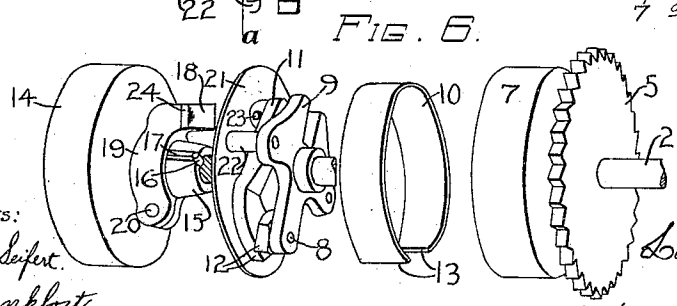
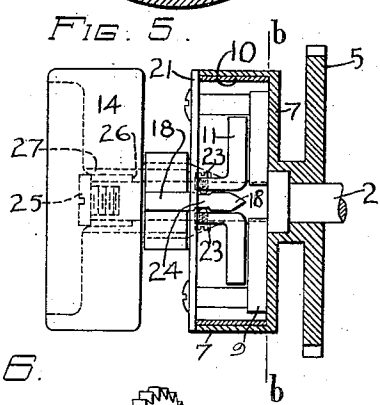
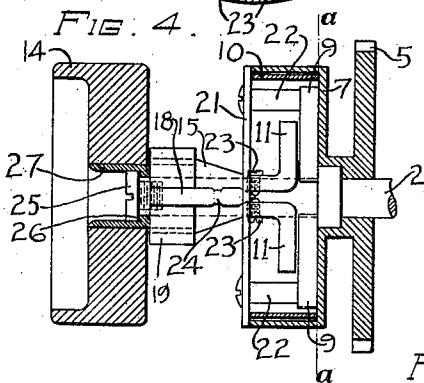
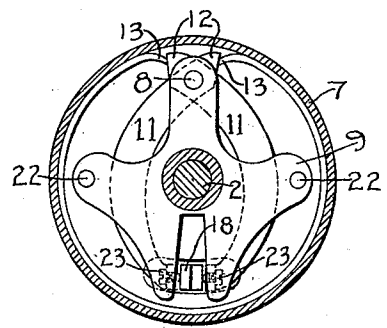
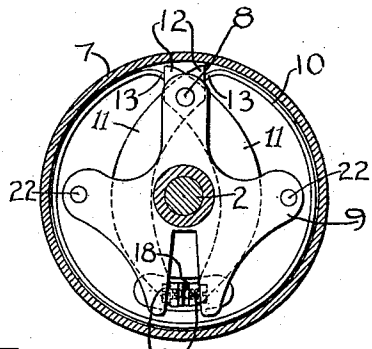
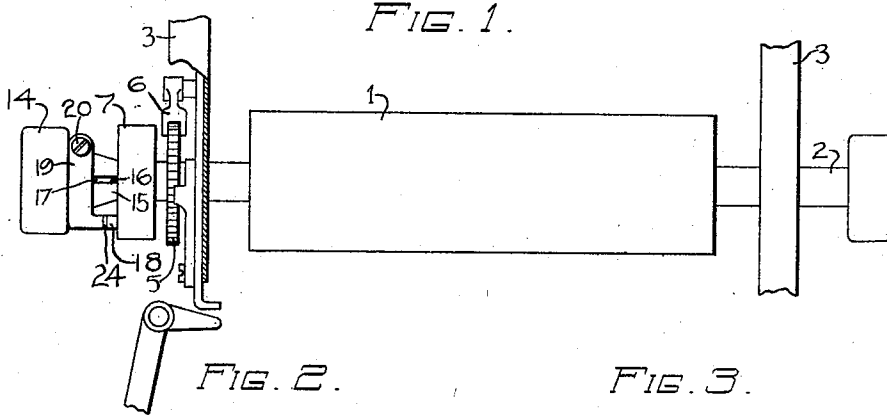


L. NEY.
TYPE WRITING MACHINE.

APPLICATION FILED APR. 24, 1909. RENEWED NOV. 16, 1909.

982,187.

Patented Jan. 17, 1911.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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

TYPE-WRITING MACHINE.

982,187.

Specification of Letters Patent.

Patented Jan. 17, 1911.

Application filed April 24, 1909, Serial No. 491,921. Renewed November 16, 1909. Serial No. 528,376.

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 typewriting machine, to permit the platen to be rotated independently of the line-space wheel when required.

The principal object of this invention is to provide, at a low cost, a simple device of this character readily applicable to existing machines, conveniently manipulated, and not liable to get out of order.

In the form of the invention illustrated in the drawings, the line-space wheel, which is loosely mounted on the platen axle, is provided with a friction ring or drum. A split friction ring is disposed around the inner periphery of the drum. A pair of dogs or levers, both within the friction drum, have jaws which act on the ends of the split friction ring, to expand it against the inner periphery of the drum, for binding or connecting the line-space wheel to the platen. The dogs are set by means of a hand-wheel, which is slidable on the end of the platen axle, and is also useful for rotating the platen. The hand wheel when pressed along the axle effects the locking movements of the dogs by means of a tapering projection, which enters between the ends of the long arms of the dogs, to wedge or force them apart and cause the jaws to open, thereby forcing the friction band to expand against the inner periphery of the drum on the line-space wheel, to connect the latter to the platen. To detain the hand-wheel in the platen-locking position, contact pieces are provided on the arms of the dogs to enter slight depressions in the back part of the wedge-shaped projection. The arms and other parts may be sufficiently springy to permit the contacts to enter said depressions. These contacts are preferably adjustable, consisting of screws, to vary the biting action of the split ring on the friction drum.

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 is a sectional end view taken on the line *a-a*, Fig. 4, showing the improved device in the released or disconnected position. Fig. 3 is a sectional end view taken on the line *b-b*, Fig. 5, showing the improved device in the locked or connected position. Fig. 4 is a side view, partly in section and partly in outside elevation, corresponding to Fig. 2 and showing the device in the released or disconnected position. Fig. 5 is a view similar to Fig. 4, but showing the device in the locked or connected position. Fig. 6 shows perspective views of several parts embodied in this invention.

The usual cylindrical platen 1 is fixed to an axle 2, whereby it is journaled in a platen frame 3. Loose upon the platen axle 2, outside of the platen frame 3, is a toothed line-space wheel 5, usually engaged by a spring detent 6. Fixed to the line-space wheel 5 is a friction ring or drum 7, forming a part of the clutching mechanism. A split ring clutch 10 is arranged around the inner periphery of the drum 7. A pair of dogs or levers 11 is fulcrumed at 8 upon a plate 9, both within the drum 7, and have jaws 12 which act in the ends 13 of the split ring 10, to expand it against the inner periphery of the drum 7. The plate 9 is fixed on the platen axle 2, and is preferably shaped as shown in the drawings, to afford a bearing surface or support for the dogs 11, when they are wedged apart. The movement of the dogs 11 is effected by a hand-wheel 14, which for this purpose is slidable on the end of the platen axle 2. This hand-wheel, which is also useful for rotating the platen 1, has a hub 15, whereby it is splined to the axle 2; a projection 16 on the platen axle 2 fitting in the slot 17 in said hub 15. The hand-wheel, when pressed to the right, effects the movements of the dogs by means of a tapering projection 18, said projection being preferably on a split collar 19 fixed on the hub 15 by means of a set screw 20. This projection 18 enters between the ends of the long arms of the dogs 11, to wedge or force them apart and cause the jaws 12 to open or expand, and force the friction band 10 against the inner periphery of the drum 7 on the line-space wheel 5, to connect the

latter to the platen 1. A disk 21, fixed upon posts 22, secured in the plate 9, may serve as a cover for the drum.

To detain the hand-wheel 14 in the platen-locking position, contact pieces 23 are provided on the arms of the dogs 11, to enter slight depressions 24 in the back of the wedge-shaped part of the projection 18. The dogs 11 and other parts may be sufficiently springy to permit the contact 23 to enter said depressions 24. These contacts 23 are preferably adjustable, consisting of screws, to vary the biting action of the split friction band 10 on the friction drum 7.

To limit the outward sliding movement of the hand-wheel 14, a screw 25, threaded into the axle 2, engages a shoulder 26, formed on the central sleeve 27 of the hand-wheel 14.

Having thus described my invention, I claim:

1. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel having a friction ring or drum and loosely mounted on the platen axle, a pair of dogs or levers fulcrumed at one of their extremities, a split ring arranged around the inner periphery of the drum on the line-space wheel, the split or open ends engaging with jaws on the dogs or levers, and means to cause the dogs to expand the split ring against the inner periphery of the drum on the line-space wheel, to connect or bind the latter to the platen.

2. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel having a friction ring or drum and loosely mounted on the platen axle, a plate fixed on the platen axle within the drum on the line-space wheel, and a pair of dogs or levers fulcrumed at one of their extremities on said platen, which is so shaped that when the dogs are operated the ends of the long arms of the dogs will bear against the plate to prevent any binding or buckling of these parts, a split ring arranged around the inner periphery of the drum on the line-space wheel, the split or open ends engaging with jaws on the dogs or levers, and means to cause the dogs to expand the split ring against the inner periphery of the drum on the line-space wheel, to connect or bind the latter to the platen.

3. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel having a friction ring or drum and loosely mounted on the platen axle, a pair of dogs or levers fulcrumed at one of their extremities, a split ring arranged around the inner periphery of the drum on the line-space wheel, the split or open ends engaging with jaws on the dogs or levers, and means to cause the dogs to expand the split ring against the inner periphery of the drum on the line-space wheel, to connect or bind the latter to the platen,

said expanding means including a hand wheel and hub splined on the platen axle, and movable along the axle to operate said dogs.

4. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel having a friction ring or drum and loosely mounted on the platen axle, a pair of dogs or levers fulcrumed at one of their extremities, a split ring arranged around the inner periphery of the drum on the line-space wheel, the split or open ends engaging with jaws on the dogs or levers, and means to cause the dogs to expand the split ring against the inner periphery of the drum on the line-space wheel, to connect or bind the latter to the platen, said expanding means including a hand wheel and hub splined on the platen axle, and movable along the axle to operate said dogs, a tapering projection being provided on the hub of the hand-wheel, to insert between the ends of the arms of the dogs or levers, to force them apart and turn the levers on their fulcrums and cause their jaws to open or expand.

5. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel having a friction ring or drum and loosely mounted on the platen axle, a pair of dogs or levers fulcrumed at one of their extremities, a split ring arranged around the inner periphery of the drum on the line-space wheel, the split or open ends engaging with jaws on the dogs or levers, means to cause the dogs to expand the split ring against the inner periphery of the drum on the line-space wheel, to connect or bind the latter to the platen, said expanding means including a hand wheel and hub splined on the platen axle, and movable along the axle to operate said dogs, a tapering projection being provided on the hub of the hand-wheel, to insert between the ends of the arms of the dogs or levers, to force them apart and turn the levers on their fulcrums and cause their jaws to open or expand, and means for detaining the hand-wheel in the platen-locking position.

6. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel having a friction ring or drum and loosely mounted on the platen axle, a pair of dogs or levers fulcrumed at one of their extremities, a split ring arranged around the inner periphery of the drum on the line-space wheel, the split or open ends engaging with jaws on the dogs or levers, means to cause the dogs to expand the split ring against the inner periphery of the drum on the line-space wheel, to connect or bind the latter to the platen, said expanding means including a hand wheel and hub splined on the platen axle, and movable along the axle to operate said

dogs, a tapering projection being provided on the hub of the hand-wheel, to insert between the ends of the arms of the dogs or levers, to force them apart and turn the levers on their fulcrums and cause their jaws to open or expand, and means for detaining the hand-wheel in the platen-locking position, consisting of contact points provided on the ends of the dogs or levers to enter depressions in the back of the tapered part of the projection on the hand-wheel, the parts being sufficiently springy to permit the contacts to enter said depressions.

7. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel having a friction ring or drum and loosely mounted on the platen axle, a pair of dogs or levers fulcrumed at one of their extremities, a split ring arranged around the inner periphery of the drum on the line-space wheel, the split or open ends engaging with jaws on the dogs or levers, means to cause the dogs to expand the split ring against the inner periphery of the drum on the line-space wheel, to connect or bind the latter to the platen, said expanding means including a hand wheel and hub splined on the platen axle, and movable along the axle to operate said dogs, a tapering projection being provided on the hub of the hand-wheel, to insert between the ends of the arms of the dogs or levers, to force them apart and turn the levers on their fulcrums and cause their jaws to open or expand, and means for detaining the hand-wheel in the platen-locking position, consisting of contact points provided on the ends of the dogs or levers to enter depressions in the back of the tapered part of the projection on the hand-wheel, the parts being sufficiently springy to permit the contacts to enter said depressions, said contacts being adjustable, to vary the biting action of the split ring on the friction drum.

8. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel loosely mounted on the axle and having a friction ring or drum, a split ring within said drum, a pair of dogs also within the drum and provided with jaws to act upon the ends of the split ring to expand it against the inner periphery of the drum, and a platen-rotating hand wheel slidable along the platen axle and having means to operate said dogs.

9. In a typewriting machine, the combination with a platen and an axle therefor,

of a line-space wheel loosely mounted on the axle and having a friction ring or drum, a split ring within said drum, a pair of dogs also within the drum and provided with jaws to act upon the ends of the split ring to expand it against the inner periphery of the drum, and a platen-rotating hand wheel slidable along the platen axle and having means to operate said dogs; said hand wheel having a tapering projection to enter between arms provided upon the dogs to wedge them apart to cause the dogs to expand the friction ring.

10. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel loosely mounted on the axle and having a friction ring or drum, a split ring within said drum, a pair of dogs also within the drum and provided with jaws to act upon the ends of the split ring to expand it against the inner periphery of the drum, and a platen-rotating hand wheel slidable along the platen axle and having means to operate said dogs; said hand wheel having a tapering projection to enter between arms provided upon the dogs to wedge them apart to cause the dogs to expand the friction ring; contact pieces being provided upon the dogs to enter depressions in the tapering projection to detain the hand wheel in platen locking position.

11. In a typewriting machine, the combination with a platen and an axle therefor, of a line-space wheel loosely mounted on the axle and having a friction ring or drum, a split ring within said drum, a pair of dogs also within the drum and provided with jaws to act upon the ends of the split ring to expand it against the inner periphery of the drum, and a platen-rotating hand wheel slidable along the platen axle and having means to operate said dogs; said hand wheel having a tapering projection to enter between arms provided upon the dogs to wedge them apart to cause the dogs to expand the friction ring; contact pieces being provided upon the dogs to enter depressions in the tapering projection to detain the hand wheel in platen locking position, said contact pieces being adjustable to vary the biting action of the split ring upon the friction drum.

LOUIS NEY.

Witnesses:

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LYMAN D. BROUGHTON.