

J. EVERINGHAM.
Molds for Casting Wheels.

No. 149,383.

Patented April 7, 1874.

Fig. 1.

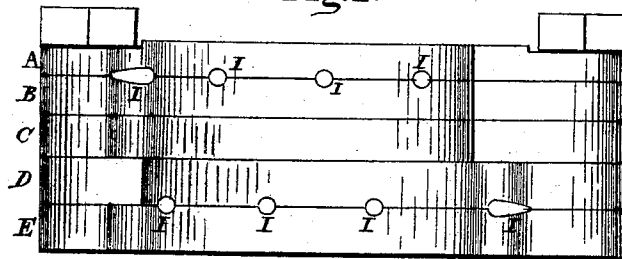


Fig. 2.

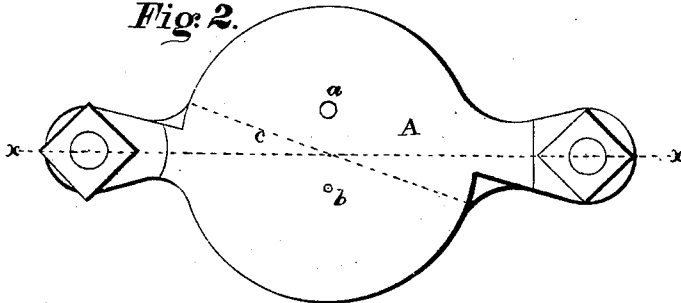
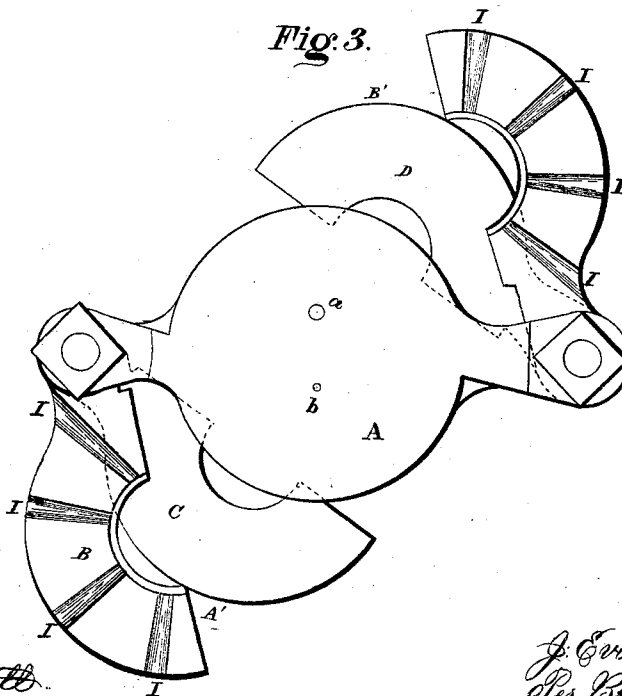


Fig. 3.



Witnesses.
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Fig. 4.

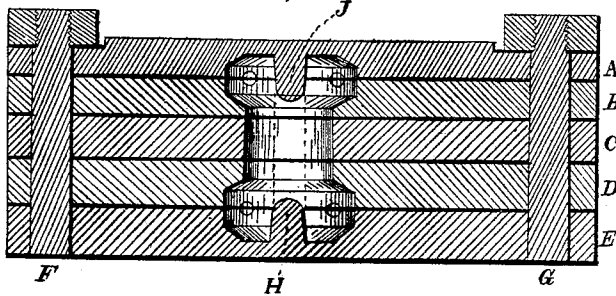


Fig. 5.

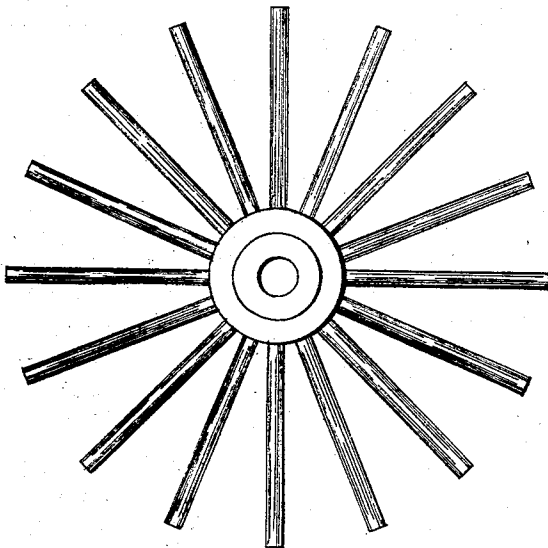
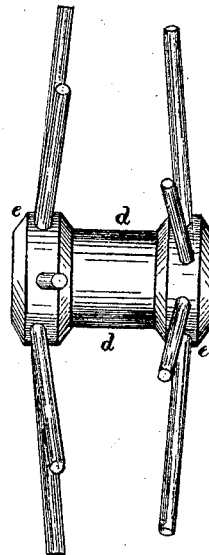


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES EVERINGHAM, OF CLEVELAND, OHIO.

IMPROVEMENT IN MOLDS FOR CASTING WHEELS.

Specification forming part of Letters Patent No. **149,383**, dated April 7, 1874; application filed November 5, 1873.

To all whom it may concern:

Be it known that I, JAMES EVERINGHAM, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Mold for Casting Child's Carriage-Wheels, of which the following is a full and complete description, reference being had to the accompanying drawings, making part of the same.

The nature of my improvement consists in a peculiarly-constructed mold for casting carriage-wheels, which is made up in sections with reference to its being taken to pieces to remove the hub or wheel.

Figure 1 is a side view of the mold. Fig. 2 is a top view. Fig. 3 shows the sections of the mold. Fig. 4 is a transverse section of the mold in the direction of the line *x x*, Fig. 2. Figs. 5 and 6 are elevations of the wheel.

The mold consists of a series of sections or leaves, as seen at A B C D E, Fig. 1. In the top plate or section are two holes, *a* and *b*, as seen in Figs. 2 and 3, *a* being the "gate," and *b* the "vent." The parts or sections of the mold are secured together by means of a bolt passing through the ends, as seen at F G, Fig. 4, with screw-nuts thereon. The plates B C D are divided into two sections through their centers, as indicated by the dotted lines *c*, Fig. 2. These sections are seen, at A' and B', moved out from the mold. The object of dividing the sections will hereinafter be explained.

In making the wheel, the top plate or cap A is removed, and the thimble is first placed in the mold, with the largest end over the core H, and then the spokes are passed through the holes or openings I in the plates of the mold, one-half of the diameter of each hole being in the respective plates or sections through which they pass, as these holes or openings are on the radius of a circle, as indicated in Fig. 3, corresponding with the position of the spokes seen in Figs. 5 and 6. After the thimbles and spokes are placed in the

mold, the top plate A is then put on, so that the core J will enter the bore of the thimble at the small end. The two cores, being arranged in line with each other, will be also in line with the bore of the thimble. After the top plate A covers the mold, the sections are all tightly fastened together by means of the nuts at the ends of the bolts. The liquid metal is then poured into the mold through the gate or hole *a*, which completely surrounds the pipe or thimble, and flows in and around the ends of the spokes projecting into the mold. The contact faces or joints of the sections are sufficiently close to prevent the molten metal from passing in or between them. When the metal is cold, the nuts are turned to loosen the sections of the mold to take out the hub, which is done by moving laterally the double sections B C D, as seen in Fig. 3, which withdraws these sections from between the double rows of spokes—that is, from the central part of the hub at *d*, Fig. 6—the ends *e* outside of the spokes being molded in the outside plates A and E. Thus, by removing the central sections, the hub is readily taken out of the mold complete.

By reference to Fig. 4, it will be seen that the enlarged ends of the hub, which received the spokes, are formed in the two outside sections, or A B and D E, and the spokes I in the joints. (Seen in the drawings.)

The metal of the hub shrinks tightly around the pipe or thimble and spokes, thus securely uniting the spokes, hub, and thimble together.

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

The mold, consisting of a series of plates or sections, having cores H J and spoke-holes I, arranged substantially as described, and for the purpose set forth.

JAMES EVERINGHAM.

Witnesses:

J. H. BURRIDGE,
A. F. CONNELL.