

O. V. SIGURDSSON.
TYPE CASTING MACHINE.
APPLICATION FILED DEC. 16, 1910.

1,002,325.

Patented Sept. 5, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

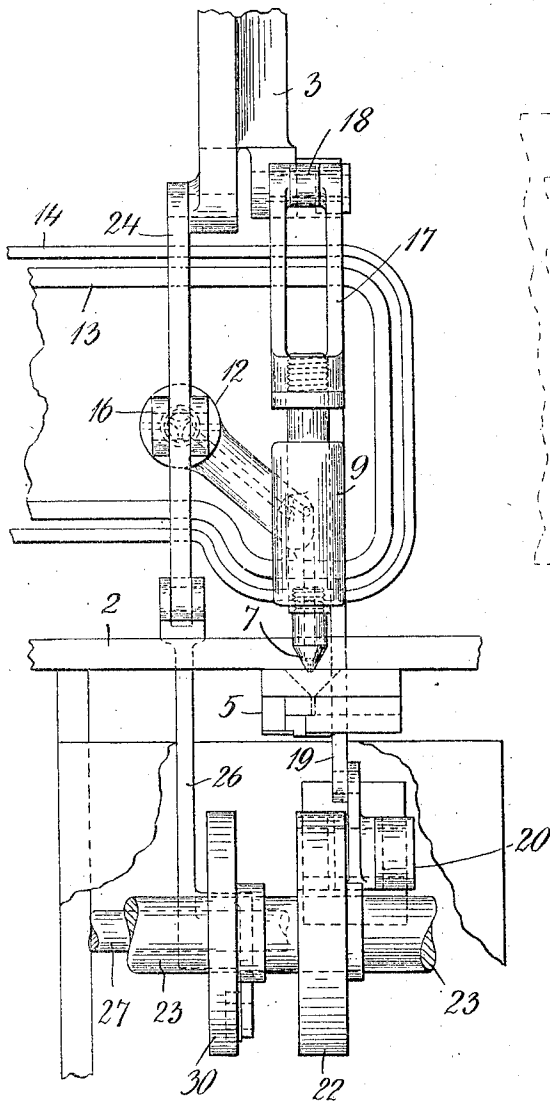
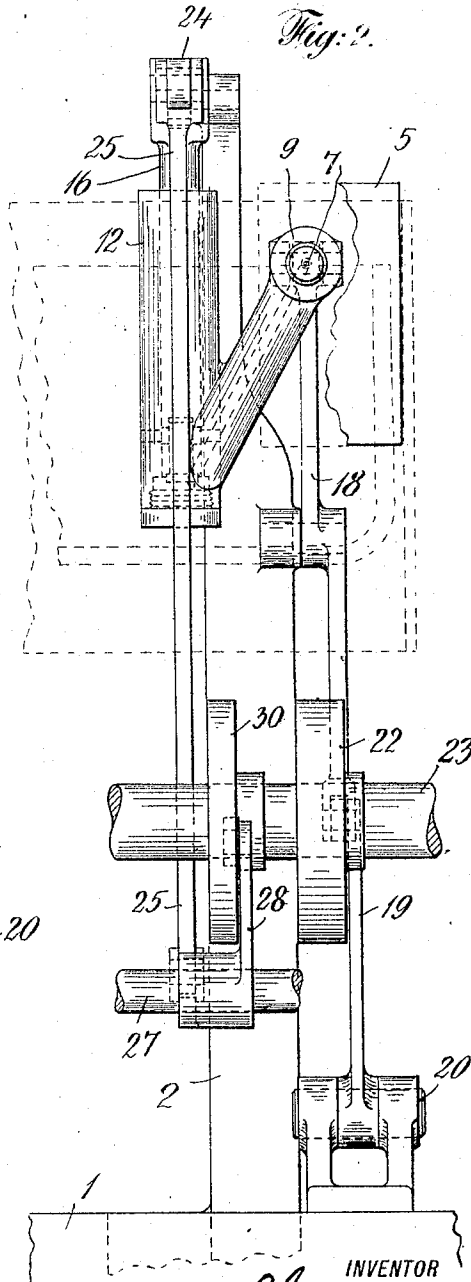


Fig. 2.



WITNESSES:
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M. Dutton

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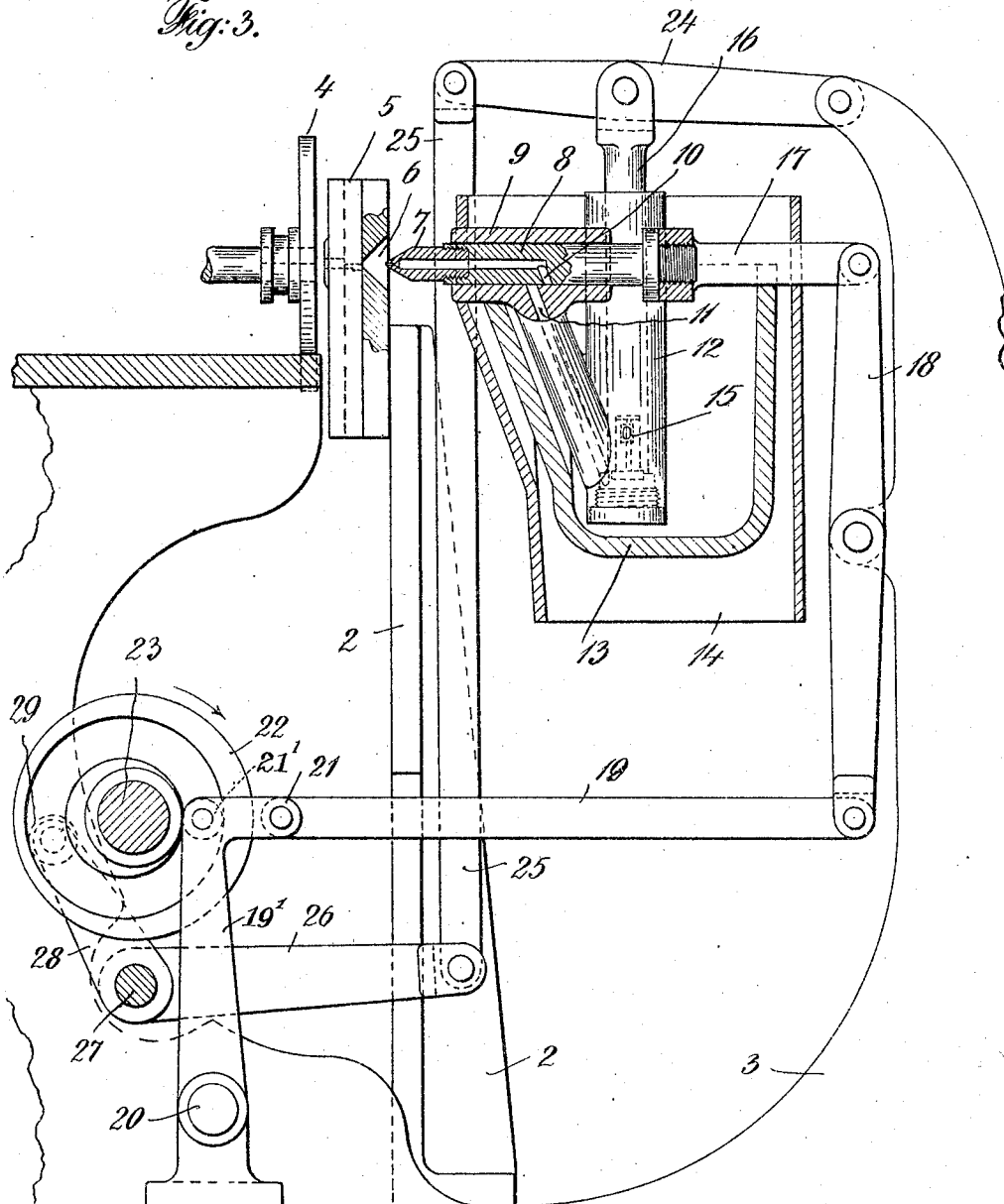
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2 SHEETS—SHEET 2.

Fig. 3.



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L. F. Browning
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UNITED STATES PATENT OFFICE.

ODDUR V. SIGURDSSON, OF NEW YORK, N. Y., ASSIGNOR TO ODDUR MANUFACTURING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF WEST VIRGINIA.

TYPE-CASTING MACHINE.

1,002,325.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Application filed December 16, 1910. Serial No. 597,633.

To all whom it may concern:

Be it known that I, ODDUR V. SIGURDSSON, a subject of the King of Denmark, residing in the borough of Brooklyn, city and State of New York, have invented a certain new and useful Improvement in Type-Casting Machines, of which the following is a specification.

Machines to which this invention relates are those in which individual type or type combined in a line slug are successively cast by the aid of corresponding individual matrices.

The invention is shown applied to a machine for successively casting individual type and in which there is a matrix carrier in the form of a disk having the matrices disposed upon its side. A machine of this general character is shown in my Patent No. 960,047 dated May 31, 1910.

The primary feature of the invention is that the nipple through which molten metal is injected into the type mold is made to slide so as to bring it into operative relation to the mold for the purpose of casting and to withdraw it therefrom after the casting operation.

The accompanying drawings show so much of an apparatus as seems desirable to illustrate the invention.

Figure 1 is a plan view; Fig. 2, a front view; and Fig. 3, a side view partly in section.

The frame 1 of the machine carries brackets 2, 3 and side plates not shown for appropriate support of the shafts.

4 indicates the matrix disk upon the side face of which the matrices are disposed as, for instance, in the manner shown in my before mentioned U. S. Patent and 5 is the type mold having a counter sunk recess 6 for the reception of the metal pump nipple 7. The nipple 7 forms part of or is attached to a reciprocable slide part 8 movable in an appropriate sleeve or bearing 9 and having a hollow bore communicating with the central passage of the nipple. There is a lateral opening 10 through the part 8 that in the forward or casting position communicates with the opening 11 of the neck of the pump cylinder 12. The pump cylinder is disposed in the metal pot 13 that is surrounded by a heat guard 14 and is provided with an appropriate valve 15 and in it reciprocates a plunger 16 all as is usual and well understood in this class of apparatus.

The molten metal in the pot 13 is maintained in such condition by appropriate heating means and the metal in the nipple and slide 8 is similarly maintained in molten condition. When the matrix disk has been rotated to bring a selected matrix in the side thereof opposite the mold and has been closed firmly against the mold, the sliding nipple is advanced into the recess 6 in the side of the mold into casting position when the passages 10, 11 will coincide. The pump being now operated by any appropriate means, the molten metal is injected into the mold after which the nipple is withdrawn, the advance and retraction of the nipple as stated being accomplished in any desirable or appropriate way.

Description of the operating mechanism seems scarcely necessary but it may be stated that 17 is a yoke connected with the rear end of the nipple slide and to which is appropriately joined an operating lever 18 pivoted intermediate its end in bracket 3 and having applied to its lower end one end of a link 19 whose other end is jointed at 21 to the horizontal upper end of a vertical standard 19' pivoted at its lower end on a stud bearing 20. A cam roller 21' in the upper end of rocking standard 19' is properly and timely operated by cam 22 turning with shaft 23 that is appropriately driven. The pump is operated by a lever 24 attached intermediate its ends to the pump piston and having one end pivoted to bracket 3 and the other end connected to a vertical link 25, the lower end of which is pinned to the arm 26 of an elbow lever rocking about a bearing 27 and whose other arm 28 carries a cam roller 29 operated by an appropriate cam 30 also turning with the shaft 23. The employment of a sliding nipple affords a certainty and precision of operation that experience has demonstrated to be not only very satisfactory but highly desirable.

I claim:

1. The combination of a mold, a molten metal pump, a casting nipple associated with the pump and adapted to slide relatively thereto into and out of operative relation to the mold and means for effecting the timely operation of the nipple and pump.

2. A molten metal pump, a casting nipple

associated with the pump and adapted to slide into and out of operative relation to the mold, a passage leading to the metal channel of the sliding nipple and so located
5 that it is open to the admission of metal from the discharge neck of the pump when the nipple is in casting position and closed thereto when the nipple is withdrawn from casting position and means for effecting the
10 timely operation of the nipple and pump.

8. The combination of a stationary mold, a stationary molten metal pump, a casting nipple mounted upon the pump to slide thereon into and out of operative relation

to the mold and means for effecting the 15 timely operation of the nipple and the pump.

4. The combination of a mold, a molten metal pump and a nipple for delivering metal from the pump to the mold and slid- 20 ably mounted upon the pump.

In testimony whereof, I have hereunto subscribed my name.

ODDUR V. SIGURDSSON.

Witnesses:

M. W. CLEPHANE,
S. R. BRESLAUER.