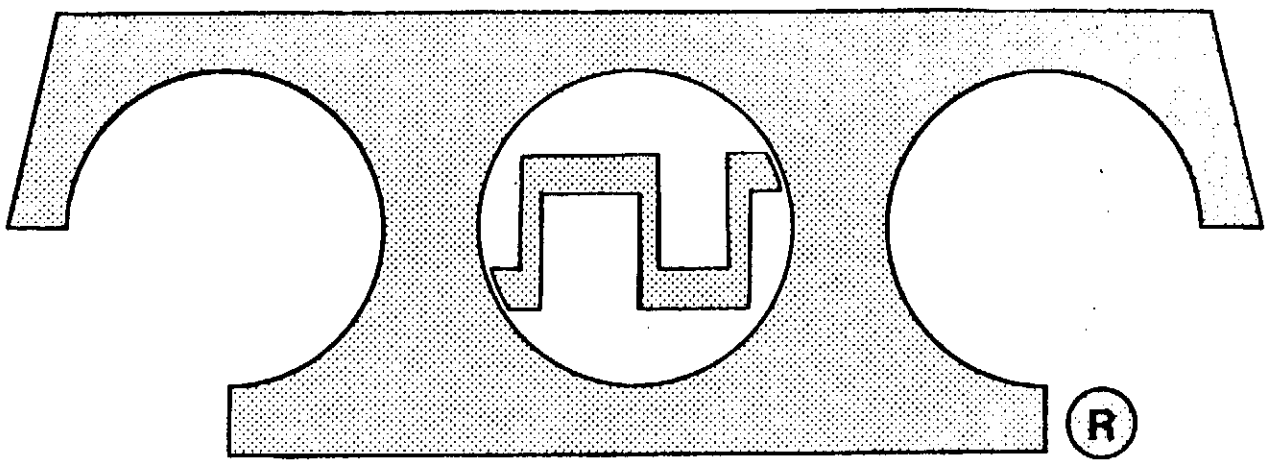
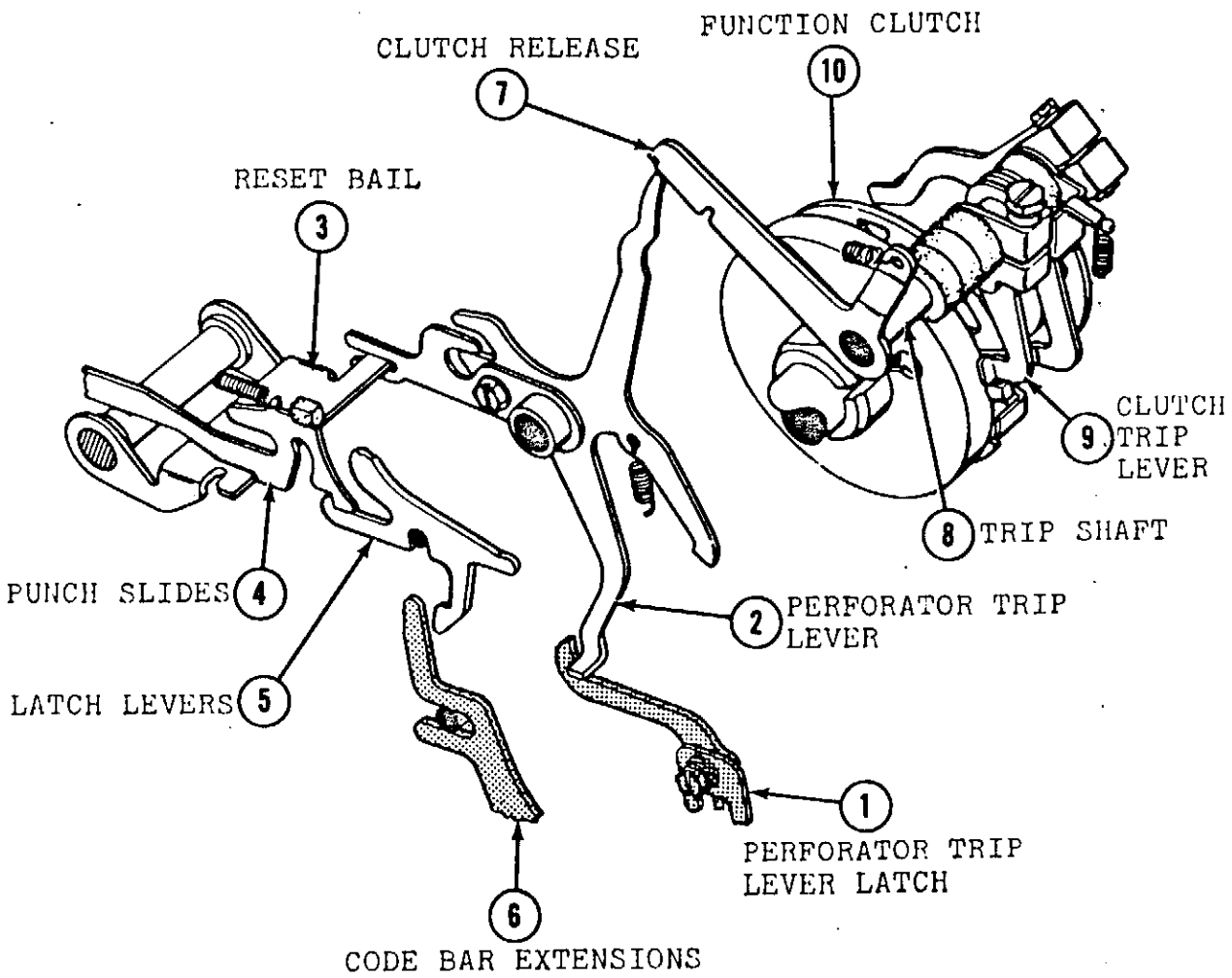
TELETYPE CORP.

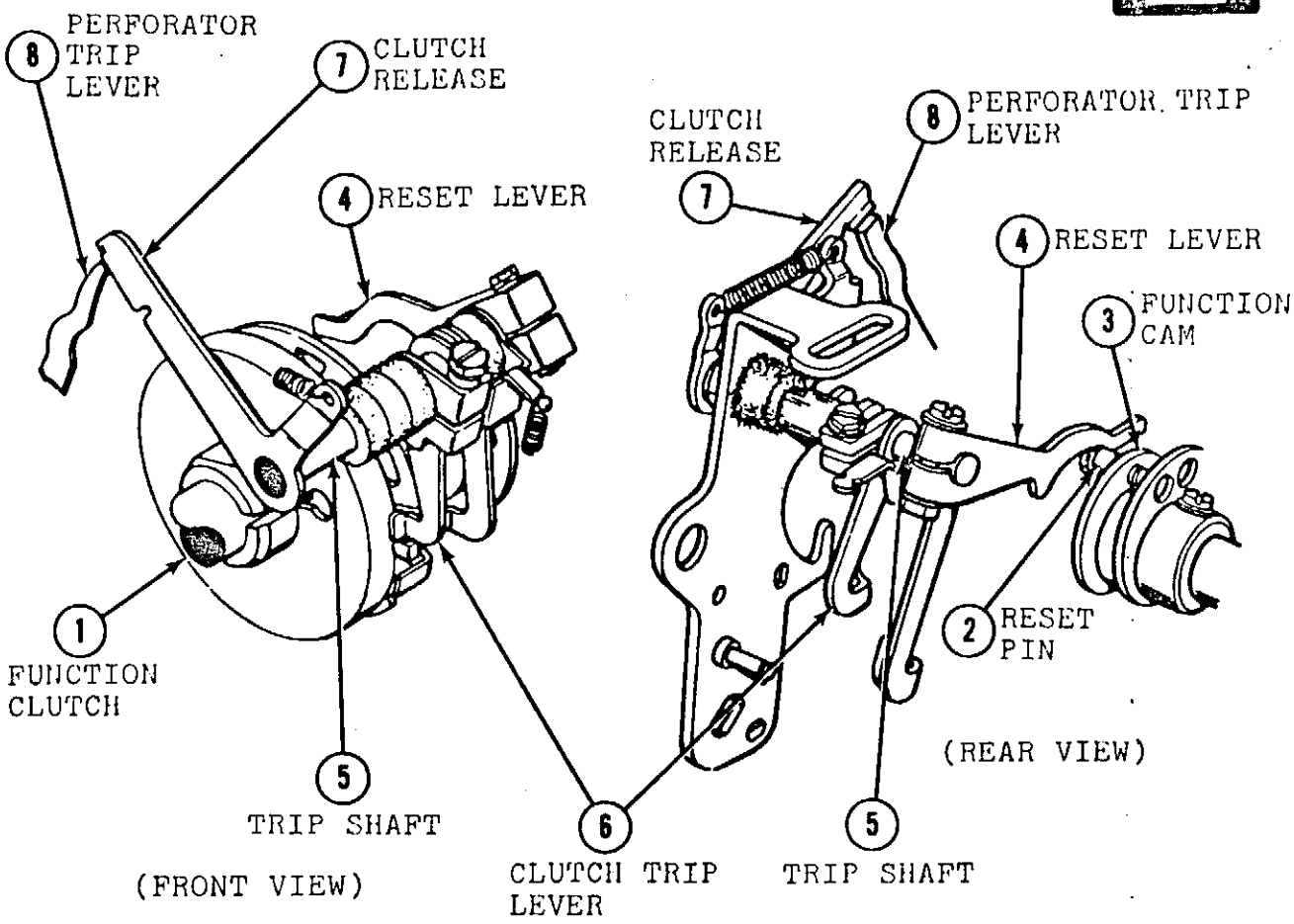


TYPING PERFORATOR

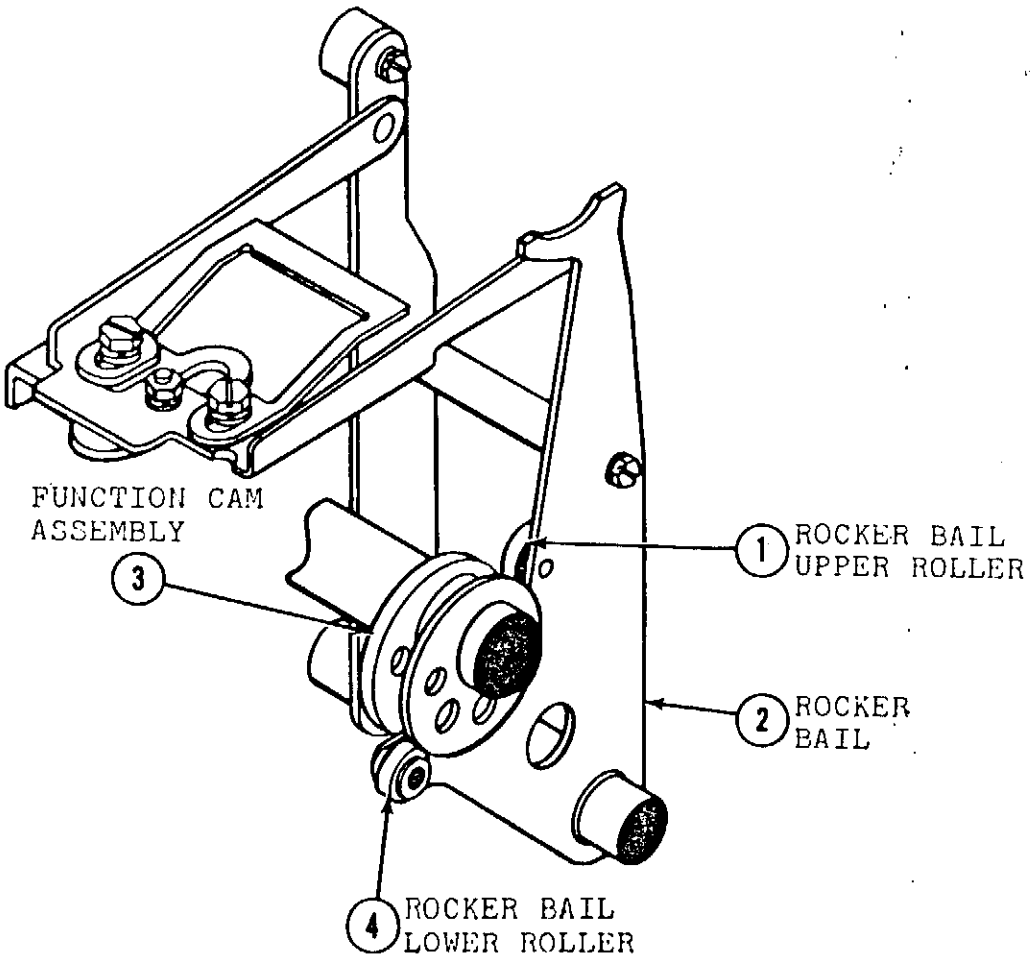
FOR INSTRUCTIONAL PURPOSES ONLY



In K-T and T position when Clutch Trip Bar moves right it moves PERFORATOR TRIP LEVER LATCH (1) to right rotating PERFORATOR TRIP LEVER (2) counterclockwise. When PERFORATOR TRIP LEVER (2) rotates, RESET BAIL (3) drops releasing PUNCH SLIDES (4). PUNCH SLIDES (4) will be latched up by LATCH LEVERS (5), unless CODE BAR EXTENSIONS (6) move to right rotating LATCH LEVERS (5) releasing PUNCH SLIDES (4). CLUTCH RELEASE (7) falls, rotating attached TRIP SHAFT (8), removing CLUTCH TRIP LEVER (9) away from FUNCTION CLUTCH (10). FUNCTION CLUTCH (10) engages and begins rotation.

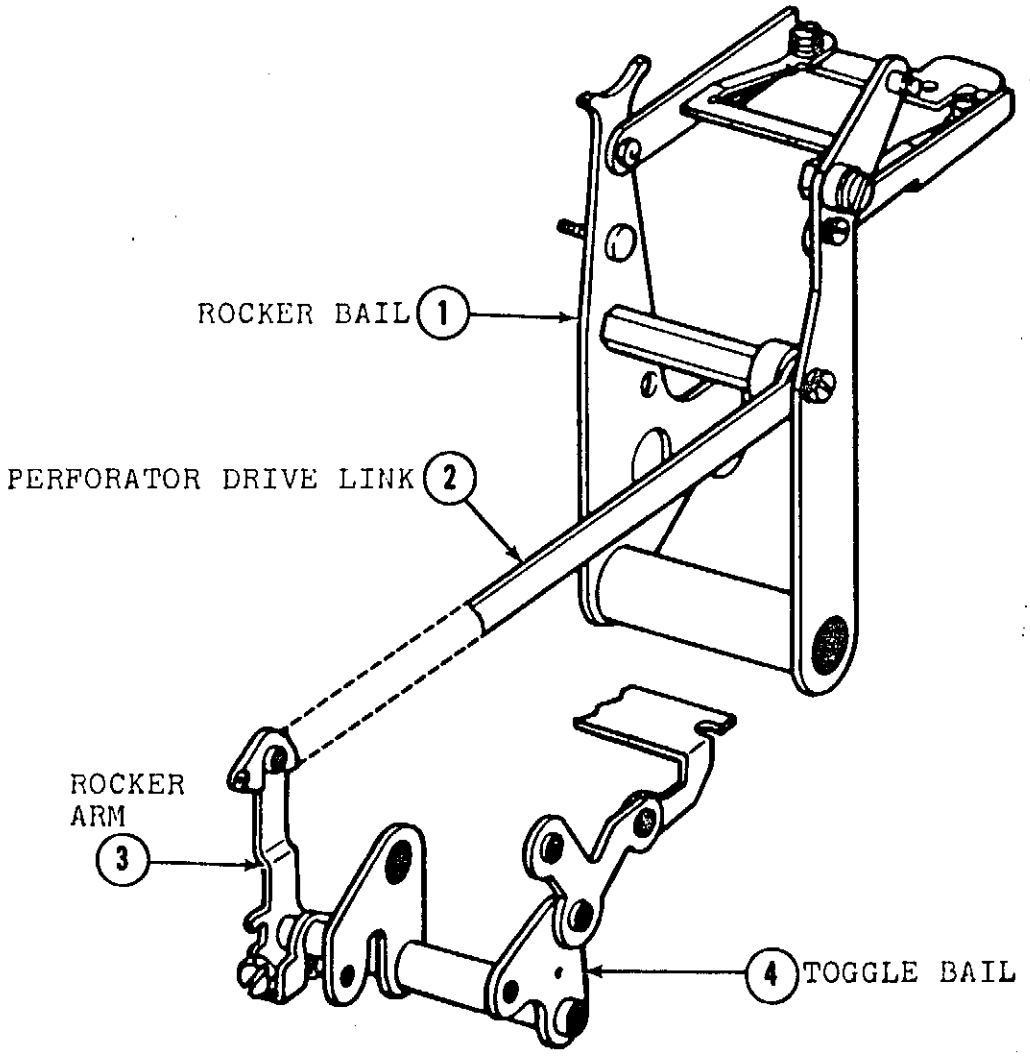


As FUNCTION CLUTCH (1) rotates, RESET PIN (2) attached between Reset Cam and FUNCTION CAM (3) lifts RESET LEVER (4) rotating TRIP SHAFT (5), repositioning CLUTCH TRIP LEVER (6) inward to disengage FUNCTION CLUTCH (1). CLUTCH RELEASE (7) is raised and rests on underriding PERFORATOR TRIP LEVER (8).

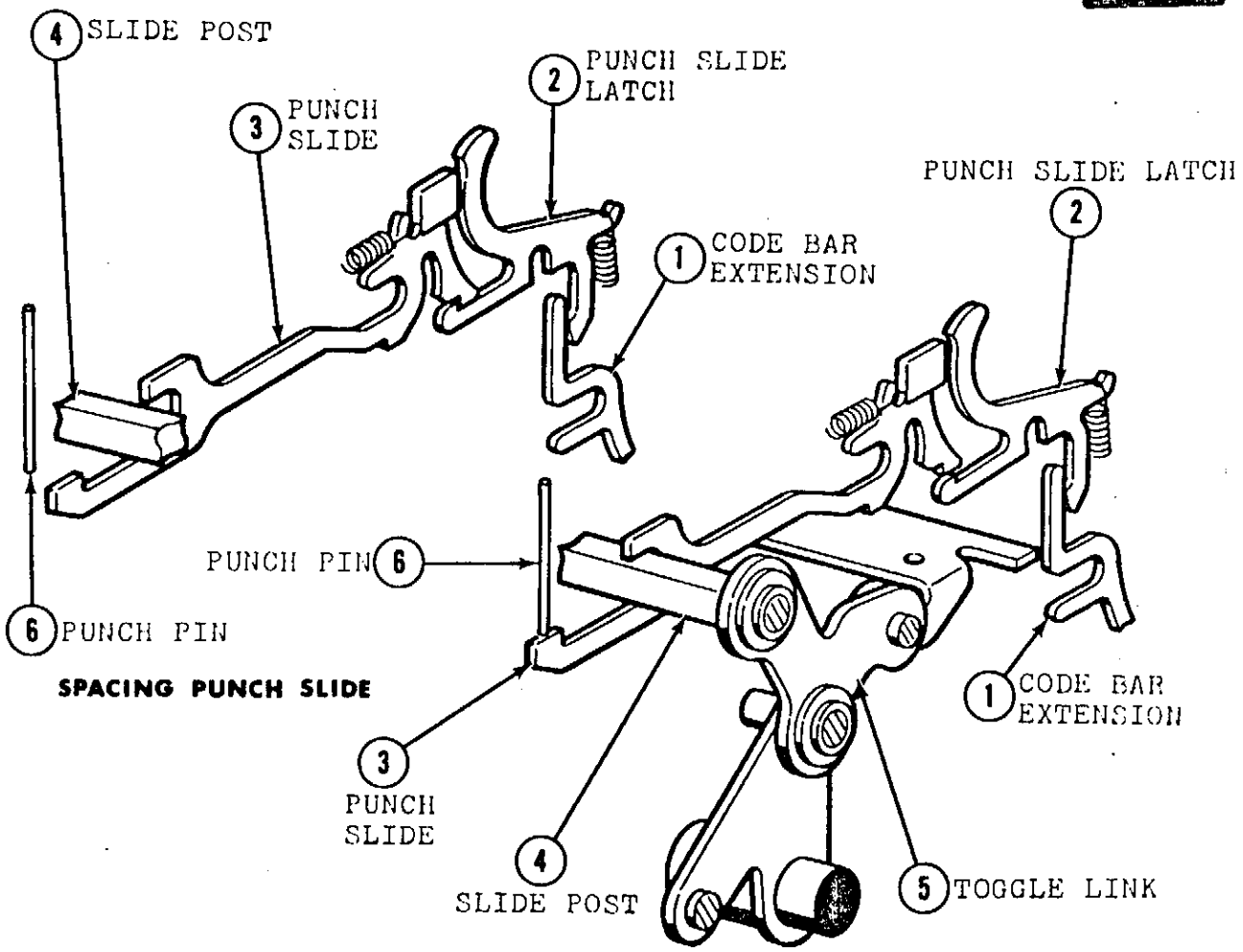


(REAR VIEW)

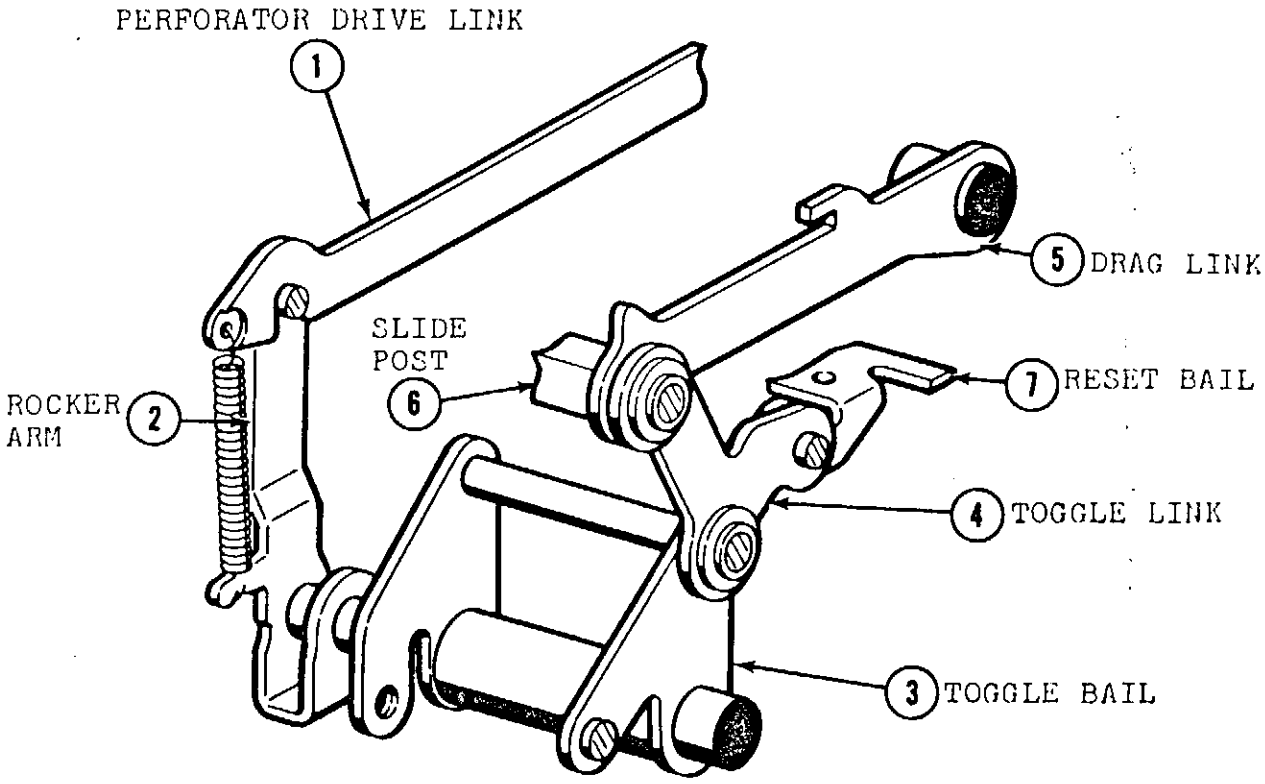
ROCKER BAIL UPPER ROLLER (1) attached to ROCKER BAIL (2) is driven to right (as viewed from rear of unit) by FUNCTION CAM ASSEMBLY (3) during its first half cycle, performing all necessary functions for perforating and printing of characters on tape. ROCKER BAIL LOWER ROLLER (4) also attached to ROCKER BAIL (2) is driven to left (as viewed from rear of unit) during last half cycle of Function Clutch, supplying necessary motion for tape and ribbon feed.



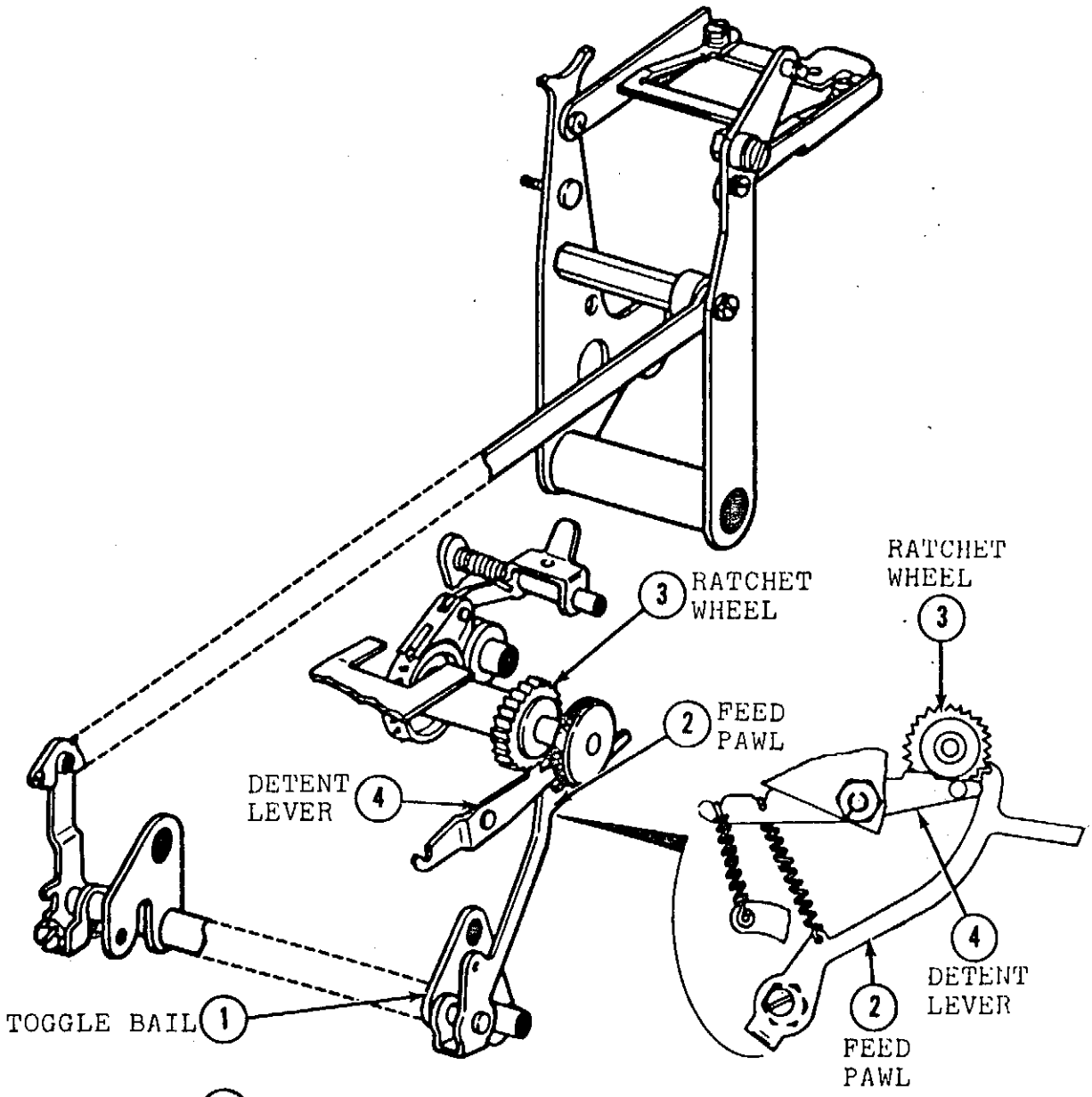
As ROCKER BAIL (1) moves left, its PERFORATOR DRIVE LINK (2) causes ROCKER ARM (3) to pivot driving TOGGLE BAIL (4) counter-clockwise. When ROCKER BAIL (1) moves right, its PERFORATOR DRIVE LINK (2) causes ROCKER ARM (3) to pivot driving TOGGLE BAIL (4) clockwise.



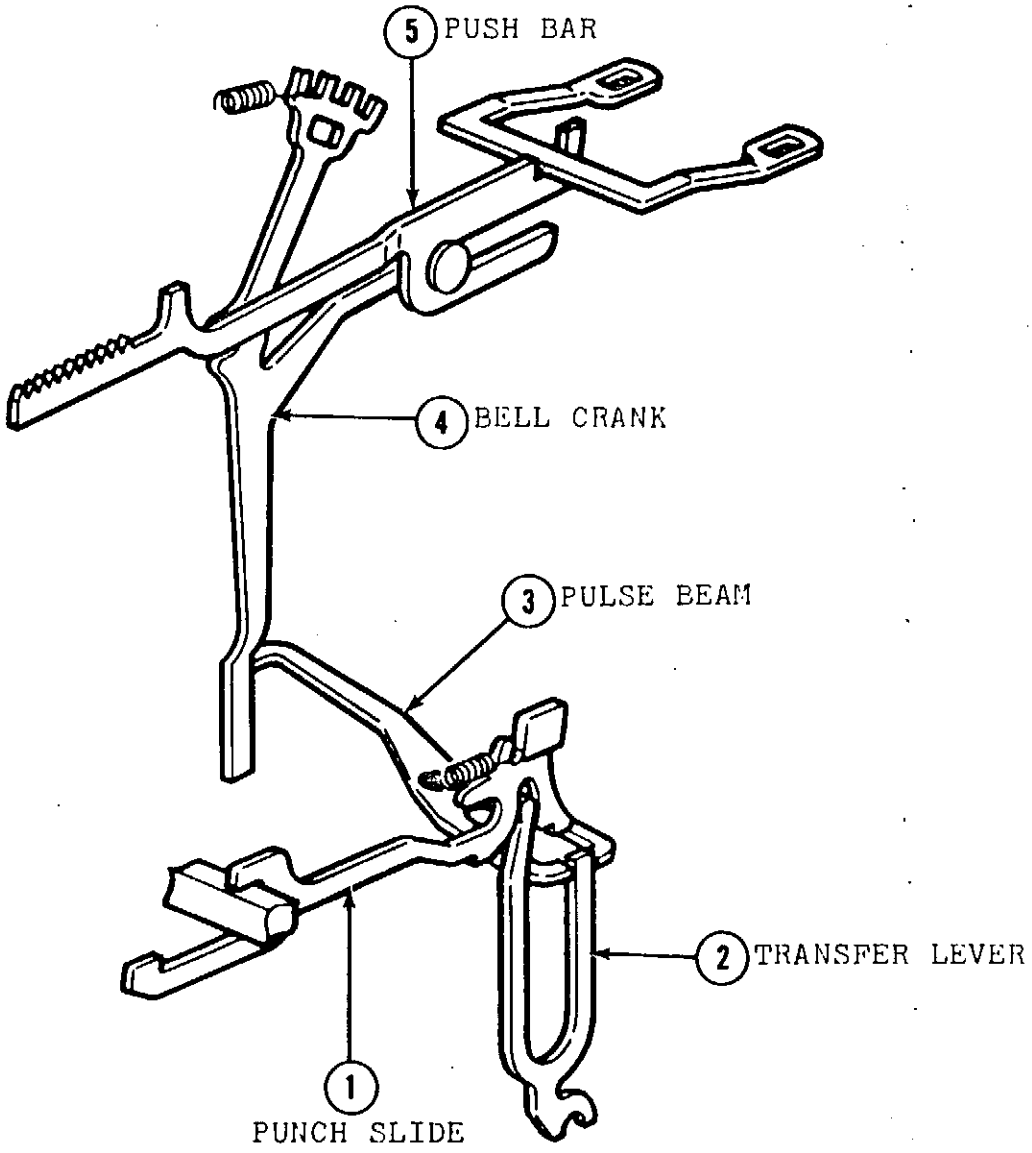
If CODE BAR EXTENSION (1) follows its Code Bar to right marking, it will rotate PUNCH SLIDE LATCH (2) counterclockwise releasing spring loaded PUNCH SLIDE (3) to move left engaging SLIDE POST (4) on TOGGLE LINK (5). PUNCH SLIDE (3) moves under PUNCH PIN (6). If CODE BAR EXTENSION (1) remains left spacing, the PUNCH SLIDE LATCH (2) will keep PUNCH SLIDE (3) latched up preventing it from engaging SLIDE POST (4) and moving under PUNCH PIN (6).



As Rocker Bail moves left, its PERFORATOR DRIVE LINK (1) causes ROCKER ARM (2) to pivot TOGGLE BAIL (3) counterclockwise. TOGGLE LINK (4) , because of DRAG LINK (5) , will pivot clockwise. Left side of TOGGLE LINK (4) will move up taking SLIDE POST (6) and marking Punch Slides to punch holes in tape. Right side of TOGGLE LINK (4) will move left. As TOGGLE BAIL (3) rotates clockwise, it drives TOGGLE LINK (4) counterclockwise pulling SLIDE POST (6) and marking Punch Slides downward. RESET BAIL (7) engages Punch Slides driving them to right in a reset condition.

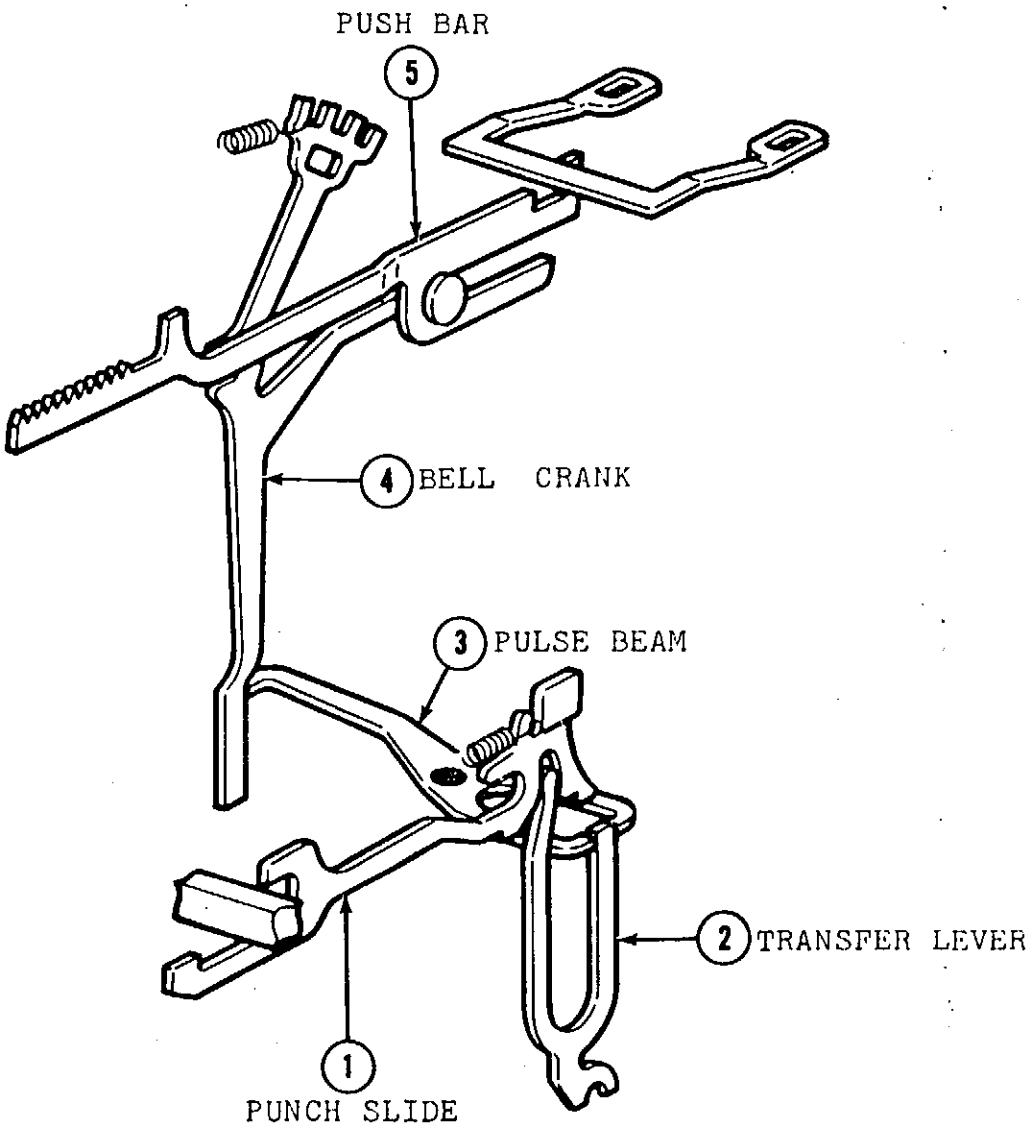


As TOGGLE BAIL (1) moves counterclockwise, it pulls FEED PAWL (2) downward selecting a new tooth on RATCHET WHEEL (3). When TOGGLE BAIL (1) moves clockwise, it drives FEED PAWL (2) up rotating RATCHET WHEEL. As RATCHET WHEEL (3) rotates, it advances tape out of punch unit. A DETENT LEVER (4) holds RATCHET WHEEL (3) in place when FEED PAWL (2) is being moved.



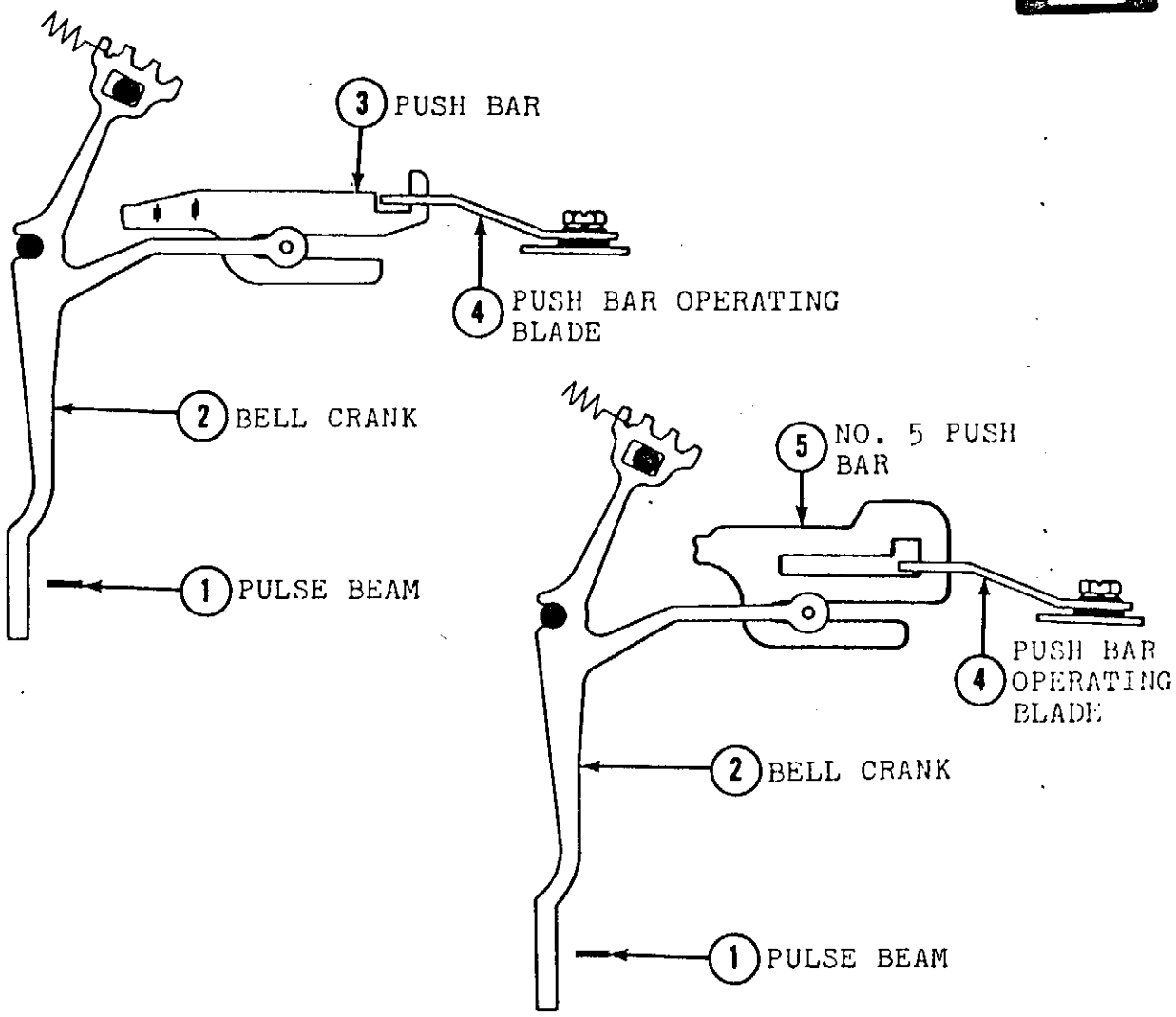
Marking Condition:

If PUNCH SLIDE (1) moves left marking, it will pivot its associated TRANSFER LEVER (2) positioning front of PULSE BEAM (3) to left and rear of PULSE BEAM (3) to right away from spring loaded BELL CRANK (4) . BELL CRANK (4) moves counter-clockwise moving PUSH BAR (5) up.



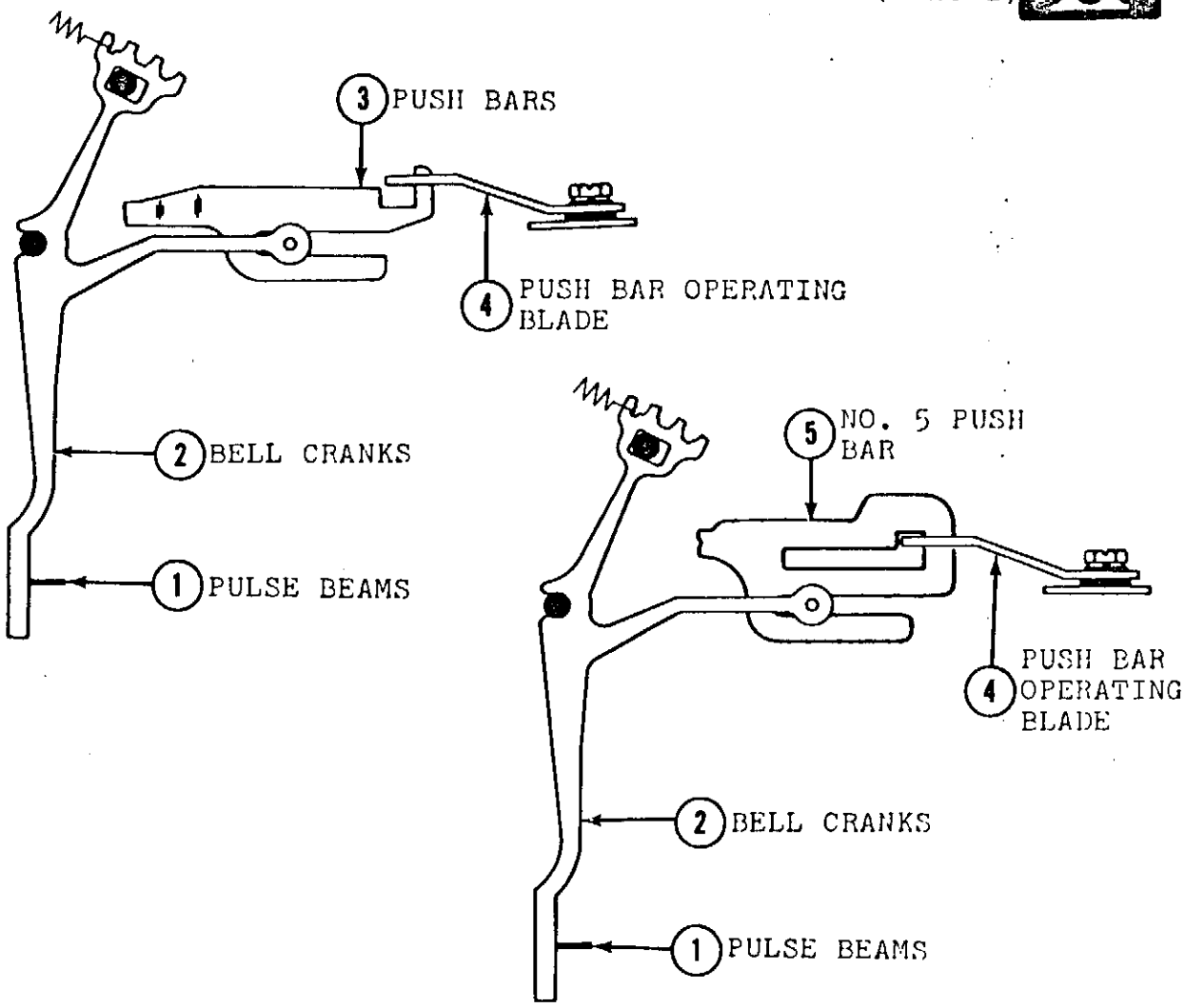
Spacing Condition:

If PUNCH SLIDE (1) is held spacing to right by its associated Latch Lever, the TRANSFER LEVER (2) does not move, therefore, PULSE BEAM (3) and BELL CRANK (4) do not move. Attached PUSH BAR (5) is held down in a spacing condition.



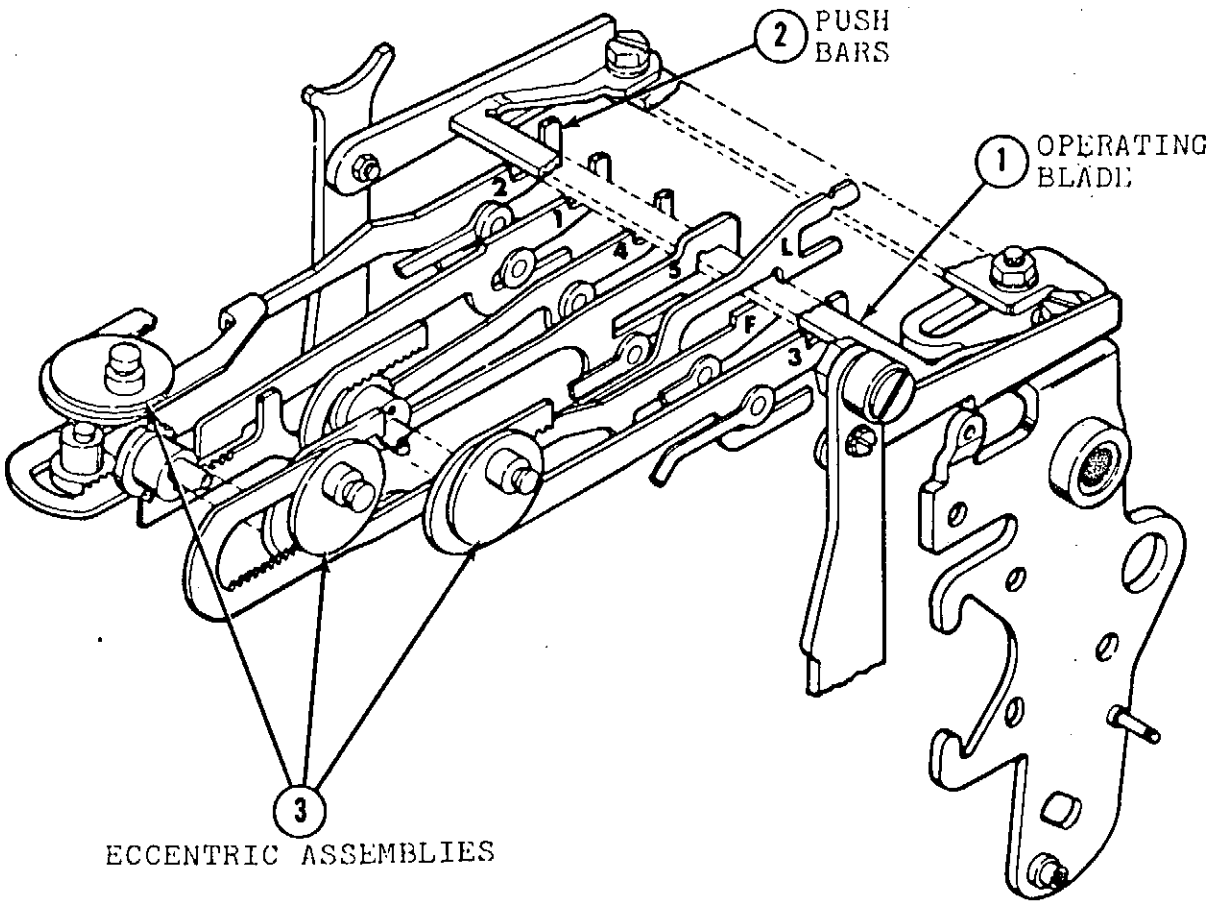
Marking Condition:

If PULSE BEAM (1) moves away from spring loaded BELL CRANK (2), it will pivot counterclockwise moving PUSH BAR (3) up. If No. 1, 2, 3, or No. 4 PUSH BAR (3) move up, it will move into path of PUSH BAR OPERATING BLADE (4). As PUSH BAR OPERATING BLADE (4) attached to Rocker Bail moves left, PUSH BARS (3) in its path will move left. Because of construction of NO. 5 PUSH BAR (5), when it moves up, it will move out of path of PUSH BAR OPERATING BLADE (4), therefore, does not get moved.

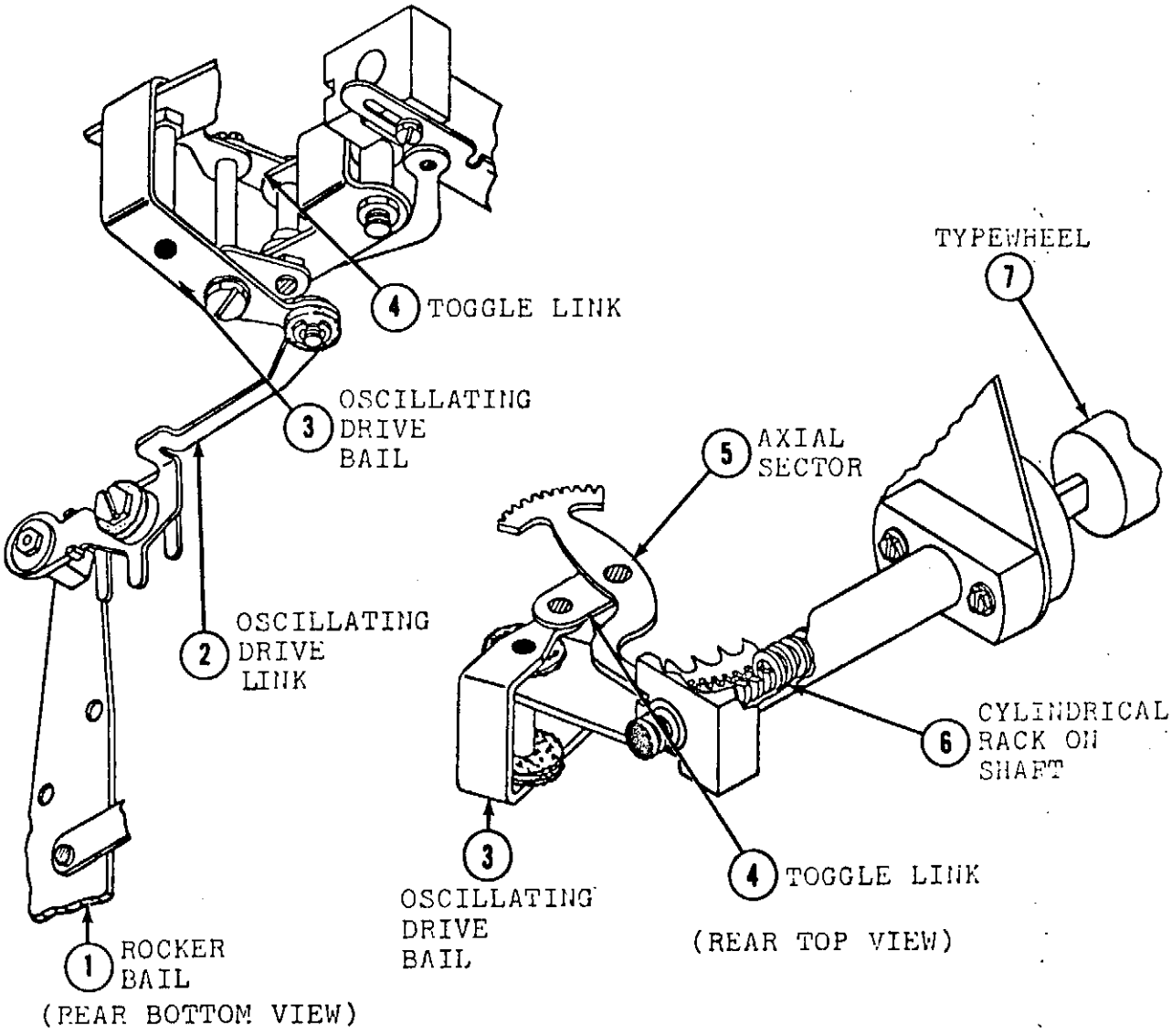


Spacing Condition:

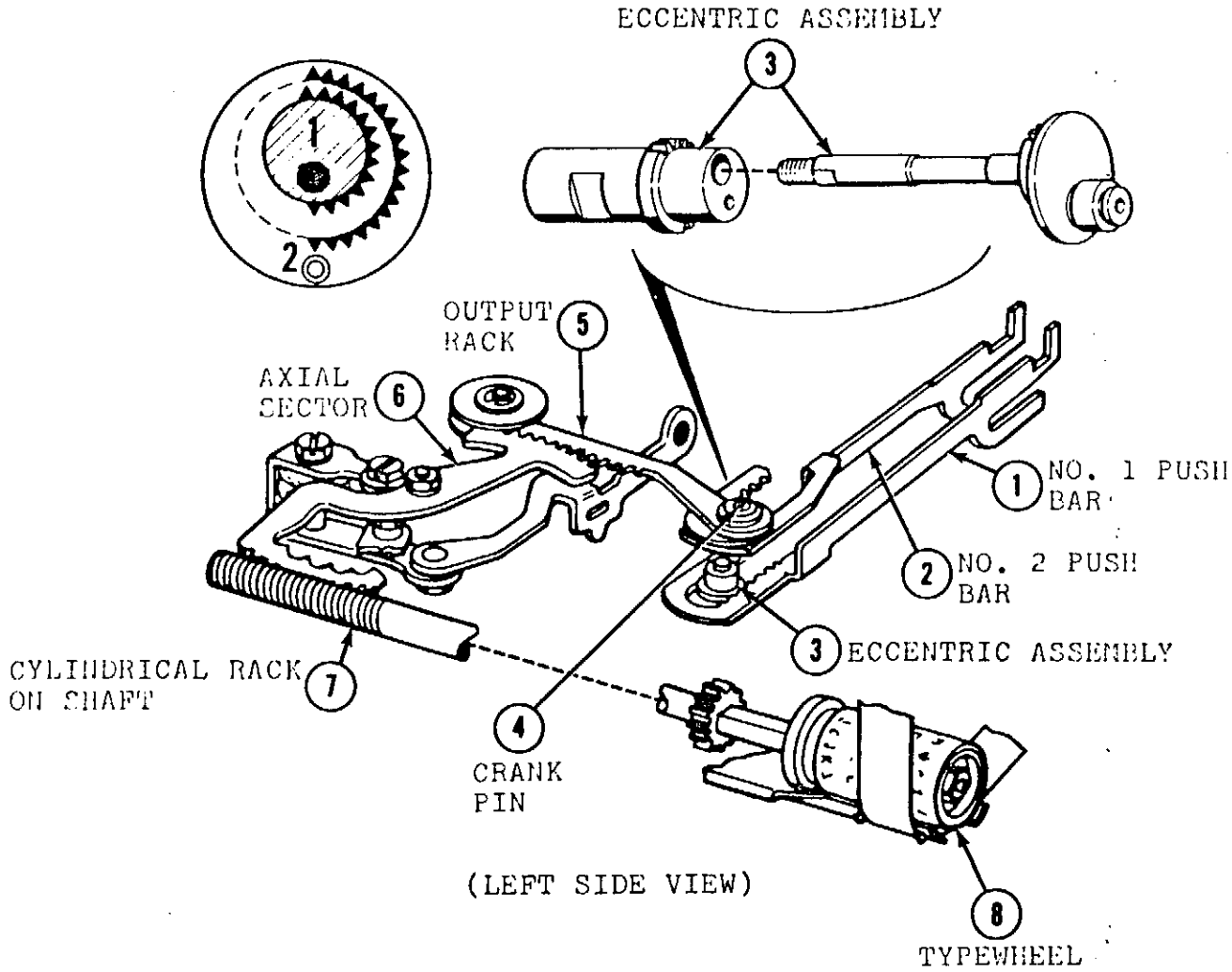
If PULSE BEAMS (1) do not move away from BELL CRANKS (2), they will remain pivoted clockwise keeping PUSH BARS (3) down. As PUSH BAR OPERATING BLADE (4) attached to Rocker Bail moves left, it overtravels No. 1, 2, 3, and No. 4 PUSH BARS (3). Because of construction of NO. 5 PUSH BAR (5), when it is down it is in path of PUSH BAR OPERATING BLADE (4), therefore, it will be moved left.



As OPERATING BLADE (1) moves to left it will operate selected PUSH BARS (2), which, through rack and gear arrangements will operate three ECCENTRIC ASSEMBLIES (3). PUSH BARS (2) No. 1 and No. 2 control ECCENTRIC ASSEMBLY (3) on rear of unit and provide axial positioning of typewheel. PUSH BARS (2) No. 3, 4, and No. 5 control ECCENTRIC ASSEMBLIES (3) on front of unit and provide rotary positioning of typewheel.

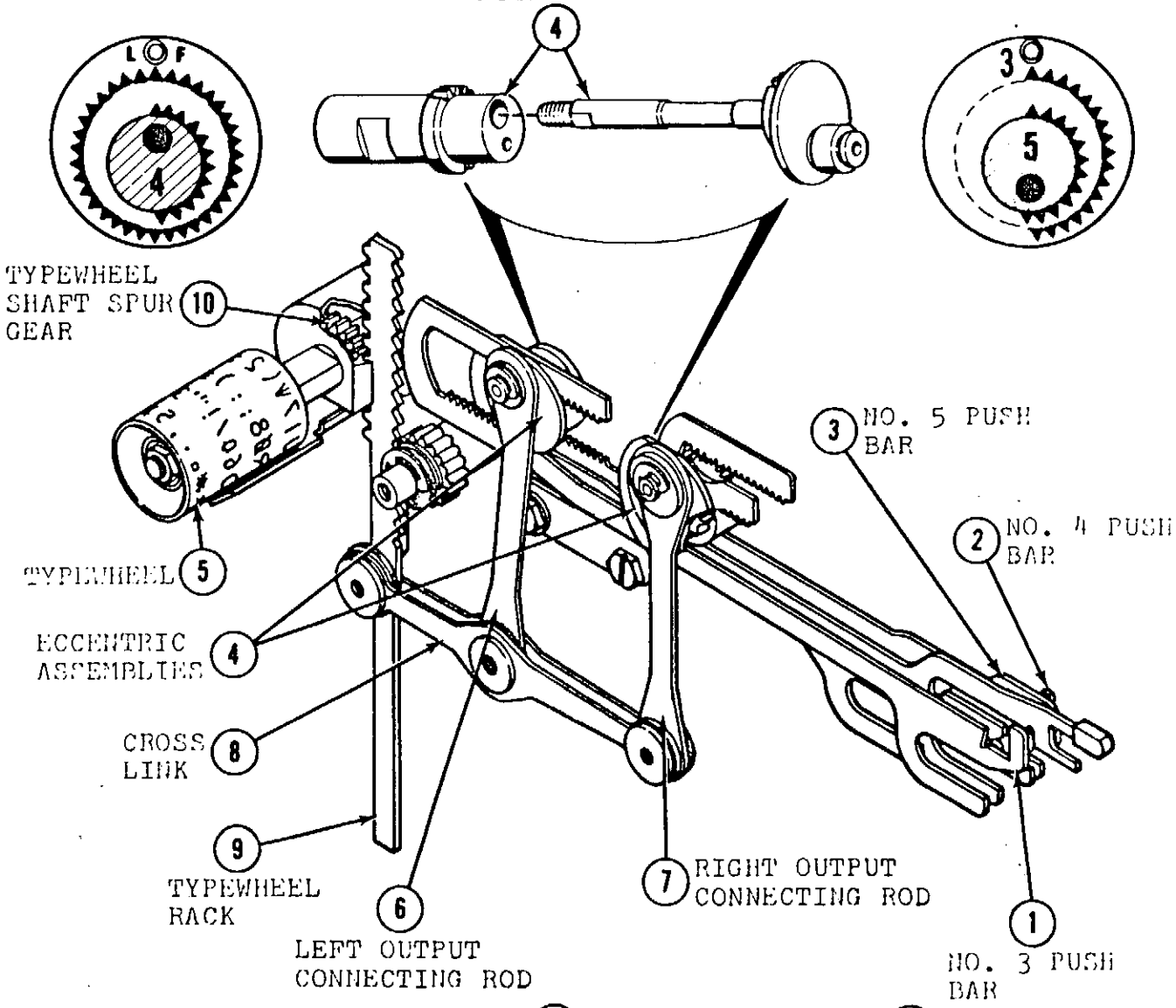


As ROCKER BAIL (1) moves to right (as viewed from rear of unit) OSCILLATING DRIVE LINK (2) pivots OSCILLATING DRIVE BAIL (3). As OSCILLATING DRIVE BAIL (3) pivots, it moves TOGGLE LINK (4) and AXIAL SECTOR (5) forward one unit. Movement of AXIAL SECTOR (5) causes CYLINDRICAL RACK ON SHAFT (6) and TYPEWHEEL (7) to move forward one unit.

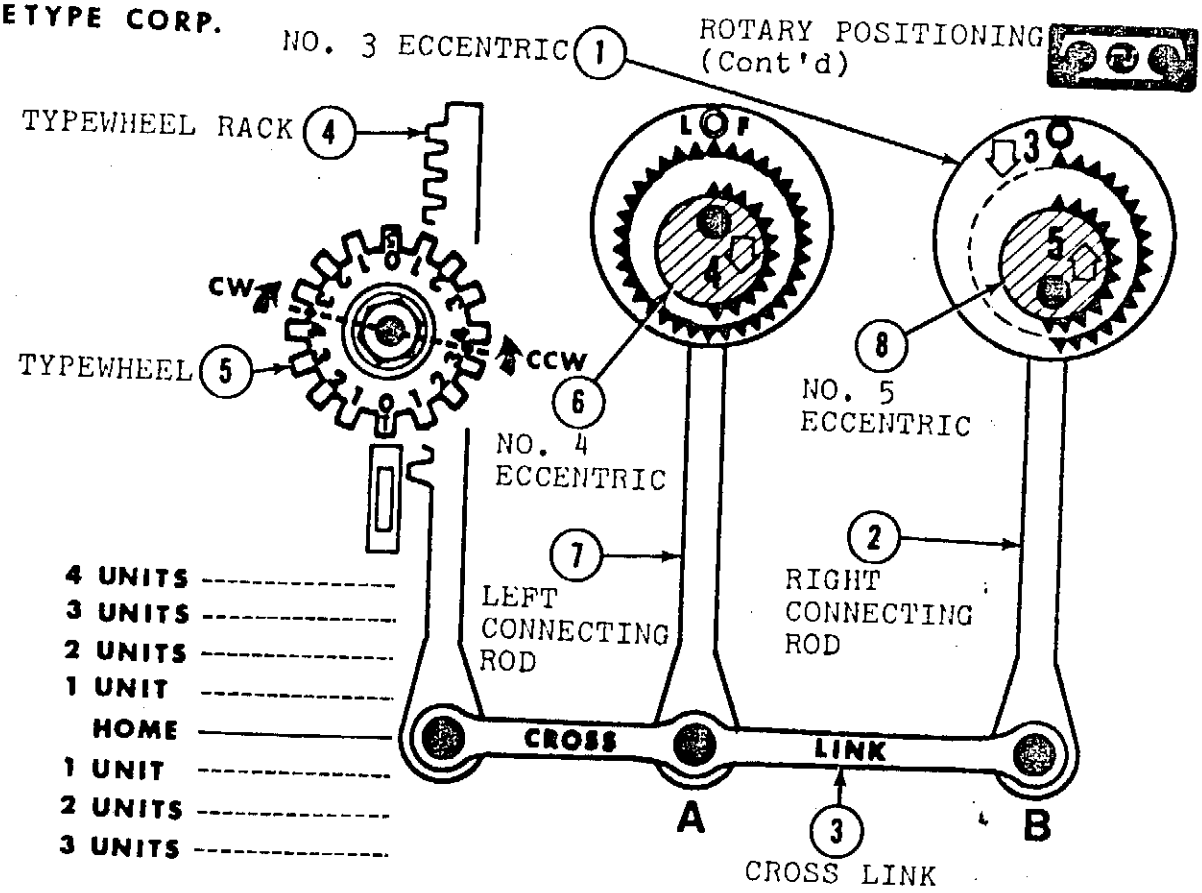


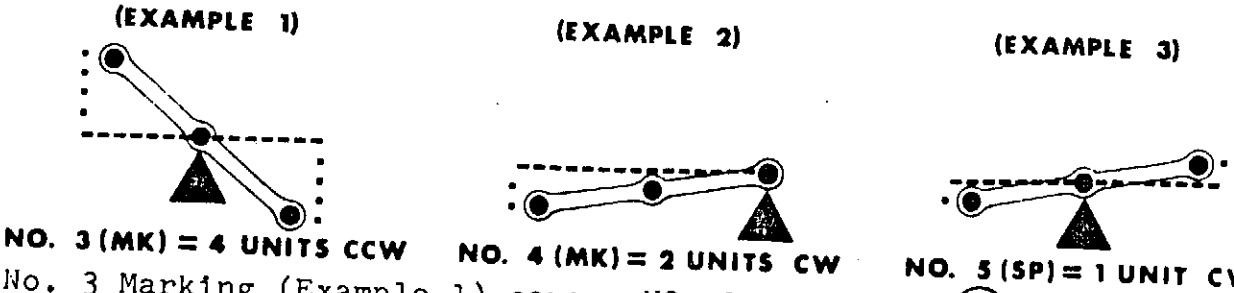
Movement of NO. 1 PUSH BAR (1) and/or NO. 2 PUSH BAR (2) causes ECCENTRIC ASSEMBLY (3) to rotate. As ECCENTRIC ASSEMBLY (3) rotates, its CRANK PIN (4) moves attached OUTPUT RACK (5). OUTPUT RACK (5) causes AXIAL SECTOR (6) to rotate moving CYLINDRICAL RACK ON SHAFT (7) with attached TYPEWHEEL (8) forward into one of 3 stops. NO. 1 PUSH BAR (1), when operated, will move TYPEWHEEL (8) one unit. NO. 2 PUSH BAR (2), when operated, will move TYPEWHEEL (8) two units. Combined output of NO. 1 PUSH BAR (1) and NO. 2 PUSH BAR (2) is three units of travel.

ECCENTRIC ASSEMBLIES — ROTARY POSITIONING



Operation of NO. 3 PUSH BAR (1), NO. 4 PUSH BAR (2), and NO. 5 PUSH BAR (3) through their engagement of their associated ECCENTRIC ASSEMBLIES (4) provide rotary motion to TYPEWHEEL (5). ECCENTRIC ASSEMBLIES (4) rotated by these Push Bars move LEFT OUTPUT CONNECTING ROD (6) or RIGHT OUTPUT CONNECTING ROD (7) vertically giving motion to CROSS LINK (8). TYPEWHEEL RACK (9) attached to CROSS LINK (8) moves vertically rotating engaged TYPEWHEEL SHAFT SPUR GEAR (10) and TYPEWHEEL (5).



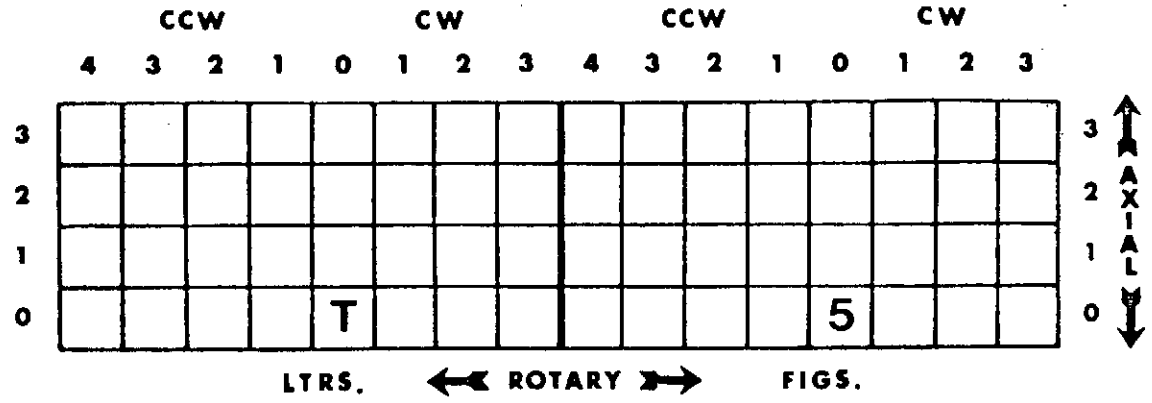


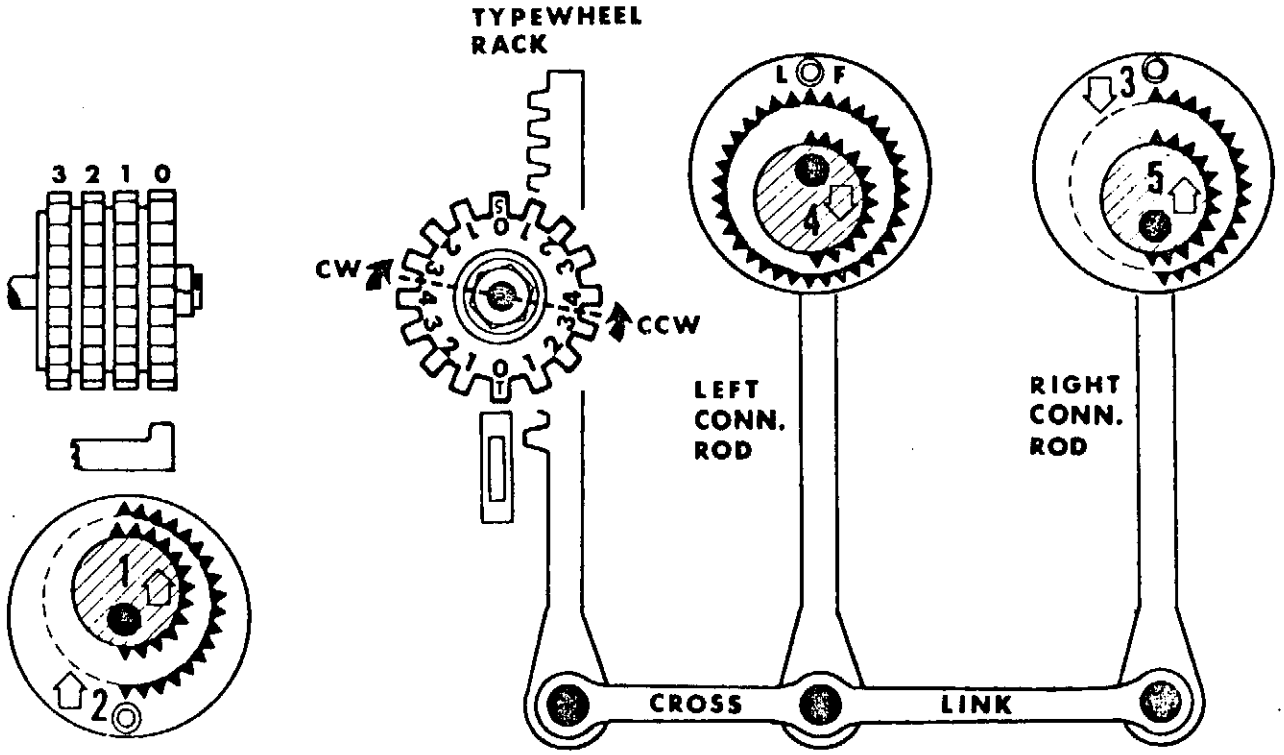
No. 3 Marking (Example 1) causes NO. 3 ECCENTRIC (1) to move RIGHT CONNECTING ROD (2) down pivoting CROSS LINK (3) about point A. TYPEWHEEL RACK (4) moves up 4 units causing TYPEWHEEL (5) to move 4 units CCW. No. 4 Marking (Example 2) causes NO. 4 ECCENTRIC (6) to move LEFT CONNECTING ROD (7) down pivoting CROSS LINK (3) about point B. TYPEWHEEL RACK (4) moves down 2 units causing TYPEWHEEL (5) to move 2 units CW. No. 5 Spacing (Example 3) causes NO. 5 ECCENTRIC (8) to move RIGHT CONNECTING ROD (2) up pivoting CROSS LINK (3) about point A. TYPEWHEEL RACK (4) moves down 1 unit causing TYPEWHEEL (5) to move 1 unit CW.

TYPEWHEEL POSITIONING WORKSHEET

MODEL 28 TYPEWHEEL

(FLAT VIEW)

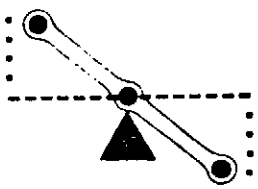




TYPEWHEEL POSITIONING RULES

NO. 1 (MK) = 1 UNIT AXIAL

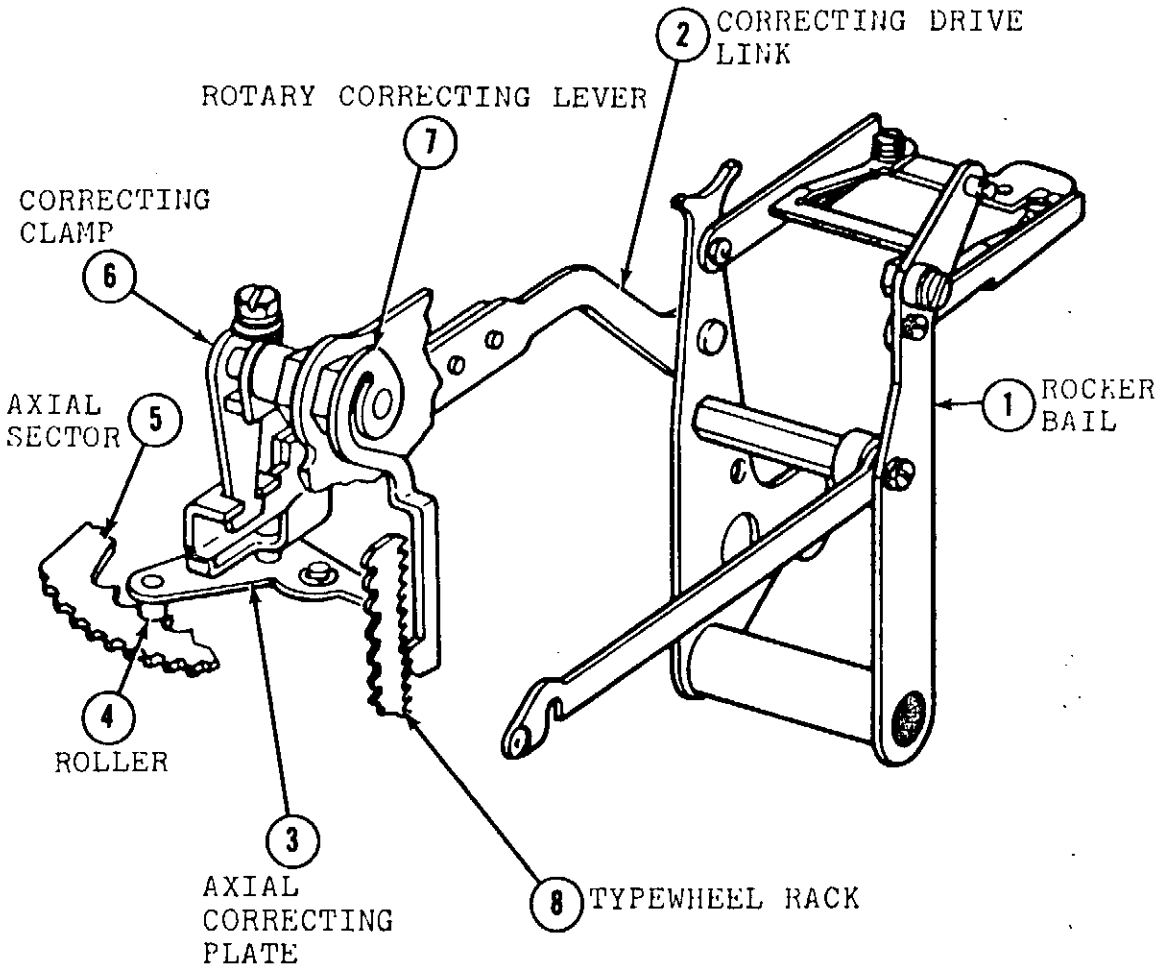
NO. 2 (MK) = 2 UNITS AXIAL



NO. 3 (MK) = 4 UNITS CCW

NO. 4 (MK) = 2 UNITS CW

NO. 5 (SP) = 1 UNIT CW

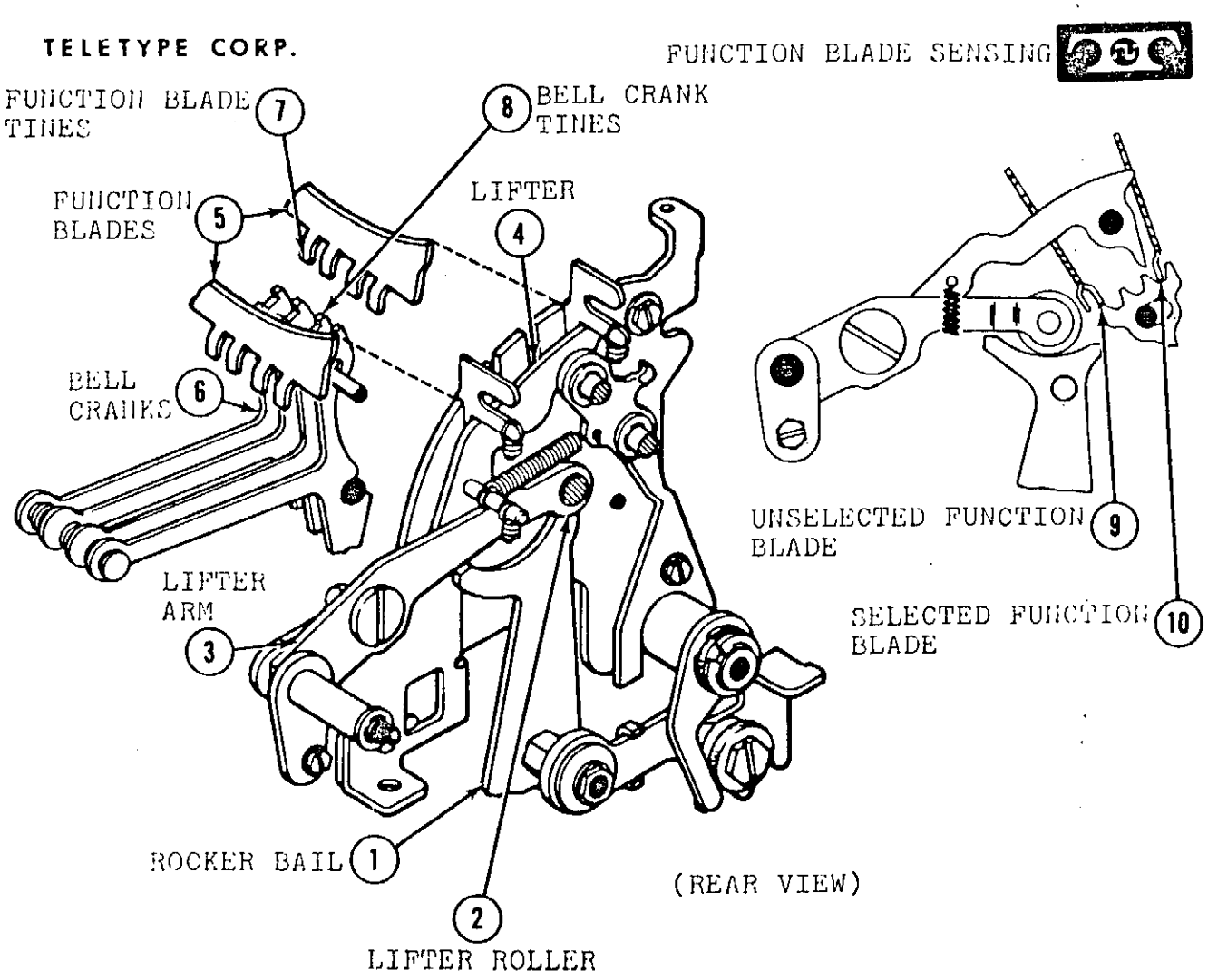


Axial Correcting:

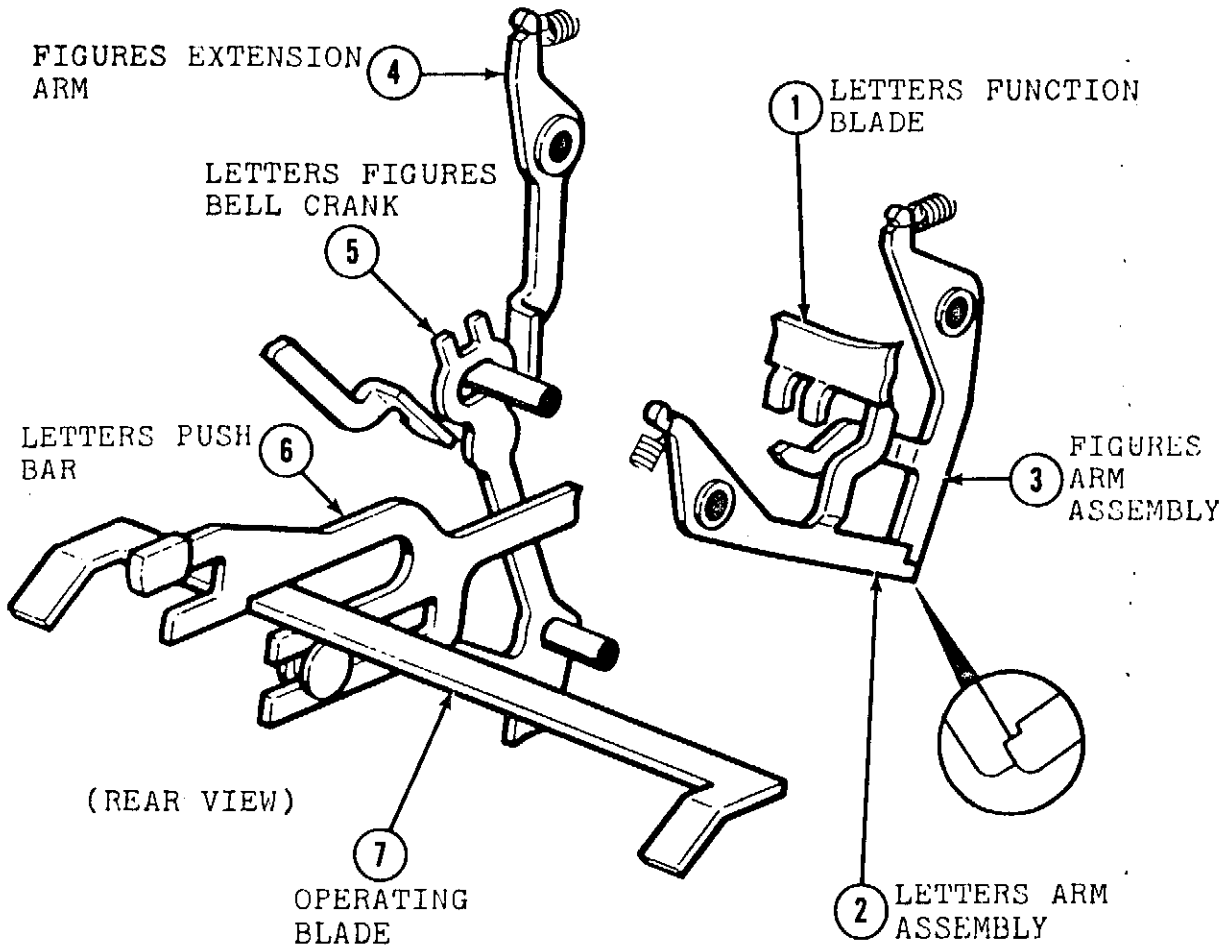
As ROCKER BAIL (1) moves left, CORRECTING DRIVE LINK (2) pivots AXIAL CORRECTING PLATE (3) and positions its ROLLER (4) against AXIAL SECTOR (5) holding it stationary prior to print hammer trip off.

Rotary Correcting:

As ROCKER BAIL (1) moves left, CORRECTING DRIVE LINK (2) pivots CORRECTING CLAMP (6) moving ROTARY CORRECTING LEVER (7) against TYPEWHEEL RACK (8) holding it stationary prior to print hammer trip off.

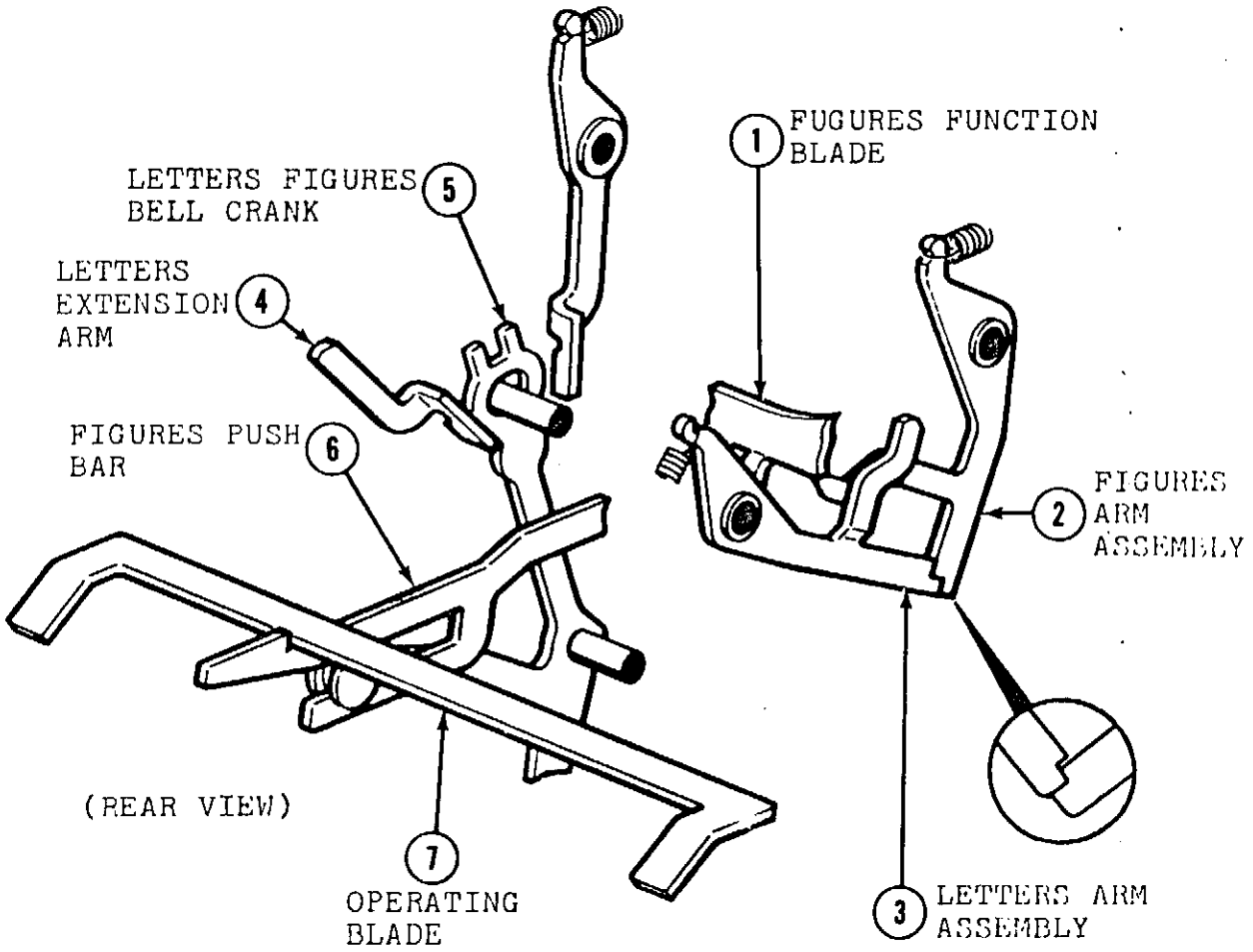


As ROCKER BAIL (1) moves right (as viewed from rear of unit), LIFTER ROLLER (2) will ride into indent of ROCKER BAIL (2) allowing LIFTER ARM (3) and LIFTER (4) to drop. FUNCTION BLADES (5) are allowed to sense BELL CRANKS (6) . If code combination of BELL CRANKS (6) are same as combination of FUNCTION BLADE TINES (7) , FUNCTION BLADE (5) will fall between BELL CRANK TINES (8) and become a SELECTED FUNCTION BLADE (9) . If not, FUNCTION BLADE TINES (7) will be blocked by BELL CRANK TINES (8) and becomes an UNSELECTED FUNCTION BLADE (10) .



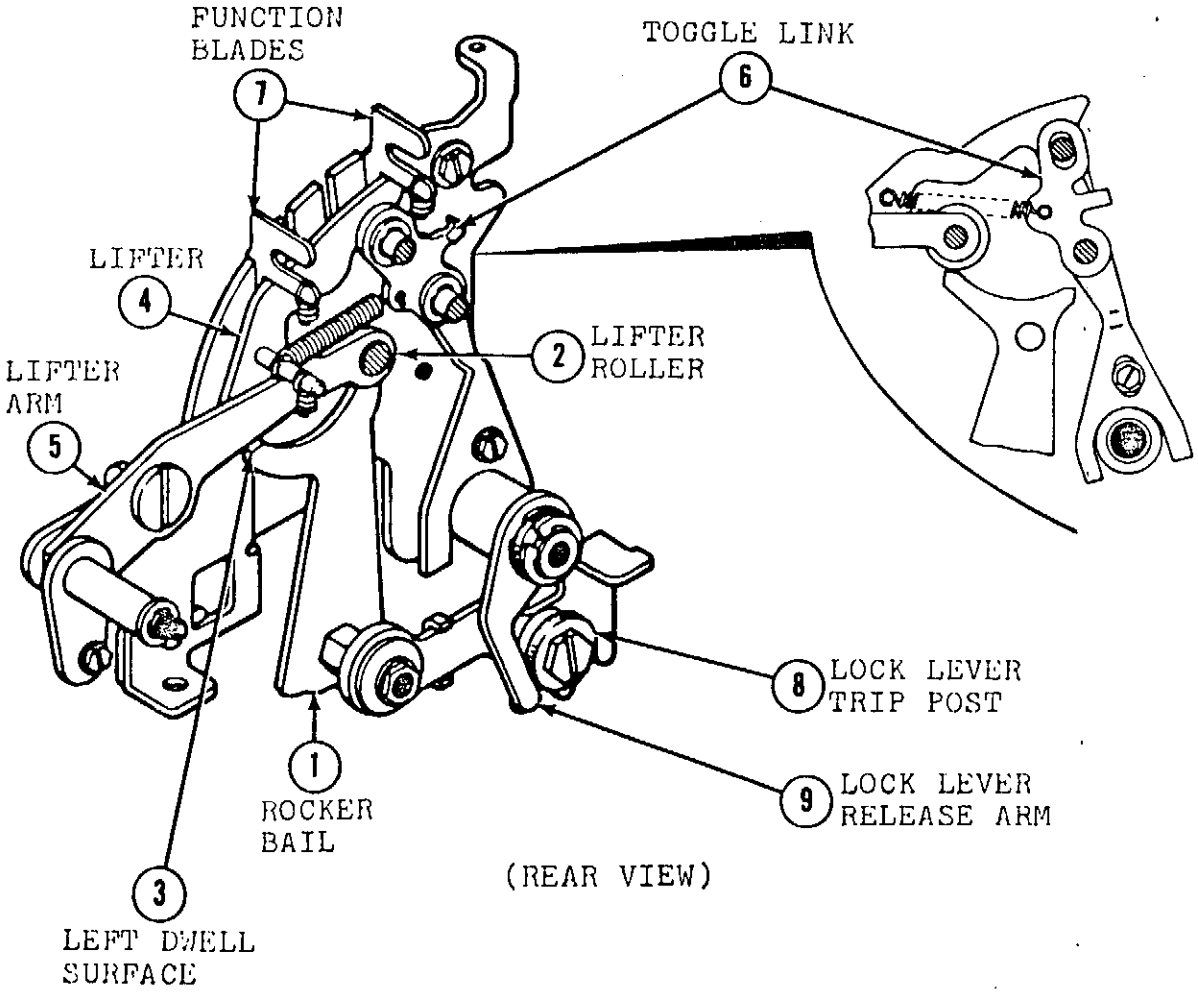
Letters Shift: (As viewed from rear of unit)

When LETTERS FUNCTION BLADE (1) becomes selected it will move down far enough to rotate LETTERS ARM ASSEMBLY (2) clockwise allowing FIGURES ARM ASSEMBLY (3) to also rotate clockwise into "notch" of LETTERS ARM ASSEMBLY (2) . When FIGURES ARM ASSEMBLY (3) rotates FIGURES EXTENSION ARM (4) also rotates since they are connected to same shaft. FIGURES EXTENSION ARM (4) rotates LETTERS FIGURES BELL CRANK (5) counterclockwise putting LETTERS PUSH BAR (6) in path of OPERATING BLADE (7) when it moves to extreme right. Letters Shift is performed when OPERATING BLADE (7) moves to left. Printing of Letters Symbol occurs in Figures half of Typewheel.

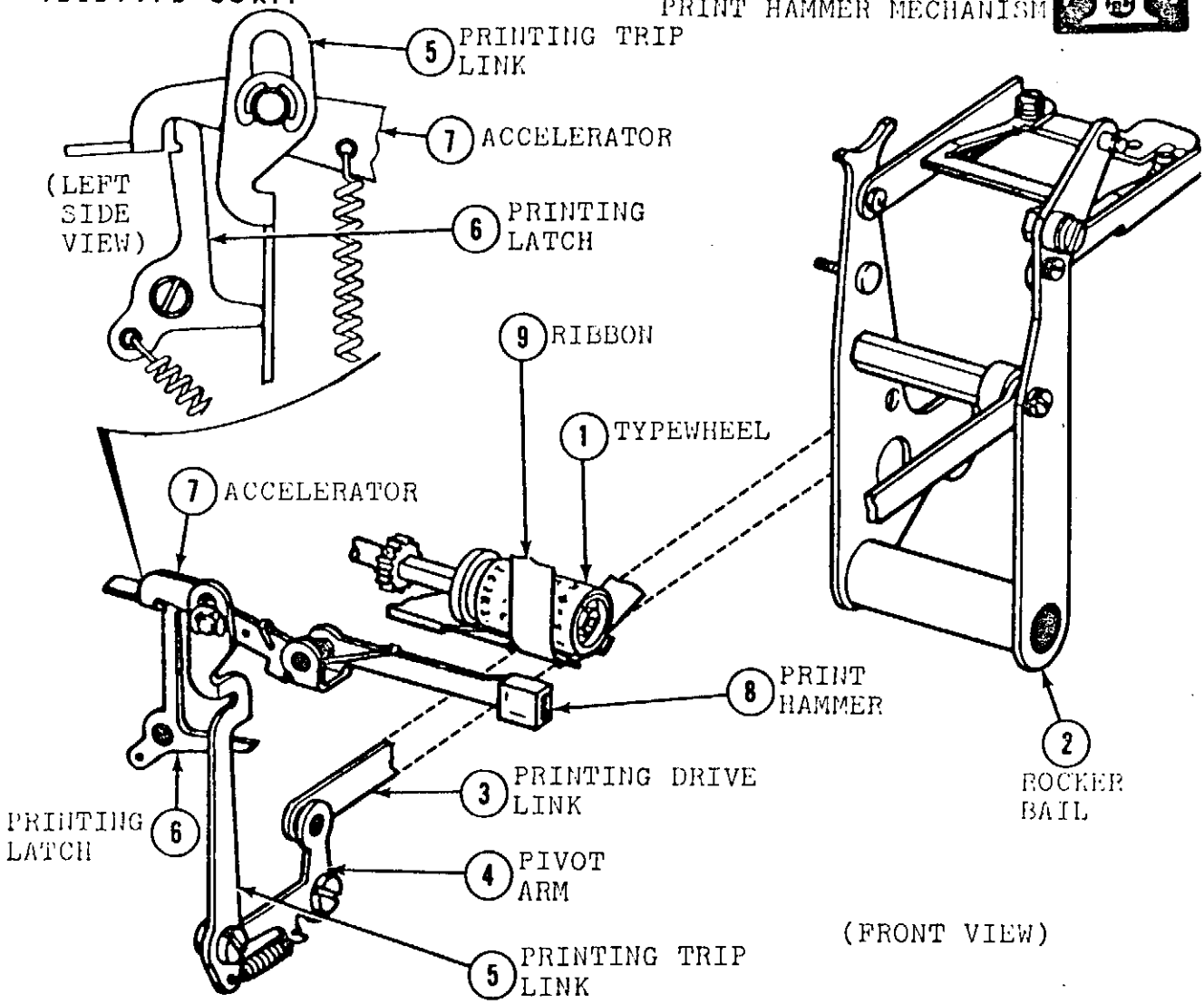


Figures Shift: (As viewed from rear of unit)

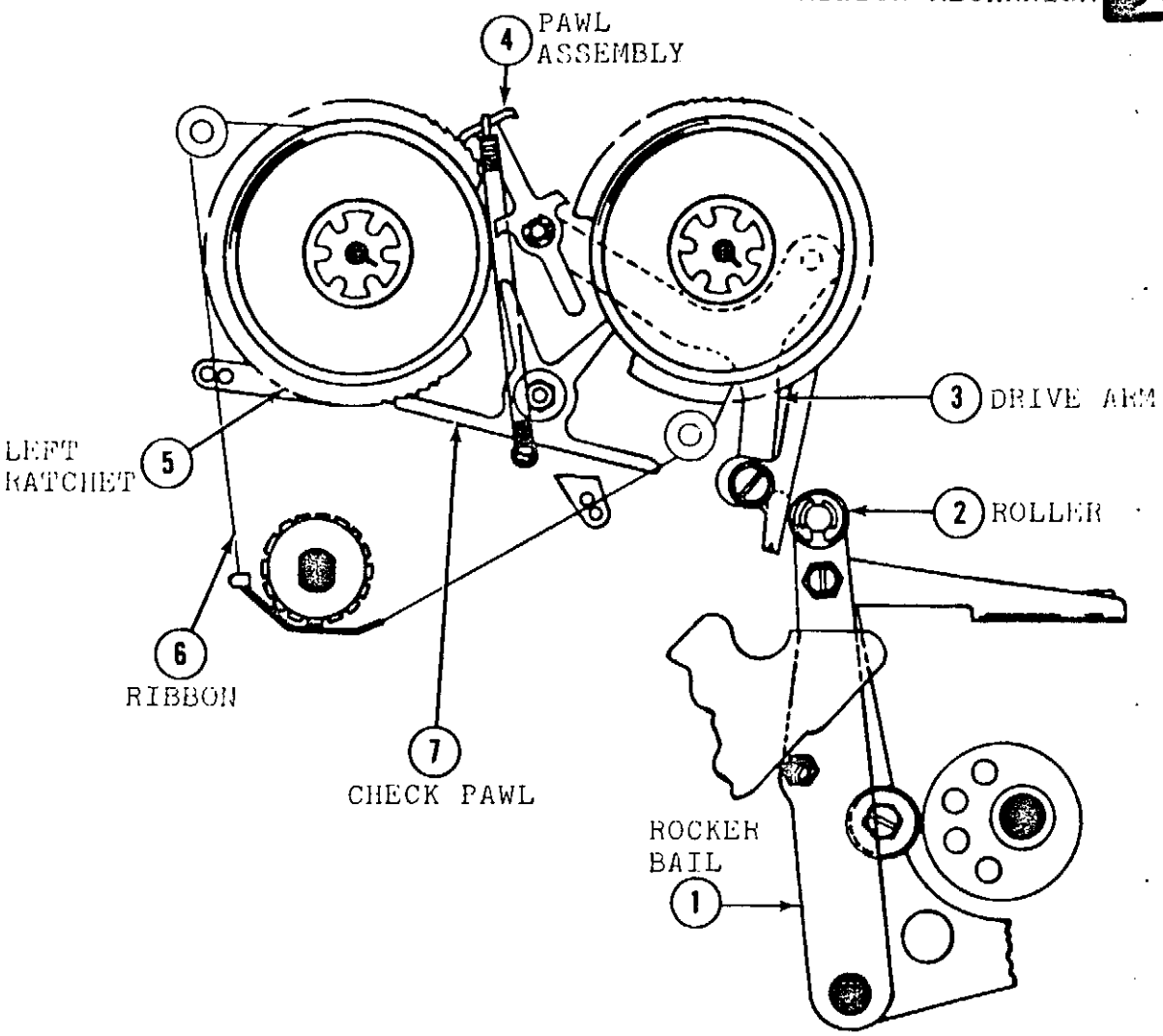
When FIGURES FUNCTION BLADE (1) becomes selected it will move down far enough to rotate FIGURES ARM ASSEMBLY (2) counterclockwise allowing LETTERS ARM ASSEMBLY (3) to also rotate counterclockwise into "notch" of FIGURES ARM ASSEMBLY (2) . When LETTERS ARM ASSEMBLY (3) rotates, LETTERS EXTENSION ARM (4) also rotates since they are connected to same shaft. LETTERS EXTENSION ARM (4) rotates LETTERS FIGURES BELL CRANK (5) clockwise putting FIGURES PUSH BAR (6) in path of OPERATING BLADE (7) when it moves to extreme right. Figures Shift is performed when OPERATING BLADE (7) moves to left. Printing of Figures Symbol occurs in Letters half of Typewheel.



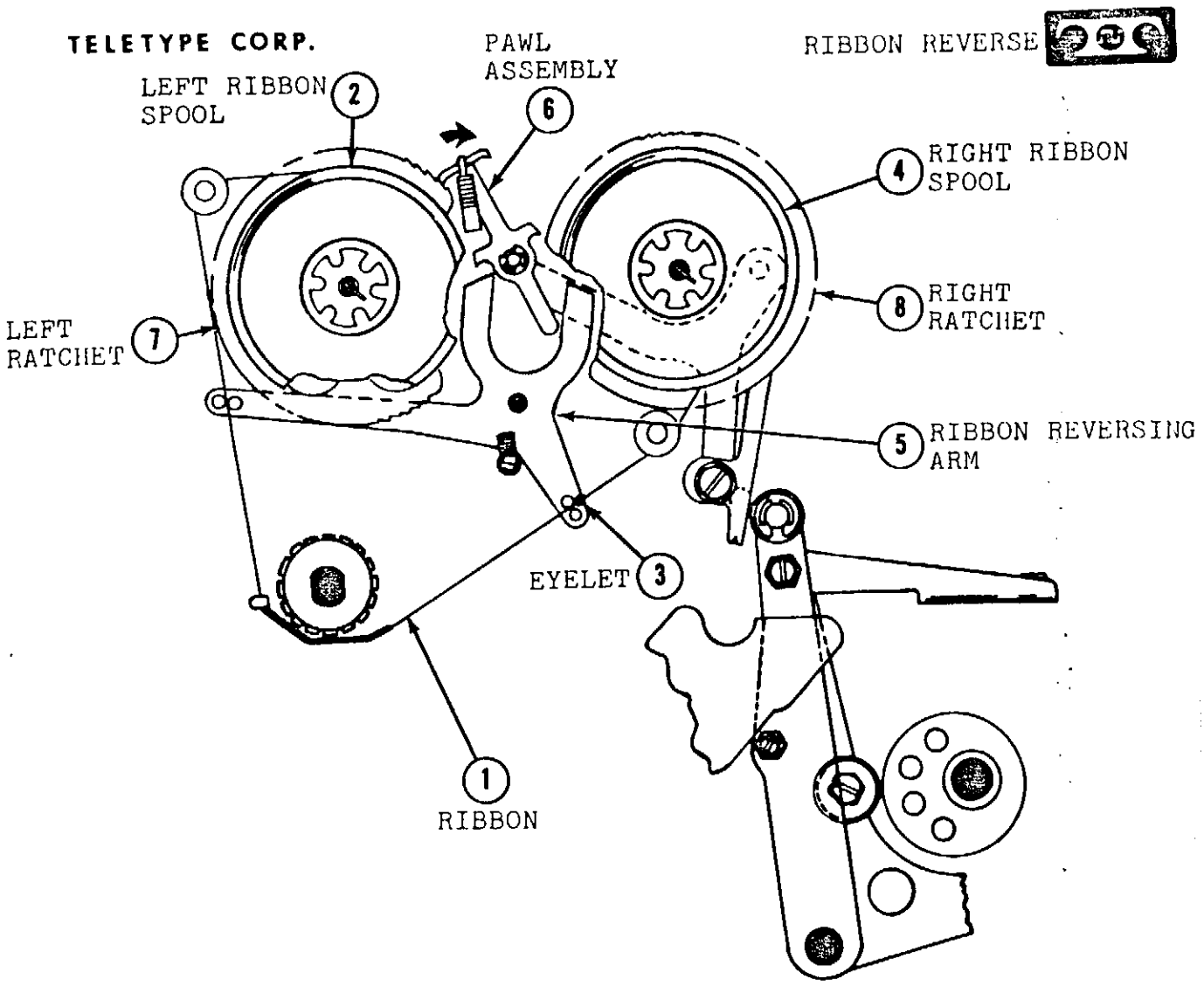
As ROCKER BAIL (1) moves to extreme right (as viewed from rear of unit), LIFTER ROLLER (2) moves up riding on LEFT DWELL SURFACE (3). LIFTER (4), LIFTER ARM (5), and LIFTER ROLLER (2) are locked in an upward position by TOGGLE LINK (6) to prevent LIFTER ROLLER (2) from falling into indent of ROCKER BAIL (1) and allowing FUNCTION BLADES (7) to sense resetting Bell Cranks. TOGGLE LINK (6) is buckled at end of cycle as LOCK LEVER TRIP POST (8) strikes LOCK LEVER RELEASE ARM (9).



As TYPEWHEEL (1) is positioned, ROCKER BAIL (2) moves PRINTING DRIVE LINK (3) to left pivoting PIVOT ARM (4). As PIVOT ARM (4) pivots it drives PRINTING TRIP LINK (5) down. PRINTING TRIP LINK (5) engages and rotates a PRINTING LATCH (6) freeing spring loaded ACCELERATOR (7). PRINT HAMMER (8) drives Tape and INKED RIBBON (9) against TYPEWHEEL (1). As ROCKER BAIL (2) moves PRINTING DRIVE LINK (3) right, attached PIVOT ARM (4) drives PRINTING TRIP LINK (5) and ACCELERATOR (7) upward allowing spring loaded PRINTING LATCH (6) to lock ACCELERATOR (7) in a reset condition.



When ROCKER BAIL (1) moves left, its ROLLER (2) contacts and pivots DRIVE ARM (3) clockwise. DRIVE ARM (3) attached to PAWL ASSEMBLY (4) drives it upward engaging a tooth on LEFT RATCHET (5). When ROCKER BAIL (1) moves right, its ROLLER (2) moves away from DRIVE ARM (3) which now pivots counterclockwise. Spring loaded PAWL ASSEMBLY (4) moves downward advancing LEFT RATCHET (5) and RIBBON (6). CHECK PAWL (7) locks LEFT RATCHET (5) into position.



When RIBBON (1) is completely on LEFT RIBBON SPOOL (2), an EYELET (3) on RIBBON (1) advancing from RIGHT RIBBON SPOOL (4) engages RIBBON REVERSING ARM (5) pivoting it clockwise. As PAWL ASSEMBLY (6) moves downward to advance LEFT RATCHET (7), it contacts RIBBON REVERSING ARM (5) which pivots PAWL ASSEMBLY (6) clockwise. PAWL ASSEMBLY (6) will now engage and drive RIGHT RATCHET (8).