March 2, 1965 J. W. NEWMAN 3,171,652

EXERCISING WEIGHT FILLED WITH SOLIDIFIED MATERIAL

Filed March 21, 1962

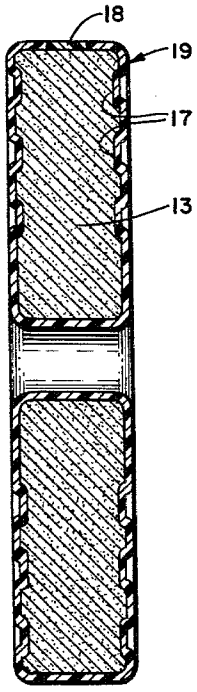


FIG. 1

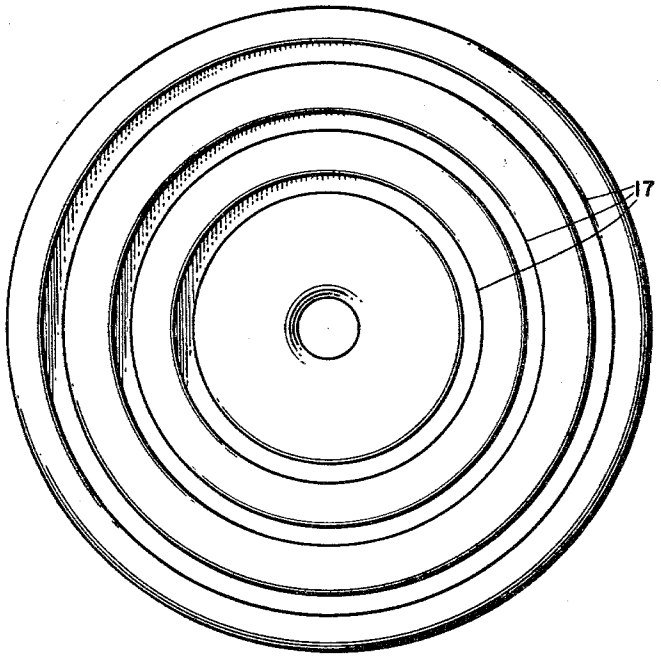


FIG. 2

INVENTOR
Joe W. Newman

BY Beale and Jones

ATTORNEYS

United States Patent Office 3,171,652 Patented Mar. 2, 1965

3,171,652

EXERCISING WEIGHT FILLED WITH SOLIDIFIED MATERIAL

Joe W. Newman, Mobile, Ala., assignor to Newman, Dukes & Cline, Inc.

Filed Mar. 21, 1962, Ser. No. 183,000
1 Claim. (Cl. 272—84)

This application discloses and claims a variation of the device disclosed in my prior application Serial Number 137,850, filed September 13, 1961, now abandoned.

My invention relates to exercising apparatus and particularly concerns improvements in the design of the weights used in bar bells and the like.

The weights used on such apparatus have customarily been made of cast iron or other metals. Weights of such construction necessarily are expensive because of materials used, processing means available, and high transportation costs.

These metallic weights have numerous disadvantages among which are the following: they rust and consequently do not appear clean, healthful and attractive; they make annoying clanging noises; they are extremely hard and their rims are narrow, so they badly mar wooden and synthetic tile floor coverings; and due to their coarse appearance many persons, especially women, find it unpleasant and depressing to use them for exercising.

An object of this invention is to overcome these known disadvantages of the prior art exercising weights.

A further object of my invention is to provide a shell, into which the user will pour concrete or other suitable matter. When filled, the shell will provide the necessary weight for exercising and will overcome the disadvantages known in present day exercising weights.

A still further object of my invention is to provide an easily manufactured, low cost weight for exercising apparatus.

Yet another object is to create a colorful, easily cleaned, and more attractive article of this nature.

A further object is to provide a weight which is by virtue of its construction, appearance, and cleanliness extremely suitable for use in hospitals, schools, health gymnasiums, and homes.

Another object is to provide a casting form for an exercising weight, the form remaining about the material therein to prevent chipping, spilling, or other events which would result in an undesirable loss of weight.

Particularly, this invention contemplates a form or shell which has the walls thereof indented so that the weight material will be more effectively held and bonded to the walls of the shell than in prior filled weights.

Still further objects and the entire scope of applicability of the present invention will become apparent from the detailed description given hereinafter. It should be understood, however, that the detailed description and specific examples are given by way of illustration only and, while indicating preferred embodiments of the invention, are not given by way of limitation, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.

Further advantages to be derived from my invention will become apparent upon reading the description contained hereafter.

In the drawings:

FIG. 1 is a cross-sectional view of an embodiment of my invention;

FIG. 2 is a view of one face of the weight shown in FIG. 1.

Briefly, the invention comprises a mold for forming the weights of a conventional bar bell or other exercising

apparatus. This mold or shell may be made of any suitable material, but in its preferred form is made of nylon, polyethylene, or other durable plastic material. The plastic may be of various colors to add to the attractiveness of the improved weights.

When any exercising apparatus using my weights is marketed, the hollow shells may be sold to the user along with necessary hardware to complete the apparatus. Before the apparatus is used, the shells for the weights may be filled by the user with a suitable dense material. I prefer to use a material which sets as concrete or plaster, hardening after being poured in the shell. Of course, the filling material must be such that it may be fluid at a temperature at which it is compatible with the shell material, so that there will be no damage to the shell during the filling operation. The bar bells, however, are preferably constructed and sold with the weight material already installed.

As with conventional bar bells, the weights are made in various sizes and may be mounted in combinations to provide a wide range and great selectivity in the weight of the bar bell assembly. If the shells are to be filled with a known material, their weights may be marked during manufacture, or a color code may be used to identify the various weights. The weights may be of any shape, although the toroidal form shown in the drawing is the preferred form of the invention. The color may be chosen to match or blend with the surrounding colors of the room where stored and used so that they are more attractive and decorative than the customary all-metal bar bell sets.

A preferred embodiment of my invention is disclosed in FIG. 1. As illustrated the shell has an outer rim portion generally cylindrical in shape, which appears flat at its peripheral portion in the cross-sectional view. This construction has the advantage that it prevents the weights from creasing and damaging a floor on which they are placed. The shell **19** used for this weight has an aperture in the outer rim thereof which is closed by a plug **18**. The plug **18** may be affixed in any manner but preferably is sealed in position after filling by applying heat to the thermoplastic plug to cause it to bond to the shell. Each face of the shell has annular indentations **17** which project into the shell cavity and assist in bonding the dense material **13** to the shell **19** and tend to prevent relative movement of the set up filling material with respect to the shell.

I have provided herein a highly useful bar bell assembly which is economical to manufacture and yet possesses durability with attractiveness and a surface on the weights that is fully smooth, colorful, and pleasing throughout.

What I claim and desire to secure by Letters Patent is:

An exercising weight of fixed value for use with bar bells comprising a shell of resilient plastic material having a cavity therein filled with a solidified dense material, said shell having walls with indentations therein projecting into the solidified dense material within the shell.

References Cited by the Examiner

UNITED STATES PATENTS

907,965	12/08	Calvert	272—84
1,270,034	6/18	Krudop	272—84
1,918,142	7/33	Smith	272—84
2,447,218	8/48	Trzesniewski	272—84

FOREIGN PATENTS

499,305	1/39	Great Britain.

DELBERT B. LOWE, *Primary Examiner.*
JAMES W. LOVE, *Examiner.*