D. S. KENNEDY.

LINE CASTING MACHINE.

APPLICATION FILED APR. 15, 1909.

952,569. Patented Mar. 22, 1910.

Fig. 1.

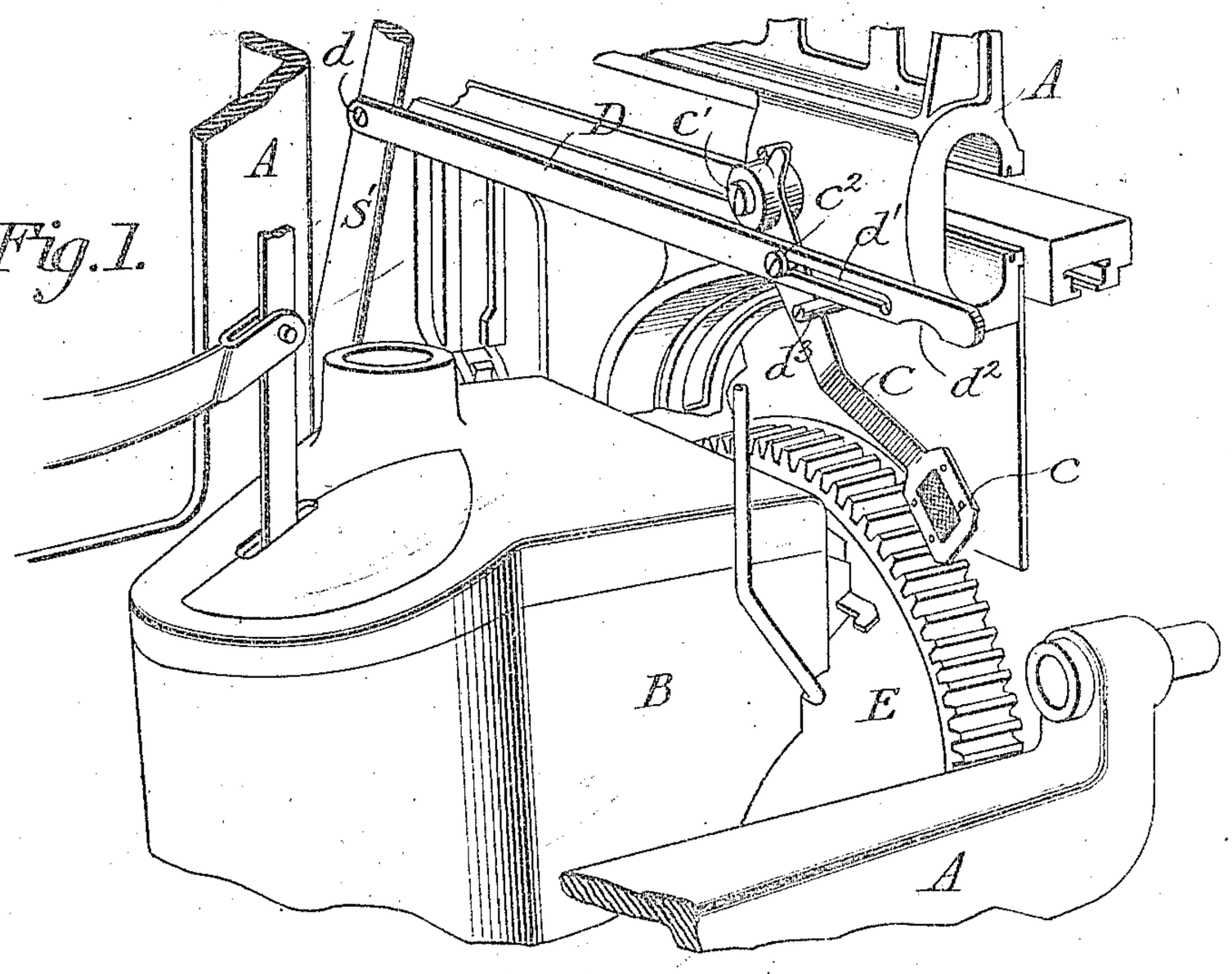
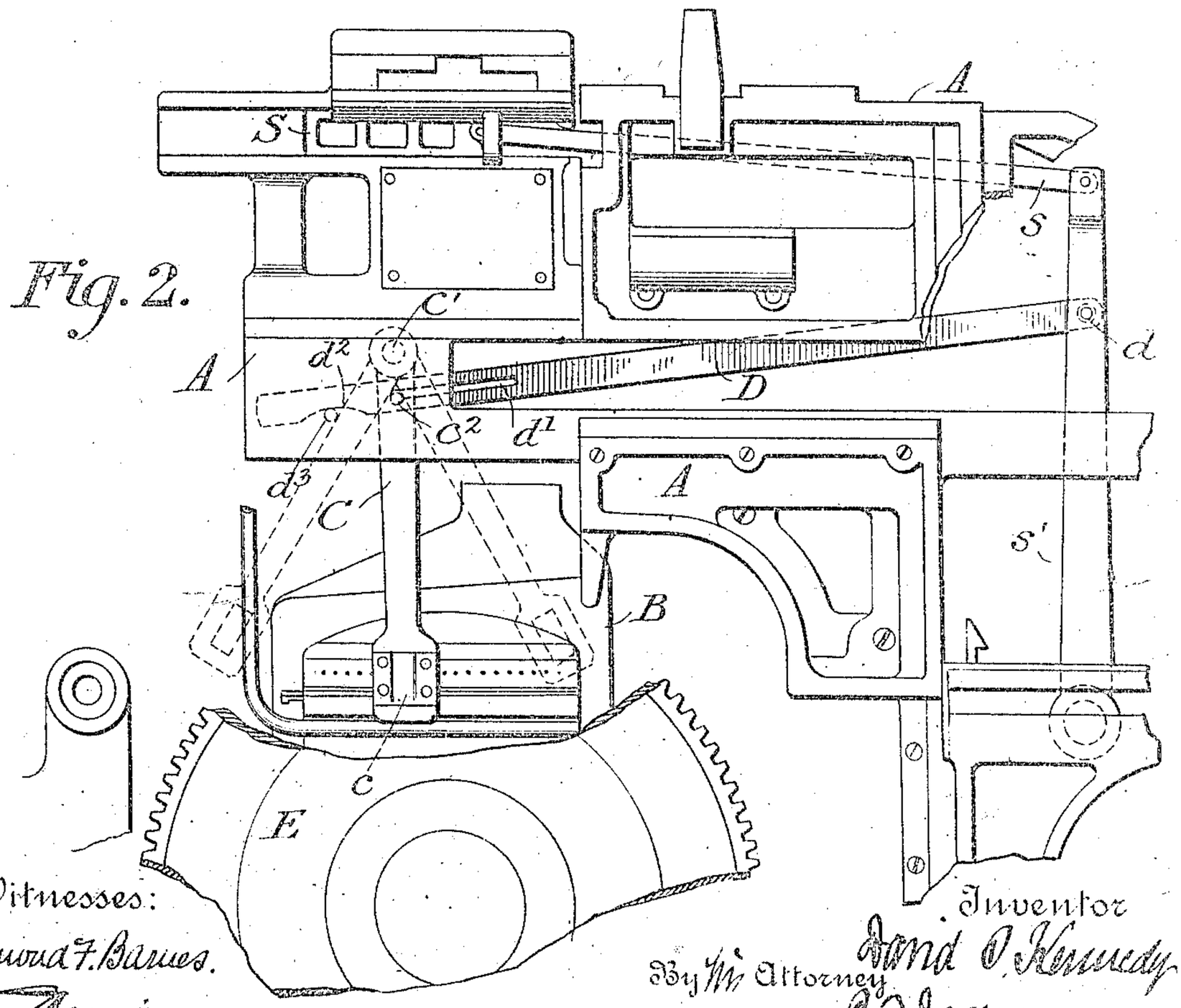


Fig. 2.



Witnesses:
Raymond F. Barnes.
L. E. Morrison

Inventor
David S. Kennedy
By His Attorney
A. F. Hoge

UNITED STATES PATENT OFFICE.

DAVID S. KENNEDY, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

LINE-CASTING MACHINE.

952,569. Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed April 15, 1909. Serial No. 490,170.

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.

This invention has reference to line casting machines, in which the molten metal is delivered by a pump mechanism through the mouth of the melting pot into a slotted mold, closed temporarily at the front by a composed line of matrices which form type characters on the edge of the slug formed in the mold, as shown, for example, in Letters Patent of the United States to Mergenthaler No. 436,532. In these machines, the flattened mouth of the pot is advanced temporarily against the back of the mold to close the same, the pot being retracted after the casting action. In practice it is found that there is a tendency of the molten metal, oxid, or other foreign matters to accumulate on the face of the pot mouth, in such manner as to prevent it from forming a close contact with the mold.

The object of this invention is to provide for a positive and effective wiping of the face of the pot mouth while it is separated from the mold, and to this end it consists in a vibratory wiper, arranged to traverse the pot mouth and actuated positively in the general manner hereinafter described.

In the drawing I have shown my invention in a form applicable to commercial Mergenthaler machines made under the patent above described, and generally known under the trade mark "Linotype."

Figure 1 is a perspective view looking from the rear toward the left-hand corner of the machine, with my improvement applied thereto, showing only such parts as are necessary to an understanding of my invention. Fig. 2 is a front elevation of the parts shown in the preceding figure.

Referring to the drawings, A represents portions of the main frame of the machine; B the melting pot, supported on legs and arranged to swing forward and backward to and from the mold; E the vertical wheel in which the slotted mold is mounted; and s^1 an upright lever acting through link s to actuate a slide, S, by which the composed line of matrices is transferred from the first elevator of the machine to the second elevator. The lever s^1, commonly known as the transfer lever, forms a part of all commercial Mergenthaler machines and is well known to those skilled in the art.

The foregoing parts may all be constructed and arranged to operate as described in the patent above referred to, or as in the Linotype machines now commonly known to commerce, the parts S, s and s^1 corresponding to the parts indicated by the same letters in the patent above referred to.

In applying my invention, I provide a wiper arm, C, carrying at its lower end a pad or wiper, c, of felt, wire cloth, asbestos, or other suitable material. I connect this arm at its upper end to the main frame by a horizontal pivot, c^1, in such position that its lower end may swing laterally across and against the mouth of the pot, B in the manner indicated in Fig. 2.

To the transfer lever s^1 I connect a link, D, by means of a pivot, d. This link is extended across the face of the wiper arm and connected thereto by a stud, c^2, which extends through a longitudinal slot, d^1, in the link. The slot through which the stud passes is carried downward at the outer end in the form of a notch. The lower edge of the link D rides upon a stud, d^3, fixed to the main frame. The under side of the link is formed near its outer end with a notch or indentation, d^2.

The parts stand normally in the position shown in Fig. 1, with the wiper arm clear of the pot and sustained by the link D, which is in turn sustained by the stud d^3.

After the pot is separated from the mold, subsequent to the casting action, the lever s^1 moves to the left, as usual, to effect the transfer of the matrix line, and in so doing it carries with it the link D. During the earlier part of the movement of the link the stud c^3 travels in the straight portion of the slot d^1, and the wiper remains unmoved. When the link has advanced far enough to bring the notch d^2 over the stud d^3, it is permitted to fall slightly, and at the same moment the wiper arm falls until its stud c^2 enters the notch at the end of the slot d^1, as shown in Fig. 2, so that the continued movement of the link to the left causes the wiper to swing entirely across the face of the pot. Immediately following this action, the lever s^1 moves back toward its first position, carrying with it the link, which causes the

wiper arm to again traverse the pot and to resume its first position, shown in Fig. 1, the link continuing its motion independently of the wiper, as is demanded by the fact that the lever s^1 must necessarily receive a motion longer than that required to actuate the wiper.

It will be observed that the slotted link serves not only to move the wiper positively in both directions, but also to hold it in an elevated position beyond the pot when the latter is advancing against the mold.

It will of course be understood that the wiper must be actuated at a particular time, that is to say during the temporary separation of the pot and the mold, and with my special construction and arrangement of parts I am enabled to effect this movement by means of the transfer lever, although the latter has a motion greater than that required on the part of the wiper.

Having described my invention, what I claim is:

1. In a line casting machine of the type described, a mold carrying wheel and a pot separable therefrom; in combination with a mold wiping arm, pivoted to the frame and arranged to swing through the space between the wheel and pot, and an operating link extending from said arm to a power driven member of the machine, substantially as shown; whereby the wiper is carried positively across the mold in both directions, and held positively beyond the mold.

2. In a Mergenthaler line casting machine, the combination of the melting pot, the wiper arm mounted on a fixed pivot and arranged to traverse the mouth of the pot, the line transfer lever, and a connecting link between the lever and the wiper, said link having a limited motion independently of the wiper, whereby the wiper is moved positively in both directions and held normally clear of the pot mouth.

3. In a line casting machine, the combination of the swinging wiper, the actuating lever s^1, the intermediate link, slotted and notched, and a support, d^3, for said link.

4. In a line casting machine, the combination of the lever s^1, with a link, D, having the slot d^1 and notch d^2, a link support, d^3, and a pivoted wiper arm, C, having a stud seated in the slot of the link.

In testimony whereof I hereunto set my hand this 11th day of March, 1909, in the presence of two attesting witnesses.

DAVID S. KENNEDY.

Witnesses:
R. G. Clark,
Lucy E. Smith.