

No. 889,617.

PATENTED JUNE 2, 1908.

D. S. KENNEDY.
LINOTYPE MACHINE.
APPLICATION FILED MAR. 13, 1908.

2 SHEETS—SHEET 1.

Fig.1.

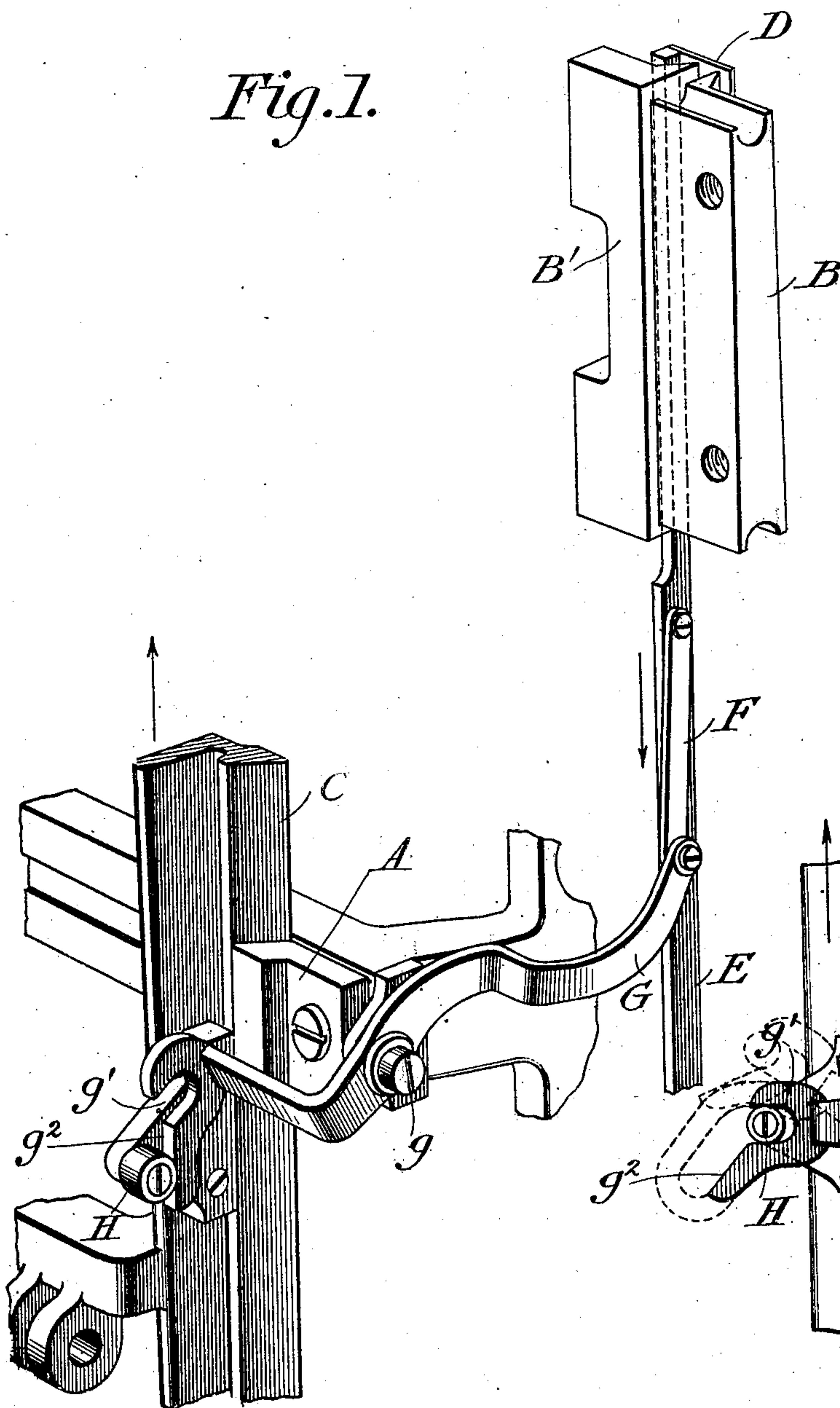
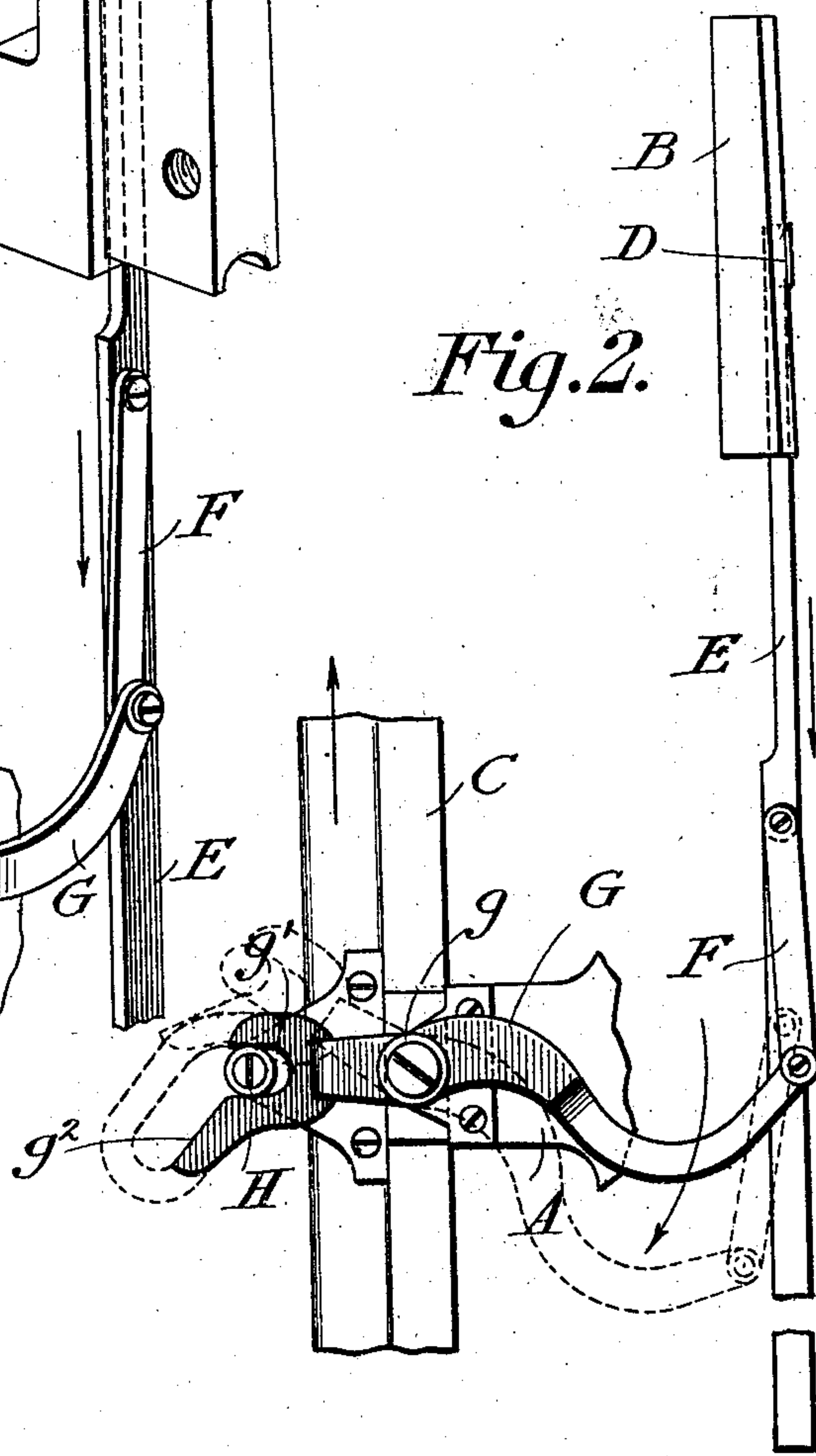


Fig.2.



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L. E. Morrison.

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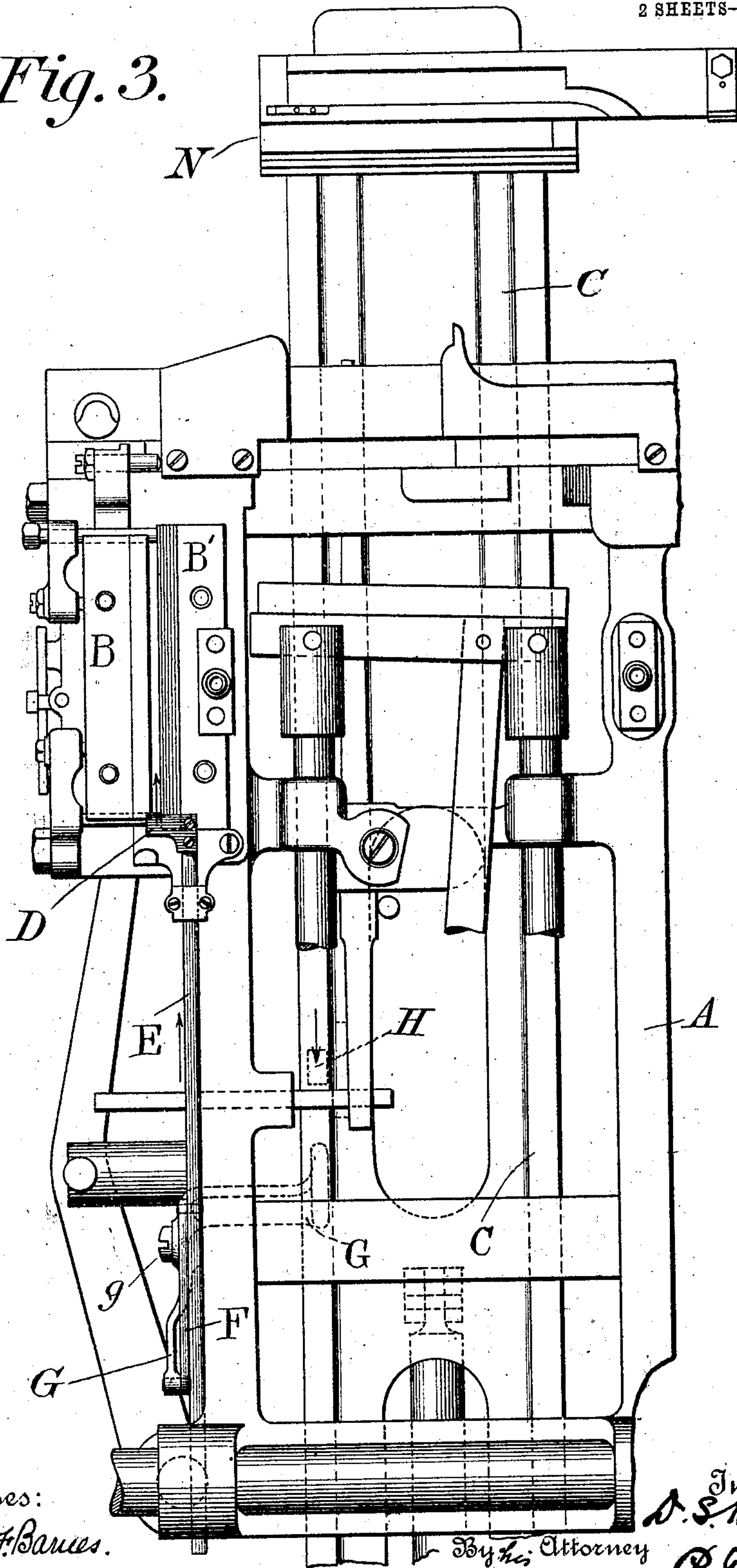
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2 SHEETS—SHEET 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

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

LINOTYPE-MACHINE.

No. 889,617.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed March 13, 1908. Serial No. 420,789.

To all whom it may concern:

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

My invention relates to line-casting machines of the general organization represented in Letters Patent of the United States #436,532. In these machines, type metal slugs, bearing on one edge the characters to print an entire line, are cast in a slotted mold against an assembled line of matrices. The mold is mounted in a vertical intermittingly rotating wheel, by which it is presented first in a horizontal casting position, and thereafter in a vertical position in front of the reciprocating ejector-blade, by which the contained slug is driven edgewise from the mold and between two parallel trimming knives into the receiving galley at the front. The hot metal shaved from the side faces of the slug by the knives clings with considerable tenacity to their edges, and unless removed, the shavings are liable to lodge upon and impair the faces of succeeding slugs. For this reason, all machines of this class are provided with wipers of one form or another to remove the adhering metal from the knives after each shaving operation. As heretofore constructed, wiping mechanisms have been open to various objections such as their complexity, their dependence upon springs, their liability to stop in the path of the ejector-blade, etc.

My invention relates to an improved form of the wiping mechanism in which the wiper is positively guided and positively moved to and fro from the entire length of the knives.

In the drawings,—Figure 1 is a perspective view of the knives and the wiping mechanism in operative relation thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a face view of the vise-frame with the knives and adjacent parts, looking from the rear toward the front of the machine.

Referring to the drawings, A represents the main-frame of the machine; B and B', the two knives presenting parallel edges between which the slugs are delivered facewise from the mold to the galley. C represents the first elevator, so-called, for supporting the line of matrices and presenting the same to the mold. It is mounted to slide vertically in the main-frame, and has a fixed

length of travel. So far as described, the parts are of ordinary construction.

D represents the knife-wiper designed to travel longitudinally over the edges of the two knives in contact therewith, or in close proximity thereto, the latter arrangement being preferred. This wiper, which is preferably in the form of a metal plate, but which may be a brush or a pad of felt or other suitable material, is attached to the upper end of a vertical rod E, which is guided at its upper and lower ends in the main-frame.

F is an actuating link pivoted at one end to the wiper-rod E, and at the other end to a lever G which is mounted at its middle on a horizontal stud or pivot *g* on the main-frame. The lever G is actuated by a stud or roller H on the elevator-slide C, as shown in Figs. 1 and 2. The elevator C has a movement greater than that required of the knife-wiper, and its movements are arrested at such points and at such times that a positive connection between the elevator and the wiper-rod is impractical. For these reasons, and in order that the knife-wiper may remain at rest in the required position while the elevator C is in motion, I provide for lost motion between the elevator-slide and the lever by giving the forward end of the lever the form shown in Figs. 1 and 2, that is to say, with a notch *g'* in its upper portion, and an extended outer surface *g''* below the notch.

During the casting action, the parts stand in the position shown in Fig. 1, with the stud H bearing on the flat surface of the lever, and holding the latter and the wiper D in their uppermost positions. As the elevator rises subsequent to the casting action, the roller travels upward on the surface *g''* while the wiper remains at rest, until finally the roller enters the notch *g'*, as shown in Fig. 2, whereupon it causes the lever to move and draw the wiper D downward the entire length of the knives. As the elevator descends, the lever is positively actuated by the stud H traveling downward in the slot *g'* and throwing the lever to the position shown in full lines in Fig. 1, and the knife returned to its uppermost position and there held at rest while the elevator C completes its downward movement. As the knife reaches its uppermost position, the surface *g''* assumes a vertical position and the lever remains at rest while the stud continues to travel downward

over said surface. It will be observed that the knife is moved positively in both directions and through a definite distance, there being no possibility of its failing to move or of its being arrested in the path of the advancing ejector.

The essence of the invention lies in moving the knife positively in both directions through a device receiving motion from the elevator C, and in so forming the parts as to permit the dwell or rest of the wiper while the elevator continues to move.

In machines used for certain purposes, it is customary to use a single knife trimming one side of the slug only. It will, of course, be understood that my wiping mechanism may be used in such case in connection with a single knife, and that such arrangement will fall within the limits of my invention and the claims hereinafter stated.

It will be obvious to the skilled mechanic that the form of the forward end of the lever G may be modified without changing its mode of action; for example, it may be extended as shown in dotted lines in Fig. 2, so as to form an angular slot inclosing the roller H.

Having thus described my invention, I claim and desire to secure by Letters Patent,—

1. In a machine of the class described, a knife wiper and a guided rod by which it is

carried, in combination with a sliding actuating member C and an intermediate lever for communicating motion from said member to the rod, said lever formed to positively engage the sliding member during the required movement of the knife in both directions, and also formed to permit the continued movement of the slide while the knife remains at rest in one position.

2. In combination with the wiper-carrying rod and the elevator-slide C provided with a stud or roller H, the intermediate lever G connected at one end with the rod and having the opposite end provided with a notch g' and surface g^2 ; whereby the elevator is enabled to move the wiper positively in both directions, and the wiper permitted to remain at rest during a portion of the movement of the elevator.

3. The knife-wiping attachment for a linotype machine, comprising a wiper-carrying rod E and a lever G connected therewith, said lever having one end provided with the notch g' and surface g^2 .

In testimony whereof I hereunto set my hand this 27 day of February, 1908, in the presence of two attesting witnesses.

DAVID S. KENNEDY.

Witnesses:

R. G. CLARK,
JESSIE I. SMITH.