

L. NEY.
TYPE WRITING MACHINE.
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989,922.

Patented Apr. 18, 1911.

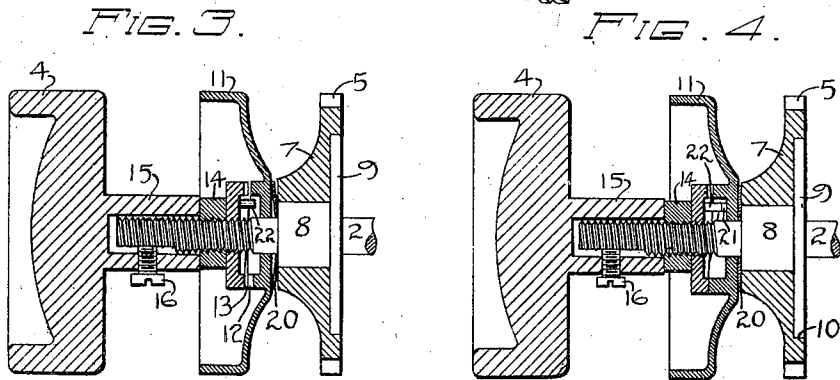
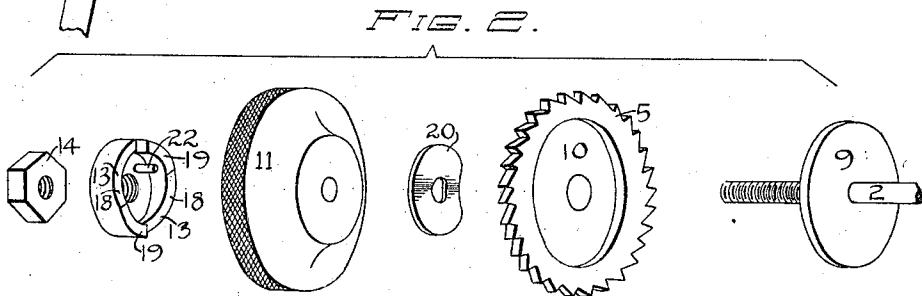
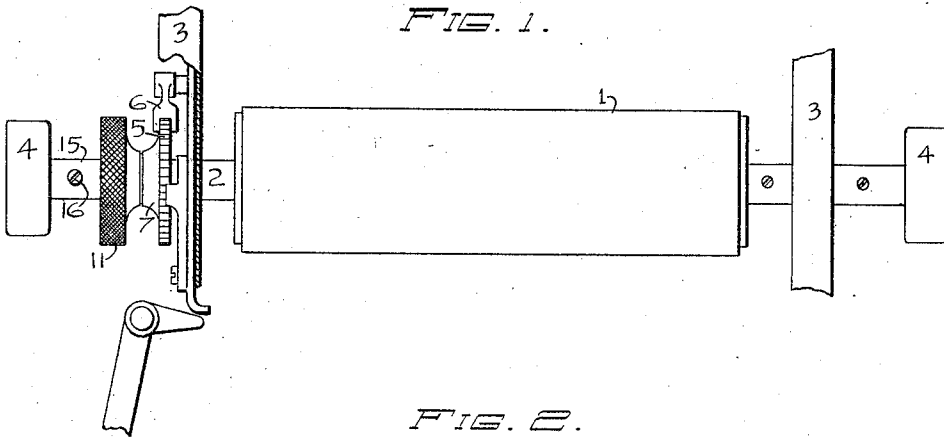
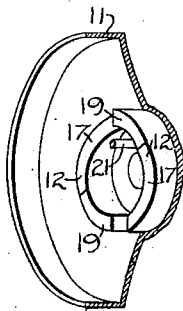


FIG. 5.



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LOUIS NEY, OF HARTFORD, CONNECTICUT, ASSIGNOR TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

989,922.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS NEY, a citizen of the United States, residing in Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to devices for releasably connecting the platen to the line space wheel of a type-writing machine, to permit the platen to be rotated independently of the line space wheel.

The principal object of this invention is to provide, at a low cost, a simple and durable device of this character readily applicable to existing machines.

The clamping movement is given to the line-space wheel by means of a finger wheel loosely mounted on the platen axle, and provided with means whereby it is cammed along the axle against the line-space wheel. An adjustable device is provided to vary the clamping pressure on the line-space wheel.

In the accompanying drawings, Figure 1 is a view of the platen and platen frame of an Underwood front strike writing machine, with the present improvements applied thereto. Fig. 2 shows perspective views of the several parts of the platen-releasing mechanism. Fig. 3 is a sectional view showing the platen axle released from the line-space wheel. Fig. 4 is a similar view showing the platen axle clamped to the line-space wheel. Fig. 5 is a fragmentary perspective view of a finger wheel, showing its cam.

The usual platen 1 is fixed on an axle 2 journaled in a platen frame 3, said axle 2 having fixed upon its ends the usual hand wheels 4 for rotating the platen. A line space wheel 5, usually engaged by a spring detent 6, is provided with a hub 7, whereby it is loosely mounted on a boss 8 fixed on the axle 2, the inner end of said boss being formed with a flange 9, fitting in an annular recess 10 in the line-space wheel 5, and against which the line-space wheel may be clamped. A finger wheel 11 is loosely mounted on the axle 2, and provided on its outer cheek with a face or helical cam 12, to engage a corresponding cam 13 secured on the axle 2. When the finger wheel is revolved, the cam 12 travels upon the cam 13, with a tendency to force the cam 12 along the axle toward

the flange or head 9, so as to clamp the line-space wheel against said head. The cam 12 may be in the form of an annulus formed on wheel 11 and having its edge beveled at diametrically opposite portions, as at 17, to form a two-part cam. The cam 13 may be correspondingly formed, as at 18. The cam 13 is formed on the face or cheek of a collar which is threaded onto the platen axle, to be adjustable therealong to vary the clamping pressure on the line-space wheel, to compensate for wear or for irregularities of manufacture. A nut 14 locks the cam where adjusted.

After slackening the lock nut 14, collar or cam 13 may be set where required, and then the nut may be tightened up. A collar 15, slipped on the end of the axle, preferably in the form of a hub of the hand wheel 4, is adjustably secured onto the axle 2, by a set screw 16, and abuts against the nut 14, as shown at Figs. 3 and 4, to lock the nut and the cam 13 against accidental displacement toward the left. Flats or dwells 19 are provided on the cams 12 and 13, to render the cams incapable of working the wheel 11 loose or of unlocking the platen. A spring washer 20 may be mounted on the axle 2, between the finger wheel 11 and the line-space wheel 5, to prevent rattling of wheel 11 when released. A stop 21 on the cam 12 engages a stop 22 on the cam 13, to limit the movement of the finger wheel 11.

Having thus described my invention, I claim:

1. In a typewriting machine, the combination with a platen and an axle having a shoulder or collar, of a line-space wheel loose on said axle, a finger-wheel revoluble relatively to said axle and formed with a cam surface which engages a part fixed on the platen axle, to clamp the line-space wheel against said shoulder, means being provided for limiting the rotation of said finger wheel; and means for effecting fine adjustment facewise between said cam and said fixed part.

2. In a typewriting machine, the combination with a platen, an axle having a shoulder or collar, a line-space wheel loose on said axle, and a finger wheel also loose on said axle, of a cam-collar on the axle, its cam face engaging a part on the finger wheel to enable a turning movement of the latter to clamp the line-space wheel to the shoulder;

said cam-collar adjustable along the axle, and means to secure the collar where adjusted.

3. In a typewriting machine, the combination with a platen, an axle having a shoulder, a line-space wheel and finger wheel both loose on said axle, and an adjustable cam collar threaded on said axle to engage a part on the finger wheel, of a nut to bind said collar on the axle, and a sleeve to lock the nut.

4. In a typewriting machine, the combination with a platen, and an axle having a shoulder, of a cam upon said axle, a line-space wheel and finger-wheel both loose upon said axle, and a part upon the finger wheel to engage the cam to enable a turning movement of the finger-wheel to clamp the line-space wheel against said shoulder, said cam provided with a flat or dwell to detain the finger-wheel in the platen locking position.

5. In a typewriting machine, the combination with a platen, and an axle having a shoulder, of a cam upon said axle, a line-space wheel and finger-wheel both loose upon said axle, a part upon the finger wheel to engage the cam to enable a turning movement of the finger-wheel to clamp the line-space wheel against said shoulder, said cam provided with a flat or dwell to detain the finger-wheel in the platen-locking position, and adjustable along the axle, and an adjustable member on the axle to secure said cam.

6. In a typewriting machine, the combination with a platen, and an axle having a shoulder, of a cam upon said axle, a line-space wheel and finger-wheel both loose upon said axle, a part upon the finger-wheel to engage the cam to enable a turning movement of the finger-wheel to clamp the line-space wheel against said shoulder, said cam provided with a flat or dwell to detain the wheel in the platen-locking position, and adjustable along the axle, an adjustable member on the axle to secure said cam, and a set screw to secure said adjustable member.

7. The combination of a platen, a platen axle having a shoulder or support, said axle having a hand wheel fixed on one end thereof, a loose line-space wheel, a loose hand-wheel mounted between the fixed hand-wheel and the line-space wheel and having means to clamp said line-space wheel against said support; means being provided whereby the loose hand-wheel is cammed along the axle against the line-space wheel; and a device adjustable to vary the camming pressure of the loose hand-wheel against the line-space wheel.

8. The combination with a platen having an axle, said axle being provided with a boss, of a line-space wheel loosely mounted on said boss, a flange provided upon said

boss against which the line-space wheel may be clamped, and a finger-wheel loosely mounted on said axle and provided with a face-cam to engage a corresponding cam fixed upon said axle to enable the hand-wheel, when rotating, to clamp said line-space wheel against said flange; means being provided to effect adjustment of said cam along said platen axle, to vary the pressure of the line-space wheel.

9. The combination with a platen having an axle, said axle being provided with a boss, of a line-space wheel loosely mounted on said boss, a flange provided upon said boss against which the line-space wheel may be clamped, and a finger-wheel loosely mounted on said axle and provided with a face-cam to engage a corresponding cam fixed upon said axle to enable the hand-wheel, when rotating, to clamp said line-space wheel against said flange; means being provided to effect adjustment of said cam along said platen axle, to vary the pressure of the line-space wheel; said cams being provided with dwell portions to prevent loosening of the hand-wheel or line-space wheel.

10. The combination with a platen having an axle, said axle being provided with a boss, of a line-space wheel loosely mounted on said boss, a flange provided upon said boss against which the line-space wheel may be clamped, a finger-wheel loosely mounted on said axle and provided with a face-cam to engage a corresponding cam fixed upon said axle to enable the hand-wheel, when rotating, to clamp said line-space wheel against said flange; means being provided to effect adjustment of said cam along said platen axle, to vary the pressure of the line-space wheel; said cams being provided with dwell portions to prevent loosening of the hand-wheel or line-space wheel, and a stop to limit the throw of the hand wheel.

11. In a typewriting machine, the combination with a line space wheel, of a platen and axle rotatable relatively thereto, an abutment on the axle, a cam member on the axle, a finger wheel loose on the axle and having a cooperating cam member whereby to clamp the line-space wheel to the axle, one of said cam members adjustable axially relatively to the other to vary the clamping pressure.

12. In a typewriting machine, the combination with a platen and axle, and a line-space wheel relatively to which the axle and platen are rotatable, of an abutment fast on the axle, a rotatable finger wheel loose on the axle, means to cam the finger wheel axially to clamp the line-space wheel against the abutment, and means to limit the finger wheel to less than a complete rotation to hold the line-space wheel in locked position.

13. In a typewriting machine, the combination with a platen and axle and a line

space wheel relatively to which the axle and platen are rotatable, of an abutment fast on the axle, a rotatable finger wheel shiftable along the axle in a straight line
5 having a cam terminating in a dwell portion, and a fixed part on the axle operatively engaged by the cam when the finger wheel is turned to clamp the line space wheel against the abutment.

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Witnesses:

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