

DIRECTIONS FOR USING

THE

REMINGTON STANDARD

TYPEWRITER

Models 10 and 11

(SIXTH EDITION)

REMINGTON TYPEWRITER COMPANY

(Incorporated)

325-329 Broadway, New York, U. S. A.

Directions for Using
The
Remington Standard
Typewriter

Models 10 and 11

(Sixth Edition)



Remington Typewriter Company

(Incorporated)

New York and Everywhere

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Directions for Using the
Models 10 and 11
REMINGTON STANDARD TYPEWRITER

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INTRODUCTORY.

The operation of the Remington Typewriter is so simple that no one need experience any difficulty in learning to use it. All that is really necessary is to insert a sheet of paper, and then touch the keys, but a correct understanding of the mechanism will greatly increase its usefulness to the operator.

Careful attention to the following instructions will be of much benefit to those who desire to become thoroughly familiar with the machine, and expert in its use and care.

In general appearance, the Remington models 10 and 11 differ somewhat from the previous ones which have been for so many years the favorites of users of writing machines. Nearly all, however, of the general principles of Remington construction which experience has tested so severely, and with such gratifying results, are retained. Operators who are familiar with the other Remington models will not have any difficulty in at once making use of the models 10 and 11. Many changes in the details of construction, tending toward a greater ease and convenience of operation, speed, strength, durability, and range of work, have been introduced.

The manner in which the Remington performs its work is of the simplest. The Remington Standard Typewriter may be considered as composed of seven different parts as follows:

THE KEYBOARD—By which the operation of the machine is directed.

THE TYPE MECHANISM—By which the letters are, one after the other, in any desired sequence, imprinted upon the paper.

THE CARRIAGE—Which holds the paper in the proper position for writing, and which, by its regular movements, provides for the spacing of letters and lines.

THE ESCAPEMENT—By which the carriage is moved one space as each character is written.

THE RIBBON MOVEMENT—By which mechanism a fresh portion of the ribbon surface is presented at each stroke of the type.

THE COLUMN SELECTOR—On the Model 10.

THE KEY-SET DECIMAL TABULATOR—On the Model 11.

A very brief examination of the machine will serve to make the operator familiar with these general parts, and the absolute simplicity and directness of their relation to one another. Every portion of the machine is

readily accessible, and, by the aid of the following illustrations and explanations, no difficulty will be experienced in understanding the function of every part.

To make the ensuing directions intelligible, and especially to illustrate the points wherein the Models 10 and 11 Remington differ from the other Remington models, two views of the general working parts of the machine are given, and also four illustrations of portions of the mechanism not so clearly shown in the general views.

Figure 1. A front view of Model 10.

Figure 2. Illustrates the line space mechanism.

Figure 3. A rear view of Model 10.

Figure 4. Illustrates the new escapement mechanism.

Figure 5. Illustrates the ribbon mechanism.

Figure 6. Illustrates the tabulator mechanism of Model 11.

NOTE.—The same number in any of the illustrations always indicates the same part of the machine.

Right or left in these pages applies to the part of the machine at the right or left (as the case may be) of a person seated in front of and facing the machine.

Instructions for Unpacking.

SECTION 1. To open the packing box: First—Turn the box upside down.

Second—Remove the screws around the edge and take the machine out of the box by lifting up the lid. Turn the lid upside down, thus bringing the machine right side up.

Third—Remove the six screws from the inside of the lid, releasing the thin board underneath.

Fourth—Remove the metal cover. (If the machine is provided with one.)

Fifth—Turn the machine over on its back and remove the nuts and bolts which fasten it to the lid.

Untie all the tapes carefully, being sure to remove them all, and the machine is ready for use.

Do not meddle with the screws or tensions. The machines are sent out from the factory properly adjusted.

THE KEYBOARD.

The Type Keys.

SECTION 2. Every type key represents two characters, either of which can be printed by striking the same key. The keys with only one letter

upon them print both the capital and small letter represented. All the other type carrying dissimilar characters have both characters indicated upon the keys. The "lower case," or front characters on the keys, will be printed when the machine is set to write small letters, and the "upper case," or rear ones, when the machine is set for capitals.

The Space Key.

SECTION 3. The spaces between words are made by depressing the long bar which extends across the front of the keyboard, known as the space key (13830). The depression of this bar at any portion of its length moves the carriage to the left just the width of one letter. The operator should, of course, strike it once after every word, and also when it is desired to make spaces other than those between words, such as between sentences, at the beginning of paragraphs, etc.

The Shifting Cylinder.

SECTION 4. Every type bar in the machine carries two types. The cylinder (31611) determines by its position which of the two shall strike the paper. When the cylinder occupies the lower position, the small letters and the characters upon the double keys which are nearest to the operator will be printed. When the cylinder is moved upward as far as it will go, the machine will only print capital letters and the characters on the double keys which are farthest away from the operator.

The Shift Keys.

SECTION 5. The purpose of the shift keys, either one of which can be operated as may be most convenient, is to change the position of the cylinder so as to print a character contained in the "upper case," or shift. (Following the custom of printers, the capitals and other characters in that shift are frequently called the "upper case," while the small letters are known as the "lower case.") By depressing either shift key, the cylinder is instantly shifted to the upper case position, but is returned to its former place immediately upon removing the finger from the key. From this it will be seen that when the cylinder is in the normal position for writing the lower case characters the use of the shift key enables the

operator to insert any capital or other character from the upper case at will, and instantly return to the lower case by simply releasing the shift key. The shift key must always be depressed while "upper case" characters are being written.

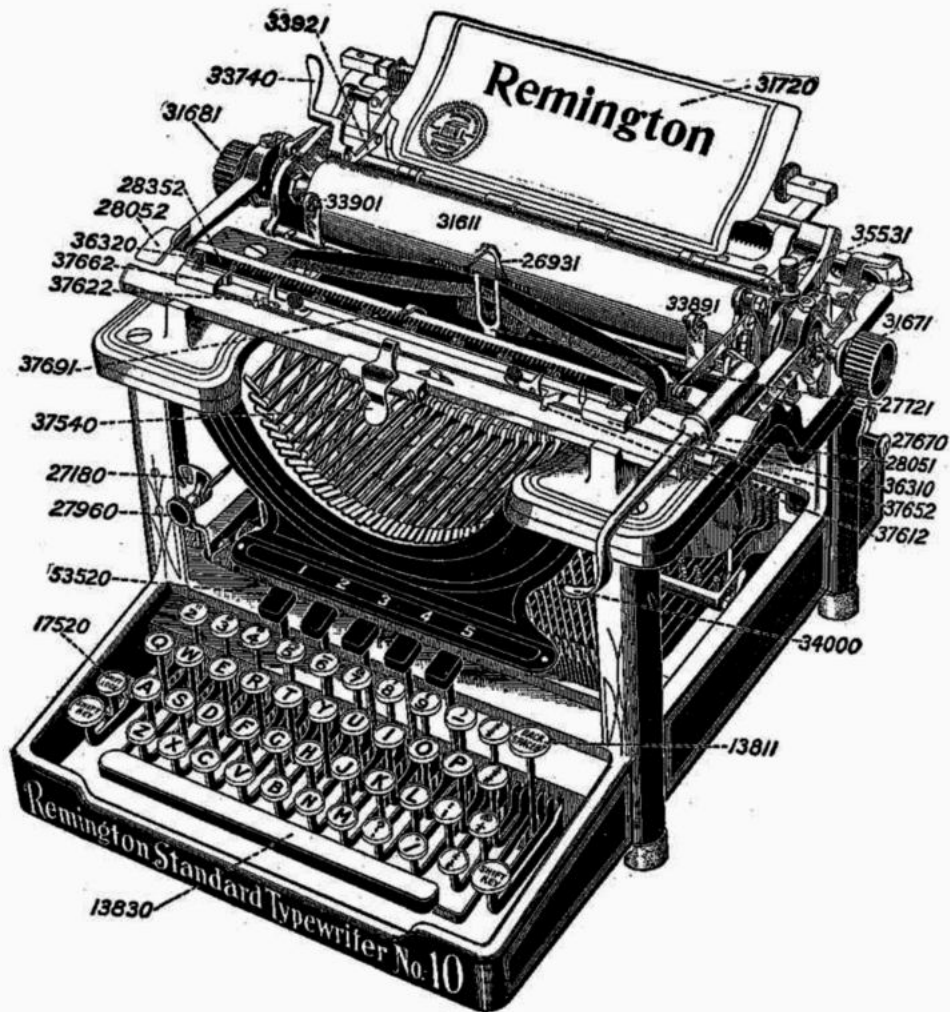


FIGURE 1.

The Shift Lock.

SECTION 6. The Shift Lock (17520), situated directly behind the left shift key, is depressed instead of the shift key if the upper case is to be used for writing several words or sentences in sequence. The cylinder is again returned to the lower case by simply pressing and then releasing the left shift key.

The Back Spacer Key.

SECTION 7. The Back Spacer Key (13811) is located in the upper right hand corner of the keyboard. Each stroke on this key moves the carriage backward one letter space. This feature is very convenient where it is desired to return a few spaces to a former writing point.

THE CARRIAGE.

Placing the Paper.

SECTION 8. Drop the edge of the paper well down on the rubber feed rolls back of the cylinder (31611), with the left edge of the sheet just touching the paper side guide (33921) and so that it is immediately caught between the cylinder and the feed rolls. Turn the cylinder from you by either one of the thumb wheels (31671 or 31681) until the lower edge of the paper has passed an inch or an inch and a half beyond the line gauge (26931), bringing it beneath the paper guides (33891 and 33901). If the edge of the paper is not parallel with the line gauge, slacken the pressure of the feed rolls upon the paper by pressing and holding back the feed roll release key (33740), draw back the side of the sheet that projects too far, until it is quite parallel with the line gauge and then roll it in until the portion of the sheet upon which it is desired to commence writing is immediately on a line with the line gauge.

To change the setting of the paper side guide (33921), loosen the stop on this guide by pressing the plunger and move the stop along to the desired position, then release plunger.

For instructions in inserting paper in connection with the end guides on the Model 11, see Section 32.

Adjusting the Paper Guides.

SECTION 9. The machine is fitted with two paper fingers (33891 and 33901) and a central line gauge (26931), which render instantaneous adjustment for any width of paper or any size of envelopes an easy matter. A perfectly smooth and uniform fitting of the paper to the surface of the cylinder, which is essential to good work, is secured by the guide rolls at the top of the paper fingers, which adjust themselves automatically to any thickness of paper through the paper fingers and the tension spring (67380, Figure 2), but the pressure upon the paper can at any time be increased or diminished by turning the little adjusting screws (74370, Figure 2) to the right or left as may be required. Each of these paper fingers slides easily upon the paper finger way bars, and remains in the position in which the hand of the operator leaves it. To do the best work, the left hand and right hand ones should be so placed that the edges of the sheet of paper come well under the little rolls which they bear. These rolls are useful to carry the paper along after the lower edge of the sheet has passed the feed rolls under the cylinder when it is desired to write close to the bottom of the sheet.

The adjustment of the marginal stops for narrow paper is explained in Section 17.

The Scale.

SECTION 10. The writing point, in other words the point at which each character is printed, is always in the exact center of the cutout on the line gauge (26931, Figure 1) and corresponds to the position of the pointer (37691) on the carriage scale (28352). This pointer informs the operator of the position of the writing point in relation to the other points on the scale. The carriage scale (28352) is indispensable in setting the column selector stops on the reversible rack as described in sections 27 and 28.

The Feed Roll Release.

SECTION 11. The pressure of the feed rolls upon the paper is instantly removed by pressing and holding back the feed roll release key (33740), which will permit the adjusting of the thinnest or most delicate paper without danger of tearing. This key is conveniently placed, so that a

slight movement of the fingers of the left hand will suffice to give the needed pressure.

For the use of the feed roll release in connection with the end guides of the Model 11, see Section 32.

To Begin a New Line.

SECTION 12. To return the carriage to begin a new line, pull the line space lever (34000) with a gentle pressure to the right until brought to a full stop by the margin stop (37622). This movement simultaneously revolves the cylinder carrying the paper to the proper position for the next line, and returns the carriage to the beginning of the writing line.

The Carriage Release.

SECTION 13. The position of the writing line does not change unless the line space lever (34000) is pulled to the right or the thumb wheels (31671 or 31681) are turned. The carriage can be freely moved toward the right at any time, but it cannot be pushed toward the left without first depressing one or the other of the two carriage release levers (28051 and 28052). This enables the operator to move the carriage freely in either direction. For convenience a release lever is placed on each side of the carriage.

Changing Space Between Lines.

SECTION 14. The machine is constructed for three different widths of line spacing. These are regulated by the space gauge (35531, Figure 2). When the little knurled thumb piece of this gauge is lifted up and pulled forward as far as it will go, the machine is adjusted for the widest spacing, equal to three notches of the ratchet (30370) on the cylinder. When it is set in the central groove, the spacing equals two notches of the ratchet, and when it is set in the groove farthest from the operator, it is adjusted to the narrowest spacing, or one notch.

In case it is desired to write upon lines of irregular width, or to make an insertion between regular lines of spacing already written upon, or to write upon ruled paper where the spacing differs from that regulated by the notches on the ratchet (30370), set the cylinder to the desired writing line as described in the following sections (15 and 16).

Variable Line Space Mechanism.

SECTION 15. To write upon a given line, as in the case of filling out blanks or inserting dates in a printed letter heading, bring the line on which it is desired to print exactly to the edge of the line gauge (26931, Figure 1). This may be accomplished by pressing in on the right thumb wheel (31671, Figure 2), thus throwing out of action the spacing ratchet (30370). Then, while the thumb wheel is held in, turn the cylinder to the exact position. Then remove your hand from the thumb wheel, allowing it to spring out, thus throwing the ratchet into action again. The bottom of the letter printed will be found exactly upon the line brought to the edge of the line gauge.

Variable Line Space Lock.

SECTION 16. If it is desired to use the variable line spacing mechanism for writing several lines in sequence, press in the right cylinder thumb wheel (31671) as far as it will go and then lock it in place by pulling

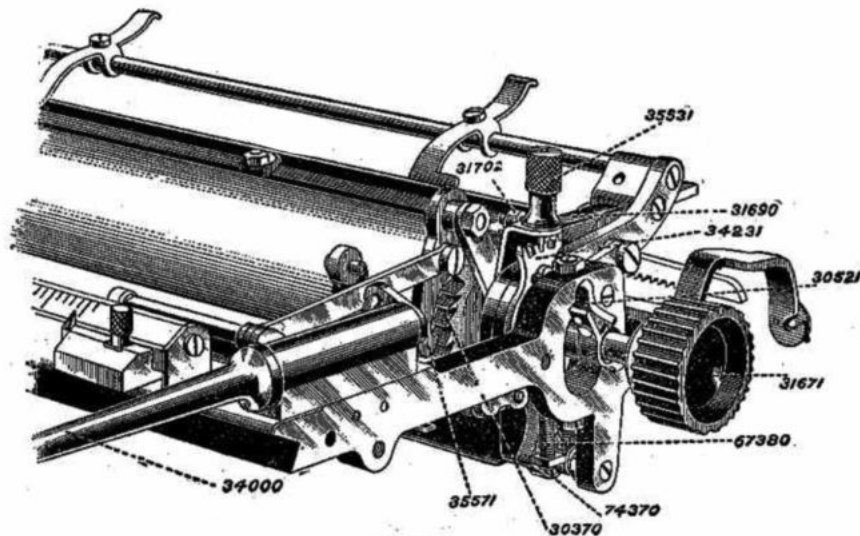


FIGURE 2.

over the little lever (30521) with the thumb, so that it catches over the flange on the hub of the thumb wheel. This throws the cylinder ratchet entirely out of action. When the catch is released, the ratchet again engages the cylinder.

In the operation of the variable line spacing mechanism, the line space lever is not used; the paper being turned to the desired writing point by means of the thumb wheels alone.

Regulating the Margins and Changing the Lines.

SECTION 17. Margins are regulated by the marginal stops (37662, 37622, 37612, 37652, see Figure 1), which slide on the marginal stop bar. The latter is graduated to correspond with the markings on the scale, and all the stops are movable, so that they can be set to begin and end the lines of writing at any point.

When the machine is set for full length lines, the writing always commences at the point shown by "O" on the scale. If it is desired to begin the lines further away from the left side of the sheet, so as to leave a margin down that edge of the page, it can readily be done by moving the left marginal stop (37622) to the right. To do this, press with the thumb on the knurled knob, and move it to the right until the little indicator is exactly upon the mark on the graduated scale (28352) at which it is desired to begin the writing. For convenience, margins are usually set to commence at 5, 10, 15, etc.

If it is desired to shorten the line on the right as, for instance, when writing on a narrow sheet of paper, it is only necessary to set the right marginal stop (37612) so that its indicator points to the place at which it is desired to stop the writing. The method of adjusting the paper guides for any considerable amount of writing on paper of less width than the full capacity of the machine is described in Section 9. The bell will invariably give warning a few spaces before the end of the line, as fixed by the right marginal stop, is reached.

At this point the further operation of the keys is impeded by the action of the letter spacing lock, which gives the operator warning and prevents further writing on the sheet, unless the marginal release mechanism (referred to below) is used.

If it is desired to extend the line of writing beyond the limits set by the marginal stops on either the right or the left hand side of the paper, it can be done by pressing the marginal release (37540, Figure 1) so that

the carriage can be moved in either direction past both the marginal stops, thus allowing the carriage to run to the full length of the line indicated by the position of the final marginal stops (37652 and 37662). This permits the insertion of a few additional characters to complete a word or syllable at the end of the line, or the writing of marginal notes or headings on the left hand margin of the sheet.

When the final stops (37652 and 37662) are pushed to their respective ends of the bar, the carriage will run to the extreme length of the line which the machine is fitted to write. Both of these stops can be moved to any desired point on the bar by pressing back the final stop release levers (36310 and 36320) and moving them along the bar. This permits the full use of the marginal devices on paper of any width.

Rewriting.

SECTION 18. The cylinder is held in position by the roll (31702, Figure 2) of the cylinder stop spring (31690) engaging in the teeth of the ratchet head (30370), the line space pawl (35571) being held out of contact with the ratchet, thereby permitting the cylinder to be turned backward or forward at any time, and always be securely locked, in whatever position it may stop.

To rewrite upon the line of writing (that is before the paper has been shifted by the operation of the line space lever), operate the back spacer until the space in which the character is to be rewritten shows in the center of the cut out on the line gauge (26931, Figure 1). Where it is necessary to return the carriage more than a few spaces, an equally expeditious way is to pull the carriage back to the desired point on the scale.

If the rewriting is to be done on lines that have been previously written and turned forward, turn the cylinder backward by one of the thumb wheels until the line upon which the reprinting is to be done is at the edge of the line gauge (26931). Then proceed as directed in the preceding paragraph.

If the correction is to be made on a sheet which has been removed from the cylinder, replace it again as at first and turn the paper forward until the printing appears above the line gauge. Then adjust one of the printed lines, preferably one near to the line on which the correction is to be made, to the edge of the line gauge in the manner described in Section 11, so as to make sure that the character to be rewritten will fall exactly upon the line of writing. Since the writing of the machine is all in

parallel lines, this adjustment of the paper will suffice for any rewriting which has to be done on the sheet, as it is only necessary to turn the cylinder forward or backward until the line on which the correction is to be made is at the edge of the line gauge to enable the operator to place any character in any desired position. When adjusting the paper for the position of the line, care should be taken to see that the center of the letters upon the line upon which the adjustment is made corresponds

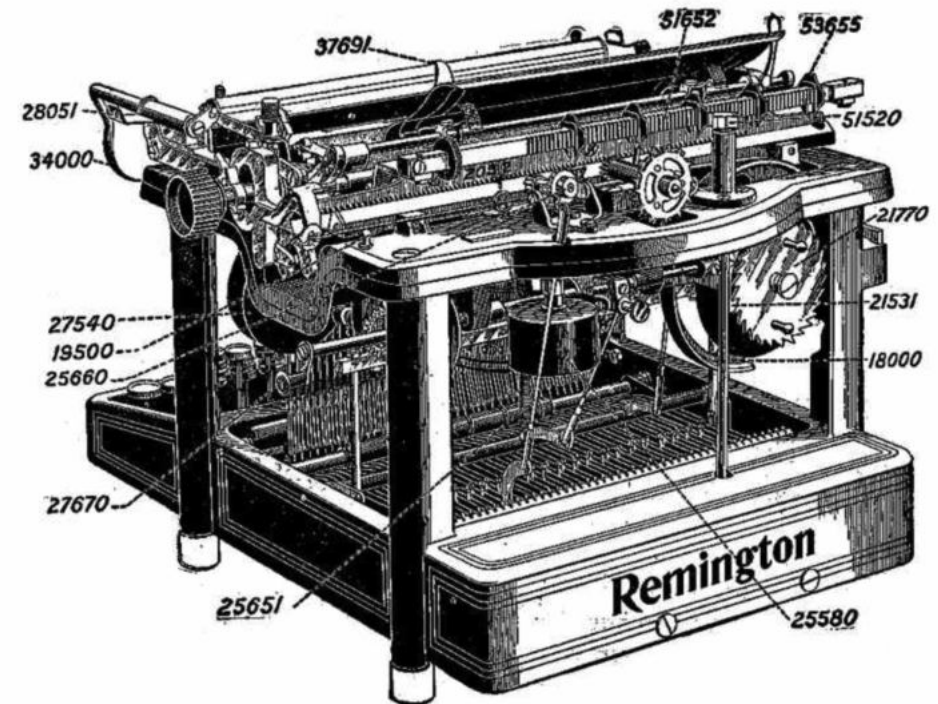


FIGURE 3

with the graduated marks on the edge of the line gauge. The best way of testing this is by noting the position of letters having a straight central stem such as i, m or l. This is especially important where only one character is to be corrected. Careful attention to these points will enable the operator to correct the misprinting of even a single character so that the insertion cannot be distinguished from the original writing.

Regulating the Carriage Tension.

SECTION 19. The carriage moves to the left by the force of a coiled spring contained in the mainspring wheel (18000, Figure 3). A flexible metal strap (19500) connects this spring with the carriage. The tension of the mainspring determines the amount of force which draws the carriage. It is desirable that the carriage move promptly, but it is also important that the tension should not be too strong, or it will cause unnecessary wear upon the escapement wheels (20702 and 20712, Figure 4) and the dog (20193, Figure 4). Usually a pull of from 12 to 14 ounces will move the carriage promptly, though greater tension can be safely applied if necessary. The carriage tension may be increased by turning the tension ratchet (21770, Figure 3), toward the right and diminished by moving up and down the handle of the tension pawl (21531).

Removing and Replacing the Cylinder.

SECTION 20. Occasionally it may be desirable to remove or replace the cylinder with another one fitted for special work, such as a very hard one for heavy manifolding.

Loosen the two set screws in the right cylinder thumb wheel (31671, Figure 1) and remove the thumb wheel. Then loosen the cylinder set screw in the left cylinder head which permits the left cylinder thumb wheel (31681) to be removed. When the left cylinder thumb wheel is removed, a space collar drops down which allows the cylinder to be pushed to the left; then, by lifting up the left end first, remove the cylinder by a firm pull to the left.

To replace it, insert the shaft at the right end of the cylinder through the bushing in the right cylinder end. Be sure that the ratchet on the end of the cylinder is beneath the roll of the cylinder stop spring. Place the space collar in position between the left cylinder head and the cylinder frame and insert the left cylinder thumb wheel (31681). Then tighten

the set screw in the left cylinder head. Replace the right cylinder thumb wheel (31671) and tighten the screws.

THE ESCAPEMENT.

The Letter Spacing.

SECTION 21. The step-by-step motion of the carriage, whereby the letter spacing is performed, is accomplished by the action of the letter spacing dog (20193, Figure 4) upon the escapement wheels (20702 and 20712). This dog is mounted upon the upright arm of the rocker (20173) at the back of the machine, at such a height as will permit it to engage slightly the teeth of the escapement wheels just above, and thus prevent them from revolving, save as motion is communicated to them by the operation of the machine.

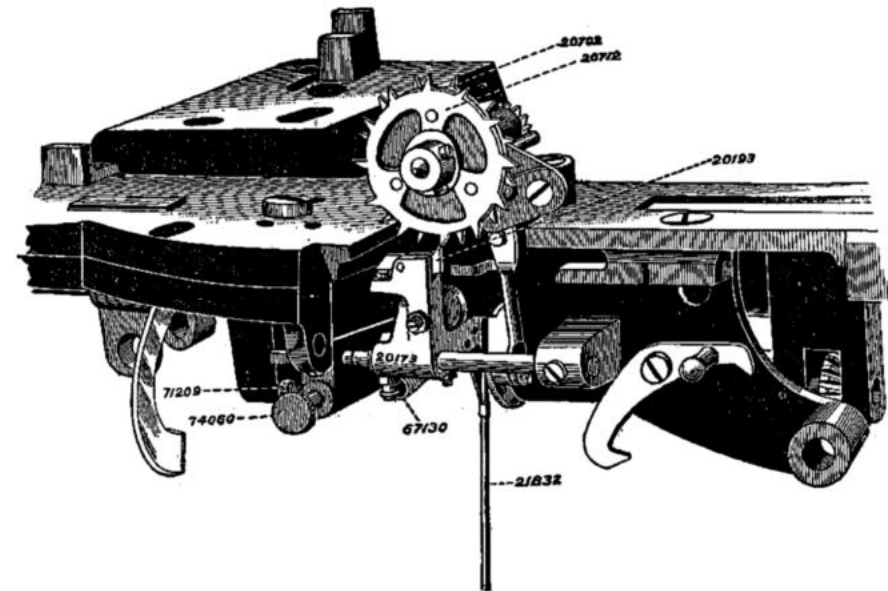


FIGURE 4.

The dog is so adjusted that when a key is struck, it is released from a tooth in the rear escapement wheel (20712), and is brought into contact with the next tooth in the front escapement wheel (20702). As soon as the key is released, the rocker goes back to its first position, engaging a tooth in the rear escapement wheel.

There are four holes in the arm of the letter spacing rocker (20173) for adjusting the letter spacing rocker pull wire (21832). In its normal position the pull wire is hooked in the second hole from the end of the rocker arm. By connecting the pull wire in either of the holes toward the rocker the dog trips quicker by the action of the key lever and so increases the speed of the escapement.

To change the escapement from a direct to a reverse action, it is only necessary to loosen with a wrench the three screws which clamp the two escapement wheels together and so reverse the relation of the teeth of the two escapement wheels that the teeth of the back wheel stand ahead of those on the front, or vice versa. This renders it easy to adjust the machine to the touch of any operator.

The Rack and Pinion.

SECTION 22. The motion of the carriage is communicated through the escapement wheels by means of a little pinion wheel upon the other end of the same shaft. This pinion wheel engages the teeth of a letter-spacing rack (20512, Figure 3) attached to the rear of the carriage. To release the carriage from the pinion wheel so that it can be moved along in either direction, depress either carriage release key (28051 or 28052).

Tension of Letter Spacing Rocker.

SECTION 23. The amount of tension on the letter spacing rocker (20173, Figure 4) is regulated by the coiled spring (67130), which is secured to the letter spacing rocker and the spring adjusting bridge. To increase the tension, loosen the set screw (71209), which holds the adjusting screw for dog tension spring (74060), and turn the adjusting screw to the right until the desired tension is secured; then tighten the set screw again. To diminish the tension, turn the adjusting screw to the left.

THE RIBBON MOVEMENT.

The Ribbon Mechanism.

SECTION 24. The ribbon mechanism is entirely automatic. It relieves the operator of any care of the ribbon after it is once put into the machine until it is worn out, and secures the utmost economy by using every portion of its surface. The automatic reversing movement is perfectly simple, and does not make the operation of the keys any more laborious, since it in no way depends on the action of the keys for its motive power, nor does it in any way interfere with the free movement of the ribbon from spool to spool by the operator.

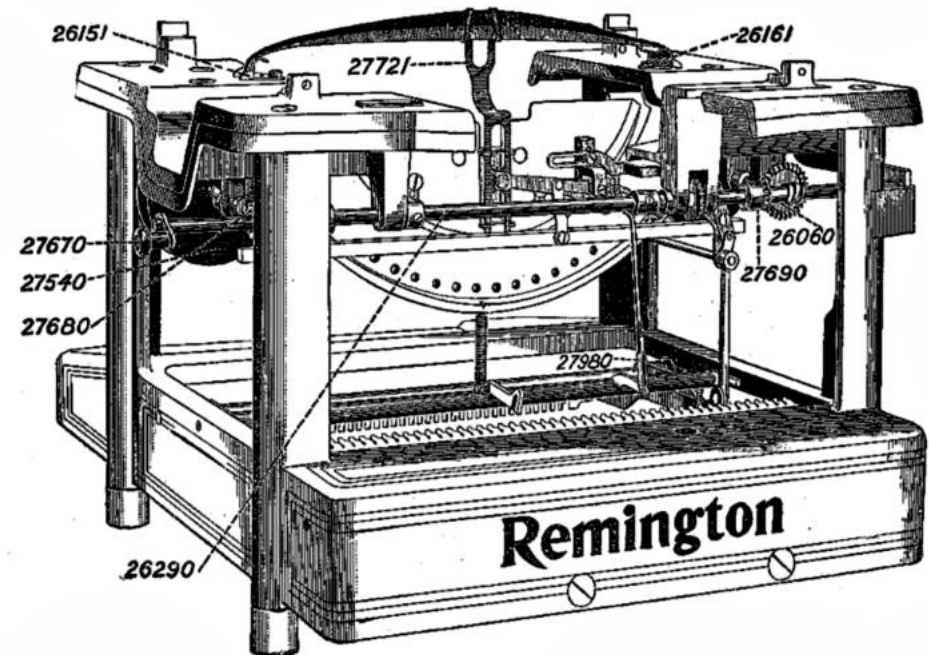


FIGURE 5

The ribbon passes beneath the ribbon carrier (27721, Figures 1 and 5), and moves across the type basket with every motion of the carriage from right to left. By this action the ribbon is gradually unwound from one of the spools and wound upon the other, thus presenting a fresh part of its surface to every impression of the type. This movement is accomplished by the mainspring of the machine acting upon the gear shaft (26290, Figure 5) and the small bevel gears which are attached to it.

When the ribbon is completely unwound from either spool, the ribbon reverser locking pin lever is no longer confined in the hub of the spool, and, consequently, falls by its own weight as soon as the turning of the spool brings it to the under side. This action thrusts out the reverser locking pin into the worm gears (27680 or 27690), as the case may be, causing the gear shaft (26290) to move longitudinally a sufficient distance to disengage the bevel gear on the gear shaft from the shaft bearing the full spool, and by carrying the roll of the gear shaft latch over the central point of the latch spring lock, moves the gear at the other end of the shaft into engagement with the gear of the shaft on which the empty spool revolves, thus reversing the action of the gears, and causing the ribbon to commence to rewind itself upon the spool just emptied. When this is accomplished, the identical mechanism at the other side of the machine performs a similar action, and so on indefinitely. When the gear shaft is pushed toward the right hand side of the machine, the ribbon winds upon the right hand spool. When the shaft is pushed toward the left hand side of the machine, the ribbon winds upon the left hand spool.

If it is desired to reverse the movement of the ribbon before the spool is completely unwound, it can be done by simply pushing in or pulling out (as the case may be) the gear shaft by means of the cranks (27670) on either end of the gear shaft. The ribbon can be moved quickly from spool to spool by turning either of these cranks.

The Two Color Ribbon Device.

SECTION 25. All Models 10 and 11 are regularly equipped for using two color ribbons. Several combinations of two colors may be used on the ribbon, although the usual combination is purple and red. With the ribbon mechanism as regularly adjusted, the ribbon writes purple, or the color on the upper part of the ribbon. To write on the red, or lower part, turn the knob of the ribbon position indicator (27960, Figure 1), located on the left front post, to the left so that the pointer is over the red spot on the indicator stand (27180). Turning the knob back so that the

pointer is over the black spot, brings the purple or upper part again into action.

In cases where a one-color ribbon is used, the knob on the ribbon position indicator is also useful as a means of utilizing the entire surface of the ribbon. Every time this knob is moved, a new transverse surface of the ribbon is presented to the type.

Changing Ribbons.

SECTION 26. The ribbon operating mechanism reverses automatically when the end of the ribbon has been reached. Ribbons sold by the Remington Typewriter Company for use on these new model machines are furnished wound on interchangeable spools for use in the machines.

To put on a new ribbon, wind all the old ribbon on to the right ribbon spool. Detach ribbon from the left hand ribbon tape, being careful to keep the end of the tape above the top plate. Remove the knurled thumb screw on the front side of the right hand ribbon spool and take off the ribbon spool containing the old ribbon. Unless it is desired to retain the old ribbon for some future use, the old spool may be thrown away. Insert the new ribbon spool in place of the old one and replace the knurled screw. Pass the free end of the new ribbon up through the slot above the right hand spool and across the type basket, and attach to the tape on the left spool, care being taken so to fasten the clip on the tape that the clip will be above the ribbon.

Hold the ribbon between the thumb and first finger of each hand, place it back of and below the ribbon carrier (27721) and draw it up into the loops. Do not attempt to *thread* the ribbon *through* the loops of the ribbon carrier. The ribbon is now in position in the ribbon carrier. Turning the crank (27670) will straighten the ribbon.

We desire to caution all users of the new model Remingtons against endeavoring to treat as interchangeable the spools on which other makes of ribbons are wound. When they are not perfectly made and perfectly interchangeable, the reversing mechanism is thrown out of commission. If using other makes of ribbons, we recommend that the ribbon be wound from the spool on which it is furnished on to the spool that is now a part of the machine, to avoid likelihood of difficulties resulting from the introduction of non-Remington-made parts into the machine.

THE COLUMN SELECTOR OF THE MODEL 10.

Operation of the Column Selector.

SECTION 27. Every Model 10 Remington is equipped with a Five Key Column Selector, the purpose of which is to bring the carriage instantly to a given writing point by one stroke on a key, thus obviating the necessity for any hand adjustments. This column selector has a wide variety of uses. It is a great time saver in the writing of the date, address, and "yours truly" on letters, for the indentation of each paragraph, and the name and address on the envelope. The correct starting point of each line is reached instantly by one stroke on a key. The column selector may also be used for form or tabular work, although wherever figures are written in columns, the ten key decimal tabulator of the No. 11 is to be preferred.

The column selector is operated by means of five keys (53520, Figure 1), the depression of any one of which operates the star wheel (51520, Figure 3), which in turn engages the stops (53655) on the rack (51652). It is the setting of the stops on this rack in connection with the operation of the keys (53520), which determines where each line of writing shall begin.

We will assume as our illustration that it is desired to adjust the column selector for plain letter writing.

The line for the name and the line for the salutation begin, of course, at zero on the scale.

The first line of the address and the first line of each paragraph begin at 10 on the scale.

The second line of the address begins at 20 on the scale.

The "yours truly" line begins at 30 on the scale.

The line for the typewritten signature begins at 35 on the scale.

The date line begins at 45 on the scale.

The above arrangement of column selector stops can also be used in addressing envelopes. For large envelopes the stops at 30, 35 and 45 can be used, and for small envelopes those at 20 and 30.

To set up the machine for doing this work, simply set the five stops (53655) on the rack (51652) at the points "10," "20," "30," "35" and "45," as shown by the rack scale.

When the stops on the rack are thus set, and the carriage is at the beginning of the line, the striking of the column selector key "1" (53520, Figure 1) will cause the carriage to move instantly to "10" on the scale; or the striking of the column selector key "2," when the carriage is at

the beginning of the line, will cause the carriage to *jump* the first stopping point or "10" and come instantly to the second stopping point or "20," and so on with the keys "3," "4" or "5." The striking of key "3" would cause the jumping of the first two columns, the striking of key "4" would cause the jumping of the first three columns, and the striking of key "5" would cause the jumping of all the columns but the last. This capacity for the *jumping* of columns is an absolutely new feature of a writing machine. It permits the operator to reach instantly any one of the five starting points by a single touch on a column selector key.

It should be noted that each one of the column selector keys moves the carriage the number of columns indicated by the key. For example, column selector key "3" always moves the carriage three columns, no matter where the carriage is located when the key is struck. If the jump is made from the beginning of the line, the striking of column selector key "3" would bring the carriage to the third column on the scale, or to "30," according to the above example. If, however, the carriage is, say, at the 2d or "20" key when key "3" is depressed, it would move three additional columns, going instantly to column "5." If, therefore, the carriage should be at, say, column "3," and the operator should wish to go to column "4," it would be incorrect to press the "4" key. The key which should be depressed is key "1," thus bringing the carriage one column further. A little practice with the column selector will soon give remarkable facility in its use, and no time whatever will be lost in bringing the carriage to position for writing lines of any different length.

The above example, of course, describes only one setting. These settings can be varied in any manner whatever according to the nature of the work to be done. When the work requires less than five different starting points for different lines, only the number of stops need be set on the rack corresponding to the number of columns or starting points. If, for example, the work calls for only three stops on the rack, then, of course, selector keys "4" and "5" would be out of service, though they would interfere in no way with the work of the machine.

NOTE.—When a column selector key is locked on any one of the stops (53655), as, for example, when no writing has been done at the column in question, the pressure of the key of next higher denomination is necessary to advance the carriage to the next stop, etc.

The Reversible Rack.

SECTION 28. The Reversible Rack (51652) is designed for use in connection with the column selector of the Model 10 Remington. It

has four sides and may be turned at will by simply revolving the rack on its axis. The reversible rack is a very useful feature where a number of forms of different character are used alternately on the same machine, since it relieves the operator of any necessity for resetting the stops when changing from one form to another. With this device, the stops (53655) for two, three or four different forms can be kept permanently in place, and the change from any one to any of the others can be made instantly by simply turning the rack.

In order to facilitate the setting of the stops on the rack for different forms of work, stops are furnished of a number of different shapes, intended to operate on one, two, three, or if necessary on all four sides of the rack. This variety always permits the exact arrangement of stops desired on each side of the rack. In all there are nine of these stops, and in order that the purpose of each one may be clearly understood, pictures of all of them (actual size) are shown on the opposite page, the sides of the rack on which each stop operates being stated in each case.

In the description accompanying the illustrations the top of the rack refers to that side of the rack which bears the scale. The front of the rack refers to that side of the rack on which the tabular mechanism operates; in other words, to the side which is furthest from the operator when the scale side is uppermost.

Every stop goes on the rack either from the top or the bottom.

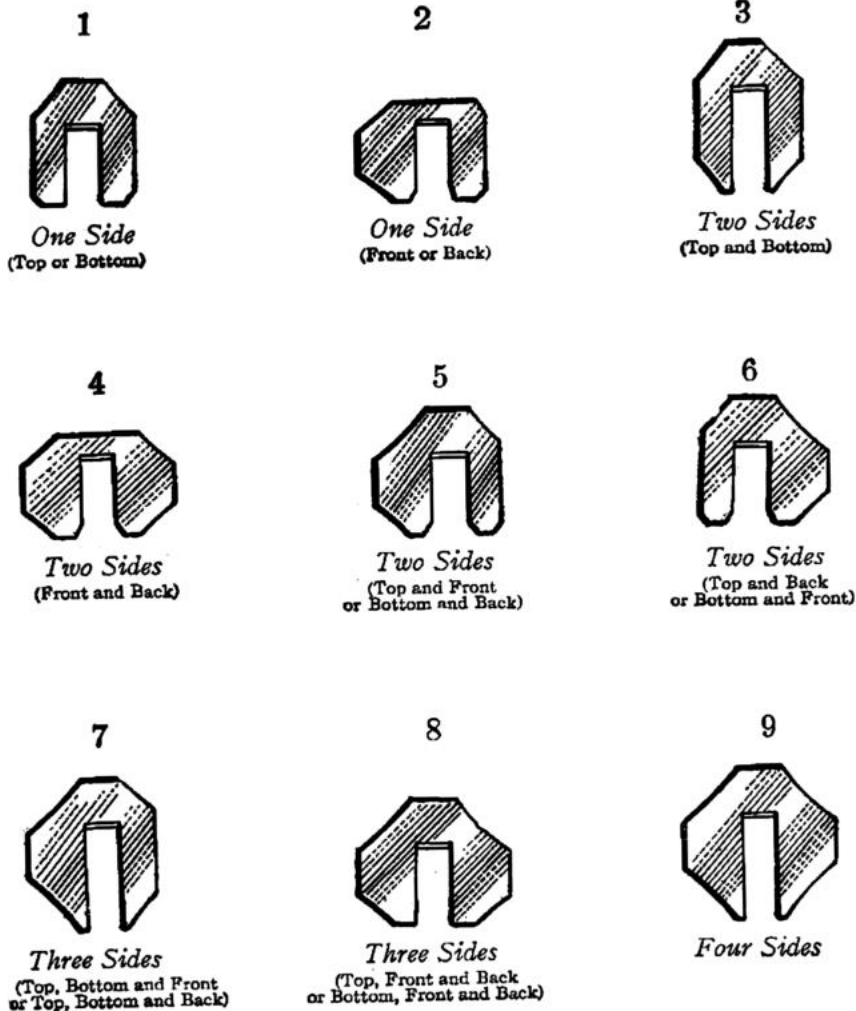
The stops should always be set with the smooth side to the left.

Each stop has a small spring on the reverse side to hold it securely in the rack. Should the stop appear to be either too tight or too loose, the spring may easily be bent in or out.

The practical use of the reversible rack may best be illustrated by a practical example. In the following example it is assumed that the machine is equipped with Carriage A, with 72 character spaces (pica spacing, 10 to the inch). The same machine is to be used for writing on four different tabular forms which require stops to be set at the following points on the scale:

Form 1. (Front)	14	18		37		46		70
Form 2. (Top)			22		29		46	50
Form 3. (Back)	14	18		25		38		46
Form 4. (Bottom)	10		18		29		39	46
							46	58

Front, top, back and bottom, in this example, as in the case of the previous illustration, refer to the position of the rack when the scale side is uppermost. When the rack is set to operate on Form 1 (front)



the scale (top) is uppermost and the figure "1" appears on the right side of the rack facing the operator.

When the rack is set to operate on Form 2 (top) the figure "2" appears on the right side of the rack facing the operator.

When the rack is set to operate on Form 3 (back) and Form 4 (bottom), the figures "3" and "4," respectively, appear on the side of the rack facing the operator.

Any side of the rack may of course be brought to "front" by simply turning the rack. When setting the stops on the rack, however, operators will always find it more convenient to have the scale side of the rack uppermost with the rack scale in plain sight.

In the foregoing illustration the majority of the stopping points, namely, 10, 22, 25, 37, 38, 39, 50, and 58 occur only on a single form, and in these cases only the single or one-side stops 1 and 2 are required, 1 for top or bottom and 2 for front or back. Forms 1 and 3 have common stops at both 14 and 70. At both of these points stop 4, for front and back, must be placed. Forms 2 and 4 have a common stop at 29. At this point stop 3, for top and bottom, must be placed. Forms 1, 3 and 4 have a common stop at 18. At this point stop 8 must be inserted (from the bottom) for front, bottom and back. Forms 1, 2, 3 and 4 all have a common stop at 46. At this point stop 9, for all four sides, must be placed.

When the stops are thus set the machine is adjusted to write on all four of the different forms, and the stops will never require any further attention from the operator so long as no other forms are used. In changing from one form to another all that is necessary is to turn the rack—the work of an instant.

The example we have chosen is far more complicated than any which are usually encountered in actual service, the two one-side stops, 1 and 2, with the occasional use of a two-side stop, generally sufficing for all purposes.

The application of the principle which is illustrated in the example will enable the operator readily to set the stops for writing on any forms or combinations of different forms which the nature of the work requires.

The Carriage Governor.

SECTION 29. To prevent the shock which might result to the carriage through the operation of the column selector mechanism, the machine is provided with a governor (25580, Figure 3). When a column selector key is depressed, the lever is drawn down, throwing the pinion wheel

into contact with the rack which causes the wheel to revolve, and, by its connecting mechanism on the other end of the shaft (25660, Figure 3), to turn the shaft leading to the governor in which the shock is absorbed, thus preventing any undue strain on the carriage.

The carriage governor performs the same office in connection with the decimal tabulator of the Model 11.

THE KEY-SET DECIMAL TABULATOR OF THE MODEL 11.

Operation of the Decimal Tabulator.

SECTION 30. In place of the five key column selector with which the Model 10 Remington is furnished, and which is described in the preceding sections, all Model 11 Remingtons are equipped with a complete key-set decimal tabulator which is built into the machine and forms an integral part of its mechanism. The decimal tabulator differs from the column selector in that it does more than merely bring the carriage to a single writing point in each column. It will bring the carriage instantly to the *exact writing point* in each column where the writing is to begin, whether this be the units column, tens column, hundreds column or any other. The ten tabulator keys (53510—53520, Figure 6), which are located immediately back of the character keys on the keyboard, afford no less than 10 different starting points for every column.

The decimal tabulator is composed of two general parts: the tabulator rack (52783) on which stops (53650) for each column of figures to be written are placed, and the actuating mechanism, composed of a series of ten finger keys (53510—53520) and their connecting levers and plungers (51500, 53960, 52010, Figure 6). The device is valuable for every form of tabular or figure work, and its operation is simplicity itself.

The scale used in connection with the tabulator is placed directly back of the tabulator keys and is for the purpose of indicating to the operator the numerical value of each key.

The most common use of the tabulator in the United States is for the writing of columns of dollars and cents in connection with simple columnar headings on the same form, and for this work either the so-called standard scale (No. 1) or the common scale (No. 2) (see page 29) is generally used. To set the tabulator for writing columns of dollars and cents, place the paper in the machine and, releasing the carriage by means of either of the levers (28051, 28052, Figure 1) provided for the

purpose, move it along until the place for writing the decimal point (separating dollars and cents) falls exactly in the center of the "cut out" in the middle of the line gauge (26931). Then strike the key (53610, Figure 6) marked "Tab. Stop Set" which by means of its connecting wire (53640) and shaft (53630) and arm (53620) forces one of the stops (53650) into the proper position on the rack (52783). If more than one column of figures is to be tabulated, the same procedure for each column should be followed, using one stop for each column. The machine is now set for the work in hand, and the stops on the rack need never be changed so long as the same form is used.

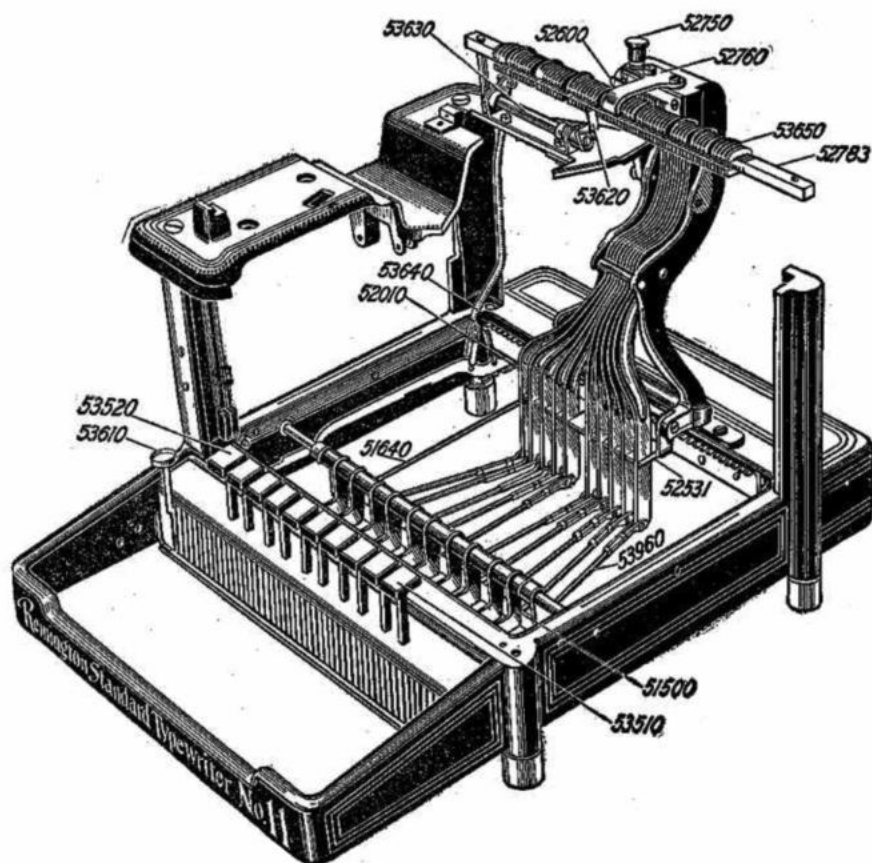


FIGURE 6.

When it is desired to provide for writing another form with a different columnar arrangement, all stops (53650) should be restored to the forward position on the rack (52783).

To change stops from the back to forward position, release carriage by either of the levers (28051 or 28052, Figure 1) and bring to extreme right or left. Now press finger piece (52750, Figure 6) which will drive out cam (52600), continue to hold down finger piece and draw carriage to right or left, as required, for entire length of line. All is now ready to set up for a new form.

After the stops have been set for writing, the operator will note that the second tabulator key from the left of the machine is indicated on the scale as "1" or the "units" key. By depressing this key the connecting mechanism is thrown into action and the pinion wheel disengages the rack (20512, Figure 3) from the pinion wheel on the escapement wheel shaft, permitting the carriage to escape until it is stopped by the tabulator stop (53650, Figure 6) on the tabulator rack (52783) coming in contact with the upper end of the plunger lever (52010) at one point to the left of the decimal point. The same applies to every tabulator key, each one having indicated above it on the tabulator scale the exact point in the column to which it will move the carriage.

For example:

The depressing of the second or "units" key will bring the carriage instantly to the correct writing point in the column for writing any amount from 1 to 9 inclusive.

The depressing of the 3d or "tens" key will bring the carriage instantly to the point for writing any sum from 10 to 99 inclusive.

The depressing of the 4th or "hundreds" key will bring the carriage to the point for writing any amount from 100 to 999 inclusive.

The same principle holds throughout, in the case of the No. 1 or standard scale, see page 29. *In the following examples we will assume that the No. 1 or standard scale is used.* (The operator must understand that after each amount is tabulated, a line must be spaced, the carriage returned, and the item or description for the next amount must be written before the tabulator key for the next amount is pressed.)

We will assume that the first amount to be written in the column is 5.52. After writing the description, if any, press the 2d or "units" key, and write,

5.52

To begin in the tens of dollars column, press the "tens" or 3d key, and write, say,

29.45

To begin in the hundreds of dollars column, press the "hundreds" or 4th key, and write, say,

767.94

To begin in the thousands column, press the "thousands" or 5th key, and write, say,

9763.52

To begin in the tens of thousands column, press the "tens of thousands" or 6th key, and write, say,

86573.42

To begin in the hundreds of thousands column, press the "hundreds of thousands" or 7th key, and write, say,

142345.68

To begin in the millions column, press the "millions" or 8th key, and write, say,

4356758.92

To begin in the tens of millions column, press the "tens of millions" or 9th key, and write, say,

67954678.36

To begin in the hundreds of millions column, press the "hundreds of millions" or 10th key, and write, say,

561437845.29

To write cents, press the decimal or first key, and write, say,

.16

The amounts thus written would stand tabulated as follows:

5.52
29.45
767.94
9763.52
86573.42
142345.68
4356758.92
67954678.36
561437845.29
.16

In order that the explanation may be perfectly clear, the above illustration has been given as an ascending scale, though of course the amounts in the above column can be written in any order.

The first seven amounts in the above column, if written on the comma scale (No. 2, Page 29) would appear thus:

5.52
29.45
767.94
9,763.52
86,573.42
142,345.68
4,356,758.92

In this case the process is the same except that the fifth and the ninth tabulator keys each represents a comma, which diminishes the capacity of the scale from hundreds of millions to units of millions. The principle, however, remains unchanged, namely, that each space in each amount counting from the right, is always reached with the same tabulator key, counting from the left. The decimal point, or first character, is reached with the first tabulator key, the next character to the left of the decimal is reached with the second tabulator key, and so on through the scale. Some users, by remembering this plain rule, find it easy to dispense with tabulator scales entirely, simply numbering the tabulator keys, beginning at the left, from "one" to "ten."

For other information concerning tabulator scales, see Section 31.

When writing more than one column on a line, the same principle is followed, one pressure of the tabulator key always bringing the carriage to the exact writing point in the first column beyond the point where the carriage happens to stand. If it is desired to skip one or more columns and insert the figures in a column further to the right, the tabulator button must be pressed once for each column which it is desired to pass, as in the following example, which is written with three stops set on the tabulator rack at 30, 45 and 65 respectively:

4th, 4th and 4th key	198.63	263.45	768.45
2d, 7th and 10th keys	2.45	12,926.63	3,456,987.25
2d, skip and 3d key	2.63		29.78
Skip, 3d and 4th key		19.64	768.42
Skip, skip and 1st key			.09

It will be noted that all of the above amounts are tabulated in their correct positions under each other, no matter how they may vary. The examples given demonstrate the whole principle in the operation of the tabulator.

Tabulator Scales.

SECTION 31. On page 29 we show a number of tabulator scales, including the scales in more common use. It will be observed that each of the scales has ten divisions and that these divisions correspond to the ten tabulator keys. The stop on the rack is always set at the point on the scale where the last or left hand character appearing on the scale is to be written. For example, in the case of the standard scale (No. 1) or the comma scale (No. 2), all the characters before the decimal will fall at writing points to the left of where the stop is set. On the other hand, the two columns for cents will fall to the right of the point on the scale at which the stop is set. For this reason, the two columns of cents do not appear in either the standard or the comma scales.

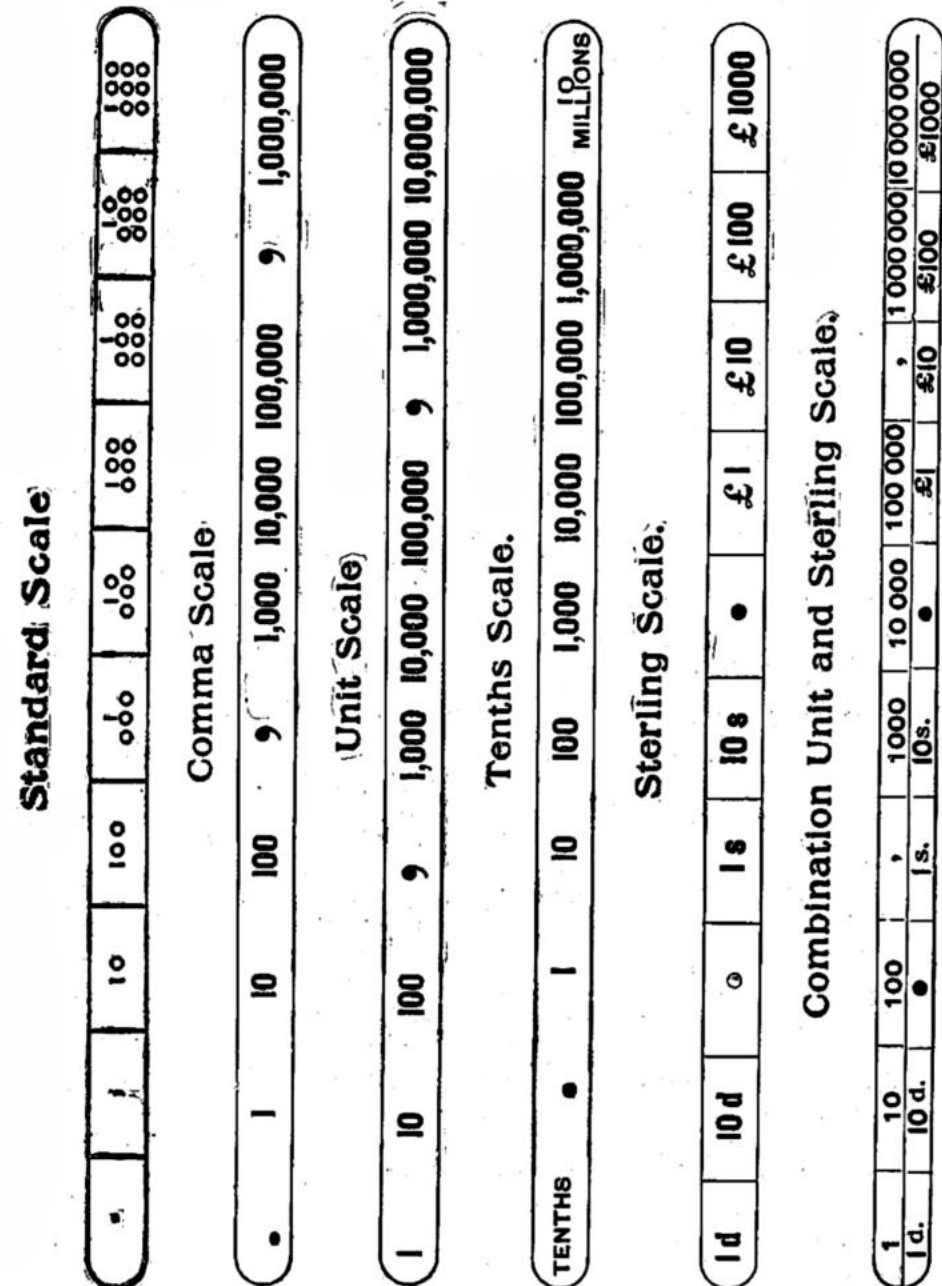
The truth is that the point in the column where the stop is set is simply a matter of convenience. If a user so wishes the two columns for cents could be included on the scale, in which case the third tabulator key from the left instead of the first key would stand for the decimal point, and the entire scale would be moved two spaces to the right. Likewise, it would be equally feasible to shift the entire scale to the left as many points as the operator desires. The scale shown on page 29, however, will be found to answer for all ordinary purposes. There would never be any occasion to shift the scale to the right, and the only occasion which would ever arise which would necessitate the shifting of the scale to the left would be when very high amounts are written. Take, for example, the No. 5, or sterling scale. If the amounts to be written on this scale run above the thousands of pounds, it would be better to shift the first period from the third key on the left to the first, thus allowing the two columns for pence to be written on the other side of the stop as the two columns for cents are written in the case of the standard scale No. 1.

With this explanation, the arrangement of the scale for any conceivable purpose is a very easy matter. In addition, the operator will, as a result of a little practice, devise other ways of setting the scales for individual pieces of work which will result in a continual saving of time and labor in connection with the typewriter work of the office. The ease with which the tabulator adapts itself to every form of tabular work and its great labor-saving features make it almost indispensable where billing, statistical or any considerable amount of other tabular work is done.

THE END GUIDES OF THE MODEL 11.

SECTION 32. The end guides or needle bar stops of the Model 11 Remington are located underneath the cylinder and out of sight of the

TABULATOR SCALES.



NOTE—These scales can be tested experimentally by cutting them out along the lines. They will then fit the scale holder of the tabulator.

operator. They are designed, in connection with the left hand paper edge stop or side guide (33921, Figure 1), to insure absolute accuracy of the paper feed. The method for the adjusting of the side guide has been described in Section 8, under "Placing the Paper." The end guides require no adjustment.

To insert the paper, press back the feed roll release key (33740) with the left hand, and, holding paper firmly in the right hand, drop it down upon the needle bar stops. Then, before releasing the feed roll release key, push the paper over to the left until it just touches the left hand paper edge stop (33921). This gives to each sheet of paper a common and absolutely accurate starting point.

The end stops, like the decimal tabulator, are principally useful in connection with the billing machine. The importance of an absolutely accurate paper feed, one which does not vary by a hair line, is very great in the case of certain kinds of billing, notably retail daily entry or monthly statement work where many entries must be made at different dates on the same bill.

The end guides are also useful if corrections are to be made after the paper has been removed from the cylinder. If the side and end guides are used when the paper is first inserted, their use when the sheet is reinserted will bring the paper to the exact point where the correction is to be made, without the necessity of any adjustment by hand.

GENERAL MATTER.

New Ribbons.

SECTION 33. Neat and attractive looking work cannot be done with ribbons that are poorly inked, or are made from too coarse a fabric. Use none that are coarser than the one furnished with the machine, which is of the "Remtico Paragon Brand." The quality of this brand is guaranteed by the manufacturers of the machine, and it can always be relied upon to give satisfaction. These ribbons are for sale everywhere by the local dealers in the Remington Typewriter, as it is to their interest to furnish users with the best supplies obtainable.

Black record ribbons are not affected by the atmosphere, and the work done with them does not change in appearance.

Indelible copying ribbons, also, are not affected in any way by the atmosphere, and the original print will never become illegible from exposure to light. As now manufactured, the various other colors of copying ribbons are but little affected, and, unless continuously exposed

to the action of the light for a long period, can be considered as permanent for all practical purposes.

All ribbons not in actual use upon the machine should be kept in tin boxes similar to the ones in which all Paragon ribbons are packed.

To Make Press Copies.

SECTION 34. After a little experience better press copies of type-written work can be obtained than of pen work, and as rapidly. The following instructions will insure success:

First place an oiled sheet in the letter-book; on this lay smoothly a damp cloth, then the tissue leaf of the book, and on the last place the letter to be copied. If the letter be written on one side only, lay another oiled sheet on the back of the letter, and proceed as before. If the letter is written on both sides, lay it on the book as directed above, and on the back of the letter turn down the next page of the copy-book; upon that spread a damp cloth, and upon the cloth lay another oiled sheet. It should be firmly pressed a minute or two. How damp to make the cloth and how long to permit the book to remain in the press experience will demonstrate. In taking out the letters lay dry blotters between the pages of the book and also between the letters just copied. As many letters can be copied at one time as desired.

Another Method of Copying.

SECTION 35. Use rather thin paper, place a sheet of semi-carbon (i.e., with only one carbonized surface) with the clean side toward the letter sheet, and another sheet of thin paper between it and the cylinder of the machine. Both sheets will then be well printed, and one of them can be retained as a copy, and, if desired, filed away with the letter to which it is a reply.

Manifolding.

SECTION 36. By using carbon paper, a large number of duplicates of the same writing can be printed at one time, the number depending upon the thinness of the paper used. Place the sheet upon which the writing is to be done upon a flat surface. Lay a sheet of semi-carbon paper upon it with the carbonized surface upward. On this lay another sheet of writing paper, and so on until the requisite number of sheets of writing paper are put together, each with a sheet of carbon next to it. Put the whole into the machine in the usual way, taking pains to see that all of the sheets are placed within the grasp of the feed rolls at the same time, so

that the writing will appear on the same part of every sheet. Write in the ordinary manner, except that it will be necessary to strike the keys a little more sharply, the amount of force to be used being governed by the number of copies which are being printed.

If necessary, a still larger number of duplicates can be made by the use of full carbon, interleaved with sheets of thin oiled tissue paper.

Making Stencils for Duplicating.

SECTION 37. When the machine is to be used for making stencils for any of the duplicating devices now on the market, the work should be done without the ribbon. To do this, slip the ribbon downwards out of the vibrator and let it hang loosely across the type basket. If much work of this character is to be done, any Remington representative will furnish upon request a small hook for holding the ribbon permanently out of the way. This can be screwed upon the segment plate just beneath the printing point. When the ribbon is removed from the vibrator drop it down over this hook, where it will run to and fro as the machine is operated without interfering with anything. When ready to resume regular writing, simply remove the ribbon from the hook and replace it in the vibrator.

Cleaning the Type.

SECTION 38. In order to produce neat work, it is necessary to keep the type of the machine clean. The accumulation of ink from the ribbon, and of the dust which settles on the machine, has a tendency to fill up the types, especially those which have inclosed central spaces, such as o, e, a, s, g, d, p, etc. This is quickly shown by the indistinctness of the imprint. Every part of every letter should print with perfect clearness, and, if it does not, it is probable that the types require cleaning. The best way to clean the type is to pick out the accumulation with an ordinary brass pin. After doing this it will be well to brush off the types with the type brush.

The trouble of picking the dirt out of the type with a pin can be avoided by the frequent use of the type brush.

Cleaning the Machine.

SECTION 39. It is of the utmost importance that the typewriter be kept free from dust and perfectly clean. As in the case of all other machinery, the best results can only be expected when the machine is kept clean, and the working life of any machine can be greatly prolonged by careful attention to this point.

If the typewriter is used daily, the best way is to brush the dust off, and clean the carriage ways and types every day. If only used at intervals, it should be done every time you sit down to the machine.

When not in use, the machine should be kept carefully covered, for, if left exposed to the dust of sweeping, the dust will settle upon the rods, and when the carriage is moved the rolls crush it, causing it to adhere to both rods and rolls, especially the latter, until the motion of the carriage is seriously impeded thereby, or possibly stopped. No machine will work well with an accumulation of dust or dirt upon these rolls; therefore, above all, keep them clean.

Other parts will be injured by the accumulation of dust, but in no other part will it be so quickly fatal to good and easy work.

Oiling, When and How.

SECTION 40. Never use any but the very best oil (such as that used for clocks and watches) upon the typewriter. Porpoise oil seems to meet the requirements better than any other.

Never put on oil without afterward wiping off all the surplus that can be found outside the actual spot where friction can be caused, as it cannot do any good toward lubricating, but only catches the dust, and forms a gum that will prevent the machine from running lightly.

The pinion wheel shaft should be oiled occasionally by putting a drop of oil in the oil hole which will be found in the top of the pinion wheel stand.

Oil, when needed upon any other part of the machine, can be supplied best by dipping the end of a broom straw or the point of a pin into the oil, and then touching the spot to be oiled with it.

If at any time the point of the dog and the teeth of the escapement wheels get dry and begin to wear, apply a little oil to the teeth of the escapement wheels. Two or three drops will be sufficient for all the teeth.

At intervals of about two months the type bar bearings should be oiled very slightly with a splint or broom straw.

The bearings of the spool shafts and the long ribbon movement shaft also need occasional oiling.

Remembering these instructions, any of the wearing surfaces of the machine may be oiled, if necessary. **BE VERY CAREFUL NOT TO PUT ON TOO MUCH OIL. WIPE OFF ALL THE SURPLUS. NEVER USE ANY BUT THE VERY BEST.**