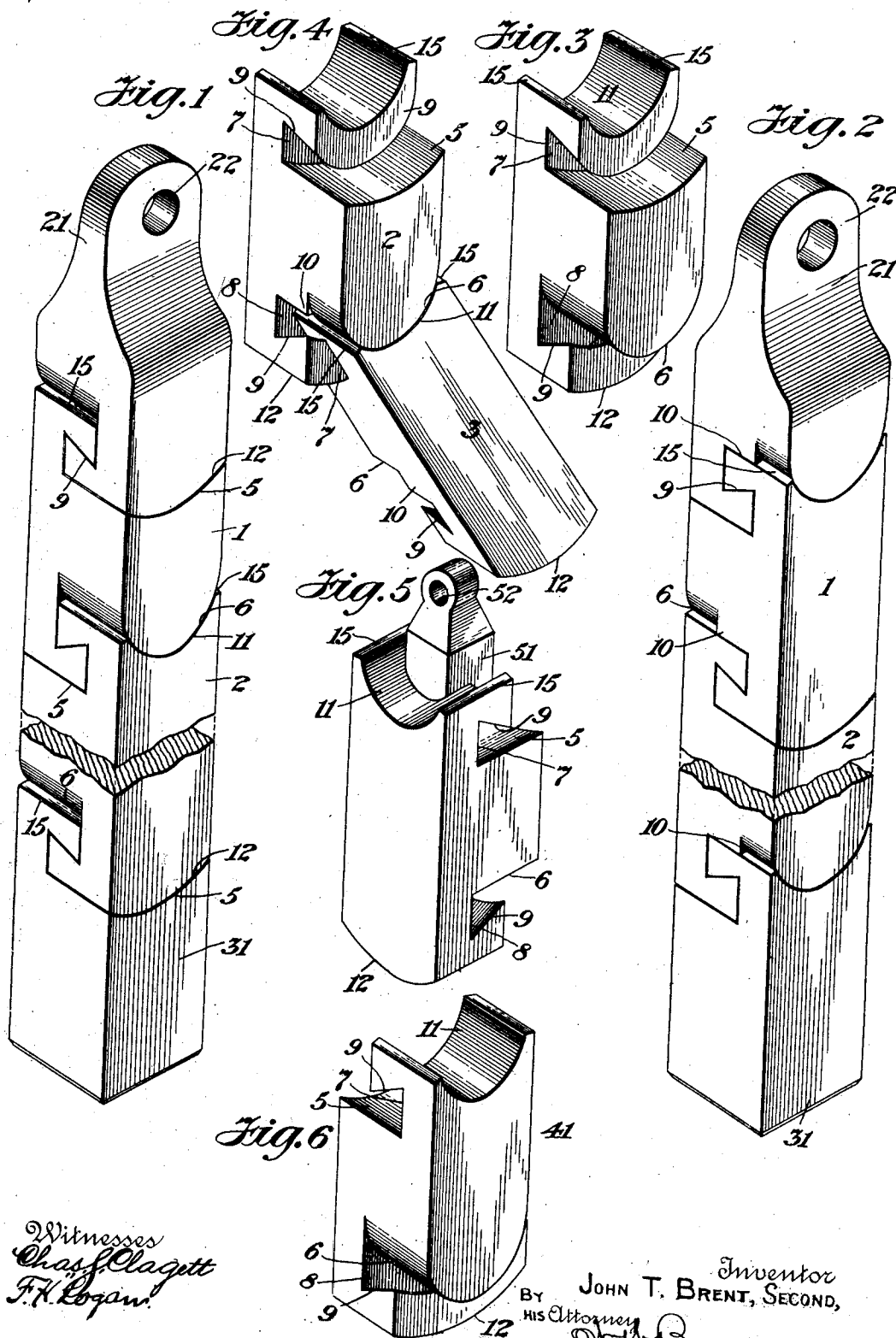


No. 826,706.

PATENTED JULY 24, 1906.

J. T. BRENT, 2D.
SECTIONAL WEIGHT.
APPLICATION FILED MAR. 13, 1906.



UNITED STATES PATENT OFFICE.

JOHN T. BRENT, 2d, OF COLD SPRING, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO SECTIONAL WEIGHT COMPANY, OF COLD SPRING, NEW YORK, A CORPORATION OF NEW YORK.

SECTIONAL WEIGHT.

No. 826,706.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed March 13, 1906. Serial No. 305,798.

To all whom it may concern:

Be it known that I, JOHN T. BRENT, 2d, a citizen of the United States of America, residing at and having a post-office address at Cold Spring, county of Putnam, and State of New York, have invented a new and useful Sectional Weight; and I do hereby declare the following to be a full, clear, and exact description of the same.

My present invention relates to sectional weights, and more especially to sectional sash-weights.

The objects of my improvement are to provide a form of 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 for a given length.

I am well aware that it has been the practice to make sectional weights of units constructed for addition to or removal from one another or for addition to or removal from a core or bar.

My invention relates especially to that class wherein a core or bar is not used and the units directly engage each other, and a characteristic feature of the new sectional weight produced by me is that the dovetail or overhanging part of one unit interfits a properly formed part of the next unit.

Referring to the accompanying drawings, Figure 1 is a perspective lengthwise view of the sectional weight embodying my invention, part being broken away. Fig. 2 is a similar view of said weight from an opposite side, showing the stops. Fig. 3 is a perspective view of one of the units employed in Figs. 1 and 2. Fig. 4 is a view showing successive units partly slid together. Fig. 5 is a view showing a manner of attaching a hanger, and Fig. 6 is a view of another form of unit which may be used.

A sectional weight made according to my invention may consist of any number of successive units, and in Figs. 1 and 2 I have shown body units 1 and 2 and have shown the weight as broken away to indicate an indefinite number of units. The assembled weight may have a hanger unit 21 and a bottom or finishing unit 31, which will bring the total weight to that desired. Obviously,

however, any unit, whatever its shape, may be the bottom unit, and the unit 31 need not always be used. With reference to the hanger unit, that may be the large heavy unit 21 (preferably of cast-iron) or a smaller unit 51, Fig. 5, which may be of steel pressed into shape or other metal, or special hanger units may be dispensed with and the assembled weight suspended by a rope or wire directly engaging with an end unit of the weight whether the same is an interfitting or body unit or not.

The interfitting or body units (1 and 2 in Figs. 1 and 2) in the form preferably employed by me are blocks of cast-iron somewhat square in shape, comprising a body inwardly curved at one end 5 and outwardly curved at the opposite end 6 and with end pieces outwardly projecting, one from each end of the body and having their extremes 11 12 curved in the same direction as the adjacent ends 5 6. Each end piece is provided with an inwardly-extending rib having its inner side 9 dovetailed or overhanging and curved to coincide to the adjacent end 5 6 and having its outer side coinciding with the curved extremes 11 12. As a result of the use of the curved dovetailed ribs or overhanging parts undercut or reversely-shaped grooves 7 8 are provided at each end of the body for the receipt of end ribs of the next succeeding unit or units.

The manner of sliding the units to place is illustrated in Fig. 4, wherein the units 2 and 3 are shown as sliding around the axis of the engaged ribs, both of which are curved in the same direction, and the engaged ribs are shown as grippingly engaged and interfitting. Examination of said figure will show that the outwardly-curved extreme 12 of one unit rides against the inwardly-curved end 5 of the next unit, while the inwardly-curved extreme 11 of the second-named unit simultaneously rides against the outwardly-curved end 6 of unit 2. The curved rib of unit 2 fits into the groove 7 of unit 3, while the curved rib of the last-named unit fits into the groove 8 of unit 2 and when fully slid to position successive units, as shown in Figs. 1 and 2, closely engage and their end ribs grippingly engage and interfit, thus producing a sectional weight, which is exceedingly heavy for its length, of great strength, owing to the

fact that any jars or shocks, due to raising or falling in the sash-frame, are transmitted to somewhat closely fitting parts and against the full breadth of the ends of the successive blocks and against ribs and end pieces 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. The units shown by me are also exceedingly simple to cast, requiring but one operation, and may be finished sufficiently without putting in a “rattler” or other tumbling-machine, the use of which results in breaking of small projections, hooks, or suspension-pieces. Successive units may be quickly assembled or disengaged, being easily slid to and fro to the desired extent without any liability to breakage.

20 A sectional weight, having a plurality of grippingly-engaged and interfitting units, may, as shown in Fig. 1, be suspended by a rope engaging an eye 22 in the large hanger unit 21 or by a rope engaging an eye 52 in a small hanger 51. I have shown a sectional weight which is substantially square in cross-section, which form gives weight; but the cross-sectional shape of the weight may be any desired.

30 Upon referring to the drawings it will be seen that I have provided my new sectional weight with stops or means for limiting the relative movement of successive units in one direction to prevent the sections from becoming accidentally disengaged and to stiffen the assembled weight. The stops shown by me are integral stops 10, formed at one side edge of the outwardly-curved ends 6 of the units and will be sufficient if they extend, as shown, about half-way up the body. To contact with said stops, the side edges of the inwardly-curved ends 5 may be flattened or squared, as at 15, and will squarely engage

the stops 10. Preferably all stops 10 will be on the same side of the weight when assembled.

The units shown in Figs. 1 to 5 are provided with end pieces, both of which are at the top of the unit. Other forms may, however, be used. As shown in Fig. 6, one end piece may be at the top of block 41, while the other end piece may be at the bottom or diagonally opposite.

I claim—

1. A sectional weight, comprising a succession of separable units each provided with a curved dovetail end rib extending widthwise of the unit, and the adjacent dovetail ribs of successive units curved in the same direction and grippingly engaging and interfitting.

2. A sectional weight, comprising a plurality of separable units provided with dovetail end ribs, and the adjacent dovetail ribs of successive units grippingly engaging and interfitting, in combination with means for limiting the extent of sliding engagement of the units.

3. A sectional weight, comprising a succession of separable units each having a curved end and provided with an end piece offset from the curved end, the end pieces lapping and each provided with a curved rib symmetrical throughout and formed upon and extending widthwise of said offset end piece, the adjacent rib of each of the successive units grippingly engaging and fitting between the curved end of the adjacent unit and the rib carried by the offset end piece thereof.

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

JOHN T. BRENT, 2D.

Witnesses:

CHARLES E. DALZELL,
SAMUEL CONDELL.