33 TAPE PUNCH

LUBRICATION

CONTENTS PAGE

1. GENERAL

1.01 This section provides lubrication information for the 33 tape punch. It is reissued to incorporate changes including lubrication intervals. Marginal arrows are used to indicate changes and additions.

1.02 The general lubrication areas are illustrated by photographs. The specific points to receive lubricant are indicated on line drawings with appropriate textual instructions. Line drawings and textual instructions follow each photograph and are keyed to the photograph by paragraph numbers.

1.03 Thoroughly lubricate all sliding surfaces with a light application of oil (KS7470) to prevent wear. This includes all cams and cam followers, bearing surfaces, pivot points, spring ends, and movable parts of die blocks. Saturate all felt washers and oilers.

Note: Avoid overlubrication that permits the lubricant to drip or be thrown onto adjacent parts. Avoid oil inside of chad chute and chad extension.

1.04 Lubricate tape punch before placing it in storage, or before placing it in service if it's been in storage for six months or longer. Thereafter, relubricate punch at the following intervals:

LUBRICATION INTERVAL
(Based on 5-Day Week — See Note 1)

Speed (wpm)	Machine Utilization		
	0-8 hrs	8-16 hrs	16-24 hrs
60 (See Note 2)	39 wks	26 wks	13 wks
100 (See Note 2)	26 wks	13 wks	6 wks
Initial Lubrication (All Speeds) New Equipment	3 wks	2 wks	1 wk

Note 1: Reduce interval 15 percent when unit is used 6 days per week and reduce interval 30 percent when used 7 days per week.

Note 2: Units with serial numbers above 144,000, use interval in chart above. Units with serial numbers below 144,000, reduce interval by 1/3 or 33 percent.

Note 3: Units operating at speeds in between values shown in chart use the lower of the two values.

Prepared for American Telephone and Telegraph Company by Teletype Corporation

Note 4: The lubrication intervals shown in the chart are for the set as well as the components.

1.05 The textual instructions that accompany the line drawings consist of abbreviated directions specific lubrication points, and parts affected. The meanings of the abbreviated directions (symbols) are given below.

Symbol	Meaning
D	Keep dry - no lubricant permitted.
O	Oil (KS7470).

1.06 References to left, right, front, or rear, etc consider the tape punch to be viewed from a position where the tape guide assembly faces up and the backspace lever is to the viewer's left. Orientation references in the drive link mechanism area consider the drive link to be up and located to the viewer's left.

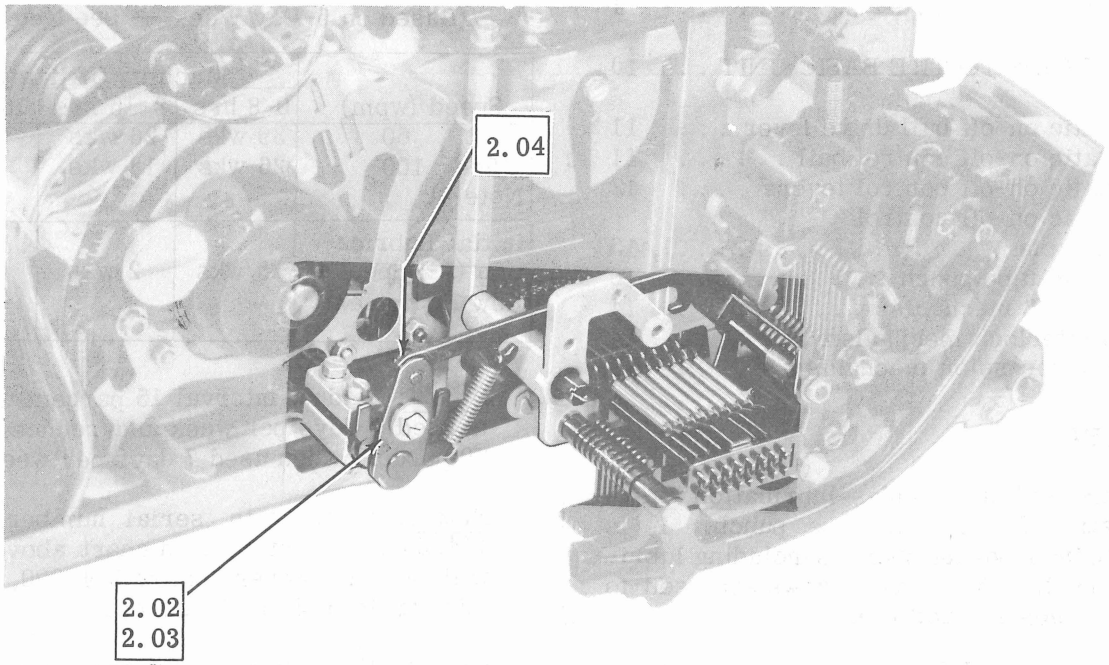
CAUTION: DO NOT USE ALCOHOL, MINERAL SPIRITS, OR OTHER SOLVENTS TO CLEAN PLASTIC PARTS OR PARTS WITH PROTECTIVE-DECORATIVE FINISHES. NORMALLY, A SOFT, DRY CLOTH SHOULD BE USED TO REMOVE DUST, OIL, GREASE, OR OTHERWISE CLEAN PARTS OR SUBASSEMBLIES. IF NECESSARY, A SOFT CLOTH DAMPENED WITH SOAP OR MILD DETERGENT MAY BE USED. AFTERWARDS, RINSE EACH CLEANED PART OF SUBASSEMBLY WITH A SOFT, DAMP CLOTH AND BUFF WITH A SOFT, DRY CLOTH.

1.07 Materials needed for teletypewriter lubrication are listed in Section 570-004-701. Required tools are included in TP185830 maintenance tool kit and are listed in Section 570-005-800.

1.08 For disassembly and reassembly information refer to Section 574-125-702.

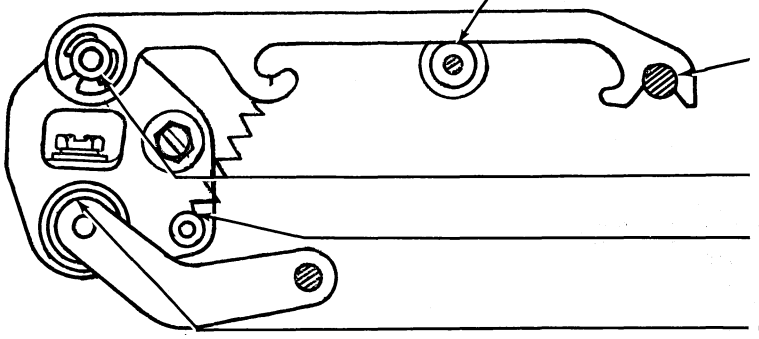
2. BASIC UNIT

2.01 Drive Link Mechanism Area



(Left Side View)

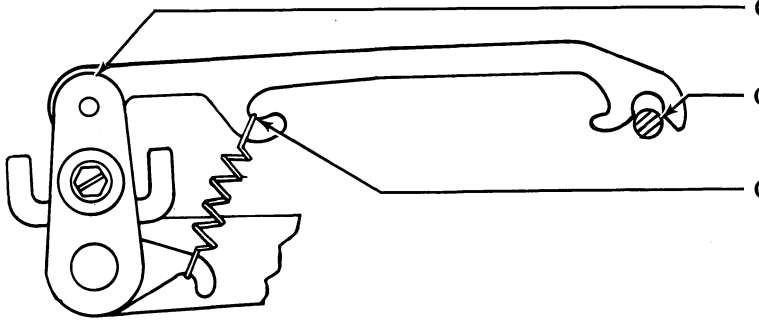
2.02 Drive Link Mechanism (Early Design)



O*	Engaging Surface	Roller
O*	Engaging Surface	Drive Link
O*	Pivot	Drive Link
O*	Hooks (Each End)	Drive Link Spring
O*	Pivot	Link with Post

(Left Side View)

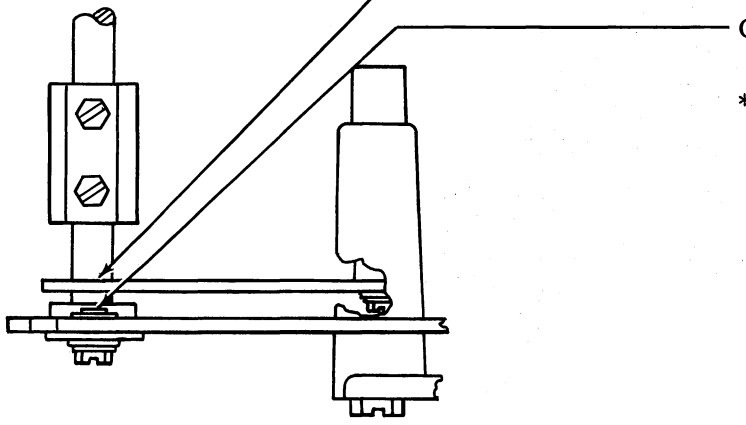
2.03 Drive Link Mechanism (Late Design)



O*	Pivot	Drive Link
O*	Engaging Surface	Drive Link
O*	Hooks (Each End)	Drive Link Spring

(Left Side View)

2.04 Support Link (Late Design)

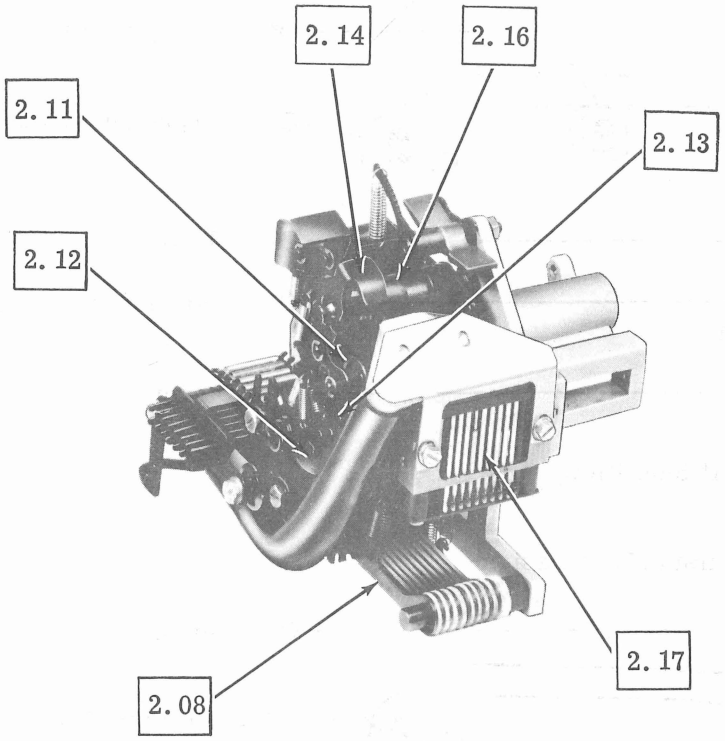


O*	Pivot	Support Link
O	Felt Washer	Plate with Shaft

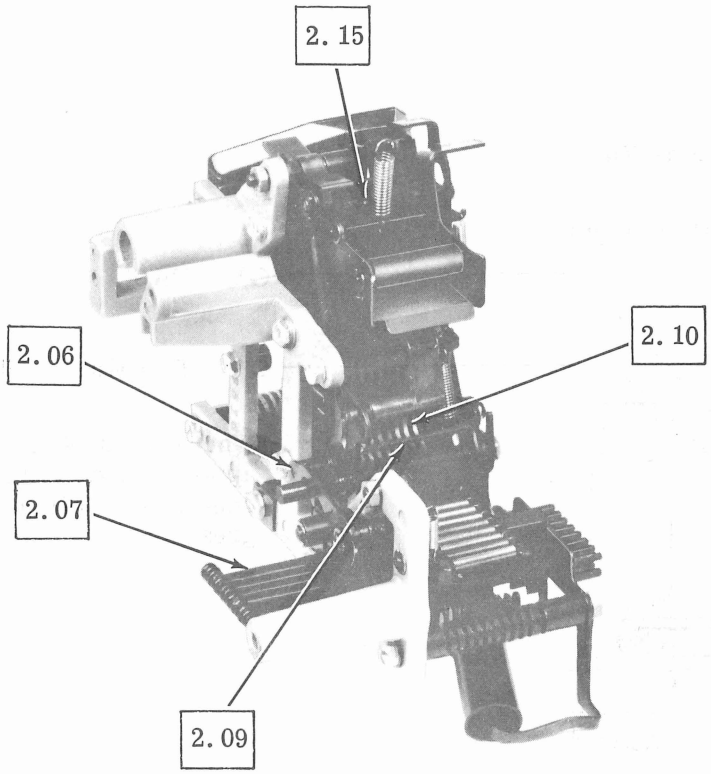
*When unit is lubricated at repair center, apply a coat of thoroughly mixed 50 percent KS7470 oil and 50 percent KS7471 grease.

(Top View)

2.05 Tape Punch

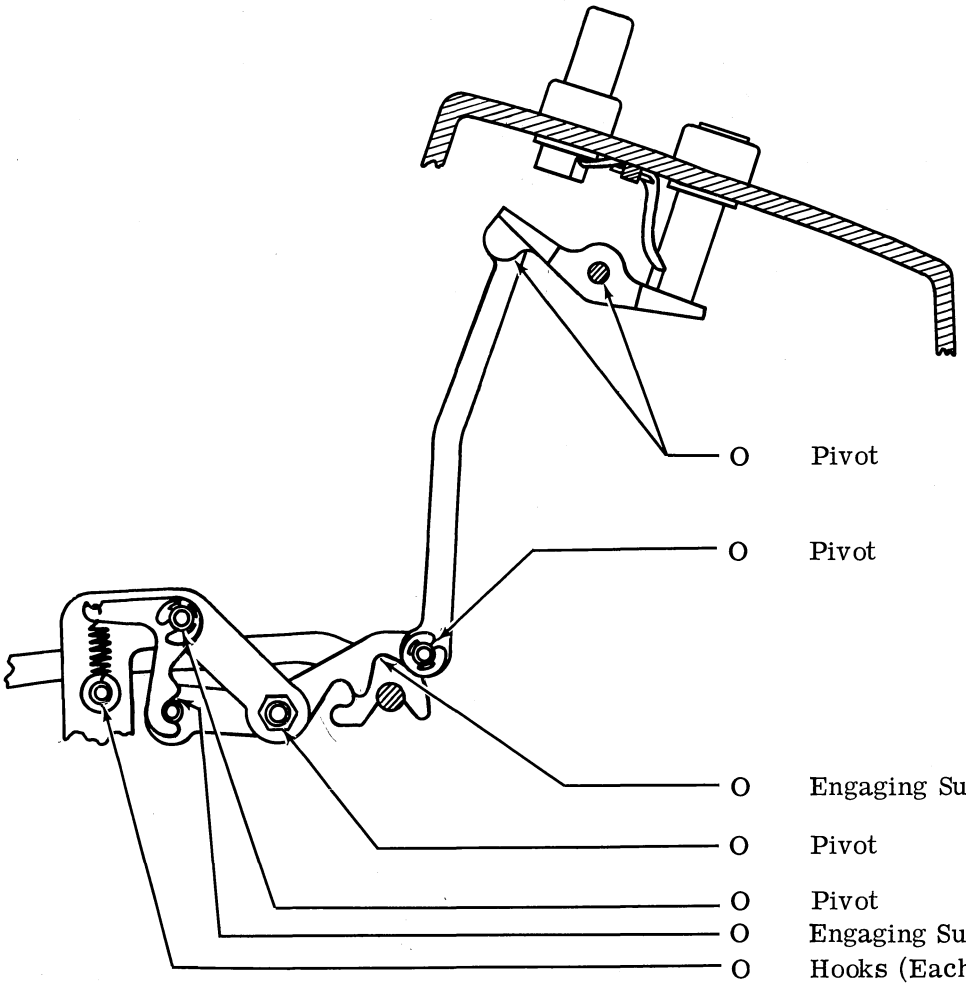


(Left Front View)



(Right Rear View)

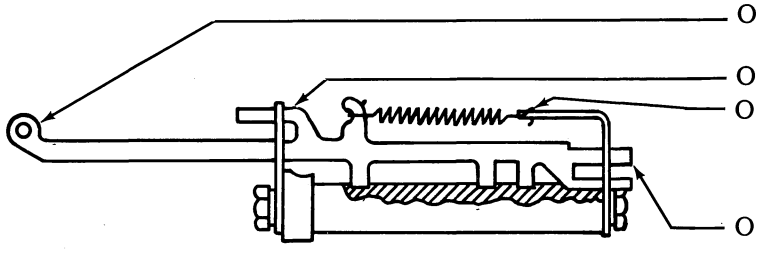
2.06 Control Mechanism



O	Pivot	Lever
O	Pivot	Link
O	Engaging Surface	Detent Lever
O	Pivot	Detent Lever
O	Pivot	Detent
O	Engaging Surface	Detent
O	Hooks (Each End)	Detent Spring

(Left Side View)

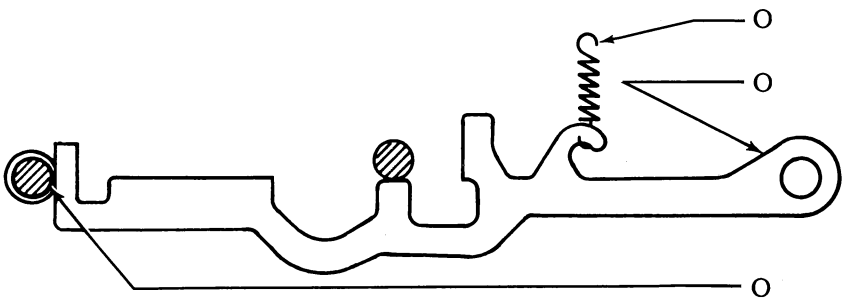
2.07 Codebar Levers



O	Guide Surfaces	Codebar Extensions
O	Sliding Surfaces	Codebar Levers
O	Hooks (Each End)	Codebar Lever Springs
O	Sliding Surfaces	Codebar Levers

(Rear View)

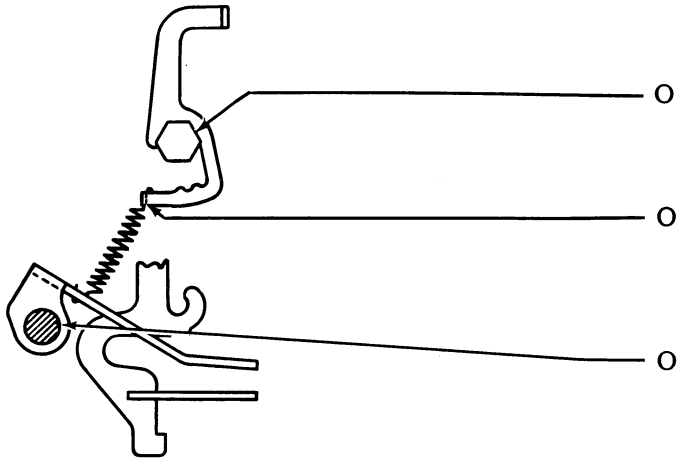
2.08 Sensing Levers



O	Hooks (Each End)	Sensing Lever Springs
O	Felt Washers	Sensing Levers
O	Sliding Surfaces	Sensing Levers

(Left Side View)

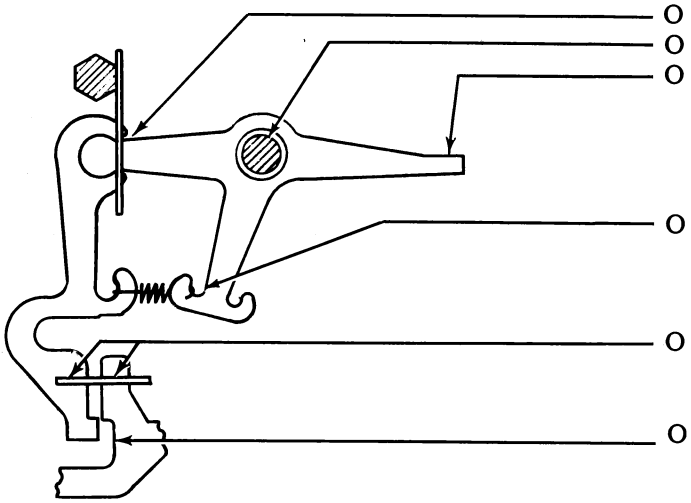
2.09 Stripper Bail



O	Pivot	Hook
O	Hooks (Each End)	Stripper Bail Spring
O	Pivot	Stripper Bail

(Left Side View)

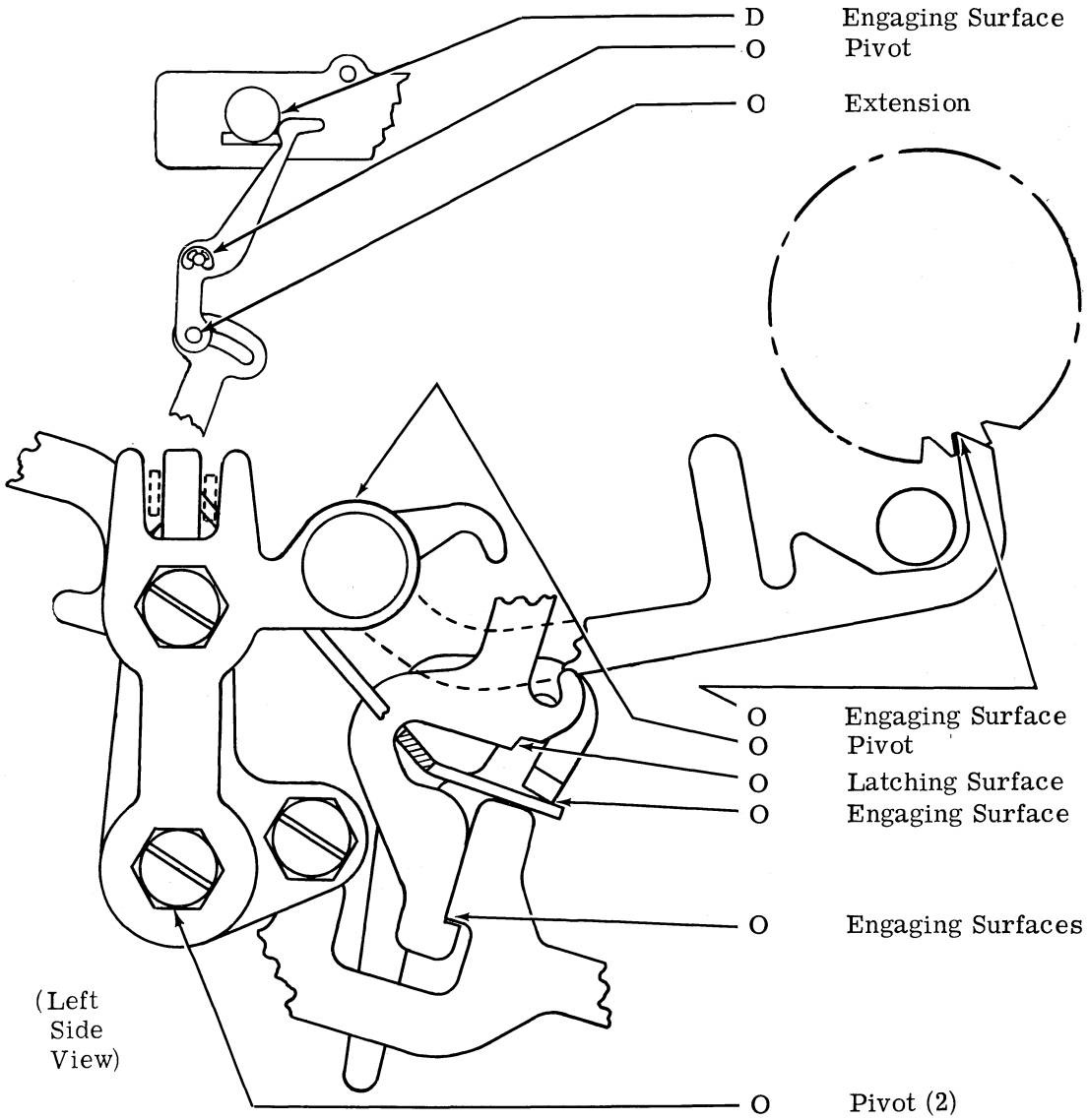
2.10 Pawls and Levers



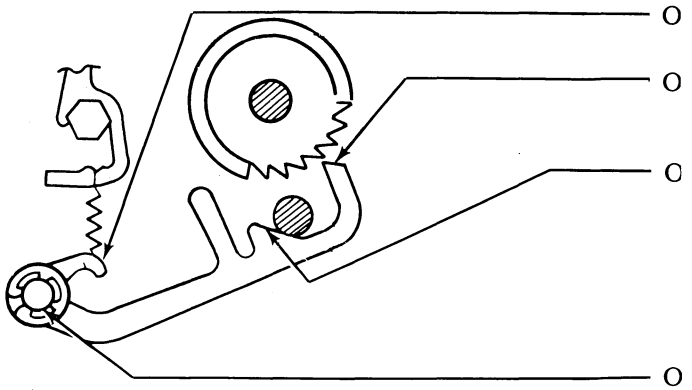
O	Sliding Surfaces	Pawls and Levers
O	Felt Washers	Lever Pivot
O	Engaging Surfaces	Levers
O	Hooks (Each End)	Pawl and Lever Springs
O	Sliding Surfaces	Pawls and Sensing Levers
O	Engaging Surfaces	Pawls and Sensing Lever

(Left Side View)

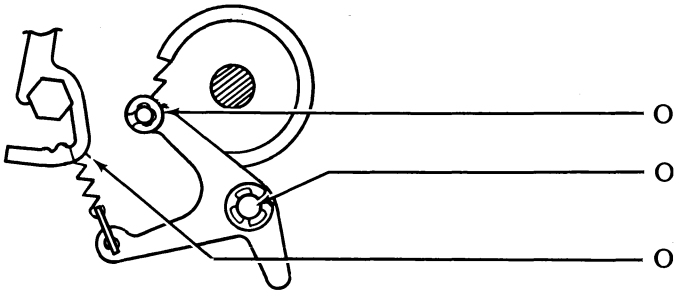
2.11 Feed Mechanism



2.12 Feed Pawl



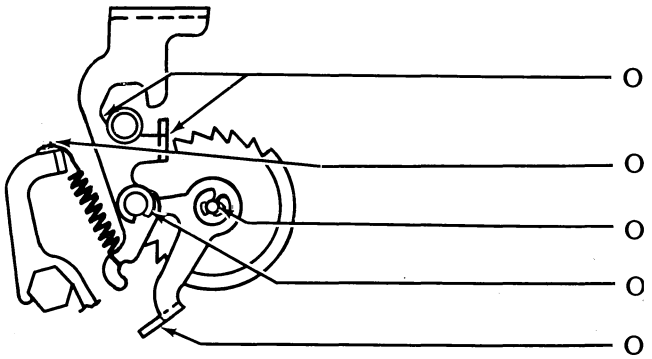
2.13 Detent Lever



O	Roller	Detent Lever
O	Pivot	Detent Lever Shaft
O	Hooks (Each End)	Detent Lever Spring

(Left Side View)

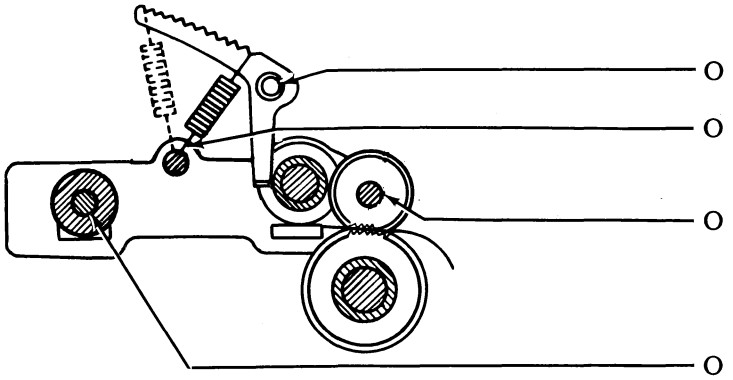
2.14 Backspace Lever



O	Sliding Surface	Backspace Lever
O	Hooks (Each End)	Backspace Lever Spring
O	Pivot	Lever
O	Pivot	Lever
O	Engaging Surface	Lever Extension

(Left Side View)

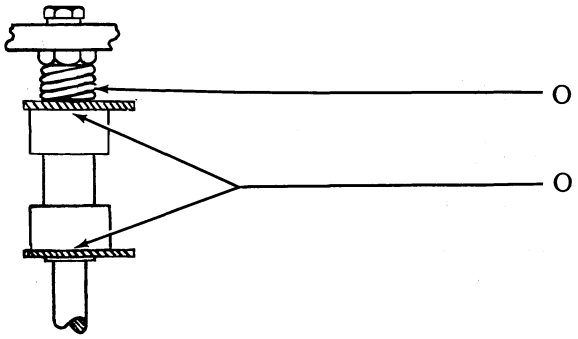
2.15 Tape Guide Assembly



O	Pivot	Arm w/Bushing
O	Hooks (Each End)	Tape Guide Roller Spring
O	Shaft (Both Ends)	Roller
O	Pivots (2)	Rear Roller

(Left Side View)

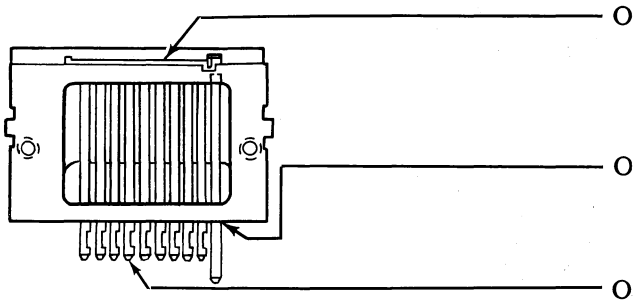
2.16 Tape Guide Roller



O	Compression Spring	Tape Guide Assembly
O	Shaft (Both Ends)	Tape Guide Assembly

(Top View)

2.17 Punch Block Assembly

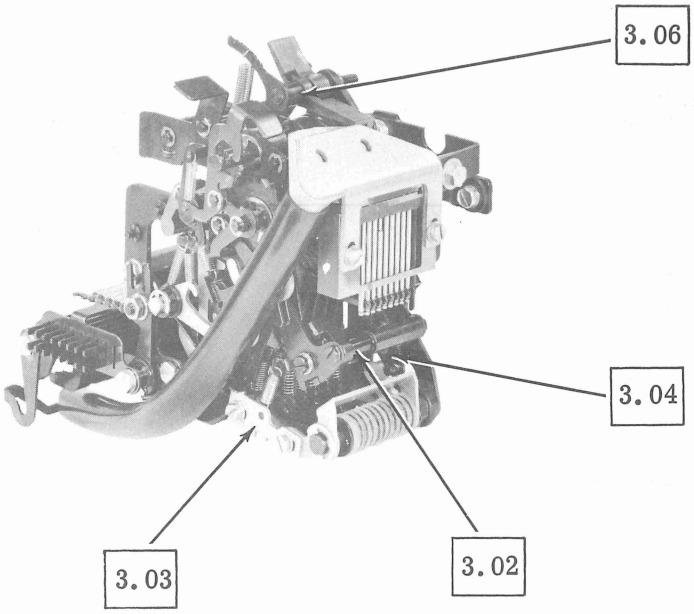


O	Sliding Surface (Upper Guide)	Punch Pins
O	Sliding Surface (Lower Guide)	Punch Pins
O	Sliding Surface	Punch Pins

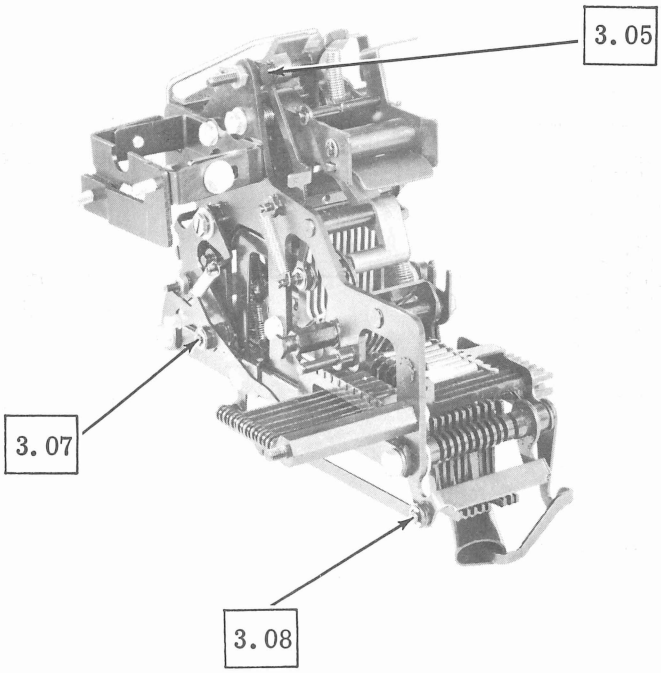
(Front View)

3. VARIATIONS TO THE BASIC UNIT

3.01 Automatic Tape Punch

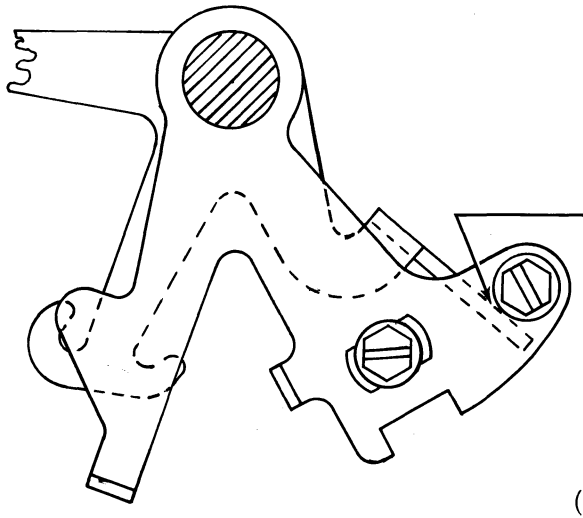


(Left Front View)



(Right Front View)

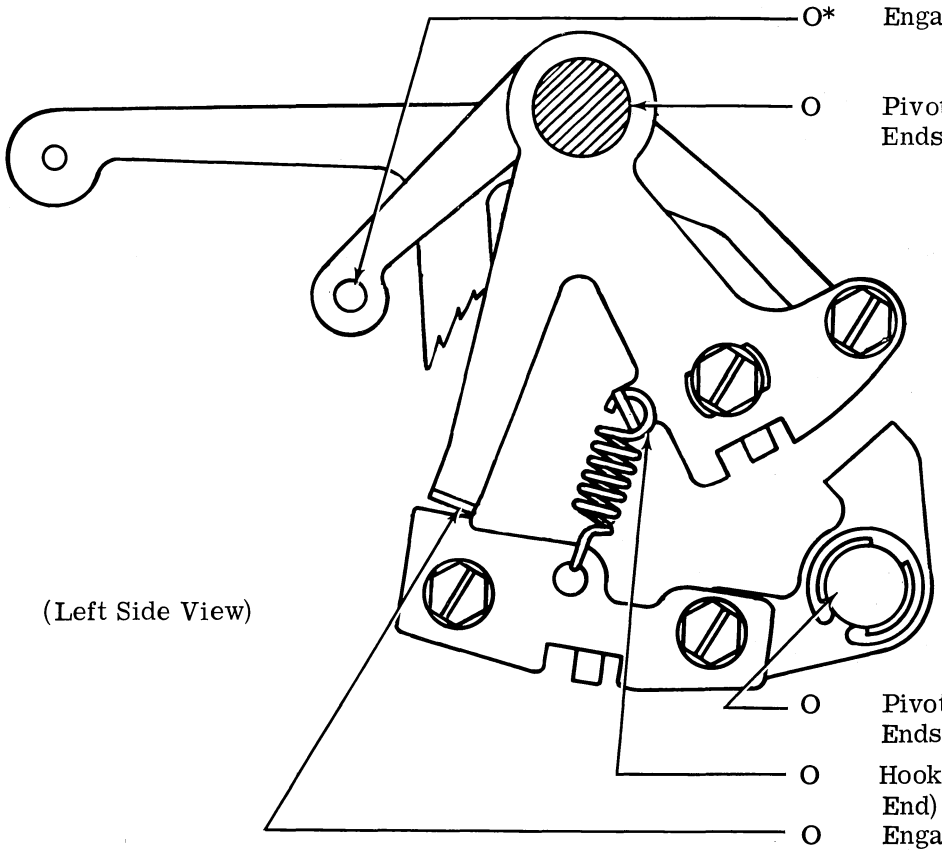
3.02 Automatic On-Off Bail Drive Lever



O	Engaging Surfaces	Lever and Post

(Left Front View)

3.03 Automatic On-Off Control Bail

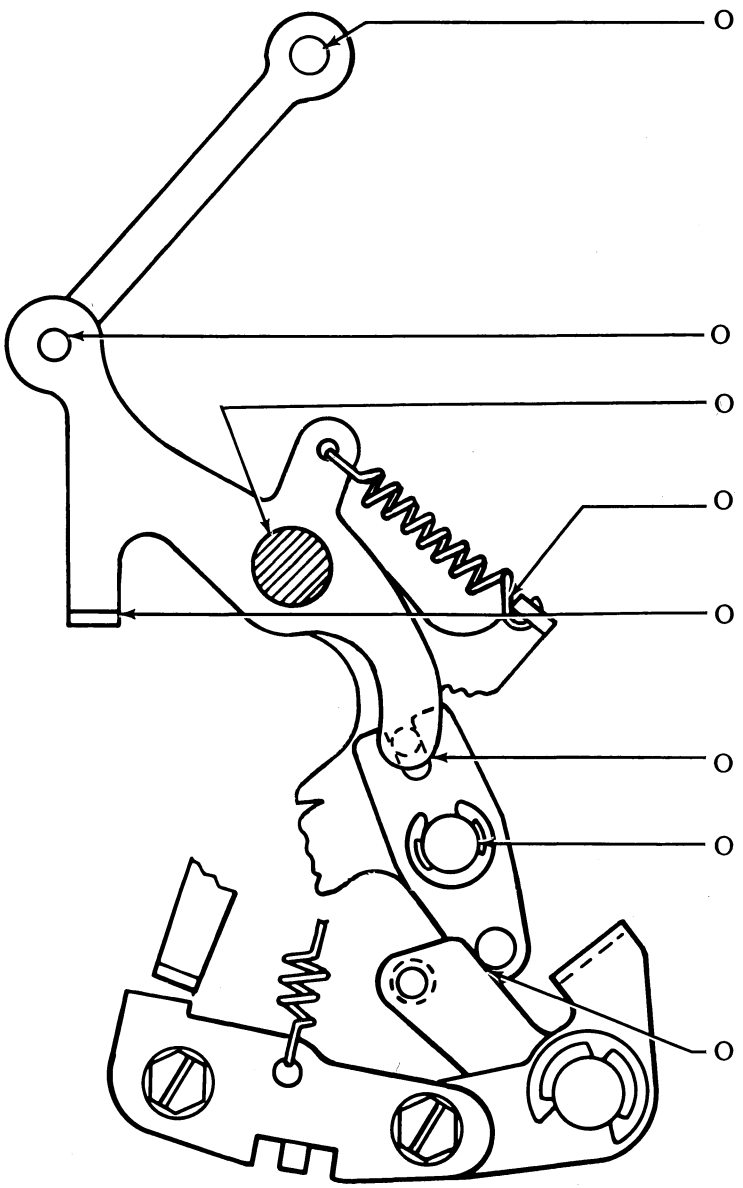


O*	Engaging Surfaces	Lever and Feed Pawl
O	Pivot (Both Ends)	Post
O	Pivot (Both Ends)	Bail
O	Hooks (Each End)	Latch Bail Spring
O	Engaging Surfaces	Lever and Arm

(Left Side View)

*When unit is lubricated at repair center, apply a coat of thoroughly mixed 50 percent KS7470 oil and 50 percent KS7471 grease.

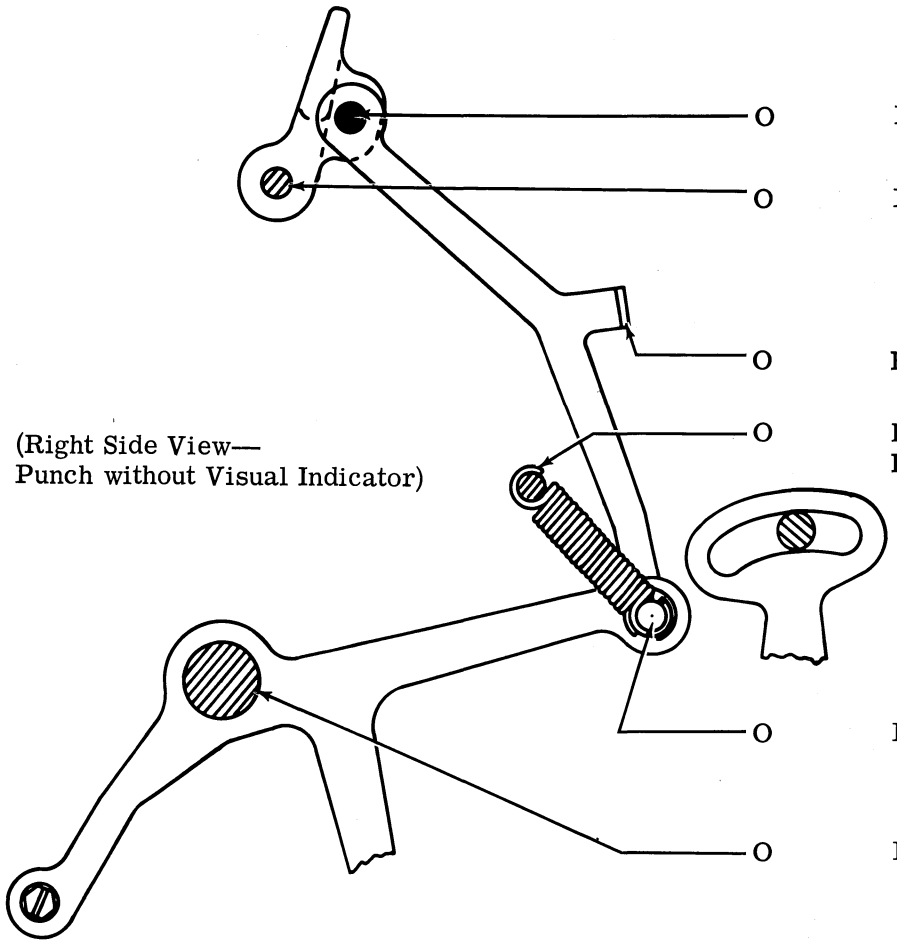
3.04 Automatic On-Off Control Levers



O	Pivot	Link
O	Pivot	Link
O	Pivot	Lever
O	Hooks (Each End)	Return Spring
O	Engaging Surface	Lever
O	Slidng Surfaces	Levers
O	Pivot	Lever
O	Engaging Surfaces	Lever and Bail

(Left Side View)

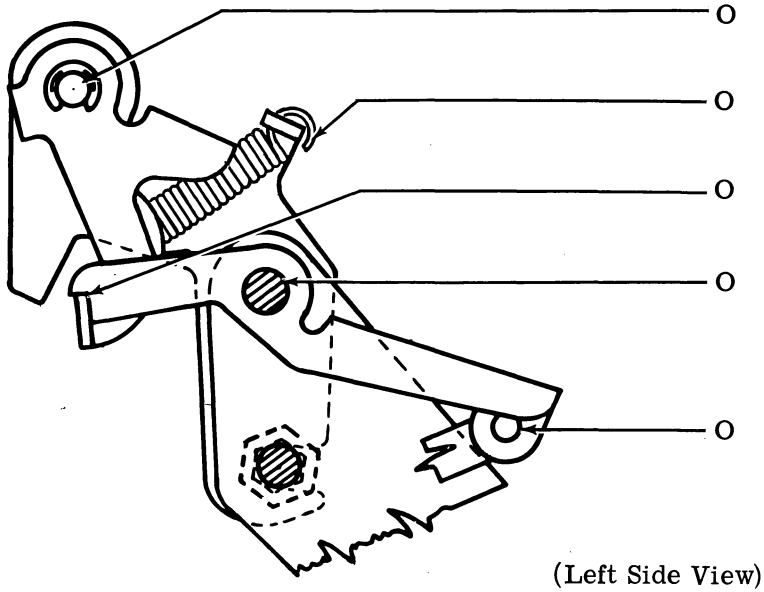
3.05 Automatic On-Off Control Mechanisms



(Right Side View—
Punch without Visual Indicator)

O	Pivot	Lever
O	Pivot	Lever
O	Engaging Surface	Lever
O	Hooks (Each End)	Lever Spring
O	Pivot	Link
O	Pivot	Link

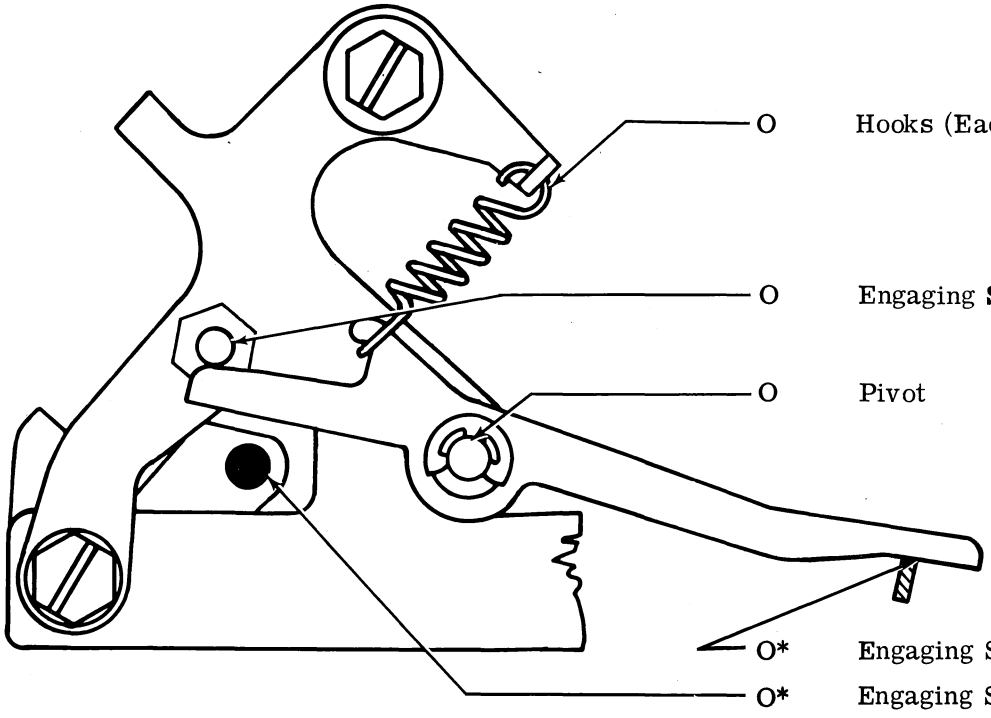
3.06 LOCK "ON" Mechanism



O	Pivot (2)	Lock Bail
O	Hook (Each End)	Lock Bail Spring
O	Engaging Surfaces	Bail and Lever
O	Pivot (2)	Lever
O	Pivot	Link

(Left Side View)

3.07 Punch Interlock Mechanism

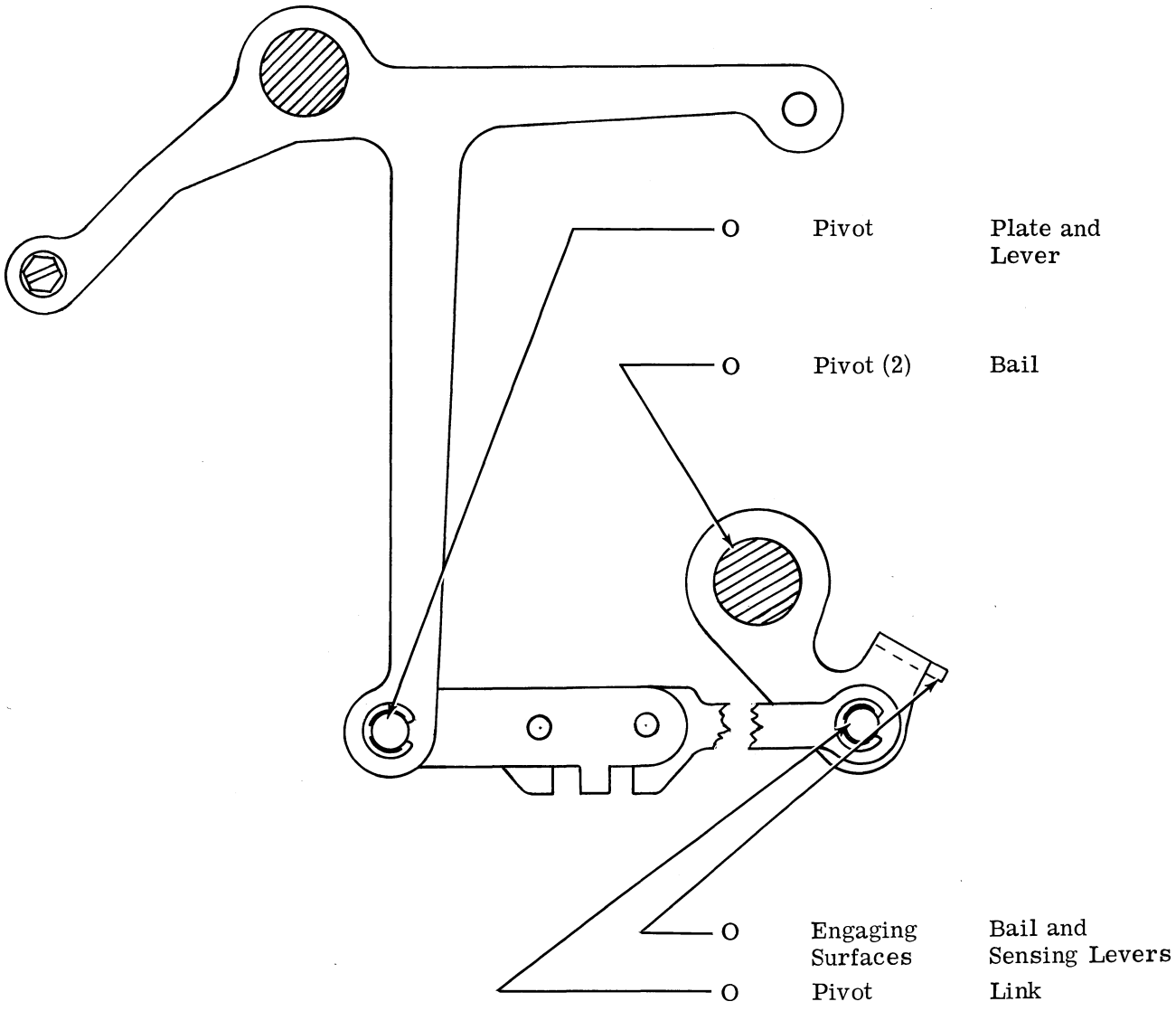


O	Hooks (Each End)	Interlock Spring
O	Engaging Surfaces	Lever and Post
O	Pivot	Lever
O*	Engaging Surfaces	Levers
O*	Engaging Surfaces	Bail and Lever

(Right Side View)

*When unit is lubricated at repair center, apply a coat of thoroughly mixed 50 percent KS7470 oil and 50 percent KS7471 grease.

3.08 Sense Suppression Mechanism



(Right Side View)