May 17, 1938. H. W. CAMPBELL 2,117,938

SHOT FOR ATHLETIC USES

Filed July 10, 1936

Fig. 1.

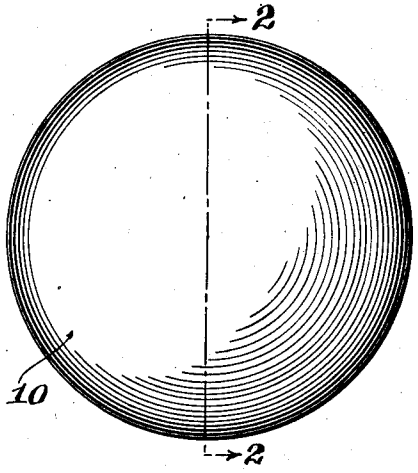


Fig. 2.

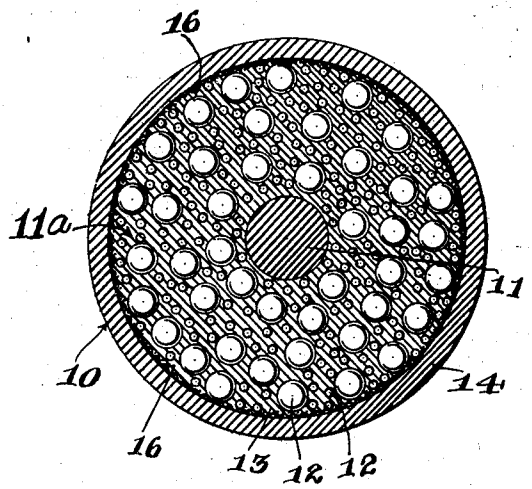
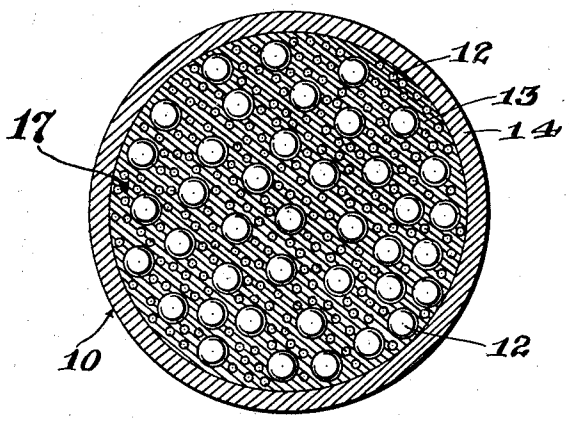


Fig. 3.



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SHOT FOR ATHLETIC USES

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4 Claims. (Cl. 272—59)

This invention relates to a shot for athletic uses and more particularly to an improved construction of a shot for use in the well-known sport of shot putting.

It is one object of this invention to provide a shot for athletic uses that shall be so constructed as to render the shot adaptable for indoor athletics as well as outdoor athletics.

Another object is to provide a shot for athletic uses that will be resilient and pliable to such an extent as to render the shot less dangerous to by-standers at the place where the game of shot putting is being performed.

Another object is to provide a shot for athletic uses that shall be so constructed as to enable the shot to maintain its spherical shape and eliminate any possibility of the element becoming distorted by impacts to which the element is subjected.

A further object is to provide a shot for athletic uses having the above characteristics that shall be rugged, efficient in operation and comparatively cheap to manufacture.

The above and other objects will be made apparent throughout the further description of the invention when taken in connection with the accompanying drawing wherein like reference characters refer to like parts.

It is to be distinctly understood that the drawing is not a definition of the invention, but merely illustrates certain forms for carrying out the invention. The invention will be defined by the appended claims.

In the drawing:

Figure 1 is an elevational view of a shot embodying the invention,

Figure 2 is a sectional view taken along the line 2—2, Figure 1, and

Figure 3 is a sectional view similar to Figure 2 showing a different embodiment of the invention.

Referring to the drawing, the present invention consists of a shot or sphere represented in its entirety by 10. Figures 1 and 2 illustrate one form of the invention wherein the sphere 10 is provided with a spherical core or center 11 composed of rubber or similar resilient material. The core or center 11 is surrounded by a pliable resilient composite spherical element 11*a* consisting of a mass of spaced spherical metallic members 12 embedded in a spherical body of rubber, latex or other like substance 13 that will render the element 11*a* pliable, resilient and soft as compared to solid metallic substances.

The resilient, pliable, spherical element 11*a* is provided with a cover 14. This cover is preferably made of rubber and fabric which may be of the nature and quality of that used in the manufacture of automobile tires and is selected, of course, to provide sufficient toughness and durability to withstand the use for which it is intended.

In the preferred form of the invention, the cover 14 is provided with a fabric lining 16. This strengthens the structure of the shot considerably and is particularly desirable for the heavier shots.

A shot constructed in the manner above described is adaptable to be thrown or used for athletic sports, both indoors and outdoors. The cover aside from holding the composite element 11*a* together gives to the shot the required toughness and wearing qualities, adds to its resiliency and can be readily replaced, when worn, by a new cover. This characteristic permits the element 11*a* to be used indefinitely merely by retreading or providing a new outside cover.

These shots are required in various sizes and weights depending upon the particular use for which they are intended and the age of the athlete using the shot. Some of the important features of the embodiment illustrated in Figures 1 and 2 consist of the resilient core 11 which gives added resiliency to the element 11*a* since on impact the force is transmitted towards the core and by providing a pliable core a greater resiliency is obtained when the shot contacts the ground, floor or a by-stander. By employing metallic members 12 of various sizes the shot may be constructed of any desired weight and by embedding or surrounding the metallic members 12 in rubber, latex or other like substances the element 11*a* is inherently pliable, resilient and sufficiently soft to render the shot less dangerous to by-standers, also the manner in which the shot is constructed and the material used therefor prevents the shot from becoming distorted through use. This is accomplished by the inherent resilient characteristics of the shot which possesses the inherent tendency to maintain its original shape.

Figure 3 illustrates a slightly different embodiment of the invention wherein the resilient or pliable center 11 is omitted and the composite resilient pliable element 17, corresponding to the element 11*a* is solid. The element 17 is constructed of parts similar to the parts which element 11*a* is formed of. The element 16 functions in the same manner as element 11*a* as it is constructed of parts similar to that which element

11a is formed of. In the shot shown by Figure 3, the lining 16 is omitted. A shot constructed in accordance with that illustrated in Figure 3 will be resilient and pliable and possess sufficient of the novel characteristics above mentioned to render it desirable for any of the uses for which it is intended.

It is to be understood that while the invention has been illustrated and described as having therein metallic elements of different sizes for the purpose of controlling the weight of the shot, that metallic elements such as lead shot of equal sizes may be used and while only certain forms of the invention have been illustrated and described, it will now be obvious to those skilled in this particular art that other changes, substitutions, modifications, additions and omissions may be made in the structures illustrated without departing from the spirit and scope of the appended claims.

What I claim is:—

1. In a shot for athletic use a pliable resilient spherical composite element formed of a body of resilient material having embedded therein in close spaced relation and throughout the space thereof spherical metallic members of different diameters, and a covering completely enclosing said element.

2. In a shot for athletic use a pliable resilient spherical composite element formed of a body of resilient material having embedded therein throughout the space thereof spaced metallic spherical members of two different diameters, and a covering completely enclosing said element, the number of the members of smaller diameter being materially greater than that of the number of the members of larger diameter.

3. In a shot for athletic use a pliable resilient spherical composite element formed of a body of resilient material having embedded therein throughout the space thereof closely related metallic members of spherical form and of different diameters, a resilient core embedded within, disposed at the center of and snugly engaged by said element, and a covering means completely enclosing said element.

4. In a shot for athletic use a pliable resilient spherical composite element formed of a body of resilient material having embedded therein throughout the space thereof closely related metallic members of spherical form and of different diameters, a resilient core embedded within, disposed at the center of and snugly engaged by said element, and a covering means completely enclosing said element, the number of the members of smallest diameter being materially greater than that of the number of the members of largest diameter.

HARRY W. CAMPBELL.