Wadkin

LEICESTER

PAR

FOUR-SIDE PLANER-SIZER

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INSTRUCTION MANUAL

PREFACE

IMPORTANT

IT IS OUR POLICY AND THAT OF OUR SUPPLIERS TO CONSTANTLY REVIEW THE DESIGN AND CAPACITY OF OUR PRODUCTS. WITH THIS IN MIND WE WOULD REMIND OUR CUSTOMERS THAT WHILE THE DIMENSIONS AND PERFORMANCE DATA CONTAINED HEREIN ARE CURRENT AT THE TIME OF GOING TO PRESS, IT IS POSSIBLE THAT DUE TO THE INCORPORATION OF THE LATEST DEVELOPMENTS TO ENHANCE PERFORMANCE, DIMENSIONS AND SUPPLIERS MAY VARY FROM THOSE ILLUSTRATED

THIS MANUAL IS WRITTEN AS A GENERAL GUIDE. A TYPICAL MACHINE IS SHOWN TO ILLUSTRATE THE MAIN FEATURES.

Failure to comply with instructions in this book may invalidate the guarantee

2.1 HEALTH & SAFETY

SAFETY OF WOODWORKING MACHINES

Woodworking machines can be dangerous if improperly used. The wide range of work of which they are capable, requires adequate safeguarding arrangements against possible hazards.

Many injuries to machinists are caused by carelessness or failure to use the guards provided or to adjust them correctly.

Wadkin plc supply machinery designed for maximum safety which they believe, as a result of thorough testing, minimizes the risks inevitable in their use. It is the users responsibility to see that the following rules are complied with to ensure safety at work:

1) The operation of the machine should conform to the requirements of the UK Woodworking Machines Regulations 1974. All guards should be used and adjusted correctly.

2) Safe methods of working only should be adopted as given in BS.6854 Part 1, "Safeguarding Woodworking Machines" (UK only) and subsequent parts for specific machines (obtainable from Her Majesty's Stationery Office) and as advised by Wadkin plc.

3) Only personnel trained in the safe use of a machine should operate it.

4) Before making adjustments or clearing chips, etc., electrically isolate machine and ensure all movements have ceased.

5) All tools and cutters must be securely fixed and the correct speed selected.

Safety is our watchword, but the user must comply with the above rules in his own interest. We would be pleased to advise on the safe use of our products.

2.2 SAFETY INSTRUCTIONS

Carefully read instruction manual with particular reference to the following instructions:-

a) Slinging, ie, safe lifting limits for slings, etc.

b) Installation and foundation, ie, safe working area of machine, bolt positions, etc.

c) Wiring details, ie, connection of machine to mains supply, fuse details, etc.

d) Machine controls and operating instructions.

Ensure tooling is of the correct type for use with the machine and cutters are securely fixed in position.

Select correct spindle speed and feed rate relevant to the tooling being used.

Set all guards correctly and ensure they are securely fixed in accordance with the current regulations.

Use suitable jigs, fixtures and feeding devices etc., (push stick, etc.,) where appropriate.

Refer to BS.6854, Part 1, "Safeguarding Woodworking Machines" UK market and subsequent parts for specific machines for safe working practices.

During Machining

Wear suitable protective equipment, where necessary, eg, goggles, ear defenders and dust mask.

Ensure all moving parts of the machine are stationary before setting, cleaning or making any adjustments.

Report immediately to a person in authority any machine malfunction or operator hazard. Do not attempt to repair the machine unless authorised to do so.

Ensure machine is electrically isolated before any maintenance/cleaning work commences.

NOISE LEVELS

This machine, under certain conditions, will emit noise levels in excess of 85dB(a).

Noise levels will be affected by the environment in which the machine operates the timber being machined, tooling, machine setting and dust extraction.

Further information available from Wadkin on request.

As a manufacturer it is Wadkin's policy to reduce the noise level as far as it is practicable.

3.0 SPECIFICATION

	PAR	
Maximum size of squared timber	300 x 100mm	12 x 4 in
Minimum size of squared timber	12 x 12mm	½ x ½ in
Minimum thickness of timber	4mm	5/32 in
Length of infeed surfacing table		
- standard	1500mm	59 in
- optional	2000mm	78 in
Feed speed - 2 speed	4.5 & 9.1m/min	15 & 30 ft/min
Feed speed - infinitely variable	3-18m/min	10-58 ft/min
Cutterblock motors - horizontal	7.5kw	10 hp
Cutterblock motors - vertical	5.5kw	7½ hp
Maximum stock removal each cutterblock	10mm	.39 in

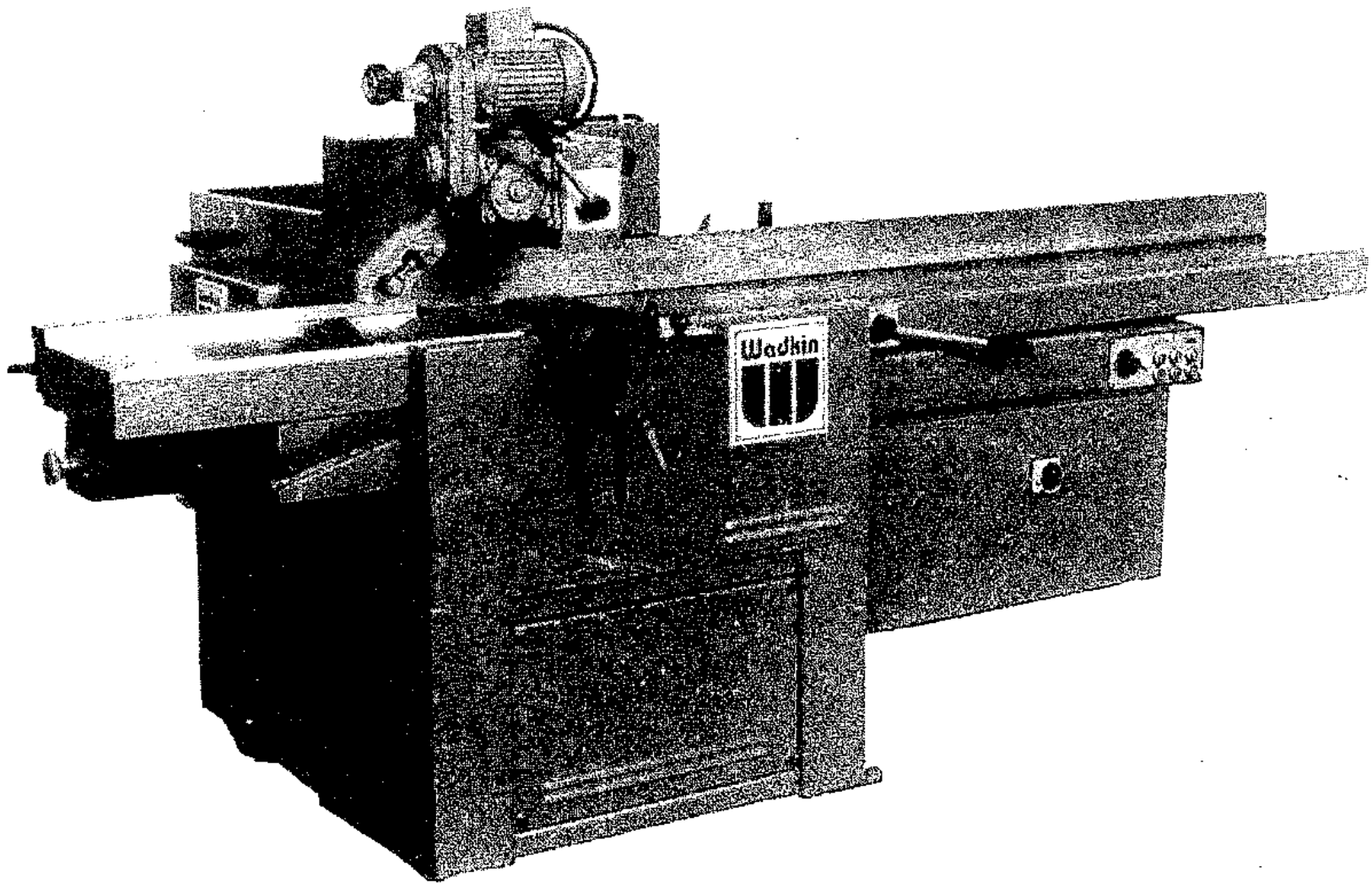
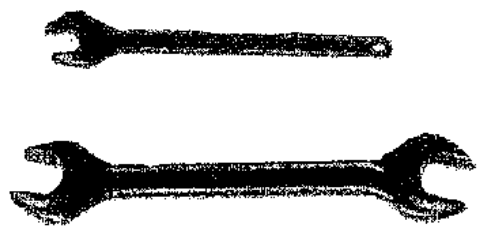


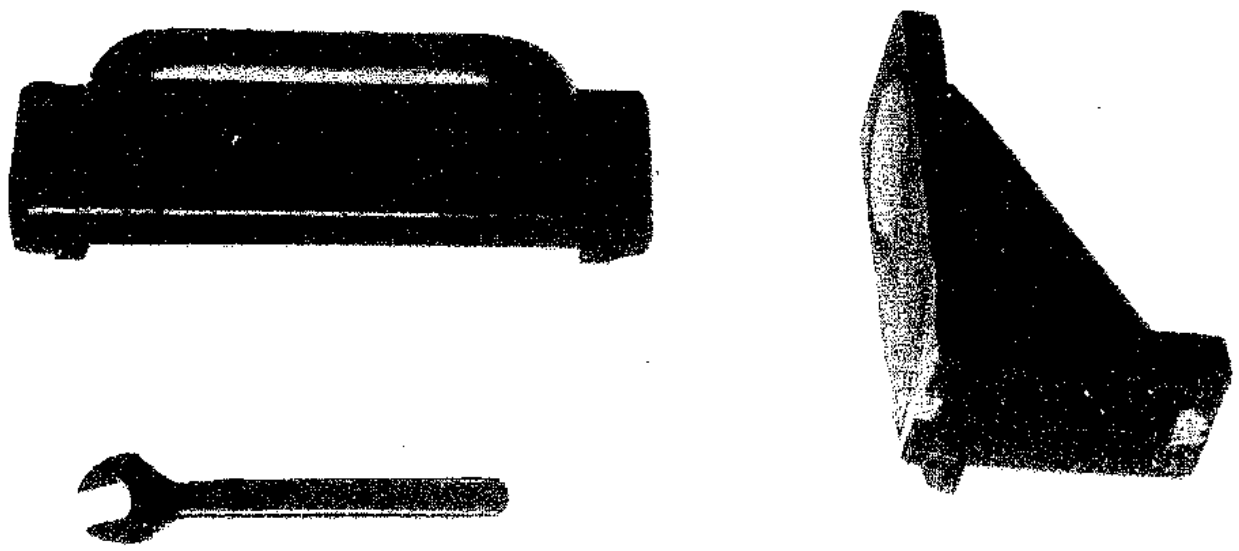
FIG.1

4.1 STANDARD ITEMS DESPATCH WITH MACHINE



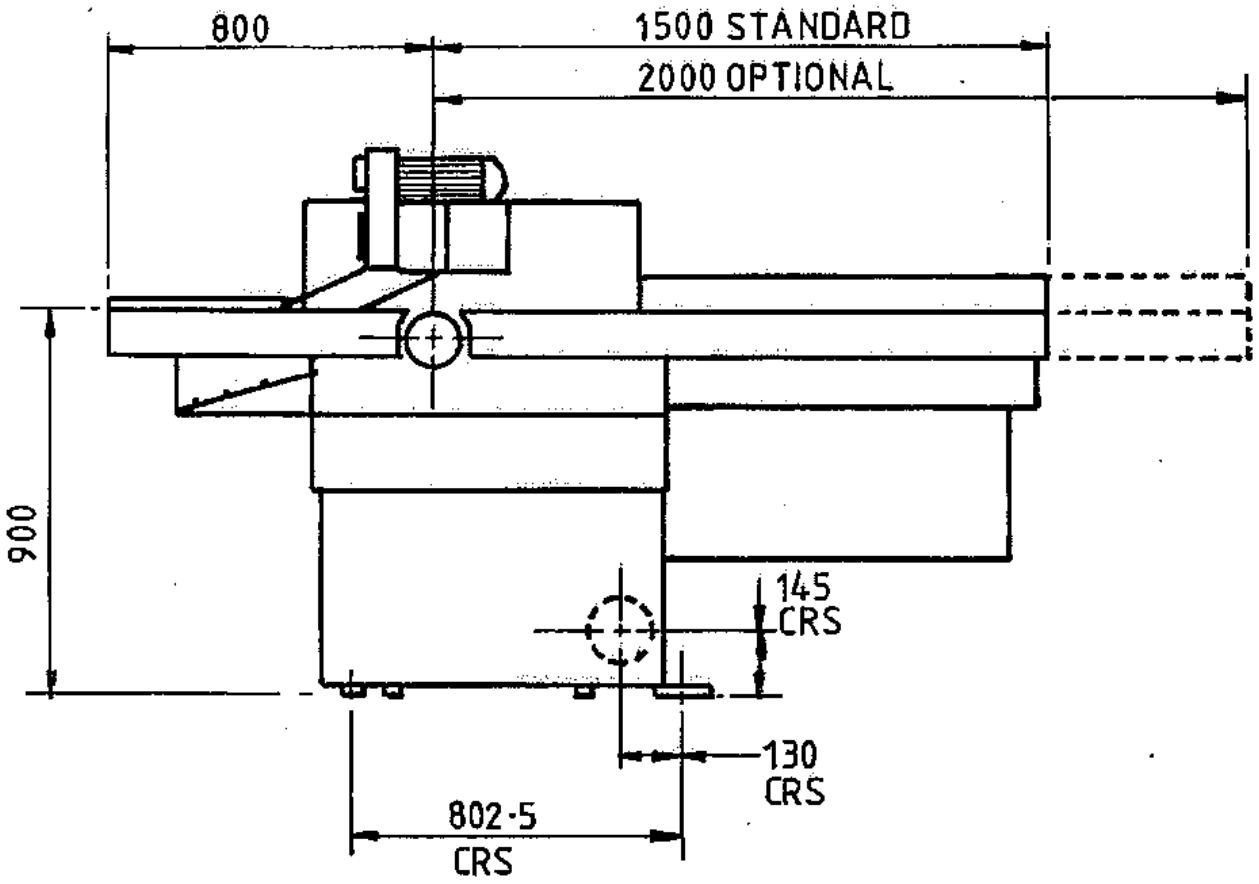
1 - 16mm A/F S/E Spanner for Fence and Outfeed Table Adjustment
1 - 17/19mm A/F D/E Spanner for Covers

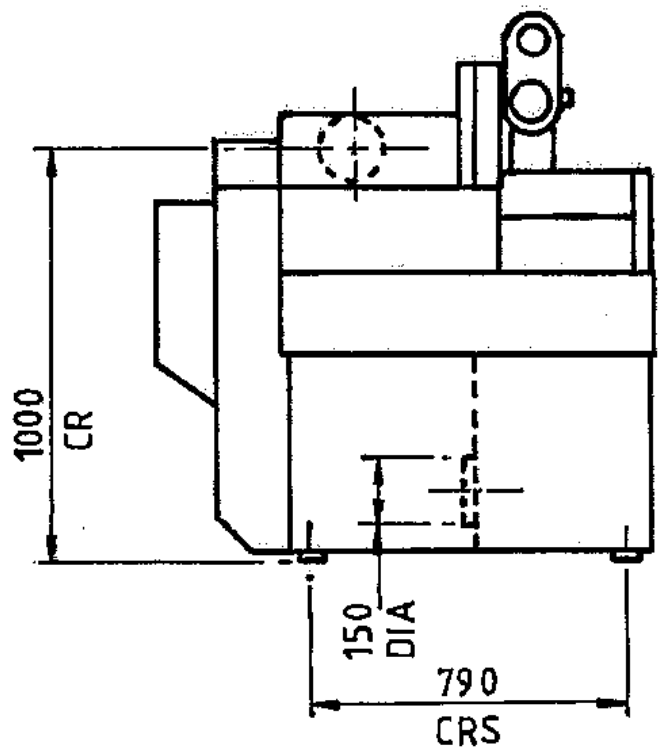
FIG. 2

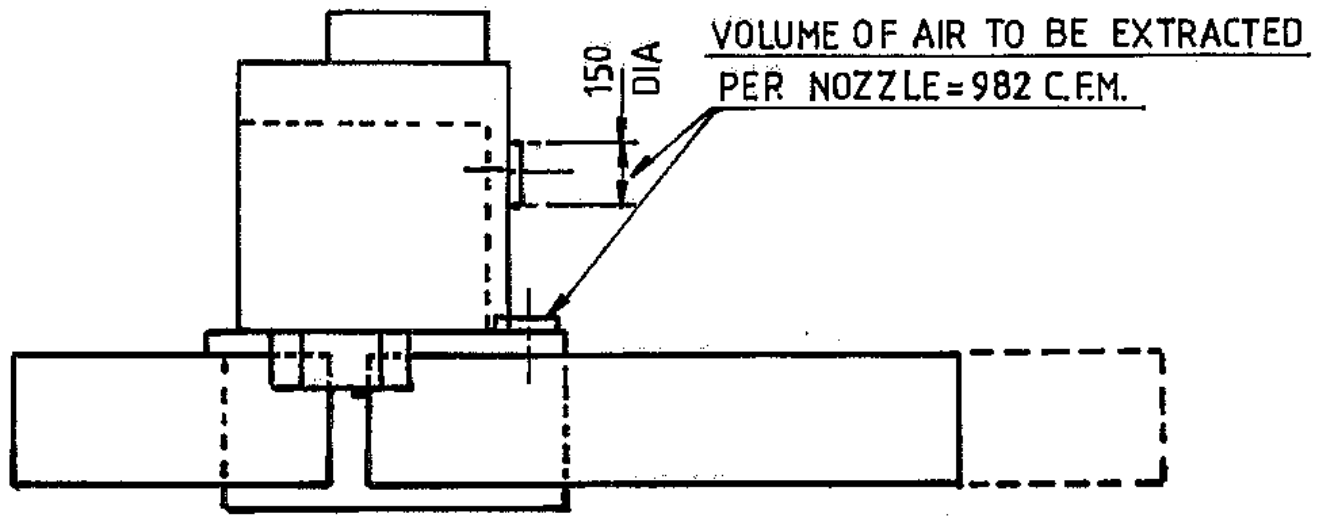


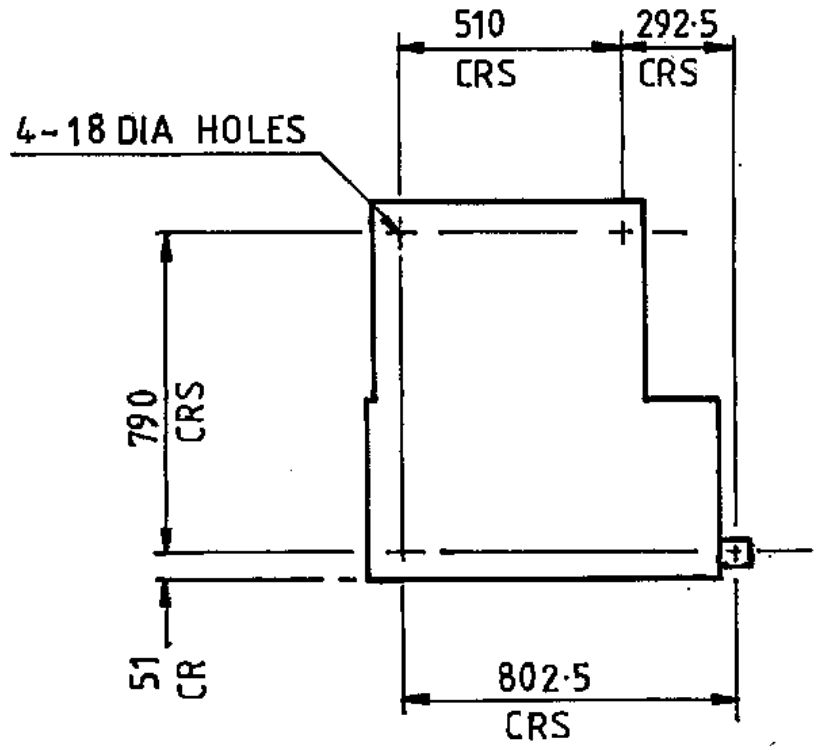
1 - PAR 324 - Main Cutterblock Knife Setting Device
1 - PAR 1070 - Side Head Cutterblock Knife Setting Device
1 - T6/94 - Cutterblock Spanner

FIG. 3





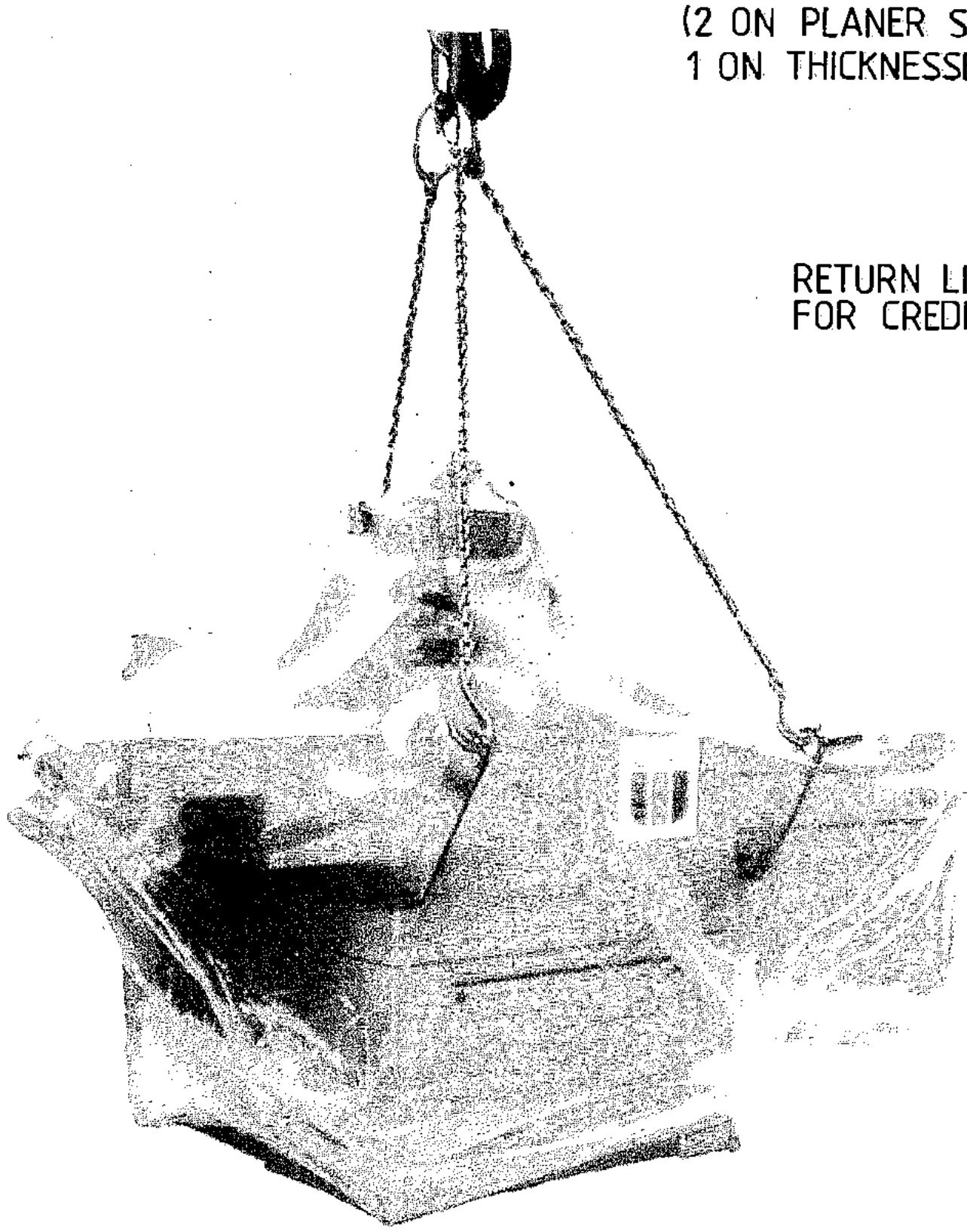




PAR FOUNDATION DRAWING

FIG. 4

SLINGING INSTRUCTIONS



ATTACH SLINGS TO 3 LIFTING HOOKS
(2 ON PLANER SIDE AS SHOWN,
1 ON THICKNESSER SIDE)

RETURN LIFTING HOOKS FOR CREDIT

IMPORTANT: ALWAYS USE A SLING WITHIN SAFE WORKING LOAD OF MACHINE.
DO NOT WALK OR STAND UNDER MACHINE DURING SLINGING OPERATIONS

APPROX NET WEIGHT OF MACHINE-1240 KG (2728 lbs)

APPROX GROSS WEIGHT OF MACHINE POLY PACKED-1270 KG (2794 lbs)

FIG.5

4.0 ASSEMBLY INSTRUCTIONS

4.1 Standard Items Despatched with Machine

A set of operational spanners and setting gauges are despatched with the machine, see FIGS.2 & 3 for details.

NOTE: When tersa blocks are fitted, setting gauges and spanner T6/94 are not supplied.

4.2 Slinging

Always use a sling within safe working load of machine weight.

Approximate net weight of machine	-	1240 KG
Approximate gross weight of machine - poly packed	-	1270 KG
Approximate gross weight of machine - fully boxed	-	1390 KG

Attached slings to machine as shown in FIG.5, to ensure damage will not be caused to machine during slinging operations. (Return lifting hooks to Wadkin Durham for credit)

IMPORTANT: DO NOT WALK OR STAND UNDER MACHINE DURING SLINGING OPERATION.

4.3 Foundation

The machine should be so placed that the traffic of men and materials to and from it fits smoothly into the general scheme of traffic. It should also not be necessary for the operator to stand in or near an aisle so as to cause a hazard. The minimum clearance on each working side of the machine should be at least 1 metre greater than the largest material worked on the machine.

Ensure floor is level, then mark to suit 4 - M12 rawlbolts, refer to foundation plan FIG.4. Drill floor to suit rawlbolts. These bolts are not supplied with the machine, but can be supplied at an additional charge. To obtain access to foundation bolts and levelling screw, remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover. Remove 4 - M10 bolts, holding panel in base below surfacing tables. Position machine over rawlbolts and adjust levelling screw until it touches floor FIG.6. Fully tighten rawlbolts. Replace side cover and panel.

4.4 Cleaning

Remove protective coating from bright parts by applying a cloth soaked in paraffin, white spirit or other solvents.

4.5 Electrical

4.5.1 Wiring Connections

The motor and control gear have been wired in before despatch, all that is required is to connect the power supply to the starter or isolating switch when fitted.

DIAGRAM OF LEVELLING SCREW INSIDE MACHINE BASE.

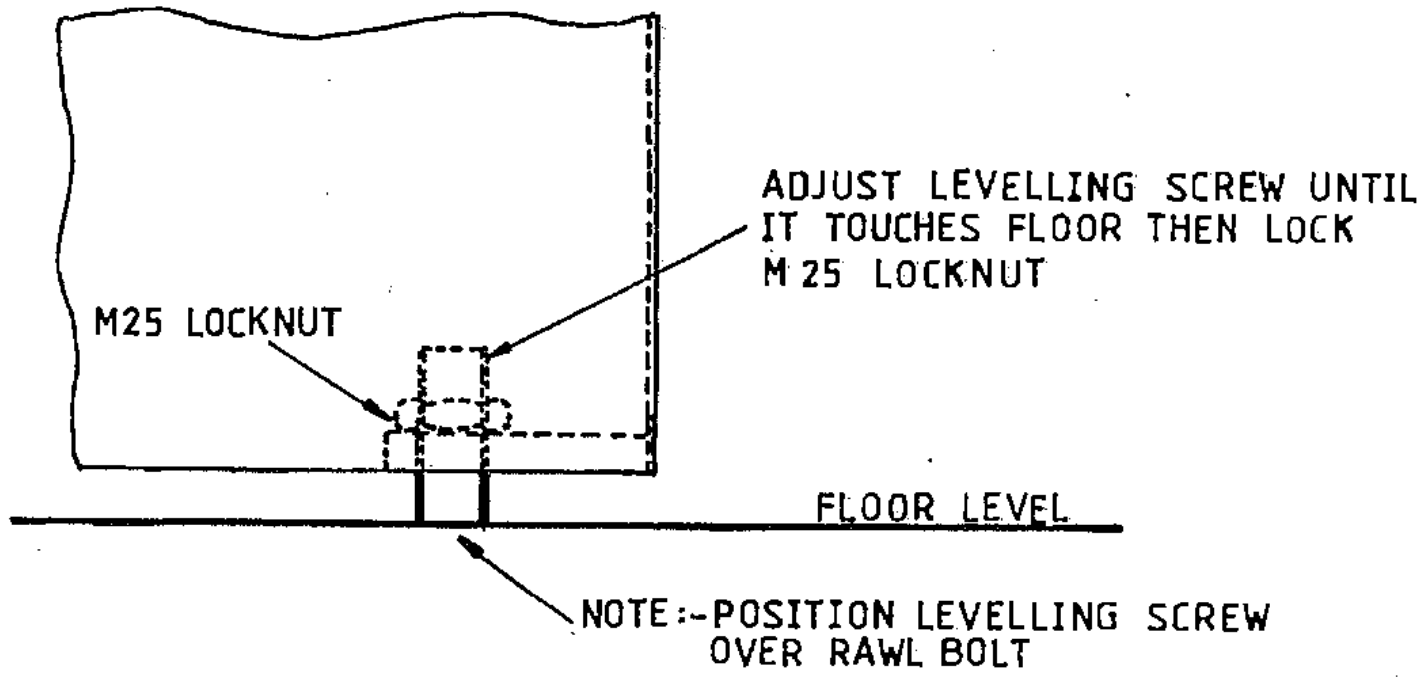


FIG. 6

Points to note when connecting power supply:-

a) Check the voltage, phase and frequency correspond to those on the motor plate.

b) It is important that the correct cable is used to give the correct voltage to the starters, as running on low voltage will damage the motors.

c) Check the main line fuses are of the correct capacity. See fuse list. (Refer to 4.5.2)

d) Connect the line leads to the appropriate terminals. See wiring diagrams. (Refer to 4.5.3).

e) Check all connections are sound.

f) Check rotation of all motors for the correct direction. If these are incorrect, reverse any two of the incoming mains leads connections.

4.5.2 Fuse List

Direct on Line

Voltage	Phase	KW	SWG Tinned Copper Wire	Amps per Phase
220	3	13.5	13	120
380	3	13.5	15	70
415	3	13.5	18	47

Star Delta

Voltage	Phase	KW	SWG Tinned Copper Wire	Amps per Phase
380	3	13.5	21	29
415	3	13.5	23	18

4.5.3 Wiring Diagrams

See wiring diagrams in rear of instruction manual.

4.6 Dust Extraction Details

4.6.1 Planer Extraction

The extraction outlet is situated at the rear of the machine, below thicknesser table. The outlet size is 150mm dia and should be connected to a flexible extraction hose from the main plant. The volume of air to be extracted is 463 LPS (982 CFM) with a velocity of 26 MPS (5,000 ft per min).

4.6.2 Thicknesser Extraction

The extraction outlet is situated at the rear of the machine, above thicknesser table. The outlet size is 150mm dia and should be connected to a flexible extraction hose from the main plant. The volume of air to be extracted is 463 LPS (982 CFM) with a velocity of 26 MPS (5,000 ft per min).

5.0 CONTROLS

5.1 Infeed Planing Table Adjustment

To raise or lower the infeed table, move handle "A" FIG.7, in the direction required, working in conjunction with the depth of cut scale, indicated by pointer.

5.2 Infeed Planing Fence Adjustment

To align infeed planer fence, loosen locking handle "B" FIG.8, move handle "C" in the direction required working in conjunction with scale, indicated by pointed. Relock locking handle "B".

5.2 Outfeed Planing Table Adjustment

IMPORTANT: OUTFEED TABLE TOP MUST ALWAYS BE KEPT IN LINE WITH CUTTING CIRCLE OF CUTTERBLOCK.

To raise or lower outfeed table, use spanner (supplied) FIG.9, turning in direction required until table is level with cutting circle.

NOTE: Always make final adjustment in upward direction.

5.4 Outfeed Planer Fence Alignment to Planer Side Cutterblock

IMPORTANT: OUTFEED FENCE MUST ALWAYS BE KEPT IN LINE WITH CUTTING CIRCLE OF CUTTERBLOCK.

To align outfeed planer fence use spanner (supplied) FIG.10 and turn in direction required.

5.5 Two Speed Feed Drive Units (Standard)

Both planing and thicknessing table feed units have two speeds of 4.5-9 metres per minutes (15-30 feet per minute). To change speed, turn switch to number 1 or 2 depending on speed required.

5.6 Variable Feed Drive Units (Optional)

Both planing and thicknessing table feed units have a combined tachometer and handwheel "D" FIG.11 which operates the feed change mechanism and provides variable feed speeds of 3-18 metres per minute (10-58 feet per minute).

IMPORTANT: SPEED ADJUSTMENT OF THE DRIVE SHOULD ONLY TAKE PLACE WHEN THE DRIVE IS RUNNING, NEVER WHEN IT IS STATIONARY.

5.7 Electrical Controls

The control panel is shown in FIG.12. When isolator "E" is fitted, ensure it is in the "on" position before operating the machine.

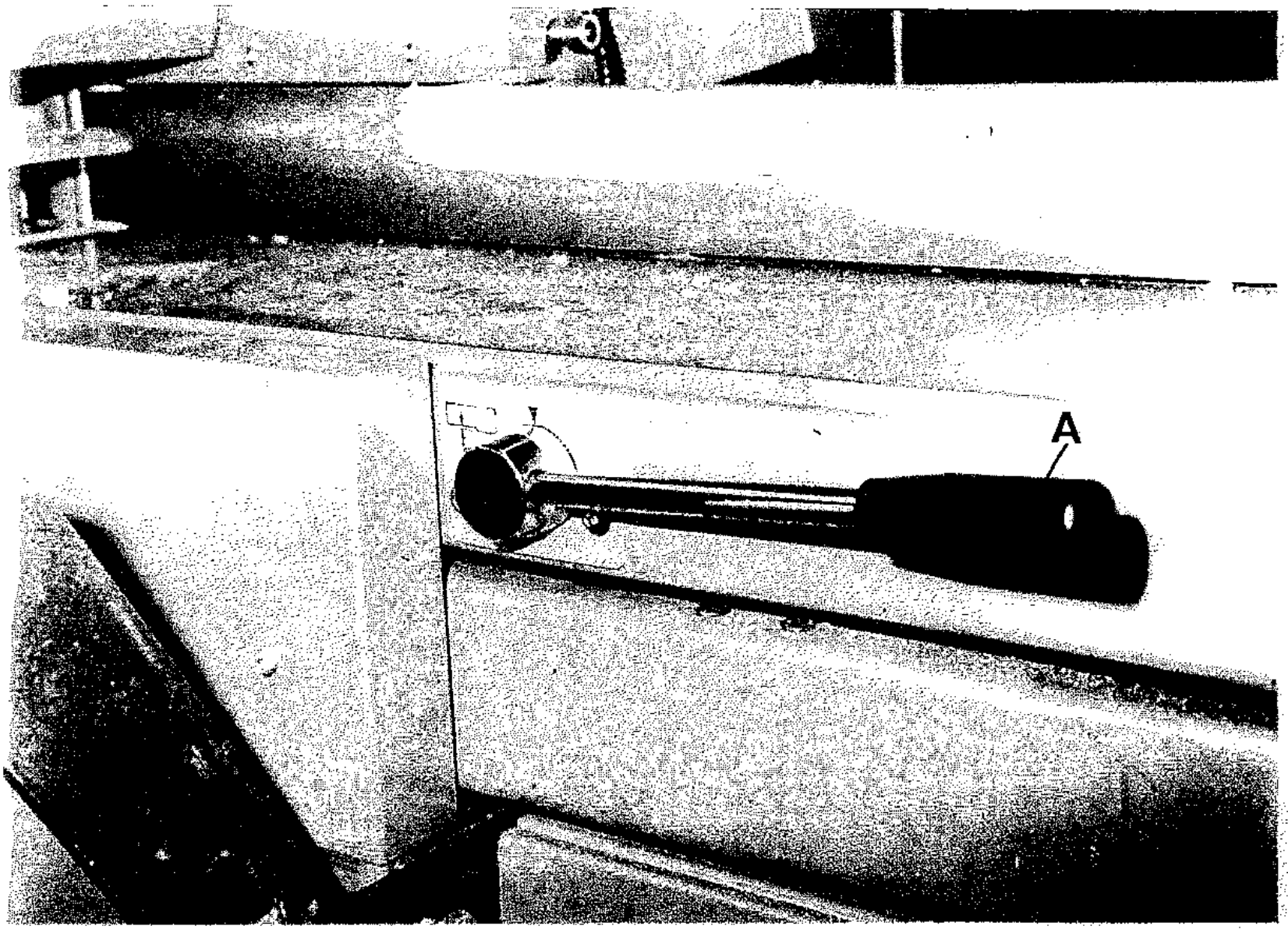


FIG. 7

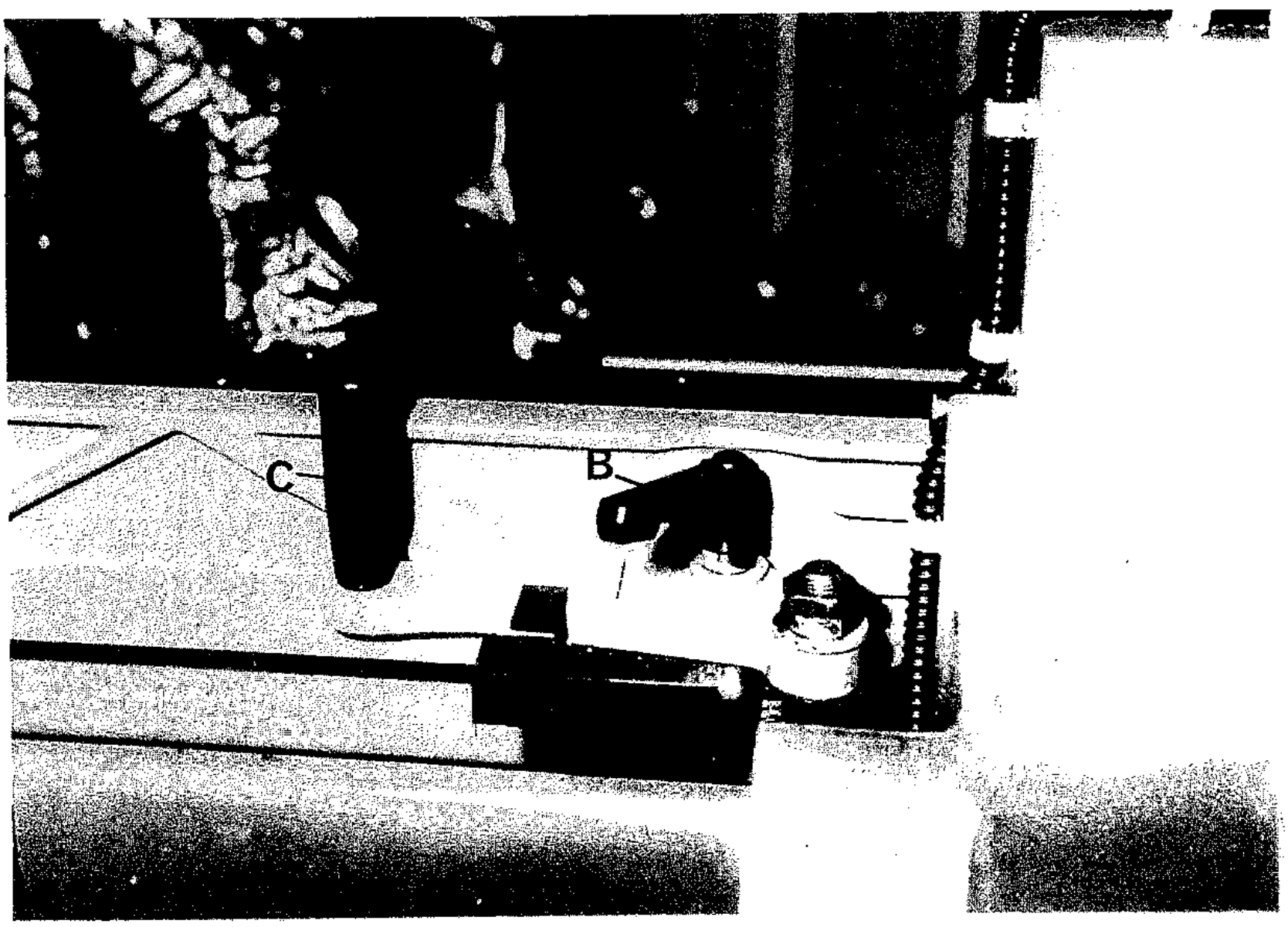


FIG. 8

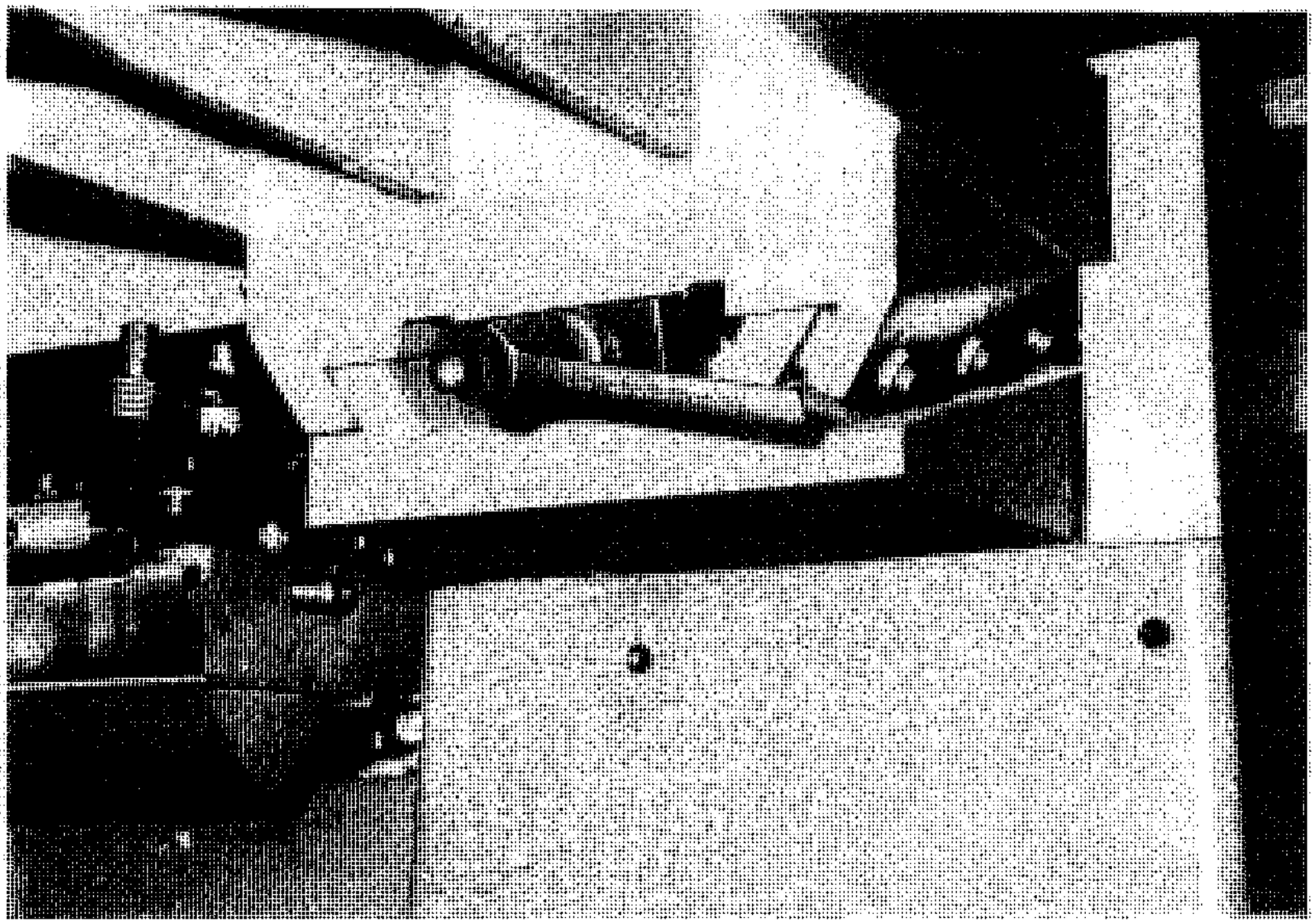


FIG.9

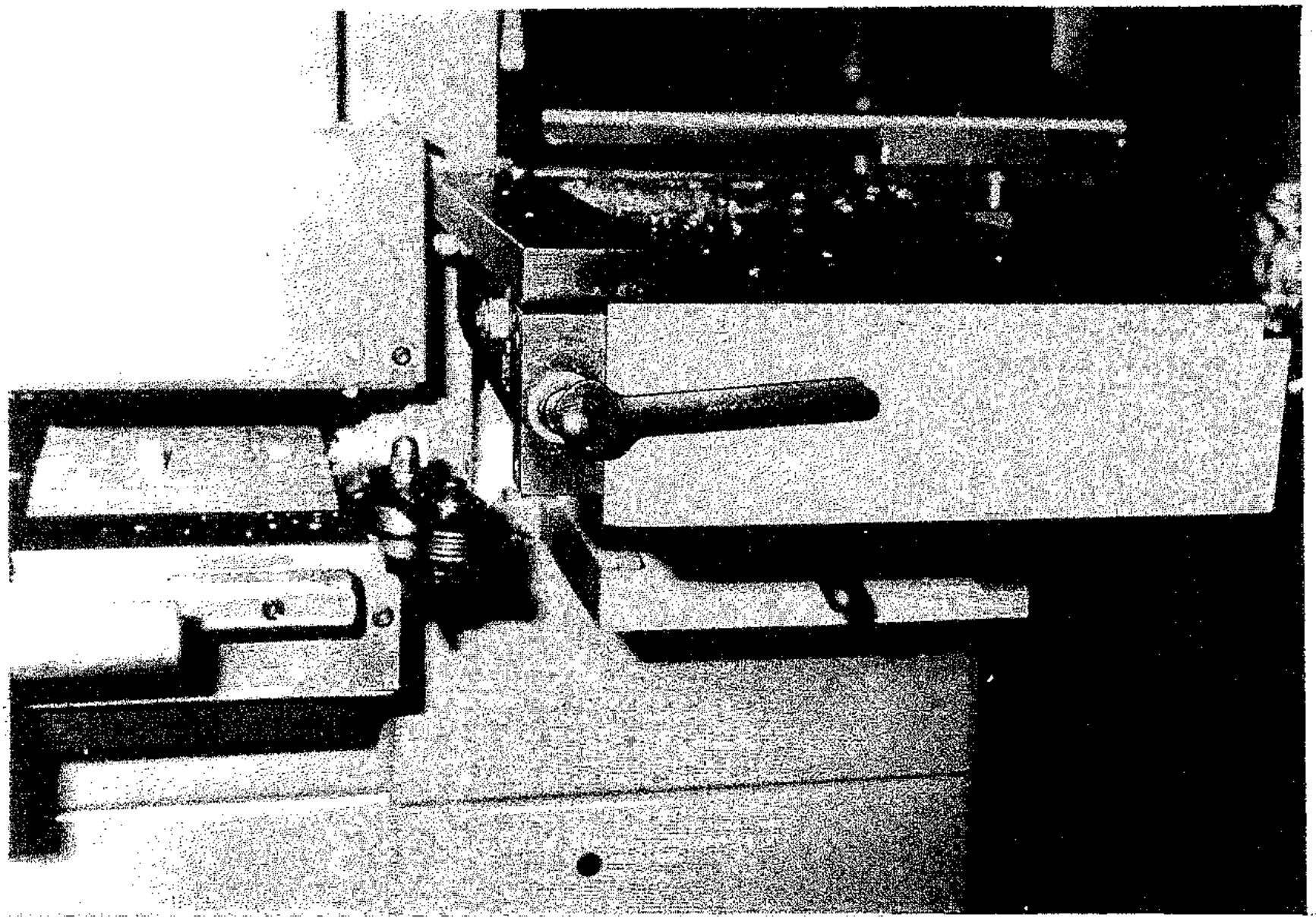


FIG.10

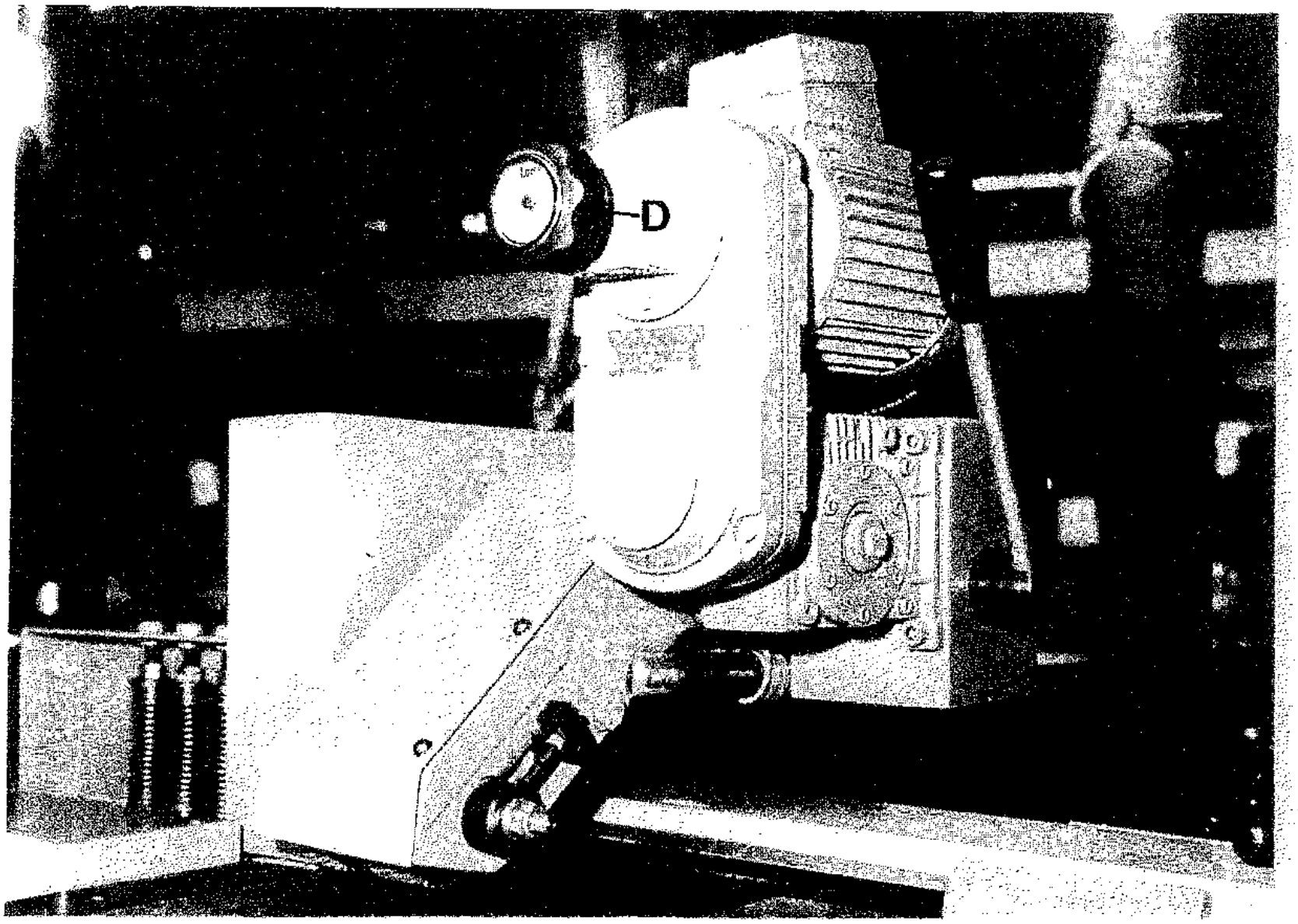


FIG.11

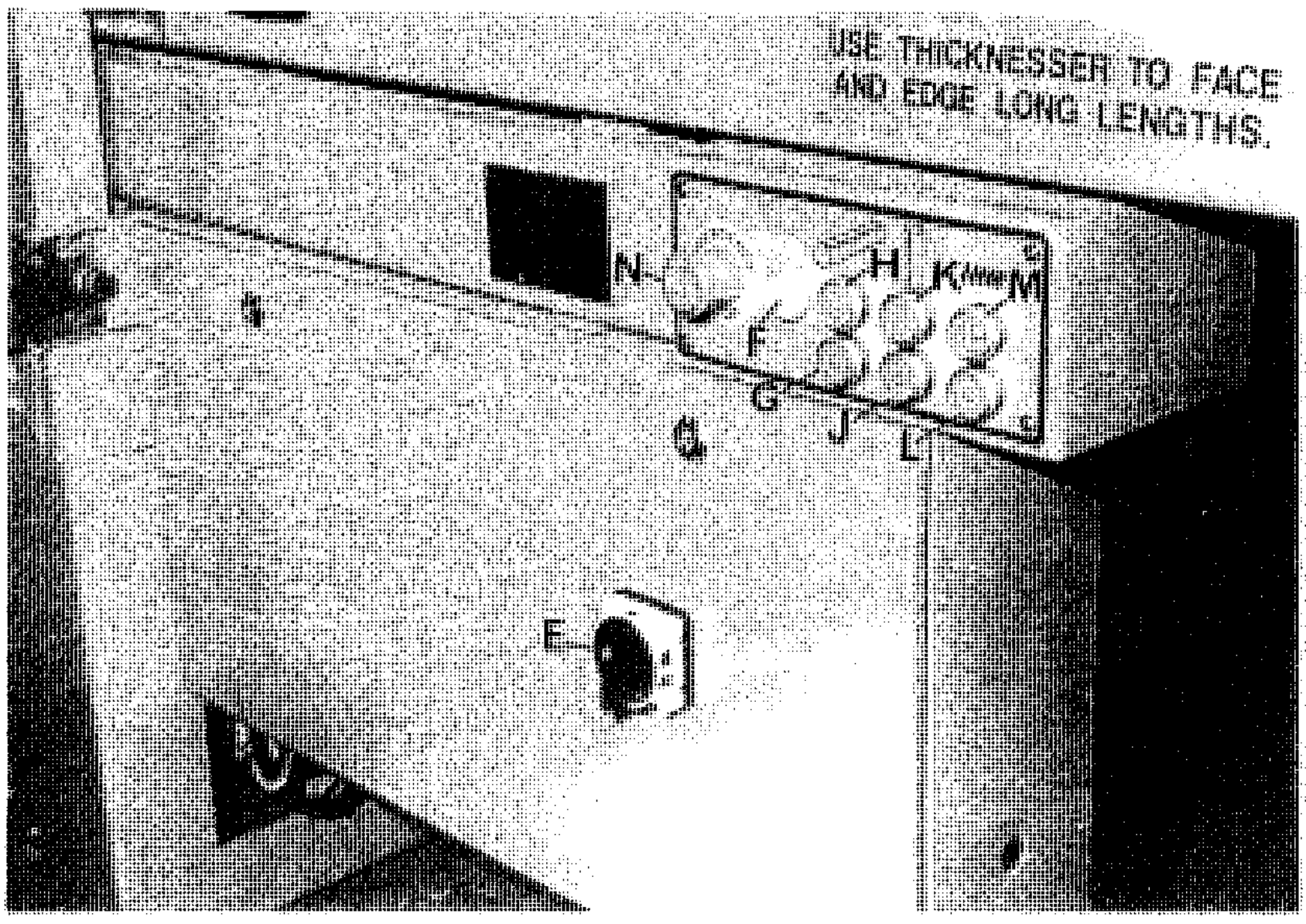


FIG.12

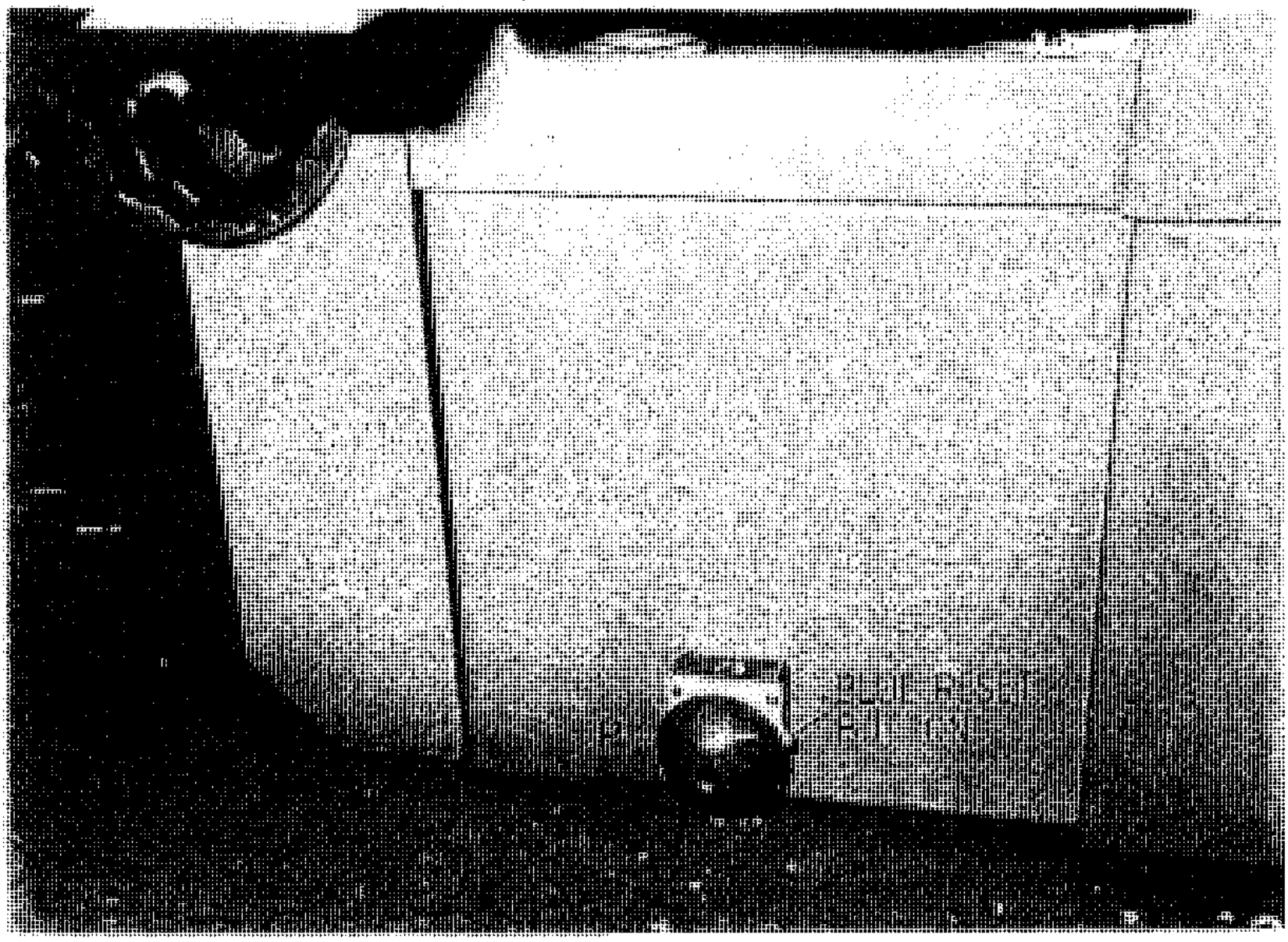


FIG.13

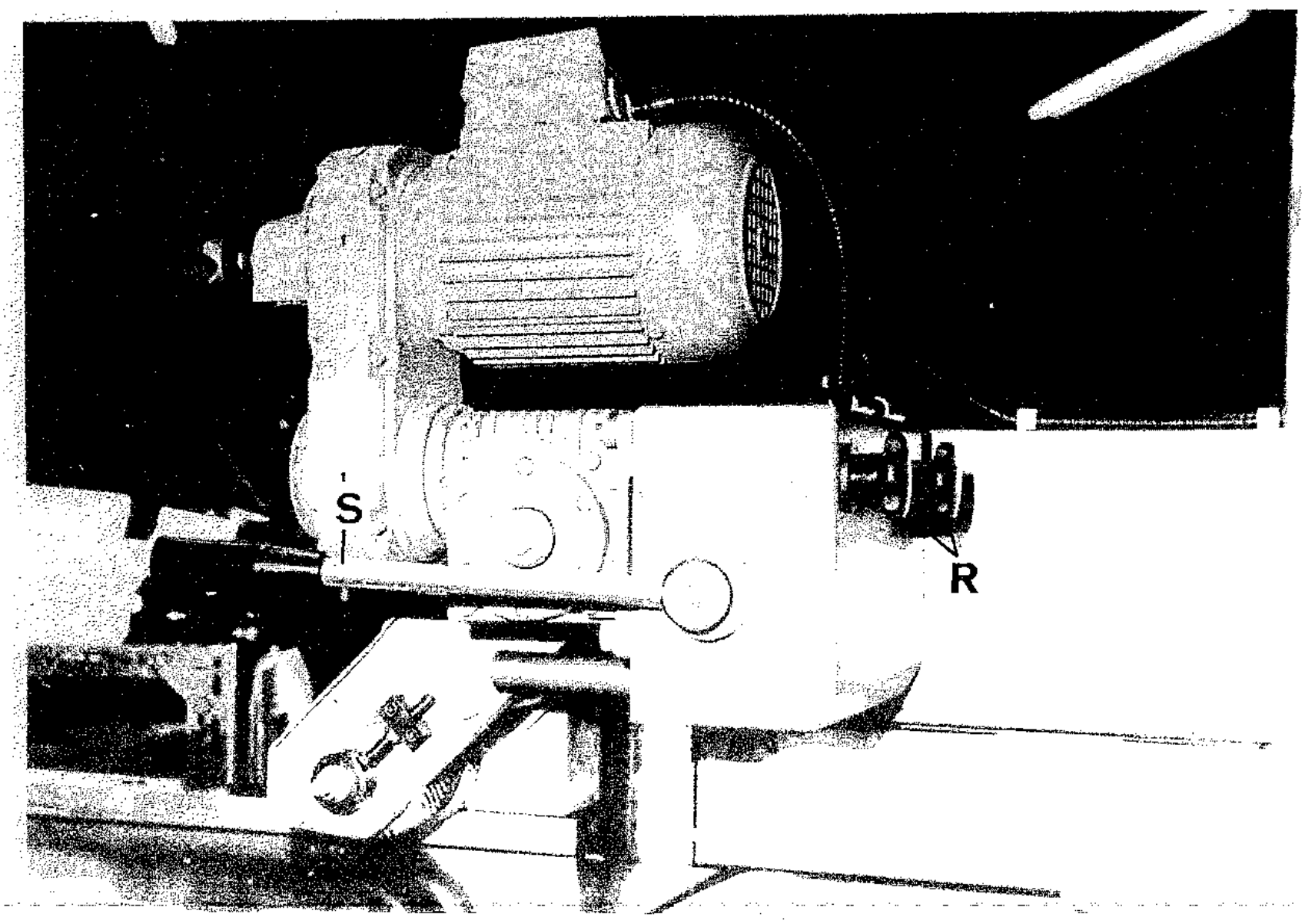


FIG.14

Light "F" indicates that the power is to the machine.

Main cutterblock is controlled by stop and start buttons "G" and "H" FIG.12.

Side head cutterblocks are controlled by stop and start buttons "J" and "K" FIG.12.

Feed drive units are controlled by stop and start buttons "L" and "M" FIG.12.

NOTE: Main cutterblock must be started before feed drive units.

A master stop button "N" FIG.12 is situated on control panel and an additional master stop button "P" FIG.13 is situated at floor level below thicknessing table fence bracket.

NOTE: Depression of any of the master stop buttons shuts down all electrics. Master stop buttons automatically stay in the OFF position until released. The master stop button on front panel is released by pulling button and master stop button at floor level is released by pressing blue button on side of master stop unit.

5.8 Planer Feed Unit Adjustment

a) Adjustment of feed unit for different widths of stock, loosen locking handwheels "R" FIG.14.

c) Adjustment of feed unit for different depths of stock, raise or lower hand lever "S" FIG.14.

c) To gain access to surfacer cutterblock, remove locking handwheel "T" FIG.13 and lift planer feed unit.

5.9 Bridge Guard

Bridge guard "U" FIG.16 is fitted to cover cutterblock. Lateral adjustment is by handwheel "V" and vertical adjustment is by locking handle "W".

NOTE: The gaps between fence and bridge guard and timber and bridge guard must not exceed 10mm, FIG.17.

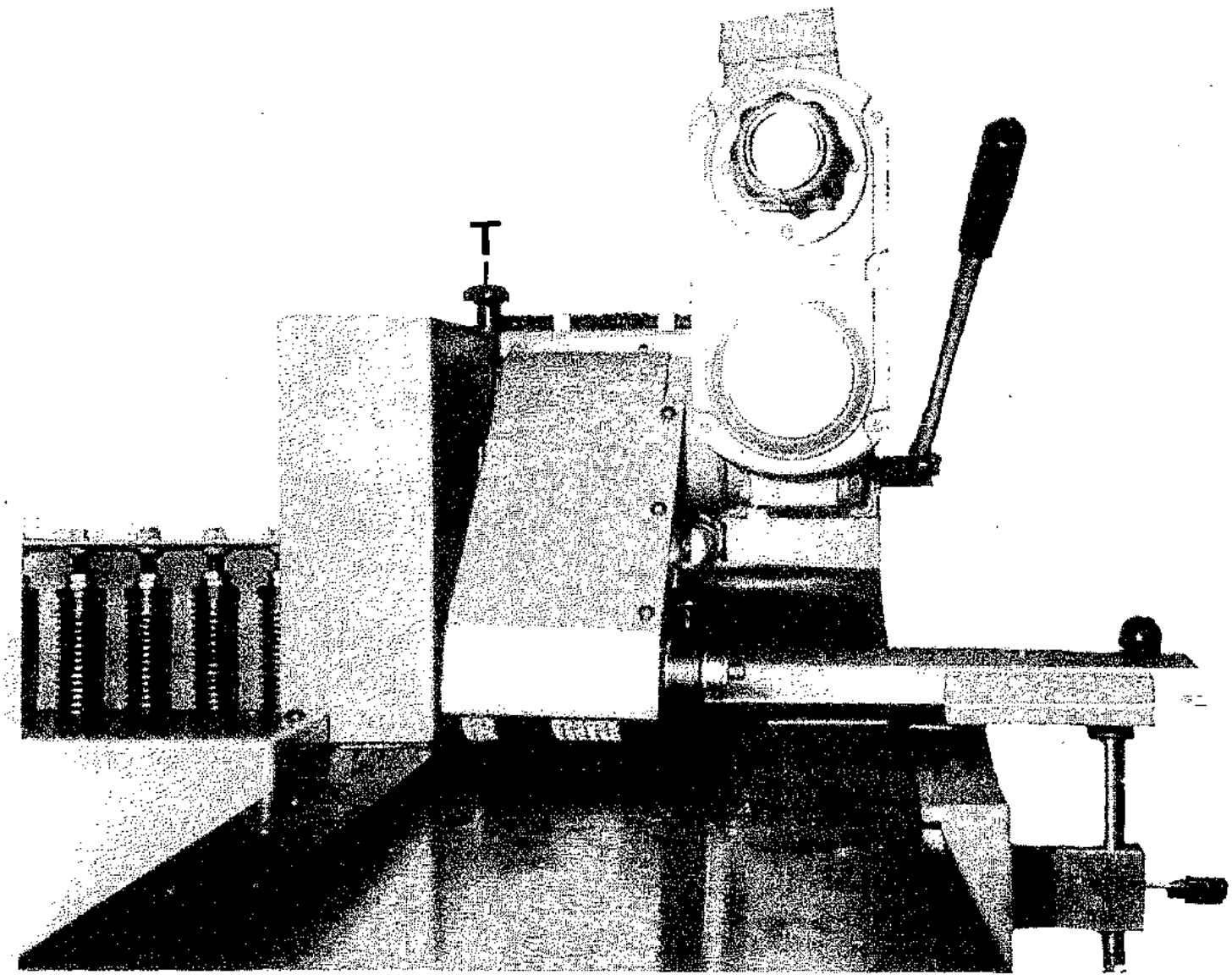
5.10 Thicknessing Table Rise and Fall

Rise and fall of thicknessing table is by handwheel "A" FIG.18 working in conjunction with rise and fall rule indicated by pointer "B".

5.11 Thicknessing Table Fence Adjustment

Release locking handle "C" FIG.18 and position fence where required with handwheel "D" working in conjunction with fence rule indicated by pointer "E". Relock locking handle "C".

NOTE: To thickness timber below 12mm to a minimum of 4mm proceed as follows.



FIG,15

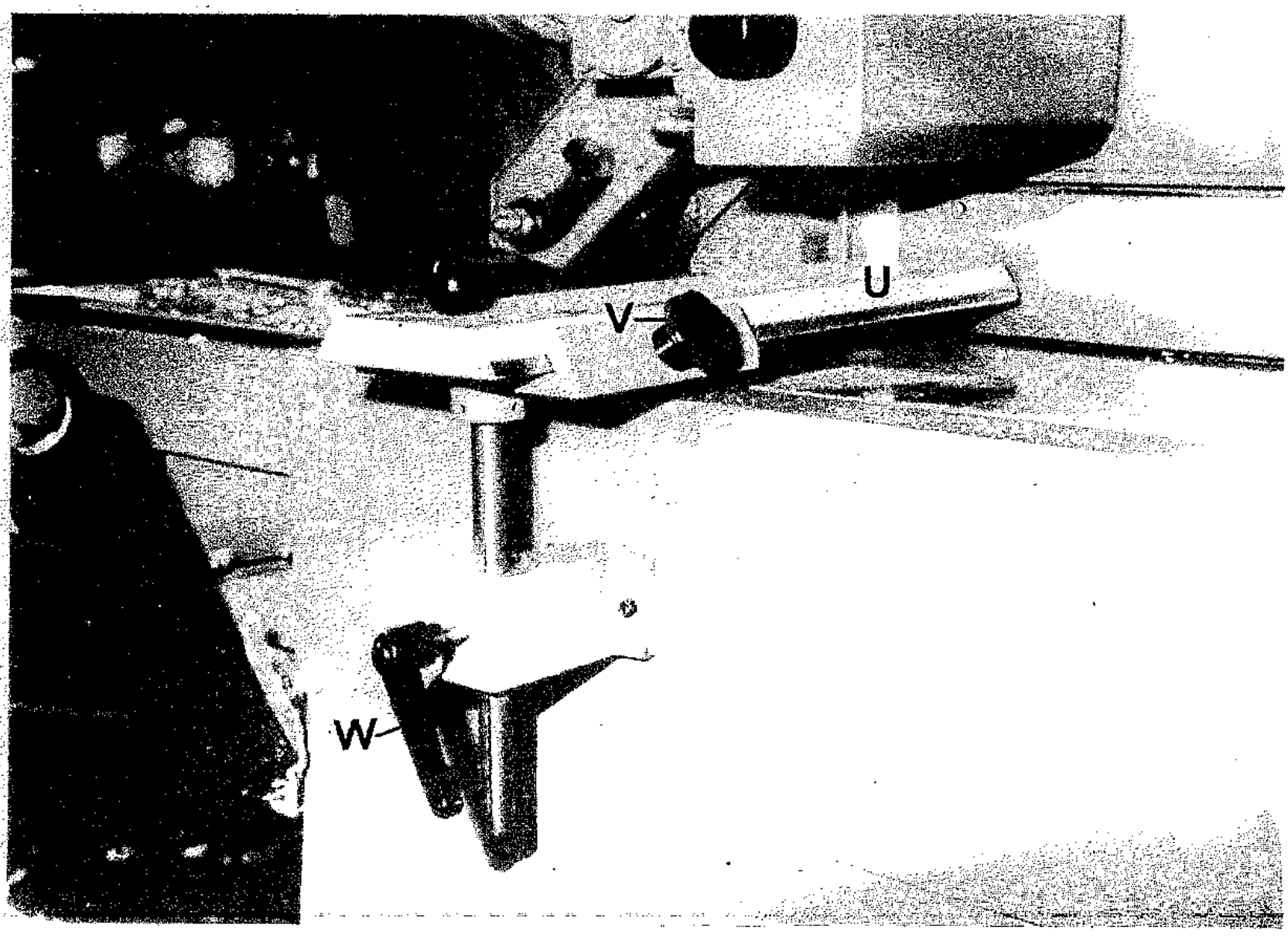


FIG.16

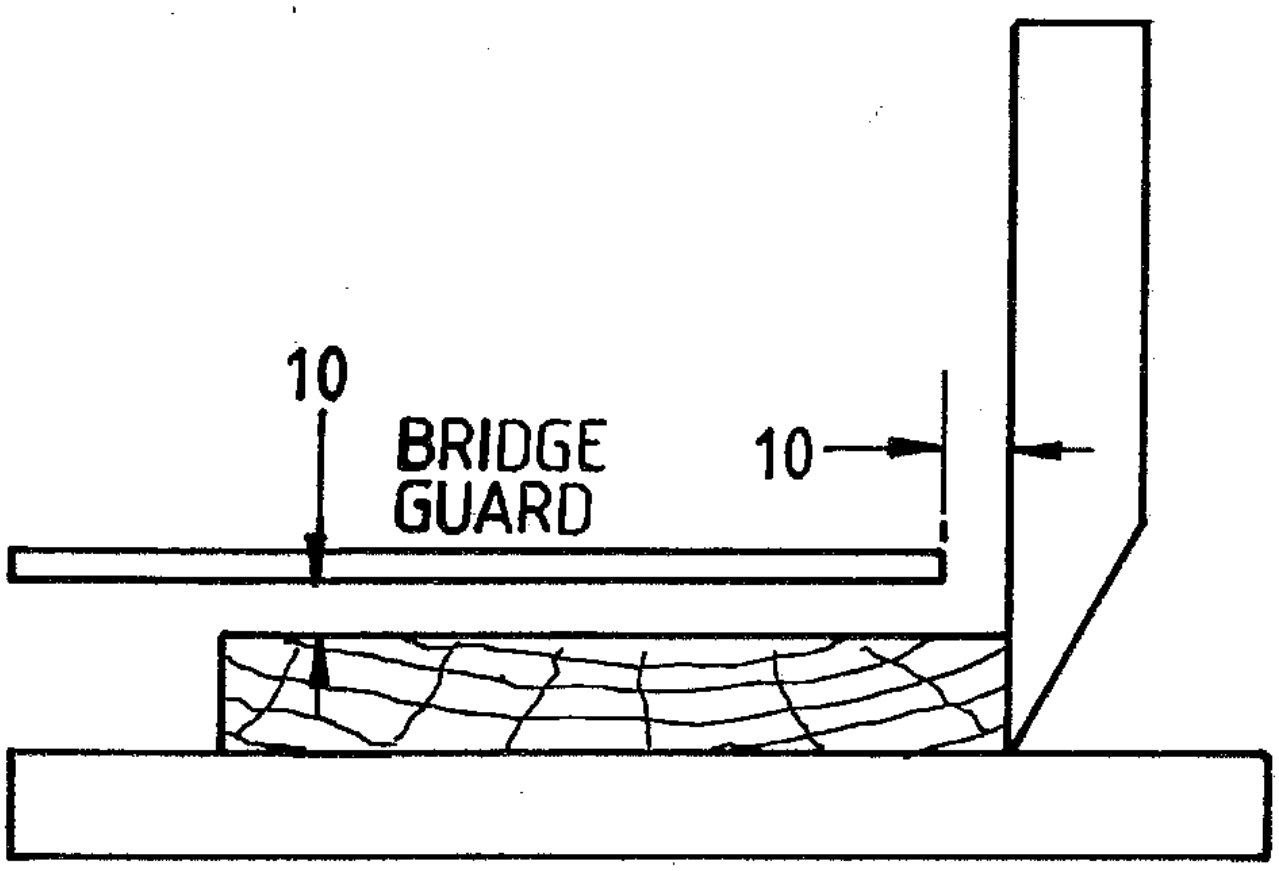


FIG.17

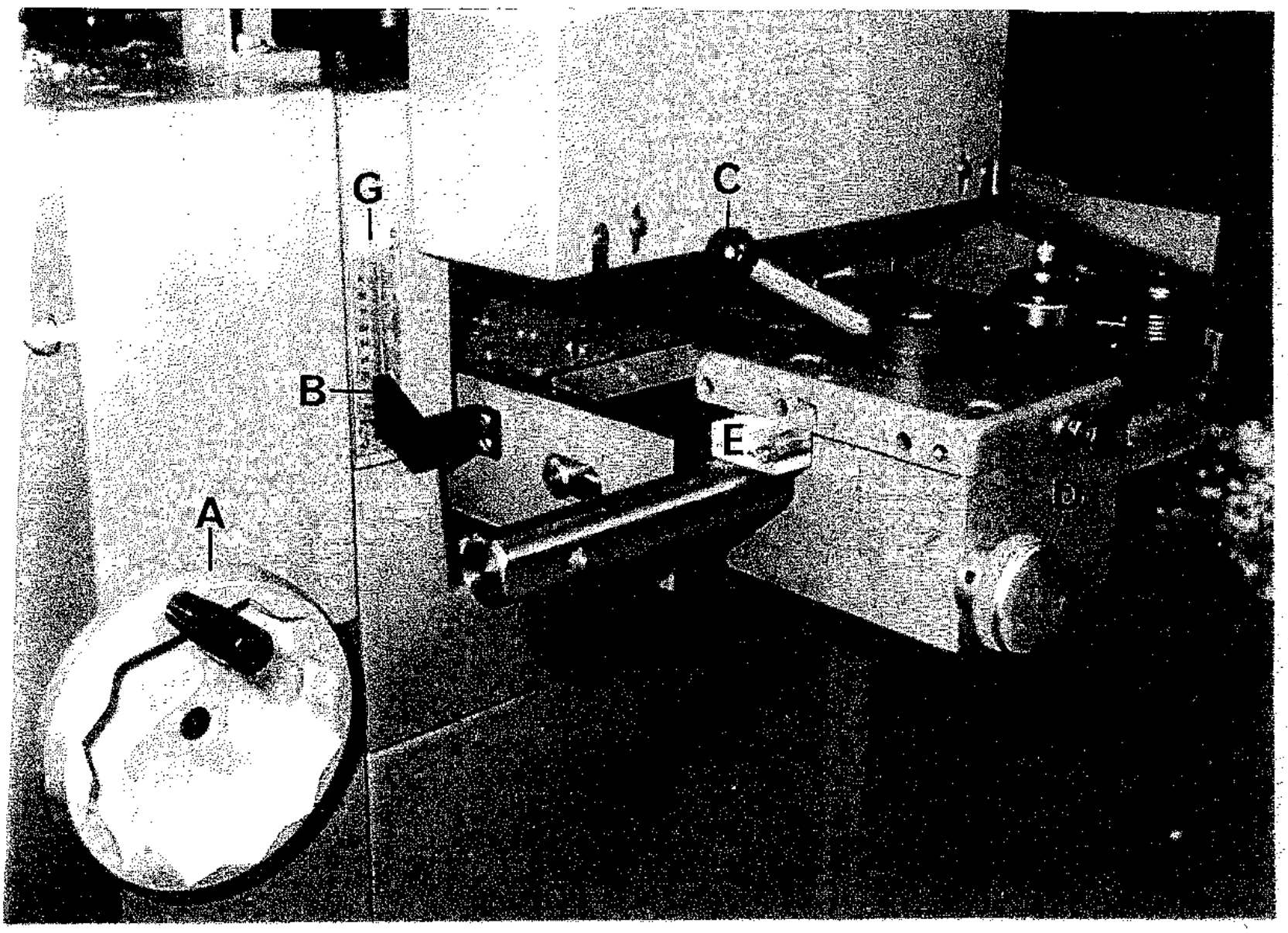


FIG.18

Using rise and fall handwheel "A" raise thicknessing table until it hits top stop, then turn handwheel a half turn back. Move fence to extreme left, ie, until it hits side housing, lock in this position using locking handle "C". Raise thicknessing table to required position. Ensure that timber to be thicknessed does not overhang side of lag bed "F".

TO RETURN TO NORMAL WORKING POSITION (TIMBER 10-100MM THICK).

Lower thicknessing table to a reading of 25mm is on the rise and fall rule "G". Release locking handle "C" and set fence to required position.

6.0 USE OF MACHINE

6.1 General Hints for Surface Planing

a) Use roller stand (available as an optional extra) to support timber at outfeed end of machine.

b) To obtain the best surface finish always ensure that the direction of grain runs with the cutterblock.

c) To obtain a perfectly flat surface, especially with warped stock. Check timber for being hollow or round, always place hollow side against infeed table and infeed fence, see FIG.19 and FIG.20.

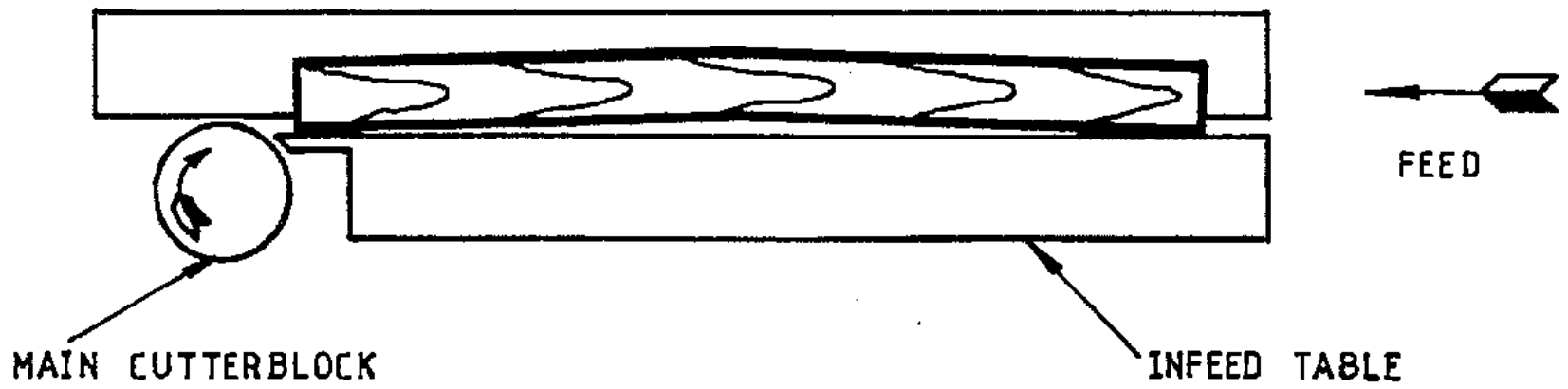
d) Feed timber by hand past cutterblocks until power feed unit takes control.

6.2 General Hints for Thicknessing

a) When thicknessing timber above 2 metres in length, always support before and after the thicknessing table, otherwise a step will appear on either or both ends.

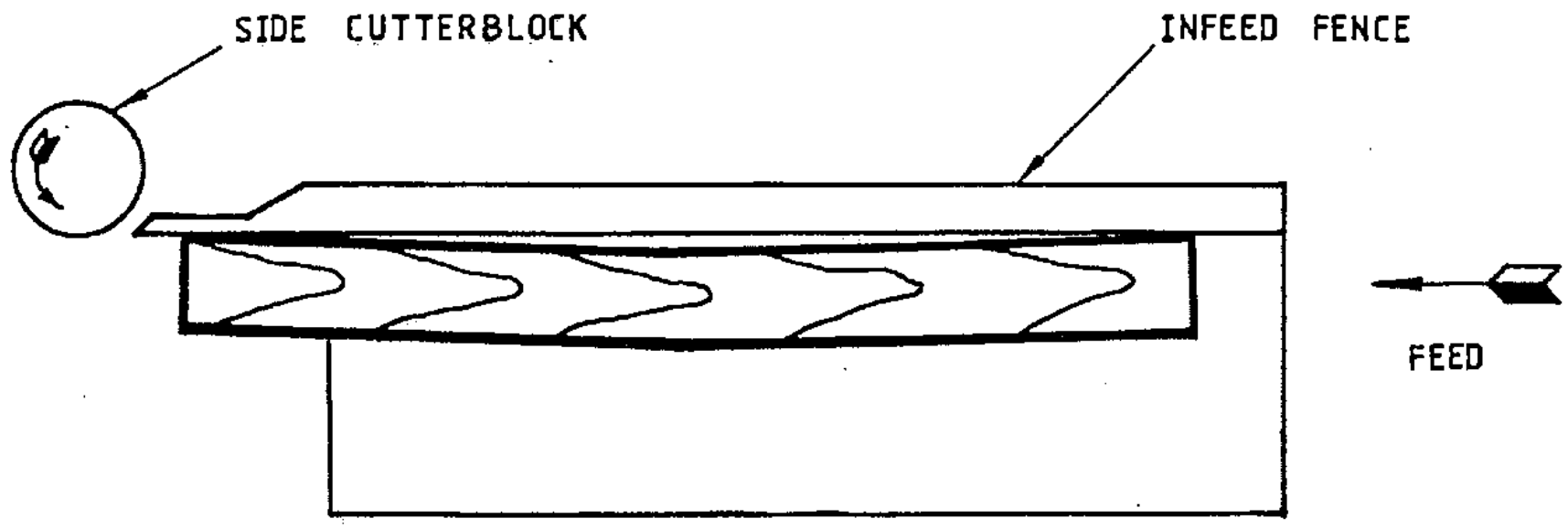
b) Retrieve timber held by power feed unit after surfacing operation and feed back into machine for thicknessing as shown in FIG.21, ie, planed faces against fence and table.

NOTE: Thicknessing side may be used to face and edge long lengths.



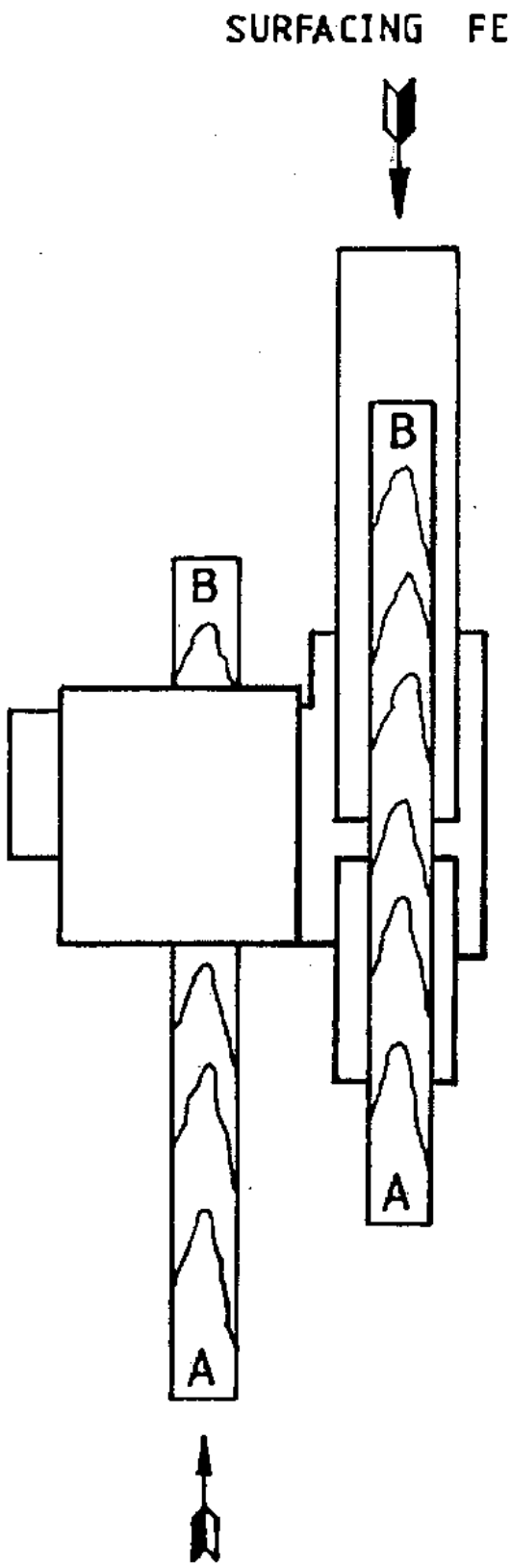
SIDE VIEW

FIG.19



PLAN VIEW

FIG.20



PLAN VIEW

FIG. 21

7.0 MAINTENANCE

7.1 Lubrication

The majority of machine working parts are designed to require no lubrication.

a) Every 3 months release gatters at top of rise and fall screws and apply grease. Replace gatters.

b) Every 3 months oil rise and fall chain and lag bed chain.

c) Remove resin from thicknesser table top stop weekly and lightly cover with a thin film of oil.

d) It is advisable to keep all bright parts covered with a thin film of oil to prevent rusting.

For approved lubricants see Page 7/20.

7.2 Tension of Planer Feed Unit Belts

a) Isolate machine electrically.

b) Remove 3 - M6 button head screws from cover "A" FIG.22. Remove cover.

c) Loosen M12 aerotight nut "B" FIG.22.

d) Adjust M8 locknut "C" and M8 hexagon head screw "D" FIG.23 to tension belts.

e) Correct tension will have been achieved when belts can be deflected 3mm in centre of span.

f) Relock M12 aerotight nut "B".

g) Replace cover "A".

7.3 Replacement of Planer Feed Unit Belts

a) Isolate machine electrically.

b) Remove 3 - M6 button head screws from cover "A" FIG.22. Remove cover.

c) Loosen M12 aerotight nut "B" FIG.22.

d) Adjust M8 locknut "C" and M8 hexagon head screw "D" FIG.23 to release tension.

e) Lift planer feed unit (Refer to 5.8.c).

f) Relese eccentric "E" FIG.24, by using allen key in end of eccentric "E" and loosening hexagon head bolt "F" FIG.23.

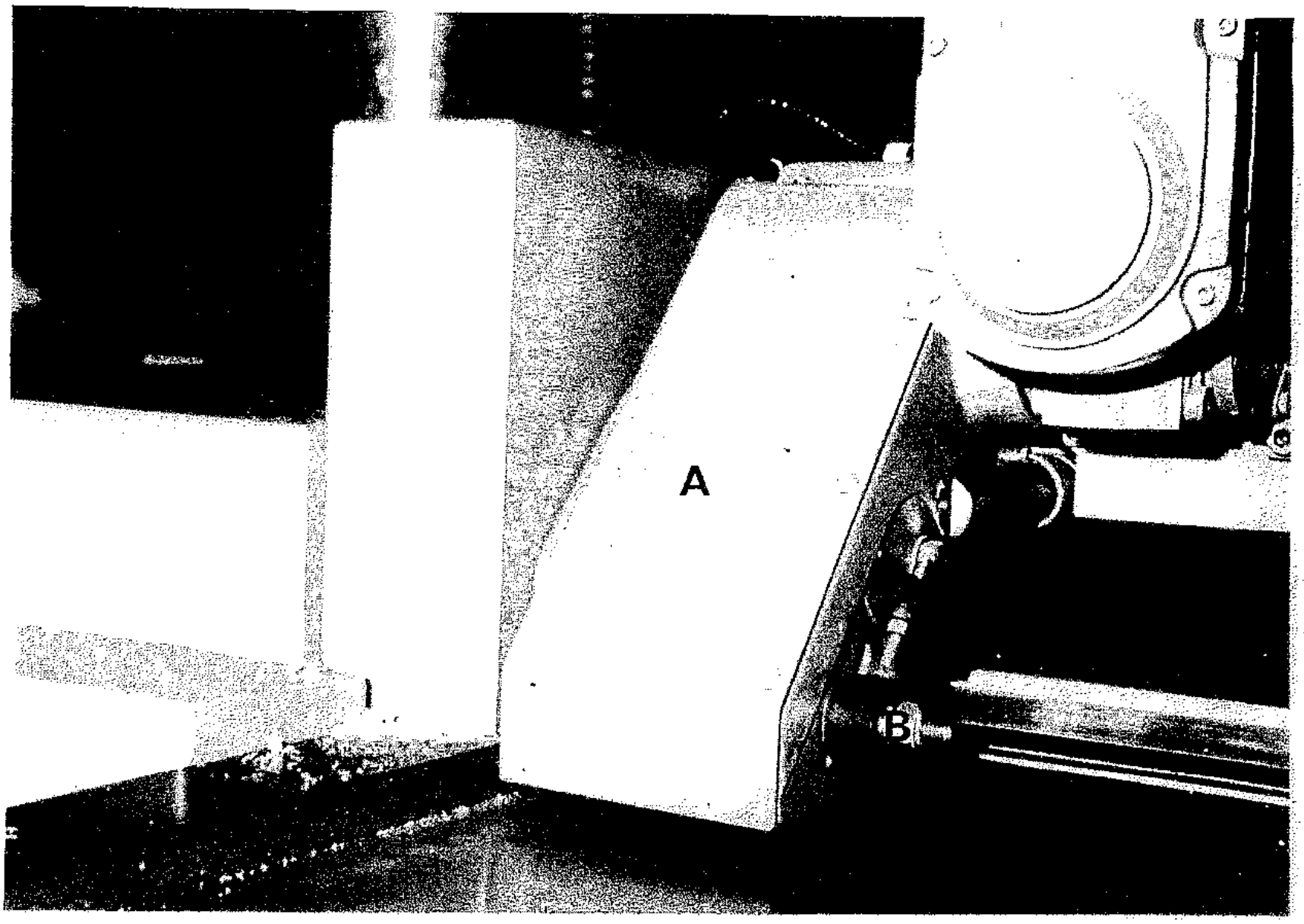


FIG. 22

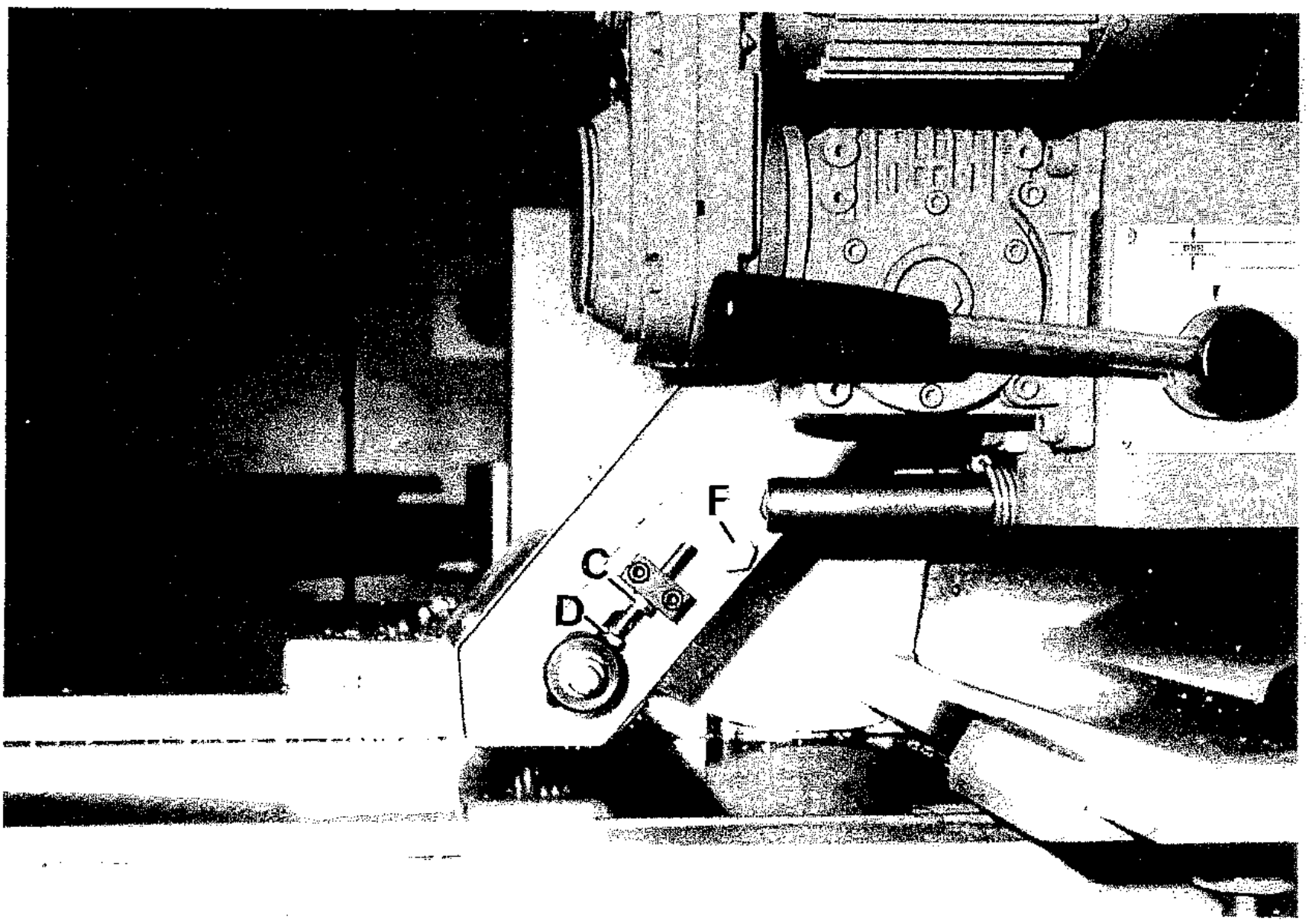


FIG. 23

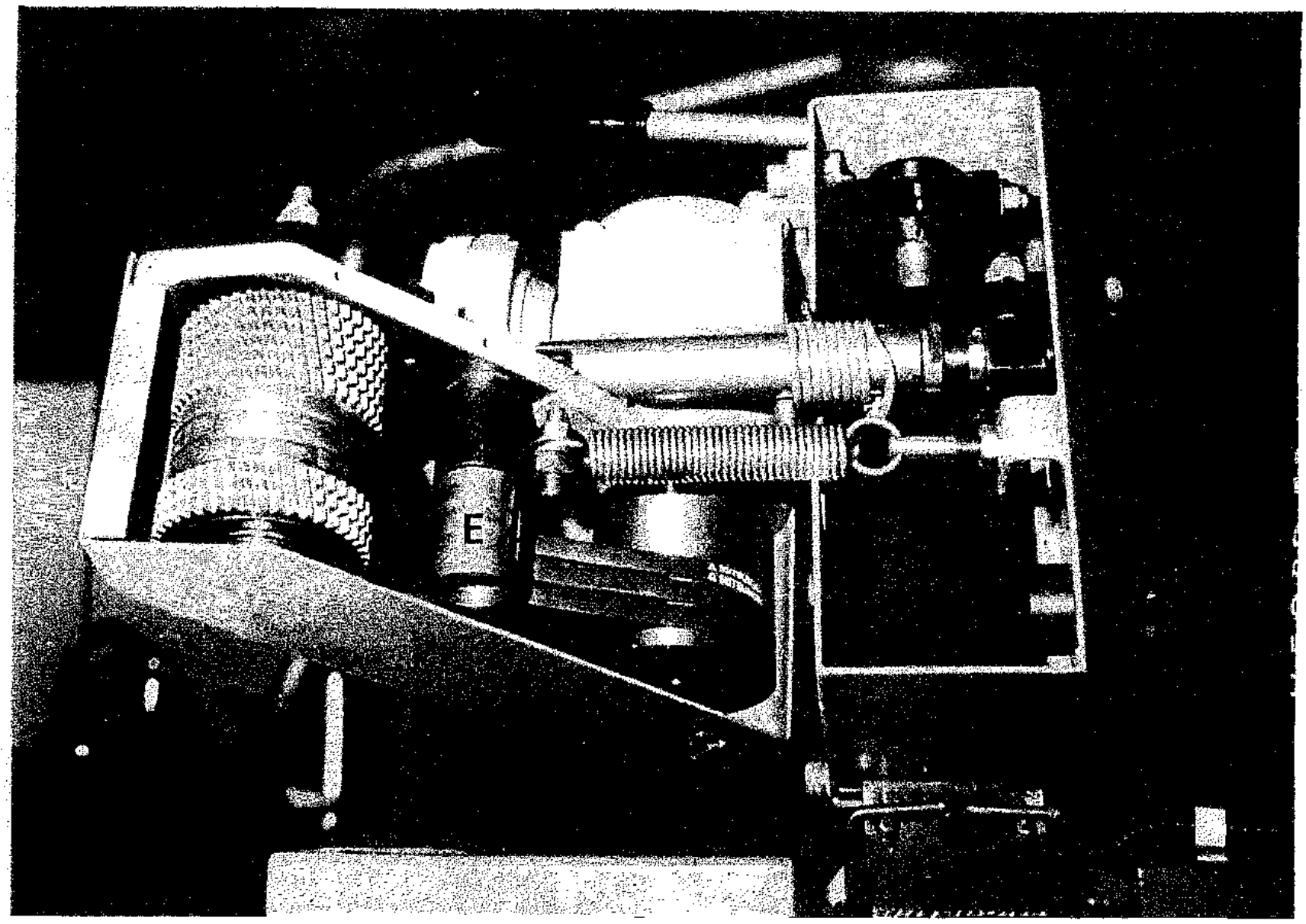


FIG. 24

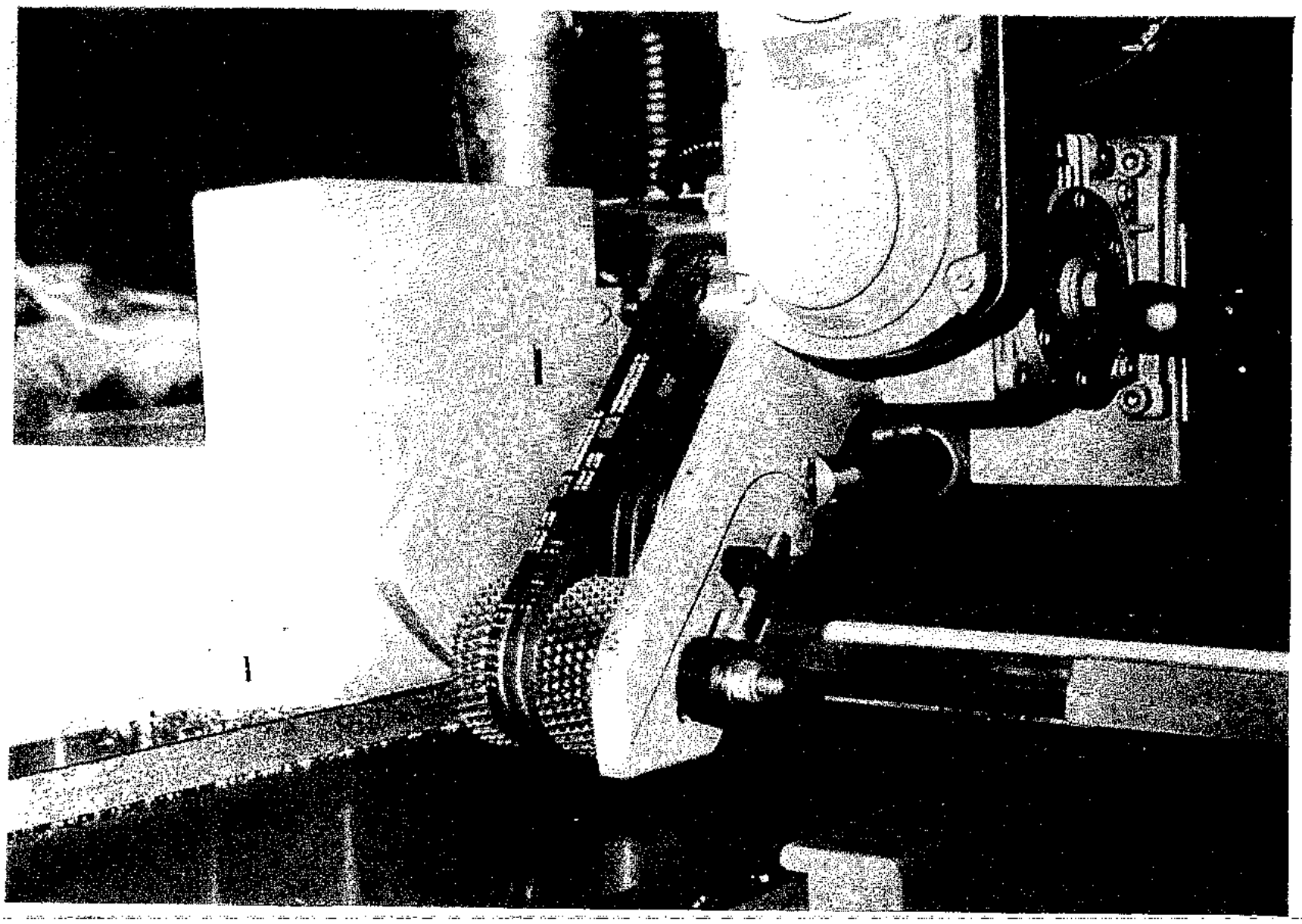


FIG.25

g) Remove exisiting 3 belts.

h) Replace with 3 new belts FIG.25.

i) Relock eccentric "E" in topmost postion.

j) Reverse procedure of operations (e) to (a).

7.4 Replacement of Thicknesser Rise and Fall Belt

a) Isolate machine electrically.

b) Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

c) Raise thicknesser table to top position.

d) Remove 2 - M6 button head screws from cover to give access to rise and fall spindle pulley "G" FIG.26.

e) Loosen M10 nut behind tension bracket "H" until timing belt "J" can be moved from pulley "K" on rise and fall shaft.

f) Remove existing timing belt "J" from pulley "G" on rise and fall spindle.

NOTE: New belt should never be forced or prised over the pulley flange. To ensure smooth operation and prevent premature failure, do not sharply bend or crease the belt.

g) Position new belt over pulley "G" on rise and fall spindle.

h) Turn belt through 90° and locate over pulley "K" on rise and fall shaft.

i) Adjust M10 nuts "L" to tension belt. Correct tension will have been achieved when belt can be deflected to 8mm in centre of span.

j) Lock M10 nuts "L".

k) Replace thicknesser side cover.

7.5 Replacement of Horizontal Cutterblock Belts

a) Isolate machine electrically.

b) Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

c) Depress pivot plate "M" FIG.27 to remove thicknesser side head drive belt "N" from drive pulley "S".

d) Remove M10 nut "P" from stud "R".

e) Pivot side head drive motor "T" FIG.28 until clear of stud "R".

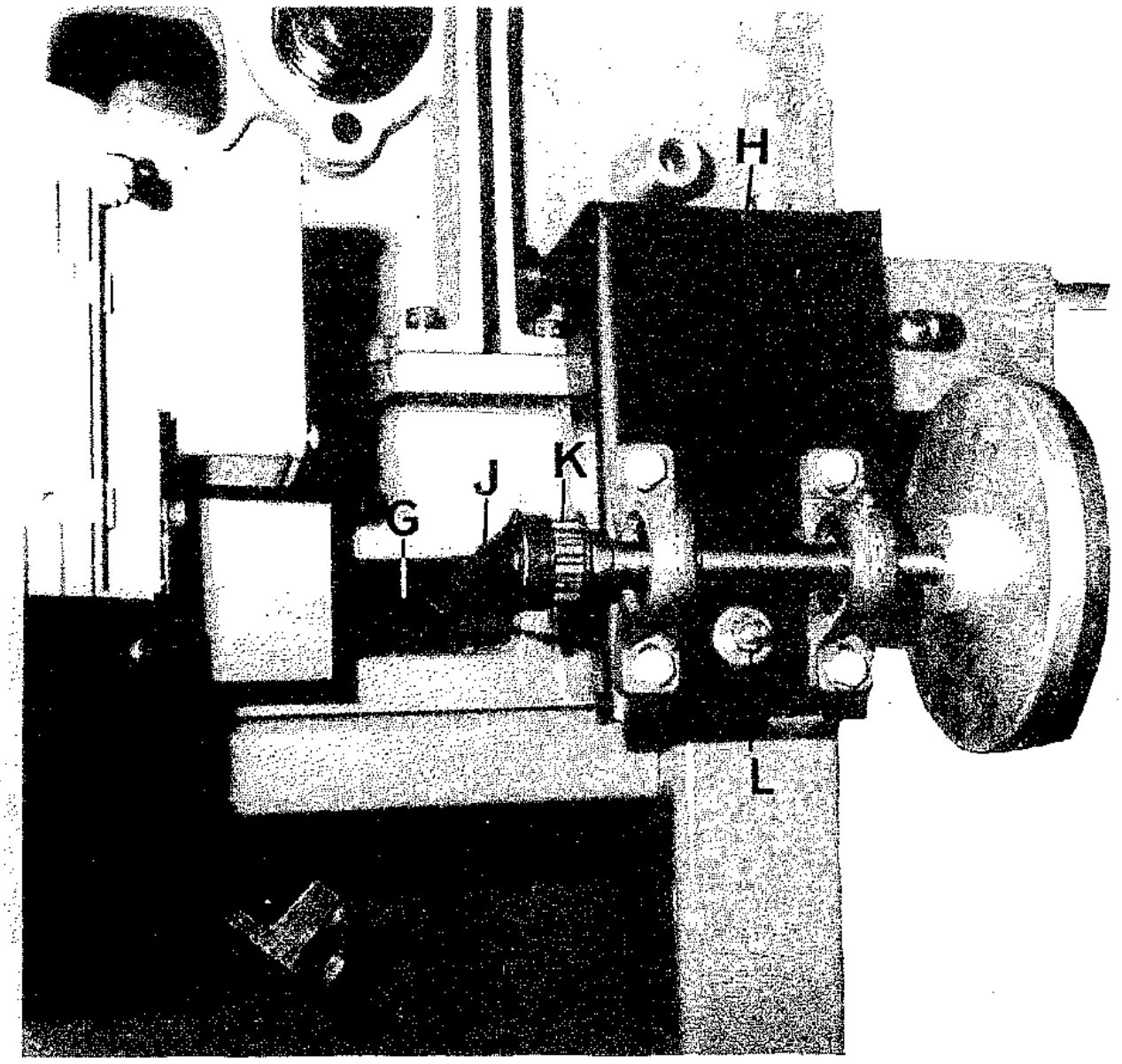


FIG.26

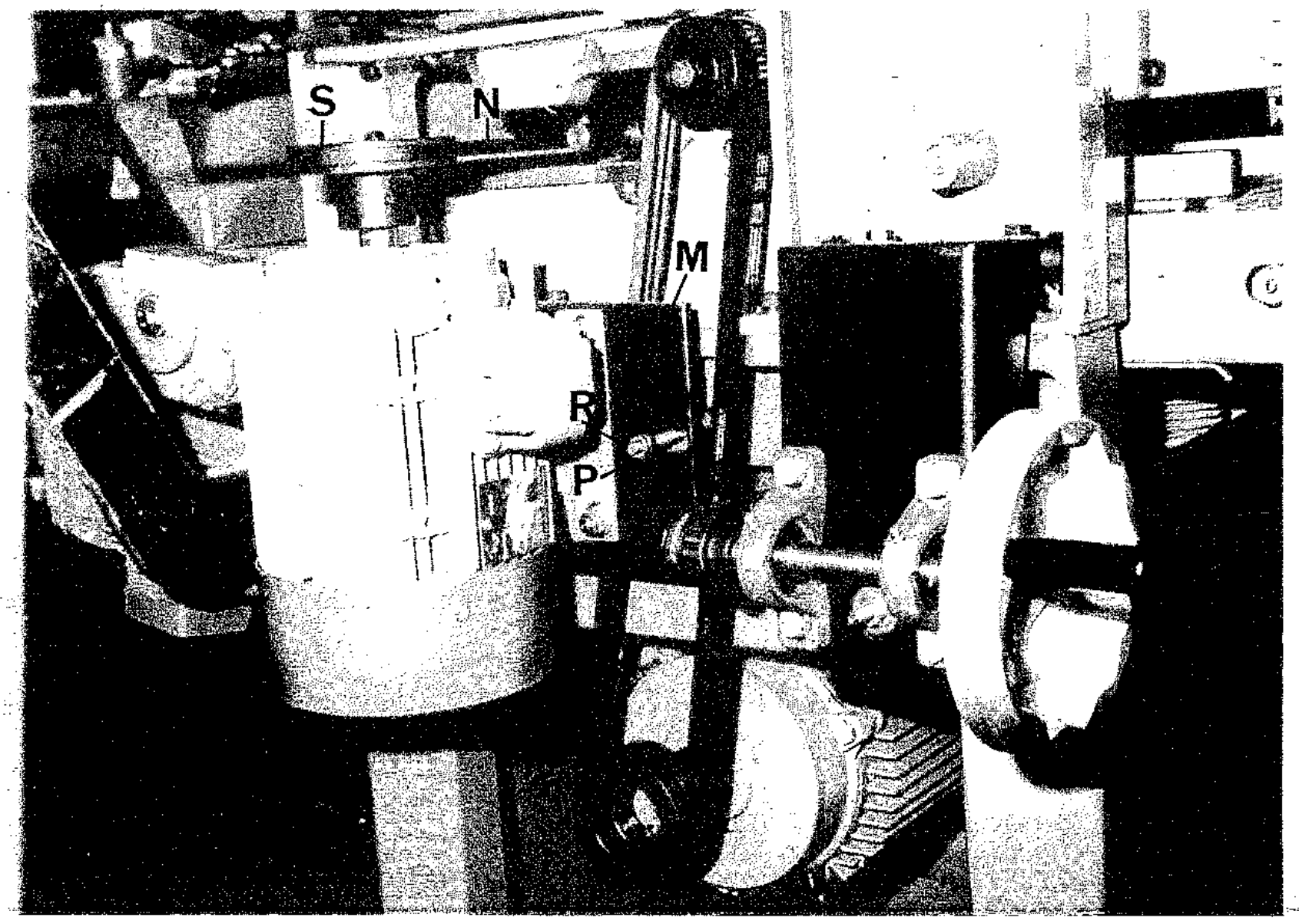


FIG.27

f) Remove existing 3 vee belts.

g) Replace with 3 new vee belts.

h) Reverse procedure of operations (e) to (a).

NOTE: Weight of motor tensions belt.

7.6 Replacement of Bottom Side Head Cutterblock Belt

a) Isolate machine electrically.

b) Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

c) Lower thicknesser table to bottom position.

d) Depress pivot plate "M" FIG.27 to remove thicknesser side head drive belt "N" from drive pulley "S".

e) Replace with new drive belt.

f) Reverse procedure of operations (d) to (a)

7.7 Tension of Top Side Head Cutterblock Belt

Tension of belt can be checked through hole under planer feed unit FIG.30. To gain access to hole and covers, loosen locking handwheel "U" FIG.29 and lift planer feed unit clear. If tensioning is required, proceed as follows:-

a) Isolate machine electrically.

b) Remove stop "V" from rear cover "W" FIG.30.

c) Remove planer feed unit cable clips from rear cover "W" FIG.31.

d) Remove 2 - M8 button head screws and 1 - M8 countersunk screw from rear cover "W" FIG.30 (Countersunk screw situated at thicknesser side).

e) Lift and withdraw rear cover.

f) Loosen grubscrew "A" FIG.32 on planer side only, 1 full turn.

g) Loosen 1 - M12 nut "B", 2 - M10 hexagon head bolts "C" FIG.32 (1 either side of housing) and using allen key, adjust caphead screw "D" to tension belt.

h) Correct tension will have been achieved when 200mm can be measured between points "E" and "F" FIG.32 on belt.

i) Relock 2 - M10 hexagon headbolts "C" and M12 nut "B".

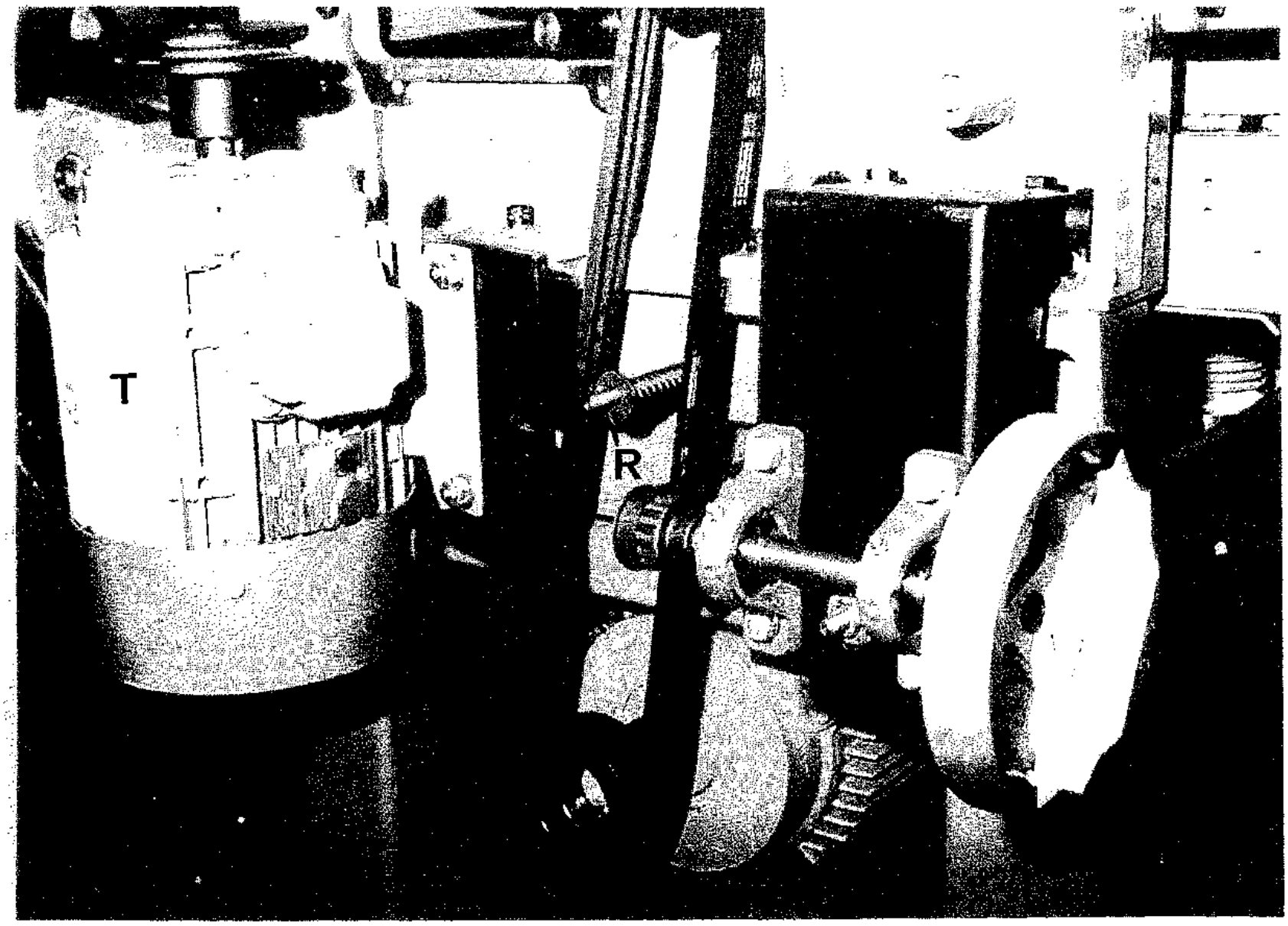


FIG.28

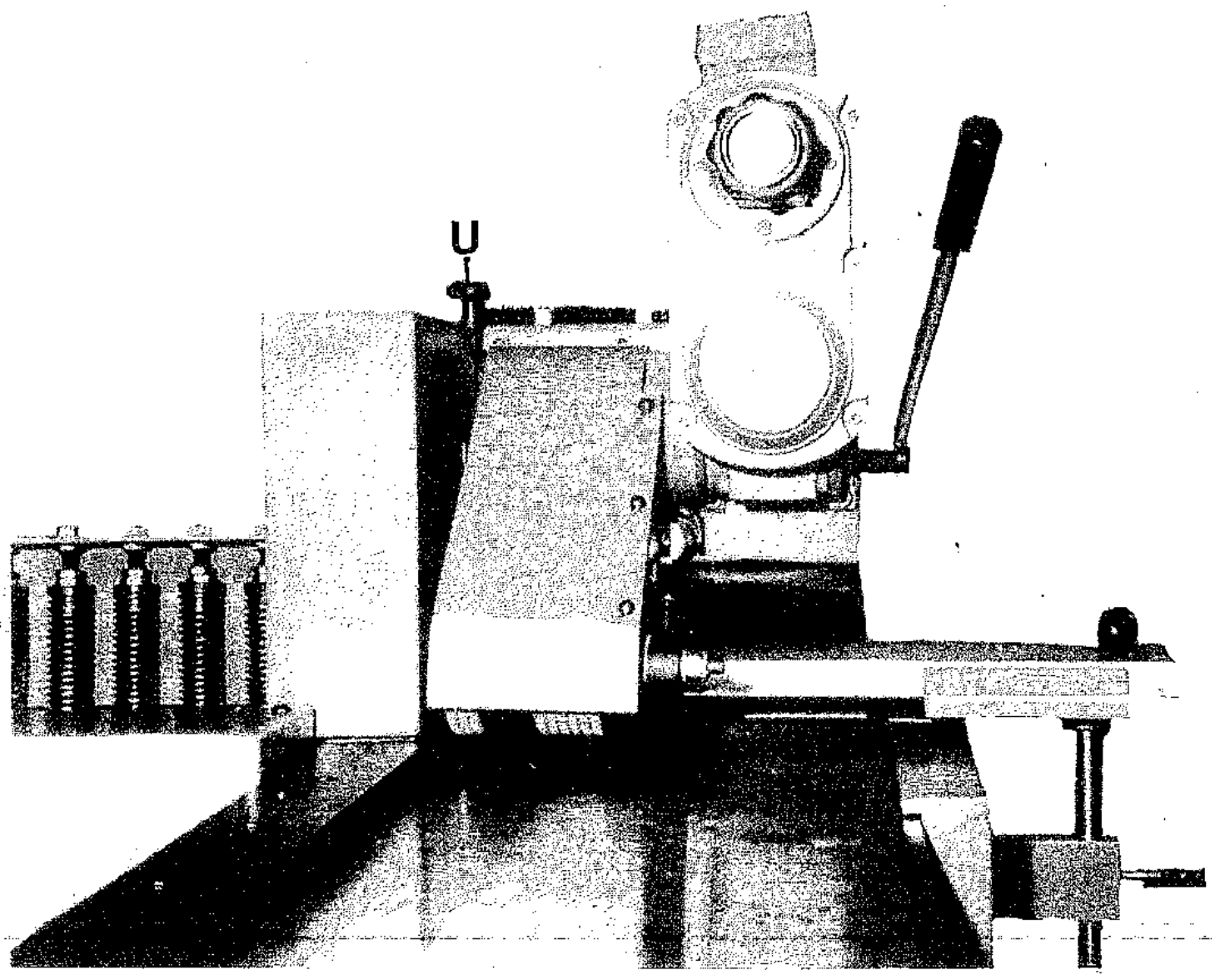


FIG.29

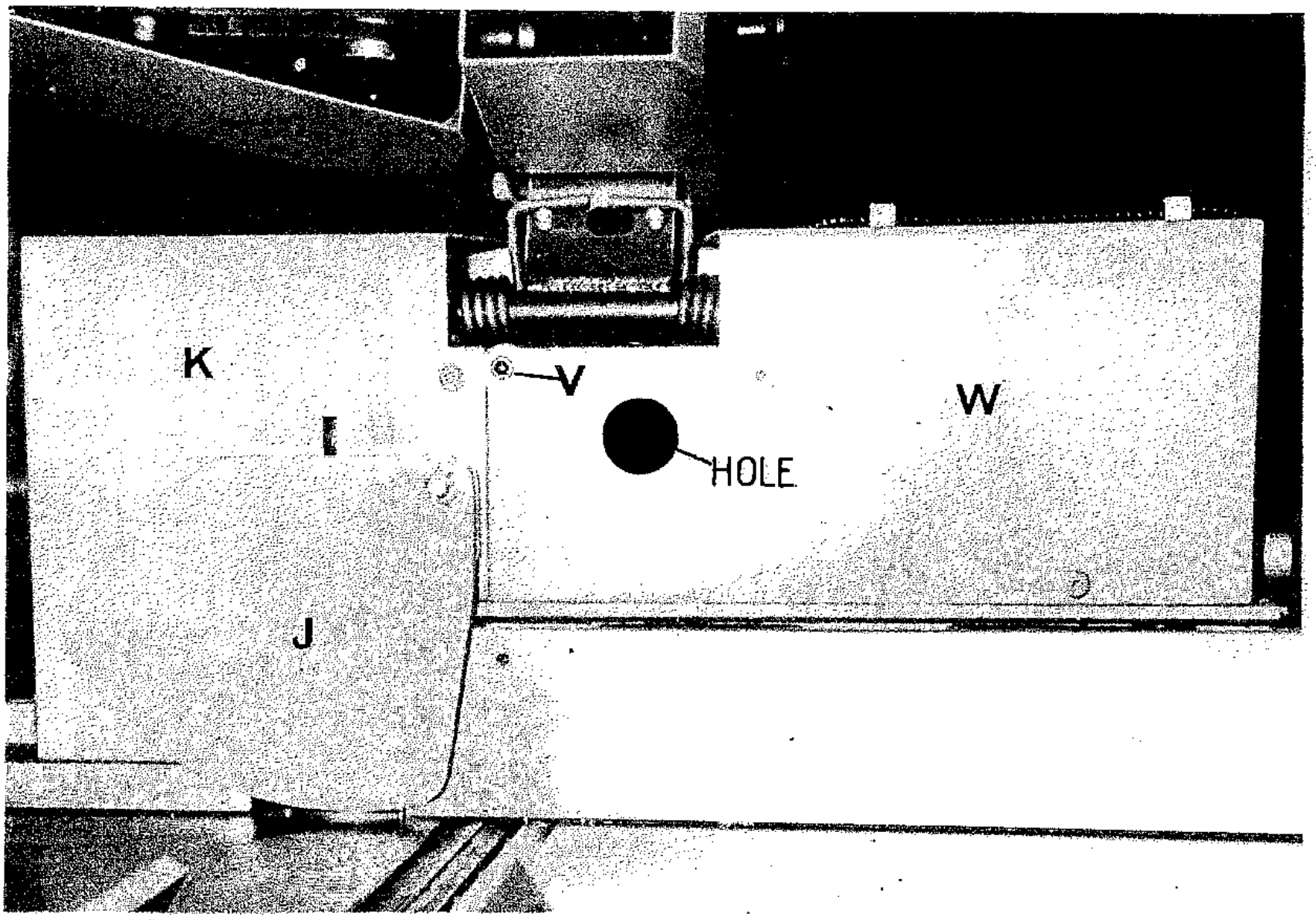


FIG.30

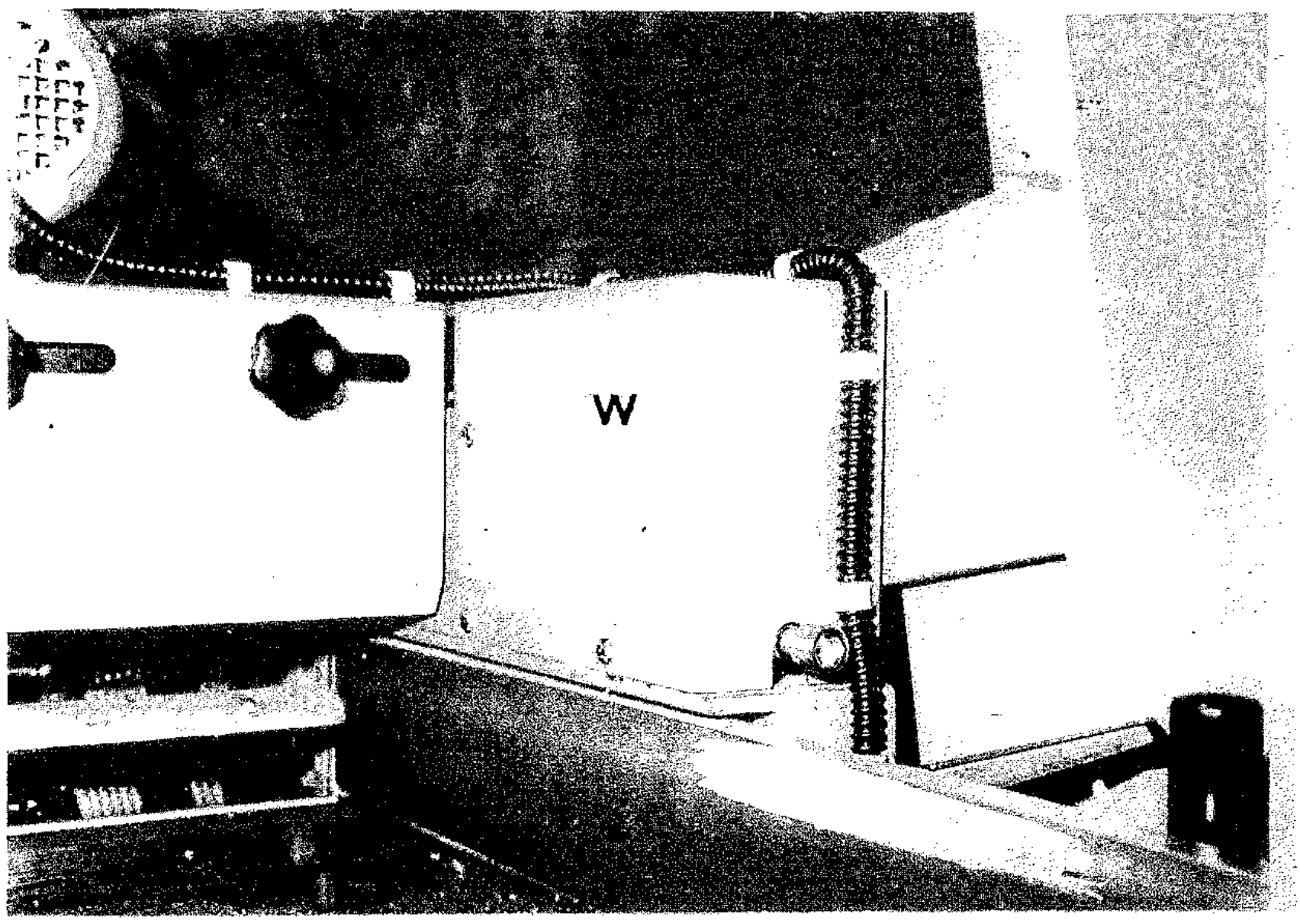


FIG. 31

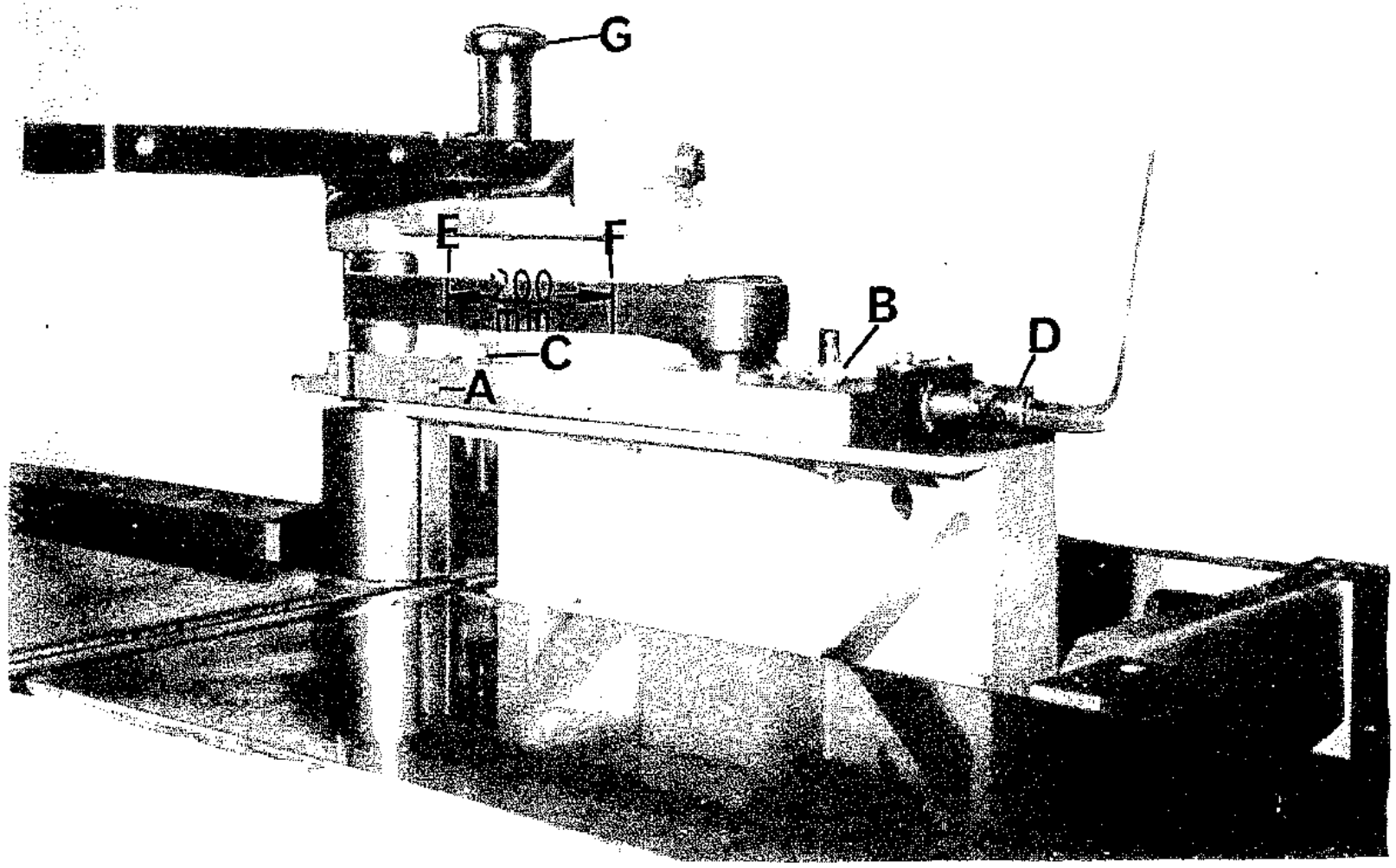


FIG.32

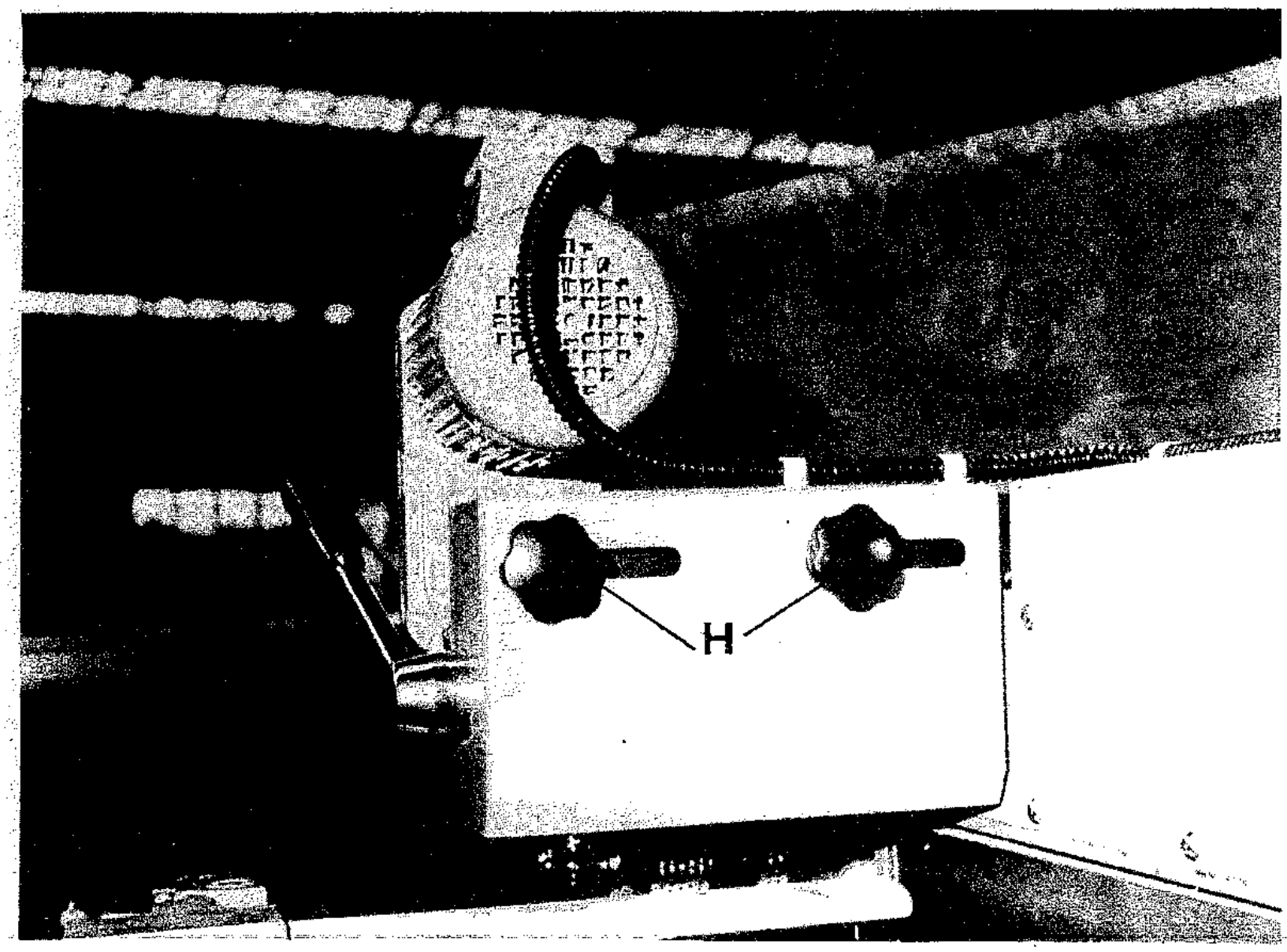


FIG.33

j) Reverse procedure of operations (f) to (a).

7.8 Replacement of Top Side Head Cutterblock Belt

a) Isolate machine electrically.

b) Remove locking handwheels "H" and washers FIG.33 in planer feed unit.

c) Remove studs ensuring spacers inside feed unit are removed.

NOTE: Spacers must be fitted to correct studs when re-assembling.

d) Remove planer feed unit cable clips from rear cover "W" FIG.31.

e) Withdraw feed unit, carefully place on outfeed table.

IMPORTANT: DO NOT REMOVE LOCKING HANDWHEEL "G" FIG.32 WHEN FEED UNIT IS REMOVED.

f) Remove planer feed unit stop "V" FIG.30.

g) Remove side head pivot guard "J" FIG.30 and stop behind guard.

h) Remove 4 - M8 button head screws and 2 - M8 countersunk screws from covers "K" and "W" FIG.30 (2 - M8 countersunk screws are situated at thicknesser side) and remove both covers.

i) Loosen grubscrew "A" FIG.32 on planer side only, 1 full turn.

j) Loosen 1 - M12 nut "B", 2 - M10 hexagon headbolts "C" FIG.32 (1 either side of housing) and using allen key "D" release tension.

k) Replace belt.

l) Tension belt by caphead screw "D" FIG.32. Correct tension will have been achieved when 200mm can be measured between points "E" and "F" FIG.32 on belt.

m) Relock 2 - M10 hexagon headbolts "C" and M12 nut "B".

n) Reverse procedure of operations (i) to (a).

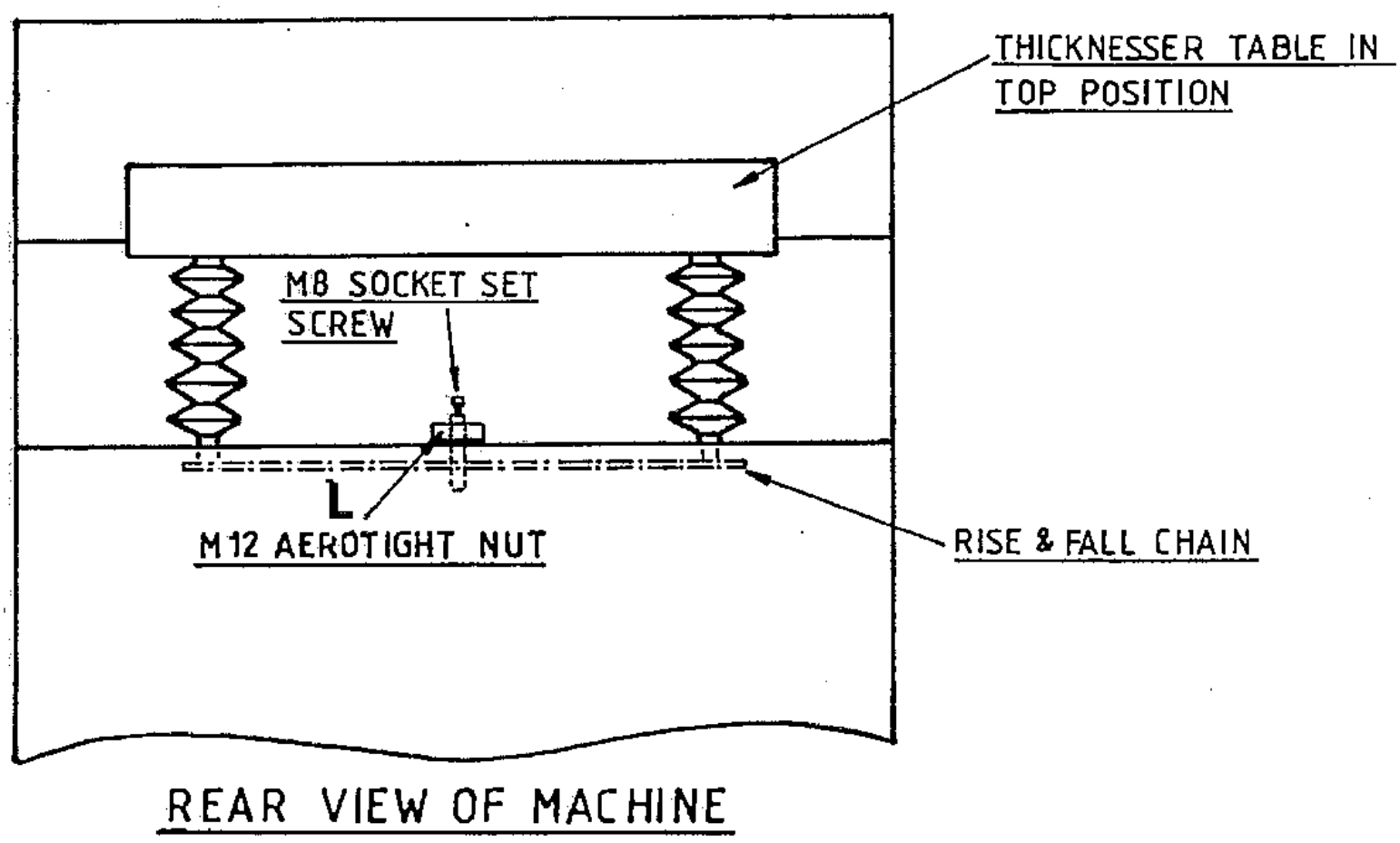
7.9 Rise and Fall Chain Tension

a) Isolate machine electrically.

b) Raise thicknesser table to top position.

c) Loosen M12 aerotight nut "L" FIG.34 and turn M8 grubscrew until correct tension is achieved.

d) Re-tighten M12 aerotight nut "L".



REAR VIEW OF MACHINE

FIG. 34

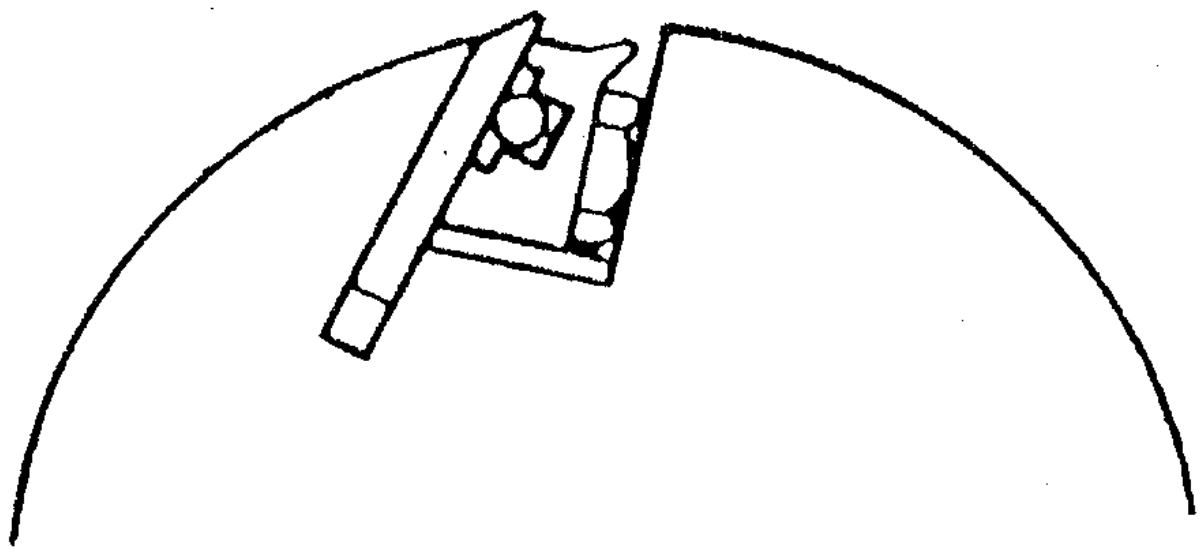


FIG. 35

7.10 Cutter Settings

7.10.1 Settings for Re-grindable Knives on Main and Side Head Cutterblocks

The knife is held in the cutterblock by a wedge, into which is fitted spring loaded balls FIG.35. These balls hold the knife finger tight, whilst the M12 hexagon head screws are loose. This allows both hands to be free to adjust the blade and ensure that it will not slip back during setting or move whilst the wedge screws are tightened up. Should any other method of cutter setting be employed, the amount of cutter projection must correspond exactly with that given by the setting gauge supplied and failure to observe this instruction will result in bad feeding and poor finish.

IMPORTANT: Use knives of 28mm maximum to 15mm minimum width.

7.10.1a Planer Main Cutterblock

a) Isolate machine electrically.

b) Lift planer feed unit clear (refer to 5.8c)

c) Remove bridge guard (refer to 5.9)

d) Loosen the 5 - M12 hexagon head screws on each wedge, carefully remove the knives from cutterblock.

NOTE: When regrinding, it is most important that the knives are ground perfectly straight and balanced in sets.

An efficient re-grinding service is available, charges are moderate and service prompt. To avail yourself with this service, return knives to: WADKIN DURHAM, FENCE HOUSES, HOUGHTON LE SPRING, TYNE & WEAR, DH4 5RQ.

e) To reset the knives, place the knife in between wedges and cutterblock, with the blade having approximately 3mm projection.

f) Place setting device over knife FIG.36, press setting device down until feet on setting device locate on cutterblock. Knife is now correctly set at 1mm cutter projection.

g) When knife is set correctly, remove knife setting device then securely lock the 5 - M12 hexagon head screws on wedge.

h) Rotate cutterblock until the next knife is in position and repeat the above procedure until all the knives have been set.

i) Replace bridge guard and planer feed unit.

7.10.1b Planer Side Head Cutterblock

a) Isolate machine electrically.

b) Life planer feed unit clear (Refer to 5.8c)

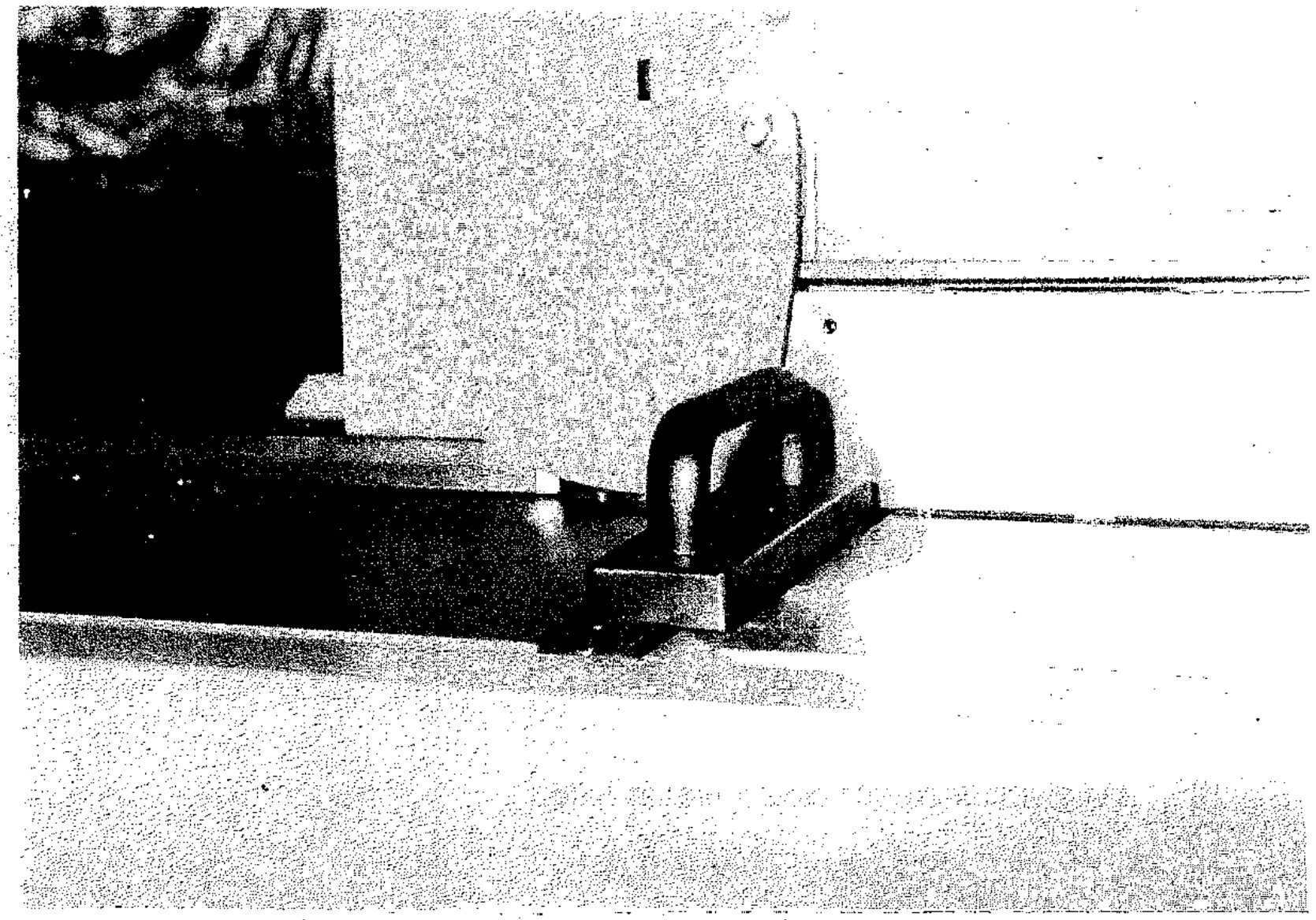


FIG. 36

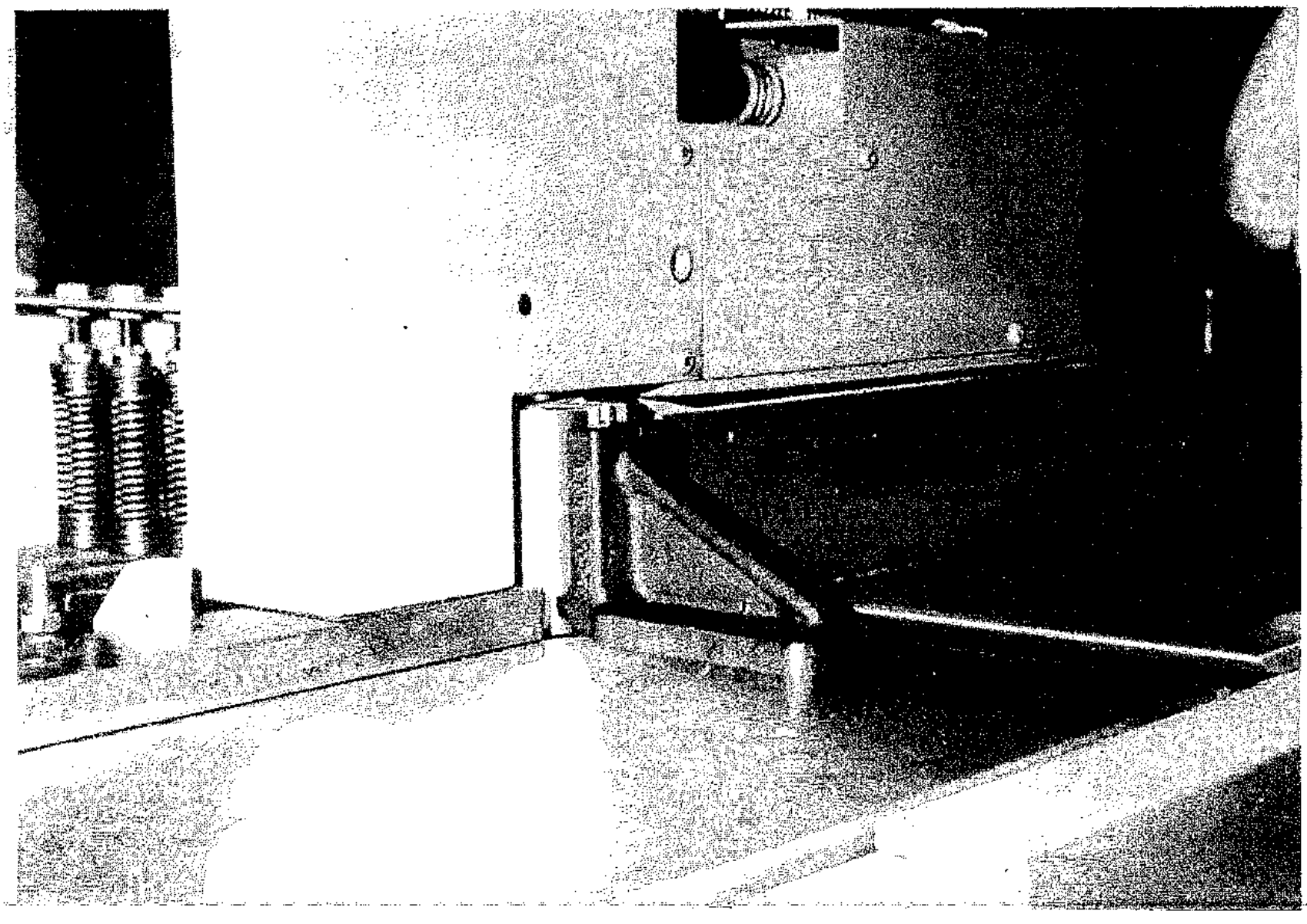


FIG. 37

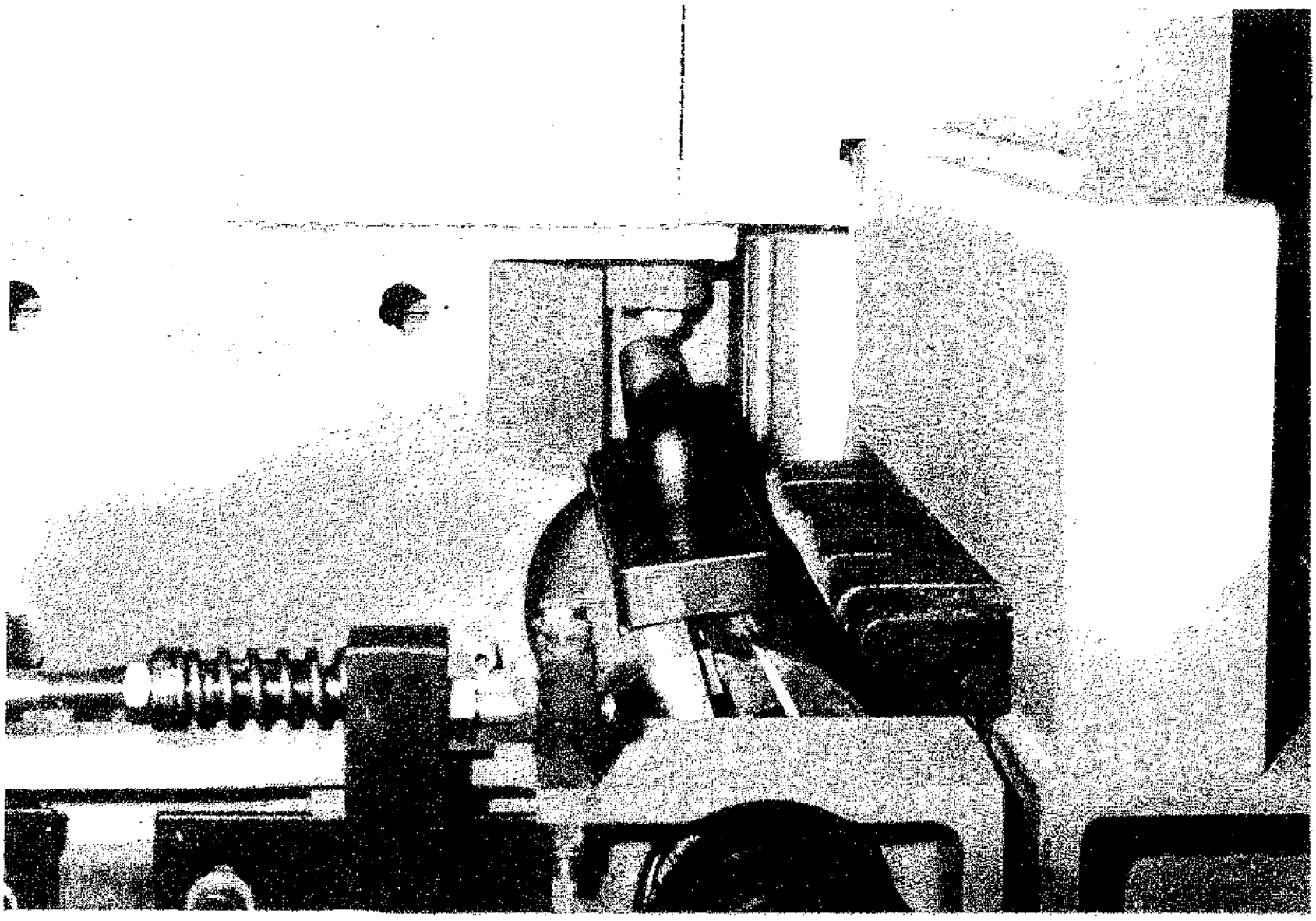


FIG. 38

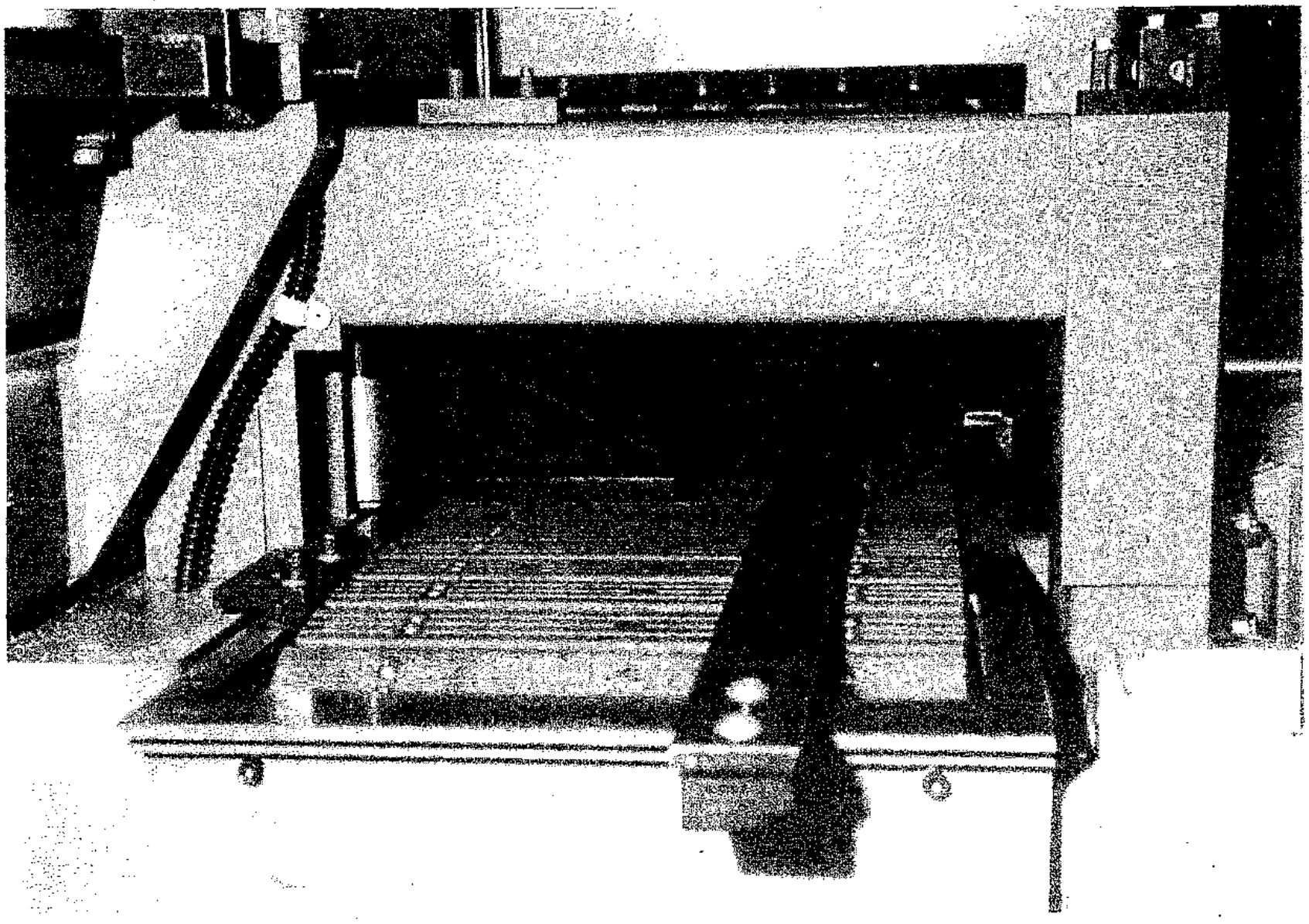


FIG. 39

c) Remove M10 aerotight nut and side head pivot guard.

d) Loosen the 2 - M12 hexagon head screws in each wedge, carefully remove the knives from cutterblock.

e) Replace all knives in the cutterblock and fasten wedge screws, leaving knives protruding 3mm from cutterblock.

f) Place setting device over knife FIG.37. Press setting device firmly against planing table and move setting device until feet locate on cutterblock. Knife is now correctly set at 1mm cutter projection.

g) When knife is set correctly, remove knife setting device then securely lock the 2 - M12 hexagon head screws on wedge.

h) Rotate cutterblock until the next knife is in position and repeat the above procedure until all the knives have been set.

i) Replace planer feed unit.

7.10.1c <u>Thicknesser Main Cutterblock</u>

a) Isolate machine electrically.

b) Lift thicknesser top hood.

c) Loosen the 5 - M12 hexagon head screws on each wedge, carefully remove the knives from cutterblock.

d) To reset the knives, place the knife in between wedges and cutterblock, with the blade having approximately 3mm projection.

e) Place setting device over knife FIG.38, press setting device down until feet on setting device locate on cutterblock. Knife is now correctly set at 1mm cutter projection.

g) When knife is set correctly, remove knife setting device then securely lock the 5 - M12 hexagon head screws on wedge.

h) Rotate cutterblock until the next knife is in position and repeat the above procedure until all the knives have been set.

i) Replace thicknesser top hood.

7.10.1d <u>Thicknesser Side Head Cutterblock</u>

a) Isolate machine electrically.

b) Lift thicknesser top hood.

c) Lower thicknesser table to bottom position (refer to 5.10).

d) Set fence to maximum position (Refer to 5.11).

e) Loosen the 2 - M12 hexagon head screws in each wedge, carefully remove the knives from the cutterblock.

f) Replace all knives in the cutterblock and fasten wedge screws, leaving knives protruding 3mm from cutterblock.

g) Place setting device over knife FIG.39. Press setting device firmly down onto thicknesser lag bed and move device until feet locate on cutterblock. Knife is now correctly set at 1mm cutter projection.

h) Rotate cutterblock until the next knife is in position and repeat the above procedure until all the knives have been set.

j) Replace thicknesser top hood.

NOTE: When changing knives it is advisable to check that all wedge screws are adequately lubricated and quite free. Periodically examine for damage or cracks. Any doubtful screws should be replaced and all screws well lubricated with "Molyslip" or similar oil, before replacing.

7.10.2 Settings for 'Tersa' Type Main and Side Head Cutterblocks

7.10.2a 'Tersa' Type Planer Main Cutterblock

To remove double sided knives from cutterblock, proceed as follows:

a) Isolate machine electrically.

b) Lift planer feed unit clear (Refer to 5.8c)

c) Remove bridge guard (Refer to 5.9)

d) Using a wood block and hammer, remove knife by tapping wedge as shown in FIG.40.

e) Withdraw double sided knife and either turn or replace.

f) Rotate cutterblock until next knife is in position and repeat above procedure.

NOTE: If wedge is to be removed, tap brass washer with a wood block and hammer until aperture on washer is in line with wedge.

7.10.2b 'Tersa' Type Planer Side Head Cutterblock

a) Isolate machine electrically.

b) Lift planer feed unit clear. (Refer to 5.8c)

c) Remove M10 aerotight nut and side head pivot guard.

d) Using a wood block and hammer, remove knife by tapping wedge as shown in FIG.41.

e) Withdraw double sided knife and either turn or replace.

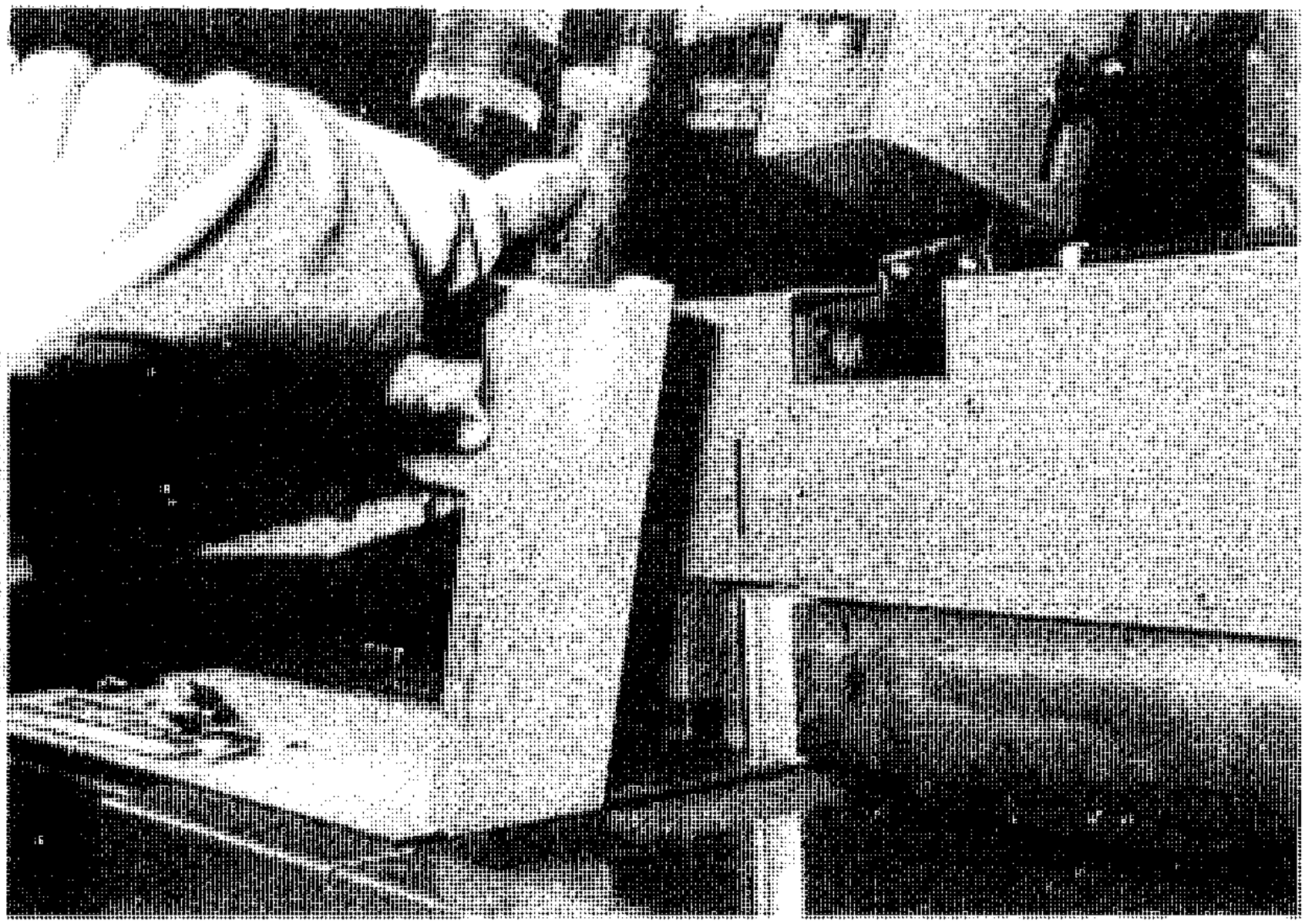


FIG.40

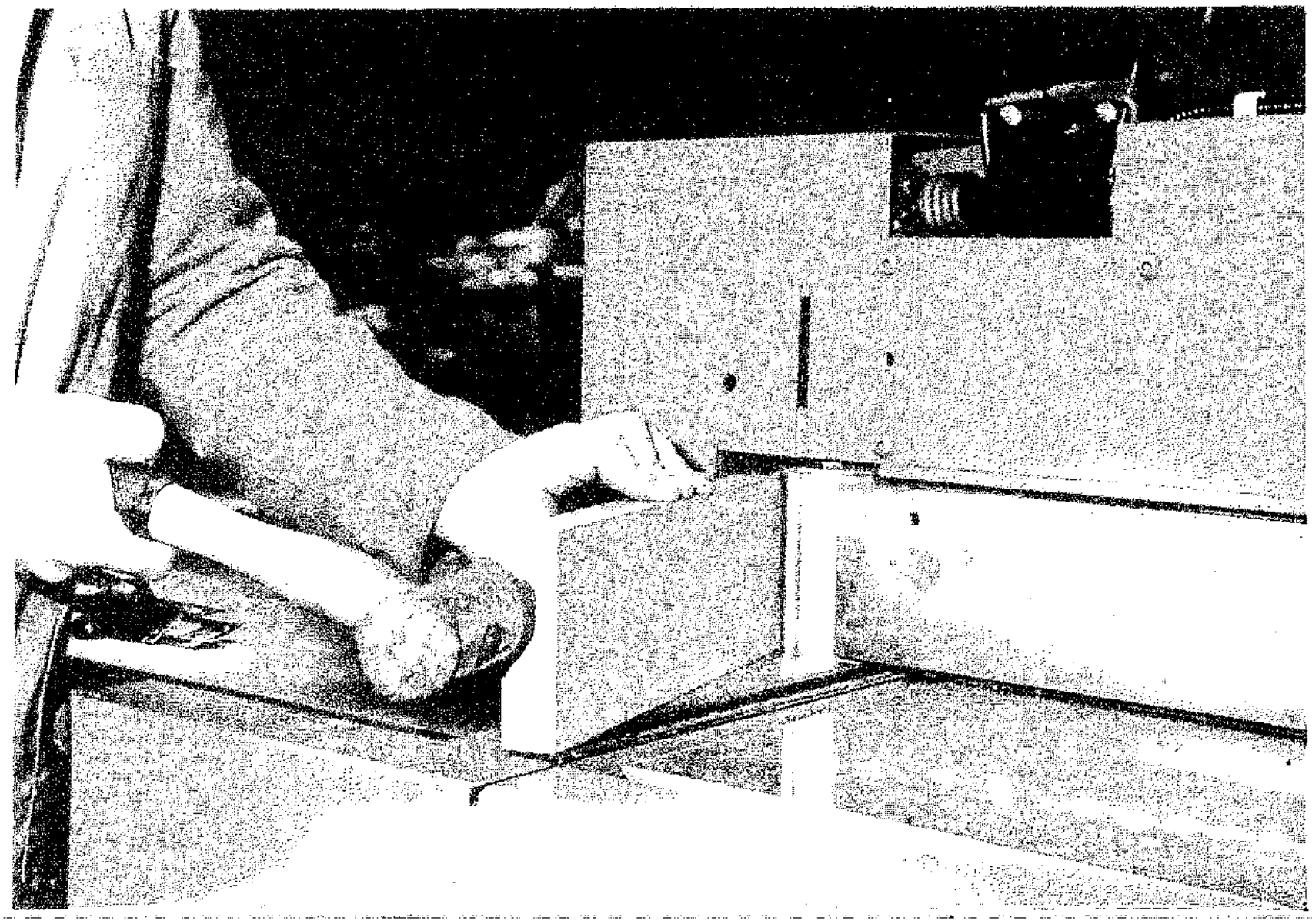


FIG.41

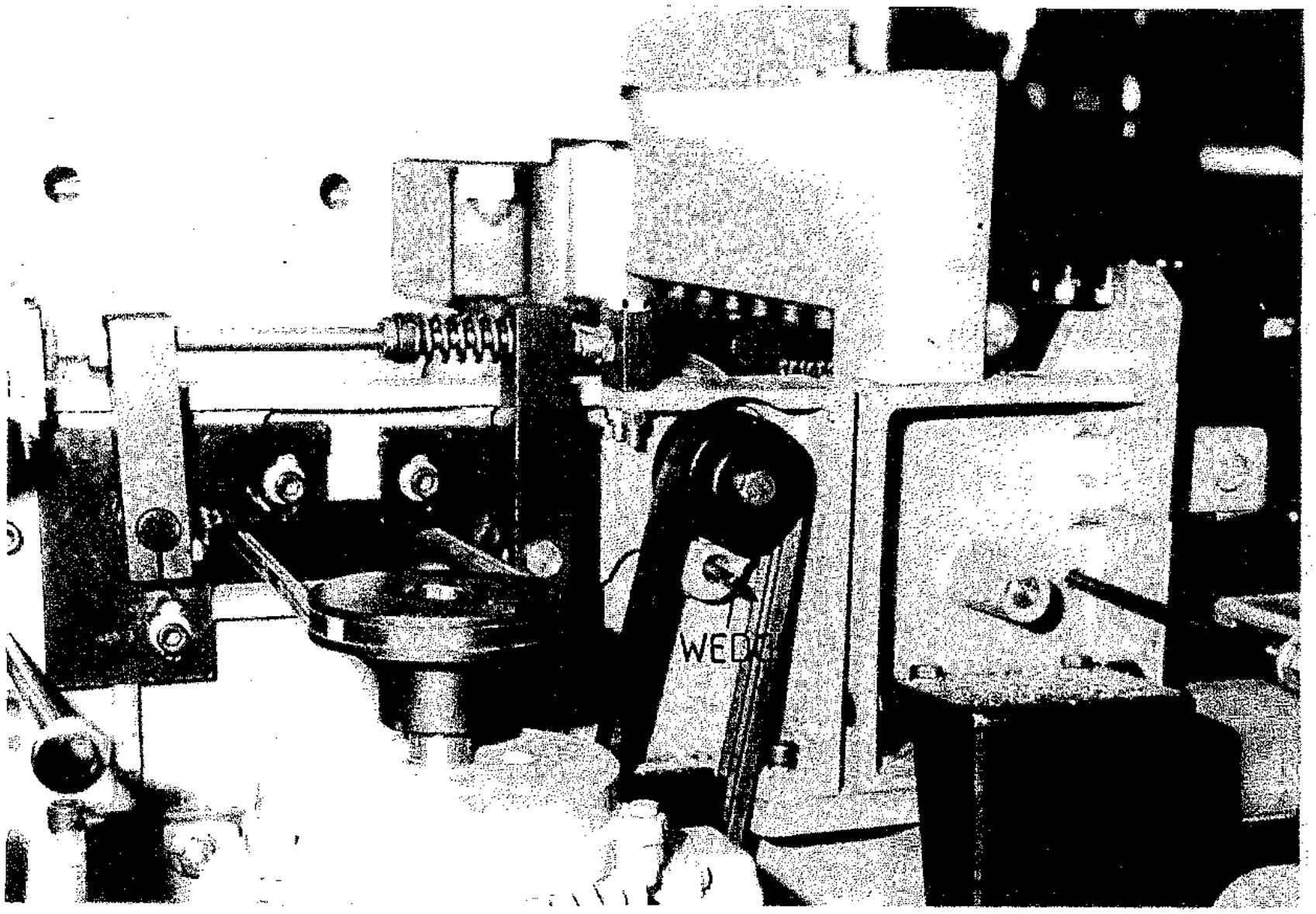


FIG.42

f) Rotate cutterblock until next knife is in position and repeat above procedure.

NOTE: If wedge is to be removed, tap brass washer with a wood block and hammer until aperture on washer is in line with wedge.

Use same procedure as above for 'Tersa' Thicknesser and Side Head cutterblocks.

7.10.2c 'Tersa' Type Thicknesser Main Cutterblock

a) Isolate machine electrically.

b) Lift thicknesser top hood.

c) Using a wood block and hammer, remove knife by tapping wedge.

d) Withdraw double sided knife and either turn or replace.

e) Rotate cutterblock until next knife is in position and repeat above procedure.

NOTE: If wedge is to be removed, tap brass washer with a wood block and hammer until aperture on washer is in line with wedge. Remove side cover. Rotate cutterblock until wedge aligns with hole in side frame as shown in FIG.42.

7.10.2d 'Tersa' Type Thicknesser Side Head Cutterblock

a) Isolate machine electrically.

b) Lift thicknesser top hood.

c) Lower thicknesser table to bottom position (Refer to 5.10).

d) Using a wood block and hammer, remove knife by tapping wedge.

e) Withdraw double sided knife and either turn or replace.

f) Rotate cutterblock until next knife is in position and repeat above procedure.

NOTE: If wedge is to be removed, tap brass washer with a wood block and hammer until aperture on washer is in line with wedge.

Application	APPROVED LUBRICANTS					
	Castrol	B.P.	Shell	Esso	Texaco	Century
Worm Boxes	Alpha SP220	Energol XP220	Omala 220	Spartan EP220	Meropa 220	F76
General Lubrication	Magna 68	Maccurat 68	Tonna T68	Febis K68	Way Lube 68	WLC
Pneumatic Lubricators	Hyspin AWS32	Energol HL32	Tellus 37	Nuto H32	Rando Oil HD32	AF32
Grease	Spheerol AP3	Energrease L53	Alvania R3	Beacon 3	Multifak EP3	Lupas A3
Brake Cables	Brake Cable Grease	Energrease L21M	Alvania R3	Multi-Purpose Grease		Molycent MP

8.0 SPARES

8.1 Instructions When Ordering Spare/Replacement Parts

The undermentioned information should be given with all orders requesting spare/replacement parts.

a) Machine type.

b) Machine serial number.

c) If no manual available, give as full a description as possible of the required part, including location within the machine.

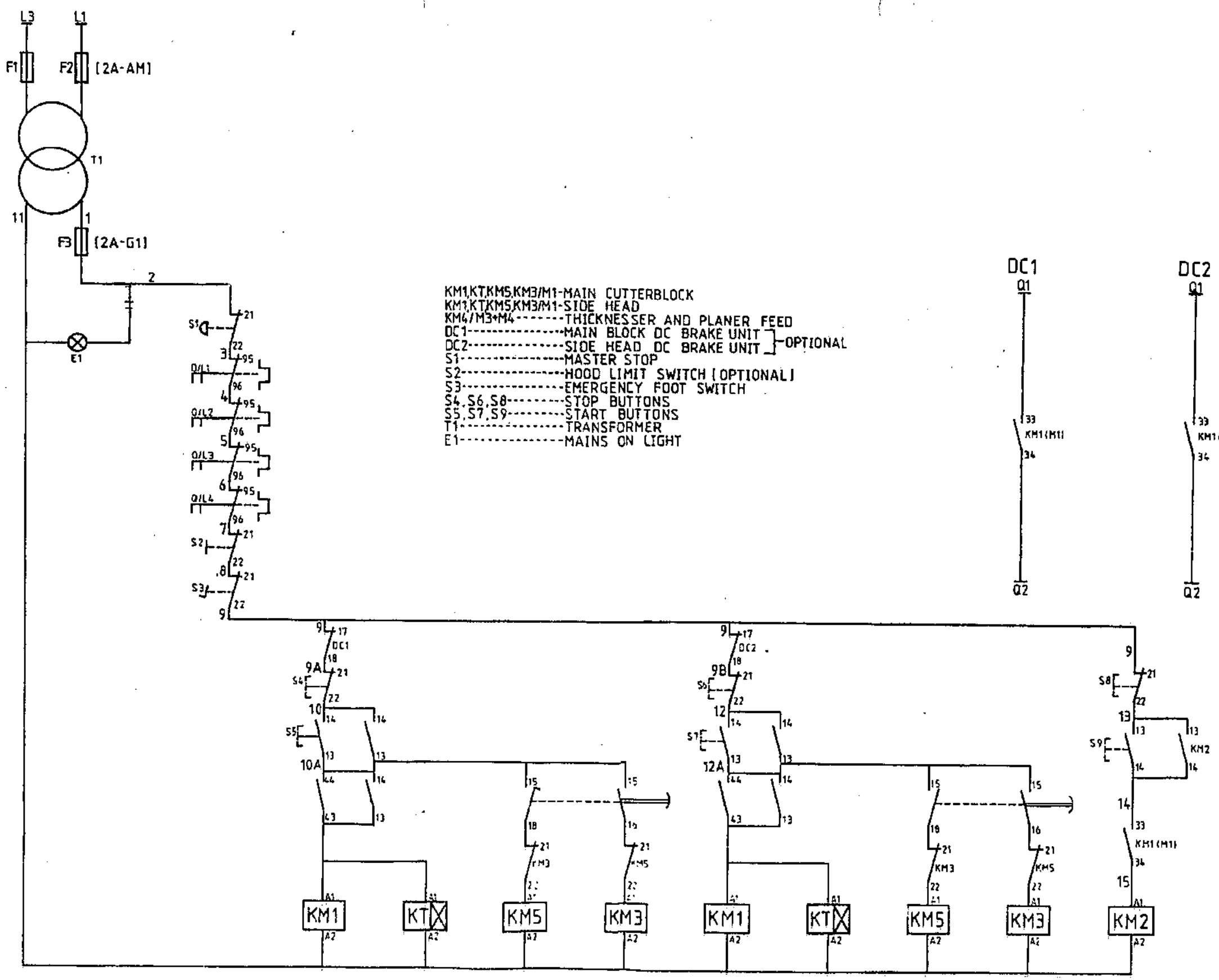
d) Order number and full company name and address.

e) Company account number, with **Wadkin**, if known.

f) All telephone orders must be followed by an official order, clearly marked "Confirmation Order".

NOTE: The company operate a **'Minimum Order Charge'** on all spare/replacement part orders.

PART No.
PAR-28-WD



KM1,KT,KM5,KM3/M1-MAIN CUTTERBLOCK
KM1,KT,KM5,KM3/M1-SIDE HEAD
KM4/M3+M4--------THICKNESSER AND PLANER FEED
DC1--------------MAIN BLOCK DC BRAKE UNIT } OPTIONAL
DC2--------------SIDE HEAD DC BRAKE UNIT }
S1---------------MASTER STOP
S2---------------HOOD LIMIT SWITCH (OPTIONAL)
S3---------------EMERGENCY FOOT SWITCH
S4,S6,S8---------STOP BUTTONS
S5,S7,S9---------START BUTTONS
T1---------------TRANSFORMER
E1---------------MAINS ON LIGHT

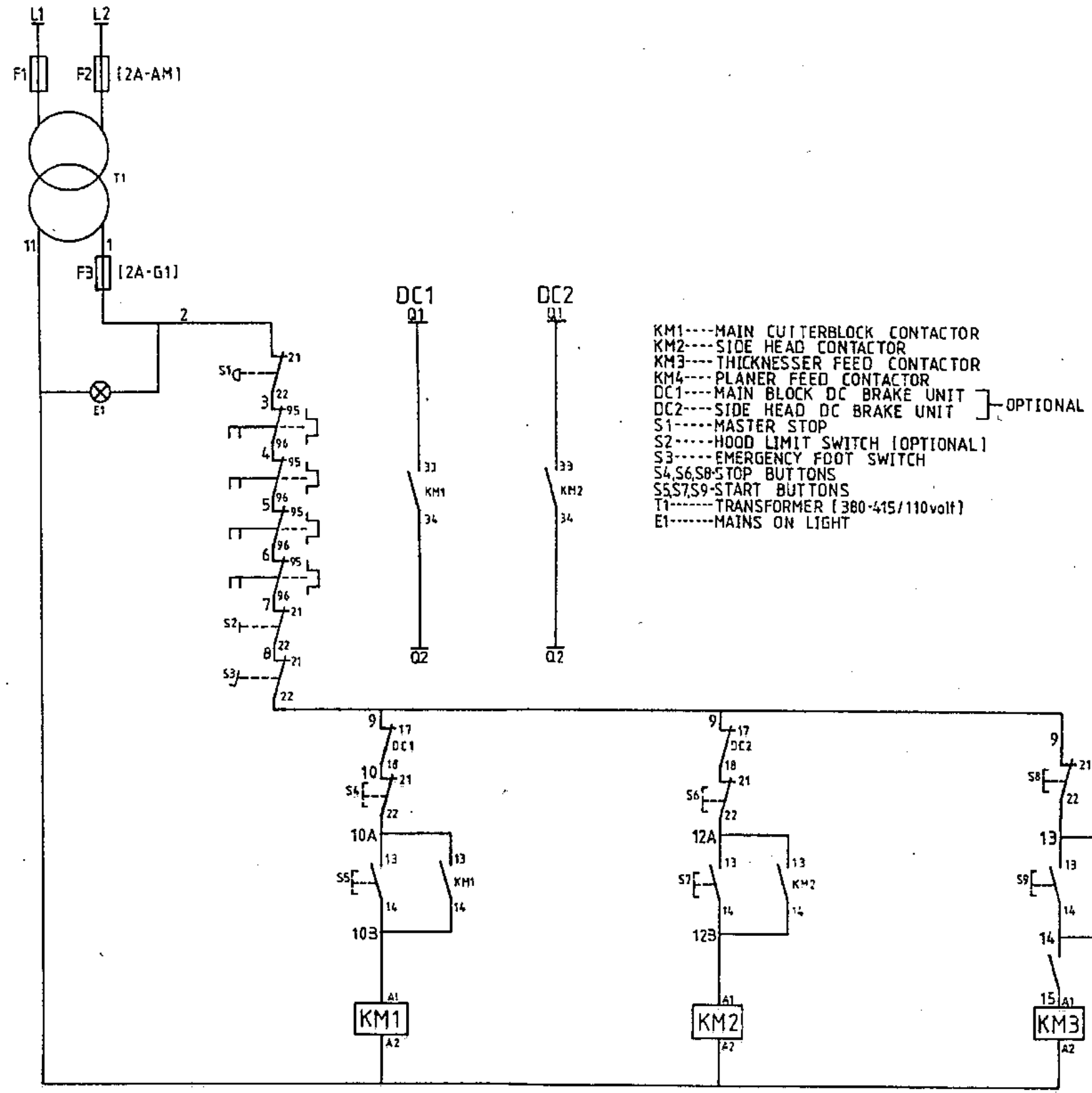
GENERAL TOLERANCES (UNITS &
SURFACE FINISH UNLESS STATED

ALL DIMENSIONS IN MILLIMETRES
UNLESS OTHERWISE STATED

FIRST ANGLE PROJECTION

DRAWN BY PA	Wadkin Durham Fence Houses Tyne & Wear		QTY.	MATERIAL
CHECKED BY E W	DESCRIPTION CONTROL DIAGRAM STAR/DELTA WITH RALEIGH DC BRAKE UNITS		SCALE	PART No. PAR-28-WD
ISSUE DATE 6.11.90				
E C N NO 01311				

PART No.
PAR-26-WD



GENERAL TOLERANCES LIMITS & SURFACE FINISH UNLESS STATED

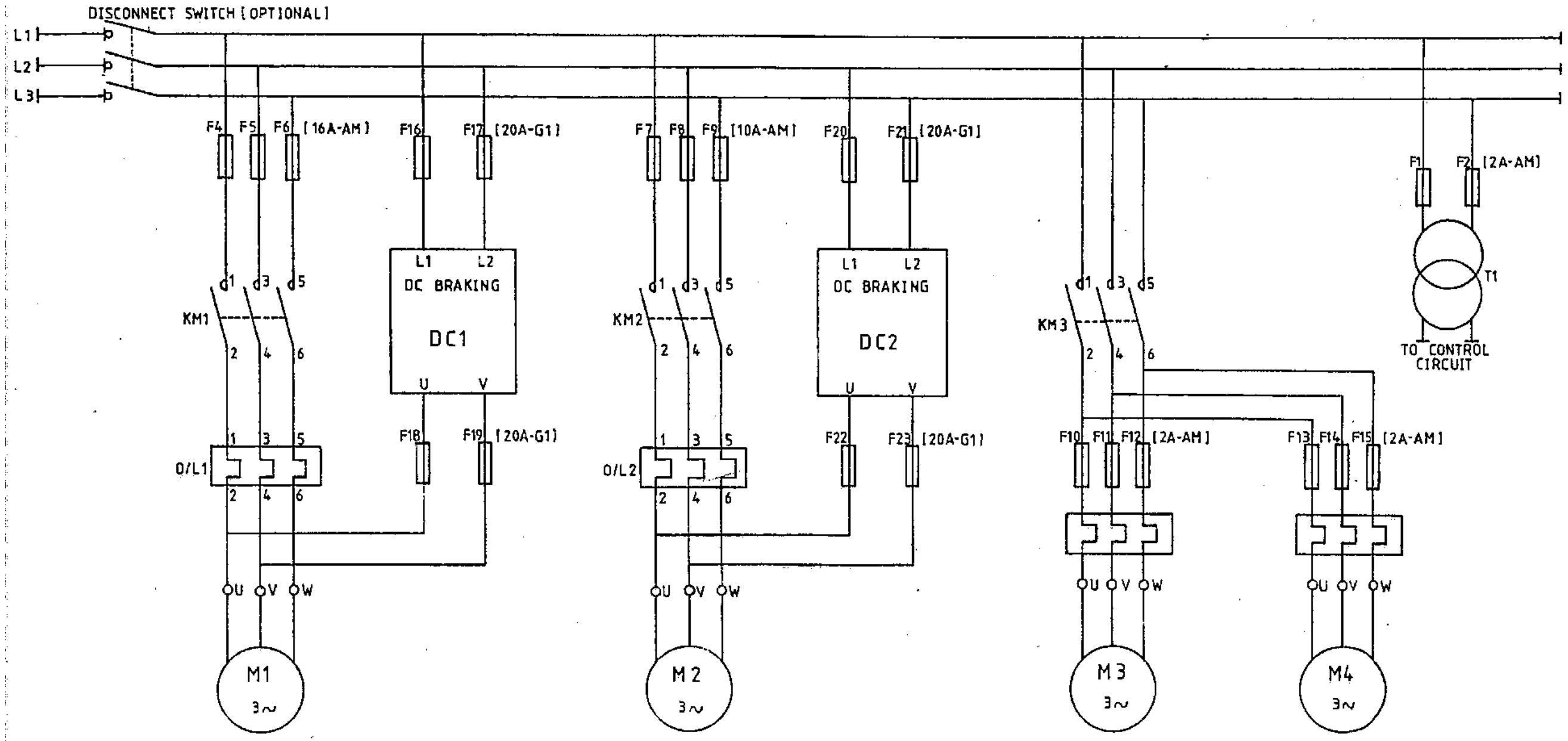
FLATNESS
STRAIGHTNESS
SQUARENESS
PARALLELISM
RUN OUT
CYLINDRICITY
ANGULARITY
SYMMETRY
RUNOUT
ON DECIMAL PLACE
TWO DECIMAL PLACE
NON ACCUMULATIVE

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

FIRST ANGLE PROJECTION

DRAWN BY	PA	Wadkin Durham Fence Houses Tyne & Wear		QTY.	MATERIAL
CHECKED BY	EW				
ISSUE DATE	6-7-90	DESCRIPTION CONTROL DIAGRAM D.O.L. WITH RALEIGH DC BRAKING UNITS		SCALE	PART No PAR-26-W
E.C.N. NO	01311				

PART No.
PAR-25-WD



KM1/M1-MAIN CUTTERBLOCK
KM2/M2-SIDE HEAD
KM3/M3-THICKNESSER FEED
KM3/M4-PLANER FEED
DC1----MAIN BLOCK DC BRAKE UNIT]-OPTIONAL
DC2----SIDE HEAD DC BRAKE UNIT]
O/L1-O/L4-OVERLOADS
F4-F15--INDIVIDUAL FUSING [OPTIONAL]

GENERAL TOLERANCES LIMITS & SURFACE FINISH UNLESS STATED

FLATNESS
STRAIGHTNESS
SQUARINESS
PARALLELISM
RUN OUT
CYLINDRICITY
ANGULARITY
SYMMETRY
WHOLE NUMBERS
1 DECIMAL PLACE
2 DECIMAL PLACE

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

FIRST ANGLE PROJECTION

DRAWN BY	PA
CHECKED BY	EW
ISSUE DATE	6-90
E C N NO	01311

Wadkin Durham Fence Houses Tyne & Wear

DESCRIPTION SCHEMATIC DIAGRAM DOL WITH RALEIGH DC BRAKING UNITS

QTY.

MATERIAL

SCALE

PART No
PAR-25-WD

PART No.
PAR-27-WD

DISCONNECT SWITCH [OPTIONAL]

L1
L2
L3

F4 F5 F6 [16A-AM]

F16 [20A-G1] F17

F7 F8 F9 [10A-AM]

F20 [20A-G1] F21

F1 F2 [2A-AM]

TO CONTROL CIRCUIT

L1 L2
DC BRAKING
DC1
T1 27 28 T2

L1 L2
DC BRAKING
DC2
T1 27 28 T2

KM1 KM5 △-KM3

F18 F19 [20A-G1]

F22 F23 [20A-G1]

KM4

F10 F11 F12 [2A-AM] F13 F14 F15

U1 V1 W1
M1
3~
U2 V2 W2

U1 V1 W1
M2
3~
U2 V2 W2

U V W
M3
3~

U V W
M4
3~

KM1,KM5,KM3/M1 - MAIN CUTTERBLOCK
KM1,KM5,KM3/M2 - SIDE HEAD
KM3/M3 ------- THICKNESSER FEED
KM3/M4 ------- PLANER FEED
DC1 ---------- MAIN BLOCK DC BRAKE UNIT] - OPTIONAL
DC2 ---------- SIDE HEAD DC BRAKE UNIT]
O/L1-O/L4 ----- OVERLOADS
F4-F15 -------- INDIVIDUAL FUSING [OPTIONAL]

GENERAL TOLERANCES LIMITS & SURFACE FINISH UNLESS STATED

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

FIRST ANGLE PROJECTION

DRAWN BY PA	Wadkin Durham Fence Houses Tyne & Wear		QTY	MATERIAL	
CHECKED BY EW					
ISSUE DATE 6-7-90	DESCRIPTION SCHEMATIC DIAGRAM : STAR / DELTA WITH RALEIGH DC BRAKING UNITS		SCALE	PART No. PAR-27-WD	
E C N NO : 01311					

INSTRUCTIONS WHEN ORDERING SPARE/REPLACEMENT PARTS

The undermentioned information should be given with all orders requesting spare/replacement parts.

1) Machine Type.
2) Machine serial number.
3) Part number of required parts, as stated in the instruction manual.
4) If no manual available, as full a description as possible of the required part, including location within the machine.
5) Order number and full company name and address.
6) Company account number, with WADKIN, if known.
7) All telephone orders **must** be followed by an official order, clearly marked **"Confirmation order".**

NOTE:

The company operates a "Minimum order charge" on all spare/replacement part orders.