

L. HULL.
Core-Molds.

No. 147,843.

Patented Feb. 24, 1874.

Fig. 1.

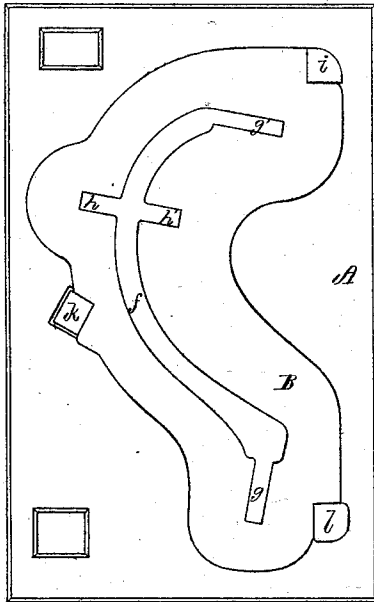


Fig. 3.

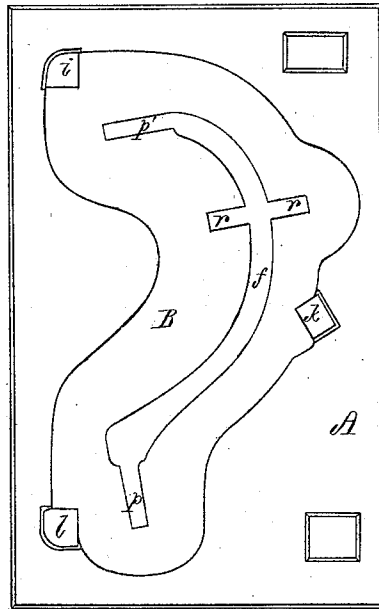


Fig. 3.

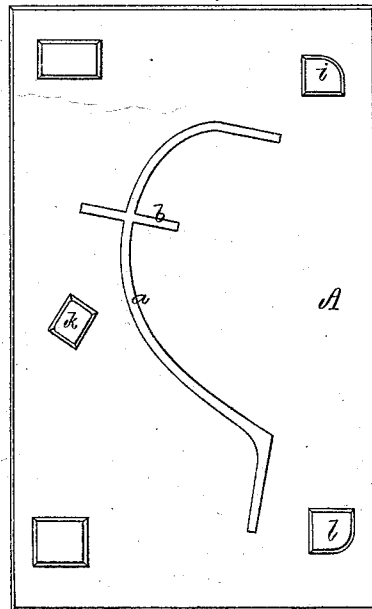
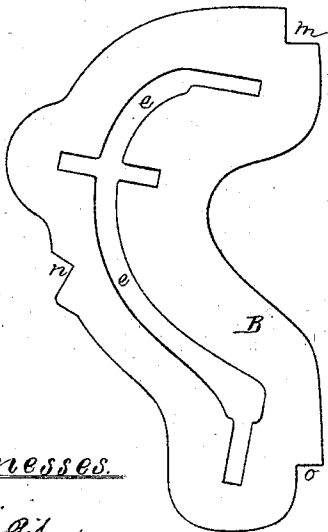


Fig. 4.



Witnesses

S. W. Piper.

L. N. Holler.

Liverius Hull.

by his attorney

R. H. Eady.

L. HULL.
Core-Molds.

No. 147,843.

Patented Feb. 24, 1874.

Fig. 5.

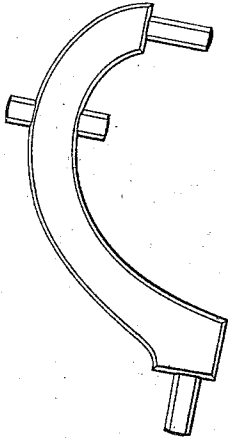


Fig. 6.

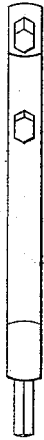


Fig. 8.



Fig. 7.

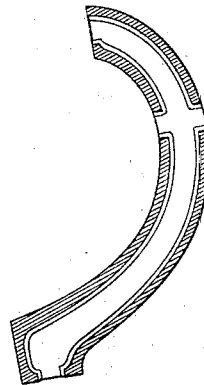


Fig. 9.

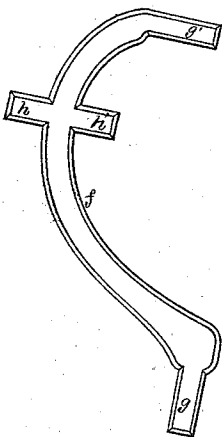


Fig. 10.



Fig. 11.

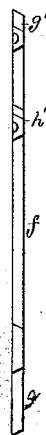


Fig. 12.



Witnesses

S. N. Piper.

L. N. Holler.

Liverus Hull.

by his attorney

R. M. Ledy.

UNITED STATES PATENT OFFICE.

LIVERUS HULL, OF CHARLESTOWN, ASSIGNOR TO TUCKER MANUFACTURING COMPANY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN CORE-MOLDS.

Specification forming part of Letters Patent No. **147,843**, dated February 24, 1874; application filed January 19, 1874.

To all whom it may concern:

Be it known that I, LIVERUS HULL, of Charlestown, of the county of Middlesex and State of Massachusetts, have invented a new and useful improvement in molds for making vented cores for molds for casting tubular arms or branches of gas-chandeliers; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view of one of my improved molds. Fig. 13 is a top view of its fellow mold. Fig. 2 is a transverse section of the first mold. Fig. 3 is a top view of the base-plate with its vent-former and gage projections. Fig. 4 is a top view of the cap-plate, showing the body and tenon-forming slots thereof, and also the notches or recesses to act with the gage projections in determining the correct position of the cap-plate on the base-plate. Fig. 5 is a side view, and Fig. 6 an edge view, of the pattern employed to form the matrix—that is, to receive the vented core. Fig. 7 is a longitudinal section, and Fig. 8 a side elevation, of the tubular arm or branch made or founded by means of the matrix and the vented core. Fig. 9 is a top view, Fig. 10 a transverse section, Fig. 11 a side view, and Fig. 12 an end view, of the vented core as made by my improved mold.

In making the cores it has been customary to mold each in two separate halves or parts, one to lie directly upon the other, the two, prior to the two being put together by means of a tool, being channeled or grooved on their inner surfaces, so as to form a continuous passage or bore through the core. This method of obtaining the channel in each half of the core is objectionable, on account of the danger of breaking the core during the operation, it usually being very thin, and composed of a mixture of meal and sand.

I make the whole vented core by means of a mold, constructed as hereinafter described.

It is composed partly of a bed-plate, A, provided with a core-former or ridge, *a*, extending

up from it, as shown, and also with an auxiliary or transverse ridge, *b*, crossing the main ridge *a*, and, like it, is elevated on the plate. The main ridge is to form half the channel or vent *c* of the core. The auxiliary ridge *b* is to form half of a cross-vent, *d*, in the core. The mold is further composed of the cap-plate B, slotted or made with a matrix, as shown at *e*, so as to form the body *f* and tenons *g g' h h'* of core-half shown in Figs. 9, 10, 11, and 12. In order to readily dispose the matrix in its right relation to the ridge *a* of the base-plate A, such plate is provided with a series of projections, *i k l*, to enter corresponding notches *m n o* arranged in the cap-plate. As the half-core has beveled edges, the cap-plate, to facilitate the removal of the core from it, is made separable from the base-plate.

After the cap-plate may have been placed upon the base-plate, the plaster or composition of which the core is to be made is to be run or packed into the matrix, another or finishing plate being previously or subsequently laid upon the cap-plate and over the matrix, so as to finish the half-core. The other or fellow half-core is to be formed by a similar mold. When the two half-cores are put and joined together they will constitute a vented core, or one having a passage extended lengthwise through it, and also a cross-passage, if desirable, and, besides, tenons *p p' r r'*, for supporting the core in the mold, made by the pattern shown in Figs. 5 and 6.

I claim as my invention—

The chandelier-arm half-core mold, substantially as described, consisting of the base-plate A, provided with the vent-forming ridge *a* or ridges *a b*, and the cap-plate B, having the body and tenon forming slot or matrix *e* arranged with such former, all being substantially as described.

LIVERUS HULL.

Witnesses:

R. H. EDDY,
J. R. SNOW.