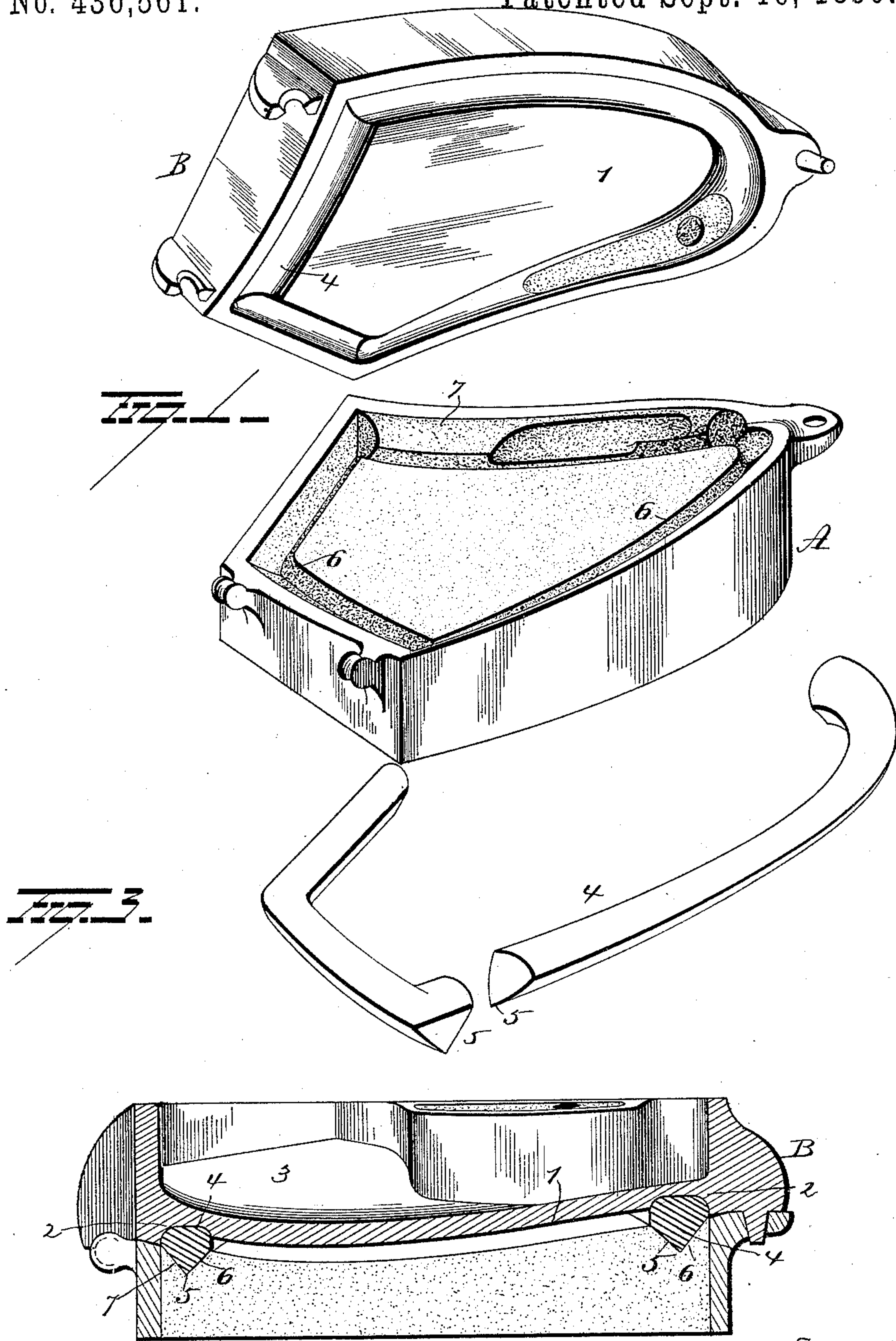


(No Model.)

J. M. FENSKA
MOLD.

No. 436,561.

Patented Sept. 16, 1890.



Witnesses
W. H. H. H.
Albert Oppheim

Fig. 3 - Inventor
John M. Fenska.
By his Attorney
K. A. Symon.

UNITED STATES PATENT OFFICE.

JOHN MICHAEL FENSKA, OF SOUTH BEND, INDIANA, ASSIGNOR TO THE
SOUTH BEND IRON WORKS, OF SAME PLACE.

MOLD.

SPECIFICATION forming part of Letters Patent No. 436,561, dated September 16, 1890.

Application filed May 2, 1890. Serial No. 350,292. (No model.)

To all whom it may concern:

Be it known that I, JOHN MICHAEL FENSKA, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Molds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in molds; and it consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view in perspective of the sections of the mold. Fig. 2 is a sectional view through the mold, and Fig. 3 is a detached view of one of the filling-pieces.

A represents the drag-section, and B is the cope, the two being placed together and hinged or otherwise connected after the usual manner, as shown in Fig. 2. The cope or upper section B is provided on its lower face with a chill-surface 1, preferably projecting outside of the plane of the edge of the cope, so that it may be easily worked upon by an emery-wheel or other grinding instrument to give it the required finish. Around or partly around this chill-surface a channel or depression 2 is formed, and as the object of this will be alluded to hereinafter no further mention will be made in this connection.

At one side of the chill-surface and opening into the channel or depression 2 is a sprue-hole, which extends through the cope-section and is filled with sand, save the small opening formed to receive the molten metal. On the back of this cope-section a pan or chamber 3 is formed to contain hot water or steam used in the process of chilling, and the sprue-hole is preferably located within this pan. The channel or depression 2 is filled or partially filled with filling-strips 4, against which the edges of the article molded are formed. These strips are wedge or V-shaped in transverse section, and the sharp or pointed edge 5 is adapted to act as a print to make a corresponding-shaped impression in the sand rammed in the drag-section, into which they are replaced after the removal of the pattern,

the result being that a channel is also formed just within the outer edge of the drag-section with sloping walls 6 and 7, and this channel is of course opposite channel 2, the two channels together forming space for and receiving the filling strips, as in Fig. 2. The result is that the sand-surface as well as the chill-surface on both sides of the article being molded and chilled is a raised surface by virtue of the channels or depressions around or practically around them. In addition to this the V-shaped channel or depression serves as a pocket, in connection with channel 2, helping to hold the filling-strips without the use of other means, such as rivets, screws, or the like.

The space between the ends of the V-shaped channel is filled or partly filled with molding-sand, and in this sand the gate is placed to form a passage for conducting the molten metal to the space left by the pattern between the molding-surfaces.

To recapitulate, in this mold the molten metal is poured beneath the chill-surface and over the sand-surface, and the edges of the article molded and chilled are formed against filling-strips or sand or other material in lieu thereof held in the surrounding channels or depressions formed to receive them. In this way better results are obtained than hitherto, and with less expense and loss of time.

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

The combination, with a cope and drag section, one section being made of metal and the other essentially of sand, the molding-surfaces being slightly separated and having channels formed around or partly around their edges, of filling-strips adapted to lie in the channels and form the outer boundaries of the molding-space, a water-pan formed in one of the molding-sections, and a sprue-hole also formed in said section, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN MICHAEL FENSKA.

Witnesses:

F. C. NIPPOLD,
J. T. WALKER.