(No Model.)

J. J. JOHNSTON.

SASH WEIGHT.

No. 273,238. Patented Feb. 27, 1883.

Fig 1.

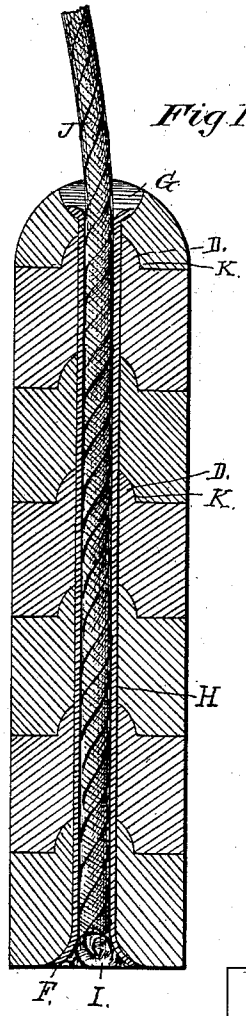


Fig 5

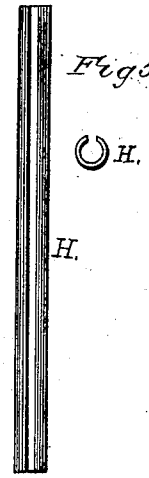


Fig. 2.

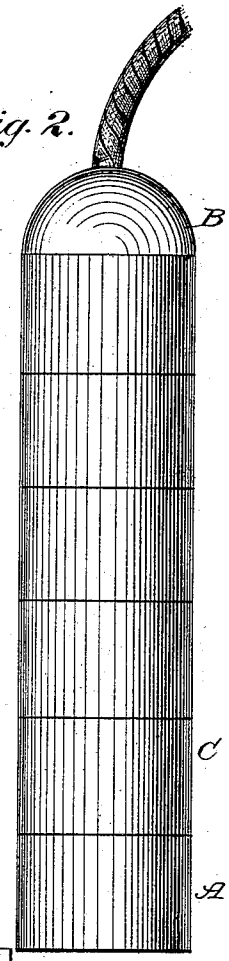


Fig. 3.

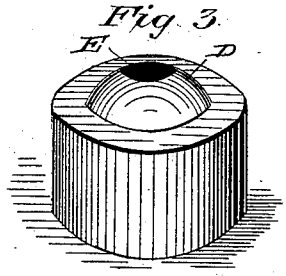
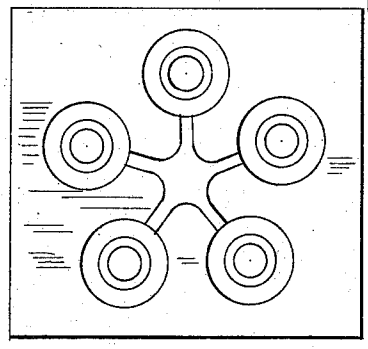


Fig. 4



WITNESSES

Fred. G. Dieterich.
Jno W. Stockett

INVENTOR

James J. Johnston

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JAMES J. JOHNSTON, OF COLUMBIANA, OHIO, ASSIGNOR TO THE UNITED STATES IMPROVEMENT COMPANY, (LIMITED,) OF SAME PLACE.

SASH-WEIGHT.

SPECIFICATION forming part of Letters Patent No. 273,238, dated February 27, 1883.

Application filed February 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. JOHNSTON, of Columbiana, in the county of Columbiana and State of Ohio, have invented a certain new and useful Improvement in Sash-Weights; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in sash-weights; and it consists in constructing it in sections and securing said sections together through the medium of a metallic tube, as will hereinafter more fully and at large appear.

To enable others skilled in the art with which my invention is most nearly connected to make and use the same, I will proceed to describe its construction and operation.

In the accompanying drawings, which form part of my specification, Figure 1 is a vertical section of a sash-weight constructed in sections, and the several sections secured together through the medium of a metallic tube, and the cord passing up through said tube. Fig. 2 is a side elevation of the sash-weight. Fig. 3 is a perspective view of one of the sections. Fig. 4 represents a "match-plate," with a series of patterns of the sections secured thereto for the purpose of illustrating the method of molding the sections. Fig. 5 represents the method of forming the tube for holding the sections of the sash-weight together.

Reference being had to the accompanying drawings, A represents the bottom, B the top, and C the intermediate sections, of the sash-weight. The sections A and B are recessed at F and G, as shown in Fig. 1, for the purpose of spreading the ends of the tube H for holding the several sections in juxtaposition, the recess F being made sufficiently large to receive the knot I in the cord J, so as to prevent it causing lateral tilting of the sash-weight.

Each section is provided with a spherical projection, D, in its upper end, and a corresponding concavity, K, in its lower end, each section having an opening, E, through it. The sections are constructed of cast-iron by the molding process, and for ease and facility of molding, the patterns are arranged on a match-plate, as shown in Fig. 4, for what is known in the art as "open sand" or "snap-flask" molding, all of which is well understood in the art of molding and casting, and is stated in this specification for suggesting a means for constructing the sash-weight cheaply and with facility.

The weight of sections A and B being ascertained, each of the intermediate sections, C, should be of uniform weight—that is to say, each of the same weight, and by preference should weigh one pound, which will enable manufacturers to construct the sash-weight of any number of pounds desired, it being a matter of observation that a sash-weight is always ordered as containing a given number of pounds without any fractional part of a pound.

The tube H is formed from a flat strip of thin metal bent into the tubular form, as indicated in Fig. 5, the two side edges of the strip not being united, which will allow the tube to contract sufficiently for the sections to pass over it, and at the same time cause the outer walls of the tube to press against the walls of the opening E. The length of these tubes will be in proportion to the number of pounds required in the sash-weight, and the manufacturer will readily ascertain the required length of said tube after constructing a single sash-weight of a given number of pounds. The ends of the tube H are spread or swaged to the contour of the cavity in the lower end or side of section A and the upper end of section B, as shown in Fig. 1.

The advantage of constructing a sash-weight as hereinbefore described will be apparent to the skillful mechanic without further description.

I am aware that it is not new to construct a sash-weight in sections, and therefore do not claim, broadly, such construction of a sash-weight; but

What I do claim is—

In a sash-weight, the combination, with the sections A B C, of a tube having bell-mouthed ends, upon which said sections are mounted and connected together, and through which the sash-cord passes, as herein shown and described.

JAMES J. JOHNSTON.

Witnesses:
T. D. D. OURAND,
DE WITT C. ALLEN.