BULLETIN 281B
VOL. 1

TECHNICAL MANUAL
MODEL 35
KEYBOARD SEND-RECEIVE (KSR) AND
RECEIVE-ONLY (RO)
TELETYPEWRITER SETS

TELETYPE®
CORPORATION
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281B
VOLUME 1

INTRODUCTION

Bulletin 281B is a technical manual that provides descriptive, installing and maintenance information for the Model 35 Keyboard Send-Receive (KSR) and Receive-Only (RO) Teletypewriter Sets and their components.

The Bulletin consists of two volumes. Volume 1 contains description and operation, installation, lubrication, and disassembly and reassembly. Volume 2 contains adjustments.

Each volume is made up of a group of appropriate independent sections. They are separately identified by title and section number, and the pages of each section are numbered consecutively, independent of other sections.

The identifying number of a section, a 9-digit number, appears at the top of each page of the section, in the left corner of the left-hand pages and the right corner of the right-hand pages. The sections are placed in the manual in ascending numerical order.

To locate specific information refer to the table of contents on the following page. Find the name of the involved component in column one and the title of the section in column two. The correct 9-digit section number will then be found in column three. Turn to page one of the section indicated, where the contents of that section will be found (except where a section is small and does not require a listing of contents).

The sections comprising this bulletin are now stocked separately and may be individually ordered if the entire bulletin is not needed.

TABLE OF CONTENTS

FILING INSTRUCTIONS

1. The following filing instructions apply to changes sent to the field.
2. Asterisks (*) in the table of contents indicate changes.
3. When the issue of a section changes, replace the old issue with the attached new one.
4. In the case of addendums, turn to the affected section and follow the instructions on the first page of the attached addendum.
5. Replace the old table of contents with this new one.

35 TYPING UNIT (LP)

LUBRICATION

CONTENTS PAGE

1. GENERAL

1.01 This section provides lubrication for the 35 typing unit. It is reissued to include lubrication for the paper jam alarm, recent engineering information and to update general format. Since it is an extensive revision, marginal arrows used to indicate changes have been omitted.

1.02 Lubricate the 35 typing unit as directed in this section. The line drawings indicate points to be lubricated and the type and quantity of lubricant to be used. Figures 1 and 2 illustrate the general areas of lubrication on the friction feed unit and Figure 3 shows the lubrication areas on the sprocket feed unit. Lubricate the typing unit prior to placing it in service. Relubricate after a few weeks to make sure that all points have received proper lubrication. Thereafter, lubricate the typing unit at intervals of 1500 hours or six months, whichever occurs first.

1.03 Use KS7470 oil at all locations where the use of oil is indicated. Use KS7471 grease at all locations where the use of grease is indicated.

1.04 Saturate all spring wicks and felt oilers. Thoroughly lubricate the friction surfaces of all moving parts. However, avoid overlubrication which permits oil or grease to drip or be thrown on other parts. Take special care to prevent any oil or grease from getting between the selector armature and its magnetic pole faces. Keep all electrical contacts free of oil and grease.

1.05 Apply a thin film of grease to the teeth of the range scale knob assembly (knob and gear).

1.06 Apply a thick film of grease to all gears and the spacing trip lever bail cam plate.

1.07 Apply oil to all cams, including the camming surfaces of each clutch disc.

1.08 Grease the clutch shoe lever spring loops and completely saturate the internal mechanism of the clutch assembly with oil.

1.09 Apply a thin film of oil around the outer periphery of the dashpot cup and retainer. Avoid excessive lubrication that will obstruct the dashpot parts.

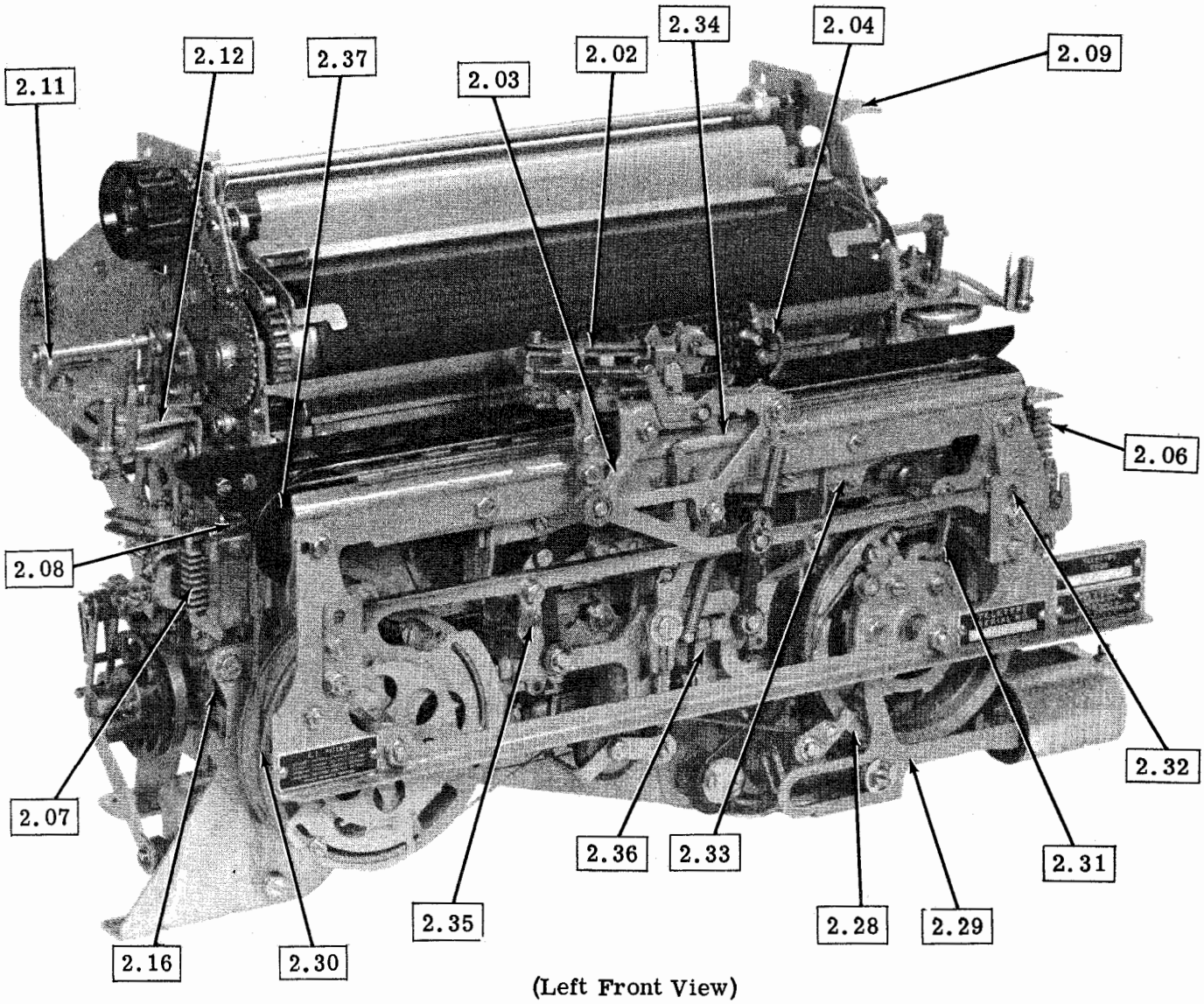
1.10 The photographs serve as a guide to mechanism locations on the unit. They are also keyed to the paragraph numbers of line drawings of particular mechanisms. Parts in the line drawings are shown in an upright position unless otherwise specified. References to left, right, top, bottom, front, rear, etc, apply to the unit in its normal operating position as viewed from the operator's position in front of the unit.

1.11 The illustration symbols indicate the following lubrication directions.

Symbol	Meaning
O1	Apply 1 drop of oil.
O2	Apply 2 drops of oil.
O3	Apply 3 drops of oil, etc.
G	Apply thin film of grease.
SAT	Saturate (felt oilers, washers, wicks) with oil.

Note: During each lubrication period, check the following adjustments in Section 574-220-700TC.

1. Printing Carriage Position
2. Printing Hammer Bearing Stud
3. Printing Hammer Stop Bracket (Also see note following this adjustment.)
4. Lower Draw Wire Rope
5. Dashpot Vent Screw (Check Dashpot Transfer Slide for ease of movement.)



(Left Front View)

Figure 1 - 35 Typing Unit, Friction Feed

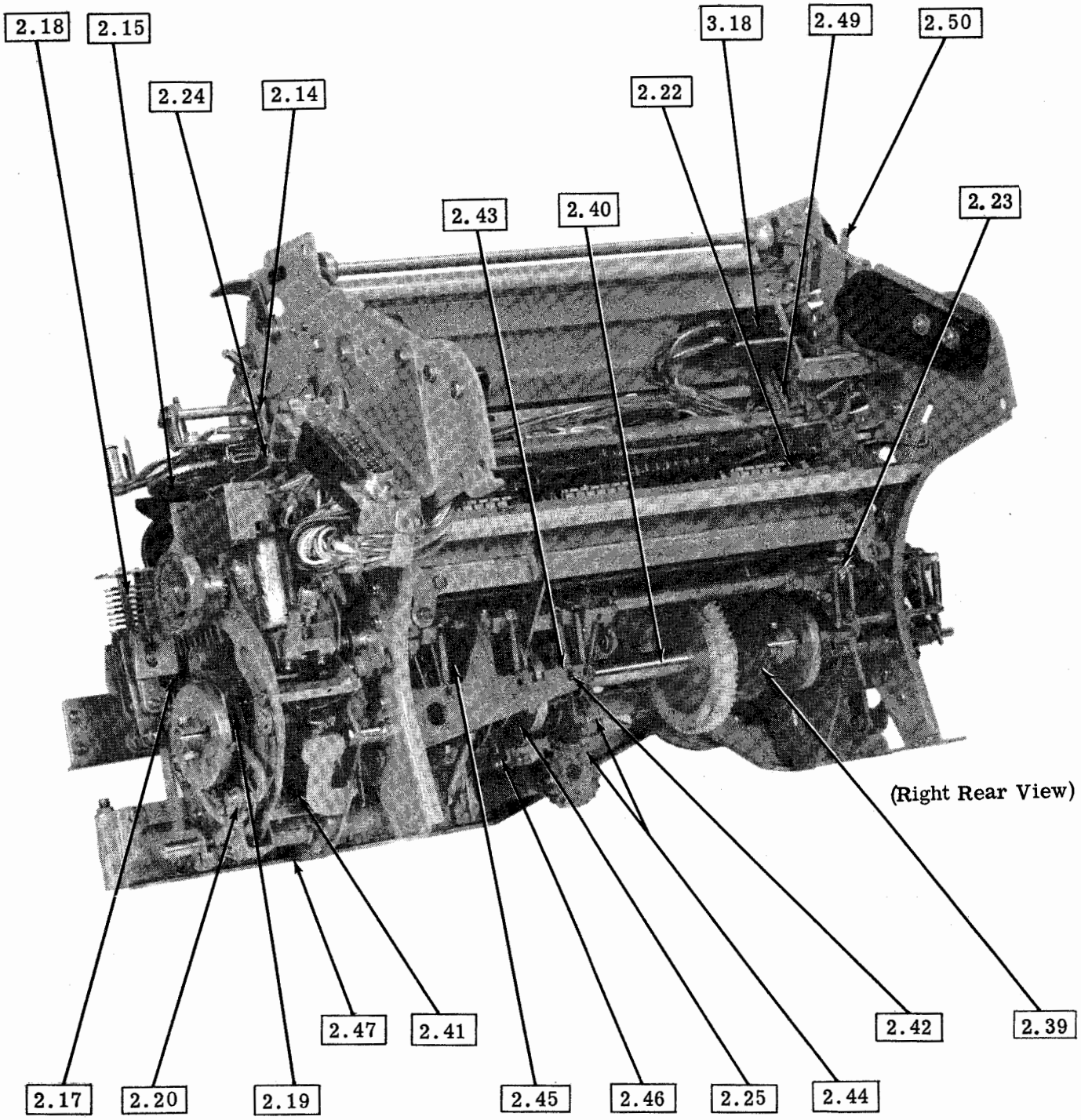
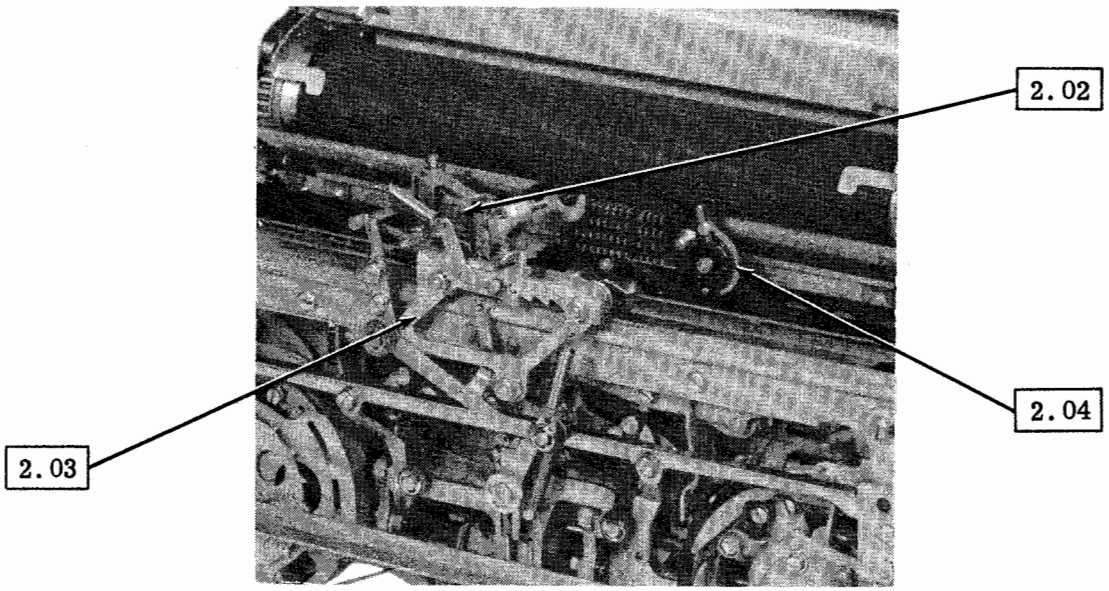


Figure 2 - 35 Typing Unit, Friction Feed

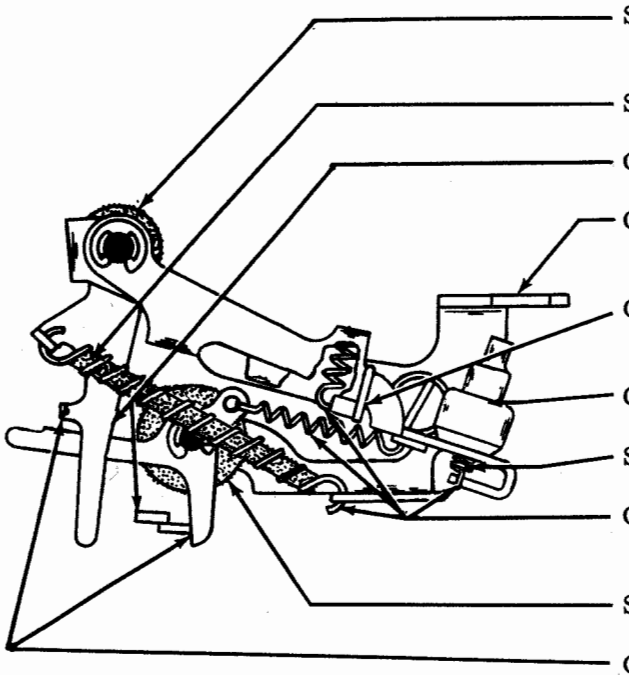
2. BASIC UNIT

2.01 Printing Area



(Front View)

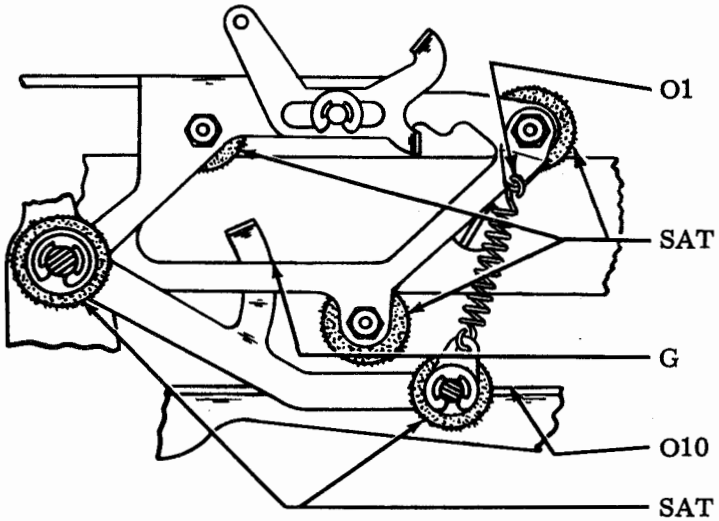
2.02 Printing Mechanism



SAT	Felt Washers (2 Washers)	Printing Hammer Operating Bail
SAT	Felt Wick	Spring Wick
G	Engaging Surface	Secondary Printing Arm
G	Stop	Print Hammer
G	Engaging Surface	Printing Hammer Stop
G	Engaging Surface	Printing Hammer
SAT	Felt Wick	Spring Wick
O1	Hooks (Each End) (4 Springs)	Springs
SAT	Felt Washer	Operating Bail Latch
O2	Engaging Surfaces (2 Places)	Operating Bail Latch

(Top View)

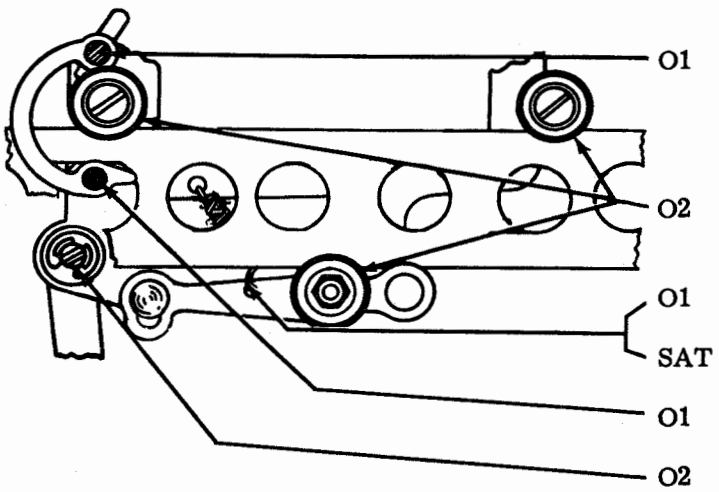
2.03 Printing Mechanism (continued)



O1	Hook (Each End)	Spring
SAT	Felt Washers (3 Washers)	Printing Carriage Rollers
G	Guiding Surface	Printing Arm Extension
O10	Tracking Surface	Printing Track
SAT	Felt Washers (2 Washers)	Printing Arm

(Front View)

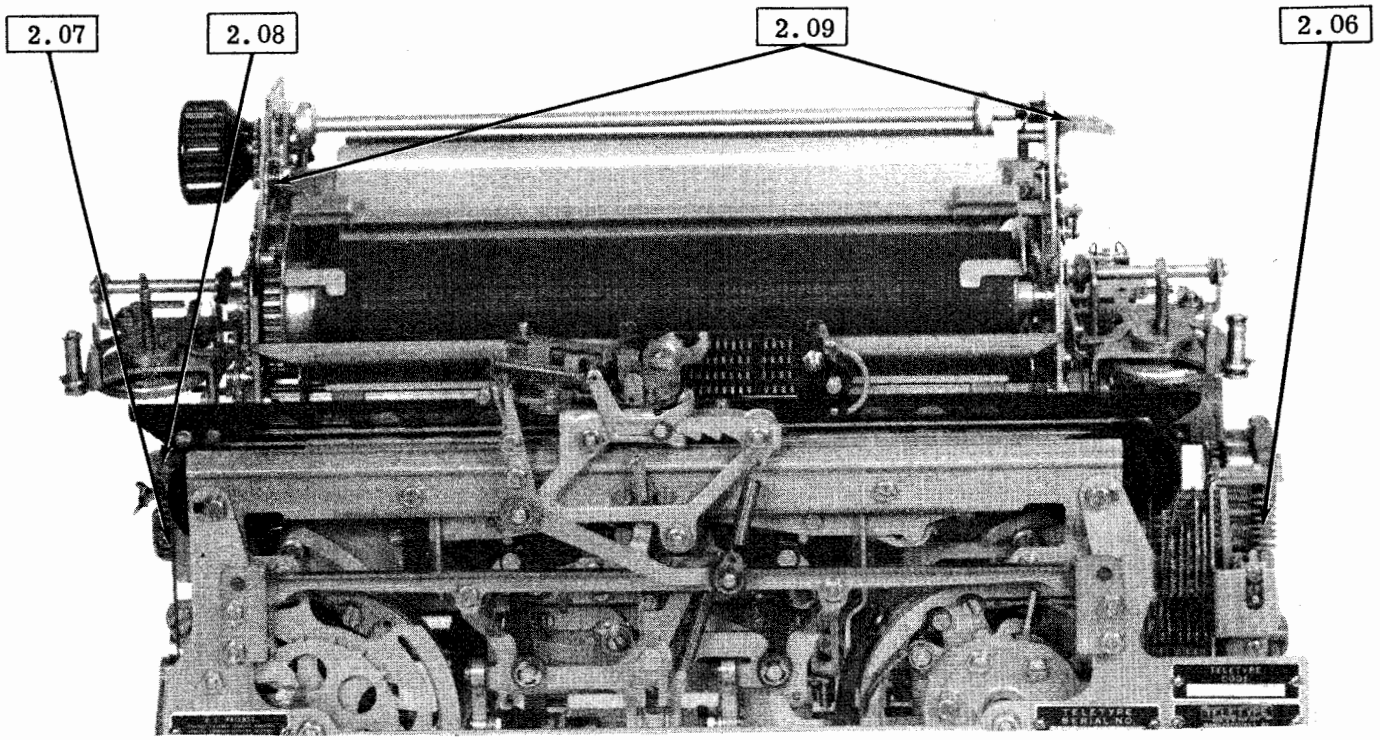
2.04 Typebox Carriage Mechanism



O1	Bearing Surface	Typebox Latch Toggle
O2	Bearings (3 Rollers)	Typebox Carriage Rollers
O1	Hook (Each End)	Spring
SAT	Felt Wick	Spring
O1	Bearing Surface	Typebox Latch
O2	Bearing Surface	Typebox Carriage Link

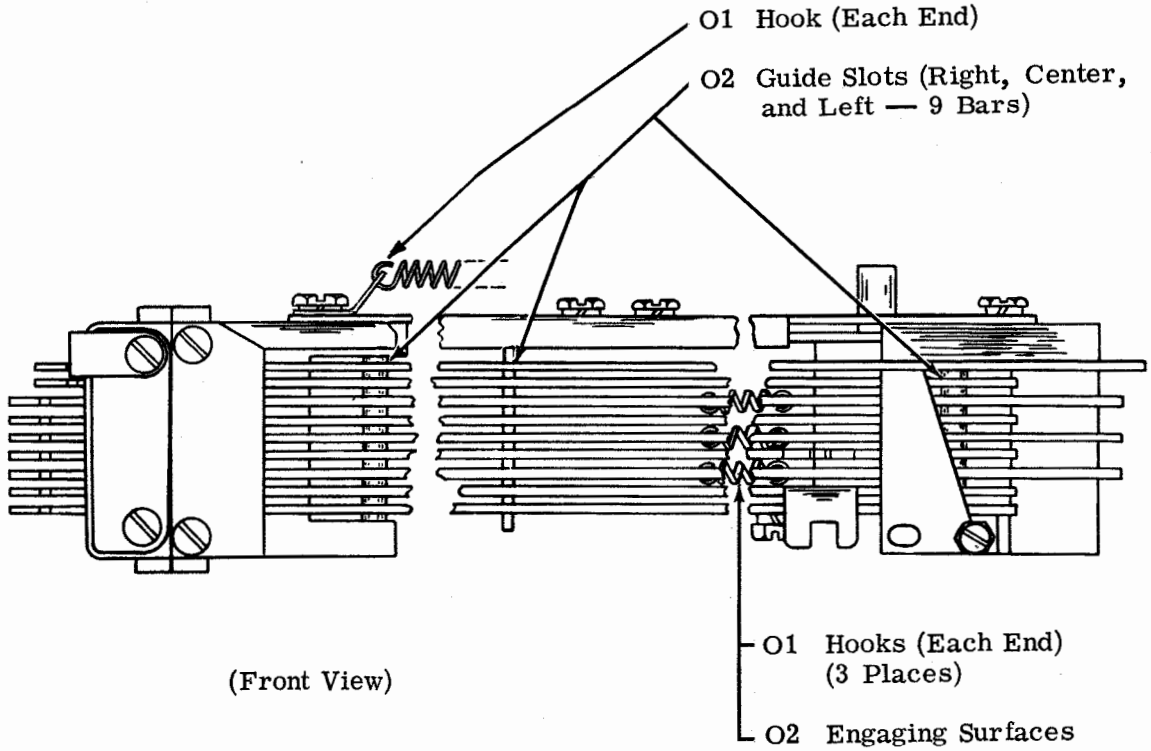
(Rear View)

2.05 Code and Print Areas



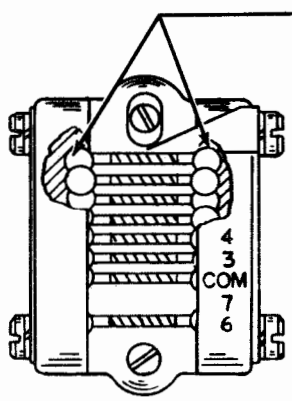
(Front View)

2.06 Codebar Mechanism



(Front View)

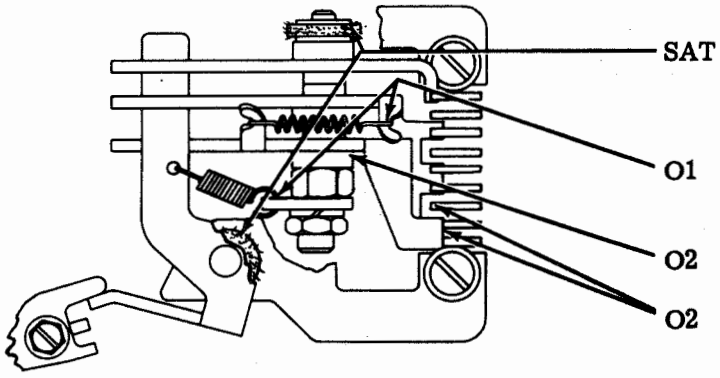
2.07 Codebar Detents



O2	Bearing Balls	Codebar Detent

(Left Side View)

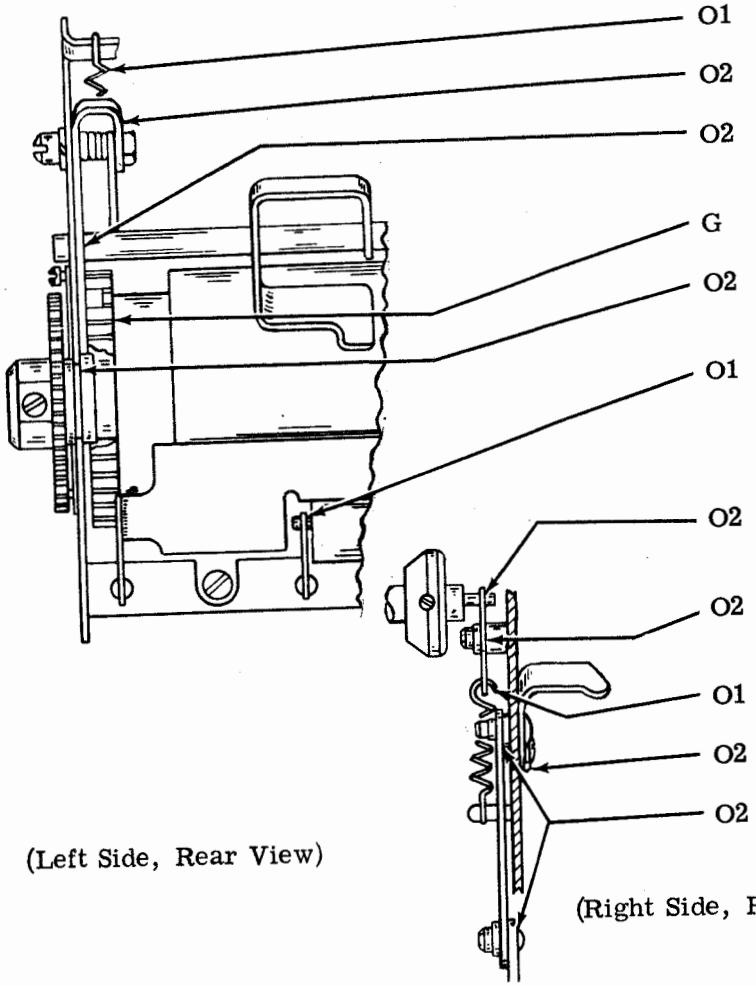
2.08 Print Suppression Mechanism



SAT	Felt Washers (3 Washers)	Eccentric Post and Blocking Bail Blade
O1	Hooks (Both Ends) (2 Springs)	Springs
O2	Bearing Surface	Eccentric Post
O2	Engaging Surfaces (4 Places)	Blocking Levers

(Left Side View)

2.09 Paper Feed Mechanism (Friction Feed)

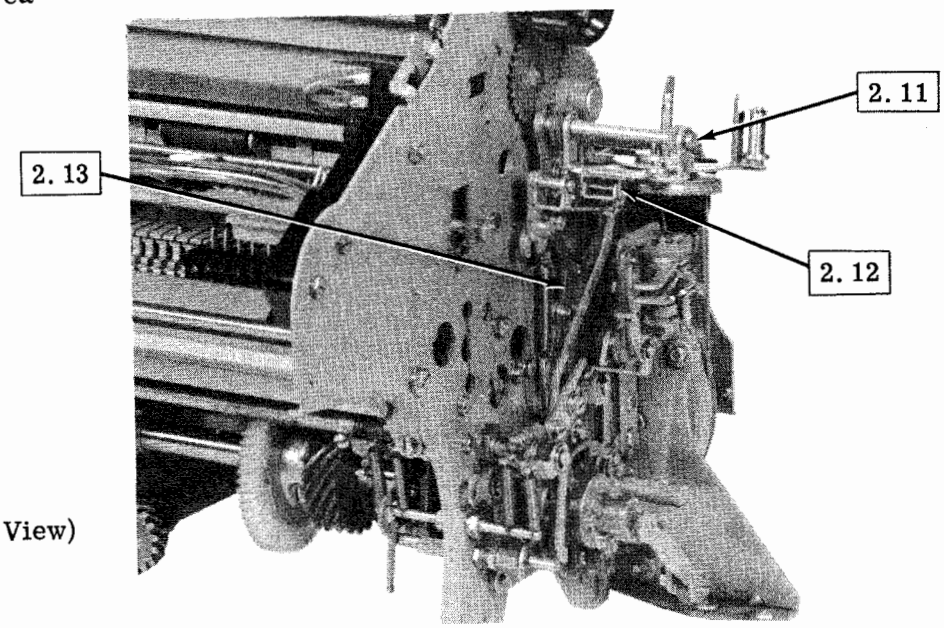


O1	Hooks (Each End)	Spring
O2	Bearing Surface	Platen Detent Bail
O2	Bearing Surface (Each End)	Paper Finger Shaft
G	Teeth (2 Gears)	Platen Gears
O2	Bearings (Each End)	Platen Shaft
O1	Bearing Surfaces (Each End) (6 Rollers)	Paper Pressure Roller Shafts (Wipe Off Excess Oil)
O2	Bearing Surfaces (Each End)	Paper Straightener Shaft
O2	Bearing Surfaces (Right and Left)	Paper Straightener Levers
O1	Hooks (Each End)	Spring
O2	Bearing Surface	Release Lever
O2	Bearing Surfaces (Each End)	Release Lever Link

(Left Side, Rear View)

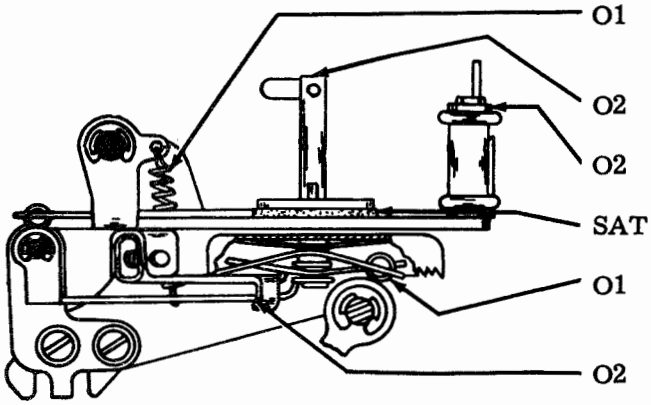
(Right Side, Rear View)

2.10 Ribbon Area



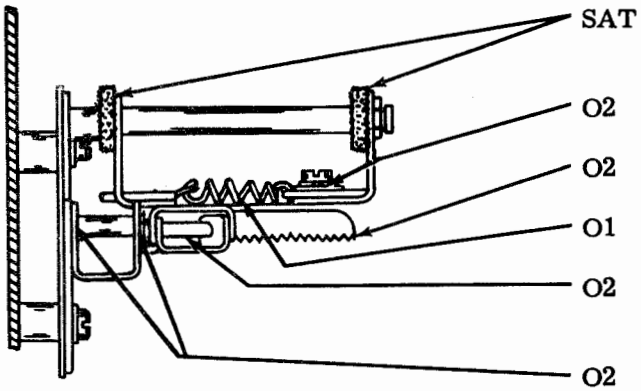
(Left Rear View)

2.11 Ribbon Feed Mechanism



(Left Side View)

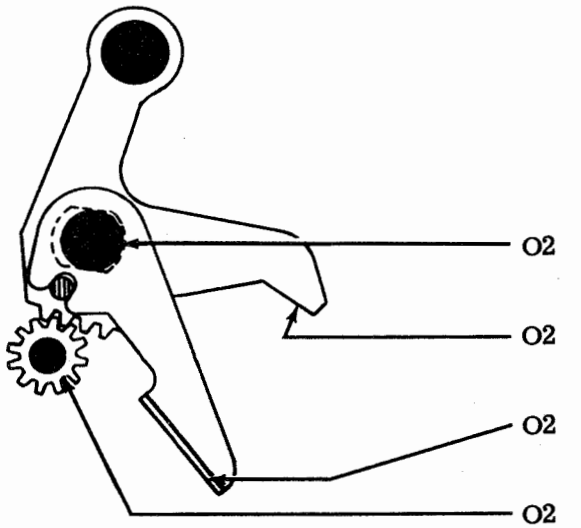
O1	Hooks (Each End)	Ribbon Feed Lever Spring
O2	Bearing Surface	Ribbon Spool Toggle
O2	Bearing Surface	Ribbon Roller Shaft
SAT	Felt Washer	Ribbon Spool Shaft
O1	Hooks (Each End)	Ribbon Ratchet Wheel Spring
O2	Engaging Surface	Ribbon Detent Lever



(Rear View)

SAT	Felt Washers (2 Washers)	Ribbon Feed Lever Bail
O2	Bearing Surface	Ribbon Reverse Lever
O2	Teeth	Ribbon Ratchet Wheel
O1	Hooks (Each End)	Spring
O2	Engaging Surface	Ribbon Detent Lever Shaft
O2	Bearing Surfaces	Ratchet Feed Lever Shaft

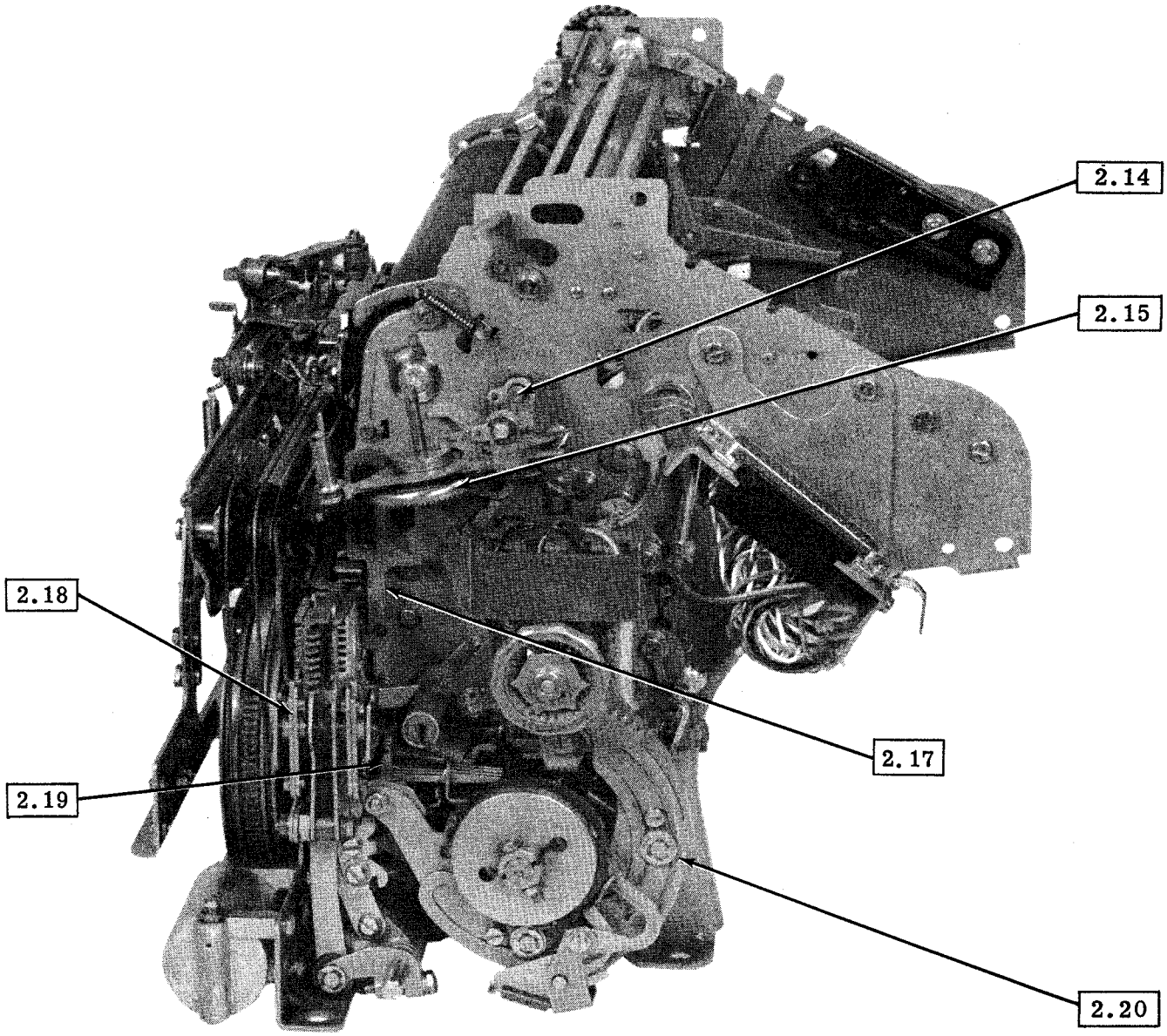
2.12 Ribbon Feed Mechanism (continued)



(Left Side View)

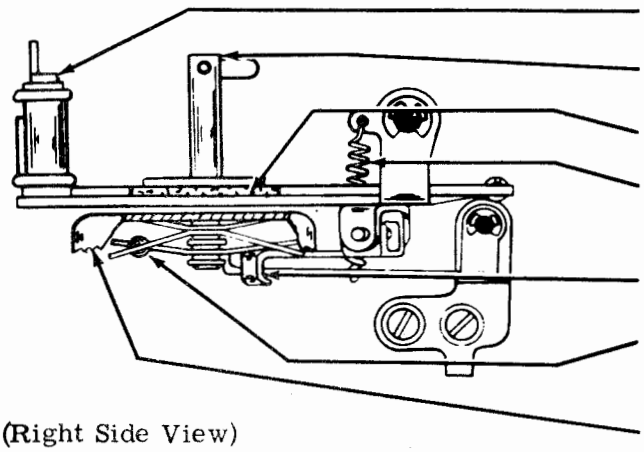
O2	Bearing Surface	Ribbon Reverse Lever
O2	Engaging Surface	Ribbon Reverse Lever
O2	Engaging Surface	Ribbon Reverse Lever
O2	Teeth	Ribbon Reverse Spur Gear

2.13 Positioning Area



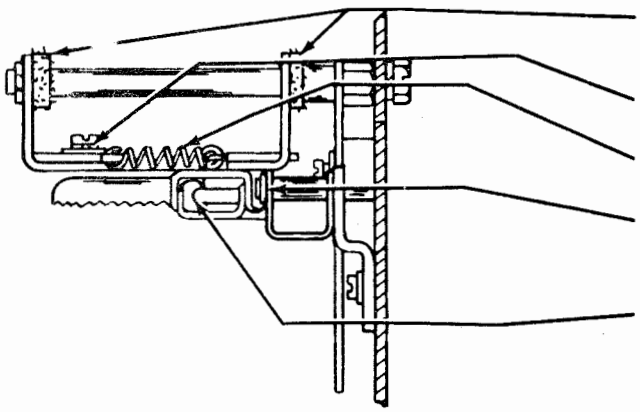
(Right Side View)

2.14 Ribbon Feed Mechanism (continued)



(Right Side View)

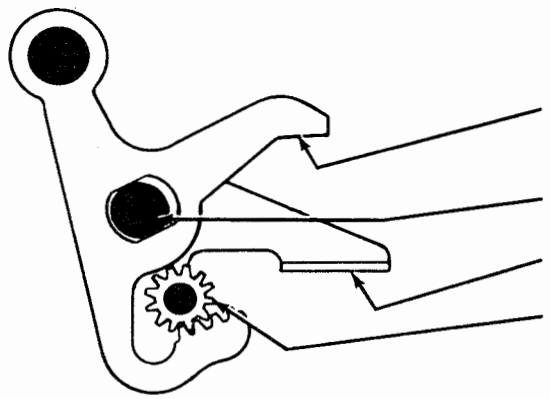
O2	Bearing Surface	Ribbon Roller Shaft
O2	Bearing Surface	Ribbon Spool Toggle
SAT	Felt Washer	Ribbon Spool Shaft
O1	Hooks (Each End)	Ribbon Feed Lever Spring
O2	Engaging Surface	Ribbon Detent Lever
O1	Hooks (Each End)	Ribbon Ratchet Wheel Spring
O2	Teeth	Ribbon Ratchet Wheel



(Rear View)

SAT	Felt Washers (2 Washers)	Ribbon Feed Lever Bail
O2	Bearing Surface	Ribbon Reverse Lever
O1	Hooks (Each End)	Spring
O2	Bearing Surfaces	Ratchet Feed Lever Shaft
O2	Bearing Surface (2 Places)	Ribbon Detent Lever Shaft

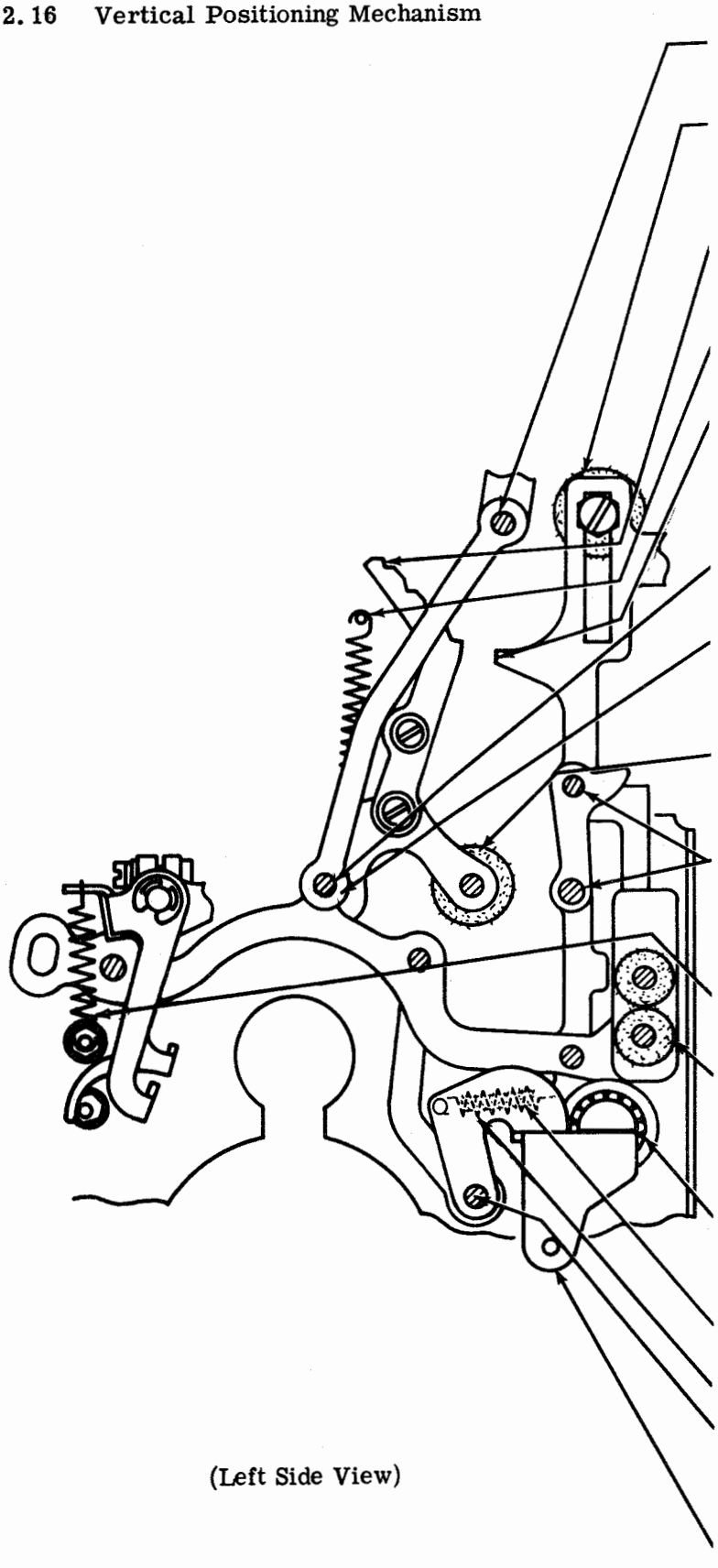
.15 Ribbon Feed Mechanism (continued)



(Left Side View)

O2	Engaging Surface	Ribbon Reverse Lever
O2	Bearing Surface	Ribbon Reverse Lever
O2	Engaging Surface	Ribbon Reverse Lever
G	Teeth	Ribbon Reverse Spur Gear

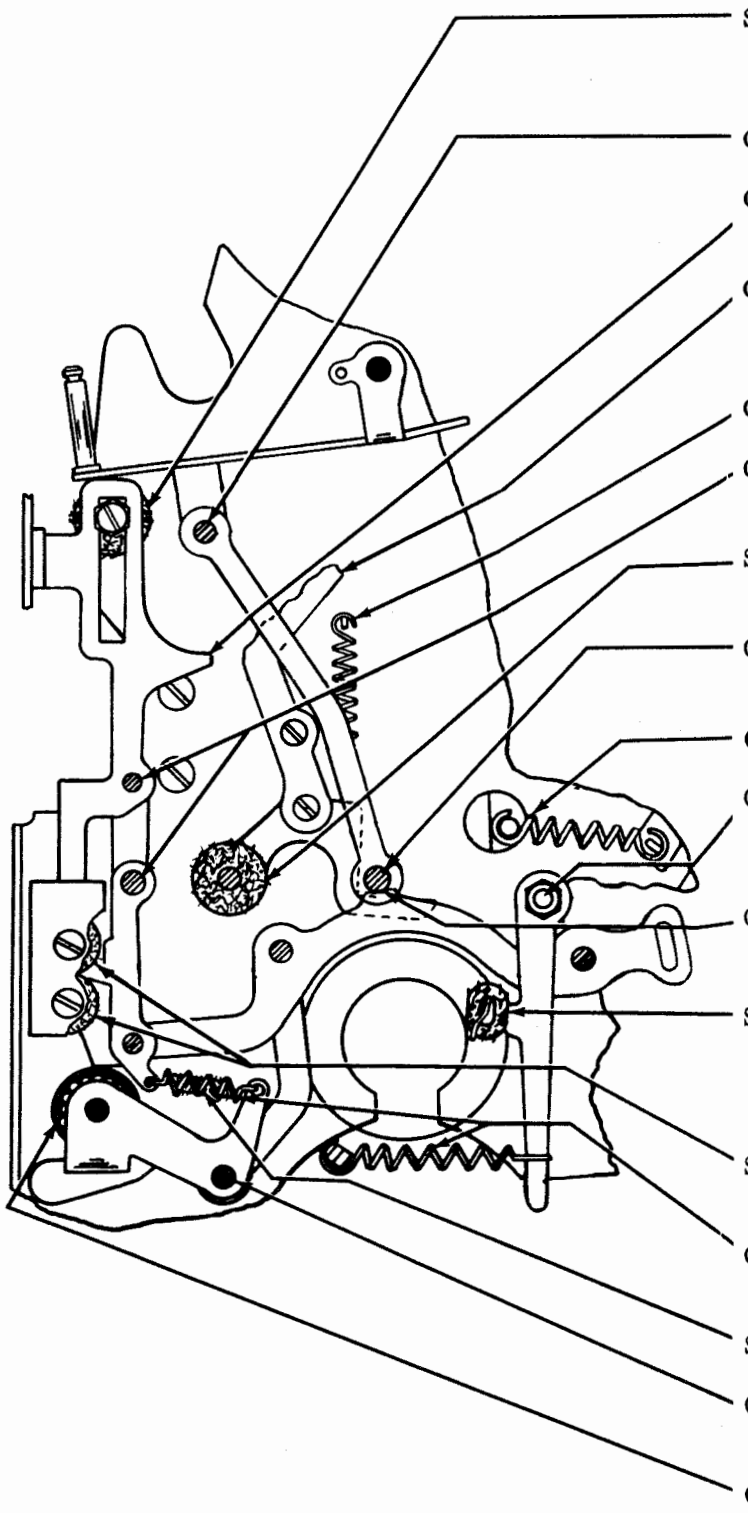
2.16 Vertical Positioning Mechanism



(Left Side View)

O2	Bearing Surface	Ribbon Drive Link
SAT	Felt Washer	Vertical Positioning Lever
O1	Engaging Surfaces (4 Places)	Vertical Positioning Locklever
O1	Hooks (Each End)	Spring
O2	Engaging Surface	Vertical Positioning Lever
O2	Bearing Surface	Ribbon Drive Surface
O2	Camming Surface	Main Side Lever Follower Arm
SAT	Felt Washers (2 Washers)	Main Side Lever Follower Arm
O2	Bearing Surface (2 Places)	Vertical Positioning Lever
O1	Hooks (Each End)	Spring
SAT	Felt Washers (2 Washers)	Vertical Positioning Lever
O2	Ball Bearing	Main Rocker Shaft
SAT	Felt Wick	Spring Wick
O1	Hooks (Each End)	Spring
O2	Bearing Surface	Rocker Shaft Bracket
SAT	Felt Washer (Not Illustrated)	Rocker Shaft Bracket

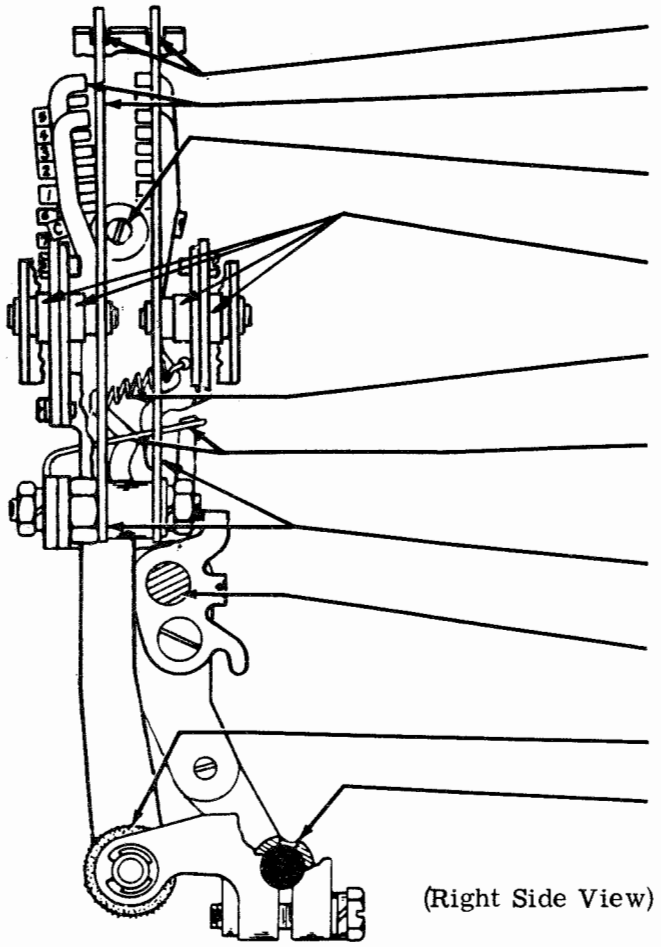
2.17 Vertical Positioning Mechanism (continued)



SAT	Felt Washer	Vertical Positioning Lever
O2	Bearing Surface	Ribbon Drive Link
O2	Engaging Surface	Vertical Positioning Lever
O1	Engaging Surface	Vertical Positioning Locklever
O1	Hooks (Each End)	Spring
O2	Bearing Surfaces (2 Places)	Vertical Positioning Lever
SAT	Felt Washer (2 Washers)	Main Side Lever Follower Arm
O2	Bearing Surface	Ribbon Drive Link
O1	Hooks (Each End)	Spring
O2	Bearing Surface	Codebar Clutch Trip Shaft Operating Lever
O2	Engaging Surface	Main Side Lever Follower Arm
SAT	Felt Washer	Codebar Clutch Trip Shaft Operating Lever Extension
SAT	Felt Washers (2 Washers)	Vertical Positioning Lever
O1	Hooks (Each End) (2 Springs)	Spring
SAT	Felt Wick	Spring Wick
O2	Bearing Surface	Rocker Shaft Bracket
O2	Ball Bearing	Main Rocker Shaft

(Right Side View)

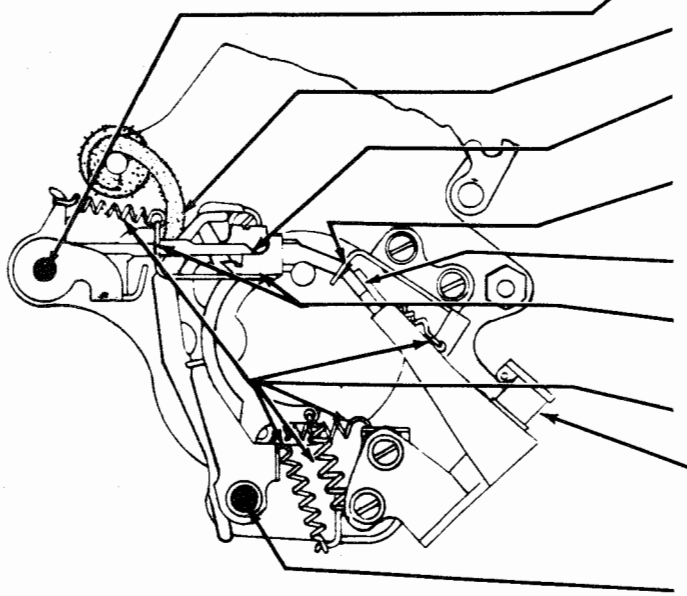
2.18 Codebar Mechanism (continued)



(Right Side View)

O2	Guide Slots	Shift Levers
O2	Engaging Surface	Shift and Transfer Levers
O2	Bearing Guide Slots (8 Slots)	Transfer Lever Guide Bearing
O2	Roller Bearings - (4 Rollers)	Shift Lever Link Rollers
O1	Hooks (Each End) (7 Springs)	Springs
O2	Guide Slots (7 Slots)	Intermediate Arms and Transfer Levers
O2	Bearing Surfaces (2 Places)	Shift Levers
O2	Bearing Guide Slots (7 Slots)	Intermediate Arm Guide Bearing
SAT	Felt Washer	Shift Lever Link
O3	Oil Hole	Shift Lever Drive Arm Shaft

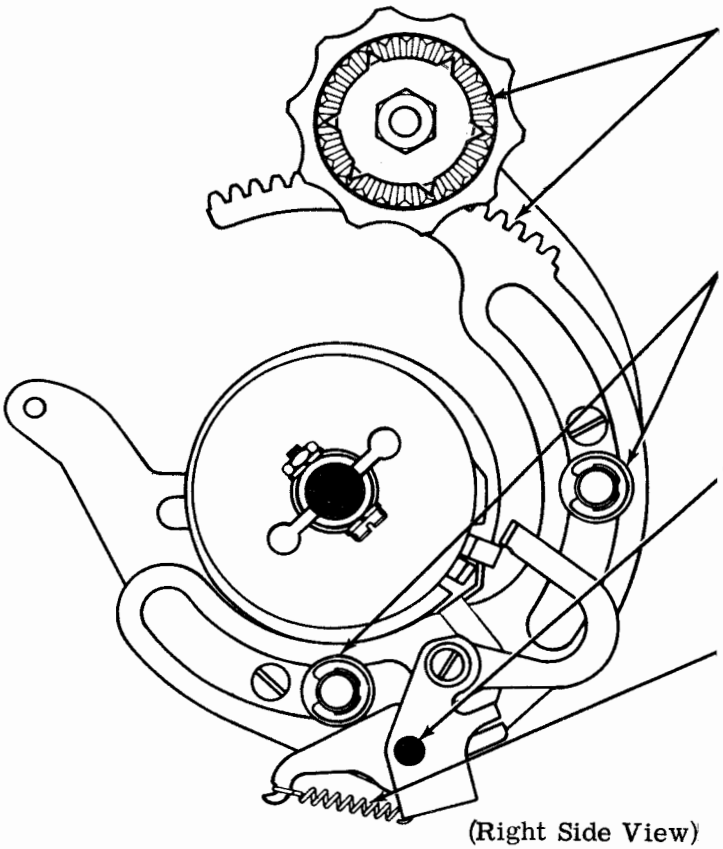
2.19 Selector Mechanism



(Right Side View)

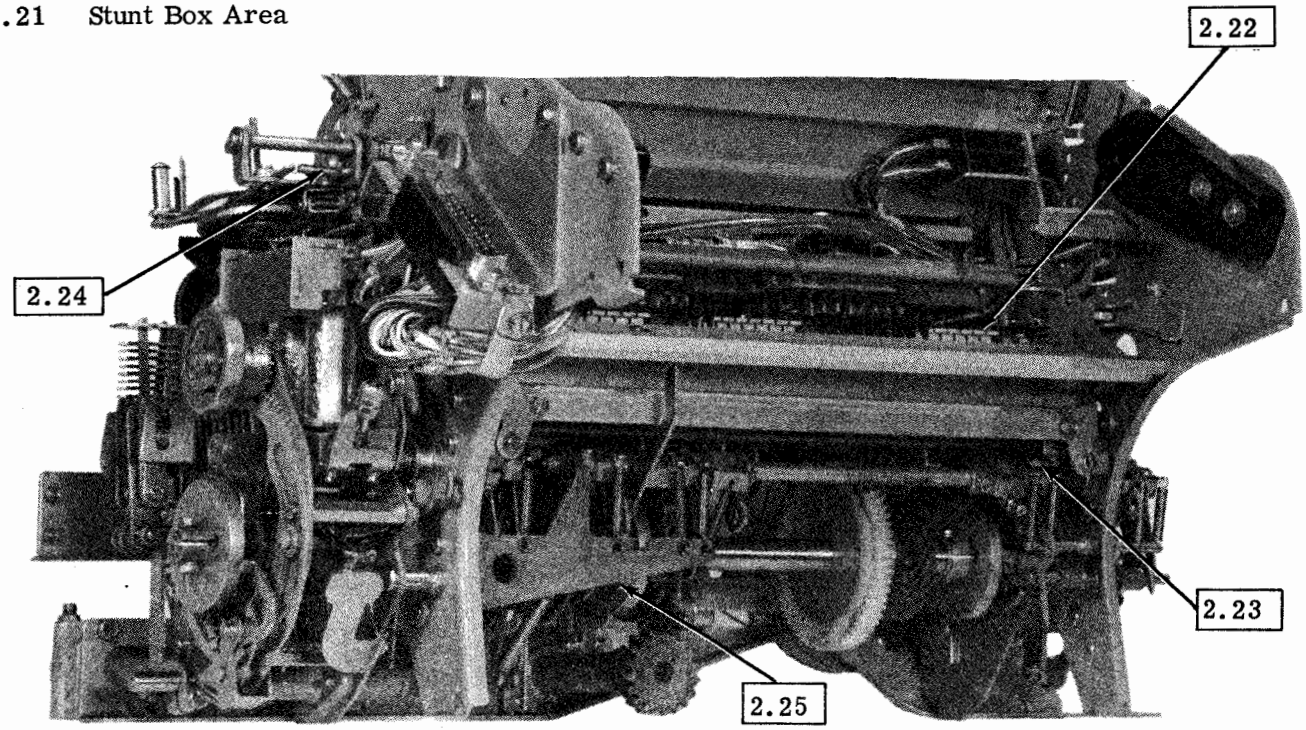
O2	Bearing Guide Slots (7 Slots)	Pushlever Guide Bearing
SAT	Felt Wick	Selector Wick
O2	Engaging Surfaces (7 Levers)	Pushlevers
O2	Guide Slots	Marking Locklever
O2	Wick	Lubricator Wick
O2	Guide Slots	Selector and Pushlevers
O1	Hooks (Each End) (14 Springs)	Springs
	Fill Cup (Avoid Air Lock)	Lubricator Reservoir
O2	Bearing Guide Slots (9 Slots)	Selector Lever Guide Bearing

2.20 Selector Mechanism (continued)



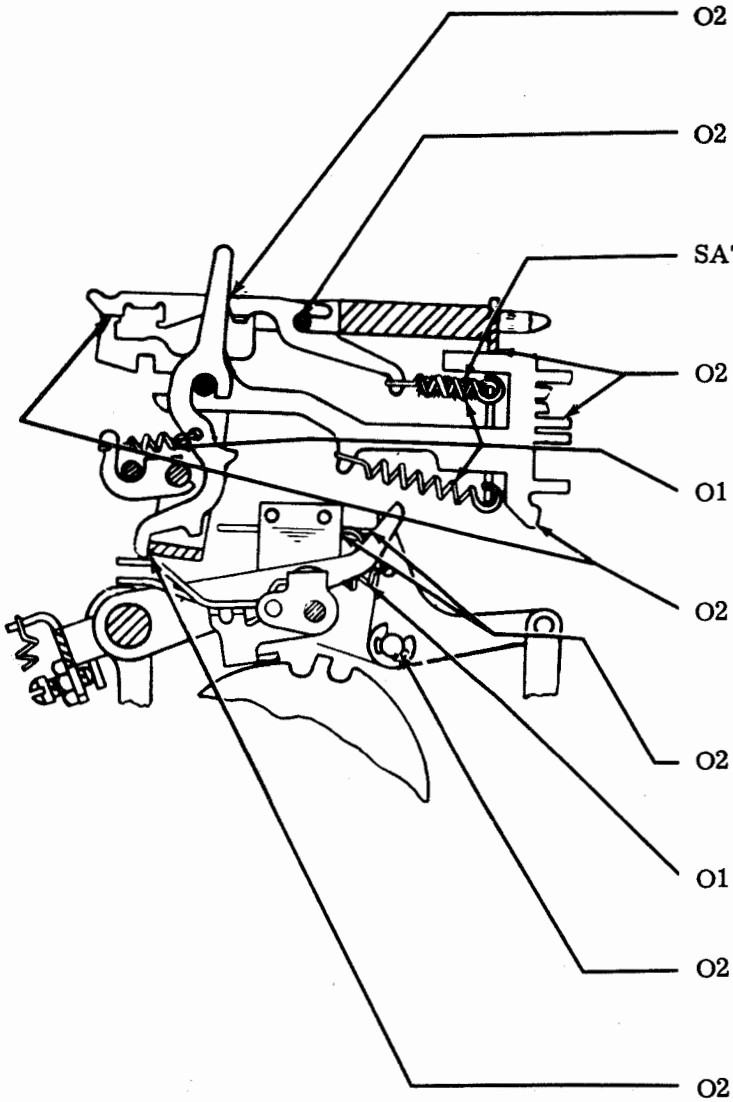
(Right Side View)

2.21 Stunt Box Area



(Rear View)

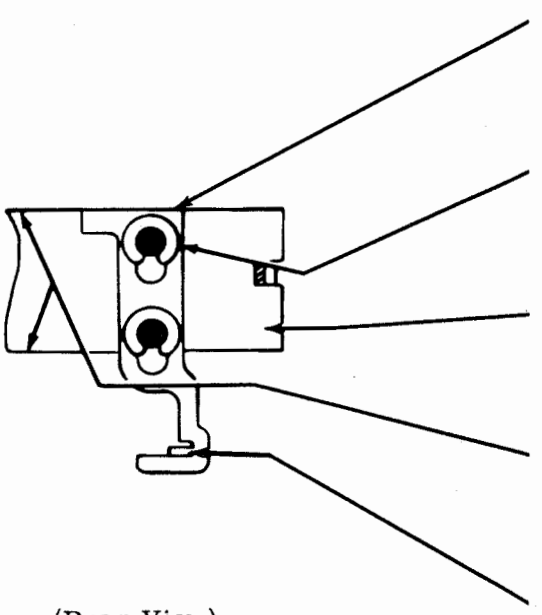
2.22 Stunt Box Mechanism



O2	Guide Slots (11 Levers)	Function Levers
O2	Guide Slots (11 Pawls)	Function Pawls
SAT	Each Felt Wick	Function Pawl Springs
O2	Guide Slots (11 Levers)	Function Bars
O1	Hooks (Each End) (33 Springs)	Spring
O2	Engaging Surfaces (Front and Rear) (11 Bars)	Function Bars
O2	Guide and Engaging Surfaces	Line Feed Slide Arm
O1	Hooks (Each End)	Spring
O2	Bearing Surface	Keyboard Lock-lever
O2	Engaging Surface (11 Levers)	Function Levers

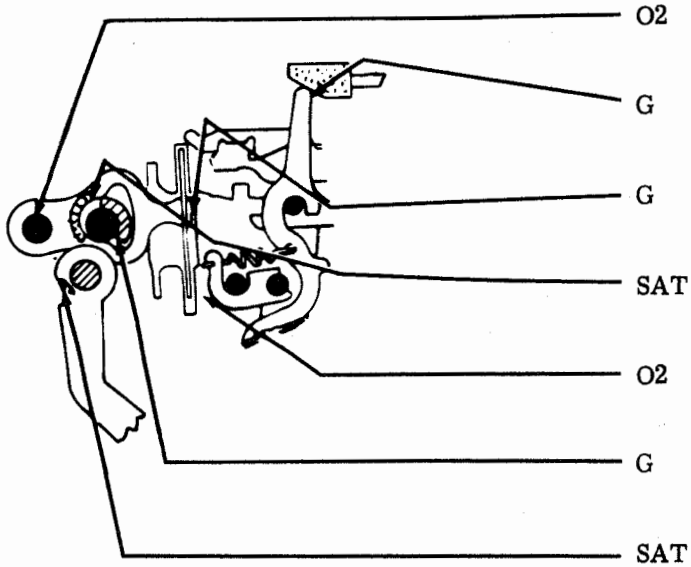
(Left Side View)

2.23 Stripper Blade Mechanism



(Rear View)

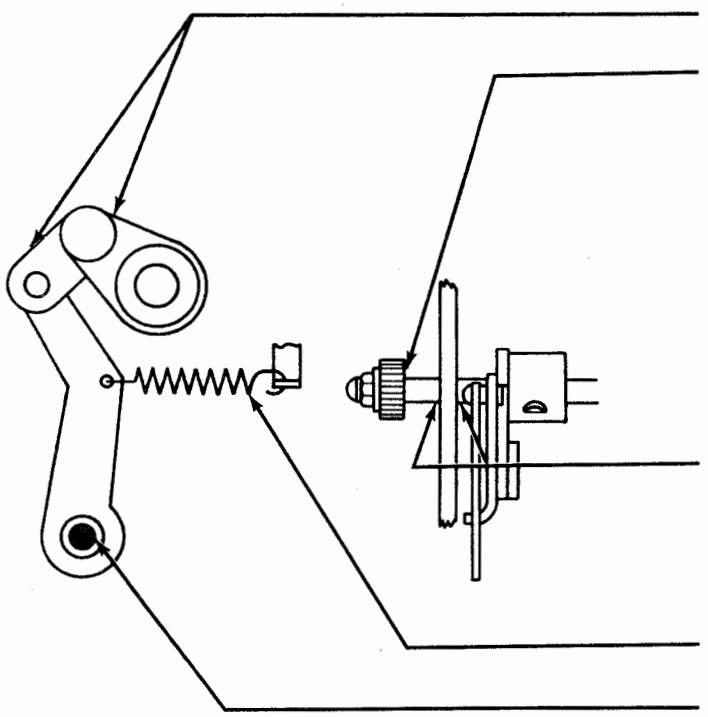
O2	Engaging Surface	Line Feed Stripper Slide
O2	Guide Surfaces (2 Places)	Stripper Slide
O2	Guide Surfaces (Each End)	Stripper Blade
G	Engaging Surfaces (2 Places)	Stripper Blade
O2	Engaging Surface	Stripper Bail



(Left Side View)

O2	Bearing Surfaces (2 Bearings)	Cam Arms
G	Engaging Surfaces (Each Arm)	Contact Arm
G	Engaging Surfaces (2 Arms)	Cam Arms
SAT	Felt Washers (4 Washers)	Driving Cam
O2	Guide Slots (Each End)	Stripper Blade
G	Camming Surfaces (2 Cams)	Driving Cam
SAT	Felt Washer	Stripper Blade Driving Arm

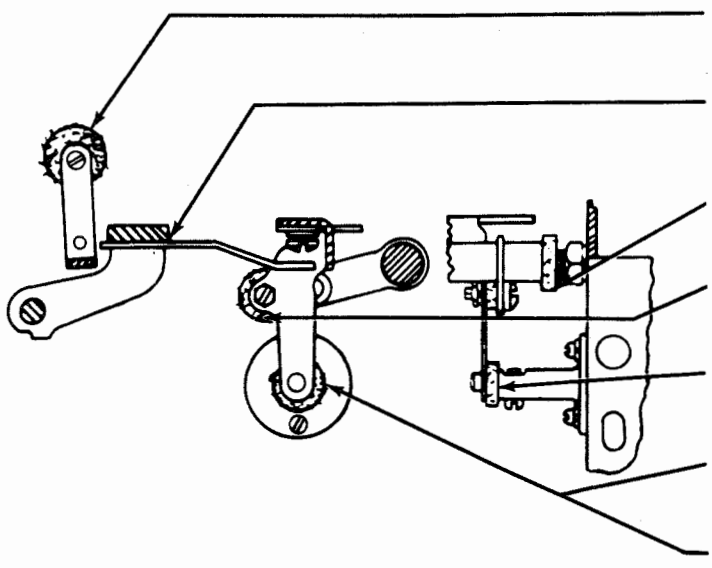
2.24 Ribbon Reverse Mechanism



O2	Bearing Surface	Detent Link
G	Teeth	Ribbon Reverse Spur Gear
O2	Bearing Surface (Right and Left)	Ribbon Reverse Shaft
O1	Hooks (Each End)	Spring
O2	Bearing Surface	Ribbon Reverse Detent Lever

(Right Rear View)

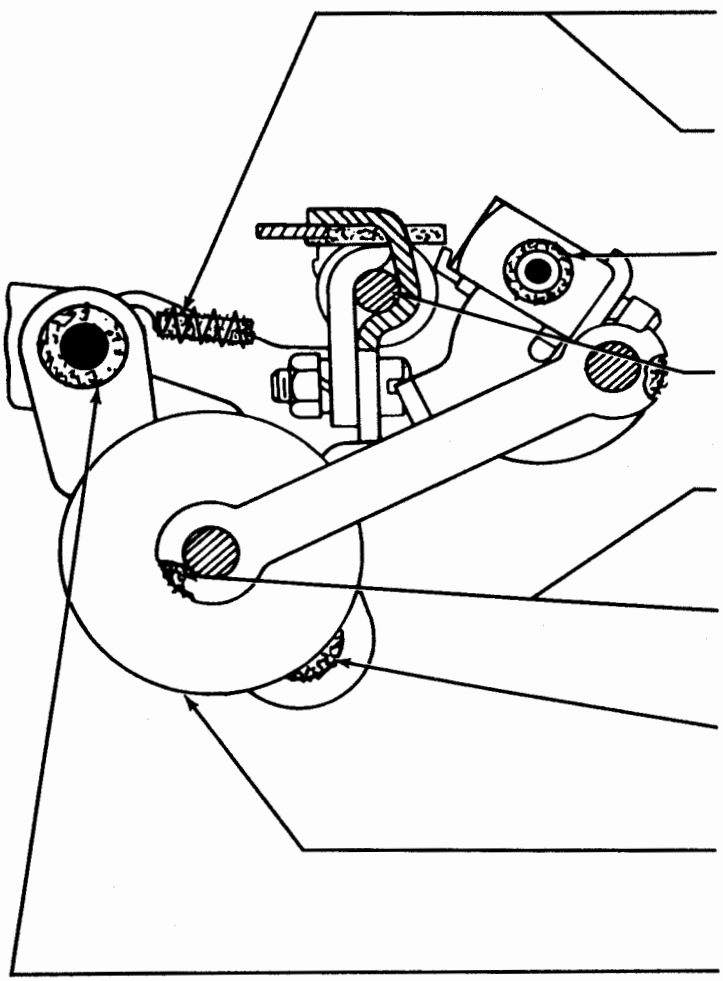
2.25 Function Rocker Shaft Mechanism



SAT	Felt Washer	Space Suppression Bail
O2	Guide Surface	Carriage Return Slide Arm
SAT	Felt Washers (2 Washers)	Function Rocker Shaft
SAT	Felt Washers (2 Washers)	Function Bail Toggle Link
SAT	Felt Washers (2 Washers)	Function Bail
SAT	Felt Washers	Function Cam Roller
O3	Roller Bearing (Opposite Side)	Function Cam Roller

(Left Rear View)

2.26 Function Reset Bail Mechanism

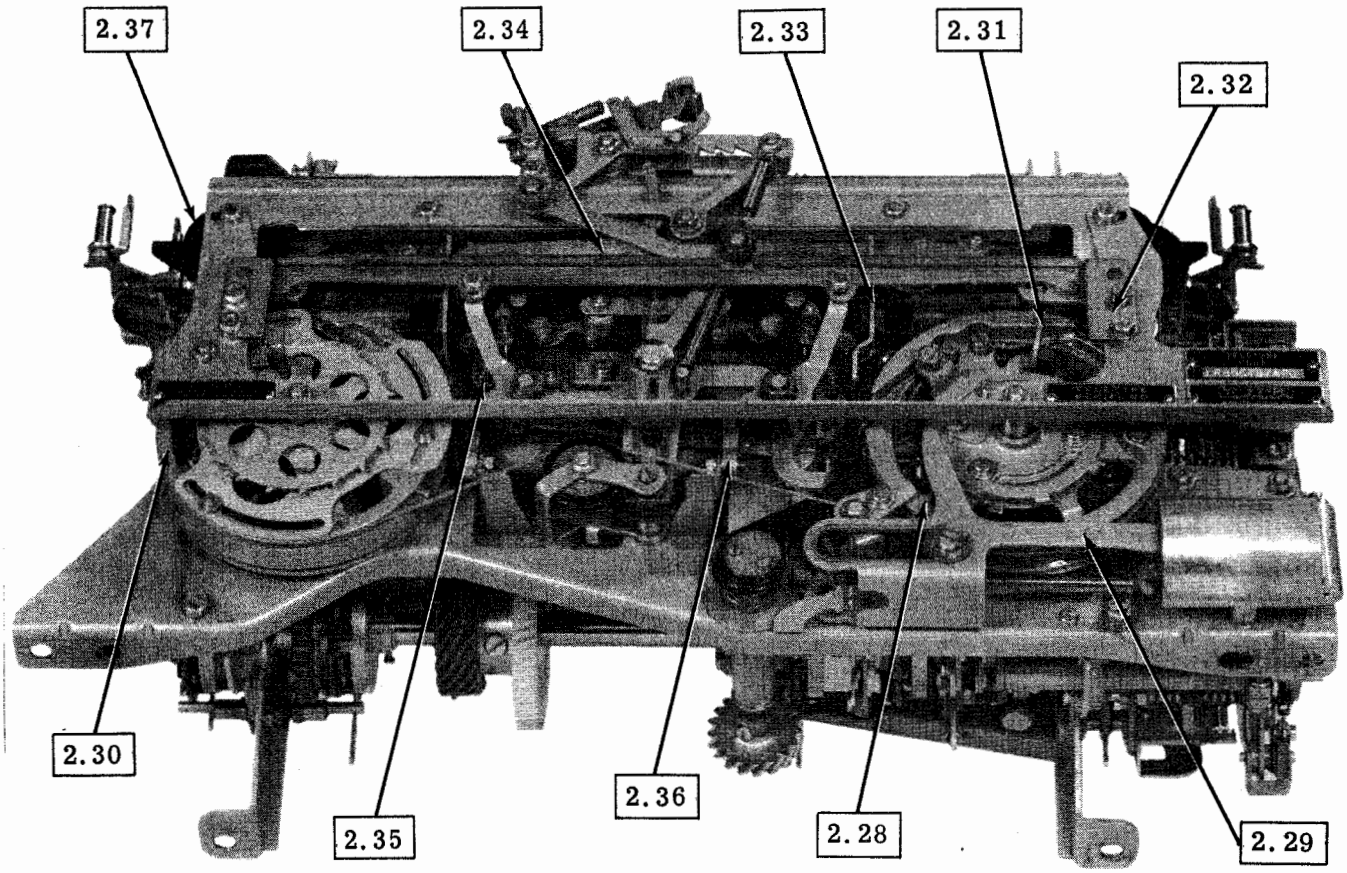


O1	Hooks (Each End) (2 Springs)	Springs
SAT	Felt Wicks (2 Springs)	Springs
SAT	Felt Washers (2 Bearings)	Cam Shaft
O2	Bearings (3 Rollers)	Function Bail Rollers
SAT	Felt Washer (Each End)	Drive Link
O3	Bearing Bushing (Each End)	Drive Link
SAT	Felt Washer (2 Pivots)	Function Bar Reset Bail
G	Engaging Surface	Function Cam Roller
SAT	Felt Washer	Cam Roller Bracket Link

(Left Side View)

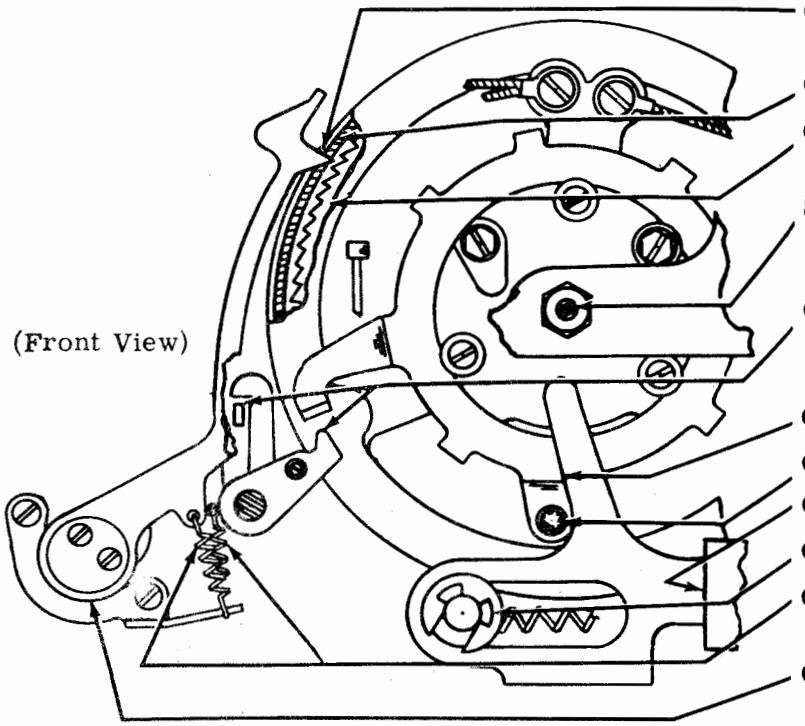
Note: See 2.38 for photograph of the location of this mechanism.

2.27 Spacing and Drive Area



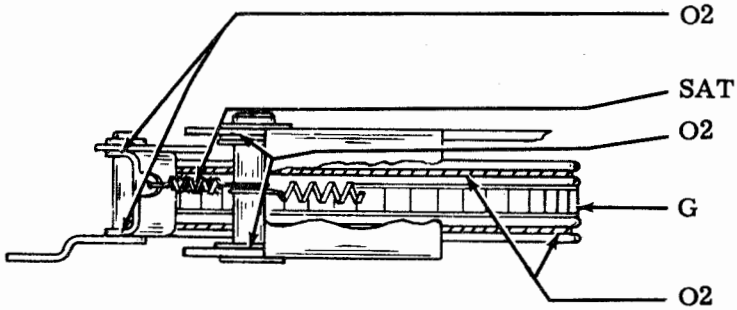
(Bottom Front View)

2.28 Spacing Drum Mechanism



(Front View)

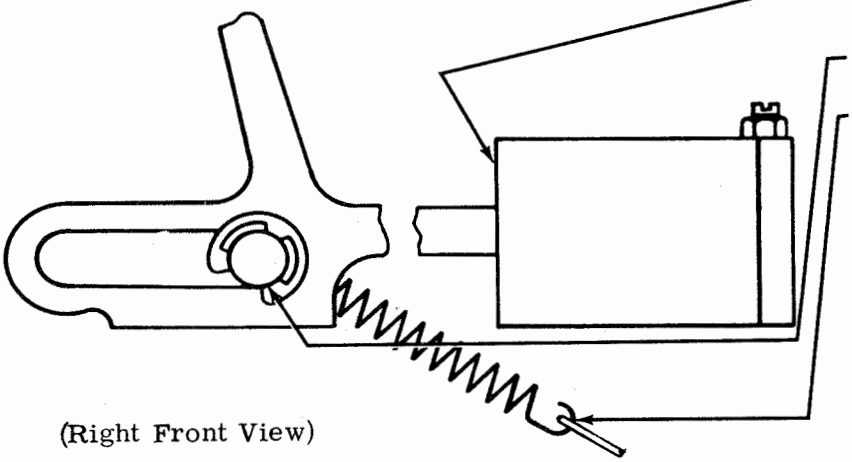
O2	Engaging Surface (2 Pawls)	Spacing Drum Feed Pawls
O2	Cable Grooves	Spacing Drum
G	Teeth	Spacing Drum Ratchet
SAT	Oilers (Inner and Outer Bearing Surface)	Spacing Drum Shaft
O2	Engaging Surfaces (2 Places)	Carriage Return Latch Bail
O2	Engaging Surface	Transfer Slide
O2	Bearing Surface	Stop Arm Roller
O2	Guide Surface	Dashpot
O2	Retainer	Dashpot
O1	Hook (Each End) (3 Springs)	Springs
O2	Bearing Surfaces (2 Eccentrics)	Spacing Drum Feed Pawls Eccentric



(Bottom View)

O2	Bearing Surfaces (2 Places)	Carriage Return Latch Bail
SAT	Felt Wick	Spring Wick
O2	Roller Bearings (2 Rollers)	Transfer Slide Rollers
G	Teeth	Spacing Drum Ratchet Wheel
O2	Cable Grooves (2 Places)	Spacing Drum

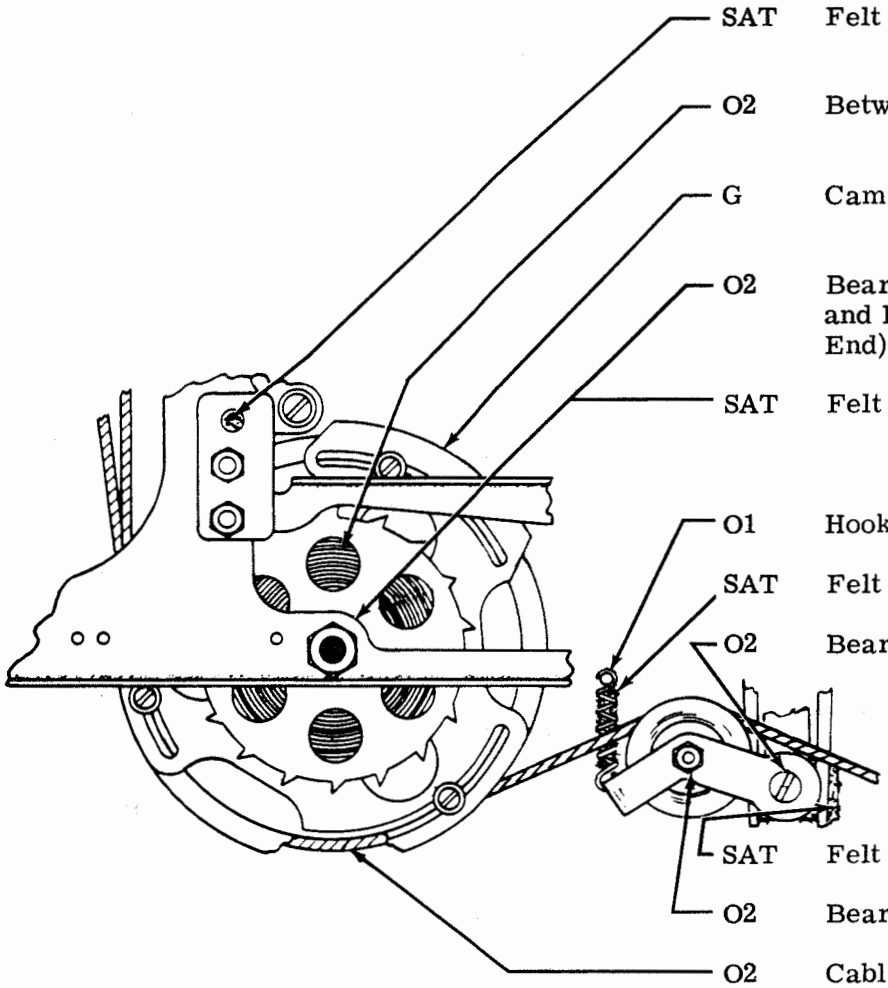
2.29 Dashpot Mechanism



(Right Front View)

O1	Cups (Outer Periphery)	Dashpot
O2	Bearing Surface	Transfer Slide
O1	Hooks (Each End)	Spring

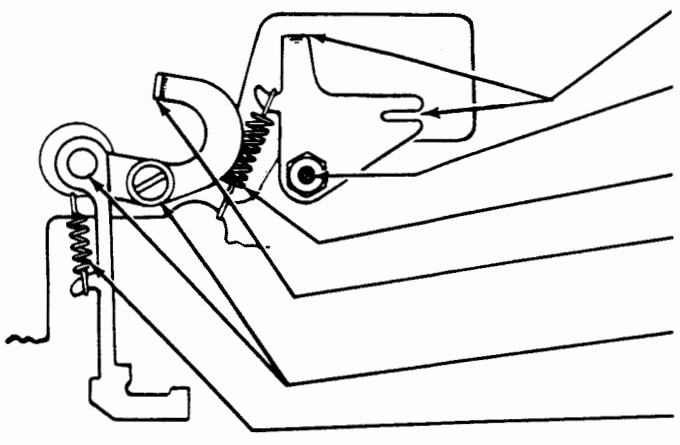
2.30 Carriage Return Mechanism



SAT	Felt Oiler	Printing Track Guide
O2	Between Layers	Carriage Return Spring
G	Cam Disc Surface	Margin Indicator Cam Disc
O2	Bearing (Outer and Inner End)	Carriage Return Spring Drum Shaft
SAT	Felt Washer	Carriage Return Spring Drum Shaft
O1	Hooks (Each End)	Spring
SAT	Felt Wick	Spring Wick
O2	Bearing Surface	Tension Pulley Bail
SAT	Felt Oiler	Main Bail
O2	Bearing Surface	Pulley
O2	Cable Grooves (2 Places)	Carriage Return Spring Drum

(Left Front View)

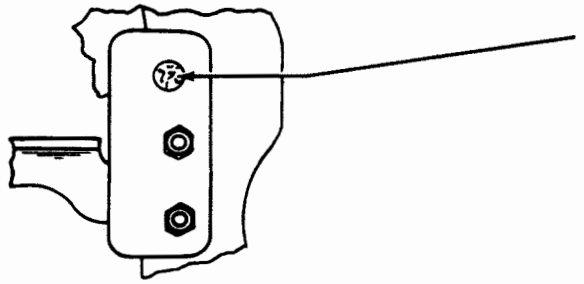
2.31 Spacing Drum Feed Mechanism



O2	Engaging Surfaces (2 Places)	Automatic Carriage Return Bellcrank
O2	Bearing Surface	Automatic Carriage Return Bellcrank
O1	Hooks (Each End)	Spring
O2	Engaging Surface	Spacing Drum Feed Pawl Release Link
O2	Bearing Surfaces (2 Places)	Spacing Drum Feed Pawl Release Link
O1	Hooks (Each End)	Spring

(Front View)

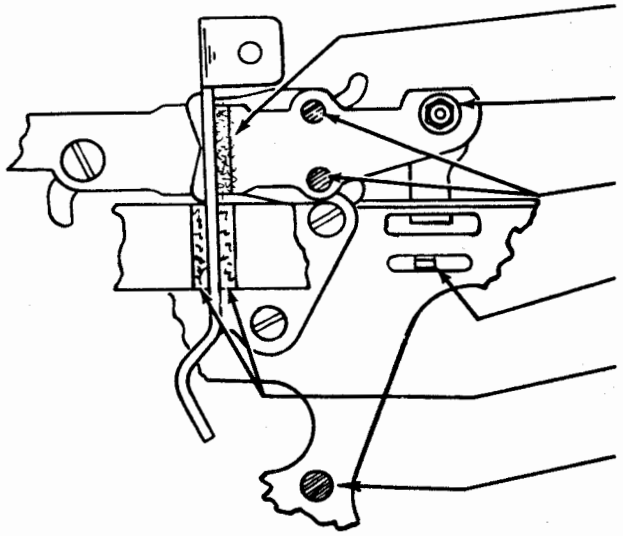
2.32 Track Guide Mechanism



SAT	Felt Oiler	Printing Track Guide

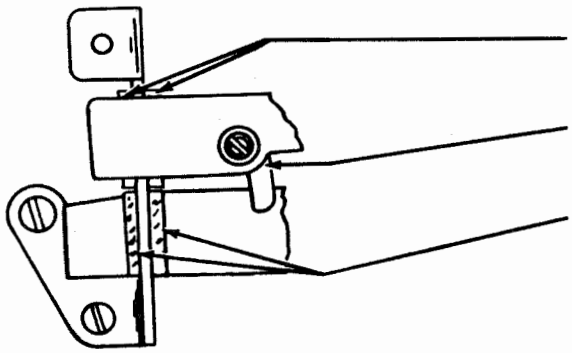
(Right Front View)

2.33 Horizontal Positioning Mechanism



SAT	Felt Washer	Horizontal Reversing Slide
O2	Engaging Surface	Horizontal Reversing Slide Shift Lever
O2	Detent (2 Detents)	Detent Bail
O2	Engaging Surface	Horizontal Reversing Slide Shift Lever
SAT	Felt Washers (2 Washers)	Oscillating Rail Shift Slide
O2	Bearing Surface	Horizontal Reversing Slide Shift Lever

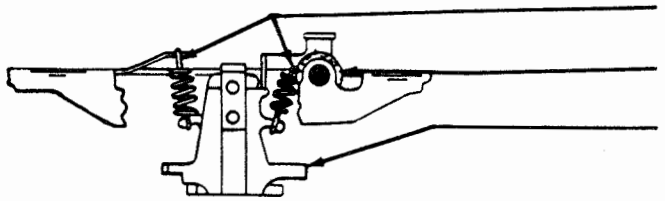
(Right Front View)



SAT	Felt Washers (2 Washers)	Horizontal Reversing Slide
O2	Engaging Surfaces (2 Places)	Horizontal Reversing Slide Bracket
SAT	Felt Washers (2 Washers)	Oscillating Rail Shift Slide

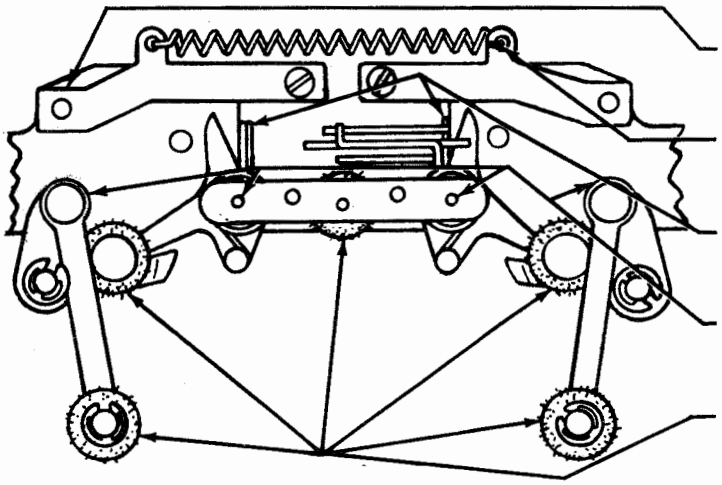
(Left Front View)

2.34 Horizontal Positioning Mechanism (continued)



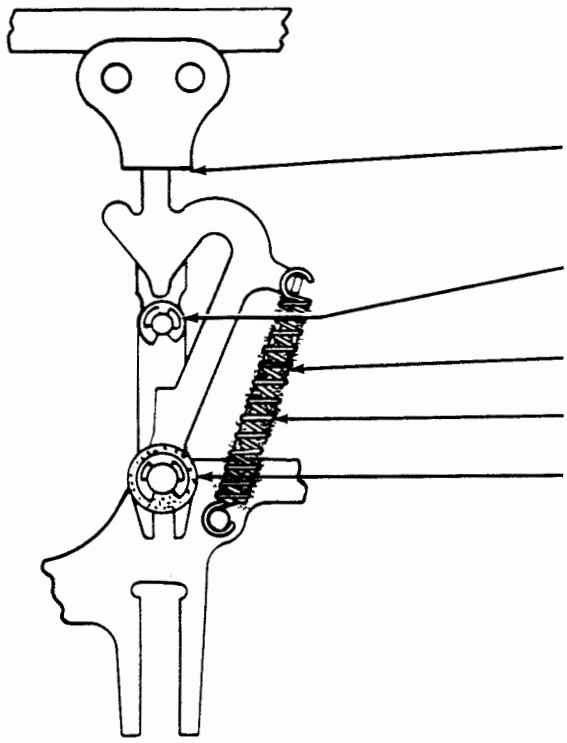
O1	Hooks (Each End)	Spring
SAT	Felt Washer	Codebar Bellcrank
O2	Engaging Surfaces (3 Slides)	Horizontal Motion Stop Slides

(Top View)



G	Engaging Surfaces (2 Slides)	Shift Shock Absorber Slides
O1	Hooks (Each End)	Shock Absorber Spring
O2	Engaging Surfaces (2 Slides)	Decelerating Slides
O1	Bearing Surfaces (4 Places)	Shift Slide Driver Links
SAT	Felt Washers (5 Washers)	Shift Slide Drive Links

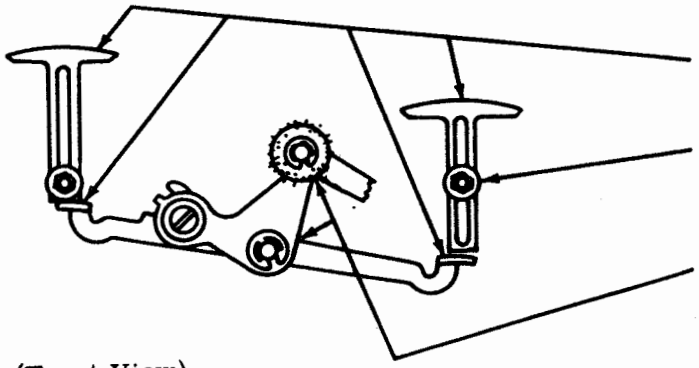
(Front View)



O2	Guiding Surface	Horizontal Positioning Locklever
O2	Bearing Surface	Horizontal Lock-lever Arm Roller
SAT	Felt Wick	Spring Wick
O1	Hooks (Each End)	Spring
SAT	Felt Washer	Horizontal Positioning Locklever

(Front View)

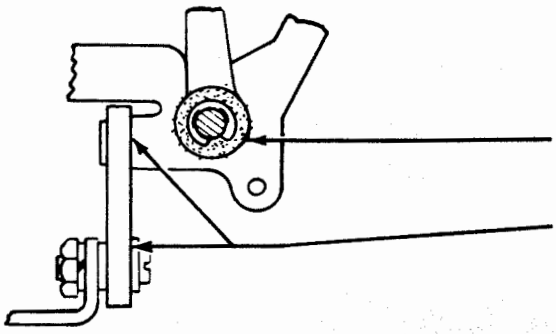
2.35 Horizontal Positioning Drive Mechanism



G	Engaging Surfaces (Tops and Bottoms)	Shift Breaker Slides
O2	Guiding Surfaces (2 Slides)	Shift Breaker Slides and Stop Posts
SAT	Felt Washers (2 Washers)	Shift Rocker Bar

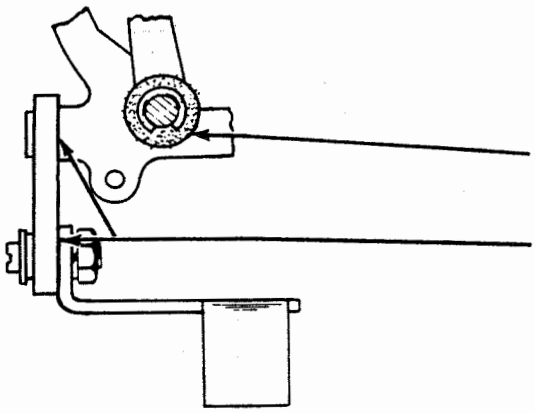
(Front View)

2.36 Shift Mechanism



SAT	Felt Washer	Shift Slide Drive Link
O2	Bearing Surfaces (2 Places)	Main Bail Link

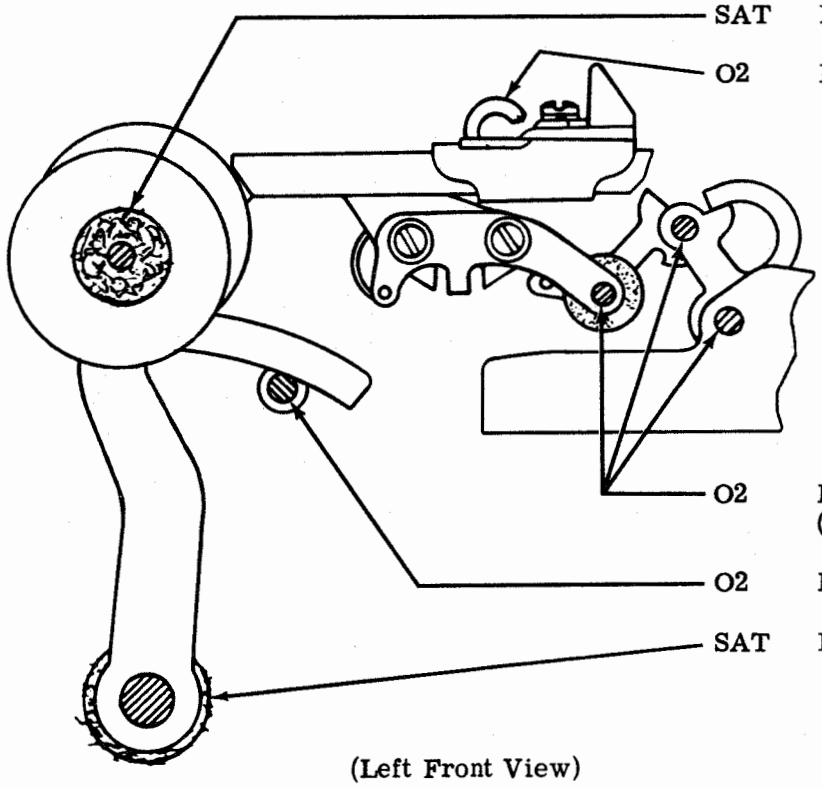
(Right Side View)



SAT	Felt Washer	Shift Slide Drive Link
O2	Bearing Surfaces (2 Places)	Main Bail Link

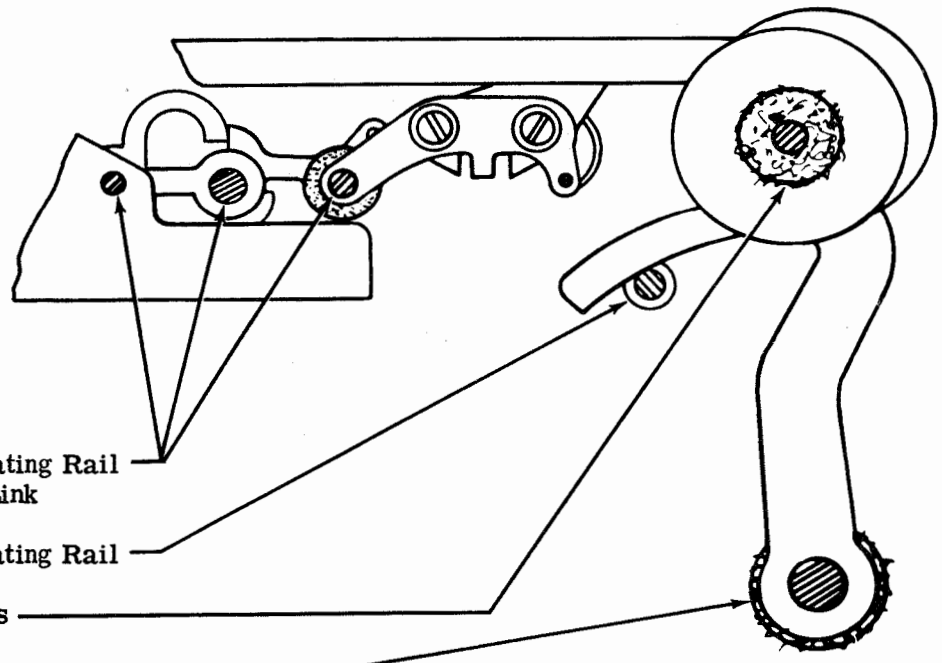
(Left Side View)

2.37 Oscillating Mechanism



SAT	Felt Washers	Pulleys
O2	Pivot Point	Oscillating Rail Slide
O2	Bearing Surface (3 Places)	Oscillating Rail Shift Link
O2	Bearing Surface	Oscillating Rail
SAT	Felt Washer	Oscillating Rail Guide Arm

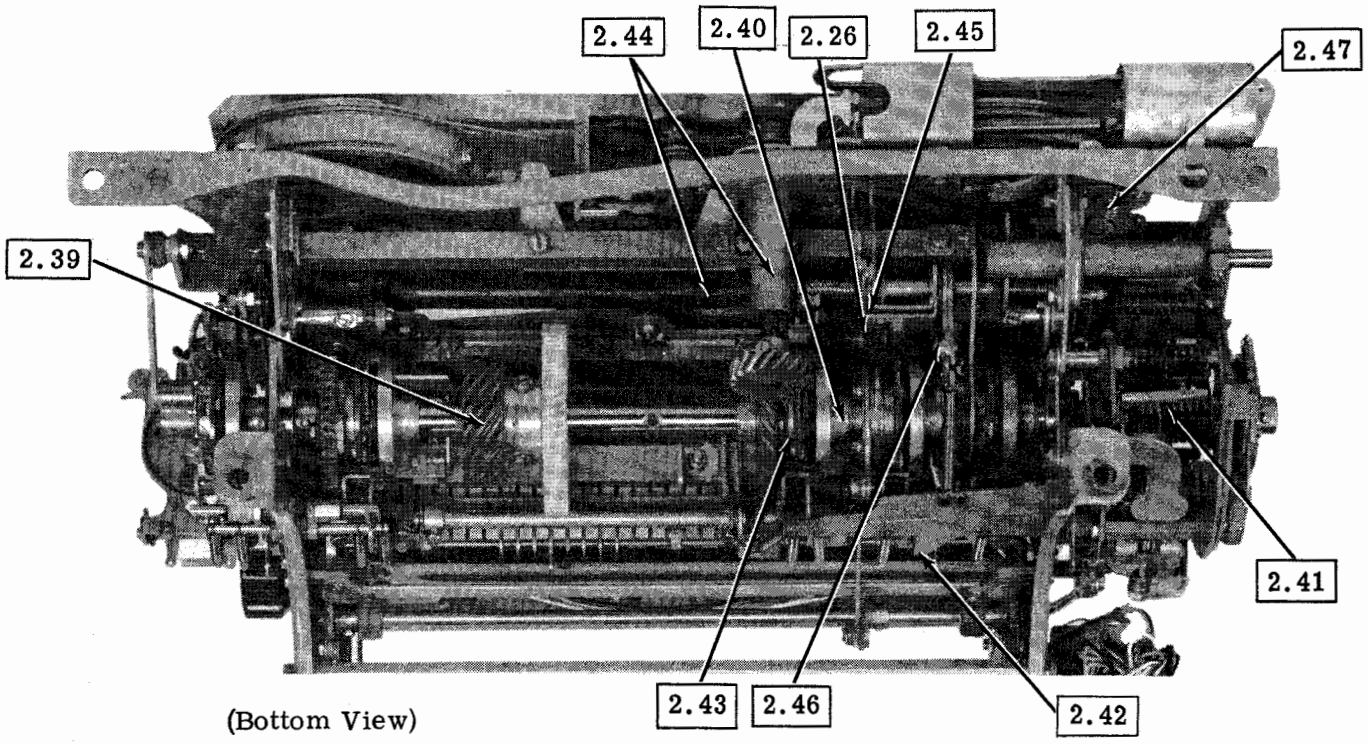
(Left Front View)



O2	Bearing Surfaces (3 Places)	Oscillating Rail Shift Link
O2	Bearing Surface	Oscillating Rail
SAT	Felt Washers (3 Washers)	Pulleys
SAT	Felt Washer	Oscillating Rail Guide Arm

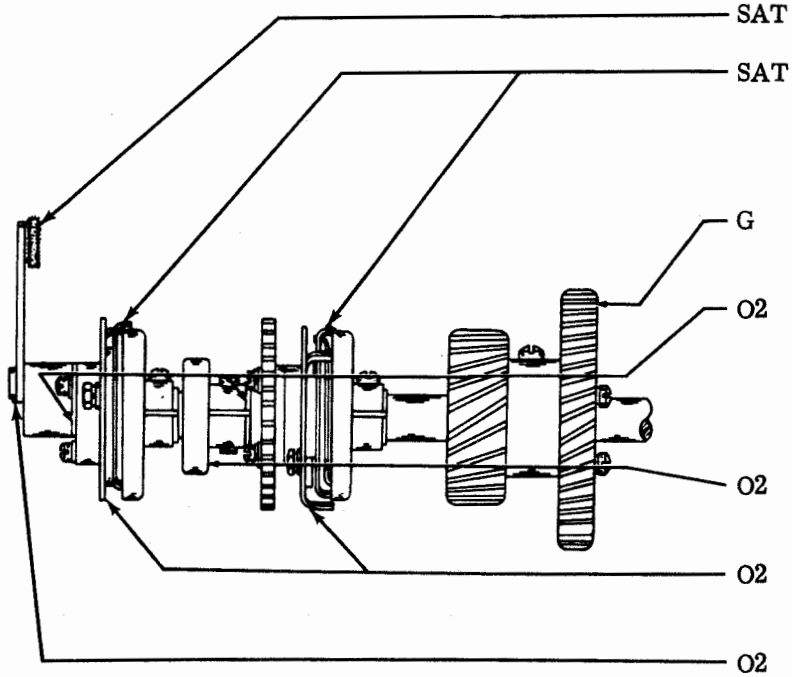
(Right Front View)

2.38 Main Shaft Area



(Bottom View)

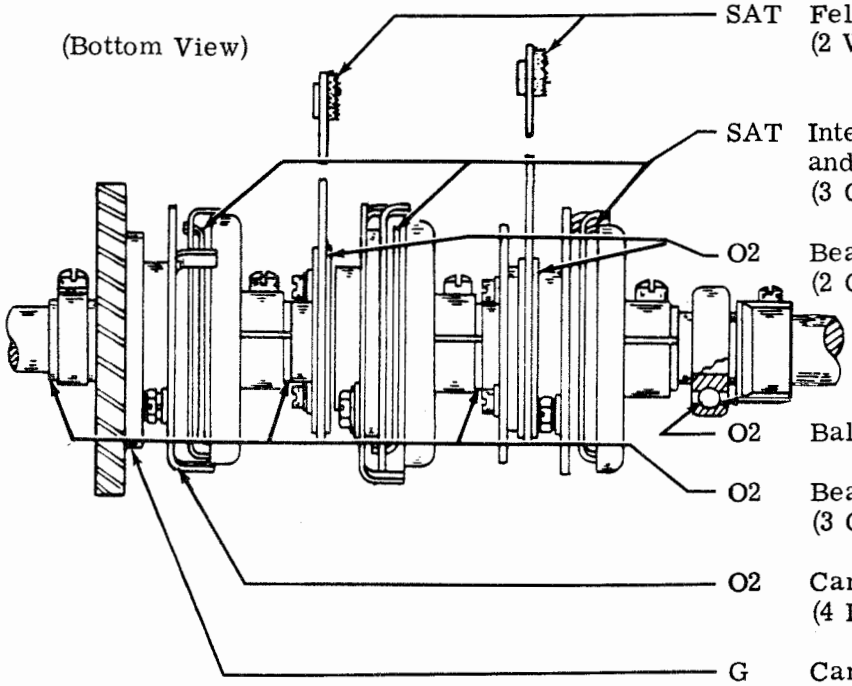
2.39 Main Shaft (Clutches, Gears, etc)



SAT	Felt Washer	Drive Link
SAT	Internal Mechanism and Felt Wicks (3 Clutches)	Clutch Assembly
G	Teeth (4 Gears)	Main Shaft Gears
O2	Bearing Surfaces (2 Clutches	Clutch Sleeves
O2	Ball Bearing	Main Shaft Bearing
O2	Camming Surfaces (2 Discs)	Clutch Discs
O2	Bearing Surface	Drive Link Bearing

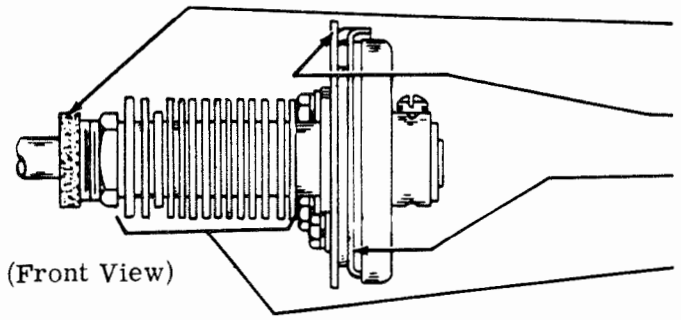
(Bottom View)

2.40 Main Shaft (Clutches, Gears, etc) (continued)



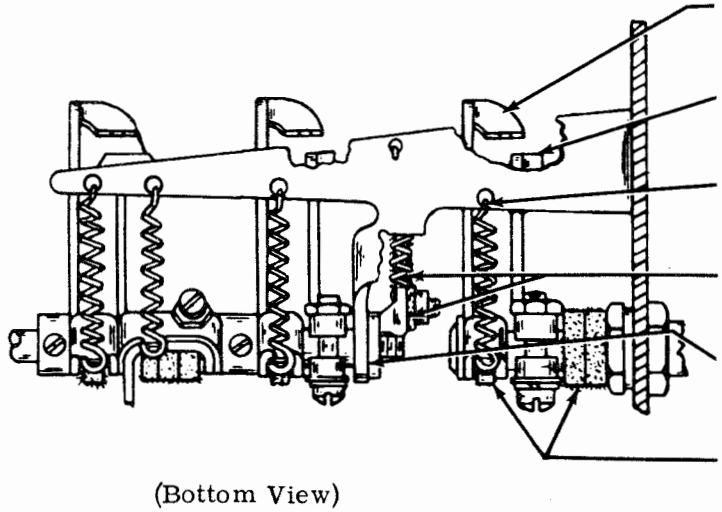
SAT	Felt Washers (2 Washers)	Eccentric Follower Arm Bearing
SAT	Internal Mechanism and Felt Wicks (3 Clutches)	Clutch Assembly
O2	Bearing Surfaces (2 Cams)	Eccentric Follower Arm Cams
O2	Ball Bearing	Main Shaft Bearing
O2	Bearing Surfaces (3 Clutches)	Clutch Sleeve
O2	Camming Surfaces (4 Discs)	Clutch Disc
G	Camming Surface	Cam

2.41 Selector Cam Clutch Assembly



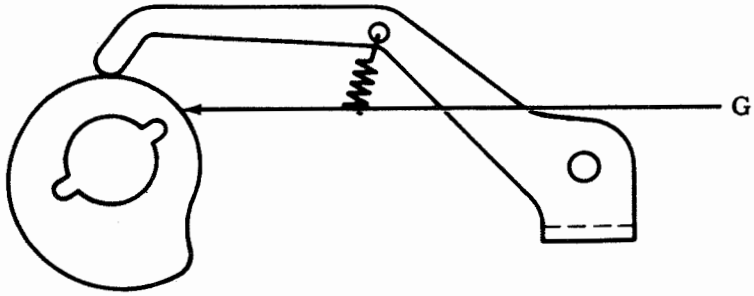
SAT	Felt Washer	Selector Cam Assembly
O2	Camming Surface	Clutch Disc
SAT	Internal Mechanism	Selector Clutch
O2	Camming Surfaces (Each Cam)	Selector Cam

2.42 Trip Shaft Mechanism



O2	Engaging Surfaces (5 Levers)	Clutch Trip Lever
O2	Engaging Surfaces (5 Levers)	Clutch Latch-lever
O1	Hooks (Each End) (9 Springs)	Springs
SAT	Felt Washer and Wick	Cam Follower Arm Roller
O2	Bearing Surface	Cam Follower Arm
SAT	Felt Washer (16 Washers)	Clutch Trip Lever Shaft

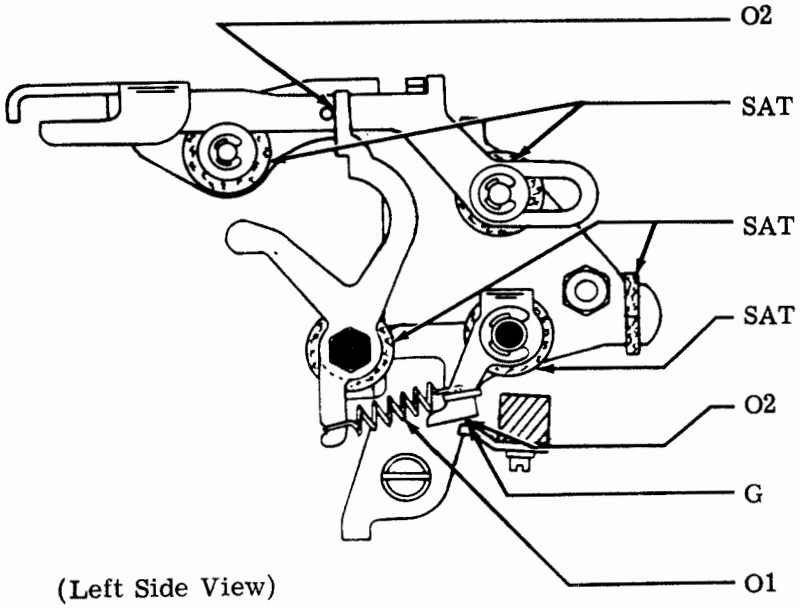
2.43 Spacing Clutch Trip Cam Mechanism



G	Camming Surface	Spacing Clutch Trip Cam

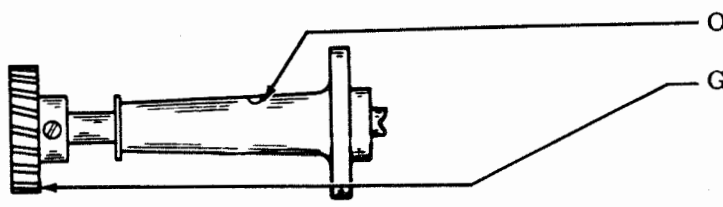
(Right Side View)

2.44 Spacing Mechanism



O2	Engaging Surfaces	Spacing Trip Lever
SAT	Felt Washers (2 Washers)	Spacing Suppression Slide
SAT	Felt Washers (2 Washers)	Spacing Trip Lever
SAT	Felt Washer	Spacing Trip Lever Bail Shaft
O2	Engaging Surface	Spacing Trip Lever Bail
G	Engaging Surface	Rocker Shaft Cam Place
O1	Hooks (Each End) (2 Springs)	Spring

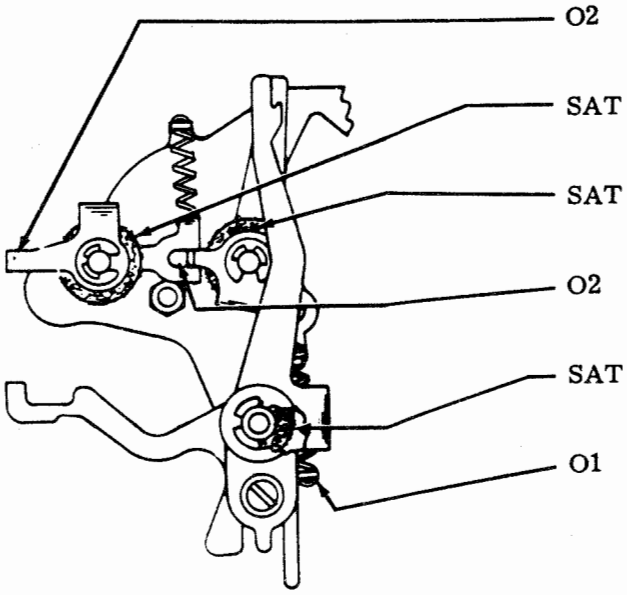
(Left Side View)



O2	Oil Hole	Spacing Shaft
G	Teeth	Spacing Shaft Gear

(Bottom View)

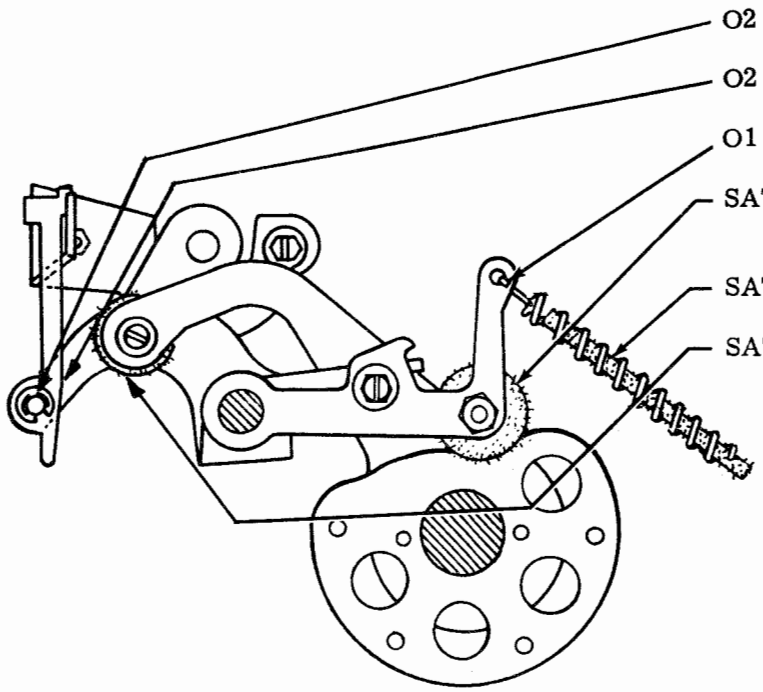
2.45 Spacing Mechanism (continued)



O2	Engaging Surface	Spacing Cut-Out Transfer Bail
SAT	Felt Washers (2 Washers)	Spacing Cut-Out Transfer Bail
SAT	Felt Washer	Spacing Cut-Out Bail
O2	Engaging Surface	Spacing Cut-Out Bail
SAT	Felt Washers (2 Washers)	Carriage Return Bail Shaft
O1	Hooks (Each End)	Spring

(Right Side View)

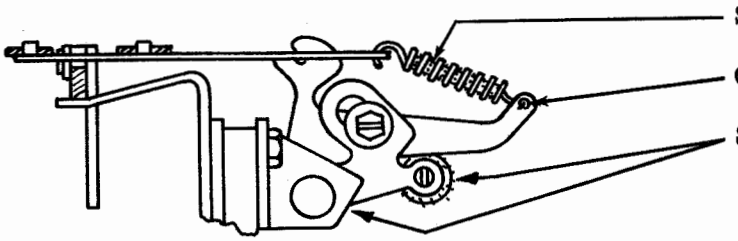
2.46 Shift Selector Mechanism



O2	Pivot	Shift Drive Pawl
O2	Engaging Surface	Shift Drive Pawl
O1	Hooks (Each End)	Spring
SAT	Felt Washer	Codebar Clutch Cam Follower
SAT	Felt Wick	Spring
SAT	Felt Washer	Shift Drive Link

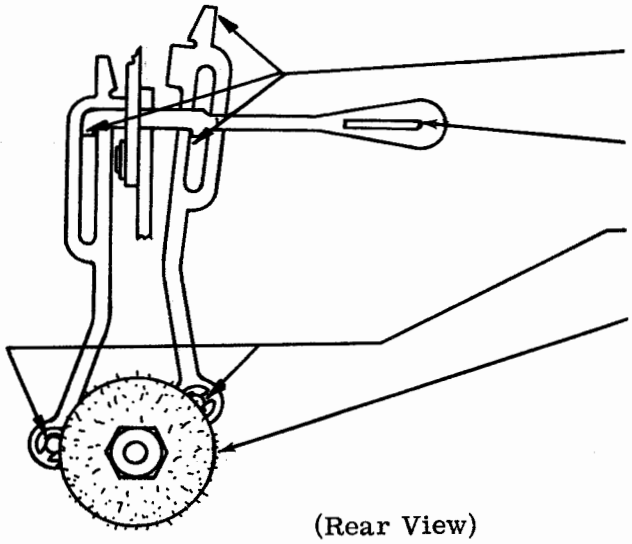
(Bottom Left View)

2.47 Shift Selector Mechanism (continued)



SAT	Felt Wick	Spring
O1	Hooks (Each End)	Spring
SAT	Felt Washers (2 Washers)	Shift Selector Arm Bell-crank

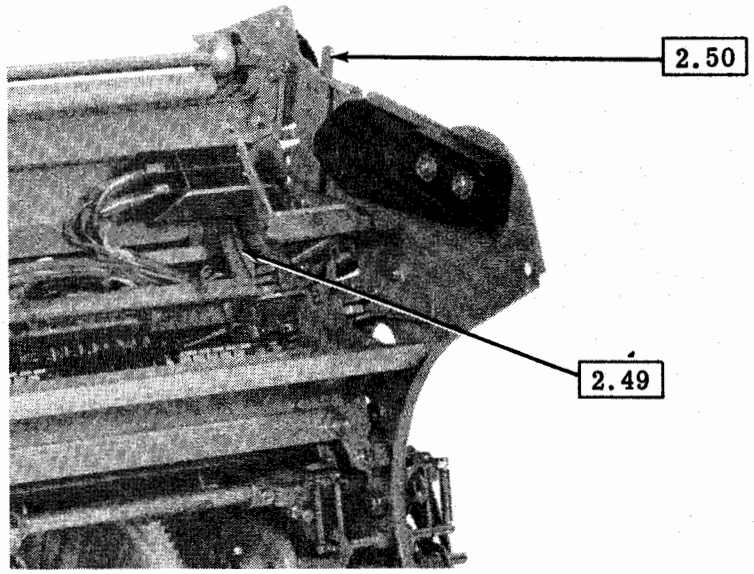
(Rear View)



O2	Engaging Surfaces (3 Places)	Shift Pawl
O2	Guide Surface	Shift Pawl Link
O2	Pivots (2 Places)	Shift Pawl
SAT	Felt Washer	Shift Pawl

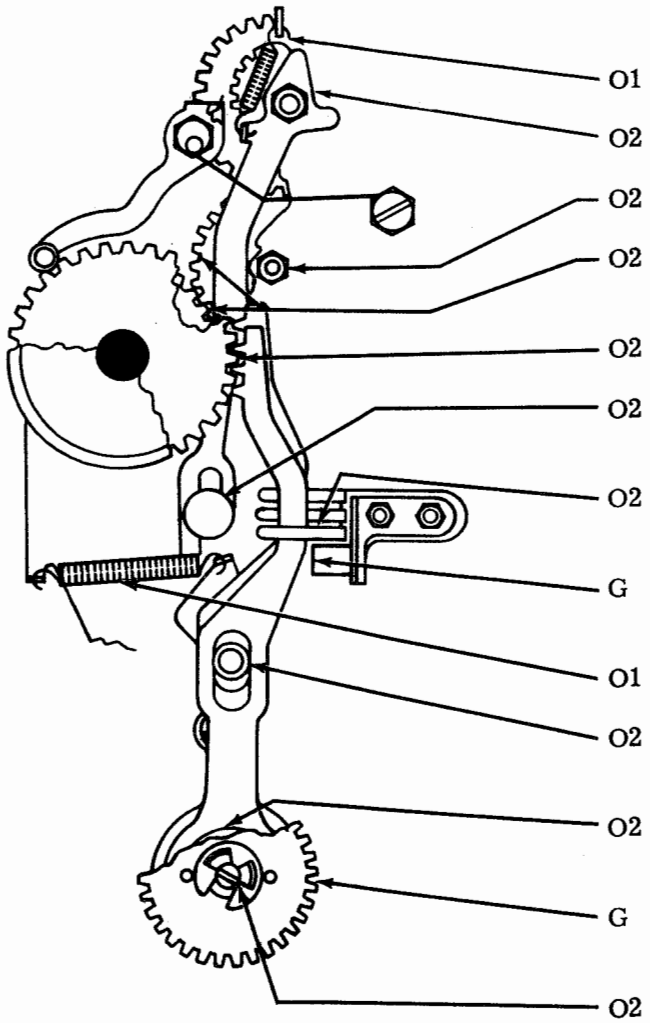
(Rear View)

2.48 Line Feed Area



(Rear View)

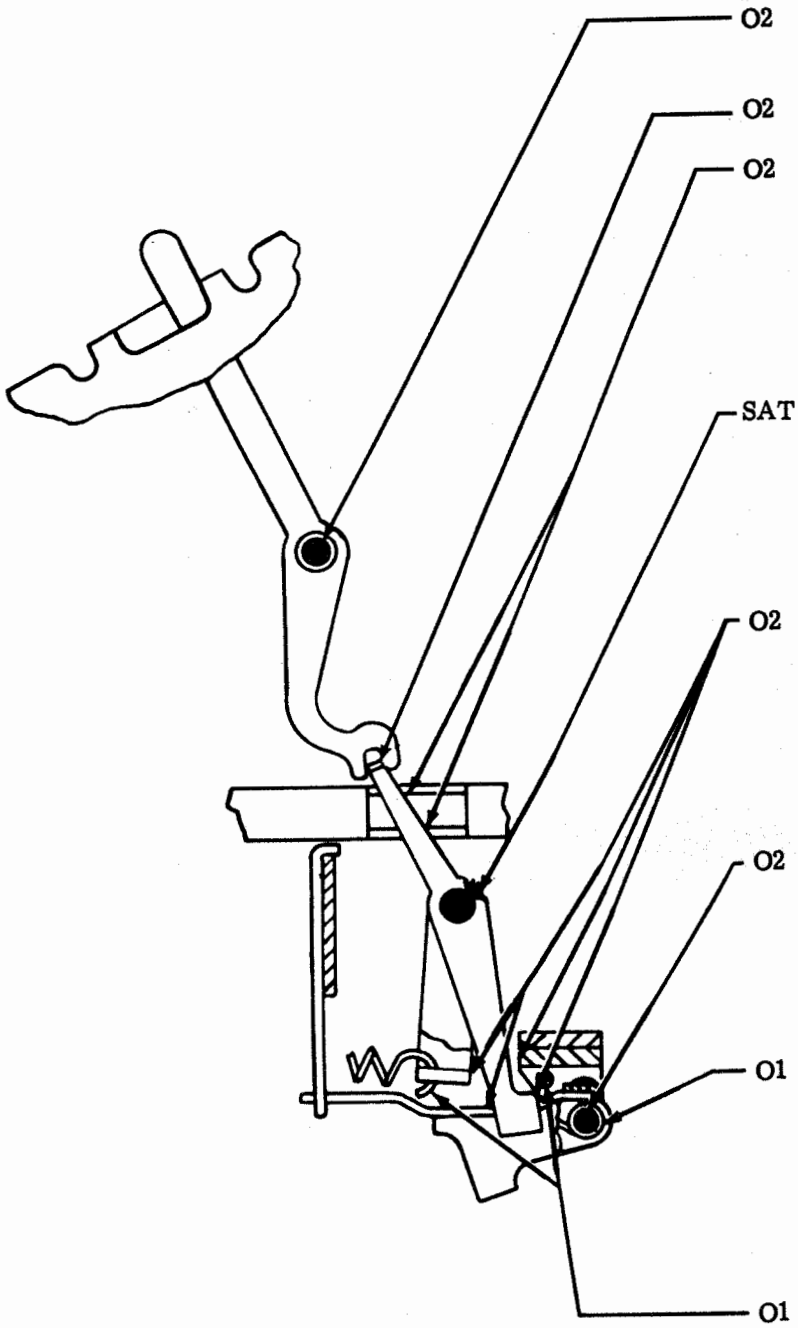
2.49 Line Feed Mechanism (Friction Feed)



O1	Hooks (Each End)	Spring
O2	Bearing Surface	Platen Handwheel
O2	Bearing Surface	Platen Idler Gear
O2	Teeth (2 Gears)	Platen Gears
O2	Engaging Surface	Line Feed Bars
O2	Engaging Surface	Line Feed Bar Release Lever
O2	Guiding Surfaces (2 Bars)	Line Feed Bars
G	Engaging Surface	Line Feed Bar Bumper
O1	Hooks (Each End)	Spring
O2	Guiding Surfaces (2 Bars)	Line Feed Bar Bellcrank
O2	Bearing Surfaces (2 Bearings)	Line Feed Bar Eccentric Bearing
G	Teeth	Line Feed Clutch Gear
O2	Bearing Surface	Line Feed Clutch Gear Shaft

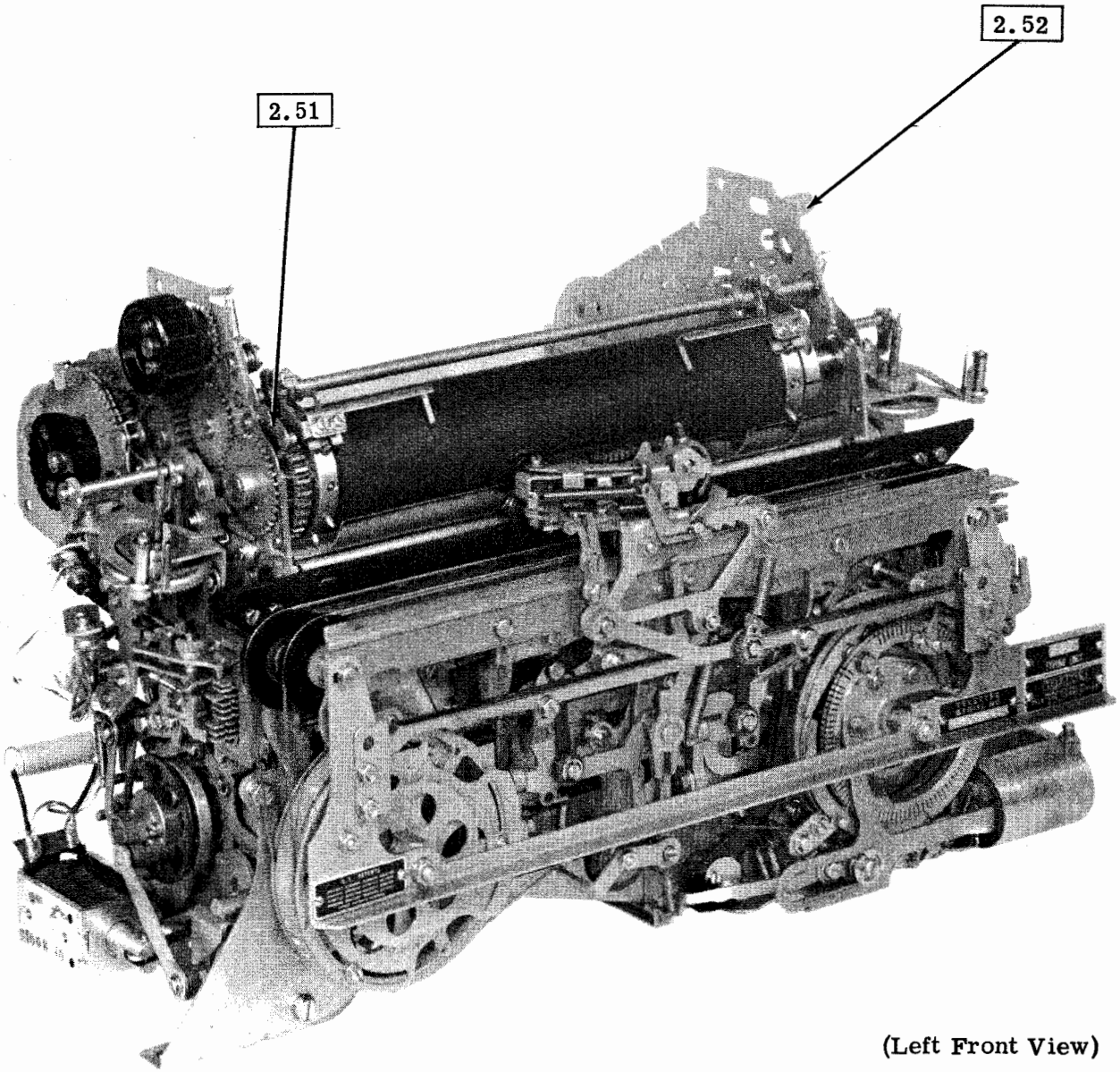
(Right Rear View)

2.50 Single-Double Line Feed Mechanism



O2	Pivot	Single-Double Line Feed Lever
O2	Engaging Surface	Operating Arm
O2	Guide Surfaces (2 Places)	Operating Arm
SAT	Felt Washer	Operating Arm
O2	Engaging Surfaces (4 Surfaces)	Stripper Bail
O2	Coils	Stripper Bail Torsion Spring
O1	Hooks (Each End)	Spring
O1	Hooks (Each End)	Spring

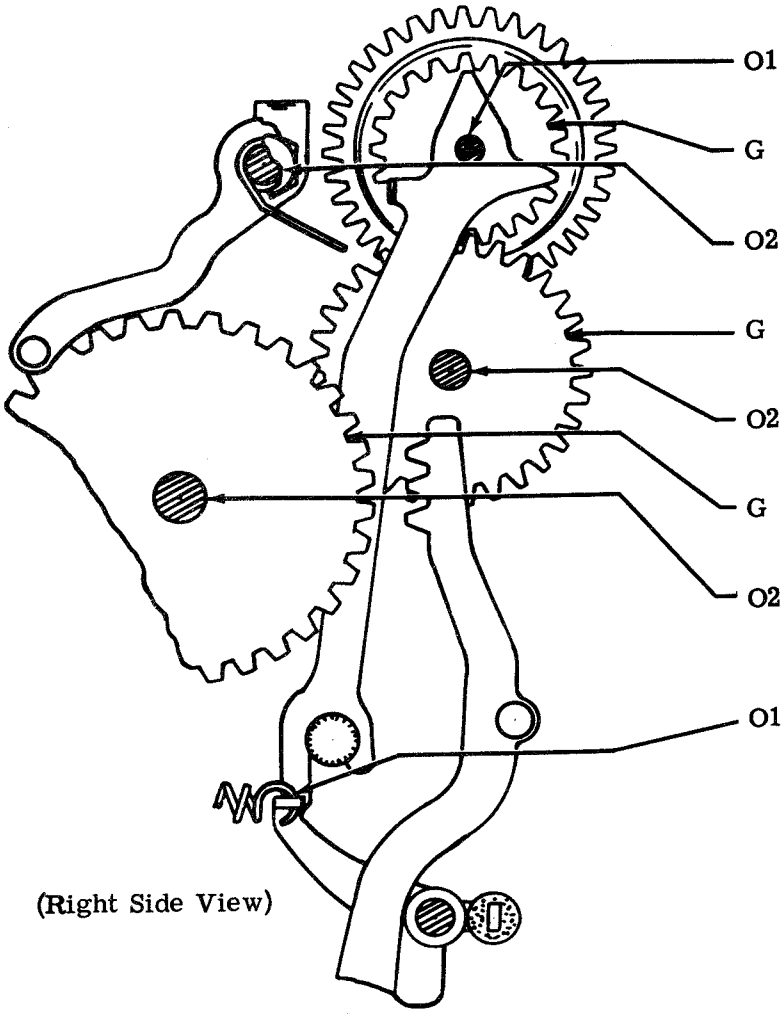
(Left Side View)



(Left Front View)

Figure 3 - 35 Typing Unit (Sprocket Feed)

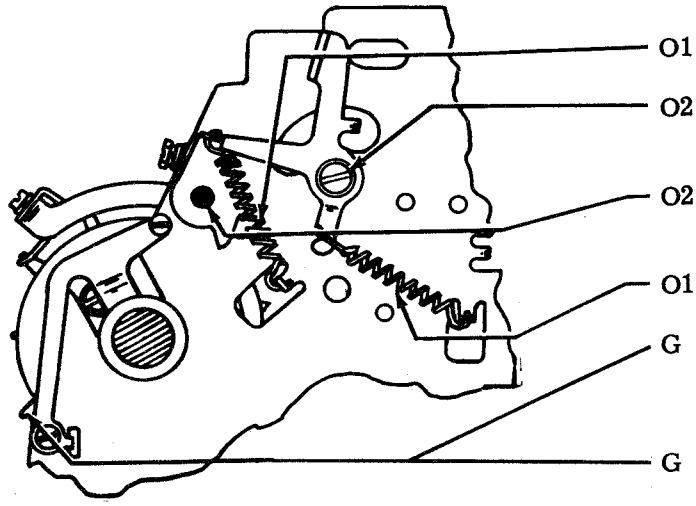
2.51 Line Feed Mechanism (Sprocket Feed)



(Right Side View)

O1	Bearing Surface	Handwheel Gear
G	Teeth	Handwheel Gear
O2	Bearing Surface	Platen Detent Bail
G	Teeth	Idler Gear
O2	Bearing Surface	Idler Gear
G	Teeth	Platen Gear
O2	Bearing Surfaces (2 Places)	Platen Gear
O1	Hooks (Each End)	Spring

2.52 Sprocket Feed Paper Mechanism

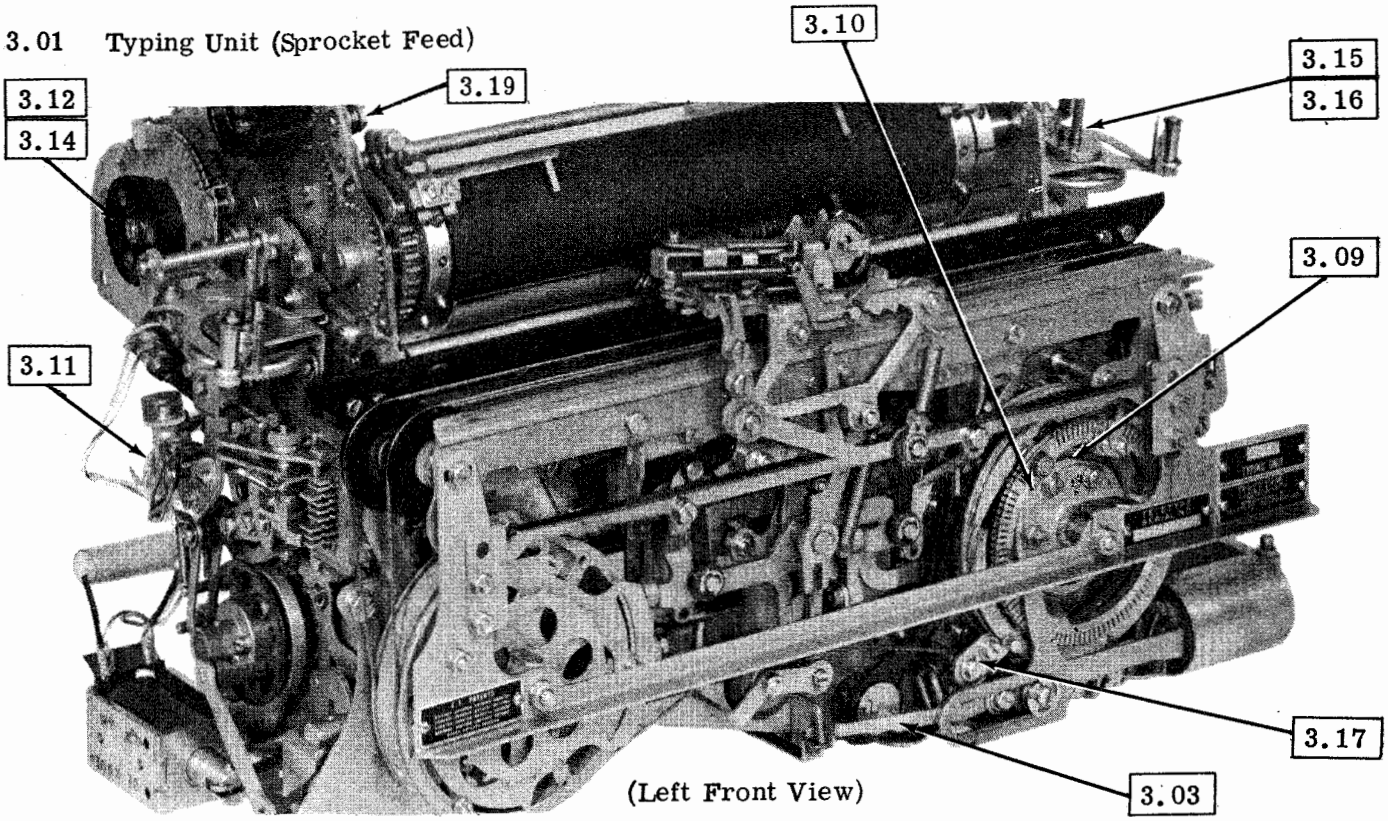


(Right Side View)

O1	Hooks (Each End)	Spring
O2	Pivot (2 Places)	Guide Bracket Latch
O2	Pivots (2 Places)	Guide Bracket Shaft
O1	Hooks (Each End)	Spring
G	Pack Pin and Spring Cavaties (22 Places)	Sprocket With Steel Pins
G	Light Coat Do Not Pack With Grease	Sprocket With Delrin Pins

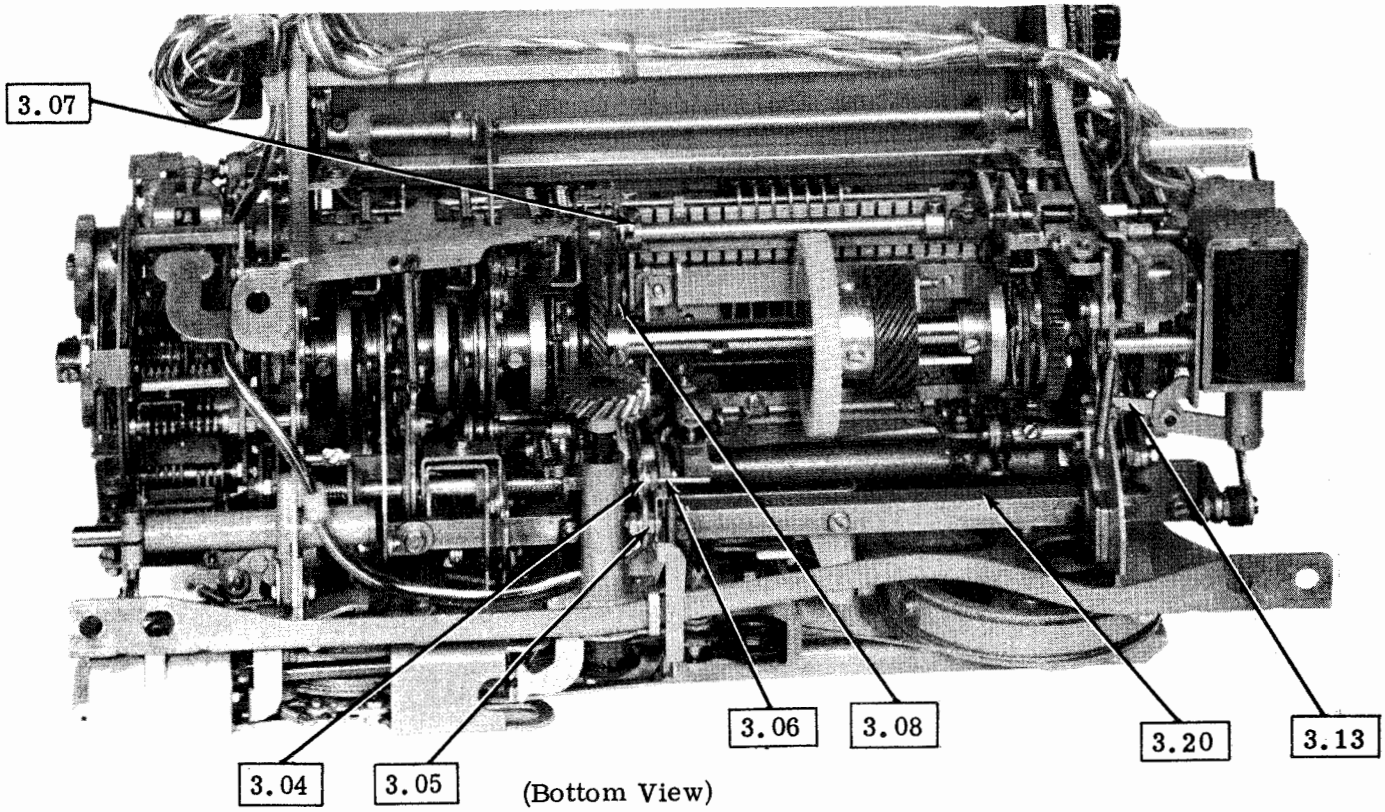
3. VARIABLE FEATURES

3.01 Typing Unit (Sprocket Feed)



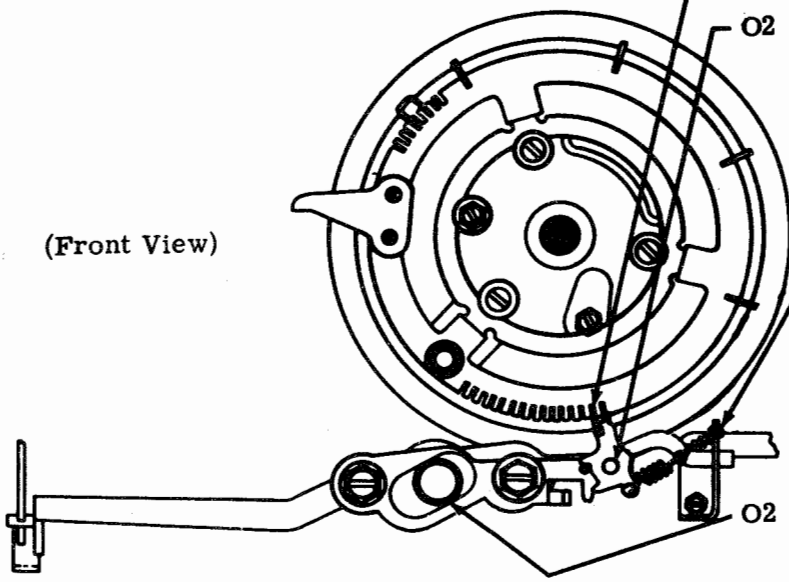
(Left Front View)

3.02 Horizontal Tabulator Area



(Bottom View)

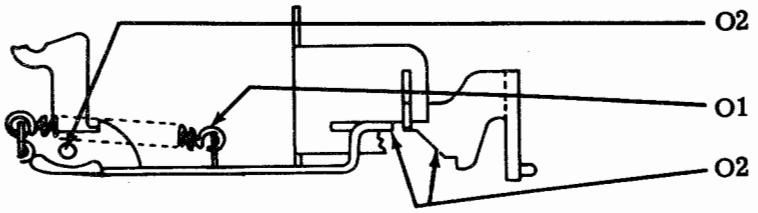
3.03 Horizontal Tabulator — Blocking Lever



(Front View)

O2	Engaging Surface	Tabulator Stops
O2	Engaging Surface	Tabulator Pawl
O1	Hooks (Each End) (2 Springs)	Springs
O2	Bearing Surface	Blocking Lever

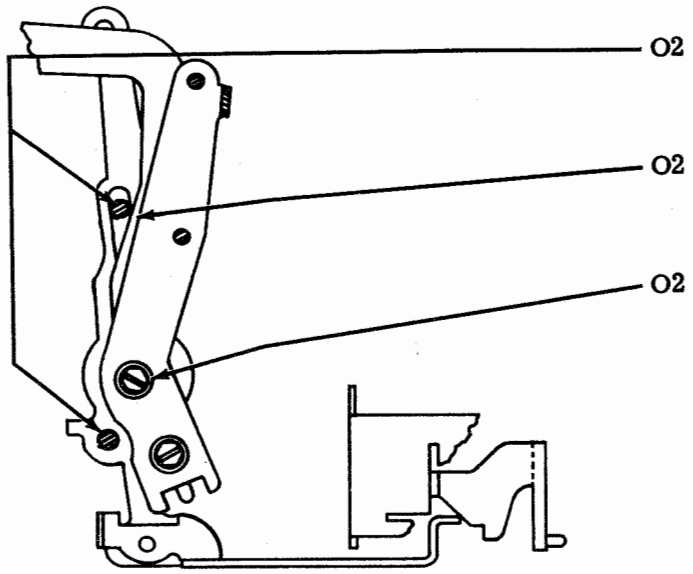
3.04 Horizontal Tabulator — Slide Arm



(Bottom View)

O2	Bearing Surface	Operating Lever Extension Link
O1	Hook (Each End)	Spring
O2	Engaging Surfaces (2 Places)	Operating Lever Extension Link

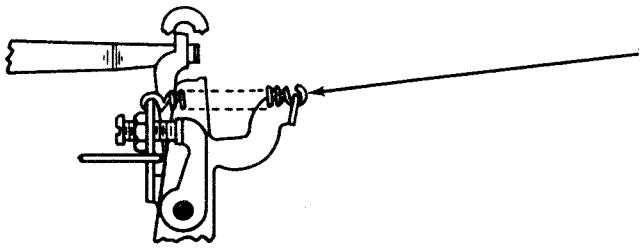
3.05 Horizontal Tabulator — Operating Lever



(Left Bottom View)

O2	Bearing Surfaces (2 Places)	Operating Lever
O2	Contacting Surface With Adjusting Plate	Operating Lever
O2	Bearing Surface	Trip Lever Arm Latch Bail

3.06 Horizontal Tabulator — Latch Bail

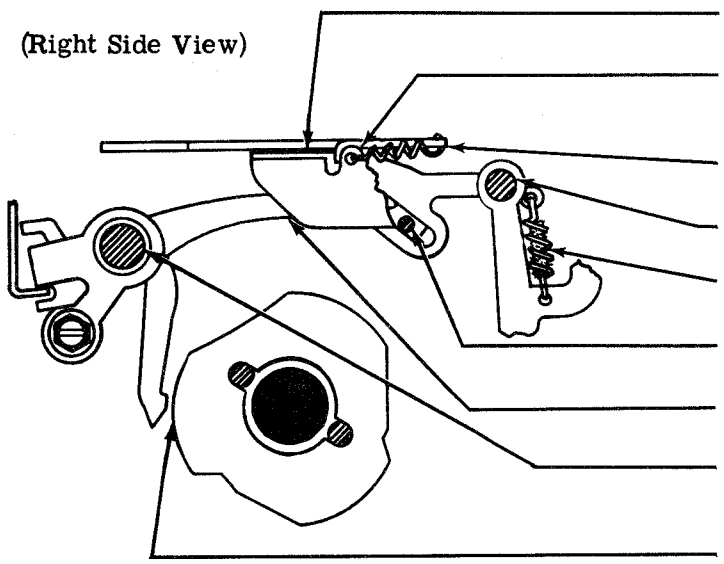


O1	Hooks (Each End)	Latch Bail Spring

(Left Side View)

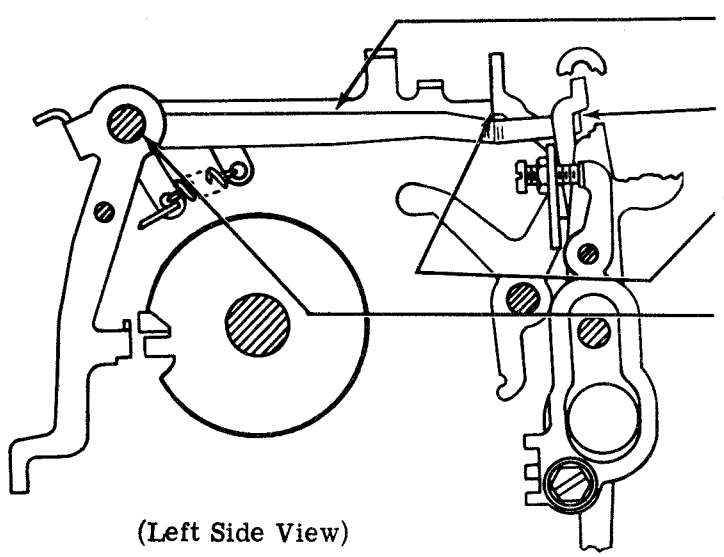
3.07 Horizontal Tabulator — Operating Lever (continued)

(Right Side View)



O2	Guide Surface	Operating Lever
O2	Contact With Slide Arm	Operating Lever
O1	Hooks (Each End)	Slide Arm Spring
O2	Bearing Surface	Operating Lever
SAT	Felt Wick	Spring
O2	Camming Surface	Operating Lever
O2	Contact Surface	Operating Lever
SAT	Felt Washers	Stripper Bail Shaft
G	Camming Surface	Spacing Clutch Restoring Cam

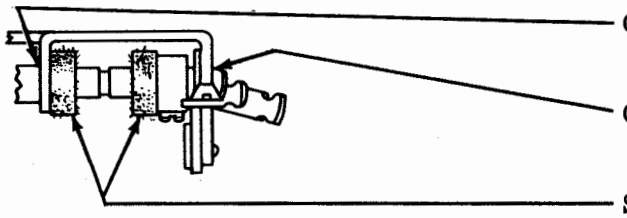
3.08 Horizontal Tabulator — Intermediate Bail



O1	Contact Surface Trip Lever Arm	Intermediate Bail
O2	Contact Surface	Spacing Trip Lever Arm
O1	Contact Surface Spacing Trip Lever	Intermediate Bail
SAT	Felt Washer	Trip Lever Arm Shaft

(Left Side View)

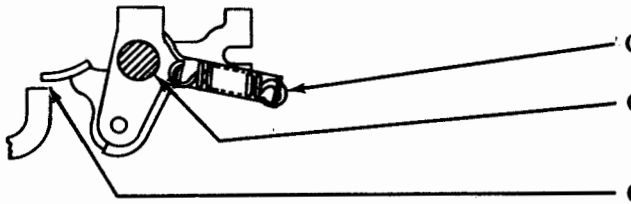
3.09 Horizontal Tabulator — Bail Extension Arm



(Bottom View)

O2	Bearing Surface	Spacing Cut-Out Transfer Bail
O2	Contact Surface	Spacing Cut-Out Transfer Bail
SAT	Felt Washers (2 Washers)	Transfer Bail Stud

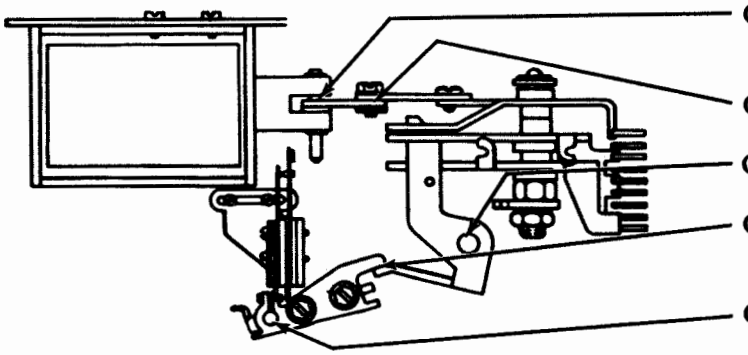
3.10 Spacing Cut-Out Transfer Bail



(Right Side View)

O1	Hooks (Each End)	Spring
O2	Bearing Surface	Bail Extension Arm
O2	Contact Surface	Bail Extension Arm

3.11 Print-Nonprint Solenoid Mechanism

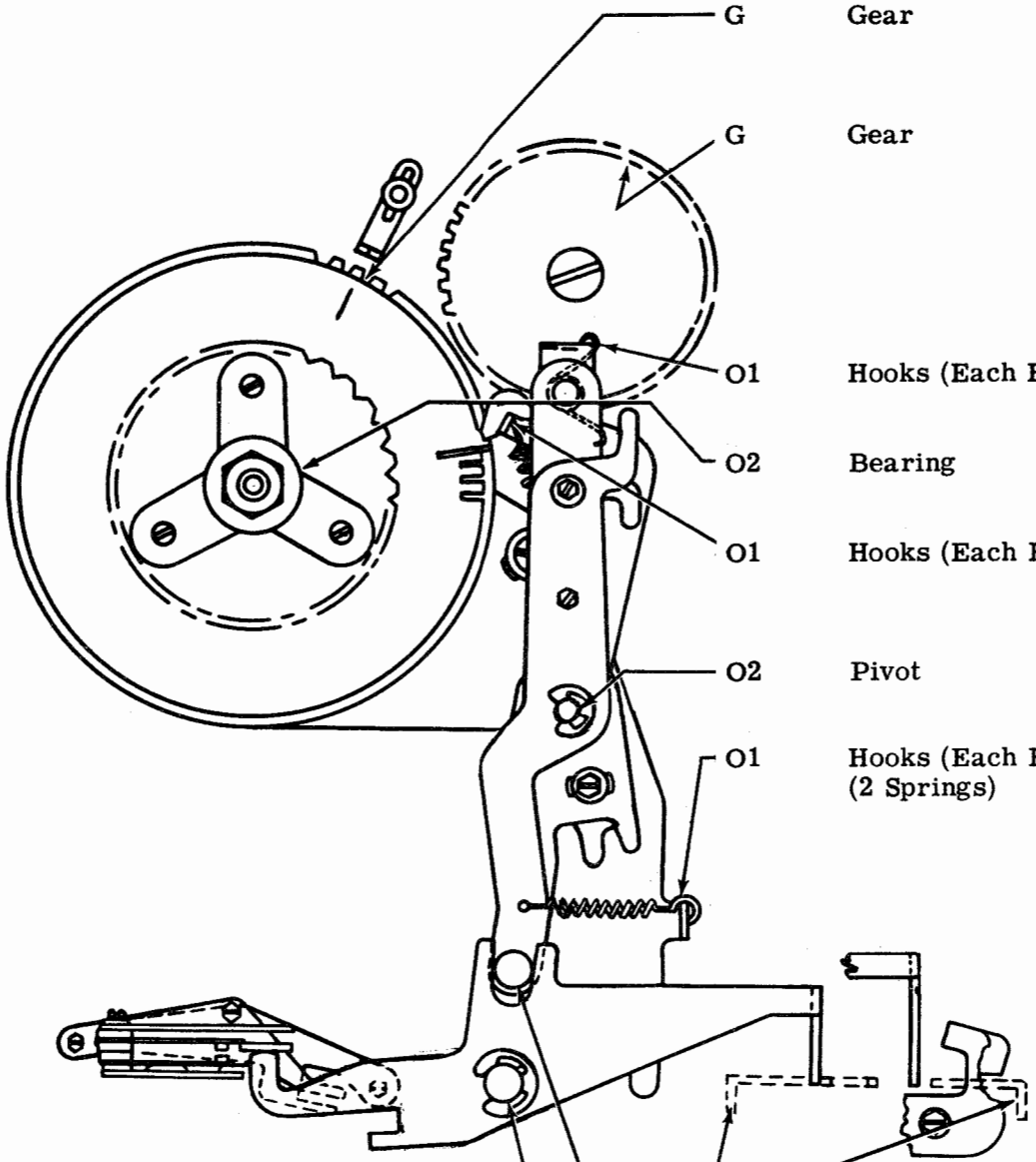


(Left Side View)

O2	Pivot Point	Solenoid Plunger
O2	Pivot Point	Extension Link
O2	Pivot Point	Blocking Bail
O2	Blocking Surface	Blocking Bail Extension
O2	Pivot Point	Trip Arm

Note: Do not oil the cylindrical surface or pole face of solenoid plunger.

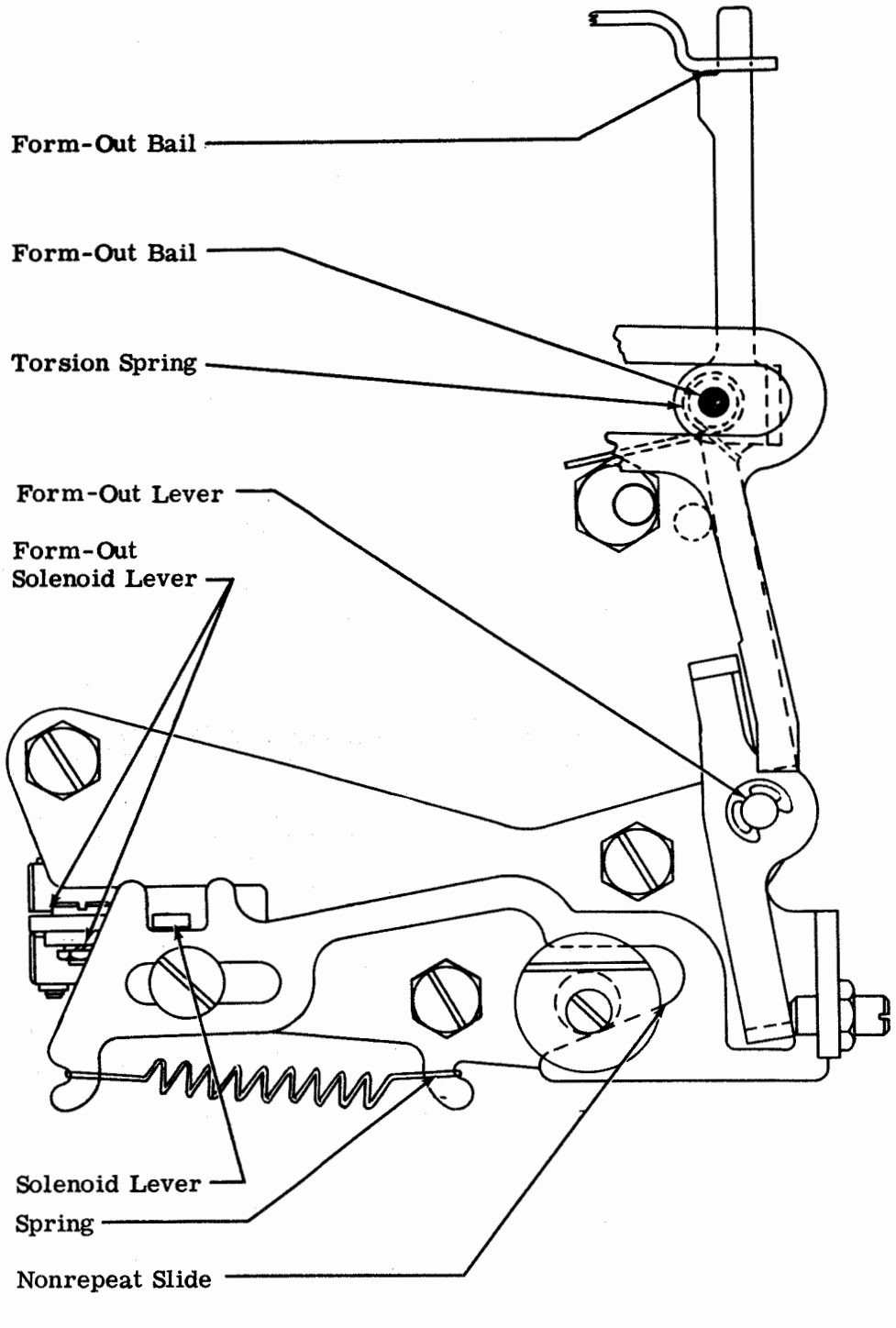
3.12 Vertical Tabulator and Transmitter Distributor Control Mechanism



(Left Side View)

G	Gear	Form Start
G	Gear	Idler
O1	Hooks (Each End)	Spring
O2	Bearing	Handwheel
O1	Hooks (Each End)	Spring
O2	Pivot	Adjustable Arm
O1	Hooks (Each End) (2 Springs)	Springs
O2	Slides (2)	Form-Out and Vertical Tab
O2	Bearing Surface	Adjustable Arm and Blocking
O2	Pivot	Blocking Lever

3.13 Form-Out Mechanism



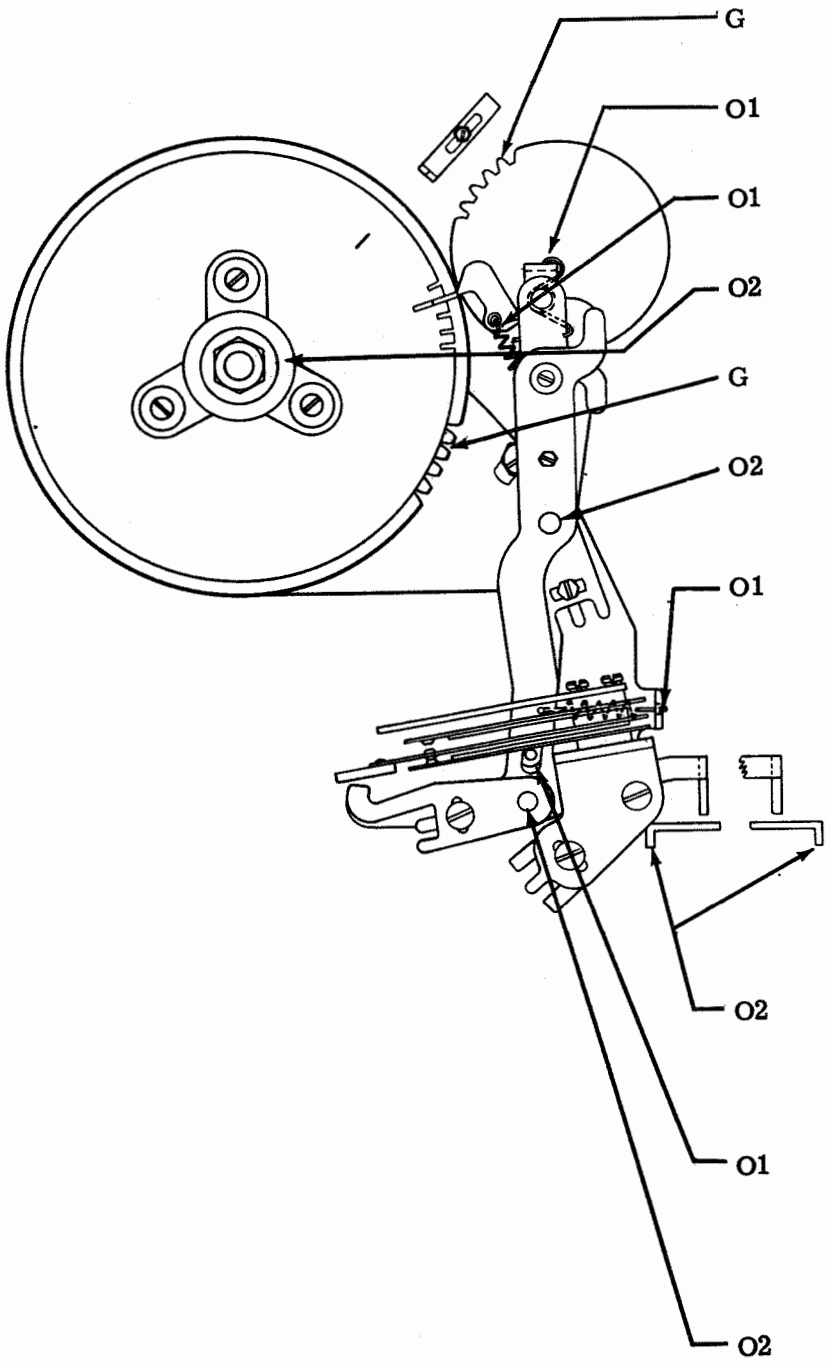
O2	Engaging Surface	Form-Out Bail
O2	Pivot	Form-Out Bail
O1	Loop	Torsion Spring
O2	Pivot	Form-Out Lever
O2	Pivot (2 Places)	Form-Out Solenoid Lever

Note: Do not oil plunger.

O2	Engaging Surface	Solenoid Lever
O1	Hooks (Each End)	Spring
O2	Guide Surface (2 Places)	Nonrepeat Slide

(Left Frame Viewed From Right Rear)

3.14 Vertical Tabulator Mechanism (For Switch Network Service)

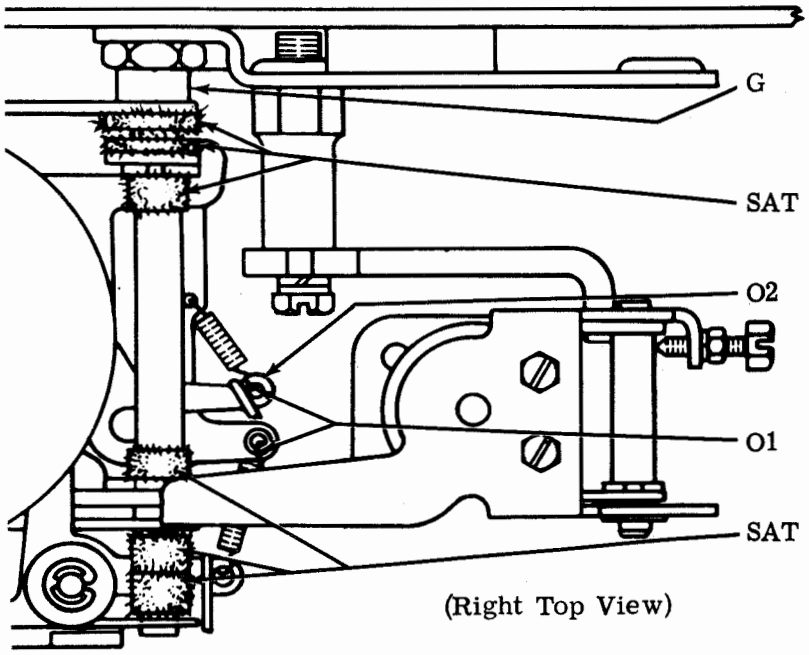


G	Gear	Idler
O1	Hooks (Each End)	Spring
O1	Hooks (Each End)	Spring
O2	Bearing	Handwheel
G	Gear	Form Start
O2	Pivot	Adjustable Arm
O1	Hooks (Each End) (2 Springs)	Springs
O2	Slides (2)	Form-Out and Vertical Tabulation
O1	Bearing Surface	Adjustable Arm and Blocking Lever
O2	Pivot	Blocking Lever

(Left Side View)

3.15 Two Color Ribbon Shift Mechanism — Oscillating Lever

Note: Photograph reference shows general area of this mechanism and not the actual mechanism.

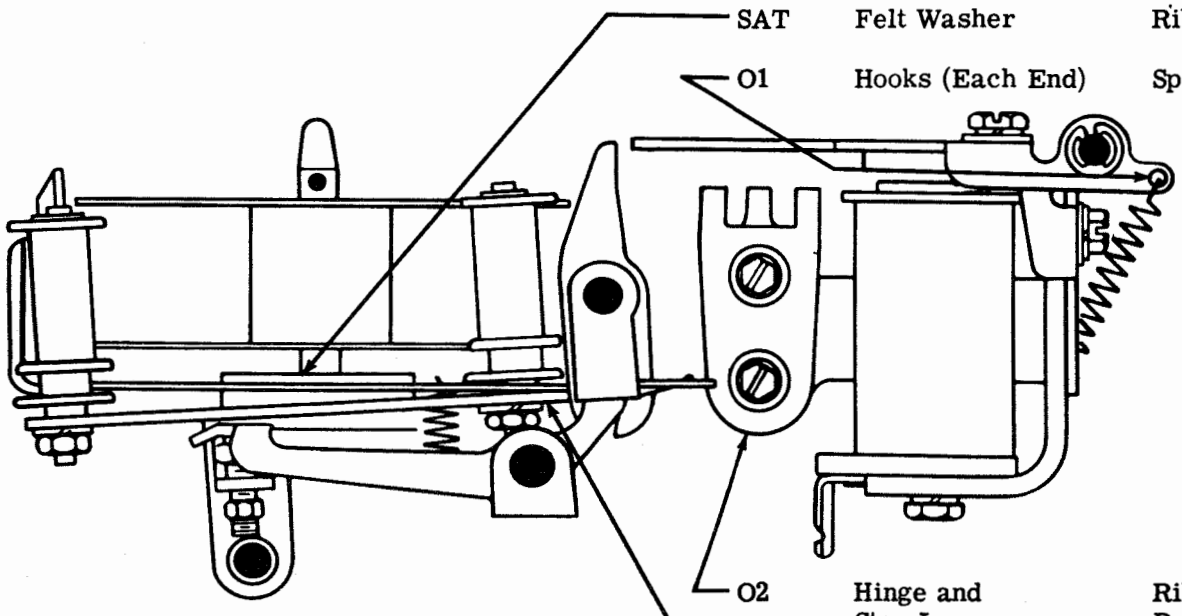


G	Shaft Mounting Surface	Oscillator Lever and Roller Bail Support Shaft
SAT	Felt Washers (3 Washers)	Ribbon Spool Bracket Shaft
O2	Engaging Surface	Ribbon Reverse Lever
O1	Hooks (Each End) (2 Springs)	Springs
SAT	Felt Washers (3 Washers)	Ribbon Spool Bracket Shaft

(Right Top View)

3.16 Two Color Ribbon Shift Mechanism — Ribbon Operating Mechanism

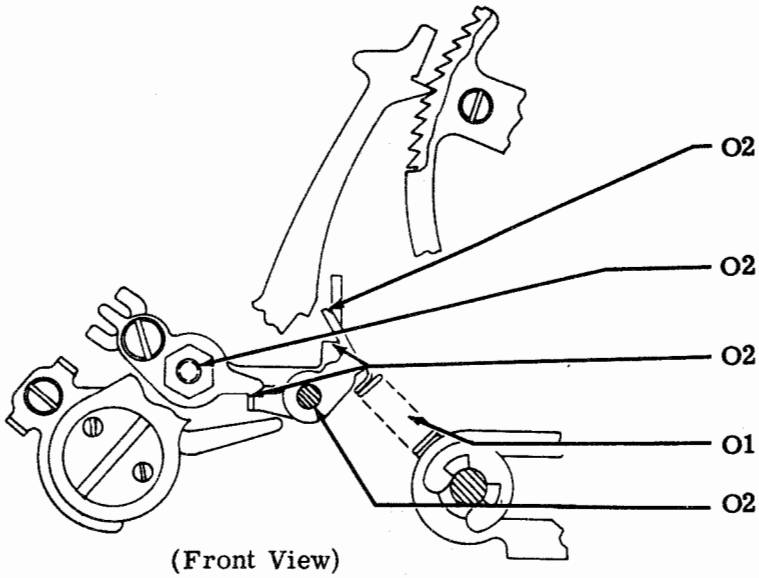
Note: Photograph reference shows general area of this and not the actual mechanism.



SAT	Felt Washer	Ribbon Ratchet
O1	Hooks (Each End)	Spring
O2	Hinge and Stop Lever	Ribbon Magnet Bracket
O2	Engaging Surface	Ribbon Spool Bracket

(Right Side View)

3.17 Local Backspace Mechanism

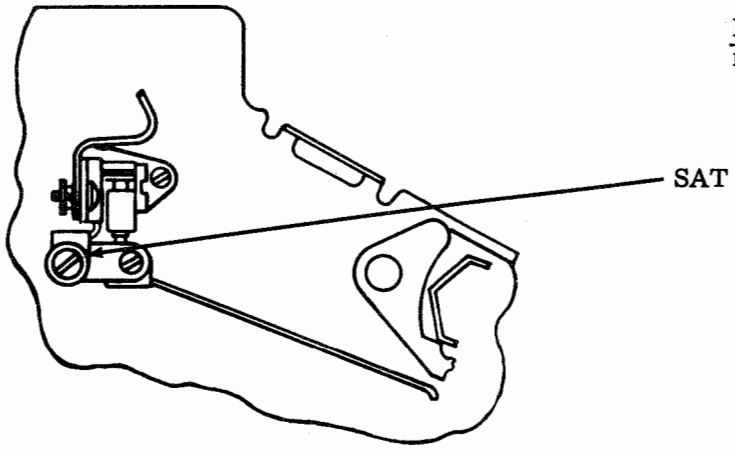


O2	Engaging Surface	Backspace Camming Bail
O2	Bearing Surface	Adjusting Plate
O2	Engaging Surfaces (2 Places)	Intermediate Arm
O1	Hooks (Each End)	Spring
O2	Bearing Surface	Backspace Camming Bail

(Front View)

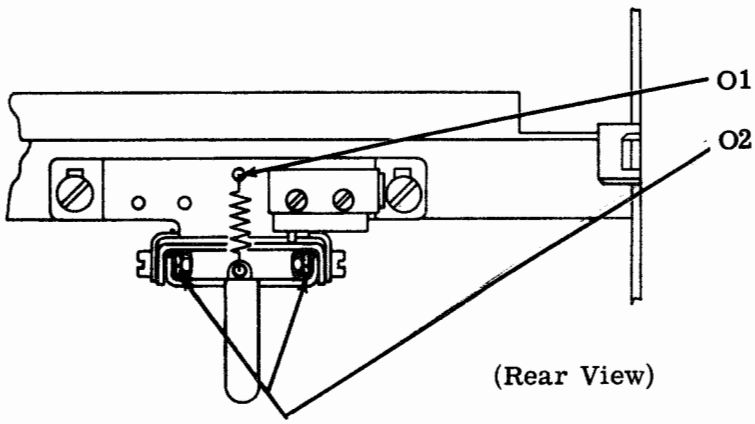
3.18 Paper-Out Alarm Mechanism (Friction Feed)

Note: See Figure 2 for location of this mechanism.



SAT	Felt Washer	Switch Bracket

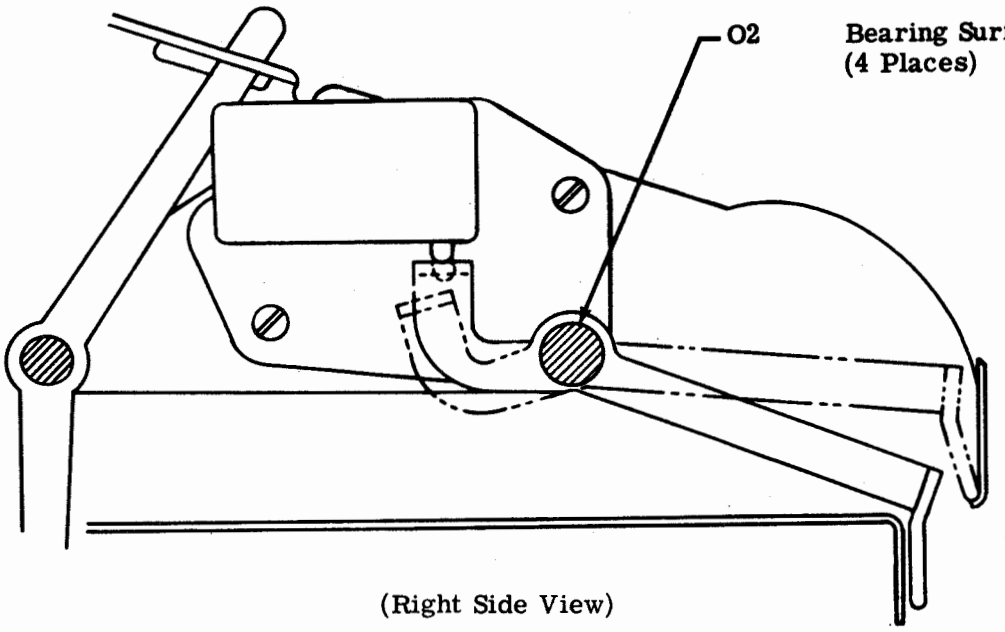
(Right Side View)



O1	Hooks (Each End)	Spring
O2	Pivot Points (2 Places)	Lever Bracket

(Rear View)

3.19 Low Paper and Paper-Out Alarm Mechanism (Sprocket Feed)

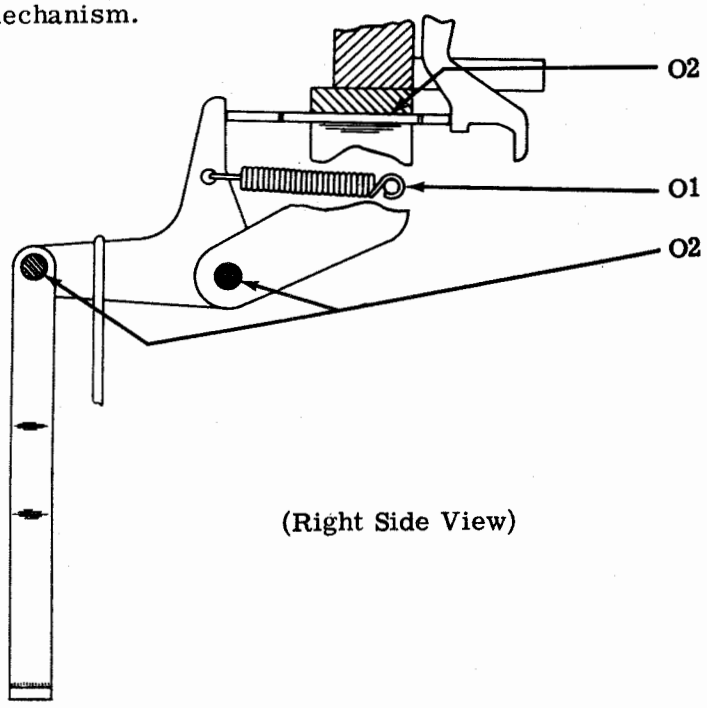


O2	Bearing Surfaces (4 Places)	Low Paper and Paper-Out Alarm Levers

(Right Side View)

3.20 Keyboard Lock Mechanism

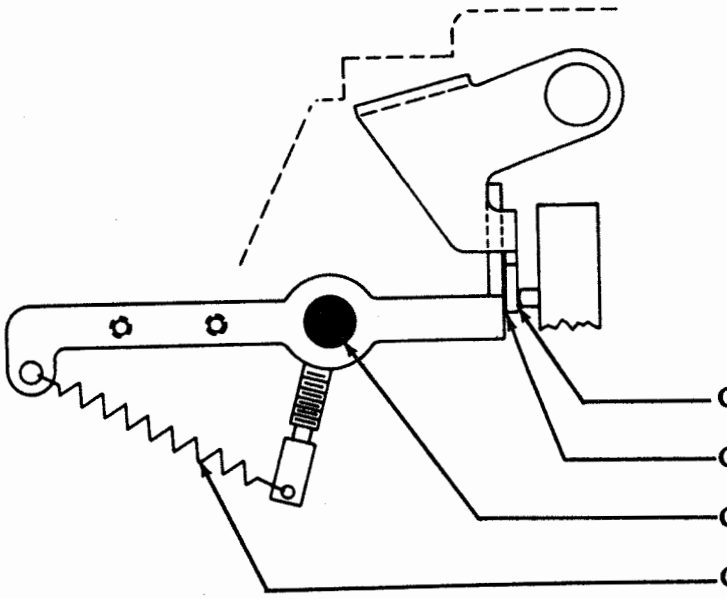
Note: Photograph reference shows general area of this mechanism and not the actual mechanism.



O2	Engaging Surface	Keyboard Locklever Slide Arm
O1	Hooks (Each End)	Spring
O2	Bearing Surfaces (2 Places)	Locklever

(Right Side View)

3.21 Paper Jam Alarm (Sprocket Feed)



O1	Point Contact (2 Places)	Switch Buttons
O1	Bearing Surface	Operating Lever
O1	Pivots (Each End)	Bail
O1	Hooks (Each End)	Spring

(Right Side View)