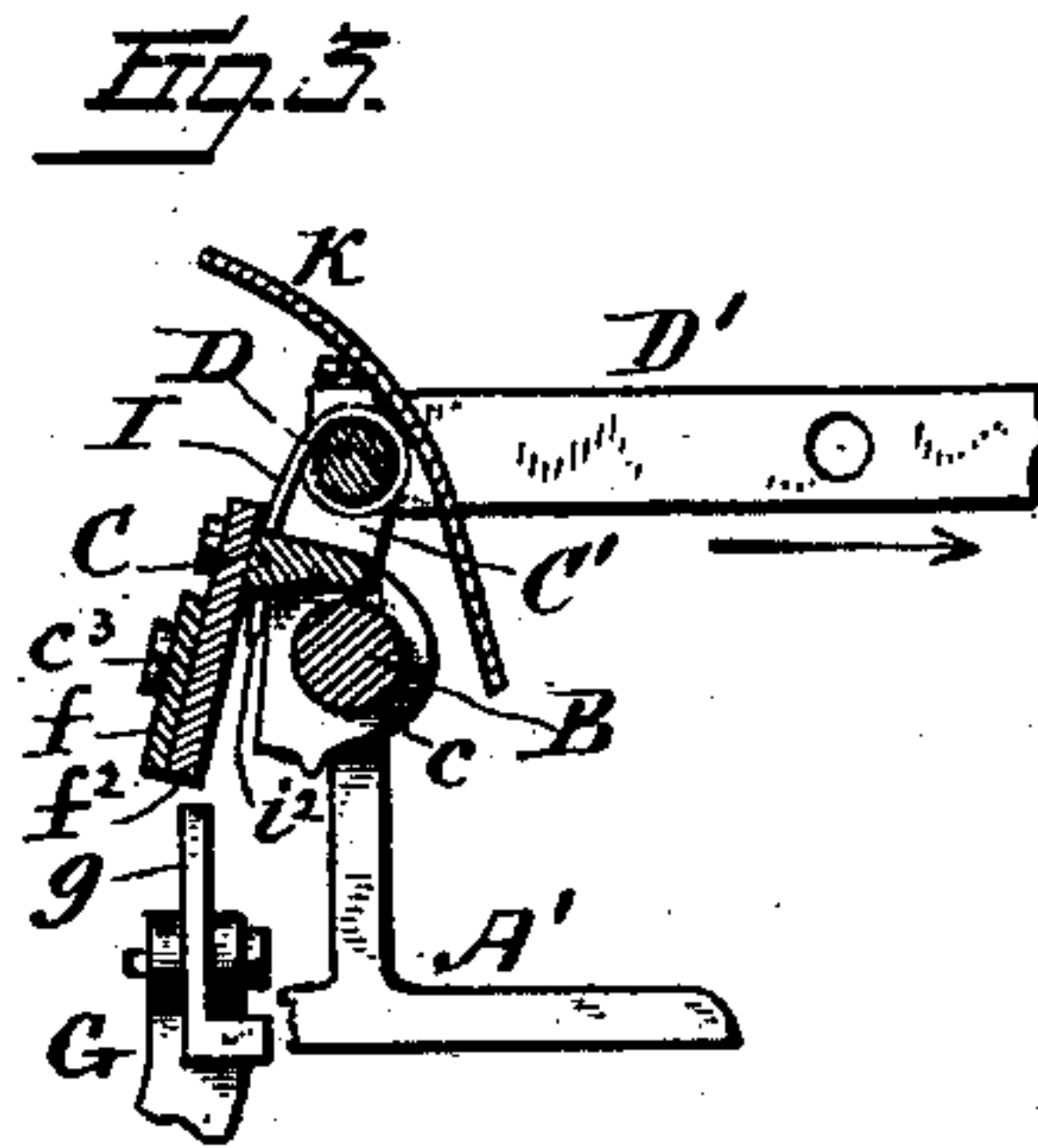
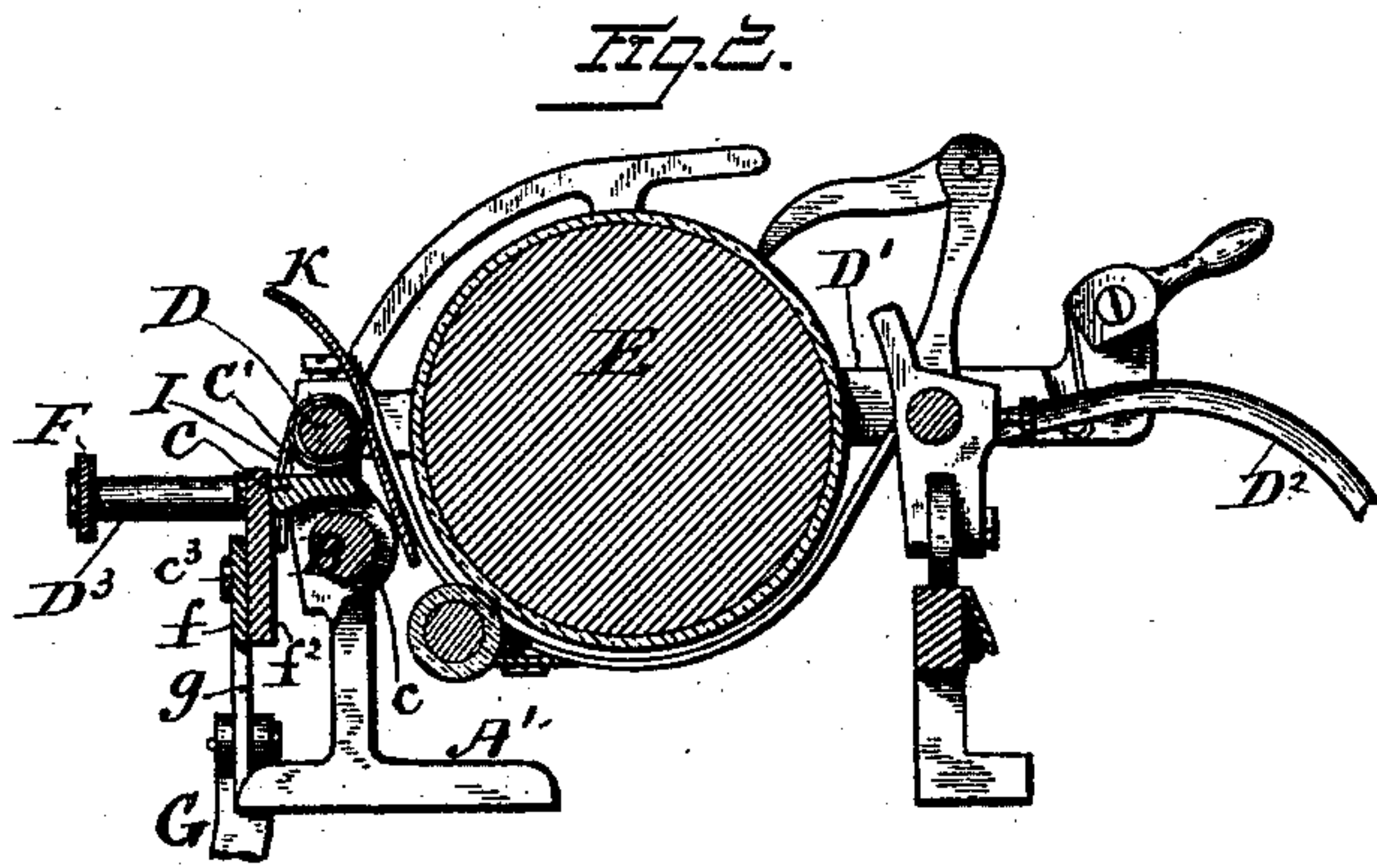
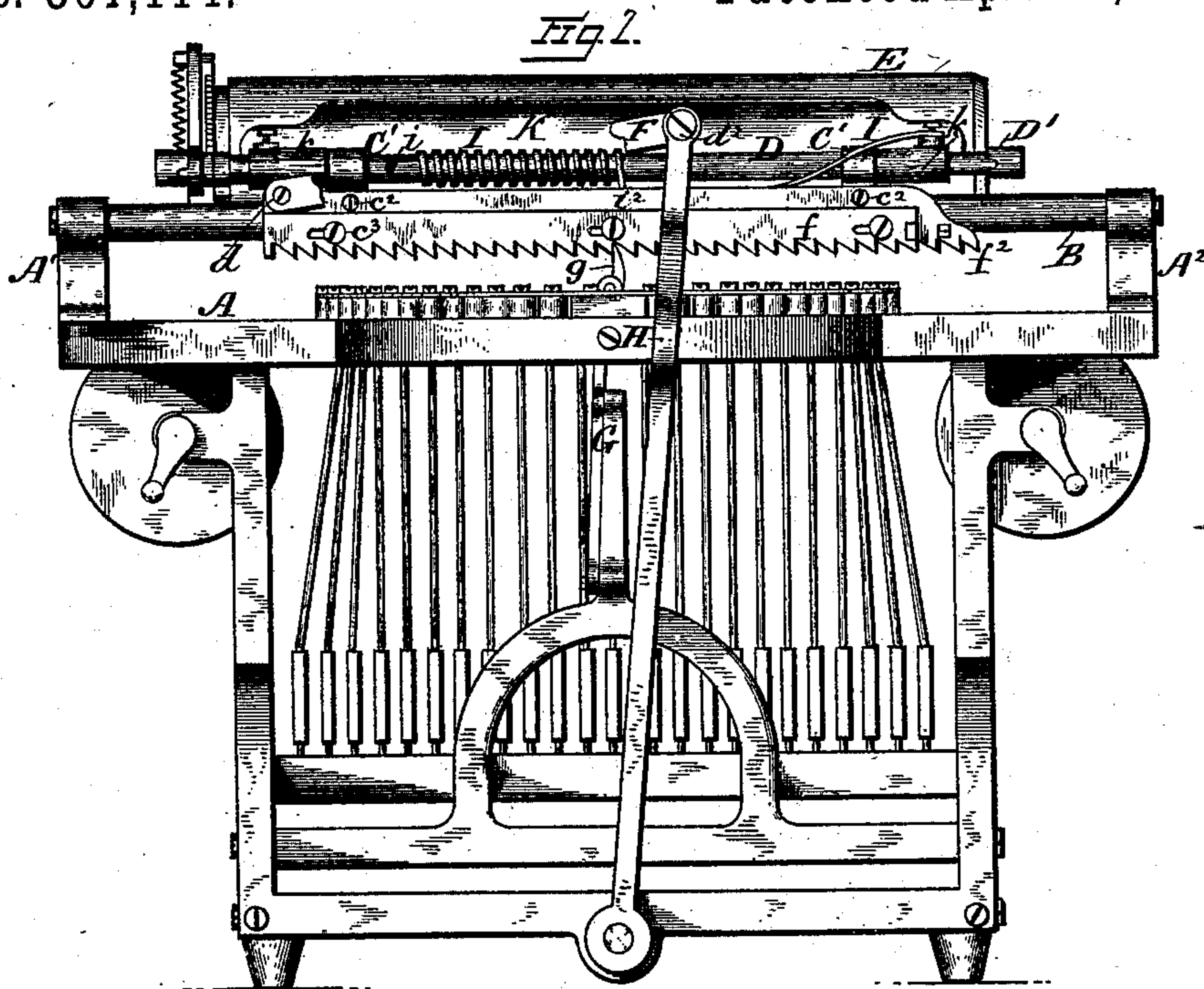


(Model.)

W. J. BARRON.
TYPE WRITING MACHINE.

No. 361,114.

Patented Apr. 12, 1887.



Witnesses:
E. J. Wurdeman,
W. E. Masson

Inventor:
Walter J. Barron,
by E. E. Masson
att'y.

UNITED STATES PATENT OFFICE.

WALTER J. BARRON, OF NEW YORK, N. Y., ASSIGNOR TO AMOS DENSMORE,
OF MEADVILLE, PA.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 361,114, dated April 12, 1887.

Application filed June 28, 1886. Serial No. 206,432. (Model.)

To all whom it may concern:

Be it known that I, WALTER J. BARRON, a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in type-writers, particularly in the machine known as the "caligraph;" and the objects of my invention are to increase the steadiness of the paper-carriage and prevent its vibration while operated under high speed, and at the same time to diminish the power required to move or the friction of said carriage against its supports by dispensing with one of the guide-rods lately used on said caligraph, and for which Letters Patent No. 330,198 were granted to me November 10, 1885; and also to provide means to release the carriage and permit the operator to slide it with one hand to the right or left the whole length of the guide-rod, although dispensing with the release-key; and also to permit the same line to be written over and over again on the same place. I accomplish these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a rear view of a type-writer provided with my improvement, the connecting-rod of the carriage being shown as broken away to exhibit the coiled spring upon the carriage-frame. Fig. 2 is a transverse vertical section of the carriage and its supporting-frame. Fig. 3 is a transverse section of the carriage-hinge, showing the carriage-racks disconnected from their pawl as when said carriage is pulled in the direction of the arrow thereon.

In the drawings, A represents the main frame of the type-writer, and A' and A² are standards secured upon the top of the frame adjoining its ends, to retain the rear guide-rod, B. Upon this rod is mounted the yoke C, having a perforated pendent lug, c, near each end, that can slide freely but with great steadiness thereon. The yoke is also provided with two lugs, C', projecting upward from points adjacent its two ends, and these lugs are perforated to re-

ceive the back rod, D, of the carriage D', carrying the platen E, said rod being rigidly connected to the carriage, and forming the hinge on which the carriage turns, while the guide-rod B forms the hinge on which the carriage can be rocked while being pulled toward the operator to disconnect its racks $f f^2$ from the spacing-pawl g , pivoted on the upper end of the spacing-lever G, and permit the carriage to be moved to the right or left, as the yoke C is loose upon the rods B and D. The stationary rack f^2 is secured, as usual, to the yoke C by the screws c^2 , while the spring-moved rack f is connected with the rack f^2 by screws c^3 , passing through slots in the rack f . To disconnect the rack from the pawl g , the operator, by means of the front handle, D², (shown broken away,) simply pulls the carriage toward him, as shown by the arrow in Fig. 3, until arrested by the binding of the joints $d d^2$ of the connecting-rod F against the ends of the arms D³ and H, said joints being made somewhat loose-fitting for that purpose. The carriage, being thus released, can be moved to the right or to the left without releasing the handle D²; but as soon as the handle is released the carriage is returned back to its normal position and its racks again in engagement with the pawl by means of a spring having one end secured to the carriage-frame and the opposite end bearing upon the yoke or its stationary rack. Upon the left-hand side of Fig. 1 this spring is shown at I, coiled upon the back-rod D, of the carriage, one end being secured to said rod at i , while the opposite end enters a notch in the yoke, or bears against it, at i^2 . On the right-hand side of Fig. 1 a flat spring, I, is used for the same purpose. One end is secured to one of the stationary collars k , fastening the paper-table K to the carriage-rod D, while the opposite end rests upon the top of the stationary rack; and this binding of the spacing-racks to the carriage takes up much of the shaking or vibration of the carriage and causes it to run steadily upon the single guide-rod B, and as there is less friction with a single rod than with two, the carriage can be propelled with less power, and the tension may be less upon the spring at the lower end of the arm H.

The retraction of the carriage by the spring

I may be arrested by the racks coming in contact with the pawl; but this would cause unnecessary friction of said pawl against the grooves at the bottom of each tooth. I obviate this friction by having the retraction arrested by the paper-table K (or other rigid device on the carriage) impinging against the lugs c of the yoke, and thus have the end of the pawl free from wear and friction.

10 Having now fully described my invention, I claim—

1. The combination of a spring and rod, D, with the carriage guide-rod and the letter-

spacing mechanism of a type-writing machine, substantially as and for the purpose described. 15

2. The combination of a spring, the carriage-frame connected therewith, its paper-table, the yoke, and letter-spacing mechanism of a type-writing machine, substantially as and for the purpose described. 20

In testimony whereof I affix my signature in presence of two witnesses.

WALTER J. BARRON.

Witnesses:

E. E. MASSON,

ISAAC S. SMITH.