

BURROUGHS
SYMBOL BOOK
AND INSTRUCTIONS





Burroughs

Symbol Book and Instructions for operating, oiling and adjusting the Burroughs Adding & Listing Machine

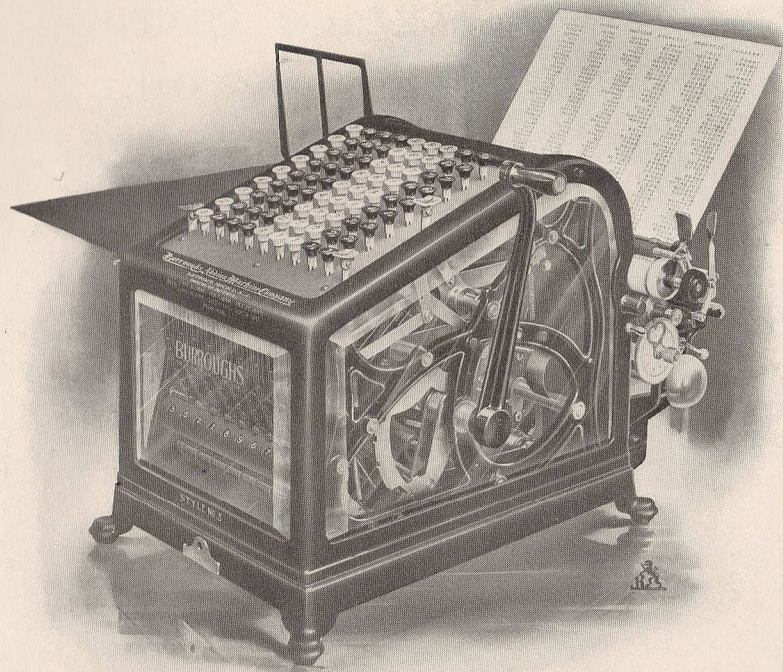


Burroughs Adding Machine Company

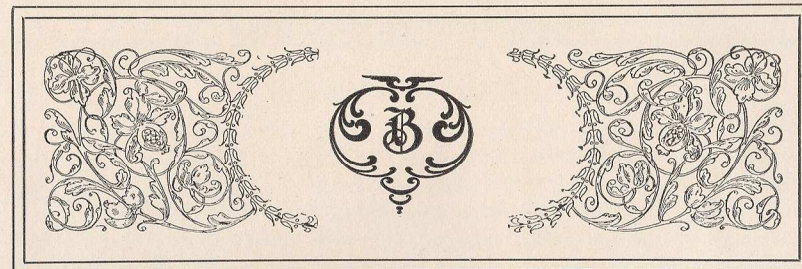
FORMERLY AMERICAN ARITHMOMETER COMPANY ST LOUIS MO

DETROIT, MICH. U.S.A.





Burroughs Adding and Listing Machine.



Introductory

This book of instructions is intended principally to be used by our regularly appointed machine inspectors. However, its circulation will not be restricted entirely to them, as we are always glad to have operators of the Burroughs Adding Machine thoroughly acquainted with the machine in its technical details.

Guarantee.

With every machine sold by the Burroughs Adding Machine Company we give a guarantee for one year, which reads as follows:

"The BURROUGHS ADDING MACHINE COMPANY hereby agrees that if this Burroughs Adding Machine, No., shall, at any time within one year from this date, get out of repair under ordinary usage, it will repair same without charge to the purchaser."

This guarantee is given subject to the following conditions:—

Under no consideration must anyone without authority be allowed to remove the case or to tamper in any way with the inner parts of the machine.

Whenever it is necessary that the machine should receive attention during the period of the guarantee, our machine inspector or our agent should be notified.

The cover should be placed on the machine when not in use; this can be done without taking off the handle.

Every machine is properly adjusted and ready for use when it leaves the factory. It is shipped complete with rods for paper roll, paper guides for narrow paper, side check table and operating handle. Should it be necessary for any reason to return the machine to the factory, all these parts should accompany it.

The Burroughs Adding Machine is manufactured in three styles:—

The No. 1 was the original model, and although its manufacture has been discontinued, there are many of them in use, and we have given instructions in this book in regard to their construction.

The No. 3 is the standard model. It has a registering capacity of 9,999,999.99, and is equipped with a printing carriage capable of holding a sheet of paper 10½ inches wide.

The No. 4 is a smaller machine. It has a capacity of 99,999.99 and prints on a narrow roll of paper only.

To Clear Machine.

First depress and release the error, or total key, situated on the left lower corner of the keyboard, restoring to their normal position any keys that have been depressed. Then make one complete movement of the operating lever, depress the total key, and hold down during another complete movement of the operating lever, (a complete movement of the operating lever is made by drawing it forward to a full stop and allowing it to return to its normal position). If any printing appears on the paper after these operations, it should be torn off before beginning a list. After each item it set up on the keyboard a complete movement of the operating lever is required to record such item on the paper, and to register it in the accumulating mechanism in the forward part of the machine.

To Print the Total.

After the last item is recorded the operator should make one *complete* movement of the handle, *without depressing the keys*, then depress the total key, and hold it down during another complete movement of the operating lever. This will print the total and also clear the machine for the next list.

To Carry Forward a Total.

Make one complete movement of the handle, then depress the total key during the forward movement only of the operating handle, and release the key before allowing the handle to return. This will print the total and still retain it in the accumulating mechanism, and it can then again be printed at the top of the next column, by simply depressing the total key, drawing the handle forward and releasing the total key prior to the return of the handle, as before.

The total key is also used as an error key, (except in late style No. 3 machines, which have a separate error key above the repeat key). If the operator depresses the wrong key, it can be corrected by a pressure on the total key. This pressure will restore all the keys to their normal position, and the operator must then reset the keys properly. This key cannot be used for correction after the operating handle has been started.

The spacing on the paper between amounts can be regulated by adjusting the stop at the left of the printing frame, which limits the movement of the feeding arm.

The paper can be readily withdrawn from below, if desired, by depressing the right hand end of the grip roll (in No. 3 machine, by lifting the sliding paper carriage).

After the sum is completed, the paper should be fed forward (by means of ratchet wheel on Nos. 1 and 4); No. 3 by means of knob on right side of impression roll. Sever it over the cutter in No. 1 and No. 4 machines by a quick, downward movement in such manner as not to disturb the paper remaining in the machine, and in No. 3 machines by a quick, upward movement.

Notice to Operators.

In case a machine makes an error in addition, the slip on which the error occurred, together with the number of the machine, should always accompany the complaint, as this will enable us to judge of the trouble and give proper instructions as to how it may be remedied.

In case of any trouble with the machine a full report should be sent to the home office, giving an accurate description of the complaint and serial number of the machine, and a list, when possible, of the work done, showing the trouble.

Notice to Agents and Machine Inspectors.

Inspectors should not attempt to make adjustments until they are absolutely certain that they have located the trouble and know the remedy for it. It often occurs that machines are returned to us which have been badly injured by reckless attempts to correct some very slight or imaginary trouble. If you cannot locate the difficulty, do not attempt to correct it, but notify the home office, giving the number of the machine, and complete statement of the trouble, using symbol numbers, and also send us slip showing samples of the work.

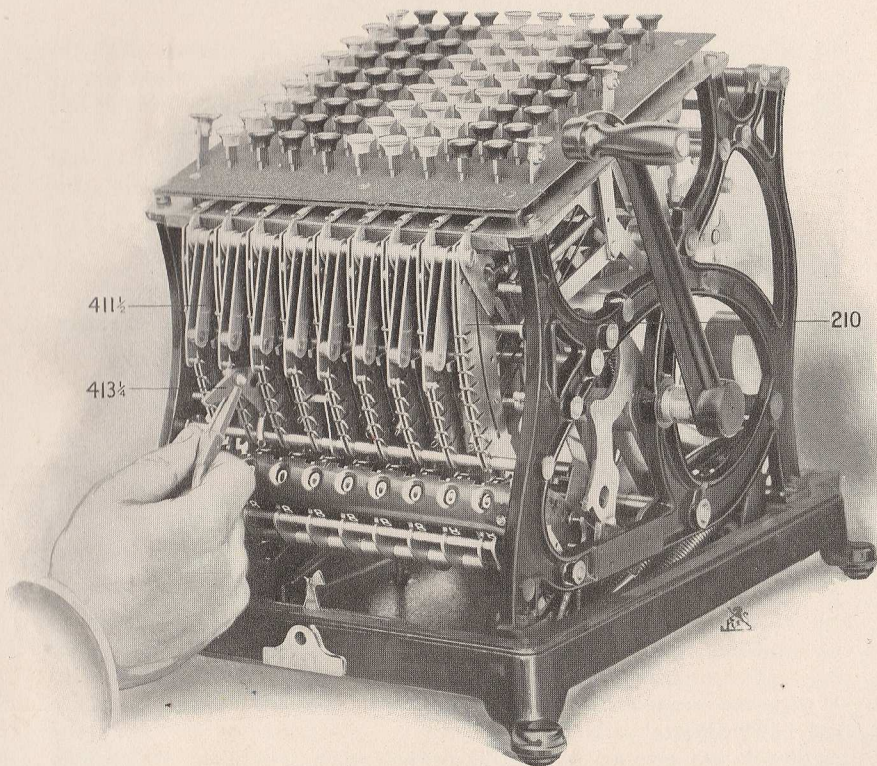
We will furnish gratis to our inspectors, tools, as follows:

- One large hook for springs.
- One small hook for springs.
- One oiling wire.
- Clock oil.
- One ordinary screw driver.
- One pair pliers.
- One key to machines.

We do not give a key with the machine while it is under the term of guarantee. Since we are to keep the machine in thorough working order, we insist that no one but our authorized inspectors shall have access to the interior mechanism of the machine.

To Replace the Type.

Remove the broken or injured type with a pair of pliers. Spring the type-plate apart merely enough to insert the upper end of the new type, then force it into position and see that the lug on the type enters the notch in the type-plate, and that the shoulder on the type is *square* against the end of the plate. After inserting type, see that the ink ribbon is replaced straight and the slack taken up.



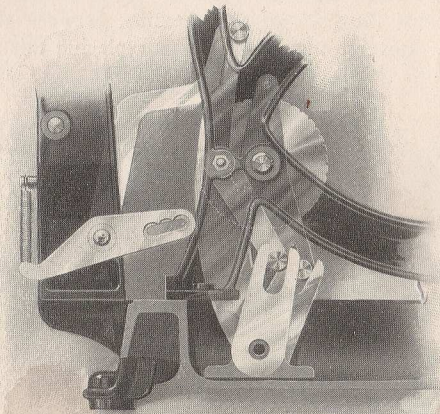
To Replace 413, 413 $\frac{1}{2}$ or 413 $\frac{1}{4}$.

Remove the case according to instructions. Depress the 9's and draw the handle forward to the first stop. In No. 1 machines, unhook the springs 480, 481 and 484 and swing the pieces 411 up out of the way. Spread the 210's apart with the thumb and finger and remove the 413 with a small pair of pliers. Replace the new 413 by reversing this operation, seeing that the same is perfectly free between the plates 210.

In No. 3 and No. 4 machines, unhook the spring 480 $\frac{1}{2}$ or 480 $\frac{3}{4}$ and swing the 411 $\frac{1}{2}$ up out of the way. Spread the 210's apart with the thumb and finger and remove the 413 $\frac{1}{2}$ or 413 $\frac{1}{4}$ with a small pair of pliers. Place in position the new 413 $\frac{1}{4}$, being careful to see that the wing of the 413 $\frac{1}{4}$ is over the shaft 400 $\frac{1}{2}$.

To Remove Case.

On No. 1 and No. 4 machines, first remove the operating handle, then release the catch 512, holding the printing frame in position, allowing the printing frame to drop back out of the way. Unlock the case and lift the forward end slightly, then push the case toward the back of the machine and lift vertically. On No. 3 machines, mark position of metal friction feed wheels on shaft. Loosen set screw on outside wheels and move wheels toward center of printing frame. Unhook spring 1580 on driving arm 1526, insert key in lock, turning to the left, and remove case as above. Care should be taken in all instances that the rear part of the case does not strike the face of the type.



To Remove Case on New Machines.

Beginning with No. 3 style machine 24280 and machines thereafter, the method of removing the case from the machine is different from that pursued heretofore. The connections between the broad carriage and the interior of the machine have been changed, and the parts 1513 and 1524 $\frac{1}{2}$ with their connections on the left side frame have been discarded. A new piece, 1513 $\frac{1}{4}$, shown on the accompanying drawing, is provided as a connection between the new piece 1526 $\frac{3}{8}$ and 511R, the latter being the piece to the right of the ratchet wheel on the lower ribbon shaft.

There is also a new collar on the shaft 1100 provided to fill out the space formerly occupied by the 1513. The use of these new parts affects the method of removing the case, it now being necessary to draw the handle forward to the third stop, and lift piece 1513 $\frac{1}{4}$ upward from the stud in 511R and swing it through the back of the machine. As a matter of convenience, spring 1580 $\frac{1}{4}$ can be unhooked, although it is not absolutely

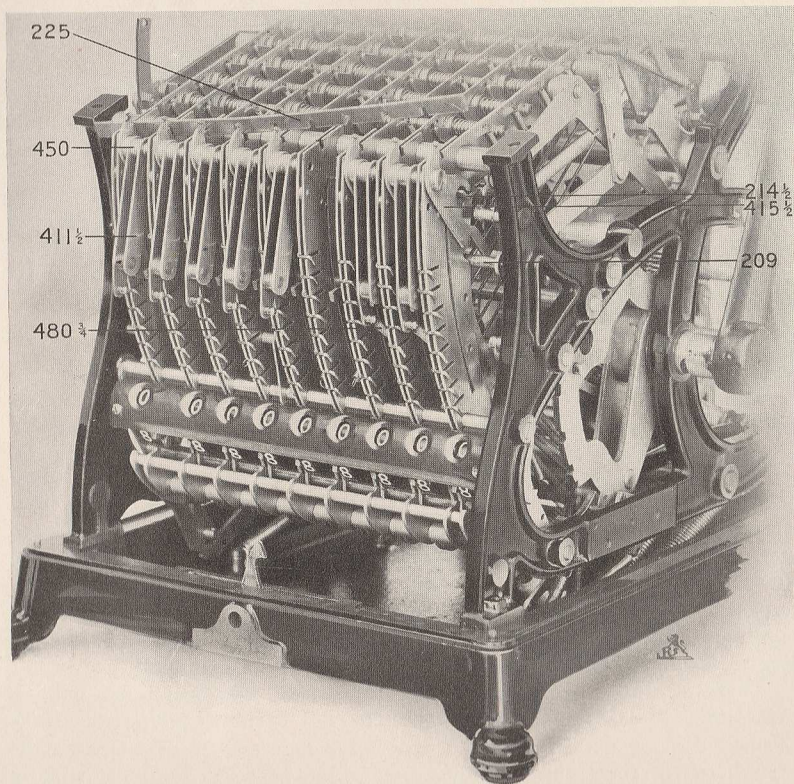
necessary. With this new arrangement, it will be observed that it is possible to remove the case from the machine, when the machine stands in its farthest forward position, while with the old arrangement it was necessary to release the machine before removing the case.

The drawing shows the general locations of the parts used, and the rear left-hand corner of the machine, with the base and case cut away to show the side frame and the new feeding device in dotted lines.

To Replace 911 and Connections.

(Section 9-34.)

Draw the handle forward to second stop, unhook springs 280, 881 and 983. Remove screw B-841 and piece 828, also screw stud 251 and nut. Pass the section out toward the back of the machine, between the arm 813 and the left side frame. Reverse the operation for replacing this section.



To Replace 415 or 415½ and 411 or 411½.

To Replace 415 or 415½ and 411 or 411½.

Remove the case according to instructions. Then remove total and repeat keys. Unhook springs 483 under the front of the cloth covering of the keyboard. Remove the screws B-212, the keyboard and cross strip 225. Unhook spring from 411 or 411½ in the section in which the 415 or 415½ is to be placed. Spread the 210's with the thumb and finger and take out together the pieces 411 or 411½ and 415 or 415½. Insert the new parts and test the 415 or 415½ for side play on the stud 450, to prevent the hook on which the sector 610 rests getting too far to the right side and allowing the 610 to pass it. See that the wing of the 415 or 415½ is over the bend on the lower end of the 214 or 214½ and over the shaft 209; also see that all springs are properly hooked in position.

To Replace 918.

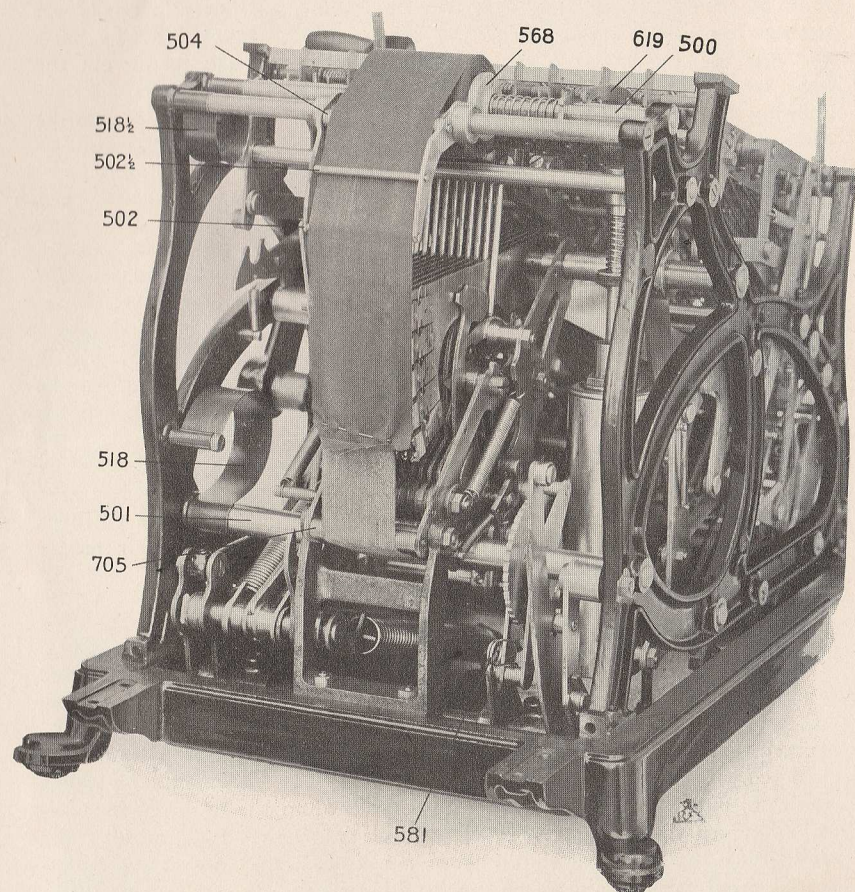
Remove the case and pieces 413½ according to instructions. Unhook the springs 288, 983, 881, 281, 982, 381 and 482. Remove screws B-942 and the piece 917; B-1066, B-212, B-205, B-801, B-503, B-941 and stud 1559½ with its nuts 45. The left side frame may then be easily removed. By slightly springing the 424's apart the shaft 402½, supported by them, may be removed. Draw the shaft 400½ toward the left of the machine, when the 918 may be easily removed and the new 918 placed in position. Replace the shaft 402½ and then the left side frame, screws, springs, etc., by reversing the operations above. Place in position in the right side frame screw stud 964, which limits the upward motion of 918. Place pieces 413¼ in positions formerly occupied by pieces 413½, and attach all springs in their proper positions.

To Replace Ink Ribbon.

Pass the wired end of the ribbon over shaft 502, under shaft 502½, and over shaft 504, then put the wire in the hole in the right-hand end of drum 568, with the long end of the wire to the right; this will bring the ribbon about in line with the guides 510. Hold the ribbon in right hand and turn shaft 500 with left hand between thumb and finger. After winding the ribbon on drum, pin the lower end to the tape attached to shaft 501, taking care to pin it even with the tape. Take up all slack and then look carefully and see that it is in position, as shown above, *i. e.*, from drum 568 over 504, underneath 502½, over 502 and down underneath 705.

Instructions for Adjusting Ribbon.

See that piece No. 619 (which is an arm that works the small ratchet on the 500 shaft), is perfectly free; then wind ribbon on lower shaft, and by pulling lever in machine, see that ribbon reverses on first stroke after reaching the end. If the shaft 501 should roll back and forth, it will be necessary to strengthen spring 518, which is done by removing the screw that holds the spring, and straightening spring out.



Rear View of Machine.

If the shaft (501) does not reverse for several strokes of the handle, spring 581 needs adjusting by weakening; do this by slightly closing. If the small pawl that works against the ratchet wheel on 501 shaft should work back and forth, it will be necessary to strengthen spring 581 (by opening), to overcome this. Spring 518½ should have sufficient tension on 500 shaft to retain the shaft in position when the ribbon is rolling down to the lower spool.

To Remove 700 Section.

(See view on following page.)

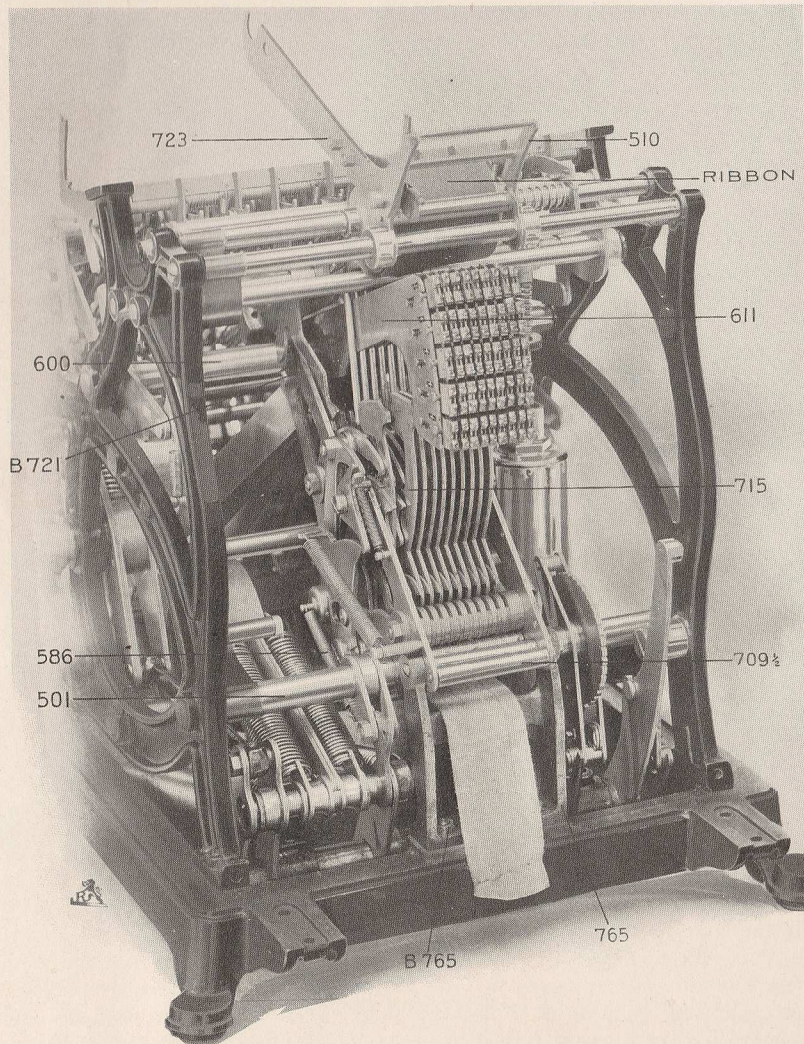
Unhook spring 1580 on arm 1526; then remove screws B-1566; then remove the printing frame. Remove the case according to instructions. Then remove the ribbon from the lower roll and wind on upper one. Strike all the 9's and draw handle forward to first stop. Remove 855—the stud connecting plate 823 and arm 820. Remove nut 45 on rod 709½, also 709½ and screws B-765, casting 765, screws B-721 and 710. Swing the guide plates 510 and the arm 723 up out of the way. Unhook the spring 586. Section 700 can then be easily removed by drawing the upper part away from the shaft 600 until the hammers 715 clear the sectors 611. It can then be lifted off of the shaft 501 and out of the machine. The section may be replaced by reversing the above operation.

Instructions for Refilling Dash-Pot.

Remove the case. Pull handle to first stop. By means of a small funnel pour oil into the cup at top of dash-pot from the side until filled; then move the handle backwards and forwards slightly until this oil is worked into the pot. Repeat this three or four times; then try the machine, and if the handle has an *even* movement, sufficient oil has been put in; if there is a rapid return of the handle, it will be necessary to put more oil in. Care should be taken not to get the pot too full of oil, as this retards the speed of the machine.

To Replace 610.

Remove case according to instructions. Unhook springs 480¾ on both sides of sector 610 that is to be removed. Throw the 411½ up out of the way, pull handle to first stop and drop sectors by pushing back the 828 (which is the lock to total key), and depressing total button. Then remove the 413½'s. Restore the 610 until it rests on 415½. Unhook springs 680 from 655. Remove 655 by means of tools furnished for that purpose, then release 610, allowing it to drop to last position. Then spread 210 and 211 and remove the 610 from the back of the 210. Reverse operation to replace 610.



To Remove 700 Section.

Replacing Glass in Case.

Remove 1011 (clips holding panels in place). After broken glass is removed, scrape litharge from recess in case. Mix litharge and lamp black with liquid glue to thickness of putty. Spread in recess in case. Press glass in and secure same by 1011 (clips), tightening screws sufficiently to hold panel in.

Directions for Dismembering Nos. 3 and 4 Machines.

Unhook spring 1580 $\frac{1}{4}$ on 1522 $\frac{1}{4}$. Remove screws B-1566, then remove the printing frame. Remove the case according to instructions. Then remove the ribbon from the lower roll and wind on the upper one. Depress the 9's, draw the handle forward to first stop and remove screw stud 855 connecting the plate 823 and arm 820. Remove nut 45 on rod 709 $\frac{1}{2}$, also 709 $\frac{1}{2}$ and screw B-765, casting 765, screws B-721, B-710 and B-503. Swing the ribbon guides 510 and arm 723 up out of the way. Unhook spring 586 from the 700 section. The 700 section can then be removed by drawing the upper part away from the shaft 600 until the hammers 715 clear the sectors 611, when the entire section can be lifted off the shaft 501 and out of the machine. Then remove the handle, unhook the springs 180, 483 and remove the buttons 293, and after loosening the screws B-212, lift off the keyboard. Unhook springs 482, 280, 288, 281, 982, 688, 983 and 382 from their studs and spring 381 from 910-R; also the two springs 880 from stud 851. Remove screw B-942, collar 942 and arm 917, screw B-941, stud 1559 $\frac{1}{2}$, screws B-801, B-205 and B-1065. The left side frame can then be removed. Remove the upper ribbon shaft 500; then remove the screws 251, B-518, nut 45 from stud 552 connecting the 527 and 120, stud 150 with arm 1513, link 1513 $\frac{1}{2}$, shaft 501 and connections, screw stud 254, rod 853 and the dash-pot. Then remove Pitmans 119 and 911 and connections (or 9-34). Remove the shaft 402 $\frac{1}{2}$, shaft 400 $\frac{1}{2}$ and the piece 918. Then remove the section 800 by slightly raising the 617 and free the roller 632 from the cam 816. Then unhook the strip 616 from the studs 660 in the base. Lay the machine on the right side and remove the shafts 904, 900, 202, 202 $\frac{1}{2}$ and the screw B-801. Spread the 210's apart by means of a screw-driver and remove the sectors 610. Remove the 600 section with the casting 665 and all connections, together with the shaft 801, by lifting the entire section straight forward. Remove the screw B-205 and the 200 section by lifting straight forward.

Instructions for Assembling Nos. 3 and 4 Machines.

After having assembled the several parts into the 200 section, place the 200 section on the right side frame and fasten the shaft 205 in position with B-205, being careful to see that when tightening the screw the shaft does not turn. Holding the guide comb 665 and the shaft 801 in position on the 611's, place the arm 622 on the end of the shaft 600; then insert the

Instructions for Assembling Nos. 3 and 4 Machines—Continued.

entire 600 section in the side frame. See that the 619 is in the proper position toward the back of the machine. Fasten the shaft 801 with the screw B-801. With a long screw-driver slightly spread the 210's and insert the 610's. Place in position the shafts 207 and 202½, being careful to see that the piece 623 is between the roller 232 and the shaft 207. Place the 900 section with the crotch of the plates 910 astride the shaft 205; then place the shaft 904 with the rod 902 under the 411½'s. While the machine is still on its side, attach the base and set the machine in an upright position.

Hook the bar 616 on the studs 660 in the base. Place the 800 section in position with the roller 632 in the cam 816; then place the collar 844 on the shaft 801; then the dash-pot with its socket 840 on the shaft 801, and the rod 953 supporting the dash-pot. Place the screw 254, the Pitmans 119, and connect the springs 880 to the small shaft 851. Place the spring 518 on the right end of the shaft 501 and the feed arm 1513 in the groove on the left end of the shaft 1100. Connect the stud 552 with the plate 527-R; the Pitman 366 and plates 110 with the screw 150. Holding the arm 918 on the shaft 400½, place the shaft in the side frame; then place in position the shaft, being careful to see that the back end of the 918 is under the stud in the 311. Connect the link 911 to 227-L with the screw stud 251 and nut 46. Place the shaft 500 in position with the arm 619 above the shaft. See that the 623 is in place, and guiding the several shafts, place the left side frame and fasten in position with screws B-801, B-205 and B-1065. Connect the feed arm 1513 with the link 1513½, and fasten the link 1513½ to the left side frame with the screw 1559½ and nut 45.

Hook the springs 280 and 288 in position. Connect the rocking arm 913 to the left side frame with the screw and collar B-941 and 941. Fasten the arm 917 in position with the collar 942, and screw B-942. Connect the springs 982, 983, the 180's, 381, 382, 281, 280, 482½ and 881. Place the keyboard and the buttons 293 in position and then connect the springs 483 to the 415½'s. Place the operating lever in the machine.

Depress the 9's and bring the handle to the first stop. Place the 700 section on the shaft 501 with the hooks of the plates 710 over the shaft 600. Insert the rod 709½, holding the casting 765 in position and fasten casting to the base with screws B-765. Examine the section for alignment and see that the plate 710 is flush with the groove in the shaft 600. Then tighten the nut on the rod 709½. Then insert the screw stud 855 and nut 46. Place the shaft 503 and the link 723 in position and tighten the screws B-721, B-503 and B-710. Connect the spring 586 and pin the inked ribbon to the tape 592 on the shaft 501.

Now place the printing frame in position and the machine is ready for the case.

Directions for Dismembering No. 1 Machine.

Remove the shaft 505. Loosen the screw B-509. Remove the shaft 509 and printing frame. Remove the pin from the inked ribbon and wind the ribbon on the upper roll.

Depress all the 9's, draw the handle forward to first stop and remove screw stud 855 and nut 46. Remove the screws B-721 and B-503, and the parts thus loosened. Remove the nut 45 on the left side of shaft 701. (If the machine has new style 722, it will be necessary to remove the nut 45 on the shaft 706½ also.) Then replace nut 45 holding shaft 701 in position after removing supports 722. Remove 45 nut on right-hand end of shaft 701, and then screw B-710. Unhook spring 580 from 700 section. The 700 section can then be easily removed by drawing the upper part away from the shaft 600, until the hammers 715 pass under the sectors 611. It can then be lifted off the shaft 501.

Unhook springs 180 and remove buttons 293. Unhook springs 483 under felt at front of keyboard. Disconnect springs 480, 288, 280, 281, 687, and 983, from their studs, also spring 381 from 910-R and the two springs 880 from the stud 851. Remove bar carrying springs 480. Remove screw B-941 and 917 and the following screws in the left-hand side frame: B-801, B-205 and B-400. Then remove the two screws attaching this side frame to the base. The side frame can then be easily removed.

Remove the upper ribbon shaft 500; then in the following order remove screws 251, B-518, 150, 552, 513, 501, 119, 254, rod 853 and the dash-pot. Then remove the screw 856, 800 section and the shaft 400 with the 918.

Remove the lever. Lay the machine on the right side and remove the screws B-1065 holding the base, and in the following order remove shaft 904, the 900 section and shaft 202. Spread the 210's with a small screw-driver and remove the sectors 610 and the screw B-801. The 600 section can then be lifted from the side frame, together with casting 665 and the shaft 801. Then remove the screw B-205 and the section 200 from the right side frame. The different sections can then be dismembered as may be necessary to make special repairs.

Instructions for Assembling No. 1 Machine.

The 200 section is placed on the right side frame with the rod 205 in position and then fastened with screw B-205. Be careful when tightening B-205 that shaft 205 does not turn. With the casting 665 and shaft 801 in position on the sectors 611, lay the 622 in position over hole in side frame for shaft 600 and then place the 600 section in its proper position on the side frame. See that the arm 619 is in proper position above the shaft 801. Fasten the shaft 801 with screw B-801. With a long screw-driver separate the plates 210 and insert the sectors 610. Place in position the section composed of shafts 202 and 207 connecting the links 229 with 201. See that the 623 is in

Instructions for Assembling No. 1 Machine — Continued.

proper position above the roller 232. Place the 900 section in position with the crotch of the side plate 910 astride the shaft 205. Place the shaft 904 with the rod 902 under the 411's. While the machine is still on the side, attach the base, and then set the machine in upright position.

Hook to the studs 660 in the base the bars 616, to which the springs 685 and 686 are attached. Place in position the section 800 and connect the section to plates 817 with stud 856 and screw B-856. Set the stud 856 so that the projecting straight edge on the left end will be parallel with the edge of the pitman 824 when the parts are in their normal position. Hook up the springs 884 connecting the studs in the arm 815 and cam 816. Then place spring 888 in position on shaft 901 between the socket 840 and casting 665. Then place the dash-pot in position with the socket 840 on shaft 801. Place in position the rod 853 and its nut 45. Also the screw 254 with its nut, then the pitmans 119, and hook up the springs 880 between shafts 101 and 851. Place in position the shaft 501 with spring 518. Also the feed arm 513, and connect the pieces 511 with the feed arm 513 and arm 117. Connect 120 and 527 with stud 552. Connect arm 110-R and pitman 366 with stud 150 and nut 45. With the 918 on shaft 400 and 402 in the strip 414, place same in position with springs 486 under shaft 400 and 918 under stud in the sector 311; guide the 412's into the notches of shaft 400 and tighten the screw B-400. This shaft must not bind the 412's. Place the section 9-34 in position and connect 911 to 227-L with screw 251 and nut 46. Place in position the shaft 500 with the arm 619 above the shaft. See that the 623 is in place and guiding the several shafts, place the left side frame in position and fasten with screws B-801, B-205, B-400 and B-1065.

Hook the spring 288 in position. Connect the 9-34 to the side frame with screw B-941, holding the 913, and see that the friction springs 923 are in proper position. Fasten the 917 in position with screw B-942. Connect the springs 982, 983, 180, 381, 382, 281, 280 and 288. Insert the cross-strip 422 and connect the springs 480 to the 411's. Place the keyboard with repeat and total buttons 293 in position, then connect the springs 483 to the 415's, and place the operating lever in the machine.

Depress the row of 9's and draw the handle to the first stop. The 700 section is now placed on the shaft 501 and the section lifted and hooked to shaft 600. Place the support 772 in position at the right end of shaft 701 and tighten the nut 45. Insert the screw B-710, and then place in position the support 722 on the left end of the shaft 701 and tighten the nut 45. Place the shaft 503 in position and tighten the screws B-503 and B-721, at the same time holding the 723 in position in the groove of the shaft 600. Then connect the plate 823 with arm 820, using stud 855 and nut 46. Connect the spring 586 to the right-hand shaft 702 and pin the ink ribbon to the tape 592. Now place the printing frame in position, when, after removing the operating lever, the machine is ready for the case.

Special Instructions for General Oiling.

No. 1, No. 3 and No. 4 Machines.

These instructions cover a thorough oiling of the machine, such as it receives here at the factory when new and first assembled. The points marked with a * (star) should be oiled monthly.

Since the 700 section is oiled before it is placed in the machine, we cover this first separately.

In the No. 4 machine there will be 7 bearings instead of 9, as in the No. 3.

700 Section — the Printing Mechanism.

- *715 Nine bearings on shaft 701.
- 716 Nine bearings on shaft 702.
- *717 Nine bearings on shaft 700.
- *718 Nine bearings on shaft 704.
- Shaft 702 Four bearings in side plates 710.
- Shaft 703 Two bearings in plates 710.
- Screw Stud 755 One bearing for Pitman 820.
- *741 Nine bearings, being the rollers on drivers 716. 700 section is then placed into the machine, and the complete machine oiled as follows:
- 415¹/₂ Nine bearings, where they connect with bend in front end of 214.
- 214 Nine bearings in slots of 210 and 211.
- 214 Nine bearings, rear ends in contact with pawls 228.
- 352 One bearing, all over.
- 300 Two bearings, inside and outside ends.
- 350 Two bearings, in slot and in hole of 300.
- *311 Three bearings, edges for 313, and where it contacts with 622 and on stud 354.
- *313 Bearing, on its supporting stud.
- *900 Three bearings, right end bearing in side frame, bearing for 920 and end of arm 919.
- *904 One bearing, right-hand end.
- *902 Two bearings, right-hand end and row 936.
- *918 Two bearings on shaft 400¹/₂ and one edge for 355.
- *400 One bearing in side frame.
- 402¹/₂ One bearing in arm 424-R.
- 215 Two bearings, notch at keyboard and bearing at stud.
- 218 One bearing at supporting shaft.
- *263 One bearing, connecting link 216 and arm 227-R.
- 208 Two bearings, right end and bearing on arm 613.
- *652 One bearing, connecting 622 and 623.
- *232 One bearing for 623.
- *601 One bearing in toggle joint 843, in style No. 1.
- *601 One bearing, in roller 632, in style No. 3.
- *856 One bearing, connecting 815 and 816, in style No. 1.
- 860 One bearing, right end connecting toggle joint and Pitman 824.
- *800 Two bearings, right-hand end and 816, in style No. 1.
- *800 One bearing, in side frame, in style No. 3.
- *355 Two bearings, in ends.
- *851 Five bearings, in supports 811 and in collar 834 and for springs 880.
- *101 Eight bearings, in supports 110, at springs 880, at 120, at sleeve 132.
- *552 One bearing, edge link 120.

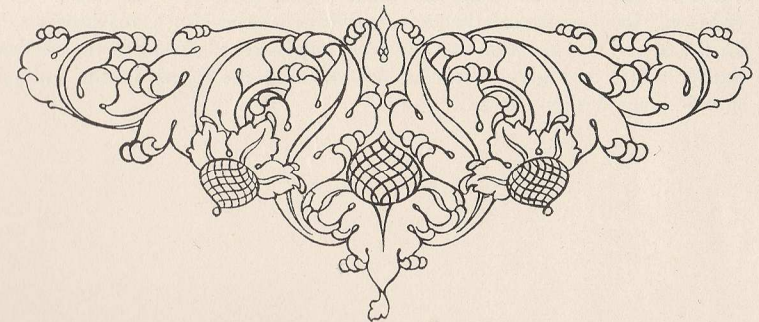
- *501 Four bearings, at right end in side frame, end 518 and at toggle joint.
- *600 Bearings, in side frame on plate 710 on sectors 611.
- 659 Nine bearings, in guides for 611.
- 658 Nine bearings, in guides for 611.
- *207 One bearing, in side frame.
- 202 One bearing, on link 229.
- 202½ One bearing, right end.
- *228 Twenty-seven bearings, on supporting studs, contacts with 214, and where resting on 202½.
- *500 Three bearings, at right end, and on spool 568.
- 504 Two bearings, in ribbon guides.
- 512 Two bearings, at support in printing frame, style No. 1 and No. 4.
- *508 One bearing, at right end, in style No. 1 and No. 4.
- *507 One bearing, at right end, in style No. 1 and No. 4.
- 509 Two bearings, at base, in style No. 1 and No. 4.
- *100 Five bearings, in studs 166 and at feed arm 513.
- 508 One bearing, left end, in style No. 1 and No. 4.
- 526 Two bearings, both sides, style No. 1 and No. 4.
- *521 One bearing, on supporting stud, style No. 1 and No. 4.
- *507 One bearing, at left end, style No. 1 and No. 4.
- *202½ One bearing, at left end, in side frame.
- *500 Two bearings, in side frame on ratchet wheel 530.
- *207 One bearing, in left side frame.
- 840 One bearing, on shaft 801.
- *501 Three bearings, in left side frame and on 511's.
- *523 Two bearings, at trunions in 511's.
- 556 One bearing, in roller on 513.
- 554 One bearing, at arm 513, in style No. 1 and No. 4.
- 553 One bearing, for roller on 511.
- 516 One bearing, on edge for 523.
- 1559½ One bearing, in side frame.
- 1564½ One bearing, connecting 1513 and 1513½.
- *853 Two bearings, supporting dash-pot.
- *600 Two bearings, in side frame and at plates 710.
- 650 One bearing, supporting 619.
- 208 Two bearings, end and bearing on 613.
- 226 Two bearings, at ends.
- 911 Two bearings, at ends.
- *800 One bearing, in left side frame.
- 816 One bearing, on roller 632; heavy oil.
- 711½L Two bearings, where it engages stud 854 in 823 and on roll 738.
- *718 Nine bearings, where they contact with 611.
- *821 Bearings on supporting stud and on edges.
- *913 Bearings at side frame and connection with 914.
- 824 Two bearings, at toggle joint and in slot, in style No. 1.
- 860 One bearing, connecting 824, in style No. 1.
- 855 One bearing, connecting 820 and 823.
- *917 Four bearings, at support in side frame on fork, and where contacting with 913 and 910.
- *900 Two bearings, left end in side frame, and at 920.
- *904 One bearing, at left end.
- *902 One bearing, at left end.
- 400½ One bearing, in left side frame.
- 402½ One bearing, in 424-L.
- *424 One bearing, for stud 261 in 227-L.
- 828 Two bearings, at left side frame, and where it contacts with 813.

- 955 and 956 Eighteen bearings, supporting number wheels.
- 924 Nine bearings, on edges engaging carrying pawls.
- 655 Nine bearings, connecting 610's and 611's.
- 610 Nine bearings, on upper edges contacting with 415.
- 412 Nine bearings, edges contacting with 651's.
- 415½ Nine bearings, between plates 210.
- 450 Sixteen bearings, in plates 210.
- 460 Sixteen bearings, in plates 210.
- 413 Nine bearings, on stud 462.
- 413½ Eighteen bearings, on piece 651 and studs 462.
- 413¼ Eighteen bearings, on studs 651 and 462.
- 210 and 211 Nine bearings, in slots for 610's.

Special Instructions for oiling Sliding Carriages.

- 1500 Two bearings, at ends in casting 1568.
- 1501 Bearings, in casting 1566-L.
- 1564 One bearing, in notch 1549.
- 1509 Two bearings, in 1566-R. and L.
- 1521 One bearing, on ratchet 1519.
- 1506 Two bearings, in 1566-R. and L.
- 1558½ One bearing, connecting 1567 and 1568.
- 1502 Four bearings, at springs 1582.
- 1502 Four bearings, in arms 1524 and 1525-R. and L.
- 1538 One bearing, at stud 1557, end 1567.
- 1599 Two bearings, at ends in 1568.
- 1516 One bearing, on supporting stud.

Use clock oil, applied with a flattened wire, and wipe off the superfluous oil. One drop in any bearing is sufficient, and in some bearings much less. On the cam 816 and the arm 917 use good grade of cylinder oil.



Catalogue of Symbols.

The machine is divided into sections numbered from 100 to 1500, inclusive.

SECTION 100, in No. 1 machines and 1100 in No. 3 machines, comprises the large shaft in the base, with its parts and connections.

SECTION 200 includes the keyboard, key levers, wires, etc., in the top of the machine.

SECTION 300 comprises the operating lever and connections on the right side frame.

SECTION 400 comprises the carrying mechanism located in the forward part of the machine.

SECTION 500 comprises the ink ribbon and its connections, in style No. 3, and in style No. 1 and No. 4 also includes the printing frame.

SECTION 600 is the central shaft with connections, supporting and operating the sectors carrying the type, together with the sectors 610 in front of the machine.

SECTION 700 comprises the printing mechanism for striking the type at the rear of the machine.

SECTION 800 is the main operating section, located in the lower central part of the machine.

SECTION 900 comprises the accumulating mechanism with number wheels in the front of the machine.

SECTION 1000 consists of the base, side frame, key check table, etc.

SECTION 1500 consists of the broad carriage of the No. 3 machine.

In the above classification the figure in the hundreds denotes the section, the figure in the tens gives the classification, and the figure in the units is the specific piece designated, as follows:

Classifications.

0 to 9 inclusive, shafts.

10 to 29 inclusive, punched pieces.

30 to 49 inclusive, bushings, hubs, collars, etc.

50 to 64 inclusive, studs and pins.

65 to 69 inclusive, castings.

70 to 79 inclusive, wires and connections.

80 to 89 inclusive, springs.

90 to 99 inclusive, miscellaneous.

The letters R. and L. are affixed to numbers to designate similar parts which occupy right and left positions in the machine with reference to operator's position in front of the machine.

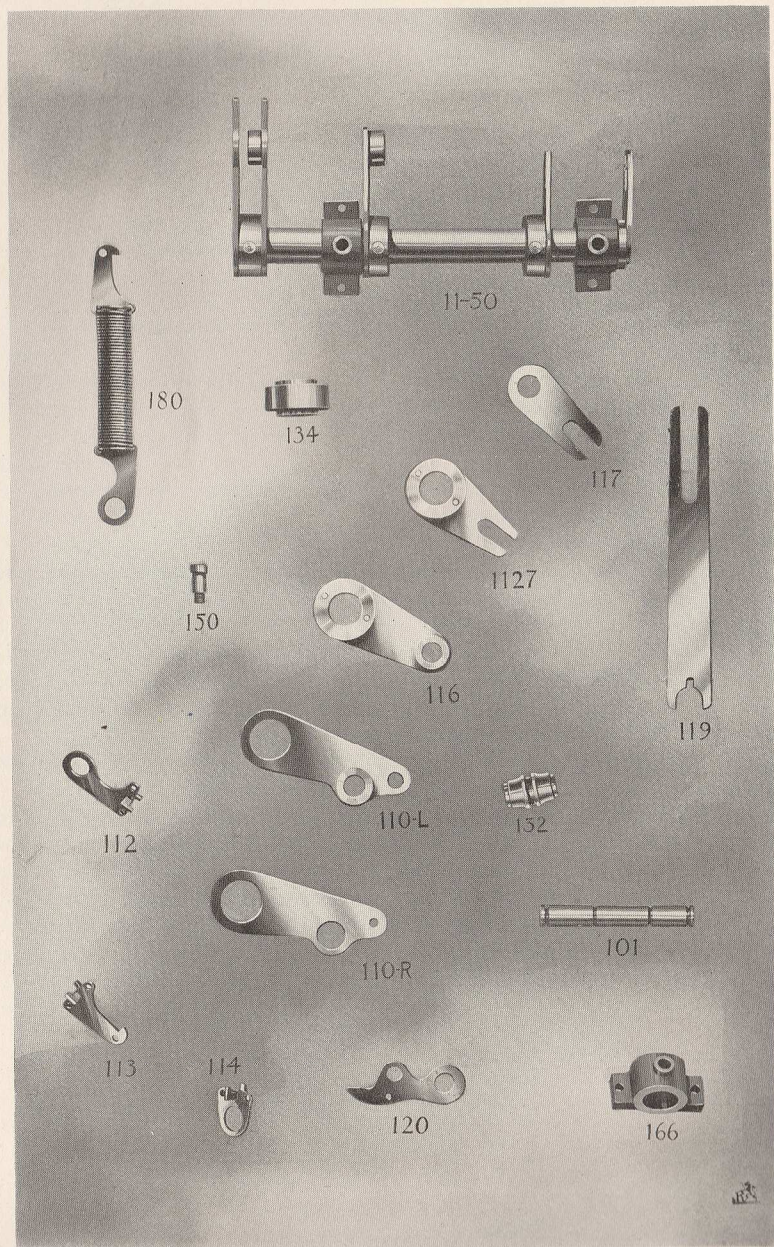
The letter N is prefixed to symbol numbers of parts which are peculiar to the No. 4 and narrower machine.

The letter B prefixed to symbol numbers denotes screws used to fasten the parts designated by those numbers.

A complete list of the numbers and parts used in the machine follows the symbol numbers, being listed according to sections.

In the four columns are shown: first, the style of the machine in which the piece occurs; second, the symbol number of the piece; third, the number of pieces per machine; and fourth, description of the piece itself.

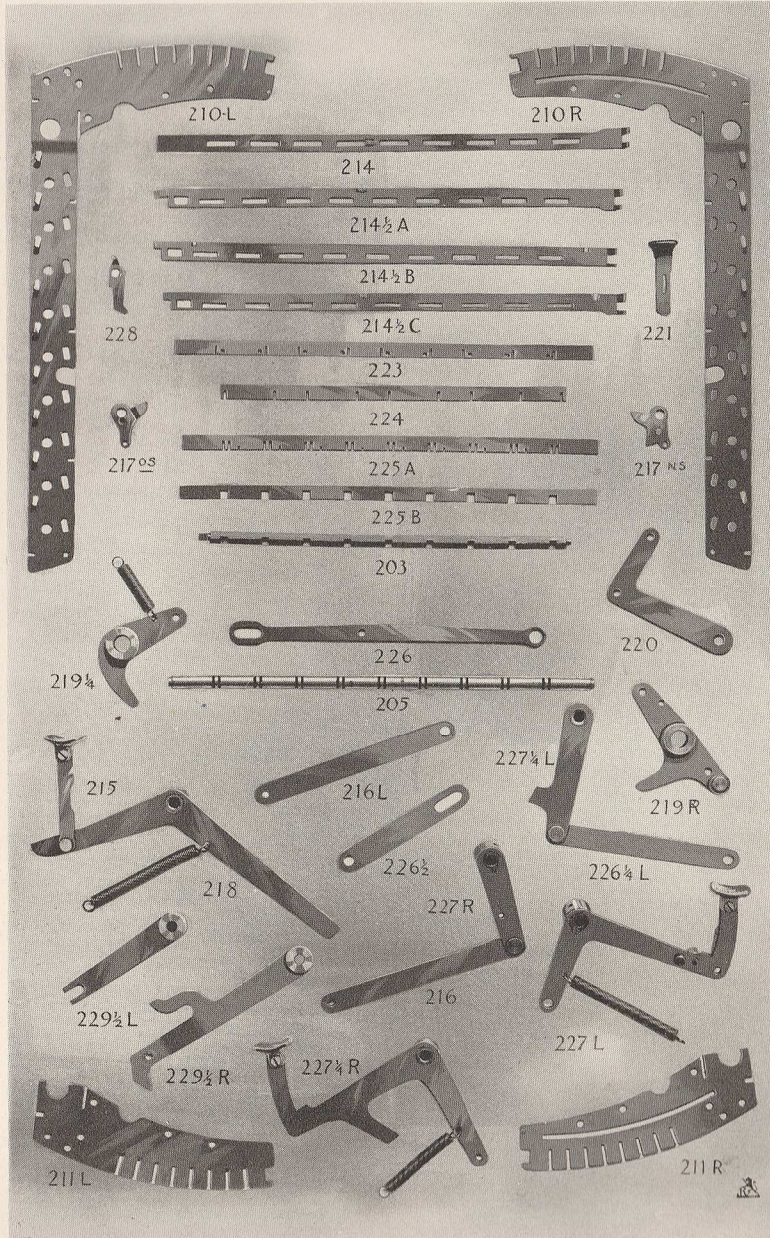
It will further be noticed that in some cases the symbol numbers have fractions affixed, showing the evolution and improvement of the part since the machine was first manufactured. For instance, 413, 413½, 413¼, the last named piece being the latest style in use.



Section 100.

Section 100.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
1	100	1-50	1	Large shaft in base.
4	100N	1-50N	1	Large shaft in base.
1 & 3	101	101	1	Short rod carried by 100, to which 880's are attached.
4	101N	1011N	1	Short rod carried by 100N, to which 880's are attached.
3, 4	110R	11-50	1	Arm on right end of large shaft in base.
1	110R	1-50	1	Arm on right end of large shaft in base
3, 4	110L	11-50	1	Arm on right end of large shaft in base
1	110L	1-50	1	and supporting 101.
1, 3, 4	112	1-2	4	Plates on 101 for springs 180.
1, 3, 4	113	1-3	4	Plates on lower ends of 180.
1, 3, 4	114	1-4	4	Plates on lower ends of 880.
1, 4	116	1-50	1	Arm on 100 supporting left end of 101.
3	11-50	...	...	...
1, 4	117	1-50	1	Arm on left end of 100 to operate 501.
3	11-50	...	...	...
1, 3, 4	118	118	12	Small cross-pieces in ends of 180 and 880.
1, 3	119	119	2	Pitmans transmitting motion from 100 to 800.
4	119N	119N	2	Pitmans transmitting motion from 100N to 800N.
1, 3, 4	120	120	1	Lower link of toggle joint between 101 and 501.
Late				
3	120 1/4	120 1/4	1	Lower link of toggle joint between 101 and 501.
1, 4	131	1-50	1	Bushing in 110L for 101.
3	11-50	...	...	...
1, 3, 4	132	132	1	Sleeve on 101 for 119's.
1, 4	133	1-50	...	...
3	11-50	11-50	1	Hub for 116.
1	134	1-50	1	Hub for 110.
3	11-50	11-50	1	Hub for 110.
4	134N	1-50N	1	Hub for 110.
1, 4	133	1-50	...	...
3	11-50	11-50	...	... Bushing in 116 for 101.
1, 3	150	150	1	Screw stud in 110R for 366.
4	150N	150N	1	Screw stud in 110R for 366.
1, 3	151	151	2	Dowel pins, securing 110R and 110L to hub.
4	151N	151N	2	Dowel pins, securing 110R and 110L to hub.
1, 3, 4	152	152	2	Pins to fasten hubs to large shaft in base.
1, 3, 4	153	153	2	Dowel Pins securing 116 to hub.
1, 3, 4	154	154	1	Dowel pins securing 117 to large shaft in base.
1, 4	166	1-50	2	Bearings for large shaft in base.
3	11-50	11-50	...	... Bearings for large shaft in base.
1, 3, 4	180	1-21	4	Main driving springs hooked into base.
1, 3, 4	B166	B166	4	Screws binding 166 to base.



Section 200.

Section 200.

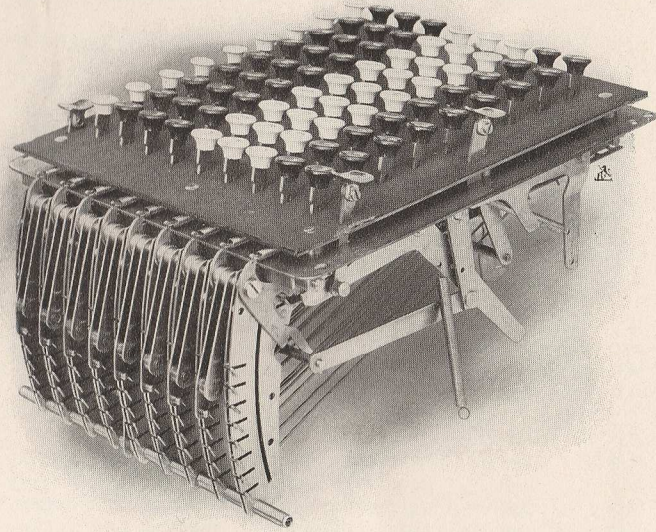
Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
Late				
1, 3	200	2-1	4...	Rods supporting 1st, 2d, 6th and 7th rows of key levers.
4	200N	2-1N	4...	Rods supporting 1st, 2d, 6th and 7th rows of key levers.
Late				
3	200 1/4	2-15	1...	Rods supporting 1st, 2d, 6th and 7th rows of key levers.
4	200 1/4 N	2-15N	1...	Rods supporting 1st, 2d, 6th and 7th rows of key levers.
1, 3	201	201	1...	Rod supporting rear end of 200 section.
4	201N	201N	1...	Rod supporting rear end of 200 section.
1, 3	201 1/2	201 1/2	1...	Rod supporting front end of 200 section.
4	201 1/2 N	201 1/2 N	1...	Rod supporting front end of 200 section.
1, 3	202	202	1...	Rod carried by 207 to return 214's.
4	202N	202N	1...	Rod carried by 207 to return 214's.
1, 3	202 1/2	202 1/2	1...	Rod supporting 214's.
4	202 1/2 N	202 1/2 N	1...	Rod supporting 214's.
1, 3	203	2-2	1...	Rod carried by 220's to lock 214's.
4	203N	2-2N	1...	Rod carried by 220's to lock 214's.
1, 3	204	2-43	1...	Shaft through 210's supporting 227R and 227L.
4	204N	2-43N	1...	Shaft through 210's supporting 227R and 227L.
1, 3	205	205	1...	Guide rod for lower ends of 210's.
4	205N	205N	1...	Guide rod for lower ends of 210's.
1, 3	206	2-3	1...	Rod in 210's supporting 220's.
4	206N	2-3N	1...	Rod in 210's supporting 220's.
3	206 1/2	2-19	1...	Rod supporting 229 1/2 R and L.
Late				
3	206 1/4	2-19 1/4	1...	Shaft supporting 229 1/2 R and 227 1/4 L.
Late				
4	206 1/4 N	2-19 1/4	1...	Shaft supporting 229 1/2 R and 227 1/4 L.
1, 3	207	2-42	1...	Shaft with 202 to return 214's.
Late				
3	207	2-42 1/4	1...	Shaft with 202 to return 214's.
4	207N	2-42N	1...	Shaft with 202 to return 214's.
Late				
4	207N	2-42 1/4 N	1...	Shaft with 202 to return 214's.
1, 3	208	208	1...	Lower rod between 220's to engage 613's.
4	208N	208N	1...	Lower rod between 220's to engage 613's.
3	208 1/4	208 1/4	1...	Shaft on 613R and L for Item counter.
1, 3	208 1/2	2-11	1...	Shaft supporting 217's and 218.
4	208 1/2 N	2-11N	1...	Shaft supporting 217's and 218.
1, 3	209	209	1...	Rod between 216 to lift 415 1/2's.
4	209N	209N	1...	Rod between 216 to lift 415 1/2's.
1, 3, 4	210R (No. 1)	2-36	1...	Graduated plate on the right with guide slot for 610.
1, 3, 4	210R	2-38	3...	Graduated plate with guide slot for 610's.
1, 3, 4	210L	2-40	5...	Graduated plate without guide slot.
1, 3, 4	211R	2-40	5...	Small graduated plate with guide slot for 610's.

Section 200—Continued.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
Late				
1, 3, 4	211L	2-38	4...	Small graduated plate without guide slot.
1, 3	212	2-31	1...	Lower keyboard plate.
4	212N	2-31N	1...	Lower keyboard plate.
1, 3	213	2-31	1...	Upper keyboard plate.
4	213N	2-31N	1...	Upper keyboard plate.
1	214R	214R	4...	Connecting bars for key levers in 1st, 3d, 5th and 7th rows.
1	214L	214L	5...	Connecting bars for key levers in 2d, 4th, 6th, 8th and 9th rows.
3, 4	214	214	9...	Connecting bars for key levers.
Late				
3, 4	214½	214½	9...	Connecting bars for key levers with hook for 284½.
1, 3, 4	215	215	1...	Link on 218 for repeat button.
1, 3, 4	216	216	2...	Links connecting 209 with 227R and 227L.
Late				
3, 4	216R	216R	1...	Links connecting 209 with 227R.
Late				
3, 4	216L	216L	1...	Links connecting 209 with 227L.
1	217O. S.	217	81...	Key levers.
3, 4	217R&I	214	81...	Key levers.
1, 3, 4	218	2-25	1...	Repeat lever.
1, 3, 4	219O.S.	2-42	1...	Right arm on 207 supporting 202.
3, 4	219R N.S.	2-42½	1...	Right arm on 207 supporting 202.
1, 3, 4	219L O.S.	2-42	1...	Left arm on 207 supporting 202.
3, 4	219L N.S.	2-42	1...	Left arm on 207 supporting 202.
Late				
3, 4	219¼	2-42¼	1...	Left arm on 207 supporting 202.
1, 3, 4	220	220 or 2-2	2...	Arms on rod 204 carrying 203.
1, 3, 4	221	221	81...	Key stems.
1	222	222	4...	Washers on 204 separating 220 and 210.
Late				
3, 4	222¼	222¼	1...	Link from 205 to 258½.
1, 3	223	223	1...	Rear end strip for 210's.
4	223N	223N	1...	Rear end strip for 210's.
1, 3	224	224	3...	Intermediate connecting strips for 210's.
Late				
3	224	224	3...	Intermediate connecting strips for 210's.
4	224N	224N	3...	Intermediate connecting strips for 210's.
1, 3	225	225	1...	Front connecting strip for 210's.
4	225N	225N	1...	Front connecting strip for 210's.
1, 3, 4	226	226	1...	Link connecting 227L and 219L.
Late				
3, 4	226½	226½	1...	Link connecting 227¼R and 219R.
Late				
3, 4	226¼	226¼	1...	Link connecting 227¼L and 227L.
3, 4	226¾	226¾	1.	Washer between 216 and 1416 to carry spring 286.
1, 3, 4	227R	2-43	1...	Right arm on shaft 204.

Section 200—Continued.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
Late				
3, 4	227¼R	2-10¼	1...	Right arm on shaft 206¼ (Error lever).
1, 3, 4	227L	2-43	1...	Left arm on shaft 204.
Late				
3, 4	227¼L	2-19¼	1...	Left arm on shaft 206¼.
1, 3, 4	228R	228R	4...	Pawls to detain 214's.
1, 3, 4	228L	228L	5...	Pawls to detain 214's.
1, 3, 4	228½	228½	9...	Washers between 210's and 228's.
1, 3, 4	229	229	2...	Links to limit movement of 202.
Late				
4	229½RN	2-19¼N	1...	Arm on 206¼N for star 718.
3	229½R	2-19¼	1...	Arm on 206¼ for star 718.
Late				
3	229½L	2-19	1...	Arm on 206½ for star mch.
1, 3, 4	230	2-42	2...	Hubs for 219.
1, 3, 4	231	231	1...	Separating collar between 226 and 219L.
1, 3, 4	232	232	1...	Roller on 219R.
Late				
3, 4	232½	232½	1...	Roller on 219R.
1	233	233	2...	Short collars on 201 guiding 229.
1, 3, 4	234	2-9	1...	Hub for 218.
1	235	235	2...	Long collars on 201 guiding 229.
1, 3, 4	237	237	9...	Collars separating 212 and 213.
1, 3, 4	238	2-19	1...	Hub in 229½R.
1, 3, 4	239	2-19¼	2...	Hub in 227¼R and L.
		or 10¼		
1, 3, 4	247	2-43	2...	Hubs for 227R and 227L.
3, 4	250	250	1...	Spring stud in 226¼A.
3, 4	250¼	250¼	1...	Screw stud in 227¼A to connect 226¼A.
1, 3, 4	251	251	1...	Stud connecting 227L and 911.
Late				
3, 4	251¼	251¼	1...	Stud connecting 227L, 216 and 1416.
Late				
3, 4	251½	251½	1...	Screw stud connecting 226½ and 227¼R.
1, 3, 4	252	252	9...	Studs riveting plates to keyboard.
1, 3, 4	253	253	10...	Studs for 280, 281, 688, 982, 1581, and also limit stud on 1566R for 1529.
3, 4	253½	253½	1...	Stud in right side frame for spring 482.
1, 3, 4	254	254	1...	Stud connecting 226 and 219L.
1, 3, 4	255	255	1...	Stud connecting 218 and 215.
1	256	256	2...	Pins fastening 227R and 227L to 204.
Late				
3, 4	256	256	1...	Studs connecting 226½ and 219R.
1, 3, 4	257	257	9...	Studs in 210's supporting 228's.
1, 3, 4	258	258	18...	Studs connecting plates 210 and 211.
Late				
3, 4	258½	258½	1...	Stud supporting link holding 205.
1, 3, 4	259	259	81...	Studs in 217's for 284's.
1, 3, 4	260	260	2...	Studs in 212 to hold 210's in position.
3	260½	260½	2...	Stud in 227L for 828, also in 226 for 229½L.
4	260½	260½	1...	Stud in 227L for 828.
3, 4	261	261	1...	Stud in 227L for 424L.



Section 200 Assembled.

Section 200—Continued.

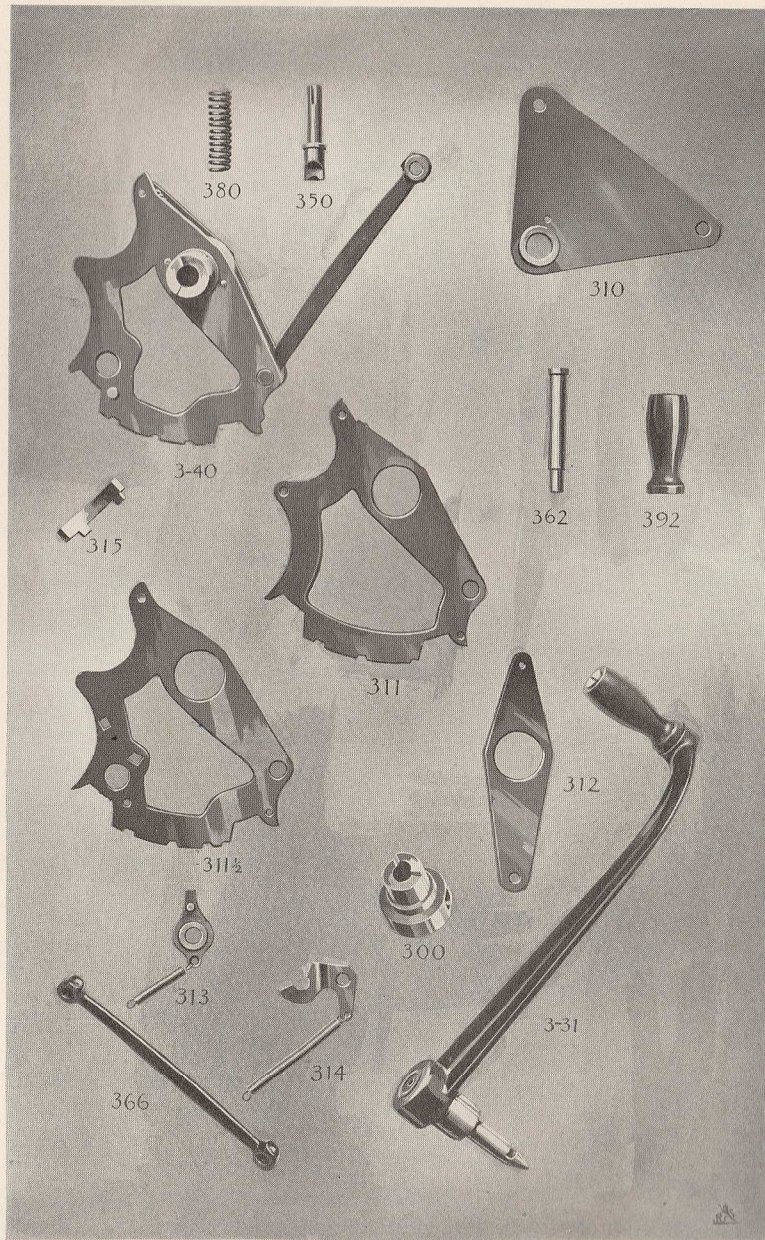
Style No.	Symbol No.	Part Sent.	No. Pes. per Mch.	Description.
Late				
3 & 4	261¼	261¼	1... Stud in 227L for 424¼L.	
1, 3, 4	262	262	1... Stud in 219R for 232, or 232½.	
1, 3, 4	263	263	1... Stud connecting 227R and 216.	
1, 3, 4	264	264	1... Stud connecting 227L, 216 and 226.	
1, 3, 4	270	270	72... Stop wires to arrest 610's.	
1, 3, 4	271	271	9... Rings on 217 for holding up 214's.	
1	272	272	2... Rings on 202 for 229.	
1, 3	273	273	9... Retaining strips for key stems.	
4	273N	273N	9... Retaining strips for key stems.	
1	274	274	9... Rods supporting 282's.	
1, 3, 4	275	275	81... Washers between 210's and 217's.	
1, 3, 4	278	278	3... Division wires on keyboard.	
1, 3, 4	279	279	15... Wire rings on 200, 206 and 208½.	
1, 3, 4	280	280	2... Springs for 218 and 227L.	
1, 3, 4	281	281	1... Spring for rock shaft 207.	
1, 3, 4	282	282	36... Springs between 217's.	
Late				
3 & 4	282¼R	282¼R	1... Spring on 206¼ to right of 220½R.	
3 & 4	282¼L	282¼L	1... Spring on 206¼ to left of 220½R.	
1, 3, 4	282½	282½	9... Springs between 217's in left end column.	

Section 200—Concluded.

Style No.	Symbol No.	Part Sent.	No. Pes. per Mch.	Description.
1, 3, 4	283	283	9... Spring on 228's.	
1, 3, 4	284	284	81... Springs on 217's.	
1, 3, 4	284½	284½	81... Springs on 217's.	
Late				
3 & 4	285	285	1... Spring between 227¼ R and 200¼.	
1, 3, 4	288	288	1... Spring on 227L.	
1, 3, 4	291	291	81... Key buttons.	
1 & 3	292	2-31	1... Cloth covering keyboard.	
4	292N	2-31N	1... Cloth covering keyboard.	
1, 3, 4	293L	293L	1... Total button.	
1, 3, 4	293R	293R	1... Repeat button.	
Late				
3 & 4	293E	293E	1... Error button.	
Late				
3 & 4	294	294	1... Washer on 204, separating 201 and 228.	
Late				
3 & 4	295	295	81... Washers between 217's and 210's.	
1, 3, 4	B205	B205	2... Screws binding 205 to side frames.	
1, 3, 4	B212	B212	4... Screws binding keyboard to side frames.	
1, 3, 4	B293	B293	2... Screws in total, repeat, and error buttons.	

Section 300.

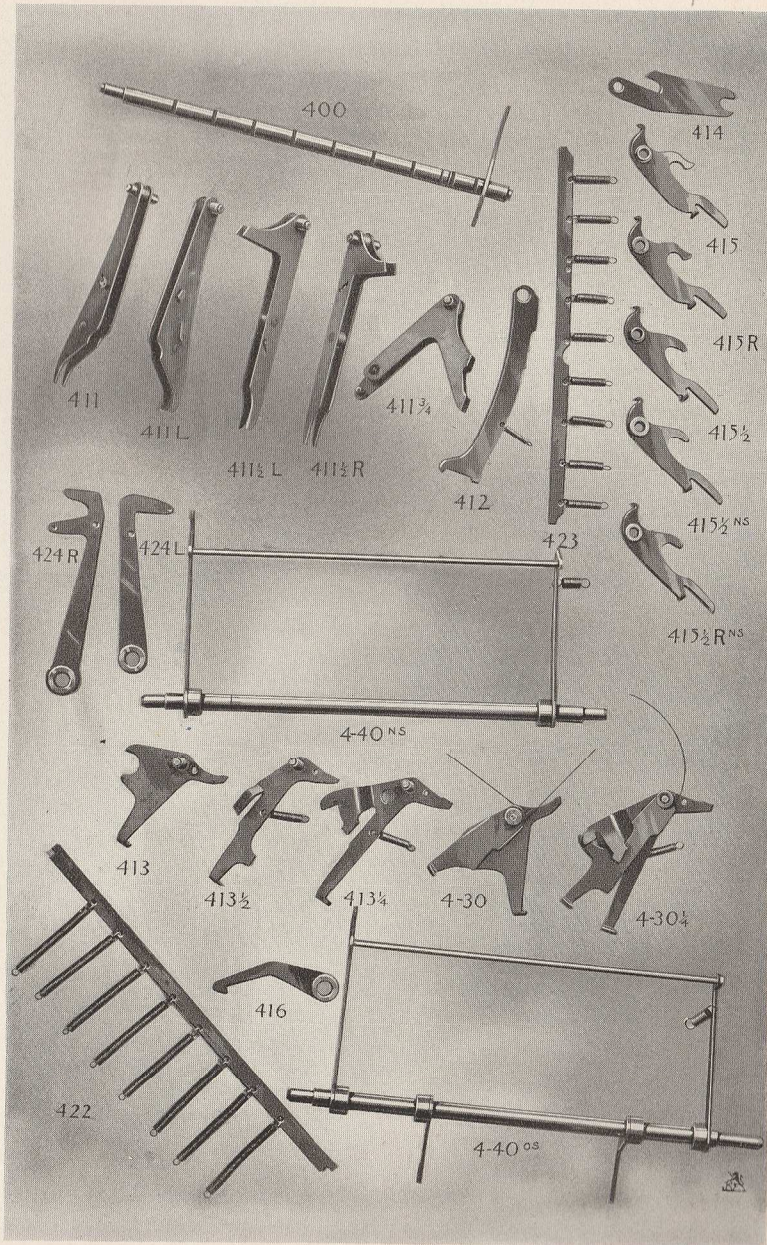
Style No.	Symbol No.	Part Sent.	No. Pes. per Mch.	Description.
1, 3, 4	300	3-40	1... Shaft to which operating lever is connected.	
1, 3, 4	310	3-1	1... Plate operating inner end of 300.	
1	311 O. S.	3-40	1... Notched sector on 300.	
1, 3, 4	311	3-40	1... Notched sector on 300.	
Late				
3 & 4	311¼	3-40¼	1... Notched sector on 300.	
3 & 4	312	312	1... Arm on shaft connected to 311.	
1	313 O. S.	3-21	1... Check pawl to engage 311.	
1, 3, 4	313¼ N.S.	3-21¼	1... Check pawl to engage 311.	
1	314R O.S.	314R O.S.	1... Friction spring on 311.	
1	314L O.S.	314L O.S.	1... Friction spring on 311.	
Late				
3 & 4	314	314	1... Pawl on 1066R, engaging 355¼ on 311½.	
Late				
3 & 4	315	3-40¼	1... Segment on 311½ to engage 1412.	
1	316	316	1... Retaining pawl for 313 on right side frame.	
1, 3, 4	330	3-31	1... Hub for operating lever.	
1	331	331	1... Roll on lower end of 311.	
1	332	332	1... Collar separating 316 and side frames.	
1, 3, 4	333	3-1	1... Bushing on 310 for 300.	
1, 3, 4	334	334	2... Collars separating 310 and side frame.	
1, 3, 4	335	3-21¼	1... Bushing in 313.	
1, 3, 4	336N	336N	1... Collar under stud 358N.	
1, 3, 4	337	3-5	1... Washer on 362.	
3 & 4	338	338	1... Roller on 354½.	
1, 3, 4	350	350	1... Spring stud in 300.	
1, 3, 4	351	351	1... Cross pins between 311 and 312 to guide 350.	



Section 300.

Section 300—Continued.

Style No.	Symbol No.	Part Sent.	No. Pes. per Meh.	Description.
1, 3	352	3-31	1...	Pointed stud in operating lever.
4	352N	3-31	1...	Pointed stud in operating lever.
1, 3, 4	353	353	1...	Pin binding 367 or 368 to 330 and 352.
3 & 4	354	354	1...	Stud in 311 to engage 919.
Late				
3 & 4	354½	354½	1...	Stud in 311 supporting 338 against 919.
1, 3, 4	355	355	1...	Stud in 311 to engage 918.
Late				
3 & 4	355¼	355¼	1...	Stud in 311½ to engage 314.
Late				
3 & 4	355½	355½	1...	Stud in 1066R to stop 314.
1, 3, 4	356	356	1...	Stud supporting 313.
Late				
3 & 4	357	357	1...	Stud supporting 314.
1, 3	358	358	1...	Stud between 311, 312 for 366.
4	358N	358N	1...	Stud between 311, 312 for 366.
1, 3, 4	359	359	1...	Stud in base for 382.
Late				
3 & 4	359¼	359¼	1...	Stud in base for 383 and 382.
1	360	360	2...	Studs in 311 to engage 313.
1, 3, 4	361	361	2...	Pins binding 311, 312 to 300.
1, 3, 4	362	3-5	1...	Stud in operating lever supporting rubber grip.
Late				
3 & 4	363	363	1...	Stop for 313.
Late				
3 & 4	364	364	1...	Stud on 313 to engage 314.
1, 3, 4	366	366	1...	Pitman between 100 and 300.
1, 3, 4	367	3-31	1...	Casting of operating lever.
Late				
3 & 4	368	3-31	1...	Casting of operating lever, bent forward.
Late				
3 & 4	368½	3-31	1...	Drop forging, like above.
1, 3, 4	380	380	1...	Spring on 350 to hold operating lever up-right.
1, 3, 4	381	381	1...	Spring connecting 918 and 910R.
1, 3, 4	382	382	1...	Spring for 313.
Late				
3 & 4	383	383	1...	Spring for 314.
Late				
3 & 4	384	384	1...	Spring for 313.
1, 3, 4	392	392	1...	Rubber grip on operating handle.
1, 3, 4	B310	B310	2...	Screws binding 310 to right side frame.
Late				
3 & 4	B362	B362	1...	Screws binding rubber grip to operating lever.



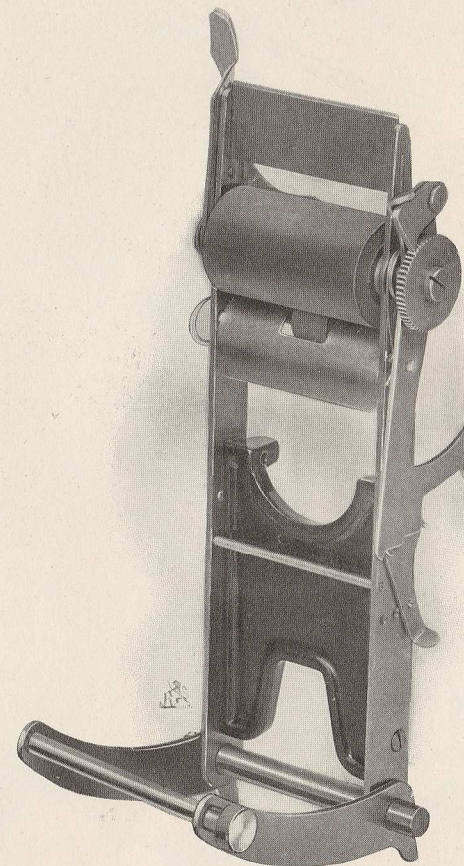
Section 400.

Section 400.

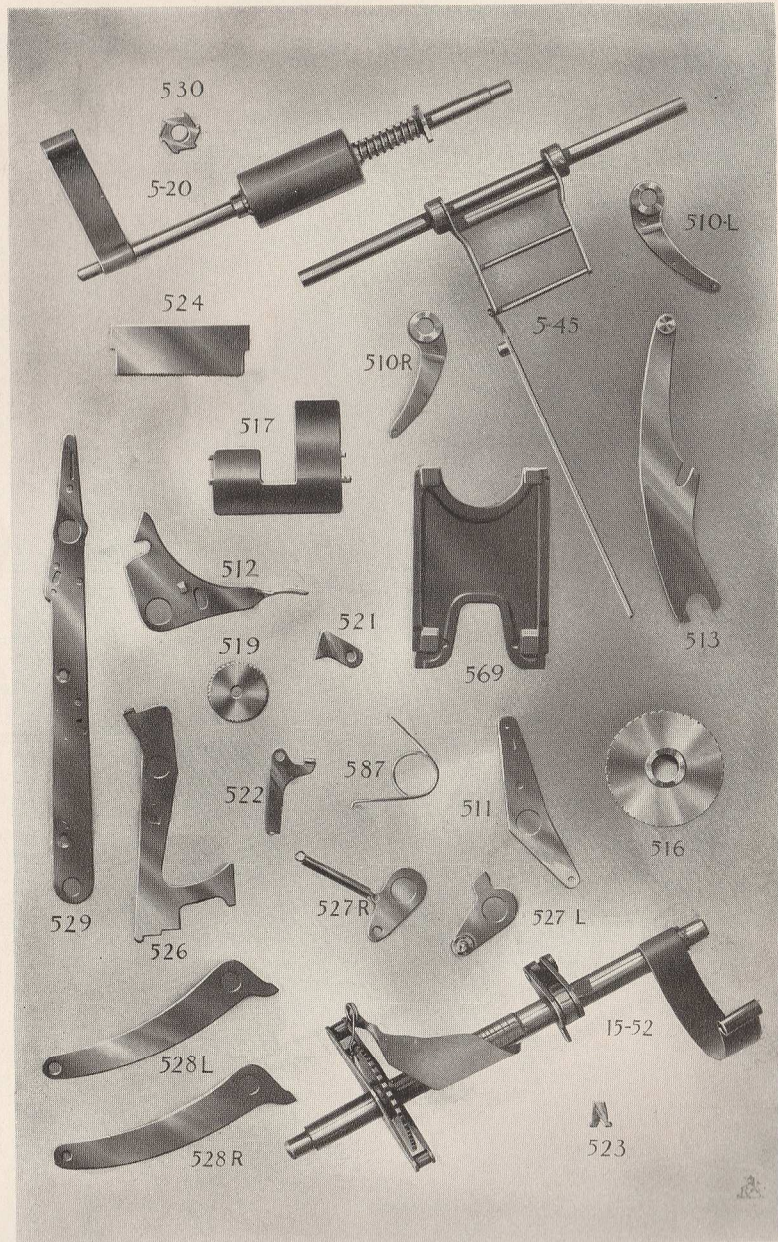
Style No.	Symbol No.	Part Sent.	No. Pes. per Mch.	Description.
1	400	4-8	1...	Guide rod for lower end of 412's.
4	400N	4-8N	1...	Guide for lower end of 412's.
3	400 1/2	4-40	1...	Shaft carrying 424's and 416's.
4	400 1/2 N	4-40N	1...	Shaft carrying 424's and 416's.
Late				
3 & 4	400 1/4	4-40 1/4	1...	Shaft carrying 424R and 424 1/4 L.
Late				
4	400 1/4 N	4-40 1/4 N	1...	Shaft carrying 424R and 424 1/4 L.
1	402	402	1...	Striker rod for 412's.
4	402N	402N	1...	Striker rod for 412's.
3	402 1/2	402 1/2	1...	Rod carried by 424's to engage 411 1/2's.
4	402 1/2 N	402 1/2 N	1...	Rod carried by 424's to engage 411 1/2's.
1	410	410	1...	Link connecting 201 1/2 and 400.
1	411R	4-1	7...	Right-hand plate of striker for 412's.
1	411L	4-1	7...	Left-hand plate of striker for 412's.
1	411L (No. 1)	4-1	1...	Left-hand plate of striker for 412 in left-hand column.
1	411R No. 1	4-1	1...	Right-hand plate of striker for 412 in left-hand column.
3 & 4	411 1/2 R No. 1	4-1 1/2	1...	Pawl to detain 413 1/4, to which spring 480 3/4 is hooked.
3 & 4	411 1/2 R	4-1 1/2	7...	Right-hand plate of pawl to detain 413 1/2.
3 & 4	411 1/2 L	4-1 1/4	7...	Left-hand plate of pawl to detain 413 1/2.
3 & 4	411 1/2 L No. 1	4-1 1/4	1...	Pawl to detain 413 1/2 in farthest left column.
Late)	
3 & 4	411 1/4	4-11R	8)...	Plates riveted by 462 and 450 to lock 413 1/4.
Late)	
3 & 4	411 1/4 R	4-11R	7)...	
Late)	
3 & 4	411 1/4	4-11L	1)...	Plates riveted by 462 and 450 in farthest left column.
Late)	
3 & 4	411 3/4	4-11L	1)...	
1, 3, 4	412	412	9...	Detents for sectors 610.
1, 3, 4	412 1/2	412 1/2	1...	Arm on 413 1/2 to detain 610.
1, 3, 4	413	4-3	8...	Carrying pawls.
3 & 4	413 1/2	4-3 1/2	8...	Carrying pawls.
Late)	
3 & 4	413 1/4	4-3 1/4	8...	Carrying pawls.
1	414	414	1...	Link to locate position of 400.
1, 3, 4	415	4-4 or 9	9...	Retainers for sectors 610.
3 & 4	415 1/2	4-4 1/2 or 4-9 1/2	9...	Retainers for sectors 610.
3 & 4	416R&L	4-40	2...	Hooks for detaining 615.
Late				
3 & 4	417	4-12	1...	Hook on 440, to prevent non-printing of star.
1, 3, 4	421	4-20	1...	Pawl to arrest left-hand 916.
3 & 4	421 1/2	4-30 1/4	1...	Pawl to arrest left-hand 916.
1 & 3	422	422	1...	Strip to which 480's are attached.
4	422N	422N	1...	Strip to which 480's are attached.
1 & 3	423	423	1...	Strip to which 483's are attached.
4	423N	423N	1...	Strip to which 483's are attached.
3 & 4	424R	4-40	1...	Arm on 400 carrying 402 1/2.

Section 400—Continued.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
3 & 4 Late	424L	4-40	1...	Arm on 400 carrying 402½.
3 & 4 1, 3, 4	424¼ 428	4-40¼ 428	1... 2...	Arm on 400¼ carrying 402½. Washers separating pawls in left-hand column.
1, 3, 4 1, 3, 4 Late	429 430	429 430	1... 1...	Washer separating 421 and 413. Nut for 457 supporting 415.
3 & 4 1, 3, 4 Late	430½ 431	430½ 4-30	1... 1...	Nut for 457½ supporting 415½. Bushing in 421.
3 & 4 1, 3, 4 1, 3, 4 Late	431½ 434 444	4-30¼ 4-4 or 4-4½ 4-9	1... 1... 8...	Bushing in 421½. Bushing in 415R and 415½R. Bushing in 415.
3 & 4 3 & 4 3 & 4 1, 3, 4 Late	444½ 445 446 450	4-9½ 4-40 or 4-40¼ 4-12 4-11	8... 4... 1... 8...	Bushing in 415½. Hubs for 424 and 416. Hub for 417. Studs supporting 411½ and 415½.
3 & 4 Late	452	452	1...	Stud in 417 for 311.
3 & 4 Late	453	453	1...	Stud in 417 for 482.
3 & 4 Late	454	454	1...	Stud in 1066R for 482.
3 & 4 Late	455	455	1...	Roller on 417.
3 & 4 1, 3, 4 3 & 4 Late	456 457 457½	456 457 457½	1... 1... 1...	Stud supporting 455. Studs supporting 514R. Studs supporting 415½R.
3 & 4 1, 3, 4 Late	458 460	458 4-3 or 4-3¼	1... 8...	Stud 1411 for 417. Stud supporting carrying pawl 413½.
3 & 4 1, 3, 4	461 462	461 4-11 or 4-1	7... 8...	Stud for spring 480¾. Stud engaging carrying pawl 413½.
1, 3, 4 1, 3, 4 1, 3, 4 3 & 4 Late	463 464 480 480½	4-3¼ 4-3 480 480½	1... 1... 8... 8...	Stud in 413¼L for 480¾ spring. Stud in 413 for 488. Spring on 413. Spring on 413½.
3 & 4 1, 3, 4 3 & 4 1, 3, 4 1, 3, 4 1, 3, 4 3, 4 1, 3, 4	480¾ 481 481½ 482 483 484 486 486½ 488	480¾ 481 481½ 482 483 484 486 486½ 488	8... 8... 1... 2... 9... 8... 1... 1... 1...	Spring on 413¼. Spring on 413, connected to 411. Spring on 413¼L. Spring on 424R and 417. Springs on 415. Springs on 412. Spring on 421. Spring on 421½. Spring on 413L.



Section 5-40.



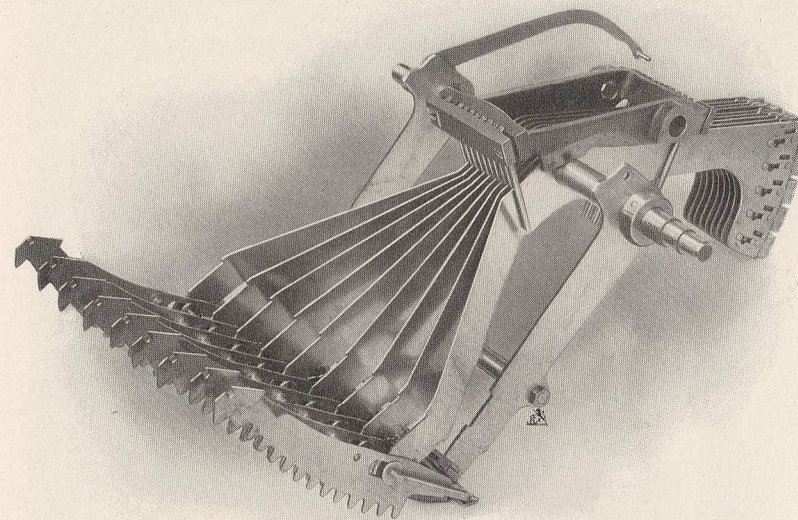
Section 500.

Section 500.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
1, 3	500	5-20	1...	Upper shaft for ribbon spool.
4	500N	5-20N	1...	Upper shaft for ribbon spool.
1, 3	501	15-52	1...	Lower shaft for ribbon.
4	501N	5-50N	1...	Lower shaft for ribbon.
1, 3	502	502	1...	Guide rod for ribbon between 510's.
4	502N	502N	1...	Guide rod for ribbon between 510's.
1, 3	502½	502½	1...	Center roller for ribbon between 510's.
4	502½N	502½N	1...	Center roller for ribbon between 510's.
1, 3	503	5-45	1...	Stay rod for supporting 510's.
4	503N	5-45N	1...	Stay rod supporting 510's.
1, 3	504	504	1...	Guide roll for ribbon between 510's.
4	504N	504N	1...	Guide roll for ribbon between 510's.
1	505	5-3	1...	Rod supporting roll of paper.
4	505N	5-3N	1...	Rod supporting roll of paper.
1	506	506	1...	Small guide roll for paper between 529's.
4	506N	506N	1...	Small guide roll for paper between 529's.
1	507	5-4	1...	Binding shaft for paper feed.
4	507N	5-4N	1...	Binding shaft for paper feed.
1	508	5-5	1...	Shaft supporting impression roll.
4	508N	5-5N	1...	Shaft supporting impression roll.
1	509	509	1...	Shaft in base supporting printing frame.
4	509N	509N	1...	Shaft in base supporting printing frame.
1, 3, 4	510R	5-45	1...	Right guide plate for ribbon on 503.
1, 3, 4	510L	5-45	1...	Left guide plate for ribbon on 503.
1, 3	511	15-52	2...	Arms on 501 carrying pawl 523.
4		5-50N	...	
1, 4	512	5-14	1...	Catch holding printing frame in position.
1, 4	513	5-9	1...	Arm on main shaft operating 526.
1	514	514	1...	Link connecting 512 and 582.
1, 4	515	5-24	1...	Collar on 548 to secure 526.
1, 3, 4	516	15-52	1...	Ratchet wheel on 501.
		or 5-50N		
1	517	517	1...	Curved guide plate for paper.
4	517N	517N	1...	Curved guide plate for paper.
1, 3, 4	518	518	1...	Friction spring on 501.
1, 3, 4	518½	518½	1...	Friction spring on 500.
1, 4	519	519	1...	Ratchet wheel driving impression roll.
1, 4	520	520	1...	Washer between 526 and 521.
1	520½	520½	1...	Washer on 555.
1, 4	521	521	1...	Pawl to engage 519.
1, 4	522	522	1...	Arm on 529L to regulate 526.
1, 3, 4	523	523	1...	Pawl between 511's to engage 516.
1	524	524	1...	Paper cutter.
4	524N	524N	1...	Paper cutter.
1, 3, 4	525	525	1...	Clip on 501 to secure tape for ribbon.
1, 4	526	5-24	1...	Feed arm on printing frame to drive impression roll.
1, 3, 4	527R	527R	(3) 1...	Right-hand link of toggle joint on 501.
		5-13N	(4) ...	
1, 3, 4	527L	527L	(3) 1...	Left-hand link of toggle joint on 501.
		5-50N	(4) ...	
1, 4	528R	528R	1...	Right arm supporting roll of paper.
1, 4	528L	528L	1...	Left arm supporting roll of paper.

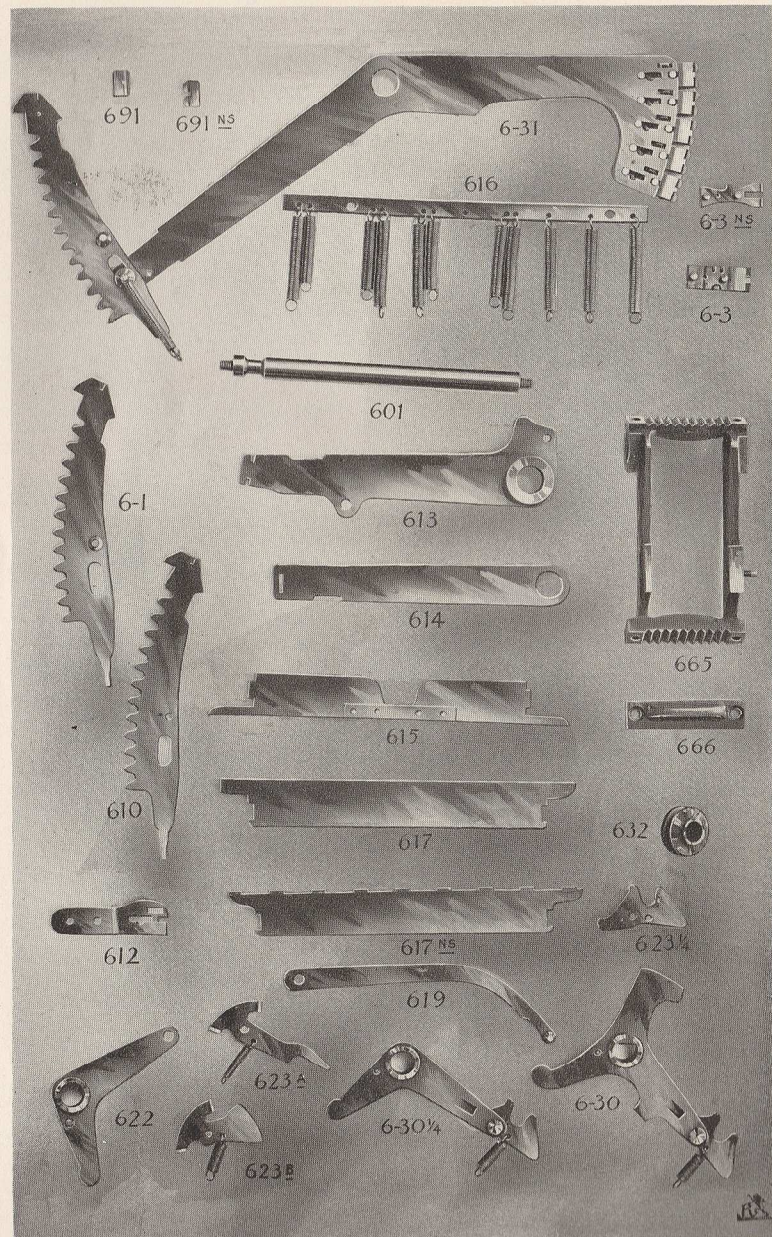
Section 500—Continued.

Style No.	Symbol No.	Part Sent.	No. Pes. per Meh.	Description.
I, 4	529R	5-14	1...	Right side of printing frame.
I, 4	529L	5-24	1...	Left side of printing frame.
I, 3, 4	530	530	1...	Ratchet wheel on 500.
I, 3, 4	531	15-52	(3) 1...	Collar between 511's.
		5-50N	(4) ...	
I, 3, 4	532	5-20	1...	Thrust collar on 500 for 568.
I, 3, 4	533	15-52	(3) 1...	Tight collar on 501, between 527R and 5-50N
			(4) ...	527L.
I, 4	535	535	1...	Sleeve on right end of 507 for spring.
I	536	536	1...	Collar separating 527L and 120.
I	537	537	1...	Hub on 507 for 512.
I, 3, 4	538	538	2...	Rolls on 511.
I, 3, 4	539	5-45	2...	Hubs on shaft 500 for 510's.
3, 4	540	540	1...	Set collar to hold 580 in position.
I, 4	547	5-14	1...	Bushing in 529R for 508.
I, 4	548	5-24	1...	Bushing in 529L for 508.
I, 3, 4	549	15-52 or 5-50N	1...	Bushing in 516.
I, 4	550	550	1...	Stud in 529R for 512.
I	551	551	1...	Stud in 512 for 514.
I, 3, 4	552	552	1...	Stud connecting 527 and 120.
I, 3, 4	553	553	1...	Stud in 511 for roll.
I, 3, 4	554	554	1...	Stud in 511 to engage 513.
I	555	555	1...	Adjusting screw in printing frame.
I, 3, 4	556	556	1...	Stud in 513 for roll.
I, 4	557	557	1...	Stud for 589 on 529R.
I, 4	558	558	1...	Stud supporting 522.
I, 3, 4	561	561	1...	Pin in 511 to dowel 531.
I, 3, 4	562	562	1...	Upper stud in 511.
I, 4	563	563	1...	Screw binding 519 to 508.
I, 4	564	564	1...	Stud in 526 supporting 521.
I, 3, 4	568	5-20	1...	Brass ribbon spool on 500.
I	569	569	1...	Casting of printing frame.
4	569N	569N	1...	Casting of printing frame.
I, 3, 4	570	570	1...	Wire in end of ink ribbon.
I, 3	580	580	1...	Spring between 533 and 568.
4	580N	580N	1...	Spring between 533 and 568.
I, 3, 4	581	581	1...	Spring for 523 between 511's.
I	582	582	1...	Spring on 512.
I, 3, 4	586	586	1...	Spring on 527R.
I, 4	587	587	1...	Spring on 526.
I, 4	589	589	1...	Spring for shaft 507.
I, 4	590	5-3	1...	Thumb nut on 505.
I, 3	591	5-17	1...	Ink ribbon.
4	591N	5-17N	1...	Ink ribbon.
I, 3, 4	592	592	1...	Tape on 501 attached to ribbon.
I, 4	595	5-4	1...	Rubber roll on 507.
		5-4N	1...	Rubber roll on 507.
4	599N	5-5N	1...	Rubber impression roll.
I	599	5-5	1...	Rubber impression roll.
I, 3, 4	B503	B503	2...	Screws binding 503 to side frames.
I, 4	B509	B509	1...	Screw to bind 509 to 1605.
I, 3, 4	B518	B518	1...	Screw supporting 518.
3, 4	B540			Set screw to hold 540 in position.
I, 4	B560	B560	4...	To bind 529R and L to 509.



Section 600 Assembled.

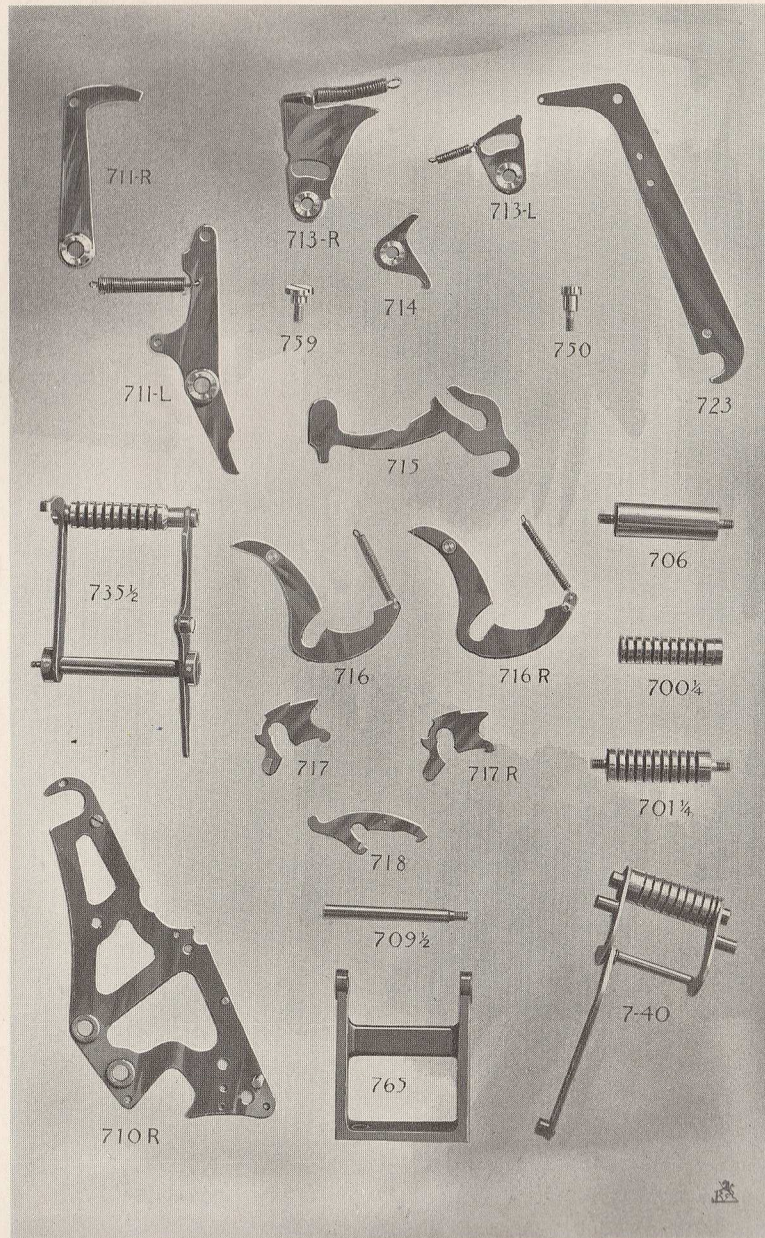
Style No.	Symbol No.	Part Sent.	No. Pes. per Meh.	Description.
I, 4	600	6-50	1...	Shaft supporting 611's.
4	600N	6-50N	1...	Shaft supporting 611's.
I, 3	601	601	1...	Stay rod between 613's.
4	601N	601N	1...	Stay rod between 613's.
I, 3, 4	610R	610R	1...	Sector on the right carried by 611.
I, 3, 4	610	6-1	8...	Sectors carried by 611's.
I, 3, 4	611	611	9...	Sectors on 600 carrying type.
Late				
3, 4	612		1...	Plate carrying star type plate.
Late				
3, 4	B612		2...	Screws for 612.
Late				
3, 4	B612 1/4		1...	Long head screw for locking out star.
I, 3, 4	613R&L	6-50	2...	Arms on 600 carrying 617.
3, 4	614	6-5	2...	Arms on 600 carrying 615.
I, 4	615	6-5	1...	Bar to retain 611.
4	615N	6-5N	1...	Bar to retain 611.
I, 3, 4	615 1/4	6-5	1...	Reinforcement strip on 615.
I, 3	616	616	1...	Plate in base to which 685 and 686 are attached.
4	616N	616N	1...	Plate in base to which 685 and 686 are attached.
I, 3	617	617	1...	Plate carried by 613 to return 611's.
4	617N	617N	1...	Plate carried by 613 to return 611's.
Late				
3	617 1/4	617 1/4	1...	Plate carried by 613 to return 611's.
Late				
4	617 1/4N	617 1/4N	1...	Plate carried by 613 to return 611's.



Section 600.

Section 600—Continued.

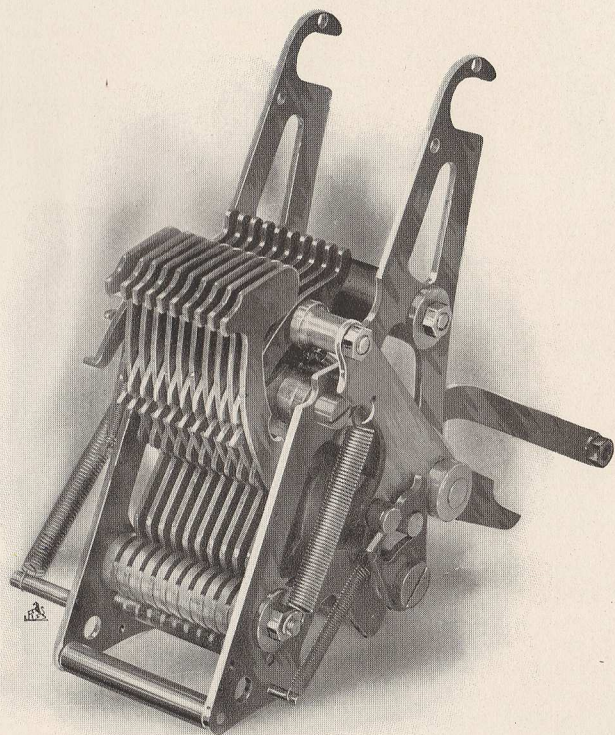
Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
1, 3, 4	618	6-3	90...	Plates holding type.
1, 3, 4	619	6-4	1...	Arm on 613L to operate 500.
1, 3, 4	620	620	9...	Washers separating 610's and 611's.
1, 3, 4	621	621	2...	Washers between 613 and 614.
1, 3, 4	622	6-23	1...	Arm on 600 carrying 623.
Late				
3, 4	622 1/4	6-23 1/4	1...	Arm on 600 carrying 623 1/4.
1, 3, 4	623	623	1...	Pawl on 622 operating 207.
Late				
3, 4	623 1/4	623 1/4	1...	Pawl on 622 1/4 operating 207.
1, 3, 4	624	624	8...	Washers on 651 and 651 1/2 in 610.
3, 4	625	625	1...	Hook on 600 shaft to engage 250 1/4.
1, 3, 4	630	6-33 or 6-33 1/4	1...	Hub for 622.
3 & 4	630 1/2	6-23 1/4	1...	Hub for 622.
3 & 4	630A	6-23 1/4	1...	Special hub for 622.
1, 3, 4	631	6-50	2...	Hubs for 613's.
3 & 4	632	632	1...	Roll on 601 for 816.
3, 4	633	633	1...	Hub for hook 625.
1, 3, 4	650	650	1...	Stud in 613L for 619.
1, 3, 4	651	651	8...	Studs in 610's to engage 413 1/4's.
1, 3, 4	651 1/2	651 1/2	1...	Stud in 610 for 413 1/4 R.
1, 3, 4	652	652	1...	Stud in 622 for 623 and 622 1/2 for 623 1/4.
1, 3, 4	653	653	1...	Stud in 622 and 622 1/4 to engage 218.
Late				
3 & 4	653 1/4	653 1/4	1...	Stud in 622 1/4 for item counter.
1, 3, 4	654	654	1...	Stud in right side frame for 687.
1, 3, 4	655	655	9...	Studs in 610's and 611's.
1, 3, 4	656	656	1...	Stud in 619 for 530.
1, 3, 4	657	6-3	90...	Studs supporting 618's.
1, 3, 4	658	658	10...	Short pins in 665 to guide 611's.
1, 3, 4	659	659	10...	Long pins in 665 to guide 611's.
1, 3, 4	660	660	2...	Stud in base supporting 616.
1, 3, 4	661	661	6...	Pins in dowel 613, 1411 and 417 to hubs.
1, 3, 4	662	662	1...	Limit stud in right side frame for 622.
1, 3, 4	663	663	4...	Stud binding 615 to 615 1/4.
1 & 3	665	6-8	1...	Casting holding 658 and 659.
4	665N	6-8N	1...	Casting holding 658 and 659.
1 & 3	666	666	2...	Caps clamping 658 and 659 to 665.
4	666N	666N	2...	Caps clamping 658 and 659 to 665.
1, 3, 4	670	670	2...	Eyelets in 611 No. 2 and 611 No. 4.
1, 3, 4	680	680	18...	Carrying springs on 610's.
1, 3, 4	682	682	45...	Springs for 618.
1, 3, 4	685	685	7...	Driving springs on 611's.
1, 3, 4	686	686	4...	Driving springs on 611 No. 2 and 611 No. 4.
1, 3, 4	687	687	1...	Spring on 623.
3 & 4	688	688	1...	Spring on 623 1/4.
1, 3, 4	691	691	45...	Type.
Late				
3 & 4	691 1/2	691 1/2	1...	Star type.
Late				
3 & 4	6-3 1/4	6-3 1/4	45...	Single piece type and plate combined.
Late				
3 & 4	691 3/4	691 3/4	1...	Slotted star type.
1 & 3	692	692	2...	Paper packing under 666's.
4	692N	692N	2...	Paper packing under 666's.
1, 3, 4	B666	B666	4...	Screws binding 666's to 665.



Section 700.

Section 700.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
I & 3	700	700	1...	Shaft supporting 717's.
4	700N	700N	1...	Shaft supporting 717's.
Late				
3	700 1/4	700 1/4	1...	Shaft supporting 717's, 717 1/4 and 717R in star machine.
Late				
4	700 1/4 N	700 1/4 N	1...	Shaft supporting 717's, 717 1/4 and 717R in star machine.
I & 3	701	701	1...	Shaft supporting 715's.
4	701N	701N	1...	Shaft supporting 715's.
Late				
3	701 1/4	701 1/4	1...	Shaft supporting 715's in star machine.
Late				
4	701 1/4 N	701 1/4 N	1...	Shaft supporting 715's in star machine.
I & 3	702	7-40	1...	Shaft supporting 712's and 716's.
4	702N	7-40N	1...	Shaft supporting 712's and 716's.
I & 3	702 1/2	7-40 1/4	1...	Shaft supporting 712's and 716, later style.
4	702 1/2 N	7-40 1/4 N	1...	Shaft supporting 712's and 716, later style
3	702 1/4	7-40 1/4	1...	Shaft supporting 712's and 716, later style in star machine.
4	702 1/4 N	7-40 1/4 N	1...	Shaft supporting 712's and 716, later style in star machine.
I & 3	703	7-51 1/2	1...	Shaft supporting 711R and 711L.
4	703N	7-51 1/2 N	1...	Shaft supporting 711R and 711L.
I & 3	704	704	1...	Shaft carrying 718's.
4	704N	704N	1...	Shaft carrying 718's.
Late				
3	704 1/4	704 1/4	1...	Shaft carrying 718's in star machine.
Late				
4	704 1/4 N	704 1/4 N	1...	Shaft carrying 718's in star machine.
I & 3	705	705	1...	Guide roll for ribbon between 710's.
4	705N	705N	1...	Guide roll for ribbon between 710's.
I & 3	706	706	1...	Stay rod for 710's.
4	706N	706N	1...	Stay rod for 710's.
I & 4	706 1/2 and 706 1/2 N		1...	Stay rod between 722.
I & 3	707	707	2...	Rolls between 710's and under 715's and 716's.
4	707N	707N	2...	Rolls between 710's and under 715's and 716's.
I & 3	708	708	1...	Rod between 710's to limit 717.
4	708N	708N	1...	Rod between 710's to limit 717.
I & 3	709	709	1...	Rod between 712's to return 716's.
4	709N	709N	1...	Rod between 712's to return 716's.
Late				
3	709 1/4	709 1/4	1...	Rod between 712's to return 716's in star machine.
Late				
4	709 1/4 N	709 1/4 N	1...	Rod between 712's to return 716's in star machine.
I & 3	709 1/2	709 1/2	1...	Rod in 765 supporting 700 section.



Section 700 Assembled.

Section 700—Continued.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
4	700½N	700½N	1	1...Rod in 765 supporting 700 section.
1, 3, 4	710R	7-20R	1	1...Right side plate of 700 section.
1, 3, 4	710L	7-20L	1	1...Left side plate of 700 section.
1, 3, 4	711R	7-51½	1	1...Right arm on 703 carrying 704 or 704¼.
1, 3, 4	711L	7-51½	1	1...Left arm on 703 carrying 704 or 704¼.
3 & 4	711½L	7-51½	1	1...Left arm on 703 carrying 704 or 704¼.
1, 3, 4	712R&L	7-40	2	2...Arms on 702 operated by 820.
Late				
3 & 4	712¼R&L	7-40¼	2	2...Arms on 702¼ operated by 820, later style.
1, 3, 4	713R	7-4R	1	1...Hammer on 702 or 702¼ to strike 527L.
3 & 4	713L	7-4L	1	1...Cam on 702 or 702¼ engaging 738.
1, 3, 4	714	7-24	1	1...Catch on 700 to retain 713R.
1, 3, 4	715	715	10	10...Hammers on 701 or 701¼ to strike type plates.
1, 3, 4	716	7-6	9	9...Drivers on 702 or 702¼ to operate 715's.
Late				
3 & 4	716R	7-6R	1	1...Driver on 702¼ to operate star hammer.
1, 3, 4	717	717	8	8...Catches on 700 to retain 716's.
Late				
3 & 4	717R	717R	1	1...Catch on 700¼ for star.
Late				
3 & 4	717¼	717¼	1	1...Catch on 700¼ for star.
1, 3, 4	718	718	9	9...Pawls on 704 or 704¼ to trip 717's.
Late				
3 & 4	719	719	1	1...Plate in lower end of 783.
1	721 O.S.	721 O.S.	2	2...Clips securing 710's to 600.
1, 3, 4	721	721	2	2...Washers on 701 and 701¼.
1	722R&L	722R&L	2	2...Plates supporting 700 section.
1, 3, 4	723	7-8	1	1...Link connecting 710R and ribbon guide.
4	730N	7-41½N	1	1...Hub for 711½L.
3 & 4	738	738	1	1...Roll on 711½L.
1, 3, 4	739	7-20L	4	4...Bushings in 710's.
1, 3, 4	740	7-24	1	1...Hub for 714.
1, 3, 4	741	741	9	9...Rolls on 716's for 715's.
1 & 3	742	7-51½	2	2...Hubs for 711R and 711½L.
1, 3, 4	743	7-4L	2	2...Hubs for 713R and L.
1, 3, 4	745	7-4R	2	2...Washers on 706.
1, 3, 4	750	745	1	1...Screw stud supporting 714.
1, 3, 4	751	750	2	2...Studs in 712's for 713R and 713L.
Late				
3 & 4	751¼	751¼	2	2...Studs in 712's for 713R and 713L.
1, 3, 4	752	752	1	1...Stud binding 700 to 710L.
1, 3, 4	753	753	9	9...Studs in 716 for 741.
1, 3, 4	754	754	1	1...Limit stud in 714.
1, 3, 4	755	755	1	1...Stud connecting 712L and 820.
Late				
3 & 4	755¼	755¼	1	1...Stud connecting 712¼ and 820.
1, 3, 4	756	756	1	1...Stud in 710R for 784.
1 & 4	757	757	1	1...Stud in 723 for 512.
1, 3, 4	758	758	1	1...Stud in 710R for 783.
1, 3, 4	759	759	2	2...Studs in 702 for 713R and 713L.
1, 3, 4	760 O.S.	760 O.S.	2	2...Taper pins in 742 on 703.
3 & 4	760 N.S.	760 N.S.	1	1...Stud for 738 in 711½L.

Section 700—Continued.

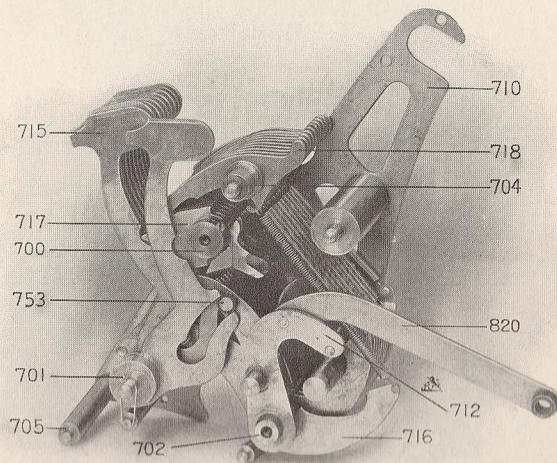
Style No.	Symbol No.	Part No.	No. Pes. per Mch.	Description.
4	761N	761N	1...	Pin fastening 711½ to 703.
3 & 4	761½	761½	1...	Stud in 710L for 781.
1 & 3	765	765	1...	Casting supporting 700 section.
4	765N	765N	1...	Casting supporting 700 section.
1	770	770	1...	Wire in 710's holding 616.
1, 3, 4	780	780	9...	Springs connecting 716's and 718's.
3 & 4	780¼	780¼	9...	Strong springs connecting 716's and 718's.
3 & 4	780½	780½	9...	Springs between 716's and 718's for carbon machines.
3 & 4	781	781	1...	Spring on 713L.
1, 3, 4	783	783	1...	Spring on 713R.
1, 3, 4	784	784	1...	Spring on 714.
1, 3, 4	785	785	1...	Spring on 701 for 711½L.
3 & 4	785½	785½	1...	Spring on 701 for 711½L in carbon machines.
1, 3, 4	B710	B710	1...	Screw binding 710L to 665.
1, 3, 4	B721	B721	1...	Screw binding 723 to 710R.
Late				
3 & 4	B721¼	B721¼	1...	Screw binding 723 to 710R.
1, 3, 4	B765	B765	2...	Screws binding 765 to base.

The hammers 715, which strike the type plates, are operated by the rolls on drivers 716, which are retained by the catches 717 on shaft 700; and pawls 718 on shaft 704, when not in contact with sector bars 611, pull the catches 717, releasing drivers 716 and causing the hammers 715 to strike the type plates.

The extreme lower right-hand end of catches 717 on shaft 700 are slotted, and the part above the slot offset to lap over the piece next to the right. By this means when any one catch 717 is pulled high enough by pawl 718 on shaft 704, it releases all the drivers 716 to the right in succession, and thus the ciphers to the right of the column wherein a key is struck will be automatically printed.

The double lever 712, connected to shaft 800 by the arm 820, returns the hammers 715, and other parts, to their normal positions, ready to give the next impression on the paper.

The springs 780, connecting drivers 716 and pawls 718, give the blow to the hammers 715 and also retain pawls 718.

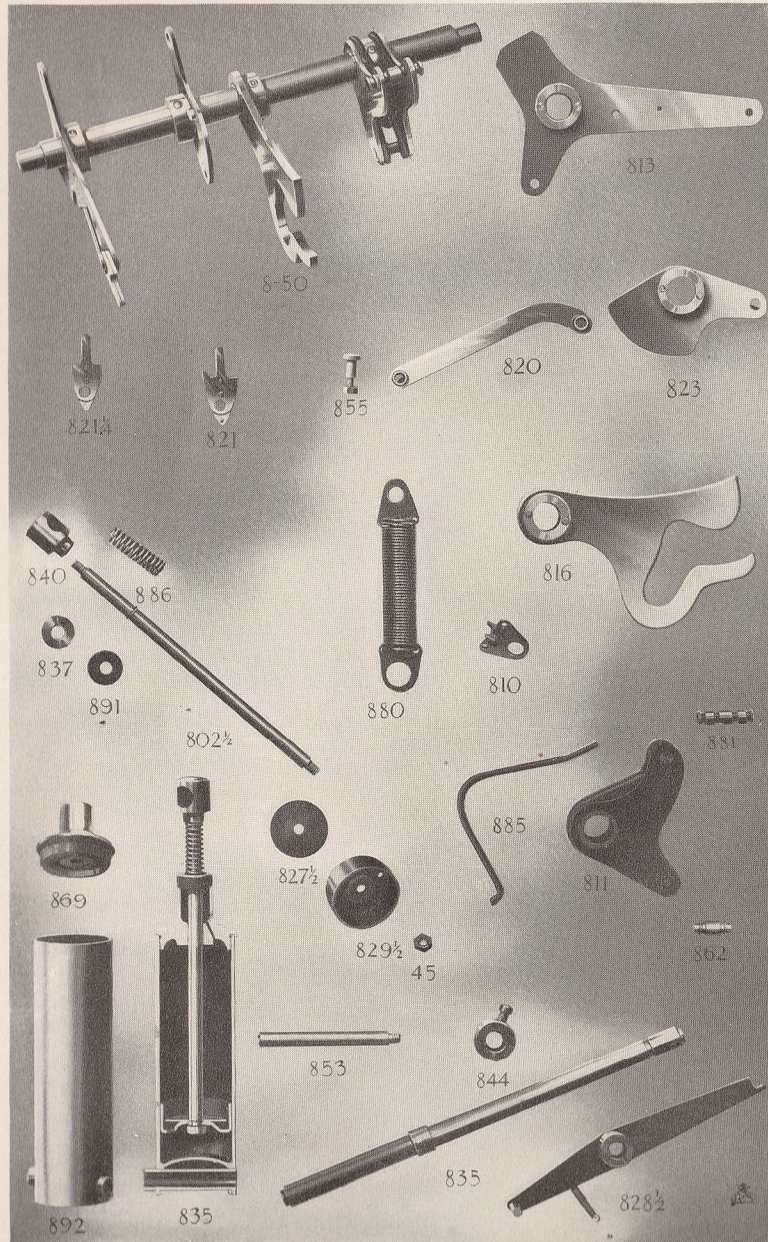


Section 700 with 710 Left Removed.

Section 800.

Style No.	Symbol No.	Part No.	No. Pes. per Mch.	Description.
Late				
1, 3	800	8-50	1...	Main operating shaft.
4	800N	8-50N	1...	Main operating shaft.
1, 3	801	8-12	1...	Shaft supporting casting 665 and piston rod of dash-pot.
4	801N	8-12N	1...	Shaft supporting casting 665 and piston rod of dash-pot.
3	801¼	8-12¼	1...	Shaft supporting casting 665 and piston rod of dash-pot for item counter.
1, 3	802	8-9	1...	Piston rod of dash-pot.
4	802N	8-9N	1...	Piston rod of dash-pot.
3	802½	8-9	1...	Piston rod of dash-pot.
4	802½N	8-9	1...	Piston rod of dash-pot.
Late				
3	802¾	8-9	1...	Piston rod of dash-pot.
Late				
4	802¼N	8-9	1...	Piston rod of dash-pot.
1, 3, 4	810	1-8	2...	Plates in upper ends of springs 880.
1, 3, 4	811R	8-50	1...	Arm on 800 receiving motion from 101.
1, 3, 4	811L	8-50	1...	Arm on 800 receiving motion from 101.
1, 3	813	8-50	1...	Arm on 800 to operate 913.
4	813N	8-50 O.S.	1...	Arm on 800 to operate 913.
4	814N	8-50 O.S.	1...	Arm on 800 carrying dash-pot.
1	815	815	1...	Arm on 800 operating 816.
1	816 O.S.	8-50	1...	Arm on 800, being lower pins on toggle joint.
3, 4	816 N.S.	8-50	1...	Cam on 800 engaging roll 632.
1	817R	817R	1...	Upper link of toggle joint, between 800 and 601.
1	817L	817L	1...	Upper link of toggle joint, between 800 and 601.
1, 3, 4	820	8-6	1...	Pitman connecting 823 and 712L.
1, 3, 4	821R&L	8-11	2...	Pawls on 813 engaging 913.
Late				
3, 4	821¼R&L	8-11	2...	Pawl on 813 engaging 913.
Late				
3, 4	822	822	1...	Valve in dash-pot.
3	823	8-50	1...	Plate on 800, with stud to operate 711½L.
4	823N	8-50N	1...	Plate on 800, with stud to operate 711½L.
1	824	824	2...	Pitmans connecting 816 and 817.
Late				
3, 4	824¼	824¼	2...	Washer between 813 and 918¼, also 227L and 1416.
1, 3, 4	825	825	1...	Pitman connecting 821 and 883.
3, 4	825½	825½	1...	Pitman connecting 821 and 883½.
1, 3, 4	826	826	2...	Washers between 821 and 813; 622 and 623.
1, 3, 4	827	827	1...	Deflecting plate over piston in dash-pot.
Late				
3, 4	827½	827½	1...	Deflecting plate over piston in dash-pot.
3, 4	828	8-5	1...	Arm on left side frame to lock 227L.
Late				
3, 4	828½	8-5½	1...	Arm on left side frame to lock 227L.
1, 3, 4	829 O.S.	829 O.S.	1...	Sleeve on 801 between 840 and left side frame.

Section 800—Continued.

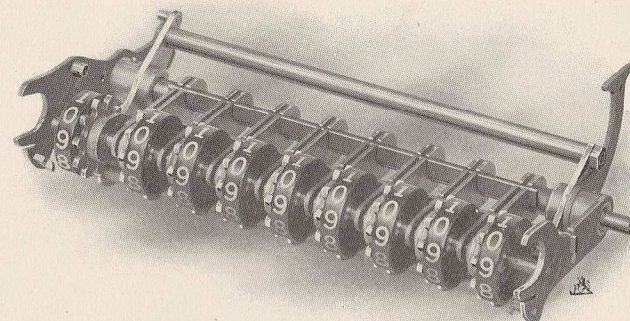


Section 800.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
Late				
3, 4	829	8-35	1	... Bottom of dash-pot.
Late				
3, 4	829½	829½	1	... Piston in dash-pot.
Late				
4	829¼N	829¼N	1	... Piston in dash-pot.
Late				
3	829¼	829¼	1	... Piston in dash-pot, latest style.
	830	830	1	... Collar on end of shaft 802¼.
4	830N	8-50N	1	... Hub for 813.
I, 3, 4	831	8-50	1	... Hub for 811.
I, 3, 4	832	8-6	1	... Bushing in curved end of 820.
I	833	8-50	3	... Hubs for 813, 815 and 823.
3, 4	833	8-50	2	... Hubs for 813, 815 and 823.
I, 3, 4	834	834	1	... Sleeve on 851 for 119's.
I	835	835	1	... Thrust collar on 800 for 816.
Late				
3, 4	835	8-5¼	1	... Collar in 828½.
I, 3, 4	836	8-6	1	... Collar on 820 for 855.
I, 3, 4	837	837	1	... Washer on piston rod of dash-pot over leather washer.
I	838	838	2	... Tight collars on 861 in 815 and 816.
I, 3, 4	839	8-12	1	... Thrust collar on 801.
I, 3, 4	840	840	1	... Socket on 801 for piston rod of dash-pot.
3	841	841	1	... Bushing on left side frame for 828.
4	841N	8-50N	1	... Bushing in outer end of 814 and 823.
3, 4	842	8-50	1	... Hub for 816.
I	843	8-50	1	... Bushing in 817 for 601.
3, 4	844	8-17	1	... Collar on 801 to locate 665.
I	849	8-50 O.S.	1	... Bushing in upper end of 816.
3, 4	850	850	3	... Rivets for 816.
Late				
3, 4	850	850	4	... Pin in 822.
I, 3, 4	851	851	1	... Stud in 811 carrying 834.
3, 4	851½	851½	1	... Stud in left side frame for 881.
I, 3, 4	852	852	2	... Pins to dowel 811 to hub.
3, 4	852½	852½	2	... Pins to dowel 816 to hub.
I, 3	853	853	1	... Rod in 823 and 813 operating dash-pot.
4	853N	853N	1	... Rod in 823 and 813 operating dash-pot.
I, 3, 4	854	854	1	... Stud in 823 engaging 711½L.
I, 3, 4	855	855	1	... Stud connecting 823 and 820.
I	856	856	1	... Stud connecting 816 and 817.
Late				
3, 4	856¼	856¼	1	... Screw connecting 918¼ and 813.
I, 3, 4	857	857	6	... Pins to dowel 813, 815 and 823 to hubs.
I	858 O.S.	858 O.S.	1	... Screw plug in head of dash-pot.
3	858½	858½	1	... Stud in 828 for 821¼.
4	858N	858N	1	... Pin to dowel 813 and 814.
3, 4	859	859	1	... Dowel pin in 813 for 883¼.
3, 4	859½	859½	1	... Stud in 821¼R for 883¼.

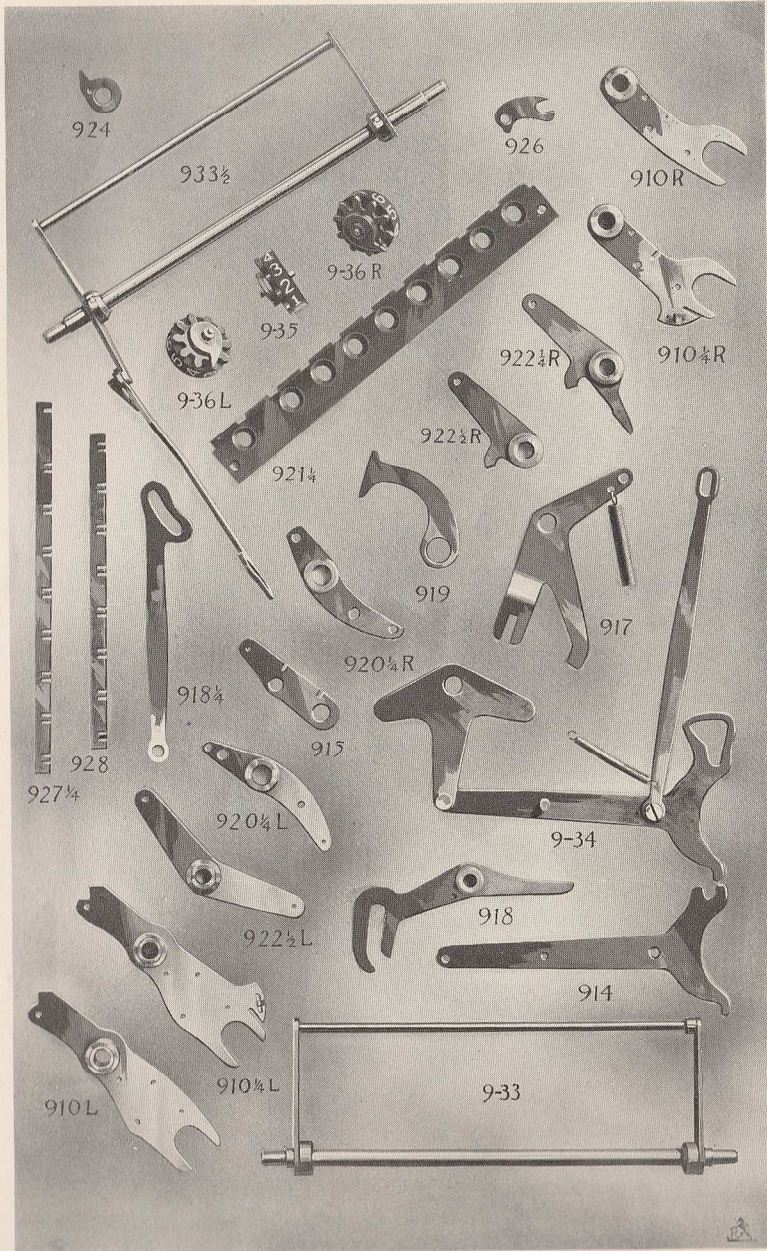
Section 800—Concluded.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
I	860	860	1...	Stud in 817R and 817L and 824.
I	861	861	2...	Studs in 815 and 816 for 884.
I, 3, 4	862	8-50	1...	Stud in 811's for stop against base.
I, 3, 4	863	863	1...	Stud connecting 813 and 821.
I, 3, 4	864	864	2...	Rivets in 821.
I, 3	865	865	1...	Piston in dash-pot.
4	865N	865N	1...	Piston in dash-pot.
I, 3	867	8-35	1...	Cylinder of dash-pot.
4	867N	8-35N	1...	Cylinder of dash-pot.
I, 3	868	868	1...	Head of dash-pot.
4	868N	868N	1...	Head of dash-pot.
Late				
3, 4	869	869	1...	Brass head of dash-pot.
I, 3, 4	870	870	1...	Wire ring supporting leather washer on piston rod of dash-pot.
I, 3, 4	880	1-23	2...	Springs connecting main shaft to 800.
3, 4	881	881	1...	Spring on 828.
I	883	883	1...	Spring on 821.
3, 4	883½	883½	1...	Spring on 821.
Late				
3, 4	883¾	883¾	1...	Spring on 821¾.
I	884	884	2...	Springs connecting 861's in 815 and 816.
I, 3, 4	885	885	2...	Buffer springs between 811's for 851.
I, 3	886	886	1...	Pressure spring on piston rod of dash-pot.
4	886N	886N	1...	Pressure spring on piston rod of dash-pot.
I, 3, 4	888	888	1...	Spring on 801 between left side frame and 665.
I	890	890	1...	Lead washer under plug 858.
I, 3, 4	891	891	1...	Leather washer on piston rod of dash-pot.
Late				
3, 4	892	8-35	1...	Brass tubing of dash-pot.
Late				
3, 4	893	8-35	1...	Brass tube supporting dash-pot.
Late				
3	894	894	1...	Collar used with 893.
I, 3, 4	B801	B801	2...	Screws binding 801 to side frames.
3, 4	B841	B841	1...	Screw binding 841 to left side frame.
3, 4	B844	B844	1...	Screw binding 844 to 801.
I, 3, 4	B868	B868	4...	Screws binding 868 to 867.



Section 900 Assembled.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
State	Serial No.			
I, 3	900	9-50	1...	Shaft of pinion frame.
Late				
4	900N	9-50	1...	Shaft of pinion frame.
I, 3	901	901	1...	Rod connecting 915's with 910R and L.
4	901N	901N	1...	Rod connecting 915's with 910R and L.
I, 3	902	902	1...	Rod between 922's to reset 411's.
Late				
3	902½	902½	1...	Shaft between 922¼ and 922½L.
4	902N	902N	1...	Rod between 922's to reset 411's.
Late				
4	902½N	902½N	1...	Shaft between 922¼ and 922½L.
I, 3	903	903	1...	Small rod between 920R and 920L, supporting 926's.
Late				
3	903¼	903¼	1...	Small rod between 920¼R and 920¼L.
4	903N	903N	1...	Small rod between 920R and 920L.
Late				
4	903¼N	903¼N	1...	Small rod between 920¼R and 920¼L.
I, 3	904	9-33¼	1...	Shaft supporting 922's.
4	904N	9-33 O.S.	1...	Shaft supporting 922's.
I, 3	905	905	1...	Stay rod between 920's for 926.
4	905N	905N	1...	Stay rod between 920's for 926.
I, 3	906	906	1...	Lower stay rod between 920's.
4	906N	906N	1...	Lower stay rod between 920's.
State	Serial No.			
I, 3, 4	910R	9-50	1...	Arm on right side of pinion frame.
Late				
3, 4	910¼R	9-50¼	1...	Arm on right side of pinion frame.
State	Serial No.			
I, 3, 4	910L	9-50	1...	Arm on left side of pinion frame.
Late				
3, 4	910¼L	9-50¼	1...	Arm on left side of pinion frame.
I, 3, 4	911	911	1...	Link connecting 914 and 227L.
State	Serial No.			
I, 3, 4	912R	9-36R	8...	Metal dial wheels.
		9-35		



Section 900.

Section 900—Continued.

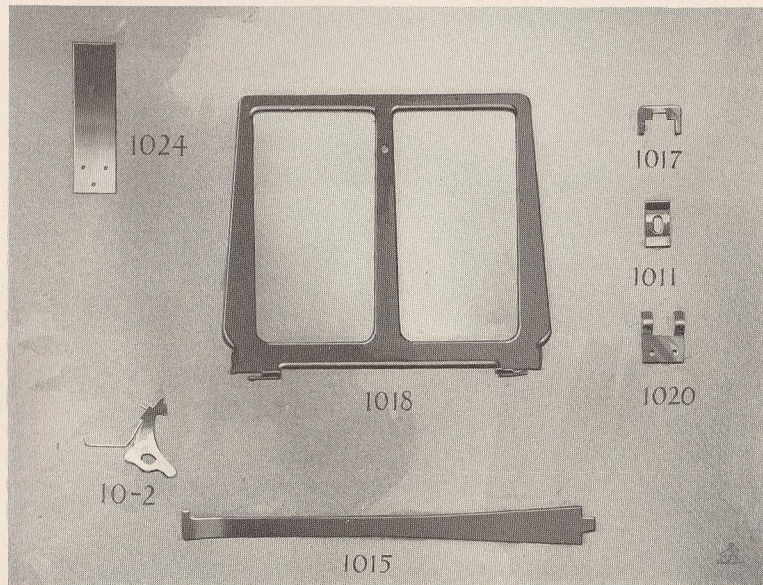
Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
1, 3, 4	912L	9-36L	1...	Metal dial wheel.
Late	3, 4	912 1/4R	9-35 1/4 9-36 1/4R	8... Celluloid dial wheels.
Late	3, 4	912 1/4L	9-36 1/4L	1... Celluloid dial wheel.
1, 3, 4	913	9-3	1...	Arm on left side frame operating 914 and 900 section.
1, 3, 4	914	9-22	1...	Forked pitman operating 900 section.
Late	3, 4	914 1/4	9-34 9-22	1... Forked pitman with loop operating 900 section.
1, 3, 4	915	915	16...	Arms on 900 supporting dial wheels.
State	Serial No.			
1, 3, 4	916	9-35 9-36R 9-36L	9...	Pinions.
1, 3, 4	917	9-26	1...	Arm on left side frame to lock 900 section.
1, 3, 4	918	9-29	1...	Arm on right side frame operating 904.
Late	3, 4	918 1/4	918 1/4 918 1/2	1... Link connecting 813 and 922 1/2L. 1... Arm on shaft 400 operating shaft 904.
State	Serial No.			
3, 4	919	9-50	1...	Arm on 900 engaging 354 in 311.
1, 3, 4	920R	9-12R	1...	Right-hand arm supporting plates 926.
Late	3, 4	920 1/4R	9-12 1/4R	1... Right-hand arm supporting plates 926.
1, 3, 4	920L	9-12L	1...	Left-hand arm supporting plates 926.
Late	3, 4	920 1/4L	9-12 1/4L	1... Left-hand arm supporting plates 926.
3	921	921	1...	Shield for 912's with small holes.
Late	3	921 1/4	921 1/4	1... Shield for 912's with large holes.
4	921N	921N	1...	Shield for 912's with small holes.
Late	4	921 1/4N	921 1/4N	1... Shield for 912's with large holes.
3, 4	B921	B921	2...	Screws binding 921 to 923 and 910.
1, 3, 4	922	9-33	2...	Arms on 904 carrying 902.
Late	3, 4	922 ΔR	9-33 1/4	1... Right-hand arm on 904.
3, 4	922 ΔR	9-33 1/4	1...	Right-hand arm on 904.
Late	3, 4	922 1/2R	9-33 1/4	1... Right-hand arm on 904.
3, 4	922 1/2L	9-33 1/4	1...	Left-hand arm on 904 carrying 902 1/2.
1, 3, 4	923	923	2...	Flat friction springs for 913.
Late	3, 4	923 1/4	923 1/4	2... Lugs in 910 1/4L and 910 1/4R to support 921.
State	Serial No.			
1, 3, 4	924	9-35 9-36R 9-36L	9...	Cams on pinions to engage 413 1/4's.

Section 900—Continued.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
1, 3, 4	925	925		9... Washers separating 916's and 924's.
State Serial No.				
3, 4	925A	9-35		9... Snail back cam on pinions to engage 929.
1, 3, 4	926	926		9... Plates on 903 to lock 916's.
State Serial No.				
3, 4	926A	926A		9... Plates on 903 to lock 916's.
1, 3	927	927		1... Upper tie strip for 915's.
Late				
3	927¼	927¼		1... Upper tie strip for 915's.
State Serial No.				
3, 4	927B	927B		1... Upper tie strip for 915's.
4	927N	927N		1... Upper tie strip for 915's.
Late				
4	927¼N	927¼N		1... Upper tie strip for 915's.
1, 3	928	928		1... Lower tie strip for 915's.
State Serial No.				
3, 4	928A	928A		1... Lower strip for 915's.
Late				
3	928¼	928¼		1... Lower tie strip for 915's.
4	928N	928N		1... Lower tie strip for 915's.
Late				
4	928¼N	928¼N		1... Lower tie strip for 915's.
State Serial No.				
3, 4	929	929		9... Pawls on 902½ shaft to engage 925A.
1, 3, 4	930	9-33¼		2... Hubs for 922.
		9-33		
1, 3, 4	931	9-12¼RL		2... Hubs for 920R and 920L.
		9-12RL		
State Serial No.				
3, 4	932	932		9... Sleeve to carry 929 on shaft 902½.
State Serial No.				
3, 4	932¼R	932¼R		1... Collar to take up space between 912R and 1st 932.
1, 3, 4	934	9-26		1... Hub for 917.
1, 3, 4	935	9-29		1... Hub for 918.
1, 3, 4	936	936		1... Roll on 902 for 918.
State Serial No.				
1, 3, 4	940	9-50		2... Hubs for 910R and 910L.
1, 3, 4	941	941		1... Bushing in left side frame for 913.
Late				
3, 4	941¼	941¼		1... Round nut to bind 913 to left side frame.
Late				
3, 4	942	942		1... Bushing in left side frame for 917.
3, 4	943	9-50		1... Hub on 900 between 910R and 919.
1, 3, 4	944	944		2... Sleeve between 915 and 940.
Late				
3, 4	944¼R	944¼R		1... Right-hand sleeve between 915 and 940.
Late				
3, 4	944¼L	944¼L		1... Left-hand sleeve between 915 and 940.
3, 4	950	950		18... Rivets binding 912's to 916's.
State Serial No.				
3, 4	950¼R	950¼R		1... Stud on 912R to carry trunion of 1st 955.
State Serial No.				
3, 4	950¼L	950¼L		1... Stud on 912L to carry trunion of last 955.
1, 3, 4	951	951		9... Pins fastening 924's to pinions.
1, 3, 4	952	952		1... Stud in left side frame for 918.

Section 900—Concluded.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
1, 3, 4	953	953		4... Pins to dowel 910's to hub.
1, 3, 4	954	954		1... Stud in 1165 for 982.
1, 3, 4	955	9-35		7... Studs supporting pinions.
Late				
3, 4	955¼	9-35¼		7... Studs supporting pinions.
1, 3, 4	956	9-36R		2... Long studs supporting pinions at right and left ends.
		9-36L		
Late				
3, 4	956¼R	9-36¼R		1... Right-hand stud supporting 916.
Late				
3, 4	956¼L	9-36¼L		1... Left-hand stud supporting 916.
1, 3, 4	957	957		1... Stud connecting 911 and 914.
Late				
3, 4	957¼	957¼		1... Shoulder screw connecting 911 and 914¼.
1, 3, 4	958	958		2... Studs in 910L to engage 914 and 917.
1, 3, 4	959	959		1... Stud connecting 913 and 914.
Late				
3, 4	959½	959½		1... Stud connecting 918¼ and 922½.
1, 3, 4	960	960		1... Stud in 920L to engage 917. (Same as 961.)
1, 3, 4	961	961		2... Studs in 913 to engage 821. (Same as 960.)
1, 3, 4	962	962		1... Limit stud in 914.
1, 3, 4	963	963		1... Stud in 917 to engage 813.
1, 3, 4	964	964		1... Limit stud in right side frame for 918.
Late				
3, 4	964¼	964¼		1... Stud in left side frame for 984.
1, 3, 4	981	981		1... Spring on 918.
State Serial No.				
3, 4	981½	981½		9... Springs on 928 to actuate 929.
1, 3, 4	982	982		1... Spring on 917.
1, 3, 4	983	983		1... Spring on 911.
Late				
3, 4	984	984		1... Spring on 964¼ for 918¼.
1, 3, 4	B941	B941		1... Screw binding 941 to left side frame.
1, 3, 4	B942	B942		1... Screw binding 942 to left side frame.
1, 3	1010	1010		1... Old style name plate on case.
4	1010N	1010N		1... Old style name plate on case.
1, 3, 4	1011	1011		10... Clips fastening glass in case.
1, 3, 4	1012	1012		2... Clips in case to hold lower end of 1016.
1, 3, 4	1013	10-2		1... Spring lock.
1, 3	1014 O.S.	1014 O.S.		1... Top check rack.
1, 3, 4	1014	10-8		1... Detachable check table.
1, 3, 4	1015	1015		1... Support for check table.
1, 3	1016	1016		1... Back plate of case.
4	1016N	1016N		1... Back plate of case.
1, 3, 4	1017	1017		1... Clip supporting lower end of 1015.
1, 3, 4	1018	1018		1... Leaf of check table.
1, 3, 4	1020	1020		1... Clip on under side of check table for 1015.
1, 3, 4	1024	1024		2... Spring on under side of check table for 1018.
1	1026	10-22		1... Narrow paper guide.
1	1027	10-22		1... Spring supporting narrow paper guide.
1	1029			Flange for collar 1030.
1	1030			Collar on shaft 505 for narrow paper.
1, 3, 4	1040	1040		4... Transfers on case and front panel.



Section 1000.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
I, 3, 4 Late	1050	1050	2...	Studs in forward corner of base for case.
3, 4	1050 $\frac{1}{4}$	1050 $\frac{1}{4}$	2...	Studs in forward corner of base for case.
I, 3, 4	1051	1051	2...	Rivets to fasten 1012 to 1016.
I, 3, 4	1052	1052	2...	Studs in rear of case for holes in side frames.
I, 3, 4	1053	1053	1...	Rod supporting check table.
I, 3, 4	1054	1054	1...	Pins supporting spring lock.
I, 3, 4	1055	1055	1...	Stud in case for lock.
I, 3, 4	1056	10-3	1...	Key.
I, 3, 4	1057	1057	4...	Rivets in name plate.
I, 3, 4	1060T	1060T	4...	Studs supporting top check rack.
I, 3, 4	1060F	1060F	1...	Front stud supporting 1053.
I, 3, 4	1060B	1060B	1...	Back stud supporting 1053.
I, 3, 4	1061	1061	2...	Rivets for 1020.
I, 3, 4	1063	1063	6...	Rivets for 1024's.
I, 3, 4	1064	1064	2...	No. 12 escutcheon pins.
1	1065	10-20		Base of machine, 10-60 with shaft.
		10-60	1...	Base of machine, 10-20 with studs.
4	1065N	10-20	1...	Base of machine, 10-20N with studs.
		10-60		Base of machine, 10-60N with shaft.
State Serial No.	1066R	10-50	1...	Right side frame.
State Serial No.	1066L	10-35	1...	Left side frame.
I, 3, 4	1067	10-30	1...	Casting of case, 10-30 with glass.
1, 3	1067	10-40		Casting of case, 10-40 with check table.

Section 1000—Concluded.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
4	1067N	10-30	1...	Casting of case, 10-30N with glass.
		10-40		Casting of case, 10-40N with check table.
I, 3, 4	1070	10-3	1...	Ring in 1056.
I, 3, 4	1080	10-2	1...	Spring for 1013.
I, 3, 4	1090R	1090R	1...	Right glass panel.
I, 3, 4	1090L	1090L	1...	Left glass panel.
1, 3	1091	1091	1...	Front glass panel.
4	1091N	1091N	1...	Front glass panel.
I, 3, 4	1094	1094	4...	Rubber tips in feet of base.
I, 3, 4	1095	1095	10...	Rubber under clips 1011.
	1096 and 1096N			Rubber hood.
I, 3, 4	B1011	B1011	10...	Screws binding 1011's to case.
I, 3, 4	B1065	B1065	4...	Screws binding side frames to base.
	B1067			To plug holes on outside of case for B1011.

Section 1100.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
3	1100	11-50	1...	Main shaft in base.
State Serial No.	1100A	11-50	1...	Main shaft in base.
3	1116	1116	1...	Back plate of case.
Late	1116 $\frac{1}{2}$	1116 $\frac{1}{2}$	1...	Back plate of case.
Late	1127	11-50	1...	Arm on 1100 to operate 501.
Late	1136	11-50	1...	Collar between 166 and 1513.
Late	1136 $\frac{1}{4}$	11-50 $\frac{1}{4}$	1...	Collar between 166 and 117.
	1160—1161			Stud in case stop for handle.
3	1165		1...	Base of machine, 11-20 with studs.
				Base of machine, 11-60 with shaft.
3	1167		1...	Case of machine, 10-30 with glass.
				Case of machine, 10-40 with check table.

Section 1200.

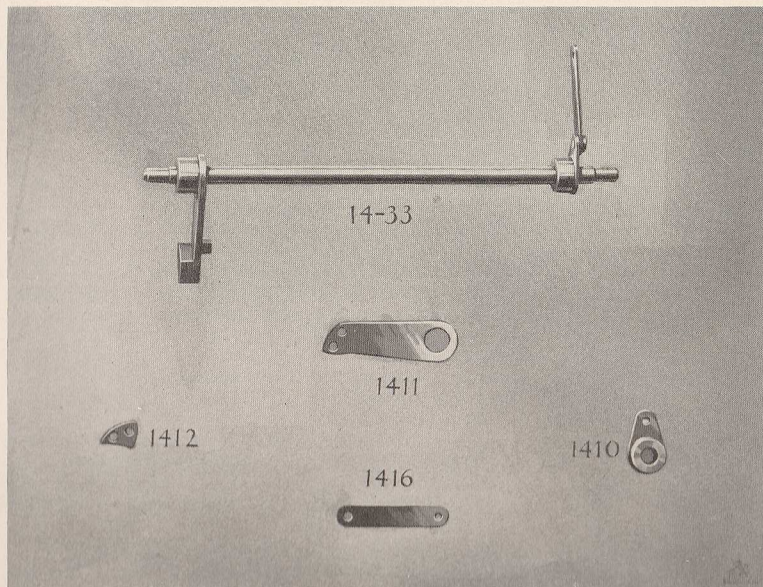
Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
3	1210		1...	Main signal arm.
	1211		1...	Primary detent.
	1212		1...	Connecting link between 1210 and 1215.
	1213		1...	Spring foot on signal arm 1210.
	1214		1...	Drawn brass case for signal.
	1215		1...	Drawn brass cylinder to carry signal sign.
	1216		1...	Punching secondary extent.
	1217		1...	Washer 1066L and 1233.
	1230		1...	Hub for 1211.
	1231		1...	Hub for 1210 (same as 835).
	1232		1...	Hub for 1216.
	1250		2...	Studs in 1210 for 1211.
	1251		1...	Spring stud in 1210 for 1282.
	1252		1...	Stud to rivet 1210 and 1213 together.
	1253		1...	Pin in 1215.
	1254		1...	Stud to carry 1210 (used only on automatic total machine).
	1255		1...	Stud in 014 $\frac{1}{4}$ to contact with 1213 foot.
	1256		1...	Spring stud in 1213 foot.

Section 1200—Continued.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
	1257			1...Spring stud in 1066L for 1280.
	1258			1...Spring stud in 1066L for 1281.
	1259			1...Pin in 424L to raise 1211.
	1260			1...Spring stud in 1216 for 1283.
	1280			1...Spring for 1210.
	1281			1...Spring for 1211.
	1282			1...Spring for 1213.
	1290			1...Paper sign.
	1291			1...Celluloid window pane.

Section 1400.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
Late				
3	1400	14-33		1...Shaft carrying 1410 and 1411.
Late				
4	1400N	14-33N		1...Shaft carrying 1410 and 1411.
Late				
3, 4	1410	14-33		1...Arm on 1400 connected to 1416.
Late				
3, 4	1411	14-33		1...Arm on 1400 carrying 1412's.
Late				
3, 4	1412	1412		2...Lugs on 1411.
Late				
3, 4	1416	1416		1...Link connecting 1410 and 227 $\frac{1}{4}$ L.
Late				
3, 4	1430	14-33		1...Hub in 1410.
Late				
3, 4	1431	14-33		1...Hub in 1411.
Late				
3, 4	1450	1450		1...Stud connecting 1410 and 1416.
Late				
3, 4	1451	1451		2...Studs holding 1411 and 1412.

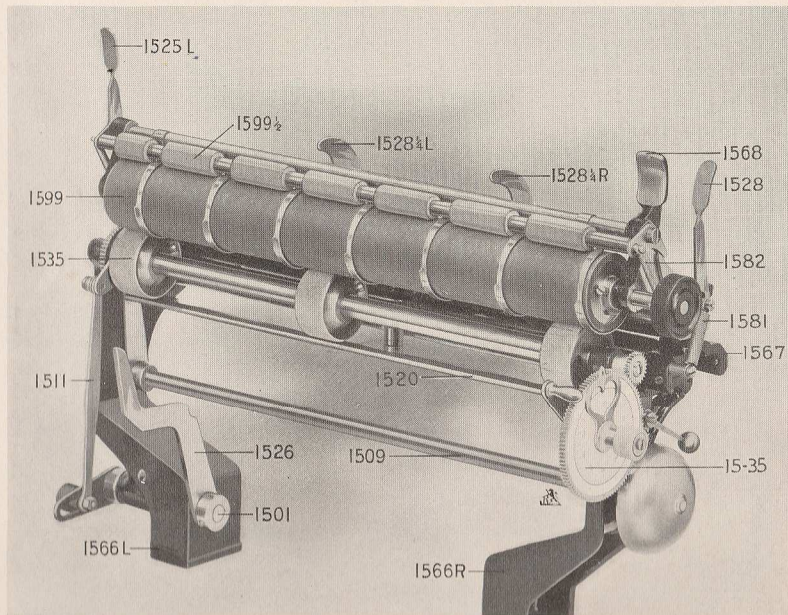
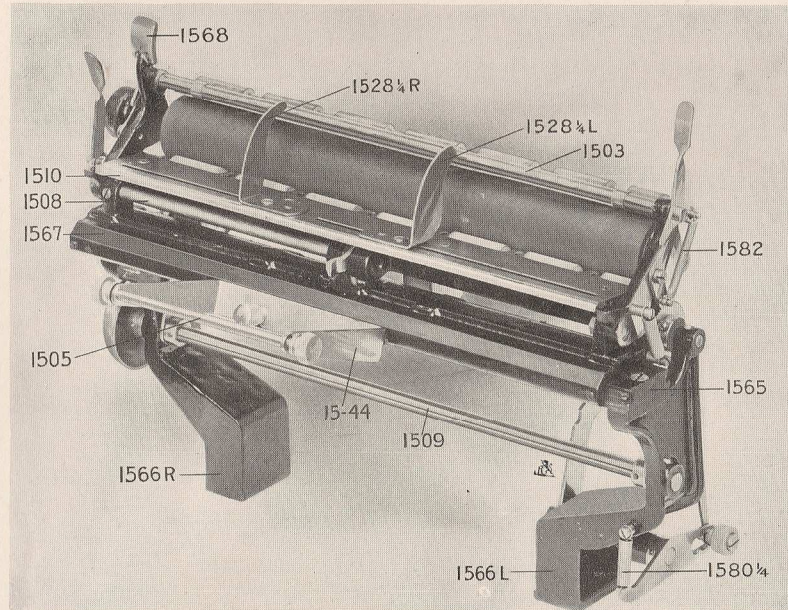


Section 1400.

Section 1500.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
3	1500	1500		1...Shaft supporting rubber roller.
3	1501	15-30 $\frac{1}{4}$		1...Shaft carrying feed arms 1526 and 1522.
		15-30		
5	1501 $\frac{1}{4}$	1501 $\frac{1}{4}$		1...Shaft carrying feed arm 1526 $\frac{1}{4}$ N.
3	1502	15-36		2...Shafts carrying pressure rollers 1599 $\frac{1}{2}$.
3	1503	1503		1...Shaft carrying 1525R and 1525L.
3	1504	1504		2...Roller on paper guide.
3	1505	15-51		1...Rod on 1566L supporting roll of paper.
3	1505 $\frac{1}{2}$	15-51 $\frac{1}{2}$		1...Rod supporting roll of paper.
Late				
3	1505 $\frac{1}{4}$	15-51 $\frac{1}{4}$		1...Rod supporting roll of paper.
3	1505	15-43		1...Rod supporting roll of paper.
3	1506	1506		1...Shaft carrying feed rollers.
3	1508	15-18		1...Shaft to operate 1534.
3	1509	15-50		1...Shaft to which 1529's and dial are attached.
Late				
3	1500 $\frac{1}{4}$	15-50		1...Shaft to which 1529's and dial are attached.
3	1510	1510		1... Paper guide and cutter.
Late				
3	1510 $\frac{1}{4}$	1510 $\frac{1}{4}$		1... Paper guide and cutter.
3	1511	1511		1...Connecting link between 1514 and 1502.
3	1512	15-50		1... Plate carrying counter.
3	1513	15-28		1... Arm on 1100 to operate 1526.
3	1513 $\frac{1}{2}$	11-21		1...Connecting link between 117 and 1513.
Late				
3	1513 $\frac{1}{4}$	1513 $\frac{1}{4}$		1...Link connecting 1526 $\frac{1}{8}$ and 511.
3	1514	15-22		1... Arm carrying pawl 1521.
3	1515	15-9		1... Arm carrying bell clapper.
3	1516	15-3		1... Pawl to lift bell clapper.
3	1517	1517		1... Pawl to stop dial wheel.
3	1517 $\frac{1}{2}$	1517 $\frac{1}{2}$		1... Washer separating 1512 and 1515, also 1512 and 1517.
3	1518	15-14		1... Pointer of dial.
3	1519	15-22		1... Ratchet wheel on 1506.
3	1519 $\frac{1}{4}$	15-22 $\frac{1}{4}$		1... Disc on 1506.
3	1520	1520		1... Bar engaging roller on 1567 to release dial.
Late				
3	1520 $\frac{1}{4}$	1520 $\frac{1}{4}$		1... Bar on which sliding paper guides are mounted.
3	1521	1521		1... Pawl operating 1519.
3	1521 $\frac{1}{2}$	1521 $\frac{1}{2}$		1... Pawl operating 1519 $\frac{1}{4}$.
3	1522	15-30		1... Rocker arm on 1501.
3	1522 $\frac{1}{2}$	15-30 $\frac{1}{2}$		1... Rocker arm on 1501.
Late				
3	1522 $\frac{1}{4}$	15-30 $\frac{1}{4}$		1... Rocker arm on 1501.
3	1523	15-22		1... Washer on 1547.
3	1524	1524		2... Arms supporting lower 1502.
3	1525R	1525R		1... Arm on 1503 carrying upper 1502.
3	1525L	1525L		1... Arm with handle on 1503 carrying upper 1502.
3	1526	15-30		1... Feed arm on 1501 engaging 1513.
Late				
3	1526 $\frac{1}{4}$	15-30 $\frac{1}{4}$		1... Feed arm on 1501 engaging 1513.

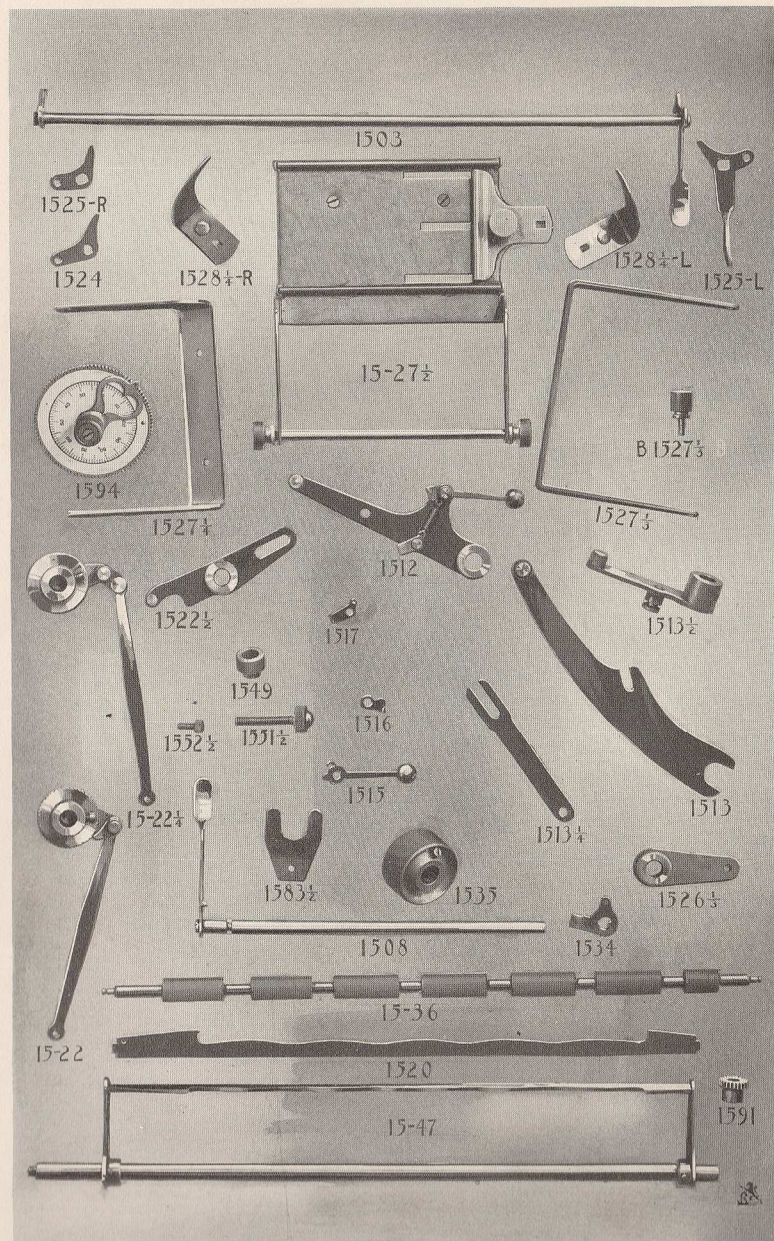
Section 1500—Continued.



Front and Rear Views of Section 1500 Assembled.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
Late				
3	1526 ¹ / ₈	15-30 ¹ / ₄	1	... Feed arm on 1501.
3	1526 ¹ / ₂	15-30 ¹ / ₂	1	... Washer separating 1511 and 1522.
Late				
3	1526 ³ / ₄	1526 ³ / ₄	2	... Spring washers on 1562 ¹ / ₄ 's.
3	1527	15-27	1	... Guide for roll of paper.
Late				
3	1527 ¹ / ₄	15-44	1	... Bracket supporting roll of paper (Low).
Late				
3	1527 ¹ / ₈	1527 ¹ / ₈	1	... Bracket supporting roll of paper (High).
3	1527 ¹ / ₂	1527 ¹ / ₂	1	... Gauge for roll of paper on 1527.
3	1527 ³ / ₄	1527 ³ / ₄	1	... Hanging arms on 1527.
3	1528	1528	1	... Handle to unlock carriage.
Late				
3	1528 ¹ / ₄ R	1528 ¹ / ₄ R	1	... Gauge for roll of paper on 1510.
Late				
3	1528 ¹ / ₄ L	1528 ¹ / ₄ L	1	... Gauge for roll of paper on 1510.
Late				
3	1528 ¹ / ₂ R	1528 ¹ / ₂ R	1	... Gauge for roll of paper on 1520 ¹ / ₄ .
Late				
3	1528 ¹ / ₂ L	1528 ¹ / ₂ L	1	... Gauge for roll of paper on 1520 ¹ / ₄ .
3	1529R&L	15-50	2	... Arms on 1509 carrying 1520.
3	1530	1530	1	... Washer on 1558 to retain 1589.
3	1531	15-50	2	... Hubs for 1529's.
3	1532	15-14	1	... Hub for 1518.
Spl.	1532 ¹ / ₂	1532 ¹ / ₂	1	... Washer between 1521 ¹ / ₂ and 1511.
	1533			... Collar on rod 1505.
3	1534	15-39	1	... Latch to lock carriage.
Late				
3	1534 ¹ / ₄	15-44		... Hub for 1513 ³ / ₈ .
3	1534 ¹ / ₂	11-21	1	... Hub in end of 1527 ¹ / ₄ .
3	1535	15-19	3	... Feed rollers.
3	1535 ¹ / ₄	1535 ¹ / ₄	3	... Knurled feed rollers.
3	1536	1536	1	... Spring ring in 1569 to wind spring.
3	1537	1537	1	... Cover for spring barrel in 1569 ¹ / ₂ .
3	1537 ¹ / ₂	15-35		... Spring barrel in 1569.
Late				
3	1537 ³ / ₄	15-35	1	... Spring barrel in 1569 ¹ / ₂ .
3	1538	1538	1	... Roll engaging 1520.
3	1539	1539	1	... Roll on 1513.
3	1540	15-50	3	... Hubs for 1526, 1522 and 1512.
		15-30		
		1540 ¹ / ₂	1	... Collar on 1501 ¹ / ₄ .
Late				
3	1541R	15-15 ¹ / ₄	1	... Bushing in right end of 1598 ¹ / ₄ .
Late				
3	1541L	15-15 ¹ / ₄	1	... Bushing in left end of 1598 ¹ / ₄ .
3	1547	15-22	1	... Bushing in 1519.
3	1548	15-19	3	... Collars with sharp teeth on feed roll.
3	1549	1549	1	... Knob to adjust feed.
3	1550	1550	1	... Stud in 1568 for 1585.
3	1550 ¹ / ₂	1550 ¹ / ₂	1	... Pin in 1558 for 1595.
3	1551	1551	1	... Screw in lower end of 1511.
Special	1551 ¹ / ₂	1551 ¹ / ₂	1	... Set screw in 1566L.
3	1552	1552	1	... Stud in 1512 supporting bell clapper.

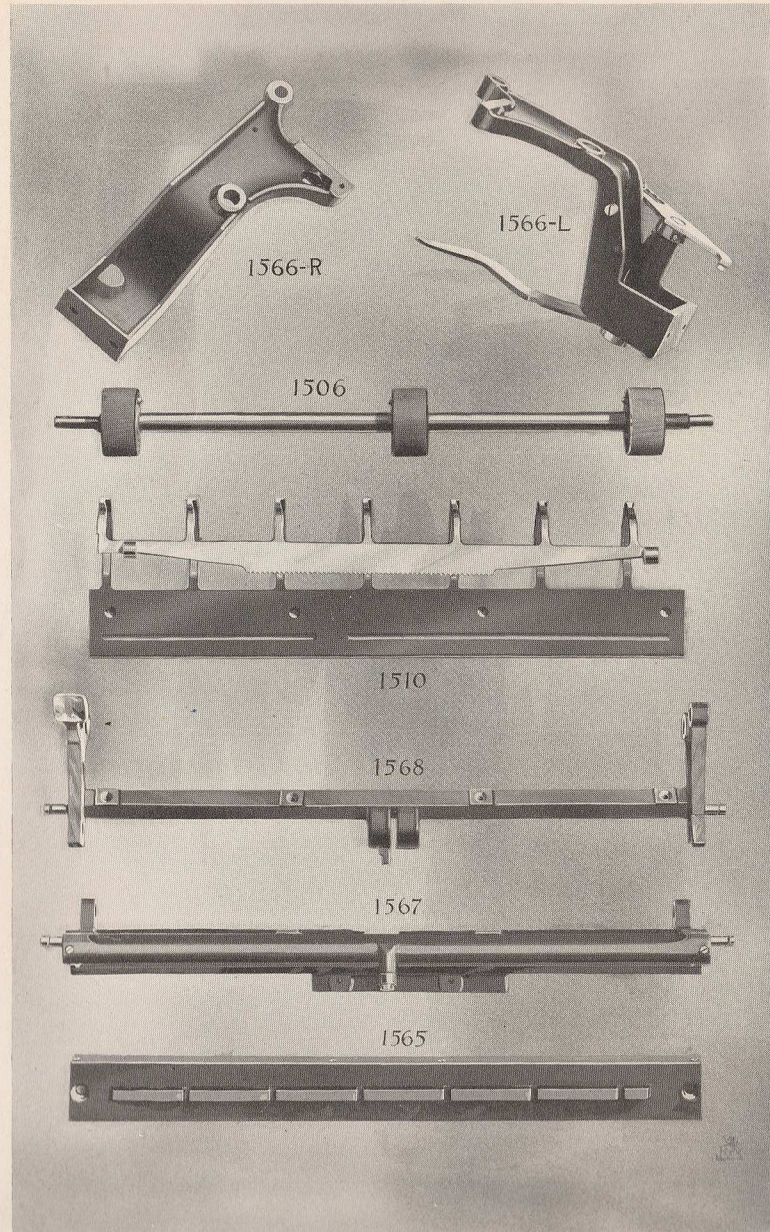
Section 1500—Continued.



Section 1500.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
Special	1552 $\frac{1}{4}$	1552 $\frac{1}{4}$	1	1...Lower set screw in 1566L.
3	1552 $\frac{1}{2}$	1552 $\frac{1}{2}$	1	1...Pin in 1534.
3	1553	1553	1	1...Stud in 1512 supporting 1517.
3	1553 $\frac{1}{2}$	1553 $\frac{1}{2}$	1	1...Limit stud in 1566R for 1529.
Late	3	1553 $\frac{3}{4}$	1553 $\frac{3}{4}$	1...Limit stud in 1566 for 1583 $\frac{1}{2}$.
3	1554	1554	1	1...Stud in 1566L for 1580.
3	1554 $\frac{1}{2}$	1554 $\frac{1}{2}$	1	1...Stud in 1526 and 1522 $\frac{1}{2}$ for 1580.
3	1555	15-51	1	1...Stud in 1590 to lengthen 1505.
3	1555 $\frac{1}{2}$	1555 $\frac{1}{2}$	1	1...Screw in end of 1506 binding 1591.
3	1556	1556	1	1...Screw in end of 1506 to bind pinion 1591.
3	1556 $\frac{1}{2}$	1556 $\frac{1}{2}$	2	2...Screws binding 1525's to 1503.
3	1557	1557	1	1...Shoulder screw supporting 1538.
3	1557 $\frac{1}{2}$	1557 $\frac{1}{2}$	1	1...Screw in 1567 to retain 1508.
3	1558	1558	1	1...Stud supporting dial.
3	1558 $\frac{1}{2}$	1558 $\frac{1}{2}$	1	1...Shoulder screw in hinge of 1567 and 1568.
3	1558 $\frac{3}{4}$	15-35	1	1...Stud in 1569 $\frac{1}{2}$ supporting 1532.
3	1559R	1559R	1	1...End in 1599.
3	1559L	1559L	1	1...End in 1599.
3	1559 $\frac{1}{2}$ R	1559 $\frac{1}{2}$ R	1	1...Journal in 1599R.
3	1559 $\frac{1}{2}$ L	1559 $\frac{1}{2}$ L	1	1...Journal in 1599L.
3	1559 $\frac{1}{2}$	1559 $\frac{1}{2}$	1	1...Stud in 1066L for 1513 $\frac{1}{2}$.
3	1560	1560	1	1...Stud in 1569 $\frac{1}{2}$ for stop.
3	1560 $\frac{1}{2}$	1560 $\frac{1}{2}$	1	1...Stud in 1516.
3	1561	1561	1	1...Stud in 1566R for 1583.
3	1561 $\frac{1}{2}$	1561 $\frac{1}{2}$	1	1...Pin in 1518 engaging teeth in 1569.
3	1562	1562	1	1...Stud in 1527 for 1527 $\frac{1}{2}$.
3	1562 $\frac{1}{4}$	1562 $\frac{1}{4}$	2	2...Studs in 1510 for 1528 $\frac{1}{4}$'s.
3	1562 $\frac{1}{2}$	1562 $\frac{1}{2}$	3	3...Studs in 1568 and 1567 for springs.
3	1563	1563	1	1...Stud in 1534 for 1585.
3	1563 $\frac{1}{2}$	1563 $\frac{1}{2}$	1	1...Stud in 1568 for 1587.
3	1564	1564	1	1...Stud connecting 1521, 1511 and 1514.
3	1564 $\frac{1}{2}$	1564 $\frac{1}{2}$	1	1...Stud connecting 1513 and 1513 $\frac{1}{2}$.
Late	3	1564 $\frac{1}{4}$	1564 $\frac{1}{4}$	1...Stud connecting 1526 $\frac{1}{8}$ and 1513 $\frac{1}{4}$.
3	1565	1565	1	1...Guide for 1567.
3	1566R	1566R	1	1...Side bracket.
Late	3	1566 $\frac{1}{4}$ R	1566 $\frac{1}{4}$ R	1...Side bracket.
3	1566L	1566L	1	1...Side bracket.
Late	3	1566 $\frac{1}{4}$ L	1566 $\frac{1}{4}$ L	1...Side bracket.
3	1567	1567	1	1...Slide supporting 1568.
3	1568	1568	1	1...Frame carrying printing roller.
3	1568 $\frac{1}{2}$ R&L	1568 $\frac{1}{2}$ R&L	2	2...Caps on 1568.
Late	3	1598 $\frac{1}{4}$	15-15 $\frac{1}{4}$	1...Brass tube in 1599 $\frac{1}{4}$.
3	1599	15-15 $\frac{1}{4}$	1	1...Rubber printing roller.
Late	3	1599 $\frac{1}{4}$	15-15 $\frac{1}{4}$	1...Rubber printing roller.
3	1599 $\frac{1}{2}$	15-36	12	12...Pressure rollers on 1502's.
3	1599 $\frac{1}{2}$ L	15-36	2	2...Short pressure rollers on 1502's.
3	B1508	B1508	1	1...Screw to bind 1528 to shaft 1508.
3	B1510	B1510	6	6...Screws binding 1510 to 1568 and 1527 to 1567.
3	B1520 $\frac{1}{4}$	B1520 $\frac{1}{4}$	1	1...Screw to bind 1520 $\frac{1}{4}$ to 1568.
3	B1527 $\frac{1}{4}$	B1527 $\frac{1}{4}$	2	2...Screws binding 1527 $\frac{1}{4}$ to 1567.

Section 1500 Concluded.



Section 1500.

Style No.	Symbol No.	Part Sent.	No. Pcs. per Mch.	Description.
3	B1527 $\frac{1}{8}$	B1527 $\frac{1}{8}$	2...	Screws binding 1527 $\frac{1}{8}$ to 1567.
3	B1530	B1530	1...	Screw binding 1530 to 1558.
3	B1535	B1535	3...	Screws binding 1535's to 1506.
3	B1541	B1541	1...	Set screw in 1541R.
3	B1547	B1547	1...	Screw binding 1547 to 1506.
3	B1566	B1566	6...	Screws binding 1566's to 1165 and 1565 to 1566R and L.
3	B1567	B1567	12...	Screws in 1567 and 1565 to retain balls.
3	B1568	B1568	2...	Screw to bind caps 1568 $\frac{1}{2}$ R L to 1568.
3	1569	15-35	1...	Gear wheel for dial.
Late				
3	1569 $\frac{1}{2}$	15-35	1...	Gear wheel for dial.
3	1580	1580	1...	Spring on 1526 to operate feed.
Late				
3	1580 $\frac{1}{4}$	1580 $\frac{1}{4}$	1...	Spring on 1526 $\frac{1}{4}$ to operate feed.
3	1581	1581	2...	Springs connecting 1567 and 1568.
3	1582	1582	2...	Springs between 1502's.
3	1583	1583	1...	Spring on 1520.
3	1583 $\frac{1}{2}$	1583 $\frac{1}{2}$	1...	Friction spring bearing against 1535.
3	1584	1584	1...	Spring on bell clapper.
3	1585	1585	1...	Spring on 1534.
3	1586	1586	1...	Spring on 1521.
3	1587	1587	1...	Spring on 1528.
Late				
3	1587 $\frac{1}{4}$	1587 $\frac{1}{4}$	2...	Springs for 1528 $\frac{1}{2}$ R and L.
Late				
3	1588 $\frac{1}{2}$	1588 $\frac{1}{2}$	1...	Spring in end of 1527 $\frac{1}{4}$.
3	1589	1589	1...	Spring in 1549.
3	1589 $\frac{1}{4}$	1589 $\frac{1}{4}$	1...	Spring in 1532.
3	1590	15-51	1...	Knob on 1505.
3	1590 $\frac{1}{2}$	1590 $\frac{1}{2}$	4...	Balls.
Late				
3	1590 $\frac{3}{4}$	15-51	1...	Knob on 1505 $\frac{1}{2}$.
		15-43 $\frac{3}{4}$		
3	1591	1591	1...	Pinion on 1506.
3	1592	1592	1...	Handle on 1512.
3	1593	15-9	1...	Bell clapper.
3	1593 $\frac{1}{2}$	1593 $\frac{1}{2}$	1...	Escutcheon pin to rivet 1594 and 1569 $\frac{1}{2}$.
3	1593 $\frac{3}{4}$	1593 $\frac{3}{4}$	4...	Escutcheon pins to rivet 1527 $\frac{3}{4}$ R and L to 1527.
3	1594	15-35	1...	Dial.
3	1594 $\frac{1}{2}$	1594 $\frac{1}{2}$	1...	Rivet to bind 1595 to 1536.
3	1595	1595	1...	Watch spring in dial.
3	1595 $\frac{1}{4}$	1595 $\frac{1}{4}$	1...	Bell.
3	1595 $\frac{1}{2}$	1595 $\frac{1}{2}$	1...	Bell.
Late				
3	1596	1596	1...	Thumb nut of 1505 $\frac{1}{2}$.
3	1597	1597	1...	Knob on printing roller.
3	1598	15-15 $\frac{1}{4}$	1...	Brass tube in printing roller.
45	(Used on all styles)			3/16 inch hexagon nut.
46	(Used on all styles)			1/8 inch hexagon nut.
50	(Used on all styles)			Pins to fasten 1/2 inch hubs to shaft.
56	(Used on all styles)			Pins to fasten hubs to 1/2 inch shaft.
56 $\frac{1}{2}$	(Used on all styles)			Taper pins to fasten hubs to 1/2 inch shaft.
50	(Used on all styles)			Pins to fasten hubs to 5/16 inch shaft.
50 $\frac{1}{2}$	(Used on all styles)			Taper pins to fasten hubs to 5/16 inch shaft.
60	(Used on all styles)			Pins to dowel punched pieces to hubs.



