

**CLASS 114-118**

*Sylon Network Droner*

**INSTRUCTION MANUAL**



**AMERICAN®**

5050 Section Avenue  
Cincinnati, OH 45212-2099

DEC 1946



American Laundry Machinery Inc. 5050 Section Avenue, Cincinnati, Ohio 45212

## Manufacturer's Warranty

The warranty provided by the seller, and which is described herein, covers only new and rebuilt machinery which was manufactured by the seller. Seller makes no warranty on machinery manufactured by others but agrees to pass on to buyer any warranty received by seller on such machinery. Buyer is entitled to the seller's cooperation in obtaining performance on any warranty covering machinery manufactured by others. Used machinery that has not been rebuilt is sold "as is" ("with all faults").

### Warranty and Limitation of Remedy

Under the warranty the seller's obligation is to furnish replacement parts at no charge f.o.b. shipping point, for parts which seller agrees to have been defective in material or workmanship and this is the buyer's exclusive remedy. The buyer agrees to return a defective part (which the seller has agreed to replace) to the seller, freight prepaid and identified to the seller's instructions within 30 days of receipt of the replacement part. The time periods under the warranty are:

Non durable parts are covered for a period of 4 months from the date of shipment of the machinery. Non-durable parts are those items made of flexible materials and expected to wear or deteriorate with time and use. Examples of non-durable parts are gaskets, seals, belts, hoses, and padding.

Other parts are covered as follows:

- New machinery - a period of 13 months from date of shipment of the machinery, or 2000 hours of operation, whichever occurs first.
- Rebuilt machinery - a period of 7 months from date of shipment of the machinery, or 1000 hours of operation, whichever occurs first.

Purchased replacement parts are covered for a period of 90 days from date of shipment.

If machinery is installed by the seller, or if installation is supervised by the seller, the warranty time periods will start with the date of startup instead of the date of shipment - however, in no event is the warranty time period to exceed eighteen months from date of shipment.

This warranty is contingent upon proper use of the machinery under normal operating conditions, proper installation and maintenance. The seller is not responsible for loose bolts, belts, tubing, wiring, etc.; these items require periodic inspection and maintenance by the buyer. Maintenance instructions must be followed thoroughly to protect the warranty. The warranty becomes void if the equipment has been altered by the user; operated under loads, speeds or electrical current characteristics other than those prescribed by the seller, or damaged by negligence or in an accident.

Seller reserves the right to make changes in design and materials without assuming any obligation to make the same or similar changes to the equipment covered by the terms of this warranty.

This warranty covers only new and rebuilt machinery and repair parts which were manufactured by the seller. Seller makes no warranty on machinery or parts manufactured by others but agrees to pass on to buyer any warranty received by seller on such machinery or parts. Buyer is entitled to seller's cooperation in obtaining performance on any warranty covering machinery or parts manufactured by others.

Used machinery that has not been rebuilt is sold "as is" ("with all faults"). The safety devices on any used equipment are the sole responsibility of the buyer and any product liability claims due to malfunctioning of safety devices are the buyer's responsibility. On such used machinery, the buyer holds the seller harmless from any and all product liability claims.

The buyer assumes responsibility for the maintenance and replacement if necessary of any decals, signs, or other such displays pertaining to safety or operation including but not limited to those which may have been removed or defaced after installation of the machinery.

### Start-Up Labor Services

If machinery is installed by the seller, or if installation is supervised by the seller, start-up labor services are included in the price of the machinery. These start-up labor services include starting up and demonstrating the machinery, performing a reasonable amount of adjustment, and installation of any replacement parts furnished under the machinery warranty. Start-up labor services are provided for a period of 60 days following machinery start up. Start-up labor services are provided on a straight time basis only. The customer assumes responsibility for additional charges incurred for work required to be performed on other than a straight time basis.

### DISCLAIMERS

THE WARRANTIES AND DISCLAIMERS REFERRED TO ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, DISCLAIMERS AND CONDITIONS EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES, DISCLAIMERS, AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR PURPOSE AND ALL OTHER CLAIMS. NO ONE HAS AUTHORITY TO MAKE FOR SELLER ANY OTHER REPRESENTATIONS, WARRANTIES OR GUARANTEES. IN NO EVENT SHALL SELLER BE LIABLE FOR DAMAGES, CONSEQUENTIAL OR OTHERWISE, FROM DEFECTS IN THE EQUIPMENT SOLD BY SELLER AND MANUFACTURED BY SELLER OR MANUFACTURED BY OTHERS.

49-002 (Rev. 0180)

## **WARNING**

IT IS THE RESPONSIBILITY OF THE PURCHASER OF THIS MACHINERY TO TRAIN THEIR OPERATING PERSONNEL IN THE PROPER MANNER OF OPERATION.

IT IS FURTHERMORE UNDERSTOOD THAT AMERICAN LAUNDRY MACHINERY ASSUMES NO RESPONSIBILITY FOR INJURY, DISABILITY, OR DEATH RESULTING FROM IMPROPER OPERATION OF, OR REMOVAL FROM, OR BYPASSING THEREOF, OF ANY ELECTRICAL OR MECHANICAL SAFETY DEVICES INCORPORATED IN THE DESIGN AND MANUFACTURING OF THIS MACHINERY.

## **AVERTISSEMENT**

LA RESPONSABILITÉ D'INITIER LE PERSONNEL AU MODE D'EMPLOI APPROPRIÉ INCOMBE A L'ACHETEUR DU MATÉRIEL.

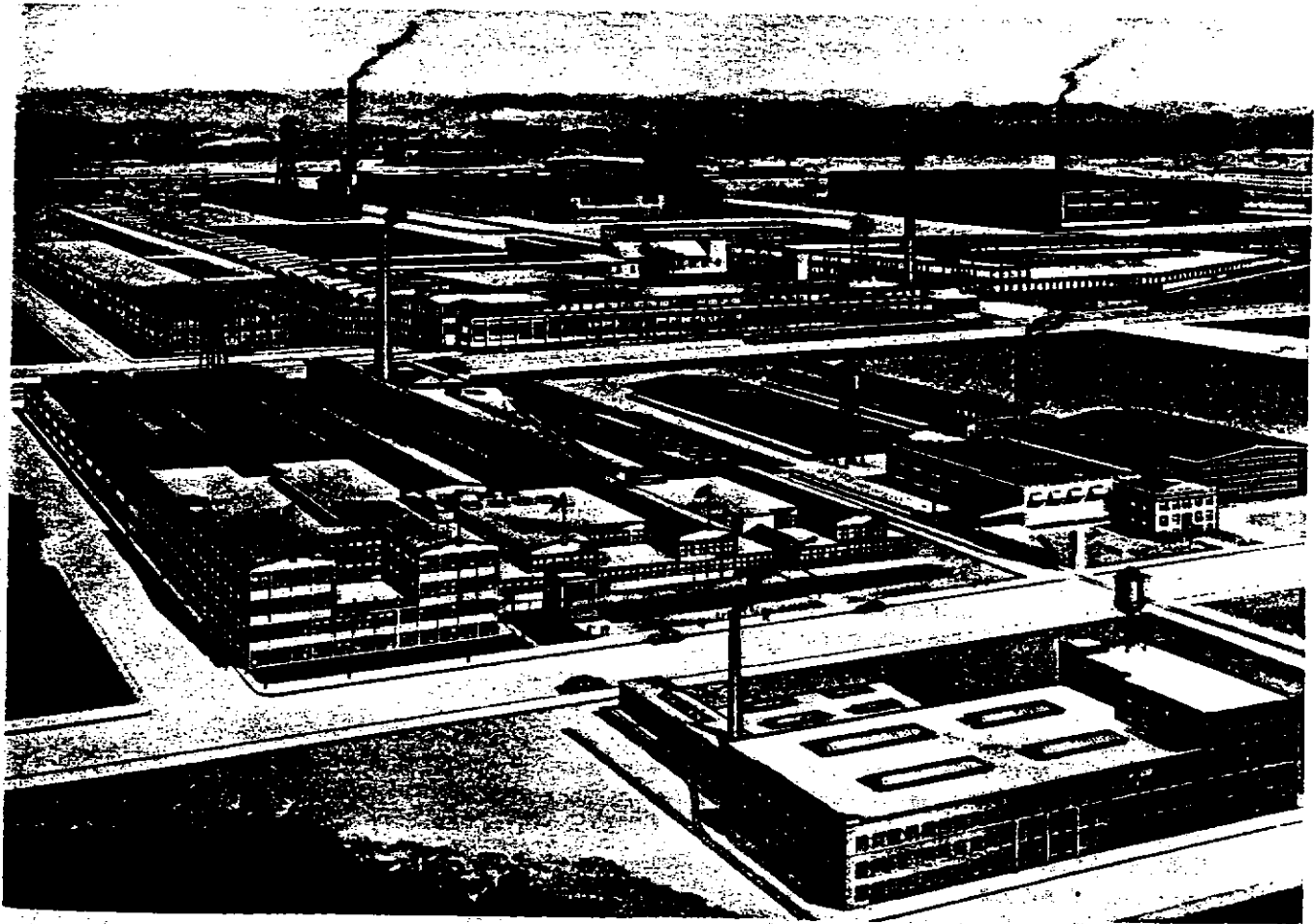
IL EST ÉGALEMENT ENTENDU QU'AMERICAN LAUNDRY MACHINERY N'ASSUME AUCUNE RESPONSABILITÉ EN CAS DE LÉSION, INCAPACITÉ OU DÉCÈS À LA SUITE D'EMPLOI ERRONÉ OU DE L'ENLÈVEMENT OU LE CONTOURNEMENT DE TOUT DISPOSITIF DE PROTECTION ÉLECTRIQUE OU MÉCANIQUE FAISANT PARTIE DE LA CONCEPTION ET DE LA FABRICATION DE CETTE MACHINE.

## **ADVERTENCIA**

EL COMPRADOR ÉSTA RESPONSABLE DE LA ENSEÑANZA AL PERSONAL DEL MODO DE EMPLEO ADECUADO DE ESTA MAQUINARIA.

SE ENTIENDE ADEMÁS QUE AMERICAN LAUNDRY MACHINERY NO ASUMA NINGUNA RESPONSABILIDAD EN CASO DE LESIÓN, INCAPACIDAD, O FALLECIMIENTO A CONSECUENCIA DEL EMPLEO ERRÓNEO O DE LA ELIMINACIÓN O CIRCUNVALACIÓN, DE TODO DISPOSITIVO DE SEGURIDAD ELÉCTRICO, O MECÁNICO INCORPORADO EN EL DISEÑO Y LA FABRICACIÓN DE ESTA MÁQUINA.

**INSTRUCTIONS**  
*for*  
**INSTALLATION • OPERATION • MAINTENANCE**  
*of the*  
**American**  
**SYLON FLATWORK IRONER**



**1,000,000 Square Feet** of floor space is devoted entirely to the development and manufacture of laundry, dry cleaning and rug cleaning equipment at these manufacturing units of The American Laundry Machinery Co., located at Cincinnati, O., Chicago, Ill., Rochester, N. Y., Kenilworth, N. J. and Toronto, Canada.

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# INSTALLATION

**A. GENERAL** - Prior to shipment, the SYLON Flatwork Ironer is completely assembled and tested under its own power for sufficient length of time to make sure it is in perfect operating condition when it leaves the factory. It is then dismantled for shipment. Below is crating list for 4, 6 and 8-Roll SYLON Flatwork Ironers.

## CRATING LIST FOR SYLON FLATWORK IRONERS

<u>Machine Parts</u>	<u>4-Roll</u>	<u>6-Roll</u>	<u>8-Roll</u>
Steam Chests .....	4 Skids	6 Skids	8 Skids
Rolls .....	4 Boxes	6 Boxes	8 Boxes
Brackets (Includes Feeding Device When Ordered) .....	1 Box	1 Box	1 Box
Small Parts .....	1 Box	1 Box	1 Box
Gears .....	1 Box	1 Box	1 Box
Pressure Bar .....	1 Box	1 Box	2 Boxes
Controller .....	1 Box	1 Box	1 Box
Apron Roll .....	1 Box	1 Box	1 Box
Ribbon Feed .....	1 Box	(1 Box	(4 Boxes
Shafts & Tie Rods .....	1 Box	1 Box	1 Box
Covering .....	1 Box	(1 Box	(2 Boxes
Blower (When Hamilton Spring Padding is ordered) .....	1 Box	1 Box	1 Box
Gear Guards .....	1 Crate	1 Crate	2 Crates
Belt Guards .....	1 Crate	1 Crate	1 Crate
Screen Guard (When Ordered) .....	1 Crate	1 Crate	1 Crate
Woodwork (Includes Feeding Device Board When Ordered) .....	1 Crate	1 Crate	1 Crate
Motor .....	1 Crate	1 Crate	1 Crate
Frames .....	1 Crate	1 Crate	1 Crate
Shakeout Stand .....	1 Crate	1 Crate	2 Crates
Table & Basket (When Ordered) .....	1 Crate	1 Crate	1 Crate

When Ironer is received, check to see if proper number of crates and boxes have been delivered. Uncrate parts carefully and inspect them thoroughly to make sure they have not been damaged during shipment. If Hamilton Spring Padding has been ordered, do not uncrate the spring padded rolls until ready to set them in frames.

Services of an expert field service man are available to supervise erection of the Ironer and start its operation. Charge for this service is on a time and expense basis.

**B. FLOOR SPACE** - Sufficient space should be provided around the Ironer for inspection, cleaning, maintenance and repadding. Refer to following drawings for dimensioned floor plans:

- 4-Roll SYLON Ironer (Left-hand Drive) ..... Figure 7
- 6-Roll SYLON Ironer (Left-hand Drive) ..... Figure 8
- 8-Roll SYLON Ironer (Left-hand Drive) ..... Figure 9

The right or left-hand designation is determined by facing machine at feed end.

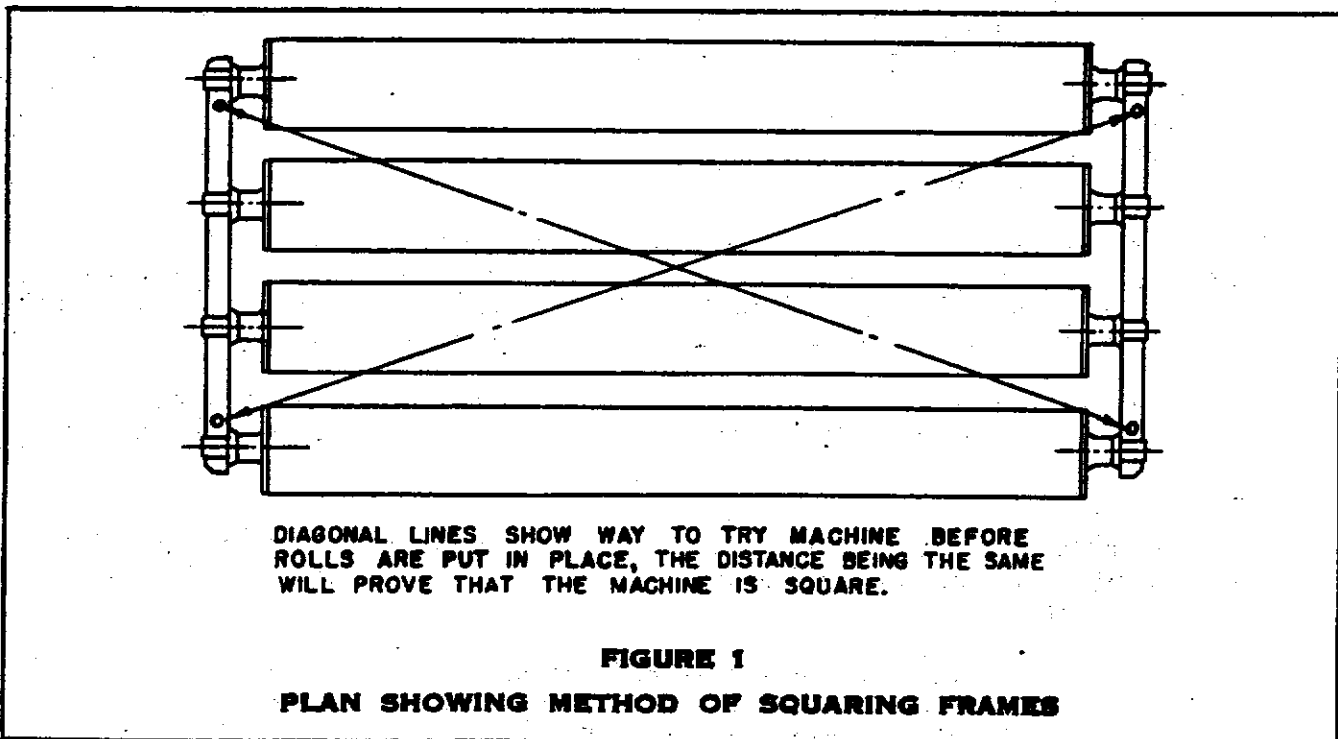
**C. FOUNDATION** - In selecting a location for the SYLON Flatwork Ironer, consideration should be given to construction of the supporting floor. The floor should be capable of withstanding a load of approximately 130 pounds per square foot, based on the over all floor space occupied by machine. Floors of lighter construction should be strengthened by suitable reinforcements. It is suggested that structural steel channels be

placed under the feet of the Ironer to distribute the load and maintain the level of the Ironer. The steel channels should be placed at right angles to the floor joists. See table below for recommended sizes of channels.

Before assembling the Ironer, clean all finished surfaces (except the steam chests) with a kerosene soaked rag, to remove the protective grease coating, excess paint, or any foreign material.

MACHINE SIZE	SIZE OF CHANNEL		LENGTH OF CHANNEL	
	When channel is set at right angle to direction of feed.	When channel is set in same direction as feed.	When channel is set at right angle to direction of feed.	When channel is set in same direction as feed.
4-Roll 100"	15"-35 lbs.	10"-30 lbs.	10'8"	6'0"
4-Roll 110"	15"-35 lbs.	10"-30 lbs.	11'6"	6'0"
4-Roll 120"	15"-35 lbs.	12"-35 lbs.	12'4"	6'0"
6-Roll 110"	15"-35 lbs.	10"-30 lbs.	11'6"	9'0"
6-Roll 120"	15"-36 lbs.	10"-30 lbs.	12'4"	9'0"
8-Roll 120"	15"-35 lbs.	12"-35 lbs.	12'4"	12'0"

**D. FRAMES** - Place the frames in their proper location and fasten them together with tie rods. The tie rods are numbered to correspond with numbers on the right-hand frame. Tighten the nuts on lower tie rods first.

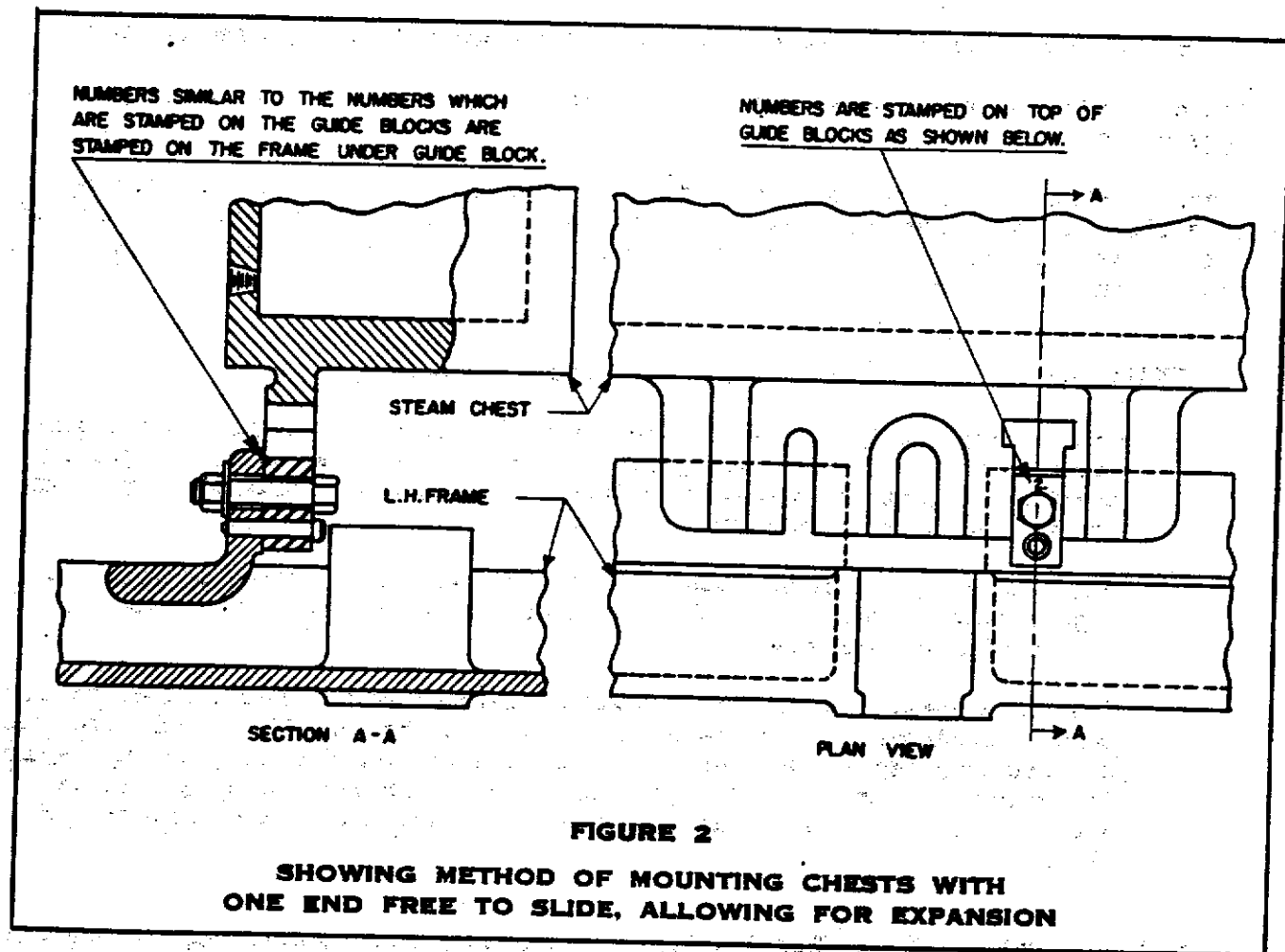


**E. DRIVE SHAFT** - The drive shaft is shipped with the clutch mechanism attached. To install drive shaft:

1. Insert drive shaft through left-hand frame.
2. Place drive shaft collar on shaft, inside left-hand frame.
3. Insert drive shaft through right-hand frame.
4. Pin collar to drive shaft with tapered pin.
5. Place other collar on right-hand end of drive shaft, outside the right-hand frame, and secure it to shaft with set screw.

Next, use gear guard support studs to line up the frames (See Figure 1). Then check frames for level. Longitudinal level may be determined by placing a spirit level on the machined pad on the bottom of one of the openings in the frames. To determine transverse level, place spirit level on the drive shaft. To obtain level, use sheet-metal shims under the feet of the ironer (between feet and the channel, where channel is used).

**F. CHESTS AND CROSS-OVER SHAFT** - Chests are numbered at each end. The numbers start with right-hand end of the chest nearest the feed end of machine, continue back to delivery end, cross to the left-hand side, then forward to the feed end. For example, on the 8-Roll Ironer the chest nearest the feed end would be stamped Number 1 on its right end, and Number 16 on its left end.



Remove the protective grease coating from top side of chest before installing each chest. No definite sequence of installing the chests in the frames can be outlined because of different erection facilities existing at each installation. Install Number 1 intermediate gear shaft, however, before positioning chests Number 1 and Number 2.

Use a padded strap when moving chests into position to prevent burring them. Inspect each chest for small burrs before it is installed, and again when it is resting on the frames. File all such burrs smooth before the chests are permanently fastened in position, so work will pass over chests without "hanging up" on sharp obstructions.



To install each steam chest in frames proceed as follows:

1. Lower chest into position in frames.
2. Pin right-hand end of chest to right-hand frame with one of the tapered pins.
3. Place guide block in left-hand end of chest (See Figure 2, previous page). Guide blocks are stamped with numbers from 1 to 6 on 6 Roll, 1 to 8 on 8-Roll, etc., beginning at delivery end of Ironer. Corresponding numbers are stamped on the frame under the guide blocks.
4. Drive dowel pin holding guide block in position.
5. Fasten right-hand end of chest to frame with the two carriage bolts.
6. Fasten guide block securely to frame with machine bolt, washer and nut.

Install other chests in same manner. Then remove protective grease coating from bottoms of chests.

Check carefully again for level and square. Longitudinal level may be obtained as described in first paragraph, Page 5. Transverse level may be obtained by placing spirit level on one or more of chests. Ironer should be level in both transverse and longitudinal directions at all times.

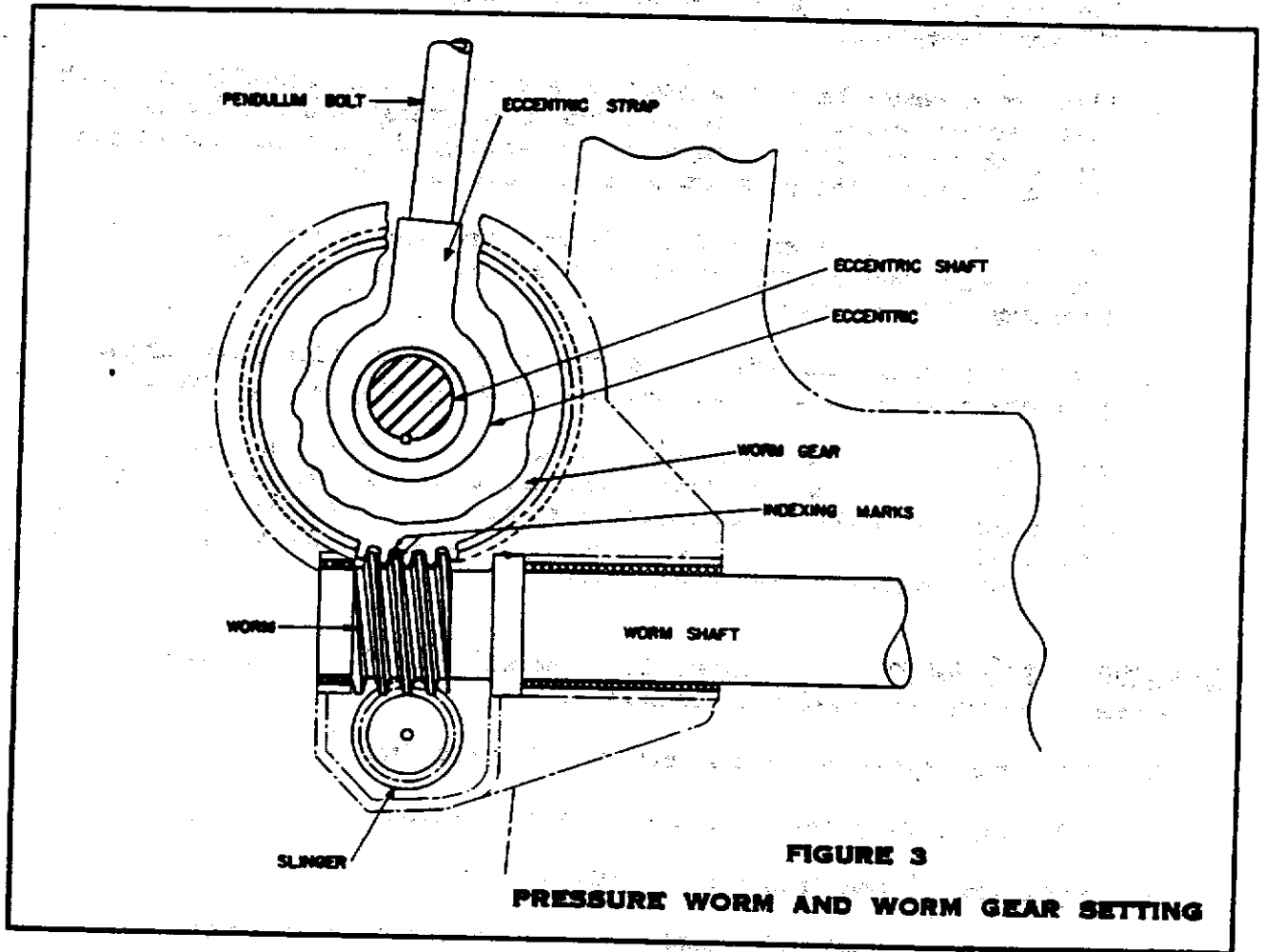
#### G. STEAM PIPING - Make steam piping connections as follows:

1. Connect the supply and return steam-service lines to the inlet and outlet connections on Ironer. See applicable drawing on Pages 11-13 for piping connections. Inlet steam should be taken from the top or side of supply line, to avoid as much condensation as possible.
2. Place a 1/4 or 3/8-inch globe valve and by-pass line around the main steam supply valve. This will enable the operator to heat the cold Ironer slowly and avoid chest warpage.
3. Install a steam trap (100 lb. working pressure) in the return line, to take care of condensation. Place a globe valve and by-pass line around the trap, so that trap may be by-passed to permit its removal for cleaning and repairing without interfering with production of the Ironer. This by-pass can also be used to quickly remove excess condensation when heating a cold machine.

**H. PRESSURE WORM, WORM GEAR SETTING** - (Refer to Figure 3, next page) - The worms are shipped assembled to worm shafts, and the shafts are mounted on the Ironer frames. The worms are also stamped with numbers corresponding to the numbers on the eccentric shafts. To correctly assemble pressure worms with worm gears proceed as follows:

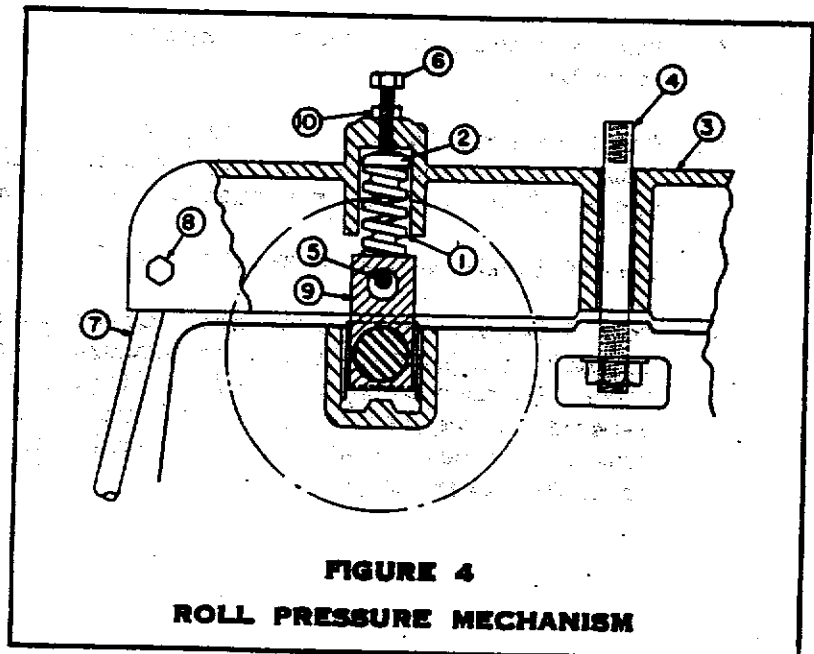
1. Slide the worm gears on ends of eccentric shafts, and locate the eccentric shafts in their bearings.
2. On one tooth of each worm and worm gear there is a conspicuous indexing mark. Align each set of marks for the worms and worm gears, to obtain perfect "full on" factory pressure setting.
3. Place eccentric straps over the eccentric shaft on outside of frame.

4. Insert eccentrics on the eccentric shaft and inside the straps, with flanged shoulder of eccentric facing outwards.
5. Key eccentrics to shaft, and tighten set-screws.



**I. ROLLS** - The roll endshafts rotate in bearings formed by the roll boxes (9, Figure 4) set into the ironer frames, and are numbered to correspond with numbers on the steam chests. Place roll boxes on roll endshafts, and lower rolls into position in frames.

**J. PRESSURE MECHANISM** - (Refer to Figure 4) Make certain that threaded holes in the pressure bar are clean, by turning a 5/8" - twelve (12) threads per inch, tap through the threads.



To install pressure mechanism, proceed as follows:

1. Mount the heavy coil pressure springs (1, Figure 4), with the pressure spring caps (2), on top of the roll boxes.

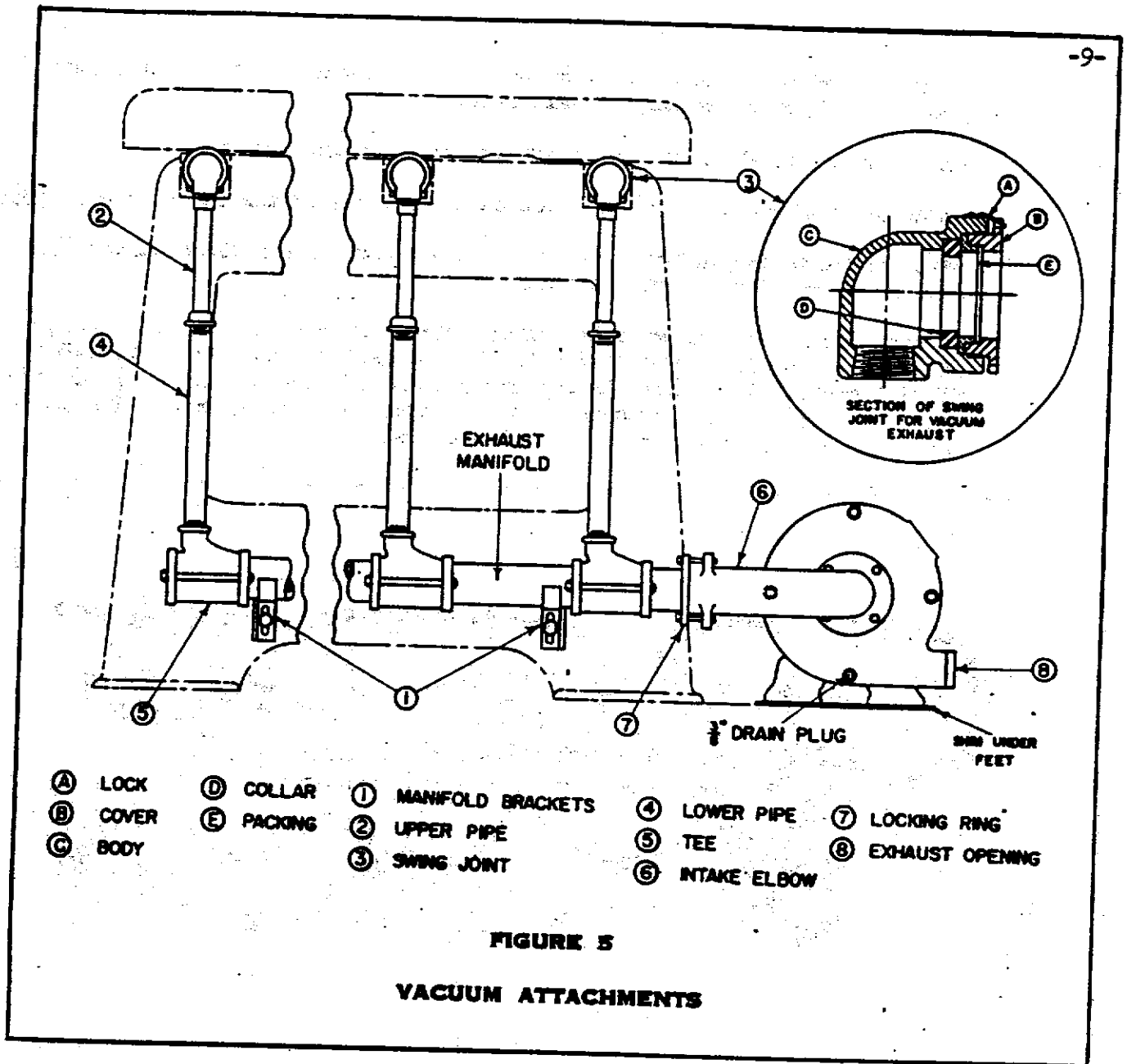
The pressure bars (3) rest on top of the pressure spring caps (2), and the top ends of the pendulum bolts (7), fit into the pressure bars. The feed ends of the pressure bars are stamped "L" for left-hand, and "R" for right-hand.

2. Lift the pressure bars into position and lower them carefully over main guard support studs (4). Be sure pressure springs are not "cocked" during this operation. When bars are resting in position, insert pins (8) which fasten the pendulum bolts to pressure bars.
3. The two pins at delivery end of the pressure bars are 3/4-inch bolts and are also used to support the brackets for the tape device. (See paragraph "V", Page 27).
4. Insert the small pins (5) in pressure bars. These pins pass through the pressure bars and roll boxes, and are cotter-pinned on the inside.
5. Mount cams for spiral-roll brackets on eccentric shaft at delivery end of Ironer. Make certain that right and left-hand cams are mounted on right and left ends of the shaft, respectively. Pressure screws (6) and lock nuts (10) are not installed until after the rolls are padded. (See "Setting Pressure Screws", page 26).

**K. VACUUM ATTACHMENTS - (Furnished When Ordered) (See Figure 5, opposite page)**  
To assemble vacuum attachments to Ironer:

1. Mount manifold-support brackets on left-hand frame.
2. Slip the upper pipes, with swing joints attached, into lower pipes.
3. Screw lower pipes into tees in exhaust manifold.
4. Place exhaust manifold assembly in manifold support brackets.
5. Fasten swing joints to roll endshafts with the special spanner wrench provided.
6. Position exhaust motor and fan at front end of exhaust manifold. If fan intake elbow does not line up with manifold, place shims under motor and fan base until elbow and manifold are in alignment.
7. Fasten intake elbow to manifold with locking ring, bolts and nuts.

Four 3/8-inch drain plugs are located on the exhaust fan housing. The exhaust opening can be set to exhaust in any one of four different directions, 90 degrees apart. After direction of the exhaust opening has been determined, remove the 3/8-inch drain plug from the bottom hole in the housing, connect a standard 3/8-inch pipe to this hole and drain to a suitable sewer or gutter.



**L. GEARING** - Figure 6, next page, is a gear diagram for 8-Roll SYLON Flatwork Ironer; 4-Roll and 6-Roll Ironers are relatively the same.

The Ironer rolls are now in full pressure position. Leave the Ironer in full pressure while mounting gears and sprockets. The correct method of mounting gears is as follows:

1. Mount 34-tooth roll sprockets (1, Figure 6) on roll shafts.

The idler sprocket assembly, consisting of 15-tooth idler sprocket (4) and idler sprocket lever (11) is shipped assembled.

2. Fasten idler sprocket levers (11) to frame with studs (13).
3. Loop the 92-link drive chains on the 34-tooth roll sprockets (1).
4. Mesh the 12-tooth drive sprocket (3), compounded with 80-tooth spur gear (2), with the drive chain, and move into position on No.1 intermediate shaft. Insert key in keyway and tighten set-screw.

5. Place the other 12-tooth drive sprockets, compounded with 80-tooth spur gears, on alternate studs, in same manner.

6. Mount remaining 80-tooth spur gears on the remaining studs.

Large herringbone gear (6) is compounded with one of the 80-tooth spur gears.

7. Mesh the large herringbone gear with the 40-tooth herringbone pinion (5), and mount both gears simultaneously.

An additional 24-tooth sprocket which drives the sprocket on the pressure raising rig is also keyed to the No. 1 intermediate shaft on 6 and 8-Roll SYLON Ironers. The 4-Roll Ironer has a compound gear driven by the 80-tooth spur gear which is in compound with the large herringbone gear. The pressure raising rig assembly is described on Page 21.

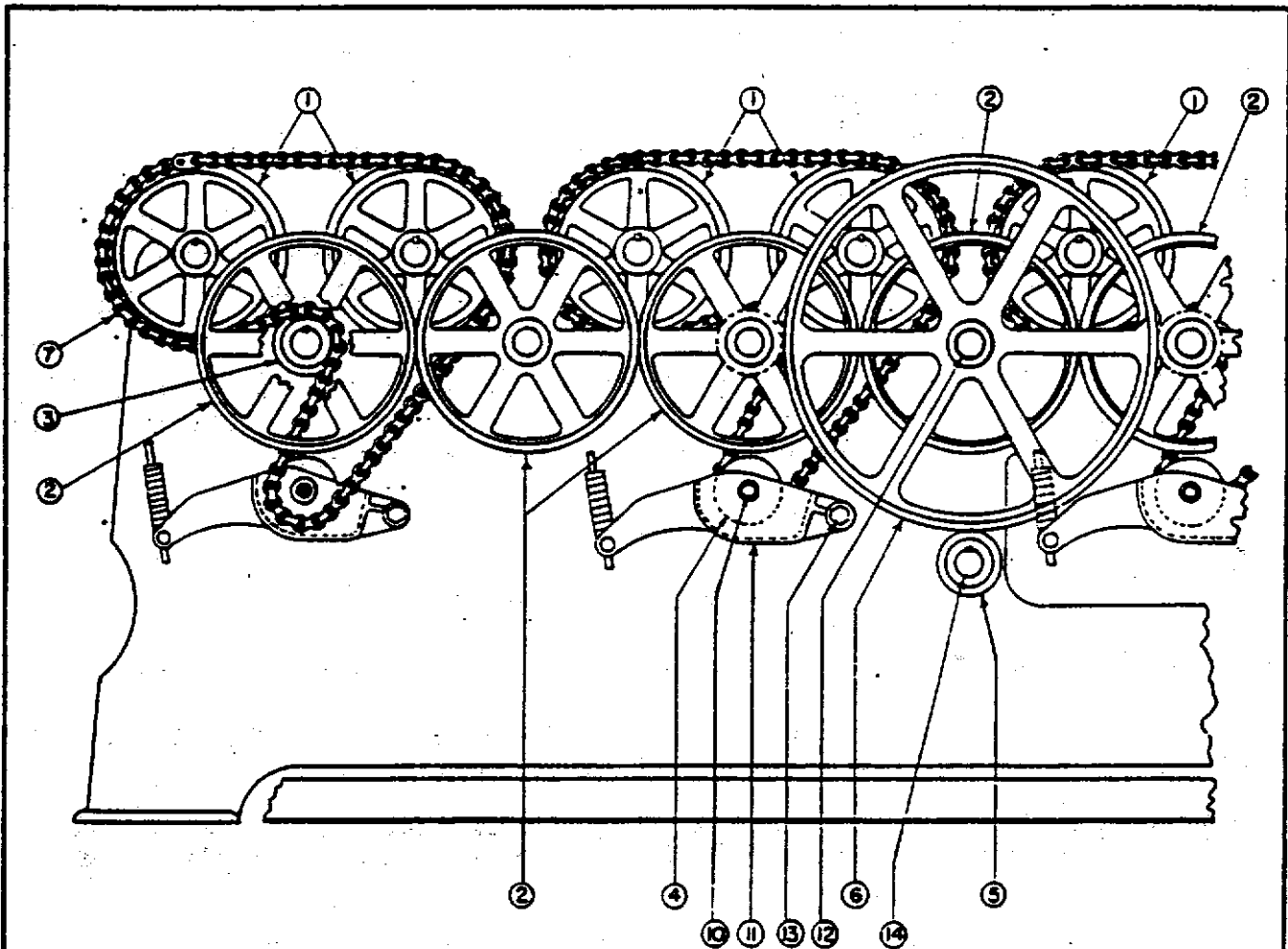
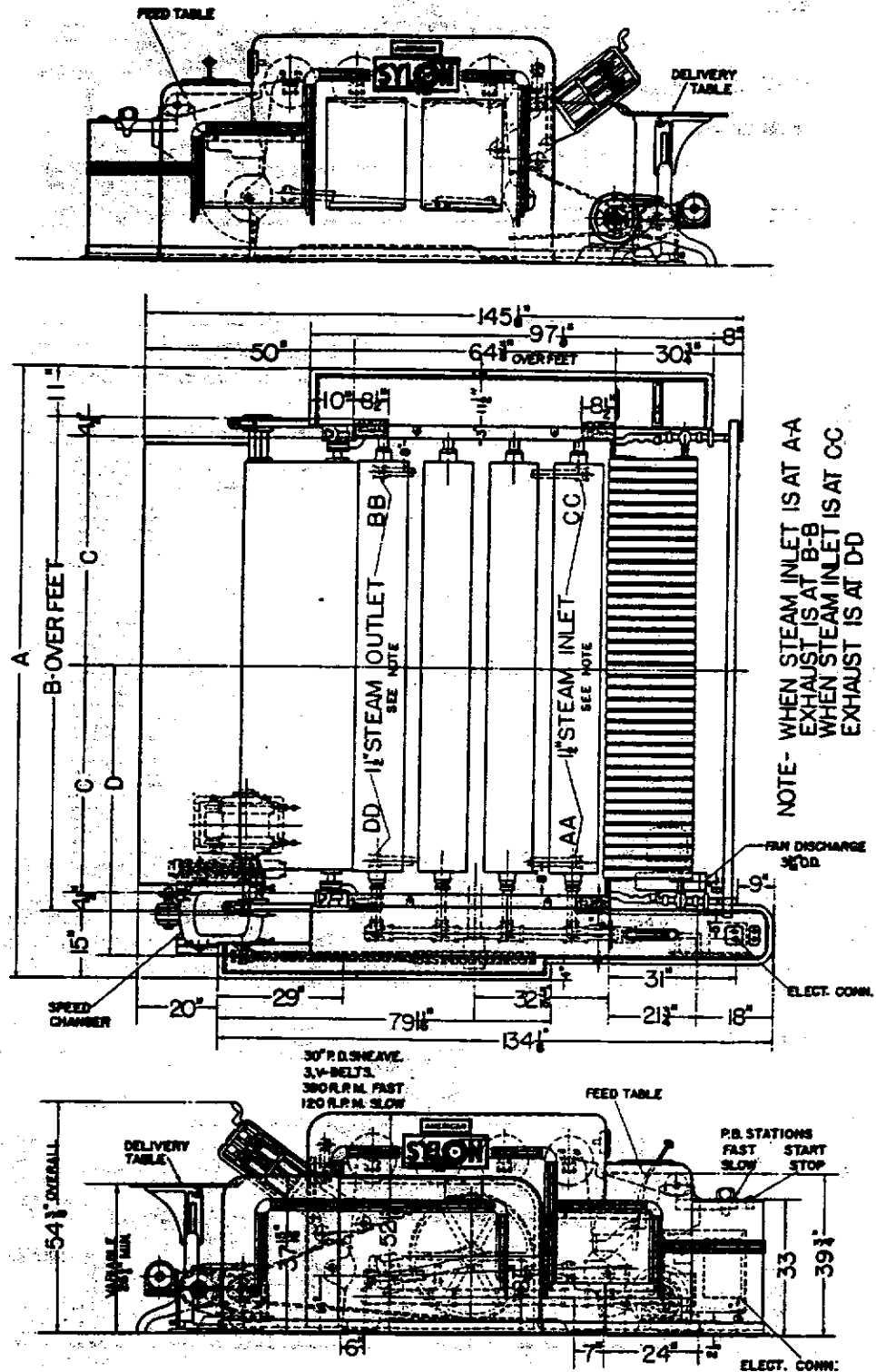


FIGURE 6

GEAR DIAGRAM FOR EIGHT ROLL FLATWORK IRONER

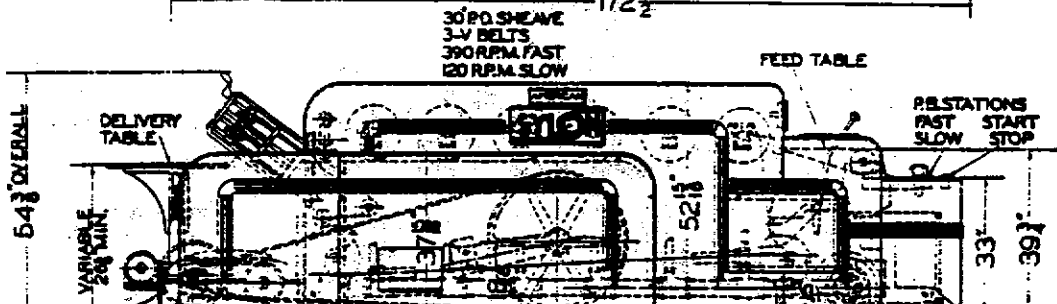
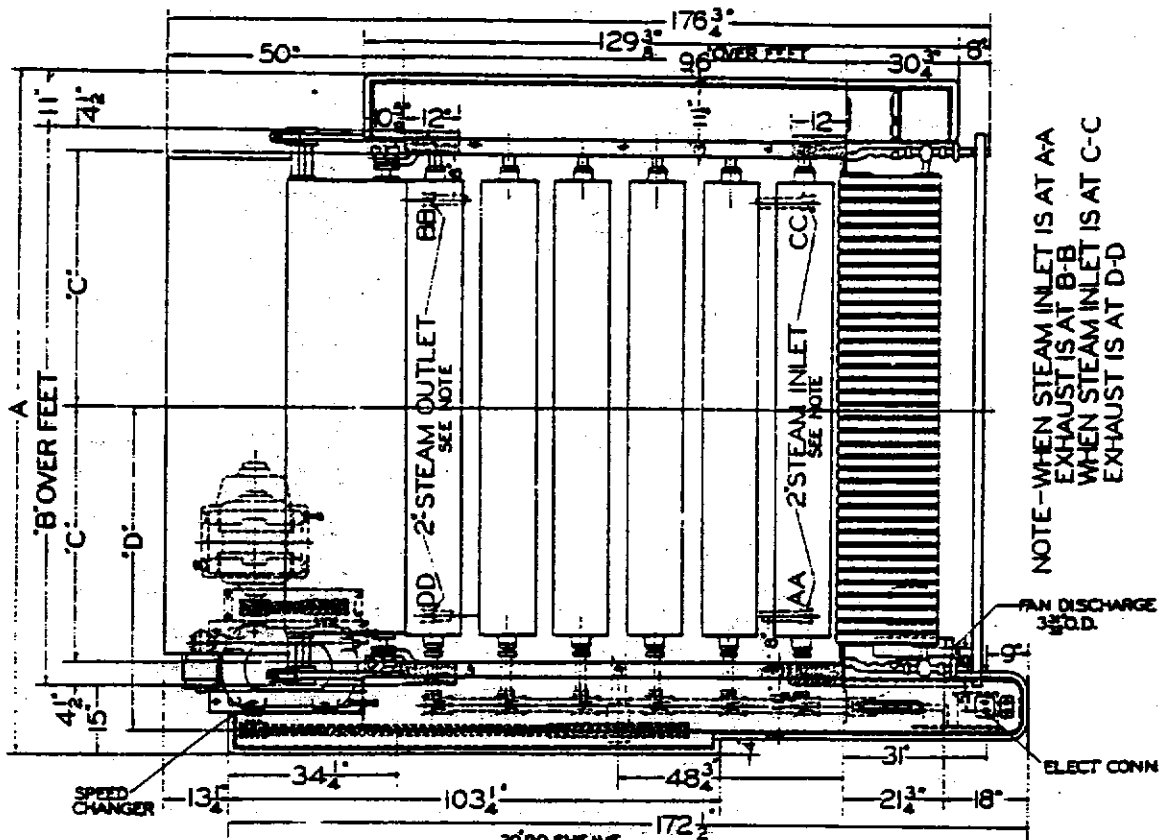
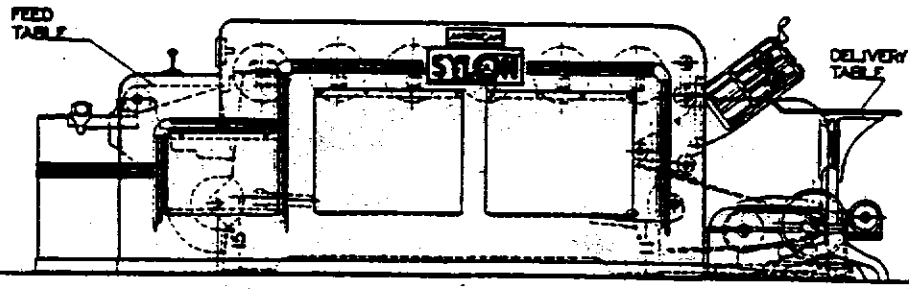


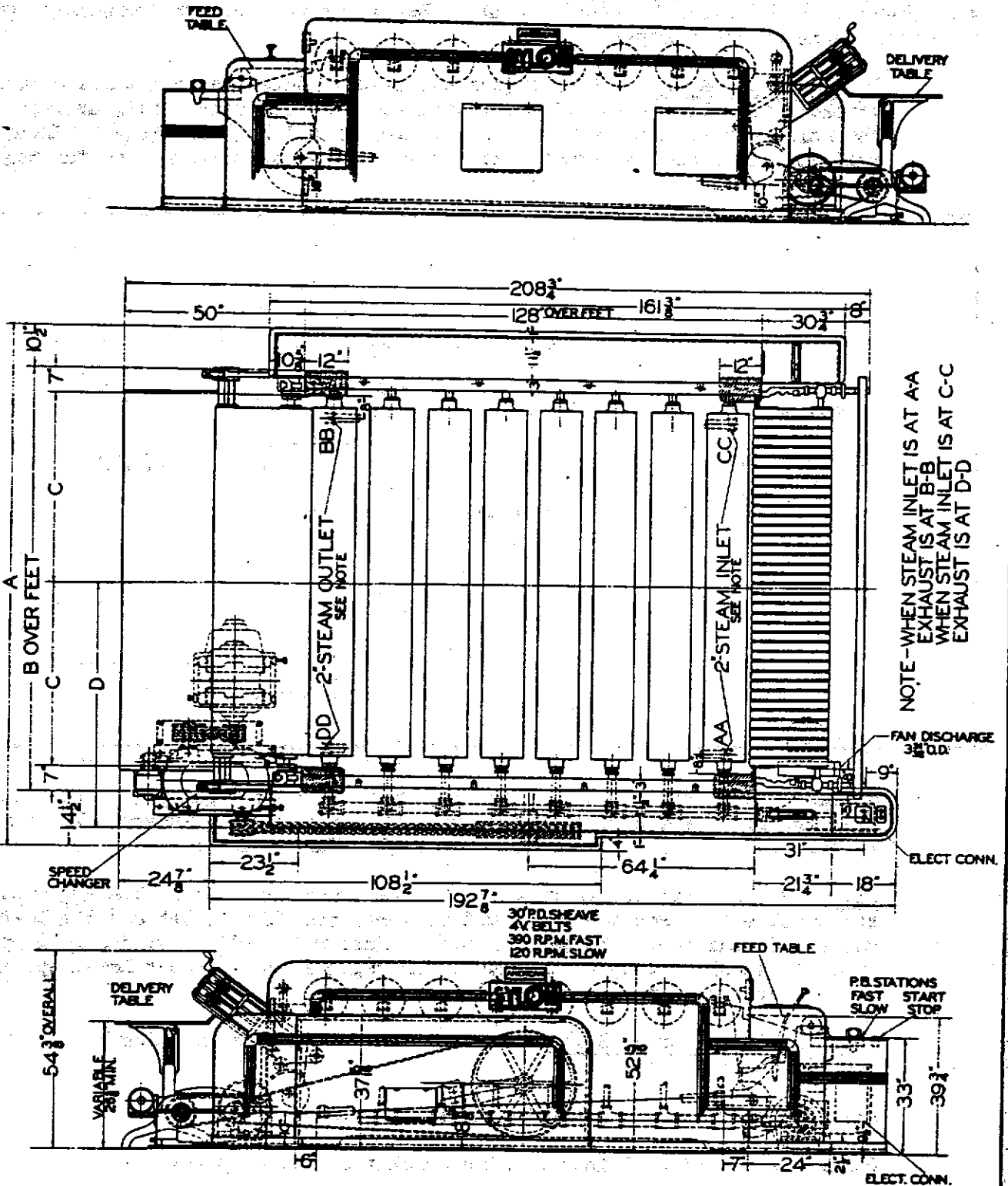
NOTE- WHEN STEAM INLET IS AT AA  
EXHAUST IS AT B-B  
WHEN STEAM INLET IS AT CC  
EXHAUST IS AT D-D

SIZE OF MACHINE	DIMENSIONS IN INCHES									
	A	B	C	D	SIZE OF FRAMES IN GRATE			SIZE OF FRAMES ON SKIDS		
					L.	W.	HT.	L.	W.	HT.
100	144 1/2	118 1/2	54 1/2	68 1/2	84	32	55	82	26	52 1/2
110	155 1/2	129 1/2	60 1/2	73 1/2	84	32	55	82	26	52 1/2
120	165 1/2	139 1/2	65 1/2	78 1/2	84	32	55	82	26	52 1/2

FIGURE 7

DIMENSIONED FLOOR PLAN OF FOUR-ROLL SYLON FLATWORK IRONER





SIZE MACHINE	DIMENSIONS IN INCHES									
	A	B	C	D	SIZE OF FRAMES IN CRATE			SIZE OF FRAMES ON SKIDS		
					L	W	HT.	L	W	HT.
100	144 $\frac{3}{8}$	119 $\frac{3}{8}$	52 $\frac{3}{8}$	68 $\frac{3}{8}$	146	32	55	144	26	52 $\frac{1}{2}$
110	155 $\frac{3}{8}$	130 $\frac{3}{8}$	58 $\frac{3}{8}$	74 $\frac{3}{8}$	146	32	55	144	26	52 $\frac{1}{2}$
120	165 $\frac{3}{8}$	140 $\frac{3}{8}$	63 $\frac{3}{8}$	79 $\frac{3}{8}$	146	32	55	144	26	52 $\frac{1}{2}$

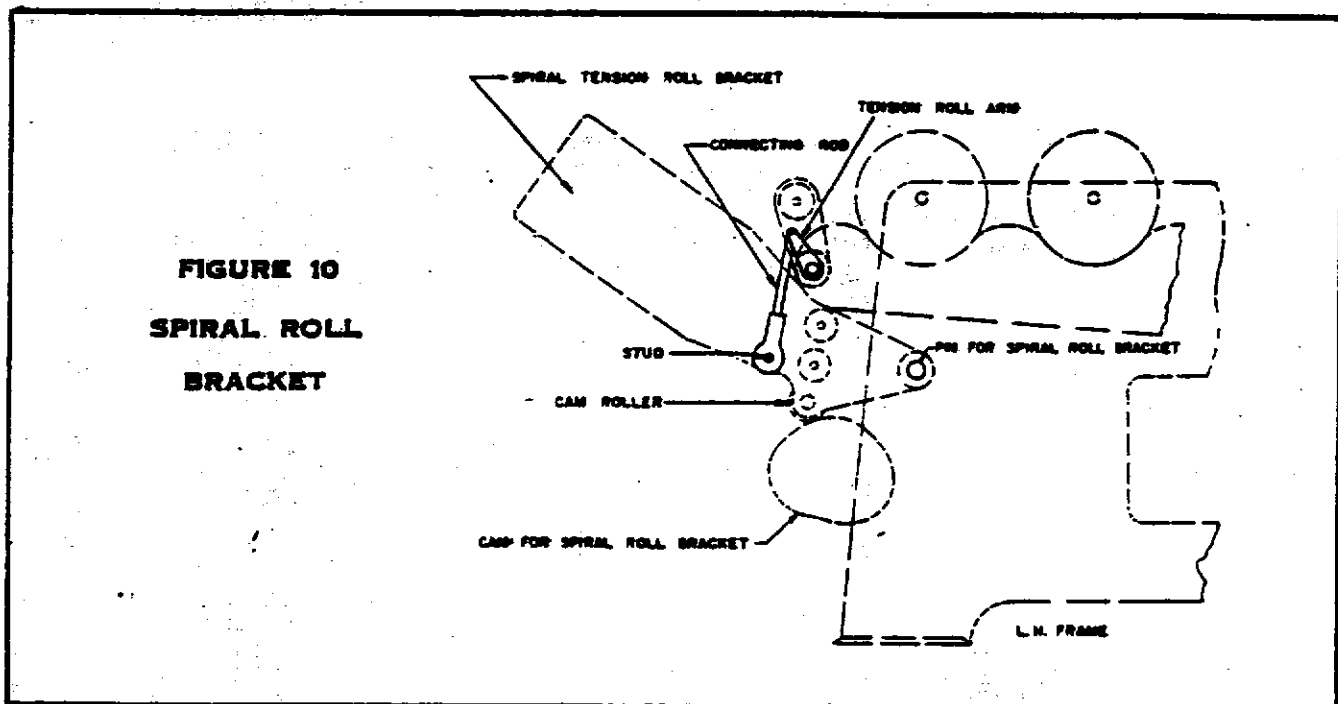
FIGURE 9

DIMENSIONED FLOOR PLAN OF EIGHT-ROLL SYLON FLATWORK IRONER



**M. APRONS, APRON BRACKETS, APRON ROLLS** - Below are the correct procedures for assembling each of these items:

1. Spiral Roll Brackets - (See Figure 10, below) Attach spiral tension roll brackets to delivery end of frame with the pins for spiral roll bracket. Cam rollers will then rest on the cams for spiral roll brackets. Insert studs on right and left-hand brackets in ends of connecting rods for tension roll arms.



**FIGURE 10**  
**SPIRAL ROLL**  
**BRACKET**

2. Spiral Tension Roll - Remove the cap from one of the spiral tension roll bearings and place spiral tension roll in position with inverted V formed by spirals pointed in direction of travel. Then replace cap.
3. Spiral Rolls - Remove cap from end of the upper spiral roll bearing opposite the spool end. Replace spool end of upper spiral roll between the bearing guide rods and above the bearing box. Then raise end of spiral roll opposite the spool to proper alignment, and replace cap. Mount lower spiral roll in same manner.
4. Idler Rolls and Drive Rolls - Replace collars on ends of Idler Rolls. Do not tighten set-screws.

Fasten one roll bearing bracket loosely to frame.

Slide one end of roll into bearing bracket as far as possible.

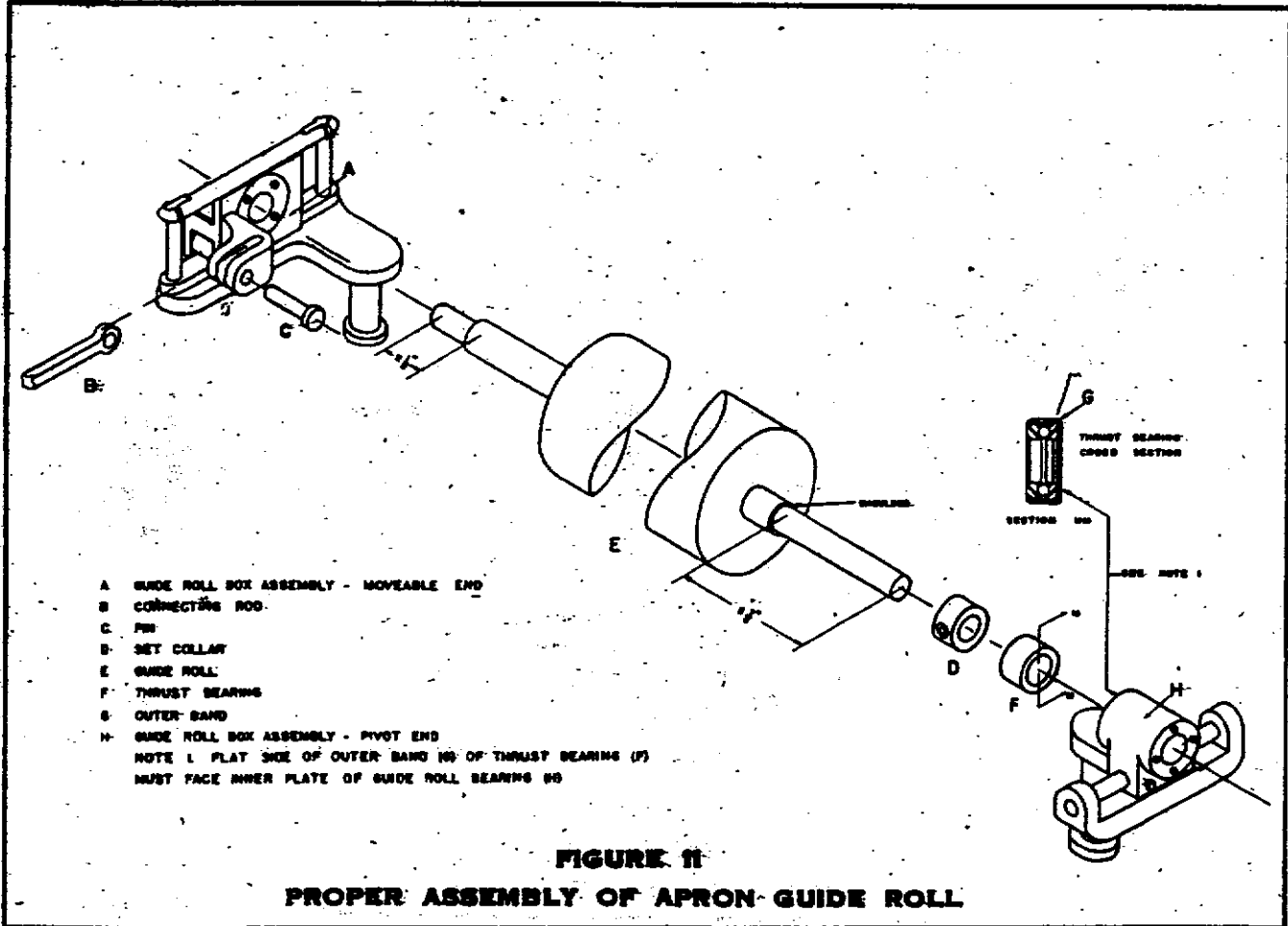
Place bearing bracket on opposite end of roll, raise roll to approximately level position and fasten bracket to frame. (Brackets are fastened to frames with dowel pins and bolts.)

Securely fasten both brackets to frames.

Center the roll in the bearing and adjust collars to keep roll centered. Then tighten collar set-screws.

5. Apron Guide Rolls - (Refer to Figure 11, below) - For convenience in shipping, the thrust bearing (F) is placed on the 5-7/8" long roll shaft between the shoulder and the set collar (D). The positions of thrust bearing and set collar must be interchanged on the roll shaft for proper operation. Correct procedure for installing guide roll assembly is:

- (a) Loosen set screw in set collar (D), and remove collar and thrust bearing (F) from roll shaft.
- (b) Replace set collar (D) on same end of roll shaft (end with 5-7/8" long shaft), but do not tighten set screw at this time.
- (c) Place thrust bearing (F) on same end of roll shaft with outer band (G) facing outward. It is important that thrust bearing be installed in this manner.
- (d) Insert end of roll, with set collar (D) and thrust bearing (F) attached, as far as possible in pivot end of guide roll box assembly (H).
- (e) Insert opposite end of roll in moveable end of guide roll box assembly (A) leaving 1/8" space between shoulder on shaft and roll box (for expansion).
- (f) Then move set collar (D) and thrust bearing (F) against inner plate of bearing in pivot end of guide roll box assembly (H).
- (g) Tighten set screw of set collar (D).



**FIGURE 11**  
**PROPER ASSEMBLY OF APRON GUIDE ROLL**

6. Apron Guide Attachments - (See Figure 12) - Slip Bell cranks over studs in frame and make linkage between bell cranks, balance weights, and guide rolls. Connect chains between bell cranks and spool ends of spiral rolls. Check linkage for absolutely free movement.

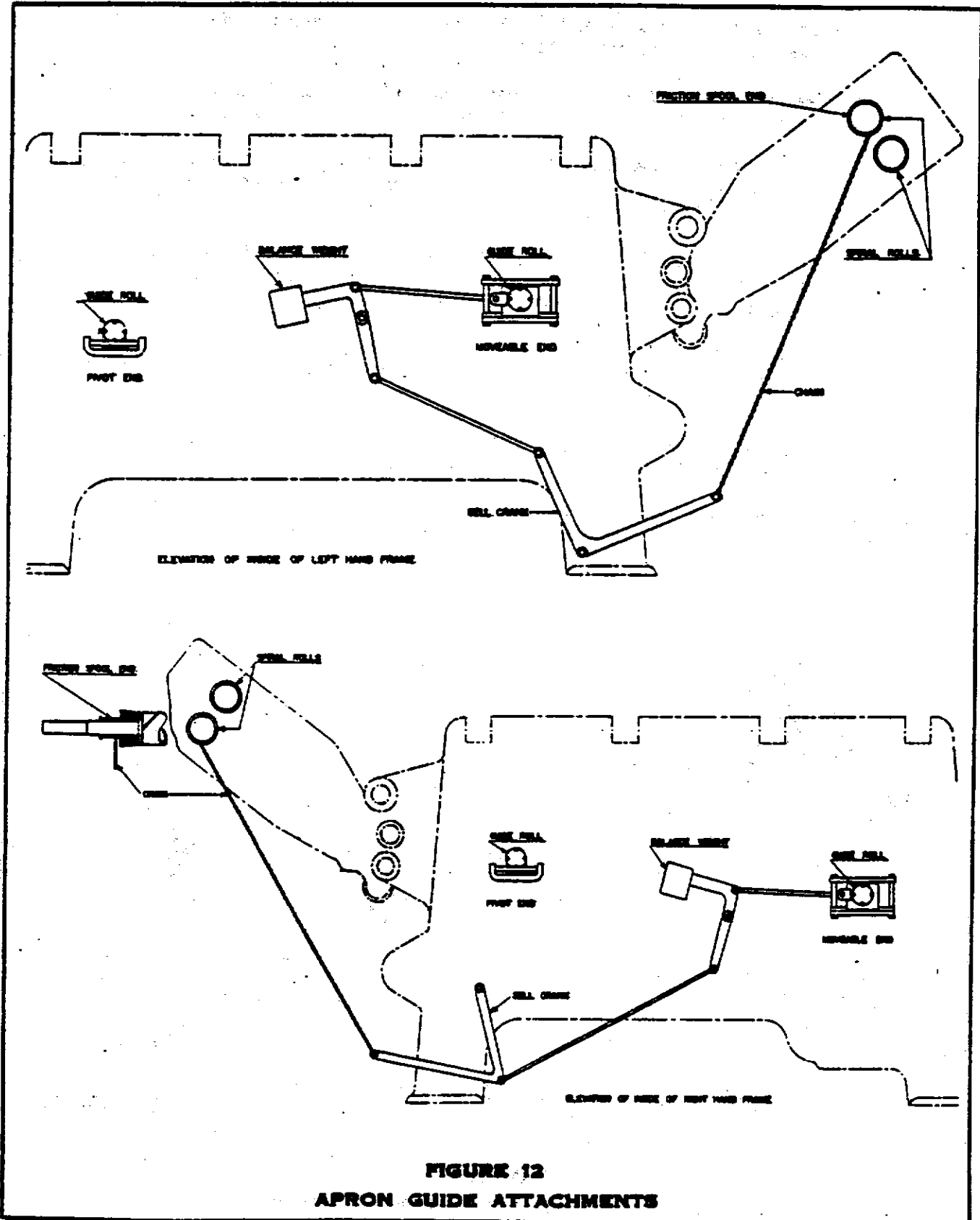
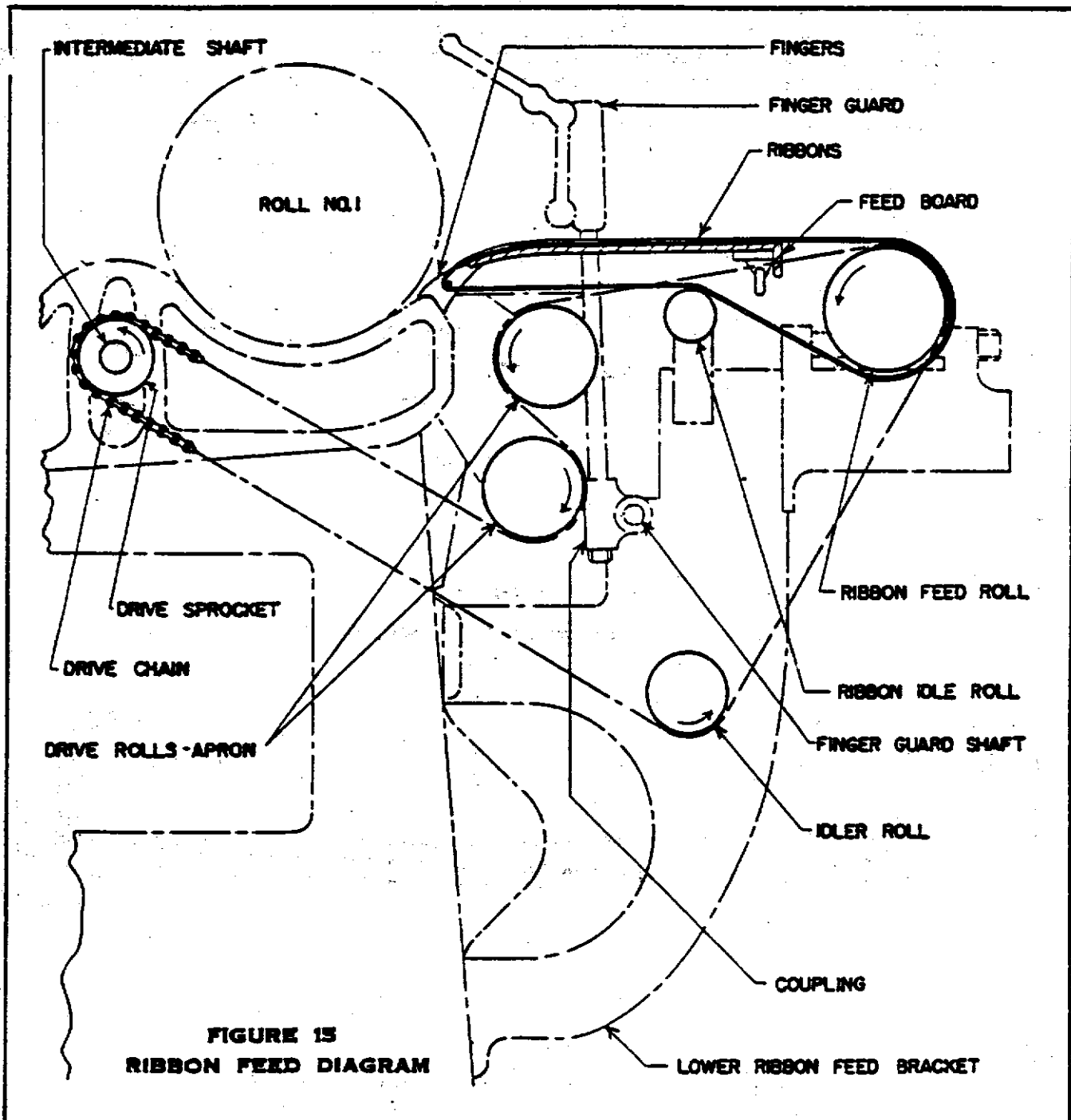


FIGURE 12  
APRON GUIDE ATTACHMENTS



N. **RIBBON FEED** - (Refer to Figure 15) - Lower ribbon-feed brackets and upper brackets are shipped assembled. To install ribbon feed:

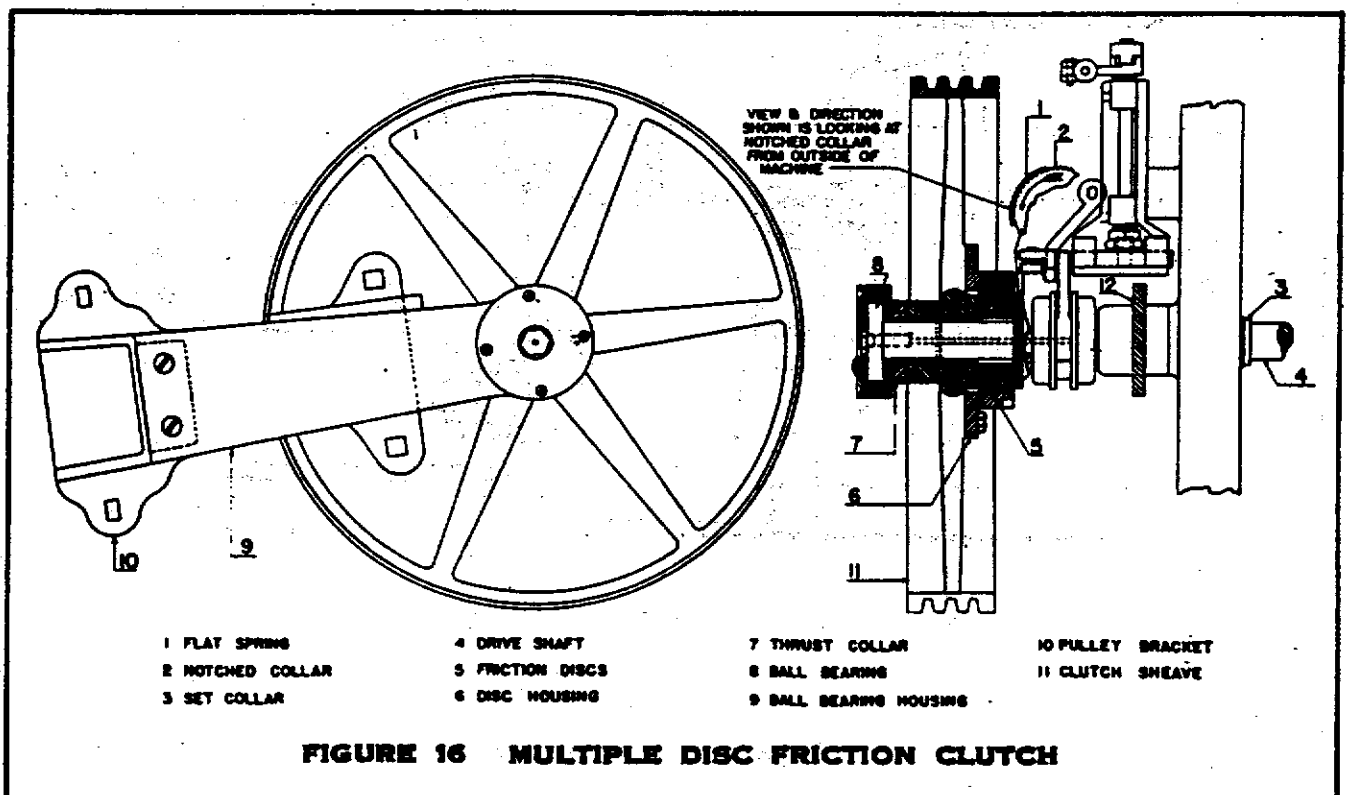
1. Fasten assembled brackets to frames.
2. Remove the upper bearing halves from ends of ribbon-feed roll.
3. Place ribbon-feed roll in position in upper brackets.
4. Fasten the feed-board brackets to feed board.
5. Place the feed-board assembly on top of ribbon-feed roll, and have one man keep it balanced. (Continued next page)



6. Lift one end of feed board and feed roll. Then loop the ribbons over the ends of the feed board and feed roll.
7. Lower the raised end of feed board and feed roll.
8. Place the ribbons between the fingers on feed board.
9. Move feed board into position, and fasten to frames with carriage bolts.
10. Replace top bearing halves of ribbon-feed roll.
11. Mount sprockets on ends of intermediate shaft, apron-drive rolls, idler roll and ribbon-feed roll.
12. Thread drive chain as indicated on Figure 14, and adjust idler roll to give proper chain tension.

**0. DRIVE** - (Refer to Figure 16, below) - Clutch mechanism is shipped assembled to drive shaft. To mount clutch sheave:

1. Line up projecting lugs on friction discs (5) with slots in disc housing (6).
2. Place clutch sheave (11), with disc housing (6), on drive shaft.
3. Mount thrust collar (7) on drive shaft, and tighten set screws.
4. Fasten pulley bracket (10) on Ironer frame.
5. Place ball-bearing housing (9) in position on pulley bracket and bolt it to bracket.
6. Line up motor sheave with clutch sheave, and place V-belts in grooves of both sheaves.
7. Position motor so that V-belts have slight tension, then anchor motor base to floor. (Motor can be moved toward or away from Ironer on motor base to secure proper belt tension).



**P. SPEEDOMETER** - The speedometer-drive gear is attached to the drive shaft inside the clutch sheave. Mesh the driven gear of the speedometer with the speedometer-drive gear. Then fasten the bracket which holds the driven gear to the frame, and connect the speedometer cable. The free end of the cable is attached to the speedometer, which is located in the guard at left-front of Ironer.

After speedometer cable has been connected, be sure it clears the chain under the guard.

**Q. ELECTRICAL CONNECTIONS** - SYLON Flatwork Ironers are furnished with wiring in conduit between the motor and controller. Terminals, properly tagged, are provided for connection of the control and service leads. These tags should never be removed, even after wires are connected. Wiring diagram will be found inside the cover of the control box. Provisions should be made to have electrical connections made promptly.

Be sure the service voltage is the same as that stamped on motors. Service wires must be of ample size to insure full line voltage across motor terminals.

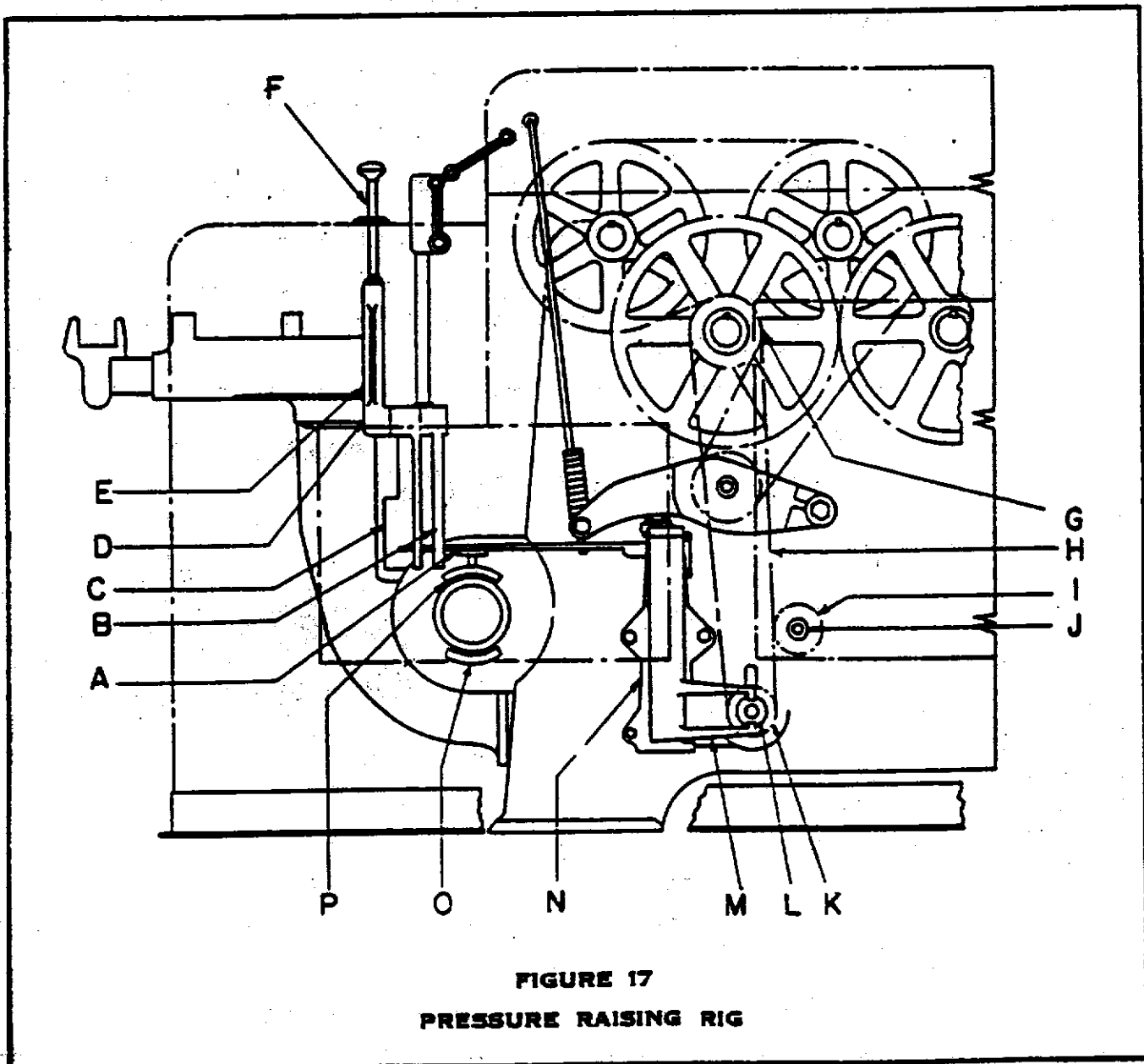


FIGURE 17  
PRESSURE RAISING RIG

**R. PRESSURE RAISING RIG** - (Refer to Figure 17, opposite page) - Assemble pressure raising rig as follows:

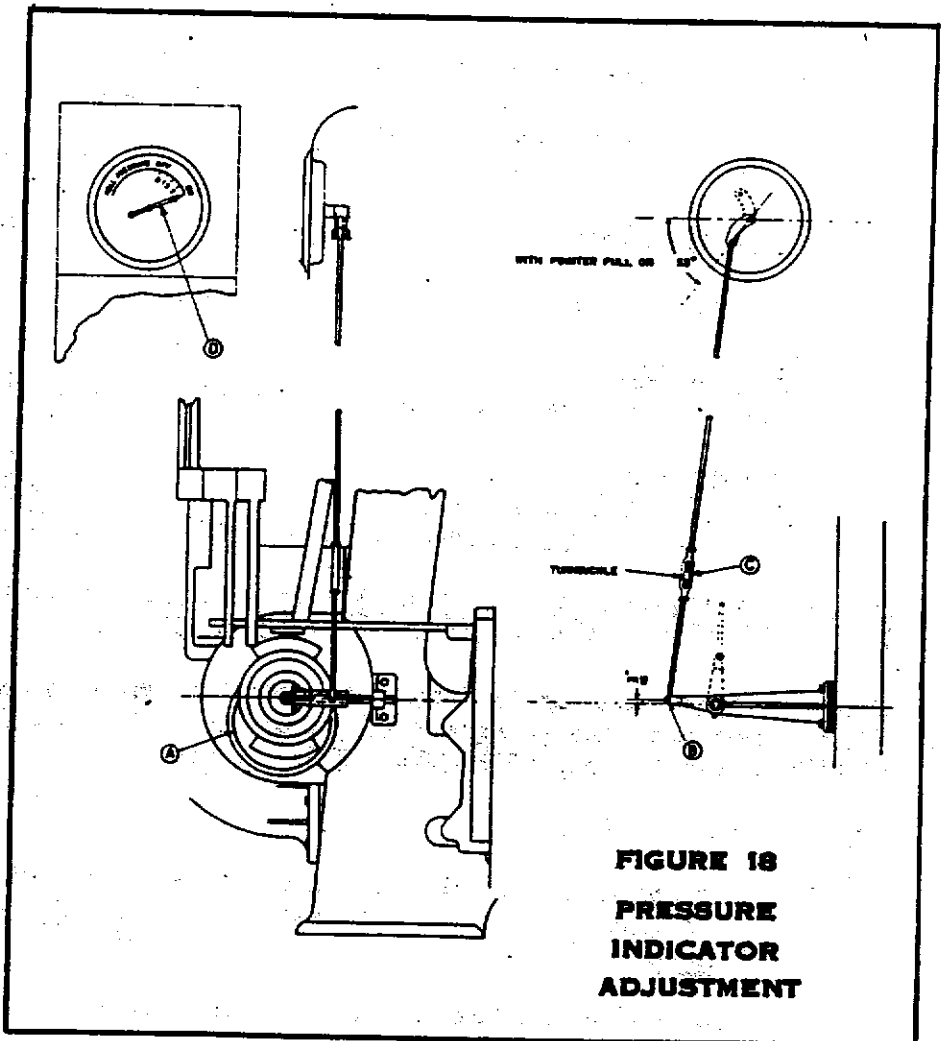
1. Fasten shift-lever bracket (C) to lower right-hand ribbon-feed bracket.
2. Bolt shifter-support bracket (N) to right-hand frame.  
15-tooth sprocket (K) is shipped mounted on right-hand end of clutch shaft.
3. Place drive chain (H) in position on 15-tooth sprocket (K) and 24-tooth sprocket (G).
4. Mount 15-tooth idler sprocket (I) on raising-rig idler stud (J) and adjust for proper chain tension.
5. Connect upper portion of shift lever (E) to lower portion (B), and to shift-lever bracket (C), with shift-lever pin (D). (Lower portion of shift lever (B) operates clutch-shifter rod (A) which operates clutch-shifter fork (M). Clutch-shifter fork in turn shifts clutch-shifter spool (L).) Pressure-operating lever (F) is connected after gear guard is installed.

Cams (O) and (P) are set when Ironer leaves the factory. They are safety devices which automatically "kick out" the roll raising mechanism at full "OFF" and full "ON" pressure should operator neglect to return pressure-operating lever (F) to neutral position.

**S. PRESSURE INDICATOR ADJUSTMENT** -  
(See Figure 18)

Procedure for adjusting the pressure indicator is:

1. Place the eccentric (A) at lowest position (pressure full on).
2. Set Arm (B) 3/16-inch above the horizontal center as shown.
3. Adjust turn-buckle (C) until the pointer (D) shows full on position.





**T. PADDING** The following 5/8" Knitted Padding is used on 4, 6, and 8-Roll SYLON Flatwork Ironers. Apply padding in the order given.

5/8" KNITTED PADDING (STANDARD)

Number of Pieces			Material	Size of Pieces		
4-Roll	6-Roll	8-Roll		100"	110"	120"
4	6	8	Muslin Binder	72x102"	72x112"	72x122"
4	6	8	5/8" Knitted Padding	74x102"	74x112"	74x122"
4	6	8	Muslin	72x102"	74x112"	74x124"
4	6	8	American Cloth	90x104"	90x114"	90x124"

Below is list of aprons, tapes and feed ribbons used on SYLON Flatwork Ironers.

APRONS	100" #6 Duck	110" #5 Duck	120" #5 Duck
4-Roll 1-Upper Apron (inside) Made Up.....	16'0"x100"	16'0"x110"	16'0"x120"
1-Lower Apron (outside) Made Up.....	19'1"x100"	19'1"x110"	19'1"x120"
6-Roll 1-Upper Apron (inside) Made Up.....	21'5"x100"	21'5"x110"	21'5"x120"
1-Lower Apron (outside) Made Up.....	24'4"x100"	24'4"x110"	24'4"x120"
8-Roll 1-Upper Apron (inside) Made Up.....	26'8"x100"	26'8"x110"	26'8"x120"
1-Lower Apron (outside) Made Up.....	29'3"x100"	29'3"x110"	29'3"x120"

18" RIBBON FEED

2-1/2"x48" Ribbons .....	Number of Ribbons Used		
	100"	110"	120"
	37	41	45

TAPE DEVICES

1 Roll Tape - American Cloth 1-1/8"x300'0" -- 4, 6, and 8-Roll.

MISCELLANEOUS

	100"	110"	120"
1 - Piece #12 Duck for Bib .....	50x102"	50x112"	50x122"
1 - Piece #12 Duck glued on Ribbon Roll .....	21x101"	21x111"	21x121"

Covering Rolls with 5/8" Knitted Padding. Before applying padding, lubricate Ironer according to instructions under "LUBRICATION", page 36 to 40.

Heat the Ironer and apply "light pressure" to machine manually. For explanation of "light pressure" see paragraph (5), Page 26. Also see instructions under "HEATING CHESTS", Page 28, and "PRESSURE CONTROL", Page 30.

Apply padding as follows:

1. Start with No. 1 roll and glue 4 to a 6-inch wide strip of the leading end of muslin binder to the bare roll. Be careful not to get glue on Ironer Chests.
2. Glue the muslin binder in the same manner to each of the rolls in succession.

3. Start the Ironer and rotate rolls so that glued portion of muslin binder is between rolls and chests. Stop Ironer and leave rolls in this position for approximately 15 minutes, so that glue may partially set, before continuing. Gluing the muslin cover to all the rolls at the same time will dispose of this operation and thus save time.
4. Start Ironer and wind the muslin binder on the rolls, making sure cloth winds straight on rolls.
5. Stop Ironer and unwind two-thirds of the outside wrap of muslin binder. Insert leading end of the 5/8" knitted padding under the wrap of muslin binder.
6. Start Ironer under light pressure and wind knitted padding on No.1 Roll.
7. Stop Ironer and unwind two-thirds of the outside wrap of knitted padding on No.1 roll. Insert leading end of second piece of muslin under this wrap of knitted padding.
8. Start Ironer under light pressure and wind second piece of muslin on No. 1 roll, making sure to remove all wrinkles.
9. In same manner, apply 5/8" knitted padding, and second piece of muslin to the other rolls in succession.
10. The American Cloth covers can be applied at this time, or the Ironer can be run for several days to pack in the padding before applying the cover cloths. Apply the American Cloth covers by starting with No. 1 roll and lapping back about two-thirds of the last wrap of the second piece of muslin. Then insert leading end of American Cloth under the wrap of muslin.
11. Start Ironer and wind American Cloth smoothly on roll.
12. In same manner, apply American Cloth to each succeeding roll.

The following padding is used on the 4-Roll, 6-Roll and 8-Roll SYLON Flatwork Ironers equipped with Hamilton Spring Padding. Apply padding in order given.

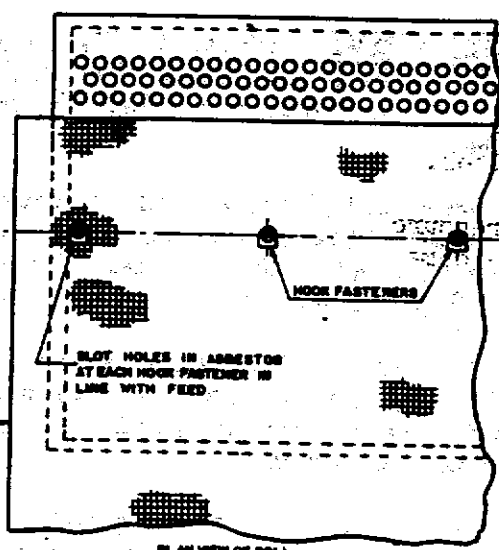
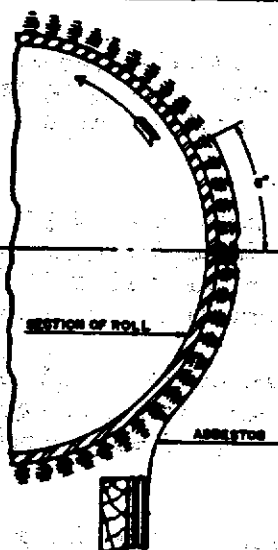
**ASBESTOS PADDING FOR HAMILTON SPRING PADDED ROLL (NOT STANDARD)**  
(Furnished When Ordered)

Number of Pieces				100"	110"	120"
4-Roll	6-Roll	8-Roll				
4	6	8	ME 2902 Asbestos Padding	73x102"	73x112"	73x122"
4	6	8	1/4" Knitted Padding	74x102"	74x112"	74x122"
4	6	8	No. 12 Duck	84x102"	84x112"	84x122"
4	6	8	American Cloth	90x104"	90x114"	90x124"
4	6	8	* No.18 Gauge Soft Copper Wire	250"	250"	250"

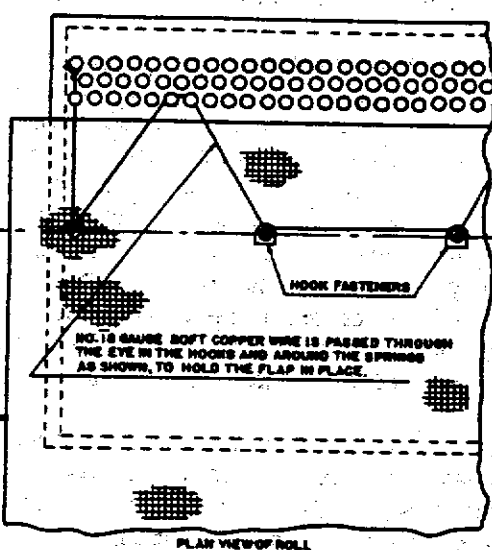
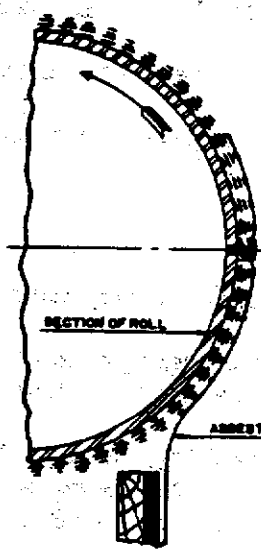
\*NOTE - No. 18 Gauge soft copper wire must be used to hold down the 6" lap on leading end when applying asbestos to Hamilton Spring Padding.

Covering Hamilton Spring Padded Rolls with Asbestos Padding: (Refer to Figure 19, Page 25) - Before applying padding, lubricate the Ironer in accordance with section on "LUBRICATION", Page 36 to 40.

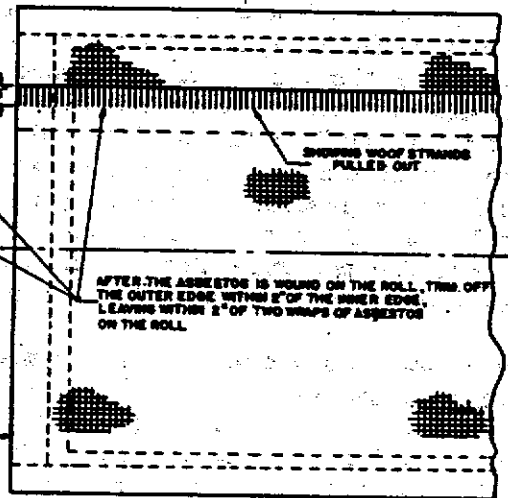
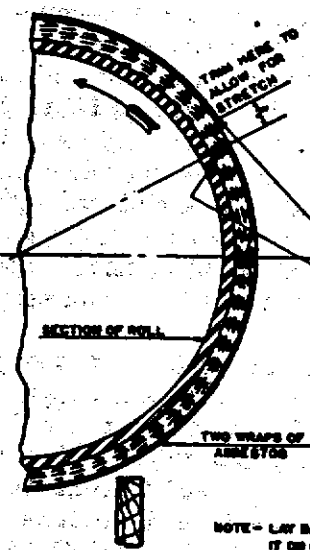
1. Apply light pressure to Ironer manually (See "PRESSURE CONTROL", Page 30).
2. Arrange asbestos padding behind roll No. 1, (nearest feed end of Ironer), as shown in Sketch "A", Figure 19. Place the asbestos next to the springs on roll, and secure it to roll by cutting slots one inch long (in line with feed) in the asbestos, to fit over each of the hook fasteners. Leading end of asbestos should be 6 inches ahead of row of springs in which the special hook fasteners are located.
3. Stretch asbestos along length of roll so it extends an equal distance over each end. It is very important that correct width of covering be used for the different size Ironers.
4. Attach the asbestos to the hook fasteners by starting from center of roll and working toward both ends. Be careful to eliminate all wrinkles in the asbestos.
5. Bind down the 6-inch lap with #18 Gauge copper wire, as shown on Sketch "B". Run wire the entire length of roll in saw-tooth fashion from hook fasteners to springs, by dropping wire down to catch two springs in the first row ahead of the 6-inch lap. Be sure to draw wire tight between springs and hook fasteners.
6. Start Ironer as described under "STARTING AND STOPPING", Page 28, and wind the asbestos on roll.
7. Pin asbestos at the ends to keep it from falling away from the roll. Follow same procedure for the remaining rolls. When all rolls are padded with asbestos, run Ironer for one-half hour or more to take out the initial stretch in the asbestos.
8. After initial stretch has been removed from asbestos, stop Ironer. Then draw a line from one end of each roll to the other, 2 inches short of the starting point of first wrap of asbestos (See Sketch "C"). Cut asbestos on this line, regardless of how straight the line is, with the threads running across material. This leaves within 2 inches of two wraps of asbestos on the roll.
9. Open up two-thirds of the last wrap of asbestos on No. 1 roll and insert the 1/4" Knitted Padding.
10. Start Ironer under light pressure and wind the Knitted Padding smoothly onto the roll, removing all wrinkles. Follow same procedure for each roll. Then run the Ironer for one-half hour.
11. After the half-hour run, apply the No.12 duck to roll No.1 Open up two-thirds of last wrap of knitted padding and insert the duck. Start Ironer under light pressure, and smoothly wind the duck, removing all wrinkles. Follow same procedure for each roll.
12. The outer American Cloth covers may be applied at this time, or the Ironer may be run several days to pack in the padding before applying the outer covers. Apply the covers to each roll in succession, in the same manner the No. 12 duck was applied.



SKETCH "A" PLAN VIEW OF ROLL



SKETCH "B" PLAN VIEW OF ROLL



NOTE - LAY BACK 2/3 WRAP OF ASBESTOS, LAY IN THE KNITTED FABRIC AND RUN IT ON SMOOTHLY; THEN APPLY THE NO. 12 DUCK AND COVER CLOTH IN THE SAME MANNER.

SKETCH "C"

FIGURE 19 HAMILTON SPRING PADDED ROLLS

**U. SETTING PRESSURE SCREWS** - (Refer to Figure 20, opposite page) - The following explanation pertains to the 8-Roll SYLON Flatwork Ironer. Setting pressure screws on 4 and 6-Roll Ironer is relatively the same. Before setting pressure screws, run Ironer for half hour, then:

1. Apply pressure until spiral roll brackets have reached point of maximum lift on large cams. This is not quite two-thirds of the full travel of the key in rear pressure shaft. Full travel of the key is from full "OFF" pressure where it is at top of shaft, to full "ON" pressure where it is at bottom of shaft.
2. Check small pins (5, Figure 20) at each end of No.1 roll, and see if they are loose. If they are not loose, apply pressure gradually until they are. Do the same for each succeeding roll. Do not apply more pressure than is necessary to free these pins.
3. With Ironer running and pressure still applied, install pressure screws (6, Figure 20) for No.1 roll on both sides, turning screws down as far as possible by hand. Install pressure screws for other rolls in same manner.
4. With all pressure screws set finger tight, tighten lock nuts (10) on pressure screws of 8th roll. Then, using wrench:
 

Turn roll #7 pressure screws	1/6th turn*	and tighten lock nuts.
Turn roll #6 pressure screws	2/6th turn	" " " "
Turn roll #5 pressure screws	3/6th turn	" " " "
Turn roll #4 pressure screws	4/6th turn	" " " "
Turn roll #3 pressure screws	5/6th turn	" " " "
Turn roll #2 pressure screws	one full turn	and tighten lock nuts.
Turn roll #1 pressure screws	1-1/6th turns	" " " "

(\* In making the 1/6th graduated turns the hexagon head of the pressure screws can be used as a guide, as there are six flat sides on the heads.)

On 6-Roll and 4-Roll Ironers, the pressure setting is made in the same manner as the 8-Roll setting. In each case, after the pressure screws are set finger tight, start with the next to the last roll and set remaining pressure screws in increments of 1/6th of a turn.

5. With pressure set as outlined, note reading on the pressure indicator. Instruct the foreman to apply pressure to this mark each day. At same time, he should check the small roll pressure pins. As long as these pins are loose, pressure should not be increased. But when padding packs and the rolls become slightly smaller, the roll pins will tighten, indicating that rolls are not in contact with the chests, and the pressure bar must be lowered to apply more pressure. Pressure should be added through the pressure device until the roll pins just loosen. The pressure indicator reading should be noted and the pressure kept at this new setting until the pins again tighten. Same procedure is repeated until repadding is necessary.

The method outlined above, gives minimum graduation to the padded rolls, and allows them to operate in the chests under their own weight only, without excessive pressure being applied. This is referred to as "light" pressure, and gives long life to the covers, padding and tapes. The roll graduation is slight, but in the majority of cases it is sufficient to produce enough pull on the work to keep it flat on the chests and produce good quality ironing. ONCE PROPERLY ADJUSTED, THE PRESSURE SCREW SETTING SHOULD NEVER BE CHANGED.

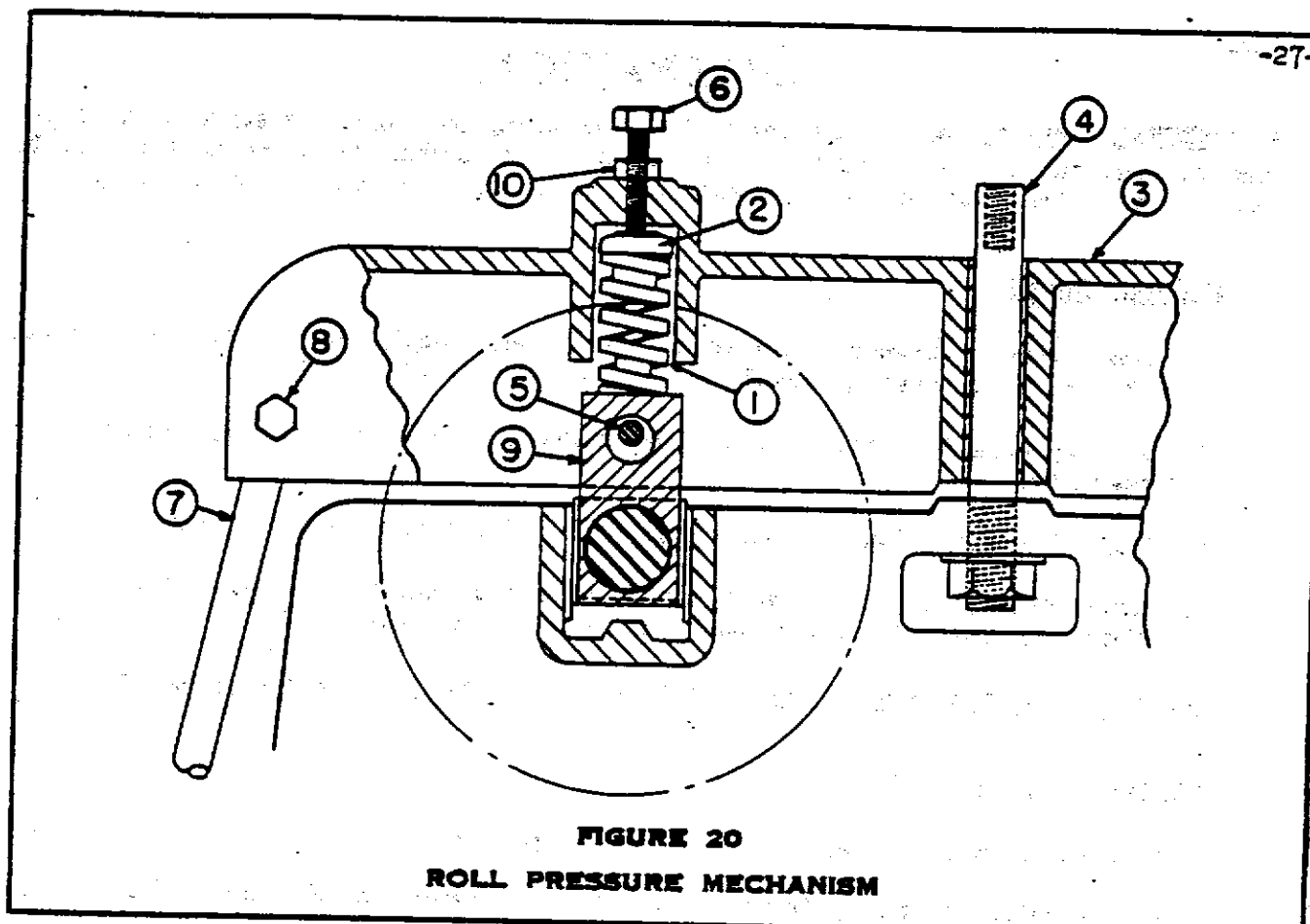


FIGURE 20  
ROLL PRESSURE MECHANISM

V. TAPE DEVICE - Fasten the brackets, which hold the two rows of wooden spools at feed end of Ironer, to the pressure bars with the four machine bolts.

Set the spool rod at delivery end of Ironer low so that the tapes will carry the flatwork onto the upper apron. (The brackets which secure the spool rod to the delivery end are held in position by the same 3/4-inch bolts that fasten the pendulum bolts to the pressure bars.)

Cut tapes from roll of tape to desired length and thread the tapes one at a time as shown in Figure 21. Then, fasten the ends with the stapler provided.

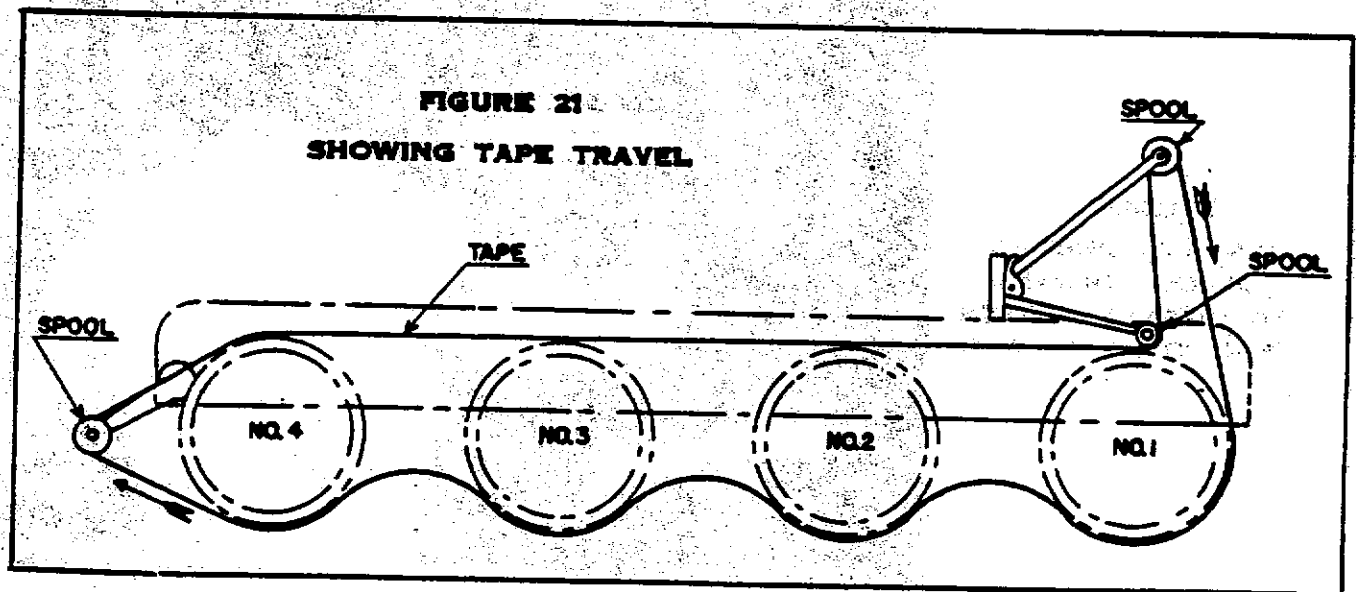


FIGURE 21  
SHOWING TAPE TRAVEL

## OPERATION

**A. GENERAL** - The Ironer is now ready for operation, but before putting it in production, careful attention should be given to the following features in order to be familiar with the functions of the various attachments and methods of operation.

### B. HEATING CHESTS

1. Open valve in by-pass line around main steam supply valve. This will permit the chests to heat gradually.
2. For approximately ten minutes open valve in condensate line by-passing steam trap.
3. Close by-pass valve in condensate line. Steam trap is now operative.
4. After thirty to forty-five minutes, open the main steam supply valve and close the valve in the by-pass line around this valve.

**NOTE:** Do not run work through Ironer until chests are thoroughly heated.

### C. STARTING AND STOPPING

1. Standard-Drive Ironer with A.C., four-speed motor.
  - (a) Before starting Ironer be sure the pressure is OFF (See "Pressure Control", Page 30).
  - (b) Set Drum control for lowest speed.
  - (c) Disengage clutch by pulling shifter lever towards operator.
  - (d) Depress "START" button on push-button station.
  - (e) Engage clutch by pushing shifter lever forward (See below).
  - (f) Set drum control for desired speed.
  - (g) Apply pressure as described in paragraph on "Pressure Control".

**FIGURE 22**  
**PUSHING SHIFTER**  
**LEVER FORWARD**  
**TO ENGAGE CLUTCH**  
**AND START IRONER**



To stop Ironer, pull shifter lever towards operator, or push finger guard towards rear of Ironer. This permits motor to continue running, and Ironer can be restarted by simply reengaging clutch as described in paragraph (e), above

To stop the drive motor and vacuum-exhauster motor, depress the "STOP" button on the push-button station.

2. Standard-Drive Ironer with D.C., variable-speed motor.

- (a) Before starting Ironer be sure the pressure is OFF (See "Pressure Control", next page).
- (b) Set field rheostat for lowest speed.
- (c) Disengage clutch by pulling shifter lever towards operator.
- (d) Depress "START" button on push-button station.
- (e) Engage clutch by pushing shifter lever away from operator.
- (f) Set field rheostat for desired speed.
- (g) Apply pressure as described under "Pressure Control", next page.

To stop the Ironer, pull shifter lever towards operator, or push finger guard towards rear of Ironer. This permits motor to continue running, and Ironer may be restarted by simply reengaging the clutch.

To stop the drive motor and vacuum exhauster motor, depress the "STOP" button on the push-button station.

3. Optional-Drive Ironer with Mechanical Speed Changer, A.C. and D.C.

- (a) Before starting Ironer, be sure the pressure is OFF.
- (b) Disengage clutch by pulling shifter lever towards operator.
- (c) Depress "START" button on push-button station.
- (d) Depress button marked "LOW" until a low speed appears on the speedometer. Then, remove finger from button.
- (e) Engage clutch by pushing shifter level away from operator.
- (f) Depress button marked "HIGH" until desired high speed appears on the speedometer. Then, remove finger from button.
- (g) Apply pressure as described under "Pressure Control", next page.

To stop the Ironer, pull shifter lever towards operator, or push finger guard towards rear of Ironer. This permits the motor to continue running and Ironer can be restarted by simply reengaging the clutch as described in paragraph (e) above.

To stop drive motor and vacuum-exhauster motor, depress "STOP" button on the push-button station.

**NOTE:** To avoid burning padded roll covers, aprons, and tapes, always release pressure when Ironer is to be idle for ten minutes or longer.



**D. PRESSURE CONTROL** - The operating lever at the right-hand side of the feed end of the Ironer controls the power pressure mechanism.

To apply pressure on 6-Roll and 8-Roll Ironers: Move lever to the left until desired pressure is registered on the pressure dial. Then return lever to neutral.

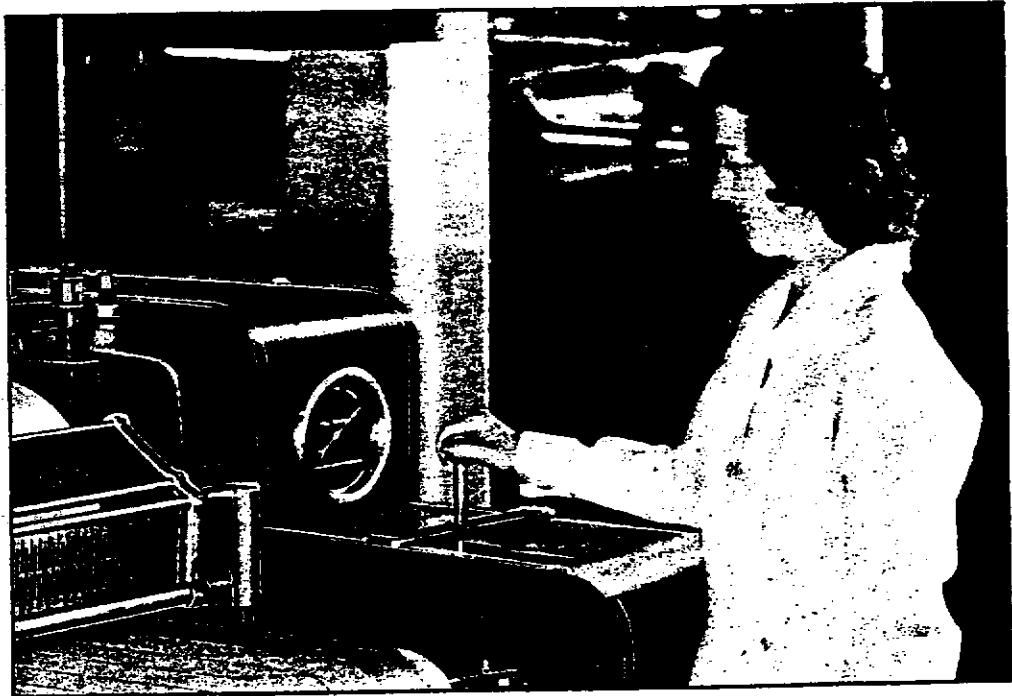
To release pressure on 6-Roll and 8-Roll Ironers: Move the lever through neutral (center position), then to the right until pressure is released, as shown by the pressure indicator. Then return lever to neutral.

Pressure may be applied or released manually by turning the hand-wheel at the lower right feed end of the Ironer. Turn the wheel counter-clockwise to apply pressure, and clockwise to release pressure. Pressure control for 4-Roll Ironer is exactly reverse of procedure above.

**NOTE:** Never apply pressure to a cold machine while it is running.

The pressure mechanism also raises and lowers the apron tension brackets at delivery end of Ironer, bringing the aprons into and out of contact with the steam chests.

**FIGURE 23**  
**ADJUSTING**  
**ROLL PRESSURE**



**E. FEEDING** - Never start feeding work into Ironer until rolls and chests are heated thoroughly. Observe condition of work to make sure it is properly extracted. Excess moisture from under-extracted work will accumulate in the roll padding, causing unnecessary trouble and slowing down production.

When feeding large pieces, alternate them from end to end of the rolls. For example, feed large pieces at left end of rolls for a while, with smaller pieces alongside them, at the right. Then alternate, and feed large pieces at right end of rolls. When ironing small pieces only, they should be fed along entire length of rolls.

A wax cloth, prepared as described in paragraph "C", Page 32, should be run through the Ironer at least once a day. This is essential for smooth travel of work through Ironer. Following these simple procedures will help keep the cover cloths straight, prolong the life of padding, and result in better quality ironing.

# MAINTENANCE

**A. GENERAL** - The SYLON Flatwork Ironer is primarily a water evaporating machine, and its functioning depends on the quality of steam delivered to it, the rapid removal of condensate and the conditioning of the work to be ironed. Insufficient extracting, low steam pressure, wet steam, neglected padding, incorrect ironing pressure and insufficient apron tension will materially decrease the efficiency of the Ironer and produce work of questionable quality.

## ROUTINE OPERATIONS AND INSPECTIONS

### 1. Electrical Equipment:

Motor Maintenance - The motor should be inspected weekly in order to keep it in good operating condition. Keep the interior and exterior dry and free of dust, lint, grease or dirt. See that brushes of direct-current motors move freely in the holders and, at the same time, make firm and even contact with the commutator. In maintaining motors, cleanliness is of prime importance. Dirty windings may overheat and cause failure of the insulation. Windings may be cleaned by suction cleaners, compressed air or wiping. The compressed air should be free of moisture and the pressure should not be excessive. Nozzles of suction type cleaners should be non-metallic. Gummy deposits of dirt and grease may be removed by using carbon tetrachloride. Terminal connections, assembly screws, bolts and nuts should be tight. They sometimes tend to loosen from vibration.

Motor Temperature - Motor temperature should be checked frequently by means of a thermometer. If the temperature is high, investigate the cause immediately. Motor temperature rise should not exceed temperature rise indicated on motor nameplate.

### 2. Miscellaneous: - The Ironer should be inspected at regular intervals to make sure that:

- (a) Ironer is level. Frequently a floor or foundation will settle, and throw the Ironer out of level. If the Ironer is found to be out of level, it should be properly levelled and checked for square as described under "F", Page 5.
- (b) All nuts, bolts and screws are drawn tight.
- (c) Accumulated dust and lint are removed from machine and it is kept clean.
- (d) All steam and drain connections are not leaking, and trap or traps operate properly.
- (e) All moving parts are clean and properly lubricated.

**B. CARE OF PADDING** - The life of the padding can be lengthened considerably by giving it proper care. NEVER run the Ironer under pressure when the chests are cold.

Do not increase the pressure too rapidly after repadding, as this will pack the padding and cause it to lose its resiliency. Never use more pressure than is absolutely necessary to do good work.

Always release the pressure at noon and night, or any time when Ironer is to be idle for more than ten minutes.

Always keep the chests well paraffined. (See "Cleaning Chests").

**C. CLEANING CHESTS** - It is very important that the chests be kept clean and the ironing surfaces bright. To clean the chests, take a large muslin cloth about the size of an ordinary sheet, soak it in kerosene, then wring out by hand. Run this cloth through the Ironer twice a week.

In addition to the above, run a paraffined cloth through the Ironer once a day to wax the chests. If much sizing or starch is used in the washroom it may be necessary to run the paraffined cloth through more often. Use a cloth 3 feet wide and as long as the chests are wide. To prepare the cloth use either powdered or solidified paraffin. If solidified paraffin is used, cut off flakes until a strip one and one-half feet wide by the length of the cloth has been covered. Fold the remainder of the cloth over the paraffined portion, and feed the cloth through the Ironer, folded edge first, so the entire chest will be covered. This cloth can be used over and over again until the paraffin is exhausted.

**D. INSTALLING CLIPPER-LACE APRON** - (Refer to Figures 13 and 14, Page 17)

1. Stop Ironer so that steel wire (which fastens ends of clipper-lace apron together) is at delivery end of machine.
2. Lower the spiral rolls as far as they will go, by turning the handle on the tension screws.
3. Remove the steel wire from the old apron.
4. Connect one end of new clipper-lace apron to the trailing end of the old clipper-lace apron with the steel wire.
5. Start Ironer and run it slowly, guiding the new apron by hand until the leading end of the new apron is returned to delivery end.
6. Remove the steel wire and discard the worn apron.
7. Ironer aprons have blue guide lines woven into the fabric. Match up the center guide lines where the two ends of the clipper-laced apron meet and insert steel wire through the clips.
8. Heat the steam chests.
9. Put machine in normal ironing pressure.
10. Take up on spiral rolls by turning tension screw handle until proper apron tension is obtained.

**E. ADJUSTING CLUTCH** - (Refer to Figure 16, Page 19) - The clutch is set when the Ironer is first erected. It will probably not be necessary to change the setting for several years of operation. However, when the clutch wears to such an extent that adjustment is necessary, it is comparatively simple to make the adjustment.

Remove section of guard enclosing clutch. Then raise flat spring, and with a small screwdriver or centerpunch, move notched collar one notch in direction indicated, so that the flat spring will cover one more notch than it did formerly. It will usually be found that moving the notched collar one notch will be sufficient adjustment for several years operation.

**F. APRON ADJUSTMENT** - (Refer to Figure 12, Page 16) - The aprons are automatically controlled or guided, by means of the American Automatic Apron Control Device. It consists of guide rolls, a system of connecting rods, bell cranks, and counterweights which connect the moveable ends of the guide rolls with the corrugated friction spools on the spiral rolls.

The principle of this device is very simple, and can best be explained by comparing it with movement of a machine across the floor on skids and rollers. If movement of machine is in a straight line, the rollers must be set at exact right angles with the skids. If movement to the right or left of the straight line is required, position of the rollers is changed from a right angle. Comparing the Ironer apron to a machine on skids, and the guide rolls to the rollers beneath the machine, operation of the Automatic Apron Control Device will be readily understood.

The balance weights should be adjusted so they will move the guide rolls freely when the aprons run off the friction spools. This is important in order to keep the aprons from having too much weight to lift when they run back onto the spools. After the Ironer has been set as described above, the aprons will track very nicely, running off and on the friction spools very slowly.

However, if the aprons have a pronounced tendency to run toward one frame or the other, the following adjustment must be made:

1. Place yourself in a position facing the pivot end of the guideroll controlling the faulty apron.
2. Moving the pivot end of the guide roll to the right sends the apron to the spool-end of the spiral roll.
3. Moving the pivot end of the guide roll to the left sends the apron to the end opposite the spool-end of the spiral roll.

After making each adjustment, be sure to tighten the set screws on the bearings at pivot end of the guide rolls. Make all adjustments in increments of 1/2-inch, allowing time for apron to adjust itself to new position of the guide rolls.

**G. ORDERING REPAIR PARTS** - A Repair-Parts Drawing accompanied the SYLON Flatwork Ironer when shipped. The Repair-Parts Drawing lists all available repair parts by item number and part name. To be sure of receiving the correct part with a minimum of delay, give the following information in correspondence or orders:

1. Name of part required.
2. Item number of part as listed on Repair-Parts Drawing.
3. Repair-Parts Drawing number.
4. Quantity of each part required.
5. Complete serial number of Ironer, as listed on name plate.
6. Method of shipment - express, parcel post or freight.

TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSE	REMEDY
<p><u>Linens</u></p> <p><u>Buckling</u></p> <p><u>"Rolling"</u></p>	<p>(1) Steam chests insufficiently heated.</p> <p>(2) Steam chests dirty or insufficiently paraffined.</p> <p>(3) Flatwork improperly rinsed.</p> <p>(4) Excessive sour used.</p> <p>(5) Extraction not complete.</p> <p>(6) Rolls improperly graduated.</p>	<p>(1) Heat steam chests thoroughly (See Paragraph B, Page 28).</p> <p>(2) Pass paraffined cloth through Ironer (Paragraph C, Page 32).</p> <p>(3) Rinse work thoroughly.</p> <p>(4) Use proper amount of sour.</p> <p>(5) Lengthen extractor cycle.</p> <p>(6) Add Covers to bring roll padding to proper circumference.</p>
<p><u>Aprons</u></p> <p><u>Wrinkling</u></p>	<p>(1) Foundation has settled under one or more feet of the Ironer, putting machine in a twist.</p> <p>(2) Apron guide mechanism not functioning properly.</p>	<p>(1) Reinforce foundation. Properly level and square the Ironer.</p> <p>(2) Check guide rolls to see that they move freely in their bearings. Check moveable ends of guide rolls to see that they are free in their guides. Check to see that chain from spool to the bell crank (Figure 12, Page 16), also connecting rods from bell crank to weighted lever, and weighted lever to guide roll are free and move easily.</p>
<p><u>Linens</u></p> <p><u>Sticking</u></p> <p><u>to Rolls</u></p>	<p>(1) Steam chests insufficiently heated.</p> <p>(2) Flatwork improperly rinsed.</p>	<p>(1) Heat steam chests thoroughly (See Paragraph B, Page 28).</p> <p>(2) Rinse work thoroughly.</p>
<p><u>Ironer not</u></p> <p><u>Delivering</u></p> <p><u>Rated</u></p> <p><u>Capacity</u></p>	<p>(1) Poor quality steam (wet or low pressure).</p> <p>(2) Return system not functioning properly.</p>	<p>(1) Check steam generating system. Ironer is designed to operate on dry, saturated steam at 100 pounds per square inch pressure.</p> <p>(2) Inspect return system and remedy any defects.</p>



## LUBRICATION

**A. GENERAL** - Proper lubrication is the most important item of Ironer upkeep, although it is too often the most neglected. Lubricate every moving part which is subject to wear, using the lubricant recommended or its equal. Consult lubrication diagrams, pages 38, 39 and 40.

**B. MOTOR LUBRICATION** - Before adding grease, make sure the fittings are clean. Remove the relief plug, and check to see that the passage is clear of hardened grease. The interval of greasing will depend upon the size and speed of the bearing as well as the operating conditions. In general, the higher the speed and the larger the bearing, the more often grease must be added. **THE BEARING CAVITY SHOULD NEVER BE FILLED MORE THAN HALF FULL OF GREASE**, as the resulting agitation produces undue heating, and the excess grease will be forced out along the shaft. Flush out and re-grease the bearings once a year.

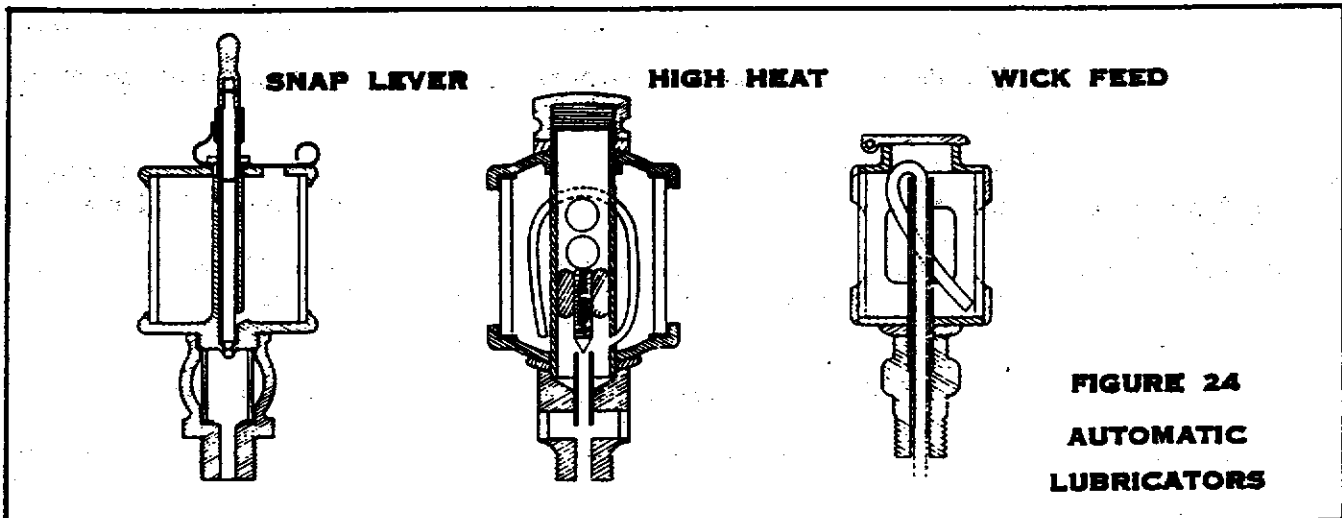
While the motor is rotating, force in a small amount of new grease until it starts to come out the relief. Add grease sparingly, as too much grease results in hot bearings. Allow motor to run for about five minutes before replacing the relief plug, in order to expel the excess grease.

**C. LUBRICATORS** - The three types of lubricators used on SYLOW Flatwork Ironers are shown in Figure 24, below.

Automatic, High-Heat Type ("D" - Figures 25, 26 and 27). This type lubricator is operated by expansion and contraction of the air in the cup. The small amount of heat generated by the bearing is transmitted to the air space above the lubricant. The air expands and forces the lubricant, drop by drop, into the bearing. This cools the bearing, and the air in the cup contracts, stopping the flow of lubricant. Action of the lubricators is independent of room temperature.

Snap Lever Feed Control Type ("E" - Figures 25, 26 and 27). The two lubricators for the main drive shaft are of this type. Once they are adjusted they will automatically deliver a definite amount of oil to the bearings. They are not entirely automatic, however, as they must be turned on and off manually.

Wick Feed Type ("F" - Figures 25, 26 and 27). When filling this type lubricator, fill the lubricator until oil level is above standpipe. The oil above standpipe will flush out the bearing, and the remaining oil will be fed to the bearing by capillary action.



## RECOMMENDED LUBRICANTS

Keep all bearings clean and well lubricated at all times. The following lubricants or their equals are recommended:

LUBRICATE WEEKLY (Refer to pages 38, 39 and 40)

### Illustration Key

- (A) Pressure Gun Fittings - HRB Grease No. 1 ----- Socony-Vacuum Oil Co.  
 Shell EIL Grease No. 2 ----- Shell Oil Co.  
 Texaco Regal Starfak No. 2 ----- Texas Oil Co.

Right-hand Frame  $\frac{26}{16}$  on 4-Roll,  $\frac{28}{16}$  on 6-Roll,  $\frac{34}{20}$  on 8-Roll  
 Left-hand Frame  $\frac{26}{16}$  on 4-Roll,  $\frac{28}{16}$  on 6-Roll,  $\frac{34}{20}$  on 8-Roll

- (B) Oil Holes - Gargoyle DTE Oil AA ----- Socony-Vacuum Oil Co.  
 Shell Albus Oil 74 ----- Shell Oil Co.  
 Texaco Thuban Oil 90 ----- Texas Oil Co.

Right-hand Frame  $\frac{12}{15}$  on 4-Roll,  $\frac{15}{15}$  on 6-Roll,  $\frac{17}{15}$  on 8-Roll  
 Left-hand Frame  $\frac{12}{15}$  on 4-Roll,  $\frac{15}{15}$  on 6-Roll,  $\frac{17}{15}$  on 8-Roll

- (C) Oil Boxes - Gargoyle Cylinder Oil 600-W ----- Socony-Vacuum Oil Co.  
 Shell Wolco No. 79-J ----- Shell Oil Co.  
 Texaco Thuban Oil 90 ----- Texas Oil Co.

Right-hand Frame  $\frac{1}{1}$  on 4-Roll,  $\frac{1}{1}$  on 6-Roll,  $\frac{2}{1}$  on 8-Roll  
 Left-hand Frame  $\frac{1}{1}$  on 4-Roll,  $\frac{1}{1}$  on 6-Roll,  $\frac{1}{1}$  on 8-Roll

### FILL WHEN NECESSARY

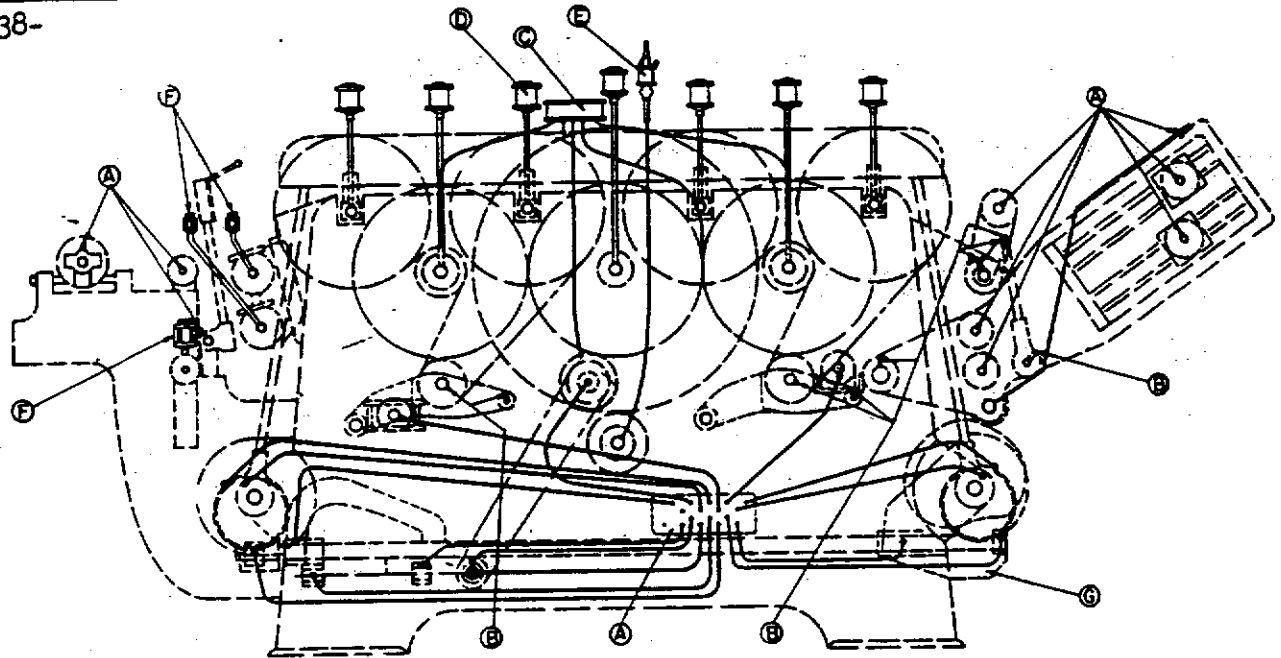
- (D) (E) and (F) - Lubricators - Gargoyle DTE Oil AA ----- Socony-Vacuum Oil Co.  
 Shell Albus Oil 74 ----- Shell Oil Co.  
 Texaco Thuban Oil 90 ----- Texas Oil Co.

Right-hand Frame  $\frac{11}{9}$  on 4-Roll,  $\frac{15}{11}$  on 6-Roll,  $\frac{19}{13}$  on 8-Roll  
 Left-hand Frame  $\frac{11}{9}$  on 4-Roll,  $\frac{15}{11}$  on 6-Roll,  $\frac{19}{13}$  on 8-Roll

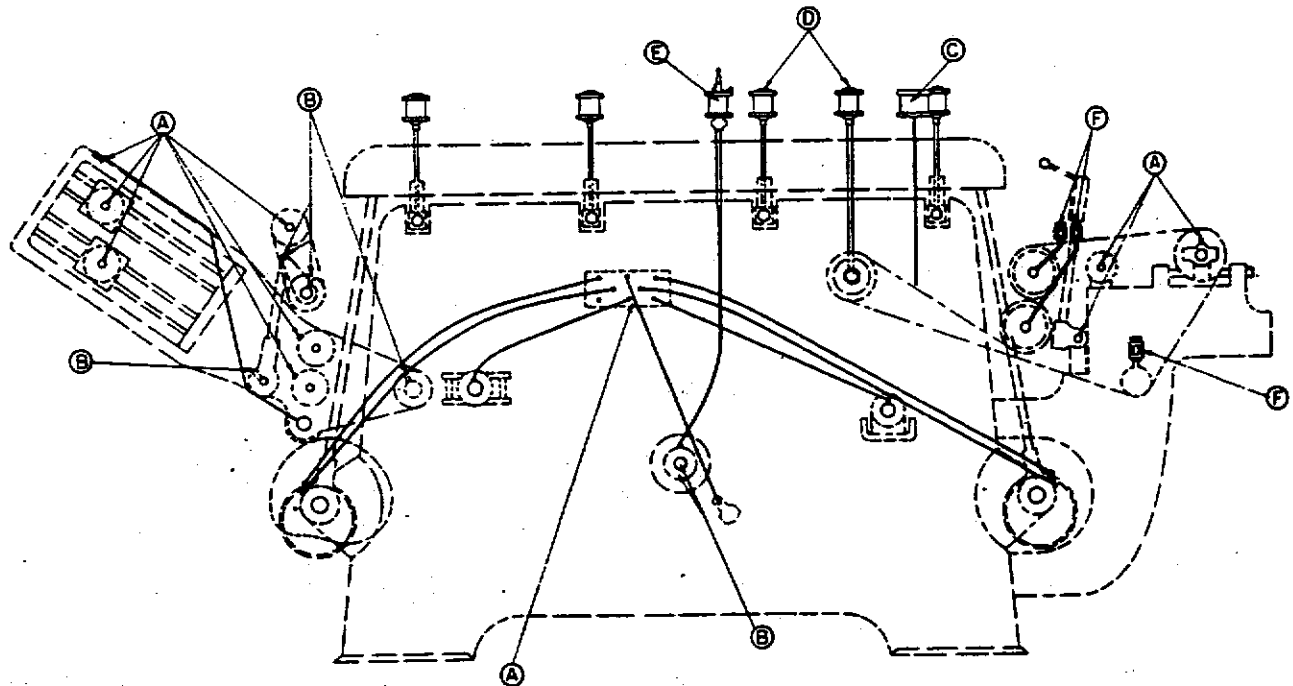
NOTE: (E) Snap lever feed control type lubricators must be turned on and off manually. Maintain level, flush and refill every six months.

- (G) Rear Worm Reservoir - Gargoyle Cylinder Oil 600-W ----- Socony-Vacuum Oil Co.

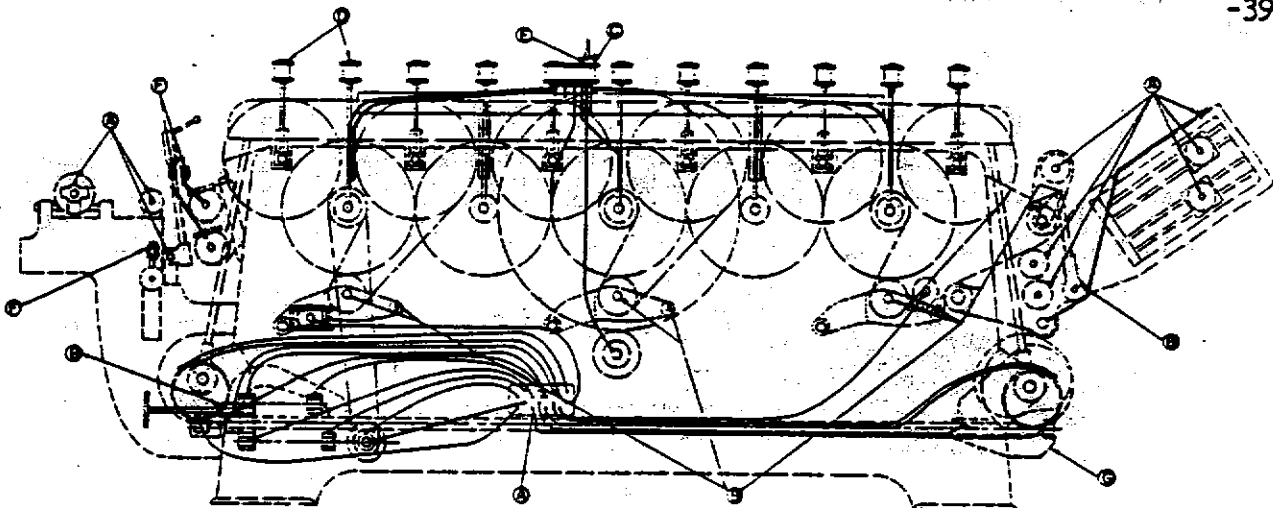




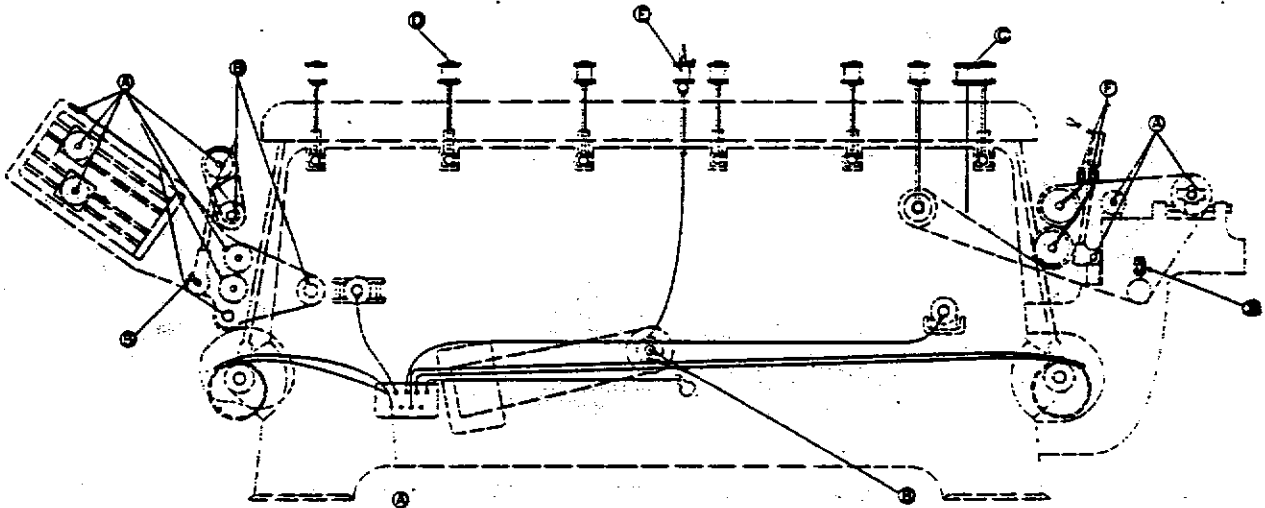
**RIGHT HAND FRAME FOUR-ROLL SYLON IRONER**



**LEFT HAND FRAME FOUR-ROLL SYLON IRONER**

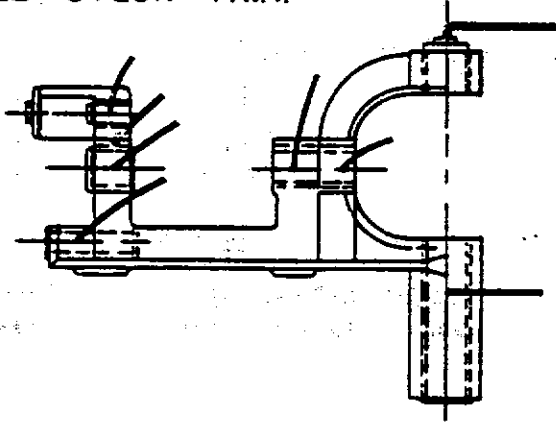


**RIGHT HAND FRAME SIX-ROLL SYLON IRONER**

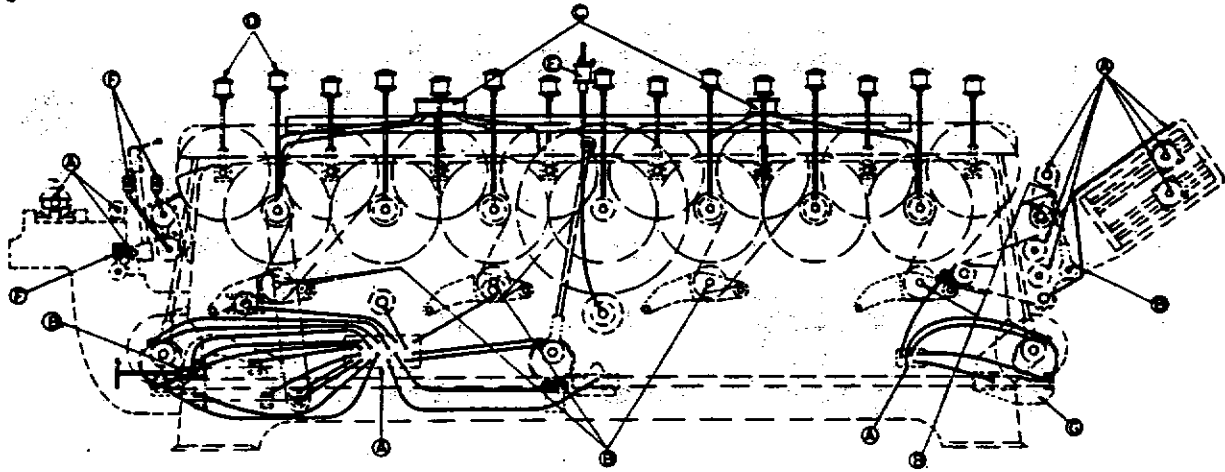


**LEFT HAND FRAME SIX-ROLL SYLON IRONER**

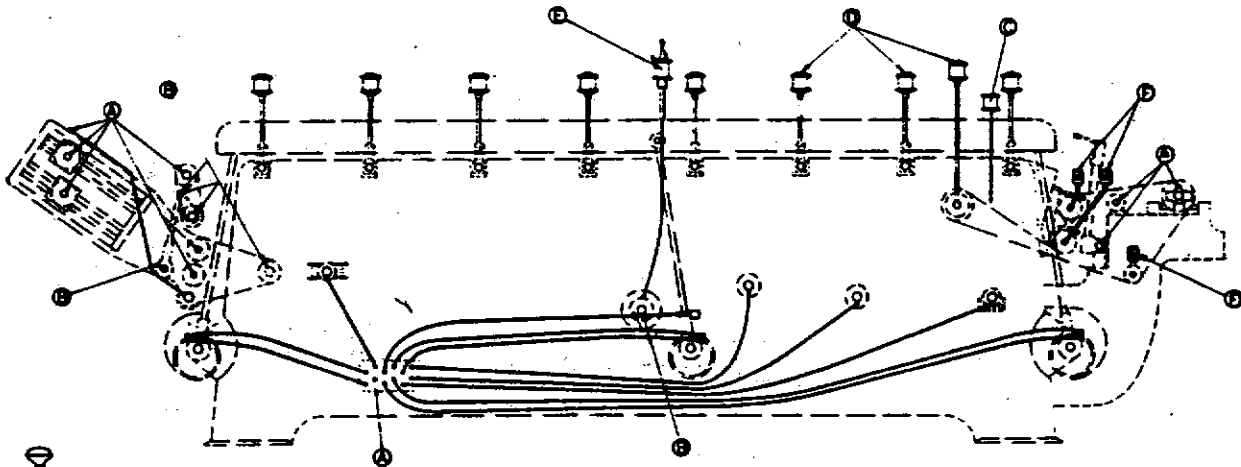
**TOP VIEW OF POWER RAISING RIG  
BRACKET FOR 6 AND 8-ROLL SYLON F.W.I.**



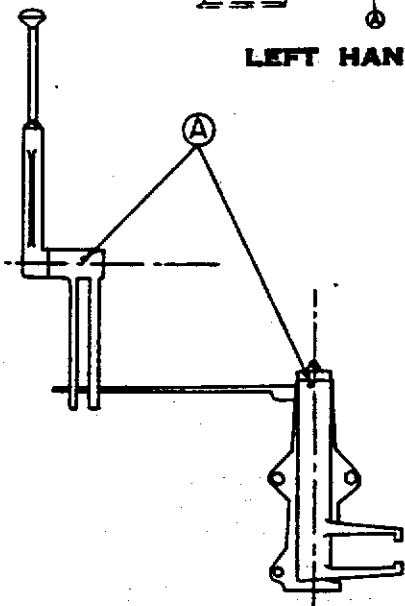
**FIGURE 26  
LUBRICATION DIAGRAMS  
SIX-ROLL SYLON FLATWORK IRONERS**



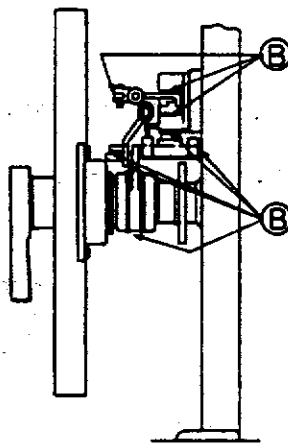
**RIGHT HAND FRAME EIGHT-ROLL SYLON IRONER**



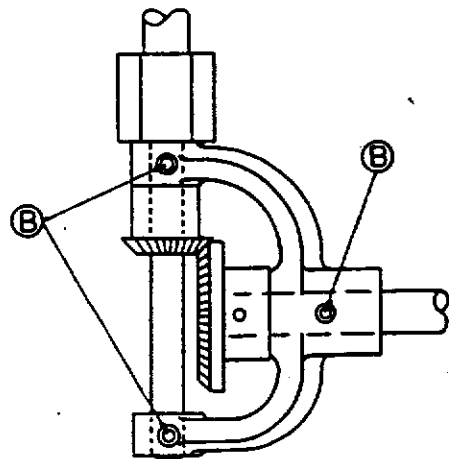
**LEFT HAND FRAME EIGHT-ROLL SYLON IRONER**



**LUBRICATION OF  
POWER RAISING RIG**



**LUBRICATION OF  
FRICTION CLUTCH**



**LUBRICATION OF  
PRESSURE INDICATOR**

**FIGURE 27**

**LUBRICATION DIAGRAMS SYLON FLATWORK IRONERS**