

No. 838,876.

PATENTED DEC. 18, 1906.

H. C. LYONS & C. R. CLARK.

SASH WEIGHT.

APPLICATION FILED JAN. 29, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

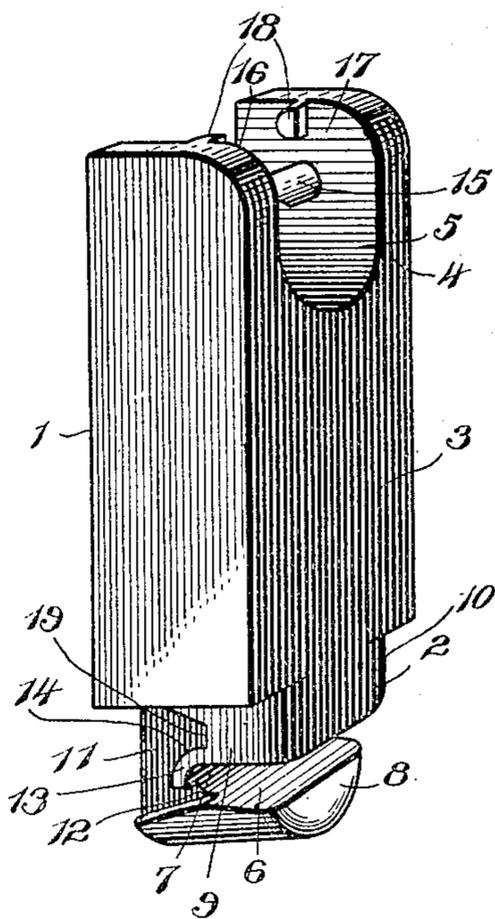


Fig. 2.

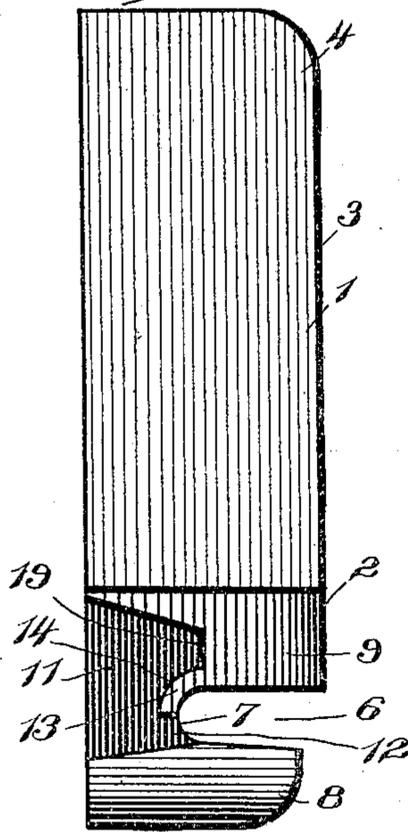


Fig. 3.

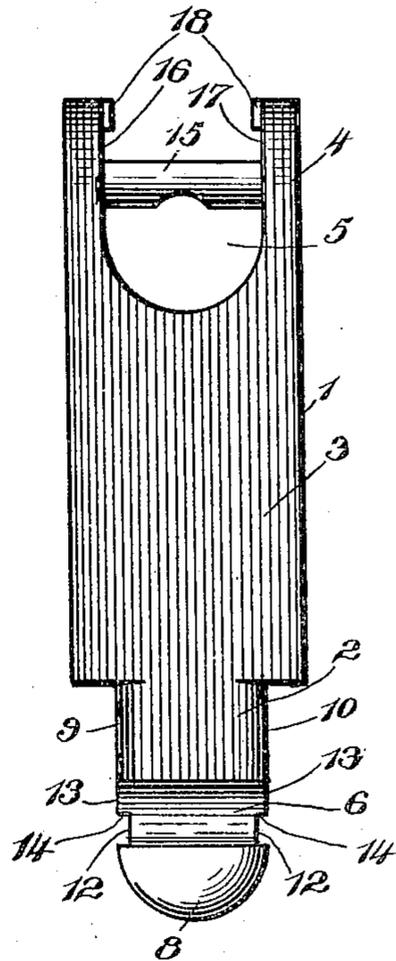
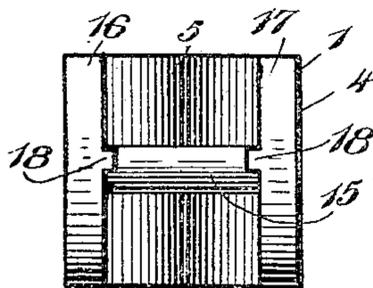


Fig. 4.



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2 SHEETS—SHEET 2

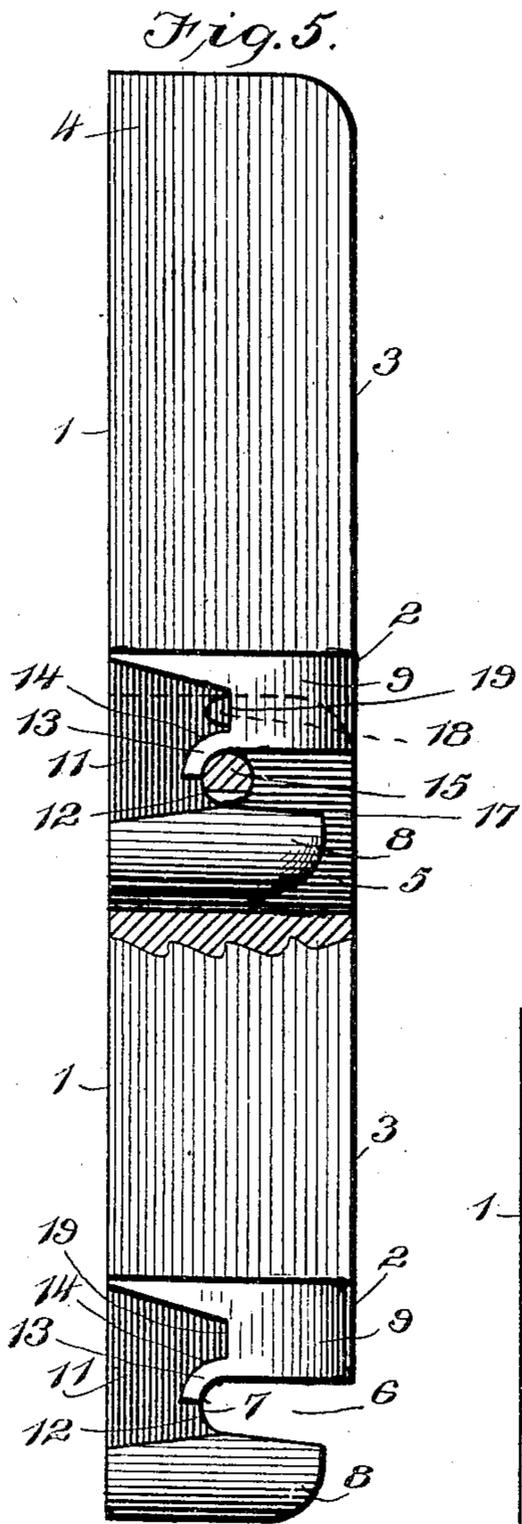
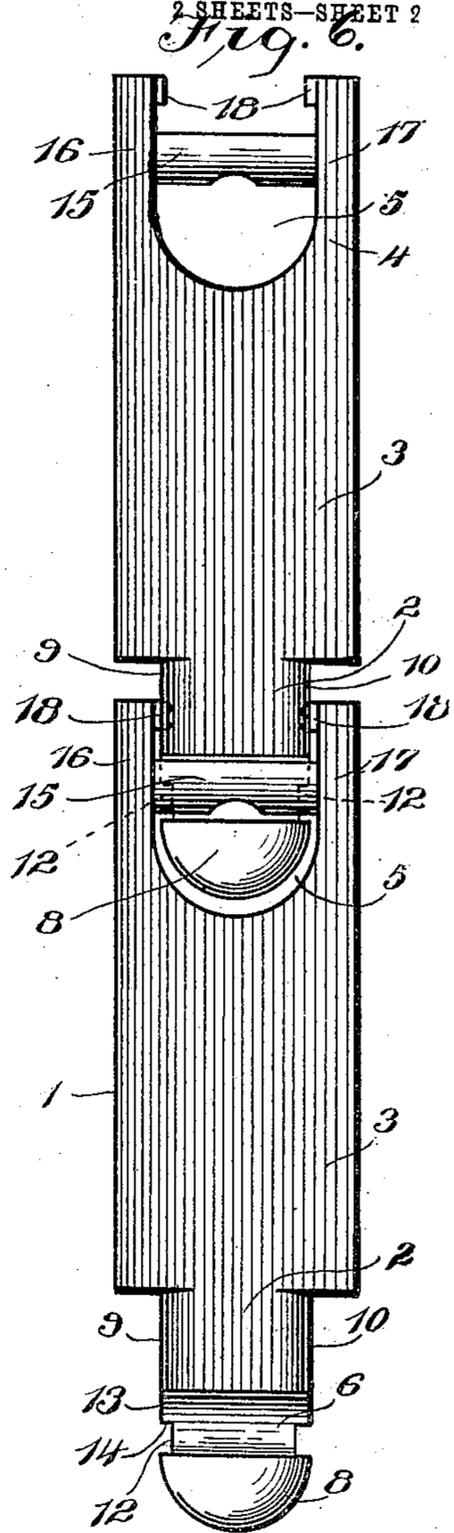
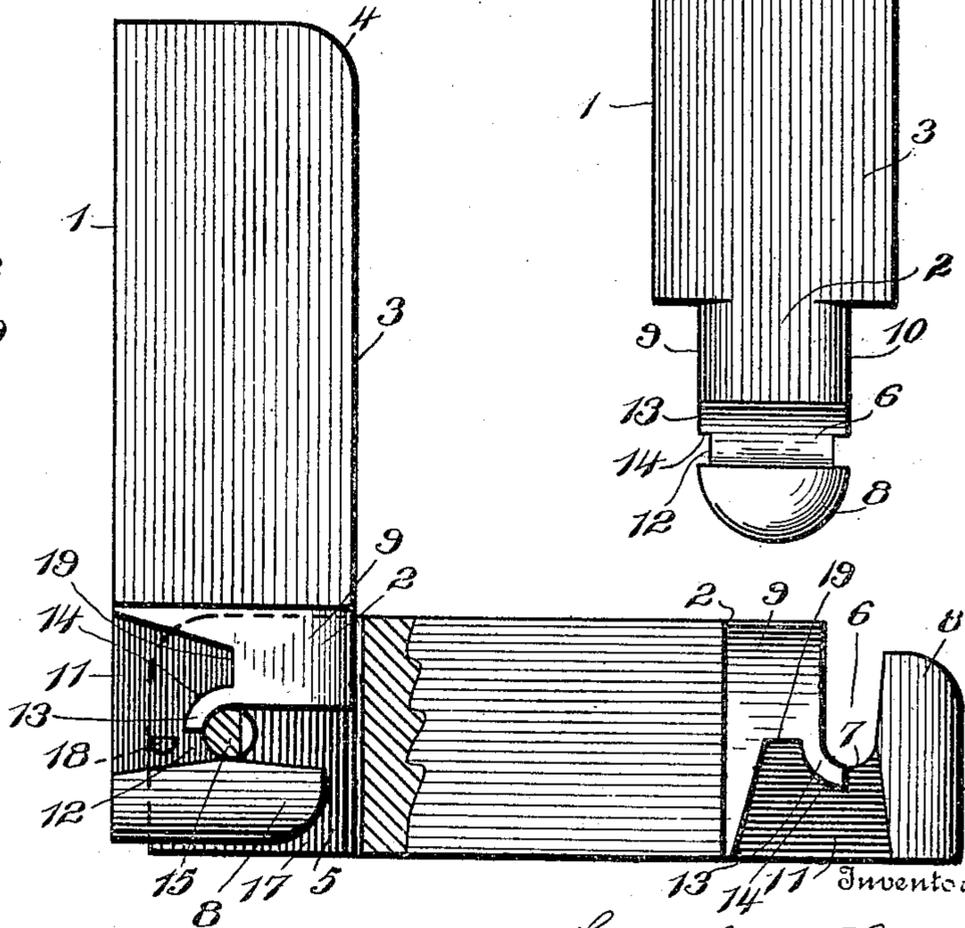


Fig. 7.



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UNITED STATES PATENT OFFICE.

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SASH-WEIGHT.

No. 838,876.

Specification of Letters Patent.

Patented Dec. 18, 1906.

Application filed January 29, 1906. Serial No. 298,395.

To all whom it may concern:

Be it known that we, HENRY CLAY LYONS and CHARLES ROMAINE CLARK, citizens of the United States, residing at Alexandria, in the county of Alexandria and State of Virginia, have invented certain new and useful Improvements in Sash-Weights; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Our invention relates to sash-weights, but more particularly to sectional sash-weights, and has for its object to provide a device of this class whereby two or more weights can be coupled together in order to secure the desired balance for a window.

A further object of our invention is to provide a sectional sash-weight which is particularly cheap to manufacture, easy to couple and uncouple, and which is strong and not easily broken.

Our invention consists in the novel construction of the sash-weight and in the construction employed for coupling the sections together.

Referring to the accompanying drawings, Figure 1 is a perspective view of the sash-weight. Fig. 2 is a side elevation thereof. Fig. 3 is a front elevation thereof. Fig. 4 is an end elevation thereof. Fig. 5 is an elevation showing two weight-sections coupled together, the lower weight-section being partly in vertical section. Fig. 6 is a front elevation of two weight-sections coupled together; and Fig. 7 is an elevation showing position of two weight-sections in the act of being coupled together, one of the weight-sections being partly in vertical section.

Like numerals of reference indicate the same parts throughout the several figures, in which—

Referring to the sash-weight shown in Figs. 1, 2, 3, 4, 5, 6, and 7, it will be seen that the same is illustrated flat or square-sided; which is the preferable construction, although it is obvious that the body of the weight may be of any convenient form.

Referring to Fig. 1, which shows the weight 1 in perspective, it is seen that the

lower portion 2 thereof is contracted laterally, (considering the side 3 as the face of the weight,) while the same thickness is carried from front to back in said contracted portion 2. It is seen that a large recess 5 is formed, as shown, the width of said recess being slightly greater than the width of the contracted portion 2, so that the contracted portion 2 of a fellow weight-section can enter and be accommodated by said recess 5.

Referring again to the contracted portion 2, and particularly to Figs. 1, 2, and 3, it is seen that a deep transverse groove or recess 6 is formed therein, said groove or recess extending from the face of the contracted portion 2 a little more than half-way through the weight, the bottom 7 of said groove or recess 6 being rounded for a purpose which will presently be apparent. This groove 6 in the contracted portion 2 forms a jaw or extension 8 at the lower end of said contracted portion. In rear of said groove 6 the sides 9 and 10 of the contracted portion 2 are slightly recessed, as shown at 11, said recesses communicating with the groove 6, forming a passage 12, while that portion 13 of the sides 9 and 10 of the contracted portion 2 immediately adjacent the upper half of the bottom 7 of the groove 6 is flush with the sides 9 and 10, thereby forming a wall 14, surrounding the upper half of the bottom 7 of the groove 6, for a purpose which will be presently described.

Referring now to the upper portion of the sash-weight, and in this connection particularly Figs. 3 and 4, it is seen that a transverse pin or element 15 connects the walls 16 and 17, and it is also seen that two small lugs or projections 18 are formed on the inner sides of said walls 16 and 17, said lugs or projections 18 being above the pin 15 and to one side of the center thereof, as shown in Fig. 5.

Having thus described the several parts of my invention, its operation is as follows: In order to couple or connect two of the sash-weight sections together, the lower weight-section is turned at right angles to the upper weight-section, and the transverse pin 15 of the lower weight-section is passed into the groove 6 of the upper weight-section, the lugs 18 on said lower weight-section passing along the passages 12 on the upper weight-section, as clearly shown in Fig. 7. When the said pin 15 reaches the bottom of the groove 6, the said lugs 18 are within the depressions

11 on the sides 9 and 10 of the contracted portion 2 of the upper weight-section and are beyond the walls immediately surrounding the upper half of the bottom of the groove 6, as shown in Fig. 7. When in this position, the lower weight-section is allowed to swing down vertically into position shown in Fig. 5, the pin 15 of the lower section acting as a pivot. This movement of the lower weight-section carries the lugs 18 thereon up over the walls 14 on the contracted portion 2 of the upper weight-section, as shown in Fig. 5, causing them to strike the walls 19 on the contracted portion 2 of the upper weight-section, which walls act as stops and effectually lock the two weight-sections together in such manner that while the two weight-sections are in a vertical position the lower section cannot be uncoupled or disconnected.

Referring again to Fig. 7, it will be seen that the lug 18 on the lower section is only in line with the passage on the upper section when the lower weight-section is at right angles to the upper weight-section, and consequently the said lug 18 can only pass through said passage 12 when in that position. In any intermediate position, therefore, between that shown in Fig. 7 and that shown in Fig. 5 the said lugs 18 are behind the walls 14 on the upper weight-section, which act as a stop to prevent the uncoupling or disconnection of the lower weight-section. As the pin 15 of the lower weight-section is the point of suspension of said section and as said pin is at the extreme upper end of the lower weight-section and above the center of gravity of the said weight-section as long as the sections are being suspended in operative position, there is absolutely no possibility of the lower weight-section getting into position shown in Fig. 7, which would be necessary in order to uncouple or disconnect the lower weight-section. As a consequence of this construction the weight-sections are as firmly and securely locked together as if they were a single weight.

When it is desired to couple a series of the weight-sections together, each succeeding section is coupled to its preceding section in the manner as just described, and from the description and drawings it is apparent that the coupled sections do not have to be given the usual quarter-turn in order to bring the lowest section into position to receive an additional section.

As sash-weights must necessarily be rough castings in order to hold the expense of production as low as possible, they are subjected to extremely rough handling, and it is absolutely essential that there be no thin or weak parts on the weight to break off. For this reason, therefore, it is seen that the pin 15 on our sash-weight being located between the walls 16 and 17 acts as a strengthening-brace for said walls. If, furthermore, a portion of

the jaw or extension at the lower end of the weight-section should be broken off, the section would be unharmed, as it is only necessary that sufficient of this extension remain in order to afford a bearing for the pin 15 when said pin is at the bottom or end of the slot 6. As a matter of fact, should the entire jaw or extension 8 be by some manner broken off the lugs 18 would engage the curved walls 14 at the bottom or end of the slot 6 and hold the lower weight-section firmly locked in position. It is furthermore only essential to the practical operation of these weight-sections that one of the lugs 18 be intact, as should one of said lugs be broken off or not "pour" properly the remaining lug would perform its function and lock its section to another section firmly and securely.

As one of the primary objects of our invention is to provide a sectional sash-weight which is strong and durable and practically non-breakable, it appears that the only effectual way of incapacitating one of the sections would be to break the same short off, which would be extremely difficult, owing to the thickness of the metal in cross-section.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. As an article of manufacture, a sectional sash-weight having a recess at one end thereof extending longitudinally some distance into the body of the weight, a transverse pin within said recess, a lug within said recess and outside of said transverse pin, a contracted portion on said weight, a transverse groove in said contracted portion, a recess in one of the sides of said contracted portion and a passage leading from said recess to said transverse groove.

2. As an article of manufacture, a sectional sash-weight having a recess at one end thereof extending some distance into the body of the weight, a pin within said recess transverse thereof, a lug within said recess in proximity to said pin, a contracted portion on said weight, a groove having its bottom lying in the same direction as the said pin within the said recess, and a passage associated with said groove.

3. As an article of manufacture, a sectional sash-weight having a recess at one end thereof extending some distance into the body of the weight, a pin within said recess, and a groove near the other end of said weight, said groove lying parallel with the pin within said recess.

In testimony whereof we affix our signatures in presence of two witnesses.

HENRY CLAY LYONS.
CHARLES ROMAINE CLARK.

Witnesses:

C. M. FORREST,
C. HUGH DUFFY.