H. GLAESER.

TYPE WRITING MACHINE.

APPLICATION FILED MAR. 19, 1910.

974,958. Patented Nov. 8, 1910.

Fig. 1.

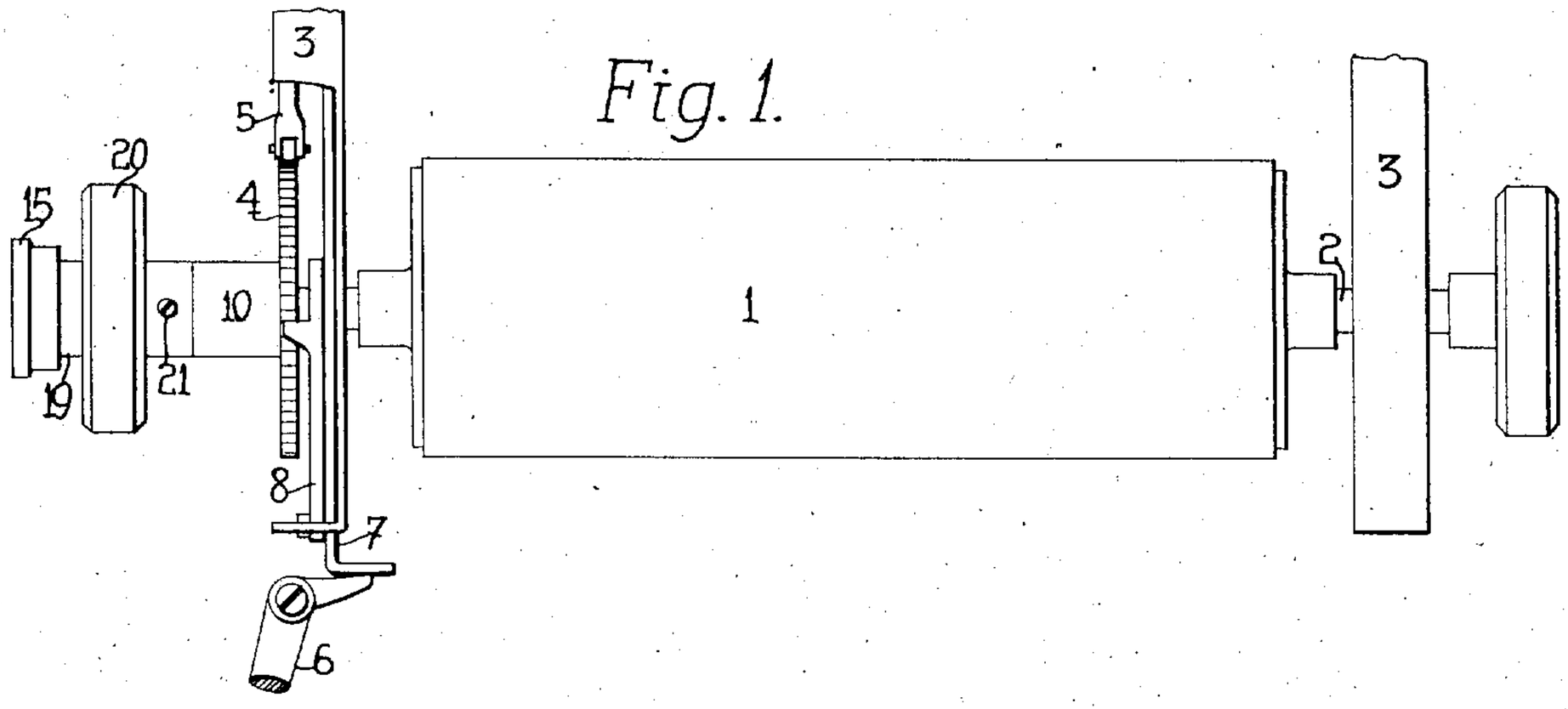


Fig. 2.

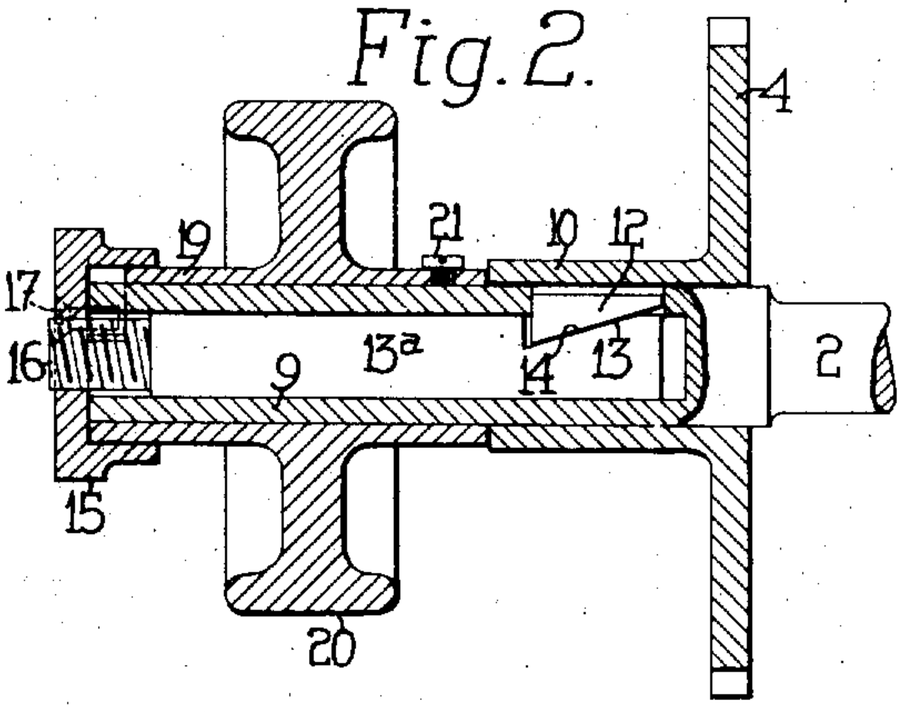
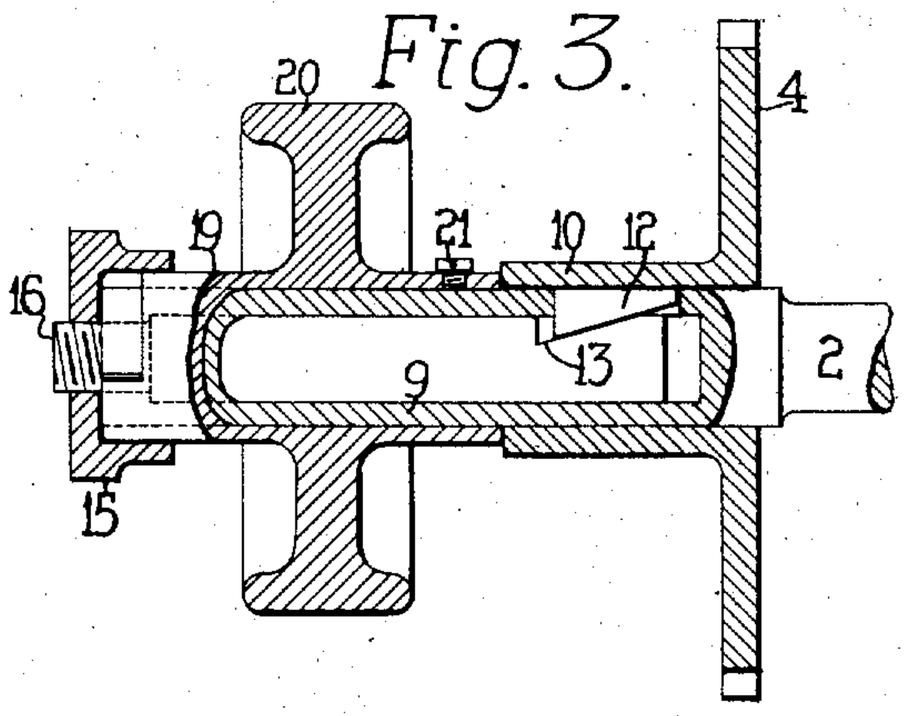


Fig. 3.



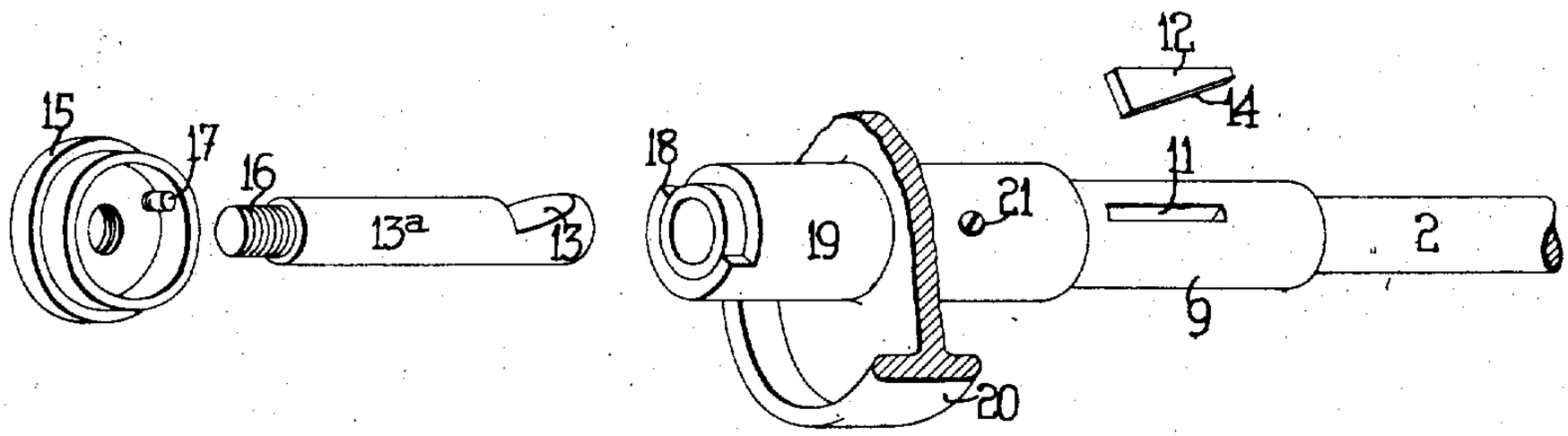


Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

HENRY GLAESER, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO UNDERWOOD TYPE-WRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

974,958. Specification of Letters Patent. Patented Nov. 8, 1910.

Application filed March 19, 1910. Serial No. 550,449.

To all whom it may concern:

Be it known that I, HENRY GLAESER, a citizen of the United States, residing in Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to devices for releasing the platens from the control of the line-space wheels in typewriting machines.

The main object of the invention is to provide a simple, compact, easily operated, inexpensive and readily applicable device of this character.

In the preferred form of the invention, a radially movable dog is cammed forcibly against the inner periphery of the hub of the line-space wheel, for binding the latter to the platen axle; the operation of the dog being effected by means of a cam carried upon the inner end of a sliding stem, which is inserted within the enlarged end of the platen axle; a nut being threaded upon the outer end of said stem to bear against the end of the platen axle, and thereby effect the desired movement of the stem.

A finger-wheel for turning the platen is preferably fixed upon the platen axle between the line-space wheel and said nut. Regulation of the throw of the stem is secured by suitable devices.

In the accompanying drawings, Figure 1 is a plan view of the platen frame of an Underwood typewriting machine, equipped with my invention. Fig. 2 is a detail sectional view, showing the clutch released to disconnect the platen and line-space wheel. Fig. 3 is a similar view, showing the clutch connecting the platen and line-space wheel. Fig. 4 is a perspective view of the component parts disassembled.

The usual platen 1 is secured to an axle 2 journaled in the ends 3, 3 of a platen frame. A toothed line-space wheel 4 engaged by a spring detent 5, is operated by a lever 6 through a slide 7 and pawl 8, to effect the line-spacing of the platen.

One end of the axle is provided with a hollow cylindrical head 9 passing loosely through the line-space wheel, which may be supported thereon by a hub 10.

To lock or clutch the platen to the line-space wheel, a clutch member in the form of a dog 12, is loosely fitted in a slot 11, to move into and out of binding or clutching engagement with the hub or sleeve 10 of the line-space wheel. Said slot is so narrow as to receive snugly the dog 12, to prevent relative sidewise movement, (circumferentially of the head 9) between the dog and the head, and hence between the axle and line-space wheel.

The dog or clutch 12 is caused to bite the bore of the hub or sleeve of the line-space wheel by a clutch operator in the form of a stem 13ª, having at its inner end a cam 13, within the hollow enlarged end or head 9 of the axle. The dog preferably has a cam face 14 co-acting with the cam face 13 of the clutch operator, movement of which latter to the left endwise or longitudinally of the platen axle, operates the dog to lock the line-space wheel to the platen; movement of the clutch operator to the right, operating to release the platen from the line-space wheel.

The cam 13 is controlled by a finger-piece 15, in the form of a nut or cap threaded on a nipple 16 projecting from the stem 13ª connected to the clutch-operating cam 13. Said nut or finger-piece bears against the end of the axle, and causes the cam member to force the dog outwardly and bind forcibly against the inner face of the hub 10 of the line-space wheel. The frictional engagement of the finger-piece with the axle, against which it is drawn by the threads, enables said finger-piece to serve as a lock-nut to hold the parts firmly connected, as in Fig. 3.

To release the line-space wheel, it is only necessary to turn the finger-piece in the opposite direction.

To prevent the finger-piece 15 from being turned completely off from the nipple 16, a stop 17 is threaded into said finger-piece, to engage a shoulder or stop 18 formed on the end of the hub 19 of the hand-wheel 20, by which the platen is rotated.

The turning of the finger-piece on the nipple 16 to lock the platen and line-space wheel together, is generally arrested by the forcible engagement of the dog with the inner face of the hub 10, of the line-space wheel; and such turning movement is preferably less than a complete revolution, the biting engagement and release of the line-space wheel by the dog, requiring but a slight shifting of the cam face 13.

The hub 19 is preferably adjustable around

the head 9, to regulate the movement of 13 and hence the strength of the wedging action of the dog against the space-wheel hub. The rotative adjustment of said hub 19 toward the right, enables the finger-piece 15 by turning farther onto the threaded nipple 16, to draw or advance the cam 13 farther toward the left, to urge the dog more forcibly against the inner face of the hub 10. A slight rotation of the finger-piece away from the shoulder 18 is sufficient to set the dog firmly against the line-space wheel.

For coarse adjustments, the stop 17 may be removed from the cap or finger-piece 15, and the latter turned farther on or off the threaded nipple 16 of the cam, to increase or decrease the effectiveness of the cam action, after which the stop is replaced.

It will be observed that the dog 12 operates as a key in the slot 11 to prevent relative turning of the line-space wheel and platen, when binding against the inner face of the hub 10 of the line-space wheel, and to admit of their relative rotation when desired.

It will also be noticed that the employment of springs or other resilient devices has been avoided, and that but few parts are used, thereby reducing their liability to get out of order.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. In a typewriting machine, the combination with a platen fixed on an axle, a line-space wheel relative to which the platen turns, of a dog to releasably connect the platen and line-space wheel, a clutch operator in contact with the dog, a finger-piece threaded to the clutch operator and engaging a stationary part, to control the dog and a stop adjustable about the axle, to arrest the rotation of the finger-piece.

2. In a typewriting machine, the combination with an axle having a platen fixed thereto, a line-space wheel relative to which the platen turns, of a dog to bite upon the hub of the line-space wheel, a clutch operator to effect the engagement and disengagement of the dog and line-space wheel, a hand-wheel adjustable on the axle and having a hub, a finger-piece threaded on the clutch operator and having a stop, to be arrested by a shoulder on the hub of the wheel to prevent the disengagement of the finger-piece and clutch operator.

3. In a typewriting machine, the combination with an axle having a platen fixed thereto, a line-space wheel relative to which the platen turns, of a dog to bite upon the hub of the line-space wheel, a clutch operator to effect the engagement and disengagement of the dog and line-space wheel, a hand-wheel having a hub, a finger-piece threaded on the clutch operator and having a stop, to be arrested by a shoulder on the hub of the wheel to prevent the disengagement of the finger-piece and clutch operator.

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