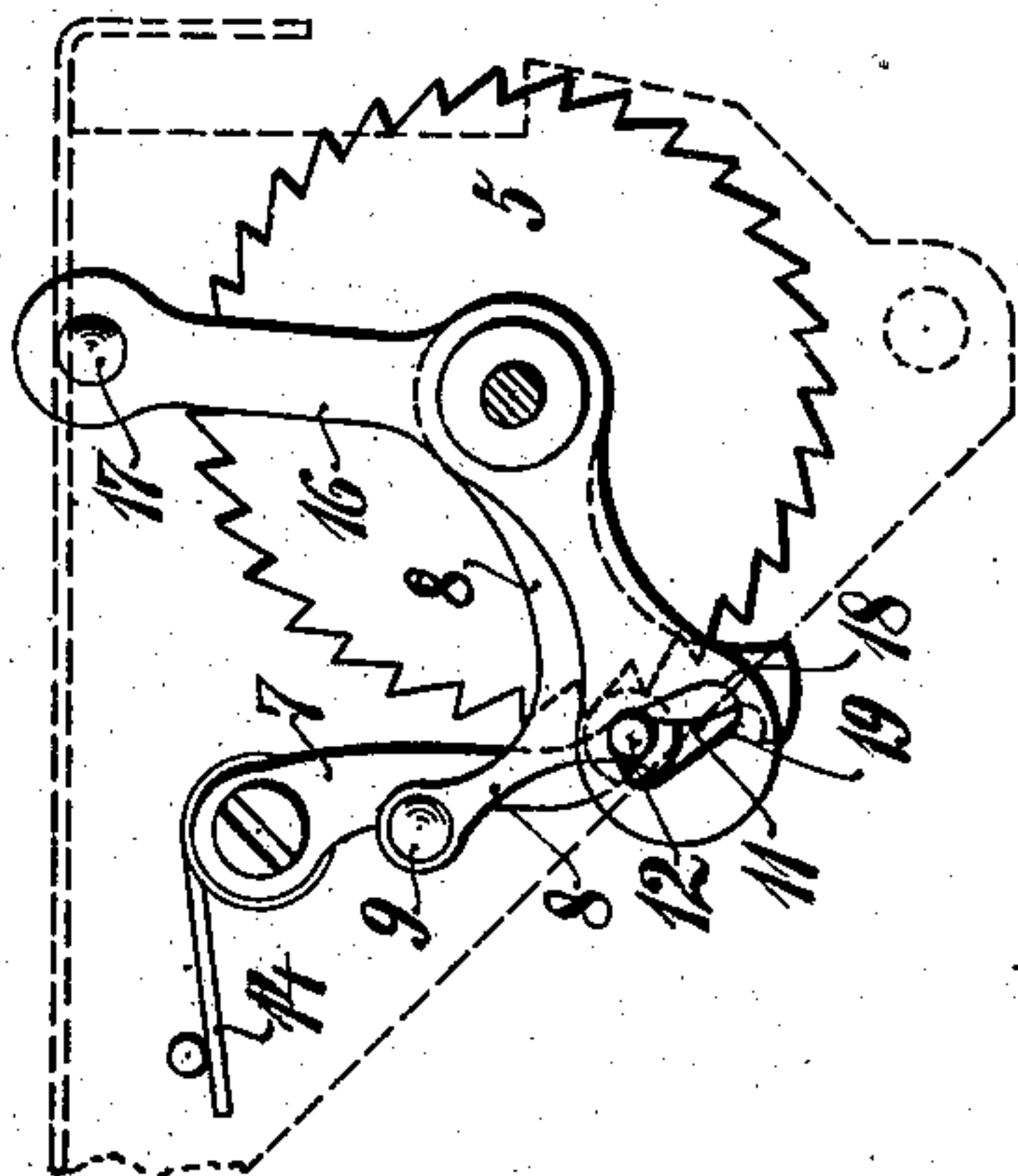
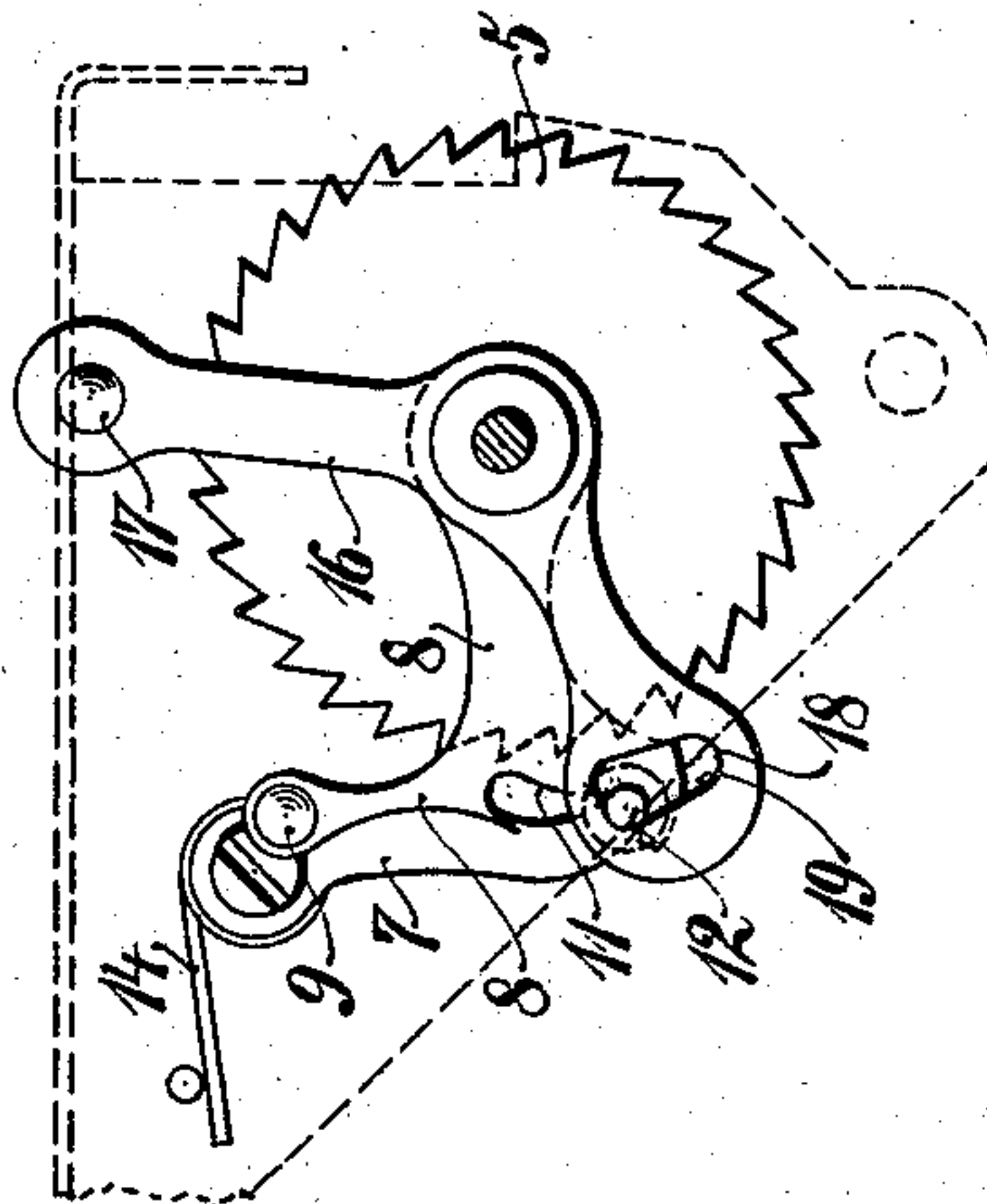
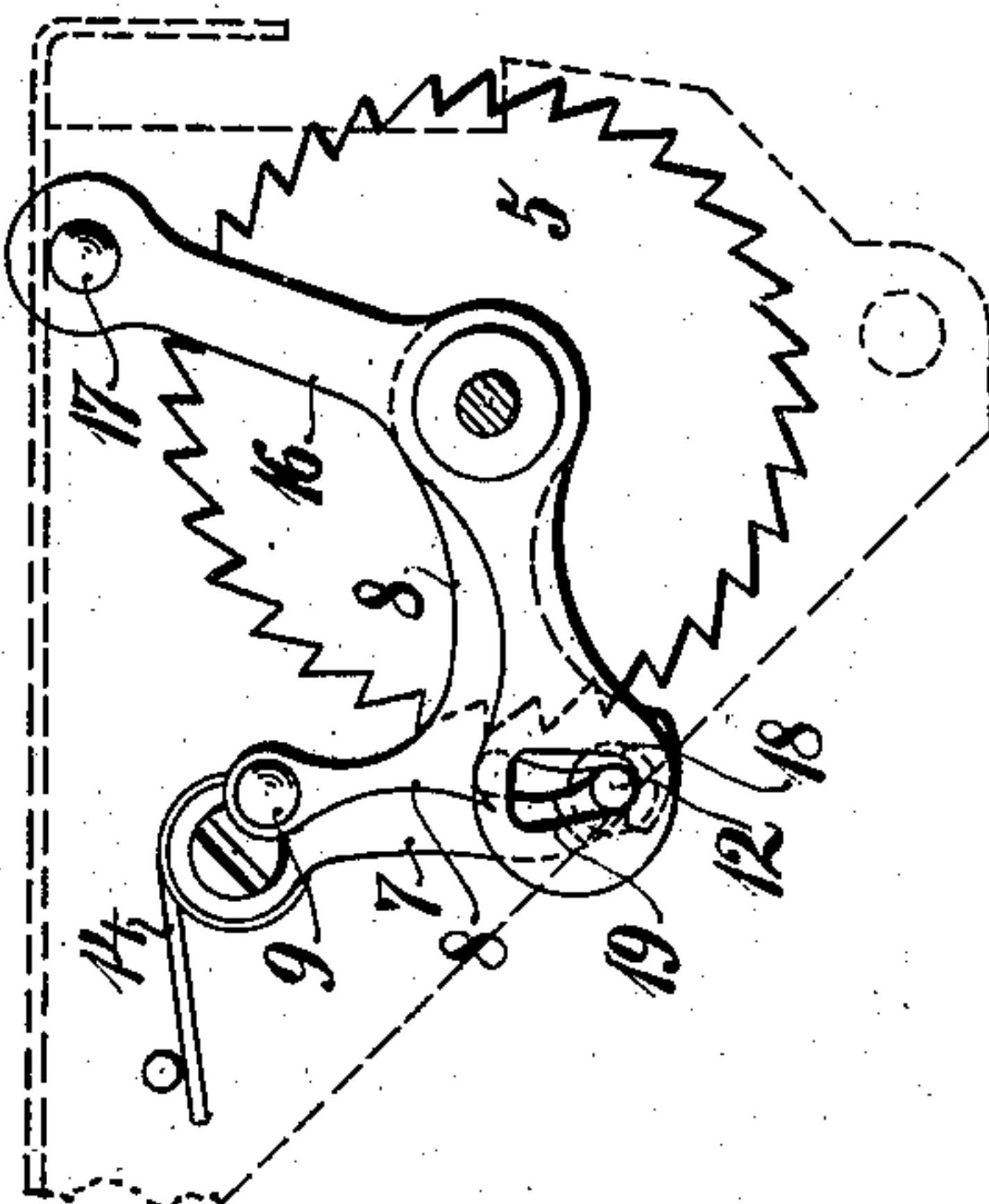


905,091.

Witnesses:
W. Fritze
John C. Seifert.



Inventor:
John C. McLaughlin,
By B. C. Stickney,
Attorney.

UNITED STATES PATENT OFFICE.

JOHN C. McLAUGHLIN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO UNDERWOOD TYPE-WRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

No. 905,091.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed May 2, 1908. Serial No. 430,581.

To all whom it may concern:

Be it known that I, JOHN C. McLAUGHLIN, 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 means for controlling the revoluble platens of typewriting machines.

The platen is usually provided with a notched line-space wheel and a spring detent to hold the platen steady during the writing. By means of a lever the detent may be locked out of engagement with the line-space wheel, to facilitate working the platen through irregular line spaces, as, for instance, when writing on ruled paper.

When the platen is released from the detent, a slight forward or backward rotation is often accidentally imparted to the platen during the writing of a line, and the trouble is not discovered by the operator until after a number of characters or words have been written out of place on the paper. This is especially so when filling out stiff cards, which do not readily conform to the curvature of the platen, and have a tendency to spring forward when fed around the same.

The main object of my invention is to provide simple, inexpensive and readily applied and operated means to overcome this objection.

It will be understood that the usual cam lever for forcing the detent away from the line-space wheel is all that is necessary for many purposes; the platen being sufficiently immobile to permit writing on paper without liability of accidental rotation; but whenever it is desired to hold the platen more firmly against rotation, I call into action an auxiliary lever, which is mounted upon the platen axle alongside of the detent-releasing lever; and this auxiliary lever serves to effect a powerful binding or braking action upon the platen shaft. For this purpose the auxiliary lever preferably obtains a purchase upon the pin carried by the detent, so that the platen is bound not only by said auxiliary lever, but also by the aforesaid releasing lever, which it will be understood engages the same pin. In other words, the auxiliary or braking lever is pivoted upon the platen axle, and has an arm pro-

vided with a cam to engage said pin upon the detent lever; and since the turning of the auxiliary lever tends to jam the pin towards the platen axle, and since the pin is supported against such movement by means of the aforesaid releasing lever, it follows that the latter is pressed firmly against the platen axle to produce friction thereon, while the auxiliary lever is forced with about the same pressure in the opposite direction against the platen axle, thereby making in effect two brakes to oppose the turning of the platen.

In the accompanying drawings, Figure 1 shows edge and side views of the usual detent-releasing lever. Fig. 2 presents a side and edge view of the novel braking lever. Fig. 3 is a plan, partly in section, of a platen and platen frame of an Underwood typewriting machine, with my improvements applied thereto. Fig. 4 is an end elevation of the platen-controlling instrumentalities showing the parts in normal positions. Fig. 5 is a view similar to Fig. 4, but showing the detent released from the line space wheel, for ordinary work where it is desired to secure irregular spacing. Fig. 6 is a similar view but showing the braking means applied, for difficult work, as cards, etc.

The usual platen 1 is rotatably mounted by means of an axle 2 in the ends 3 of a platen frame, which also comprises a paper shelf 4. A notched line space wheel 5 is fixed upon the platen axle, normally engaged by a roll 6 of a spring detent 7. The usual lever 8, having a finger piece 9, is mounted to swing up upon the hub 10 of the line space wheel 5, said lever having a cam-edge 11 to engage a pin 12 upon the detent 6, to force the same away from the line space wheel, against the action of the spring 14, when it is desired to turn the platen irregular line spaces by the knob 15, as when writing on ruled paper; the cam 11 being usually formed to lock the detent mechanically out of use, as at Fig. 5. A two-armed auxiliary lever 16 is also fulcrumed on the platen axle at the side of the lever 8, one arm having a finger piece 17, and the other arm having a cam-slot 18, to engage the same pin 12 that is engaged by the release lever 8.

After the platen is released from the detent, as at Fig. 5, a forward pull on the finger piece 17 of lever 16, causes the cam-edge 19 in the slot 18 to ride up over the pin 12, the

cam edge 19 being a little eccentric to the platen axle, or shaped to wedge or draw said lever backward by reason of its purchase on the pin 12. The lever re-acts on the platen axle (or on the hub 10), and frictionally opposes its rotation. At the same time it will be understood that a forward thrust is imparted to the detent-releasing lever 8, also causing said lever to bind on the platen axle, to augment the frictional opposition to the rotation of the platen. In other words, the arm 16 forces the pin 12 and hence the lever 8 against the hub 10, so that a two-fold braking effect is secured.

It will be seen at Fig. 6 that the inclination of the cam 19 is so slight that the auxiliary lever 16 is mechanically held or locked in effective position, so that both hands of the operator are free to be used in manipulating the keys; the friction between the lever 16 and the hub 10 and between the cam 19 and the pin 12 being sufficient to prevent said lever from resuming the normal Fig. 5 position.

Having thus described my invention, I claim:

1. In a typewriting machine, the combination with a revoluble platen having a line-space wheel, a spring detent therefor, and a device to release said detent and hold it mechanically away from the line-space wheel, of an auxiliary device operable at will for causing said detent-releasing device to oppose friction to the revolution of the platen.

2. In a typewriting machine, the combination with a revoluble platen having a line-space wheel, a spring detent therefor, and a device to release said detent and hold it mechanically away from the line space wheel, of an auxiliary device operable at will for causing said detent-releasing device to oppose friction to the revolution of the platen; said auxiliary device provided with means whereby it is mechanically held or locked in effective position.

3. In a typewriting machine, the combination with a platen having an axle, of a ratchet wheel, a spring detent, means adjustable upon said axle to release said detent, and an independently movable auxiliary device also mounted upon said axle to engage a pin carried by said detent to draw said pin towards said axle, and thereby force said releasing device against the axle, thus to secure a double braking effect upon the axle or the platen.

4. In a typewriting machine, the combination with a revoluble platen, of a braking device mounted upon the platen and engaging a relatively fixed part to tend to draw said fixed part towards the axis of the platen for the purpose of binding the axle.

5. In a typewriting machine, the combination with a revoluble platen having an axle,

of a braking device mounted upon the platen and engaging a relatively fixed part to tend to draw said fixed part towards the axle of the platen for the purpose of binding the axle, the parts constructed to detain the braking device mechanically in effective position.

6. In a typewriting machine, the combination with a revoluble platen having an axle or hub, of a lever fulcrumed upon the axle or hub and having a cam, and a relatively fixed device engaged by said cam to crowd and bind against the platen axle and oppose the revolution of the platen.

7. In a typewriting machine, the combination with a revoluble platen having an axle or hub, of a lever fulcrumed upon the axle or hub and having a cam, a relatively fixed device engaged by said cam to crowd and bind the platen axle and oppose the revolution of the platen; and means independent of said lever to release the platen from the control of the spring detent.

8. In a typewriting machine, the combination with a revoluble platen, of braking means therefor including two independently operable members, and means to cause them to cooperate to press transversely against the platen in opposite directions to prevent accidental rotation of the platen.

9. In a typewriting machine, the combination with a revoluble platen, of braking means therefor including two independently operable members, and means to cause them to cooperate to press transversely against the platen in opposite directions to prevent accidental rotation of the platen; and means operable by one of said members to release the platen from the control of the spring detent.

10. In a typewriting machine, the combination with a platen and a line-space wheel connected thereto and having a hub, of two independently operable levers upon said hub, one lever having means to release the ratchet wheel from the control of the detent, and the other lever having means to effect a binding action upon said hub.

11. In a typewriting machine, the combination with a platen and a line-space wheel connected thereto and having a hub, of two independently operable levers upon said hub, one lever having means to release the ratchet wheel from the control of the detent, and the other lever having means to cause both levers to bind upon said hub and in different directions.

12. In a typewriting machine provided with a platen having an axle, the combination with a line-space wheel upon said axle, of a spring detent engaging said wheel, a detent-releasing lever mounted to turn upon said axle, and an auxiliary device operable at will independently of the releasing lever, to co-act with the detent-releasing lever to

create a binding action on the platen axle for preventing accidental rotation of the platen.

13. In a typewriting machine provided
5 with a platen frame and a platen having an axle journaled in the platen frame, the combination with a line-space wheel upon said axle, a spring detent engaging said wheel, and means mounted to turn upon the axle
10 and operable to force and hold the detent away from the wheel, of an independently operable auxiliary lever fulcrumed upon said axle and engaging means to draw said lever against the platen axle.

14. In a typewriting machine provided
15 with a platen having an axle and a platen frame in which the axle is journaled, the combination with a line-space wheel upon said axle, of a spring detent for said wheel,
20 said detent having a pin, a lever mounted to turn upon the axle to force and hold the detent roll away from the wheel, an auxiliary lever fulcrumed upon said axle and having a cam to engage said pin, to cause the aux-
25 iliary lever to bind on the axle to hold the platen against accidental rotation.

15. In a typewriting machine provided
with a platen having an axle and a platen frame in which the axle is journaled, the
30 combination with a line-space wheel upon

said axle, of a spring detent having a roll to engage said wheel, and having also a projection, a lever mounted upon the axle to force and hold the detent roll away from the wheel, an auxiliary lever fulcrumed upon said axle, 35 and having a cam to engage said projection, so that a pull on the auxiliary lever causes the cam edge to ride up over the projection, to draw the auxiliary lever against the axle and simultaneously thrust the releasing lever 40 against the axle, whereby both levers hold the platen against accidental rotation.

16. In a typewriting machine provided
with a platen frame and a platen having an axle journaled in the platen frame, the com- 45 bination with a line-space wheel upon the axle normally engaged by a spring detent, of a lever mounted on the axle having means to force and lock the detent away from the wheel, and means to apply pressure upon 50 the platen axle opposite to the pressure applied by said detent-releasing lever, to create a double binding action on the platen axle to hold the platen against accidental rotation.

JOHN C. McLAUGHLIN.

Witnesses:

JOHN O. SEIFERT,
K. FRANKFORT.