

H. B. RUMRILL.  
TYPE WRITING MACHINE.  
APPLICATION FILED SEPT. 17, 1906.

965,231.

Patented July 26, 1910.

28 SHEETS—SHEET 1.

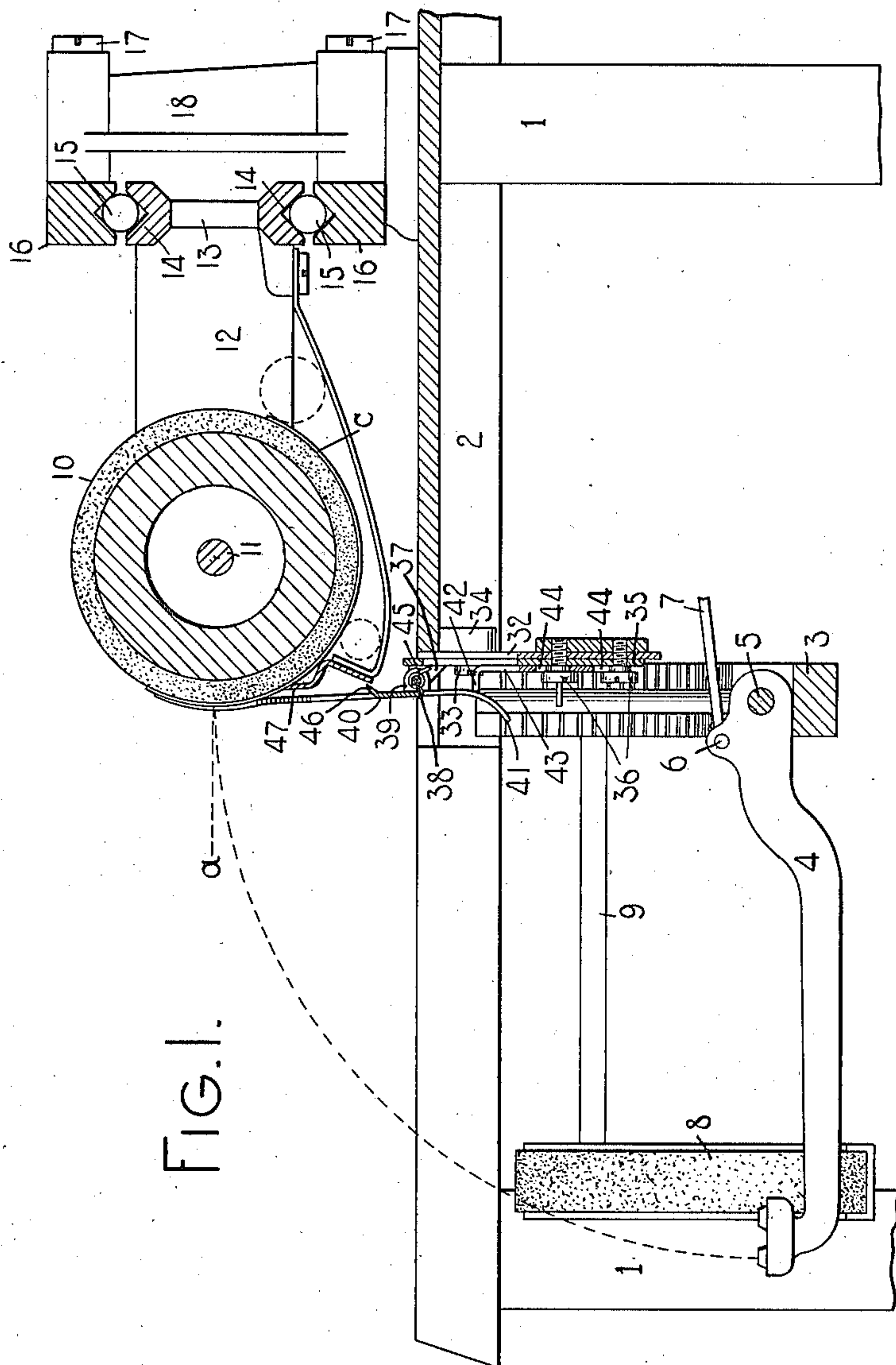


FIG. 1.

WITNESSES:

*E. M. Wells.*  
*Charles Smith.*

INVENTOR:

*Harry B. Rumrill*  
*By Jacob Felbel*  
HIS ATTORNEY

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2 SHEETS—SHEET 2.

FIG. 2.

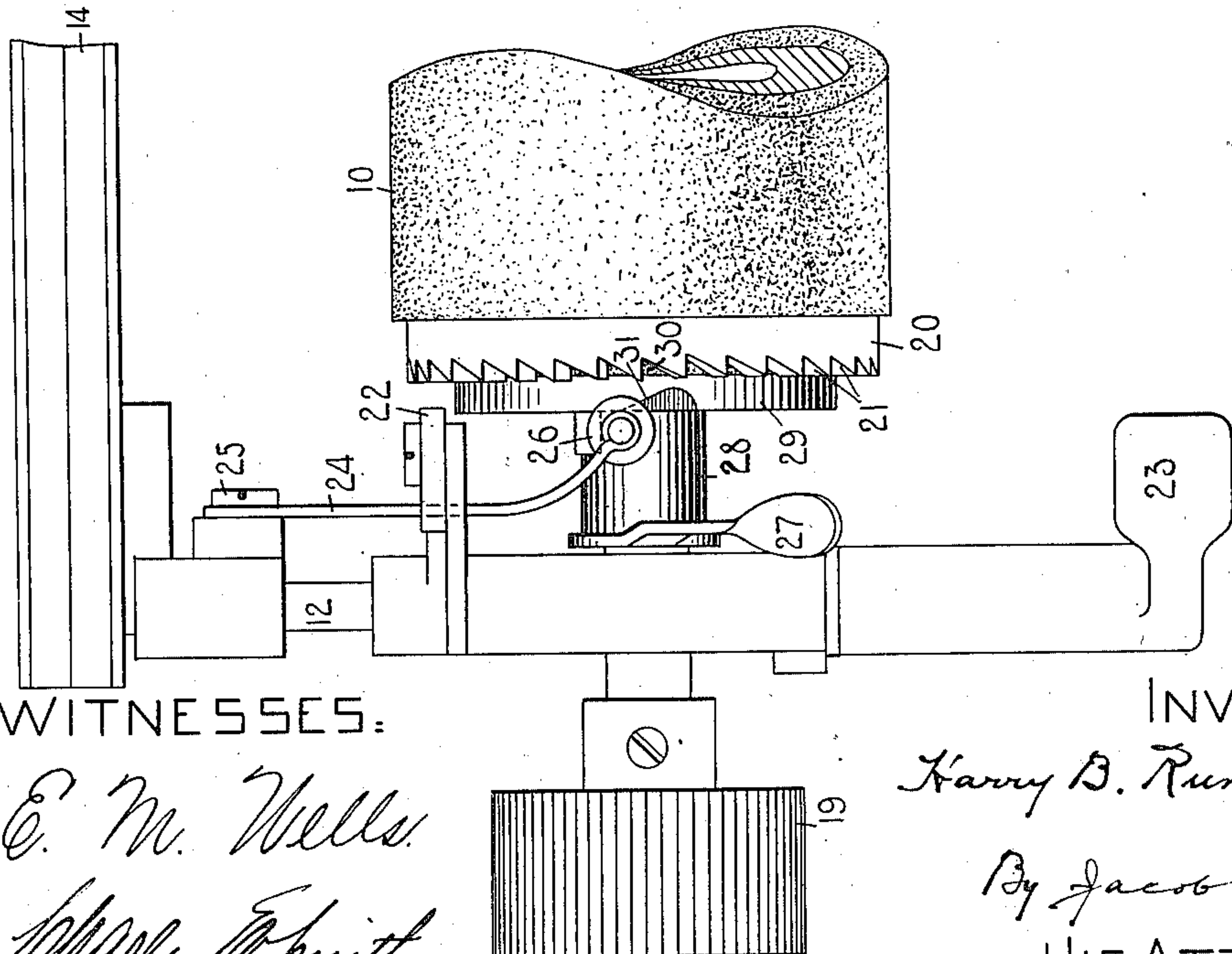
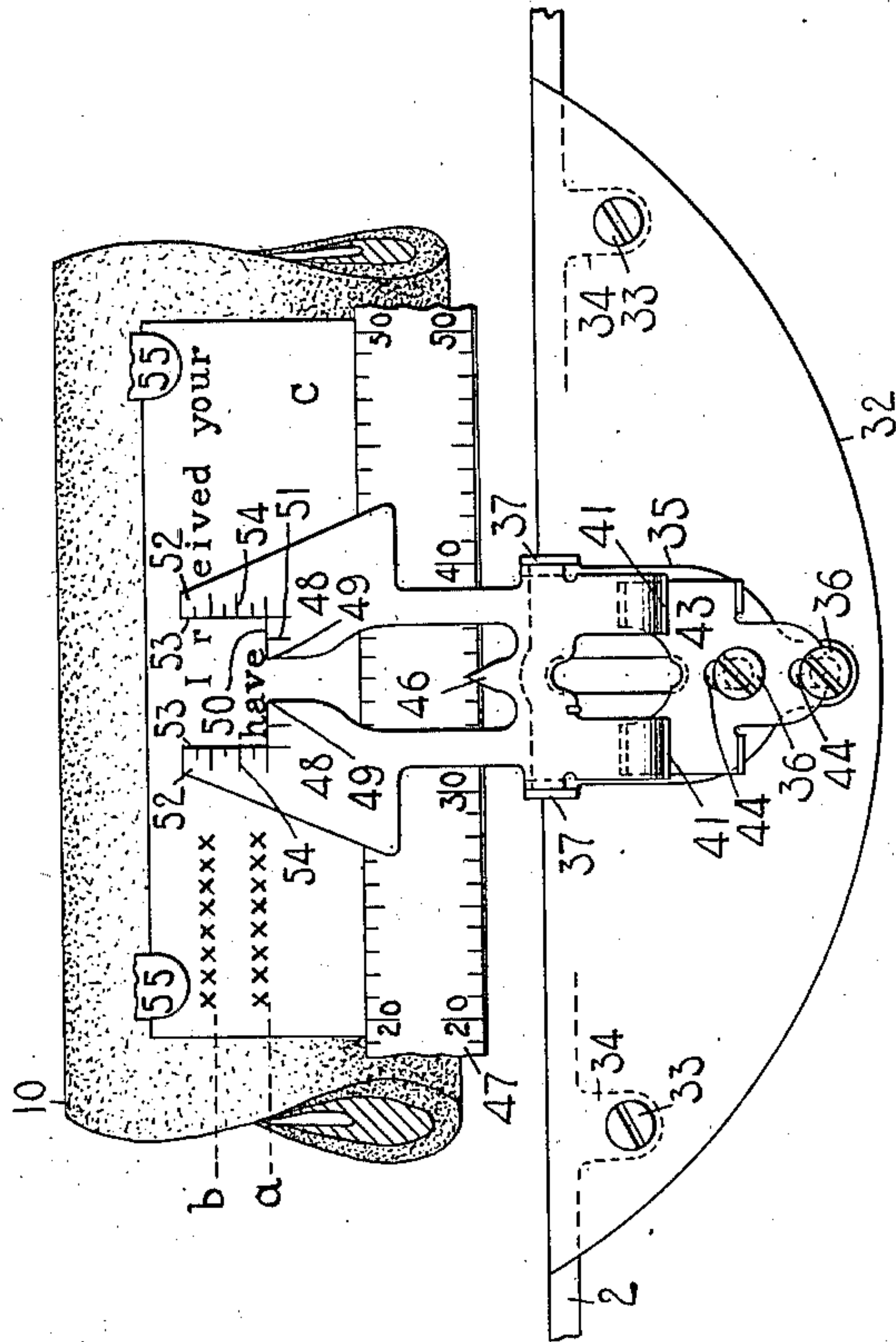


FIG. 3.

WITNESSES:

*E. M. Wells*  
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INVENTOR:

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# UNITED STATES PATENT OFFICE.

HARRY B. RUMRILL, OF BRYN MAWR, PENNSYLVANIA, ASSIGNOR TO THE MONARCH TYPEWRITER COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

## TYPE-WRITING MACHINE.

965,231.

Specification of Letters Patent. Patented July 26, 1910.

Application filed September 17, 1906. Serial No. 334,930.

*To all whom it may concern:*

Be it known that I, HARRY B. RUMRILL, a citizen of the United States, and resident of Bryn Mawr, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to typewriting machines and more particularly to indicating means and to card or work sheet guiding devices therefor.

In practice it is often desirable or necessary in filling in partly printed blanks, index cards and the like to resort to line spacing different from any which can be secured with the aid of the ordinary line spacing mechanism. Heretofore it has been customary to attain this result by throwing the ordinary line spacing mechanism out of operation and throwing the fractional line spacing mechanism into operation. The operator could then turn the platen by the finger wheels any desired extent but had to rely upon mere judgment or upon the eye to effect the desired extent of line space movement and to secure a uniform spacing between the lines.

One of the main objects of my present invention is to overcome the above disadvantages and to provide indicating means by which a proper and uniform spacing between lines can be secured.

To the above and other ends which will hereinafter appear my invention consists in the features of construction, arrangements of parts and combinations of devices to be described in the following specification and set forth in the appended claims.

In the accompanying drawings, wherein like reference characters indicate corresponding parts in the various views, Figure 1 is a central sectional view of so much of the upper portion of a typewriting machine as is necessary to show my invention in its application thereto. Fig. 2 is a fragmentary front elevation of a portion of the same. Fig. 3 is an enlarged detail fragmentary plan view of the left-hand end of the carriage showing the fractional spacing mechanism.

I have shown my invention applied to a Monarch machine and to a card guide of the general character shown in the patent to

George A. Seib, No. 831,382, dated May 22nd, 1906, but it should be understood that the invention is capable of general application and may be applied to different machines and employed in a different manner from that shown.

The corner posts 1 of the machine support a top plate 2 on which the carriage is mounted to travel from side to side of the machine. A type bar segment 3 carries type bars 4 pivoted thereto at 5 and segmentally arranged and adapted to move upwardly and rearwardly to the printing point. Each type bar is pivoted at 6 to a rearwardly extending link 7 connected to the usual type bar actuating mechanism. A type bar support 8 is carried by rods 9 that extend forwardly from the type bar segment 3. A platen 10 is mounted upon a platen shaft 11 journaled in end bars or plates 12 connected to a rear cross bar 13 provided with oppositely grooved tracks or race-ways 14 in which anti-friction balls 15 are received. The anti-friction balls are also received in oppositely grooved fixed tracks 16 secured by screws 17 to upwardly extending standards 18 fixed to the top plate of the machine. The ends of the platen shaft carry finger wheels 19 by which the platen is turned. Upon reference to Fig. 3 it will be seen that the left-hand platen head 20 is formed with line spacing ratchet teeth 21 thereon. A line spacing pawl 22 is operatively connected to a finger piece 23 by which it may be actuated in the usual manner to cooperate with the teeth of the line spacing wheel to effect a step-by-step line feed of the platen. A spring 24 is secured by a screw 25 to the carriage and carries a detent roller 26 at the free end thereof. The detent roller is adapted to bear against the teeth 21 of the line spacing wheel when the line spacing mechanism is in use. A fractional line spacing mechanism is provided, which comprises a finger piece 27 secured to a sleeve 28 that surrounds the platen shaft. The inner end of the sleeve is secured to a disk 29 that bears against the outer face of a friction disk or washer 30 which in turn bears against the left-hand platen head. The disk 29 has a cam groove 31 therein with which a bearing on the spring 24 for the detent roller 26 cooperates. The construction is such that when the finger piece 27 is moved



rearwardly the corresponding movement of the disk 29 will be effected, thereby allowing the detent roller to come in contact with and bear against the teeth of the line spacing wheel without effecting a pressure on the disk 29. When, however, the finger piece 27 is moved forwardly, as shown in Fig. 3, the detent roller will be cammed away from the teeth 30 of the line spacing wheel and the pressure of the spring 24 will be exerted against the disk, thus forcing the interposed friction disk 30 against the left-hand end of the platen so that the ordinary line spacing mechanism is out of action and the friction applied to the platen enables the platen to be moved to any desired extent, thus providing for fractional line spacing.

A front plate 32 is secured by screws 33 to depending lugs 34 which project from the top plate. A bracket 35 is secured to the front plate by headed shouldered screws 36. The bracket 35 is provided with forwardly extending ears 37 which support the pivot rod 38 that extends through openings in ears 39 on a card guide designated as a whole by the reference numeral 40, thus pivotally connecting the card guide to the bracket 35. The card guide 40, which is located centrally of the machine, has depending cam fingers 41 with which forwardly extending fingers 42 on a slide 43 are adapted to cooperate. The slide is mounted in place on the shouldered portions of the screws 36 which are received in slots 44 in the slide. A spring 45 is coiled about the pivot rod 38 and exerts a pressure against the card guide to force the upper end thereof toward the platen. The card guide is likewise provided with a pointer 46 which cooperates with a carriage scale 47. If desired the slide 43 may be moved upwardly to cam the fingers 41 forwardly, thus forcing with positive pressure the upper end of the card guide toward the platen. The construction thus far described constitutes parts of the Monarch machine and further description thereof is deemed unnecessary.

In accordance with my present invention the card guide is formed at the upper portion thereof with two arms 48 situated on opposite sides of the printing point indicated by the letter "v" in Fig. 2 and defined by the space between the portions 49 on the fingers and which is in alinement with the pointer 46. The arms 48 are notched or recessed to provide an opening through which the types strike and the bottom wall of which forms indicating edges 50 on opposite sides of the printing point and which constitute a printing line indicator that registers with the printing line indicated by the dotted line *a* in Fig. 2. In this figure it will be seen that the line indicating edges 50 register with the bottom edges of the letters or char-

acters at the printing line and are each provided with a scale or letter space indices 51 that correspond with the scale 47 and indicate the letter space distance between the characters. The arms 48 extend across the printing line forming extensions 52 having inner parallel side walls or edges 53 and each provided with a line spacing scale 54 that extends at right angles to the printing line indicator and transversely of the platen. The indices forming the scale 54 are preferably arranged close together and the indices on one scale register with those on the other. The object of these two scales 54 is to provide indicating means by which the distance from a previously written line, indicated by the dotted line *b*, to the printing line *a* may be measured, thus affording indicating means by which to effect a uniform spacing between lines when no other means for this purpose is provided, as when the fractional line spacing mechanism is in use. It will be understood that the particular scale marks on the scale 54 when used will depend upon the distance that it is desired to provide between lines.

In the operation of the devices or indicating means it may be assumed that the fractional line spacing mechanism is in operation and that it is desired to write on index cards provided with lines which differ from line spacing that may be effected with the ordinary line spacing mechanism of the machine or that blank cards are employed and it is desired to write the lines on said cards closer together than is provided for by the ordinary line spacing mechanism. The operator may introduce a card or work sheet *c* into the machine in the usual manner and the platen is turned until the proper portion of the work sheet where it is desired to begin the first line of writing is brought to the line indicators 50 and the first line indicated at *b* may be written. The operator may then turn the platen until the printed line is brought into register with certain of the indices on the scales 54, the distance between which and the printing line indicators determines the space between the lines. The operator keeps in mind which is the index mark on the scales 54 to be employed. The second line may then be written and after this line is completed the card or work sheet may be set for the third line of writing by merely turning the platen until the second written line is in register with the same marks on the scales 54 that were employed in the first instance. The operator may then proceed to write the third line and so on indefinitely and all lines will be spaced a uniform distance apart, the indicating mechanism assuring with mechanical accuracy the proper spacing between lines, affording a neat appearance in the work produced and the operator does not have to rely merely



upon judgment in order to secure the proper and uniform spacing between lines as heretofore.

In some classes of card index work a line is written on a scale and the card is removed from the machine until some future time when it is again introduced into the machine and a second line is written just below and close to the first line, the distance between the lines usually being less than that provided for by the ordinary line spacing mechanism. The card is then removed and at some future time it is again inserted in the machine and the third line written and so on until the card is filled. By my present invention this class of work not only can be more rapidly effected than heretofore but the spacing between the various lines on each card and the spacing on the various cards will be uniform, thus greatly enhancing the neatness in their appearance. It will also be understood that the indicating means of my invention are also especially convenient in making corrections and alterations and from certain aspects of my invention the indicating devices may be considered apart from the paper guiding and feeding devices or card guide of which they form part and regarded solely as indicating means, whereas from certain other aspects the indicating devices may be regarded as part of the card guide or paper feeding devices. The latter are particularly efficient in the present construction, inasmuch as the arms 48 of the card guide, or the extensions 52 thereof, extend across the printing line and form an efficient card guide which presses the card or paper against the platen at the printing line and adjacent to the printing point and prevent it from bulging at this point no matter how stiff the cards employed may be, thus preventing blurring imprints from being produced and delivering or guiding the work sheet or card *c* to the usual paper guides or fingers 55 and leaving no space whatever longitudinally of the platen between the card guide and the paper fingers 55, so that the card is maintained under pressure by the card guide at and above and below the printing line and adjacent the printing point at all times.

When I refer in the claims to a "fixed" scale or indicator I mean one which is carried by a fixed portion of the machine as distinguished from a scale or indicator which is carried by or travels with the carriage.

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

1. In a typewriting machine, the combination of a carriage, a cylindrical platen carried thereby, and two indicating scales that are carried by a fixed portion of the machine and extend at substantially right angles to each other.

2. In a typewriting machine, the combination of a carriage, a cylindrical platen carried thereby, and a line indicator with a scale that extends at substantially right angles thereto, both the line indicator and scale being carried by a fixed portion of the machine.

3. In a typewriting machine, the combination of a carriage, a cylindrical platen, and a fixed scale that extends transversely of the axis of the platen adjacent to the printing point.

4. In a typewriting machine, the combination of a carriage, a cylindrical platen carried thereby, and a scale that has one edge which registers with the printing line, with a second scale which extends at substantially right angles to said first mentioned scale, both scales being carried by a fixed portion of the machine.

5. In a typewriting machine, the combination of a carriage, a cylindrical platen carried thereby, and a fixed scale that has one edge which registers with the printing line, with a second fixed scale which extends at substantially right angles to said first mentioned scale and which is situated adjacent to the printing point.

6. In a typewriting machine, the combination of a carriage, a platen, and an indicating device that is fixed adjacent to the printing point and carries a printing line indicator and a line space scale.

7. In a typewriting machine, the combination of a carriage, a platen, and an indicating device carried by a fixed part of the machine, and having a printing line indicator and a line space indicator with indices thereon to indicate different line space distances.

8. In a typewriting machine, the combination of a carriage, a platen, a fixed indicator having an opening with walls that are at an angle to each other, one of said walls forming a line indicator and another wall having indices at different line space distances from the printing line.

9. In a typewriting machine, the combination of a carriage, a platen, and a fixed indicator that registers with the printing line and has an arm that extends across the printing line and has indices thereon.

10. In a typewriting machine, the combination of a carriage, a platen, and a fixed combined printing point and printing line indicator that has arms on opposite sides of the printing point and which extends across the printing line and affords an indication of a line adjacent to the printing line.

11. In a typewriting machine, the combination of a carriage, a platen, and a combined printing point and printing line indicator that is carried by a fixed portion of the machine and has an arm to one side of the printing point and which extends across



the printing line, and indices on said arm that afford an indication of a line adjacent to the printing line.

12. In a typewriting machine, the combination of a carriage, a carriage scale, a platen, and a combined printing point and carriage indicator carried by a fixed portion of the machine, said indicator having a member that extends across the printing line and has indices thereon that afford an indication of a line adjacent to the printing line.

13. In a typewriting machine, the combination of a carriage, a platen, and an indicator carried by a fixed portion of the machine and spring-pressed toward the platen, said indicator being apertured to receive the types, a wall of the aperture having means to indicate the distance of an adjacent line from the printing line.

14. In a typewriting machine, the combination of a carriage, a platen, and an indicator carried by a fixed portion of the machine and spring-pressed toward the platen, said indicator being apertured to receive the types, one wall of the aperture forming a printing line indicator and another wall having indices to determine the distance between the printing line and an adjacent line.

15. In a typewriting machine, the combination of a carriage, a platen, and an indicator that is carried by a fixed portion of the machine and is spring-pressed toward the platen, said indicator having a type receiving opening with walls thereof on opposite sides of the printing point, and line indicating means on said walls.

16. In a typewriting machine, the combination of a carriage, a platen, and an indicator that is carried by a fixed portion of the machine and is spring-pressed toward the platen, said indicator having a type receiving opening with two side walls and a bottom wall, the bottom wall forming a printing line indicator and the side walls extending across the printing line and having

means for indicating a line adjacent to the printing line.

17. In a typewriting machine, the combination of a carriage, a platen, and an indicator that is carried by a fixed portion of the machine and is spring-pressed toward the platen, said indicator having a type receiving opening with two side walls and a bottom wall, the bottom wall forming a printing line indicator and the side walls having scales.

18. In a typewriting machine, the combination of a carriage, a carriage scale, a platen, a combined printing point and printing line indicator that is carried by a fixed portion of the machine and is apertured to allow the types to print therethrough, the apertured portion of the indicator having two side walls and a bottom wall, the bottom wall constituting a printing line indicator and the side walls having scale marks thereon and a pointer carried by said indicator and cooperative with the carriage scale.

19. In a typewriting machine, the combination of a carriage, a platen, and a card guide that is carried by a fixed portion of the machine and cooperates with the platen and has an arm that extends across the printing line, and a plurality of line spacing indices on said arm.

20. In a typewriting machine, the combination of a carriage, a platen, and a card guide carried by a fixed portion of the machine and having arms that extend across the printing line adjacent to and on opposite sides of the printing point and a line scale on each arm.

Signed at Philadelphia in the county of Philadelphia and State of Pennsylvania this thirteenth day of September A. D. 1906.

HARRY B. RUMRILL.

Witnesses:

C. G. McINTYRE,  
W. I. WILSON.