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J. B. ARTHUR.

WEIGHT.

APPLICATION FILED SEPT. 17, 1904.

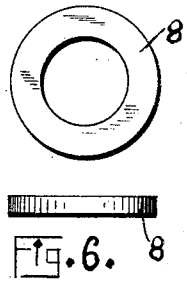


Fig. 5.

Fig. 6.

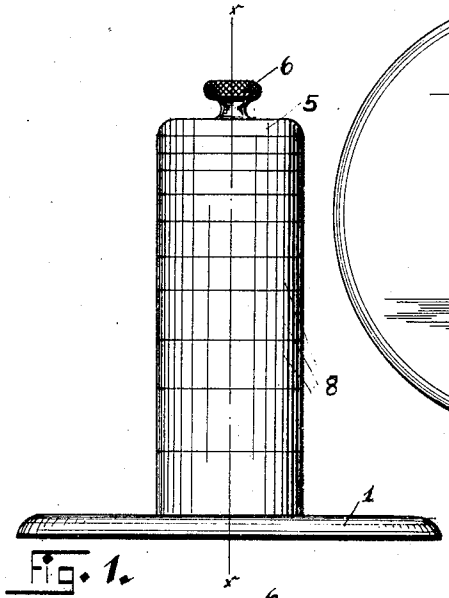


Fig. 1.

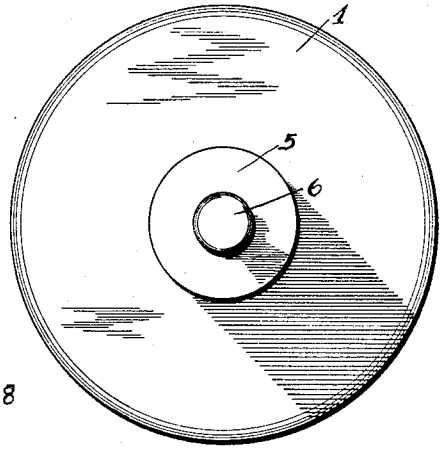


Fig. 3.

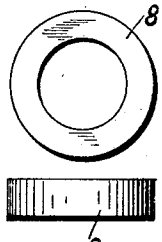


Fig. 7.

Fig. 8.

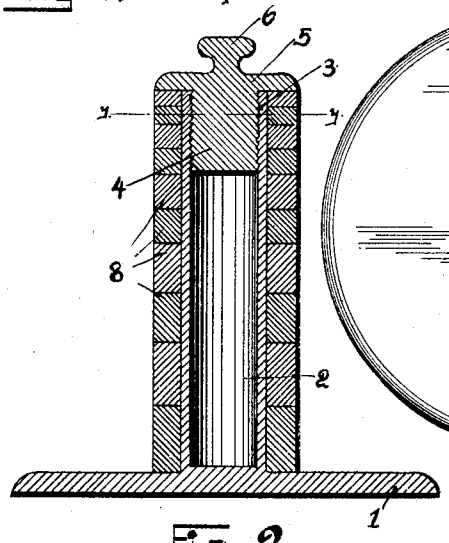


Fig. 2.

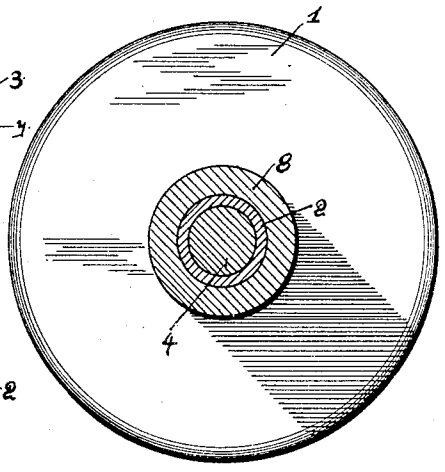


Fig. 4.

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PHOTO-LITHOGRAPHED BY SACHETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 787,320. Patented April 11, 1905.

UNITED STATES PATENT OFFICE.

JAMES B. ARTHUR, OF PITTSBURG, PENNSYLVANIA.

WEIGHT.

SPECIFICATION forming part of Letters Patent No. 787,320, dated April 11, 1905.

Application filed September 17, 1904. Serial No. 224,782.

To all whom it may concern:

Be it known that I, JAMES B. ARTHUR, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Weights, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to weights, and more particularly to that type of weight which is employed upon scales, balances, and the like; and this invention has for its object to provide a variable weight wherein a plurality of weights are combined, novel means being provided for retaining two or more of these weights together in a compact form.

Another object of this invention is to dispense with the numerous weights heretofore used in connection with scales, and in the place of employing separate weights I embody the same in one weight of such a construction that different parts of said weight may be removed at any time, while the other parts thereof will be retained as one weight, this construction facilitating the ready handling of the weight and preventing the numerous separate weights heretofore used from becoming lost.

It is a well-known fact that in finely-adjusted scales for obtaining the fractional part of an ounce a plurality of minute weights are employed, and in scales of this character considerable trouble has been experienced in the small weights becoming lost and considerable time being lost in the handling of the same.

The present invention contemplates the provision of novel means for retaining two or more of the weight-sections in a compact form, and to this end I have provided a novel form of weight-sections which may be readily secured together to form one weight, and the construction employed to accomplish this result, together with the minor details entering into the same, will be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation of my improved weight. Fig. 2 is a vertical sectional view taken on the line $x\ x$ of Fig. 1. Fig. 3 is a top plan view of my improved weight. Fig. 4 is a transverse sectional view taken on the line $y\ y$ of Fig. 2. Fig. 5 is a plan view of one of the weight sections or elements. Fig. 6 is an edge view thereof. Fig. 7 is a plan view of another of the weight sections or elements, and Fig. 8 is an edge view thereof.

To put my invention into practice, I employ as a base for the several weight sections or elements a disk-shaped base 1, having formed integral therewith a vertical tube or stem 2, this "stem," as it will be hereinafter termed, being formed centrally within the base 1, and the upper end of said stem is interiorly screw-threaded, as designated at 3, and in said screw-threaded end is adapted to be secured a depending screw-threaded portion 4 of a cap 5, said cap being provided with an integral knob 6, whereby the same may be readily removed or placed within the stem 2. The base, its stem, and the cap constitute a major weight and serve as a holding member for the fractional weights or weight elements constituting minor weights.

The reference-numeral 8 designates a plurality of fractional weights or weight elements, these weights being formed of rings of equal diameter, but of varying thicknesses, and each ring is adapted to represent a specific amount of weight, as an ounce or more or the fractional part of an ounce, and the inner diameters of the rings, as illustrated in Figs. 5 to 8, inclusive, conform to the outer diameter of the stem 2, whereby these rings, which comprise the fractional weights or weight elements, may be placed upon the stem and be secured thereon by the cap 5. This is clearly shown in Figs. 1 and 2, wherein the stem 2 and the base 1 are shown as supporting and retaining a plurality of fractional weights or weight elements to the full capacity of the stem.

My improved weight is particularly adapted for use in connection with scales for weighing bread and like substances, and when so used

each one of the weight elements 8 is adapted to represent the fractional part of an ounce, and if it be desired to increase the weight of a loaf of bread one of the rings 8 is placed upon the stem 2 and secured thereon by the cap 5; but should it be desired to decrease the weight of the loaf the cap 5 is removed and one of the rings removed from the stem 2. It will of course be understood that the base 1, the stem 2, and the cap 5 are of a given weight known to the operator of the scales, and these parts are adapted to be made of such a material that their combined weight will represent an ounce or pound, if it be so desired, and that the weight elements used may be of such denominations that the use of such weights upon the stem 2 will increase the weight of the base 1 three or four times, as may be desired. It will thus be seen that a novel form of weight is provided which may be varied to the different weights desired and that when one or more of the weight elements have been employed they will be retained in a compact form and be prevented from becoming disengaged from one another.

The many advantages of this construction will be apparent to those skilled in the art of using scales, and while I have herein shown the base for the fractional weights or weight elements as being capable of supporting a few weight elements I wish it to be understood that this base may be of such dimensions as to support and retain a greater number of weight elements than shown in the accompanying drawings, and besides altering the dimensions of the same I may make other slight changes without departing from the general spirit and scope of my invention.

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

1. A weight comprising a base and a vertical stem portion, a plurality of rings mounted upon said stem portion, and a screw-threaded cap secured in the end of the stem for retaining said rings thereon.

2. A movable weight comprising a base, a vertical stem and a cap on said stem, constituting a major weight, and a plurality of separable weight elements in the form of rings of different weight removably mounted on the stem and retained in position thereon by said cap.

3. A composite weight comprising a major weight and minor weights, said major weight being composed of a flat base, a hollow vertical stem and a cap screwing into said stem and extending beyond the sides thereof and said minor weights consisting of rings adapted to fit over said stem and to be retained in position thereon by said cap.

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES B. ARTHUR.

Witnesses:
CARROLL PUULLEN,
CHAS. ADAMS.