INSTRUCTIONS FOR USING NO. 2 TYPEWRITERS.

INSTRUCTIONS FOR NO. 4 MACHINES.

All the instructions contained in this book are equally applicable and complete for the No. 4, leaving out all that refers to the shifting cylinder and the double type and the adaption of the keys for them. The No. 4 key operates but one type, and that is the character which is printed upon it.

SECTION 1. Machines are packed and shipped, properly adjusted and ready for use. The rubber feet, which lessen the noise and prevent marring the table, are easily inserted in the bottom of the hollow posts.

§ 2. To write with the Typewriter, all that is necessary is to put in a sheet of paper and touch the keys. It is perfectly simple, and no difficulty whatever need be experienced by any one.

§ 3. The value of the machine is, however, greatest to those who have a thorough knowledge of its construction and the uses of all its parts; and for the benefit of such as desire to become experts in its use and care these instructions are given.

PLACING THE PAPER.

§ 4. Lay the paper upon the paper shelf (F) with the edge close down between the cylinder and the feed roll (G), taking care that the right-hand edge of the paper does not project beyond the rubber covering of the cylinder. Turn the cylinder by hand from you, which will carry the paper to the proper position for printing. Roll the paper in until the edge is even with or a little beyond the carriage or cylinder scale. If it is not parallel with the scale, draw back the side that projects too far, until it is so. When the paper is thus squared with the carriage, roll it in until the proper place to begin printing is reached, which is easily determined when the use of the scale is understood. (See Section 10.)

THE KEYS.

§ 5. Every finger key represents two types, either of which can be printed by striking the same key. The keys for letters show but one character though
both small letter and its capital can be printed by it. But all the other type, being composed of two dissimilar characters each, have double keys or keys with both characters printed upon them. The front ones will be printed when the machine is in position for printing small letters, and those at the back when the machine is set for capitals.

THE CASE KEYS.

§ 6. When the keys marked "Upper Case" are down, the capitals and all the characters at the back on the double keys will be printed.

THE SHIFTING CYLINDER

§ 7. Is held forward or backward by the shifter (14g). When forward it will print the small letters and the characters on the front side of the double keys; when backward it will print capitals and the characters on the back side of the double keys. To change the cylinder and set it in either position, you have only to lift up or push down the shifter (14g).

THE SPACE KEY.

§ 8. The long bar in front of the other keys is the space key, by which the space between words is made. The operator will, of course, strike it after every word, and also when it is desired to make other spaces than between words, such as the beginning of paragraphs, etc.

TO MAKE NICE WORK.

§ 9. Strike the key with sufficient force and promptness to throw the type against the cylinder, strike but one key at a time and be sure to release that one before striking another. Strike squarely, with equal, even touch, and take your finger off the key, as nearly as possible, at the exact time that the type hits the paper. Of the two, let it be before rather than after the type strike, for, pushing the key after a letter has been printed is liable to give the work a blurred appearance.

If very thin paper is used it is best to put in two thicknesses.
Typewriting work can be made to present a very neat appearance by giving due attention to paragraphing, punctuation, etc. Each new paragraph should be spaced at least five notches from O on the scale; and the space key should be struck three times after every sentence.

Words can be emphasized by using the underscore, on the key with the figure 6. The underscore should be used by setting back the carriage to the beginning of any word, phrase or sentence, which it is desired to emphasize, and then striking the underscore for every letter, omitting the spaces.

Fine headings can be made by striking the hyphen a given number of times, the O several times, and again the hyphen as many times as before, thus: ————000—— Other fancy headings may be made by exercising a little taste.

Captions for legal work may be made by using the hyphen for the upper and lower lines, ending with a mark made by holding the space key down and striking the parenthesis; then, still holding the space key down, turn the cylinder one notch, strike the parenthesis again; repeat this until the two lines made by the hyphen are connected, using the left-hand and right-hand parenthesis alternately if desired.

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USING THE SCALES.

§ 10. The edge of the cylinder scale represents the bottom of the letters; that is, when filling blanks or using paper that has a heading, bring the line upon which the bottom of the letters should rest to the edge of the scale. (This may be accomplished by turning a little beyond the exact place and then drawing back to exact position, as directed when squaring the paper to the carriage.) Then turn the cylinder two notches. (One notch on a No. 4 machine or any single-type machine.) This will carry the paper to such position that the bottom of a letter, when printed, will be upon the line that was brought to the edge of the scale.

The position upon the line that any letter will occupy when printed, is represented by the front scale (87) and pointer (94), at the front. The character will be printed over a point upon the carriage or cylinder scale corresponding to the point on the front scale at which the pointer rests.
RETURNING THE CARRIAGE.

§ 11. To return the carriage to begin a new line, pull the carriage-lever (170) toward you but not hard enough to lift the front roll off the track, then give a gentle pressure to the right until brought to a full stop by the stop-collar (N). The pull forward revolves the cylinder and carries the paper through into position for the next line and the pressure to the right returns the carriage to the place of beginning.

The carriage may be pushed to the right without changing the line at any time if the carriage lever be not pulled forward.

By pressing down the carriage release-key (140), the carriage can at any time be moved either to the right or left without changing lines.

The carriage may be raised at any time to observe results. Always lift it by taking hold of the handle at the left and never by the carriage-lever, and when the next letter is struck it will fall in its proper place. If lifted by taking hold of the lever, the line-spacing mechanism will be operated, and the letter will fall upon the next line.

REPRINTING.

§ 12. If it is desired to turn the paper back, press the line-space pawl (47) forward until the back end is disengaged from the ratchet wheel. Take hold of the cylinder with the thumb and fingers, as in adjusting the paper, and turn backward until the desired position is reached; when the cylinder has been turned by hand, be sure that the cylinder stop-spring (71) is well seated in the notch of the ratchet wheel (145), so that the cylinder cannot jar from its position when you begin to print.

Due attention to the above will enable the operator to reprint without trouble and with very little delay, any letter, word, or line upon the page.

If the paper has been taken out of the machine, place it again upon the paper shelf as at the beginning. Turn it in until some of the printing is past the cylinder scale and then draw it back until the bottom of one of the printed lines is even with the edge of the scale. While drawing back as above, the sheet may be drawn a little to the right or to the left if necessary to bring the center of letters over the graduations of the scale. When once the paper is properly placed in such position it may be turned forward or backward to let the type fall upon any desired line, and, by the use of the scales, (see Section 10) any letter, word, or line can easily be reprinted.
REGULATING THE LENGTH OF LINES.

§ 13. If it is desired to begin the lines farther away from the left hand edge of the paper, it is done by moving the stop-collar (N) to the left. If secured in the second hole from the end of the back hinge-rod (2), the line will begin five spaces further from the edge, the third hole ten spaces, and so on. The holes in which the stop-collar screw-rests are drilled to correspond with every fifth graduation of the scales, and the numbering on the rod corresponds with the numbering of the scales. Therefore, by the position of the stop-collar upon the rod, the place of beginning of lines is determined without a trial. The carriage always stopping, when drawn back to beginning, with the pointer over a graduation mark of the front scale corresponding with the hole in which the stop-collar screw rests.

If a wider margin is wanted at the right of the sheet, set the carriage at the place where it is desired to have the line end, loosen the bell-ringer thumb-screw (37), slide the bell-ringer against the dogs (65), and fasten.

The bell-ringer in whatever position it may be placed upon the rack-frame (168) will ring the signal several spaces before the end of the line, giving time to finish or properly divide a word.

CHANGING SPACE BETWEEN LINES.

§ 14. When the end of the space gauge (65) is raised to the top, it is adjusted for narrow space, and when lowered to the other stop, it is adjusted for double width.

NARROW PAPER, ENVELOPES OR POSTAL CARDS.

§ 15. To use narrow paper, envelope or postal card, set the envelope holder (68), just so far away from the cylinder that the thing that is to be printed upon can be passed through between, slightly touching both, but pressing upon neither. Place upon the paper shelf like other paper, but be careful that it is well under the rubber band at the left, for in this case one band has to do all the work. Turn it in like other paper, but guide the first edge between the envelope holder and the cylinder by hand. Postal cards or anything narrower than the distance between the bands can be printed to the extreme edges, right and left, by using two envelope holders, set as above, and such distance apart that both will bear upon the thing printed; but the printing ought not to be continued after the lower edge has passed in front of the feed-roll.

The envelope holder (68) is a nickel-plated steel spring, clamped upon the front band-pulley shaft, with a small friction roll in the end nearest the cylinder.
THE RUBBER BANDS.

§ 16. Neither these bands nor the feed-roll give motion to the paper when the cylinder is turned, but motion is imparted by the cylinder itself. The bands and feed-roll simply press the paper against the cylinder, so that it cannot slip. Therefore, if at any time the paper does not feed through properly, see that the band-pulleys (154) turn freely upon their shafts and the feed-roll in its bearings. (Put on a drop of oil with a broom-straw if necessary, but wipe off all the surplus.) Anything that impedes the free action of these bands and rolls tends to hold the paper back, so that the cylinder will slip over its surface without carrying it through.

PUTTING ON RUBBER BANDS.

§ 17. When it is necessary to put on a new band, it may be done as follows: Loosen the set-screws (55) which holds the hand-pulley-shaft at each end, when the left-hand end can be pulled forward sufficiently to admit of the bands being slipped on. Do not bring it out of the slot any further than necessary to slip the band on, and in replacing it be careful that the shaft is pushed back against the end of the slot—at both ends—and tighten the set-screws with care, as they should not be screwed up too hard. Slip the feed-roll out of its bearings and take it out of the way until the bands are properly adjusted in front, when they can be stretched enough to return it. Do not loosen the scale or band-shield, but take care to slip the bands into their places without deranging the adjustment of the scale, and no readjustment will be necessary. The paper-guide (68) may be removed if the bands do not readily stretch over it, and replaced afterward.

In No. 4 Machines it will only be necessary to pull forward the left-hand end of the band-pulley-shaft, without loosening any screw, following other directions as for No. 2. The rubber band will keep it in position when it is replaced.

TO CHANGE RUBBER BANDS.

Loosen the set-screws which hold the front hand-pulley-shaft at each end and pull the left-hand end forward out of the slot just sufficiently to slip the bands on, then return it to its former position and secure again with the set-screws. But, before tightening the set-screws, make sure that both ends are pushed back against the end of the slot, particularly the right-hand end; also, that the spring on the under side of the carriage-lever is over and not under the short stud upon which it should rest.
Then the old bands can be cut off, the feed-roll taken out and the bands stretched over the scale and slid into position around the front pulleys; after which, the feed-roll can be placed in position again by opening the loop of the bands at their back ends so as to receive the back-band pulleys. The paper guide (68) may be removed if the bands do not readily stretch over it, and replaced afterward. In sliding bands along the scale to position keep them stretched a little away from the sharp edge of the scale so that they will not be cut by it.

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THE CARRIAGE TENSION.

§ 18. A leather strap attaches the carriage to the main-spring wheel, and the tension of the main-spring determines the force which draws the carriage. It is desirable that the carriage should move promptly, but it is of the utmost importance that the carriage tension should be as light as possible, so that there shall not be too much wear upon the rack and dogs (102 and 63). A pull of one pound is sufficient to return the carriage against the action of the main-spring, and will do so, if the top rods and rolls are kept clean by wiping off with an oily cloth, as directed by the inscription on the paper shelf. The carriage tension may be increased by turning the tension ratchet (53½), and diminished by moving up and down the handle of the tension-pawl (23) which holds the ratchet against the pull of the main-spring.

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THE FINGER KEY TENSION

§ 19. is governed by the loosely coiled spring (70), one end of which is secured in the tension collar (43), which is on the hub of the rocker, at the back of the machine. The tension is increased or diminished by turning the thumb-screw (88) to the right or left.

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THE SPACING DOGS (64 and 65)

§ 20. are secured to the top of the upright arm of the rocker, at such a height that their sharpened edges will reach two-thirds of the way into the notches in the rack. The loose dog (65) is so adjusted as to spring forward opposite to the next notch of the rack every time that a key is depressed and the rocker brought forward to a point where the rigid dog (64) engages with the rack; and every time the key is released the rocker goes back, the loose dog is again engaged in the notch to which it was opposite; and is carried back again even with the other by the forward action of the carriage. The rack can be lifted so as to disconnect the dogs by pressing the carriage release key, and the carriage can then be moved freely to the right or left any distance.
It will readily be seen, that the loose dog must spring forward just far enough to go through the next notch of the rack without touching either side, and they are always adjusted to do so, when new. But the loose dog stop (123) is cushioned with leather to prevent noise, and, if at any time the cushion becomes thinner and allows the dog to spring forward so far that it hits upon a tooth of the rack, it can easily be readjusted by means of the small thumb-screw (62½), the collar of which engages a mortise in the end of the loose dog stop (123) which will be carried to the right or to the left, according as the thumb-screw (62½) is turned toward or from you as you face the back of the machine. If the straight side of the dog hits against the straight side of the next tooth of the rack turn the thumb-screw over toward you. If the beveled side hits, turn it over from you.

Always make the last turn of the adjusting screw in the direction which closes the dogs. That is: first, open the dogs too wide and then tighten the clamping screw, so that the adjusting screw will turn very hard in closing them; then gradually close to proper distance, taking care that the last movement be that of closing, not of opening, even in the slightest degree.

The screw which goes through a slot in the stop (123) and holds it against the rocker, also holds it against the threaded end of the thumb-screw (62½) and prevents it from jarring loose by the action of the machine. It may be slightly slackened if the thumb-screw turns too hard, or tightened if it has any tendency to jar loose.

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**THE RIBBON MOVEMENT.**

§ 21. When the carriage moves from right to left, the ribbon also moves, or is wound from one spool to the other by the same main-spring. When the ribbon is all wound on the spool at the right, lift the latch (81) and pull out the shaft (7), letting the latch drop into the inside groove. The spool at the left will then be turned, unwinding the ribbon from the right. When the shaft is pushed in, so that the latch falls into the groove nearest the end, the spool at the right is turned and the ribbon is unwound from the left.

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**A LATERAL MOTION (of the Ribbon)**

§ 22. may be given as follows. By moving the handle (165), backward or forward, both ribbon spools will move laterally, so that the types will strike the ribbon in a new place, and by this handle, as often as the writing becomes faint, the ribbon may be moved so that its entire surface may be used.
THE RIGHT-HAND SPOOL SHAFT

§ 23. can be detached to facilitate the changing of ribbons. It is held in place by a flat spring which bears lightly against it, in a shallow groove, near the back end. By pulling the spring out of the groove (when the ribbon-shifting shaft (7) is to the extreme left), the spool shaft may be slid back enough to allow the spool to be taken out and another put in place, after which, it can readily be returned to its place. In putting in a spool, both spoolheads must be placed between the two projecting loops of the guide-wires.

CHANGING RIBBONS.

§ 24. A short piece of ribbon is fastened to the axle of each spool; to one of these pieces pin the end of the new ribbon. Wind the ribbon upon the spool to which it has been fastened, by turning the crank upon the end of the shaft. Fasten the remaining end of the ribbon to the other spool in like manner, and it is ready for use.

NEW RIBBONS.

§ 25. 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 by the atmosphere, and the original print will not become illegible from exposure to light. Other copying ribbons, as now made, are but little affected and can be supplied in various colors.

It is impossible to make neat print with a ribbon that is too coarse or that is not properly inked. Use none that are coarser than the one furnished with the machine, which is of the “W. S. & B. Faragon” brand. These ribbons can be purchased of local dealers in the Remington Typewriter, whose interest it evidently is to furnish the best supplies possible.

Keep in tin boxes all ribbons not in actual use.

PRESS COPIES.

§ 26. Printing done with the copying ribbons can be copied in the ordinary way, but a little more water should be used and the book allowed to remain in the press a little longer. Damp cloths or damp blotting paper placed between the hard backing and the leaf that is to receive the copy is as good a method of dampening as any.
ANOTHER WAY TO COPY.

§ 27. When thin letter paper is used, place a sheet of half-carbon behind it, the clean side toward the letter, and another sheet of paper between the carbon and the cylinder. Both sheets will be well printed, and one of them can be filed away with the letter to which it is an answer, if desired.

MANIFOLDING.

§ 28. By using carbonized paper, from three to twenty duplicates of the same document may be printed at once, the number depending upon the thinness of the writing paper used. The sheets of carbon paper alternate with the sheets of writing paper, their carbonized surfaces up and against the sheets of writing paper on which the impression is to be made. Put all in the machine and write in the usual way, striking the keys a little harder, if necessary, according to the number of copies to be printed.

CLEAN THE TYPE.

§ 29. When the types begin to fill up with ink and dust, it is quickly noticeable by the want of well defined letters and clearness in the print. The best way to clean them is to raise the type-bar, and taking hold of it with one hand, hold it firmly, taking care not to bend the type-bar or displace it, and pick out the accumulation with an ordinary brass pin. After doing this it is well to brush the types with the type-brush.

The best precaution is to brush the dust off your machine, clean the rods, rolls and types every day, if used daily, and every time you sit down to it if only used at intervals.

CLEANING.

§ 30. Too great importance cannot be placed upon keeping the Typewriter free from dust, and perfectly clean.

If left exposed to dust from sweeping, it will settle upon the rods, and when the carriage is moved, the rolls crush it and it will adhere both to the rods and rolls, more particularly the rolls, until the motion of the carriage is impeded or stopped.

No machine will work well with an accumulation of dust 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 work.
OILING. WHEN AND HOW.

§ 31. Never use any but the very best oil (such as the best that is used for clocks and watches) upon the typewriter. Porpoise-head 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 top rods, upon which the carriage runs, and by which it is guided, ought to be cleaned every day by wiping with a cloth slightly saturated with oil, but only sufficient to leave but a slight trace of oil upon their surface. The shift rail (184) should be wiped in this way first thing, if at any time the carriage seems to run sluggishly.

Oil, when needed upon any other part of the machine, can be applied 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 teeth of the rack and the points of the dogs get dry and grind, giving a grating feeling to the keys, apply oil to the rack by putting a drop upon something with a flat surface (the finger or a wide, thin knife-blade will do), and rub against the bottom of the rack, run the machine a little and then wipe off the surplus.

Avoid oiling any part of the machine, except the top rods as directed, unless some squeaking, some sluggish movement or grinding feeling in the touch, denotes that it is needed. Then, and then only, find the place that is giving the trouble, touch it with oil and wipe off all the surplus as directed.

Remembering these instructions, any of the rolls or shafts may be oiled in their bearings if they become dry and turn hard.
LIST OF NAMES

Of numbered or lettered parts shown in plates and referred to by numbers or by letters in this book. A same number or letter refers to same part in any plate in which it is seen.

G—Feed Roll.
F—Paper Shelf.
N—Stop Collar.
2—Carriage Way or Hinge-rod.
7—Ribbon Shifting, or Long Gear Shaft.
37—Bell-ringer Thumb-screw.
43—Tension Collar.
47—Line-space Pawl.
53½—Carriage-tension Ratchet.
55—Band Pulley Shaft Set-screw.
624—Loose Dog Stop Adj. Screw.
64—Rigid Space Dog.
65—Loose Space Dog.
67—Band Shield.
68—Envelope-holder or Paper-guide.
70—Key Tension Spring.
71—Cylinder-stop Spring.
73—Carriage-tension Pawl.
81—Gear-shaft Latch.
87—Front Scale.
88—Key-tension Collar Thumb-screw.
94—Pointer.
95—Line-space Gauge.
102—Spacing Rack.
118½—Cylinder-shift Rail.
123—Loose Dog Stop.
123½—Loose Dog Stop Adjusting Screw.
140½—Carriage-release Key.
145—Cylinder Ratchet-head.
149—Cylinder Shifter.
154—Band Pulley.
165—Ribbon Shift Handle.
166—Spacing Rocker.
168—Spacing Rack Frame.
170—Carriage Lever.
LETTER-PRESS COPYING.

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

First place an oil 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 oil sheet on the back of the letter, and proceed as before. If the letter be 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 oil 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.