

# UNIVERSAL RADIAL SAW TYPE 16" BRA

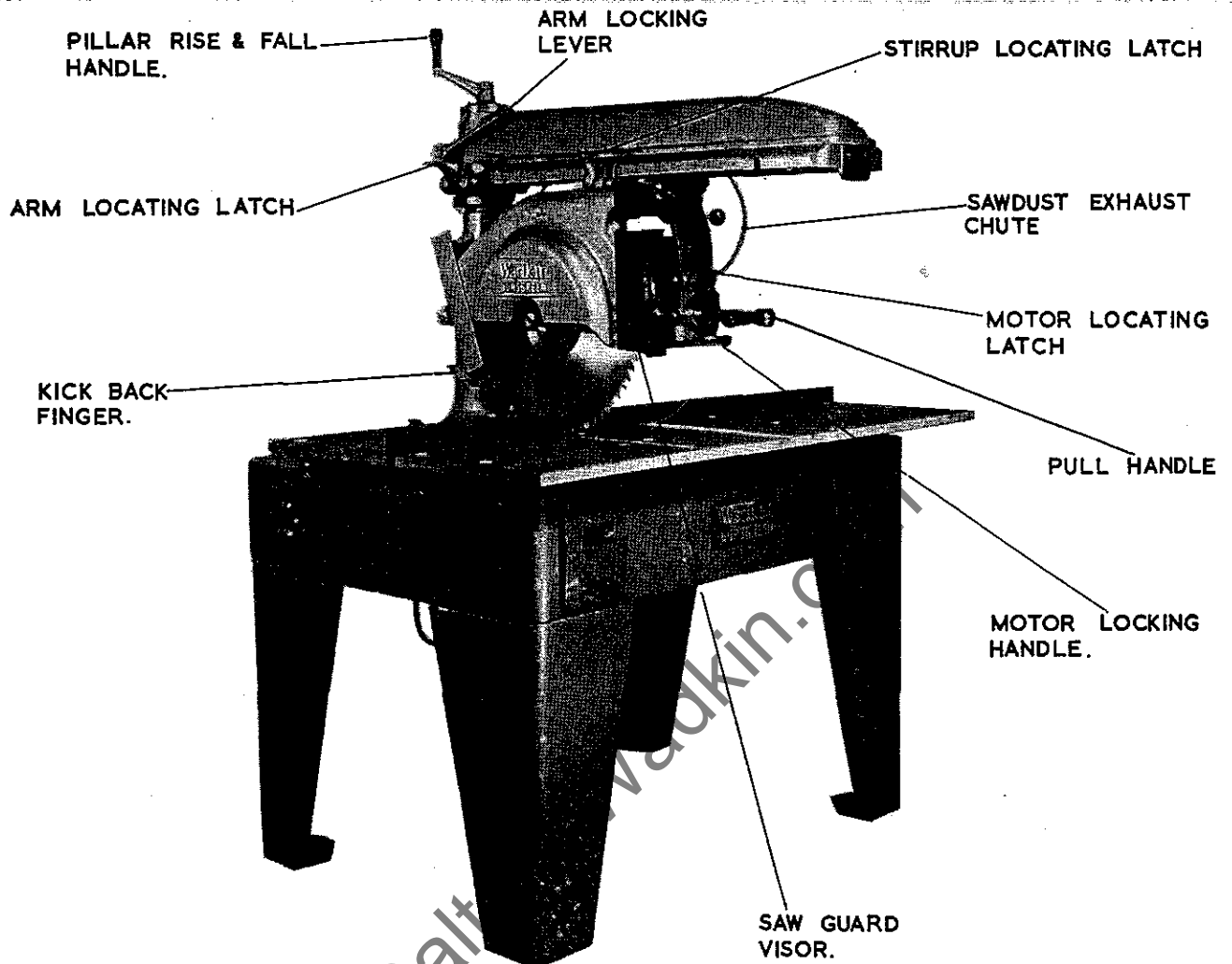


FIG. 1.

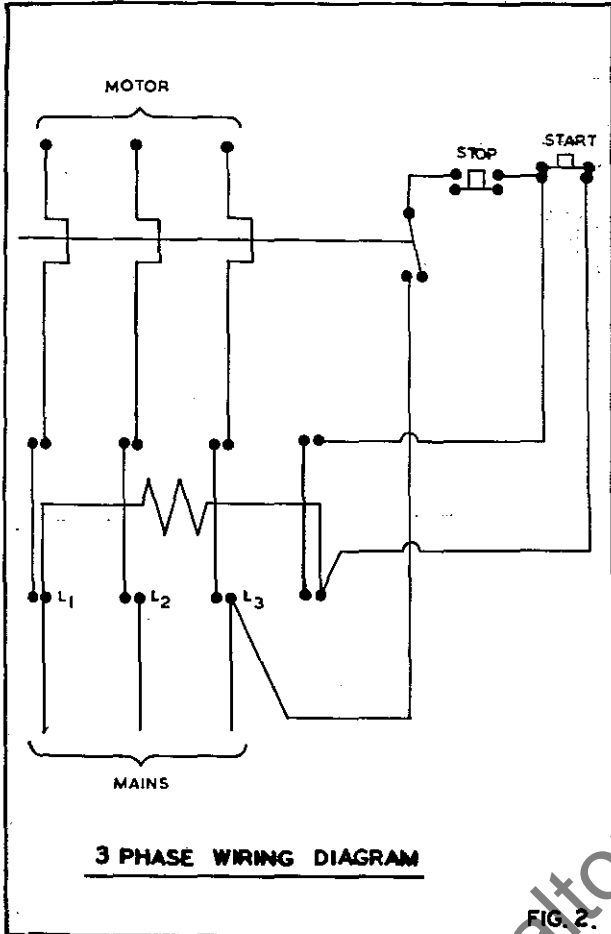
## SPECIFICATION

Maximum diameter of saw	16"	400 mm
Width will crosscut with arm at 90°	12½" x 5½"	320 x 140 mm
	15½" x 1"	395 x 25 mm
Width will crosscut with arm at 45°	9" x 5½"	230 x 140 mm
	11" x 1"	280 x 25 mm
Maximum depth of cut	5½"	140 mm
Maximum width of grooving head.	1¼"	32 mm
Maximum ripping capacity	29"	735 mm
Height of work table	32½"	825 mm
Diameter of motor spindle (Special spigotted saw flanges fitted direct to motor spindle to accommodate 1¼" dia bore saws)	1"	25 mm
Diameter of bore in saw	1¼"	32 mm
Horsepower of motor	5	5
Speed of motor :- 50 cycles	3,000 r.p.m.	
60 cycles	3,600 r.p.m.	
Maximum Overall height	6' - 0"	1,828 mm
Floor space	48" x 30"	910 mm x 760 mm
Net weight (approx)	490 lb	200 kg
Gross weight (approx)	630 lb	285 kg
Shipping dimensions (approx)	25 cu. ft	0.70 m <sup>3</sup>

**INSTALLATION**

Remove protective coating from bright parts by applying a cloth soaked in paraffin, turpentine or some other solvent.

When the machine is cased for export the carriage and motor unit is removed from the arm, the arm is removed from the pillar, the pillar and foot assembly is removed from the base along with the legs. All these items are packed individually in the case. Remove and assemble as shown in Fig.1.



**WIRING DETAILS**

The motor and control gear have been wired in before despatch. All that is required is to connect the power supply to the starter.

**Points to note when connecting to power supply:-**

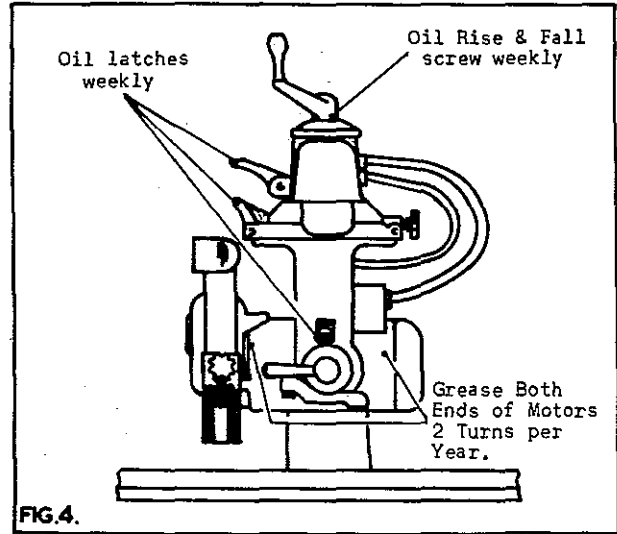
1. Check the voltage, phase and frequency correspond to those on the motor plate, also the correct coils and heaters are fitted to the starter.
2. It is important that the correct cable is used to give the correct voltage to the starter, as running on low voltage will damage the motor.
3. Check the main line fuses are of the correct capacity. See list below.
4. Connect the line leads to the appropriate terminals. See Fig. 2 for 3 phase supply.
5. Check all connections are sound.
6. Check the rotation of the motor for correct direction. If this is incorrect for 3 phase supply reverse any two of the line lead connections.

VOLTAGE	PHASE	H.P.	S.W.G. TINNED COPPER WIRE	AMPS
550	3	5	24	17
220	3	5	19	38
380/420	3	5	22	24

**FOUNDATION**

See fig. 5 for bolt positions and clearance required. When installing the machine must be levelled up by means of packing pieces under the feet. The machine table should be slightly high at the front end. This will ensure that the saw unit remains in the back position when not in use.

This does not affect the accuracy of the machine. Foundation bolts are not supplied with the machine except by special order.

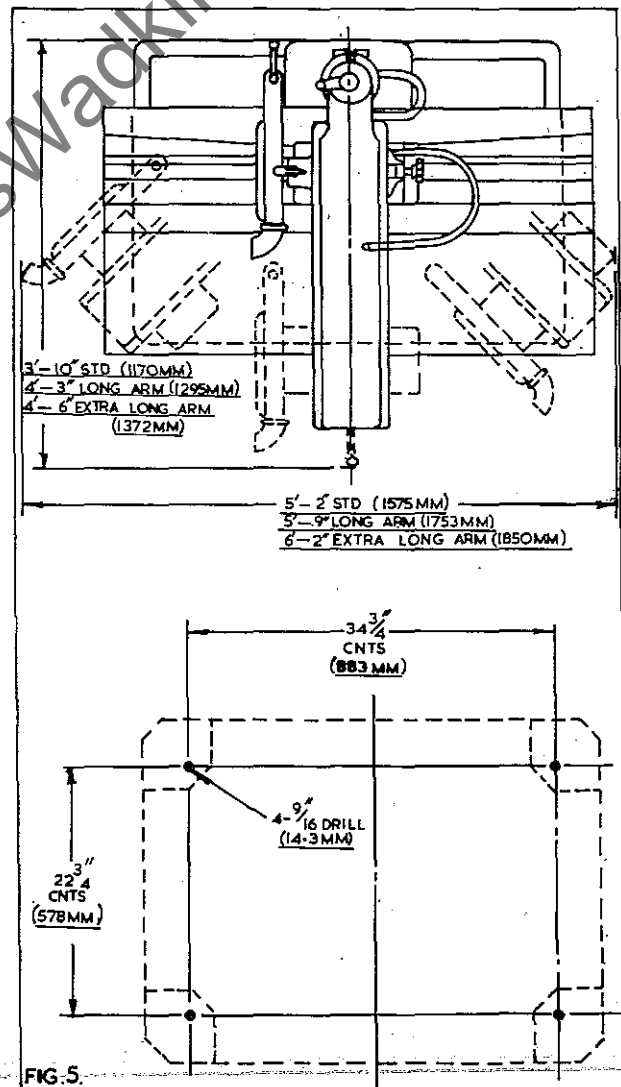


**LUBRICATION**

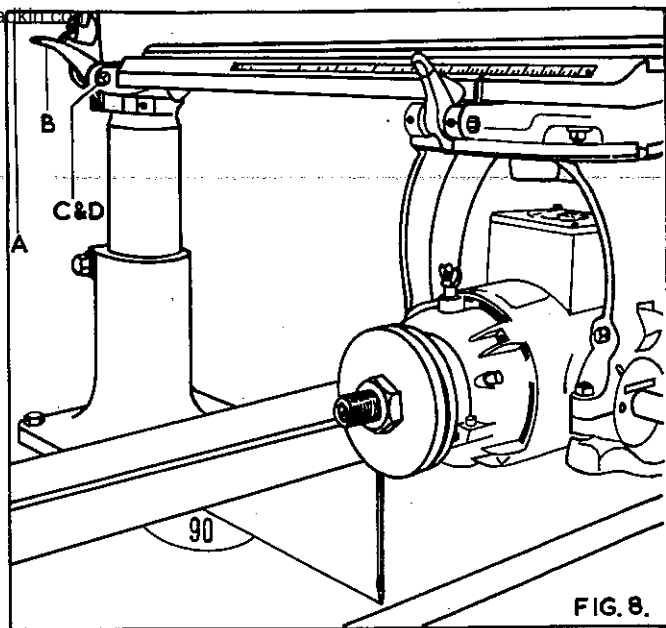
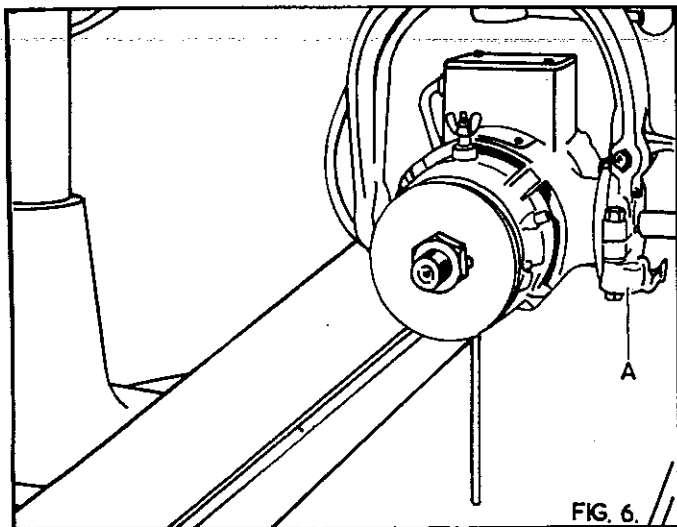
It is advisable to keep all bright parts covered with a thin film of oil to prevent rusting.

The slide rods and rollers should also be kept clear of any sawdust and chippings for ease of operation.

TYPE OF OIL RECOMMENDED      POWER EM.125  
TYPE OF GREASE RECOMMENDED      SHELL ALVANIA 3.



All adjustments and alignments listed below have been carefully set and checked and the whole machine thoroughly tested before despatch from the works. Should any adjustment be necessary proceed in accordance with the relative instructions given.



**LEVELLING TABLE**

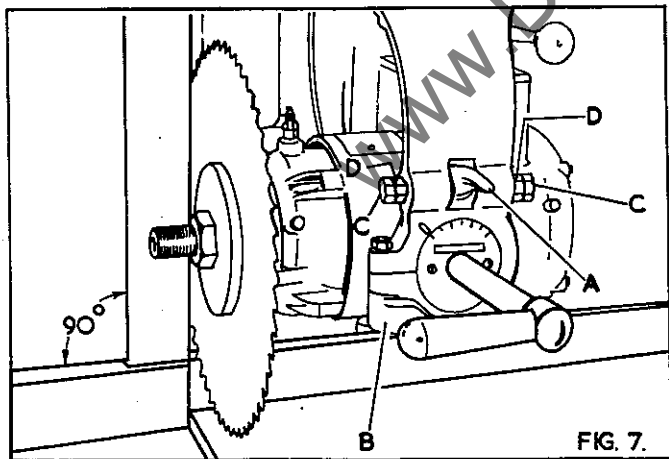
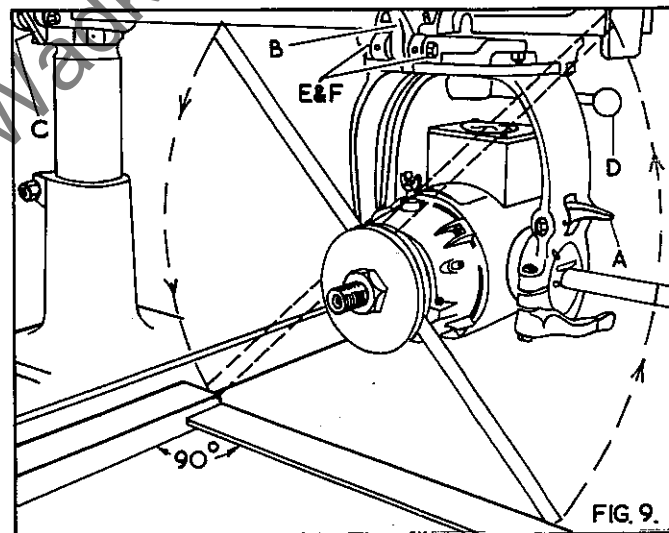
To check the table for alignment to the arm the undermentioned procedure should be followed:-

1. Remove the sawguard and blade from the motor.
2. Ensure the motor locating latch "A" in Fig. 9, the stirrup locating latch "B" and the carriage locking screw "C" in Fig. 16 is securely locked.
3. Secure a small dia. rod between saw flanges as shown in Fig. 6 then raise or lower arm until end of the rod almost touches table.
4. Lift arm locating latch "C" in Fig. 9 and swing arm to extreme ends of the table checking that clearance between rod and table remains constant.
5. Should the table need adjustment remove table packing pieces and fence, adjust table supports by loosening hexagon head bolts and moving up or down whichever is required. When set tighten all bolts.
6. Replace fence in position required and replace packing pieces and wedges.

**SAWBLADE ALIGNMENTS**

**3. Sawblade in relation to fence.**

To check this alignment place a steel rule or some other similar straight edge between the saw flanges as shown in Fig. 9 and a steel square against the fence. Rotate the steel rule from front to rear. If adjustment is necessary loosen stirrup locking handle "D", and disengage the stirrup locating latch "B", set correctly, then relock in position with lever "D". Adjust the aerotight nuts "E" and hexagon locknuts "F" until the latch "B" locates accurately in the slot in the stirrup.

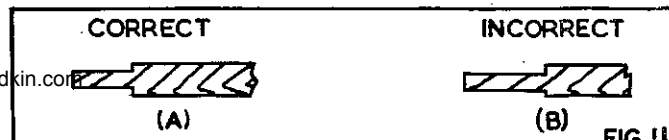
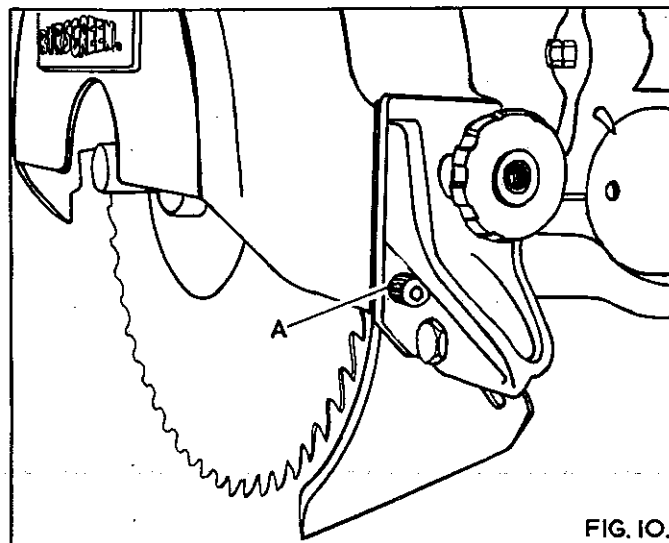


**1. Saw square to table**

To check this alignment, place a steel square against the saw as shown in Fig. 7. If adjustment is necessary, disengage the motor locating latch "A", loosen motor pivot locking handle "B" and adjust sawblade until square. Lock in this position with lever "B", then adjust aerotight hexagon nuts "C" and hexagon locknuts "D" until latch "A" locates accurately in the motor locating ring.

**2. Line of travel to fence**

To check this alignment place a pencil between the saw flanges, as shown in Fig. 8, and scribe a line on the table. Check this is at 90° to the fence by means of a steel square. If adjustment is necessary, loosen arm locking lever "A", in Fig. 8, and disengage the pillar locating latch "B", adjust arm until square, lock in position; then adjust aerotight hexagon nuts "C" and hexagon locknuts "D" until the latch "B" locates accurately in the pillar.



**RIVING KNIFE ALIGNMENT**

The riving knife should be central between the set of the saw. Should the riving knife be incorrectly positioned loosen the two socket head cap screws "A" in Fig. 10. Place a steel rule or some other straight edge along the riving knife and set central to saw. With the riving knife in this position re-tighten the two socket head cap screws "A".

To check this setting feed a short piece of timber from the rear, along both sides of the riving knife. If the riving knife is correctly set the blade should cut an equal shoulder as shown in Fig. 11 (a) not an unequal shoulder as shown in Fig. 11 (b)

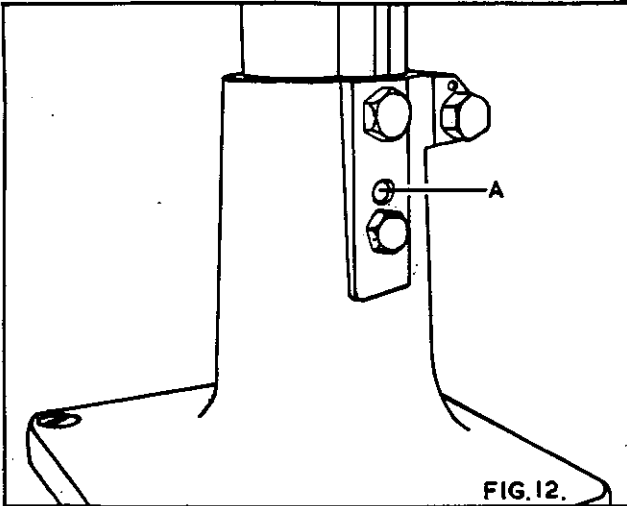


FIG.12.

**COLUMN ADJUSTMENTS**

Movement in the arm may be traced to the pillar. To take up any play which may develop adjust the special socket head cap screw "A" in Fig. 12. After adjustment the pillar rise and fall should be checked to ensure the movement is not too tight.

**SAW GUARD**

The guard gives maximum protection for all operations. The guard is fitted with an anti-kick back device as shown in Fig. 13 and riving knife for ripping. The riving knife is easily detachable and can be replaced by a sheet steel visor when used for crosscutting. The visor is adjustable throughout the full depth of cut of the machine.

An adjustable rubber dust exhaust is fitted to the guard to direct the sawdust away from the operator.

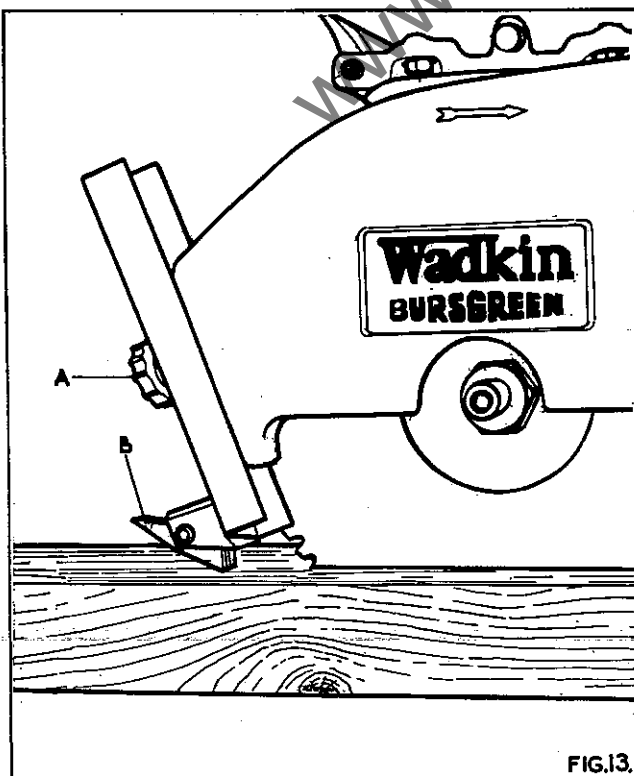


FIG.13.

**HOW TO ADJUST KICK BACK FINGERS**

The anti-kick back fingers are fitted to the saw guard and they are adjustable throughout the full depth of cut of the machine.

**To set kick back fingers correctly:-**

1. Place timber to be ripped in kick back fingers as shown in Fig. 13.
  2. Loosen handwheel "A" then lower the fingers until they come in contact with the timber. Press bracket a further  $\frac{1}{8}$ " (3mm) hold in that position, re-lock handwheel "A".
  3. To remove timber press the point of kick back fingers at "B" towards the table and withdraw the timber.
- The timber can now be ripped without any danger of it being kicked back at the operator.

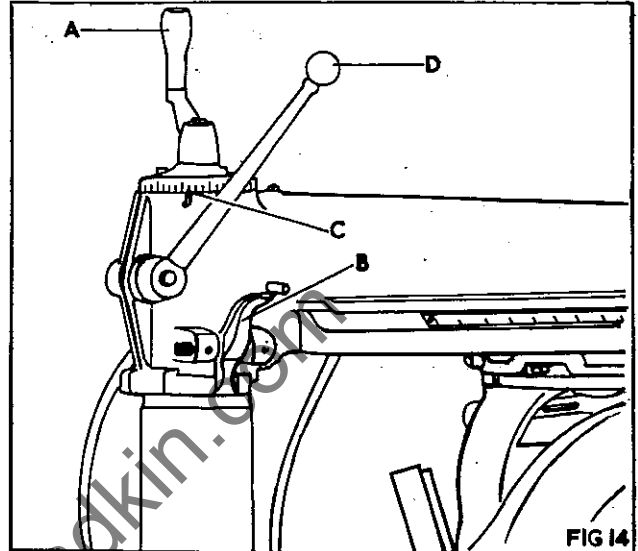


FIG.14

**RISE AND FALL OF THE ARM**

The arm rise and fall is by means of the handle "A" in Fig. 14. The handle turns a screw in a brass nut which is anchored to the foot. The total travel of the arm is 14" (356mm)

**SWIVEL OF THE ARM**

The arm swings 45° each way to the fence with the principle angles located by a tapered latch "B" in Fig. 14. The angles to the fence line are indicated by a pointer on the arm bearing cap at "C".

A powerful lock is provided and can be applied by lever "D".

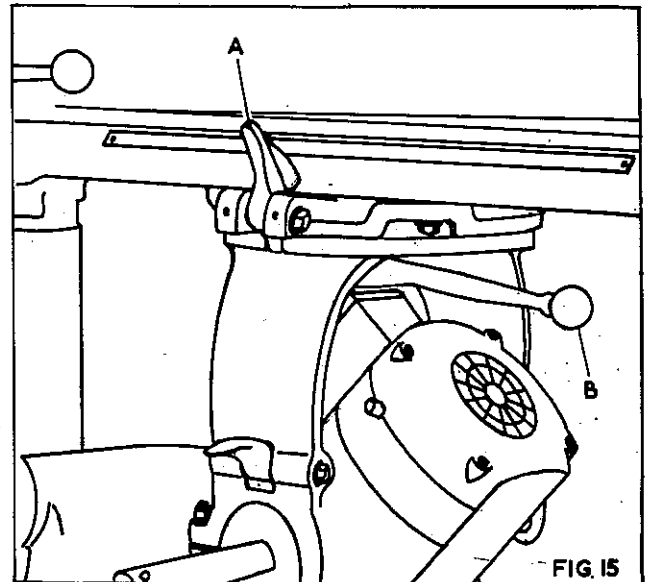


FIG.15

**CARRIAGE AND MOTOR UNIT**

The carriage is mounted on four sealed for life ball bearing rollers grooved to coincide with the circular slideways on the arm. The carriage can be locked in any position along the arm by means of the handwheel on the right of the carriage.

The stirrup is fastened to the carriage by a central pin which enables the motor to swivel through 360°. The principle angles are located by a tapered latch "A" in Fig. 15.

The stirrup can be locked at any angle by the

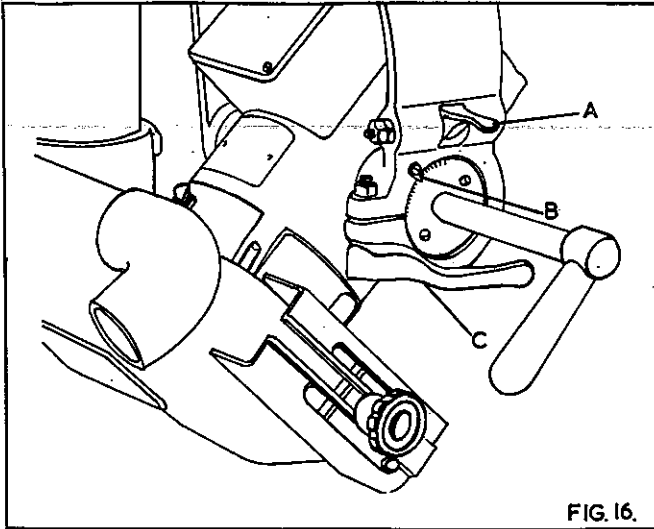


FIG. 16.

The motor swivels within the stirrup through 90°. The principle angles are located by a tapered latch "A" in Fig. 16.

The angle of cant is clearly shown on a graduated scale by the pointer "B".

The motor can be locked at any angle by the locking lever "C".

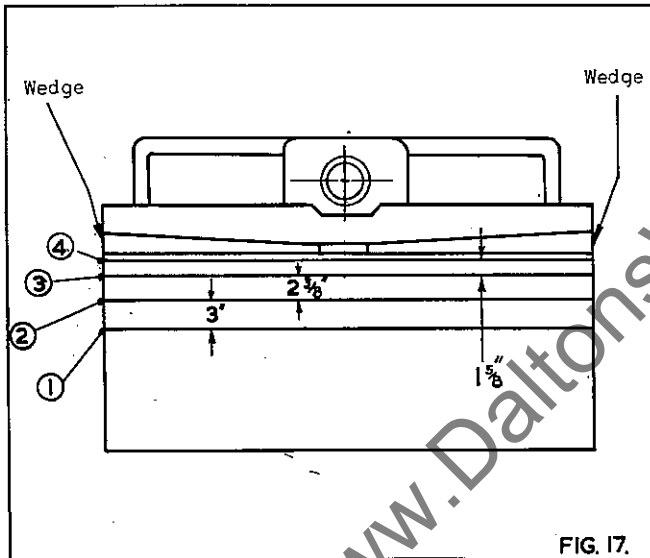


FIG. 17.

#### WOOD TABLE

The wood table is made in such a way to give four fence positions. The fence can easily be moved from one position to another by knocking out the wedges and placing the table strips to suit whichever fence position is required.

#### POSITION 1.

This enables a maximum timber size of 12 1/2" wide x 5 1/2" deep (320 mm x 140 mm) to be crosscut with the arm at 90°.

#### POSITION 2.

This enables a maximum timber size of 15 1/2" wide x 1" deep (320 mm x 25 mm) to crosscut with the arm at 90°.

#### POSITION 3.

This is the most convenient fence position when cutting compound angles with the arm swung to the left of the operator.

There is a rule fitted to each side of the arm for use when ripping. The fence positions, so that these rules show the correct sizes, are as follows:-

1. When ripping from the right hand side of the machine the rule nearest the operator will read correctly with the fence in position 4.
2. When ripping from the left hand side of the machine the rule nearest the operator will read correctly with the fence in position 1.

#### FITTING SAWBLADES

To fit sawblades the undermentioned procedure should be followed:-

1. Remove the sawguard complete from the motor.
2. Fit long arm hexagon wrench into spindle end and remove the spindle locknut, left hand thread, and remove front saw-flange.
3. Fit saw to spindle taking care to ensure the teeth are pointing in the correct direction, also the saw flanges and saw are clean and free from any dirt or sawdust.
4. Replace saw spindle nut and sawguard.

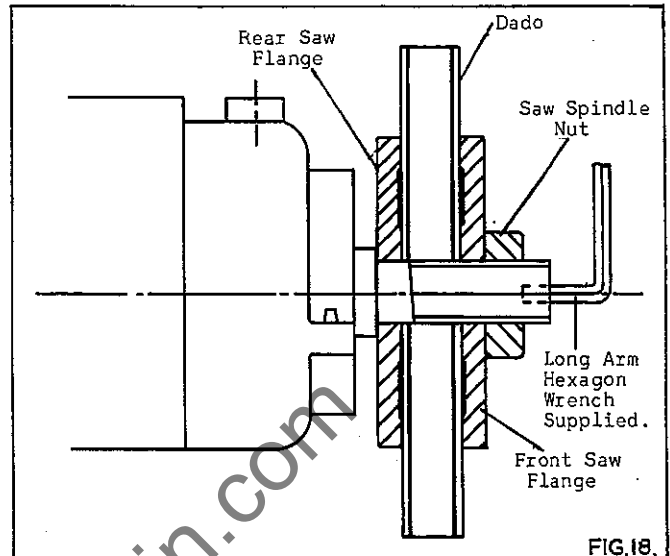


FIG. 18.

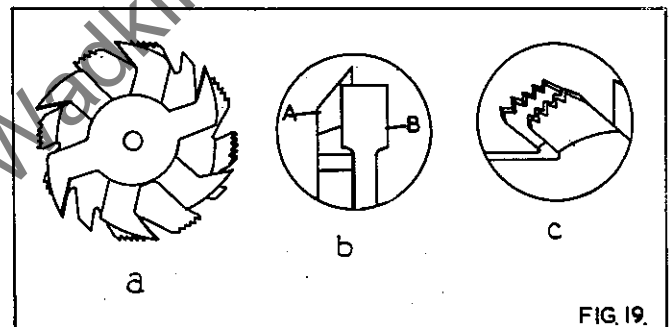


FIG. 19.

#### HOW TO FIT DADO

A dado head is made up of two outside saws and 5 inner cutters. Various combinations of saw and cutters are used to cut grooves from 1/4" to 1" wide (3mm to 25mm). Inner cutters are heavily swaged and must be arranged so that the heavy portion falls in the gullets of the outside saw as shown in Fig. 19 (a), Fig. 19 (b) shows how the saws and cutters overlap "A" being the saw and "B" being the inside cutter. A 1/4" (6mm) groove is cut by using the two outside saws fitting the ground teeth directly opposite as shown in Fig. 19 (c) in order to allow clearance for the slight set of the saw teeth.

The dado is secured on the spindle between the standard saw flanges as shown in Fig. 18. To fit dado head remove the sawguard and front saw flange, also remove the driving peg from the rear saw flange. Fit the outer saws and required inner cutters onto the spindle and lock in position, then replace sawguard.

#### HOW TO FIT ROUTING ADAPTOR

This adaptor screws onto the spindle which is left hand thread. The sawguard and flanges should be removed and the adaptor screwed onto spindle as shown in Fig. 20.

The adaptor will take left hand router cutters and boring bits with 1/2" dia. shanks.

#### HOW TO FIT MOULDING CUTTERBLOCKS

The cutterblocks are mounted on the end of the spindle as shown in Fig. 21.

To mount cutterblocks remove the sawguard and saw flanges. Fit the 1 1/8" (28.5mm) long distance piece supplied onto the spindle then the cutterblock. The special locknut and spanner, type QT,37, should be used to lock the block in position.

The special guard can be supplied for use with these blocks.

**SAW MAINTENANCE**

Efficient operation of a circular saw depends on true running of the saw spindle and the collars being perfectly square on the faces with the axis of the spindle, it must run at the correct peripheral speed to ensure straight cutting. The Bursgreen radial arm saw embodies all these requirements and provided the saw is maintained in a sharp condition with the teeth correctly sharpened and set, efficient service will be given.

Before putting a new saw to use, it is essential that it is "ranged down" on the teeth to ensure each tooth is cutting and to maintain true running.

**RANGING**

Ranging down should be done on a new saw or any saw after the 4th or 5th re-sharpening.

Feed a square edged abrasive block, in wooden holder, lightly against the saw teeth whilst running. The saw should then be removed and the tops of the teeth filed to remove the ranging marks on the points.

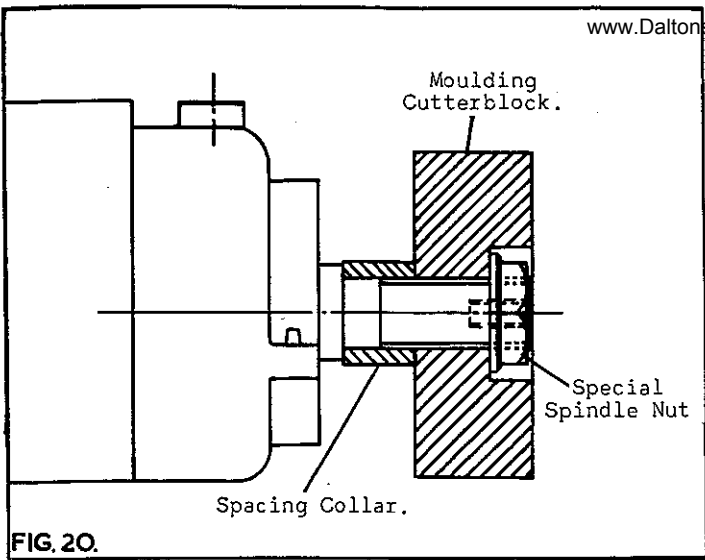


FIG. 20.

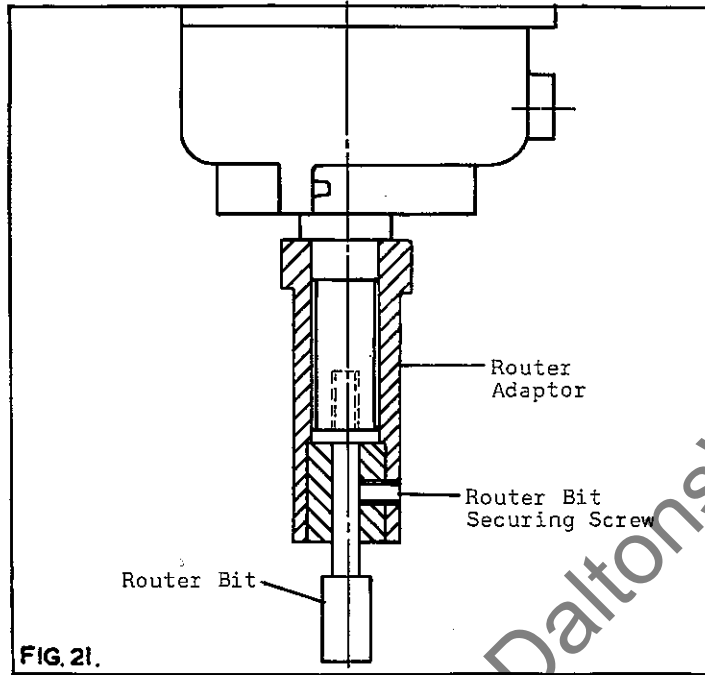


FIG. 21.

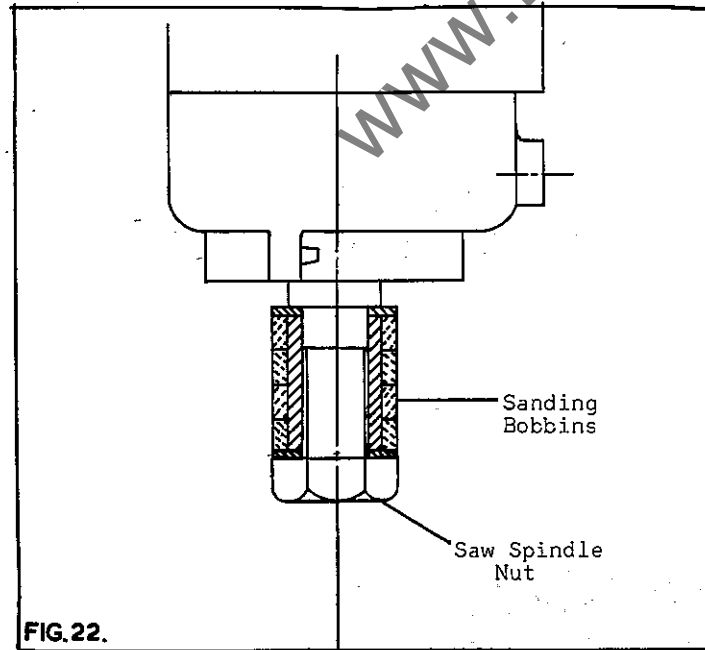


FIG. 22.

**HOW TO FIT SANDING BOBBINS**

The sanding bobbins consist of four rubber sections each 1/2" (12.5mm) thick mounted on a sleeve with a steel flange at each end.

Before mounting the bobbins onto the spindle, the sawguard and saw flanges should be removed and the bobbins fit onto spindle as shown in FIG. 22 and locked onto the spindle with the standard arbor nut, left hand thread.

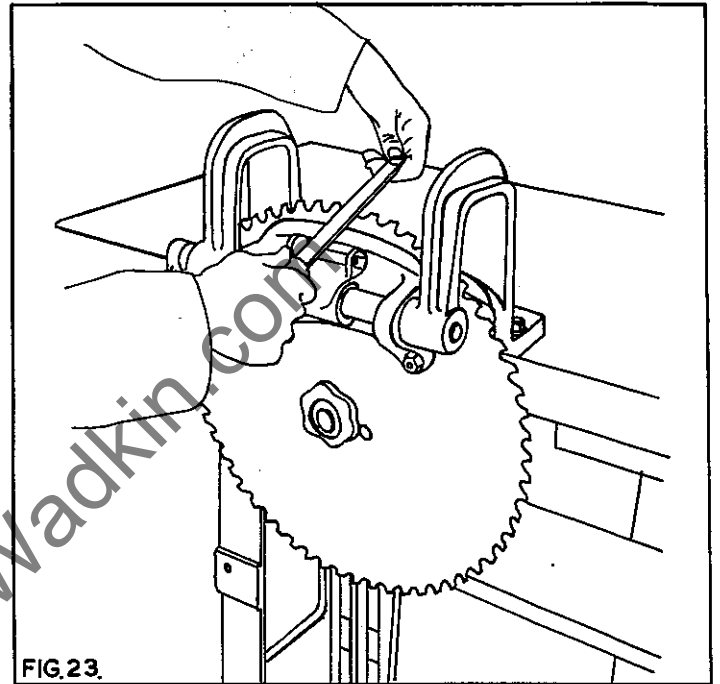


FIG. 23.

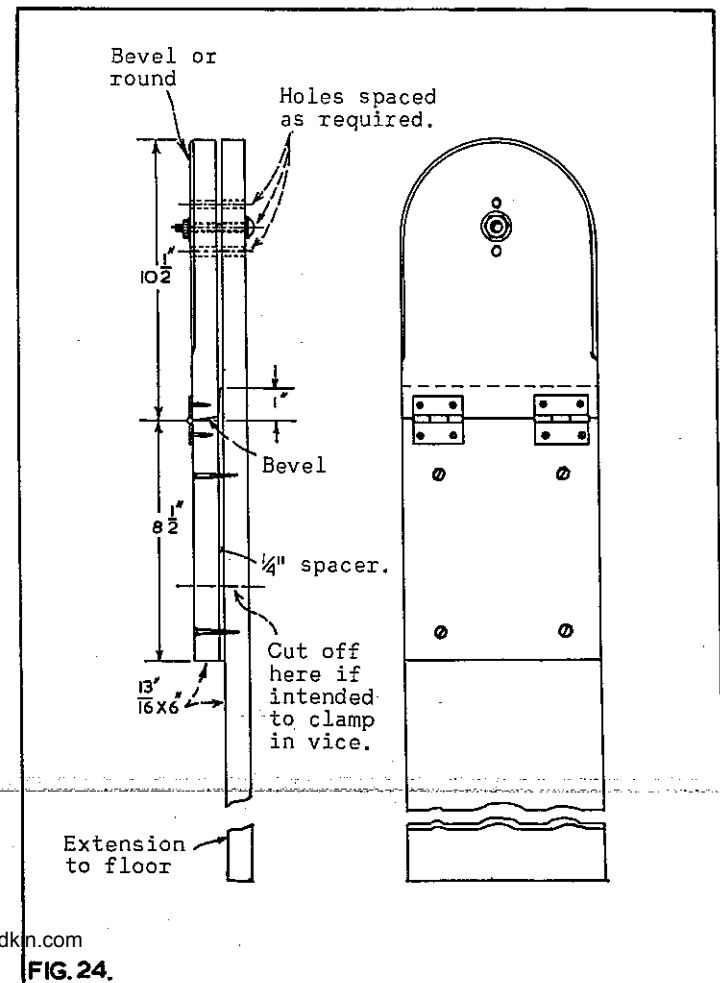
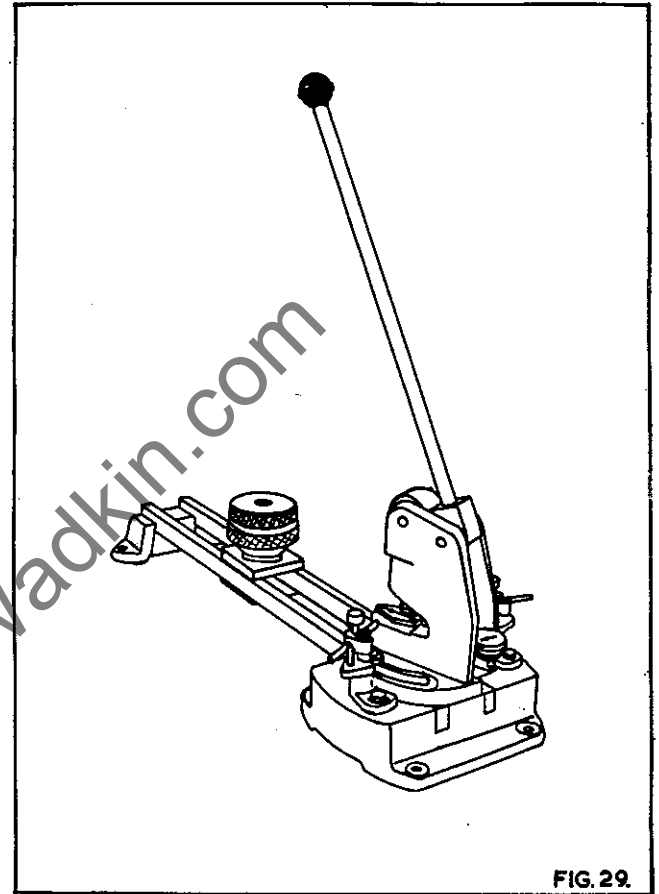
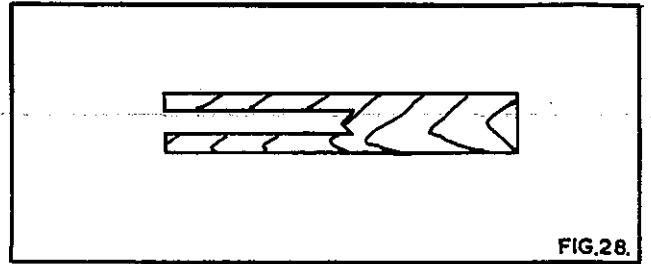
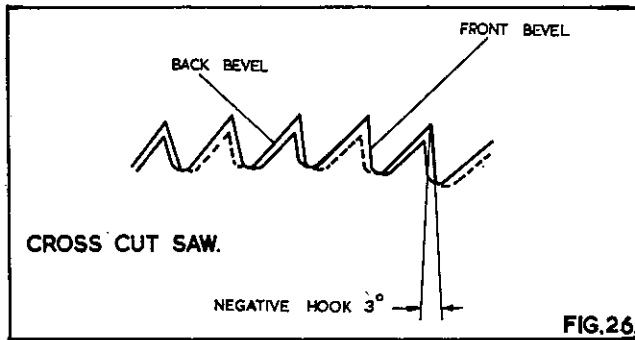
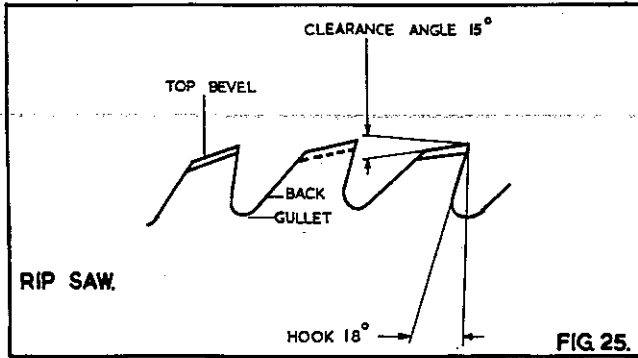


FIG. 24.



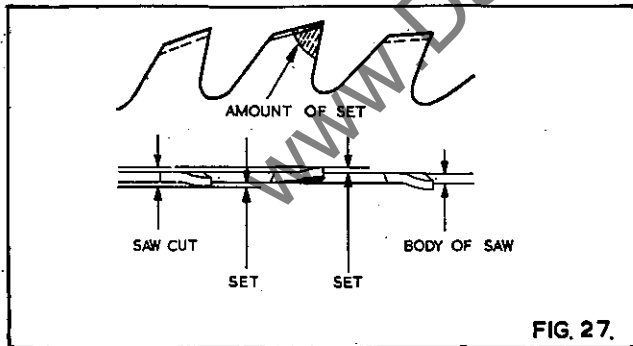
**SAW SHARPENING**

Do not run a saw when blunt, remove and re-sharpen. Hold a saw rigid in a vice as shown in Fig. 23 or a simple saw vice as shown in Fig. 24 which can be readily made and proceed to sharpen saw.

With rip saw teeth, chisel edges and square faces are needed see Fig. 25. Sharpen by giving each tooth an equal number of strokes with a flat faced saw file with rounded edges. At the same time file the gullet taking care to keep the gullet well rounded.

With a crosscut saw, saw points are needed with back and front bevels, as shown in Fig. 26.

In the course of repeated filing the teeth lose the original shape and the gullets shallow. To restore the shape of each tooth, essential for satisfactory performance, it is necessary to grind the saw on a saw sharpening machine. These machines are usually of the automatic type and feeds each tooth, giving equal spacing or pitch.



**MACHINE SETTING**

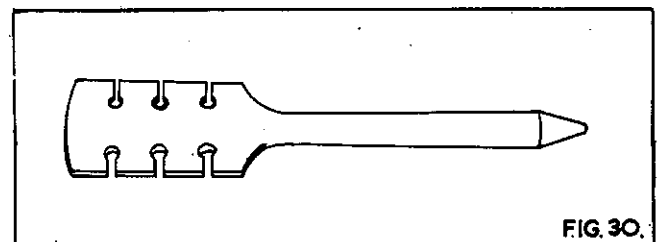
We can supply a small machine for efficiently setting the teeth as illustrated in Fig. 29 and will deal with saws 8" to 36" (202 mm to 910 mm) diameter. The micrometer dial indicates accurate reading of the amount of set in thousandths of an inch.

**SETTING**

The amount of set to the teeth should be sufficient to give clearance to the body of the saw so that there is freedom from friction between saw and timber. It is generally accepted that the teeth are "spring set" i.e. the tips of alternative teeth are bent to the right and left as shown in Fig. 27. For good sawing the amount of set on each side of the saw must be identical otherwise the saw will run to one side. To check the set, cut into a piece of wood of few inches when a small even triangle should be seen, Fig. 28.

The exact amount of set each side varies with the timber being cut, usually .010" to .015" (.03mm to .04mm)

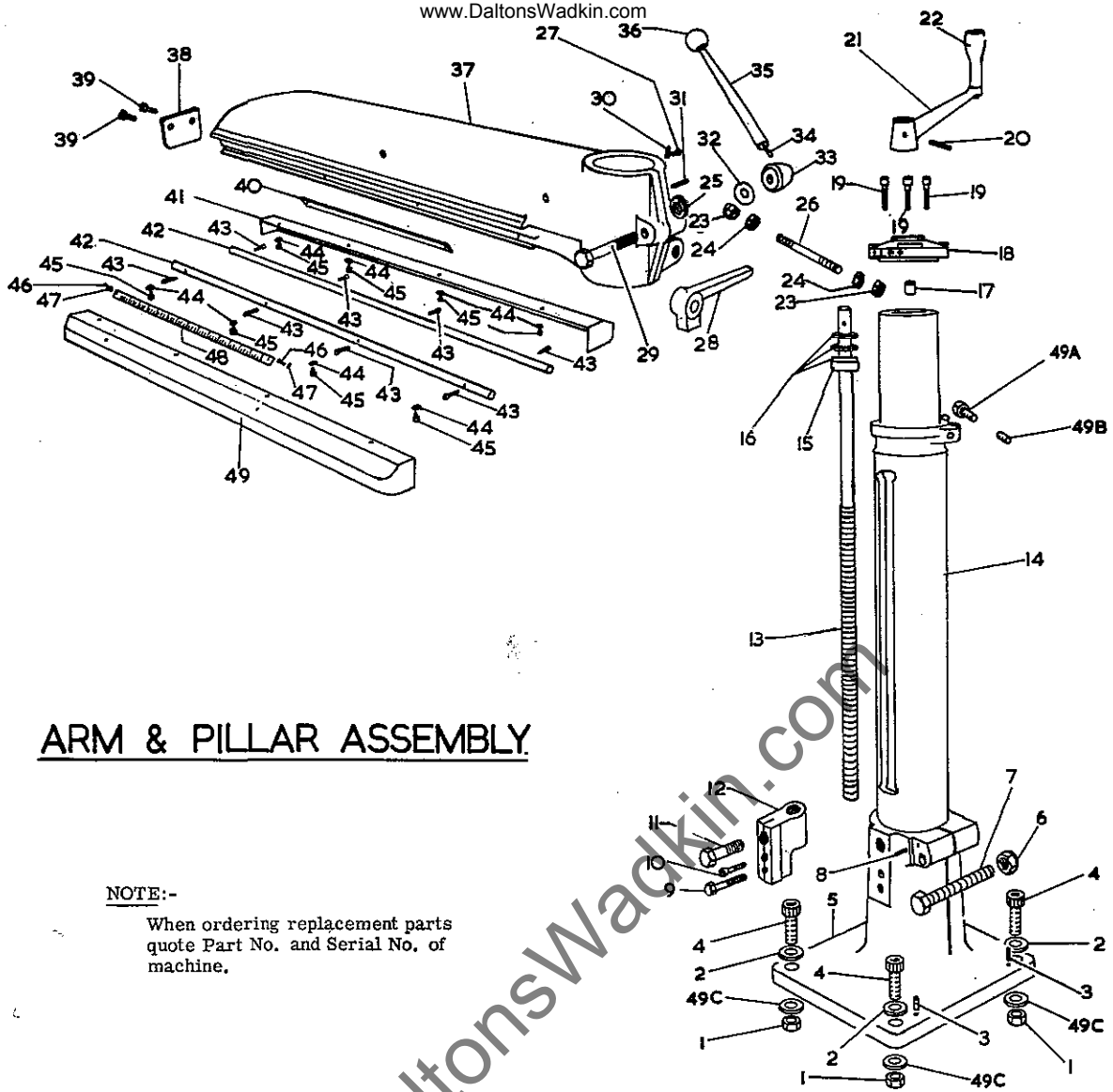
For clean cutting, just sufficient set should be allowed to prevent bending and heating. More set is required for wet, woolly timber than for dry, close grained timber and the amount of set is greater for crosscutting saws than those for ripping.



**HAND SETTING**

Where the number of saws does not warrant a machine being installed the saws are set by hand using a tool shown in Fig.30. This tool is provided with six notches to take saws 8 to 14 gauge thick.

For this process of setting; the saw is securely clamped in a vice.



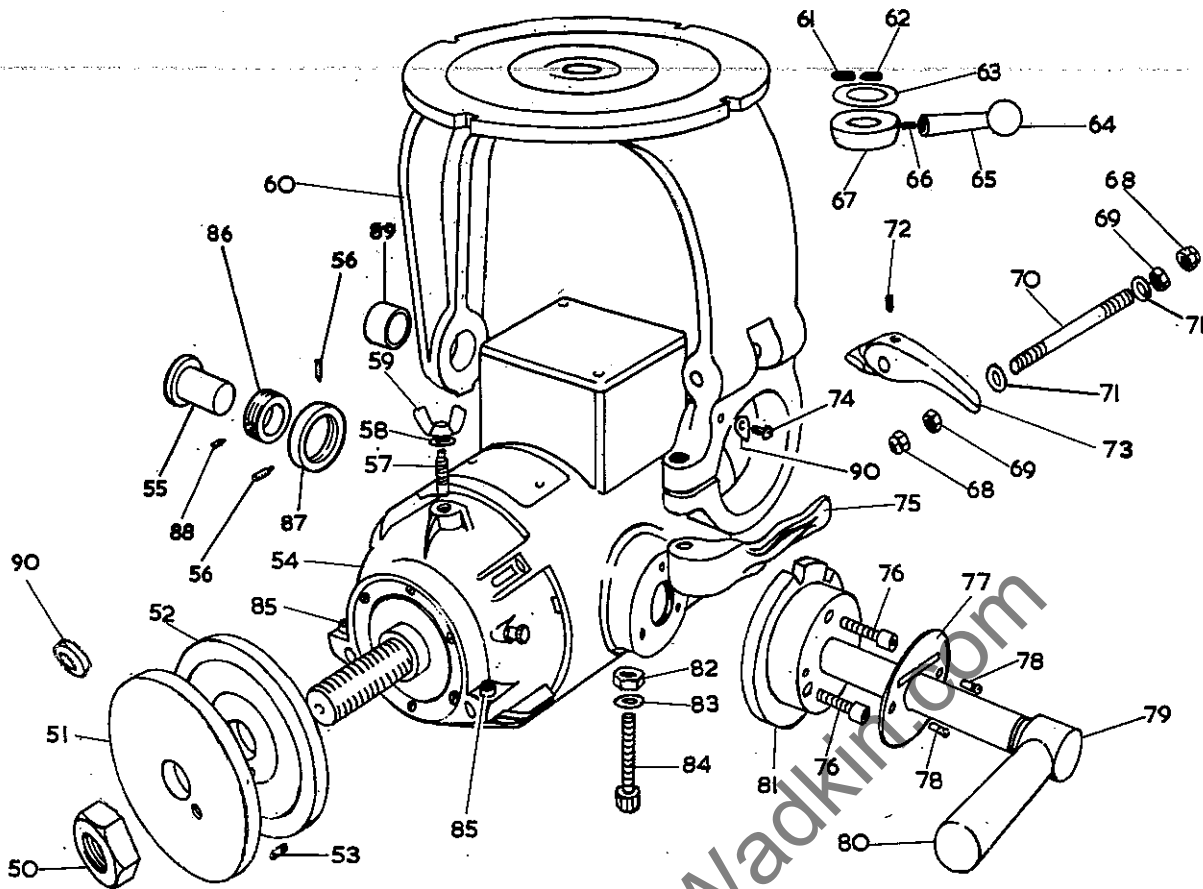
## ARM & PILLAR ASSEMBLY.

### NOTE:-

When ordering replacement parts quote Part No. and Serial No. of machine.

Ref No.	Part No.	No. Off.	Description	Ref No.	Part No.	No. off	Description
1.		4	1/2" whit Nut	32.		1	1/2" washer.
2.	A-1026/22	4	Washers for foot	33.	A-1027/57	1	Arm locking handle nut
3.		2	1/4" dia. x 1" long fluted dowel	34.		1	3/8" whit. x 1" long socket head grubscrew
4.		4	1/2" whit x 2 1/2" long socket head capscrews	35.	B-1027/46	1	Arm locking handle
5.	D-1027/3	1	Foot	36.	Patt No. 28	1	1 1/4" dia plastic ball, 3/8" whit.
6.		1	5/8" whit. aerotight nut	37.	E-1027/1	1	Long Arm (22" x 1" capacity)
7.		1	5/8" whit. x 5" long hexagon head bolt		E-1027/36	1	Standard Arm (17" x 1" capacity)
8.		1	1/4" whit. x 3/4" long socket head grubscrew		E-1027/142	1	Special long arm (25" x 1" capacity)
9.		1	1/2" whit x 2" long hexagon head bolt	38.	A-1027/6	1	Arm end plate
10.	A-1027/41	1	Rise & Fall nut adjusting screw	39.		2	3/8" whit x 3/4" long socket head capscrew
11.	A-1027/40	1	Rise & Fall nut locking screw	40.	B-1027/37	1	Left Hand arm rule (standard) (0" - 18") (0mm - 457mm)
12.	B-1027/5	1	Rise & Fall nut		B-1027/56	1	Left hand arm rule (metric) (0mm - 466mm)
13.	B-1027/15	1	Rise & Fall screw	41.	B-1027/20	1	Shield for rollers (Left hand)
14.	D-1027/2	1	Pillar	42.	B-1027/39	2	Arm slide rods (standard and long arm)
15.	B-1038/40	1	Collar for rise and fall screw		B-1027/143	2	Arm slide rods (special long arm)
16.	W. 5/8"	1	Thrust Race	43.	CK. 76	8	2BA Cheese head screw
17.		1	5/8" bore x 3/4" outside dia. x 5/8" long oilite bush		A-1027/349	8	Screw (for extra long-arm)-
18.	B-1027/4	1	Rise and fall handle bearing	44.		8	1/4" washer
19.		3	5/16" whit. x 1 1/2" long socket head cap screw	45.		8	1/4" whit x 3/8" long round head screw
20.		1	3/16" dia. x 1 1/4" long groverlock spring dowel	46.	No. 4	4	1/4" long self tapping screw
21.	B-1027/45	1	Rise & Fall handle	47.		4	1/8" brass washer
22.	Patt No. 4	1	3" plastic handle	48.	B-1027/37	1	Right hand rule (standard) (0" - 14") (0mm - 356mm)
23.		2	3/8" whit. thin aerotight nut		B-1027/56	1	Right hand rule (metric) (0mm - 355mm)
24.		2	3/8" whit. locknut.	49.	C-1027/20	1	Shield for rollers (right hand)
25.	A-1055/22	1	Spacing washer for arm lock	49A.	A-1055/13	3	Location bolt.
26.	A-1027/172	1	Pivot pin for pillar latch	49B.		3	3/8" whit x 3/8" long socket head grubscrew
27.		1	1/4" long No. Z4 self tapping screw	49C.		4	1/2" washer
28.	B-1055/9	1	Arm locating latch				
29.	A-1027/155	1	Arm locking bolt				
30.	A-1054/58	1	Pointer for arm.				
31.	A-1027/48	1	Arm locking handle stop				



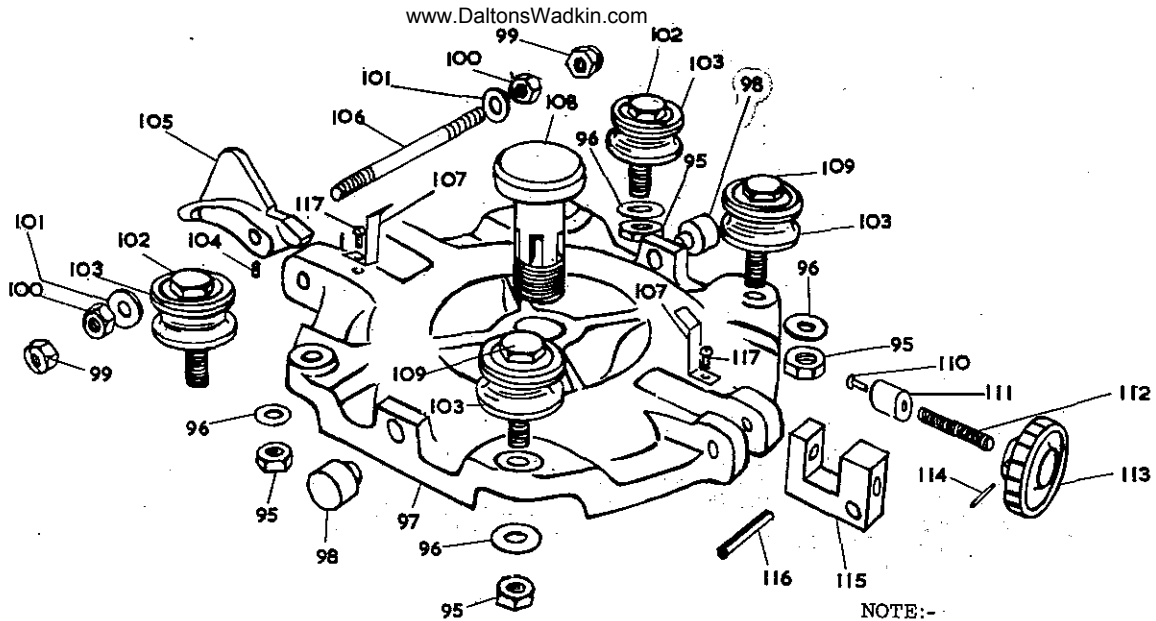


## STIRRUP ASSEMBLY

### NOTE:-

When ordering replacement parts quote Part No. and Serial No. of machine.

Ref. No.	Part No.	No. off	Description	Ref. No.	Part No.	No. off	Description
50	A-1027/21	1	Saw spindle nut	71	A-1027/170	2	Fibre washer for motor latch
51	B-1027/22	1	Saw flange (front with 11/32" hole)	72		1	1/4" whit x 3/8" long socket head grubscrew
52	B-1027/22	1	Saw flange (back with 5/16" whit hole)	73	B-1027/26	1	Motor locating latch
53	A-1027/58	1	Driving peg	74		1	1/4" long No. Z4 self tapping screw
54		1	Brook motor type WS. 105, 5HP 3 phase supply, 3,000 rpm, 50 cycles, 3,600 rpm 60 cycles	75	B-1027/47	1	Motor pivot locking handle
55	A-1038/75	1	Motor pivot shaft	76		3	5/16" whit x 1 1/2" long socket head capscrew
56		2	5/16" whit x 3/4" long dogpoint grubscrew	77	A-S-127	1	Nameplate
57	A-1027/67	1	Saw guard locking stud	78		2	3/16" whit x 1/2" long round head screw
58		1	3/8" washer	79	B-1027/50	1	Pull handle
59		1	3/8" whit wingnut	80	Patt No. 10	1	4" long plastic handle
60	E-1027/8	1	Stirrup	81	B-1027/25	1	Motor locating ring
61		1	1/4" whit x 1/2" long socket head grubscrew	82		1	3/8" whit nut
62		1	1/4" whit x 5/8" long socket head grubscrew	83		1	3/8" brass washer
63	A-1027/55	1	Washer for stirrup pivot screw	84		1	3/8" whit x 2 3/4" long socket head capscrew
64	Patt No. 28	1	1 1/2" dia plastic ball, 3/8" whit	85		2	1/4" whit x 3/8" long socket head capscrew
65	B-1027/46	1	Stirrup locking handle	86	A-1038/82	1	Small motor pivot adjusting bush
66		1	3/8" whit x 1" long socket head grubscrew	87	A-1038/83	1	Large motor pivot adjusting bush
67	A-1027/19	1	Stirrup pivot locknut	88		1	5/16" whit x 3/8" long dogpoint grubscrew
68		2	1/4" whit thin aerotight nut	89		1	5/8" i/d x 3/4" o/d x 5/8" long oilite bush
69		2	1/4" whit locknut	90	A-1054/58	1	Pointer for arm
70	A-1027/173	1	Pivot pin for motor latch (4 1/2" long)	91	A-1051/6	2	Bush for flange

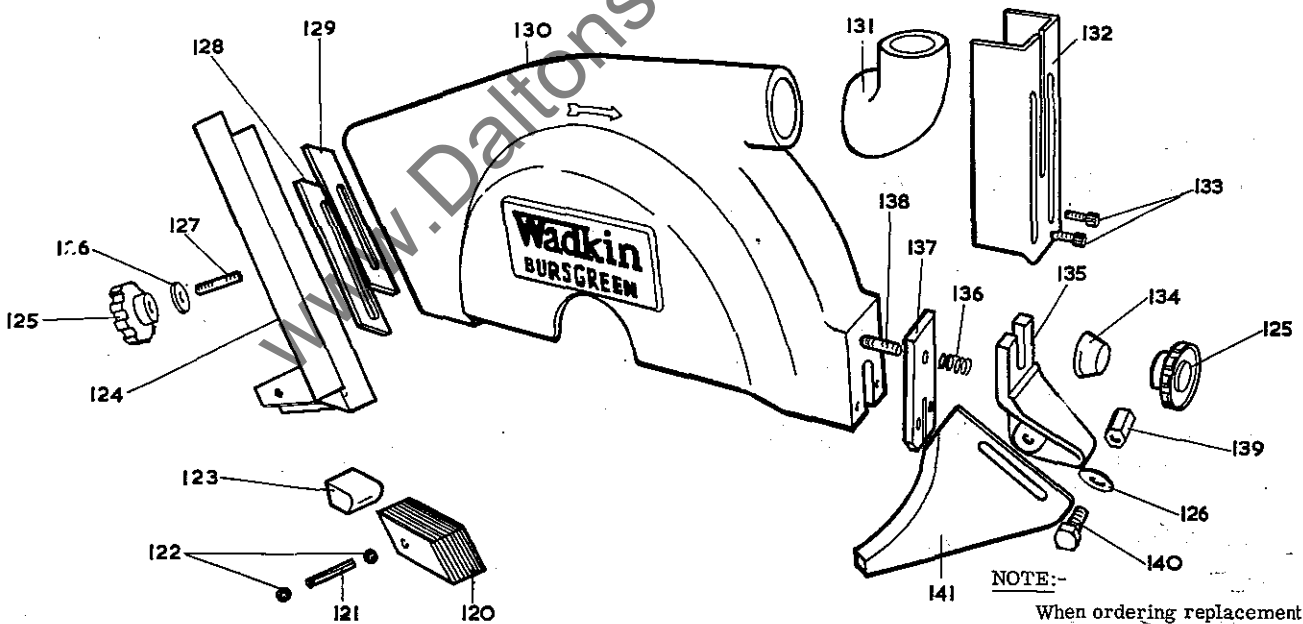


NOTE:-

### ROLLER BRACKET ASSEMBLY

When ordering replacement parts quote Part No. and Serial No. of machine.

Ref. No.	Part. No.	No. Off.	Description.	Ref. No.	Part. No.	No. Off.	Description.
95		4	3/8" whit nut	108	B-1027/38	1	Stirrup pivot screw
96		4	3/8" washer	109	A-1027/35	2	Plain pin for roller
97	D-1027/7	1	Roller Bracket	110		1	1/8" dia x 1/2" long fluted rivet
98	A-1027/18	2	Rubber Stop	111	A-1027/42	1	End piece for carriage locking screw
99		2	1/4" whit thin aerotight nut	112	A-1027/43	1	Carriage locking screw
100		2	1/4" whit locknut	113	Patt. No. 32	1	1 1/2" dia plastic handwheel 3/8" whit
101	A-1027/170	2	Fibre washer for stirrup latch	114		1	1/8" dia x 3/4" long groverlok spring dowel
102	A-1027/34	2	Eccentric pin for roller	115	B-1027/14	1	Travel lock
103	FG. 3400	4	F. B. C. roller bearing	116		1	3/16" dia x 1 1/2" long groverlok spring dowel
104		1	1/4" whit x 3/8" long socket head grubscrew	117		2	3/16" whit x 3/8" long round head screw
105	B-1027/13	1	Stirrup locating latch				
106	A-1027/173	1	Pivot pin for stirrup latch				
107	B-1027/338	2	Travel pointers				

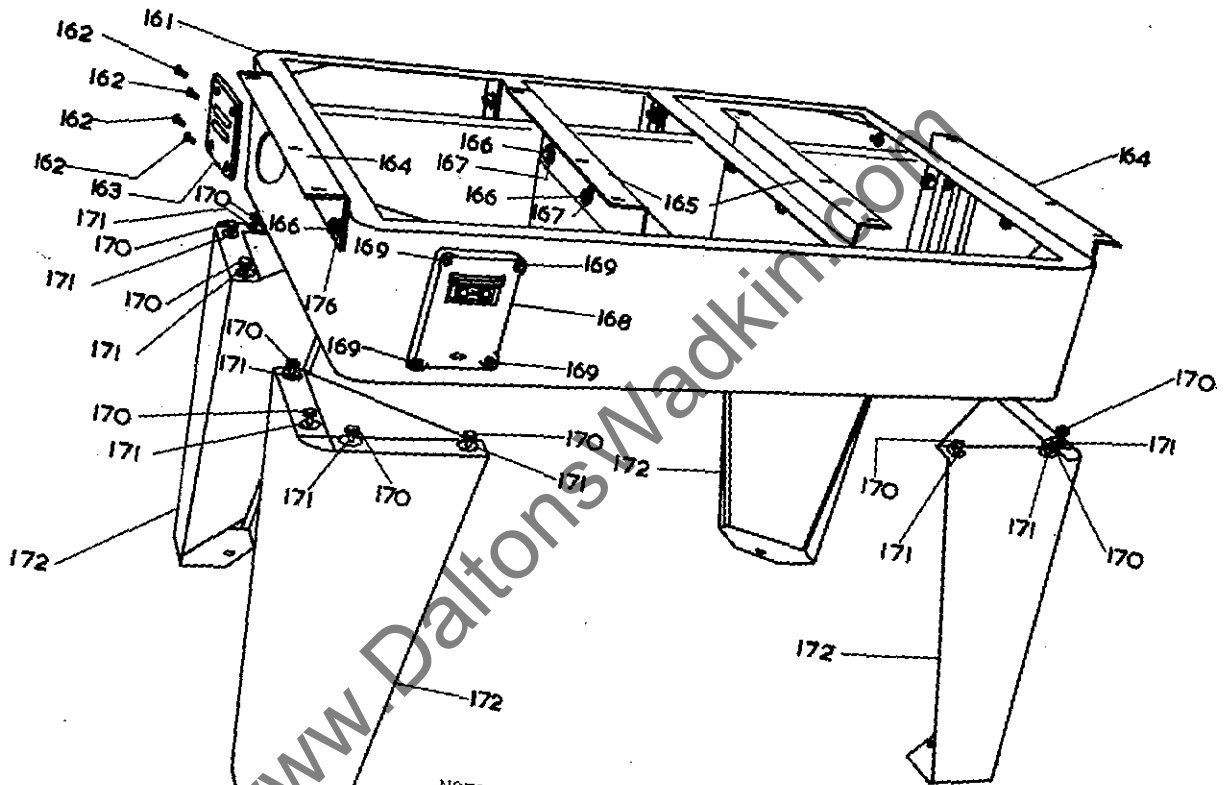
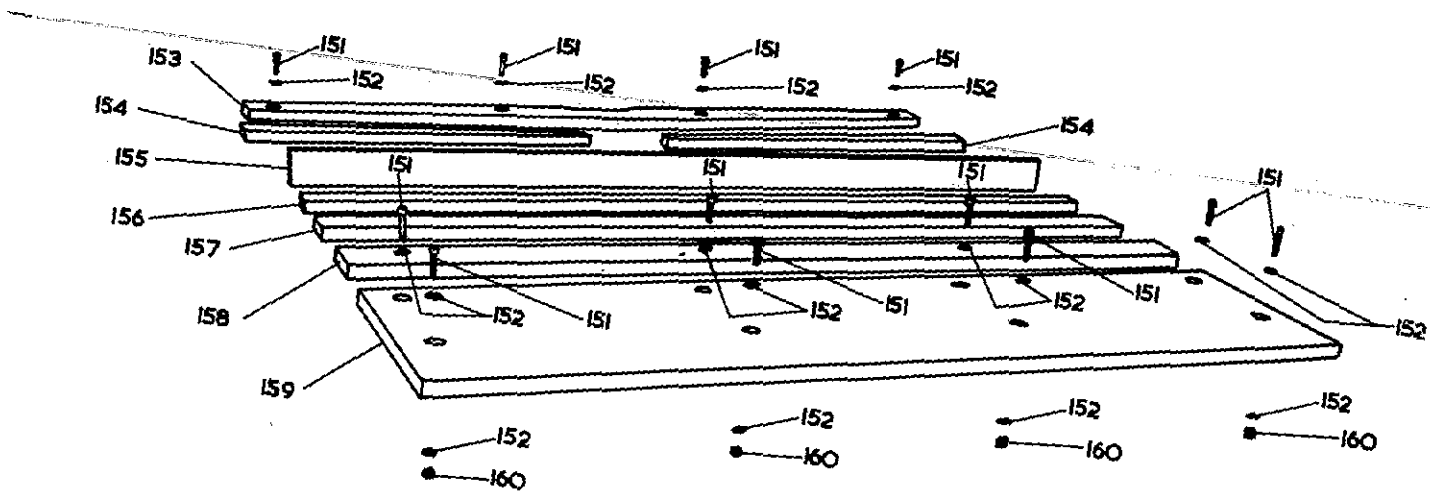


NOTE:-

### SAWGUARD ASSEMBLY

When ordering replacement parts quote Part No. and Serial No. of machine.

Ref. No.	Part No.	No. Off.	Description	Ref. No.	Part No.	No. Off.	Description
120	A-1027/33	13	Kickback finger	131	B-1038/19	1	Chip chute
121	A-1027/262	1	Pin for kick back bracket	132	B-1027/17	1	Saw guard visor
122	5115-18	2	Salter push on retainer	133		2	5/16" whit x 2 1/4" long socket head capscrew
123	A-1027/59	1	Kick back finger pressure pad	134	A-1027/51	1	Riving knife distance piece
124	B-1051/3	1	Kick back bracket	135	B-1027/16	1	Riving knife bracket
125	Patt. No. 32	2	1 1/2" dia plastic handwheel 3/8" whit T. R. T.	136	A-1027/30	1	Riving knife spring
126		2	3/8" washer	137	A-1027/28	1	Riving knife locating plate
127		1	3/8" whit x 1 1/2" long stud	138		1	3/8" whit x 2 1/4" long stud
128	A-1051/11		Auxillary cover for kick back bracket	139	A-1027/29	1	Riving knife nut
129	A-1051/10		Cover for kick back bracket	140		1	3/8" whit x 1" long hexagon head bolt
130	D-1051/1	1	Saw guard	141	B-1027/23	1	Riving knife

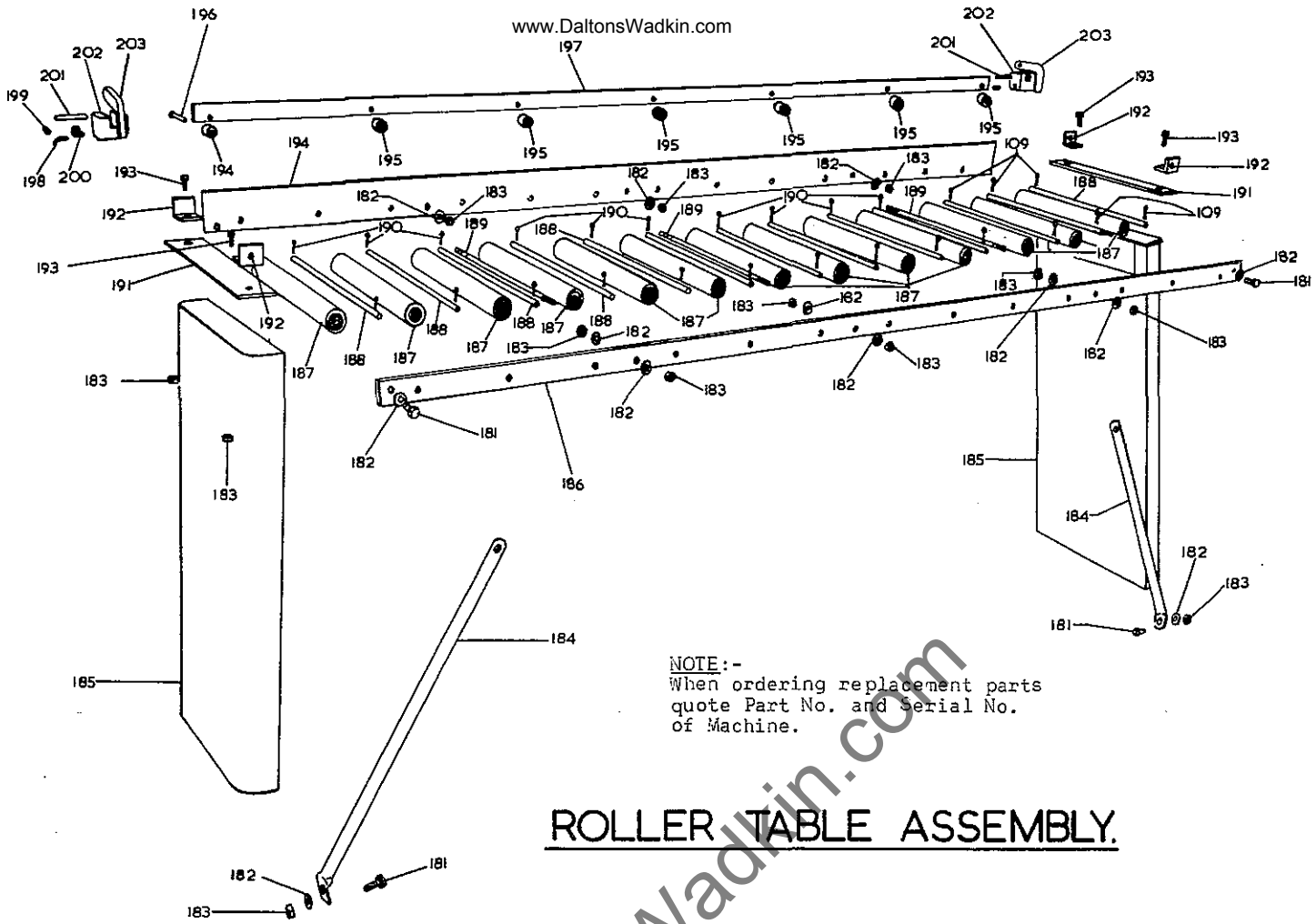


NOTE:-  
When ordering replacement parts  
quote Part No. and Serial No.  
of Machine.

## TABLE AND BASE ASSEMBLY.

Ref No.	Part No.	No. off	Description
151		12	1/2" whit x 1" long cheese head screw
152		24	1/2" washer
153	B-1027/194	1	Back support
154	A-1051/9	2	Wedge for table
155	A-1027/199	1	Fence
156	A-1027/199	1	Packing piece for table (1 1/2" wide)
157	A-1027/199	1	Packing piece for table (2 3/8" wide)
158	A-1027/199	1	Packing piece for table (3" wide)
159	B-1051/8	1	Table
160		12	1/4" whit nut
161		1	Body for base
162	C-1027/171A&B	4	1/2" whit x 1/2" long raised head screw
163	B-1031/53	1	Cover plate for base
164	B-1027/177	1 each	Outer support bracket for table

Ref No.	Part No.	No. off	Description
165	B-1027/178	1 each	Inner support bracket for table
166		12	5/16" whit x 1" long hexagon head bolt
167		12	5/16" washer
168	84 ADS/FO	1	MEM starter (3phase, 50 cycles).
169	AT3	1	Brook starter (3 phase 60 cycles)
170		4	1/4" whit x 3/4" long cheese head screw
171		16	3/8" whit x 3/4" long hexagon head bolt
172	C-1027/171C&D	4	3/8" washer
			Leg for base

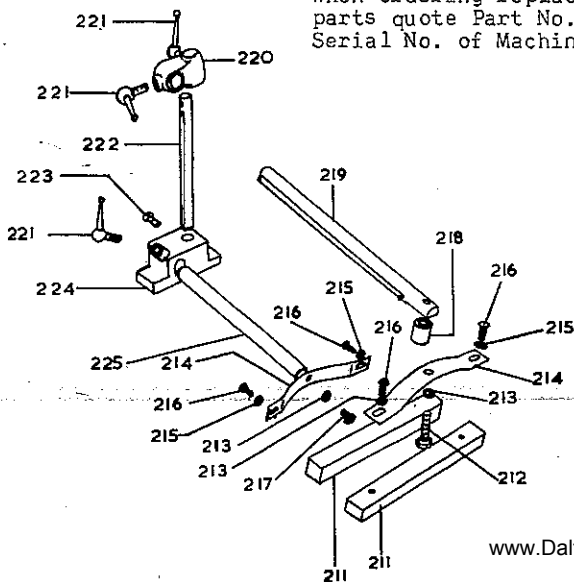


## ROLLER TABLE ASSEMBLY.

Ref.No.	Part No.	No.off	Description	Ref.No.	Part No.	No.off	Description
181.		8	$\frac{3}{8}$ " whit. x $\frac{3}{4}$ " long hexagon head bolt.	196.		7	$\frac{5}{16}$ " whit. x $1\frac{1}{2}$ " long cheese head screw.
182.		20	$\frac{3}{8}$ " washer.	197.	A-1027/183	1	Stop bar for roller table to right of saw (standard).
183.		20	$\frac{3}{8}$ " whit. nut.	A-1027/184		1	Stop bar for roller table to left of saw (standard).
184.	D-1027/131	4	Support strut for roller table.	A-1027/185		1	Stop bar for roller table to right of saw (metric).
185.	C-1027/130	2	Foot for roller table.	A-1027/186		1	Stop bar for roller table to left of saw (metric).
186.	D-1027/131	1	Front roller plate.	198.	A-1026/54	2	Pointer for turnover stop.
187.		13	Rollers ( $1\frac{1}{2}$ " O.D. x 12" long)	199.		2	$\frac{1}{4}$ " whit. x $\frac{3}{8}$ " long socket head grub screw.
188.	A-1027/189	13	Roller spindle.	200.	B-S-1-B	2	$\frac{3}{8}$ " whit. ball lever screw.
189.	A-1027/134	3	Tie bar.	201.		2	$\frac{5}{16}$ " dia. x 2" long hardened ground dowel.
190.		26	$\frac{1}{8}$ " dia. x 1" long split pin.	202.	A-1027/83	2	Turnover stop holder.
191.	A-1027/132	2	Roller tie plate.	203.	A-1027/84	2	Turnover stop.
192.	A-1027/133	4	Roller plate angle bracket.				
193.		4	$\frac{3}{8}$ " whit. x 1" long hexagon head bolt.				
194.	D-1027/131	1	Rear roller plate.				
195.	A-1027/135	7	Stop bar distance piece.				

**NOTE:-**  
When ordering replacement parts quote Part No. and Serial No. of Machine.

## SHAW GUARD ASSEMBLY.



Ref.No.	Part No.	No.off	Description
211.	D-1792/44	2	Wood shoes for shaw guard.
212.		1	$\frac{5}{16}$ " whit. x $1\frac{1}{2}$ " long hexagon head bolt.
213.		2	$\frac{5}{16}$ " spring washer.
214.	D-1792/45	2	Shaw guard pressure spring.
215.		4	$\frac{3}{16}$ " washer.
216.		4	No. 8 x $\frac{3}{4}$ " long black japanned round head woodscrew.
217.		1	$\frac{5}{16}$ " whit. x $\frac{3}{4}$ " long hexagon head bolt.
218.	A-1027/176	1	Shaw guard top pressure distance piece.
219.	A-1027/175	1	Top pressure bar (12" long)
220.	D-1792/65	1	$\frac{3}{8}$ " x $\frac{3}{4}$ " fibloe.
221.	B-S-1-B	3	$\frac{3}{8}$ " whit. ball lever screw.
222.	A-1027/175	1	Column ( $7\frac{1}{2}$ " long).
223.		1	$\frac{3}{8}$ " whit. x $\frac{3}{4}$ " long square head bolt.
224.	A-1027/174	1	Shaw guard support bracket.
225.	A-1027/175	1	Bottom Pressure Bar (10" long)

**EXTRAS**

**CIRCULAR SAWS**



This is our standard range of saws, normally available from stock. Hollow ground saws require no setting, give minimum saw kerf or wastage and ensure exceptionally clean finish.



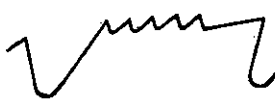
BS 102, 14" dia, BS 191, 16" dia  
Crosscut Sawblade  
14 gauge



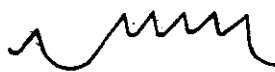
BS 85, 14" dia, BS 192, 16" dia  
Rip Sawblade  
15 gauge



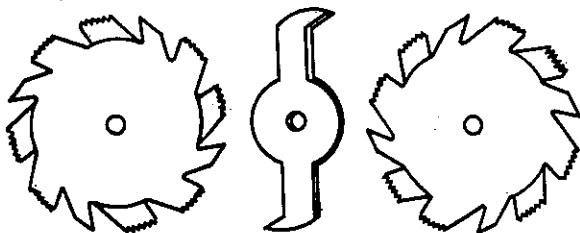
BS 119, 14" dia, BS 194, 16" dia  
Hollow Ground  
Crosscut Blade 12 gauge at tooth



BS 67, 14" dia, BS 193, 16" dia  
Crosscutting or Ripping  
Sawblade for exceptionally  
smooth finish 14 gauge.



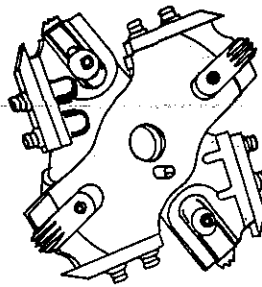
BS 74, 14" dia, BS 195, 16" dia  
Hollow Ground Plywood Saw  
12 gauge at tooth.



**EXPANDING GROOVING SAW OR DADO HEAD**

For smooth finish with or across the grain in hard or soft woods. The head consists of two outside saws  $\frac{1}{8}$ " (3 mm) thick, 8" (202 mm) diameter and 5 inner cutters of varying thicknesses for cutting grooves  $\frac{1}{8}$ " (3 mm) to 1" (25 mm) rising by  $\frac{1}{16}$ " (1.5 mm)

**EXPANDING GROOVING HEADS**



Each half of this head is made in gun metal giving exceptional strength.

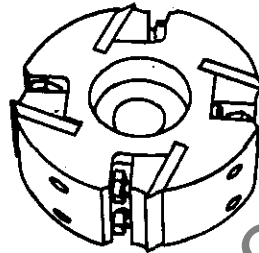
JP.541

With  $8\frac{1}{2}$ " (216mm) cutting circle, for grooves  $\frac{3}{8}$ " (9.5mm) to  $1\frac{1}{16}$ " (17.5mm) wide,  $\frac{9}{16}$ " (14mm) deep.

JP.543

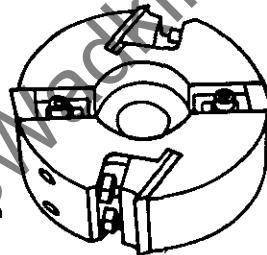
With  $8\frac{1}{2}$ " (216mm) cutting circle, for grooves  $1\frac{1}{16}$ " (17.5mm) to  $1\frac{1}{4}$ " (32mm) wide, 1" (25mm) deep.

**CUTTERBLOCKS**



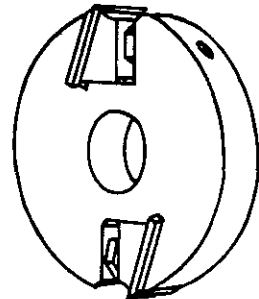
QR.100

4 knife wedge type, flush mounted  $4\frac{7}{8}$ " (124mm) dia,  $1\frac{3}{4}$ " (45mm) thick to take  $\frac{5}{32}$ " or  $\frac{1}{4}$ " (4mm or 6mm) thick cutters.



QR.105

2 knife wedge type,  $4\frac{7}{8}$ " (124mm) x  $1\frac{3}{8}$ " (45mm) thick, fitted with spur cutters to take one pair  $\frac{5}{32}$ " or  $\frac{1}{4}$ " (4mm or 6mm) thick cutters.

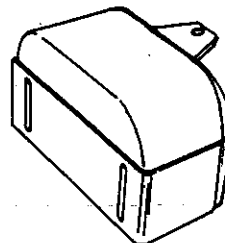


QR.11B

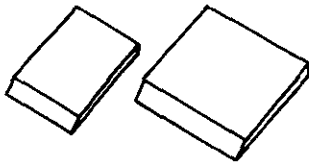
2 knife wedge type,  $4\frac{7}{8}$ " x  $1\frac{5}{16}$ " (124mm x 24mm) thick to take cutters  $\frac{5}{32}$ " or  $\frac{1}{4}$ " (4mm or 6mm) thick.

Q.T.37

Spanner and locknut is required for cutterblocks QR.100 and QR.105 (one only needed per machine).



Guard for use with the above cutterblocks.



SQUARE EDGE CUTTERS FOR ABOVE CUTTERBLOCKS, TYPE VZ

5/32" x 1 1/2" long.

Solid High Speed Steel.

Width on cut	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"
Part No.	VZ	VZ1	VZ2	VZ3	VZ4	VZ5

Tungsten Carbide Tipped

Width on cut	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"
Part No.	VZ/T	VZ1/T	VZ2/T	VZ3/T	VZ4/T	VZ5/T

1/4" thick x 1 1/2" long.

High Speed Steel Welded to Mild Steel

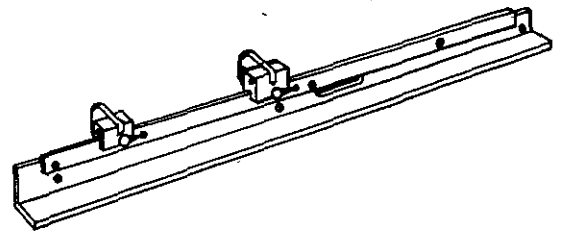
Width on cut	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"
Part No.	VZ20	VZ21	VZ22	VZ23	VZ24	VZ25

Tungsten Carbide Tipped

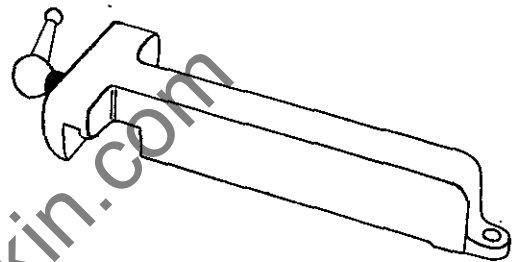
Width on cut	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"
Part No.	VZ22/T	VZ23/T				

Solid High Speed Steel in the bar: 5/32" thick, 3/4", 1", 1 1/4", 1 1/2", 1 3/4", 2", 2 1/4", 2 3/4", 3" wide.

High Speed Steel Welded to Mild Steel: 1/4" thick, 3/4", 1", 1 1/4", 1 1/2", 2" wide.

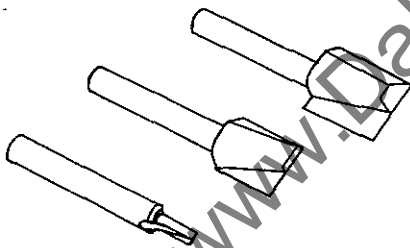
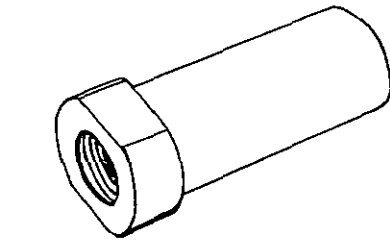


Adjustable metal fence with stop bar for cutting off material up to 3'6" (106mm) long complete with two adjustable turn over stops for repetition work. Longer stop bars can be supplied to special order, to give capacities 6ft, 9ft and 12ft. (1,828 mm, 2,743 mm and 3,658 mm). Maximum graduation is 6ft. (1828mm) on any bar supplied.



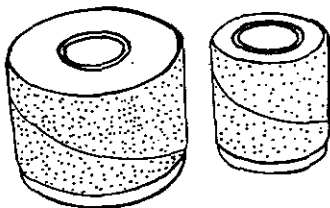
Adjustable stop for multiple crosscutting designed to drop onto the stop bar shown above.

Screw on adaptor to take boring bits and router cutters with 1/2" shanks.



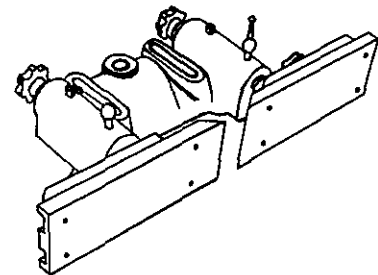
LEFT HAND TWO EDGED ROUTER CUTTERS

BRAT 7	1/2" x 3/4" depth of cut.		
BRAT 1A	3/8" x 1"	"	"
BRAT 1	1/2" x 1 1/4"	"	"
BRAT 2	3/8" x 1 1/4"	"	"
BRAT 3	3/4" x 1 1/4"	"	"
BRAT 4	7/8" x 1 1/4"	"	"
BRAT 5	1" x 1 1/4"	"	"
BRAT 6	1 1/4" x 1 1/2"	"	"

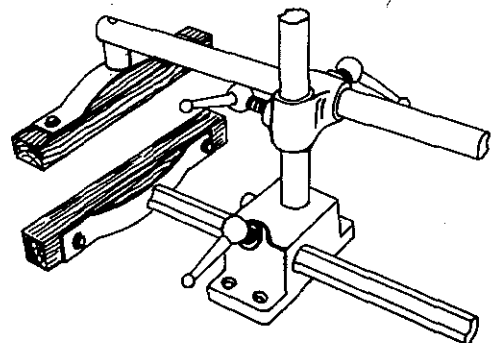


SANDING BOBBINS

These bobbins consist of four circular rubber sections each 1/2" thick mounted on a sleeve, with a steel flange at each end, and carrying spirally wound aluminous oxide cloth belts, grade O-80 or grade 1-50. Two sizes available, 2" diameter x 2" deep, 3" diameter x 2" deep.

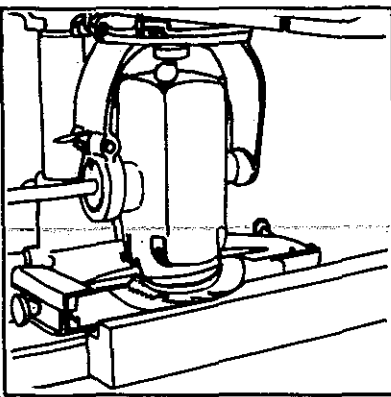


Horse shoe fence for use when moulding, routing, etc.

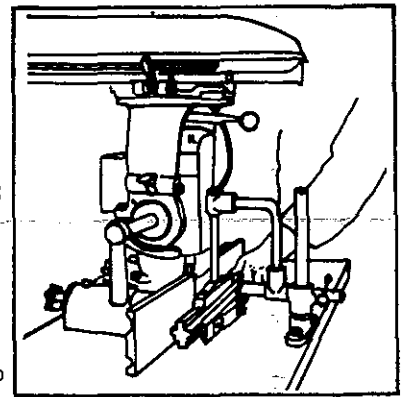


Shaw type guard for use with fences when moulding, etc.

Metal roller table 77" (1955mm) long and 12" (305mm) wide complete with graduated stop bar can be supplied for use on either side of the machine. The illustration on page 16 shows a table fitted to the left of the machine. When ordering please state which side of the machine the table is to be fitted for purpose of the graduated stop bar. Capacity of table is 8ft. (244mm) to the left of the saw and 9ft. (2740mm) to the right of the saw.

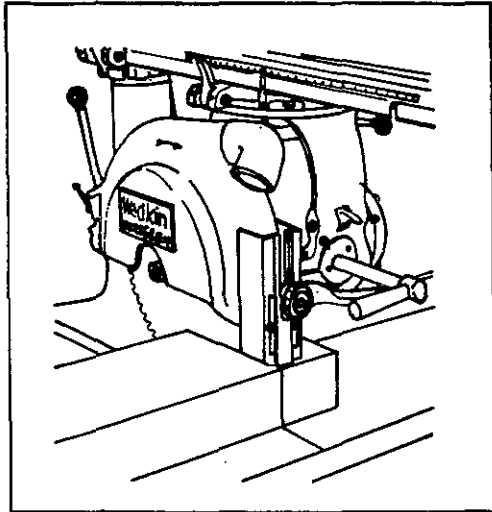


REBATING WITH DADO HEAD.

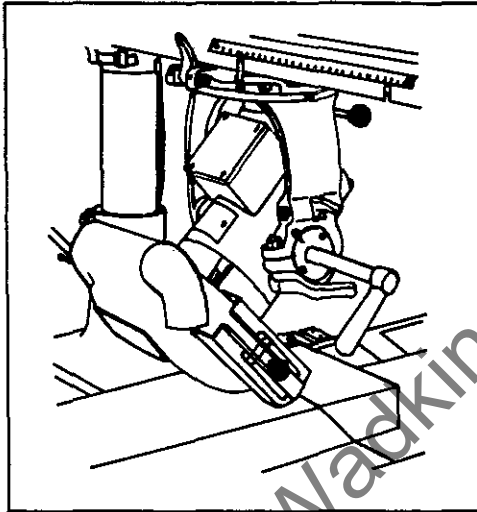


MOULDING WITH CIRCULAR CUTTERBLOCK.

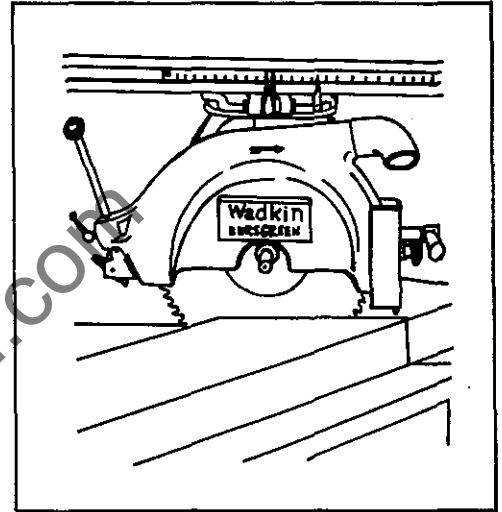
There is a place in every woodworking shop for this versatile machine. The saw unit rotates horizontally through 360° and fits to any angle from horizontal to vertical; it can be locked in any position along the arm which swings 45° either way. Thus by simple, quick and positive movements the saw can be arranged to do crosscutting, bevel crosscutting, mitring, compound angle cutting, ripping and bevel ripping to a maximum of 4½" (114 mm) cut. In addition by fitting dado or trenching heads, cutterblocks, moulding blocks, etc. an almost unlimited variety of operations are possible - even disc and bobbin sanding can be done with this extremely versatile machine.



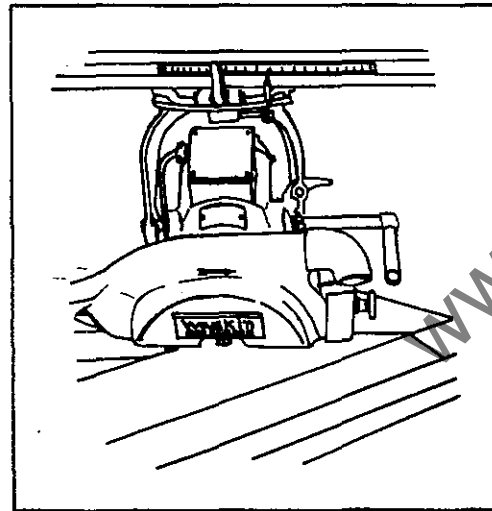
CROSSCUTTING.



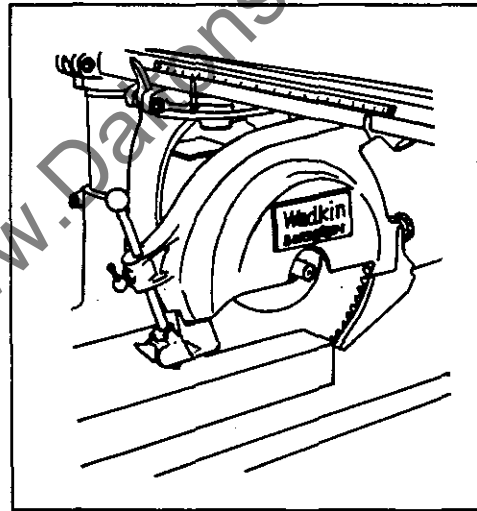
BEVEL CROSSCUTTING.



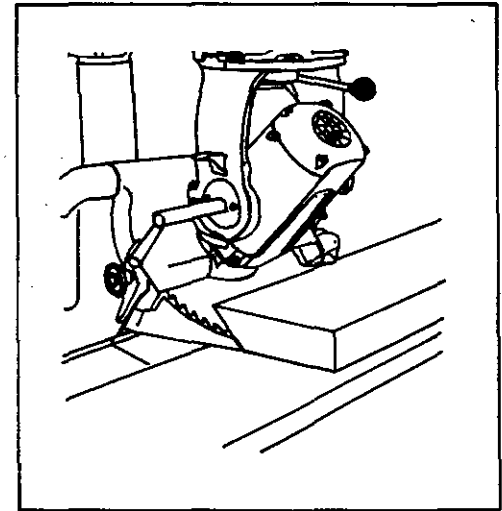
MITRING.



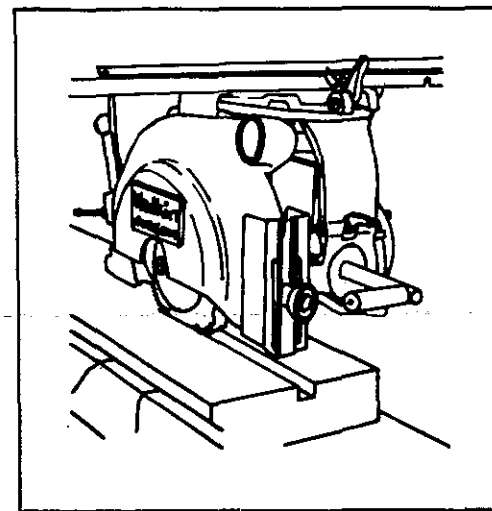
COMPOUND MITRING.



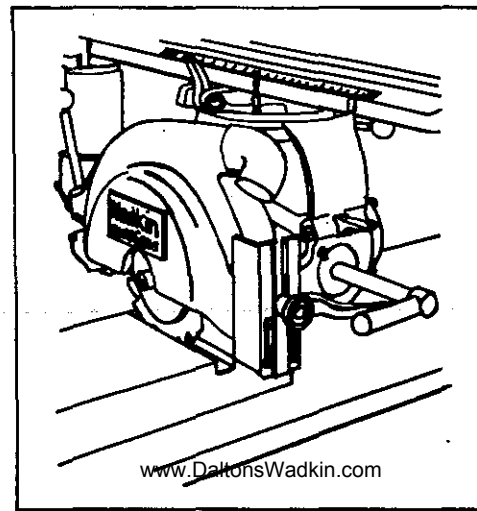
STRAIGHT RIPPING.



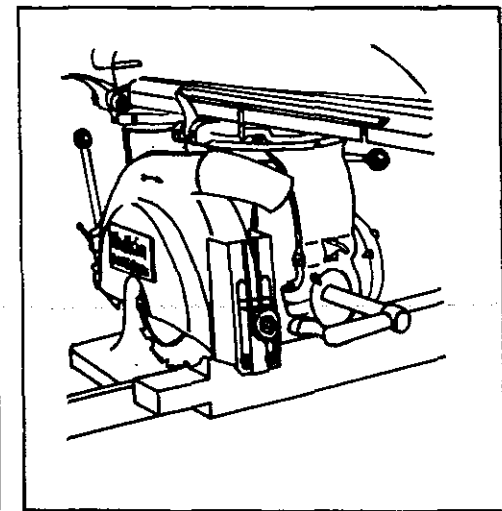
BEVEL RIPPING.



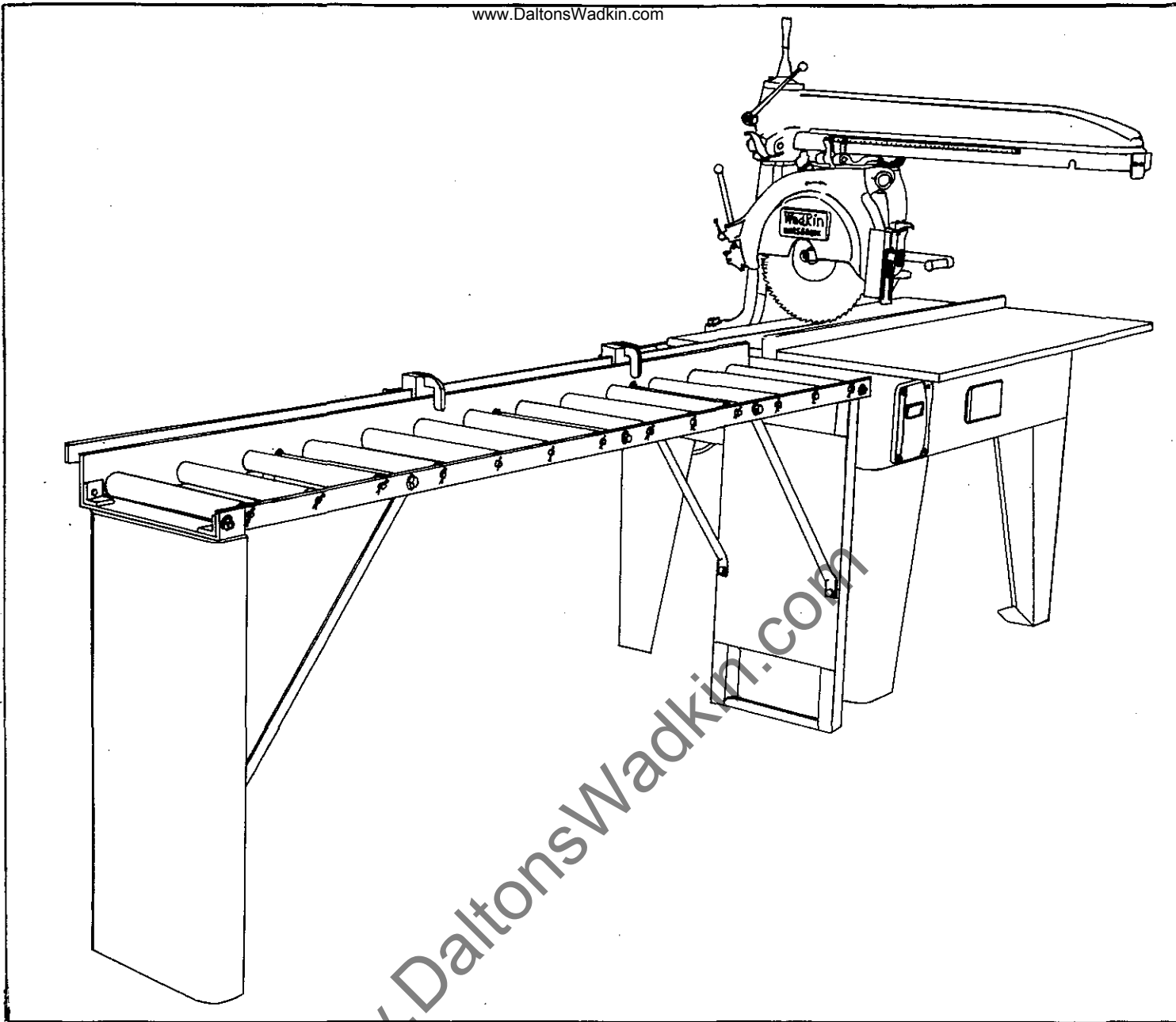
PLOUGHING WITH DADO HEAD



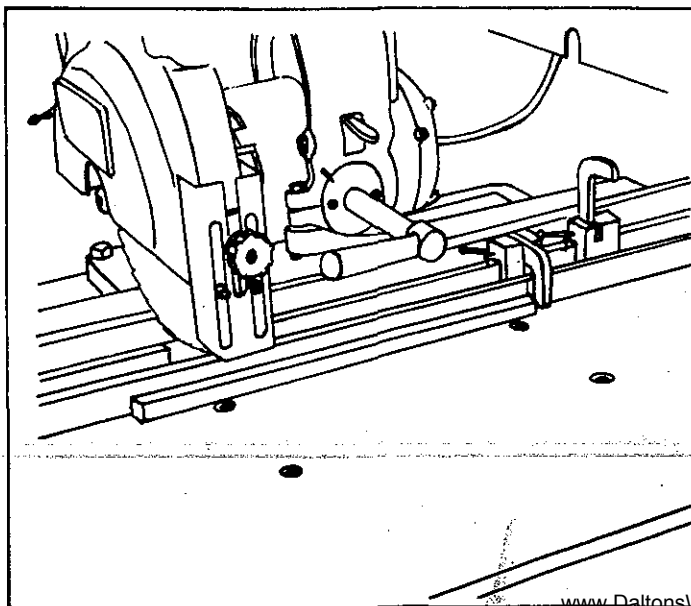
GROOVING WITH DADO HEAD



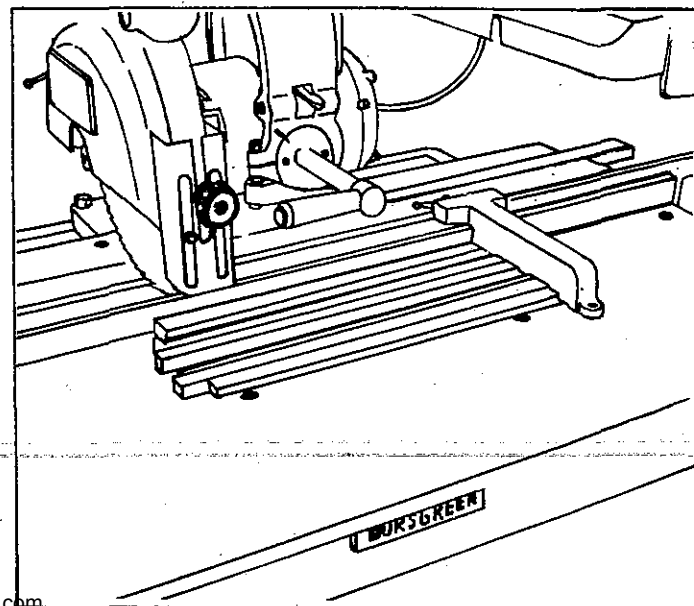
TENONING WITH DADO HEAD



METAL ROLLER TABLE SHOWN FITTED TO THE LEFT OF THE SAW TO GIVE A MAX<sup>M</sup> OF 8FT (2438MM). WHEN FITTED TO THE RIGHT IT GIVES A MAX<sup>M</sup> OF 9FT (2743MM).



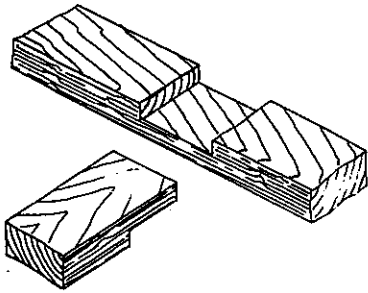
CROSSCUTTING USING TURNOVER STOP & METAL FENCE FOR REPEITION WORK



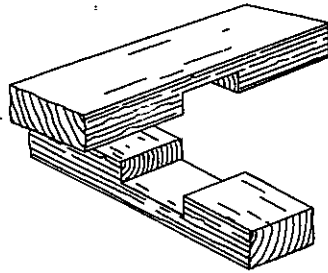
MULTIPLE CROSSCUTTING USING METAL FENCE AND SPECIAL STOP WHICH CAN BE



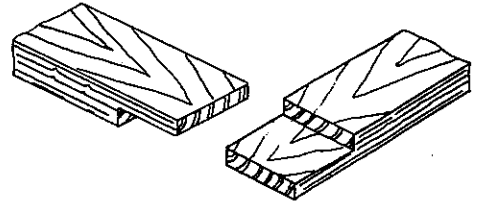
THE ILLUSTRATED JOINTS CAN BE READILY DONE ON THIS MACHINE, SOME MAY REQUIRE SIMPLE JIGS.



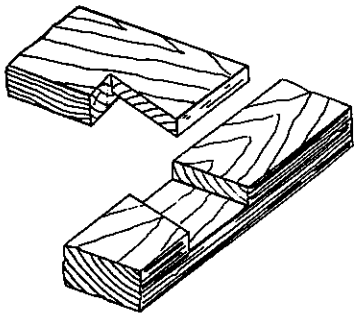
TEE HALF LAP.



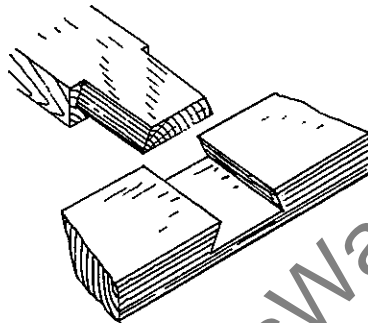
MIDDLE HALF LAP.



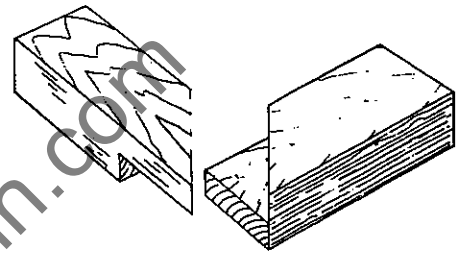
END HALF LAP.



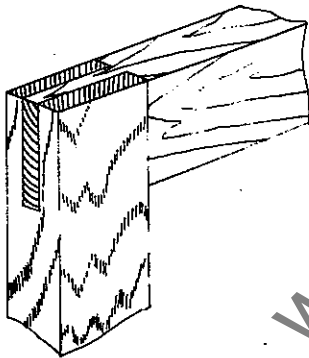
DOVETAIL HALF LAP  
(ONE SIDE ONLY).



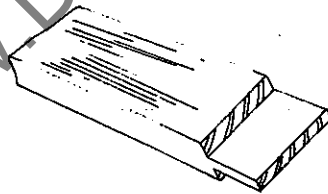
DOVETAIL HALF LAP.



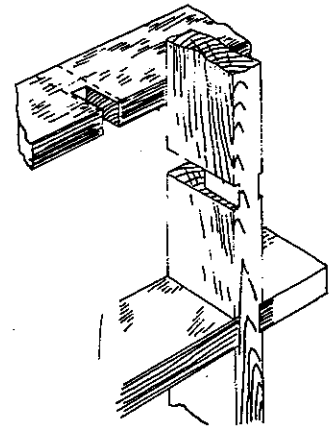
MITRED FACE WITH HALF LAP.



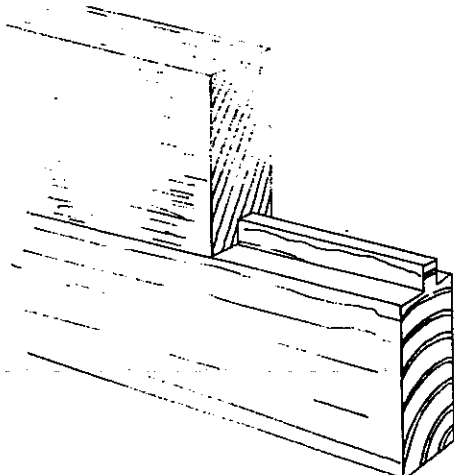
OPEN MORTISE & TENON.



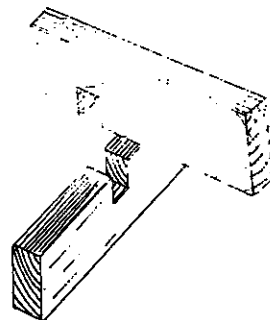
TENONS.



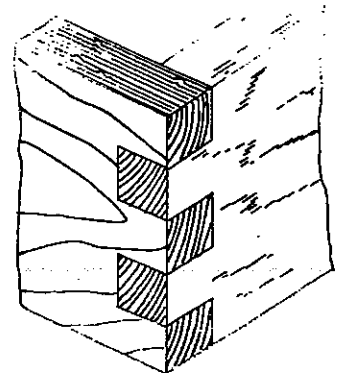
LAPPED JOINT WITH GROOVE  
(USEFUL FOR SHELVING)



TONGUE & GROOVE



MIDDLE HALF LAP.



BOX JOINT.