

No. 875,637.

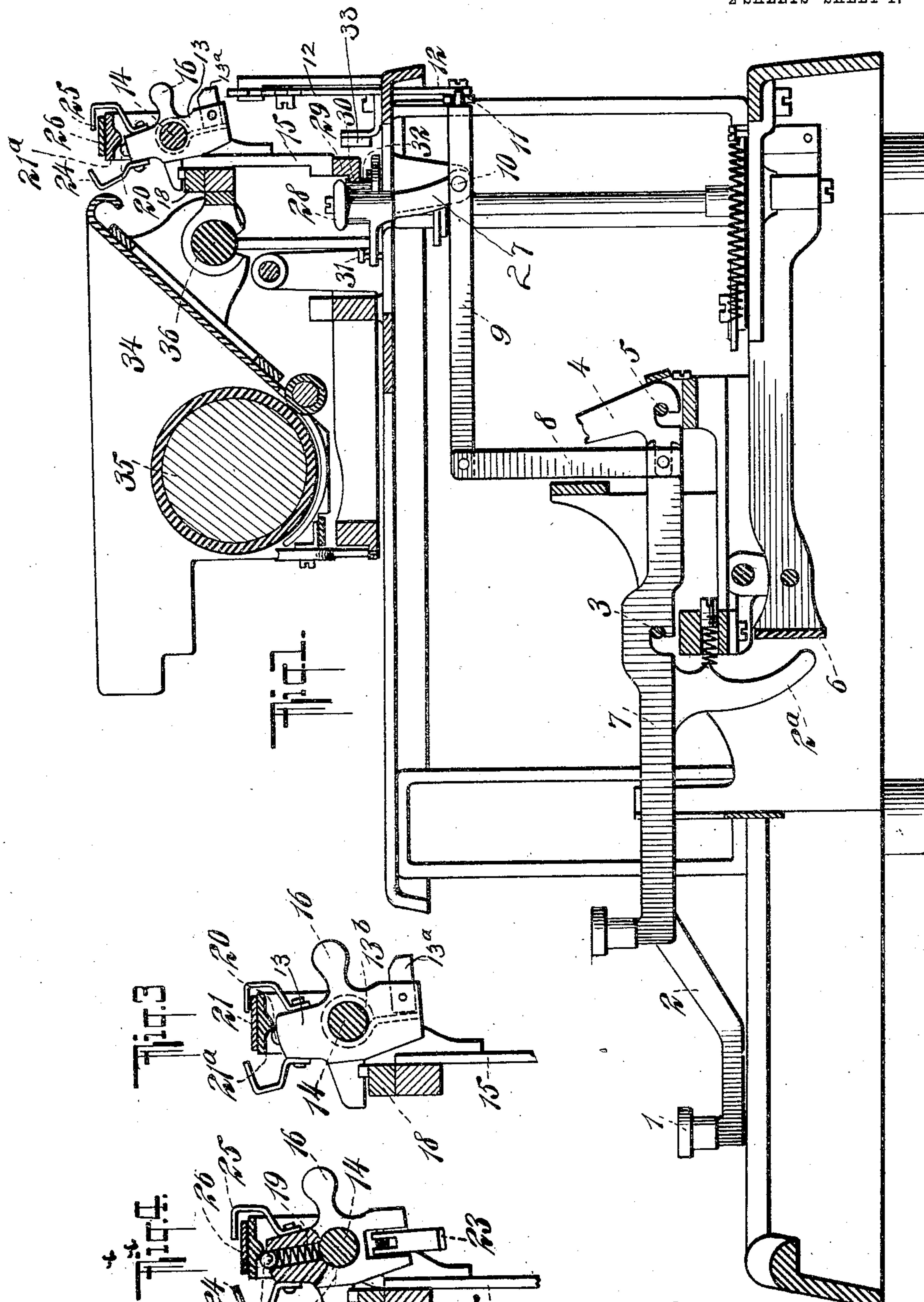
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# CARRIAGE STOP MECHANISM FOR TYPE WRITING MACHINES.

APPLICATION FILED MAY 18, 1905.

2 SHEETS--SHEET 1.

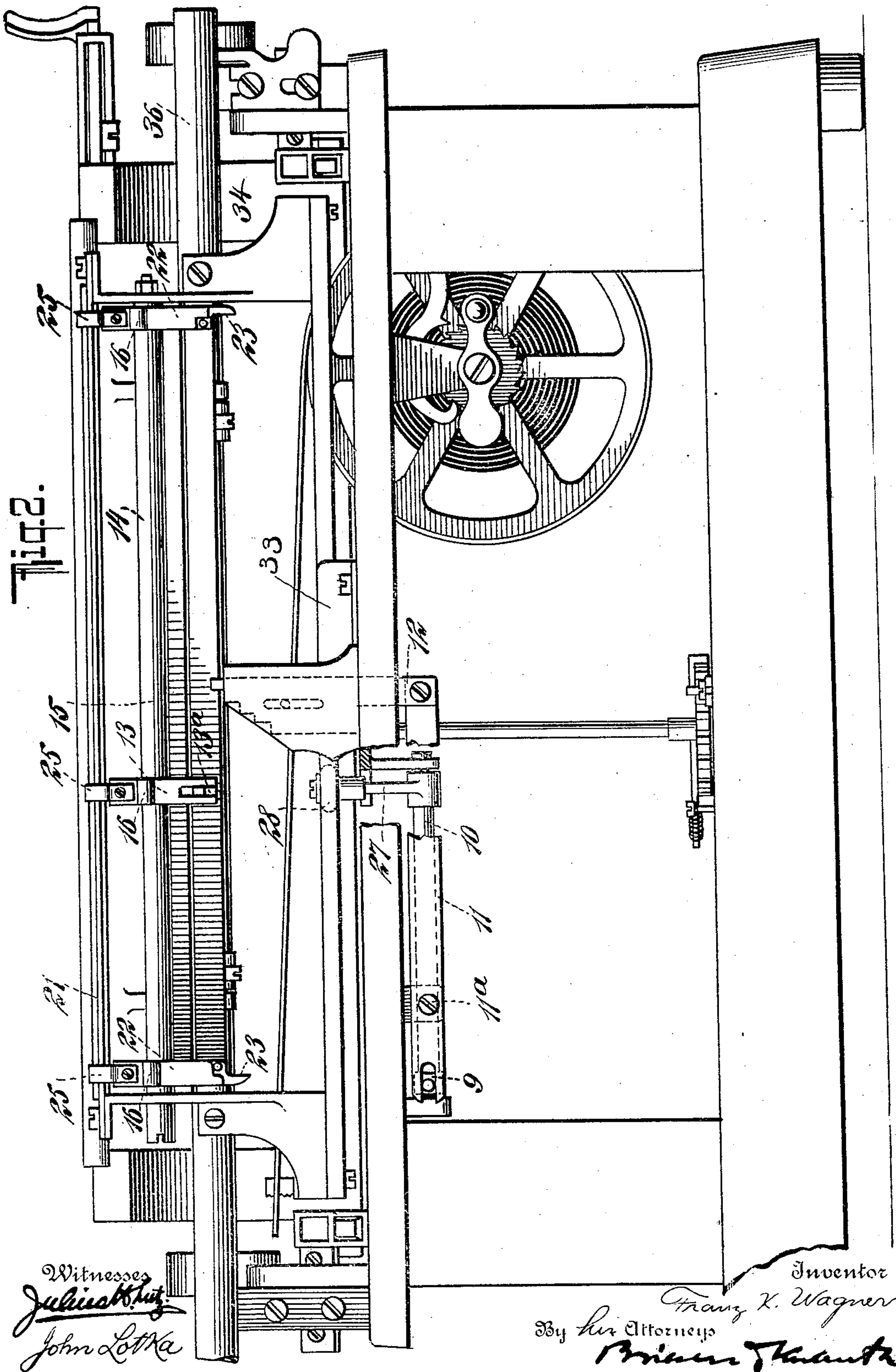


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# UNITED STATES PATENT OFFICE.

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## CARRIAGE STOP MECHANISM FOR TYPE-WRITING MACHINES.

No. 875,637.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Original application filed November 12, 1904, Serial No. 232,413. Divided and this application filed May 18, 1905. Serial No. 260,985.

*To all whom it may concern:*

Be it known that I, FRANZ X. WAGNER, a citizen of the United States, resident of the borough of the Bronx, city, county, and State of New York, have invented certain new and useful Improvements in Carriage Stop Mechanism for Type-Writing Machines, of which the following is a specification.

My invention relates to typewriting machines and has for its object to improve the carriage stop mechanism thereof.

The invention will be fully described hereinafter and the features of novelty pointed out in the appended claims.

The present application is a division of one filed by me in the United States Patent Office November 12, 1904, Serial No. 232,413.

Referring now to the accompanying drawings, Figure 1 is a sectional elevation of a machine in which my improvements have been embodied; Fig. 2 is a rear elevation thereof with parts in section; Fig. 3 is a detail sectional elevation of a column stop and Fig. 4 is a detail sectional elevation of a margin stop.

In the drawings, 1 represents the keys which are mounted on levers 2, fulcrumed on the frame of the machine at 3 preferably in such a manner as to be easily removable. The levers 2 have any suitable connection with any approved type mechanism (not shown) as for instance through the medium of an elbow lever 4, fulcrumed at 5. The key lever 2 also operates the escapement mechanism in any approved manner, for instance, through the medium of a universal bar 6 engaged by a toe 2<sup>a</sup> on the key bar. A key lever 7 (Fig. 1) is connected by a link 8, with a rearwardly extending lever 9, fulcrumed at 10, the rear end of which engages a transverse lever 11, fulcrumed at 11<sup>a</sup> (Fig. 2). This lever is connected with a vertically movable stepped stop 12 arranged to be projected more or less into the path of the carriage by suitable mechanism, or an ordinary stop (without steps) may be used when denominational tabulation is not desired. The stop 12 is adapted for engagement with the stop member 13<sup>a</sup> of a column stop 13 (or several of them) mounted on the rear rod 14 which is on the rear hinged portion 15 of the carriage. The stop member 13<sup>a</sup> may be pivoted to the casing 13 and held by a spring 13<sup>b</sup> either in the operative lower position shown in Fig. 1, or in an upper position in

which it is out of action. The column stop has a handle 16 for adjusting it lengthwise of the rod, and a toe 17 for holding it after adjustment, said toe engaging a rack 18 on the rear portion of the carriage. A spring 19 (Fig. 4) throws a ball 20 toward a top plate 21 having a ledge or rib 21<sup>a</sup> so that the casing of the column stop is thrown either toward the rack 18 or away from it.

The margin stops 22 may be of almost the same construction on the column stop, except that the margin stop proper 23 has a limited swinging movement lengthwise of the rack 18 in the usual manner. The stops adjustable on the rod 14 (whether column stops or margin stops) are preferably provided with two pointers 24, 25, adapted to indicate on the scale 26, one of such pointers being in operative position whether the stop is engaged with the rack 18, or released therefrom.

The release of the carriage from the escapement for tabulating purposes is effected by means of an arm 27 mounted on the fulcrum 10 of the lever 9 and turning with said lever. The said arm carries a roller 28 (preferably on ball bearings) adapted to engage a smooth surface 29 of the escapement rack or feed rack 30 (Figs. 1 and 2). An adjustable stop screw 31, permits of regulating the normal position of the roller 28. Thus at the depression of the tabulating key, the roller 28 will engage the rack 30 and release the carriage by swinging its entire rear portion 15 away from the feed pinion 32 of the escapement. At the same time the stop 13 will be brought into the path of the stop 12. Furthermore the rack 30 will be brought against a stationary brake strip 33.

It is to be understood that the carriage consists of two portions, the front portion 34 of which carries the platen 35, and the rear portion 15 of which carries the rack 30. Both carriage portions are pivotally supported on the rear rod 36 of the machine frame, on which rod the carriage travels transversely of the machine.

Various modifications may be made without departing from the nature of my invention.

I claim and desire to secure by Letters Patent:

1. In a typewriter or like machine, a carriage having a swinging section, a feed member and a column stop carried by said swing-

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ing section and tabulating mechanism comprising a tabulating stop adapted to cooperate with said column stop, an arm connected with said tabulating stop and provided with a roller journaled about a substantially vertical axis and adapted to engage the feed member to release the carriage.

2. In a typewriter or like machine, a carriage provided with a rod and a scale parallel therewith, a stop adjustable lengthwise of said rod and capable of a swinging movement thereon, said stop being provided with two pointers facing toward each other, either of which is adapted to indicate on said scale according to the position of the stop.

3. In a typewriter or like machine, a carriage having a swinging section, a column stop carried by said swinging section, a feed member and a brake on the frame of the machine, a second feed member carried by the swinging section of the carriage and adapted to normally engage said first named escapement member, said second named escapement member being located between the brake and the first named escapement member and means for swinging said carriage section to disengage the escapement members and to swing said second named escapement member against the brake.

4. In a typewriter or like machine, a carriage comprising two sections, each movable relatively to the other, a feed member and a stop located on one of said carriage sections and movable therewith, a second stop on the frame of the machine adapted to be moved into operative position and mechanism separate from second named stop yet connected therewith for moving the section of the carriage on which the stop is located, thereby moving said stop and releasing the carriage from the feed mechanism.

5. In a typewriter or like machine a carriage provided with a rod and a rack parallel

with the direction of its motion, and a bar having a rib, and a stop adjustable lengthwise of said rod and arranged to engage said rack, said stop having a spring pressed member adapted to engage said rib on one side or the other.

6. In a typewriter or like machine a carriage provided with a rod and a scale parallel therewith, a stop adjustable lengthwise of said rod, and capable of a swinging movement thereon, said stop being provided with two pointers one or the other of which is adapted to indicate on said scale according to the position of the stop.

7. In a typewriter or like machine, a carriage comprising a swinging rear section, a stop carried thereby so as to be movable transversely of the carriage path, a second stop located on the frame of the machine so as to be also movable transversely of the carriage path into operative relation with the first named stop, and means connected with the second named stop but separate therefrom, for moving the carriage section and with it the first named stop, before the second named stop engages any portion of the carriage.

8. In a typewriter or like machine, a carriage having a section movable relatively to the remainder of the carriage, a feed member and a stop carried by said section to move therewith, a tabulating key, a tabulating stop movably carried by the frame of the machine, mechanism connecting said tabulating key with said tabulating stop, and means connected with said connecting mechanism between said tabulating key and said tabulating stop for releasing the carriage from the feed mechanism.

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