35 "CARDATA"* FEEDER (EPCF)

ADJUSTMENTS

CONTENTS

1. GENERAL

1.01 This section contains the specific requirements and adjustments for the 35 "CARDATA" feeder (edge punched card feeder).

CAUTION: REMOVE POWER FROM SET OR UNIT BEFORE MAKING ADJUSTMENTS.

1.02 The adjustments in this section are arranged in a sequence that should be followed if a complete readjustment is undertaken. A complete adjusting procedure should be read before attempting to make the adjustment. After an adjustment is completed, be sure to tighten any nuts or screws that may have been loosened, unless otherwise instructed.

1.03 The adjusting illustrations indicate tolerances, positions of moving parts, spring tensions, and the angle at which scales should be applied. The tools required to make adjustments and check spring tensions are not supplied with the equipment, but are listed in the appropriate tool section (570-005-800). Springs which do not meet the requirements, and for which there are no adjusting procedures, should be discarded and replaced by new springs.

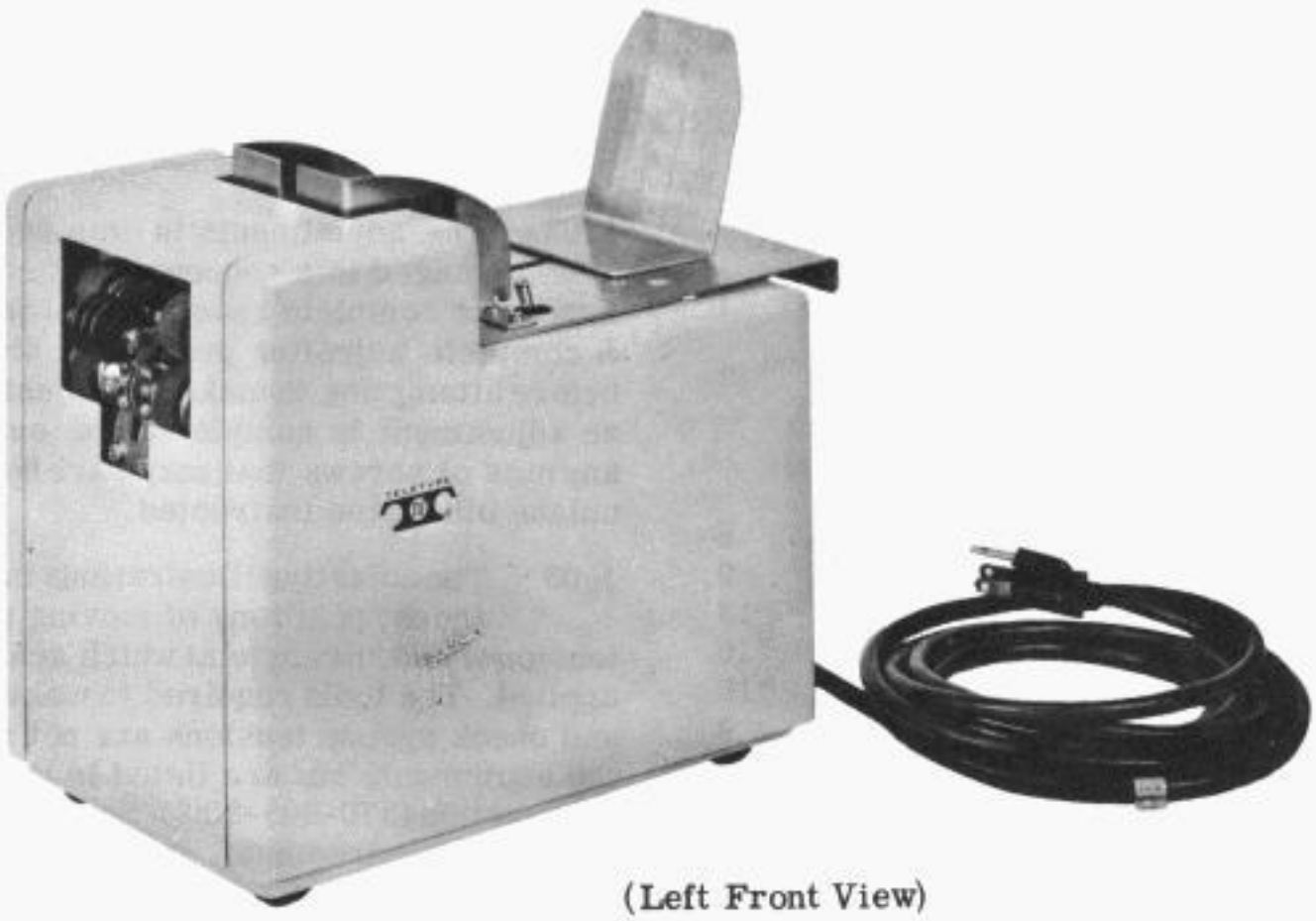
1.04 References made to left or right, up or down, front or rear, etc, apply to the unit in its normal operating position as viewed from the front.

1.05 If necessary refer to the appropriate disassembly and reassembly section for removal of cover and any internal mechanisms associated with the feeder. For any further information regarding location of parts refer to exploded views in the appropriate parts section.

1.06 Where adjustment instructions call for removal of components, assemblies, subassemblies or parts, all adjustments which the removal of these parts might facilitate should be made before the parts are replaced or as the equipment is reassembled.

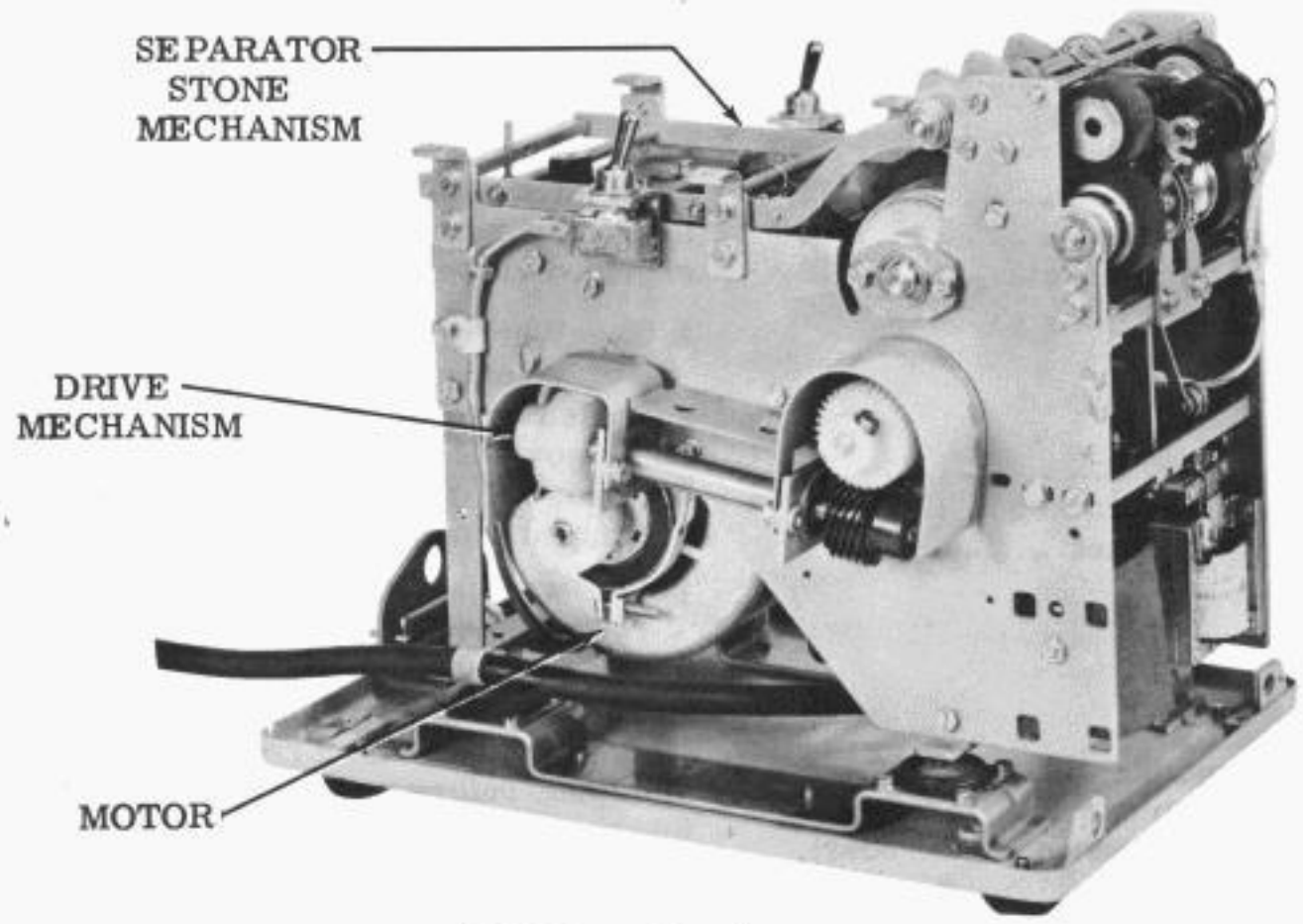
1.07 All electrical contact points should meet squarely. Contacts with the same diameter should not be out of alignment more than 25 percent of the contact diameter. Check contacts for pitting and corrosion and clean or burnish them before making specified adjustment or tolerance measurement. Avoid sharp kinks or bends in the contact springs.

CAUTION: KEEP ALL ELECTRICAL CONTACTS FREE OF OIL AND GREASE.



(Left Front View)

Figure 1 - 35 Edge Punched Card Feeder



(Left Rear View)

Figure 2 - 35 Edge Punched Card Feeder Without Top Plate and Cover

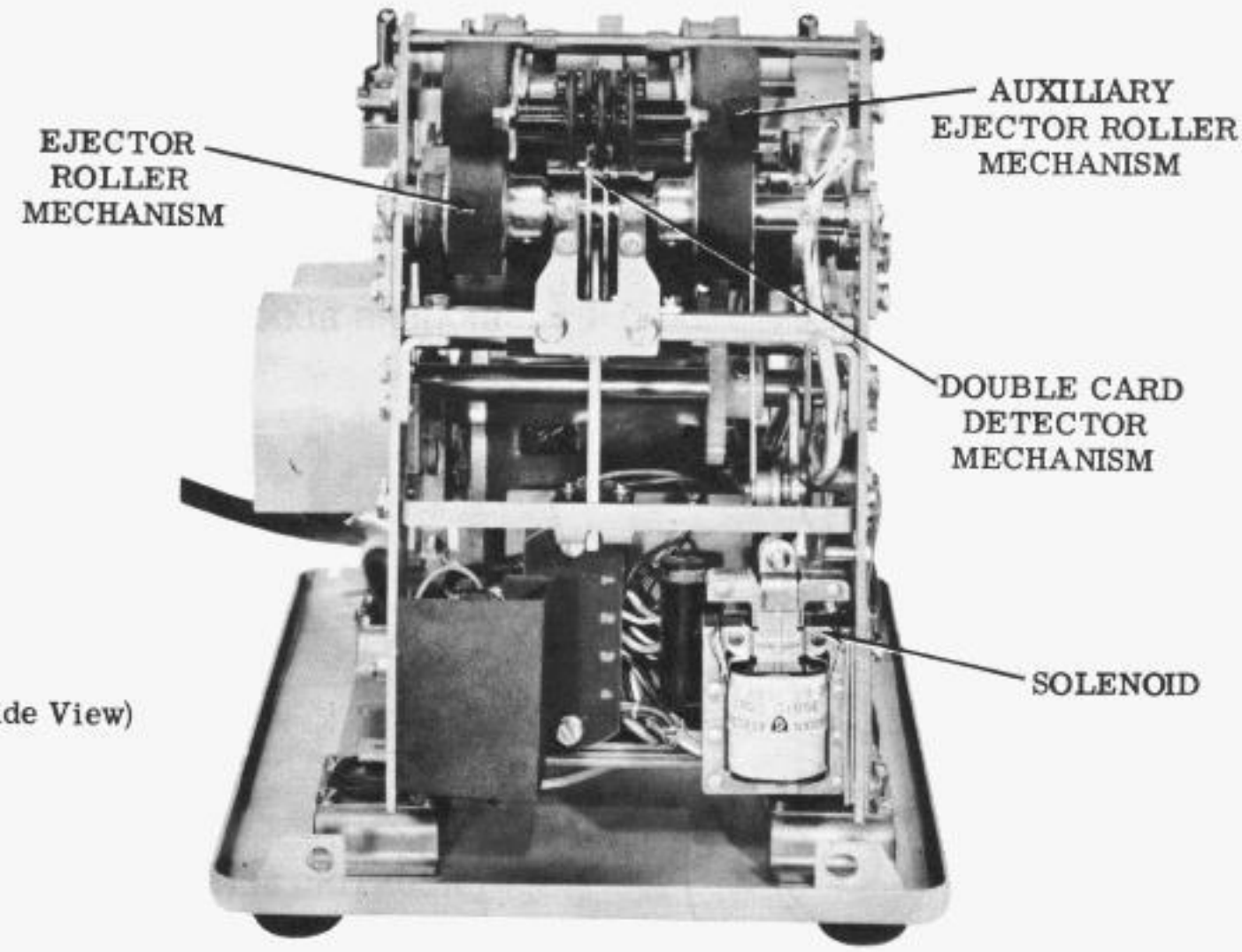


Figure 3 - 35 Edge Punched Card Feeder Without Top Plate and Cover

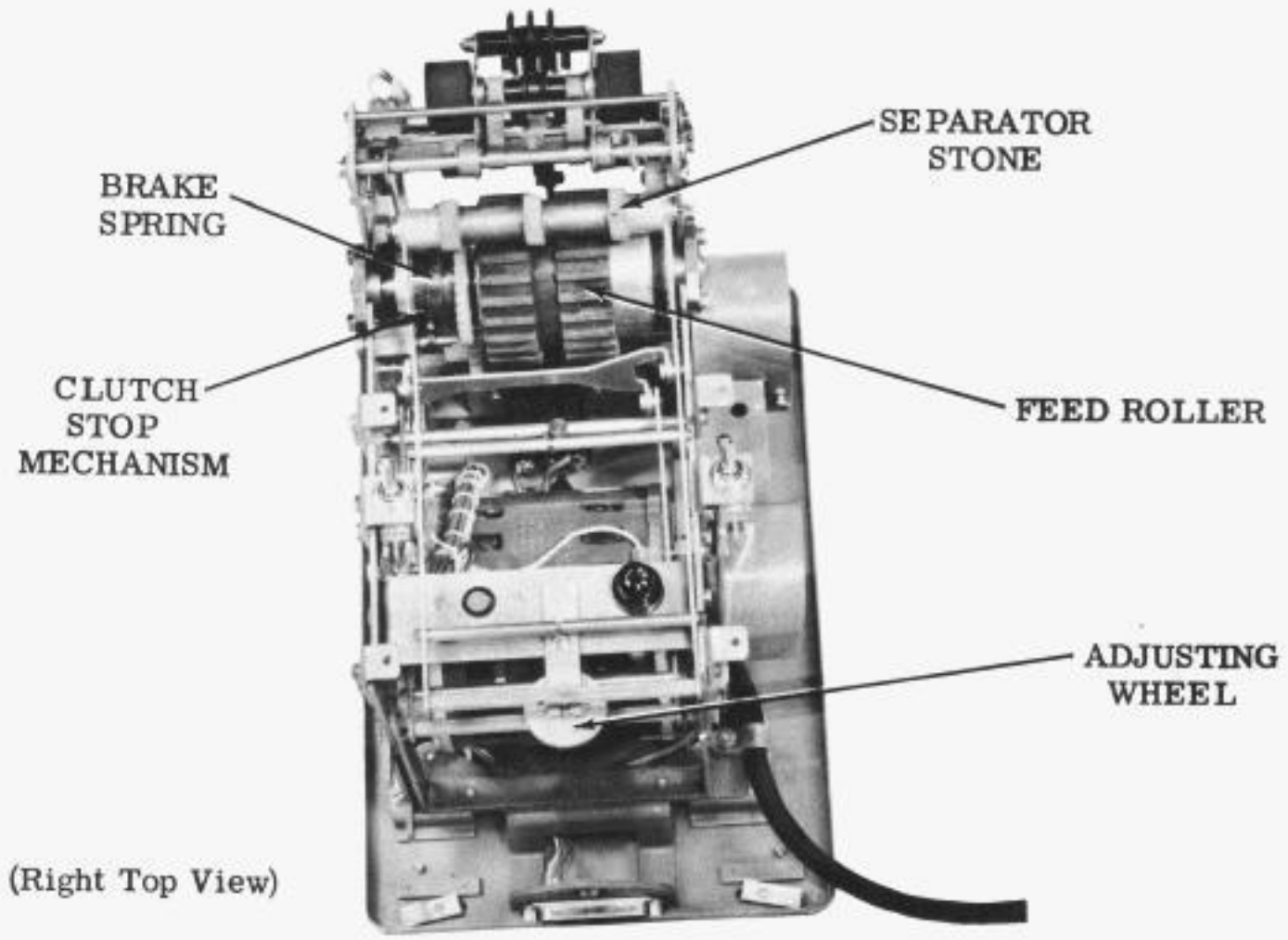
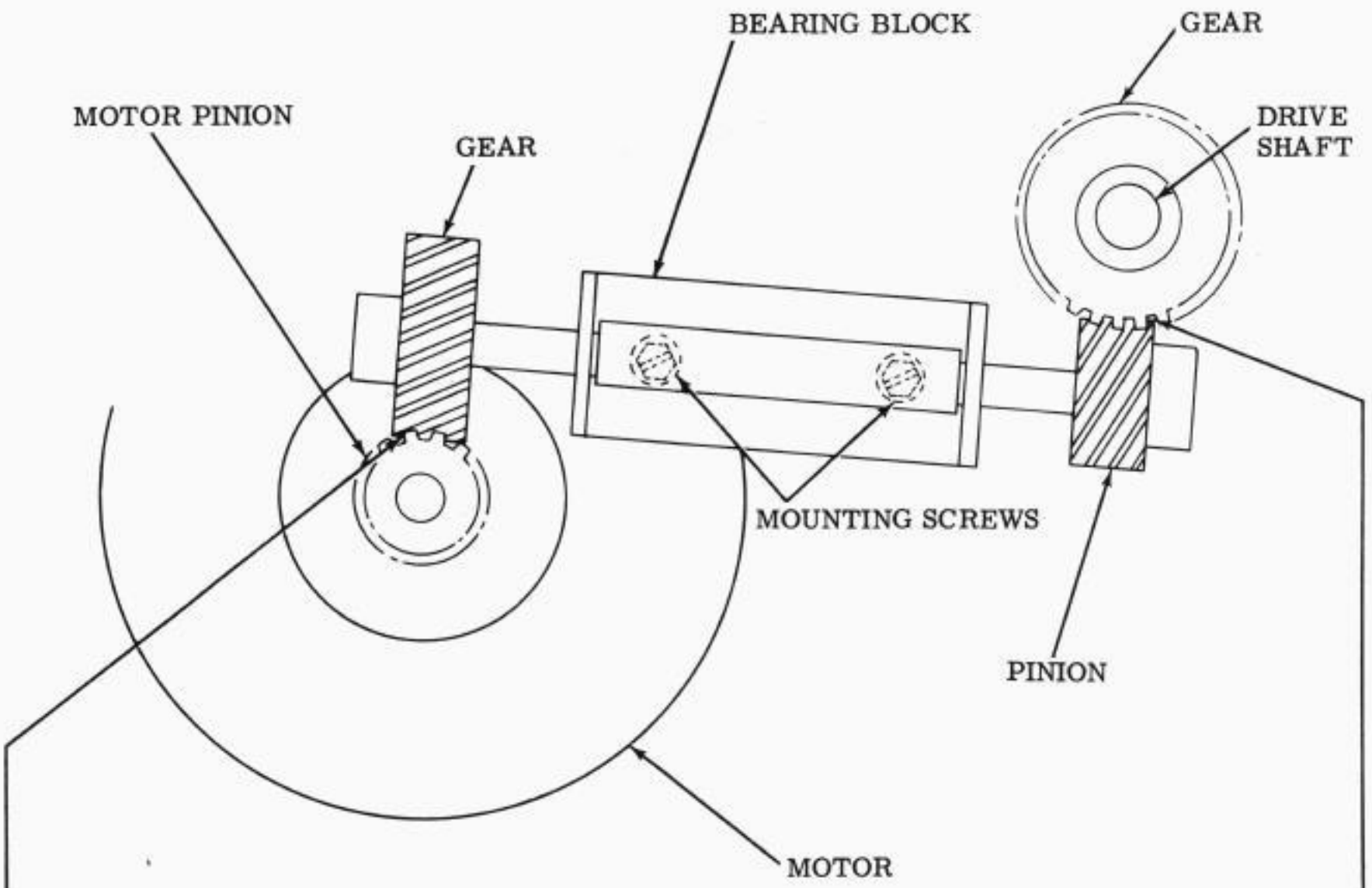


Figure 4 - 35 Edge Punched Card Feeder Without Top Plate and Cover

2. BASIC UNITS

2.01 Drive Mechanisms

Note: Remove the top plate and cover assembly as outlined in the appropriate disassembly and reassembly section.



(Rear View)

GEAR BACKLASH

(1) Requirement
There should be a barely perceptible amount of backlash between the motor pinion and its mating driven gear at the point of minimum clearance.

(2) Requirement
There should be a barely perceptible amount of backlash between the drive shaft gear and its mating drive pinion at the point of minimum clearance.

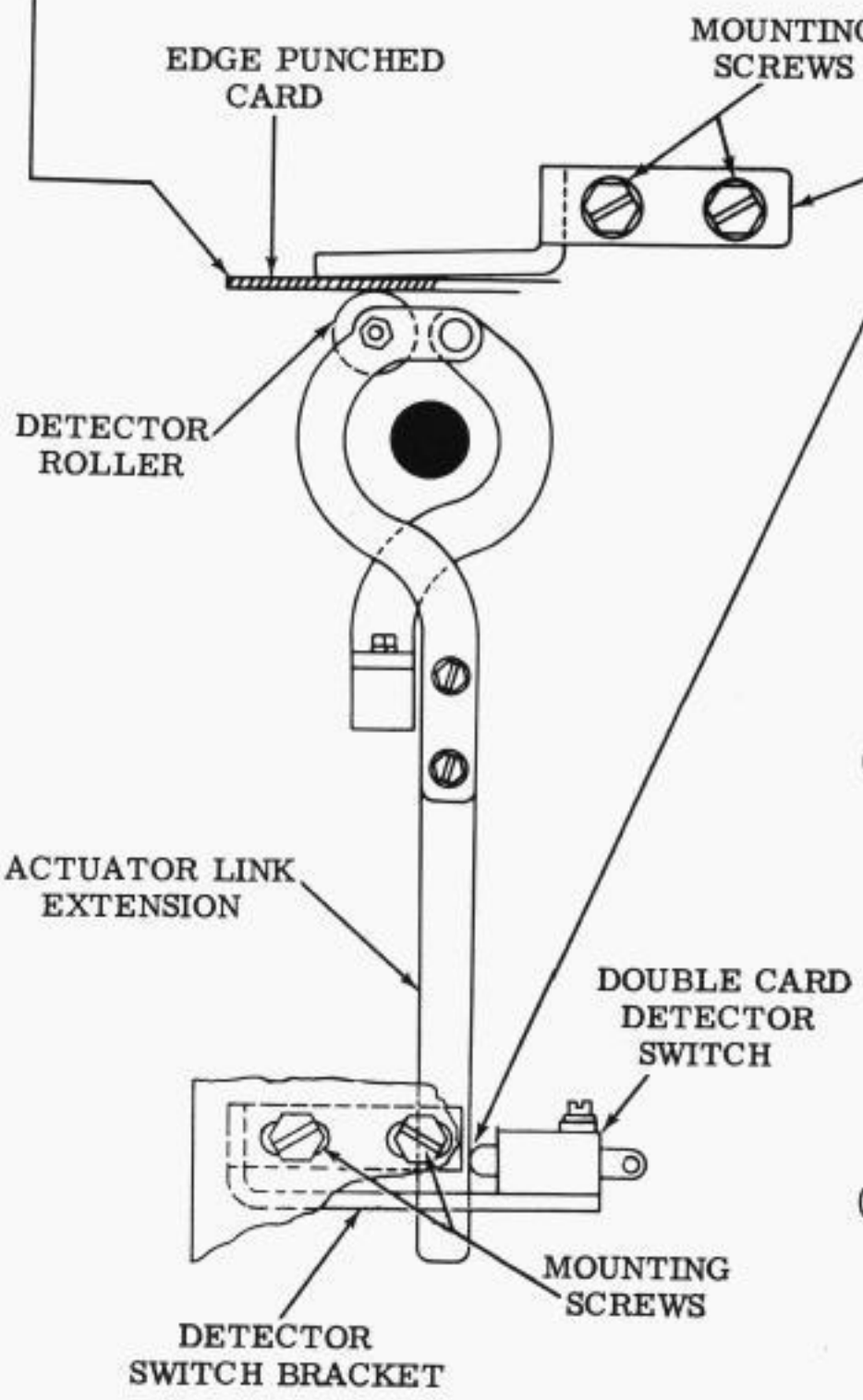
To Adjust
With the two mounting screws friction tight, position the bearing block by means of its elongated holes. If either requirement (1) or (2) is changed the other should be checked. Tighten screws.

2.02 Double Card Detector Switch Mechanism

DOUBLE CARD DETECTOR SWITCH

(1) Requirement
With two edge punched cards between the pressure bracket and the detector roller, the double card switch shall just operate.

(2) Requirement
A single edge punched card shall pass between the pressure bracket and the detector roller without operating the double card switch and with a minimum of drag.



(Front View)

(1) To Adjust
Remove bracket and its spring from the detector pivot support. With the four mounting screws that mount the pressure bracket and the four mounting screws that mount the detector switch bracket friction tight, position the switch bracket to the center of its adjustment range by means of the elongated holes in the side frames.

(2) To Adjust
Insert two edge punched cards between the pressure bracket and the detector roller. Position the pressure bracket by means of its oversized holes to cause the detector switch to operate but not to bottom the switch plunger tightly. Tighten the four screws that mount the pressure bracket. Recheck to see that the switch plunger is not tightly bottomed.

(3) To Adjust
Position the detector switch bracket by means of its elongated holes to achieve minimum drag on a single card while operating reliably when two cards enter the switch area. Tighten mounting screws.

(4) To Adjust
Replace bracket and its spring which were removed in above adjustment (1).

2.03 Top Plate Mechanisms

TOP PLATE MOUNTING BRACKET

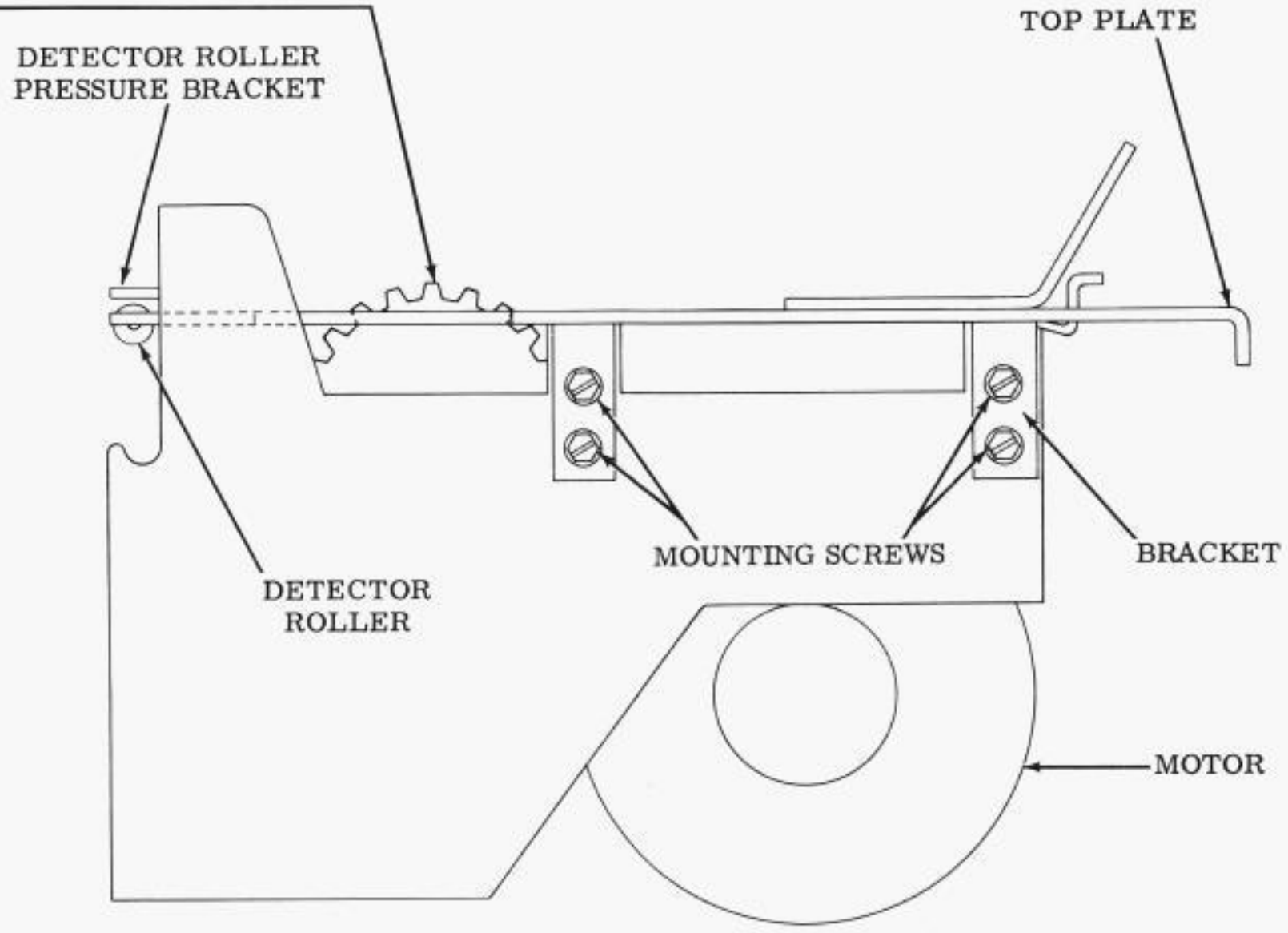
Requirement

The lugs on the rubber feed roller should extend above the top plate approximately their full height. Make sure that top plate is not touching eject belt pressure roller.

To Adjust

Loosen the mounting screws on the four mounting bracket to friction tightness. Position the brackets by means of their elongated holes to meet the requirement. Tighten screws.

Note: This adjustment may require refinement as noted in the SEPARATOR STONE ORIENTATION adjustment.



(Front View)

2.04 Separator Stone Mechanisms

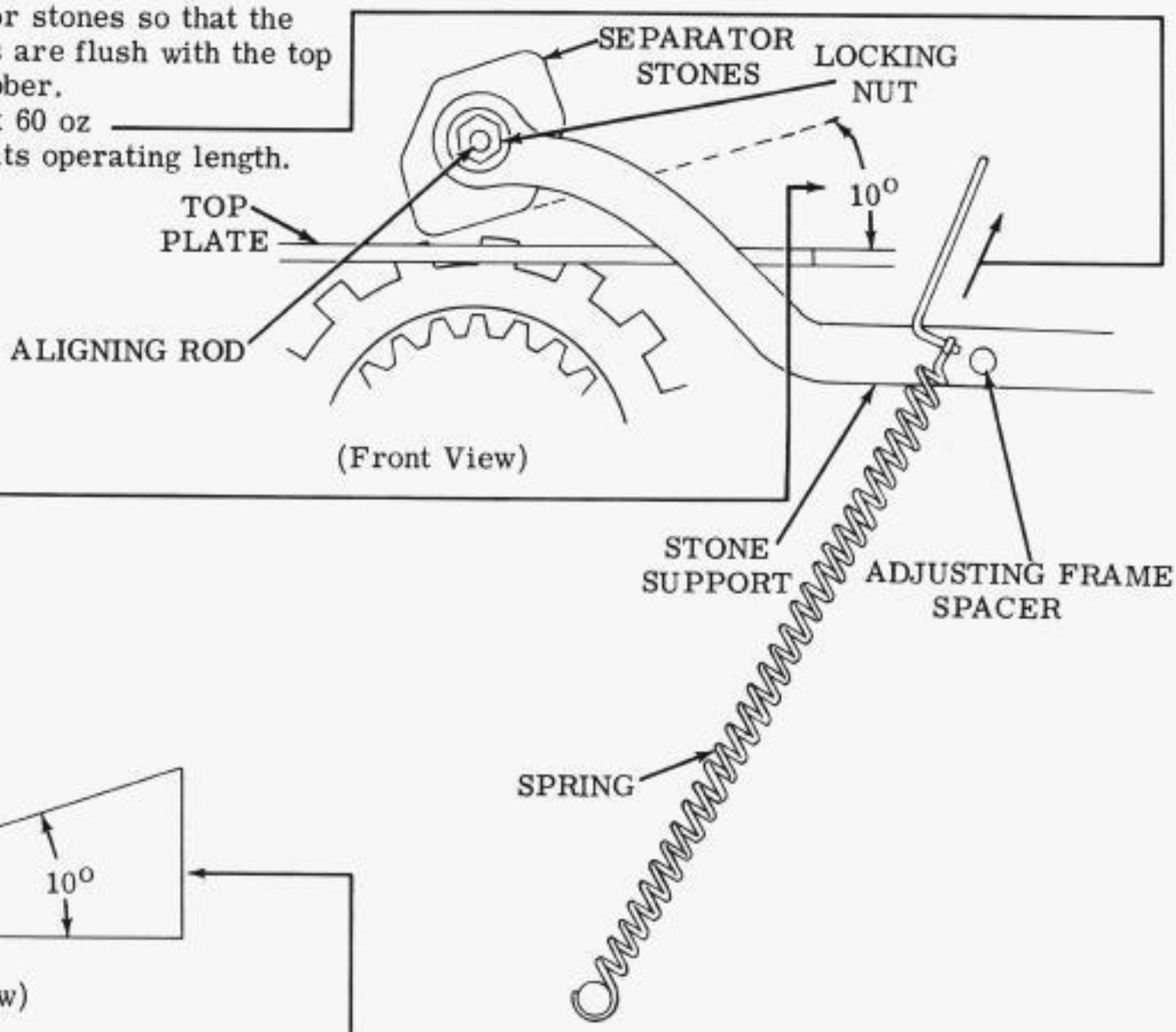
STONE SUPPORT SPRING

Requirement

Position the separator stones so that the bottoms of the stones are flush with the top of the feed roller rubber.

Min 50 oz ---Max 60 oz

to pull the spring to its operating length.



SEPARATOR STONE ORIENTATION

(1) Requirement

The separator stones should form an angle of approximately 10 degrees with the top plate.

(2) Requirement

The clearance between each of the separator stones and the top plate should be approximately equal.

To Adjust

A 10 degree gauge constructed from paper or cardboard can be used to make the adjustment. A protractor if available would help in determining the correct angle of the gauge. The figure illustration cannot be used as a gauge since it has been reduced from its original 10 degree angle size. Loosen the two nuts on the end of the stone aligning rod. Insert the 10 degree gauge between the top plate and the separator stones. Rotate the stones to meet the requirement. Tighten the nuts.

Note: If "Requirement (2)" cannot be met refine the TOP PLATE MOUNTING BRACKET adjustment. Recheck above adjustment.

CAUTION: DO NOT OVERTIGHTEN THE LOCKING NUTS AS EXCESSIVE PRESSURE MAY CAUSE THE SEPARATOR STONES TO CRACK.

Recheck SEPARATOR STONE adjustment in the appropriate installation section.

2.05 Auxiliary Ejector Mechanisms

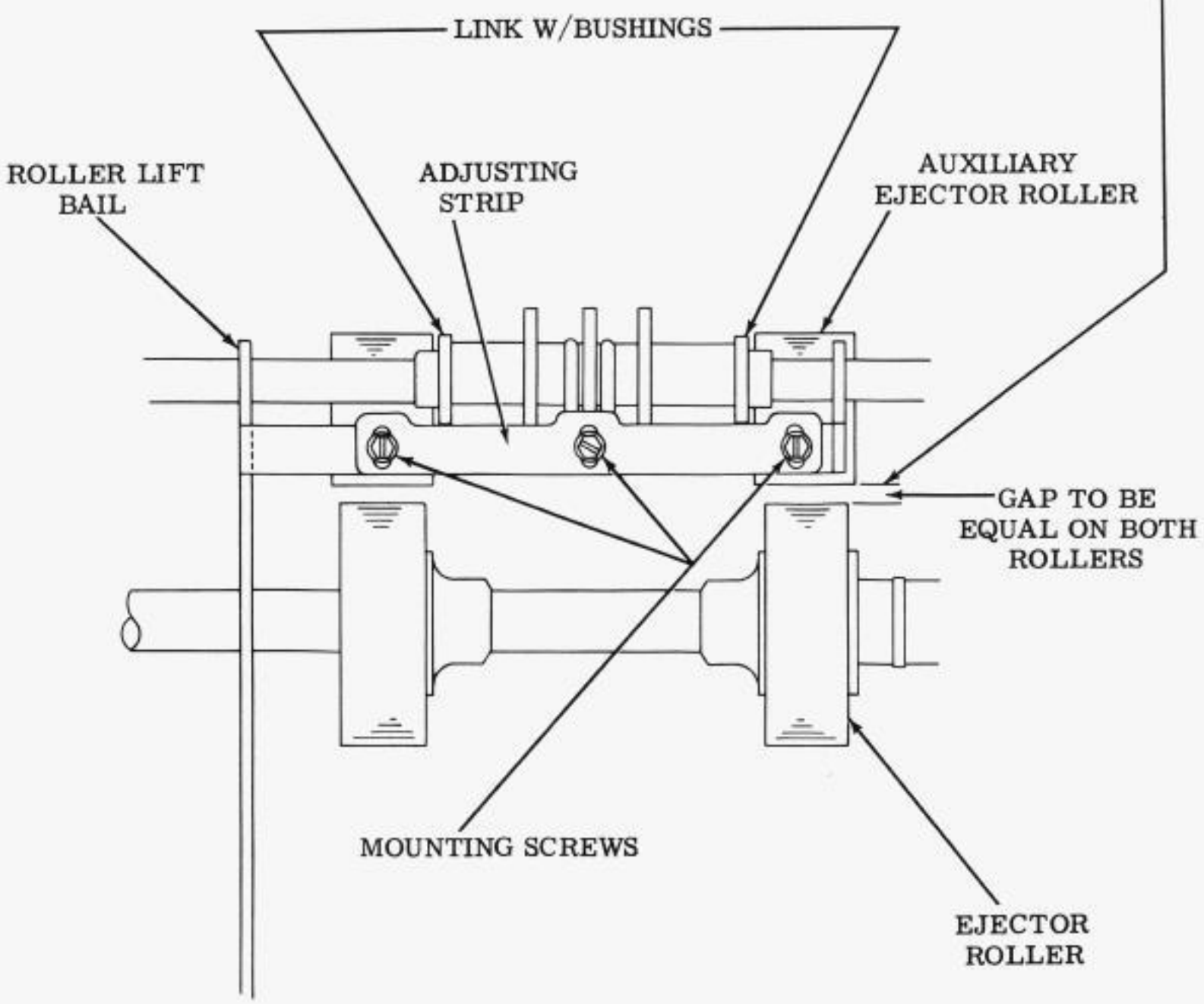
AUXILIARY EJECTOR ROLLER BAIL ADJUSTING PLATE

Requirement

With the solenoid manually held in the attracted position, the auxiliary ejector rollers should lift from the ejector rollers. The clearance between the right and left ejector rollers and the auxiliary ejector rollers should be approximately the same.

To Adjust

With the three mounting screws friction tight, position the adjusting strip by means of its elongated slots. Tighten screws.



(Right Side View)

2.06 Auxiliary Ejector Mechanisms (continued)

AUXILIARY EJECTOR ROLLER GAP

Requirement

With the solenoid held in the attracted position, the auxiliary ejector roller bail should lift from the ejector rollers. Clearance between the auxiliary roller and the ejector rollers

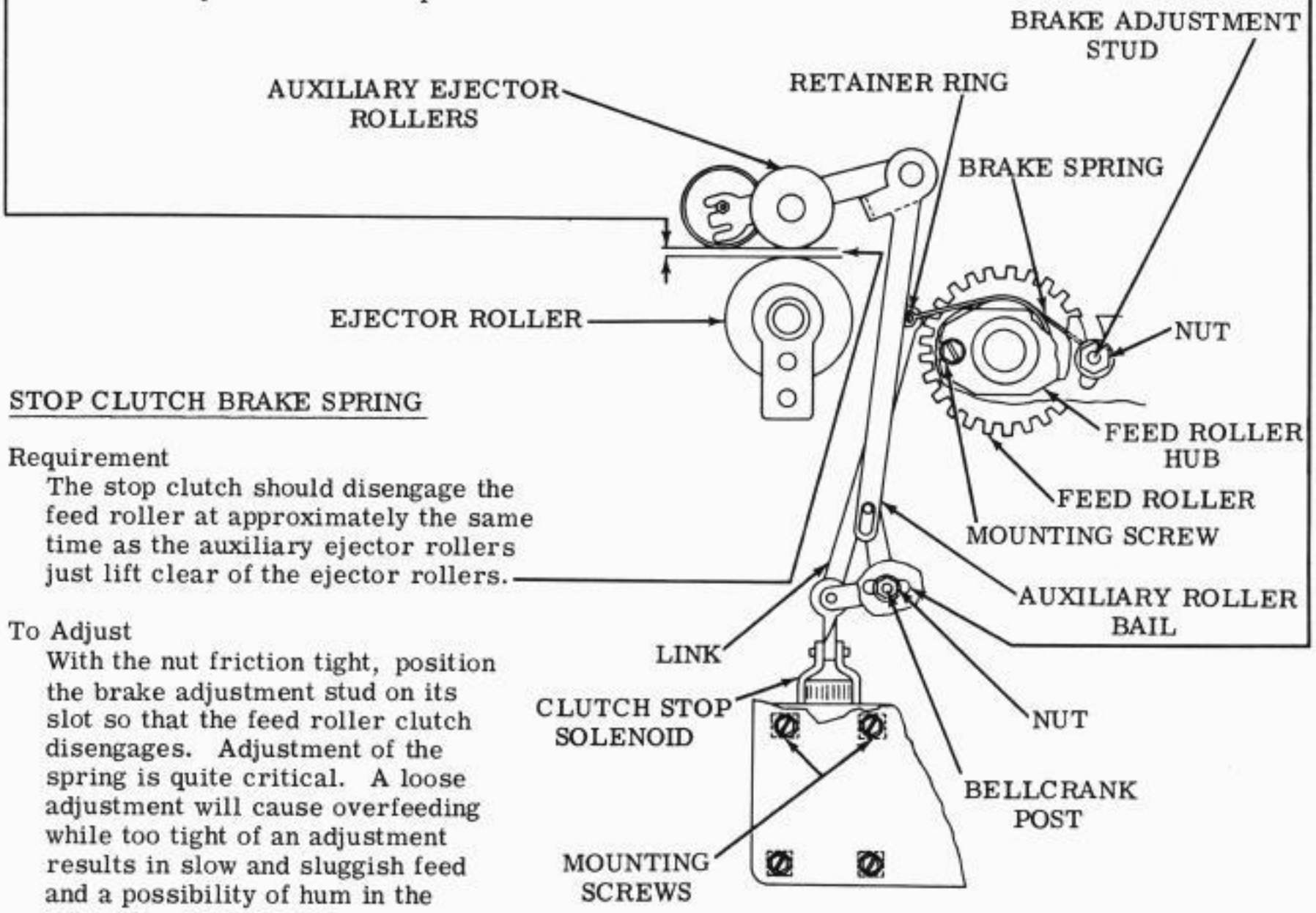
Min 0.035 inch---Max 0.095 inch

(1) To Adjust

With the mounting nut friction tight, position the bellcrank post by means of its elongated slot to the center of its adjustment range. Tighten nut.

(2) To Adjust

With the four mounting screws friction tight and the plunger attracted, position the clutch stop solenoid by means of its enlarged mounting holes to meet the requirement. The plunger should be free throughout its entire stroke. Tighten screws. If the requirement cannot be met, position the bellcrank on its elongated slot and readjust the solenoid position.



(Front View)

STOP CLUTCH BRAKE SPRING

Requirement

The stop clutch should disengage the feed roller at approximately the same time as the auxiliary ejector rollers just lift clear of the ejector rollers.

To Adjust

With the nut friction tight, position the brake adjustment stud on its slot so that the feed roller clutch disengages. Adjustment of the spring is quite critical. A loose adjustment will cause overfeeding while too tight of an adjustment results in slow and sluggish feed and a possibility of hum in the solenoid. Tighten nut.

2.07 Auxiliary Ejector Mechanisms (continued)

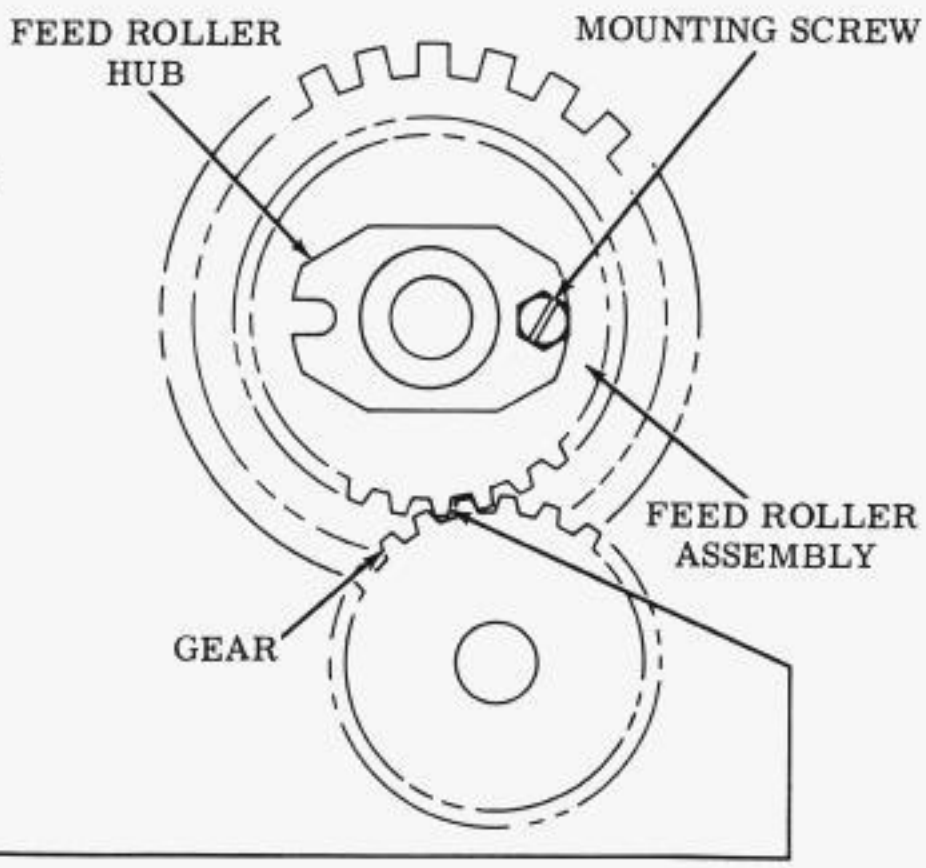
FEED ROLLER DRIVE GEAR BACKLASH

Requirement

There should be some backlash between the feed roller assembly gear and the associated gear at the point of least clearance.

To Adjust

With the mounting screws friction tight, position the front feed roller hub by means of its oversize slots to meet the requirement. Tighten screws.



AUXILIARY ROLLER BAIL CONTACT

(1) Requirement

With the clutch stop solenoid in the unoperated position, there should be a gap of

Min 0.008 inch---Max 0.015 inch

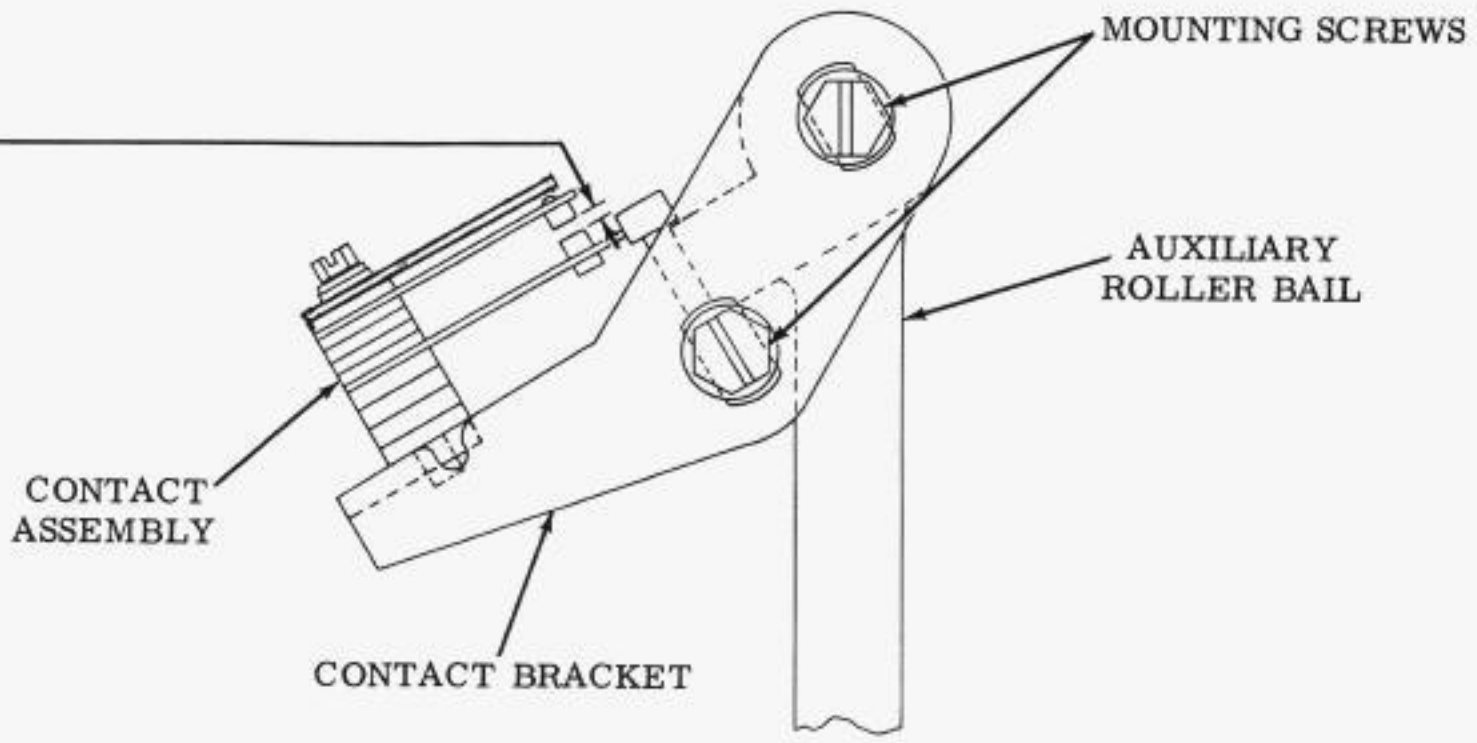
at the normally open contact of the contact assembly.

(2) Requirement

With the clutch solenoid in the operated position, the normally open contact of the contact assembly should be closed.

To Adjust

With the two mounting screws friction tight, rotate the contact bracket so that the contact assembly swinger bears against the auxiliary roller bail and the requirement is met. Tighten screws.



(Front View)

2.08 Top Plate Mechanism (continued)

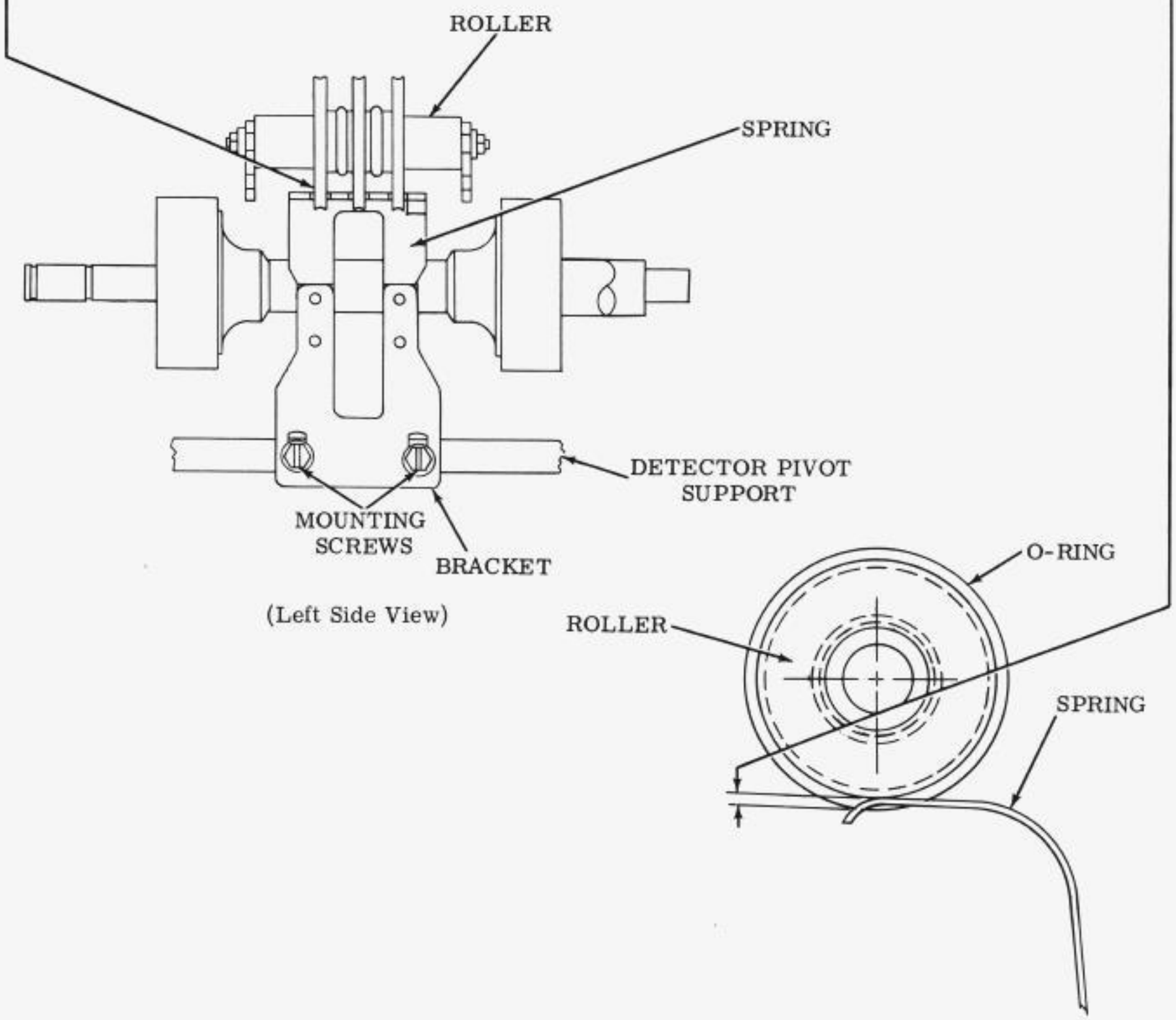
FORWARD ROLLER SPRING BRACKET

(1) Requirement
The spring should be centrally located about the rollers.

(2) Requirement
With the clutch stop solenoid plunger in the de-energized position, the top of the spring should be approximately 1/32 inch above the bottom of the O-rings on the rollers.

(3) Requirement
With the clutch stop solenoid plunger in the energized position, the roller should be lifted above the fingers of the spring.

To Adjust
With the mounting screws friction tight, position the spring bracket by means of its elongated holes to meet the requirements. Tighten screws.



2.09 Separator Stone Mechanisms (continued)

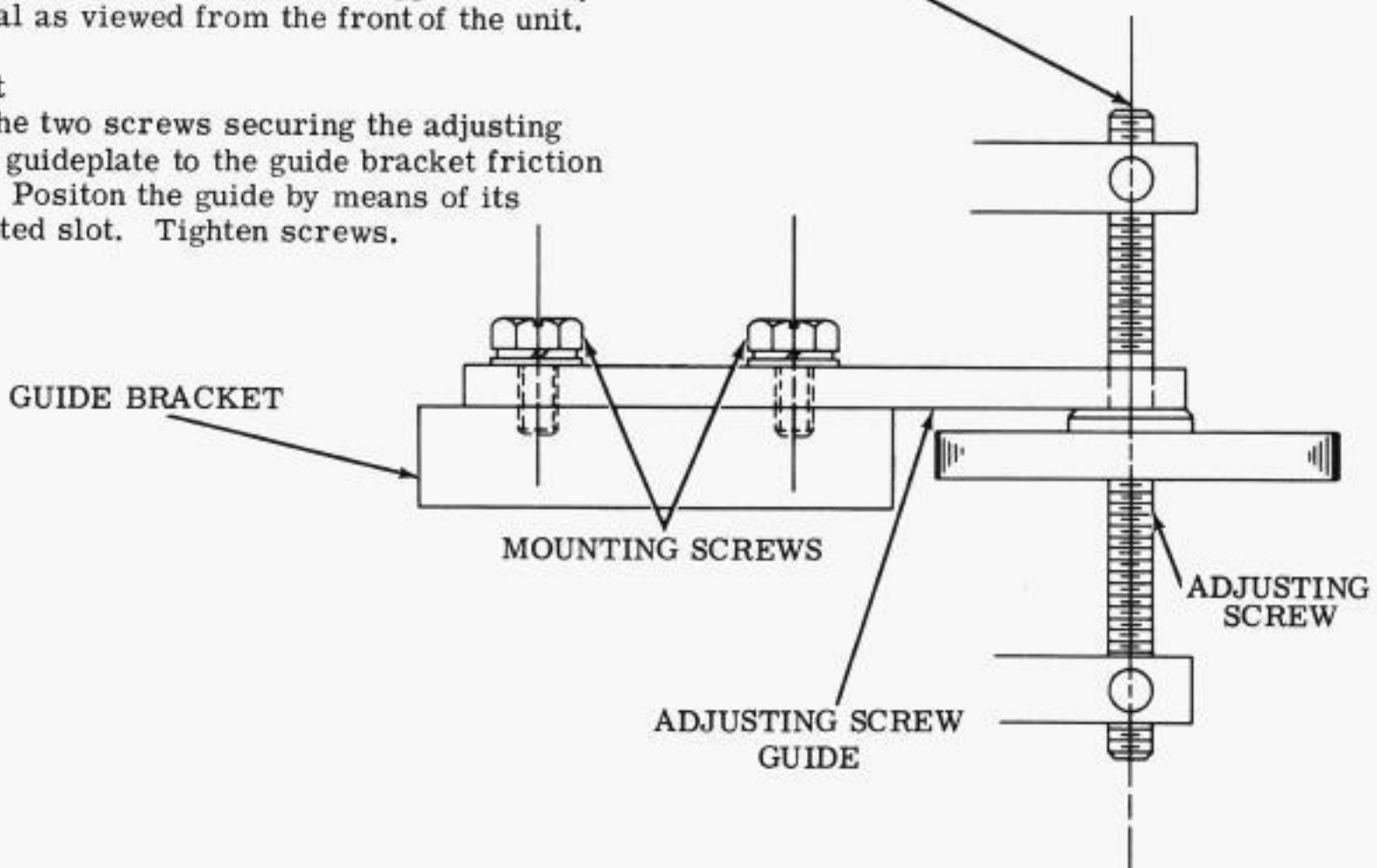
ADJUSTING SCREW GUIDEPLATE

Requirement

The adjusting screw should be approximately vertical as viewed from the front of the unit.

To Adjust

With the two screws securing the adjusting screw guideplate to the guide bracket friction tight. Positon the guide by means of its elongated slot. Tighten screws.



STONE ADJUSTING FRAME BRACKET

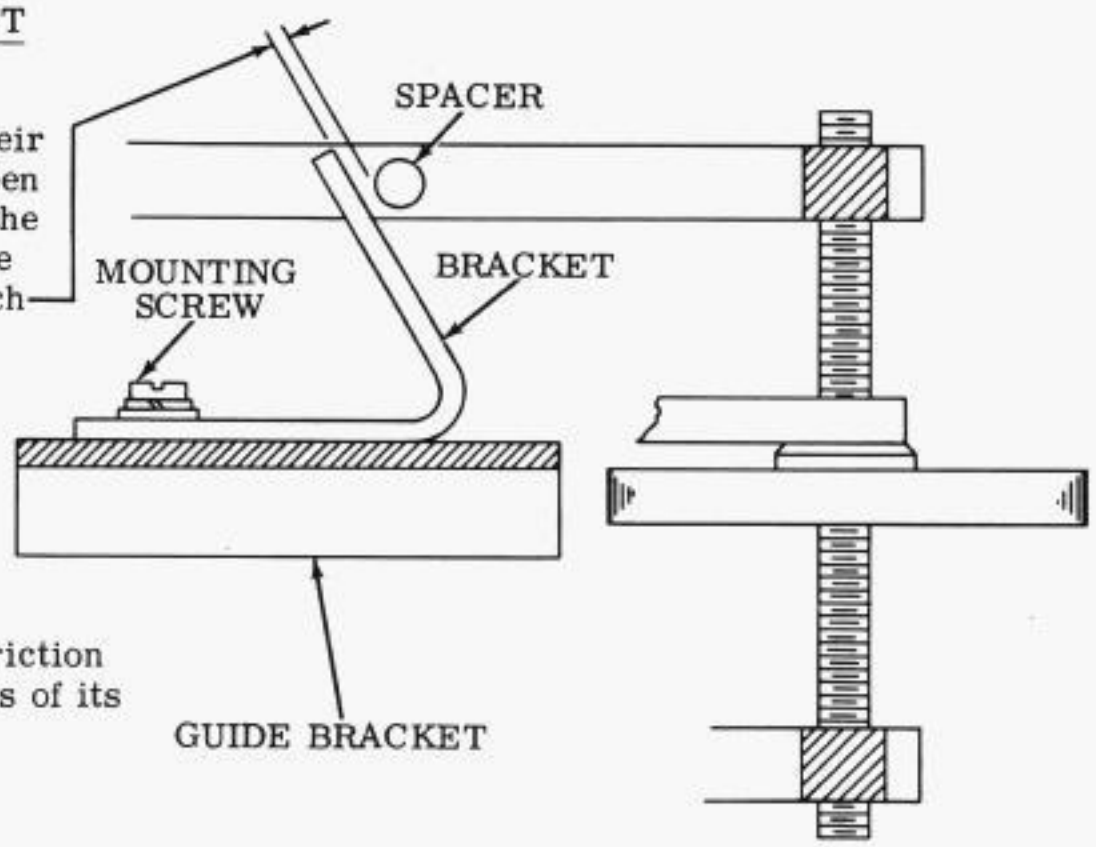
Requirement

With the separator stones set to their proper height, the clearance between the bracket and the spacer rod on the separator stone assembly should be

Min 0.010 inch---Max 0.020 inch

To Adjust

With the bracket mounting screw friction tight, position the bracket by means of its elongated slot. Tighten screw.

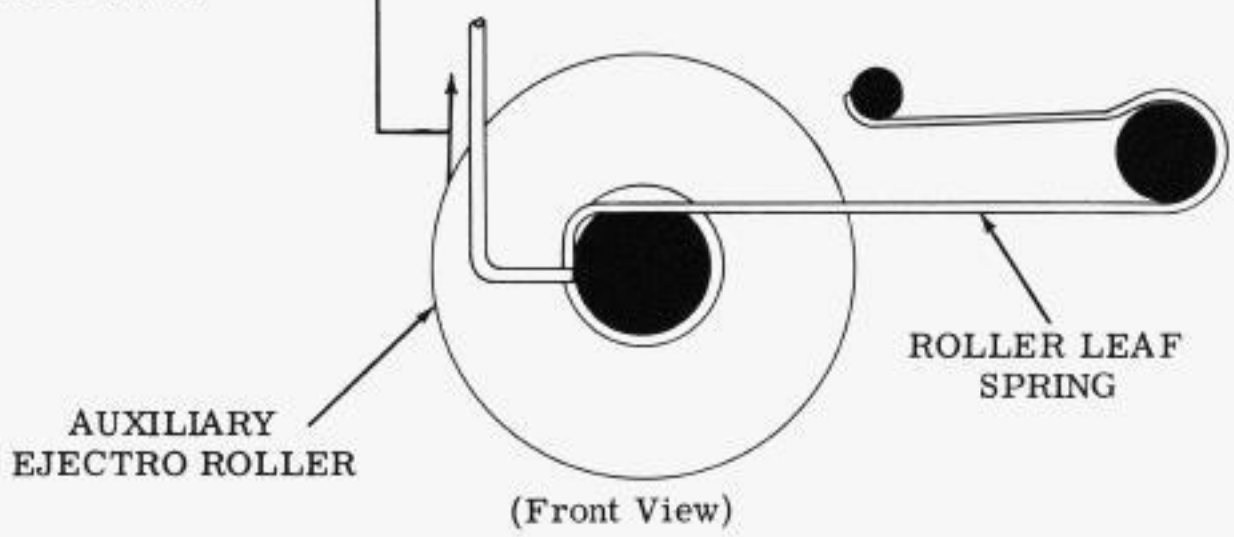


2.10 Auxiliary Ejector Mechanisms (continued)

AUXILIARY EJECT ROLLER SPRING

Requirement

Min 18 oz ---Max 24 oz
to lift the auxiliary eject roller leaf springs from the auxiliary eject roller shaft.



2.11 Top Plate Mechanisms (continued)

GUIDES

Requirement

Place a deck of cards between the front and rear guides. Position the guides so that the cards are centrally located with respect to the separator stones. To prevent any binding of the cards, allow a clearance between the cards and the guides of

Min some---Max 0.015 inch

To Adjust

With the guide mounting screws friction tight, position the guides. Tighten screws. With the feeder energized move the card support plate to the right until smooth single card feeding is attained.