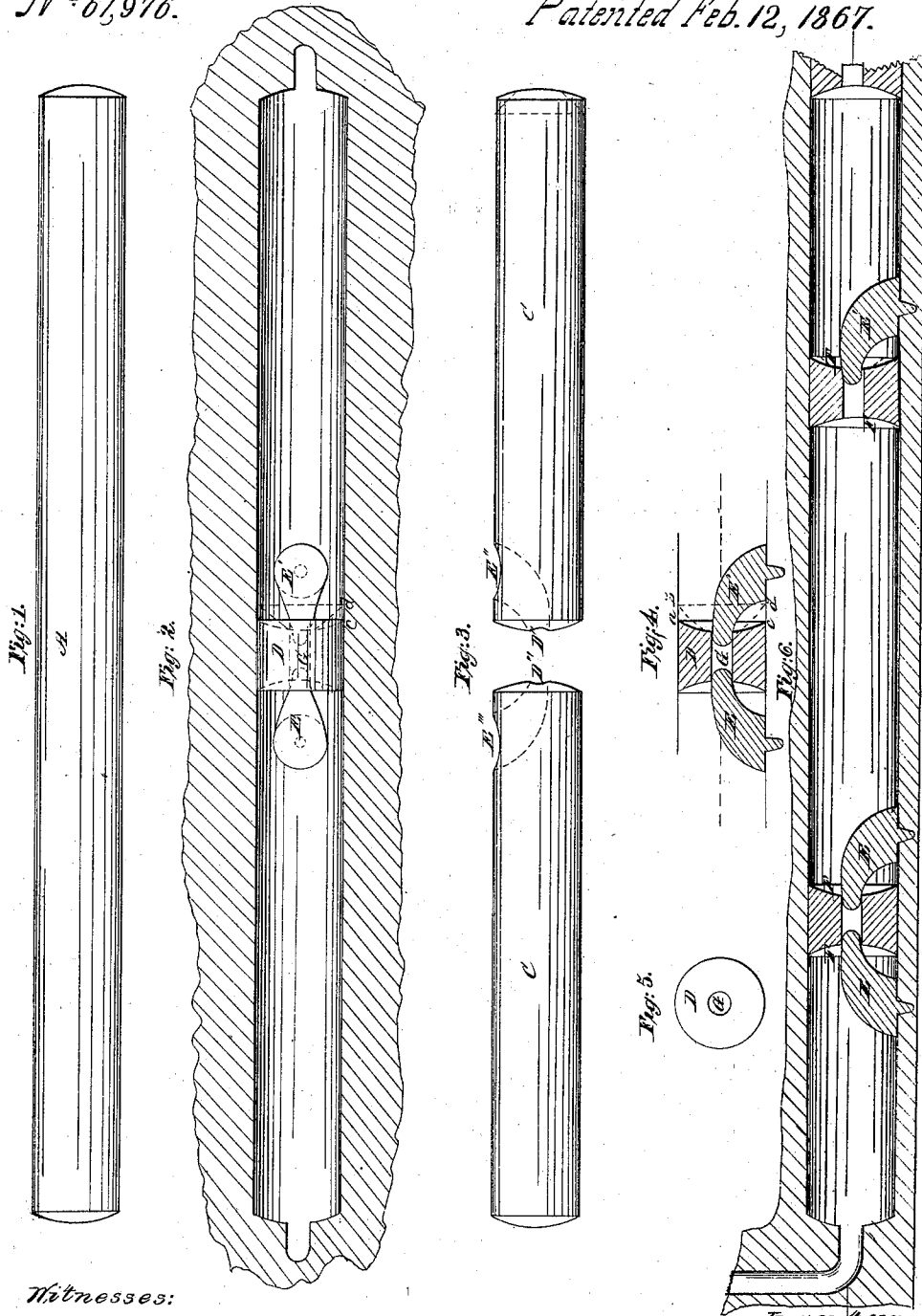


*S. Williamson,*  
*Casting Sash Weights.*

*N<sup>o</sup> 61,976.*

*Patented Feb. 12, 1867.*



*Fig. 1.*

*Fig. 2.*

*Fig. 3.*

*Fig. 4.*

*Fig. 5.*

*Fig. 6.*

*Witnesses:*

*R. C. Phillips*  
*C. B. Hussey*

*Inventor*

*Sam<sup>l</sup> Williamson*

# United States Patent Office.

SAMUEL WILLIAMSON, OF CINCINNATI, OHIO.

Letters Patent No. 61,976, dated February 12, 1867.

## IMPROVEMENT IN MOULDING SASH WEIGHTS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, SAMUEL WILLIAMSON, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented a new and improved Mode of Casting Sash and other Weights; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1, A is the pattern for ordinary round sash weights.

Figure 2 is a view (in plan) of the mould after the pattern has been drawn, and the horn-shaped cores (of iron or sand) E E', and the stop or cut-off D, (of which I use any required number corresponding to the number of weights to be made from one mould,) placed in their proper positions ready for the closing of the mould and casting.

Figure 3, two weights C C, after being cast, the cut-off D and the cores E E' removed, leaving the holes or openings E'' D'' E''' D''' for the cord.

Figure 4, a section through the centre (vertical section) when in the mould of D E and E'.

Figure 5, an end view of D, of which any number may be used, so as to cut the mould into any required number of lengths or weights, showing the hole G in its centre, into which the points of the cores E E' enter.

Figure 6, another view (section vertical) of the mould when used to cast three or more weights from one pattern, showing the manner of using my improvement when a larger number than two weights are to be cast at one operation and from one pattern; in all such cases, the hole G is filled with sand, or other proper material, on the side opposite the core E or E', so as to prevent the metal from flowing into it.

An ordinary round, square, or other shaped pattern may be used. When the pattern is drawn from the mould, the proper distance being marked, the stop D, with the cores E and E', or either of them, is placed in the mould, as shown in figs. 2 and 6; the mould is then closed, and the casting made with the result shown in fig. 2. The concave faces of D and the surfaces of E and E' are properly luted or prepared for the metal. The concave ends of D may have more or less depth, as shown by dotted lines at *a b c* and *d*, figs. 2 and 4; these faces may be curved or straight, and, as above stated, the weights may be of any form desired.

The advantages of my improvement consist mainly in the facility with which weights may be cast by cutting up a long pattern into any required length or weight; the superior quality of the weights in these particulars; the cord is always in the centre of the weight; the knot which secures it is entirely within the weight, and cannot foul or catch in the box; the ease and facility with which the cord is inserted and secured, and the form of the ends of the weights being convex or conical at both ends, as at F, fig. 6, so that when used in single boxes they will not ride or foul.

### Claim.

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

1. The iron cut-off or stop D, when applied or used in casting weights.
2. The application and use of the horn-shaped conical iron chills or sand cores E E' in casting weights.
3. I claim the exclusive use of the stops D D and the cores or chills E E', whether used separately or in combination in casting weights, substantially as set forth and described.

SAM'L WILLIAMSON.

Witnesses:

R. C. PHILLIPS,  
A. H. NEWELL.