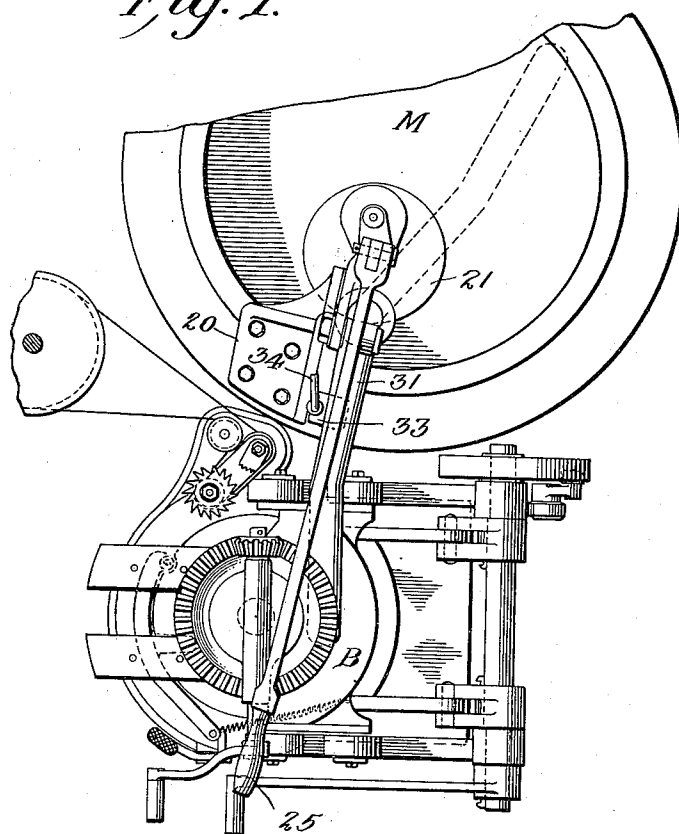


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STEREOTYPE PRINTING PLATE CASTING APPARATUS.
APPLICATION FILED DEC. 5, 1904. RENEWED JULY 26, 1911.
1,009,211.

Patented Nov. 21, 1911.
2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

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W. C. Regan.

Inventor:
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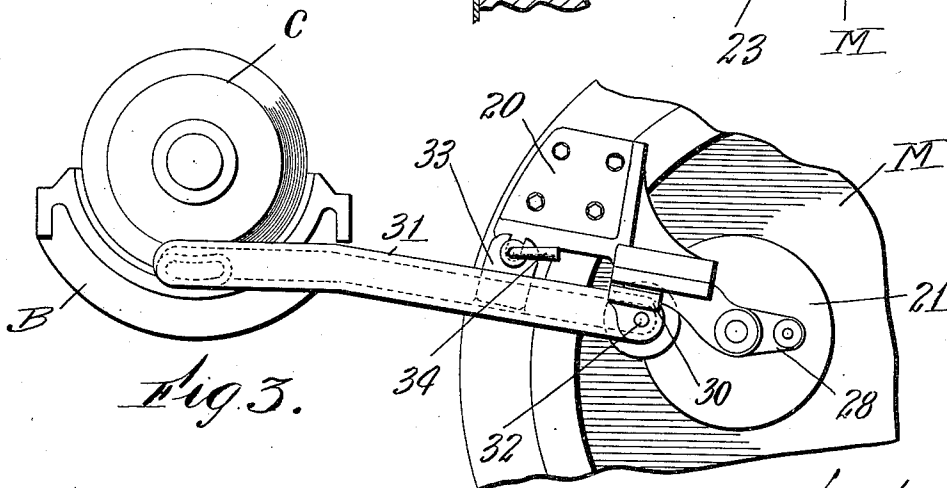
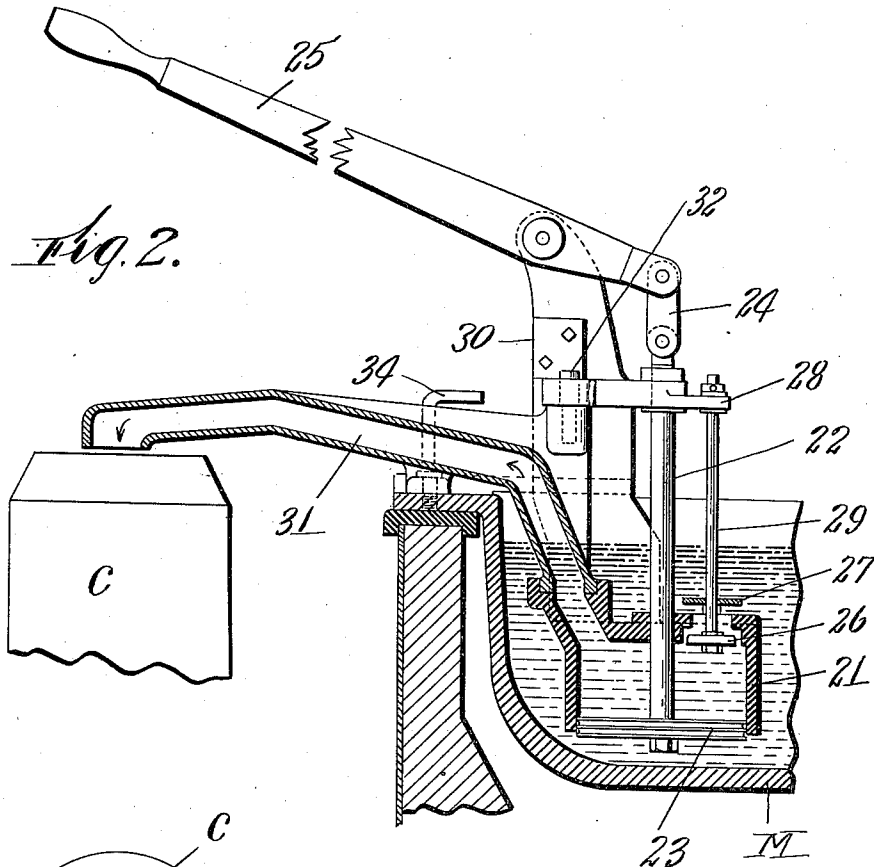
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

HENRY A. WISE WOOD, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE AUTOPLATE COMPANY OF AMERICA, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

STEREOTYPE-PRINTING-PLATE-CASTING APPARATUS.

1,009,211.

Specification of Letters Patent.

Patented Nov. 21, 1911.

Application filed December 5, 1904, Serial No. 235,535. Renewed July 26, 1911. Serial No. 640,697.

To all whom it may concern:

Be it known that I, HENRY A. WISE WOOD, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Stereotype - Printing - Plate - Casting Apparatus, of which the following is a specification.

The invention relates to a pump or device used to force molten metal from a melting pot or chamber over into a mold. The device primarily has been designed for use in connection with stereotype printing plate casting apparatus.

The principal feature of the invention consists in providing a spout between the pump and casting apparatus which can be arranged either to deliver metal into the casting apparatus or to lie in such proximity to the metal in the melting pot as to throw metal back into the pot and to be heated by the metal in the pot.

In making the first cast after the metal has been brought to molten condition in the melting pot, there is usually considerable dross or dirt which collects in the pump or forcing apparatus and which would interfere with the making of a perfect cast. By the use of the invention previously referred to, by arranging the spout so that the metal can be forced through the pump back into the melting chamber, the pump can be cleaned out and filled with clean metal before the cast is made. Also, as usually, a long spout is necessary between the pump and the casting apparatus, by arranging the spout so that the metal can be forced back into the melting pot and by operating the pump for a short period of time after it has been standing, this cooled or partly solidified metal can be washed out by the hot metal so that when the spout is connected to the casting apparatus, a supply of clear hot metal will be obtained.

Another and important advantage resulting from the structure employed lies in the fact that the spout when not employed in delivering metal to the mold can be swung into such close proximity to the molten metal in the melting pot that it will be kept at the proper temperature for instant use. This obviates the necessity either of providing separate heating means for the spout or of heating the spout by pouring two or

three imperfect and therefore waste plates before regular work can begin. The first of these expedients is expensive, and the second causes delay and entails additional labor. In the construction employed, these advantages are obtained by mounting the spout so that it may be swung about a substantially vertical axis from its delivery position to one directly over the metal.

By the use of the invention as described, practically all of the casts can be made perfect.

The device is shown in the accompanying two sheets of drawings which illustrates enough of the apparatus for an understanding of my invention.

Referring to said drawing, Figure 1 is a plan. Fig. 2 is a sectional elevation, and Fig. 3 is a plan of the pumping mechanism and spout showing its relation to the casting apparatus.

Referring to the drawings and in detail, C designates the core and B the back of a stereotype printing plate casting apparatus.

M designates the melting pot which is arranged over a fire or burners in the usual way so that a large quantity of stereotype metal can be brought therein to molten condition. Bolted to the edge of the melting pot is a bracket 20 which carries, or which has formed therewith, a pump cylinder 21. Fitting in this cylinder 21, and in a guide, is a piston rod 22 which carries a piston 23 at its lower end. The piston rod connects by link 24 to a pivoted operating handle 25. An induction valve 26 is arranged to cooperate with a valve-seat formed in the upper part of the cylinder 21, which valve is guided by a muffle plate 27 and a guide 28 in which the rod 29 which carries said valve is guided.

In the outlet of the pump is pivoted a spout 31. The spout is held in position so that it can revolve by means of a pin 32 fitted in an arm of bracket 30. The spout has a slotted ear 33 projecting therefrom which can fit under a collar formed on a handle 34, the lower end of which is screw-threaded into the melting pot. By this construction the spout 31 can be held in adjusted position so as to come properly over the casting apparatus, or by releasing the handle 34 it can be swung around so as to lie over the melting pot as indicated in dot-

ted lines in Fig. 1. The spout being mounted upon the cylinder of the pump and being of a length less than the internal dimensions of the tank, the latter position permits of metal being pumped directly into the pot through the spout to clear the latter, and also permits the entire length of the spout to lie in such close proximity to the molten metal as to be kept as such temperature as to be ever ready for use.

The details and arrangements herein shown and described may be greatly varied by a skilled mechanic without departing from the scope of my invention as expressed in the claims.

Having thus fully described my invention, what I claim and desire to secure by Letters-Patent is:—

1. In a stereotype printing plate casting apparatus, the combination of a melting pot, a casting apparatus, a pump, and a spout between the pump and casting apparatus which can be arranged to throw metal back into the melting pot or into the casting apparatus.

2. In a stereotype printing plate casting apparatus, the combination of a melting pot, a casting apparatus, a pump arranged in the melting pot, and a spout pivoted to the pump so that the same can be adjusted to deliver metal either into the casting apparatus or back into the melting pot.

3. In a stereotype printing plate casting apparatus, the combination of a melting pot, a casting apparatus, a pump arranged in the melting pot, a spout pivoted to the pump so that the same can be adjusted to deliver metal either into the casting apparatus or back into the melting pot, and means for locking the spout in position to cooperate with the casting apparatus.

4. In a stereotype printing plate casting apparatus, the combination of a melting pot, a casting apparatus, a pump comprising a cylinder and piston, and a spout pivoted to the cylinder in position to be swung over the casting apparatus or over the melting pot, whereby the spout can be heated or used to direct metal into the casting apparatus or back into the melting pot.

5. In a stereotype printing plate casting apparatus, the combination of a melting pot, a casting apparatus, a bracket carried by the melting pot, a pump comprising a cylinder and piston, and a spout pivoted to the cylinder and bracket so that the same can be swung over the casting apparatus or over the melting pot, whereby the spout can be heated or used to direct metal into the casting apparatus or back into the melting pot.

6. In a stereotype printing plate casting apparatus, the combination of a melting-pot, a casting apparatus, a pump, and a spout arranged between the pump and casting apparatus and pivoted horizontally so that the same can be swung to direct metal into the casting apparatus or back into the melting-pot.

7. In a stereotype printing plate casting apparatus, the combination of a melting pot, a pump, a casting apparatus arranged adjacent to the melting pot, a spout permanently connected to the pump and arranged so that it can be set to deliver metal into the casting apparatus, or so that it can lie in such close proximity to the melting pot as to be heated thereby.

8. In a stereotype printing plate casting apparatus, the combination of a melting pot, a casting apparatus, a pump, and a pivoted spout between the pump and casting apparatus, which can be turned to deliver metal into the casting apparatus or to lie in such close proximity to the melting pot as to be heated thereby.

9. The combination of a stereotype printing plate casting apparatus, a melting pot, a pump, and a movable discharge pipe therefor arranged so that it can be moved into position to discharge into the casting apparatus, or so that without detachment, its entire length will lie in proximity to the metal in the melting pot.

10. In a stereotype printing plate casting apparatus, the combination of a melting pot, a casting apparatus, a pump, a horizontally projecting spout between the pump and the casting apparatus, means whereby the spout may be swung about a vertical axis, either into position to discharge into the casting apparatus or so close above the metal in the melting pot as to be heated thereby.

11. In a stereotype printing plate casting apparatus, the combination of a melting pot, a casting apparatus, a pump, and a horizontally projecting spout of a length not greater than the diameter of the melting pot, so mounted as to swing about a vertical axis from a position to discharge into the casting apparatus to a position in such proximity to the metal in the melting pot as to be kept thereby at a proper temperature.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

H. A. WISE WOOD.

Witnesses:

MAY V. TANNER,
THOS. J. McBRIDE.