connecting it with said support and comprising a horizontal arm adapted to rotate, and a rod connecting the bag with said arm, substantially as described.

8. In an apparatus for the purpose specified, the combination, with a suitable support, of a punching-bag and means for connecting it with the support which comprise an arm extended laterally and adapted to rotate in a vertical plane, a rod connecting the bag with the outer end of said arm and extended above the pivoted connection and a spring-retracting device applied to said arm and attached to the upper free end of the rod, whereby the bag is held in a certain normal position but adapted to yield laterally inward, substantially as described.

9. In an apparatus for the purpose specified, the combination, with a suitable support, of a punching-bag and means for connecting it with such support which comprise the horizontal arm provided with a socket, an arm intermediate the bag and said socket and provided with a journal extending into the latter and having an enlarged head, a sleeve applied to said journal and having a lateral opening, and a clamp-screw adapted to coöperate with the socket, sleeve, and journal, whereby the sleeve or journal may

be clamped at will, substantially as described.

10. In an apparatus for the purpose specified, the combination, with a suitable support and a device adapted to rotate thereon, of two bags and means for suspending them from said device at opposite points, the said means including parts adapted to yield vertically and laterally, whereby the bags may revolve in a circular path or swing upward or laterally in any direction, substantially as described.

11. In an apparatus of the class indicated, the combination, with a hanger and a hub which is vertically adjustable thereon, of a rotatable device applied to said hub, punching-bags, and means for suspending them from the rotatable device, substantially as described.

12. In an apparatus for the purpose specified, the combination, with a hollow vertical standard, of a rod inserted and clamped therein, a hub which is vertically adjustable on said rod, means for clamping it in any adjustment, a device which is rotatable on the hub attachment, lateral arms attached to said device, outer arms which are rotatably connected with the first-named arms, and punching-bags attached to the outer arms substantially as described.

13. The combination with a suitable support and a device which is applied thereto, of a horizontal arm comprising two parts which are connected by a rule-joint, and means for suspending a bag which are connected with the outer ends of said arms and springs applied to the arms and extending over the rule-joint, substantially as described.

CHARLES McKENZIE.

Witnesses:

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JOHN N. KIRK.