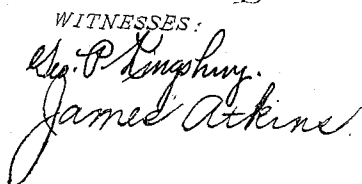


1,063,267.

Patented June 3, 1913.



INVENTOR.
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UNITED STATES PATENT OFFICE.

DAVID S. KENNEDY, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER
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LINE-CASTING MACHINE.

1,063,267.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed May 7, 1910. Serial No. 560,022.

To all whom it may concern:

Be it known that I, DAVID S. KENNEDY, of the borough of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Line-Casting Machines, of which the following is a specification.

My invention has reference to line-casting machines such as represented in Letters Patent of the United States No. 436,532 and kindred machines, wherein a movable melting pot is provided with a mouth arranged to close against a slotted mold, and with an internal plunger for delivering metal through the mouth into the mold. In the operation of these machines it is important, for various reasons, to maintain the level of the molten type-metal at a uniform height. To this end solid metal is supplied to the pot from time to time by the operator.

The object of my invention is to call the attention of the operator to the fact that the metal is falling below the proper level and should be replenished.

To this end it consists in an alarm mechanism of novel construction, comprising a vertically guided rod carried by the pot, provided at its lower end with a float to rest on the molten metal, and at its upper end with a latch adapted to engage and actuate a bell-striker mounted on a fixed support as the pot moves to and fro whenever the metal therein is below the proper level.

The drawings are limited to those parts of the machine immediately associated with my invention. It is to be understood that all other parts may be of any ordinary or suitable construction.

In the drawings: Figure 1 is a view in vertical section through the machine, showing the metal pot and adjacent parts. Fig. 2 is a similar elevation of the alarm mechanism.

Referring to the drawings, A represents the melting pot of an ordinary Mergenthaler machine, having a horizontal motion to and from the mold. B represents the body of molten metal therein.

C is a vertical rod guided in bearings on an arm, D, which is secured by screws *d*, or otherwise, to the top of the pot.

E represents a float secured rigidly to the lower end of the rod C. This float is preferably of cast iron, in the form of a hollow shell, but it may be of carbon or of any

other material adapted to float on the molten metal without being affected thereby.

F is a pendent dog or latch connected to the upper end of the rod C by a horizontal pivot *f*, and arranged to swing freely in a backward direction from a stop pin *f'*, seated in the side of the rod C, and limiting the forward motion of the dog.

G is a bell or gong secured to the side of a supporting arm H, which is in turn secured to the main frame of the machine by bolts, I.

K is a gravitating striker or hammer arranged to act on the bell G, supported near its upper end on a pivot screw *k*, seated in the arm H. The upper end of the striker K has a lateral projection arranged in the same vertical plane as the dog F.

The operation of the parts is as follows: As the pot moves to and fro the rod C and the dog F are carried with it. When the metal is at the proper height in the pot the float E sustains the rod C and the dog F at such height that the dog will pass to and fro above the upper end of the striker K without acting thereon, and the bell will remain silent. When, however, the metal falls below the proper level the lower end of the dog F will stand in such position that when the pot moves rearward the lower end of the dog will act upon the striker, and, depressing its upper end, lift the striker clear of the bell until, finally, the dog passes over the end of the striker, releasing the same and permitting it to fall upon and sound the bell. As the pot moves forward the dog, swinging about its pivot, will pass idly over the end of the striker and fall into operative position in front of the same. The parts will continue to sound the bell at each retreat of the pot until the addition of metal to the pot raises the metal therein to the proper level, whereupon the float will again lift the dog to its inoperative position.

It will be manifest that the form of the dog and guides may be modified within the range of mechanical skill. I prefer to seat the rod C in grooves in the side of the support D and to confine it therein by gravitating pivoted latches *c*, as shown. The rod may be released for removal by turning the latches *c* upward and backward.

The bell-sustaining arm or bracket H and the supporting or guiding arm D are so designed that they may be applied to commercial Mergenthaler machines now in exten-

sive use. In other words, these parts as shown and described constitute in themselves a complete commercial mechanism adapted to be sold as an article of commerce for application to existing machines.

Having described my invention, what I claim is:

1. The fixed bracket H, having the bell and the striker thereon, in combination with the support D attached to the movable pot A, the vertically guided rod C, the float E attached thereto, and the dog F pivoted to said rod.

2. In a line-casting machine, the combina-

tion of a bell and a movable striker, with a movable pot and the vertically guided rod carried thereby, said rod provided with a float and a striker actuating device arranged to act by direct contact upon the striker; whereby the movement of the pot effects the movement of the striker and rings the bell.

In testimony whereof I hereunto set my hand this fifth day of April, 1910, in the presence of two attesting witnesses.

DAVID S. KENNEDY.

Witnesses:

JOHN R. ROGERS,
LUCY E. SMITH.