May 23, 1933. G. S. DAVIS 1,911,065

PUNCHING BAG HANGER

Filed June 27, 1932

FIG. 1.

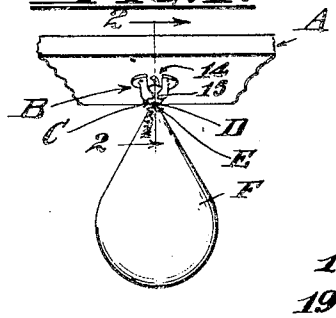


FIG. 3.

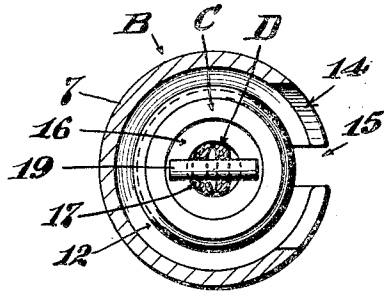


FIG. 6.

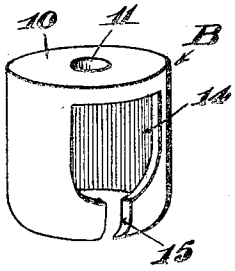


FIG. 2.

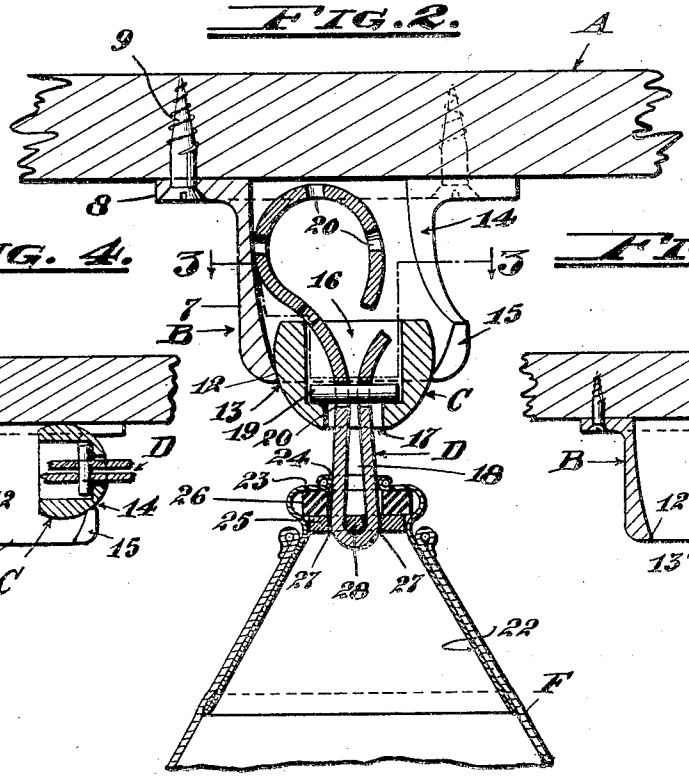


FIG. 4.

FIG. 5.

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UNITED STATES PATENT OFFICE

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PUNCHING BAG HANGER

Application filed June 27, 1932. Serial No. 619,503.

This invention relates to a hanger, and more particularly pertains to a hanger for suspending punching bags and the like.

An object of the invention is to provide a hanger which is so constructed as to permit ready connection and disconnection of a bag relative to an overhead support, and whereby the bag may be depended from a support by the usual flexible suspender and the latter so connected to the support as to permit within limits universal movement of the connection between the suspender and the support, so as to minimize twisting off or other breakage of the suspender.

Another object is to provide a construction whereby the suspender may be readily attached to the connector in various adjusted lengths of the suspender.

Another object is to provide a hanger of the above character including a socket and a suspender connector loosely seated in the socket in which the connector may be inserted in and removed from said socket through an opening in the side of the latter, and in which the opening and connector are so relatively formed as to permit ready passage of the connector therethrough on purpose but to prevent accidental passage of the connector from the socket through said opening.

Another object is to provide a hanger of the above type in which the connector may be applied to and removed from the socket with the bag attached thereto, that is to provide a construction in the socket which will permit passage of the bag suspender laterally through the walls of the socket while attached to the bag and connector.

With the foregoing objects in view, together with such other objects and advantages as may subsequently appear, the invention resides in the parts and in the combination, construction and arrangement of parts hereinafter described and claimed and illustrated by way of example in the accompanying drawing, in which:

Fig. 1 is a perspective view showing the hanger as applied;

Fig. 2 is a detail in vertical section taken on the line 2—2 of Fig. 1;

Fig. 3 is a horizontal section and plan view taken on the line 3—3 of Fig. 2;

Fig. 4 is a detail in vertical section illustrating the manner in which accidental detachment of the connector from the socket is prevented;

Fig. 5 is a sectional view showing the manner of effecting connection and disconnection of the connector relative to the socket;

Fig. 6 is a perspective view showing a modified form of the socket.

Referring to the drawing more specifically, A indicates generally an overhead support, B a socket carried on said support and depending therefrom, C a connector detachably mounted in the socket, B, D a suspender carried by the connector, and E a connection affording an attachment between the suspender D and the punching bag F.

As here shown, the support A comprises a horizontally extending panel which may be carried in an elevated or overhead position in any desired manner.

The socket B embodies a substantially cylindrical side wall 7 arranged to depend vertically from the under side of the panel support A, being here shown in Fig. 2 as provided with an outwardly extending flange 8 at the upper end thereof for attachment to the support A as by screws 9. However, the socket may be formed with an upper end wall 10, as shown in Fig. 6, provided with an opening 11 adapted to receive a screw or bolt for effecting connection with the support A.

The lower end portion of the cylindrical wall 7 is turned inwardly to form an annular seat 12 around an aperture 13 in the bottom or lower portion of the socket which seat affords a bearing for the connector C, and formed in the wall 7 is a side opening 14 the lower margin of which is substantially arcuate in form, and leading from the lower central margin of the opening 14 is a slot 15 which communicates with the aperture 13.

The connector C is of general hemi-spherical form; it having the exterior contour of a ball or sphere with diametrically opposed portions cut away thus imparting to the connector the shape of a segment of a sphere. The connector C is of a diameter exceeding

that of the aperture 13 so that when the connector is positioned in the socket, as shown in Fig. 2, the connector will be supported on the seat 12 with its lower portion protruding through the aperture 13 and with its upper portion projecting interiorly of the socket. The connector C is thus supported for universal movement within limits; it being capable of rotating around the vertical axis of the socket and also of oscillatory movement around its center.

The connector C is formed with an annular recess 16 in the upper portion thereof and has a central circular opening 17 leading from its lower end and communicating with said recess.

The suspender D comprises a strip of flexible material of suitable length which is folded upon itself to form a loop 18 and is arranged with the loop portion extending downwardly through the opening 17 to depend from the connector C. A pin 19 is passed through openings 20 formed in the overlying portions of the strip which pin seats on the bottom of the recess 16 and thereby affords a support between the suspender and connector. A series of the openings 20 may be provided in the strip to facilitate varying of the length of the depending loop portion.

The connector E may be of any suitable construction adapted to afford an attachment between the suspender D and the bag F, but I preferably employ a connection of the character set forth in my copending application for United States patent, Serial Number 573,341, filed November 6, 1931, which connection is here shown and which embodies a frusto-conical shell 22 engaged in the upper end of the bag F. The shell is formed with an inturned upper end 23 formed with a central opening 24 through which the loop 18 extends and is engaged with a slotted plate 25 bearing against the under side of an annular resilient cushion 26 seating on the under side of the inturned end 23 of the shell. The plate 25 is formed with a pair of parallel slots 27 between which extends a bar 28 and through which slots the loop 18 is passed to effect engagement with the bar 28, as particularly shown in Fig. 2.

In the application and operation of the invention, the socket B is rigidly attached to the under side of the support A with the connector C detached therefrom. The suspender strip D is engaged with the plate 25 by passing the ends thereof through the slots 27, whereupon the overlying end portions of the strip are passed through the opening 17 in the connector C and the pin 19 is inserted through opposed openings in the strip which openings are then disposed above the upper end of the connector. The suspender and connector are then moved relatively to each other to dispose the pin 19 in its seated position on the bottom of the recess 16. The bag F is then attached to the connection E by lacing the upper end of the bag around the shell 22.

When it is desired to effect connection between the connector C and socket B the connector is passed laterally in its upright position through the opening 14, as shown in Fig. 5, and the depending loop portion 18 of the suspender D is passed through the slot 15 in such manner as to assemble the connector C interiorly of the socket B in its supported position on the seat 12, as shown in Fig. 2. The bag will then be suspended for free swinging movement relative to the support.

In order to insure against the connector C being accidentally disengaged from the socket B the connector is formed of a transverse width exceeding the height of the opening 14, whereby in event the connector be rocked on swinging the bag F in such direction that the suspender D would swing upwardly through the slot 15 the connector C would be engaged by the margins of the opening 14, as shown for example in Fig. 4, and thus be prevented from passing outwardly through the opening 14.

When it is desired to effect disconnection between the connector C and the suspender D, the connector is lifted while in substantially its normal position so that it may be passed laterally through the opening 14. In thus detaching the connector from the socket the suspender D is passed outwardly through the slot 15.

I claim:

1. A punching bag mounting comprising a socket having an aperture in the bottom thereof and an opening in the side thereof, a connector seating in said socket extending through said aperture and being adapted to be passed through said opening, and a flexible suspender attached to and depending from said connector.

2. A punching bag mounting comprising a socket having an aperture in the bottom thereof and formed with an opening in the side thereof, a connector seated in said socket adapted to have universal movement therein, said connector being insertable into said socket and removable therefrom through said opening, a suspender detachably carried by said connector and depending therefrom below said socket, and means for attaching said suspender to a bag.

3. In a punching bag hanger, a socket having an aperture in the bottom thereof and formed with an opening in the side thereof, a connector within said socket having a hemispherical end portion seated on the margin of said aperture with the lower portion thereof protruding through said aperture, said connector being adapted to be passed through said opening, a flexible bag suspender attached to said connector and depending there-

from, and means for attaching said suspender to a bag.

4. In a hanger, a socket formed with a side opening and having an aperture in the bottom thereof, a connector loosely seated in said socket with a portion thereof protruding through said aperture, said connector being adapted to be positioned within said socket and to be removed therefrom through said opening, a flexible suspender extending centrally through said connector, and means for detachably supporting said suspender on said connector.

5. In a hanger, a socket formed with a side opening and having an aperture in the bottom thereof, a connector loosely seated in said socket with a portion thereof protruding through said aperture, said connector being adapted to be positioned within said socket and to be removed therefrom through said opening, a flexible suspender extending centrally through said connector, and a pin protruding through said suspender and seating on said connector.

6. In a hanger, a socket formed with a side opening and having an aperture in the bottom thereof, a connector loosely seated in said socket with a portion thereof protruding through said aperture, said connector being adapted to be positioned within said socket and to be removed therefrom through said opening, a flexible suspender extending centrally through said connector, and a pin protruding through said suspender and seating on said connector, said connector being formed with a recess in which said pin seats.

7. In a hanger, a socket formed with a side opening and having an aperture in the bottom thereof communicating with said opening through a slot, a connector loosely seated in said socket with a portion thereof protruding through said aperture, said connector being adapted to be positioned within said socket and to be removed therefrom through said opening, a flexible suspender extending centrally through said connector and carried thereby, a bag connection carried by said suspender; said suspender being adapted to be passed laterally through said slot on engaging and disengaging said connector relative to said socket.

8. In a hanger, a socket formed with a side opening and having an aperture in the bottom thereof, a connector loosely seated in said socket with a portion thereof protruding through said aperture, said connector being adapted to be positioned within said socket and to be removed therefrom through said opening, a flexible suspender extending centrally through said connector, and a pin protruding through said suspender and seating on said connector, said suspender being formed with a series of spaced openings to afford various connections for said pin.

9. In a hanger, a socket formed with an aperture in its bottom wall and having an opening in its side wall, a connector in said socket formed with an end portion in the form of a segment of a sphere, said end portion seating on the margin of said aperture, said opening being formed to permit said connector being passed therethrough when said connector is disposed in a certain position and to prevent passage of the connector therethrough when disposed in another position, and a suspender carried by said connector arranged to depend therefrom below the aperture in said socket.

10. In a hanger, a socket formed with an aperture in its bottom wall and having an opening in its side wall, a connector in said socket formed with an end portion in the form of a segment of a sphere, said end portion seating on the margin of said aperture, said opening being formed to permit said connector being passed therethrough when said connector is disposed in a certain position and to prevent passage of the connector therethrough when disposed in another position, a suspender carried by said connector arranged to depend therefrom below the aperture in said socket, and means for detachably connecting said suspender to said connector.

11. In a hanger, a socket formed with a circular aperture in its bottom wall, a connector within said socket having the form of a segment of a sphere, which seats on the margin of said aperture with the lower portion thereof protruding through said aperture; said socket being formed with a side opening formed to permit transverse passage of said connector therethrough and to prevent passage of said connector endways therethrough, and a suspender carried by said connector depending from the lower end portion thereof.

12. In a hanger, a socket formed with a circular aperture in its bottom wall, a connector within said socket having a hemispherical lower end portion seating on the margin of said aperture with the lower portion thereof protruding through said aperture; said socket being formed with a side opening formed to permit sidewise passage of said connector therethrough and to prevent passage of said connector endways therethrough, said socket also being formed with a slot connecting said opening and aperture, a suspender carried by said connector depending from the lower end portion thereof, said suspender being adapted to be passed laterally through said slot, and means for detachably engaging said suspender to said connector.

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