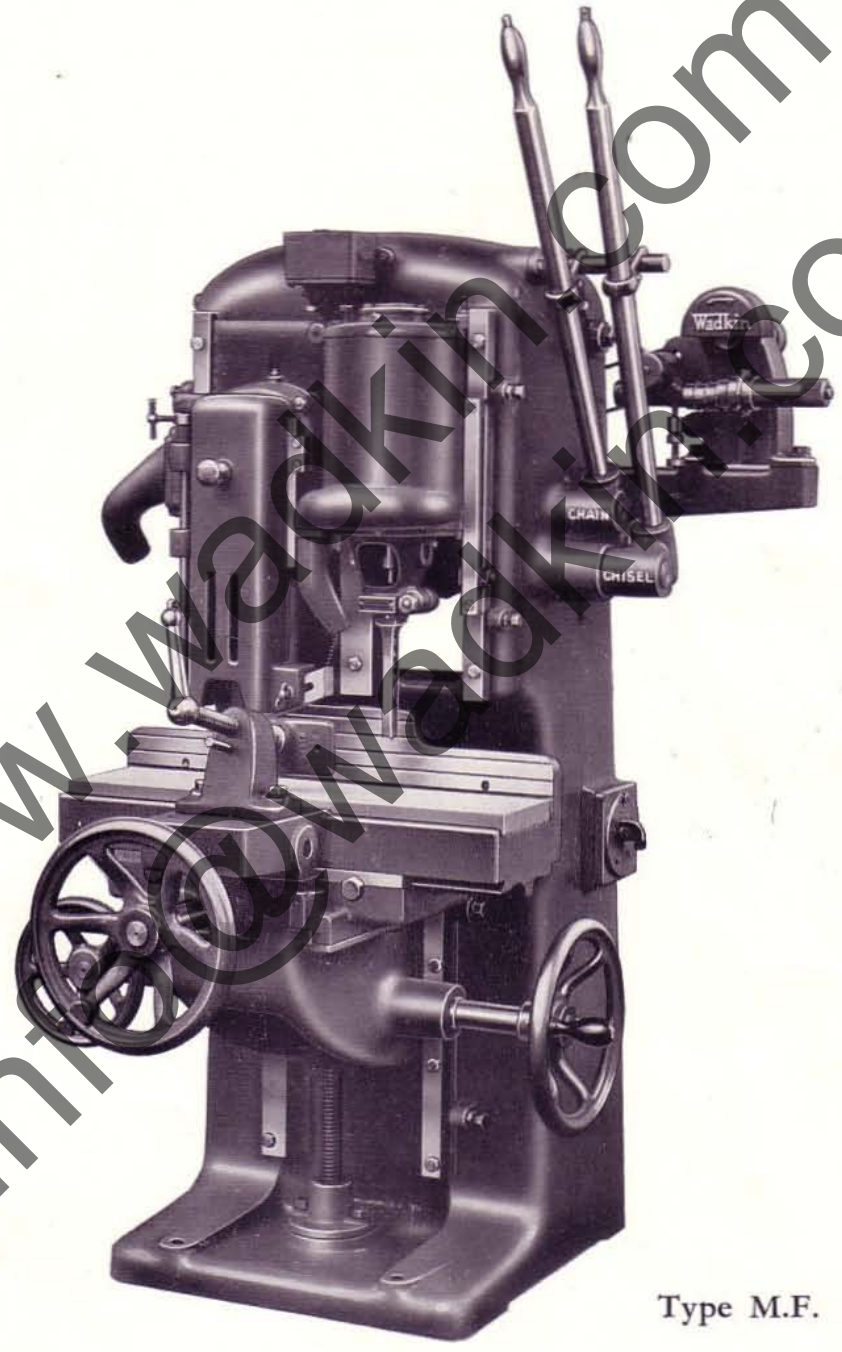


# Wadkin

## Mortising Machines, M.F., M.A.



Type M.F.

Telephone: Leicester 68151 (7 lines)  
 Telegrams: } Woodworker, Leicester, Telex.  
 Cables: }  
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**Wadkin Ltd.**  
 Green Lane Works, Leicester, LE5 4PF

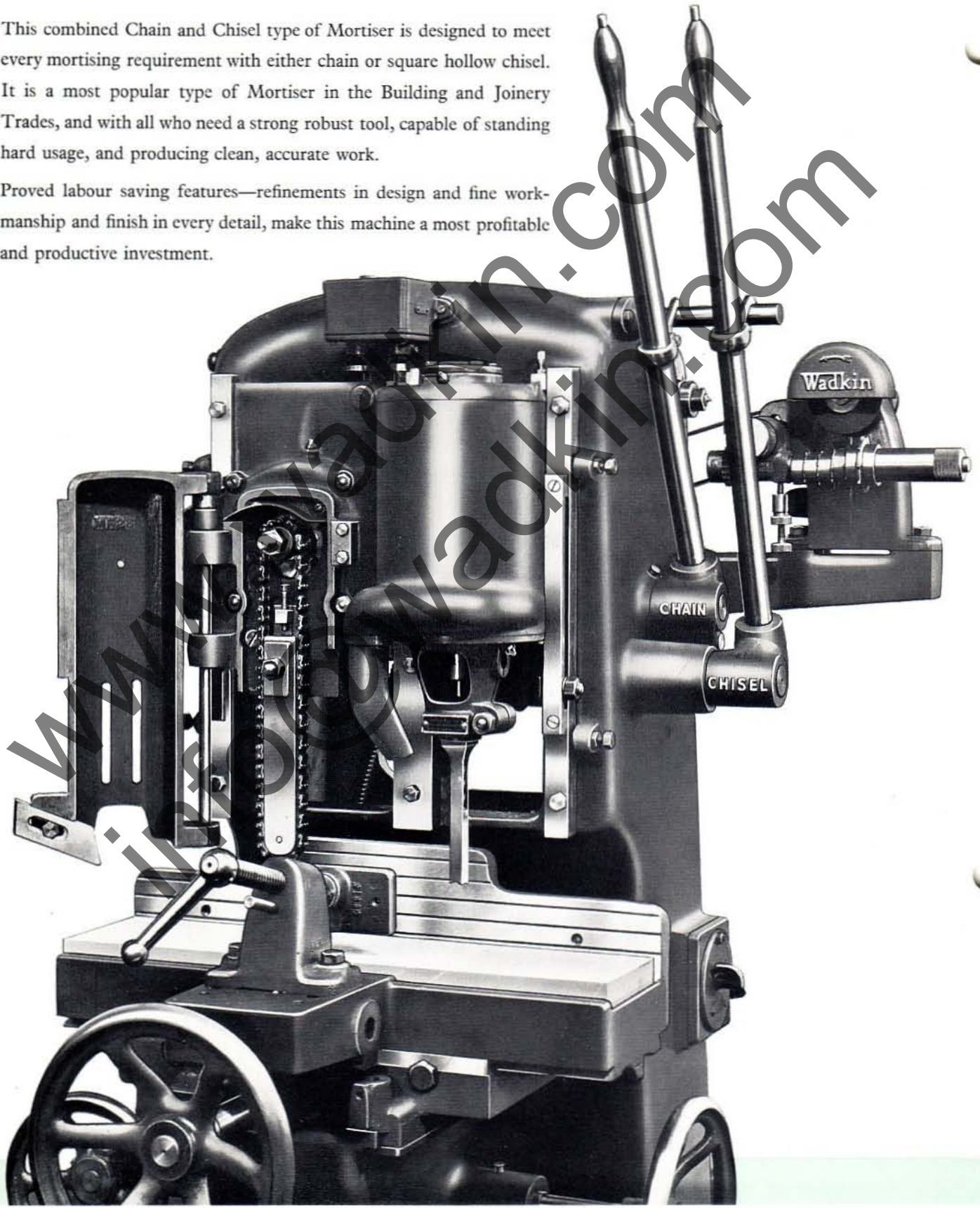
and at  
 York House, Empire Way, Wembley, Middx.  
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# Wadkin

## Chain and Chisel Mortiser, M.F.

This combined Chain and Chisel type of Mortiser is designed to meet every mortising requirement with either chain or square hollow chisel. It is a most popular type of Mortiser in the Building and Joinery Trades, and with all who need a strong robust tool, capable of standing hard usage, and producing clean, accurate work.

Proved labour saving features—refinements in design and fine workmanship and finish in every detail, make this machine a most profitable and productive investment.



## Features

1. Heavy rigid construction to withstand hard usage, and give reliable working under all conditions.
2. Chain and chisel headstocks side by side and each instantly available; no time lost changing from chain to chisel or vice versa.
3. Headstocks are direct motorised and automatically controlled. Tools start running just before entering the timber and stop immediately on withdrawal.
4. Chips from the chain are collected by built-in fan and exhausted at the side of the machine. Blower removes chips from chisel and keeps marking out lines always visible.
5. Conveniently placed and adjustable hand levers, and large handwheel control to table provides for fast, easy operation.
6. Provision made for mortising with chain either in line or offset with chisel.
7. All gears for raising and lowering table are enclosed to ensure free movement.
8. Provision is made for maintaining chains in good condition by means of a built-in chain grinder. Ratchet device on grinder locates automatically each link under the grinding wheel.

## Specification

### The Machine

The Machine is of substantial construction throughout and is built to precision standards of engineering.

### The Table

The Table is rigidly supported on a heavy bracket, carried on wide machined slides. The rise and fall movement is obtained by powerful handwheel operating gearing which is protected against dust. Table has longitudinal movement by handwheel and rack and pinion, also cross traverse by handwheel and screw. The weight of the table is taken by a ball thrust bearing and all movements designed for easy operation.

### The Clamp

The hand operated Clamp is both quick and powerful in action. Clamping action is downwards to prevent timber lifting and check rod keeps clamp face always square with the job. If required, a clamp operated by compressed air can be supplied at increased price.

### The Chain Headstock

The Chain Headstock moves in machined slideways and is controlled by adjustable right-hand lever. Motor is an integral part of the headstock and built on to the mortising spindle. Self adjusting, hinged, chain guard and chipbreaker, together with exhaust fan to discharge chips, are all embodied on the headstock. Adjustment is provided to the hardwood thrust block in the chipbreaker to give the correct position for all widths of the chain.

Provision is made whereby the mortise chain can

be set dead in line with the chisel or adjusted for making off-set mortises. An adjusting screw is provided above chain guide bar for taking thrust, and for regulating the length of the chain.

### The Hollow Chisel Headstock

The Hollow Chisel Headstock is mounted on rigid slideways alongside the chain headstock. Motor is built on and the chuck for the boring bit mounted directly on the motor spindle. Chisels are held in the headstock by a powerful split grip, providing the utmost rigidity to the chisel.

### Depth Stops

Depth Stops are provided on both headstocks to regulate the depth of mortising. They are quickly adjustable to give any depth of mortise.

### Semi-Auto Chain Grinder

Semi-Auto Chain Grinder as shown in the illustration opposite is included with the machine. The ratchet feature ensures correct sharpening of each link, and makes re-grinding an easy and fool-proof operation.

### The Motors

The Motors are of special mechanical construction using rotor and stator units, and are supplied for alternating current only, of two or three phase 50 or 60 cycles. They are mounted directly on the chain and chisel spindles giving the maximum power to the cutting tools with the minimum of transmission losses. Belts are entirely abolished. Each motor is of the ball bearing type and of ample power for taking the maximum cuts in hard and soft wood.

Specification (Contd.)

Control Gear

Control Gear is of the automatic contactor type and built into the machine in a dust tight recess in the main frame. The control gear is provided with overload releases, and inherently gives no-volt protection. Each motor is automatically started when the hand levers are disengaged from the catch, and stop running when the hand levers are returned to their original position. This feature increases the life of the cutting tools, eliminates any risk of danger to the operator and also prevents any possibility of the work being damaged when being placed in position or removed.

The starting and stopping is effected by the headstocks operating a control which opens and closes the main contactor. A switch placed in a convenient position on the machine body isolates the motors and prevents them being started when making adjustments.

Patent Automatic Stop Attachment

This attachment, by its unique design, will be found to speed up production enormously. It dispenses entirely with marking out, and not only automatically gives the exact position of each mortise, but by means of our patented stop

attachment mounted on the side of the table, mortises of different lengths can be cut in any one piece of timber.

Four stops are attached to the holder, giving four different lengths.

These are set for the correct length, and by turning the holder after each complete mortise is cut, each stop is brought into position to engage with a dead stop. We supply six spring stops attached to the long bar, but additional ones can be supplied if desired.

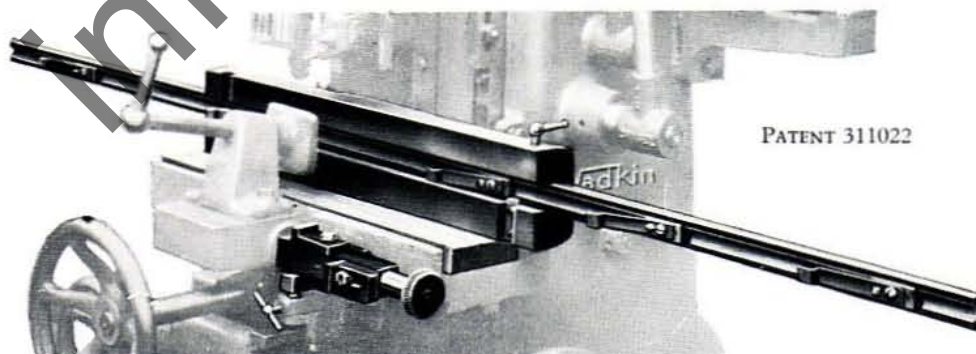
Both machines are prepared to receive this attachment. It may therefore be supplied complete with the machine or sent on at a later date. It can be put on or taken off the machine in two minutes.

Details included with the machine

One chain cutter grinder, complete with emery wheel 4" diameter; Three pairs of sprockets to carry chains of .54", .62", .89" pitches; One set of adapter bushes, comprising one each  $\frac{3}{8}$ ",  $\frac{1}{2}$ " and  $\frac{3}{4}$ " for bits and  $\frac{1}{8}$ " and  $1\frac{1}{8}$ " for chisels; One set of depth stops; One driving belt for cutter grinder; One set of spanners; One lubricating pump and tin of ball bearing lubricant.

Dimensions and Capacities

Will take timber up to	12" deep x 9" wide	305 x 230 mm.
Maximum size of mortise using chain	1 1/4" x 3" x 6" deep	30 x 75 x 150 mm.
Maximum size of chisel	1"	25 mm.
Will bore up to	1" dia. x 5 1/2" deep	25 x 140 mm.
Size of table	27" x 8"	685 x 200 mm.
Minimum height of table from floor	19 1/2"	500 mm.
Vertical rise and fall of table	10 1/2"	270 mm.
Longitudinal motion of table	24"	610 mm.
Transverse motion of table	4 1/2"	110 mm.
Horse power of motor on chain spindle		4
Horse power of motor on chisel spindle		2
Speed of both motors on 50 cycles in r.p.m.		3,000
Speed of both motors on 60 cycles in r.p.m.		3,600
Floor space with maximum movements	4' 3" x 3' 6"	1300 x 1070 mm.
Net weight in cwts.	13 1/2 (1510 lb.)	680 kg.
Gross weight in cwts.	16 1/2 (1850 lb.)	840 kg.
Shipping measurements in cubic feet	59	1.6 cu.m.



Machine fitted with Patent Automatic Stop Attachment.

# Wadkin

## Chain or Chisel Mortiser, M.A.

This machine is designed to take either mortise chain gear or square hollow chisel. It is a strong serviceable type of machine—comparatively inexpensive in first cost and a particularly economical machine in running and maintenance costs.

It is an ideal mortiser for the shop where the volume of work justifies only one machine, and where the class of work calls for mortising with both chain and chisel intermittently. This machine is also very useful in a high production joinery plant, and some of the largest shops in the country are relying on this type of machine almost exclusively for their mortising production.

### Features

*Substantial main frame with underside machined to give proper seating on foundation.*

*Smooth, easy movement of headstock on wide machined faces.*

*Hand lever quickly adjustable to best position for any class of work.*

*Machine-cut steel or gunmetal rack and pinions for headstock and table movements.*

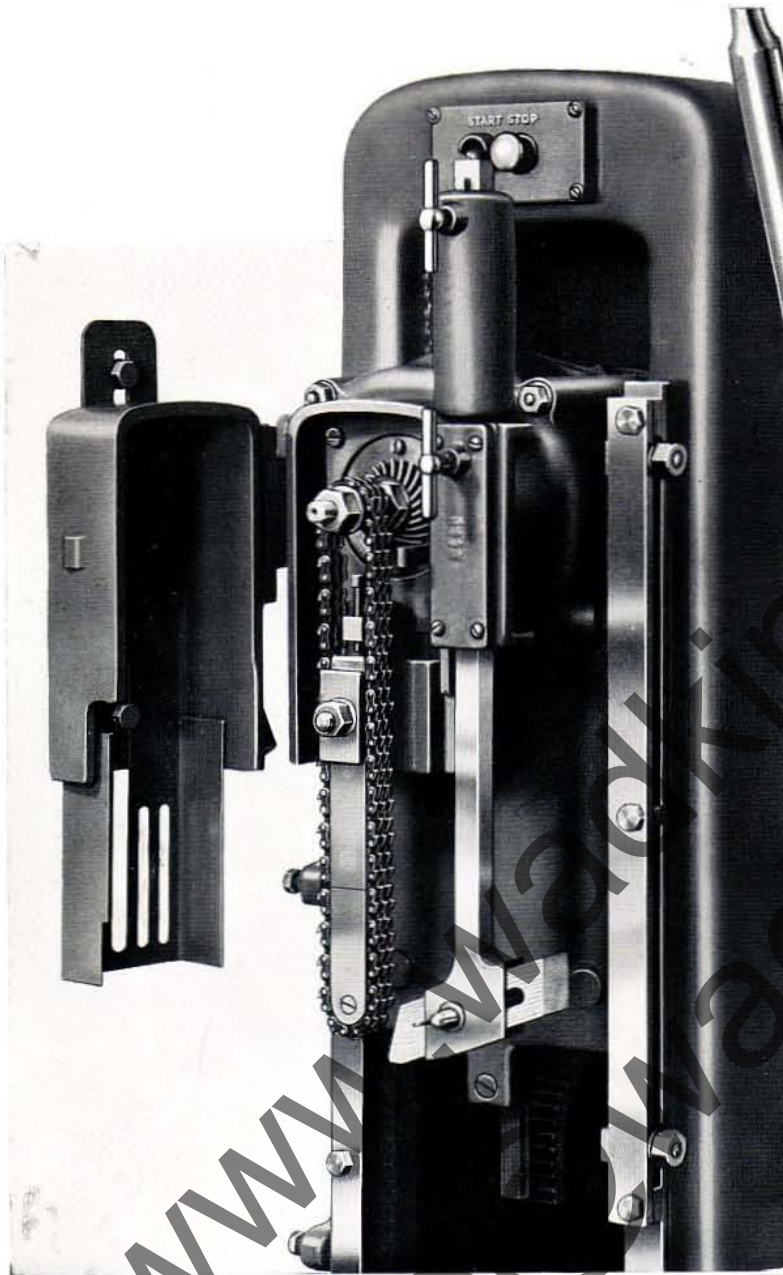
*Self-adjusting combined guard door and chip-breaker.*

*Combined blower and exhauster fitted to motor shaft to remove chippings from face of work.*

*Quick-acting inclined clamp to table fitted with check rod to prevent swinging out of square.*

*Ratchet type chain grinder built on to machine.*





### Chain Headstock

The Headstock carrying either chain or chisel, slides in machined ways with wide bearing faces. It is operated by right-hand lever by rack and pinion in the centre of the headstock. Lever is quickly adjustable to suit every class of work.

Headstock embodies a chip-breaker and built-in fan to remove chips.

The thrust is taken on the chain gear by adjustable screw, which also regulates the length of the chain.

The Stops for regulating depth of mortise can be used with either the chain or chisel and can be adjusted as required.

The whole of the chain gear can be removed as one unit by simply unscrewing the nut on the sprocket spindle and the bolt securing the guide bar holder.

Alternatively the chain and guide bar can first be removed and the guide bar holder taken off separately.



### The Chisel Unit

The Square Hollow Chisel Head is a self-contained unit which is quickly attached to the machine as shown below. It is driven by machine-cut steel spiral gearing,

The chisel is held in the head by a powerful split grip giving a more positive and rigid hold than can be obtained by any other method.

The combined guard door and chipbreaker is locked up out of the way when chisel is in use.



The Chisel Headstock is one complete unit, and is located in the correct position on the machine by a square slide. One bolt is sufficient to lock and hold the unit rigidly.

## Specification

### The Table

The Table is provided with a cross traverse operated by conveniently placed handwheel and screw, and the longitudinal movement by machine cut steel rack and pinion. The quick-acting hand clamp of improved pattern is adjustable for varying thicknesses of material and is rigidly locked by handle. The screw is arranged at such an angle that the tendency is always to press the timber downwards on to the surface of the table.

If required, a clamp operated by compressed air can be supplied at increased cost.

### The Motor

The Motor is built into the headstock and mounted directly on the mortising spindle so that the power is applied close to the cutting tools. It is of special mechanical construction using rotor and stator units, and can be furnished for 2 or 3-phase

alternating current supply of any voltage and for frequencies of 50 or 60 cycles. It is of the ball bearing type and fan-cooled.

### The Control Gear

The Control Gear is remotely operated by start and stop push buttons, the whole being self-contained with the machine.

### Semi-Auto Chain Grinder

Semi-Auto Chain Grinder as shown in the illustration on page 5 is included with the machine. The ratchet feature ensures correct sharpening of each link, and makes re-grinding an easy and fool-proof operation.

### Patent Automatic Stop Attachment

We can supply to order an automatic stop attachment, as shown on page 4, which dispenses with marking out.

### Details included with the machine

One motor complete with armoured cable and suitable control gear ; One chain cutter grinder, complete with emery wheel 4" diameter, and three pairs of sprockets to carry chains of .54", .62" and .89" pitches ; One set

of three adapter bushes, comprising one each  $\frac{3}{16}$ " ,  $\frac{1}{4}$ " and  $\frac{3}{8}$ " for bits, and  $\frac{13}{16}$ " and  $1\frac{3}{16}$ " for chisels ; One belt for cutter grinder ; One set of spanners ; One lubricating pump and sample tin of ball bearing lubricant.

### Dimensions and Capacities, Type M.A.

Will take timber up to	...	...	...	...	11" x 9"	280 x 230 mm.
Maximum size of mortise using chain (2 or 3-phase supply only)	...	...	...	...	1 $\frac{1}{4}$ " x 3" x 6" deep	32 x 75 x 150 mm.
Maximum size of square chisel	...	...	...	...	1"	25 mm.
Will bore up to	...	...	...	...	1" x 5 $\frac{1}{2}$ " deep	25 x 140 mm.
Horse power of motor (2 or 3-phase supply only)	...	...	...	...		4
Speed of motor for 50 cycles supply	...	...	...	...		3,000 r.p.m.
Speed of motor for 60 cycles supply	...	...	...	...		3,600 r.p.m.
Size of table	...	...	...	...	27" x 8"	685 x 200 mm.
Height of table from floor	...	...	...	...	27"	586 mm.
Longitudinal motion of table	...	...	...	...	24"	610 mm.
Transverse motion of table	...	...	...	...	4 $\frac{1}{4}$ "	110 mm.
Floor space	...	...	...	...	4' 3" x 3' 6"	1300 x 1070 mm.
Net weight in cwts.	...	...	...	...	11 $\frac{3}{4}$ (1320 lb.)	600 kg.
Gross weight in cwts.	...	...	...	...	14 $\frac{1}{4}$ (1600 lb.)	720 kg.
Shipping dimensions in cubic feet	...	...	...	...	53	1.5 cu. m.