

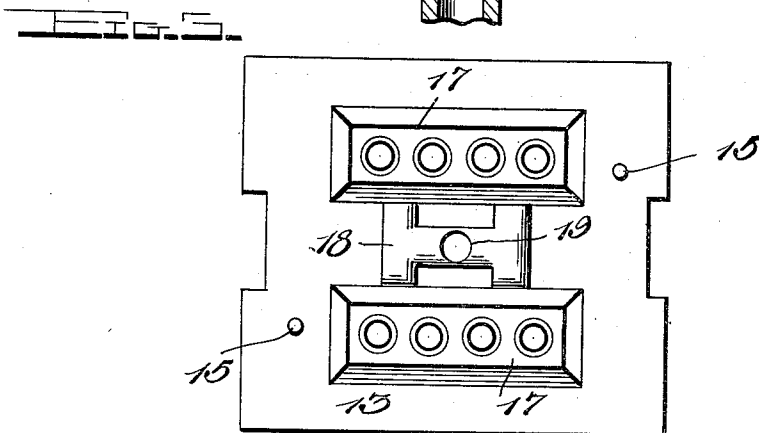
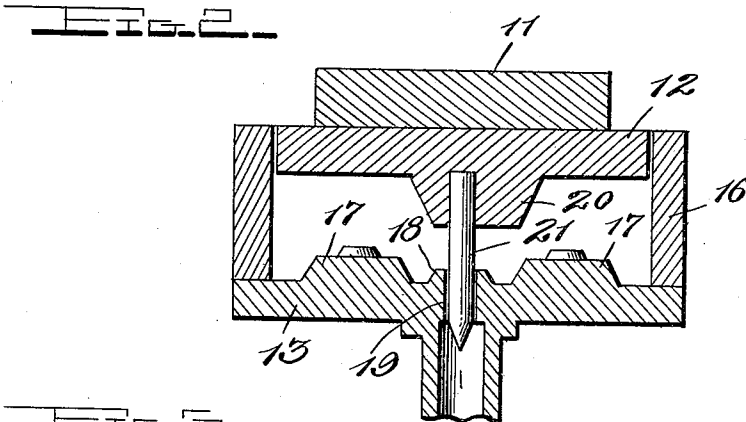
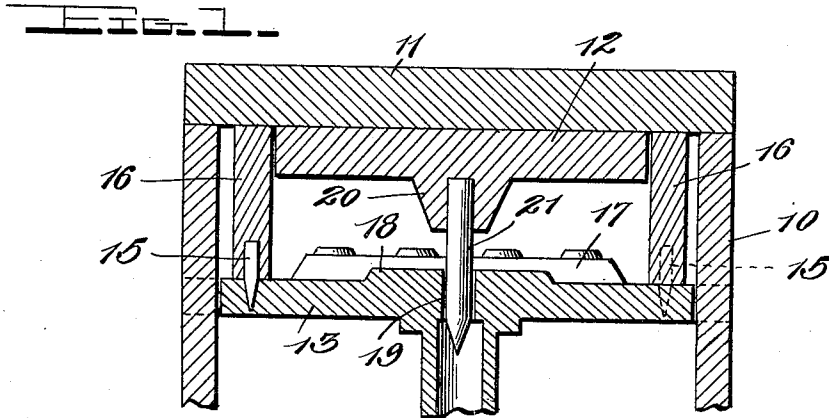
F. LONGSTAFF & L. E. TREMBLEY.

MOLDING MACHINE.

APPLICATION FILED MAY 8, 1912.

1,055,479.

Patented Mar. 11, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANCIS LONGSTAFF AND LOUIS E. TREMBLEY, OF PITTSFIELD, MASSACHUSETTS.

MOLDING-MACHINE.

1,055,479.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed May 8, 1912. Serial No. 695,951.

To all whom it may concern:

Be it known that we, FRANCIS LONGSTAFF and LOUIS E. TREMBLEY, citizens of the United States, residing at Pittsfield, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Molding-Machines, of which the following is a specification, reference being had to the accompanying drawings.

The present invention relates to a founder's molding machine and the primary object of the present invention is to provide a machine of this character wherein the arrangement of the parts are such as to produce the mold or matrix and the sprue hole with one operation of the machine.

A further object of the present invention is to provide a suitable physical structure and operative device for the purpose of carrying out the several functions which will be hereinafter apparent from the description of the device to those who are skilled in the art.

With the above and other objects in view this invention consists of novel details of construction, combination, formation and arrangement of parts as will be hereinafter more fully described, claimed, and particularly pointed out in the appended drawings, in which—

Figure 1 is a sectional view of a molding machine; Fig. 2 is a vertical section taken at right angles thereof; and Fig. 3 is a plan view of the pattern plate.

Referring more particularly to the drawings wherein we have shown a specific embodiment of the present invention, the numeral 10 indicates the molding machine of any suitable or preferred type having secured thereto a yoke 11 to which is secured a casting 12.

A pattern plate 13 is slidably mounted within the yoke of the machine and is secured to a plunger whereby the same may be raised and lowered by air pressure or any other suitable source of power. The pattern plate 13 is provided with vertically extending pins 15 which are adapted to be inserted in openings formed in the flask or sand box 16 which is of the usual construction. The upper face of the pattern plate is provided with a pair of parallel extending patterns 17. Mounted between the pat-

tern 17 is a pattern ingate 18 which consists of a substantially horizontally extending portion, the extremities of which are connected by two transverse portions which communicate with the mold 17. An opening 19 is formed in the central portion of the pattern ingate and extends through the pattern plate. Secured to the central portion of the casting 12 is a sprue pattern 20 which has extending from one side thereof the usual sprue pin 21. It is obvious from this construction that as the sand is placed within the flask the sand box 16 and the pattern plate are raised by a suitable source of power to the body of the yoke, it will make a firm mold and at the same time the sprue is forced through the sand and then through the pattern plate 13 during one operation of the machine. After the proper degree of compression of sand has been obtained the platter or plunger of the press is caused to descend and the flask and mold are then removed from the press thereby forming a perfectly clean mold and sprue hole by one operation of the machine for the introduction of the molten metal.

It is evident that changes in construction and relative combination and arrangement of the several parts might be made without avoiding our invention and hence it is to be understood that we do not restrict ourselves to the particular construction of parts shown and described but it is to be understood that other changes might be made that come within the scope of the present invention without departure from the spirit thereof and which are apparent to those familiar in the art.

What we claim is:—

In a molding machine, the combination of a yoke secured thereto, of a casting formed upon said yoke, a sprue pattern connected to said casting, a sprue pin extending from one side of said pattern, a pattern plate slidably mounted within said yoke, a flask detachably secured to said pattern plate, a pair of parallel extending patterns mounted upon said plate, a pattern ingate formed between the said patterns, said ingate comprising a longitudinally extending member connected at its extremities by transverse members, said transverse members of the ingate communicating with the said patterns, the said pattern plate having

an opening formed therein and extending
through the longitudinal portion of the in-
gate, and the said sprue pin adapted to ex-
tend through the opening formed in the said
5 pattern plate when the same is in a raised
position, substantially as and for the pur-
pose specified.

In testimony whereof we hereunto affix

our signatures in the presence of two wit-
nesses.

FRANCIS LONGSTAFF.
LOUIS E. TREMBLEY.

Witnesses:

ARTHUR SIGSWORTH,
CARROLL W. JACKSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
