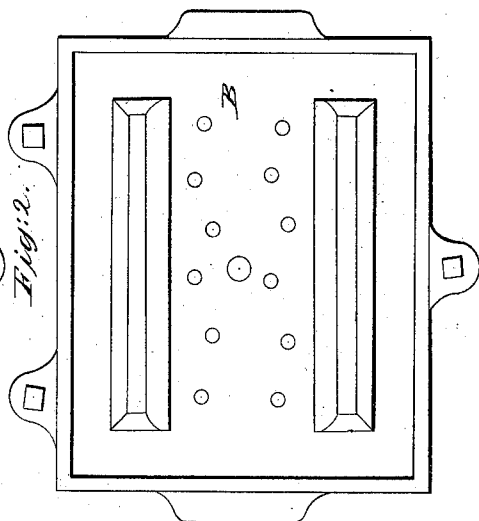
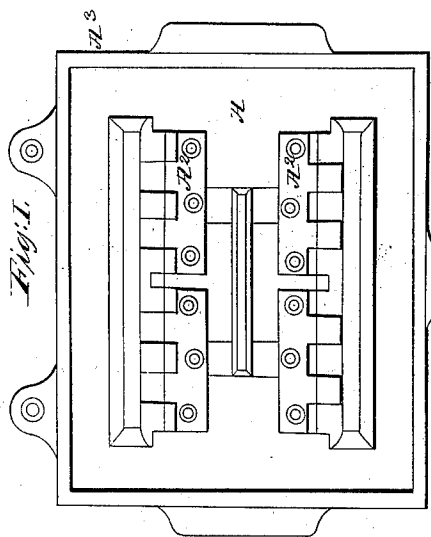
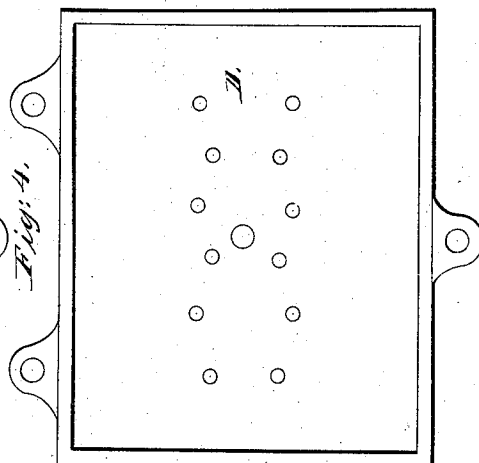
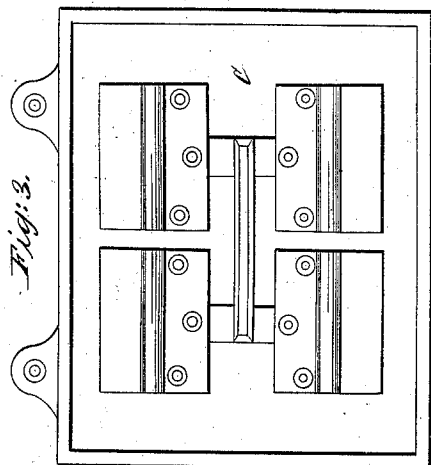


Harley & Morris,
Casting Hinges.

N^o 3435.

Patented Feb. 12, 1844.



UNITED STATES PATENT OFFICE.

B. F. HARLEY AND J. D. MORRIS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MOLDS FOR BUTT-HINGES.

Specification forming part of Letters Patent No. 3,435, dated February 12, 1844.

To all whom it may concern:

Be it known that we, BENJAMIN F. HARLEY and JOHN D. MORRIS, of the city of Philadelphia, State of Pennsylvania, have invented a new and Improved Mode of Molding and Casting Double-Jointed Fast-Joint Iron Butt-Hinges without the use of cores or chills, of which we hereby declare the following to be a full and exact description, reference being made to the annexed drawings, making a part of this specification.

The nature of our invention consists in the use of a pattern exhibited in the drawing hereto annexed, (marked A,) from which is impressed immediately on the sand the drag or bottom part of the mold of the half-hinge. The back part of the mold of the half-hinge is then formed from the pattern exhibited in drawing annexed hereto, (marked B.) The half-hinge is then cast in the usual way from the mold formed as above. The drag or bottom part of the mold for the remaining half of the hinge is then formed from the pattern repre-

sented by drawing annexed, (marked C.) The half-hinge already cast from the mold first formed and mentioned (a hole for the wrought-iron wire having been first drilled through it) is then inserted into the blank side of the mold last made, in the usual mode. The mold for the back part of this last part of the hinge is then made from the pattern represented in drawing D, and then is formed the complete mold for the remaining portion of the hinge.

What we claim for our invention, and desire to secure by Letters Patent, is—

The above-described mode of molding the first above-described half-hinge directly from the pattern, as exhibited by drawings A and B, without the use of cores or chills, thereby insuring in all cases a perfect casting and saving labor and time.

BENJAMIN F. HARLEY.
JOHN D. MORRIS.

Witnesses:

CHAS. B. PARKE, Sr.,
CHAS. HARLEY.