

D. S. KENNEDY.
 LINE CASTING MACHINE.
 APPLICATION FILED JAN. 4, 1910.

959,755.

Patented May 31, 1910.

Fig. 1.

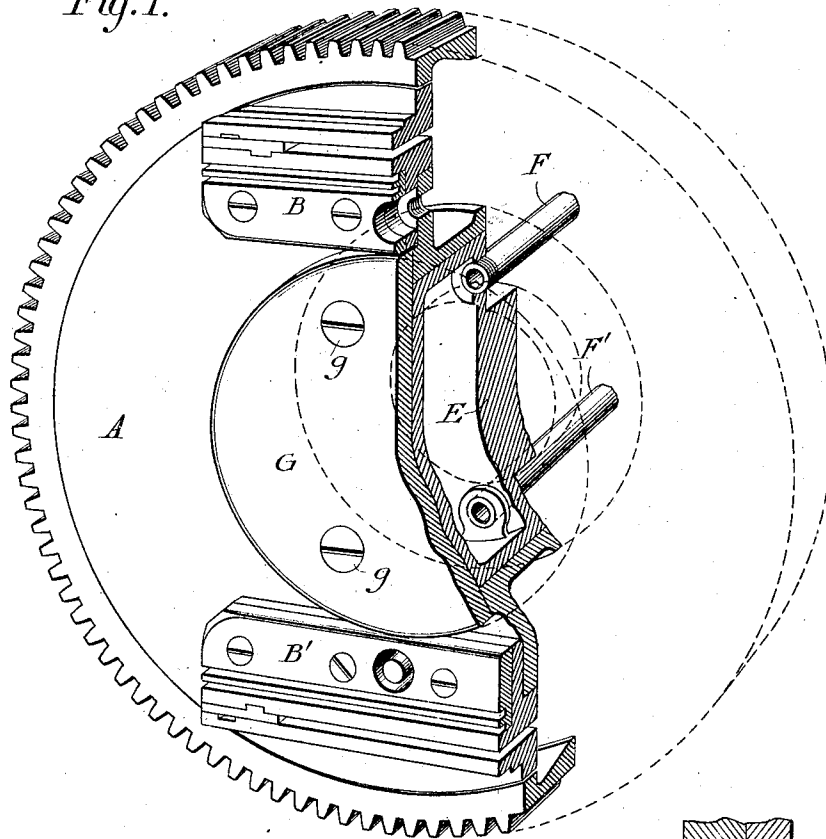
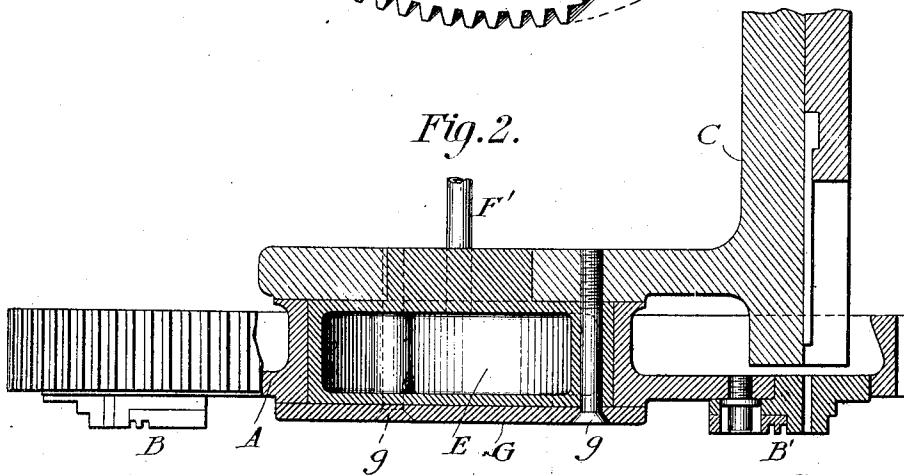


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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

959,755.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed January 4, 1910. Serial No. 536,364.

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 of the general character represented in Letters Patent of the United States No. 436,532 and similar machines, wherein a composed line of matrices is presented momentarily to the face of a slotted mold to form type characters on the edge of a printing slug cast therein. When these machines are operated under certain conditions it is found that the molds will become unduly heated by the type metal delivered thereto, and it is the object of this invention to keep the temperature of the molds down within the proper limits by the use of cold water or other cooling liquid, at the same time preventing the possibility of the fluid accidentally finding its way into the mold, where its presence would lead to serious explosions and to violent ejection of molten metal.

To this end the invention consists in combining with the wheel or carrier by which the mold is carried a hollow stud or support without stuffing-boxes or joints of any kind with provision for circulating water there-through, the water cooled support being extended so near the mold that the influence of the cooled surfaces is felt thereby.

I have shown my improvement applied to the mold disk of a commercial Mergenthaler machine, but it is to be understood that it may be varied in form, and that it may be applied to kindred machines.

Figure 1 is a perspective view of the mold carrying disk in a Mergenthaler machine mounted on a water cooled support, a portion of the disk and adjacent parts broken away to show the interior construction. Fig. 2 is a top plan view of the parts shown in the preceding figure, together with the slide on which the disk is supported.

Referring to the drawings, A represents the vertical intermittingly rotating disk of a Mergenthaler machine, and B, B¹ two molds mounted in the disk on opposite sides of the center, so that either one may be brought into action at will.

C represents a horizontally movable slide

on the forward end of which the mold wheel 55 is mounted, in order that molds thereon may be moved facewise to and from the matrix line with which it coöperates in the machine as usual.

So far as described the parts may all be of the ordinary construction.

Heretofore it has been customary to mount the disk on a central solid stud or trunnion in front of the slide C. I now omit this stud and replace the same by the hollow non-rotating stud E formed upon or fixed to the front of the slide C. This stud is made as large as possible in diameter, with an internal space or chamber to receive the water or other cooling fluid, and is provided with two pipes F and F¹, through one of which the fluid from a pump, reservoir or other source of supply may be delivered, escaping through the other.

It is to be observed that the inlet and delivery pipes are screwed tightly into the hollow stud, and that the latter is fixed permanently in position and is without joints, glands, stuffing-boxes or openings of any kind. The mold carrying disk revolves around this stud, and is secured in place by a front plate G held by screws g or in any other appropriate manner. It is important to make the stud and its internal chamber of the largest size possible, and to extend as much as possible the contact surfaces between the stud and the encircling disk.

It will be observed that owing to the absence of sliding joints or openings of any kind it is impossible for the water or other cooling medium to escape from the chamber or in any other manner reach the molds or other surfaces to which the molten metal is delivered.

The form of the stud and chamber and the connections for delivering water, air or other fluid thereto may be widely modified without changing the mode of action.

Having thus described my invention, what I claim is:

1. In a line casting machine, a slotted mold and a rotatable disk in which said mold is secured, in combination with a non-rotating, hollow, closed support around which the disk revolves, and means rigidly connected to said support for delivering a cooling medium therethrough.

2. In a line casting machine and in com-

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bination with the mold slide, a hollow, non-rotating stud thereon, means rigidly connected to said stud for delivering a cooling fluid therethrough, a mold disk mounted to
5 revolve on the stud, and a mold secured in the disk adjacent to the stud, whereby the overheating of the mold is prevented.

3. In a line casting machine, a stationary, closed chamber and relatively fixed means
10 for delivering a cooling fluid therethrough,

in combination with a movable mold carrier mounted on and sustained by said chamber.

In testimony whereof I hereunto set my hand this thirtieth day of November, 1909, in the presence of two attesting witnesses.

DAVID S. KENNEDY.

Witnesses:

JOHN R. ROGERS,
LUCY E. SMITH.