

No. 842,680.

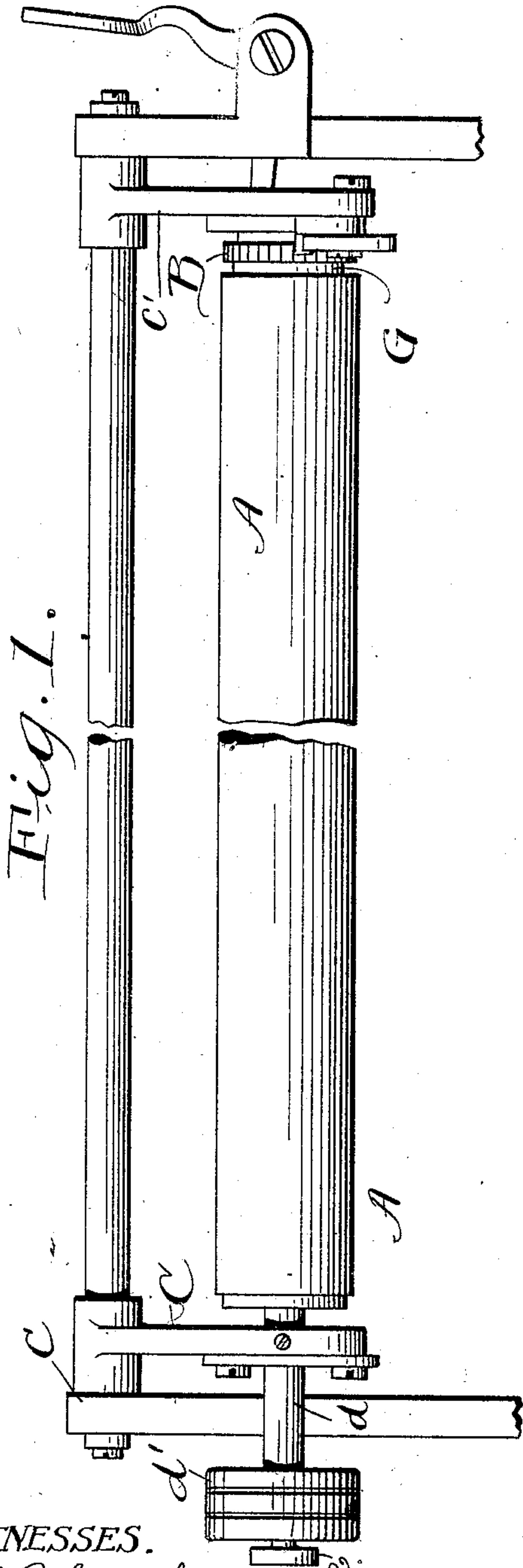
PATENTED JAN. 29, 1907.

J. MAYNARD.

PAPER FEEDING MECHANISM FOR TYPE WRITERS.

APPLICATION FILED JULY 13, 1906.

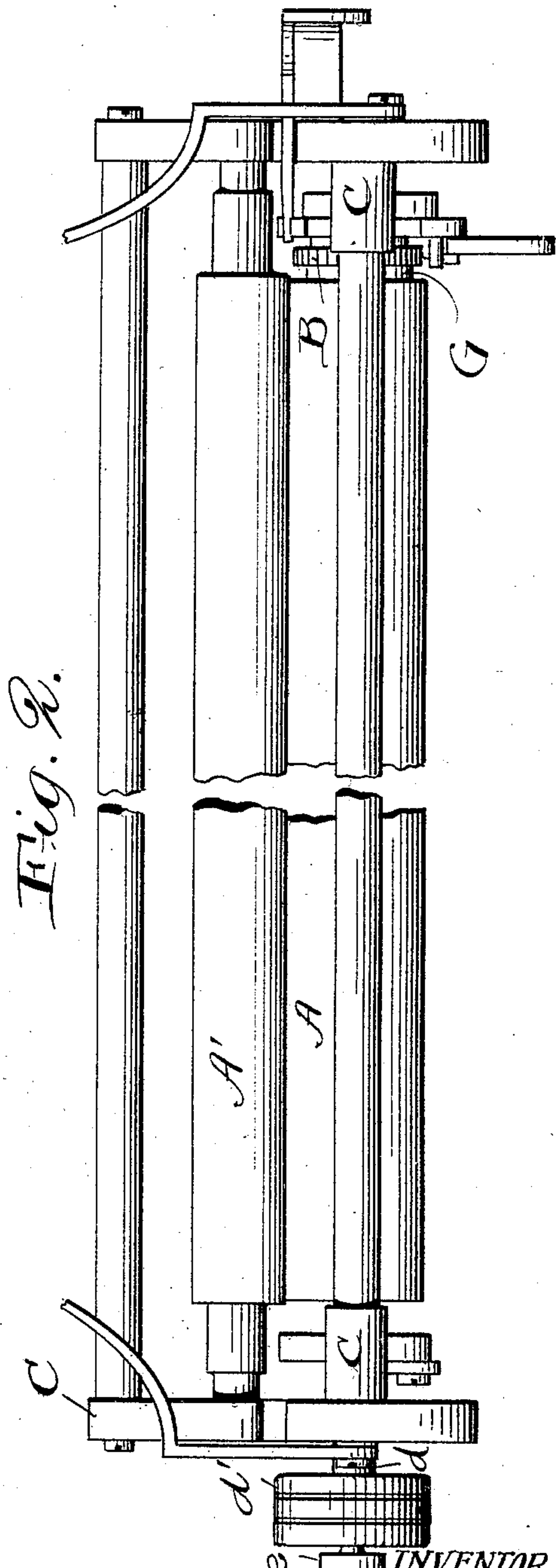
2 SHEETS—SHEET 1.



WITNESSES.

E. B. Gilchrist

H. B. Sullivan



INVENTOR

John Maynard
By *Thurston Woodward*
attorneys

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2 SHEETS—SHEET 2.

Fig. 3.

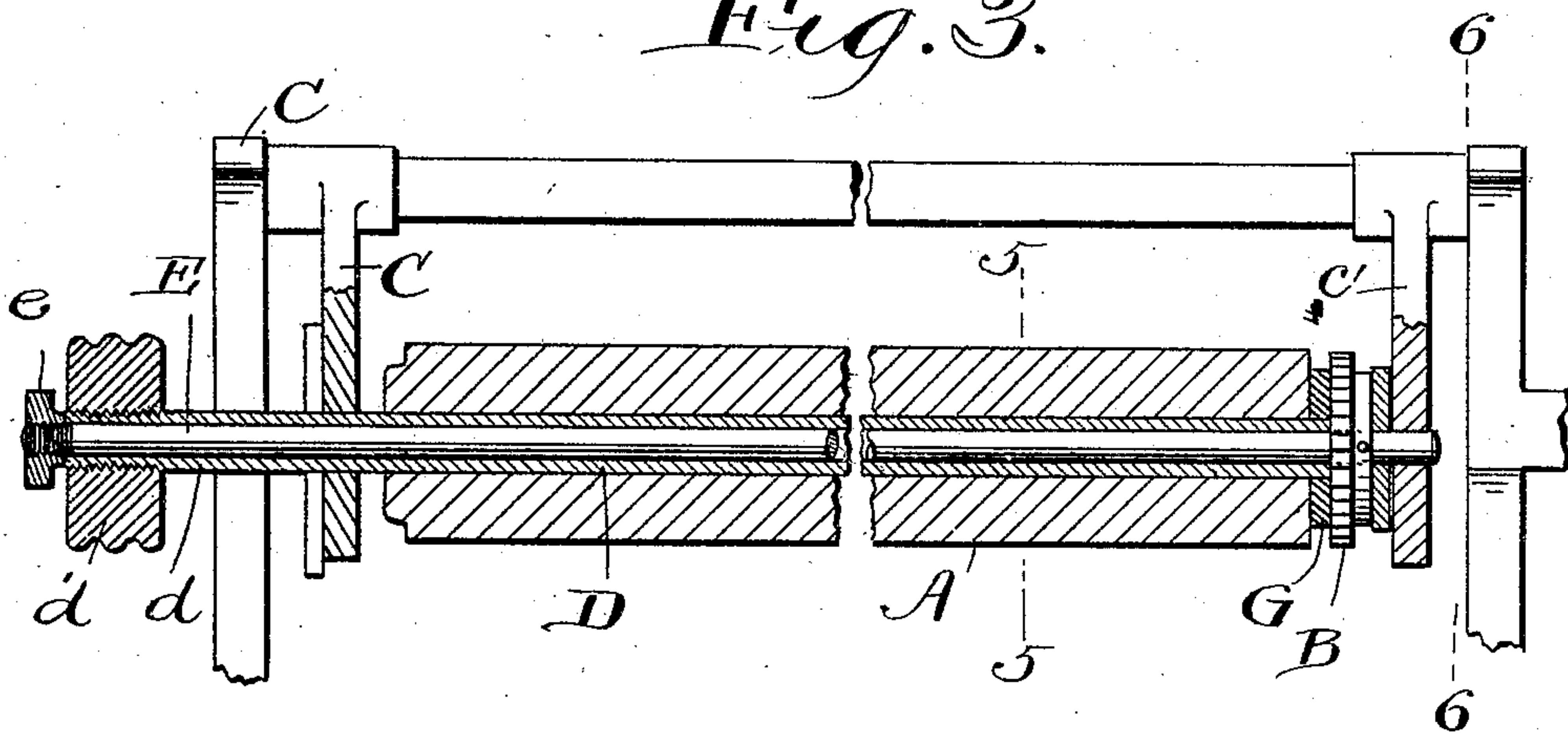


Fig. 4.

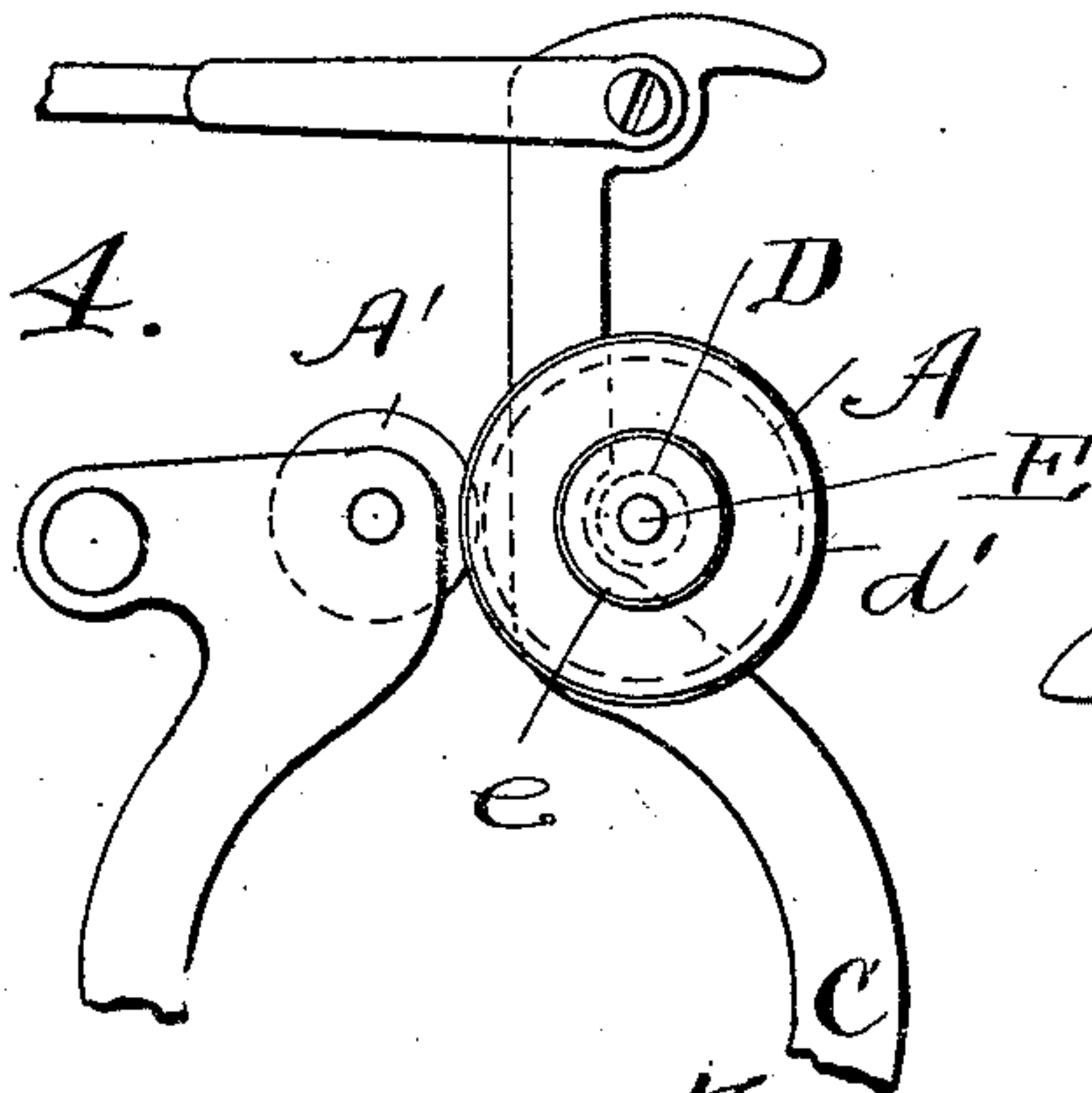


Fig. 6.

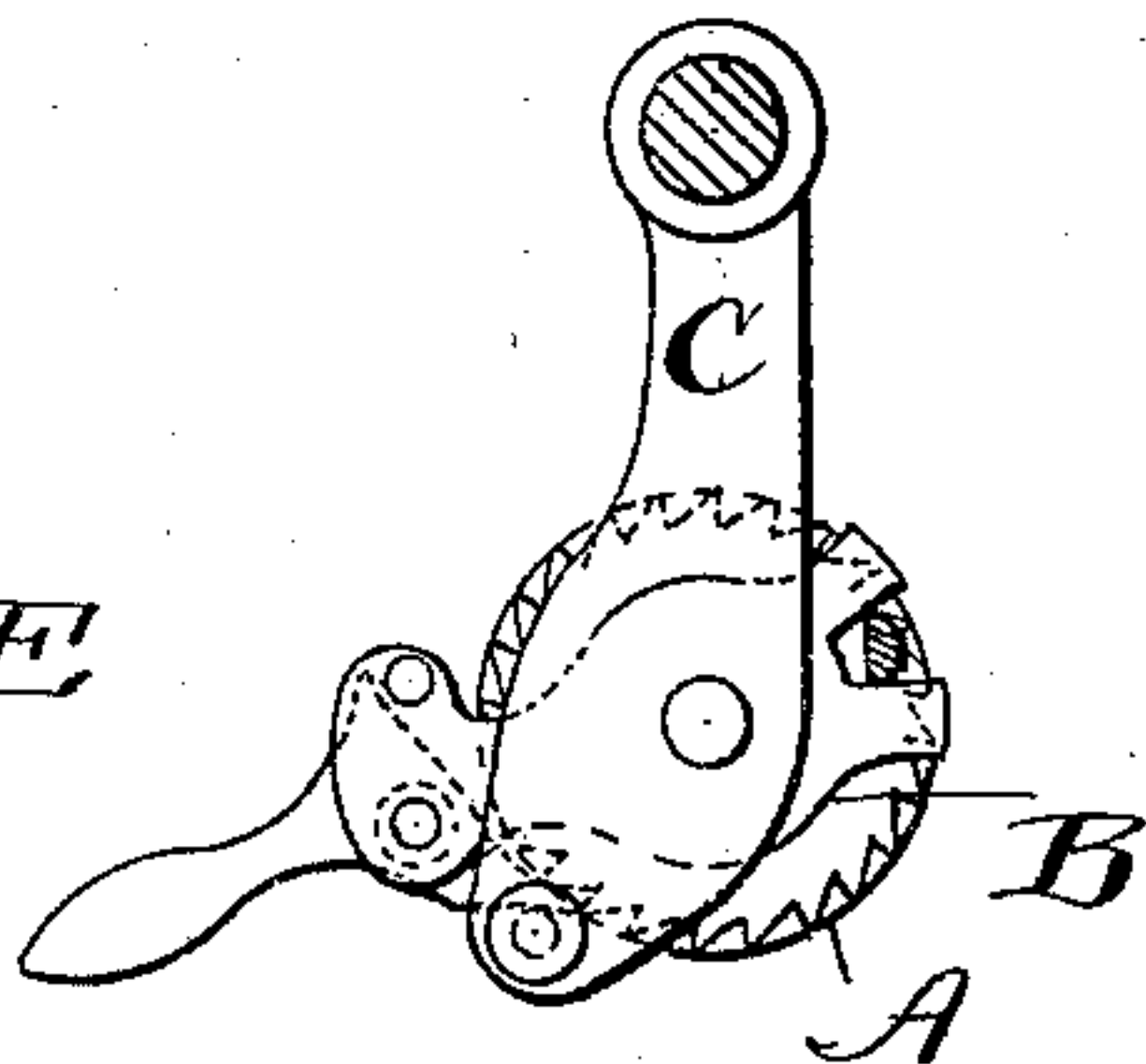


Fig. 7.

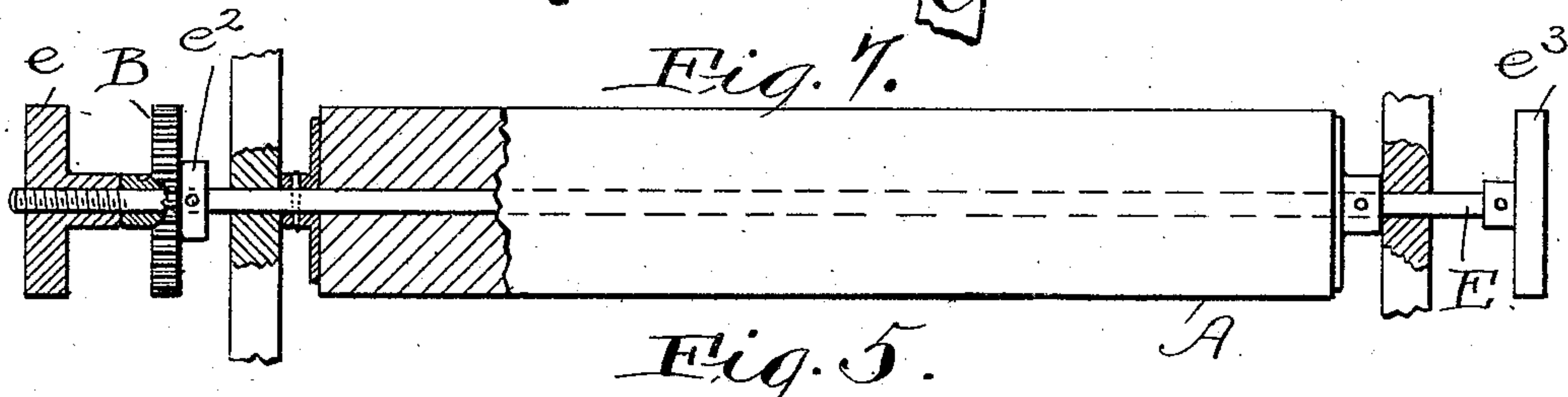
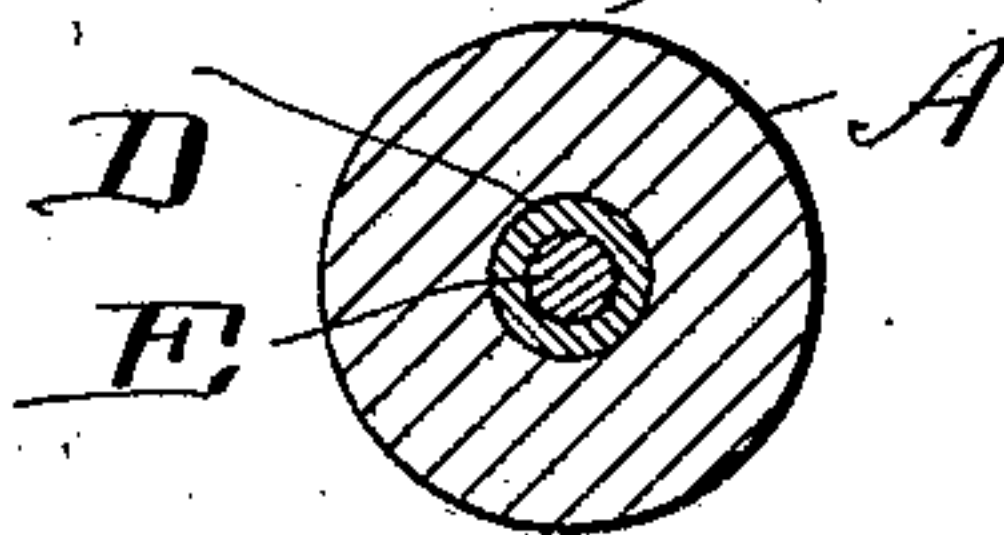


Fig. 5.



WITNESSES:

E. B. Gilchrist

H. B. Sullivan

INVENTOR.

John Maynard
By Thurston Woodward
attorneys

UNITED STATES PATENT OFFICE.

JOHN MAYNARD, OF CLEVELAND, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-THIRD TO R. W. EMERSON AND ONE-THIRD TO WILLIAM B. TREAT, OF CLEVELAND, OHIO.

PAPER-FEEDING MECHANISM FOR TYPE-WRITERS.

No. 842,680.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed July 13, 1906. Serial No. 326,072.

To all whom it may concern:

Be it known that I, JOHN MAYNARD, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Paper-Feeding Mechanism for Type-Writers, of which the following is a full, clear, and exact description.

The object of this invention is to enable the paper-feeding roll of a type-writer to be turned in either direction to move the paper backward or forward any required distance without so changing the relations between the roll and the mechanism provided for imparting the feed movements thereto that when the roll is next moved by said mechanism it will be moved either less or more than the regular feed distance.

The invention consists in the very simple construction and combination of parts shown in the drawings and hereinafter described and claimed.

In the drawings, Figure 1 is a rear elevation, and Fig. 2 is a plan view, of a type-writer feed-roll embodying the invention and the parts of a type-writer immediately associated therewith. Fig. 3 is a vertical longitudinal section of said roll and operating mechanism. Fig. 4 is an end view of the same from the left side of Figs. 1 and 2. Fig. 5 is a transverse sectional view of the feed-roll. Fig. 6 is a sectional view in the plane indicated by line 6 6 of Fig. 3, showing the feed-roll-operating mechanism; and Fig. 7 is a view, partly broken away, of a modified construction of the invention.

Referring to the parts by letters, A represents the driven feed-roll, and A' the idle feed-roll, of a type-writing machine. These rolls are both rotatably supported on parallel axes upon the framework C of the machine. When the machine is being used in the ordinary way, the feed-roll A and a concentric ratchet-wheel B are frictionally connected together, and the turning of the feed-roll is to be effected by the usual or any appropriate mechanism acting upon the ratchet-wheel. The feed-roll A is secured upon a concentric metallic tube D, which passes entirely through it and extends a considerable distance beyond the roll at one end thereof. At its other end this tube is preferably flush with the end of the roll. The projecting end *d* of

the tube is provided with a convenient knob *d'*, by which the feed-roll may be turned backward or forward when disconnected from the ratchet-wheel. Moreover, this projecting end *d* is rotatably mounted in a fixed member *c* of the machine-frame, and thereby the corresponding end of the roll is rotatably supported.

A cylindrical rod E passes entirely through and is rotatably fitted to the tube D. The ratchet-wheel B is rigidly secured to this rod adjacent to the end of the feed-roll A. Beyond this ratchet-wheel this cylindrical rod E is rotatably mounted in one of the fixed frame members *c'*. By so mounting the projecting end of rod E the corresponding end of the feed-roll is rotatably supported. The opposite end of the rod E is provided with means by which it may be drawn through tube D, with the result of clutching the roll and ratchet-wheel together. In the construction shown the projecting end of rod E is threaded. The nut *e* screws onto the same and bears against the end of tube D. A friction-washer G is preferably interposed between the ratchet-wheel and the adjacent end of the feed-roll. By turning up the nut the rod E is drawn through the feed-roll and the ratchet-wheel brought into frictional engagement with the end of the roll. *or*, rather, in the specific construction shown with the friction-washer G, which is thereby pushed against the end of the feed-roll. The roll and the ratchet-wheel are thus clutched together through the frictional engagement of these parts, so that the roll must turn with the ratchet; but when it is desired to turn the roll backward or forward to bring any part of the paper into the impression-line the operator loosens the nut *e*. As the result of this the operator may by taking hold of the knob *d'* turn the feed-roll without moving the ratchet-wheel, which is thereby permitted to remain in precisely the same position relative to its driving mechanism as if the feed-roll had not been turned.

In the embodiment of the invention shown in Fig. 7 the roll is fixed to shaft E, as is also a fixed collar *e'*. The ratchet-wheel B is loose upon the shaft, and the thumb-nut *e*, which screws onto the end of shaft E, bears against the hub of the ratchet B and moves it upon shaft E into frictional engagement

with collar e^2 . By loosening the nut e the shaft E, together with the feed-roll attached thereto, may be turned independently of the ratchet-wheel, the wheel e^3 being provided for that purpose.

Having described my invention, I claim—

1. In a type-writing machine, the combination of the rotatable feed-roll, a tube which extends axially through said roll and beyond one end thereof, which tube is fixed to said roll, a cylindrical rod passing through said tube, a ratchet-wheel fixed to said rod adjacent to one end of the feed-roll, and mechanism for drawing the rod endwise through the tube to frictionally clutch said ratchet and feed-roll together.

2. In a type-writing machine, the combination of the rotatable feed-roll, a tube which extends axially through said roll and beyond one end thereof, which tube is fixed to said roll, a cylindrical rod passing through said tube, a ratchet-wheel fixed to said rod adjacent to one end of the feed-roll, and a

clamping device screwed to the rod but engaging with the adjacent end of said tube. 25

3. In a type-writing machine, the combination of the rotatable feed-roll, a tube which extends axially through said roll and is fixed thereto and extends beyond one end of said roll, said projecting end being rotatably mounted in the machine-frame, a cylindrical rod which extends through said tube and beyond the feed-roll, said projecting end being rotatably mounted in the machine-frame, a ratchet wheel fixed to the projecting end of said rod adjacent to the feed-roll, and a device screwed to the other end of said rod in engagement with the adjacent end of said tube. 35

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 40

JOHN MAYNARD.

Witnesses:

E. L. THURSTON,

E. B. GILCHRIST.