D. B. Lacy,

Sash Weight.

No. 58,172. Patented Sep. 18, 1866.

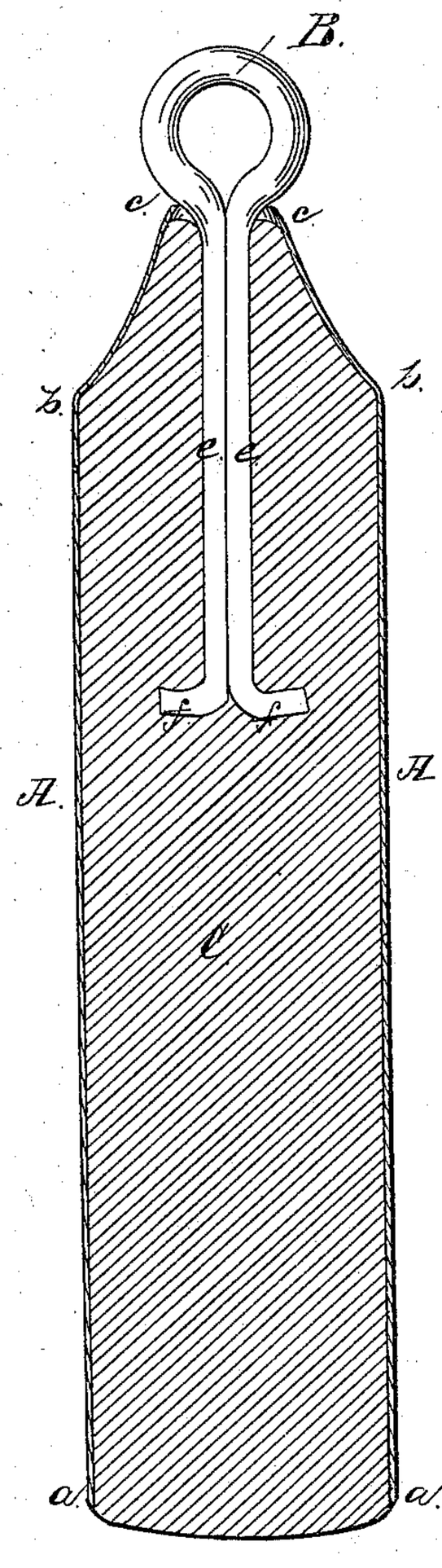

Fig: 1.

Fig: 2.

Witnesses:

D. W. Comby

G. W. Reed

Inventor:

Daniel B. Lacy

UNITED STATES PATENT OFFICE.

DANIEL B. LACY, OF MOTT HAVEN, NEW YORK, ASSIGNOR TO HIMSELF AND ISAAC A. AND THOMAS T. LACY, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN WEIGHTS.

Specification forming part of Letters Patent No. **58,172**, dated September 18, 1866.

To all whom it may concern:

Be it known that I, DANIEL B. LACY, of Mott Haven, in the county of Westchester and State of New York, have invented a new and useful Improvement in Weights; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal section of a weight constructed according to my invention. Fig. 2 is a transverse section of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in the construction of weights for window-sashes, clocks, and other uses with casings of sheet-iron filled with the slag from blast-furnaces, whereby the weights may be manufactured at a much less cost and with a much smoother exterior than when made of cast-iron in the usual way.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

A is an outer case, which is open at its lower end, *x*, and may be made of sheet-iron or other suitable metal, and which may be of any desired shape; but when the weight is designed for a clock or window-sash, it is preferred to be cylindrical in its main length, as from *a* to *b* in Fig. 1, with its upper end made tapering or conical, as shown at *b c* in the said figure, there being an orifice or opening in the top thereof at *d*, through which the shank *e* of the ring-staple B is thrust into the said case A.

This ring-staple may be made of wrought or malleableized iron, and the inner or lower end of its shank *e* is formed into two laterally-projecting prongs, *f*; or may be simply made somewhat thicker than the main length of the said shank, in order to enable the staple to be properly secured in place by the filling contained in the case A, as will be presently fully explained, the cord by which the weight is suspended being attached to a ring upon the outer end of the said staple when the pulley is in use.

The case A may be made by bending or folding the sheet metal of which it is formed into the proper shape, and securing the adjacent edges together by any suitable means.

The case A being constructed, and the shank *e* of the ring-staple B being inserted therein, as hereinbefore fully set forth, the said case is inverted and has its tapering end, together with the ring or head of the staple B, solidly embedded in earth, molding-sand, or equivalent substance, with its open bottom *g* uppermost, the interstices around the shank *e*, where it passes into the case A, being closed by the sand or earth surrounding the end of the said case, the said sand or earth at the same time holding the case in an upright position, and also keeping the ring-staple B in its proper place with reference thereto. The case A is then filled with molten slag from blast-furnaces, poured in at the open end of the said case.

The said slag, when cooled, forms a solid and heavy filling within the case A, as shown at C, and constitutes the greatest portion of the weight, and, surrounding the shank *e* of the ring-staple B, together with the prongs or enlargement upon the inner end thereof, securely fastens the said ring-staple thereto.

Inasmuch as the slag is of little intrinsic value, and the sheet-iron cases A may be made at a very moderate cost, and whereas the operation of filling the said cases with the slag may be performed by boys or other unskilled and inexperienced persons, it follows that the weights may be manufactured at a much less cost than those formed of cast-iron in the ordinary way, my improved weight being also better adapted for use as a sash-weight than those heretofore made, inasmuch as the outer surface of the sheet-iron of which the cases A are formed may be made much smoother than that of the weights made of coarse cast-iron in the usual way, and are thus rendered much less liable to cut or abrade the cords by which they are suspended by passing and coming in contact with the same.

What I claim as new, and desire to secure by Letters Patent, is—

The construction of weights with an outer case of sheet metal and a filling of slag, and a malleable or wrought metal ring or shank around which the slag is cast, all substantially as herein set forth, for the purpose specified.

DANIEL B. LACY.

Witnesses:
A. LECLERC,
J. W. COOMBS.