Dec. 13, 1932. C. ROSENHAHN 1,890,696

PUNCHING BAG APPARATUS

Filed June 30, 1932 2 Sheets-Sheet 1

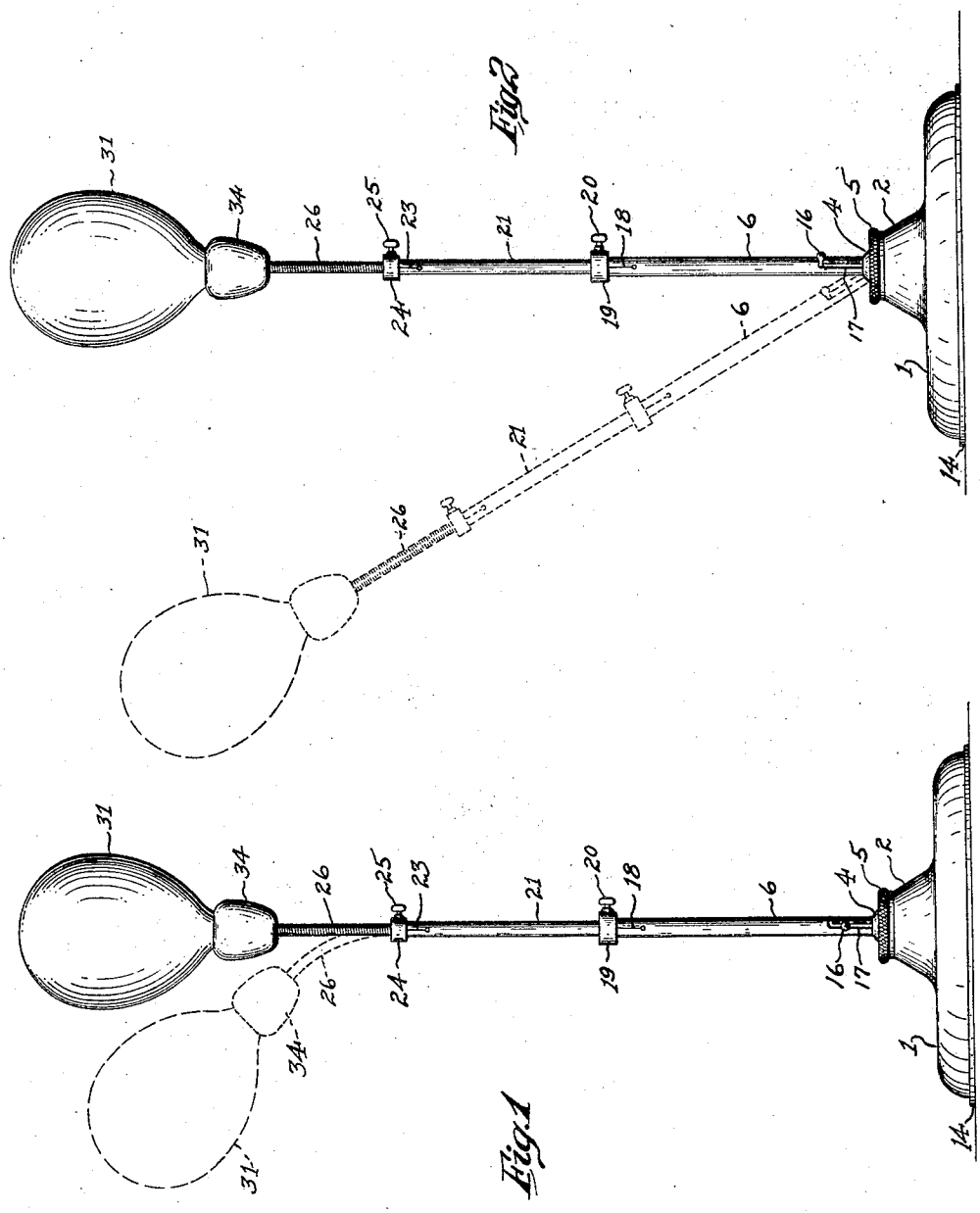


Fig. 2

Fig. 1

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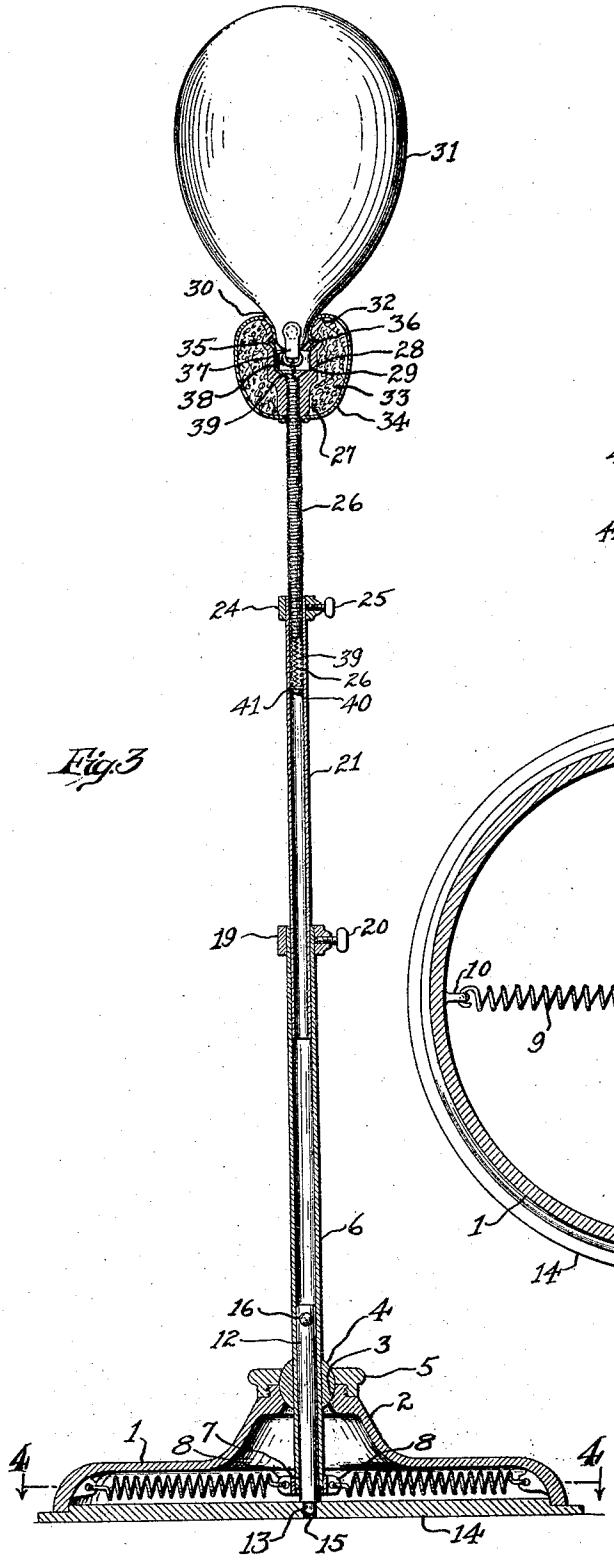


Fig. 3

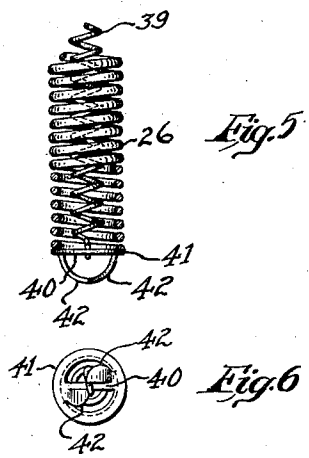


Fig. 5

Fig. 6

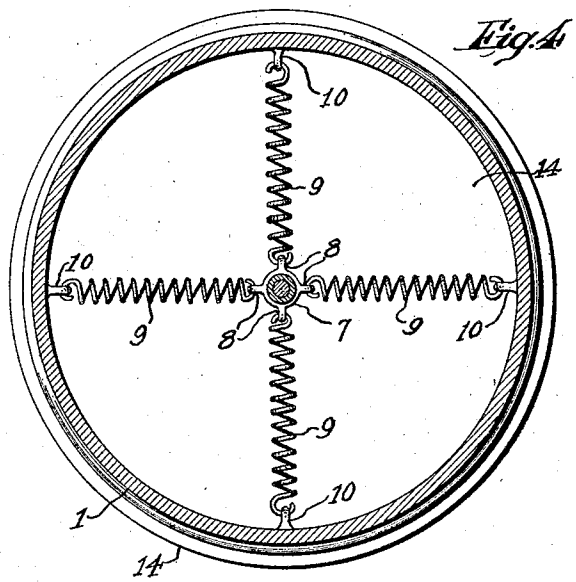


Fig. 4

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UNITED STATES PATENT OFFICE

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PUNCHING BAG APPARATUS

Application filed June 30, 1932. Serial No. 620,060.

This invention relates to punching bag apparatus; and the invention has reference, more particularly, to a novel floor standard support for punching bags.

This invention has for its principal object to provide a novel floor standard support for punching bags, whereby the use of the bag is rendered substantially noiseless, and the transmission of noisy shocks and jars to buildings, as commonly occurs in the use of suspended types of punching bags, eliminated; and, furthermore, whereby a portable type of punching bag apparatus is provided which may be conveniently moved about and located in any desired place at will, either indoors or outdoors.

This invention has for a further object to provide a novel standard support for a punching bag which may be selectively arranged to vary at will the range of oscillation of the bag in use, so as to adapt the same for response to various types of blows imparted thereto in boxing or sparing practice; as e. g. to arrange the punching bag for rapid oscillation through relatively short arcs of movement, under short arm blows and jabs, or to arrange the same for slower oscillation through long arcs of movement, under long arm blows or swinging punches.

Another object of this invention is to provide a novel standard support for a punching bag which is capable of easy and quick adjustment for height.

Another object of this invention is to provide in combination with a standard support for a punching bag, a novel means for connecting the bag thereto, and also to provide a novel padded coupling connection to receive the attached end of the bag when joined to the supporting standard.

Other objects of this invention, not at this time more particularly enumerated, will become apparent in the following detailed description of the same.

An illustrative embodiment of this invention is shown in the accompanying drawings, in which:—

Fig. 1 is a side elevation of the novel punching bag apparatus as arranged for operative oscillation through comparatively short arcs of movement; Fig. 2 is a similar view of the apparatus as arranged for operative oscillation through relatively long arcs of movement; Fig. 3 is a longitudinal vertical section, drawn on an enlarged scale; Fig. 4 is a horizontal section, taken on line 4—4 in Fig. 3; Fig. 5 is an enlarged fragmentary view in part section showing means for anchoring the bag attachment means to the support; and Fig. 6 is an end view of the latter parts.

Similar characters of reference are employed in all of the hereinabove described views to indicate corresponding parts.

Referring now to the several views of the said drawings illustrating the novel punching bag apparatus of this invention, the reference numeral 1 designates a circular hollow base, which base may be made of aluminum, cast iron or other suitable material. Base 1 has a raised central portion 2 which is formed at its top to provide a socket or ball seat 3. Socket or ball seat 3 serves as a support for a ball 4 which is retained upon seat 3 by a retaining ring 5 that is shown threaded upon the central portion 2 of the base. Retaining ring 5 has a central aperture of spherical contour for conforming to the ball 4. Raised portion 2 together with retaining ring 5 and ball 4 form a ball and socket joint for universally connecting a tubular post or standard 6 to the base 1.

The post or standard 6 extends through and is fixed within an aperture provided in the ball 4. The lower portion of standard 6 projects downwardly into the hollow interior of base 1 and has a yoke member 7 secured to its lower end. Yoke member 7 is provided with four equally spaced apertured ears or lugs 8. Four laterally extending, coil tension springs 9 are arranged at right angles to one another within the hollow interior of base 1, as especially shown in Fig. 4, and these springs have their outer ends attached to apertured lugs 10 provided on the interior wall of base 1 and have their inner ends attached to the ears or lugs 8 on yoke member 7. The tension of springs 9 tends to retain post 6 in a vertical position as illustrated in Fig. 3 of the drawings.

A cylindrical bolt 12 is slidably positioned within the lower portion of post 6. Bolt 12 is illustrated as having a reduced lower extension or nose 13 for engaging in a vertical aperture or recess 15 provided in a plate 14 forming the lower portion of base 1. Plate 14 is illustrated as of disk shape, but it will be apparent that instead of using a plate in this form, a cross bar may be used, which cross bar may extend from one side of the base 1 to the other side thereof. The upper portion of bolt 12 is provided with a handle or finger piece 16 which projects outwardly through a bayonet slot 17 provided in the post 6. Bayonet slot 17 consists of a vertical portion and an upper horizontal portion.

By grasping handle 16 shown in Fig. 1, the bolt 12 may be raised or lowered so that its extension 13 may be caused to engage in the aperture 15 of plate 14 at will. By raising bolt 12 by means of handle 16, the extension 13 will disengage aperture 15 and the bolt may be retained in its upper and disengaged position by giving the handle 16 a partial turn so that this handle moves into the upper horizontal portion of bayonet slot 17.

The standard 6 extends upwardly from ball 4 and has its upper portion diametrically split or slotted at 18 for a distance extending downwardly from the top thereof, thereby dividing the upper portion of the standard into two halves. A locking collar 19 surrounds the upper end portion of standard 6 and is secured to one of the halves of this standard. Collar 19 has a wing screw 20 threaded therethrough for engaging the other half of the standard 6. By turning screw 20 inwardly, the two halves of the upper portion of post 6 may be pressed toward each other owing to the presence of the diametric slot 18. An upper tubular post or standard extension 21 is adapted to project downwardly into the open end of standard 6 for telescoping within this standard. By loosening screw 20, standard extension 21 may be raised or lowered with respect to standard 6 and the retightening of screw 20 will cause the two halves of the upper portion of standard 6 to bind against extension 21, thereby holding this standard extension in desired vertically adjusted position.

The upper portion of standard extension 21 is also diametrically slotted or split at 23 for a distance extending downwardly from the top thereof. A locking collar 24 is secured to one-half of the split upper portion of standard extension 21 and has a wing screw 25 threaded through the wall thereof for engaging the other half of the upper portion of standard extension 21 for the purpose of adjusting these two halves toward or away from each other. A relatively stiff, closely coiled supporting spring or spring column 26 has its lower portion extending downwardly and into the open upper end of standard extension 21 for telescoping within this extension. By turning the screw 25, the upper portion of extension 21 is adapted to grip the lower portion of spring column 26 to thereby secure this supporting spring column in desired vertically adjusted position with respect to extension 21.

The supporting spring column 26 extends upwardly from standard extension 21 and the upper portion of this spring column is secured within the reduced lower portion 27 of a cylindrical socket member or adapter 28 which may be made of aluminum or other suitable material. The socket member 28 has an open top communicating with a receiving recess 29 therewithin adapted for receiving the neck portion 30 of a punching bag 31, illustrated as of the pneumatic type. The upper portion of socket member 28 is outwardly flared or rounded off at 32 to better conform to the curved neck 30 of bag 31.

The socket member 28 is illustrated as surrounded by a padded enclosure to protect the user's hands against injury in the event that he should strike the socket member instead of the bag 31 in use. This padded enclosure consists of padding 33 surrounding the socket member 28 and a cover 34 of canvas or other suitable material overlying the padding 33 for retaining this padding in place. The lower portion of cover 34 is centrally apertured to permit the supporting spring column 26 to extend downwardly therethrough, while the upper portion of this cover extends over the flared upper part 32 of socket member 28 and into the receiving recess 29 of this socket member. The inner wall of receiving recess 29 is provided with an annular depression or groove 35 for receiving the end portion of the cover 34. A split spring ring 36 overlies the end portion of cover 34 within the groove 35 and serves to bind this cover within groove 35, owing to the tendency of the spring ring to expand outwardly, thereby pressing the end portion of the cover 34 tightly into this annular groove. It will be noted that the neck portion 30 of bag 31 does not contact directly with the metallic socket member 28 but engages only the protecting cover 34, which serves as a lining for the socket member and prevents rapid wear or abrasion of the punching bag at the neck thereof in use. The neck 30 of bag 31 is provided with a strap 37 with which a metallic ring 38 interlinks.

A coil tension spring 39 has its upper end connected to the ring 38 and this spring extends downwardly within the hollow interior of the supporting spring or spring column 26. The lower end portion of coil tension spring 39 is attached to a cross piece 40 of a washer 41 that engages the lower end of spring column 26. Washer 41 is illustrated as having downwardly struck portions 42 of

arcuate shape to enable the easy handling of this washer.

In use, when it is desired to employ the punching bag apparatus to practice short punches or jabs, the bolt 12 is pushed down into the position shown in Figs. 1 and 3 so that its lower extension 13 engages in recess 15 of plate member 14 of base 1. With bolt 12 thus locked to plate 14, the post 6 is held rigid in a vertical position with respect to base 1 and is prevented from turning at the ball and socket joint of this base. All swinging movements of the bag 31 are thus limited to flexure of the spring column 26 which, being relatively short and more or less stiff, causes rapid return movements of the bag as is desired for short punches. Thus, when using short punches as in fast sparring, the bag responds quickly to a blow of the user and also returns quickly for the next blow.

When it is desired to strike the bag 31 with long punches using full arm swings, the bolt 12 is raised as by pulling upwardly upon handle 16 and then turning this handle into the horizontal portion of the bayonet slot 17. Upon now striking the bag 31, the spring column 26, standard extension 21 and standard 6 will turn substantially as a unit about the ball joint connection between the base 1 and standard 6, as especially illustrated in dotted lines in Fig. 2. As the standard 6 is swung from the vertical position, certain of the springs 9 are tensioned more than the others so that these springs tend to return the standard 6 to its vertical normal position. The tension of springs 9 is such as to return the post 6 to a vertical position by the time that the boxer is ready for another swinging blow.

The height of the bag 31 may be varied to suit the user by raising or lowering standard extension 21 upon loosening thumb or wing screw 20. The rapidity of response of the bag 31, when using short punches, may be varied by raising or lowering spring column 26 upon loosening wing screw 25. In the event that it is desired to remove the punching bag from the apparatus, it is merely necessary to loosen screw 25, whereupon spring column 26 may be raised and completely removed from standard extension 21. Then by unhooking the lower end of spring 39 from the washer 41, the bag 31 may be withdrawn from the socket member 28.

It will thus be noted that the novel punching bag apparatus of the present invention is adapted for enabling the boxer to practice either short strokes or jabs as well as long strokes or full swinging punches, the bag returning to its initial vertical position with the desired speed in either case. The extent to which spring column 26 is inserted into standard extension 21 will determine the relative speed with which the bag returns, while using the same for short punches. Thus, by inserting spring column 26 to a greater depth into post extension 21, the bag 31 will be caused to return with greater speed. Hence, regardless of the type of blow that the boxer desires to use, he can obtain adequate practice from a properly responsive bag when using the apparatus of this invention.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, as defined by the following claims, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. In a punching bag apparatus of the character described, the combination with a punching bag, of a standard therefor, supporting means for said standard, said supporting means providing a universal mounting for said standard, resilient means cooperable with said standard for urging said standard toward a vertical position, and lock mechanism for locking said standard in its vertical position.

2. In a punching bag apparatus of the character described, the combination with a punching bag, of a standard therefor, said standard being extensible for adjusting the height of said bag, supporting means for said standard, said supporting means providing a universal mounting for said standard, spring means cooperable with said supporting means and said standard for urging said standard toward a vertical position, and a lock bolt carried by said standard, said bolt being operable to releasably lock said standard in its vertical position.

3. In a punching bag apparatus of the character described, the combination with a punching bag, of a standard therefor, a resilient column member connecting said punching bag to said standard, supporting means for said standard, said supporting means providing a universal mounting for said standard, resilient means cooperable with said standard for urging the same toward a vertical position, the universal mounting of said standard enabling the same, together with said resilient column member and said punching bag, to turn as a whole with respect to said supporting means upon the application of a blow to said bag, thereby permitting a long swing of the bag, and lock mechanism for locking said standard in its vertical position, whereby the swing of the bag upon the application of a blow thereto is shortened and limited to the flexing of said resilient column member.

4. In a punching bag apparatus of the character described, in combination, a standard, supporting means for said standard, said supporting means providing a univer-

sal mounting for said standard, spring means cooperable with said standard for urging the same towards a vertical position, a spring column carried by said standard, a punching bag attached to said spring column, said spring means permitting oscillatory movement of said standard, said spring column and said punching bag as a whole with respect to said supporting means, and lock mechanism for locking said standard in its vertical position, whereby oscillatory movement of said punching bag is limited to flexure of said spring column.

5. In a punching bag apparatus of the class described, in combination, a standard, a supporting base for said standard, said supporting base providing a universal mounting for said standard, spring means cooperable with said standard and said base for urging said standard towards a vertical position, said standard being extensible for adjusting the height thereof, a spring column carried by said standard, said spring means permitting oscillatory movement of said standard, said spring column and said punching bag as a whole with respect to said supporting base, and lock mechanism cooperating with said standard and said base, said lock mechanism being operable to releasably lock said standard in its vertical position, whereby oscillatory movement of said punching bag is limited to flexure of said spring column.

6. In a punching bag apparatus of the class described, in combination, a standard, a supporting base for said standard, said supporting base providing a ball and socket joint for universally mounting said standard, springs connected to said standard and said base for urging said standard towards a vertical position, said standard being extensible for adjusting the height thereof, a spring column carried by said standard, said springs permitting oscillatory movement of said standard, said spring column and said punching bag as a whole with respect to said supporting base, and lock mechanism comprising a lock bolt carried by said standard for engaging said base, said lock mechanism being operable to releasably lock said standard in its vertical position, whereby oscillatory movement of said punching bag is limited to flexure of said spring column.

7. In a punching bag apparatus of the character described, the combination with a punching bag, of supporting means therefor, said supporting means comprising a base, a standard universally connected to said base, springs acting between said standard and said base for normally holding said standard in a vertical position and for returning said standard to a vertical position after the same has been deflected therefrom by a blow applied to the punching bag, a bolt telescopically mounted in the lower portion of said standard and being movable to engage said base, to thereby lock said standard in a vertical position when desired, a standard extention telescopically mounted in the upper portion of said standard and being vertically adjustable to vary the effective height of said standard, a spring column telescopically mounted in the upper portion of said standard extension and being vertically adjustable to vary the effective length of said spring column, and a socket member attached to the upper end of said spring column, said socket member serving to receive the neck of the punching bag, the swinging movements of said bag being limited to the flexing of said spring column when said standard is locked in its vertical position by said bolt.

8. In a punching bag apparatus of the character described, the combination with a punching bag, of supporting means therefor, said supporting means comprising a base, a standard universally connected to said base, springs acting between said standard and said base for normally holding said standard in a vertical position and for returning said standard to a vertical position after the same has been deflected therefrom by a blow applied to the punching bag, a bolt telescopically mounted in the lower portion of said standard and being movable to engage said base, to thereby lock said standard in a vertical position when desired, a standard extension telescopically mounted in the upper portion of said standard and being vertically adjustable to vary the effective height of said standard, a spring column telescopically mounted in the upper portion of said standard extension and being vertically adjustable to vary the effective length of said spring column, a socket member attached to the upper end of said spring column, said socket member serving to receive the neck of the punching bag, and a tension spring extending within said spring column, said tension spring being connected at its upper end to said bag neck and at its lower end to the bottom of said spring column for retaining said bag neck within said socket member.

9. In a punching bag apparatus of the character described, the combination with a punching bag, of supporting means therefor, said supporting means comprising a base, a standard universally connected to said base, springs acting between said standard and said base for normally holding said standard in a vertical position and for returning said standard to a vertical position after the same has been deflected therefrom by a blow applied to the punching bag, a bolt telescopically mounted in the lower portion of said standard and being movable to engage said base, to thereby lock said standard in a vertical position when desired, a standard extension telescopically mounted in the upper portion of said standard and being vertically

adjustable to vary the effective height of said standard, a spring column telescopically mounted in the upper portion of said standard extension and being vertically adjustable to vary the effective length of said spring column, a socket member attached to the upper end of said spring column, said socket member serving to receive the neck of the punching bag, a tension spring member extending within said spring column, said spring member being connected at its upper end to said bag neck and at its lower end to the bottom of said spring column for retaining said bag neck within said socket member, and a padded enclosure surrounding said socket member, said padded enclosure having a cover extending into said socket member to eliminate direct contact between the bag neck and said socket member.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 29th day of June, 1932.

CARL ROSENHAHN.