

No. 854,551.

PATENTED MAY 21, 1907.

J. M. ALLEN.
CRUCIBLE.

APPLICATION FILED JULY 14, 1906.

Fig. 1.

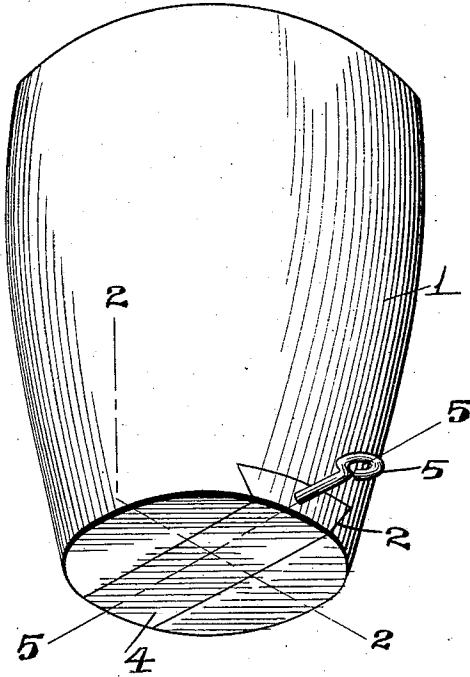


Fig. 2.

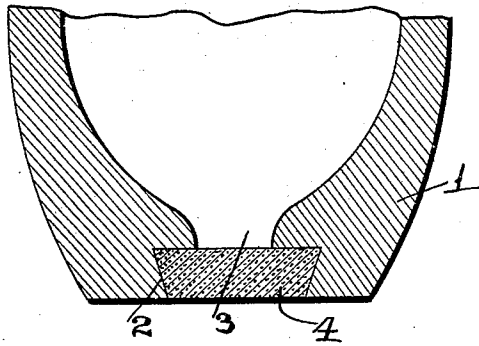


Fig. 4.

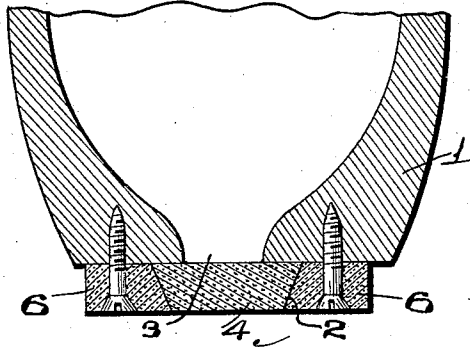


Fig. 3.

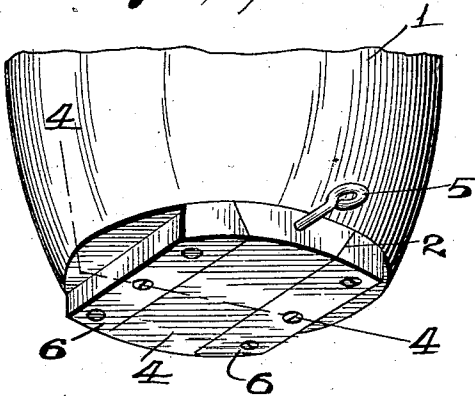
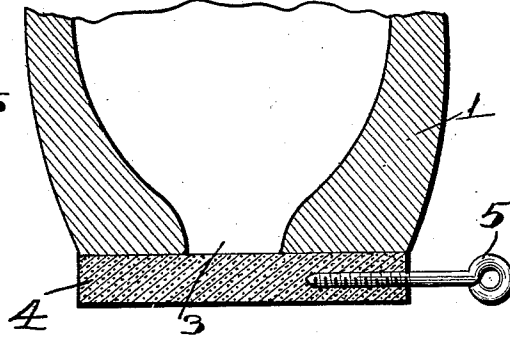


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES M. ALLEN, OF ST. LOUIS, MISSOURI, ASSIGNOR, OF ONE-HALF TO C. H. HOWARD, OF ST. LOUIS, MISSOURI.

CRUCIBLE.

No. 854,551.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES M. ALLEN, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Crucibles, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in crucibles, and the object of my invention is to construct a bottom-discharge crucible whereby the contents of the crucible may be discharged without the necessity of tilting the crucible in order to pour the contents out of the same. My invention may also be used in cupolas, but it is especially designed for crucibles.

Heretofore the crucibles have been constructed with a solid bottom, and in order to discharge the contents, it is necessary to take hold of the crucible by means of tongs, etc., and elevate and tilt the same to discharge the contents. By my improvement, this unhandy and inconvenient manipulation is dispensed with and the contents of the crucible may be easily discharged and the discharge regulated.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a bottom perspective of my invention; Fig. 2 is a cross section taken on the line 2—2 of Fig. 1; Fig. 3 is a perspective with parts broken away of a modified form of my invention; Fig. 4 is a cross section taken on the line 4—4 of Fig. 3; and Fig. 5 is a cross section taken on the line 5—5 of Fig. 1.

Referring by numerals to the accompanying drawings:—1 indicates the body of the crucible, which is constructed of the ordinary suitable materials for such purposes, such as graphite or any analogous material, and the said body is made of the desired form and capacity necessary. Formed in the lower end of the said body portion is a dove-tailed recess 2, of greater width than the diameter of the opening 3.

4 indicates a dove-tailed bottom provided with a handle 5. Said dove-tailed bottom 4

is adapted to fit snugly in the dove-tailed recess 2. The bottom surface of said dove-tailed bottom 4 is flush with the bottom of the crucible, and the ends are flush with the sides of the crucible. Said bottom 4 is made out of any suitable material, such as graphite, and completely closes when it is located in the crucible, that is to say in the dove-tailed recess 2, the opening 3, the opening 3 being adapted for the discharge of the contents of the crucible.

When it is desired to discharge the contents of the crucible, the bottom 4 is withdrawn sufficiently so as to expose completely the opening 3. If it is desired to regulate the discharge of contents, the bottom 4 is partially withdrawn so as to expose only part of the opening 3.

The bottom 4 is manipulated by means of handle 5.

In Figs. 3 and 4 I have shown a modified form of the crucible. In this construction I employ two cleats, 6, which are suitably secured in any mechanical manner to the bottom of the crucible, the interior of said cleats 6 being tapered so as to form a dove-tailed recess, and in this recess is located the bottom 4 provided with a handle 5, as heretofore described. This form of crucible is intended only as a pouring crucible, and is not intended to be located in a furnace. The contents for this form of the crucible are received from a cupola, or melted by the thermic process.

Having fully described my invention, what I claim is:

As a new article of manufacture, a crucible, provided in its lower end with a centrally arranged opening, there being a transversely arranged dove-tailed recess formed in and extending entirely across the bottom of said crucible, which recess intersects the opening in the bottom of the crucible, a removable dove-tailed plate located in said recess, and a handle fixed to said plate.

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

JAMES M. ALLEN.

Witnesses:

M. P. SMITH,
EDWARD E. LONGAN.