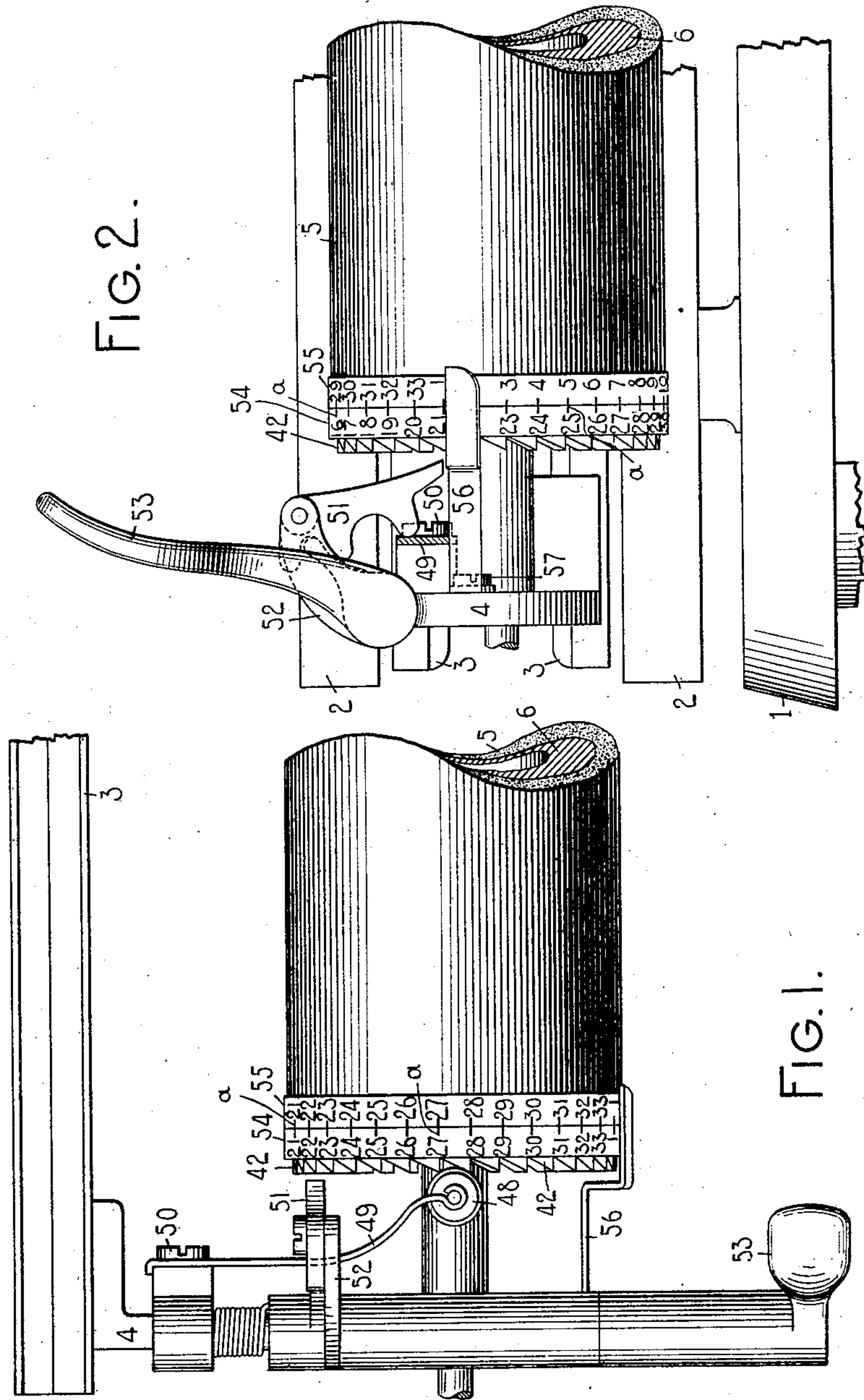


No. 863,496.

PATENTED AUG. 13, 1907.

E. E. BARNEY.
TYPE WRITING MACHINE.
APPLICATION FILED OCT. 27, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

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mwpool

INVENTOR:

Edwin E. Barney
By Jacob F. Bell
HIS ATTORNEY

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2 SHEETS—SHEET 2.

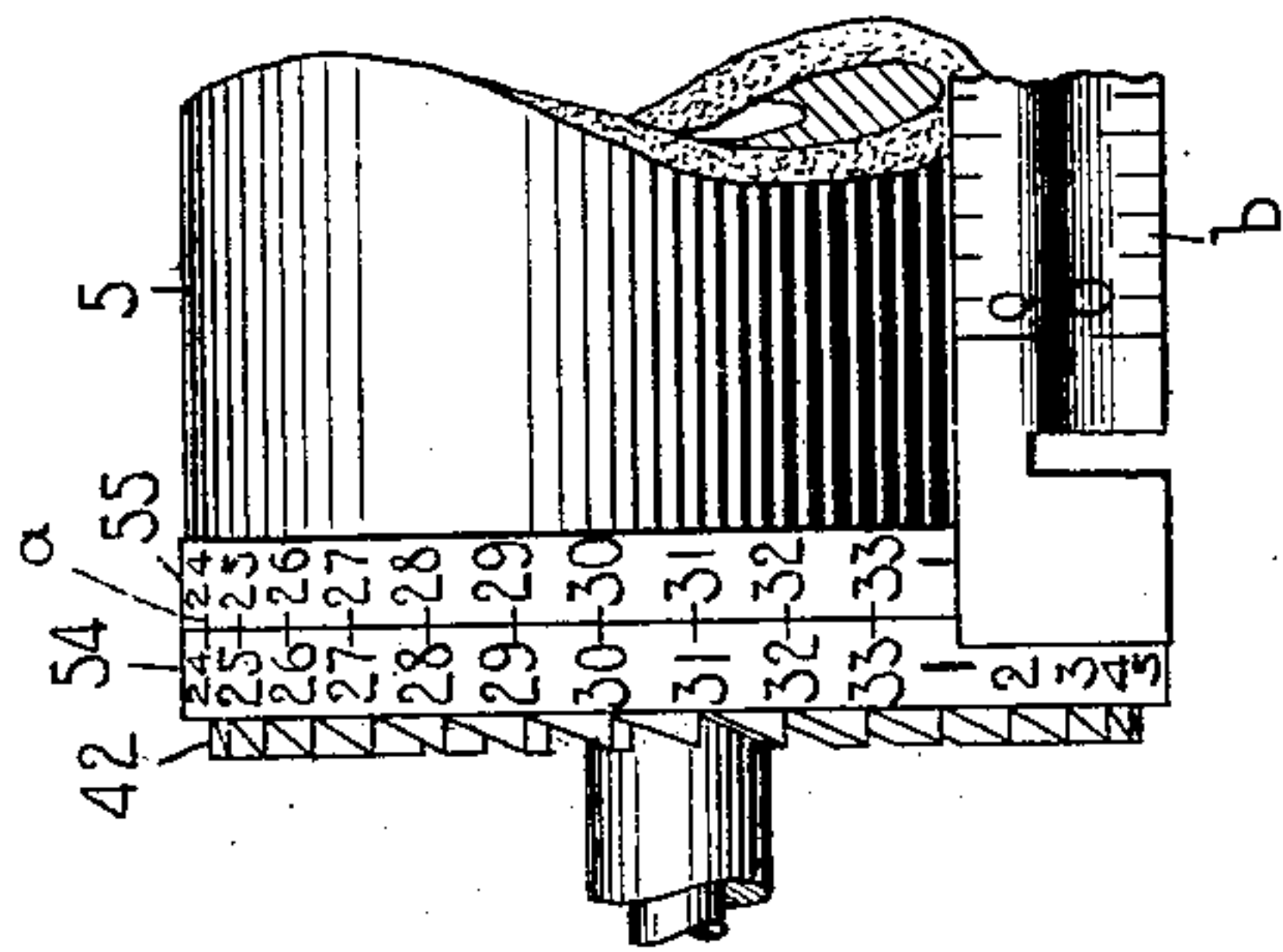


FIG. 5.

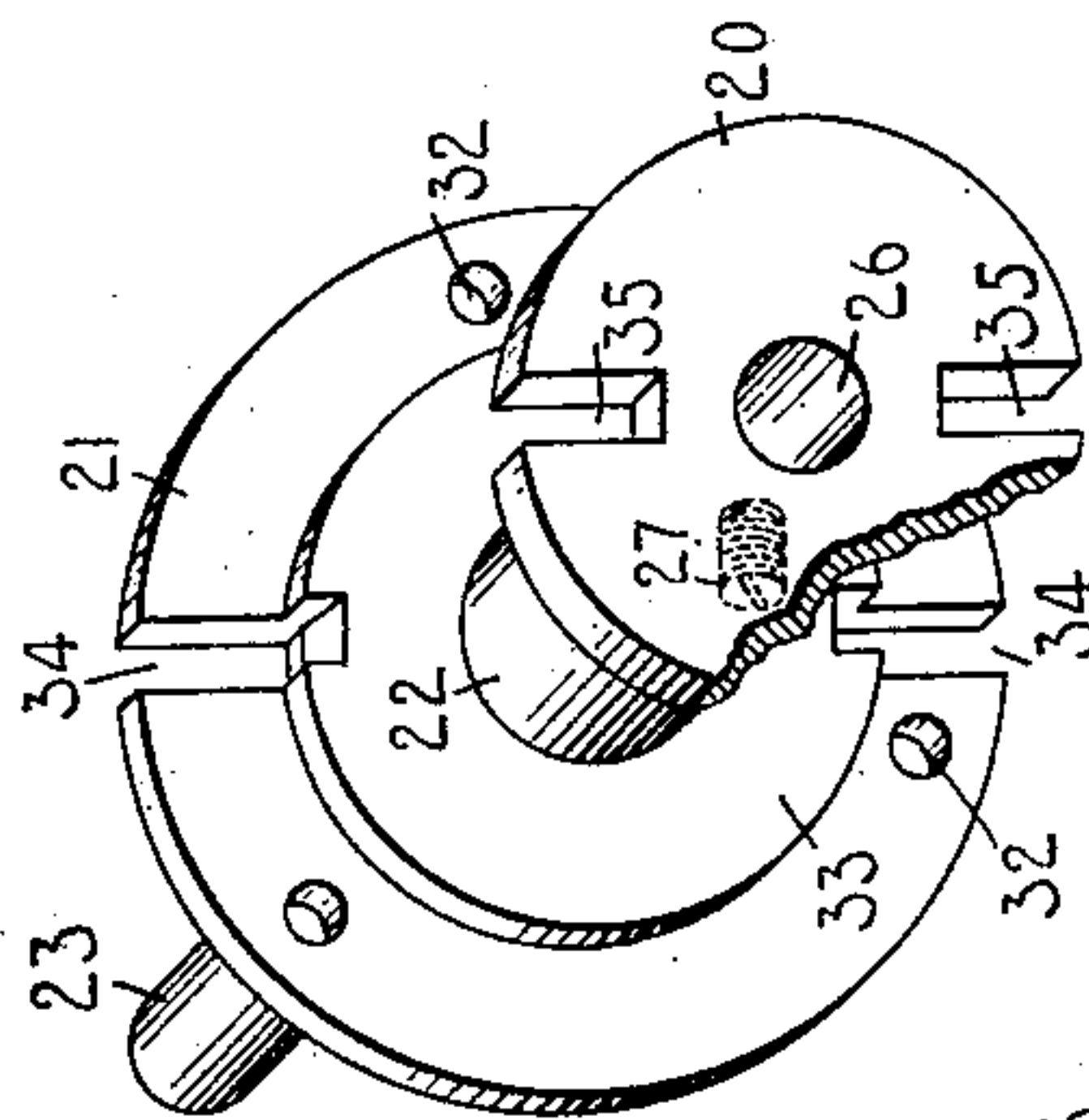


FIG. 4.

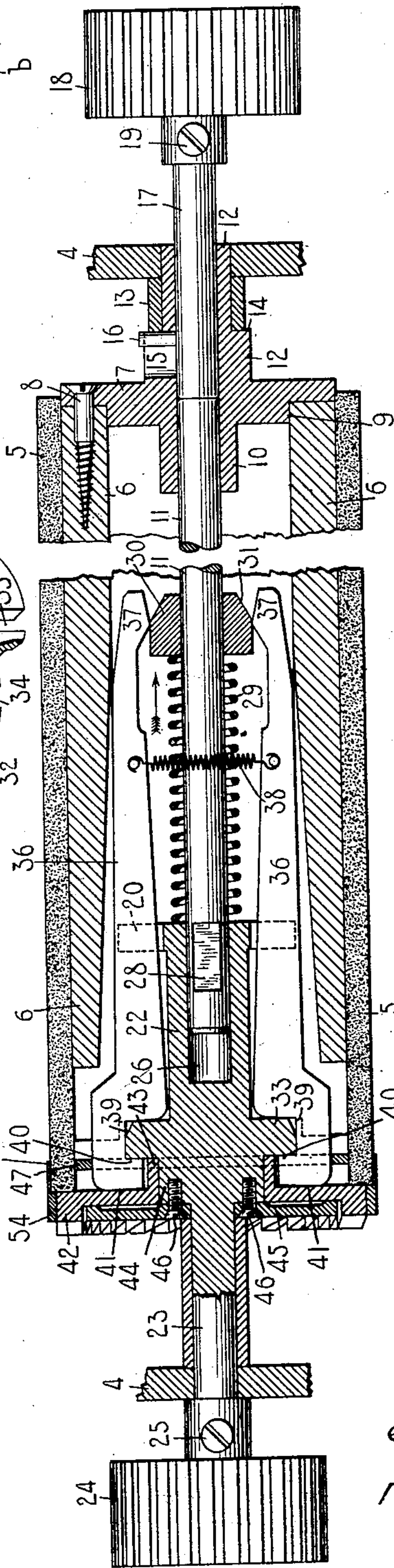


FIG. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWIN E. BARNEY, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE MONARCH TYPEWRITER COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING MACHINE.

No. 863,496.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed October 27, 1905. Serial No. 284,693.

To all whom it may concern:

Be it known that I, EDWIN E. BARNEY, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to an improved adjustable positioning scale for typewriting machines of the general character of that disclosed in the patent to H. W. Higham, No. 682,870, patented September 17th, 1901.

The main object of the invention is to provide a two-part annular scale of the class described in combination with a means for releasing or freeing the platen from its line spacing mechanism in order that the platen may be rotated independently of said line spacing mechanism.

Typewriting machines of the rotary platen class are usually provided with releasing means of the character just referred to in order that the platen may, when desired, be rotated through fractional line space distances. I provide means in my present invention to enable an adjustment to be effected between the parts of the annular scale by the manipulation of the fractional line spacing or platen releasing mechanism, thereby dispensing with the special devices for effecting an adjustment between the two parts of the scale which it was always necessary to provide prior to my present invention. Therefore, by my present invention, I am enabled to readily apply to existing forms of typewriting machines simple and inexpensive annular scales without modifying the structural features of such machines or changing the platens and to provide simple and efficient billing attachments or mechanisms without adding materially to the cost of the machine, as will hereinafter more clearly appear.

To the above and other ends my invention resides in the features of construction, arrangements of parts and combinations of devices hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an enlarged fragmentary top plan view showing the left-hand end of a platen frame and platen of a typewriting machine with the double or two-part annular scale mounted upon said platen. Fig. 2 is a front elevation of the parts shown in Fig. 1. Fig. 3 is an enlarged central longitudinal sectional view of the platen of a typewriting machine showing my invention embodied therein, certain of the parts being broken away. Fig. 4 is an enlarged perspective view of a part of the platen releasing mechanism. Fig. 5 is a fragmentary front elevation of the platen, showing the double annular scale and the ordinary platen scale of the machine in cooperation therewith.

I have shown my invention as applied to a platen of a typewriting machine generally resembling the Monarch typewriter and I have shown applied to said platen a platen-releasing or fractional line spacing device which forms the subject-matter of the application for U. S. Letters Patent of Charles J. Bond, Serial No. 268,671, filed July 7, 1905. It is to be understood, however, that my invention may be applied to other forms of typewriting machines and other styles of platen releasing devices.

The drawings disclose a portion of the top plate 1 of the machine on which guide rails 2 are fixedly secured. Anti-friction balls (not shown) are adapted to cooperate with grooved ways formed in the fixed rails 2 and with similar grooved ways formed in the top and bottom portions of a rear bar 3 of a platen frame, which comprises in addition to the rear bar, side bars 4. The platen comprises the usual external sheath 5 of rubber or the like and an internal wooden core 6.

At one end of the platen is a platen head 7 which is secured to the platen by screws 8 extending through holes in the platen head and entering the core 6. The platen head 7 is formed with a shoulder 9 seated within the core and with an inwardly extending sleeve 10 that constitutes a guide for a spindle 11 that extends through said sleeve and is movable longitudinally therein. Extending outwardly from the platen head 7 is a sleeve 12, the outer end whereof is reduced and journaled in one of the side bars 4 of the platen frame. A collar 13 surrounds the reduced portion of the sleeve 12 and bears against a shoulder 14 formed by said reduced portion and against the inner face of the side bar 4. The sleeve 12 is provided with a longitudinal slot 15 which receives a pin 16 carried by a spindle 17, said spindle being received within the bore of the sleeve 12 and being longitudinally movable in said sleeve. The outer end of the spindle or axle 17 carries a finger wheel 18 secured thereto by a screw 19 and the inner end of said spindle bears against the outer end of the spindle 11, so that an inward longitudinal movement of the spindle 17 is communicated to the spindle 11. The other end of the platen carries a member which is shown in detail in Fig. 4. This member is, in a sense, a platen head and comprises a disk-like portion 20 secured to a second disk-like portion 21 by an intermediate cylindrical portion 22. An outwardly extending spindle or shaft-like portion 23 projects from the disk-like portion 21 and is journaled in the adjacent side bar 4 of the platen frame. A finger wheel 24 is removably secured by a screw 25 to the outer end of the shaft-like portion 23 where the latter projects beyond the platen frame. The portions 20, 21, 22 and 23 are preferably made in one piece, and a depression or hole 26 is formed in the inner end

of the portions 20 and 22 for the reception of one end of the spindle 11. A set screw 27 is received in a threaded opening in the cylindrical portion 22 and the inner end of said set screw enters a cut-away or slot 28 in the spindle 11 in order to limit the longitudinal movement of said spindle and to prevent its accidental withdrawal from the bearing 26. A coiled expansion spring 29 surrounds the spindle 11 and bears at one end against the inner face of the disk-like portion 20 and at the other end against a wedging or actuating device 30 which is adjustably secured to the spindle 11. This wedge-like device is in the nature of a collar that has a beveled wedging face 31 thereon. The tension of the spring 29 is exerted to move the spindle 11 in the direction of the arrow in Fig. 3, tending to force the spindle 11 and the finger wheel thereon to the right. Pressure exerted on the finger wheel 18 to move it in a direction opposite to that indicated by the arrow in Fig. 3 will move the spindle 11 against the tension of the spring 29 and force the wedging device 31 to the left. The disk-like portion 21 is provided with holes 32 for the reception of screws (not shown) which unite the left-hand platen head to the platen. A boss 33 is formed on the inner face of the disk-like portion 21 and is received within the core of the platen preventing any lateral displacement of the platen head in respect of the platen. The disk-like portion 21 is formed with apertures or slots 34 at opposite sides and corresponding recesses 35 are formed in the disk-like portion 20.

Actuating levers 36 are seated in the bearing apertures 34 and 35 in the platen head, the said levers fitting snugly in said apertures and rotating with the platen-head and platen. The levers 36, however, are capable of vibrating laterally in the bearing apertures 34 and 35. Each of the levers 36 extends longitudinally of the platen and has at its inner end a portion 37 which bears normally against the beveled portion 31 of the wedging device 30. A coiled contractile spring 38 is connected at its ends to the levers 36 and tends to draw the inner ends of said levers towards each other and against the wedging device 30. The outer end portion of each lever 36 is notched at 39 for cooperation with the disk-like portion 21 of the platen head. The outer face of the disk-like portion 21 constitutes a fulcrum against which the end 40 of each lever 36 is adapted to bear and on which said lever turns as a pivotal center when actuated by the wedging device 30. The outer edge portion 41 of the end of each lever 36 bears against the inner face of a line spacing ratchet-wheel 42 which is formed with a central opening and is provided with a collar 43 which is journaled on a shouldered portion 44 of the platen head.

After the parts thus far described have been assembled, a plate 45 is secured in place by headed screws 46 that extend through openings in said plate and take into the portion 44 of the platen head, thus uniting the plate 42 to the platen head or member which comprises the portions 20, 21, 22 and 23. A plate 47 is suitably secured to the portion 21 of the platen head and said plate 47 is perforated to permit of the passage therethrough of the levers 36. The edges of the apertures in the plate 47 prevent the levers 36 from dropping away from the positions in which they

properly cooperate with the fulcrum plate of the portion 21 of the platen head and with the line spacing ratchet wheel 42.

A detent roller 48 is rotatably mounted at the forward end of a spring member 49 which is secured to the platen frame by a screw 50 (Fig. 1) and said detent roller cooperates in a known manner with the teeth of the line spacing ratchet wheel 42.

It will be understood from the foregoing description that pressure is exerted on the finger wheel 18 to effect a longitudinal movement of the spindle 11 towards the left in Fig. 3 to move the wedging device 30 towards the left, thus enabling the inner ends of the levers 36 to be drawn closer together by the spring 38, thereby releasing the line spacing wheel 42 from pressure exerted by said levers and enabling the platen to be rotated by either of its finger wheels independently of the line spacing wheel. As soon as pressure is withdrawn from the finger wheel 18 the spring 29 will cause the wedging device 30 to be moved to the right, thereby moving the inner ends of the levers 36 away from each other and causing the edges 41 of said levers to press against the line spacing wheel, effecting a slight axial movement of said wheel towards the left and producing a frictional engagement between said wheel and the plate 45, so as to lock said line spacing wheel to the platen. The platen releasing or fractional line spacing mechanism above described is the same as that disclosed in the application of Charles J. Bond, hereinbefore referred to.

The line spacing ratchet wheel or rotary line spacing device 42 is provided with crown ratchet teeth, leaving the periphery of said ratchet wheel smooth. A line spacing pawl 51 is adapted to cooperate with the teeth of the ratchet wheel 42, said pawl being pivotally connected with an arm 52 and operated in the usual manner by a line space lever 53 to cause the pawl 51 and the line spacing wheel 42 to cooperate to produce line space movements of the platen. Upon the periphery of the line spacing ratchet wheel 42 is mounted a band or ring 54 preferably of metal, said band or ring being fixedly secured to the ratchet wheel in any suitable manner as by soldering. The face of the band 54 is provided with a series of indicating marks corresponding in number to the number of ratchet teeth on the ratchet wheel 42, although, if desired, the band 54 may be omitted and the indicating marks may be produced directly on the periphery of the line spacing wheel. As shown in the drawings the band 54 is provided with a series of registering marks *a*, thirty-three in number, and associated with each registering mark is an index numeral "1", "2", "3", etc., up to and including the numeral "33". A somewhat thinner band or ring 55 is suitably secured to the end of the platen adjacent the band 54 and said band 55 is provided with registering marks *a* and index numerals corresponding to the scale on the band 54. The bands 54 and 55 are preferably of contrasting colors, as red and black for example, and together constitute a two-part or double annular scale, the two parts turning together during the normal operation of the machine but being adapted to rotate relatively one to another when the platen releasing mechanism above described is in operation.

The annular scale is provided with a cooperating indicating device, which, as herein shown, is in the form of an arm 56, the free end whereof is off-set so that its

upper edge coöperates with both portions of the double annular scale and the opposite end whereof is secured by a screw 57 to the adjoining side bar 4 of the platen frame.

5 My improvements are intended more especially for use in making typewriter records of sales or duplicates of invoices, the idea being to make a carbon record of a number of separate invoices upon a single sheet, which sheet is usually termed a "condensed record" or
 10 "sales" sheet. The latter may not be placed in the machine in the same relation to all of the several invoice sheets, because in such case the type impressions relating to one sale would be made over those of another and the whole would be undecipherable.
 15 Furthermore, it would be difficult, if not impossible, to insert the sales sheet and the second or third invoice blank in the machine together, in such a relation that the carbon impressions would appear in the proper place upon the sales sheet. This difficulty arises from
 20 the fact that the writing upon the sales sheet is hidden by the overlying carbon sheet so that it is impossible to determine just how far down the sales sheet the top of the invoice blank should be placed. It is, moreover, always difficult to insert a number of sheets together in
 25 the machine unless their leading edges coincide. For these reasons it is desirable, when manifolding several separate sales upon a single sales sheet, to permit the latter to remain in the machine until filled, the several invoices being inserted and removed one at a time. A
 30 fuller explanation of the reasons for and method of employing the double annular scale in this style of commercial billing, which is commonly called condensed record billing, will be found in the above cited patent to Higham, No. 682,870.
 35 One method of employing my invention may now be briefly described. The finger wheel 18 is first pressed inward to operate the platen release and the platen is then turned independently of the line spacing wheel until the index numeral "1" on the right hand
 40 half 55 of the double annular scale is adjacent to the corresponding index numeral "1" on the left-hand half 54 thereof and the marks *a* are in register. Pressure on the finger wheel 18 is then removed, thereby locking the line spacing wheel and platen, and the platen is
 45 rotated, the two parts of the double annular scale rotating in unison therewith until the scale mark "1" on both parts of the scale register with the top edge of the indicator 56, as shown in Fig. 1 of the drawings. An invoice or bill head of the character to be used is then
 50 entered in the machine and fed around with the platen until the first line to be written on registers with the printing line. The distance that the platen will be turned will, of course, depend upon the depth of the bill head or invoice; that is, it will depend upon the
 55 distance the first line of writing is from the leading edge or top of the invoice sheet. Suppose that when the first line of the invoice sheet is at the printing point the numerals "24" of the scale stand opposite the index 56, indicating that the platen has been rotated
 60 through twenty-three line distances. The platen is next turned rearwardly three spaces to provide for the usual space between each two invoices. Then by actuating the platen release the platen and the right hand portion 55 of the annular scale may be turned backward inde-

pendently of the part 54 until the numeral "1" on the 65 scale part 55 stands opposite the index 56. The parts of the scale will now be in the relations indicated in Fig. 2 of the drawings, the numeral "1" of the right-hand part and the numeral 21 of the left-hand part being in register with the indicating device 56. Connection is there- 70 upon reëstablished between the line spacing wheel and the platen. The scales are now permanently set and will never require readjustment so long as the same style of bill-head is used. The platen is then turned forward to bring the first writing line on the 75 invoice to the printing position or printing line and then backwardly nineteen line spaces, these nineteen spaces comprising the sixteen spaces which are required to bring the leading edge of a sheet from the position of entrance into the machine to the printing 80 line position, plus three additional spaces to bring the first line of writing on the sheet three spaces from the leading edge or top thereof. The sales sheet and the carbon are then inserted and the platen is turned forward until the first line of writing on the invoice reg- 85 isters with the printing point. By this operation the first line to be written is brought three line spaces from the top or leading edge of said sales sheet. After the invoice is written the feed roll releases key (not shown in the drawings) is pressed forward to release the in- 90 voice which is then withdrawn from the machine without disturbing the sales sheet and the carbon. The number indicated on the right hand half 55 of the annular scale is then noted and the platen, carrying with it the sales sheet and the carbon, is turned backward 95 until the same number is indicated on the left-hand half 54 of the annular scale. A new invoice is then inserted and turned forward until the first line to be written upon registers with the printing line, in which position the corresponding line on the sales sheet will 100 be three line spaces below the last line written thereon. The operation above outlined is repeated with each invoice until the sales sheet is filled, whereupon a new sales sheet is entered in the machine in the manner hereinbefore explained. 105

From the foregoing description it will be seen that I can readily apply my invention to different and existing forms of typewriting machines provided with platen release or fractional line spacing devices without changing the structural features of such machines 110 and by merely applying the scale 54 to the line spacing wheel or a part connected thereto and by applying the scale 55 to the platen and fixing an indicating finger such as 56 to the platen frame; that the fractional line spacing mechanism may be used as such without inter- 115 fering with its use in connection with the annular scales as a billing device and that the device is inexpensive and adds but little to the cost of a machine provided with a platen release.

Various changes in the details of construction and 120 arrangement of parts may be made without departing from the spirit and scope of my invention. For example, the indicating arm 56 may be dispensed with, and the usual platen scale of the Monarch machine, which terminates contiguous to the annular scale, may 125 be employed as an indicator in coöperation with said annular scale. This last described construction is illustrated in Fig. 5 of the drawings, wherein the refer-

ence character *b* indicates the platen scale, said platen scale being omitted from the other views for the sake of clearness.

What I claim as new and desire to secure by Letters Patent, is:—

1. In a typewriting machine, the combination of a rotary platen, a line spacing wheel, means for rotating said platen independently of said line spacing wheel, and an annular scale composed of two parts one of which is mounted on said platen and the other of which is mounted on said line spacing wheel.

2. In a typewriting machine, the combination of a rotary platen mounted therein, a line spacing wheel mounted on said platen, means for rotating said platen independently of said line spacing wheel, an annular scale composed of two parts, one of which is mounted on said platen and the other of which is mounted on said ratchet wheel, and a relatively fixed indicator cooperating with said scale.

3. In a typewriting machine, the combination of a rotary platen, a line spacing wheel mounted on said platen, means for rotating said platen independently of said line spacing wheel, and an annular scale composed of two parts, one of which is fixedly connected with said platen and the other of which is fixedly connected with said line spacing wheel.

4. In a typewriting machine, the combination of a platen frame, a rotary platen mounted therein, a line spacing wheel mounted on said platen, means for rotating said platen independently of said line spacing wheel, an annular scale composed of two parts, one of which is mounted on said platen and the other of which is mounted on said ratchet wheel, and an indicator secured to said platen frame and adapted to cooperate with said annular scale.

5. In a typewriting machine, the combination of a rotary platen, a line spacing wheel adapted when rotated to cause a rotary movement of said platen, means for rotating said platen independently of said line spacing wheel, and an annular scale composed of two parts, one of which is mounted on said platen and the other of which is mounted on said line spacing wheel.

6. In a typewriting machine, the combination of a rotary platen mounted therein, a line spacing wheel adapted when rotated to cause a rotary movement of said platen, means for rotating said platen independently of said line spacing wheel, an annular scale composed of two parts, one of which is mounted on said platen and the other of which is mounted on said ratchet wheel, and a relatively fixed indicator cooperating with said annular scale.

7. In a typewriting machine, the combination of a rotary platen, a rotary line spacing wheel, means connecting said parts so that a rotary movement of one causes a rotary movement of the other, means for disconnecting said parts so that a relative rotary movement between them may be caused, and a two part annular scale, one scale part being mounted on said platen and the other on said line spacing wheel.

8. In a typewriting machine, the combination of a rotary platen, a rotary line spacing wheel, means connecting said parts so that a rotary movement of one causes a rotary movement of the other, means for disconnecting said parts so that a relative rotary movement between them may be caused, a two-part annular scale one scale part being mounted on said platen and the other on said line spacing wheel, a platen frame in which said platen rotates, and an indicating device secured to said platen frame and cooperating with said annular scale.

9. In a typewriting machine, the combination of a rotary platen, a scale mounted on one end thereof composed of two independently revoluble parts, means normally connected with said platen for enabling it to be rotated through line space distances, and means for separating the platen from said last recited means so that said platen may be independently rotated and for enabling a relative movement between the two revoluble parts of said scale to be made.

10. In a typewriting machine, the combination of a rotary platen, a scale mounted on one end thereof composed of two independently revoluble parts, means normally engaged with said platen for enabling it to be rotated

through line space distances, means for disengaging the platen from said last recited means so that said platen may be independently rotated and for enabling a relative movement between the two revoluble parts of said scale to be made, a platen frame in which said platen rotates, and an indicating device on said platen frame, said indicating device cooperating with said scale.

11. In a typewriting machine, the combination of a rotary platen, a line spacing wheel, means for releasing the platen from the control of said wheel, and a two-part annular scale, one part of said scale being revoluble with said platen and the other part of said scale being revoluble with said line spacing wheel.

12. In a typewriting machine, the combination of a rotary platen, a line spacing wheel, means for releasing the platen from the control of said wheel, a two part annular scale, one part of said scale being revoluble with said platen and the other part of said scale being revoluble with said line spacing wheel, a platen frame in which said platen rotates, and an indicating device secured to said platen frame and cooperating with said annular scale.

13. In a typewriting machine, the combination of a cylindrical rotary platen, a band scale fixed on one end thereof, a line spacing wheel, a band scale fixed thereon and adapted to cooperate with the band scale on the platen, and means for releasing said platen from the control of said line spacing wheel.

14. In a typewriting machine, the combination of a cylindrical rotary platen, a band scale fixed on one end thereof, a line spacing wheel, a band scale fixed thereon and adapted to cooperate with the band scale on the platen, means for releasing said platen from the control of said line spacing wheel, a platen frame in which said platen is mounted, and an indicating device on said platen frame, said indicating device cooperating with both said band scales.

15. In a typewriting machine, the combination of a platen, a line spacing wheel that is adapted to turn with said platen or to permit a turning of said platen relatively thereto, and a two-part annular scale, one of said parts being fixedly connected with said platen and the other of said parts being fixedly connected with said line spacing wheel.

16. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to permit a turning of said platen relatively thereto, means for effecting a movement of the line spacing wheel axially of the platen and into and out of contact with the platen head, and a two-part annular scale, one of said parts being fixed to the platen and the other of said parts being fixed to the line spacing wheel.

17. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to permit a turning of said platen relatively thereto, levers contained within the platen and extending longitudinally thereof and which cooperate with the line spacing wheel to effect a movement thereof axially of the platen to force the line spacing wheel into and out of engagement with the platen head, and a two-part annular scale, one part of which is mounted on the line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said wheel.

18. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to permit a turning of said platen relatively thereto, levers contained within the platen and extending longitudinally thereof and which cooperate with the line spacing wheel to effect a movement thereof axially of the platen to force the line spacing wheel into and out of engagement with the platen head, a two part annular scale, one part of which is mounted on the line spacing wheel and the other part of which is mounted on the end of the platen adjacent said wheel, a platen frame in which said platen is mounted, and an indicating device secured to said platen frame and cooperating with said annular scale.

19. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is

rotate therewith and are fulcrumed against a part secured to the platen and bear against the line spacing wheel and effect an axial movement of the line spacing wheel to force it into engagement with the fixed platen head and thus connect the line spacing wheel and the platen to rotate together, a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel, a platen frame in which said platen rotates, and an indicating device secured to said platen frame and coöperating with said annular scale.

25. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to permit a turning of the platen relatively thereto, a plurality of levers that extend longitudinally of the platen and are connected to rotate therewith and are fulcrumed against a part secured to the platen and bear against the line spacing wheel and effect an axial movement of the line spacing wheel to force it into engagement with the fixed platen head and thus connect the line spacing ratchet wheel and the platen to rotate together, a hand controlled wedging device co-operating with said levers to actuate them, and a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel.

26. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to afford a turning of the platen relatively thereto, a plurality of levers that extend longitudinally of the platen and are connected to rotate therewith and are fulcrumed against a part secured to the platen and bear against the line spacing wheel and effect an axial movement of the line spacing wheel to force it into engagement with the fixed platen head and thus connect the line spacing wheel and the platen to rotate together, a hand controlled wedging device coöperating with said levers to actuate them, a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel, a platen frame in which said platen rotates, and an indicating device secured to said platen frame and co-operating with said annular scale.

27. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to afford a turning of the platen relatively thereto, a finger wheel at the end of the platen opposite the line spacing wheel, a longitudinally movable spindle that is fixed to rotate with the platen, longitudinally extending levers that cooperate with said line spacing wheel to effect an axial movement thereof and to force said wheel into engagement with the fixed platen head, an actuating device connected to said spindle, and a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel.

28. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to afford a turning of the platen relatively thereto, a finger wheel at the end of the platen opposite the line spacing wheel, a longitudinal-ly movable spindle that is fixed to rotate with the platen, longitudinally extending levers that coöperate with said line spacing wheel to effect an axial movement thereof and to force said wheel into engagement with the fixed platen head, an actuating device connected to said spindle, a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel, a platen frame in which said platen rotates, and an indicating device secured to said platen frame and coöperating with said annular scale.

29. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to afford a turning of the platen relatively thereto, a finger wheel at the 160

end of the platen opposite the line spacing wheel, a longitudinally movable spring restored spindle that is fixed to rotate with the platen, longitudinally extending levers that cooperate with said line spacing wheel to effect an axial movement thereof and to force said wheel into frictional engagement with the fixed platen head, a wedging device connected to said spindle and cooperating with the levers to actuate them by a longitudinal movement of the spindle, and a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel.

30. In a typewriting machine, the combination of a platen, a fixed platen head, a line spacing wheel that is adapted to turn with the platen or to afford a turning of the platen relatively thereto, a finger wheel at the end of the platen opposite the line spacing wheel, a longitudinally movable spring restored spindle that is fixed to rotate with the platen, longitudinally extending levers that cooperate with said line spacing wheel to effect an axial movement thereof and to force said wheel into frictional engagement with the fixed platen head, a wedging device connected to said spindle and cooperating with the levers to actuate them by a longitudinal movement of the spindle, a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel, a platen frame in which said platen rotates, and an indicating device secured to said platen frame and cooperating with said annular scale.

31. In a typewriting machine, the combination of a platen, a plate secured to the platen at one end thereof, a line spacing wheel, means for forcing said line spacing wheel axially and into frictional engagement with said plate, and a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel.

32. In a typewriting machine, the combination of a platen, a plate secured to the platen at one end thereof, a line spacing wheel, means for forcing said line spacing wheel axially and into frictional engagement with said

plate, a two-part annular scale, one part of which is mounted on said line spacing wheel and the other part of which is mounted on the end of the platen adjacent to said line spacing wheel, a platen frame in which said platen rotates, and an indicating device secured to said platen frame and cooperating with said annular scale.

33. In a typewriting machine, the combination of a rotary line spacing device, a rotary platen adapted to rotate with and independently of said line spacing device, a series of circularly arranged indices that rotate with the platen, and a series of circularly arranged indices that rotate with the rotary line spacing device.

34. In a typewriting machine, the combination of a rotary line spacing device, a rotary platen adapted to rotate with and independently of said line spacing device, a series of circularly arranged indices that rotate with the platen, a series of circularly arranged indices that rotate with the rotary line spacing device, and a relatively fixed registering or indicating device that cooperates with the circularly arranged indices.

35. In a typewriting machine, the combination of a line spacing wheel, a platen that is adapted to rotate with and independently of said line spacing wheel, indicating means fixed to rotate with the platen, and indicating means fixed to rotate with the line spacing wheel.

36. In a typewriting machine, the combination of a line spacing wheel, a platen that is adapted to rotate with and independently of said line spacing wheel, indicating marks carried by the platen, indicating marks carried by the line spacing wheel, and an indicating device for registering with the indicating marks on the platen and line spacing wheel.

37. In a typewriting machine, the combination of a platen, a line spacing wheel, a platen releasing mechanism, indices fixed with relation to the platen, and indices fixed with relation to the line spacing wheel.

Signed at Syracuse, in the county of Onondaga, and State of New York, this 25th day of October A. D. 1905.

EDWIN E. BARNEY.

Witnesses:

JOHN S. MITCHELL,
H. A. AUMENT.