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THIS issue, I think, should really be called a Garden Number, in view of the special articles on that subject. I do not mean weeding, or hard work like hoeing, of course, but the ornamental portion, with Swinging Seats, Garden Sets, a Playpen for the crawler, and even a Caterpillar Cage for the curious of nature. All of which you will find in this issue-not to mention such good things as our Monthly Calendar, a Music Harp, a Breadslicer, a Clockcase and so on.

THEN next week we have a special article on making a Hydroplane. You know-one of those very light boats driven by an outboard motor, which actually float over the water instead of cutting through it. Such racing forms real good sport and I have watched very fast races with these boats on swooth open water.

MORF news of the Coronation Coaches being built or completed. A reader in Scotland has one in America and one on show " over the border." To say nothing of Coaches being completed with every detail, of King and Queen, postillions, walking men, etc. Never before have we had such a popular design.

IHOPE everyone with a camera will notice the monthly competitions and try and win some of the cash prizes. Or, of course, if you are in any difficulty in taking pictures, developing, printing, or any stage please write to me and I shall be happy to try and help you. Already hundreds of readers every week seek my advice and I am always ready to give it if possible.

0F course, I cannot claim to answer some of the really monstrous queries, nor could anyone else. Somebody, for instance, asks how to construct a full size service lift 12 ft . tall, as well as how to install and work it. Now,

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Correspondence should be addressed to: The Editor, Hobbies Weekly, Dereham, Norfolk, and a stamp enclosed with the Reply Coupon from Cover isi if a reply is required. Particulars of Subscription rates, Publishing, Advertising, etc. are on cover iii.

I ask you, is such a question quite fair ? Why it would take a professional specialist builder to do the work and then the cost would be heavy.

MATCH models seem to have a peculiar fascination for many workers and a Dundee reader sends me a photograph (unfortunately not suitable for reproduction) of a toy Fort he made with 3,000 matches. I also have word of a Bermondsey reader who used io,ooo in making a model house. You shall see a picture of it with further details when I have roon.

SUREITY the quaintest thing found in our woodshop for years was a robin's nest which came to light recently. In our factory sawmills there are huge band saws, noisy planing machines, speedy little circular saws and a whole lot of other machinery making a noise and dust typical of such a place. And when I was called in to mount a ladder and look, I found a lovely nest tucked away up near the roof hanging precariously between some pattern boards slung on a hook. Mr. (or Mrs.) Robin was keeping an eye on me in trepidation for the young which had hatched that day. Robins are naturally friendly little things, and apparently quite at home there in this mass of sawdust and wood. Indeed, the birds had stolen some of the shavings (without their being missed!) to build a nest and were carefully watching the bark being stripped from a tree to gather up the wood lice and insects which
live $u n d e r n e a t h$. Evidently the woodshop is a happy home.

ANY readers interested in amateur cinematography will like to know of a Society having been formed at Sparkhill,Birmingham for the production of pictures. If you want more particulars write to Mr. F. A. Insaw, at 27 Key Hill, Hockley, Birmingham, 16.

## The Editor



## WHICH?

The young bride had promised her fond mother that she would send a daily telegram to report all was going well on the honcymoon.

On the third morning, at breakfast, the mother looked up horrified, and said to her husband :

" Oh, John, it's too bad. Jack and Milly are quarrelling already. Look at this."
"This" was a telegram which read: " Jack and I had a long row before breakfast."
It was not till some time after that she tumbled to the idea of a boating expedition.

Why are policemen and postmen like the days of man?

When is a silver cup most likely to run away?

- paspyo s? 2! иวчA1


## A SECRET CODE

Codes may take many forms, and those given will show you how to make others.
There arc twenty-six letters in the alphabet. Instead of using them in their usual way, take them, say, thrce places further down the scale, so that C becomes A, D becomes B, E becomes C, and so on. Of course you can adopt any number you like instead of 3 .

The numerical code is a good one. First you must decide on a number to represent $A$, and then $B$ becomes the number plus one, C the number plus 2, and so on.
Hieroglyphics offer all sorts of variations. Draw the letter I, put a dot on a level with the top of it and in front of it and call this A. Put the dot on a level with the bottom of it and in front of it, and call this B. Put the dots after the I and they become C and D. For E, F, G and H , similarly place dots round the letter J , this being the next letter in the alphabet to I. Continue thus as far as required.

## ONLY ONE:

Office-boy: " Mr. McTavish wishes to see you, sir."

Employer: "McTavish ? I don't know a McTavish. Hasn't he a card ?"
"Yes, sir. He showed it to me."

## TRY THIS

A certain gentleman sent the following telegram: "Bruises hurt erased afford erected analysis hurt too infectious unconscious." It was naturally counted as ten words but written as a sentence is 19. Can you do it? If not, see below for the solution.

## RIGHT WAY UP

"How did you become an aviator?"
"I began at the bottom and worked my way up."

Why is a good actor like a good architect?
-sasnoy poo8 molp yıoq Kวyı asnvoag
When is an original idea like a clock ?

What is the difference between a blacksmith and a reliable horse?
-asloy ains

When is a candle angry ?

- In sวupy ?! पみyA1


## SOLUTIONS

The solution to the telegram reads : "Bruce is hurt. He raced a Ford. He wrecked it and Alice is hurt, too. In fact, she's unconscious."

Clever, isn't it ?
The solution to the match trick is as shown here. Rather good, what ?


If a chicken could talk, why would it always swear?
-aionsupl|
lmof asn א̧uo plnos ?? asnosag

## FUN WITH MATCHES

Take sixty matches and form them into a square of twenty-five smaller squares so there are five rows of five. One match will serve as the side of a small square. You are required to take away twenty-eight of the matches, but you must do it so that two squares remain, and note that the two squares must be equal in area. Solution in Col. 2.

## SOME COIN

A reluctant young man was being medically examined as to his fitness for military servicc. He pleaded that his sight was weak. He could make nothing of the type on the medical officer's ordinary test-card. Larger

type was held up, but still he couldn't read it. At last, in desperation, the medical officer held a huge circular tin tray about a foot from his nosc.
"Can you see that?" he demanded.
"Yes," was the meek reply.
"What is it ?"
"Er, two shillings-or half-acrown."

Why is the cashier at a bank a well-informed man?


## Why was Adam a good runner?

-วэจ.я ирийy
วบว u! วsuy ayz sDm ay asnoวag

## POOR CHAP

Auntie: " And how did Jimmy do his history examination?"
Mother : "Oh, not at all well, but there, it wasn't his fault. Why, they asked him things that happened before the poor boy was born!"

## SOMETIMES !

" Ma," said a little girl who was reading a geography book, "where is the state of matrimony ?"
"That," said the mother, " is one of the united states."

## A GARDEN SWING SEAT

WHA'T can be more comfortable on a sunny afternoon than a rest in a swing chair, like the one illustrated. A few feet of timber, red deal for preference, plus canvas and chair is all that is wanted to make it, so the pleasure is not an expensive one. There is another advantage, too, the seat can be unhooked and used as an ordinary garden chair when desired.

Figs. I and 2 show side and front views of the whole, chair and trestle supports, with dimensions, the canvas seat being omitted. Any measurements not shown will be found in the cutting list where the exact length of each part is given.

Take the trestle legs and trim the top ends to an angle of 20 degs., then cut a notch on each to half the thickness of bar A, so that when the legs meet together at the top the slot, formed by the notches, will admit the bar. Join the legs in pairs by the crossbars, grooving the latter as in Fig. 3 and gluing and screwing the joint. The bottom crossbars should be 3 ins. from the ground and the top ones Gins. down.

Hinge the trestle legs together with back flap linges. Now open out and drop in bar A, this is screwed to one pair of the legs, not to the other else they will not close.
The seat frame is composed of bars H and G , screwed together. Note that bars H are fixed beneath G, and that $\frac{1}{2} \mathrm{in}$. of the latter are cut

away underneath where they fit over II. The sides of the chair, B, are cut to length first. Now cut rear legs, F , and bridle joint to the sides, as in Irig. 6, the grooves in the sides being cut to an angle of 112 degs. Glue and screw this joint.

## The Joining Rails

Join the sides together by top rail C and footboard D. The rail is jointed to the sides as in Fig. 4. For the footboard nail two pieces of rin. by 2in. wood, 6ins. long at the bottom as at E and to these nail the footboard, as in Fig. 5. It will be seen that it is notched each side to fit between the sides of the chair. It is also nailed through the sides. Care should be taken to keep strictly to the measurements given in Fig. 2 so that the seat frame and sides fit close. Now join the rear legs together by a cross rail, grooved as for the trestle legs.


Fit the seat frame to the sides and there screw securely, at a height of ift. 4 ins. up. For

suspending the chair galvanised iron chain is recommended. If any difficulty is experienced in obtaining this the name and address of a supplier will be sent on application to the Editor and enclosing a stamped and addressed envelope. The chain recommended is very reasonable in cost being $3 \frac{1}{2} \mathrm{~d}$. per yard.
At each end of bars H fix a strong hook, and in bar A drive in two hammock hooks. Now the chair can be suspended by means of the chain about gins. from the ground.

Give all the woodwork either two coats of paint or varnish. When this is quite dry the canvas seat can be fitted.

A $\frac{1}{2} \mathrm{in}$. strip of one end is doubled over and tacked to the under edge of chair rail, C. It is then brought over the rail and tacked in the same manner to the under edge of front bar H. The sharp edges of both should be rasped off so as not to wear the canvas.
Though not shown in the drawings, a length of sash cord can be stretched between the trestle legs, near the bottom, as in a pair of household steps, to reduce the strain if desired. Holes, $\frac{3}{8}$ in. diam. should be bored for these and the cord threaded through and then knotted to prevent it slipping out.

Fig. 2
Wildflowers-(Continued from opposite page)

The drying will take at least a week. Undo the press, remove the wadding or other material from the flowers and also any bits that remain sticking to them.

You must be very careful in doing this, as any rough handling may ruin the specimens. Take away the wadding and substitute a double thickness of white blotting paper. Place the specimens on this, lay another similar piece on top and again screw up in the press, or weight them.

## Mounting and Arranging

When the pressing, which takes a few days, is completed, mount your specimens in an album. Special albums are sold for the purpose. Write the name of each flower neatly under the specimens.

You can arrange them in various ways. You can for instance, have separate albums for streannside flowers, for heathland flowers, for meadow and hedgerow flowers, for woodland flowers, and so on. Or you may arrange your specimens in their different colours, i.e., yellow flowers, blue flowers, red, and so on.

Or again, you may prefer to arrange your specimens under their different forms, namely, four-petals, five-petals, six-petals, many petals, pea-shape, daisy shaped, snapdragon, funnel, umbrella, and other shapes.

The above method will preserve wildflowers in a fairly satisfactory manner, but to obtain the very finest results and to retain the natural colours of your specimens at their best, a little more trouble is required.

The secret of preserving the natural hues lies in drying the specimens very quickly.

One good method is to use hot silver sand-see that this sand is perfectly clean and free from dirt -which is poured on to the bottom of a number of flat tins--tobacco tins or similar do nicely.

Place the specimens, one or more in each tin according to size, on this layer of hot sand, and then pour more sand around and over the specimens until the tins are full. Shut the lids and arrange the tins in a warm oven, applying gentle heat.

The flowers are thus dried quickly, long before the natural colours have time to fade. After a few experiments you will soon know how to gauge the length of time required for the drying and the amount of heat needed.

Be sure and pour on the sand very evenly when covering your specimens. In the case of some flowers it is a good plan to turn the heads upwards before covering in with sand

Suppose the flower is bell-shaped, as tulip or foxglove, the inside should be carefully filled with sand. When the first layer of flowers is quite covered in, if the box should be deep enough, one more lot of blossoms may be arranged as before ; but don't have more than two layers of specimens in any one box.

After a few hours test the flowers; if they feel crisp and dry the time has come to take them out, but if they are still moist, leave them a little longer. When perfectly dry, press and mount as already described.


AMONG the common objects of the countryside that we may easily collect during our summer holidays the wildflowers afford endless variety in their diversity of shape, colour, size, and also their rarity or commonness.

A collection of preserved flowers is a veritable storehouse of knowledge and interest, and there is no better way of getting to know something about our country's flora than by drying and preserving real flowers which we have gathered during our spare moments during the summer.

The whole art lies in the secret of preserving the natural colours of the flowers. There is all the difference between the interest aroused by an outstanding collection of wildflowers all beautifully preserved, retaining their manifold colours, and that of an album of colourless specimens.

When collecting wildflowers for preserving. always take pains to choose the very best you can find-real good specimens of the finest colourings. You will find great fun and pleasure in the questing for the rare kinds.

## Flowers to Collect

Collecting wildflowers during summer holidays -or at any other period of the year-will take you into all sorts of delightful places. There are the flowers of the seashore, the flowers of the boglands and the moors, the flowers of the downs and commons, of the mountains, as well as those of the meadows and waysides.

The woodlands, too, harbour their own special flowers of delicate colours. There are the flowers found in cornfields, and those found only by the banks of streams. All these places have their special lines in wildflowers, so we find ourselves in many interesting and delightful spots when we go seeking the specimens for our collection.

Having obtained those particular specimens that we want to preserve, the next thing is to get on with the job. This may be divided into three processes (a) drying, (b) pressing, and (c) mounting.

It is important to dry the flowers as quickly as possible after gathering them, to obtain the finest results.

## A Common Method

The commonest method of drying the blossoms is to press them in some suitable absorbent material, gradually increasing the pressure as the drying proceeds. Remember, if you put too nuch pressure on at first, the specimens are likely to be squashed unsightly, instead of being dried nicely and flattened.

An ordinary trouser press can be used effectively, and makes the handiest flower press you can desire. However, two flat boards tightened up by Hobbles
cramps or thumbscrews will answer just as well.
Failing that, two flat pieces of stout cardboard-. or wood-with the flowers-placed in the absorbent material, of course,-laid between them, and on the upper board place several fairly heavy books, adding more books as the drying proceeds.

When you wish to treat a number of flowers, first get your selection made carefully, choosing only the finest blooms, and discarding all that have broken stalks. It is more interesting to retain some of the foliage with the flower stalk.

## Difficult Shapes

Now take a specimen and lay it on a sheet of wadding or similar absorbent material which itself is resting on several sheets of newspaper. Arrange your specimen as neatly and as artistically as possible. Bell-shaped flowers are the most difficult to preserve effectively, but if you get a few tiny pads of wadding, or wool, and place around the sides of the bell, others at the edges, and others within the bell itself, the finished article will be very pleasing.

After arranging your specimens in order, a second sheet of wadding and several other sheets of newspaper are placed on top, and the press screwed up, or, if you have no press, placed between boards and the top one weighted.
(Continued foot of opposite page)

## A Silver Cup Winner HE picture is of the winner of our Annual

TSilver Challenge Cup for fretworkers, in a competition which is held every autumn. The Open Section closed recently and here is the proud winner-Miss Winifred M. Webber, of Cannington, Somerset. With her is the magnificent Silver Cup and piece


# SCOUT SIGNALLING OR NOTICE BOARD 

THI: centre pages of this issue contain patterns of particular intcrest to any Scout or those who take up signalling. By means of the fretsaw and the patterns shown, a complete hanging panel is provided giving the Morse code in a useful and handy manner. Hung on the wall of the scout club room the piece of work provides a practical means of learning the code and proving one's ability with the fretsaw.
'The making of it is quite straightforward, and two details of the construction are given with the patterns, which make things more clear.

The Notice Board is hung by means of hooks and eyes from wording above. Two pieces of 3/16in. material are required, one being $3^{\frac{1}{2}} \mathrm{ins}$. wide and $10_{8}^{5}$ ins. long, the other jins. wide and ro $\frac{1}{8}$ ins. long. The smaller piece containing the wording contains a nun:ber of frets taken out with the fretsaw to comprise the words " The Scout Signaller."

## Eyelets for Hanging

At the point markerl A a hole has to be driven into the edge of the wood to take the eye, as shown in the detail. Clean off the paper remains with glasspaper, and give a light rubbing to the back to take off any saw burr there.

A single overlay is added consisting of the fleur-de-lis badge, and this is cut from a piece of $\frac{1}{8}$ inn. woorl 23 ins. square. This little overlay is glued in the centre where shown by the dotted lines on the patterns.

The backing piece need not really have the pattern pasted down upon it if you cut it out to the

size usually mentioned, and get the edges square and true. In the upper edge of this piece a hook is to be driven in, and you must lay it against the upper piece to mark off the position to ensure the two parts come opposite as shown in the detail.

Kound the edge of this wood also a small raised fr:mework is provided by the addition of strips of holf-round beading (No. 35) as supplied in the parcel. Cut two strips $9 \frac{3}{4}$ ins. long and two other strips $4 \frac{5}{8}$ ins. long. Mitre each end by cutting across with a fine tenon saw at an angle of 45 degrees, then fit them up as shown by the dotted lines.


Complete Patterns on pages 324 and 325
This beaded frame will come inwards about ${ }_{8}^{1} \mathrm{in}$. from all edges, and should, of course, be square and central. Trest it out before finally gluing down to the background, and if necessary weight it or cramp it until the crlue has set. Put a touch of glue on the edge of the mitres, and very lightly glasspaper over to make the joint a good one.

## A "Notice" Board

The upper panels of the printed Morse code are cut out from the page and afterwards pasted on. If you prefer to use the board for notices this can easily be done by cutting a larger picce by onnitting the Morse code, and by altering the word "Signaller " at the top to the word " Notices."

In this case, the board can be rins. long and roins. wide and correspondingly longer beading should be obtained for the edging.

If you proposed using the altered wording in the top, we shall be happy to supply a design of the lettering drawn full size, if you send 2 d . stamp for it to the Editor. This pattern can then be pasted down over the printed one of " Signaller," and the remainder of the work carried out as before.

The finished board can be stained and polished, or varnished, and further ornamentation given by painting the wording in gold or troop colours, and adding a suitable background in and around the badge.

## MATERIALS SUPPLIED

For making this Signaller we supply a parcel of mahogany with whitewood for overlay, sufficient beading and two brass hooks and eyes complete for $1 / 6$ (post free 1/9.)

## A HANDY BREAD SLICER

SI.ICING bread has always been a bother' especially when it is new and soft. Rushing to get those ham sandwiches ready for luncheon, tea, or the picnic, the slices are apt to be all shapes and sizes, and more often as not, fingers are badly cut.

It is then that a device such as illustrated is longed for-a simple little thing to regulate the thickness of the slices, ensure neatness, prevent accident and a host of other things-well, you may have heard Dad mutter a few of 'em after shaving off his pet pimple!

From the sketch (exit Dad and the pimple), you can see the small scimitar-shaped regulator which, being adjustable, gauges the slices from rin. thick chunks up to any dainty and appetizing thickness-you know, those delicious din. (or is it, $\frac{3}{8}$ in. ?) ones. Regarding the guides or uprights, these are thumb-screw bolted to the base and are the work of a moment to erect. When not in use, they fold back easily and thus allow the article to be hung on a convenient hook or set on a shelf without taking up much space.

This slicer, by the way, has been designed to take $4 \frac{3}{3} \mathrm{in}$. pan loaves, small rolls, etc., but it would be a very easy matter to enlarge on the dimensions to suit ordinary loaves. Also, most bread knives are not plain as illustrated, some having a serrated cutting edge which greatly helps in producing the almost wafer-like sandwiches and tit-bits preferred by invalids and those convalescent.

## The Guide Pieces

The guide pieces (see details at Fig. i) should be cut from $\frac{3}{8}$ in. birch plywood to ensure sturdiness and good wear for, as you can imagine, the constant movement of the knife and its cutting edge is bound to have effect in time. Birch is durable, its continuance in this respect being further aided


Fig. 1-Shape of the guide pieces


Fig. 3-Outline of adjusting piece, in $\frac{3}{6}$ in. squares

by the criss-cross direction of the six plies of wond found in $\frac{3}{8} \mathrm{in}$. stuff.

Owing to the thickness, a coarse fretsaw blarle (such as used in toy-making) should be fitted to the frame-or if you find it too difficult, use a keyhole saw, coping saw or scroll saw. At the moment, mark out the shape as shown on drawing paper, then transfer it direct to the wood with the aid of black carbon paper. Note particularly the position of the $\frac{1}{1} \mathrm{in}$. dowel peg hole ; the $3 / \mathrm{x} 6 \mathrm{in}$. bolt hole should be made in the centre of the oblong of dotted lines, same being $\mathrm{I}_{2}^{\frac{1}{2}} \mathrm{ins}$. by $\frac{7}{8} \mathrm{in}$.

## The Baseboard

Having cut out the guides and smonthed them with glasspaper, make the baseboard as detailed at I'ig. 2. This is cut from $\frac{7}{8}$ in. deal or any white class of wood, such as white chestnut, whitewood, etc. There is very little cutting to be done, the various holes being drilled with suitable centre bits. In the event of not having a $\mathrm{I} \frac{1}{4} \mathrm{in}$. centre bit, a 4 in . by $1 \frac{1}{4} \mathrm{in}$. aperture could be cut in lien of these particular holes, which incidentally, are to enable the $\mathrm{I} \frac{1}{8} \mathrm{in}$. long iron carriage bolts to be inserted.

To do so, drill holes in the edges of the base directly over the holes. The bolts (obtainable from a local hardware store) are set within the holes and the threaded ends pushed through to project for the guide pieces, the head embedding itself in the circular aperture.


Fig. 2-Shape and dimensions of base

Screw a fence to the base as indicated by the dots, this being a piece of wood (with rounded over ends) measuring 6 ins. long by $\frac{1}{2}$ in. wide by $\frac{1}{2} \mathrm{in}$. thick. Attach with glue and two $\frac{3}{8}$ in. by 6 roundhead brass screws.

The regulator piece plotted in the reticule of $\frac{1}{2} \mathrm{in}$. squares at Fig. 3 may be cut from $\frac{1}{}$ in. or $\frac{3}{8}$ in. thick birch plywood. In this instance, you could rule the squares full size on the wood and follow in the shape with the compasses as shown by the arrows.

It is attached to the base with an $1 \frac{1}{4}$ in. by $3 / 16 \mathrm{in}$. thick carriage bolt. In order that the head will not interfere with the bottom level of the base, countersink the underside of this with a rose head bit. If you have not yet drilled the bolt hole in the base, you could mark its position on the underside of the base, drill with an rin. centre bit to about $\frac{1}{4}$ in. deep, then drill right through with a $3 / 16 \mathrm{in}$. bit and insert the bolt.

It will be seen that washers and bat-wings-or
thumb-screws as they are sometimes called-are used to facilitate erection and adjustment. So, when ordering the bolts, be sure to ask for these, otherwise you will be supplied with only nuts.

Before bolting the guides in position, glue $\frac{8}{8} \mathrm{in}$. long stubs of $\ddagger$ in. dowelling into the holes provided. These are the stops to give the correct vertical cut and avoid guesswork. See that one of them does not interfere with the fence-it should not do so, but if you have miscalculated a little, paring the offending stub with a penknife or reducing the width of the fence or making a "pocket" in it with a gouge will rectify matters. As a finish, this article is best left in its natural state.

## MATERIALS REQUIRED

2 pleces plywood (guldes), 6ins. by 2 itins. by 3 in. thick. 1 plece plywood (regulator), tins. by ${ }^{2}$ ins. by ilin. thick. 1 piece deal (baseboard), ${ }^{1} \frac{1}{2}$ ins. by 5 ins. by tin. thick.
 Opposite obtainable locally. $)^{\text {sultabie }} \begin{gathered}\text { washers. }\end{gathered}$


## Tinsel Paper Pictures

PLEASE tell me how the pictures with silver paper are done, or if there are transfers or such ? - (M.S.)

THE silver pictures to which you refer are made from the different coloured wrappings on chocolates and other sweetmeats. The method is to secure a picture or drawing, and cut out the required shapes in the desired colours, and paste them over the places on the original picture. Thus, instead of a line drawing or black and white picture, the result will be a gaily coloured one in accordance with the artistic tastes of the worker. These pictures after completion, usually look well mounted on black paper.

## Explosive Chemicals

$I^{S}$$S$ an explosion likely to occur if oxygen was produced by the action of concentrated sulph. acid on potassium permanganate? If so, what would likely be the cause of it? Would the briefest application of heat make it explode? (C.A.)

HEATED alone, potassium permanganate does not begin to decompose until a temperature of 200 degrees centigrade is reached. Oxygen is among the products.

When this chemical compound is in solution with sulphuric acid, the manganese of the permanganate is finally converted into a salt corresponding to the monoxide, $\mathrm{MnO}, 5$ atoms of oxygen being rendered available. We have not had an opportunity of testing out this experiment, but should say an explosion would be quite likely to occur on the application of heat to a solution of potassium permanganate in sulphuric acid. For instance, if the permanganate is mixed with sulphur or phosphorus, a material is obtained which takes fire or explodes violently on percussion. Also, ammonium permanganate explodes when rapidly heated or subjected to percussion, and this substance is isomorphous with the permanganate of potassium.

## Duck's Ears

 AS a duck any ears, and where are they, please?(T.W.B.)DUCKS certainly have ears, like all birds, but they have no external ears like the appendages on the sides of human heads. Their ears are covered by a flat membrane close to the skin, and as the feathers grow over this you do not notice the ear on the side of a
bird's head. Some birds, like the long eared owl and the shorteared owl are so named because they have short horn-like feathers which stand up like ears on the head, but these, of course, are not their true ears. If you ever have a dead duck and pull the feathers off the side of the head you will clearly see the ear membrane. If ducks and other birds had no ears they could not hear, and it would be useless for them to sing or make calls as so many birds do. The feathers covering the ears of a bird are called the "ear coverts," and sometimes these are of a distinctive colour. If you watch closely the wild duck (common mallard) on lakes, rivers, etc. where they visit, you may notice how they listen for danger. As you come in sight they become anxious, and the drake or male extends his neck, turning his head one way and then the other, for he is listening as well as watching for conviction of his suspicions. Suddenly, with a quack of alarm, he takes wing, followed by any other wild duck near. Keepers, etc. with tame ducks wishing to feed them, often use a whistle to call them, and wild-fowlers when shooting duck, lure them near with special decoy calls, all of which show the duck's keen sense of hearing.

# A SUMMER GARDEN SET 

HERE is a splendid set to make for the garden. Just the thing for tea on the lawn this summer !-A table, a sunshade, and two chairs. All of quite straightforward construction, and all designed so that they will fold up neatly, for storing away when the clerk of the weather forbids their use.

Beech is a very good wood to use, for all except the table top, which can be of a softer wood like deal.

Make a start on the table of which all details are shown clearly in Fig. I. Six 6in. boards, (or their equivalent), $\frac{3}{4} \mathrm{in}$. thick are used for the top, and I $\frac{1}{2}$ in by in. stuff for the legs. A hole is cut out in the centre of the top, for the standard of the sunshade to pass through.

It will be seen that one pair of legs fits inside the other. Two bolts with wing nuts hold the legs together when the table is erected, and when these are taken out the legs fold under the table as shown at " C ."

## The Sunshade

For the standard of the sunshade, 2in. square stuff is used. If bought ready planed this will of course only measure $\frac{7}{8} \mathrm{i}$ in. square, so this is the size that has been allowed for in every case. It will be seen that the standard is in two parts, in order the angle may be varied to suit the sun.



Where the two parts are bolted together each is cut down to $\frac{1}{2}$ in. thick, for a winged nut and bolt $3 \frac{1}{2}$ ins. long to be used. You will see that block " $E$ " is glued permanently to the top of the standard, and block " F ," (which is identical with it), slides up and down the standard. The ribs are bolted to block " $E$," and the stays that open and close the ribs are bolted to block "F." This is shown clearly at " G." For the ribs themselves, and for the six stays that are bolted to them, rin. square stuft is used.

## Keeping it Open

The sunshade is kept open by a peg that passes through the standard underneath block "F." The hole for it will be about 5 ins. from the top, but it is advisable to decide on the exact spot when all the ribs are assembled.

Open the sunshade until just the right amount of slant for the ribs is reached, and then you will see just the right spot for the peg hole.

## Covering the Sunshade

Whatever width of canvas you buy, the simplest way of covering the sunshade is to sew it together to make a piece 6 foot square. (Taking care that the pattern fits, of course). Now draw out a circle on it 6 ft . in diameter. To do this easily, lay the canvas on the floor and drive a nail in at the centre. Tie a piece of string 3 ft . long on to the nail, and tie a piece of pencil on to the other end of the string. And there you are !-the job's as good as done!

When you have cut this circle out, make a cut into the centre, as shown at " H ," and lap the canvas over a little at this cut, to make it " chinaman's hat" shape. Just put a few safety pins in to hold it there. Later on a segment will be cut
out here, but not yet or you might cut out too much.

The next job is to nail the canvas on. You'll need an extra pair of hands for this. Open the sunshade frame, lay the canvas over it, and nail it down at the centre into block "E." The canvas is now nailed to each rib in turn, using big headed nails and pulling the canvas tight in between. When the first rib is reached again, cut out the segment of cloth that is necessary and nail the end down. Leave enough canvas so that you cain double the edge under, on this last rib.

Finish by trimming the outside edge of the canvas to a nicely shaped scallop between each rib.

The sunshade must be opened and closed with the top half of the standard unbolted from the lower half, as block "I ". has to pass over the bolt hole each time. It is best to bolt both halves together, however, before standing the sunshade into its hole in the table.

## The Chairs

Wood $\mathrm{r} \frac{1}{2} \mathrm{in}$. square is used for the chairs, with the exception of the arms which are of 4 ins. by 1 in. lig. 3 shows their construction quite plainly.

Each chair consists of two parts, jointed together by the canvas and by four stays as shown at "K" These stays are hinged to the legs at one end, and have a hook on the other that fits into a corresponding eye on the chair legs. These stays are of tin. by $I_{2}^{1} \mathrm{in}$. stuff, and hinged near opposite edges of the 2 in. uprights, so that they can cross in the middle.

## Canvas Seating

Each chair requires a piece of canvas 2 ft . 6 ins. long and 2 ft . wide, for the seat, and a piece 2 ft . 6 ins long and gins. wide for the back rest. Have the chair erected when these are nailed on, and use the canvas double thickness where the nails go through.

When the stays are hooked in place, they hold the chair taut. When they are unhooked, the two parts push together, as seen at "M," with the stays in between them.

Beech wood looks quite well left unstained, althougl a coat of clear varnish certainly helps to protect it from the weather. It is a good plan to cover the table top with white american cloth, so it will clean up nicely again, if anything gets spilt on it.


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## Play Your Way to Popularity!



# A NOVEL MUSIC MAKERTHE PINE HARP 

AWELL-BUILT pine harp is capable of producing music of a particularly pleasing kind after but a very short period of learning. The sound is produced by drawing the gloved hand down the wooden rods of varying length; these being so adjusted to produce the particular note of the scale for which they are intended. Building presents little difficulty, but some little care must be taken with the tuning ; this being explained at a later stage of this article.

The harp may be built to any size but it is advisable to make it of a range of at least two octaves ( 16 notes) as this will allow of almost any tune being played. For a two octave harp procure a piece of well-seasoned deal, oft. long, 6ins. wide and 4 ins. thick, and make quite sure that this is free from cracks and shakes, and with as few knots as possible.

## The Base

Plane this up smooth and square and mount it on a base of similar wood gins. wide and rin. thick. The best method of mounting is to glue the two portions together and give further security by driving a number of countersunk screws up fron the underside.

The appearance is considerably improved if lengths of $\frac{3}{4} \mathrm{in}$. moulding (Hazel Pine No. 303) are neatly mitred at the corners and securely glued along the angles of the foundation, as shown in the

spoil the harmony of the tune produced. Having completed the stand, scribe a centre line lengthwise along the upper portion. Commencing at $3 \frac{1}{2}$ ins. from one end, divide the length accurately by marking off spaces exactly $3_{\frac{1}{2}}^{1} \mathrm{ins}$. apart. At each point so marked, bore a hole a shade less than $\frac{1}{2}$ in. in diameter and rin. deep, with a brace and centre-bit.

Take great care to make the holes to exactly the same depth as each other and still more care to see
they are truly vertical. For if this latter injunction is disregarded, the rods of the harp will lie about at all angles instead of being truly vertical and all in line. This makes playing of the instrument difficult and alnost impossible when very rapid pieces are being attempted.

Now a number of lengths of $\frac{1}{2}$ in. dowel rod will le required and these, too, should be of deal or pine, if possible. If any difficulty is experienced in getting this, the best plan is to saw the rods out square from a length of wood, round off the corners with a plane and then drive them carefully through a dowel-plate, which you must buy or borrow for the purpose.

## The Rod Lengths

The longest rod will require to be a little over 6 ft . in length. It is advisalble to make them all this length, as tuning will be more exact if you have a good margin of matcrial to work upon.

All the rods must be fairly round and glasspapered as smooth as it is possible to get them ; finishing them off with the very finest grade of glasspaper.

The lower ends of the rods are very slightly tapered, then dipped into hot glue and driven well home into the holes with a mallet. When thoroughly dry, clean off any glue which has spread around the base of the rods, and finally rub each rod lightly down again with fine glasspaper, in order to remove any dirt or grease that may have been caused to adhere to them through handling.

## Tuning Up

Tuning of the rods must now be proceeded with in the following manner. Put on an old pair of leather gloves and dust the palms well with powdered resin. Rub well together so the resin is worked into the leather.

Now take hold of the first rod on the left-the longest-and gripping it firmly but lightly, draw the gloved hand down. A fairly deep, resonant note should be emitted, but if this does not appear to be quite satisfactory, cut off a short piece from the top end with a sharp knife ; making the cut clean and smooth.

Try again until the best effect is obtained and then proceed to tune the rest of the rods from this one by shortening each rod very carefully until it enits the perfect note desired. In this way the instrument may be tuned dead true to any desired scale or key, and will remain in tune for all time.

Do not varnish or paint any part of the harp, and always keep it very clean and dry. Never allow the rods to be touched except by the gloved hands, for if grease comes into contact with them, they will not emit the true note to which they have been tuned.


THIS playground would be equally suitable for indoor use, but for the summer months when the children require the maximum of fresh air and sunshine it is ideal. It is made to fold flat so it is easily stored away or taken about. When folded it occupies a space 4 fect long by 6ins. wide ; when open it makes a nursery 4 feet by 3 feet.

At lig. $I$ is given a plan of the article, the clotted lines indicating how the ends (which are each made in two parts), fold in against the sides. Three pairs of stout hinges are used in its construction with two strong hooks with round-headed screws to hold it rigid.

The wood to be used should be either beech or satin walnut, the former being preferable as it will take any amount of hard wear.

A very convenient leight would be i8ins., and there are eight distinct rails held together by dowel rods let into them.

These rods are sold in 3 feet lengths so the height of r8ins. is convenient for cutting up ready for letting into the rails. All the rails are


Flg. 1-Plan of the playpen with dotted lines showing how parts fold inwards
$1 \frac{1}{2}$ ins. by $\frac{1}{2} \mathrm{in}$. in section, and for the sides four will be wanted measuring 4 feet long. These at the ends are 18 ins., cight being required.

When all the rails have been cut square, clamp each pair together and set out the positions of the centres for the rods to the measurements given in the plan (Fig. r). Bore the holes with a $\frac{1}{2}$ in. centre bit or twist drill.

## The Hinges

Now as the hinges to be used are ifins. wide, the ends of the rails where they are to be put on must be thickened up by adding small blocks of the same wood as the rails themselves. At Fig. 2 is shown how the four corners are constructed, while Fig. 3 shows the joint between the folding end rails. The detail in the circle is a view before the hinges are screwed on.

The size of the blocks is given and it will be noted that the prominent corners are cut off and rounded up with glasspaper. Lay each " frame" flat and test the joints before putting in the dowel rods.

All the rods having been cut, each set or pair of rails comprising one ground rail and one top rail are taken and the uprights driven in and glued.
(Continued at foot of next page)

## CUTTING LIST

4 Rails 48 ins. by $1 \frac{1}{2}$ ins. by $\frac{1}{2} i n$.
4 Rails 36ins. by $1 \frac{1}{2}$ ins. by 1 in in.
1 Piece 28ins. by $1 \frac{1}{2}$ ins. by $\frac{3}{8}$ in.
2 Pieces $16 i n s$. by $1 \frac{1}{2} i n s$. by $\begin{aligned} & \text { fin. }\end{aligned}$
18 Dowel Rods, $\frac{1}{2} \mathrm{in}$. aia., 3ft. long.


Fig. 2-The corners


Fig. 3-The end rail joint

# A CATERPILLAR \& INSECT CAGE 

NEARLY every one who has ever found a caterpillar has at some time wanted to keep one to find out what kind of butterfly will emerge. Generally it is kept in a tin with some holes punched in the lid, together with a few leaves of the plant on which it was found as food. When this is done the usual method of showing it to a friend is to shake the box until the insect is visible, not a very kind performance, and moreover one which is very likely to damage the specimen.

An insect cage is not difficult to make, but the possession of one ensures that any desired specimen is easily and properly kept. It can be watched without disturbance, and fresh food can be given when necessary.

When making an insect cage it is a mistake to make it too small. The size mentioned here is a minimum, though it should prove sufficiently large for most purposes. If


How the glass is fixed several different specimens are likely to be kept, then the best way would be to increase the size, and have partitions rather than two or more cages.

The size of this cage is to be izins. long, gins. high and 6ins. wide, standing on feet 6 ins. high. The back and base being of wood while the front and sides are to be of glass, the top perforated zinc.

Sometimes a door is provided, but it makes the construction a little more difficult and if lively insects are kept they may escape when the door is opened. If the top is of perforated zinc, and that movable, then by sliding it sideways and having a duster to cover the hole so made, a corner of the duster may be lifted and the hand inserted without any risk of the insects getting loose.

A piece of $\frac{1}{4}$ in. three-ply $12 i n s$. by gins. has two pieces of $\frac{1}{2}$ in. by $\frac{1}{2}$ in. stripwood nailed to the

sides, each piece being 15 ins. long to allow for the legs of 6ins. The base is also of $\frac{1}{2}$ in. threeply and is izins. by 6ins. with four corners cut out so as to take the $\frac{1}{2} \mathrm{in}$. by $\frac{1}{2} \mathrm{in}$. legs.

To hold the glass in position, the sides of the legs have 12 pieces of $\frac{1}{8}$ in. by $\frac{1}{4}$ in. strips glued and nailed to them, whilst the base is served in the same way.

To form the top, two pieces of rins. by $\frac{1}{2}$ in. by $\frac{1}{2} \mathrm{in}$. and two pieces of 5 ins. by $\frac{1}{2} \mathrm{in}$. by $\frac{1}{2} \mathrm{in}$. are required. These also have the $\frac{1}{8} \mathrm{in}$. by $\frac{1}{4} \mathrm{in}$. strips added, except of course at the back.

The top is made by taking a piece of perforated zinc 12 ins. by 6ins. to completely cover the top. To prevent it slipping off four strips are fastened inside, so they just fit and prevent any side movement.

## The Glass Front

For the front a piece of glass irins. by $8 \frac{1}{2}$ ins. is required and for the sides two pieces 5 ins. by $8 \frac{1}{2}$ ins. --these may be fixed in position by flat nails or else by strips of the $\frac{1}{8} \mathrm{in}$. by $\frac{1}{4} \mathrm{in}$.

Before placing any specimens inside, the floor of the cage should have a layer of soil about one inch deep. Then the green stuff which is to form the food may be stuck into this giving the whole quite a realistic appearance.

By using a cage like this the insects are kept in the state as near to the natural as possible and consequently the way in which they feed and live may be studied. As the cage is of a very fair size it is quite easy to keep the caterpillar, the chrysalis and even the actual butterfly, though when this stage has been reached then it is time to allow the creature to go into the open air so it may enjoy its short life to the full.

## Child's Playpen-(Continued from previous page)

Drive all the dowels first into the ground rails and then put on the top rails, tipping each rod with glue bafore coaxing them into place to get a fit.

The top rails should be gently knocked into place with a mallet.

Clean up all the woodwork at completion with coarse and fine glasspaper and take off any sharp corners of the rails.

When screwing on the hiuges see the heads of
the screws are let well in and that the sharp corners of the hinges are filed off. A small catch and eye (Fig. 4) will have to be affixed to the upper rail to hold the framework close and rigid.

Finally give the whole article a good coating of clear varnish. Be sure to give all the wood, especially the dowelling, a good cleaning with glasspaper, so there are no shivers left to run into tiny fingers and hands.


## Camping

THE camping season proper is now well on the way and this month's Notes will deal almost entirely with different aspects of camping. Much of the success of a camp depends on the cooking, and with mother's help and permission some practise can be obtained indoors.

Such things as cleanliness of hand, of cooking utensils and how to prepare things for actual cooking can all be taught before going to camp, and a knowledge of how to prepare common dishes in various forms will help to make your camp menus inviting. Weck-end camps are ideal for giving instruction in cooking and every Patrol I,eader should arrange a series of these before the great event of a week's camp.

Remember, camping is not pigging.

## Competition Result

AS far as observation is concerned this Competition was a complete washout, and makes one wonder if the majority of Scouts need cye treatment! The number of entries was again considerable but the only one to merit comment and a prize was that sent in by Norris G. Howard, 6i, Finchley Road, Fallowfield, Manchester.

These competitions will be discontinued for the Summer months and will commence again in October.

## Gadgets

GADGET-making is an important feature of a Scout Camp whether Troop or Patrol. It encourages ingenuity, is an agreeable occupation for the Scouts and adds to the Scouty appearance of the camp. Some gadgets, too, are essential from the point of view of health, tidiness and cleanliness.

Main object of them is to keep kitchen utensils away from the ground, while it is obvious that fool must be stored and prepared off the ground.

Gadgets add to the convenience and conufort of a camp but are not absolutely necessary for good camping. Previous issues have given illustrations of some of the various types.

## Tracking

THIS is often one of Scoutings most neglected activities and yet it is one of the most important. Many Patrol Leaders think that tracking is only possible to a Country troop, so perhaps a few lines about the subject will not come amiss.

To begin tracking instruction it is only necessary to find a piece of ground about 12 ft . square. Clear it of weeds, dig it and rake it level. Now get a boy to walk across it and another to run across so the two sets of tracks are side by side. Let your patrol study these and observe for themselves the difference, this being better than your instruction.

Having made a start it is easy to think of other tracks to study-such as a boy carrying a heavy parcel, ordinary animal tracks, dogs, cats, etc., while wheelbarrows and bicycles also prove useful. All this will create an interest in tracking.

## Camp Shower Bath

$\mathrm{A}^{\mathrm{N}}$N inexpensive shower bath can easily be made in camp from five scont staves, a bucket and
 some rope. Set up the staves as shown in the illustration and fix by means of long guy lines which can be lowered for filling the bucket after it has been emptied by means of a rope tied round the bottom and slung over the crossbar. A perforated tin tied to the tipping lip of the bucket makes the shower more realistic and it is surprising what a lot of fun this causes in camp. Besides finding an amusing subject for the camp photographer!

## Is it Fresh ?

I'l' is important to know whether foodstuffs are good or not so here is a reminder with additions to previous tests given :-

WATER.- $\Lambda$ drop of permanganate of potash should make the water rose coloured if the water is pure. If not, boil it.
I'rsir.-Your nose is the best tester of this commodity.
EGGs. Should sink when put in cold water.
BEEF.- Bright red in colour, with rich yellow fat.
Mutton.-Bright red in colour, with firm white fat.
BaCON.-Bright red, firm with white fat.
Always empty food from a tin once it is opened and never accept a tin with a hole or dent in it. Fresh food is always best.

The Skipper


DURING the summer months thousands of photographs are taken on the seashore or near the sea. Many of these are excellent, but commercial seaside finishers tell us that there are also a big percentage of failures, brought about in the main by people not umderstanding the special conditions controlling snap-making on the coast, so here are a few hints on this angle of camera work which will be of great help.

First a word of warning. The great enemy of cameras near the sea is sand, and every measure should be taken to see that none of this insidious stuff gets where it could do harm. A single grain inside a shutter is enough to cause it to jam, while a similar amount getting in between the leaves of a diaphragm stop can do almost irreparable damage. Also sand in the winding gear will produce lines and scorings that will utterly ruin a film.

## Helpful "Dont's"

But sand can be kept out. If you have a case leave the camera in it till just before 'taking' and replace immediately afterwards.

Never place the camera on loose sand, and take particular care if the wind is blowing clouds of grains about.

Box cameras are harder to keep safe than folding, and it is a good idea if you have one of this type, to make a cap to cover the round opening in front. A cork cut carefully and fashioned to the right size will do admirably, quite preventing loose grains entering. Remember however to remove it when you want to take a picture.

Also get into the way of carrying the camera (if without a case) with its back to the direction of the wind if possible. It is all a question of just a little more care than usual and when this becomes a habit all will be well.

When taking pictures on the shore make a special point of always listening to the click of the shutter and ' feeling ' the quality of the trigger movement ; if either give an idea of ineffectiveness examine at once for a jam.

These same seaside finishers (who are a real guide to matters pertaining to shore-work) tell us that sand-jammed shutters are not an infrequent cause of failure.

## Seaside Exposures

The next important point in seaside photography is the question of exposures, as these vary greatly from those at the same hour inland.

Owing to the huge expanses of sky, water and sand, light near the sea is always more 'atinic ' than the same light elsewhere, so much so that the lens has only to be open for about one third of the inland exposure, to give the same result.

# THE CAMERA <br> BY THE SEA 

What does this actually signify to the photographer ? Well, a few years ago with the fairly slow films it only meant that the negatives were just a little more generously exposed and therefore richer than usual, but with the modern high-speed 'chrome films it means that pictures can easily be over-exposed during the more brilliant part of the day, and records that were compiled a short time ago by some seaside dealers showed that a common cause of failure has become over-exposure. At one time it was all under-exposure.

## Fast Films

Actually, most of the fast 'chrome films only require $1 / 400$ scconds exposure in June and July between Ir a.m. and 3 p.in. at f8. No wonder that $\mathrm{I} / 25$ second (which is all that many cameras will give) shows signs of over-treatment by the light.

## OUR PHOTOGRAPHIC PICTURE FEATURE



This brings us to the piece of advice that is often given. Do not load with fast films when you intend the whole roll to be used in brilliant light on a shore. Ordinary speeded material will give much better results.

## On Dull Days

The danger of over-exposure could be checked by 'stopping' down, but this introduces another factor and on the whole it is better to use slower films.

The high atinic value of seaside light also suggests however something else, that you can take good snaps on the shore in dull light, when results elsewhere would be hopeless, and it also means that you can take much later on into the evening.

Snaps (and by this we mean a $1 / 25$ exposure) can be given during June and July between II a.m. and 3 p.m. in a light that we would call ' very dull,' with an f8 aperture. Also $1 / 25$ snaps can be attempted (with ordinary light) up to 7 and 8 p.m. in the evening.
A great danger with seaside pictures is that they will be harsh with the strong cutting sunlight. The vigorous papers used by most finishers makes matters worse. If you do your own developing the best method to retain all the brilliance of the sunshine and have no clogged shadows is to use the water-bath development which softens the contrasts and yet brings out everything.

The method was described some time ago in "Hobbies Weekly " but briefly it is to place the film for a few seconds only in developer then leave it stretched out in water for several minutes, then back in the developer and so on till development is complete.

A word with regard to pictures containing the horizon. Do not let this division of sky and sea cut the picture exactly mid-way i.e. dividing it into two equal strips, but let it lie in either the upper or lower half depending as to whether the sky or foreground is the more important. Should there be a good deal of cloud about, the horizon may be in the lower half but if not keep it in the upper. Also keep it level.
For best pictures do not stand with the sun right behind you but to the rear and to one side, which
will give " relief" to the various items in the picture.

Now about what to take. You will probably have your own idea on this score but here are some general hints. Do not have too many groups, as they make monotonous viewing later on. Let your people be doing something ; games, swimming, gymnastics. Anything, in fact, as long as it gives that very necessary second interest.

A very novel way to get shore pictures is from the " looking down" angle. That is, pointing the camera down from promenades and piers on to the shore views you wish to take. Good sharp pictures of crowded beaches make very interesting views taken this way. The final collection should certainly contain a few of these. Water-edge pictures taken by looking down from a pier make some very pretty and interesting studies, the receeding waves making all sorts of designs in foam and water when seen from above.

Ships at sea taken from the shore are usually disappointing. This is because the short focus lenses fitted to most cameras reduce them to such a small scale that the final pictures are all water with an infinitesimal and hardly discernible ship.

If there is a harbour or docks handy, however, some good results may be obtained of sailing or other vessels and of course one can always obtain " close ups" of pleasure-boats, including trippers embarking in the classical " Skylark," at the edge of the tide.

## Cloud Effects

Pictures of just ' the sea,' although it may have looked charming under a blue sky, are seldom much good unless there is a fine cloud effect, when a bay with distant headland, etc., can give a very picturesque print.

Boisterous days with big clouds and a lively sea with good light are the days for these pictures. Evening sky effects are sometimes good and are worth attempting. Also, do not uind trying evening sillouette pictures, that is somebody or something standing out against a glorious sky. It will be remembered that a picture of the sort won a big prize in a competition only recently, be on the look out for prize pictures therefore.

# JULY PHOTDGRAPHIC COMPETITION Subject-ee Speed ${ }^{9}$ 

 everywhere. A train, a motor, running races, or even a dog chasing a cat. Think out some original "snap" and send it along. With these bright, long days you can get a sharp picture with a fast exposure.

## PRIZES AND RULES



Weekly, Dereham, Norfolk, and must arrive not laler than July 30th. The Editor reserves the right to publish any entries he wishes in Hobbies Weekly. No competitor to take more than one prize during the scason. If a stamped addressed envelope is sent with the entries every endeavour will be made to return them, except the prize-winning ones.

T-HESE monthly calendar pictures have become extremely popular, and we know of a very large number of people who have made them up for their own use or as gifts for friends. The idea is quite good, because each month you have a topical panel to add to the main board, and to be in keeping with the actual date pad itself.

This date pad is one of the printed calendars supplied by Hobbies at a cost of only 3d. and the pictorial feature is cut in wood from the shape given below, then screwed on a board above the paper.

Of course, as before explained, there are a number of different ways in which such a picture can be used. By collecting the 12 months you have an excellent feature for the year, which can be incorporated in a panel round a room, or as a strip for a hall.

Cut out each in some fretwood and back it up with another piece of thin plywood cut to the outline only. If the backing board is made jet black and the fretted panel polished, then a brilliant combination is formed.

The cutting must bedone with a fine Hobbies sawblade, and the whole thing cleaned up thor oug hly with glasspaper before being stained or polished.
If you are an artist you will probably be able to effect an excellent replica of the scene by painting on the actual features in the proper colouring.

This month's picture is typical of July with its clear open skies, its bright sunny days and $\Theta$ its holiday spirit of the summer time. The yacht bowling along in the breeze, and the windmill, is a typical Norfolk scene.



## A SIMPLE INLAID CLOCKCASE



## Front and side view with dimensions

HERI: is an attractive little clockcase that will make a nice addition to any room. It is not difficult to make and any amateur should be able to turn out a really first class job. The case is designed to take a Hobbies clock No. 5506 or No. 5502.

Any hardwood, $\frac{3}{8}$ in. thick, can be used for the case with black stringing for the decoration. Fig. I shows how the case is constructed. First of all get the front and two sides jointed together. The grooves on the front are $\frac{1}{8} \mathrm{in}$. wide, $\frac{1}{4}$ in. deep, and $\frac{1}{4}$ in. in from the edge.

Before these parts are glued together the hole for the clock should be cut. Set out the circle and bore a hole in it, through which to inscrt a sawblade, and saw out the waste wood with a fretwork, or a padsaw, cleaning up the edges with a spokeshave or half round file.

The inside surfaces of these parts should then be cleaned up, glasspapered, and then glued together, being cramped up until the glue has set.

The top and bottom can be made next. They should be cut to size and a rebate $\frac{3}{8} \mathrm{in}$. wide and $\frac{1}{4} \mathrm{in}$. deep cut on the front edge, after which, they can be glued in place.

Next draw the design on the front, cut down the sides of the grooves with a chisel and remove the
wood in between the chisel cuts with a scratch tool. A simple scratch tool is shown in Fig. 2. It can be made of $\frac{1}{8} \mathrm{in}$. wire, or even a large round nail, bent over and filed up to the width of the groove required, and then fitted into a small handle.

When gluing in the stringing, work it down tightly with the pane of a hammer, see Fig. 3.

A strip of wood $\frac{3}{4} \mathrm{in}$. by $\frac{1}{2} \mathrm{in}$. is required for the feet which are screwed on from underneath. Fig. 3 shows a detailed view of one of the feet.

## The Door

I astly we come to the door. Fig. 4 shows the best method of construction; a door made like this will remain flat under all conditions. On each of the clamps a $\frac{1}{8} \mathrm{in}$. groove is cut and a tongue to fit it cut on each end of the centre piece.

The door should be glued and cramped up and, afterwards, planed to fit the case and then hinged in position with a pair of Hobbies rin. brass butts. A small hook and cye fastening, or a ball catch No. 5479, should be fitted, so as to keep the door tightly shut, thus excluding any dust from the case.
'1o finish off the woodwork give the case a

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The advertisements are inserted at the rate of 2 d . per word prepaid. Name and address are counted, but initials or groups, sucb as E.P.S. or $£ 1 / 11 / 6$ are accepted as one word. Postal Order and Stamps must accompany the order. They will be inserted in the earliest issuc. To sell anything except fretwork goods or those shown in Hobbies Handbook. Orders can be sent either to Hobbjes Weekly, Advertiscment Dept. 30/32 Ludgate Hill, London, E.C.4, or Dereham, Norfolk.

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