

No. 858,513.

PATENTED JULY 2, 1907.

T. S. HOMANS.
LINOTYPE MACHINE.
APPLICATION FILED JUNE 22, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

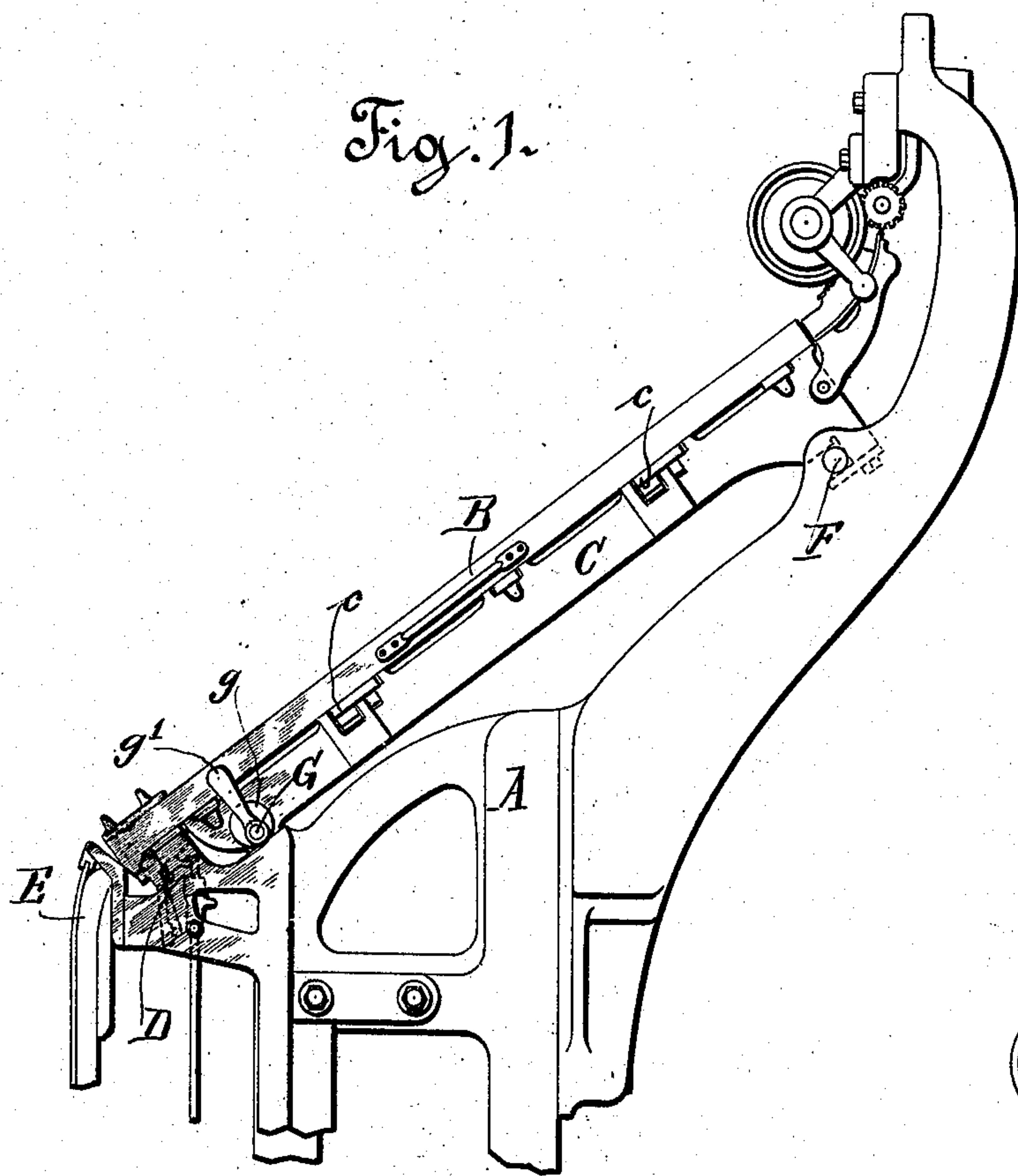
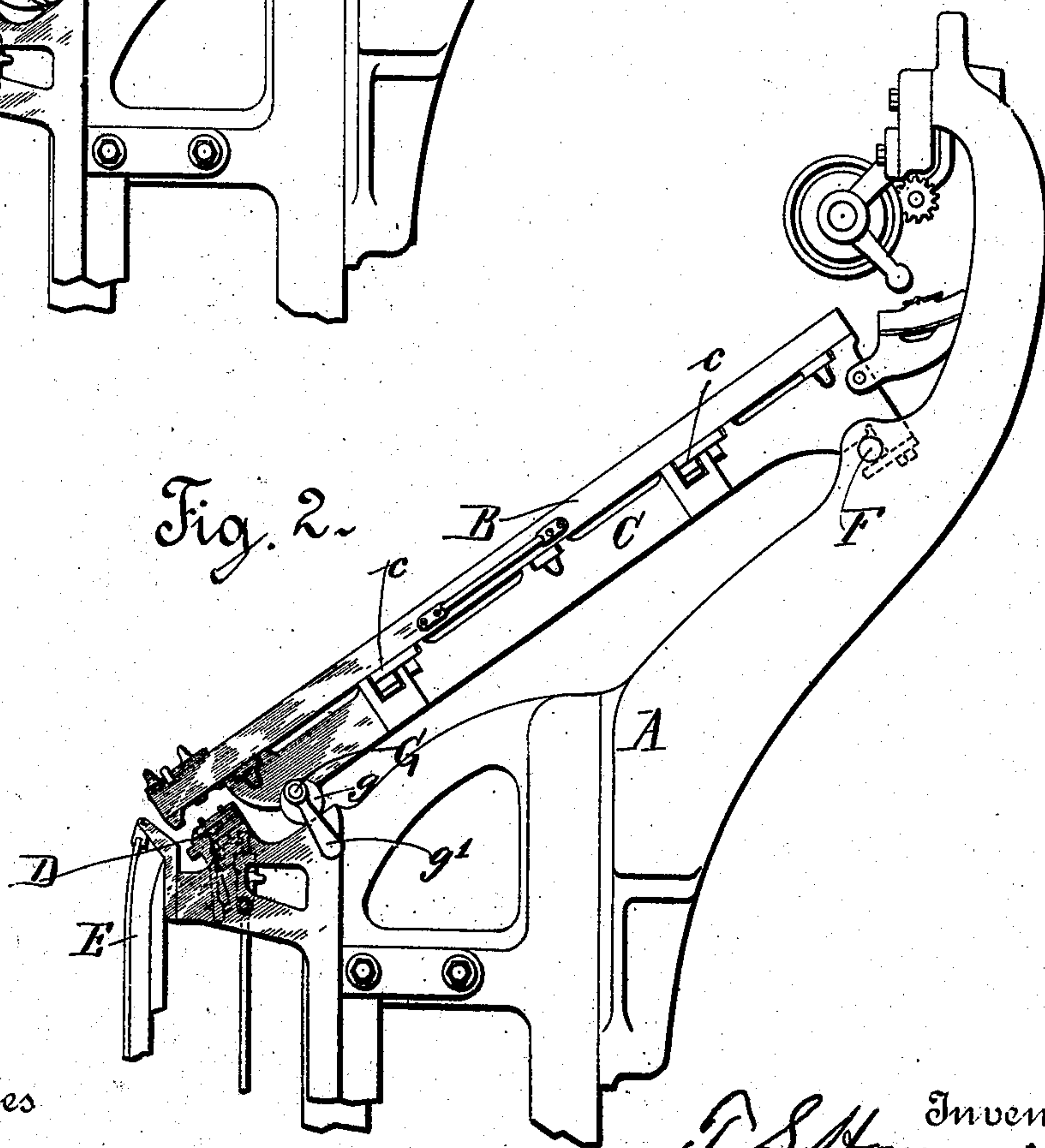


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

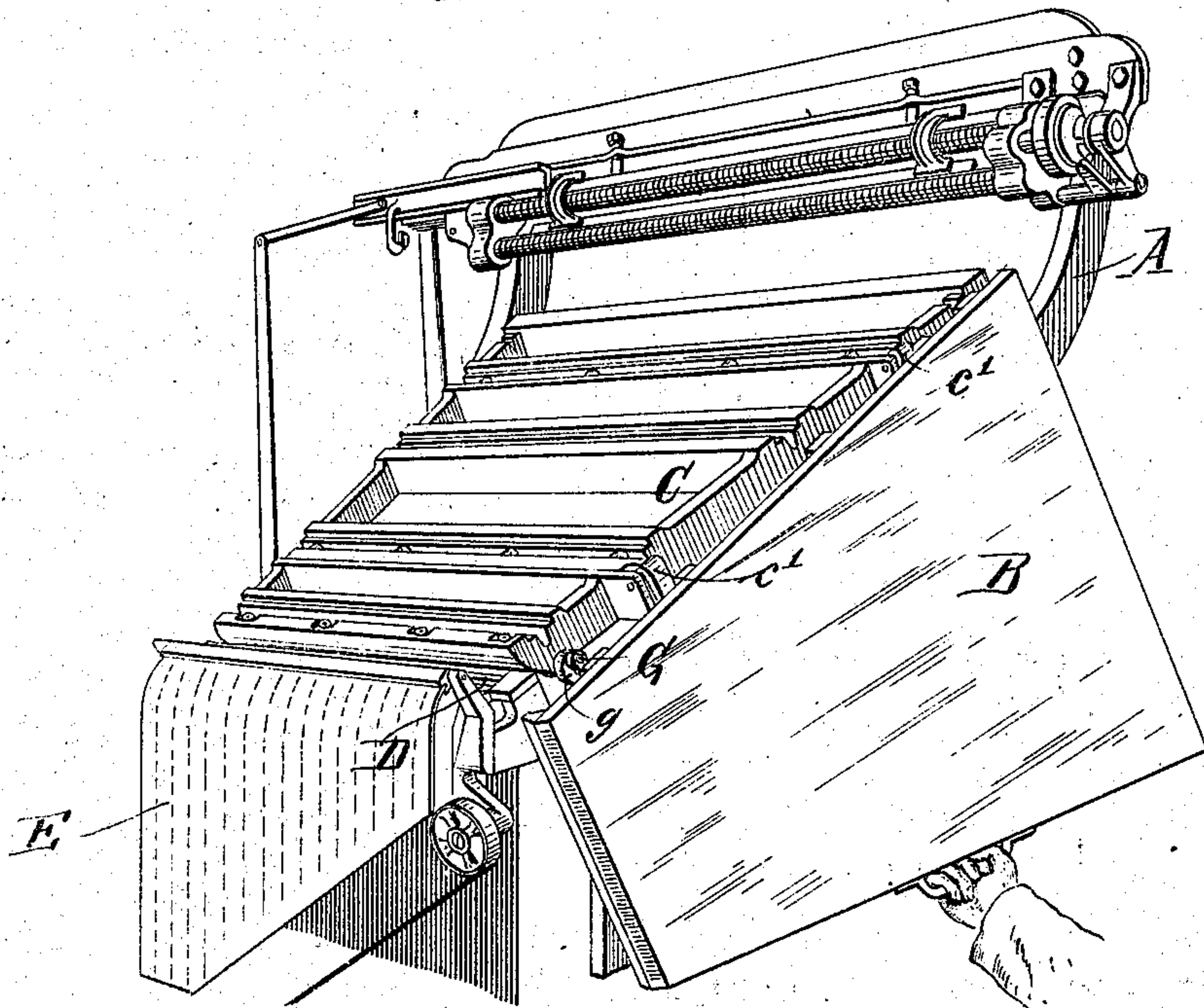
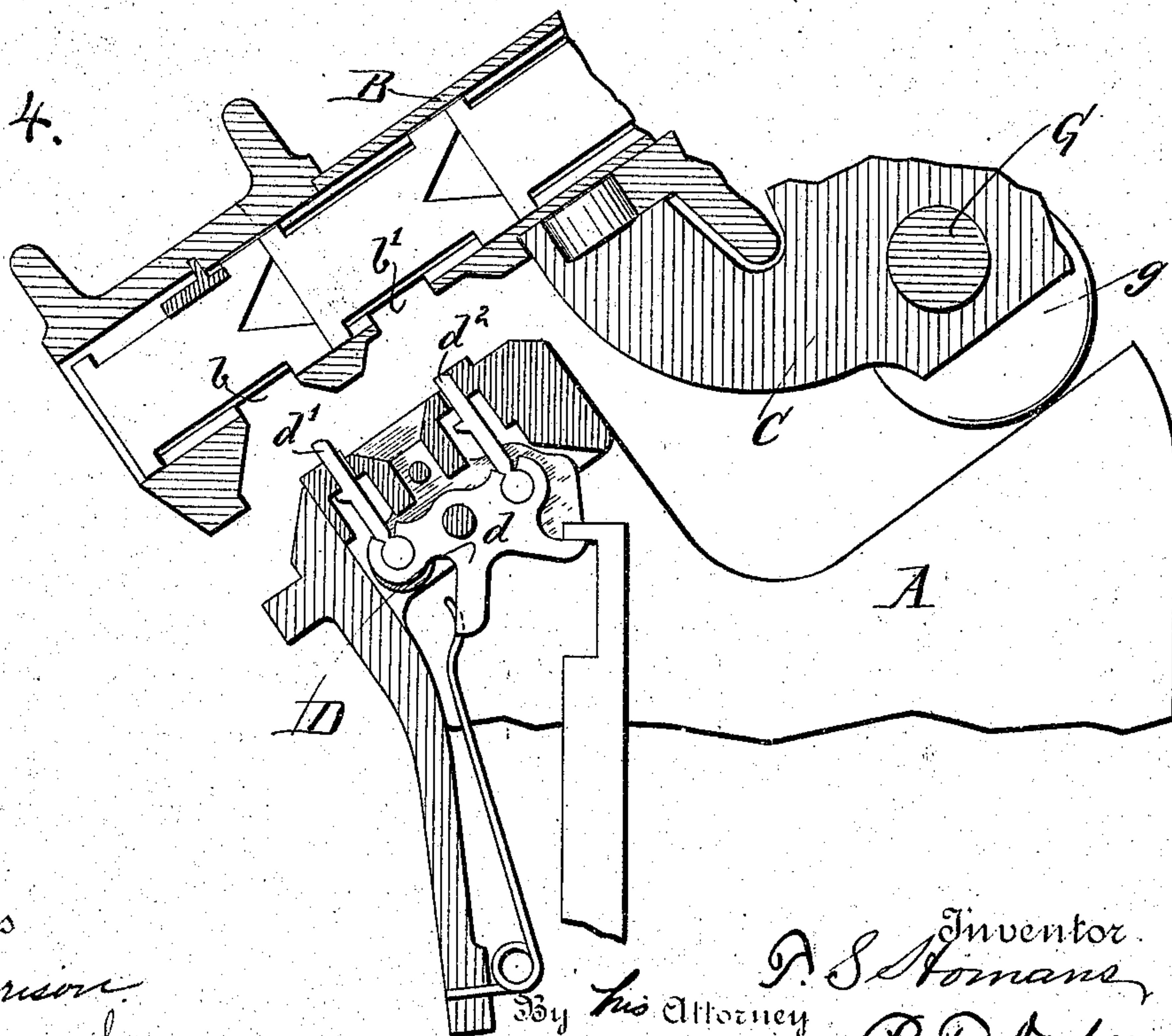


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS SIMMONS HOMANS, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER
LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

LINOTYPE-MACHINE.

No. 858,513.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed June 22, 1906. Serial No. 322,858.

To all whom it may concern:

Be it known that I, THOMAS SIMMONS HOMANS, of the 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 linotype machines of the general organization represented in Letters Patent of the United States No. 436,532, in which a font or set of circulating matrices is carried in a magazine, their release therefrom, one at a time, being effected by escapement mechanism controlled by finger keys. In order to permit speedy change in the style or face of the type produced by the machine, the magazine is commonly made removable so that it may be replaced by another containing a suitable font of matrices. In some cases the magazine has been made removable independently of the escapement mechanism, which remained on the main frame.

The aim of the present invention is to provide for the speedy and easy removal of the magazine independently of the escapement mechanism and at the same time to avoid certain objections and inconveniences which attend the constructions heretofore in use.

To this end, I combine with the inclined magazine an underlying escapement mechanism attached to the main frame, and an underlying vertically movable frame by which the magazine is supported, this frame and the magazine being so constructed as to admit of the magazine being withdrawn from the side of the machine after it has been lifted clear of the escapements by the rise of the movable frame.

I have confined the accompanying drawings to the magazines and adjacent parts, as all other parts of the machine may be of ordinary construction.

Figure 1 is a side elevation of the upper part of a linotype machine having my improvements incorporated therein, the magazine being in operative position. Fig. 2 is a similar view, with the magazine lifted preparatory to its removal. Fig. 3 is a perspective view of the same parts, with the magazine withdrawn from its position and suspended at one side preparatory to removal. Fig. 4 is a vertical longitudinal section through the magazine and escapement mechanism, said parts being in the position shown in Fig. 2, with the magazine lifted clear of the escapements.

Referring to the drawings, A represents the main frame; B the inclined longitudinally channeled magazine; C the underlying vertically movable frame by which the magazine is supported; D the escapement mechanism fixed to the main frame and underlying the magazine; E the vertically channeled plate or raceway

fixed to the front of the frame in position to receive the matrices as they are delivered one at a time from the lower forward end of the magazine. 55

The magazine sustaining frame C is of skeleton form and is mounted at or near its upper end upon a horizontal rod or pivot F fixed in the main frame. The lower end of the frame C rests normally on the main frame. For the purpose of raising and sustaining the lower end of the frame C, a shaft G is extended therethrough and provided at opposite ends with eccentrics *g*, bearing on the main frame, and with an operating handle *g'*. By turning the handle, the eccentrics are rotated and caused to lift the frame C, which may be sustained in its elevated position thereby, as shown in Figs. 2 and 4. 60 65

The magazine, which consists as usual of two parallel grooved plates secured to intermediate spacing pieces, is seated on top of the frame C and provided on the under side with transverse horizontal ribs *c* which are seated in corresponding grooves in the upper face of the frame, the construction and arrangement of parts being such that when the frame is in the elevated position shown in Figs. 2, 3 and 4, the magazine may be drawn laterally therefrom and permitted to swing or tip downward at one side of the machine, as shown in Fig. 3. The ribs *c* have their rear or left hand ends fashioned into hooks *c'*, and the side of the frame C is so formed that when the magazine is fully withdrawn from the side of the machine, the hooks *c'* will engage therewith and arrest the further outward movement of the magazine, and at the same time serve as supports to sustain or suspend the magazine when it is permitted to turn downward, as shown in Fig. 3. After the magazine has reached this position, it may be conveniently unhooked and removed. 70 75 80 85

The escapement mechanism consists, as usual, of a supporting bar or frame slotted transversely to receive centrally pivoted escapement levers *d*, each carrying at opposite ends two parts *d'* and *d''*, adapted to extend upward alternately into the magazine to engage the matrices therein. The upper surface of the escapement bar, through which the pawls are projected, is preferably formed as shown, with longitudinal ribs, in order to guide the pawls near their upper ends, and the under side of the magazine is provided with transverse slots *b*, *b'*, of suitable size, to admit said ribs. This construction in itself forms no part of the present invention. 90 95

The magazine is applied to the machine by first hooking it to the side of the frame C, and thereafter turning it upward and pushing it home transversely of the machine to its place on the elevated frame C, after which the frame is lowered to its operative position, 100

thereby lowering the magazine until the escapement pawls and ribs assume their operative positions in the underside of the magazine.

The removal of the magazine is effected by first lifting the frame C and thereafter drawing the magazine from the machine over the side, as above indicated. It will be observed that it is only necessary to lift the magazine a slight distance sufficient to disengage it from the escapement mechanism and permit its withdrawal thereover. It is not necessary that it should be lifted high enough to clear the channeled plate at the front.

It will be observed that the present organization permits the use of a continuous or undivided magazine of full length, adapted to contain all the matrices in the machine, and it provides for the removal of this magazine and all the contained matrices laterally from the machine without disturbing the escapement mechanism, which remains on the main frame in position to co-operate with the second magazine when it is in turn applied to the machine.

Having described my invention, what I claim is:—

1. In a linotype machine, a main-frame, and an escapement mechanism sustained thereon, a magazine-supporting frame mounted to rise and fall in the main frame, means for lifting and sustaining said supporting-frame above its operative position, and a magazine removably seated on the supporting-frame and extending over and beyond the escapement mechanism, said mechanism and supporting-frame having transverse interacting guides, adapted to permit the lateral removal of the magazine independent of the escapement mechanism.

2. In a linotype machine, the combination of a main frame, an escapement mechanism fixed thereon, a magazine overlying the escapement mechanism and co-operating therewith, means for lifting and sustaining the magazine clear of the escapement and means for guiding the magazine laterally from the machine.

In testimony whereof I hereunto set my hand this twentieth day of June, 1906, in the presence of two attesting witnesses.

THOMAS SIMMONS HOMANS.

Witnesses:

L. B. MOREHOUSE,
D. P. WILLIAMS.