

No. 826,707.

PATENTED JULY 24, 1906.

J. T. BRENT, 2D.
WEIGHT.

APPLICATION FILED MAY 12, 1906.

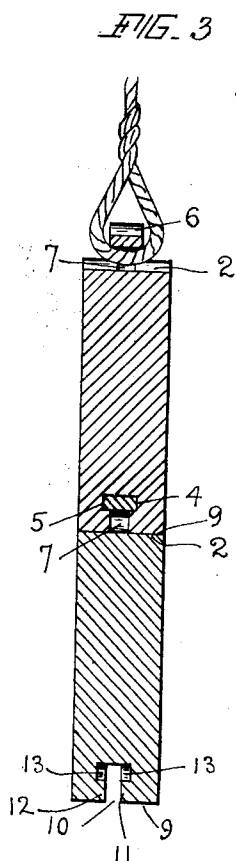
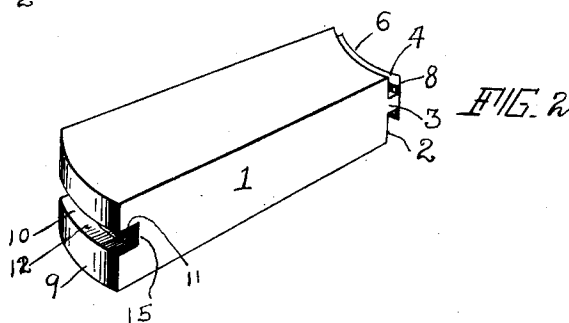
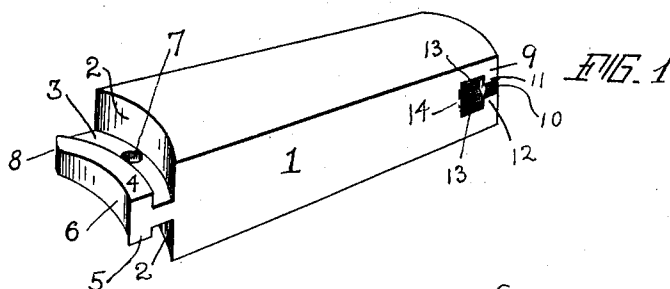


FIG. 4

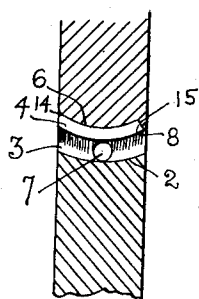
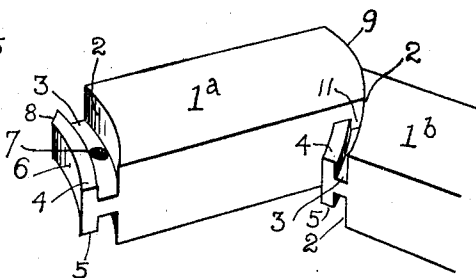


FIG. 5



Witnesses
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UNITED STATES PATENT OFFICE.

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WEIGHT.

No. 826,707.

Specification of Letters Patent.

Patented July 24, 1906.

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To all whom it may concern:

Be it known that I, JOHN THOMAS BRENT, 2d, a citizen of the United States of America, residing at Cold Spring, in the county of Putnam and State of New York, have invented a new and useful Weight; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to weights, especially sash-weights or other forms of sectional weights.

The objects of my improvement are to provide a novel form of weight useful alone or as a unit for sectional weights, which unit is quickly and cheaply made and finished, is very strong, and may be readily and firmly engaged with and removed from another unit to produce a sash-weight of any desired weight and which is exceedingly heavy and strong for a given weight.

Referring to the accompanying drawings, Figure 1 is a perspective view of the new form of weight, showing especially the form of the rib used. Fig. 2 is a perspective view of said weight, showing especially the grooved end. Fig. 3 is a crosswise longitudinal section through a weight composed of a succession of the new units. Fig. 4 is a widthwise section of the engaging ends of successive units, showing the relation of ribs and stops; and Fig. 5 is a perspective view showing successive units partly slid together.

The new weight or weight unit made according to this invention consists of a block or body 1, preferably rectangular in shape and having one end 2 inwardly curved or recessed widthwise of the unit, as shown in the drawings, and provided at the end referred to with a rib having an outwardly-extending web 3 widthwise of the rib and disposed at the central line of the unit. At its outer extremity the rib has one or more overhanging parts, such as overhanging flanges or side edges 4 and 5. Preferably, as shown, the overhanging flanges or side edges 4 and 5 and the outer or extreme face 6 of the rib are curved in the same direction as and parallel with the curved or recessed end 2 of the block or body. Preferably, also, the curves at 2 and 6 are symmetrical, though this is not always necessary.

The length and outward projection of the rib 3 of a unit may be any desired. I prefer,

however, that the length of said rib shall be, as shown in the drawings, equal to the width of the block or body 1, or nearly so, in order that said rib shall have maximum strength and the overhanging side edges or flanges 4 and 5 shall have maximum gripping or engaging surface or surfaces. It will be seen also that I provide the web 3 of the rib with a suspension-opening 7, preferably, as shown in the drawings, midway of the length of the web, and underneath both flanges or overhanging side edges or flanges 4 and 5. At one end the rib 3 is diagonally cut away or beveled, as shown at 8, without materially decreasing the length of the flanges, the beveled part thus provided acting as a stop member when engaged with another unit, as hereinafter described.

The block 1 is also provided with an end 9, outwardly curved or swelled widthwise of the unit, as shown in the drawings, and preferably parallel with the curve of the end 2. Said end 9 is also formed or provided with means to engage an end rib such as that described of an engaged weight or unit, and in the drawings I have shown a groove 10 widthwise of the end of the weight 9 and enlarged at its top and bottom to provide the inwardly-extending jaws or flanges 11 and 12 and the enlargements 13 at top and bottom of said groove. The general outline and shape of the groove is T-shaped and corresponds to the general outline and shape of the T-shaped rib (provided with flanges) already described, and said groove extends the entire width, or nearly so, of the end 9 of the block or unit, and in the instance illustrated one end of the groove is obstructed by a beveled part 15, constituting a stop. The other end of the groove is unobstructed or has a curved wall 14.

It will be seen that the unit shown in Figs. 1 and 2 may be used alone as sash-weight or for other purpose. In that event an end of the suspending-rope may be passed through the opening 7 (of a web 3) and tied, thus suspending the weight in place. If two or more of such units are to be used as the weight, successive units may be slid together, as shown in Fig. 5, the rib of one unit 1^b engaging the end groove of the adjacent unit 1^a and the flanges 4 5 of the rib fitting the enlargements 13 of the groove and slidably

bearing upon the flanges or jaws 11 and 12, as shown in Fig. 3. When two of the illustrated units are fully engaged, the stop 15 and the bevel 8 are squarely together, the function of the stop being to limit the sliding engagement in one direction of successive units and the stiffening of the weight composed thereof. The successive units or weights are thus slidably fitted end to end, and the rib of one unit grippingly engages and interfits with the groove of the adjacent unit. It will be seen, therefore, that the unit may be employed alone or as a component of a sectional weight and in the latter event may be an intermediate unit or section or an end unit or section. It will also be seen that special suspending units are not necessary with my construction and that the sashes of an entire building, as well as those utilizing single units as those utilizing several units, may be equipped with my new weight or unit.

A sectional weight comprising a succession of my new units slidably engaging, as described and shown, is exceedingly heavy for its length, of great strength, owing to the fact that any jars or shocks, due to raising and falling in the sash-casing, are transmitted to somewhat closely-fitting parts and against the full breadth of the ends of the successive blocks and against ribs and flanges which are as wide as the blocks, and there are no small or fragile parts—such as small projections, hooks, or thin suspension-pieces—to be broken away by end shocks or twisting strains.

Units such as shown in Figs. 1 and 2 are exceedingly simple to cast, requiring but one operation and a core being unnecessary and

may be finished sufficiently without putting in a "rattler" or tumbling-machine, the use of which results in breaking projecting or small parts of units.

In the drawings I have shown units substantially square in cross-section, which form gives maximum weight and strength; but the cross-sectional shape of the weight may be any desired.

What I claim is—

1. A sectional weight comprising successive units slidably engaged end to end, one of said units having a curved end rib having an overhanging part and extending centrally widthwise of the unit, and the other of said units provided with a curved end groove into and extending centrally widthwise of the unit and conforming to, engaging and interfitting the rib aforesaid.

2. A sectional weight comprising successive units slidably engaged end to end, one of said units having a curved end rib having an overhanging part and extending centrally widthwise of the unit, and the other of said units provided with a curved end groove into and extending centrally widthwise of the unit and conforming to, engaging and interfitting the rib aforesaid, the successive units provided with directly-coöperating means for limiting the extent of sliding engagement of the units.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN THOMAS BRENT, 2d.

Witnesses:

CHARLES E. DALZELL,
FREDK. WRIGHT.