

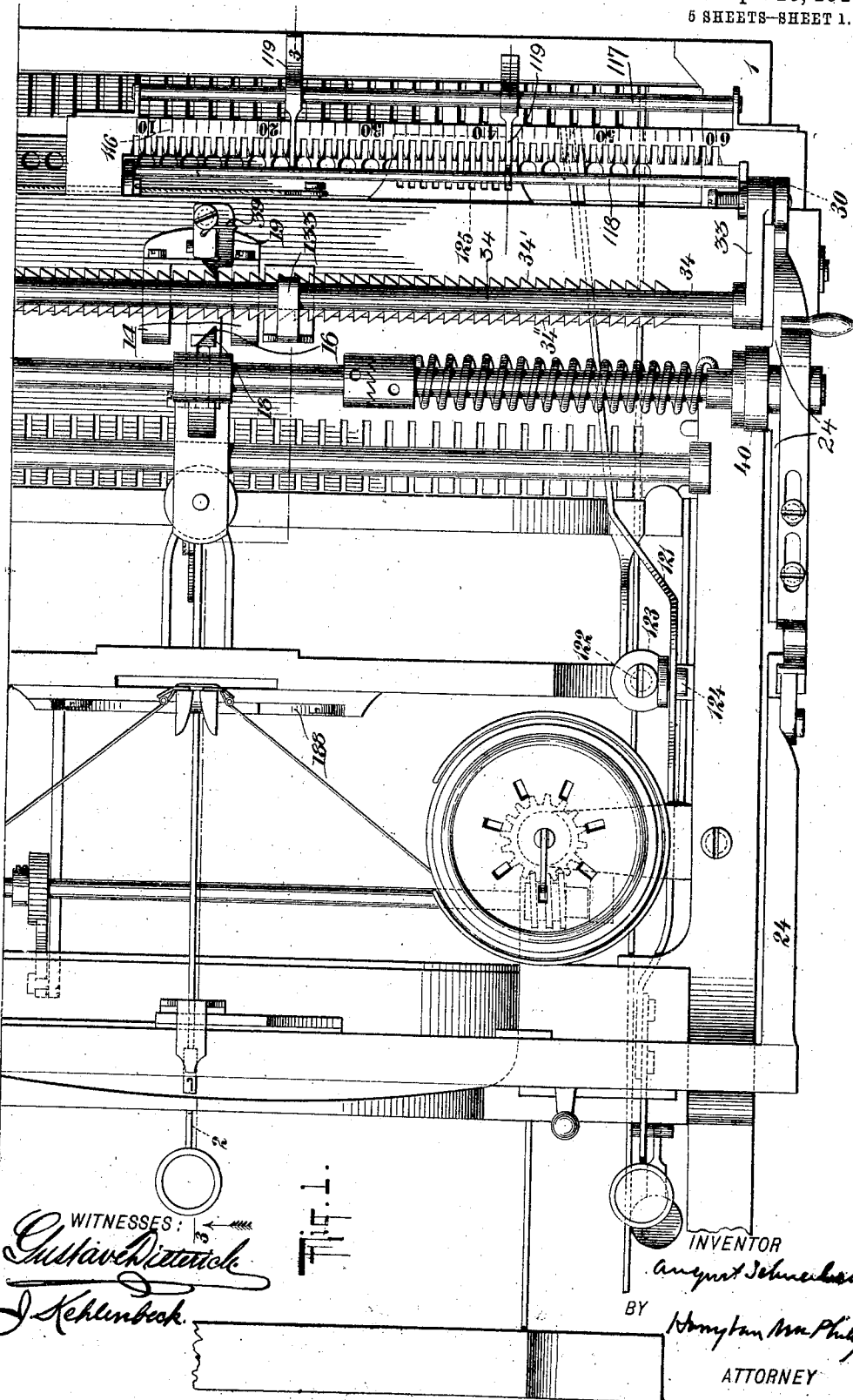
A. SCHNEELOCH.
TYPE WRITING MACHINE.

APPLICATION FILED APR. 7, 1900. RENEWED AUG. 9, 1910.

1,058,907.

Patented Apr. 15, 1913.

5 SHEETS—SHEET 1.



WITNESSES:
Gustav Dietrich
J. Kehlbeck

Fig. 1.

INVENTOR
August Schneeloch
BY *Wm. H. Phillips*
ATTORNEY

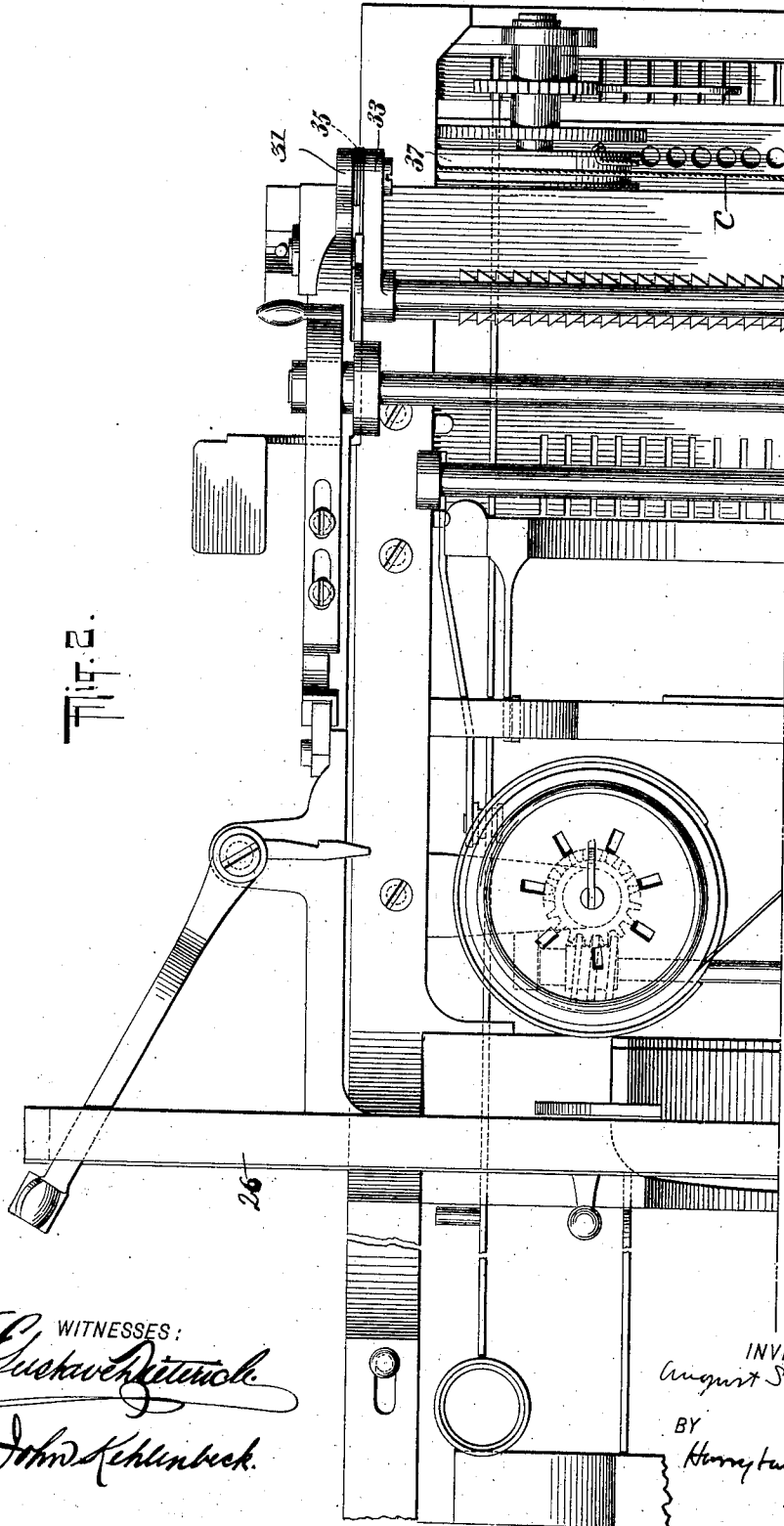
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WITNESSES:
Eustachius Kienrich
John Kienrich

INVENTOR
August Schneeloch
BY
Henry Louis Phelps
ATTORNEY

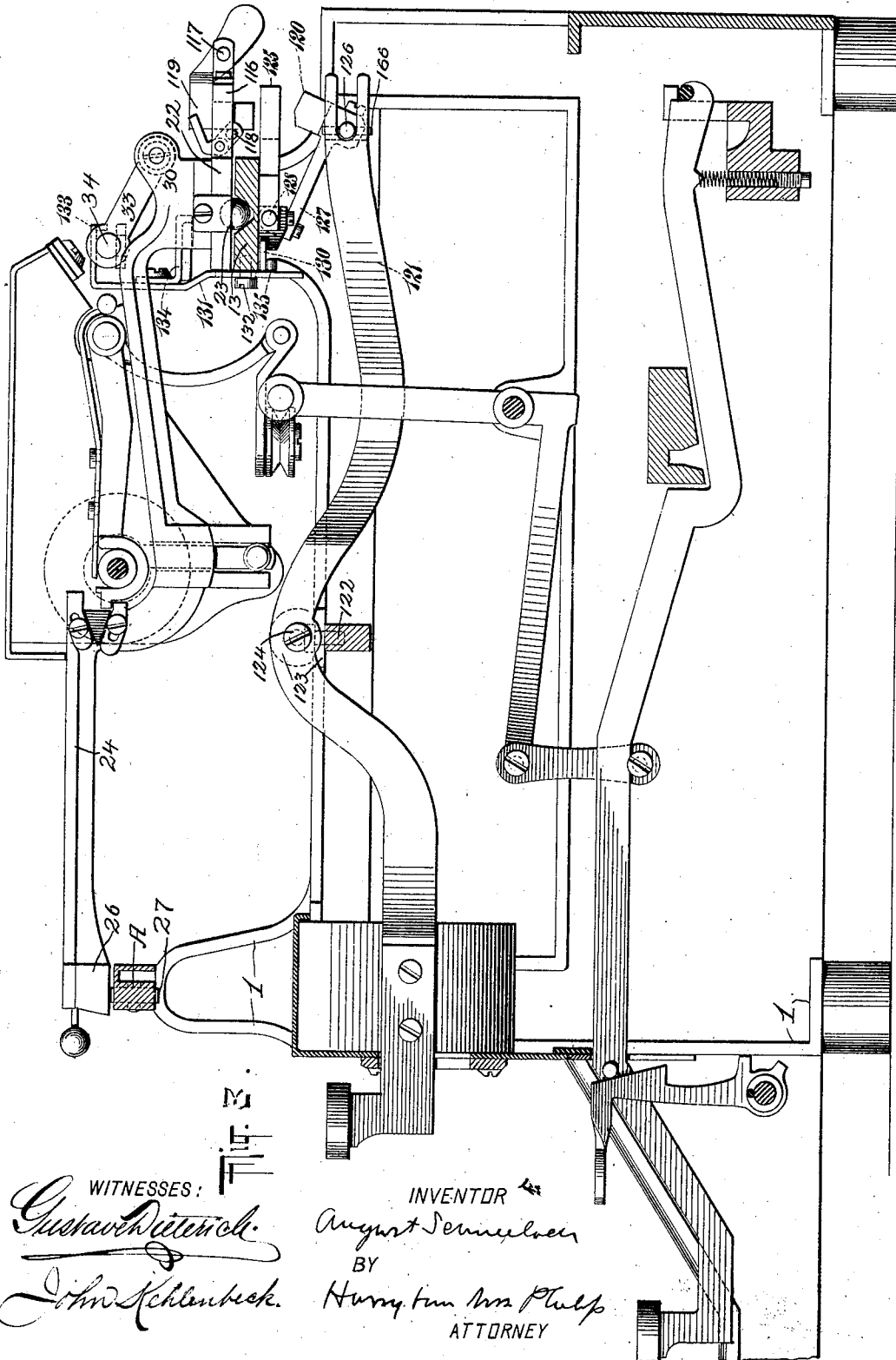
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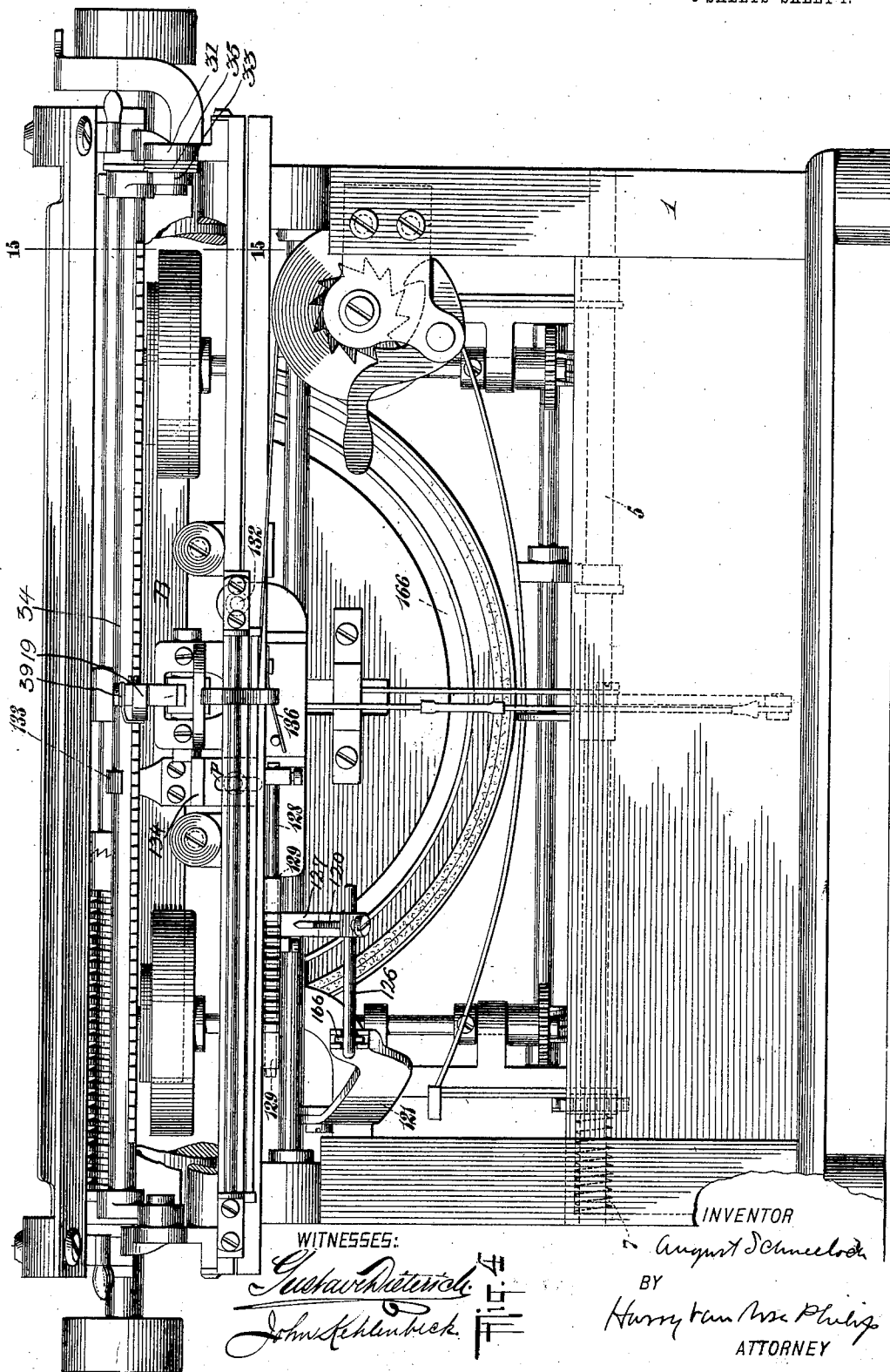
WITNESSES:
Gustav Ritterich
John Schlenker

INVENTOR
August Schneeloch
BY
Harry Lee Phelps
ATTORNEY

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5 SHEETS--SHEET 4.



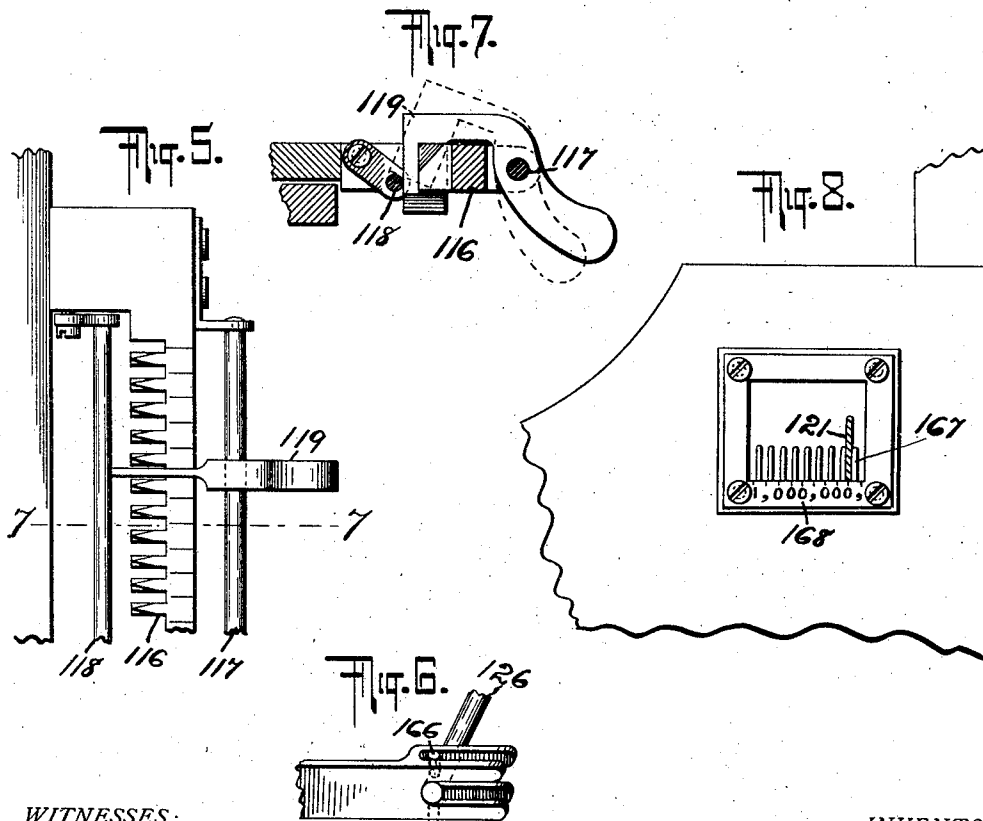
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5 SHEETS—SHEET 5.



WITNESSES:

Alfred Schmeck
W. B. Smith

INVENTOR.
August Schneeloch
BY
Alfred Wilkinson
ATTORNEY.

UNITED STATES PATENT OFFICE.

AUGUST SCHNEELOCH, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JOHN E. THOMAS, OF NEW YORK, N. Y., AND ONE-HALF TO E. C. STEARNS & CO., OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING MACHINE.

1,058,907.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed April 7, 1900, Serial No. 11,993. Renewed August 9, 1910. Serial No. 576,392.

To all whom it may concern:

Be it known that I, AUGUST SCHNEELOCH, a subject of the Empire of Germany, residing at the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to typewriting machines and consists of a tabulating mechanism of new construction and mode of operation.

My invention has been devised to be used with "visible" machines, but it is not limited thereto, for it may be used with machines of different types.

A desirable, simple and practical embodiment of my invention is shown in the drawing herewith, comprising six sheets, in which the reference letters and numerals of the specification indicate the same parts in all the figures.

Figures 1 and 2 are partial plan views which, taken together, form a complete plan of the machine with the platen removed. Fig. 3 is a side elevation with certain parts shown in section. Fig. 4 is a rear elevation. Fig. 5 is a partial top plan showing the arrangement of column stops. Fig. 6 is a partial isometric view of the forked arm for controlling the denomination stop. Fig. 7 is a vertical cross section on line 7—7 of Fig. 5. Fig. 8 is a partial front elevation showing the guide rack and scale for the tabulating lever.

In the figures 1 indicates the main frame of the machine having the front bar A carrying the rollers 27 and having the rear grooved runway 13 provided with balls 23.

24 24 are the side pieces of the carriage; 26 is the front bar resting on the rollers 27; and 22 is the rear bar grooved to engage the balls 23.

2 is one of the key-levers connected to its corresponding type-bar suitably hung on the segment 188.

14 is the escapement bracket secured on the runway 13. On said bracket is journaled the dog-support 16, operatively connected to the universal bar and carrying the dogs 18 and 19, the latter loose and held in place by spring 39, to engage respectively

with racks 34'' and 34' of the double rack-arm 34. This rack-arm is carried on supporting arms 33, journaled to ears 31 on the frame and held up in engagement with the dogs by spring 35; it is depressed to disengage therefrom by the tabulator lever 121, which also operates the tabulator mechanism, as more fully hereinafter described.

Tabulating mechanism.—By this mechanism upon the operation of a special key the carriage may be released and automatically stopped in the course of its travel from right to left at the decimal point of the column, or at any desired point in front thereof, so that the machine may be conveniently used in writing bills or other documents having words or figures arranged in columns.

On the rear of the carriage is the notched scale 116 corresponding with the usual scale in the front of the machine, and arranged adjacent to said scale are the parallel rods, supporting rod 117 and retaining rod 118. When rod 118 is swung rearwardly it engages with the column stops 119 and retains them in position against accidental withdrawal. (See Figs. 5 and 7.) On the rod 117 are arranged to swing and slide the column stops 119, as many as may be desired, which are adapted to be inserted in the notches of the scale 116 at the desired points, so that their noses project below the scale to engage with the denomination stop 120, connected to the rear end of, and operated by, the tabulator lever 121. Said lever is journaled to the vertical arm of supporting bracket 123 by screw or pintle 124, and said bracket is journaled on the machine by its horizontal arm and pintle 122 so that said lever may be swung both vertically and laterally.

At the front of the machine, shown in Fig. 8, is provided slotted piece 167, provided with scale 168, so arranged with relation to a rear slotted piece 125 through which the denomination stop projects upwardly into the path of the column stops, and in relation to the rear scale, that when the tabulator lever 121 is inserted in the desired slot of the slotted piece 167 corresponding with the decimal point on the front scale, the carriage will stop at a point corresponding thereto, or in such relation thereto as the operator may determine.

The denomination stop 120 is carried on arm 127, secured to sliding rod 128, mounted to slide and turn in bearings 129, as shown in Fig. 4. The denomination stop is also connected to tabulator lever 121 by stop-rod 126, carrying cross pin 166 engaging respectively with the cross slots and vertical slots in the rear end of tabulator lever 121. By the following means the tabulator lever 121 also operates, to release from engagement with the dogs, the double rack 34 (provided with racks 34' and 34'' and carried on arms 33 hinged to ear 31 on the frame) so that the carriage may ride from right to left in obedience to spring spool 37, (Fig. 3.) The sliding rod 128 carries a sliding plate 130 in constant engagement with pin 135 on the lower end of lever 131, secured on runway 13 by a screw 132 and slotted so as to be capable of a short vertical movement on said screw. This lever 131 carries at its upper end a hook 133 adapted to engage with the hinged rack 34 and to depress the same out of engagement with the dogs when the thumb-piece on the front end of the tabulator lever 121 is depressed. Said lever 131 is also provided with brake-piece 134 to engage with the carriage and retard its movement when the rack 34 is released from the dogs. The lever may be held in its elevated position by spring 136 (Fig. 4) but this is not necessary as the rack spring 35 is usually sufficient.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a typewriter, means by which the carriage rack may be released from engagement with the escapement mechanism, having in combination, the main frame, the carriage and escapement mechanism on the main frame, a rack hinged on the carriage and normally held in engagement with said escapement mechanism, a vertically movable lever on the frame having an upper hooked end in engagement with the rack, a brake-piece on said lever adapted to engage with the carriage when said lever is depressed, a projection on the lower end of said lever, an arm hung on the rear of the frame, a plate on said arm in constant engagement with said projection, a tabulator lever hung on the main frame so as to be swung vertically thereon, and connections between said arm and the rear end of the tabulator lever whereby said vertically movable lever may be depressed and the rack rocked down out of engagement with the escapement mechanism.

2. In the tabulating device of a typewriting machine, the combination with a scale at the front of the machine, of a notched scale-borne on the carriage of said machine, having the same denominations, an adjust-

able column stop or stops adapted to be inserted in and project through the notches of said last mentioned scale, a laterally and vertically movable lever having a forked inner end and journaled on the frame of the machine bearing a denomination stop, adapted, when said lever is operated, to be advanced into the path of said column stops and to arrest the movement of the carriage thereby, and means connected with said lever of disengaging the carriage from its retaining devices and allowing the same to be actuated by the force constantly urging it from right to left.

3. In a tabulating mechanism of a typewriting machine, the combination with the main frame and the carriage, of a scale on the front of the carriage, a corresponding notched scale on the rear of the carriage, a parallel supporting rod arranged adjacent to the rear scale on the carriage, a series of column stops fitted to slide on said rod and to swing thereon, so as to be adjusted with their noses projecting down through the notches, a parallel spring retaining rod supported on the carriage and adapted to engage with said stops and retain them in adjusted position, a sliding rod mounted to slide and turn in bearings on the main frame, an arm on said rod, a denomination stop on said arm, a rear slotted piece arranged adjacent to the denomination stop, a corresponding front slotted piece, a tabulator lever having its front end arranged adjacent to the front slotted piece and pivotally supported on the frame so as to swing both vertically and laterally thereon, a stop rod on the denomination stop, a cross pin on said stop rod, said stop rod and cross pin being adapted, respectively, to engage with cross slots and vertical slots in the rear end of the tabulator lever, and a scale adjacent to the front piece to guide the insertion of the tabulator lever in the proper slot of said front piece and thereby the adjustment of the denomination stop in the corresponding slot of the rear piece, to project in the path of the column stops and stop the carriage at predetermined points.

4. In the tabulating device of a typewriting machine, the combination with a scale at the front of the machine, of a notched scale borne on the carriage of said machine, having the same denominations, an adjustable column stop or stops adapted to be inserted in and project through the notches of said last mentioned scale, a laterally and vertically movable lever having a forked inner end and journaled in the frame of the machine bearing a denomination stop, adapted, when said lever is operated, to be advanced into the path of said column stops and to arrest the movement of the carriage thereby, and means connected with said lever of disengaging the carriage from its

retaining devices and allowing the same to be actuated by the force constantly urging it from right to left and a brake-piece suitably arranged and connected to the lever whereby it will engage the carriage on the depression of said lever and retard the movement thereof.

5 In the tabulating mechanism of a type-writing machine, the combination with the main frame and the carriage, of a scale on the front of the carriage, a corresponding notched scale on the rear of the carriage, a parallel supporting rod arranged adjacent to the rear scale on the carriage, a series of column stops fitted to slide on said rod and to swing thereon, so as to be adjusted with their noses projecting down through the notches, a parallel spring retaining rod supported on the carriage and adapted to engage with said stops and retain them in adjusted position, a sliding rod mounted to slide and turn in bearings on the main frame, an arm on said rod, a denomination stop on said arm, a rear slotted piece arranged adjacent to the denomination stop, a corresponding front slotted piece, a tabulator lever having its front end arranged adjacent to the front slotted piece and pivotally supported on the frame so as to swing both vertically and laterally thereon, a stop rod on the denomination stop, a cross pin on said stop rod, said stop rod and cross pin being adapted, respectively, to engage with cross slots and vertical slots in the rear end of the tabulator lever, and a scale adjacent to the front piece to guide the insertion of the tabulator lever in the proper slot of said front piece and thereby the adjustment of the denomination stop in the corresponding slot of the rear piece, to project in the path of the column stops and stop the carriage at predetermined points, and means connected with the tabulator lever to disengage the carriage from its retaining devices, allowing said carriage to be actuated by the force constantly urging it from right to left and a brake-piece suitably arranged and connected to the tabulator lever whereby it will engage the carriage on the depression of said lever and retard the movement thereof.

6 In the tabulator mechanism of a type-writing machine, the combination with the main frame and the carriage, of a series of column stops suitably supported and connected with the carriage to move step-by-step therewith as the carriage moves from right to left, each column stop being adjustable with relation to the adjacent stops and being adjustable in and out of position to engage with a denomination stop, of a rack at the rear of the machine, a corresponding rack at the front of the machine, a denomination stop hung adjacent to said rear rack, and a tabulator lever extending

adjacent to said front rack and connected to said denomination stop, whereby said tabulator lever may be moved into engagement with said front rack and the denomination stop correspondingly moved to protrude through the rear rack into the path of the column stops.

7 In the tabulator mechanism of a type-writing machine, the combination with the main frame and the carriage, of a series of column stops suitably supported and connected with the carriage to move step-by-step therewith as the carriage moves from right to left, each column stop being adjustable with relation to the adjacent stops and being adjustable in and out of position to engage with a denomination stop; of a rack at the rear of the machine, a corresponding rack at the front of the machine, a denomination stop hung adjacent to said rear rack, a tabulator lever extending adjacent to said front rack and connected to said denomination stop, whereby said tabulator lever may be moved into engagement with said front rack and the denomination stop correspondingly moved to protrude through the rear rack into the path of the column stops, and means connected with said lever for disengaging the carriage from its retaining devices and allowing the same to be actuated by the force constantly urging it from right to left.

8 In the tabulating mechanism of a type-writing machine the combination with the main frame and the carriage, of a series of column stops supported on the carriage so that each independently may be both adjusted laterally and swung vertically into and out of position to engage with a denomination stop when the column stops are moved, a denomination stop hung on the frame, a laterally and vertically movable lever hung on the frame independently of the denomination stop and connections between the lever and the denomination stop to move the latter into the path of the column stops and to shift it laterally with relation thereto.

9 A tabulating mechanism for a type-writing machine having a main frame and a carriage supported on the frame, a series of column stops supported on the carriage so that each independently may be both adjusted laterally with relation to each other and swung vertically into and out of position to engage with a denomination stop when the column stops are moved, a denomination stop hung on the frame, a lever hung on the frame independently of the denomination stop and connections between the lever and the denomination stop to move the latter into the path of the column stops when the column stops are in their lower position.

10 A tabulating mechanism for a type-

writing machine having a main frame and a carriage supported on the frame, a series of column stops supported on the carriage so that each independently may be both adjusted laterally with relation to each other and swung vertically into and out of position to engage with a denomination stop when the column stops are moved, locking means adapted to retain the column stops in the latter position, a denomination stop hung on the frame, a lever hung on the frame independently of the denomination stop and connections between the lever and the denomination stop to move the latter into the path of the column stops when the column stops are in their lower position.

11. In the tabulator mechanism of a type-writing machine, the combination with the main frame and the carriage of a series of column stops suitably supported and connected with the carriage to move therewith as the carriage moves from right to left, a slotted guide member at the rear of the machine having the slots open at the bottom,

a similar guide member at the front of the machine arranged with its slots open at the top, a denomination stop hung adjacent to said rear guide member and adapted to be swung upwardly into the slots thereof, a tabulator lever extending adjacent to the front guide member to be rocked downwardly into the slots thereof, said tabulator lever being fulcrumed at its central portion to be moved both laterally and vertically, and connections between the lever rear end and the denomination stop whereby depression of the tabulator lever into the front guide slots will raise the denomination stop into the rear guide slots and into the path of the column stops.

In testimony whereof I affix my signature in presence of two witnesses this 3rd day of April 1900.

AUGUST SCHNEELOCH.

Witnesses:

J. B. MAXWELL,
H. V. N. PHILP.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."