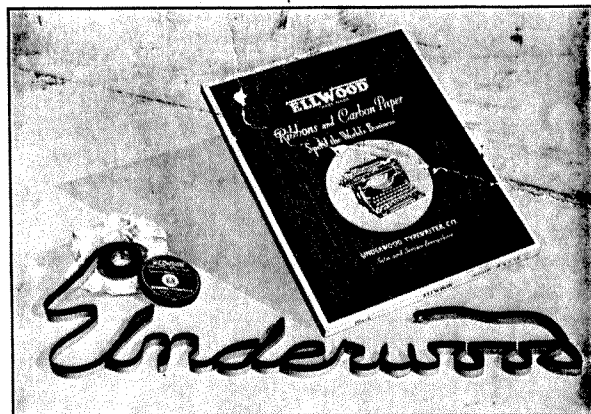


ELLWOOD

RIBBONS and CARBON PAPER

Product of Underwood Elliott Fisher Company



Carried in stock at all Underwood Sales Offices

A typist is judged by the *Quality* of her work. ELLWOOD Ribbons and Carbon Papers are made of materials and from formulae designed expressly for the production of *Quality* work on Underwood Typewriters.



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THE UNDERWOOD TYPEWRITER
plus UNDERWOOD SERVICE and

ELLWOOD
TRADE MARK

RIBBONS AND CARBON PAPER

Printed in U. S. A.

INSTRUCTIONS FOR USING THE

UNDERWOOD

Standard Typewriter

MODELS 3, 4 AND 5



Copyright, 1930

Underwood

Standard and Portable Typewriters and Bookkeeping Machines

UNDERWOOD TYPEWRITER COMPANY

Division of Underwood Elliott Fisher Company

342 MADISON AVENUE, NEW YORK, N. Y.

"Underwood, Elliott-Fisher, Sundstrand—Speed the World's Business"

Setting Up Typewriter



WHEN the typewriter is delivered by freight or express and removed from the box according to directions, place it on a table, back down, with baseboard or case bottom extending over the edge. Remove the case bottom and attach firmly, but not too tightly, the four rubber feet, contained in box of supplies sent with each machine.

CAUTION: The rubber feet should be attached before the machine is set upright in position for writing.

All the active working parts of the typewriter are securely tied to prevent friction or other possible damage in transit. The carriage is tied in the center of the machine, and the Marginal Stops (Nos. 4, 25—see diagram in center) are set close together at the center. After cutting all strings and removing them from the machine, move the marginal stops to their respective places at the end of the scale. This is done by pressing the two handle-levers together. Remove wire clips from ribbon spools; wipe the dust from the machine with a soft cloth, and it is ready for use.

NOTE: Keep this book for future reference. It contains information valuable at all times.

Cleaning Type

The type lie face up on the typebar-rest in the most accessible position for cleaning, and should be kept clean at all times. Clean type insure clear, sharp impressions, and greatly improve the appearance of the type-written copy. To clean the type, brush them toward you with the stiff brush, furnished with each machine.

Oiling

After cleaning the machine thoroughly, move the carriage to the extreme right and place a drop of oil on the way-rod, immediately to the left of the carriage. Move the carriage to the left and repeat the operation, placing the oil to the right of the carriage. Then depress the carriage release lever (No. 24), and by means of the thumb-piece (No. 14) run the carriage back and forth a few times to distribute the oil.

The rods to which the paper clamps, the marginal stops, and the tabular stops are attached should be kept oiled sufficiently to permit the stops and clamps to be moved freely.

Place a drop of oil occasionally on the frictional points of the shift key levers. Whenever required apply a drop of oil with a tooth-pick to the paper feed roll bearings and the paper clamp roll bearings.

Do not get oil on the rubber cylinder or the rubber feed rolls.

After oiling, remove all surplus oil with a cloth to prevent accumulation of dust.

Use only Ellwood typewriter Oil to secure the best results. It is light and penetrating, and reduces gumming to a minimum.

The bearings of the typebars and the variable line space mechanism should not be oiled.

Instructions for Fastening Underwood Typewriters to Desks

To attach machines models No. 4 and No. 5 to desk, bore two $\frac{1}{4}$ -inch holes, the center of each being 8 inches from the front of the desk. The two holes should be $9\frac{1}{8}$ inches apart from center to center and at equal distances from the sides of the desk.

To attach all model No. 3 machines to desk, bore two $\frac{1}{4}$ -inch holes. The center of each hole should be 9 inches from the front of the desk, and the two holes should be $9\frac{1}{8}$ inches apart from center to center, and at equal distances from the sides of the desk.

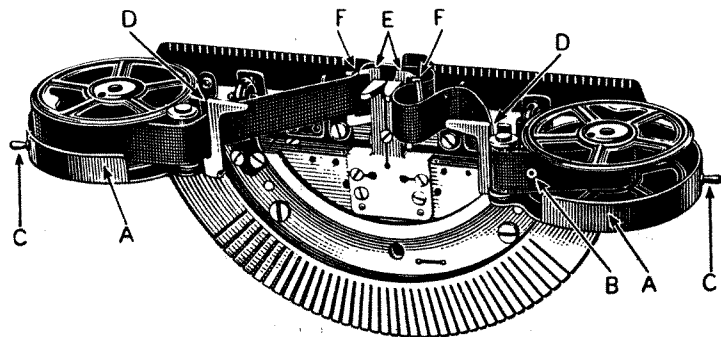
If the desk has a sliding board, the hole should be bored as above, and countersunk on the under side for the screw-heads.

The No. 3 models must be raised to allow the carriage to clear the top of desk. This is done by using a set of metal feet between the frame of the typewriter and the rubber feet. The metal feet are provided with a screw permitting of their application to the frame of the machine in the same manner as the rubber feet, and the screw of the rubber foot will in turn fit into tapped hole in bottom of the metal foot. A screw 3 inches long is used to attach the No. 3 machine with the extra metal foot to desk.

SERVICE DEPARTMENT
MAY 15TH, 1930.

INSTRUCTIONS, Cont.

The type impressions are usually made through the upper half of the ribbon. When this part of the ribbon becomes worn, change the spools in the cups. This brings the unused half of the ribbon to the upper side. The best results can be secured by using Ellwood ribbons purchased from the Underwood Typewriter Company. These special ribbons are on sale at all Underwood sales offices.



Bichrome Ribbon

The bichrome ribbon device makes it possible to use a ribbon with two colors, the color most frequently used being on the upper half of the ribbon. The bichrome ribbon shift lever (No. 32) controls this device. When writing on the upper half of the ribbon, the left-hand key is down. To change the color or write on the lower half, depress the right-hand key. When using a single colored ribbon always keep the left-hand key down.

Automatic Ribbon Reverse

The ribbon is reversed automatically by a lever (D) through which the ribbon passes. This lever is actuated by the eyelet (B) in the end of the ribbon, with which all ribbons purchased at Underwood sales offices are equipped. In placing the ribbon on the machine, care should be taken to place this eyelet inside the ribbon cup (A).

The ribbon may be reversed by hand, by shifting the ribbon spool ratchet wheel (No. 30) either to the right or left, as required.

Care of Machine

As the quality of the work of the typist cannot be first-class if the machine is not in good condition, the typewriter should be thoroughly cleaned every day. This should be the typist's first duty. The way-rod on which the carriage rides, and the shift-rail beneath the carriage, should receive special attention. The nickel parts should be kept clean and bright by polishing with a chamois-skin. All parts not easily accessible should be cleaned with a long handled brush. About once a month the surface of the cylinder, the rubber feed rolls, and the paper clamp rolls should be cleaned with a cloth moistened in wood alcohol.

INSTRUCTIONS

Insertion of Paper

To insert the paper take the sheet in the left hand, and drop it evenly and as far down as possible between the paper rest (No. 13)* and the cylinder (No. 11), holding the sheet against the lateral paper guide (No. 9), and turning the cylinder from you by the right hand cylinder knob (No. 23). The lateral paper guide may be set at any position on the paper rest, insuring a uniform margin on succeeding pages.

Paper Release Lever

Should the paper be inserted unevenly, push down the paper release lever (No. 22), which will relieve the pressure on the paper so that it may be easily straightened parallel with the cylinder scale (No. 12). After the paper has been straightened, be sure to raise the release lever to its former position. For a minor adjustment this lever may be held partially down with the heel of the right hand. In this case, when the hand is removed the lever will automatically return to position.

Paper Clamps

The paper clamps (Nos. 7, 15) hold, feed, and guide the paper above the writing line. They may be adjusted to any position on the cylinder, either to the right or left, to accommodate paper of any width within the capacity of the machine. To move these paper clamps, merely grasp them close to the rod between thumb and forefinger and push them to the desired position. When the paper clamps are in place the marginal stops (Nos. 4, 25) should also be set to fix the length of the writing line between the paper clamps.

Marginal Stops

The length of the writing line is regulated by the marginal stops (Nos. 4, 25). The right hand stop (No. 25) fixes the left hand margin at the beginning of the line; the left hand stop (No. 4) not only locks the typebars when the carriage frame pointer (No. 8) reaches the point on the scale opposite the stop, but it also adjusts the mechanism which rings the bell. The bell rings seven spaces before the keys are locked regardless of the length of the line, thus indicating that the end of the writing line is near.

To set the marginal stops place the carriage pointer at the position where it is desired to fix the margin, then push the marginal stop over by the handle-levers until the indicator on the marginal stop is even with the carriage pointer. To change the position of the marginal stops, press the handle-levers together and push the stops in either direction to the desired position.

*The numbers in parenthesis throughout the text refer to the diagram plate of the Machine on pages 6 and 7 showing the correct technical names of operating parts of the Underwood Typewriter.

Marginal Stop Release Lever

To write in the margin at the left side of the paper without changing the position of the marginal stop, depress the marginal stop release lever (No. 21), at the right of the thumb-piece (No. 14), with the index finger of the right hand, and with the thumb pull the carriage to the right beyond the stop.

Key Lever Lock Release

When the keys are locked at the end of the line, four additional characters may be written by pushing in the key lever lock release (No. 2). This enables the typist to complete a word or syllable. If necessary, a fifth character may be written after the keys are locked the second time by pushing the release key again. Still other characters may be written by moving the marginal stop (No. 4) to the left.

Writing Line

The writing line is just above and parallel with the cylinder scale (No. 12), and the writing point is directly behind the notch in the type-guide (No. 10).

Touch

To insure the best results in typewriting, the finger keys should be given a firm, but sharp, quick stroke, releasing them instantly. This is necessary in order that the various parts of the machine may perform their respective functions. It will be observed that holding a key down renders all the working parts of the machine inactive. Action takes place only when the key is released—the typebar returns, the ribbon and carriage move forward, thus making space for the next impression.

Spacing Between Lines

The machine may be adjusted for single, double, or triple line spacing by means of the line space adjusting lever (No. 6). For single spacing set the line space adjusting lever in position opposite figure 1 on the left cover plate of the carriage; for double spacing opposite figure 2; and for triple spacing opposite figure 3.

Spacing Between Words

When a word is finished, before writing the following word, strike the space-bar (No. 36) with the right thumb. This will give a space each time the space-bar is struck. It moves the carriage without making an impression.

To Begin a New Line

Place the forefinger of the left hand in the curve of the line space lever (No. 3) and push the carriage to the right. This will return the carriage and automatically turn the cylinder forward so as to bring the paper in position for the new line.

Carriage Release Levers

To release the carriage for the purpose of moving it in either direction without writing, depress either carriage release lever (No. 18 or 24), and

Centering Scale

It will be observed that the front scale (No. 5) is graduated and numbered both ways—the upper part of the scale in white, and the lower in red. This is for the purpose of enabling the typist to place a title or heading accurately in the center of the paper between the margins.

To center a heading insert paper in center of cylinder, set the carriage frame pointer (No. 8) at the beginning, or 0, on the scale. Then strike the space-bar (No. 36) once for each character and space in the heading to be centered. Note the figure on the lower (red) scale at which the carriage frame pointer (No. 8) stops, then set the pointer at the corresponding number on the upper (white) scale, which will be the position to begin the heading. For example, to center

UNDERWOOD TYPEWRITER

strike the space-bar once for each character and space in this heading; the carriage frame pointer will stop at 30 on the red scale. Then move the carriage until the pointer is opposite 30 on the white scale. This will properly center the heading.

Envelope Guide

To address an envelope or write on a narrow slip of paper without shifting the paper clamps (Nos. 7, 15) turn the envelope guide (No. 20) around against the cylinder. When finished, return the envelope guide to its position.

Stencil Cutting

As cutting a stencil is done without the use of the ribbon, throw the stencil lever (No. 26) to the left. This disengages the mechanism that raises the ribbon. After the stencil is cut *be sure to move the stencil lever to the right.*

Changing Ribbons

To change the ribbon, wind the old ribbon all on one spool by means of the ribbon spool ratchet handle (No. 29). By means of this handle the ribbon may be wound either way. After winding the ribbon on one spool, set the carriage in the center of the machine, depress the shift lock (No. 34), and lift the spools from the ribbon cups and ribbon guide (E). Detach the ribbon from the empty spool and attach the new ribbon. Wind the ribbon around the spool until the eyelet reaches the hub. Replace the ribbon spools in the cups with the pin, which is beside the ribbon reel, in the little hole in the ribbon spool. Be sure that the ribbon feeds around the front of both spools, and, if a bichrome ribbon, that the color least used is the lower one. Pass the ribbon through the openings in the cups in front of the rollers and through the slots in the reversing levers (D), then back of the ribbon guide at the cylinder, and thread it down through the slots of the ribbon guide (F) as shown by the diagram on page 10.

The ribbon is more easily placed in position by pulling forward the levers (C) that extend from the outside of the ribbon cups. This throws the roller and the reverse lever out in position where the ribbon can be inserted more easily. When the ribbon is placed in position touch the left shift key (No. 37), which will lower the ribbon guide.

Shift Lock

When it is desired to write all capitals, depress the shift lock (No. 34). This will lock the carriage in the upper case, and the machine will write all upper case characters. To release the shift lock, touch the left hand shift key (No. 37).

Back-space Key

In the event of striking a key too lightly, or if for any other reason it is desired to back-space, depress the back-space key (No. 1). This will return the carriage one space each time the key is depressed.

Tabular Key

Tabulating is an important factor in modern typewriting. The inbuilt tabulator of the Underwood is controlled by the tabular key (No. 33). Its purpose is to enable the typist to jump the carriage from one point to another fixed point. Pressing the tabular key releases the carriage from the restraint of the escapement, and allows it to pass quickly to the position fixed by the tabular stop. The carriage friction brake regulates the speed of the carriage in the interval between stops, and is controlled by the amount of pressure applied to the tabular key. The tabular key is not used as are the other keys. It must not be released until the carriage reaches the stop.

Always use the tabular key for paragraphing.

Tabular Stops

The tabular stops (No. 31) are mounted upon a tabular frame with a graduated scale (No. 27) running parallel with and back of the carriage. These stops are moveable, and may be set at desired intervals along this tabular rack (No. 28), the scale of which corresponds with the front scale (No. 5) of the machine. The teeth of these stops mesh into those of the tabular rack, thus fixing the stop securely in position.

To change these stops from one position to another, disengage them from the teeth in the tabular rack (No. 28) by pulling them back, when they may be moved freely to any position, either right or left, and reset. The position for setting these stops is shown by placing the carriage with the desired point of writing directly behind the slot in the type-guide (No. 10). The carriage frame pointer (No. 8) will then indicate the number on the front scale (No. 5) at which the tabular stop should be set on the tabular scale (No. 27). When the tabular stops are not in use, they should be disengaged and left in that position.

Carriage Frame Pointer

When the carriage is set and the writing point is fixed behind the slot in the type-guide (No. 10), the carriage frame pointer (No. 8) indicates the position on the front scale. For example, if the carriage is set at the extreme right the pointer will stand at 0; if advanced ten spaces it will point to 10. As the tabular scale (No. 27) and the front scale (No. 5) correspond when the carriage frame pointer is set at any number on the front scale, by setting a tabular stop at the same number on the tabular scale the position is fixed at which the carriage will stop when the tabular key is used.

move the carriage to the desired position. These levers, when released, return to position automatically. Before depressing or releasing the levers the carriage should be held either by the thumb-piece (No. 14), or carriage frame.

Variable Line Spacing

The variable line space push button (No. 16), when pulled out, disengages the line space ratchet, and the cylinder can be turned only by the cylinder knobs (No. 17 or 23). This makes it possible to set the paper by the cylinder knobs to write at the desired position on any line of ruled paper. If the ruled lines are spaced to agree with the machine spacing, push in this button and space in the regular way, by the line space lever (No. 3).

In the preparation of printed forms for use on the typewriter, the rulings and spacings should be made to correspond with the typewriter spacings.

Line Space Disengaging Lever

The Line Space Disengaging Lever (No. 19), when raised, makes it possible to set the paper by the cylinder knobs to write at any desired position. This device is similar to the variable line spacing mechanism. However, it has a special function; a word may be written between two lines, but closer to one than the other, and the cylinder returned immediately to the original spacing by lowering this lever, and turning the cylinder by the knob to the line of writing.

Corrections

To make a correction while the paper is still in the machine, turn the paper forward by the cylinder knob (No. 17 or 23) to a convenient position for erasing. Make the erasure, and remove the erasure dust to prevent it getting into the mechanism of the machine. Then return the paper to the writing line and make correction.

In making corrections after the paper has been removed from the machine make the erasure, pull out the variable line space push button (No. 16), re-insert the paper, depress the paper release lever (No. 22), and adjust the paper so that the line to be corrected is in position directly above and parallel with the cylinder scale (No. 12). The center of each character should also be directly back of the lines on the cylinder scale. The letters "i" and "l" are preferable as guides to the correct center. Return the paper release lever and the variable line space push button to their former positions and make the correction.

Capital Shift Keys

Each typebar carries both a lower and an upper case character. The characters most frequently used, such as the small letters, the numerals, and the principal punctuation marks, are in the lower case, while the capitals, special characters and other punctuation marks are in the upper case.

To write capitals and other characters in the upper case, depress either shift key (No. 35 or 37) and strike the key having the desired character while the shift key is held down. Release the shift key as soon as the impression has been made. With practice the typist is able to time the stroke of the shift key and character key with automatic accuracy.

Diagram showing correct technical names
of the principal operative parts

of the UNDERWOOD Standard Typewriter

