R. M. BEDELL.

LINE CASTING MACHINE.

APPLICATION FILED OCT. 14, 1909.

989,943.

Patented Apr. 18, 1911.

2 SHEETS—SHEET 1.

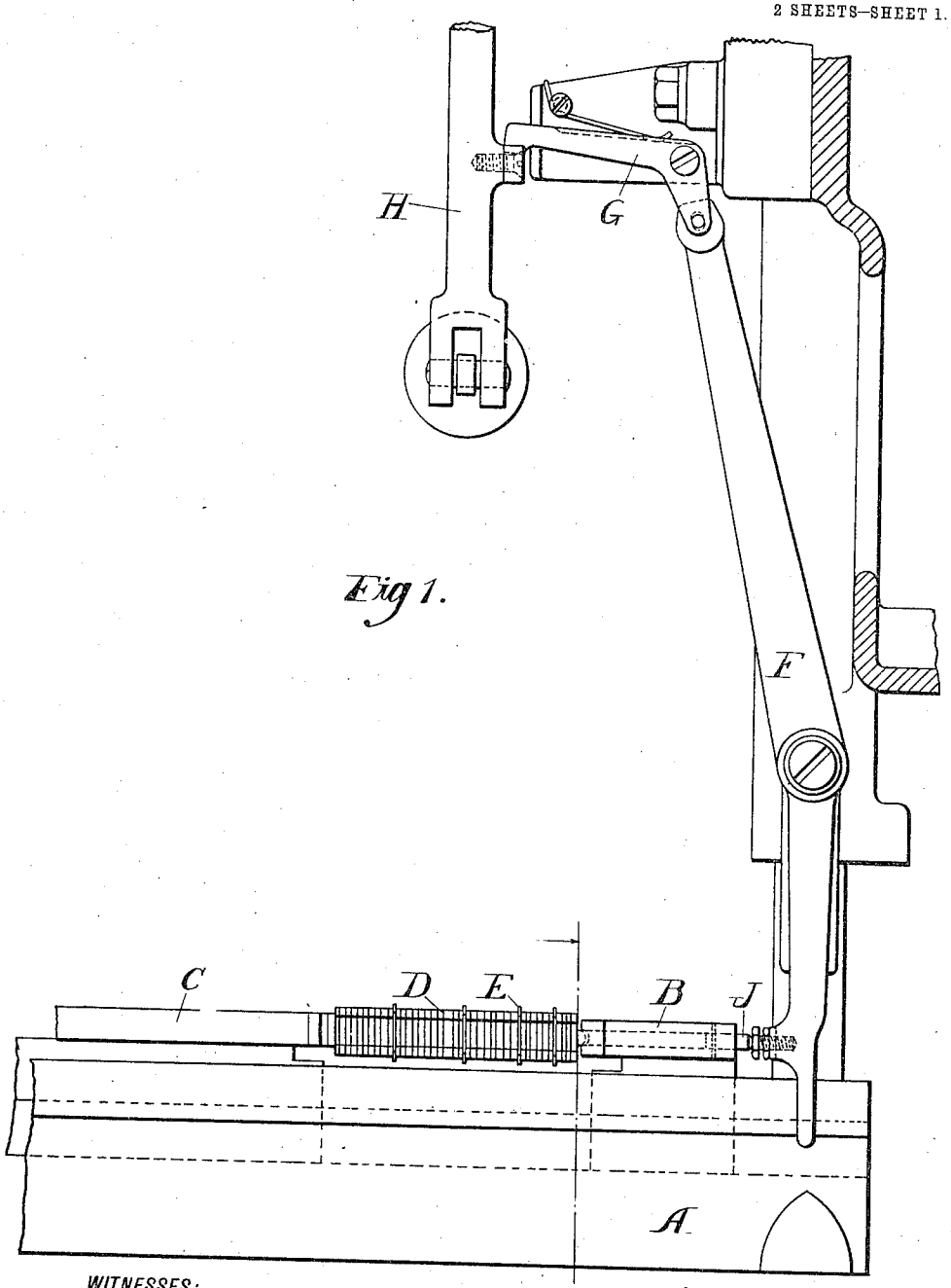


Fig 1.

WITNESSES:

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2 SHEETS—SHEET 2.

Fig 2.

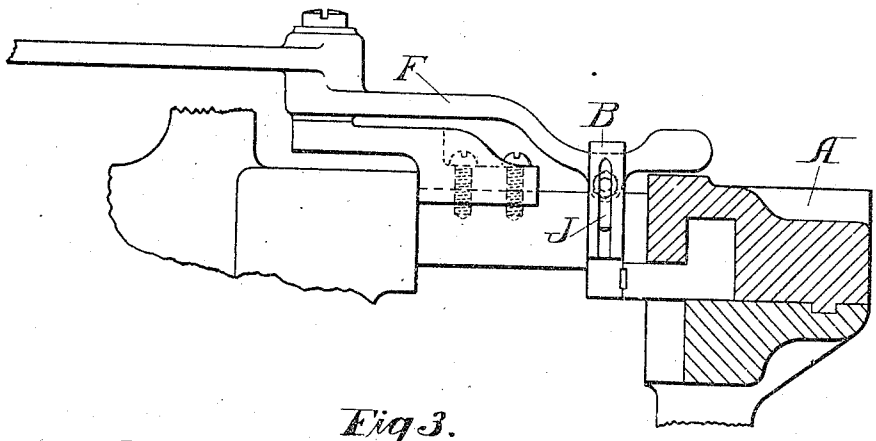
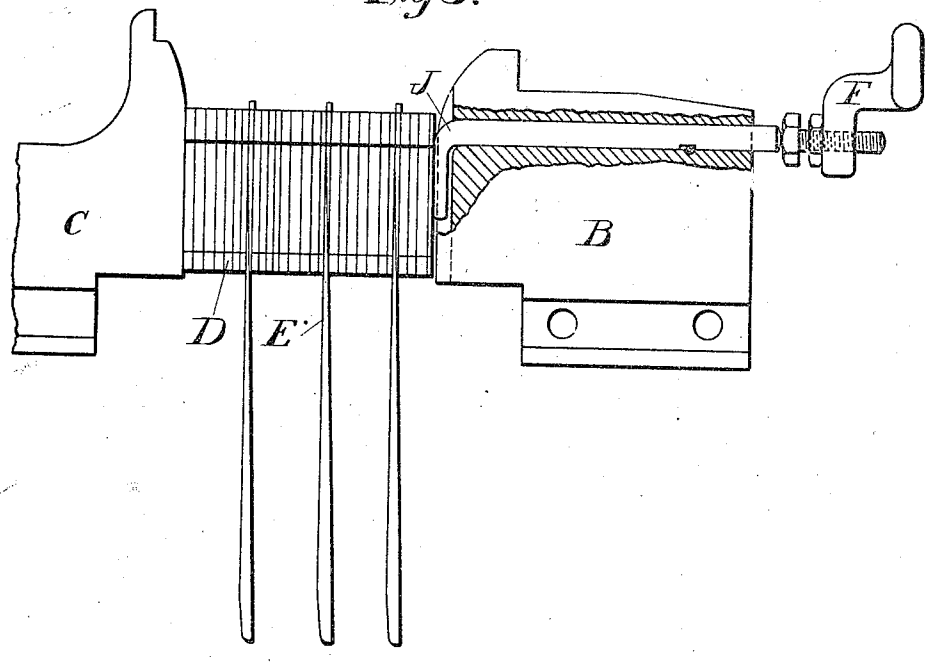


Fig 3.



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UNITED STATES PATENT OFFICE.

RICHARD M. BEDELL, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

LINE-CASTING MACHINE.

989,943. Specification of Letters Patent. Patented Apr. 18, 1911.

Application filed October 14, 1909. Serial No. 522,597.

To all whom it may concern:

Be it known that I, RICHARD M. BEDELL, 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 Mergenthaler type and kindred machines, wherein a composed line of matrices and expansible spacers is seated in the casting position between two jaws or abutments which limit the line to a predetermined length when it is justified or elongated by the spacers. In these machines it is customary to have one of the jaws movable under the influence of the expanding line, and to operate by means of this jaw the pump stop which prevents the casting of a slug if the matrix line is not expanded to the proper length. In certain classes of work it is necessary to fix the movable jaw so that it can no longer be utilized to operate the pump stop.

The object of my invention is to provide for the operation of the pump stop when the fixed jaw is used if the matrix line is not properly elongated or tightly confined, and to this end it consists in combining with the jaws and the pump stop an independent device through which the matrices control the pump stop.

With the exception of the parts specifically described herein, the machine may be in all respects of the ordinary construction such as represented, for example, in Letters Patent of the United States No. 436,532 and many later patents.

Figure 1 is a top plan view showing the matrix confining and pump stop devices with my improvement included therein. Fig. 2 is a vertical cross section on the line 2—2 in the preceding figure. Fig. 3 is a front elevation showing the parts represented in the preceding figures, the movable jaw being broken away to show the movable stop actuating device therein.

Referring to the drawings, A represents the main frame of the machine; B and C the two opposed jaws between which the line of matrices and spacers, D and E, is confined in the casting position. The right-hand jaw, B, is movable endwise.

F is a vertical lever mounted in the main frame and connected at one end with the stop lever G which controls the action of the pump lever H, through which the delivery of molten metal into the mold against the matrices is controlled as usual, the pump lever being normally locked out of action. The forward end of this lever F has heretofore been arranged to contact with the outer end of the sliding jaw B, so that when the matrix line is expanded to the proper length the jaw will be forced backward against the lever F, and the latter caused to throw the stop lever G to an inoperative position, so that the pump may act and the casting operation take place. Instead of depending on the direct action of the jaw against the lever F, I provide an independently movable slide, J, preferably mounted in the jaw B, with one end in position to act against the lever F, and the other end in position to be acted upon by the matrix line. This slide J is movable independently in the jaw B, so that although the jaw may be moved backward in the first instance to its extreme outward position, the slide J projecting inward and forward beyond the face of the jaw, will be acted upon by the face of the matrix line. If the line is justified or expanded to the proper length, it will force the slide backward and cause the lever F to throw the pump stop out of action. On the other hand, it is clear that if the matrix line is not of the required length the slide J will fail to operate the lever F and the action of the pump will be prevented as heretofore.

The essence of the invention consists in combining with means for confining the matrix lines endwise, independent means controlled by the matrices and in turn controlling the action of the pump stop.

It is manifest that my device may be embodied in various forms, and that it may be operated in connection with any one of the various forms of pump stops, a number of which are known in the art.

What I claim as my invention is:

1. In a line casting machine, the combination of means for confining the line endwise, the assembled line normally mounted therebetween, and independent means acted upon by the line to control the casting action.

2. In a line casting machine, the combination of means for confining the line endwise, the assembled line mounted therebetween, and independent means acted upon directly

by the line during justification to control the casting action.

3. In a line casting machine, the combination of means for confining the line endwise, the assembled line mounted therebetween, and a pump mechanism normally locked against action, together with means acted upon by the line to control the locking device.

4. In a line casting machine, in combination, two opposed jaws or abutments to confine the line endwise, the assembled line mounted therebetween, a pump stop mechanism, and means movable independently of the jaws or abutments and actuated by the line to control said pump stop mechanism.

5. In a line casting machine, in combination, two matrix confining jaws, the assembled line normally mounted therebetween, and an independently movable member mounted in one of the matrix confining jaws and adapted to be actuated by the line and to act in turn on a pump stop mechanism.

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

RICHARD M. BEDELL.

Witnesses:
JOHN R. ROGERS,
EDWARD A. SYTZ.