No. 614,680. Patented Nov. 22, 1898.

F. S. WENDELKEN.

TYPE WRITING MACHINE.

(Application filed July 1, 1897.)

(No Model.) 4 Sheets—Sheet 1.

Fig. 1.

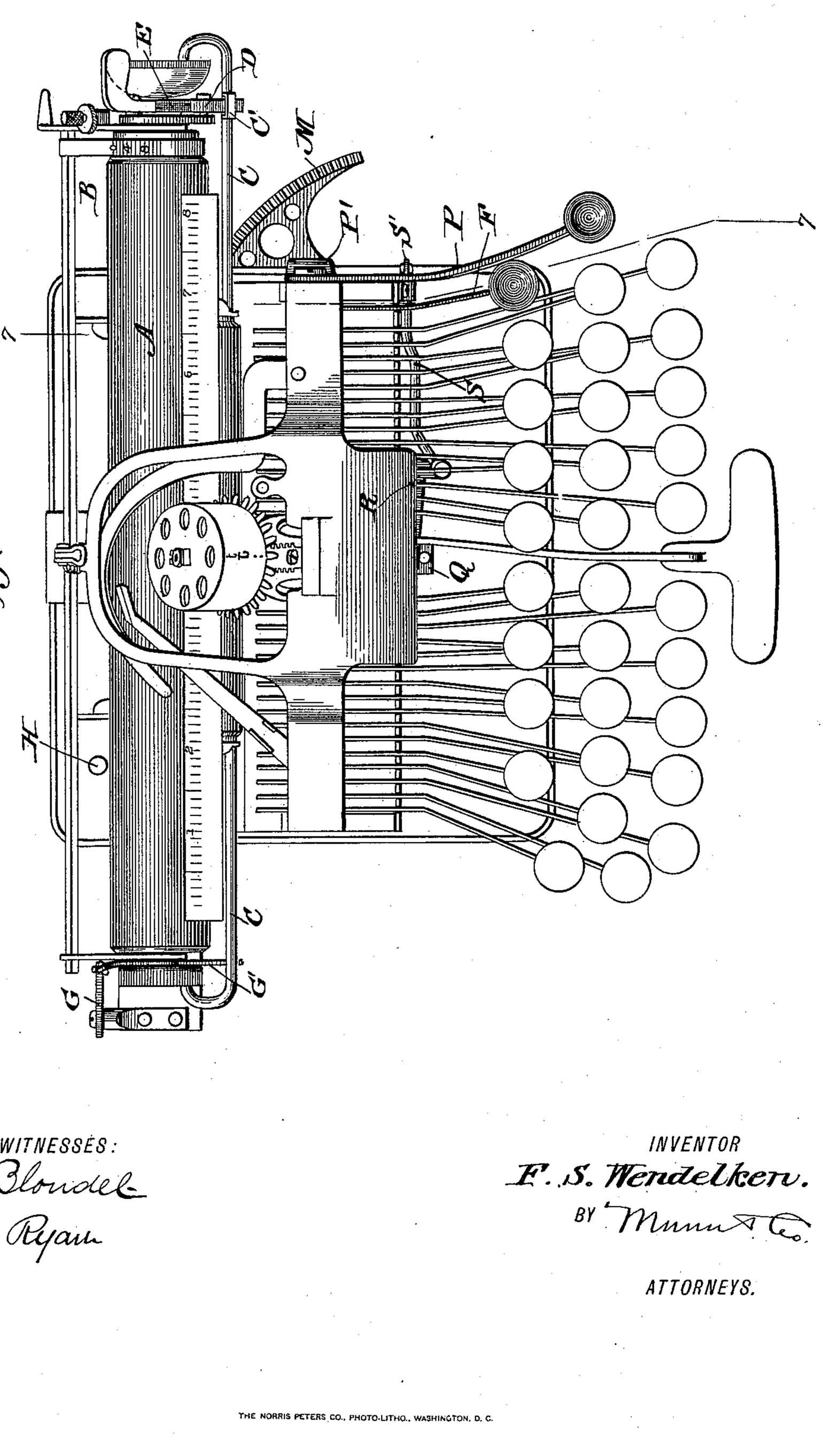

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Fig. 2.

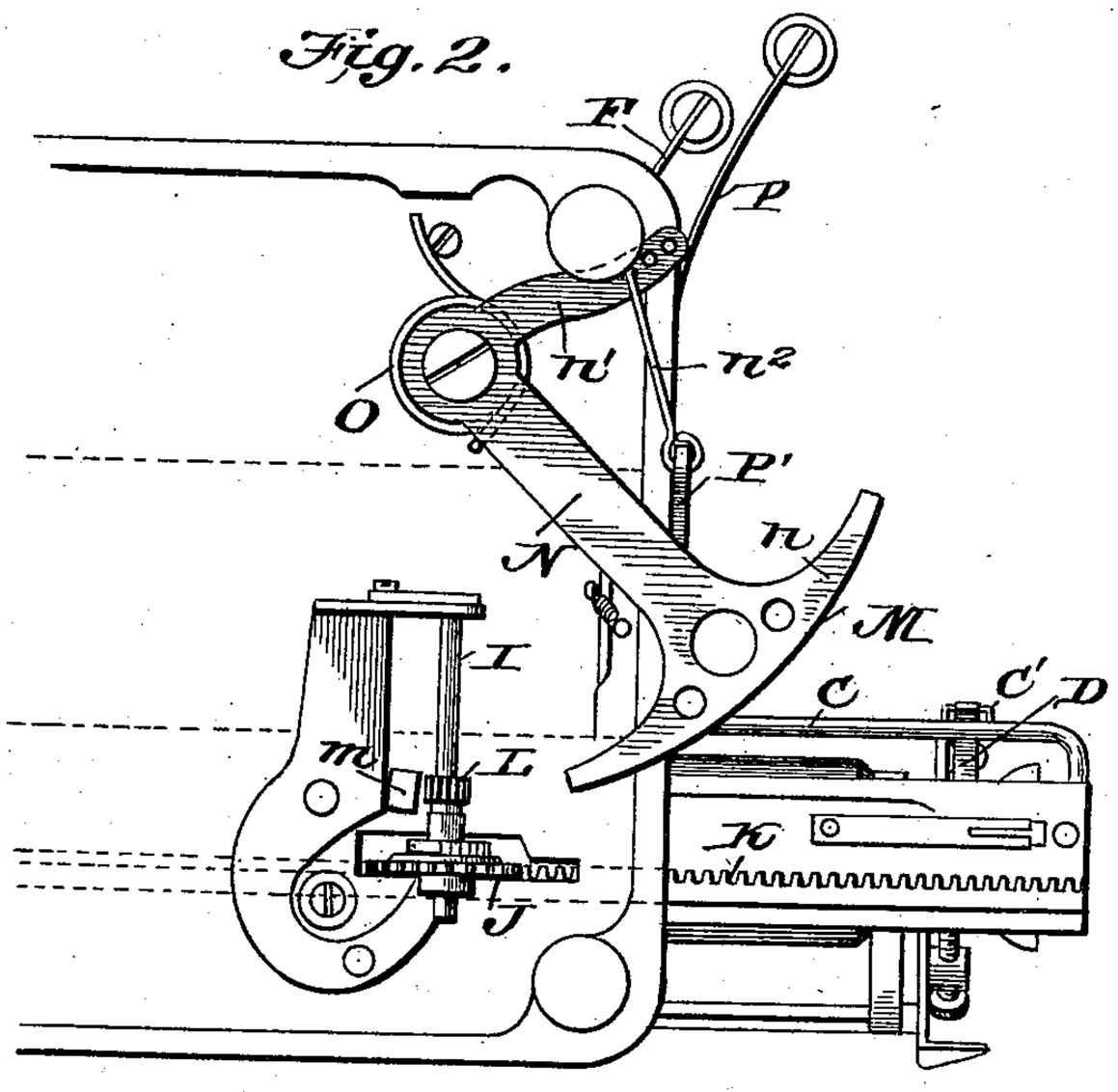
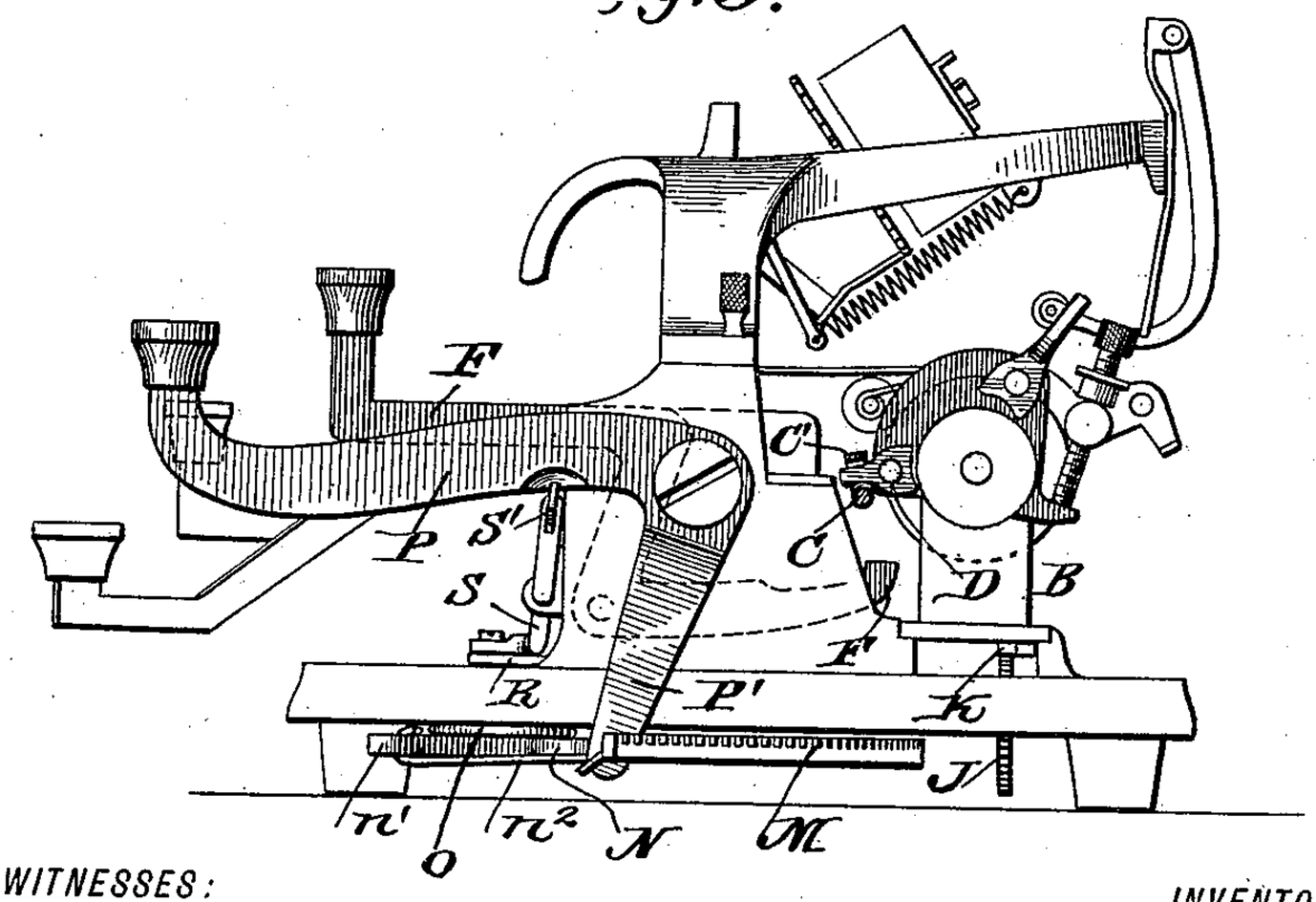


Fig. 3.



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(No Model.) 4 Sheets—Sheet 3.

Fig. 4.

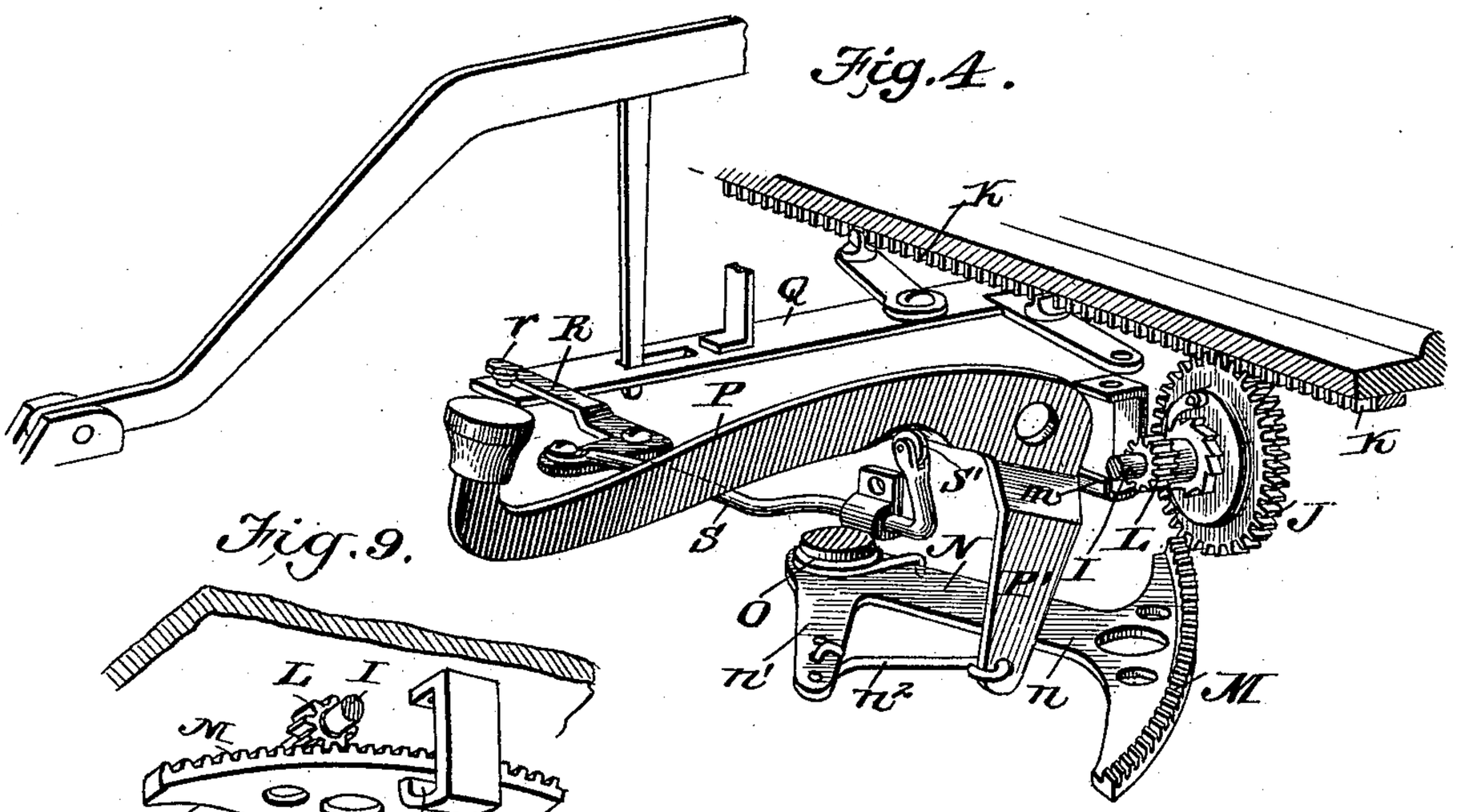

Fig. 9.

Fig. 5.

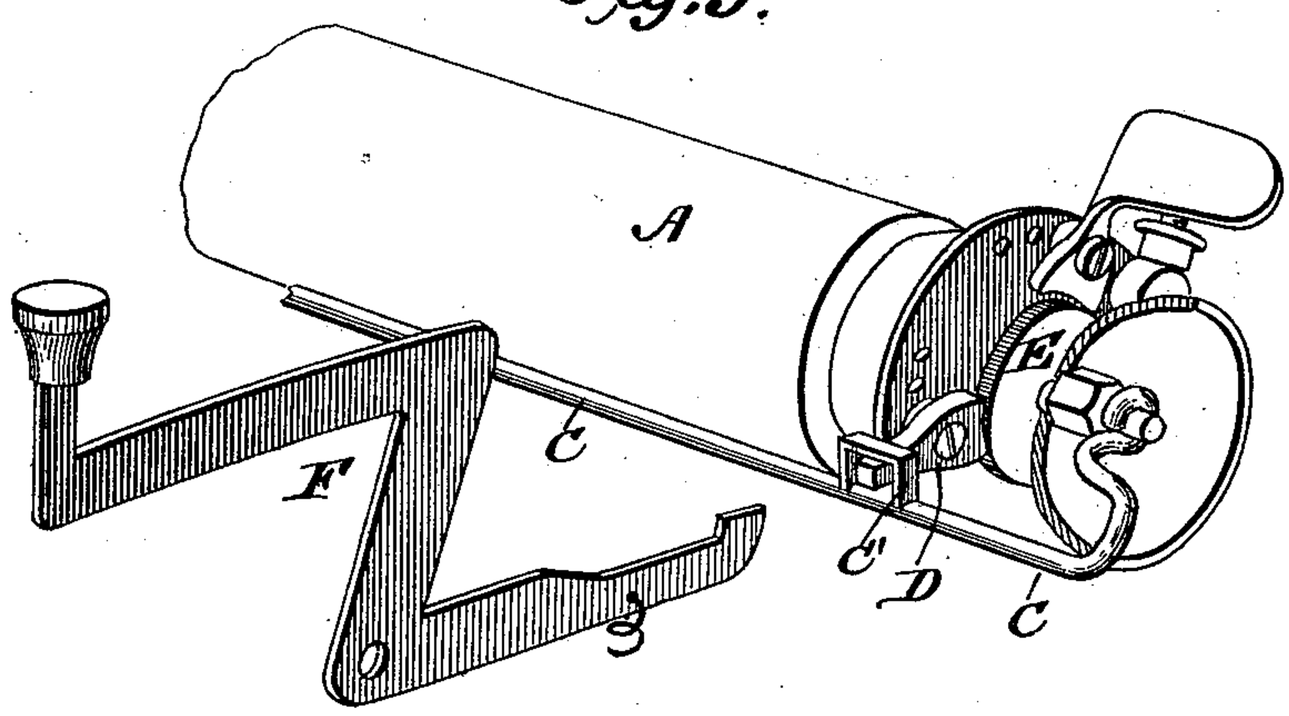

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Fig. 6.

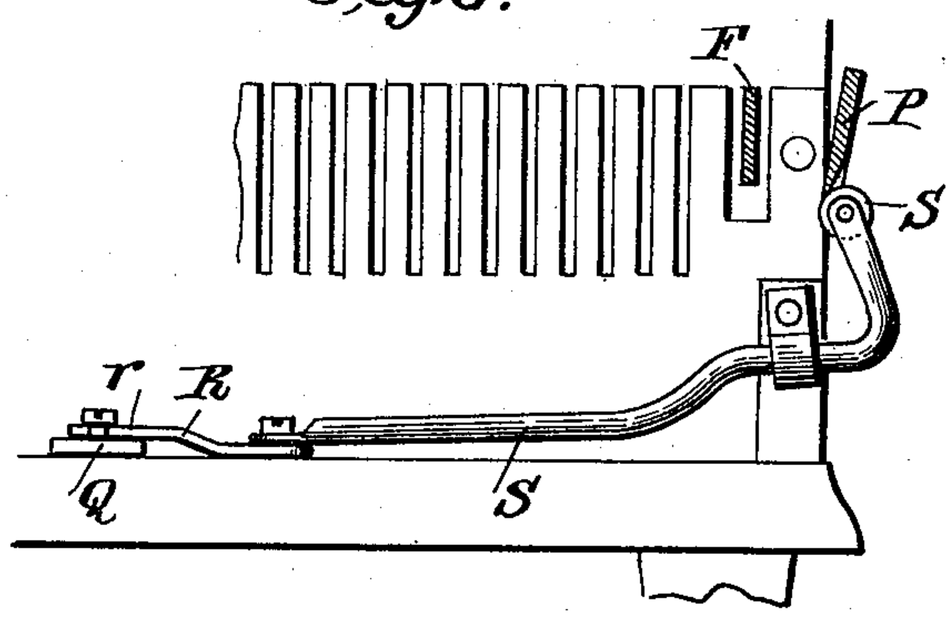


Fig. 7.

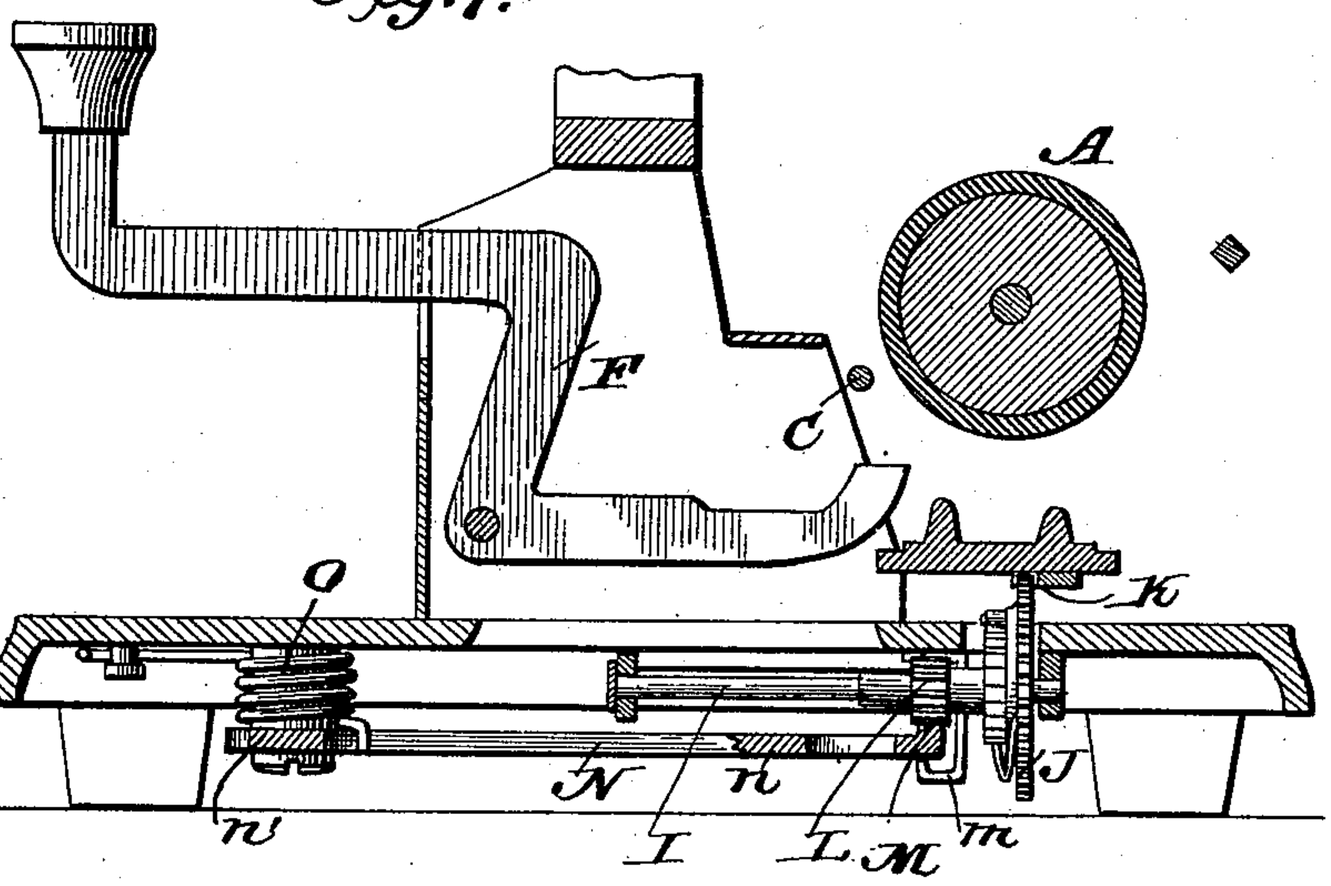
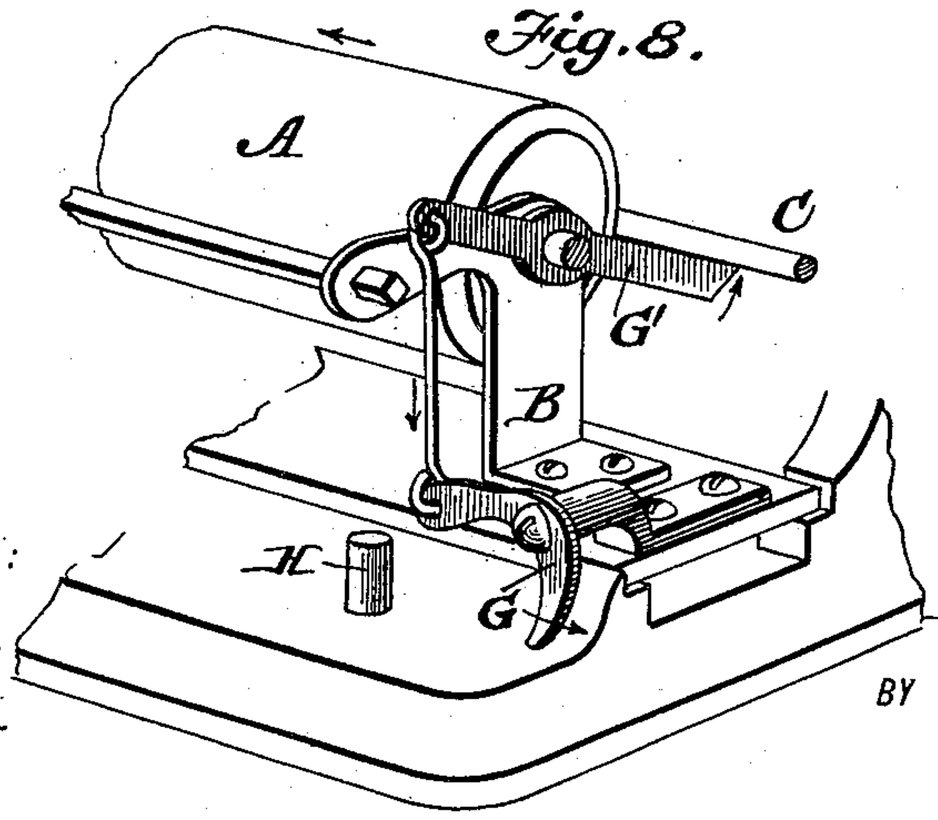


Fig. 8.



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UNITED STATES PATENT OFFICE.

FREDERICK S. WENDELKEN, OF DALLAS, TEXAS.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 614,680, dated November 22, 1898.

Application filed July 1, 1897. Serial No. 643,091. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK S. WENDELKEN, residing at Dallas, in the county of Dallas and State of Texas, have invented a new and useful Improvement in Type-Writing Machines, of which the following is a specification.

My invention is an improvement in type-writing machines seeking to provide means whereby the platen may be turned and the carriage returned to starting-point by depressing keys or key-levers; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a plan view of a Blickensderfer type-writer embodying my improvement. Fig. 2 is an inverted view of one end of a type-writer, showing the means of returning the carriage. Fig. 3 is an end view of the same. Fig. 4 is a detail perspective view of the returning mechanism. Fig. 5 is a detail perspective view showing the construction to turn the platen. Fig. 6 is a detail view of the bell-lever and slide-rod for releasing the carriage. Fig. 7 is a section on the line 7 7, Fig. 1. Fig. 8 is a detail perspective view showing the means for automatically turning the platen, and Fig. 9 is a detail view illustrating the guard-bracket for the segmental gear.

In the construction shown the invention is embodied in or applied to a "Blickensderfer" type-writer; but manifestly the invention may be embodied in other forms of machines by simple adaptations without departing from the spirit of my invention.

The platen A is supported to turn in the carriage B, and the bail-lever is journaled concentrically with the platen and extends alongside the same, as shown. A pawl D is suitably pivoted between its ends and is arranged at one end to engage the wheel E, fixed to the platen, and projects at its other end within a keeper C′ on the bail-lever, so the lifting of such bail-lever will operate the pawl to turn the platen. This bail-lever may be lifted by the key-lever F, which is pivoted between its ends and has its rear end bearing under the bail-lever and its front end extended in position to be depressed by the finger to lift the bail-lever and so turn the platen, as before described.

To automatically turn the platen when the carriage is returned to the starting-point, I provide on the carriage a bell-crank lever G, having one arm arranged to engage an abutment H on the frame and its other arm connected with one end of the lever G′, which is pivoted between its ends and arranged at its other end to bear beneath the bail-lever C in such manner as to lift said bail-lever when the bell-crank G is in engagement with the abutment H. By this construction it will be seen the platen is turned in a simple manner at the end of the return stroke or movement of the carriage.

In returning the carriage I provide a shaft I, having a gear-wheel J, which is meshed with the rack K of the carriage. This gear-wheel may preferably be clutched on the shaft, as shown in Fig. 4, so it will not be turned by the advance movement of the carriage and yet may operate to return the carriage, as presently described. I also fix on the shaft a pinion L in position to be meshed by the operating-gear M, a guard-bracket *m* being provided to hold the gear M in mesh with its pinion and prevent it from springing out of such mesh. Referring to Fig. 4, it should be understood the pinion L is fixed on the shaft I and has integral with it or fixed to it the ratchet-wheel, which is engaged by the pawl on the gear J, whereby the said gear is clutched on the shaft I, as before described. This gear M is preferably a segmental gear on the outer end of one arm *n* of a bell-crank lever N, such lever being normally pressed in one direction by the spring O. The arm *n*′ of lever N is connected by link n^2 with a drop-arm P′ on a key-lever P, so that as such key-lever is depressed it will operate the gear M to turn its pinion and through the gear meshing with the rack of the carriage return such carriage to its starting-point. As the key-lever P is released the spring O will return the gear M, the clutch of the pinion permitting such gear to return without operating the carriage. This is a simple and effective means of returning the carriage by the depression of a key in the keyboard.

In order that the key P may release the

pawl-carrying plate Q, which acts as a detent to the carriage, I provide a small bell-crank lever R, having one arm *r* engaged with the pawl-carrying plate and its other arm connected with one end of a slide-rod S, whose other end is upturned and is provided with a roller S′, and is engaged by the lever P as the latter is depressed in such manner as to draw the slide-rod S laterally and release the pawl-carrying plate.

The operation will be readily understood from the foregoing description. To simply turn the platen at any time, it is only necessary to depress the key-lever F. If it is desired to return the carriage, whether the same has been advanced to its full position or otherwise, this may be accomplished by depressing the key-lever P, which will return the carriage by the mechanism before described, and at the end of the return movement of said carriage the bell-crank lever G and the lever G′ will operate to lift the bail-lever C and so turn the platen to properly space the lines, as desired.

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

1. In a type-writer the combination of the platen, the bail-lever, the pawl operated by said bail-lever and arranged to turn the platen, a bell-crank lever pivoted between its ends to the carriage and arranged at one end to engage an abutment on the frame, a link connected with the other arm of said bell-crank lever and a connecting-lever pivoted between its ends to the carriage connected at one end with the link and arranged at its other end to operate the bail-lever substantially as described.

2. In a type-writer, the combination of the platen, having the wheel, the pawl engaged at one end with said pulley, the bail-lever having a keeper in which the other end of said pawl is loosely fitted and the key-lever for operating the bail-lever, substantially as described.

3. In a type-writer the combination of the carriage, the shaft geared therewith and having a pinion, a horizontally-operating lever having a rack-segment meshing with said pinion, a spring for actuating said lever in one direction and a key-lever by which it is actuated in the opposite direction substantially as described.

4. In a type-writer, the combination of the carriage, and its rack, the shaft having a gear-wheel meshed with the rack of said carriage and provided with a pinion, the double-armed lever pivoted at the juncture of its arms and having one arm provided with a gear arranged to mesh with the pinion of the shaft, and the key-lever connected with the other arm of said double-armed lever, substantially as described.

5. The improvement in type-writers herein described consisting of the frame, the carriage, the platen, means for turning the platen, a lever for operating said turning means, a bell-crank lever supported on the carriage and connected with aforesaid lever, an abutment on the frame for engagement by said bell-crank lever, a shaft journaled to the frame and having a gear meshed with the rack of the carriage a pinion clutched on said shaft, a double-armed lever having one arm, provided with a gear-segment meshing with the pinion of the shaft, the key-lever connected with the other arm of said double-armed lever, the slidable pawl-carrying plate, a bell-crank lever having one arm engaged with said pawl-carrying plate and a slide-rod connected at one end with the other arm of said lever and arranged at its other end for operation by said key-lever substantially as described.

6. In a type-writer the combination of the carriage, the shaft geared therewith and having a pinion, the double-armed lever having one arm provided with a gear-segment meshing with the pinion of the shaft, and the separate key-lever connected with the other arm of the double-armed lever substantially as described.

7. In a type-writer the combination of the carriage, a key-lever, mechanism by which said key-lever returns the carriage, a pawl-carrying plate, a slide-rod arranged for operation by the key-lever and a lever between said slide-rod and the pawl-carrying plate substantially as described.

FREDERICK S. WENDELKEN.

Witnesses:
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J. H. SWOPE.