

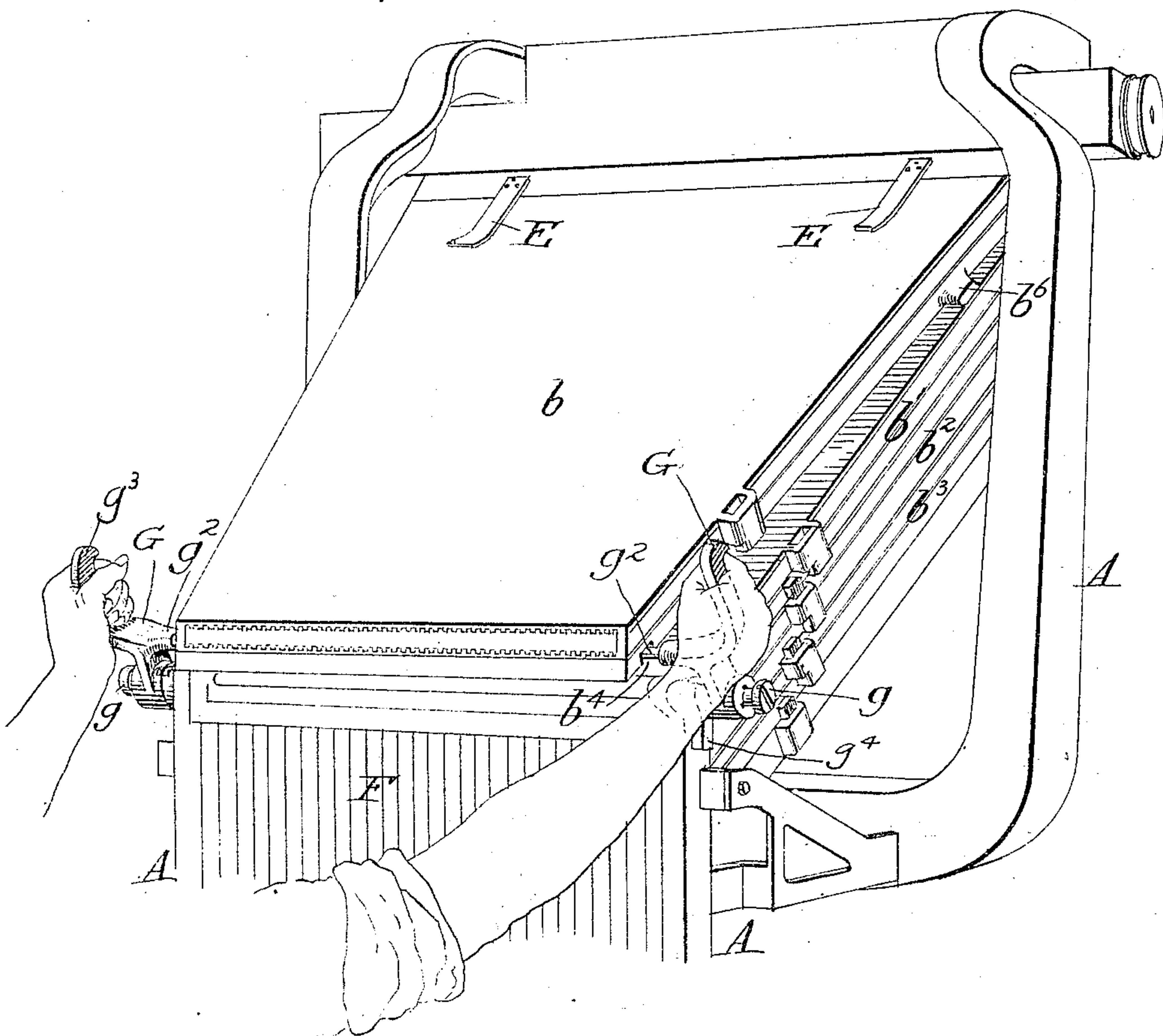
No. 848,310.

PATENTED MAR. 26, 1907.

D. S. KENNEDY.
LINOTYPE MACHINE.
APPLICATION FILED SEPT. 5, 1906.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses;
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Luther E. Morrison

Inventor:
D. S. Kennedy
By his Attorney *P. J. Wodge*

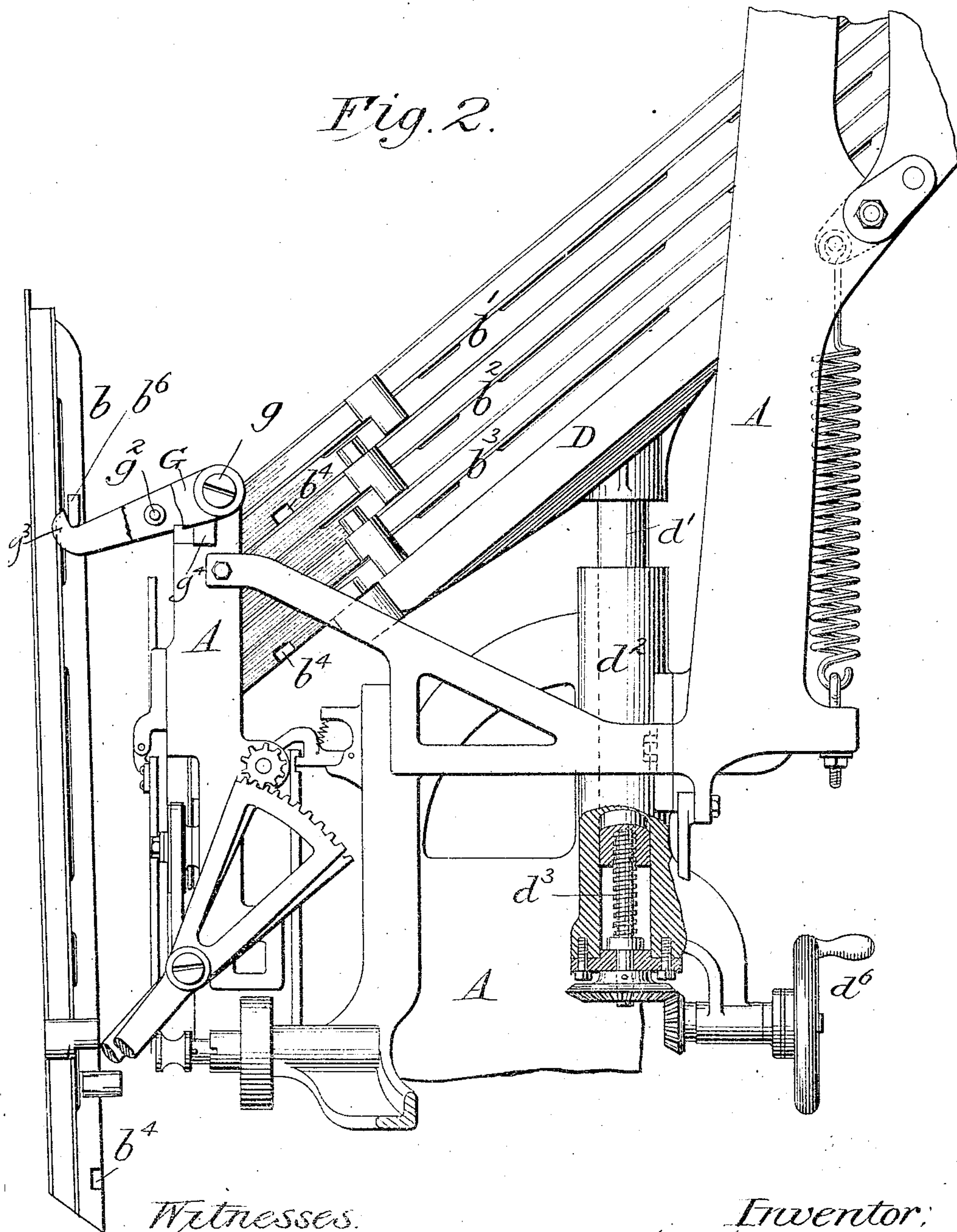
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3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3.

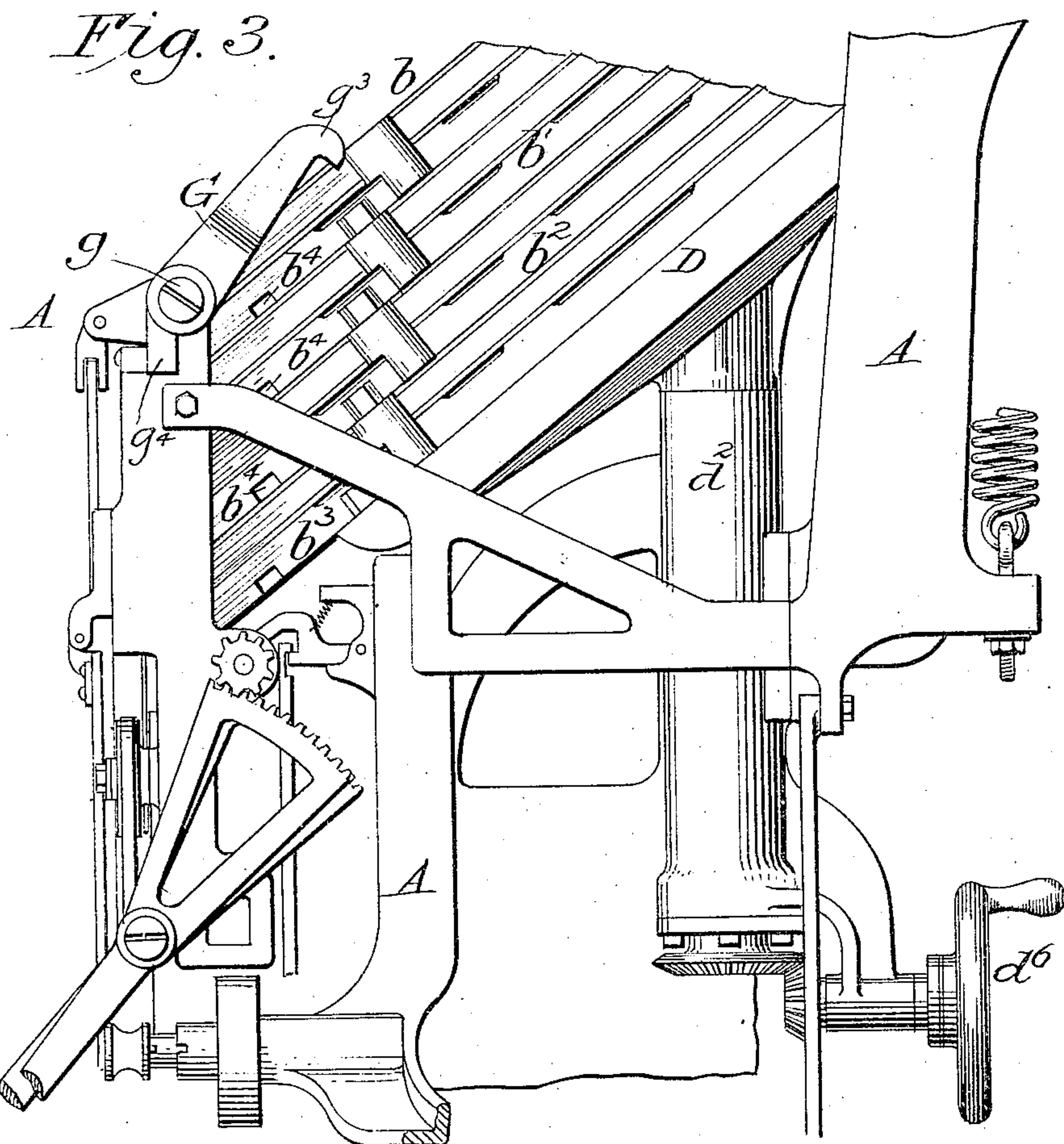


Fig. 4

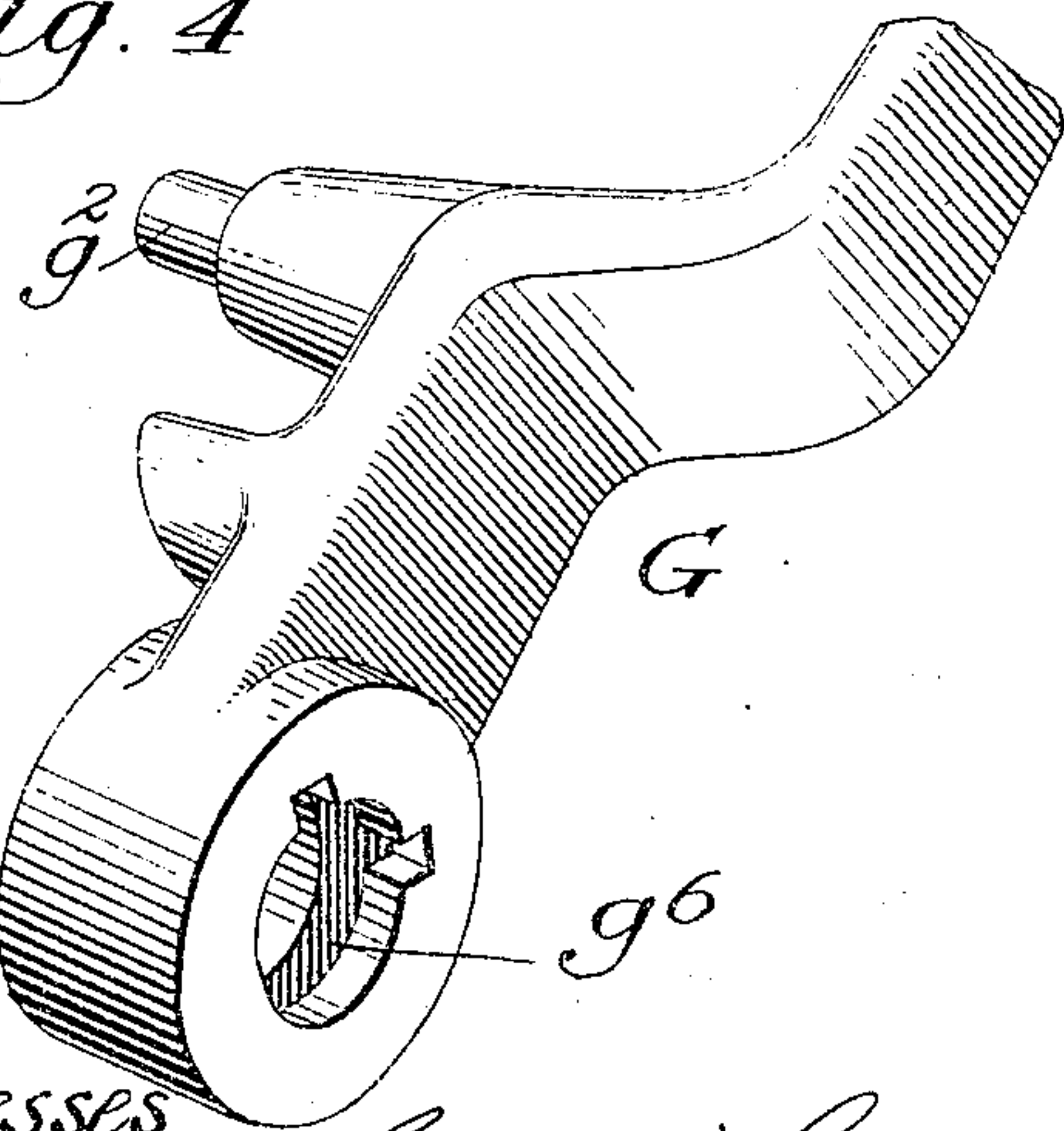
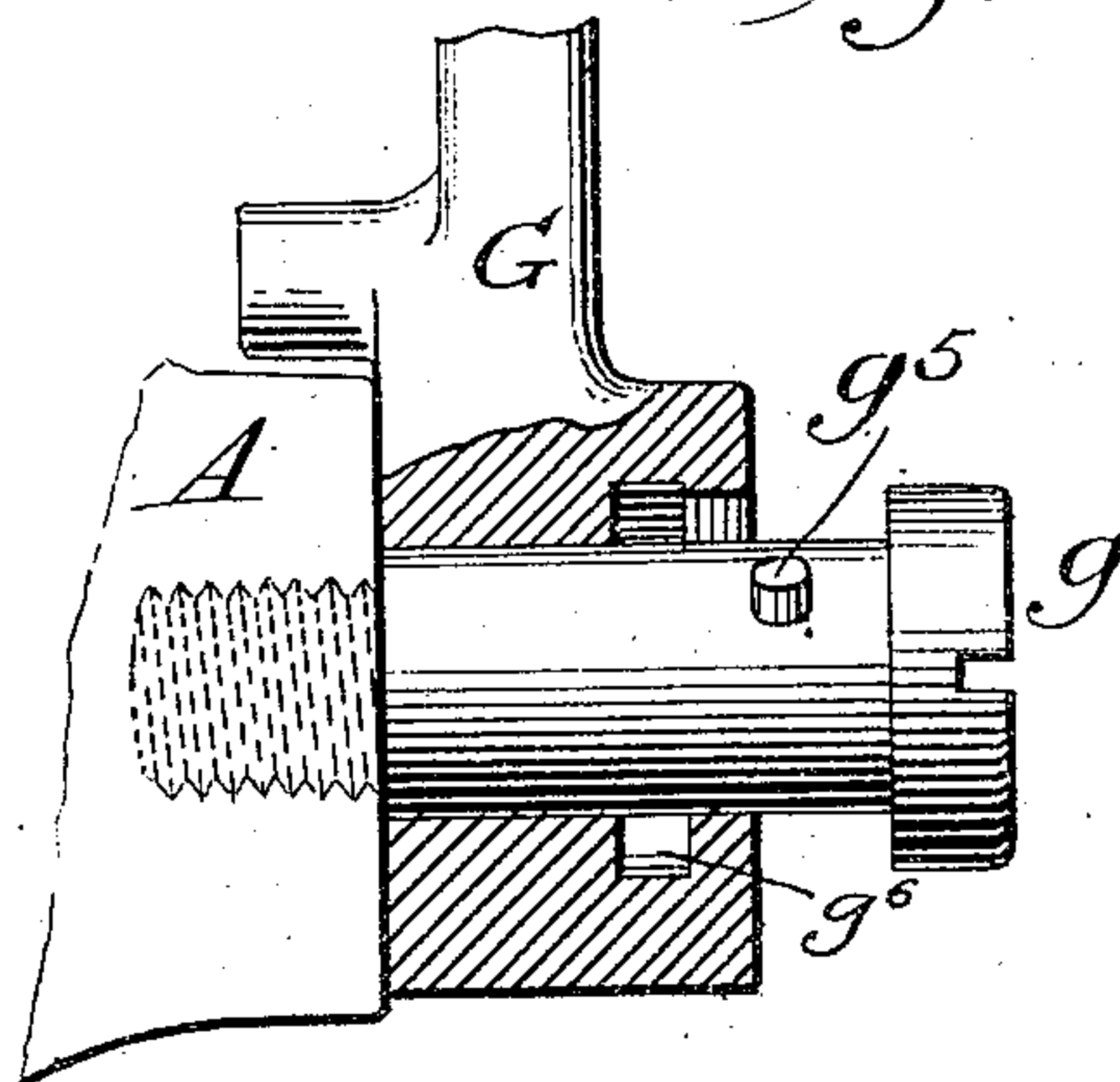


Fig. 5.



Witnesses

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Luther C. Morrison

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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. 848,310.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed September 5, 1906. Serial No. 333,341.

To all whom it may concern:

Be it known that I, DAVID S. KENNEDY, 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 has reference to linotype-machines of the Mergenthaler class wherein the matrix-holding magazines are removable in a downward and forward direction from the main frame, as shown, for example, in Letters Patent of the United States, No. 816,849, dated April 3, 1906, and the application for Letters Patent of the United States, Serial No. 307,759, filed March 23, 1906.

The object of the invention is to facilitate the removal and replacement of the magazine.

To this end it consists in combining therewith means whereby the forward end of the magazine is lifted, drawn forward, and sustained above its operative position and the magazine also moved rearward positively to its operative position when lowered to its place.

In the accompanying drawings I have shown my invention applied to a machine having a series of superposed magazines, as in the application for Letters Patent of the United States of J. R. Rogers, No. 301,665; but it is understood, of course, that it may be used in a machine having a single magazine. In all of these machines the magazines applied at the front are pushed upward and backward to their operative position, their upper ends sliding beneath springs or equivalent clamping devices, which serve to pull them down in place and prevent them from twisting or curling upward out of form.

In the mechanism heretofore known the magazine was required to be pushed backward and upward by hand beneath the confining devices. This at times called for a somewhat violent action, and it was inconvenient and uncertain. The devices forming the subject of the present invention have all the advantages of those heretofore in use and also the additional advantage that the magazine is carried positively endwise to and from its place.

The drawings are limited to those parts of the machine with which my improvements are immediately connected. All other parts

may be of the ordinary or any suitable construction.

Referring to the drawings, Figure 1 is a top plan view of the machine having my improvements applied, the upper magazine being lifted preparatory to its removal. Fig. 2 is a side view of the parts, showing the uppermost magazine removed from its place and supported in a pendent position at the front preparatory to its removal. Fig. 3 is a side view showing the magazine in operative position. Fig. 4 is a perspective view of one of the arms for moving the magazine. Fig. 5 is a cross-section showing the supporting-stud with the arm thereon.

Referring to the drawings, A represents the rigid main frame of the machine.

b, b', b², and b³ are the inclined superimposed magazines, each channeled longitudinally to receive and guide the series of contained matrices. The series of magazines is supported on an underlying base-frame D, sustained on a column d', sliding in a stationary sleeve or guide d² and raised and lowered by means of a central screw d³, actuated through intermediate gear.

On the hand-wheel d⁶ there is an arrangement serving to raise and lower the series of magazines, so that they may be brought to the proper elevation for removal from the machine.

The foregoing parts in construction and operation are essentially the same as those indicated by like letters in the Rogers application above referred to.

Referring to the devices forming the subject of the present invention, each of the magazines has its base-frame provided with a notch b' on each side near the lower end. The uppermost magazine when in operative position has its upper end seated beneath spring-fingers B or equivalent pressure devices, which serve to hold it down firmly in place and in proper operative relation to the distributor and other usual parts of the machine.

In removing the magazine it is necessary that its lower end should be lifted above the operative position and above the channeled face-plate F, into which the matrices are delivered, and that it should be sustained clear of the face-plate during its removal in a downward and forward direction. For this

purpose I provide on each side of the machine an arm or lever G, arranged to turn forward and backward on a horizontal pivot g on the main frame. These arms are movable laterally on their pivots to a limited extent and are each provided with an upturned end g' and also with a stud g^2 located on the inner side and midway of its length.

The form and arrangement of the parts is such that after the arms are turned rearward they may be moved inward laterally in such manner that the studs g^2 will engage in the notches b^4 of the upper magazine. If after being thus engaged the arms are turned upward, their studs will lift the forward end of the magazine and draw it positively forward away from the pressure-springs E until it is in such position that it may slide forward and downward over the arms until arrested by the studs b^6 encountering the ends of the arms, whereupon the magazine may be permitted to assume the pendent position, as shown in Fig. 2. In this position it will be sustained wholly by the arms, so that it may be conveniently grasped by the attendant for removal. When turned forward, the arms G bear upon and are sustained by the studs g^4 on the outer sides of the main frame, as shown in Figs. 1, 2, and 4.

In applying the magazine to the machine it is presented in an upright position between the arms G and the studs b^6 rested thereon, as shown in Fig. 2. The lower end is then turned upward and the magazine pushed bodily backward until the studs g^2 of the arms engage in the notches of the magazine, after which the arms are turned upward and backward, thereby forcing the upper end of the magazine positively under the confining devices E, and the forward end lowered to its operative position.

When the machine is provided with a series of magazines, as shown, they may be removed successively after first lifting them to the proper levels by raising the base-frame D, as before described.

The essence of my invention lies in combining with the magazine, removable in the direction shown, means for lifting it and for moving it positively in an endwise direction, and it will be understood by the skilled mechanic that the devices may be greatly modified in form and arrangement without changing the mode of action or passing beyond the scope of my invention.

In order to hold the arms G in engagement with the magazine and to prevent them from separating laterally therefrom, I propose to

provide each of the studs g with a projection g^5 , arranged to ride against the side face of the arm when the latter is turned from its normal position. This projection g^5 is arranged to pass laterally through a notch in the side of the arm to a circumferential groove g^6 therein, this arrangement permitting the arm to be drawn outward away from the magazine at the proper point.

Having described my invention, what I claim is—

1. In a linotype-machine, the combination of a main frame, a removable inclined magazine, and mechanism for positively lifting the end of the magazine and moving the same forward.

2. In combination with an inclined removable magazine, pivoted lifting-arms arranged to engage the magazine and move the same endwise to and from its operative position.

3. In a linotype-machine, a main frame, a removable magazine thereon, and confining means to hold the magazine down in place, in combination with mechanism for moving the magazine endwise into and out of engagement with the confining means.

4. In combination with a sustaining-frame and an inclined removable magazine thereon, swinging arms arranged to move the magazine endwise from its operative position, and also to suspend the same, substantially as described.

5. In combination with the main frame and the removable magazine thereon, the arms G, pivoted to swing forward and backward, and mounted to move laterally into and out of engagement with the magazine; whereby they are adapted to lift the magazine and also to move the same endwise.

6. In combination with the series of superposed magazines, independently-removable means for raising and lowering them bodily and means for moving the successive magazines endwise to and from their operative position.

7. In a linotype-machine, the combination of an inclined removable magazine and means adapted to raise the end of the magazine and move the same endwise, and thereafter suspend the magazine adjacent to the machine.

In testimony whereof I hereunto set my hand, this 20th day of August, 1906, in the presence of two attesting witnesses.

DAVID S. KENNEDY.

Witnesses:

J. R. ROGERS,

E. C. MORIARTY.