

# INSTRUCTIONS



**UNIVERSAL  
WOODWORKER**



# WOODFAST UNIVERSAL WOODWORKER INSTRUCTIONS

## VARISPEED DRIVE

Consists of a vee pulley constructed with two interlock-halves. One half has a  $\frac{3}{4}$ " bore and a keyway, and is attached to the motor shaft. The other half is spring loaded. The motor is attached to a hinged platform and is raised or lowered by means of a chrome-plated lever which protrudes from the longitudinal slot in the front panel of the machine. As the lever is raised the belt is forced outwards towards THE OUTSIDE diameter of the pulley because of the decreased centre distance between the variable pulley and the driven pulley, and the consequent belt slackness enables the coiled spring to force the sliding half of the variable pulley into mesh with the other half until the correct belt tension is obtained. This will continue to take place until the lever is raised to the top of the slot in the front panel where the top speed will be obtained, because both halves of the vari pulley will now be completely in mesh, forcing the belt to the extreme outer edge. When the lever is lowered the belt forces the interlocking halves of the pulley apart until the lever is at the bottom of the slot in the front panel where the bottom speed is obtained.

## POWER DRIVE

Consists of a unique design that we have patented, which enables you to lock the two halves of the vari speed pulley together at the top speed and so convert it into an ordinary fixed single speed pulley, so that you can transmit the maximum power from the motor to the main spindle for the heavier operations, such as all circular sawing and for dado cutting or heavy jointer or buzzers cuts. This is necessary because the heavy coiled spring which forces the two interlocking halves of the variable speed pulley together is almost fully compressed, and gives much more tension on the lower speeds where both halves of the pulley are well apart, than it does on the higher speeds, particularly on the top speed where the two halves of the pulley are completely interlocked together releasing a large amount of spring tension.

(a) **To engage Power Drive**—Switch on the machine and raise the speed control lever, which protrudes from the front panel, to the 3,500 r.p.m. position (top of slot) and then lock in this position and switch off. Now remove the small cover (which is held by means of spring clip) from the right-hand side of the machine, exposing the variable speed pulley. Grasp the inner sleeve of the pulley with left hand, and rotate the outer sleeve with the right hand, until the two raised ribs of the outer sleeve are midway between the two slots of the inner sleeve. Switch on and gently lower the lever to approximately the 3,300 r.p.m. position. Release your grip of the lever and let the machine run for a few seconds in this position, and then lock the lever. The machine is now being driven with a fixed single speed pulley and will be transmitting the maximum power with the correct belt tension.

(b) **To return from Power Drive to Variable Speed**—The lever is raised again to the 3,500 r.p.m. position and the machine switched off. The outer sleeve of the variable speed pulley is rotated until the raised ribs line up with the slots in the inner sleeve. Switch on and the lever can now be lowered to give any desired speed. You cannot vary your speeds unless the motor is running.

## RAISING THE TABLE

When raising the table, as for changing saws or for grooving or rabbeting, don't be alarmed when you find that the handwheel is much harder to wind in raising the first  $\frac{1}{2}$ " or so. This has been done in order that you may obtain fine adjustment when setting the 6" jointer to the desired depth of cut. You will find that once you are well clear of the jointer, the handwheel is much easier to wind.

## CIRCULAR SAW

Always keep the circular saw constantly sharp and correctly set. Saw manufacturers only guarantee four to five hours efficient cutting with 10" and 12" saws in soft or medium timbers after each sharpening. We suggest that you use a mill saw file and each day that you intend to do a reasonable amount of sawing, you sharpen the top of each tooth before commencing work. You can do this quite a number of times, if you use discretion, before it will become necessary to have the saw re-sharpened and set by a saw doctor. It is a good plan to have spare saws, so the machine is never subjected to unnecessary fatigue by using blunt saws. Remember, a blunt saw takes about twice the amount of power to drive it, three times the energy to push the timber, and usually gives a very



unsatisfactory cut. When buying saws, always obtain the best quality available. A cheap saw is a bad investment and will constantly give trouble because it will lose its edge and set very quickly. If you intend to do a lot of ripping, it is always worth the time involved to change over the saw, because a rip saw will certainly do a much better job and save you a lot of time.

(a) **Uses for Saw**—Many sawing operations can be performed on the circular saw by taking full advantage of the mitre gauge and tilting fence, viz., ripping, crosscutting, docking, bevelling, mitring, tenoning, rabbeting, grooving, and dadoing.

(b) **How to change your Saw**—Remove saw guard below the table, release both table locking hand screws and then wind the table up to its maximum height. Although it is not absolutely necessary, it is a good plan to remove the aluminium insert (table) when changing 12" saws. Use the hexagon key provided to undo the socket head screw which locks the locknut on the saw spindle. Then insert the  $\frac{3}{8}$ " tommy bar in the hole provided in the jointer cutting head. Hold the tommy bar firmly and undo the saw locknut with the spanner provided. Remove the nut and nibbed washer and the saw can then be removed. The nibbed washer, which is located in a keyway, is an added precaution to prevent undoing by friction when reversing. This, coupled with the locknut, makes the machine extremely safe.

(c) **Caution**—Always make sure after you have changed the saw or dado head that you replaced the nibbed washer, and after tightening the locknut, lock it again with the hexagon key. Then replace the saw guard. It is also recommended that whenever you are using the circular saw that you insert the knurled pin in the swivelling safety guard covering the jointer cutting head. You must agree that it is easy to protect your fingers, but impossible to replace them.

(d) **Correct Saw Gauge is important**—When choosing saw blades there are two things to consider. If you want the saw to maintain its set over a longer period, then it would be necessary to choose a fairly heavy gauge. In making this choice, however, bear in mind that it will take a lot more power to drive it. We have found from experience that a 12" x 14 gauge saw blade takes approximately  $\frac{1}{2}$  h.p. more power to do full cut, compared with a 12" x 16 gauge, because of the additional amount of timber being removed, and the subsequent increased braking effect on the periphery. On all models after V500 we have fitted 12" x 16 gauge saws and

10" x 17 gauge respectively as standard equipment. These cut much easier with considerably less load on the motor, but do need more care and attention with regard to maintenance.

(e) **Dado Heads**—Consists of two blades and a combination of various thickness chippers. We prefer and recommend a dado set in preference to a drunk or wobble saw. A dado set is very useful for cutting clean grooves and for rabbeting and tenoning. By using a standard  $\frac{1}{2}$ " dado set, it is possible to cut a dado or slot up to 1  $\frac{1}{2}$ " deep, and vary, according to the particular manufacturer, from  $\frac{3}{32}$ " or  $\frac{1}{8}$ " to  $\frac{7}{8}$ " width. If extra chippers are provided, it is possible to cut up to 1  $\frac{1}{2}$ " in width on the WOODFAST UNIVERSAL WOODWORKER. It is possible to do the full 1  $\frac{1}{2}$ " by 1  $\frac{1}{2}$ " depth in one pass of soft wood, but in hard wood it is often necessary to make two or three passes even if the width is only  $\frac{7}{8}$ " to obtain the maximum depth. Although aluminium inserts are readily available and can be shaped by means of a hacksaw and file to suit the dado head, wooden inserts are quite satisfactory and you could make several to suit various combinations. In doing so, try and give adequate clearance around the dado set, and yet obtain maximum support for the timber.

(f) **The Splitter or Riving Knife**—Should be one gauge heavier than the gauge of the saw being used. It is held by means of two bolts located in two vertical slots and can be adjusted or removed by using the spanner provided. It has to be removed to use the dado set or when rabbeting or grooving, or when cutting timber of a thickness greater than the maximum depth of cut, e.g., if you had to cut a piece of timber 6" thick the maximum depth of cut would be 3  $\frac{3}{4}$ " for a 10" saw, or 4  $\frac{1}{4}$ " for a 12" saw, and you would then have to turn the timber over and complete the cut from the other side. The splitter is a very adjustable, and suits both 10" and 12" saws. When setting, the contour of the splitter should never be more than  $\frac{1}{8}$ " from the periphery of the saw. Once the splitter is set, it remains undisturbed when raising or lowering the table, because it is attached to the main body casting and not the table.

(g) **Aluminium Saw Guard**—Although a totally enclosed saw guard was originally supplied with every machine and is still available, we found that it was not satisfactory when attempting to follow a line, as when sawing sheets, etc. We have developed, and are now supplying as standard equipment, a greatly improved new guard which, although just as strong, is much lighter and a lot



safer because there is now no need to remove it, because the saw can be quite clearly seen cutting the timber. If you don't want it to pivot, lift and ride over the timber, there is a nut provided so that it can be simply and securely locked. All models after V261 are fitted with this new guard, which is firmly held by means of a  $\frac{3}{4}$ " diameter bar located in the outside edge of the saw table. It can be simply raised, lowered or removed for sawing sheets, etc.

## THE MITRE GAUGE

It is designed so that various timber facings, jigs, or extensions can be attached to suit various applications, and is provided with adjustable stop rods which are particularly handy for cross cutting several pieces of timber to the same length, and also for cutting tenons on your jointer which is described later. The mitre gauge can be used on either side of the table in the slots provided, although most operators prefer to use the slot on the left-hand side of the saw blade for docking, crosscutting, or mitreing, etc. It is also very convenient to use with the sanding table and enables you to sand the ends of timber perfectly square, or to sand any angle up to 60°, and by tilting the sanding table compound angles can be obtained. When you purchase your machine you will find that the mitre gauge is attached to the sanding table by means of a small screw; this is done for packing purposes only.

## THE FENCE

Is designed to suit the saw and the jointer and tilts to any angle in either direction, and can be raised or lowered to sit on either the saw table or jointer table. It has countersunk holes provided on both sides to enable you to attach wooden facings when required. If you find that it is necessary to use the fence on the left-hand side of the saw blade, then screw a piece of timber  $\frac{3}{4}$ " thick on the right-hand side of the fence. By removing the one screw which secures it, and sliding it back 10", the fence can be shortened to suit docking or crosscutting of small sections to the same width. You can also reverse the fence so that the cut away end is the bottom edge for jointing or repating, so as to enable you to take desired depth of cut, but when sawing material of  $\frac{1}{2}$ " thickness or less it is necessary to reverse it so that the cut away end becomes the upper edge.

## 6" JOINTER OR BUZZER

It is just as important to keep the jointer knives sharp as the circular saw. We fit three blades, 6" x 1" x  $\frac{3}{8}$ ", which are shaped on one end for rabetting. They are made of an excellent quality

high carbon chrome steel, which retains a sharp cutting edge for an exceptionally long period. We advise that you keep them constantly sharp with an oilstone, and also that you carry a spare set so that they can be re-sharpened by a saw doctor or knife specialist, or us, as they become worn or gapped. The blades are located in slots in a round safety type cutting head and are held in position by four  $\frac{3}{8}$ " grub screws to each blade. These grub screws, which have flat ground on the end, are located in a longitudinal groove, which is ground in the blades. This is done as a safety precaution, so that it is impossible for the blades to fly out if the grub screws are tightened with the hexagon key provided.

On all machines after No. 540 the heads were altered, and although they are still the three-blade round safety type, the design has been altered to the conventional tapered slot and has a chip-breaker gib strip fitted, which wedges firmly against the blade. This changeover has been made in order that standard 6" x 1" blades can be fitted without the necessity of having to obtain blades with longitudinal grooves ground in them, and also to provide greater wearing life with regard to sharpening.

(a) **Setting the Knives**—It is essential that each of the knives be set so that they are perfectly level with the top of the rear jointer table when they are at the top of the cutting arc. **Method**—Nip up the screws so they just hold the blade lightly, with the blade protruding slightly above the rear table. Then line up, by alternatively revolving the head to and fro and tapping lightly down to position with a piece of end grain softwood, until the blade just touches on either extreme of its length when tested with a wooden straight edge supported by the rear table. Then tighten the screws securely, doing the centre two screws first. Make sure the screws are all tight on the blade you have been setting before you revolve the head and commence setting the next blade.

(b) **Surfacing or Planing**—It is unnecessary to use the fence when planing wide surface of boards, as the edge of the saw table makes an excellent guide. This is often very handy if you want to leave the fence set on the saw. It is unwise to try and take heavy cuts and you will obtain a much better result with less wear and tear on the knives if you make several passes, rather than try to get away with one cut. You will find that the most satisfactory results are obtained by taking cuts varying from  $\frac{1}{16}$ " to  $\frac{1}{8}$ ", according to the width of the board and the hardness of the timber.

(c) **Jointing of Edges**—Set the fence square with the table and hold the best flat surface on the timber lightly against the fence as you make each pass. You can take cuts up to  $\frac{3}{8}$ " and it is recommended that the cut be with the grain. If the edges are irregular



or distorted, concentrate on first jointing one edge true, and always do the hollow or dished edge first, then cut the second edge straight on the circular saw, and you will have no trouble jointing it parallel with the first. If you are jointing the edges of wide boards, use the countersunk holes provided in the fence, and attach a wide piece of board in order to give you a higher fence surface and more support and control of the timber.

(d) **Beveling or Chamfering**—This is accomplished in the same manner as edge jointing, but with the fence tilted at the desired angle. Make the number of passes or cuts that are necessary in order to obtain the correct width of bevel.

(e) **Rabbeting or Rebating**—Remove the safety guard and attach the rebate support arm to the front table, using a straight edge and making sure that it is perfectly level with the table. The fence is set for the width of cut, and the front table governs the depth of cut. Rebates can be cut either with the timber resting on its flat surface, or on edge. When rebating on edge, however, the width of the rebate is governed by the  $\frac{1}{2}$ " maximum depth of cut.

(f) **Cutting Tenons on the Jointer**—This is done as a very simple operation in a similar manner to rebating. First remove the cutter guard and wind the front jointer table down the required depth of cut. Now attach the sanding table and set it at the same height as the front jointer table and as close as possible to the rebate support arm, although it is not absolutely essential to use this arm. Now set the fence the correct distance from the sharpened rebate edge of the jointer blades, to give the required length of tenon. Next measure and set the slot in the sanding table parallel to the jointer fence. Then set your mitre gauge at 90° and the machine is set to cut first-class tenons with the utmost ease, accuracy, and speed. If you wish to do both ends of the timber, using the fence to give the required length of tenon, then it is essential to cut your timber exactly to length. If, however, you are cutting tenons on short rails, such as for doors of modern built-in cupboards, the best method is to cut one end using the fence to govern the length of tenon, and then set the stop rods of your mitre gauge to locate against the shoulder of the first tenon in order to cut the second. By doing this you will achieve absolute accuracy between the tenon shoulders, and this is most essential. If it is found necessary to cut tenons on long rails, then it would be a distinct advantage to use the sheet sawing attachment as an outtrigger support.

(g) **Table Adjustment**—Should the jointer table require adjustment at any time the following method should be employed. The front table is secured to the saw table by two bolts. By slightly

loosening these bolts this table can be set longitudinally parallel with the rear table, and the bolts firmly re-tightened. The rear table should be adjusted for height so as to give a bare  $\frac{1}{2}$ " cut. It also has provided for adjusting sideways to line up with the front table. On all models after V476 this is obtained by means of four adjusting screws and locknuts provided for this purpose.

## 11" DISC SANDER

This fine attachment if used to full advantage will prove to be the most useful component of the Woodfast Universal Woodworker. By taking full advantage of the tilting table and mitre gauge, compound angles and intricate shapes can be accurately sanded and given a very professional finish. If you are fortunate enough to possess the sheet sawing attachment or the wood lathe, and extension table, by simply removing the tilting table assembly from the two standard tubes supplied and sliding it on to the long tubes of the lathe bed the ends of long boards, etc., can be sanded quite easily. Set the table slightly below centre, depending on the size of the work to be sanded so as to obtain full use of the maximum area of your disc. If the disc is rotating in a clockwise direction, then use the right-hand side of it, and if rotating anti-clockwise, the left-hand side, because if you use the opposite side the work will tend to lift from the table.

(a) **Correct abrasive choice is important**—During the war years and over the last decade tremendous development has taken place in the manufacture of abrasive materials, and today there is a large range available in either close or open grain and graded from very fine grit to very coarse. This enables you to choose the correct grit to suit your particular application. The material giving the most satisfactory result and most extensively used for woodworking is Garnet paper or cloth, although limited success is possible with flint or glasspaper commonly referred to as sandpaper. Aluminium Oxide or Silicon Carbide are exceptionally good for rough treatment or production sanding, and are equally efficient for sanding wood or metal. Most of these materials can be purchased in the standard 11" disc to suit the Woodfast Universal Woodworker, or for economy you can purchase abrasive sheets and cut your own discs. We suggest that you take advantage of the open grit for rough sanding or where a lot of material has to be removed, and then finish off with the finer and closer grained abrasives. If the Woodfast is the single speed model, then best results will be obtained with the open grit because at the excessive speed there is a tendency to burn rather than cut. If, however, you possess the variable speed model, then perfect sanding conditions can be obtained by varying the speed to suit the application, although it is inadvisable to exceed 1,750 r.p.m. recommended on the job selector. If the timber or the sanding disc are showing burn marks (as will often occur when sanding hardwood), then it is apparent that you are either using too fine or closely bonded abrasive, the speed is too fast, or you are applying too much pressure.



(b) **Method of mounting Abrasive Discs**—The Holdisk adhesive cement which we recommend and supply with every machine is very easily applied in the following manner: With the aluminum disc rotating hold a piece of softwood against it for about half a minute. The heat thus obtained from friction causes the Holdisk cement to melt and flow easily. You will find with a little practice you can still hold the piece of softwood against the disc just in advance of the Holdisk cement whilst applying it from the outside edge to the centre. Be sure to give a liberal coating of adhesive, otherwise the disc will not hold satisfactorily and will shift under heavy load if the cement is too sparingly applied. Then stop the machine and press the abrasive disc firmly into place, and it should be quite ready for immediate use.

(c) **Spare Aluminium Discs**—It is recommended that you purchase at least one spare aluminium disc, although if you possess two or three spares you can take the fullest advantage of the Woodfast Universal Woodworker by being able to change over quickly to a suitable abrasive which best suits your particular application. These spare aluminium discs are quite inexpensive and you can readily appreciate what distinct advantage it would be to have more than the one original supplied with the machine.

## LUBRICATION

Where the machine is being subjected to constant use, we recommend that it be lubricated in the following manner, using Shell Alvania No. 2 or Retimax A Grease and Shell X100 Motor Oil.

(a) **Ball Bearings**—Use standard ball bearing grease and by means of grease nipples provided, give a few pumps with a grease gun at least every three months. One grease nipple can be plainly seen and easily attended to, the other unfortunately is much harder to locate and it is first necessary to remove the circular saw before it can be attended to; however, please do not neglect it because the saw has to be removed. All models after and including V262 have a grease nipple provided in the end of the saw spindle for greasing the main bearing adjacent to the circular saw, and it is only necessary to remove the saw guard and not the circular saw.

**Caution**—Do not over grease ball bearings, because an over-packed dust-sealed ball bearing is almost as hard to rotate as an under-greased one. Remember, a little grease applied often if far better than over greasing at lengthy intervals.

(b) **Table Raising Mechanism**—For all models after and including No. V103 there is a grease nipple provided at the opposite end of the screw to the handwheel for greasing the nut which is responsible for raising the table. This is done with the tables lowered

in the normal position, as when using the jointer. For earlier models it is recommended that you raise the table to the maximum height and grease the screw by smearing it with a small, cheap paint brush. It is also necessary to lubricate each end of this screw, where it is located in the main body casting, by means of grease nipples provided, or on earlier models with ordinary lubricating oil in the oil holes provided. To oil the slides wind the table up to its maximum height and lubricate all the table raising mechanism because the fine wood dust is very absorbent and if you omit to lubricate the slides or nut, then it is certain that they will eventually seize. Models V205 and after have grease nipples provided for greasing the slides.

(c) **Variable Speed Models**—Lubricate the variable speed pulley occasionally with only a few spots of oil in the slots in the inner tubular sleeve. Always lubricate very sparingly or the oil will get through on to the belt and driving faces and cause belt slip. It is recommended that occasionally you sparingly lubricate the speed selector mechanism which slides in the slot in the front panel and enables the lever to be locked at the desired speed.

(d) **Electric Motor**—Is equipped with grease-packed ball bearings and, according to the manufacturers, should require no further attention.

## ELECTRICALS

In the designing of the Woodfast Universal Woodworker considerable research was made into the electrical side, with the result that a very excellent electrical set-up was adopted which is extremely foolproof and provides the utmost safety and convenience. The direction of the machine is controlled by an extremely well made English 20 amp. switch known as the Santon Rotary Reversal with two off positions, one forward, and one reverse position. The master switch is a stop-start push button thermal overload switch fitted with 6.9 amp. heater strips for 1 h.p. single phase and 3.3 amp. for 1 1/2 h.p. 3 phase. The heater strips can be adjusted, and are set to give the motor a very safe working load, with liberal protection, but should you find that the switch is constantly throwing out when the motor is not being unduly overloaded or overheated, then you can quite safely adjust the heater strips accordingly. If in doubt, consult an electrician. The single phase thermal overload switch is a two-pole switch and is particularly safe because current contact is made with both positive and negative poles and not just one pole as in many switches. The same condition also applies to the three phase switch, where the three legs either make or break contact. Although the Santon Reversal Switch is very conveniently located on the back of the Job Selector panel (which can be very easily removed), the wiring to the motor and to the master switch is



quite complicated unless you obtain the correct wiring diagram, and we cannot accept responsibility if it is interfered with. Should you desire at any time to change the motor of your machine from single phase to three phase or vice versa, then the thermal overload switch would have to be changed and the whole machine rewired. It is far better in these circumstances that you contact your merchant and have the base of the machine sent back to our factory for the changeover. Every Woodfast Universal Woodworker with the exception of some of the early models are fitted with totally enclosed motors which give very little trouble.

## VEE BELT MAINTENANCE

(a) **Adjustment**—The variable speed arrangement is rather severe on the vee belt and it will be found necessary to occasionally make adjustment to take up wear or stretch. This is done by locking the job selector lever at the 3,500 r.p.m. position. Then stop the machine and remove the small cover exposing the variable speed pulley and also showing how the end of the job selector lever has plenty of thread for adjustment, and is secured to the motor platform by means of a  $\frac{1}{2}$ " nut either side of the protruding lug. Now loosen the top nut, which acts as a locknut, and the bottom nut can then be lowered until the correct belt tension is obtained and then once more locked in position. It is most important to take care that too much tension is not applied or it will not be possible to engage the power drive. To engage the power drive the two halves of the variable speed pulley have to be completely together to enable the ribs of the outer sleeve to be released from the slots of the inner sleeve in order that they can be rotated to the correct position. Over tensioning would force the vee belt tightly into the vee of the pulley, making it impossible to rotate the outer sleeve because the ribs would not be free of the slot. This may sound complicated, but all it means is that when adjusting the tension you must leave just sufficient slackness to enable you to engage the power drive. After the power drive is engaged, you will get all the belt tension you need (if you have made your adjustments correctly) when the indicator is lowered to approximately the 3,300 r.p.m. position.

(b) **Replacement**—If after considerable use the vee belt needs replacing, this is quite easily accomplished. Firstly, we would suggest that you try to obtain the same brand of vee belt with which the machine was originally fitted, namely a Dawson Speedona A60, but if this is not possible, then use a good well-known brand. Secondly, raise your job selector to the 3,500 r.p.m. position and remove the belt from the variable speed pulley. Thirdly, remove your circular saw and then the small aluminium cover plate located just above the two  $1\frac{1}{2}$ " attachment location holes. Then using your large hexagon key spanner, remove the two  $\frac{3}{8}$ " set screws which secure the bearing housings and the whole spindle assembly

can be simply removed, the vee belt replaced, and the spindle again located and securely fastened back into its original position. After locating the new belt in the vee of the variable pulley and making sure that it is also located correctly in the small steel pulley on the main spindle, you can then proceed to adjust the belt tension in a similar manner to that previously explained for taking up belt stretch.

## Woodfast Attachments

The unique features which are exclusive to the Woodfast Universal are that you never disturb the jointer or circular saw in order to fit or use any of the attachments and the simplicity with which all attachments are fitted. The importance of these outstanding features cannot be over emphasised, because they make the Woodfast Universal so extremely convenient.

### MORTISER AND DOWELLER ATTACHMENT

During the last quarter of a century a very large proportion of all woodworking has passed from the hands of a few skilled experts to the amateur and hobbyist and, of course, many of these have since branched out into quite profitable businesses. As was to be expected, many of the old accepted methods of cabinet making and carpentry and joinery were to be replaced by quick, simple methods which have since proved to be quite satisfactory and equally effective. Amongst the foremost of these short cuts are the extensive use today of the plain round-ended mortise and tenon and of dowl-ling. There would be very few pieces of furniture and framework for built-in cupboards made today that are not incorporating these two methods. If you do not possess the Woodfast Universal Mortise and Doweller Attachment, we suggest that you obtain one at your earliest convenience and be amazed at the ease with which these operations can be performed. This attachment, which is sturdily constructed, can be used on the single speed or variable speed Woodfast Universal. It allows the timber to be gripped securely and a mortise of a given depth, length, and depth and centre height performed with the utmost accuracy. There is a large range of mortising cutter bits available in either the plain flute or with the chip breaker, having  $\frac{1}{4}$ " diameter shanks to fit your adaptor. To use it, simply reverse the machine to rotate anti-clockwise, drill a series of holes about three-quarter of their diameter apart and then



in-between holes so that the bulk of the material is removed and then finish the slot by sliding the table to and fro sideways. If you use a Jacob's chuck on the machine, you will find that it will only lock tight when revolving in an anti-clockwise direction and as soon as the machine is reversed it will usually loosen.

## THE SPINDLE MOULDER ATTACHMENT

As the bulk of all moulding today is straight moulding this attachment was designed specially for that purpose. To obtain the required depth of cut, it is necessary to release the screw located in the slot and raise or lower the yoke and table assembly. The rear table is adjustable to suit the various moulds. The standard fence is used with the spindle moulder in the same manner as with the 6" jointer. It is advisable to obtain spare heads and cutters and leave them set so that you can set the machine for cutting some of the most common shapes in a few seconds. This unit should be driven at top speed with the power drive engaged. There is also a small sanding drum which can be fitted in place of the cutter head and which has proved very useful for straight sanding. This attachment can be fitted to either the single speed or vari speed model Woodfast Universal.

## 10" BANDSAW ATTACHMENT

The performance of the 10" Woodfast Junior Bandsaw is practically doubled when it is fitted to the Woodfast Universal because of large increase in horsepower and the increase in speed over what is generally used for small bandsaws. Timber up to 4½" thick can be cut without any effort on this fine attachment and you will be amazed at its general capabilities. It is fitted with a special foot mounting and a rubber mounted direct drive coupling. It is important to use only 26 gauge bandsaw blades and to see that both your top and bottom guides are adjusted correctly and that the blade tracks in the centre of both wheels. When fitting a new blade it is necessary to release the grub screws which hold the bronze guides and the hardened thrust rollers. Then rotate the machine by hand and at the same time alternate between tensioning the blade and tilting the top wheel until the blade runs true in the centre of both wheels and has a fair amount of tension. Now lightly push your bronze guides and hardened thrust rollers into the blade until they barely touch it, re-tighten the grub screws and your machine is ready for use. Periodically remove your bronze guides and file the ends square if you want to obtain the best results from your machine. If the saw cut wanders it is usually because the saw has more set on one side than the other, and it will be necessary to have it re-sharpened and reset. It is a good idea to have several spare blades and you should at least have a ½", ¾", and 1". This attachment can only be used on the variable speed model Woodfast Universal.

(a) **Correct speed, 1,000 r.p.m.**—It is most important that the 10" bandsaw never be driven faster than the bottom speed of 1,000 r.p.m. recommended on the job selector. If it is started at faster speeds, the rubber tyres will fly off with the centrifugal force created. We suggest that you make a habit of never engaging the direct drive coupling until the job selector lever has been lowered to the bottom speed and no trouble will be experienced.

(b) **Literature available**—Complete illustrated literature is available from your merchant on application fully describing this machine.

## JIGSAW ATTACHMENT

This can only be used on the vari speed model Woodfast Universal, and like the 10" bandsaw, it is essential not to start this attachment at any speed faster than the bottom speed of 1,000 r.p.m. or damage is likely to occur. As with the bandsaw, get into the habit of setting the speed of 1,000 r.p.m. before connecting the jig saw and no trouble will occur.

(a) **Method of Attachment**—First remove the rebate support arm from the jointer table, next release the spring tension by unscrewing the front red knob and the insert, the two 1½" spigots, making sure that the grub screws in the connecting rod boss lines up with the tapered flat on the power take-off spindle, slide the whole unit forward and after it is correctly located, tighten the grub screw in the control boss and lock the attachment in position. Now rotate until the eccentric and control boss are top dead centre and then grasp the top red knob and lift approximately ½" to ¾" and sufficient tension will be applied to the saw, then lock firmly in position with the front red knob. It is most important to adjust the height of the support finger with the side red knob so that material to be cut will just pass under it. This adjustable finger prevents the job lifting on the return stroke and a small blower keeps the cutting area free of saw dust and enables you to follow a line or stick on type patterns very easily. The table, which will tilt to 45°, is 12" square and there is 18" capacity between the blade and the frame. The method of changing blades is self-explanatory, as it is only a matter of loosening two grub screws on the plunger below the table and the small grub screw in the lock ring at the bottom of the top spring-loaded plungers. However, make sure that you release the spring tension before attempting to change blades.

(b) **Lubrication**—Remove plastic air hose from connection on the top red knob and give two or three drops of standard lubrication oil for every eight hours' running. There is an oil reservoir cup



provided to lubricate the bottom plunger, which should be filled also after eight hours' running. The connecting rod has a special scaled ball race in the lower half which should not require any attention, but the small end needs lubricating with two or three drops of oil every three to four hours of running.

## WOOD LATHE ATTACHMENT

This sturdily constructed unit is a real machine and not just a toy as are fitted on most combination machines. This machine is not limited to turning just egg cups or serviette rings, but will quite comfortably handle jobs such as lamp stands, table legs, softball bats, etc. The centres of the standard length lathe beds are 36" apart. The position of your steady rest can be altered to suit face plate turning of such articles as nut bowls, etc. It is solidly constructed of 1½" heavy duty tubular bars and heavy castings and standard equipment includes two centres and 3½" and 6" face plates and chisel assembly. By purchasing the extension table support bracket assembly, it can be used as an outrigger support for sanding, dowelling, and sawing of long timber or sheets of ply, etc., and for cutting tenons on long rails with the jointer.

## SHEET SAWING ATTACHMENT

This is fitted in the same manner as described for the wood lathe, but the extension table support bracket is fitted. It consists of the standard 1½" tubes of the lathe bed end support stand and extension table support assembly. The two tubes supplied for this attachment and the lathe bed are 48" in length, although longer tubes can be supplied if required.

## VERTICAL DRILL PRESS

This is fitted with a three-step cone pulley, which gives a good range of speeds with the single speed unit and a very comprehensive range with the vari speed model. The spindle revolves in ball bearings and a spiral spring gives the quill a quick return. The end of the spindle has the same ⅝" dia. precision ground spigot and tapered flat as the standard machine, so that the same accessories, drill holder, Jacobs type chuck, etc. can be fitted. It easily drills up to ½" diameter in steel as well as being particularly handy for wood drilling, boring, countersinking.