

Hobbies

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Easy-to-make Garden Furniture—a RUSTIC TABLE AND CHAIR

THE two pieces of rustic furniture shown are constructed from odd pieces of board and several old pieces of larch pole or branching. In regard to the latter, you may have an old rustic arch or something similar that could be used up. In any case,

branching could be used, including similar stuff used in making fences.

The method of construction may give you ideas for building the articles from ordinary wood, the various legs and parts being cut irregular in shape to give a "rustic" effect. It is quite possible to make the items from

$\frac{3}{4}$ in. thick wood throughout in that way.

The design for the chair is based on a small bedroom type. Begin work by getting out the hind legs, the back and bottom rails. You will notice (from Fig. 1) how these legs bend nicely. Therefore, pick pieces having a fairly decent bend in them, or if you are cutting the legs from $\frac{3}{4}$ in. stuff, cut them to produce the necessary curvature.

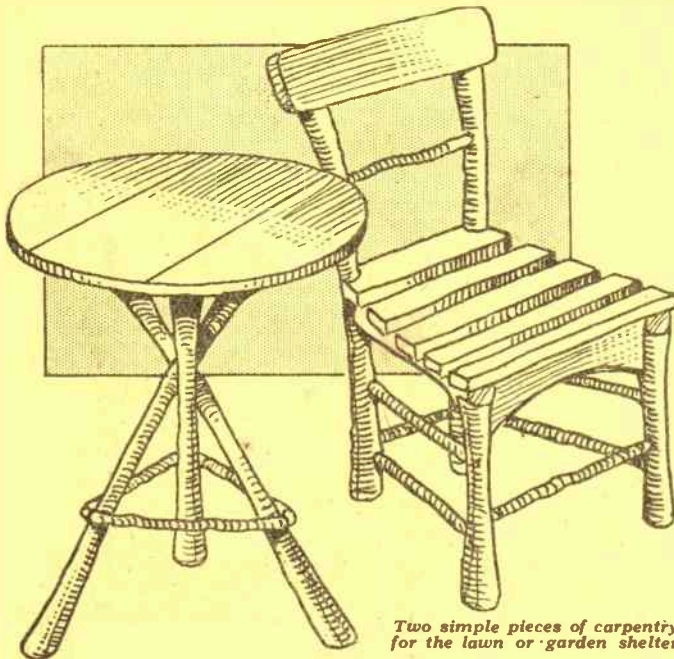
The Chair Parts

The top ends of the legs are recessed to take a back piece measuring 16 ins. long by $3\frac{1}{2}$ ins. wide by $\frac{1}{4}$ in. thick. As the legs slope inwards (see Fig. 2) somewhat, attach the back in position temporarily.

The central and bottom rails are lengths of $\frac{3}{4}$ in. dowelling or pieces of light branching. Drill holes for these so the ends fit in tightly. Owing to the irregular thickness of the branching, you may have to pare "pins" at some ends.

The hind legs slope inwards from 16 ins. at the top to about 12 ins. at the bottom. Have the light rails prepared so the frame goes together suitably. The back is affixed to the leg tops by means of roundhead screws driven in from the reverse side.

The front leg pieces are fixed to the back legs to the straight, as shown by the front elevation. The top side seat rails are, it will be seen, checked



Two simple pieces of carpentry for the lawn or garden shelter

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at the front end to fit down on the front leg tops.

Nail the side rails to the front leg tops, then drive a heavy roundhead screw into the opposite end via the back legs. To keep the front legs splayed out properly, i.e., to 16ins.

surface. To hold the boards more firmly together and also provide a good foundation for the three leg tops, reinforce the bottom side with three pieces of stuff cut to the shape shown at Fig. 6.

The dotted lines shown on these

poles, the ends are best pushed into soft soil equidistant apart and triangular, then brought together near the centre and bound with strong cord or a soft pliable wire, such as copper aerial wire. Wind the cord, or wire around and between the legs so they are virtually fixed or "locked" together.

You will observe, from Fig. 5, that the legs are splayed out greater at the bottom than at the top. The leg tops should not be greater than the diameter of the supporting pieces affixed to the underside of the table top boards.

The splay is "set" by nailing three suitable lengths of thin branching from leg to leg, about 7ins. up from the bottom ends. The top of the legs are then cut so they will rest flatly upon the upturned table top. Secure them in position with a single, heavy, roundhead screw.

Paint with Creosote

Having built the table and chair, remove all sharp corners by rubbing with coarse glasspaper. All "white" ends showing, including the new wood used, should be darkened by brush and a single coat of creosote.

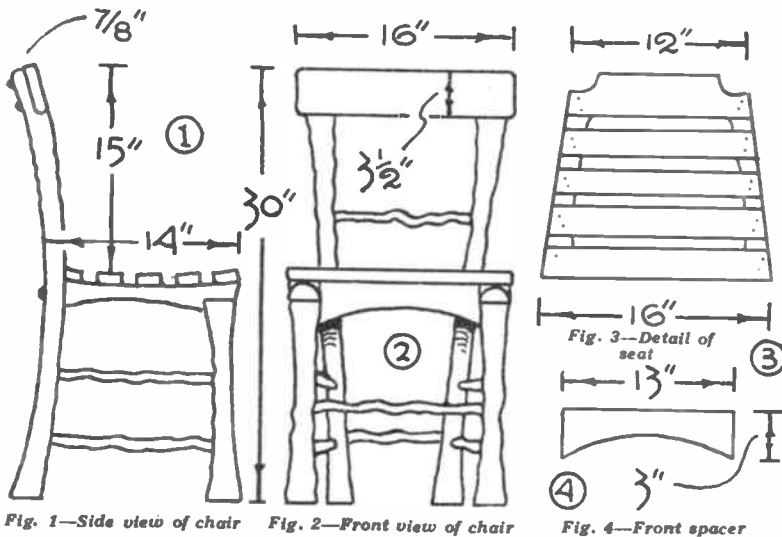


Fig. 1—Side view of chair Fig. 2—Front view of chair

Fig. 3—Detail of seat Fig. 4—Front spacer

wide, cut out and fit the "arch" piece detailed at Fig. 4. Regarding the seat, this is made up with laths of 7/8 in. thick wood. The rear rail is wider than the others; it is checked to fit around and against the hind legs, as shown at Fig. 3. Attach the rails so there is about a 7/8 in. space between them all. By the way, do not overlook the front rail fixed between the front legs; this will, to some extent, be a big help in keeping them sitting straight.

The Table

The circular, three-legged table while presenting a bit of a problem can be easily made. The top itself is built from three pieces of deal 2 1/2 ins. by 7 ins. by 7/8 in. Do not attempt to glue the three pieces together, remembering that you are making out-side furniture and that dampness, caused by rain, is detrimental to dependent glued joints.

Just fix the three boards together with 7/8 in. corrugated metal fasteners, driving these in from the underside

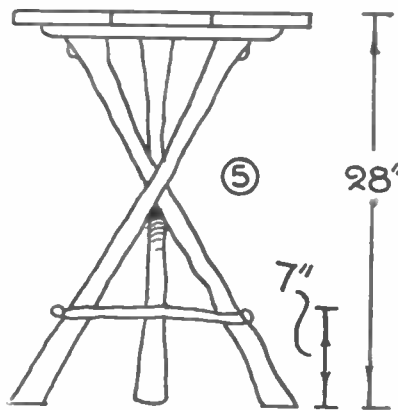


Fig. 5—Construction of table

indicate the position of the leg tops. The three shaped boards are best screwed to the table top.

You now require, for the legs, three pieces of larch pole or branching about 30ins. long. To get them fixed properly together like wigwam tent

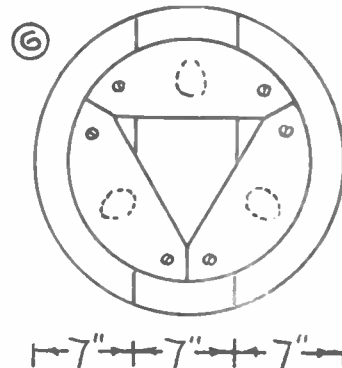


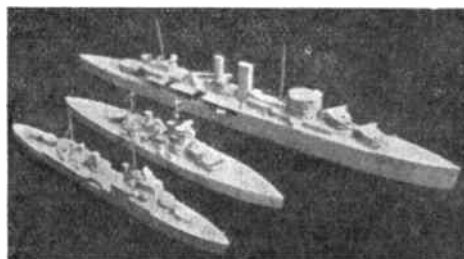
Fig. 6—Details of table top

The latter, apart from staining the wood, also acts as a preservative.

If you like, the table top and the chair seat and back rails could be given a coat of clear varnish. The varnish will brighten the work considerably and could, in fact, be applied to the branching or larch pole.

Skill of a 13 year-old Reader

THE photograph shows the skill of Master Bill of Penn, Wolverhampton. He has made many models although only 13 years of age, and last year his model of H.M.S. Exeter was a centre of attraction in a shop window display for Warships Week. More recently he had on show King George V, H.M.S. Exeter, H.M.S. Southampton, all of which you see in the picture. Congratulations to our young friend—an excellent example to many of our older readers!



Any youngster would be delighted to have A WINDMILL RUNABOUT

WHAT youngster would not be delighted with the windmill on wheels shown here? The faster he runs the quicker it spins, but given even a gentle breeze the windmill will turn without undue exertion. A few pieces of odd wood only are needed to make the mill, a good idea of which can be got from the sketch Fig. 1.

All parts need be no thicker than $\frac{1}{2}$ in., excepting perhaps the axle upon which the wheels are screwed and this might well be $\frac{3}{4}$ in. In the diagrams which fully illustrate the construction of the mill, each piece is lettered so that it should be easy to follow. In Fig. 2 a side view is shown, and a plan of the handle section seen in Fig. 3.

The Handle Portion

Now let us take the preparation of each part. Starting with A, we have a piece of stuff measuring 24 ins. by 4 ins. This tapers to 2 ins. at the handle end, where a shallow sinking is cut to receive the cross handle F, which is screwed in securely.

After cutting A, clean off the sharp edges with glasspaper and next prepare piece B—the main upright to which the windmill is attached. This piece is 16 ins. long and 1 in. by $\frac{1}{2}$ in. in cross section. The lower end is cut off at an angle of 60° where it meets the handle section, and the top too is shaped and all hard corners and edges removed.

To the back edge of piece B the bracket piece C is to be fixed and this will in turn be screwed securely to the handle section A, from below.

In Fig. 4 we give a detailed outline of bracket C, and show exactly by

measurements how it can be cut from a piece of wood 5 ins. by 3 ins.

All the cutting of the parts may be done with a coarse-grade fretsaw. Piece C must be fixed to B by $1\frac{1}{2}$ in. flat-head screws the heads of which should be sunk well into the face surface of the upright and later filled with putty or plastic wood.

Flat-head screws 1 in. in length may be used for fixing piece C to the handle section. To give side support to the upright, two angle brackets D are added, these are shown in detail in Fig. 4. It will be noticed that the lower edges of these brackets will have to be chamfered to meet the angle of the handle section. This chamfering is seen in the side view Fig. 2 and in the larger detail in Fig. 4.

Brackets and Axle

These brackets D are screwed to the handle section from below, and to the upright B, by screws inserted through the tops in a sloping fashion, holes being carefully made for the screws beforehand.

The axle bar E is 10 ins long and 1 in. by $\frac{3}{4}$ in. in section. A shallow sinking—about $\frac{1}{2}$ in. deep would answer and 4 ins. long, cut from the top surface of this piece into which the handle section is screwed.

A pair of either 3 in. or 4 in. diameter wheels is screwed to the axle bar, thin metal washers being inserted between the heads of the screws and the wheels.

The windmill is formed of two cross bars upon which are fixed the

four vanes, the latter being cut from stout cardboard or thin wood. In Fig. 6 we see the cross bars cut and shaped ready for fixing together.

A Strong Bar

The best size section of wood for these has been found to be $\frac{3}{4}$ in. by $\frac{3}{4}$ in. and each piece is 3 ins. long. To make a really rigid piece of work, the bars should be cogged together as shown in the diagram, each piece of wood having a recess cut in it centrally $\frac{1}{2}$ in. wide and $\frac{1}{2}$ in. deep. Do not wholly halve them together or the bars will be very much weakened.

Take care to mark out the sinkings first in pencil, then cut down on the lines on the flat surfaces until the $\frac{1}{2}$ in. depth is reached. The trimming away of the waste wood in between these cuts can easily be done with an ordinary sharp pocket knife.

When both pieces are done thus, fit them together temporarily to see that they fit properly. Take the precaution of getting a good fit at this juncture, for if the pieces are forced together at all after the next

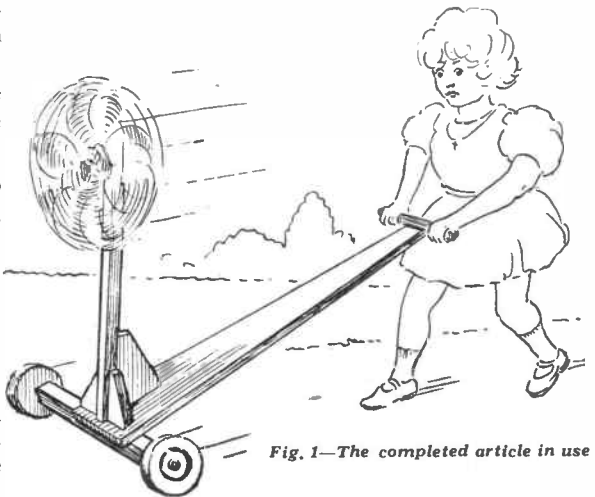


Fig. 1—The completed article in use

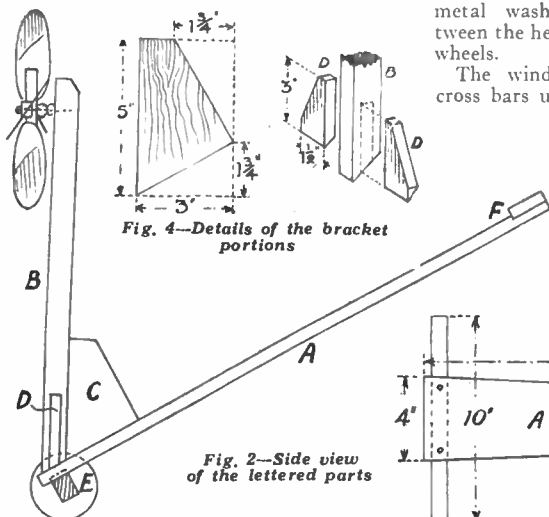


Fig. 4—Details of the bracket portions

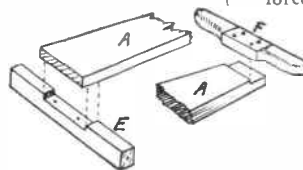


Fig. 5—How handle and axle are jointed and fixed

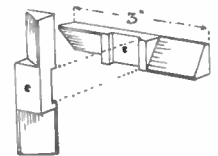


Fig. 6—The join of the millsails

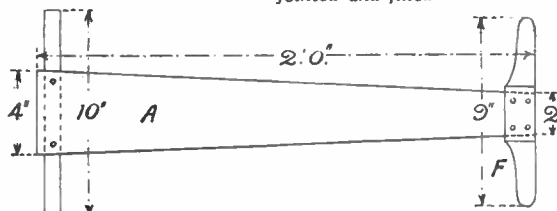


Fig. 3—Flat view of handle and bar

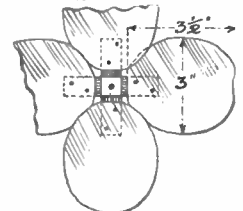


Fig. 7—Details of the vanes

shaping process is done, there is a chance that certain parts will break away and thus leave a faulty joint.

When the centres meet satisfactorily therefore, and the central hole has been bored through both pieces, mark out and cut down to form the sloping surfaces which will later have the vanes fixed to them. The diagram alone will show how these slopes are made.

The Windmill Portion

Mark diagonal lines on the two end grains of each piece, noting their directions from the illustrations. Cut down obliquely with the fretsaw on the top guide lines to sufficient depth to leave a very narrow margin along each edge.

Now with a sharp pocket knife pare away the wood until the correct surfaces are left. Some workers may find that a wood rasp will help

the shaping process, but if the wood is not too hard all the work of shaping can well be done with the knife alone.

The Vanes

Take care to get the direction of slope correct before actually commencing to cut and pare away the wood. Take particular note of the two pieces in Fig. 6, and observe how the sloping surfaces run in each case.

When all the cutting and shaping is done, fit the pieces together and run in small screws or fine fret pins to fasten them securely.

It now only remains to cut the four vanes and fix them to the cross-bars. In Fig. 7 we show how they should appear from the front and how they are secured with fine screws or if they are of card they may be glued in.

Each vane measures $3\frac{1}{2}$ ins. by 3 ins. and is more or less oval in

shape. In drawing out the outline of one of the vanes, do only half and then trace this and transfer to the opposite side of the centre line. Like this an accurate and symmetrical outline is obtained.

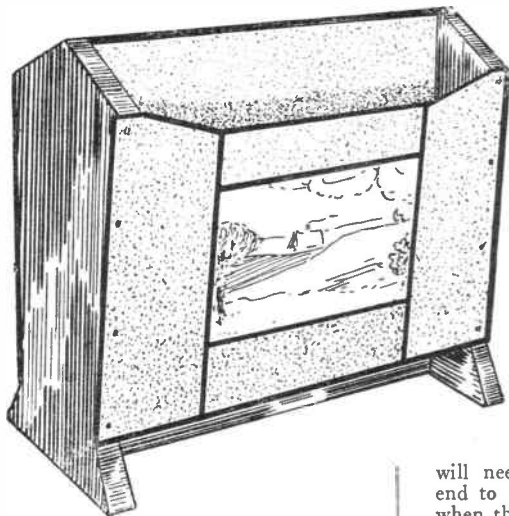
All the woodwork should be cleaned up at completion and brushed over with clear varnish. Or, of course, it may be painted up in bright colours.

Fixing the Millsails

When fixing the windmill to the upright a long nail may be used, or a length of stout wire carried through the upright and bent crosswise and fastened there with a small staple.

A glass bead should be threaded on to the nail or wire before the windmill is put on and one or two more beads added to hold the cross bars and the vanes well clear of the upright of freedom of movement.

Keep your books and papers tidy by making A MAGAZINE HOLDER



THIS would make a nice present for it is just a handy tidy to hold magazines until they are disposed of. The wood parts can be cut from $\frac{3}{4}$ in. deal. A short piece of planed matchboard would supply the wood, or three of Hobbies panels, G.D.6, will serve without waste.

Panel Sizes

Fig. 1 shows how to cut these panels which measures 4 ins. by 9 ins. Two of the panels will make the ends, A. Mark out the shape, and down the centre cut a saw kerf, $\frac{1}{2}$ in. deep, either with a tenon or hand-saw according to the thickness

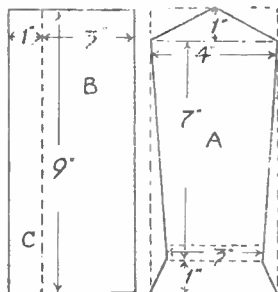


Fig. 1—Panels required

of the cardboard to be used as the division.

Cardboard, it may be added, is used both for the division and sides of the rack. Try the tenon saw on a scrap of wood first, and if the kerf is not wide enough to admit the cardboard then use a hand-saw.

Where the dotted lines cross the ends, near the bottom, chisel out a groove $\frac{3}{8}$ in. wide and $\frac{1}{4}$ in. deep, for the bottom of the rack to go in.

The remaining panel is sawn down on the dotted line, making the bottom of the rack, B, and the stiffener, C. This latter piece

will need to have $\frac{1}{2}$ in. sawn off one end to conform to the length of B when the latter is in its grooves.

Now glue and nail the parts together, as in detail, Fig. 2, and leave for the glue to set. When ready, punch down the nail heads and fill the holes with stopping, then give the woodwork

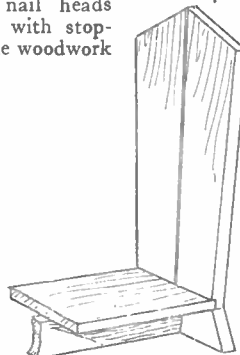


Fig. 2—Showing construction

a coat of stain and two of varnish.

The cardboard sides are cut to the shape shown in Fig. 3. Also, cut to the same shape a covering of fancy, or brown paper. On this (the paper) mark the vertical and horizontal line shown and cut out the small panel.

This is just postcard size, and it is proposed to use picture postcards, one to each side, as decoration. Now paste the papers to the cardboard and in the panel spaces the picture postcards.

Panel Frame

Get some paper strips, $\frac{1}{2}$ in. wide, black or coloured, and gum on the lines to form a surround to the panel pictures. Cut more strips, this time $\frac{1}{2}$ in. wide, and paste over the edges of the cardboard as a binding.

The division is now cut. This can be measured from the wood frame itself. It is covered with fancy paper and has its top edge bound with paper strip, just like the sides.

Then glue the edges and push down in the saw kerfs. The sides are then fixed to the ends and edges of the bottom, with small brass-headed nails, or round-headed screws.

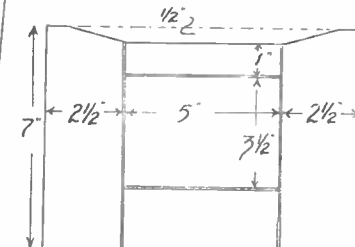


Fig. 3—The cardboard sides

THINGS *you* SHOULD KNOW



"I WISH I could buy a new bicycle bell," a friend grumbled the other day. "The rusty thing I have gives me the willies every time I look at it. The rest of my bike is new and shiny, excepting for that blessed bell." Are you in the same predicament?

The only remedy is to enamel the bell, removing all rust beforehand by rubbing with emery cloth (old stuff) and then finally cleaning with a rag dipped in paraffin oil. Black enamel is an ideal colour. A single coat will suffice; too many coats will "deaden" the tone of the bell gong.

If the handle-bars are chromium-finished or nickel-plated, the best plan is to coat the bell with aluminium paint. It will look quite new and not be out of keeping with the bike. Here again, a single coat is only necessary. another plan is to clean the outside metal parts bright with the emery cloth, then wipe off the rusty dust with a dry rag. A coat of clear polish, or varnish, is applied, this serving to protect the metal from rust, apart from the brightness produced by the emery cloth.

And yet another idea is to have the gong chromium-plated. The rest of the bell could be painted with black enamel, or if you wish, all of the bell excepting the mechanism, of course, could be plated. Most of these suggestions are, in fact, applicable to the handle-bars.

DOES your cigarette lighter not work properly, despite careful adjustment and the use of new flints? This is frequently due to flint dust "caked" in the teeth of the flint wheel and around the base of the wheel fork. Pick the dust and dirt away with a pin or needle; score each tooth in the wheel with the point and blow off the loose dust.

When you try your lighter again, the wheel will "bite" better on the flint and the sparks will be brighter. The wheel will "throw" the sparks truly towards the wick, thanks to the clearance made at the wheel fork. The flint "mud" accumulates, of course, by degrees. It becomes "muddy" on account of excess petrol travelling up the flint feed pipe. Damp, greasy fingers also cause it to gather and become the bother it is. Frequent cleaning, with nothing more than a pin or needle, is essential with all petrol lighters.

SHOULD you happen to break the 3rd. or 4th. (fine) steel strings on your banjo or mandolin, quite good substitute steel strings can be made by unwinding a strand off a length of old bicycle brake cable. The "core" of the strands will be in fairly new condition

and take the necessary strain for tuning up to the usual range of notes. If a trifle rusty or wriggly, you can clean and straighten the strand of wire by drawing it through a piece of folded emery cloth or glasspaper.

RUBBER is scarce. You know that, but as a cyclist, do you realize how you can save rubber and save yourself a lot of bother and expense? You have only to keep using your pump.

In peace-time, for instance, well over a 1,000 tons of it went to the manufacture of bicycle tyres each year. At a rough guess, bicycles in Britain are carrying 2,000 to 3,000 tons of rubber round their wheel rims to-day. Thousands of these machines are being ridden on under-inflated tyres; this is bad going, in a double sense, for soft tyres means sheer discomfort and a waste of precious rubber.

Under-inflated tyres give only half the life of tyres that are properly pumped up. Hard tyres save wear at the thinner side of the tyres. It is the "tread"—the thicker part of the tyre—that should be in contact

with the ground—and a hard tyre ensures this, thereby saving rubber

and giving one more speedier and enjoyable riding. This, then, is an appeal to all cyclists. So, all hands to the pumps, please!

REALLY keen photographers will be interested to know that excellent annual The British Journal Photographic Almanac, is again obtainable for its 84th year. The contents are as helpful and varied as ever and every one of its 390 pages is of interest. The articles are, of course, technical to show progress, development, processes and there are included the usual pictorial gravure supplement, directories, tables and reviews. A study of the gravure section alone gives excellent ideas on subjects which now appeal, and provide the true pictorial effect with angle, light and shade, grouping, etc. The Almanac is obtainable, price 3/6, from Henry Greenwood and Co. Ltd., 24 Wellington St., London, W.C.2.

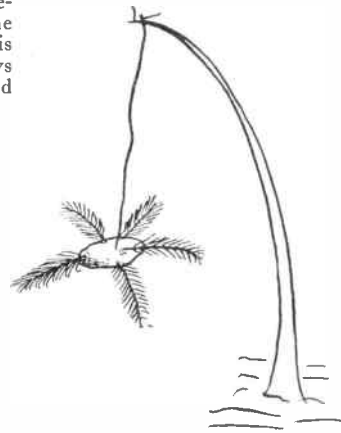
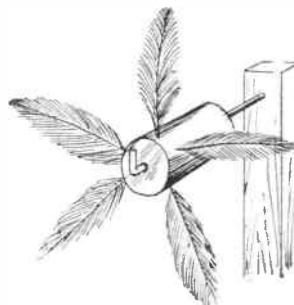
Two Simple Bird Scarers

THE average gardener's heart doesn't overflow with poetic rapture when the birds start eating the seed he has carefully sown. Some simple, though ingenious bird-scarers are here sketched for you. Naturally no dimensions or working instructions are needed.

The first is simply a few feathers stuck into a potato (or an old swede, turnip, etc.) and suspended with string from a bent stick. The string is threaded through the spud and tied to a small piece of stick. This prevents it pulling through. In the gusty winds of March and April, this simple device turns and sways scaring off venturesome feathered brigands.

The other is a bit more elaborate. You take an empty powdered-milk tin or similar, punch a hole in the bottom and lid to take an axle of stiff wire projecting from a stick. Long feathers are inserted through holes punched round the tin.

Before assembling, a few small stones are placed in the tin so that as the wind revolves the contraption, there is a noise as well as a whirl of feathers to cause the birds to think twice before approaching.

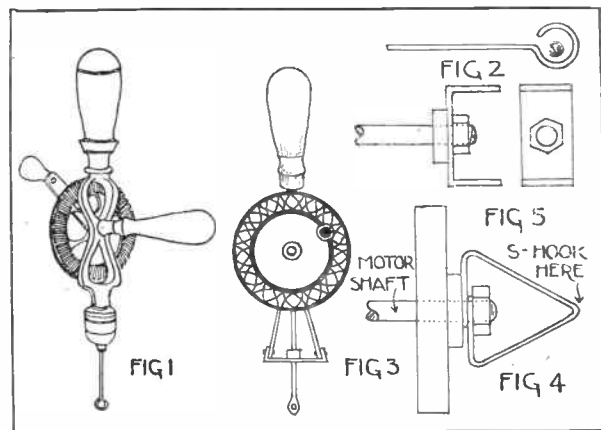


Useful hints on simple winding mechanism for FLYING SMALL AIRCRAFT

THERE are two distinct functions in flying miniature aircrafts and these have developed two equally distinct methods of winding rubber motors. One deals with winding the motor to obtain maximum power for endurance flights. The other attempts to get a maximum number of flights in a given period of time for demonstrating purposes.

The first method places the main emphasis on championship performance and aims at obtaining maximum power. The other places the audience first and looks upon flight performance as a secondary consideration.

One of the most common mechanical winders consists of a wire hook placed in a geared hand drill as shown at Fig. 1. The hook may be made by



bending a finished nail or piece of heavy wire into the shape shown at Fig. 2. Or a screw eye may be slightly opened and used in the same way.

Use of an Egg Beater

If you have no hand drill available a winder may be formed out of an old egg beater. Those with a single blade are most easily adapted.

Simply flatten out the winding end, round it off and bore a hole through it. The hole should be large enough so that the S hook may be entered or taken out quickly (Fig. 3).

Double-bladed egg beaters are harder to handle and soldering and fitting problems arise in order to turn one of those into an efficient motor winder.

From an Emery Wheel

Fig. 4 shows a winding attachment adapted to a hand-operating geared emery wheel. It consists of a piece of steel wire about 17-24 gauge which is wound round the axle once or twice with a loop formed beyond the axle so that the S hook may be attached at the pointed end of the loop.

With the nut on the axle securely tightened against the ends of the wire it will hold firmly enough during the winding operation.

This method is especially recommended for sky crafts requiring from 150 to 300 turns in the rubber motor for full flight.

A similar attachment may be added on a low power electric motor as shown at Fig. 5 with a U shape bracket made of sheet iron and locked to the motor shaft.

Accurate winding of turns or keen sense of tension touch must be developed if an electric motor is used for winding, otherwise many rubber motors will be wrecked. Unfortunately the wrecking of a full power motor also wrecks the aircraft itself. It should also be remembered that the steel wire in the S hook should be rounded and bent back to prevent injury to thumbs and fingers.

When winding the aircraft motor using the S hook on any of the winders just described two individuals are usually required.

One holds the rubber at the propeller shaft and the winding operator, who has the motor stretched to at least twice its length before beginning the winding process. As the motor gets tighter the winding operator must walk closer to the aircraft.

When the motor is fully wound then speed at detaching from the winder and attaching to the end and getting the sky craft launched is imperative.

Speed in Launching

Many motors have been broken because a methodical flier takes too long in trying to determine the wind direction or to gain the attention of his audience. Five seconds is plenty of time to elapse between end of winding and the beginning of the flight.

Fig. 5 shows the speediest wind. Between 30 and 40 flights a minute are possible by using it in connection with an efficient low power electric motor. The attachment shown at Fig. 5 is made out of a strip of metal about 1 in. broad.

The hole in the centre is large enough to fit over the motor shaft. The iron is further fastened by means of a nut. A wood disc with dowel rods properly inserted will answer just as well as the steel yoke.

Winding and Flying

To use this attachment, first determine whether the propeller is a right or left turning wind screw. When ready for flight insert the propeller into the U-shaped attachment and apply the power. Winding the propeller in the opposite direction from which it turns when in flight.

Be careful in applying the power to determine the time for winding accurately. It may require only a second or two. The time must be gauged accurately otherwise many rubber motors and probably some aircrafts will be damaged.

etc. Such a piece of work can be undertaken from the complete instructions and diagrams contained in a book "A Model Oil Engine" published at 2 - by Modelcraft I.t.d., of 77 Grosvenor Road, London, S.W.1. And in the book the details really are complete and not left to the imagination and ingenuity of the worker. Full size diagrams of most parts are printed with other helpful drawings of details of construction.

A tabulated list of the material, sizes and illustration number of each part required is also helpful.

NEW BOOKS WORTH HAVING

TWO valuable little books have recently been published by the National Council of Social Service in conjunction with the Oxford University Press. One is on Rugs and Quilts from Shreds and Patches and the other is on Simple Toymaking. Both are written in a straightforward way, by experienced people who have actually done the work. In addition there are profuse and helpful diagrams and photographs covering a wide

range of things to make. Both books are certainly worth having and details of them are obtainable from the National Council at 26 Bedford Square, London, W.C.1.

SOMETHING quite new in the way of model making is surely the construction of a simple Horizontal Gas Engine from odd bits and pieces of wood, brown paper, fibre board, tin strip and a few nuts, bolts, screws,

How to get the best in photography by selecting GOOD CAMERA STUDIES

MOST amateurs will agree that their first year's collection of negatives comprises a most varied selection of subjects. In fact every spool of film exposed probably had four or five different types ranging from a portrait of people in the garden to something in the nature of a beach or wave scene taken during the summer holiday. Nothing of any importance or outstanding but nevertheless quite interesting so far as being records of some happy occasion.

In the minds of each of us we know we can do something much better in our second and subsequent years if we have the desire to make a real hobby of photography.

Special Appeal

Let us, then, turn our attention to the subjects most suitable for our camera work and endeavour to concentrate or standardise on some branch which has a special appeal. For instance there are landscapes, architecture, interiors, figure studies, beach or seascapes etc.

You need not give up taking those happy snaps or records (they serve a very useful purpose) but if your principal aim is to get pictorial records of a delightful landscape or the interior of a cathedral you are more certain of giving greater thought and care to the exposure, the position of the camera, the lighting, developing and printing. The result will doubtless give you greater satisfaction than half a dozen of the haphazard snapshots.

Points to Watch

This is a point to emphasize. If you realise that the special subject requires care and some preliminary thought, you are immediately beginning a course of training which will be of the greatest value in all your work and will soon prove this by the increase in the number of successful negatives and the smaller number of failures.

You will also find that your eye becomes quicker in discovering the spots worth taking. In fact you will see much more on your walks and rambles, than your friends without cameras.

Let us very briefly try to find some practical hints for those who favour landscapes. This subject is one which appeals to the great majority and especially those who are living in or able to get to the country.

Making a pictorial representation of an open landscape requires a little thought as regards composition and although it is impossible in a short space to deal with such a subject yet

we can consider together one or two examples. In rounding a corner of the road we have come suddenly on an old barn adjoining a farm, a little further on there is a good haystack and on the other side of the road just a few yards further on there is a clump of trees.

Light, Time and Distance

Here is the opportunity of making perhaps two pictures, the sun is at the back of us and the lighting is good, it is about 3 o'clock on a July day. The camera is set at the infinity mark on the distance scale because you are over 25 feet from the nearest object. In the view finder you can see all the objects mentioned but you will probably also see that the roadway takes up a large portion of the foreground.

This is bad, so move to the left or right till the road is shown running out of the picture in the bottom corner. When you have done this you may not see the clump of trees or the barn, so try moving back a few paces. Perhaps you will get the group or it may be that the road bends and you have to cut out something.

But why not walk forward along the road and take a look at the scene from the other side, if the lighting is right you may get it all in. In any case before leaving it see if you can make something of the barn, the gate and the farm house. Do not trouble about the haystack and trees, perhaps they will give you another picture.

That village pond and the Church and old inn, there is sufficient clear water in the pond to reflect both church and inn; there are some rather old reeds or rushes in that corner, walk over to them.

Can you still see the reflection? If you can, then that is your view point. The rushes

will break up the foreground and if you wish to have a little movement in the water, throw a stone into it just before making the exposure. But wait a moment here comes a farm hand with a couple of horses, perhaps you can induce him to take the horses to the pool for a drink.

Some Suitable Suggestions

That open field with some fine old elms or beech trees, and a five-barred gate in the corner with some hazel bushes close to it. You can possibly get something here. The trees on one side should occupy rather more than half the view than the gate and bushes. Move about however from side to side until the view in the finder satisfies you and wait until that cloud comes into the picture.

You will have gathered from these few examples how necessary it is not to be in a hurry. Spare a few minutes over each, move about to get the best spot from where to take the view and if the light is not right do not expose but wait for another time.

Some further helpful suggestions on other subjects will appear next month. In the meantime try your hand at some of the subjects mentioned here.

Why not do your own Developing and Printing?



Your Photography will become much more interesting if you do all the work yourself. The booklet (32 pages) entitled Home Photography tells you how you can develop your own negatives, how to make Gaslight and Bromide prints and also, how to do flash-light Photography.

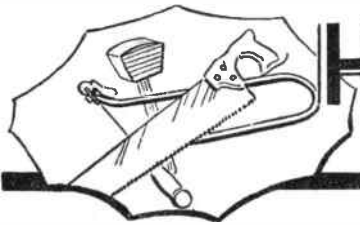
There is a chapter, too, on Enlargements. The Azol folder gives you Time and Temperature Tables for Tank or Dish Development and is packed with hints on

using Azol. Then there is a fully illustrated list of Chemicals, useful sundries and accessories to help you in the work. These three publications will be sent for three pence in stamps. Write for them today and mention Hobbies.

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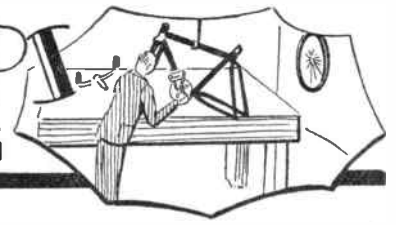
For 2/3 P.O. Johnsons will send you post free (G.B. only) a trial set of Chemicals, including 1-oz. bottle of AZOL, to develop eight spools 2 1/2 in. by 3 1/2 in., 4-oz. tin ACID-FIXING, making 30-60oz. solution, one packet AMIDOL DEVELOPER, enough for 2 to 3 doz. bromide or contact gaslight prints. Address : Hobbies Dept.

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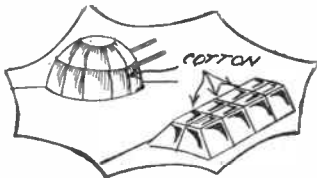


More Bombs

I HAVE struck upon an idea of a lead-piping bomb, which I think and hope will interest you. Take a piece of lead piping which can be fairly easily procured cut or file off a piece roughly $\frac{3}{4}$ in. long. Paint one end and nip into shape with two pins the other end.—(M. James, Leigh-on-Sea).

Cotton Markings

WHEN making your model aircraft I have found by sticking black cotton over the cock-pits and turrets it makes a very-realistic ap-



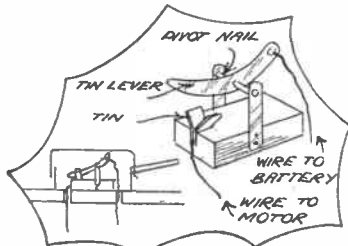
pearance. Painting black lines on the silver background usually spoils the model by not giving it a professional appearance, unless they are done very carefully and thin.—(J. Davie, Thornton Heath).

Ship's Funnel

I SHOULD like to submit this hint to modellers of miniature ships. It is for making ship funnels. Take a rifle bullet casing and slightly flatten it into an oval shape. Then fix into place by letting it into the deck tightly.—(P. J. Forster, Chester).

A Watertight Motor

I HAVE a little tip for anybody who is making an electrically driven boat. It is for a handy watertight switch. A small round tin is taken, such as is used for ointment, and its bottom is fixed to the deck.



Then two holes are drilled right through the tin and deck, through which the wires from the motor and battery are passed. A switch, like the one in the diagram, is installed, and the switch is complete. To make

the switch look realistic, two pieces of metal rod are soldered on to the lid and a gun turret is obtained.—(H. Cole, Leytonstone).

Gun Turrets

WHILE I was making the model of a Bristol Blenheim I could not think of an idea for the gun turret so I happened to stumble on an old two-point-five flash-lamp bulb. I made it into a gun turret by drilling a hole the same size as the thread on the bulb. Then I got some glue and put it in the hole and glued the bulb in. When the glue dried I painted the glass part of the bulb in black diamond lines.—(R. Worrall, Sheffield).

A Tightener

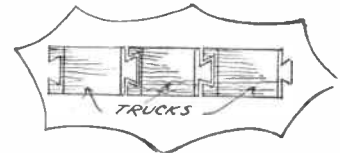
HERE is a useful method which I have used in gluing the sides of a box together. It is to use a tourniquet made of string doubled with a piece of stick to act as a tightener. Twist the stick after looping in the string. When the stick is tightened the string is made taut and it therefore holds the parts in place.—(K. Howard, Tunbridge Wells).

Model Plane Additions

WHEN making Model Aeroplanes I find a chair-nail makes an excellent "Astro Dome." Also a small cork makes a good "spinner." This can be shaped carefully with a penknife and finished with glass-paper. It is fixed with a short pin through the centre.—(T. Hunter, Horden).

Coupling Trucks

I OFFER the suggestion for coupling up the Trucks mentioned in your miniature railway set in the issue of Jan. 20th. Merely add $\frac{3}{16}$ in. length on each base and cut a $\frac{3}{16}$ in. dovetail in each end as shown in this



plan. Drop the next truck in and so on. Merely lift them out if not wanted to make up the full train. Make the dovetails slack and an easy fit. It's very effective.—(J. F. King, Chapel-le-Street).

Aircraft of the Fighting Powers

MOST of our readers will have already seen the first two editions of "Aircraft of the Fighting Powers." They were excellent in their respective spheres, but naturally, with the constant progress in the air they could not be thoroughly up-to-date now.

This volume 3 just published by the Harborough Publishing Co, Ltd., of Newarke St., Leicester, covers all the latest types, not only in Britain, but the U.S.A., Germany, Italy, U.S.S.R., Japan and the Netherland East Indies. Proof of the extended range we are receiving from America is shown in the fact that it deals with no less than 35 actual types in use.

The book is beautifully printed and bound, with large photographs of each of the planes, and interesting and informative data concerning their construction, ability and purpose.

In addition, there are complete drawings from which realistic models can be made of non-flying scale replicas. Indeed, the book is particularly helpful to the model-maker and the pictures themselves give clear

details of the finished machine, whilst the drawings provide silhouettes and outlines from which the various parts can be made.

The book contains 80 pages of these instructions apart from the inset sheets of the constructional details.

Informative and Instructive

Altogether, it is an ideal book for the model-maker, but even apart from that, contains a host of information and interesting data for the ordinary reader. The previous editions had a very wide popularity and there is no doubt that this third one will have the same.

The cost of the book is 21/-. The Editor is Mr. D. A. Russell and the contents were compiled by Mr. H. J. Cooper and O. G. Thetford, all names which carry considerable weight in the model aeroplane world.

The book is obtainable from the publishers of Hobbies Weekly, Horace Marshall and Son Ltd., Tallis Street, E.C.4 or through ordinary book-sellers.