

Price 10c.



LEARN TO SPIN

and Assembling Instructions

DESIGNED AND MANUFACTURED BY

ASHFORD HANDICRAFTS LTD.,

P.O. BOX 12, RAKAIA, NEW ZEALAND.

Also at West Street, Ashburton, New Zealand.

Home Spinning for Everyone

SELECTING FLEECE WOOL

Wool is easy to spin because its natural grease (lanoline) allows the fibres to pull and glide past each other.

Choose a fresh shorn fleece for preference, with a staple (length root to tip) of 4-6 inches. Hogget wool is best. A woolly hogget is a grown sheep not previously shorn. The wool fibres should not be too densely packed, but have an open appearance. Avoid wool that is discoloured, dirty, matted, cotted or breaks easily when flicked between the fingers.

Wool is classified by its "count." A fine Crossbred or Romney with a 48/50 count is easy to spin. Fine Merino wool has a count up to 90 and is definitely for the expert. Be selective if you have a choice.

Sheep breeds produce their own characteristic wool varying from short to long, and fine to coarse and hairy. Generally speaking, spin soft wool for garments and coarser wool for floor rugs, etc.

SORT FLEECE

Sort fleece into separate piles for colour and texture. Discard skirtings and soiled wool. These can be washed and used for other purposes, e.g. stuffing toys and cushions.

PREPARING WOOL TO SPIN

Nearly all wool benefits by being carefully prepared and makes spinning so much easier. The object is to remove broken fibres, vegetable matter, "second-cuts" in shearing, and incorporate as much air as possible.

In WOOLLEN YARN all fibres are thoroughly mixed and lie in all directions.

In WORSTED YARN the fibres are more or less parallel.

SPINNING IN THE GREASE is spinning straight from a fleece which has had absolutely no preparation. However, not many fleeces lend themselves to this.

Prepare only small handfuls of wool at a time. Pick up 2-3 staples and pull apart sideways with the fingers.

COMBING. Hold the staple in the middle and comb the tips and then the root. Fold root to tip and spin from the folded wool.

CARDING

Hand cards are used in pairs and consist of metal teeth set into leather and attached to wood frames. Mark the cards for right and left hand use. Take 3 staples, spread apart and wisp the root end on upper teeth of left card. Now holding as illustrated, draw the right card across the lower edge of left card. (Do not tug and drag as this damages the wool. Carding movements are firm but light). You will notice a fringe of wool developing. Keep it free. Replace the right card half-way on the left card. Comb gently downwards. The third time, comb the whole length of staple. The wool is now probably on the right card. Turn the right card over, replacing wool on left card. Repeat the process until the wool is thoroughly airy, confused and without trace of noils. Now try flicking the wool on to the back of one card and rolling light to make the traditional rolag. Card up a basket of rolags. Carded wool is wonderful to spin.

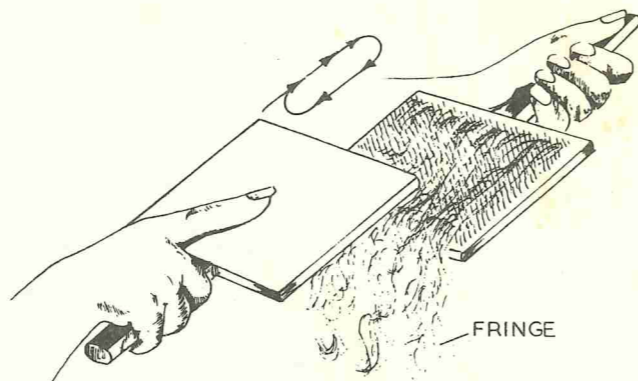
DRESSING THE WOOL (adding oil)

If wool is dry and brittle (having been stored too long) it needs dressing to put back the spinning advantages of natural grease. Washed wool requires dressing. Wool that is clogged with grease, or the grease has dried out, also needs treatment. If wool is slightly warmed or placed in the sun it spins more easily. Pander to extra greasy wool by placing it on a hot-water bag! Treat the wool in one of the following ways:—

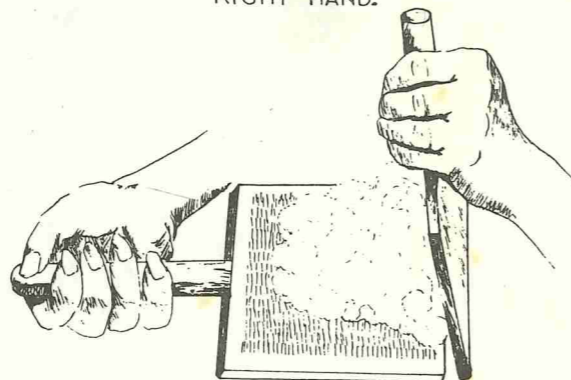
- Add oil while carding or combing.
- Impregnate the fleece and leave rolled in newspaper for 24 hours.
- Keep fingers moist whilst spinning, by dipping into bowl of oil or kerosene.

Use only vegetable oils. Make a suitable oil as follows:—

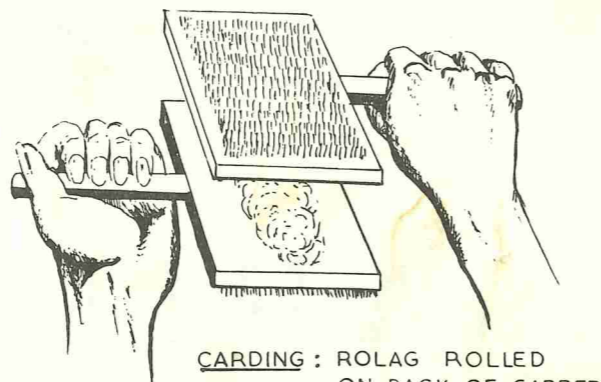
- To equal parts of olive oil and water add quarter part ammonia.
- Dissolve 1oz. washing soda in 1 pint water. Add to Neatsfoot oil until a milky emulsion is formed.



CARDING: CIRCULAR MOVEMENT WITH RIGHT HAND.



CARDING: FLICKING WOOL FREE.



CARDING: ROLAG ROLLED ON BACK OF CARDER.

BEGIN TO SPIN

BEGIN TO SPIN

This is the exciting part. For best results "make haste slowly" FEET FIRST! Sit comfortably at your wheel and practise treading. Treadle slowly and practise stopping and starting. Develop a steady rhythm.

HANDS IN HARMONY. Tie a ball of wool or string on to the bobbin and practise spinning it up, until you can feed it in smoothly and evenly.

Feet and hands should work at approximately the same pace. You'll soon develop perfect co-ordination.

Remember the single yarn you are about to spin determines the thickness and quality of the plied yarn when it becomes a two or three-ply.

SPINNING YOUR FIRST YARN

Treadle the wheel clockwise, i.e. to the right. Make a final check with testing instructions for a smooth start.

TO THREAD-UP

Place empty bobbin on spindle. Tie 12 inches "leader" wool to bobbin (it mustn't slip) and carry over the nearest distribution hook. Insert the threading-hook from front of spindle, and draw the leader wool through the spindle eye towards you. See brakeband is lightly in position.

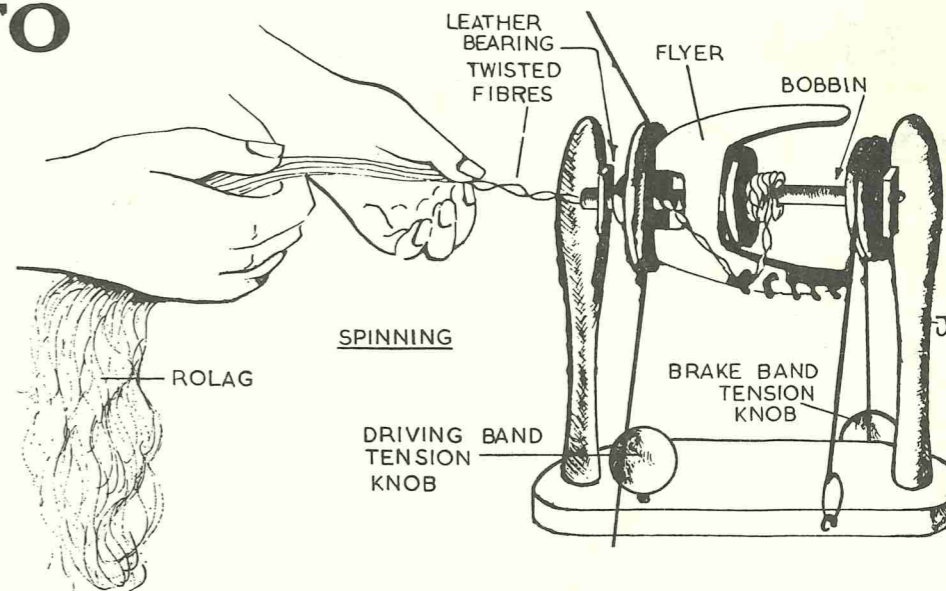
- Place rolag in left hand with leader lying on top. Begin to treadle slowly.
- Notice how the leader begins to turn, latching on to loose fibres and at same time drawing them through the spindle and winding on to bobbin.

If the yarn does not pull in, but keeps twisting and kinking, add a little more tension by screwing in the brake-band tension knob. However, too much tension causes the yarn to pull in very quickly, with the result that the beginner spinner is constantly re-threading.

- Speed up treadling and at the same time draw out from the rolag a uniform bundle of fibres. This is easily done by grasping the yarn in finger and thumb at front of spindle and using finger and thumb of other hand, ease, manipulate and draw the rolag back towards your body.
- Release the finger grip nearest the spindle. Watch the twist running along the yarn, but do not allow it to enter the rolag. Pulling out the required fibres and controlling their thickness and amount of twist is called "drafting."
- Now assist the yarn to feed in by moving hands towards spindle opening.
- Continuous spinning is achieved by repeating steps 3, 4, and 5.
- Keep moving the yarn along the distribution hooks for even filling.

This is the action:—

- Pull out required fibres.
- Hold at a point 4-6 inches from spindle to prevent twist entering rolag.
- Allow fibres to twist for strength.
- Assist the yarn to feed in by moving hands towards the spindle.



Movements can be made with either hand, whichever suits you best. Sit comfortably. With experience you will be able to make longer "drafts," up to 20 inches if desired.

TO START A NEW ROLAG or repair a break. Place yarn from spindle in centre of rolag (or combed wool) and draft as before. Allow plenty of overlay for a strong easy join. Do not tie knots.

A good yarn is soft and even, but should have some of the textured look which gives homespun their special individuality and fascination.

To test the yarn for its two-ply appearance, draw back six inches of twisted yarn from spindle. Now at three inches pinch yarn between finger and thumb and watch it twist together like rope. Is this what you want your two-ply to look like? If not, start drafting thicker or thinner accordingly.

FAULTS

OVERSPINNING—This means too many twists and the yarn is hard, kinky and stringy. Overspun wool tends to slant when knitted.

If you are overspinning, make the following checks:—

- Don't treadle so fast. SLOW DOWN TREADLING.
- Once the yarn is twisted, feed in immediately. Don't hold back.
- Slightly increase tension on brakeband.
- The yarn may have come off the distribution hooks or knotted around them.
- Should there be drag or roughness in the spindle, smooth with metal file.

UNDERSPINNING—The yarn falls apart due to insufficient twisting.

- Reduce tension. The yarn is being pulled in before twisting sufficiently.
- Treadle a little faster.

WHEEL IS HARD TO TREADLE.

- Oil all moving parts.
- Driving belt too tight. Slacken off. Use resin on belt for added grip.
- Lock nut (see step 7) needs releasing.

TO CHANGE BOBBIN

Unhook brakeband and hold flyer unit. Twist bobbin upright J to release metal spindle from leather support. Do not bend or damage leather. Slip off bobbin and replace with empty one. Check to see it runs freely on spindle.

HOW TO PLY THE YARNS

HOW TO PLY THE YARNS

Plying is carried out to give wool added strength, bulk, texture and variety.

A single yarn is often used for weaving.

Two-ply yarn is ideal for knitting, crochet, etc.

Three-ply yarn has less texture and more strength.

Variations are achieved by plying yarns of different thickness, types and colours. The experienced spinner may like to experiment with "S" and "Z" twists for infinite varieties.

TO MAKE TWO-PLY YARN. (Spin the wheel anti-clockwise, i.e. to the left).

Place bobbin holder (Lazy Kate) on floor with two filled bobbins. Put empty bobbin on wheel and after threading, tie the leader to the two yarns from Lazy Kate. Rotate bobbin by hand until knots are past distribu-

tion hooks. Faster treadling and more brakeband tension is necessary for plying. With the index finger of one hand, separate the yarns. With other hand, slide, finger and thumb away from the spindle, and hold firmly at a distance of 6-10 inches until sufficient twists are made. (Do not over twist). Now help this twisted yarn to feed-in. Repeat the process.

These are the steps:—

a. With index finger, separate and keep control of yarns coming from Lazy Kate. Avoid jerky movements.

REVERSE TWIST,
WHEEL SPINS TO
LEFT.

PLYING TWO YARNS.

LARGE
HOLE

b. Slide finger and thumb away from spindle.

c. Hold the two yarns at this point until sufficiently twisted.

d. Assist with feed-in.

e. Add tension to brakeband as bobbin fills. Use distribution hooks to fill bobbin evenly.

f. Add tension to driving belt if it should slip.

For three-ply yarns, use three filled bobbins. When plying is completed, slacken off belt and brakeband tension before commencing to spin again.

SKEINING

Leave bobbin on wheel but release nearly all brakeband tension. Wind wool around skeiner or flat piece of wood. Tie skein in four places to prevent tangling when washing.

WASHING — Handwashed homespuns always retain a certain amount of natural lanoline which "turns" both wind and rain, making the garments so very desirable for outdoor wear. Heavy garments are sometimes made from unwashed wool, but that depends on how and where they are to be worn; Talcum powder on hands and needles makes greasy wool easier to knit.

Soak skeins in cold water for half an hour. This removes a lot of dirt. If desired the skeins can now be dried and knitted.

However, most homespuns are washed thoroughly. Wool is not harmed by high temperatures, but felting occurs when the fibres are harshly rubbed together. To wash homespuns, squeeze well in hot sudsy water. Rinse thoroughly. Leaving a film of soap gives wool a dull appearance. Dry the wool by hanging in a current of warm air. Avoid sudden direct heat.

DYEING HOMESPUNS

This is an art in itself, but homespinners sooner or later want to try a hand at it. Here are a few tips.

Homespinning and vegetable dyeing are natural partners. The lovely muted tones of ancient tartans are fine examples. Chemical dyes can be used, but they aren't half the fun of combing the country looking for all sorts of likely materials such as berries, bark, leaves, flowers, lichens, moss, etc. Even when faded, vegetable dyes can still be pleasing.

Because wool is naturally water repellent, a "link" has to be introduced between dye and wool. This is called a mordant. Common mordants are alum, copper sulphate, bichromate of potash, baking soda and cream of tartar. It takes approximately one pound of vegetable to dye one pound of wool. Make lots of small skeins of wool and experiment with colours, keeping a record of them. Always dye sufficient wool at a time, because it is almost impossible to get the same shade twice.

Wool for dyeing must be very clean.

Dissolve mordant (e.g. 3-4 ozs. alum in container of water big enough to hold one pound of clean wool) bring slowly to boil and simmer for approximately 20 minutes. Cool wool in water.

Having boiled the vegetable matter in a muslin bag and obtained sufficient dye, enter the wet wool into the dye bath and maintain at even temperature until the right colour is achieved. Stir gently. Do not use aluminium. Rinse thoroughly and dry gently. Wool, mordant and vegetable matter can all be boiled together for quick effect.

Vegetable matter varies from place to place and season to season, but generally speaking the following colours and plants are associated:

New Zealand flax seed pods — fawn, brown, tan and apricot.

Grape hyacinths—blue.

Blue gum—yellow, tan.

Marigolds—yellow, gold.

Onion skins—gold, brown.

Lichens—fawns, mauves.

Elderberries and dandelions—greens.



Of course fibres other than wool can be spun, and these include, cotton, flax and animal hair, etc.

Ashford Spinning Wheel History

During World War II, the Ashford spinning wheel was developed to aid women in their desire to make woollen wear for soldiers and sailors. The high-country farmer and musterer has always appreciated the hardwearing qualities of homespuns. When the late Dudley B. Ashford patented his "flyer unit" the Wool Trade were astonished to think someone could invent anything to add to the long established spinning wheel. The Ashford patent flyer simplified the bobbin-change. By adjusting the rear "maiden" the bobbin was on and off in double quick time.

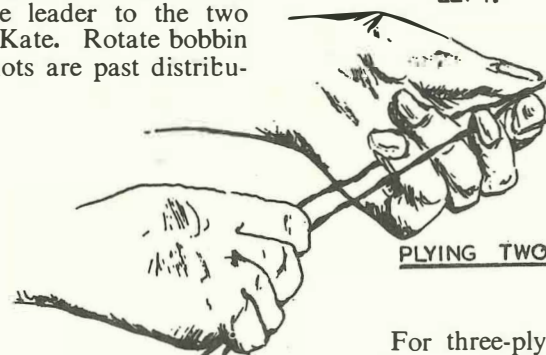
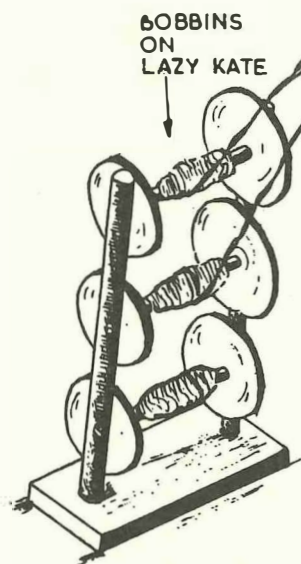
The spinning wheels were made in the factory at Rakaia and posted all over New Zealand. Because the wheels were produced in the form of a kit-set, they saved man hours in the factory, and were marketed at an extremely low price. At the end of the war most spinners retired, but a small hard core kept the craft alive, and it is mostly due to their efforts (coupled with an awareness of the quality of wool) that has launched homespinning on its fascinating return to popularity.

In New Zealand today there are thousands of homespinners and a national council has been set up to advise and promote this craft. The quality of homespuns has gone from strength to strength, and tourists are delighted not only to buy garments, but spinning wheels as well.

Today's Ashford spinning wheel has benefited by modern manufacturing methods. It can still be obtained as a kitset, and because it is a spinning wheel within the means of the average person, this perhaps more than anything has helped spinning to become a household word.

More than 15,000 Ashford spinning wheels are in current use.

Written and Produced
By Walter and Joy Ashford.
Illustrations by Gay Ashford,
Dip., I.D.



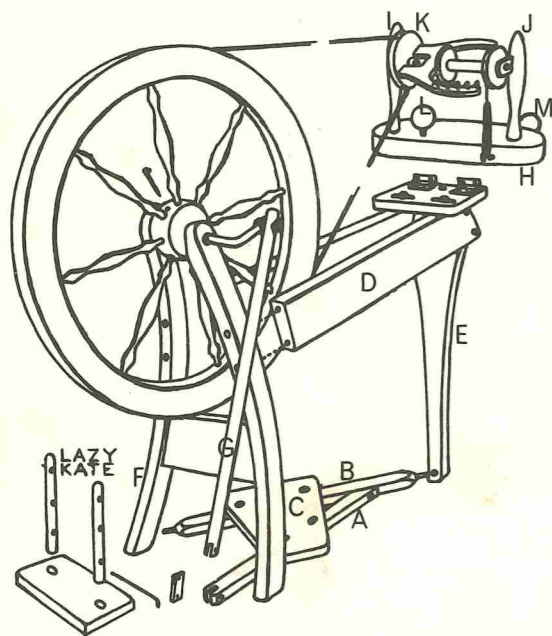
Ashford Spinning Wheel

FINISHING YOUR WHEEL

Before assembling consider the final finish you are going to give to the wheel. Apart from enhancing the appearance this protects the wood from absorbing grease from the wool. It can be easier to do this before assembling but this is up to you. All rough surfaces should be smoothed with the garnet paper supplied.

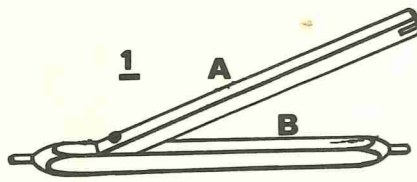
For a dark finish we recommend an oil stain followed by several coats of clear lacquer. In between each coat rub down with steel wool. Alternatively french polish can be applied with a brush or pad.

Linseed oil can be rubbed into the wood and then polished well with a wax polish.



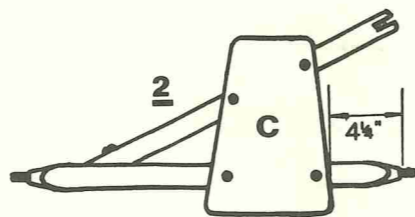
GENERAL

Read each step right through before commencing. Wax or soap rubbed onto screw threads will make screwing easier.



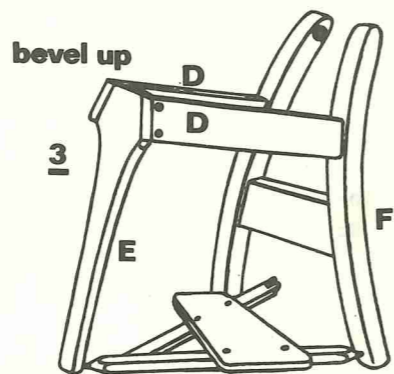
STEP 1

Treadle rails A and B are screwed together with a 1½" round head screw. Holes are pre-drilled.



STEP 2

Treadle board C is now attached with four 1" counter sunk screws and positioned 4¼" from the end of rail B. Holes do not need to be drilled in A and B. Keep bottom edge of C parallel to rail.



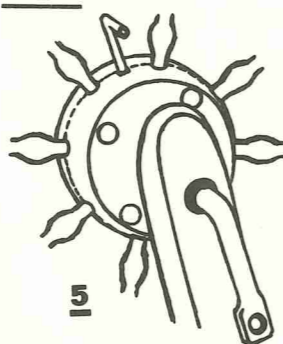
STEP 3

Connect the rails D to leg E with four 1½" round head screws. Keep the rounded edges of D on the outside and the bevels on top.

STEP 4

Use a large screwdriver. Take the wheel support legs F (factory assembled) and start four 2½" round head screws through these legs into the ends of rails D. Before screwing up tight fit the treadle assembly between legs E and F.

STEP 5

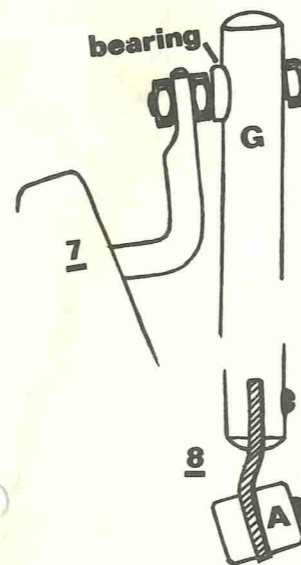
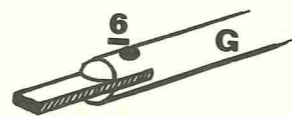


Place the wheel in position between the legs and insert the crankshaft. This has deliberately been made a tight fit in the hub so do not lubricate or ream out the hole. To secure the wheel first locate the hole in the crankshaft by pushing a fine knitting needle or nail through the lead hole in the hub. Hole in crankshaft is in line with crank. Twist the crankshaft backwards and forwards till the hole is located. Remove the knitting needle and tap in the pin. Use pliers to hold the pin and drive right home.

5

STEP 6

The small rectangle of leather forms a flexible joint and is held in G with a ¾" round head screw.



STEP 7

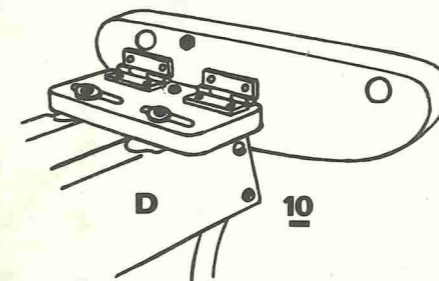
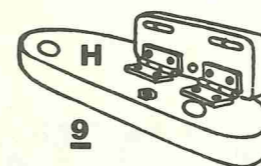
Fit the bolt through the bearing in connecting rod G and screw on the first nut leaving a small clearance to the plastic bearing. Screw through the crankshaft then fit the second nut. Tighten both nuts against the crankshaft.

STEP 8

Insert the leather into A and fix with a 1" round head screw. Now treadle the Spinning Wheel and check the action.

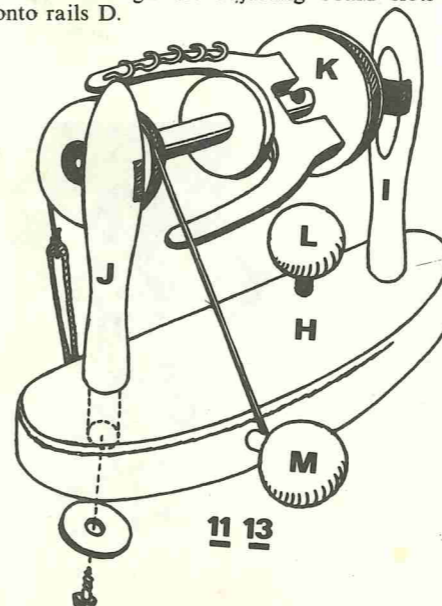
STEP 9

Use ¼" countersunk screws to hinge the adjusting board to the horizontal bar H. Lead holes are pre-drilled.



STEP 10

Put two 1¼" round head screws through the metal washers then through the adjusting board slots and loosely screw onto rails D.



STEP 11

Flyer upright I has the large hole in leather bearing and may be glued into H. Ensure the leather bearing is at right angles to H. Flyer upright J must twist to allow changing of bobbins. A ¼" round head screw clamps the large washer to the bottom of J and can be tightened if J wears loose. Now fit flyer and bobbin between these uprights.

STEP 12

Fit the driving cord around the wheel and the flyer pulley K and tie with a reef knot. Sight along the cord and slide the horizontal bar until the pulley and wheel are aligned. Hinge back the horizontal bar and tighten the screws through adjusting board. Check again for alignment by treading the wheel and when satisfied hinge back the horizontal bar to fix a third 1¼" screw through the adjusting board into leg E.

STEP 13

Knob L screws into place to tension the driving cord. Do not have too tight. Fix five screw hooks into the flyer and a sixth into the front of H. All holes are pre-drilled. Tie the rubber band onto the end of the nylon attached to tension knob M and fit into place. Do not wax or lubricate the spigot of M.

LAZY KATE

The two drilled lengths of dowel are inserted and glued into the base. Make sure the holes line up by inserting the wires.

OILING

The Spinning Wheel is a piece of machinery and must be kept lubricated to prevent excessive wearing of parts. This should be done AFTER the finish has been applied and any light machine oil is suitable.

OILING POINTS

- Two bearings in wheel upright F holding crankshaft.
- Bearing in connecting rod G holding bolt.
- Two metal projections at each end of treadle rail B.
- Leather bearings on each upright I and J.
- A good quantity of oil should be run down inside every bobbin.

Upright J should twist easily for rapid changing of bobbins. If too stiff loosen off the washer underneath or remove the upright and wax the spigot. DO NOT rotate this upright by levering on the leather.

RUNNING IN

A newly assembled wheel can be a little stiff, but after an hour or so of treading this will greatly improve. Check that all parts rotate freely before spinning. A well running wheel is silent and any points that squeak should be oiled.

P.O. Box 12,
Rakaia,
NEW ZEALAND.

Dear Spinners Everywhere,

And you are everywhere! From New Zealand to the Pacific Islands, Great Britain, Canada, Chile, United States of America and Alaska. But as you all have an Ashford spinning wheel, let's call it our common language. It's wonderful just thinking about it. Spinning never ceases to satisfy. As a craft it is welcome in any society, and well deserves its remarkable return to favour. The art of being creative is woman's second nature. Seated at her spinning wheel she is artist, designer, mechanic, manpower and with a little practise, her own most satisfied customer. Wool is worthy of her best creative efforts.

Wool is a wonder fibre. It keeps the heat in and the cold out! It's soft, springy, tough and useful. Wool has an alive feel. Whether you caress it or trample it (my, just look at those adorable hand-hook rugs!) you'll never find anything so satisfying as producing your own pure wool products, straight from the sheep's back.

Spinners are such friendly people. If you have never been to a one-day spinning school, why not organise your own? Be a Pied Piper, play the tune (like an advertisement in a local newspaper) and spinning wheels will come whirring from attic, shop or cellar. At such a school you can exchange ideas, learn new techniques and share knowledge. Form a small spinning group for pleasure and profit.

Spinning is a therapy. It soothes and relaxes, giving idle hours a real purpose. There's no better exercise for atrophied muscles.

At fairs and shows, spinning demonstrations quickly draw the crowd. In New Zealand teams of six compete to make garments in fastest time from stage-shorn sheep to finished sweater. "The Woolly West Coasters" produced a child's jersey in 2 hours, 21 minutes, 56½ seconds.

For some, spinning is a money spinner. One spinner writes:—" . . . in four years with proceeds from spinning I have bought a racehorse, motor scooter, craft tools, bonus bonds, and a holiday!" (I must add, she also wore out a number of driving belts, brakebands and hub pins, but because of the simplicity of the Ashford wheel, all easily replaced).

Because our spinners are so scattered, we would be delighted to hear from those of you who need help, or have developed new techniques and schemes for sharing the delights of spinning. Overseas correspondence very welcome.

Good spinning to you all.

Joy Ashford.

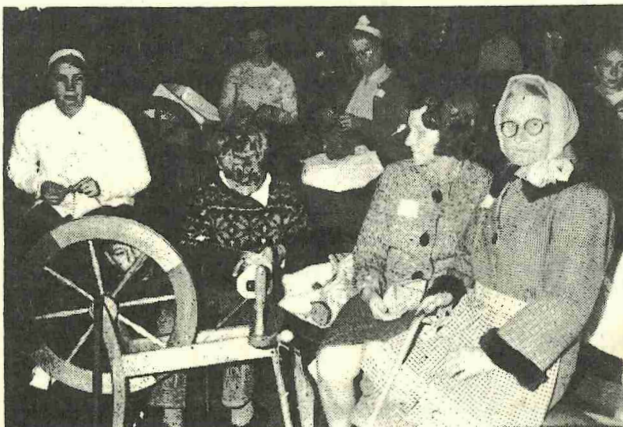
ASHFORD SPINNING WHEEL IS MOST POPULAR



One of the many well attended Spinning days held throughout the country. Over 200 interested spinners enjoyed this day at Hei Hei, Christchurch.



Spinners gathered to teach, to learn, exchange ideas and admire the finished products.



Spinning is for young and old—both get enjoyment and satisfaction.



And here's another Ashford Wheel so easy to learn to spin on. Have you tried one?