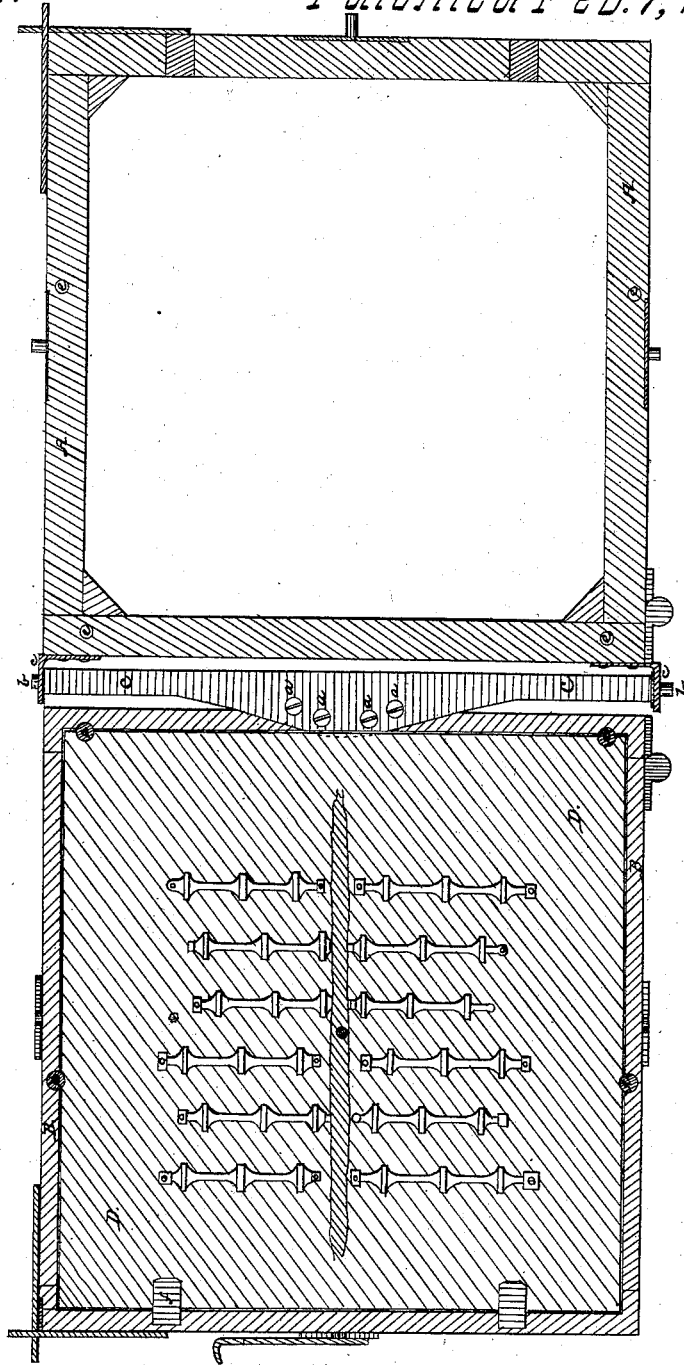


T. Loring,

Casting Hinges.

N^o 3,427.

Patented Feb. 7, 1844.



UNITED STATES PATENT OFFICE.

THOMAS LORING, OF GLOUCESTER TOWNSHIP, GLOUCESTER COUNTY, N. J.

IMPROVEMENT IN FLASKS FOR MOLDING HINGES.

Specification forming part of Letters Patent No. 3,427, dated February 7, 1844.

To all whom it may concern:

Be it known that I, THOMAS LORING, of Gloucester township, county of Gloucester, in the State of New Jersey, have invented a new and useful improvement in the manner of making flasks, either of wood or of metal, for the molding of butt-hinges, and of various other articles, the patterns for which are affixed to what are technically called "cards," which cards consist of plates of metal having the divided portions of the pattern affixed to corresponding parts on the opposite sides of such metallic plate; and I do hereby declare that the following is a full and exact description of my said improvement.

The flasks which I use are of that kind which enables the molder to form any required number of molds by the use of one single pair, said flasks being hinged together at their corners, so that when a mold has been formed the flask can be removed therefrom and used for the formation of another. I connect the upper part or cope of the flask to the drag or lower part by means of an elastic spring-hinge or joint-piece, which is so formed and combined with the two parts of the flask that when these parts are closed upon each other, without anything between them, they shall fit together and form a close joint, the two parts being adjusted by means of pins or ears, and being held together by means of hoods or clasps in the usual manner, when they are made ready for receiving the molten metal. The said spring-hinge will also enable the two halves of the flask to close correctly upon a metallic card when it is placed between them, so as to be ready for the hands of the molder, its elasticity being such as to admit the flasks to recede to the distance of an eighth of an inch, more or less, from each other.

In the accompanying drawings, A A may represent the cope, and B B the drag of the flasks.

CC is the elastic spring-hinge or joint-piece, which I usually form of a flat plate of steel, and fasten it by screws near its middle, as at

a a, to one portion of the flask; and it has a joint-pin at each of its ends, as at b b, which works in ears c c, attached to the other half of the flask. The plate C C may be an eighth of an inch, more or less, in thickness, according to the size of the flask. It should be sufficiently stiff to enable the flask to be opened and closed steadily, and sufficiently yielding to allow of the placing of the card between the cope and drag.

e e are pins and holes, operating in the usual manner, to prevent any horizontal deviation of the two parts of the flask.

D D is the card, represented with portions of patterns upon it.

f f are ears or lifting-pieces attached to it, for the purpose of raising it from the flask.

This flask, with the card inserted, is molded in the usual way—that is, by first ramming the sand in the drag or lower part, then turning it over and proceeding in the same way with the upper part. The flask is then opened, and the front side of the card lifted by means of the pieces f f, so as to clear the pattern from the sand. When this has been done and the flask closed, it is then opened at the corner and removed from the mold. A flat weight, having an opening through it coinciding with the sprue or gate, is placed upon the mold, sufficiently heavy to prevent the molten metal from lifting the top of the mold, when it is ready to receive the molten metal.

Having thus fully described the nature of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

The connecting of the two parts of the flask together by means of a spring-hinge formed and operating, substantially as herein described, so that by its aid the flask may be either closed with or without the piece of metal, called a "card," between the two parts, as set forth.

THOMAS LORING.

Witnesses:

JAMES W. LAMB,
THOS. P. JONES.