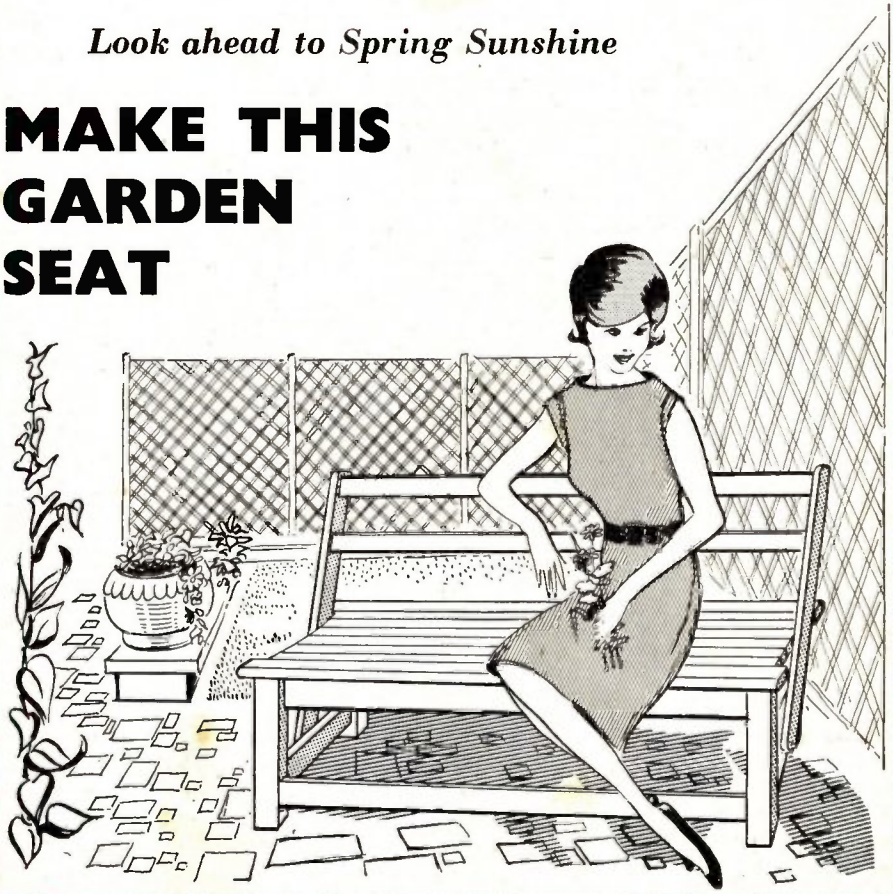
HOBBIES weekly

17th FEBRUARY 1965 VOL. 139 NUMBER 3610

Look ahead to Spring Sunshine

MAKE THIS GARDEN SEAT



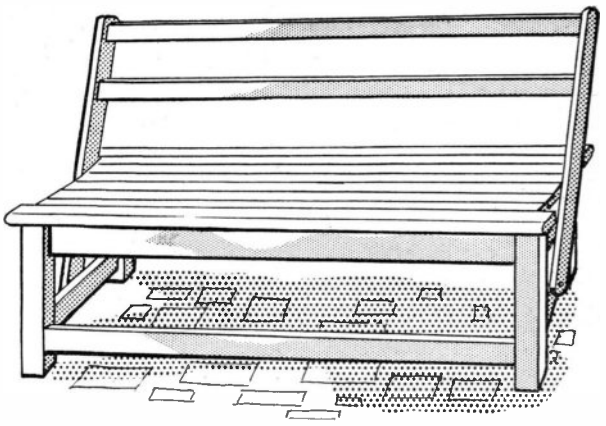
FOR CRAFTSMEN OF ALL AGES

6D

Instructions for making

GARDEN SEAT

WITH A SWING BACK TO OBVIATE MOVING ABOUT



WITH a view to enjoying quiet hours of enjoyment in your own garden, it is worth while to consider making this attractive garden seat during the remaining dark days of winter, Apart from its comfort, a well made seat invariably adds to the charm of the garden and forms a focal point of attention.

The seat illustrated is so constructed that the back rest is adjustable, being pivoted to a lower side rail so that it can be swung back and used from either side without turning the seat round. It can be made straight grained deal if it is to be painted, or from oak if the seat is to be left in the natural state. The constructional work is simple, comprising nothing more than a few mortise and tenon joints which should be fixed with waterproof glue to make them more resistant to the weather.

The side and front views in Fig. 1 give useful measurements and show the general arrangement of parts. The overall length of the seat is 51 in. and the width 22 in. You will see from the side view that the back is pivoted to the lower end rail and can thus be swung to either side.

The first job is to make the end frames consisting of four leg pieces of 2½ in. square wood (18 in. long), two bottom rails (21 in. long by 2½ in. by 1¾ in.), and two top rails (21 in. long by 3 in. by 1¼ in.) The top rails are slightly curved towards their middle, as shown in Fig. 1, to make for comfortable seating.

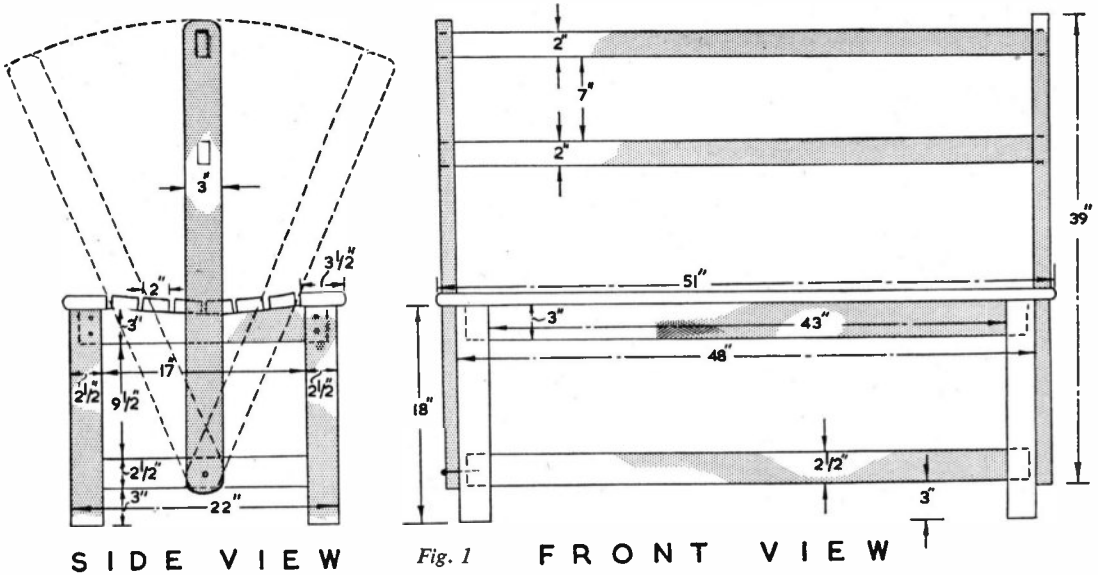


Fig. 1

The joints can now be marked out, and it will be noticed that the tenons on the top rails are on one edge of the wood and extend to half their thickness. The tenons on the bottom rails are one-third the thickness of the wood, and the ends are mitred so that the two tenons fit together in the mortises which meet in the legs as can be seen in Fig. 2.

Mark out the mortises on the legs to correspond with their respective tenons. It will be seen from Fig. 2 that the upper mortises are made open at the top, these joints being hidden and sufficiently covered by the seating boards as seen in Fig. 1. In this diagram is shown, too, the lengths between the shoulders on the rails.

The joints can now be cut out carefully with a tenon saw, using a mallet and chisel for the mortises. Most of the wood in the mortises can be cleaned out by using a brace and bit of suitable size and employing the chisel for clearing away. It is advisable to trim out the mortises on the other sides of the legs, which receive the front rails, at the same time. These are exactly the same in size and shape as the others.

For added strength the joints may be dowelled and this is accomplished by fitting the frame together and with a ¼ in. twist bit boring two holes through each joint for the dowels. These consist of pieces of ¼ in. round rod pointed at the end and smeared with waterproof glue to resist the weather. Cut the ends of the dowels off flush with the frame and clean up with a plane.

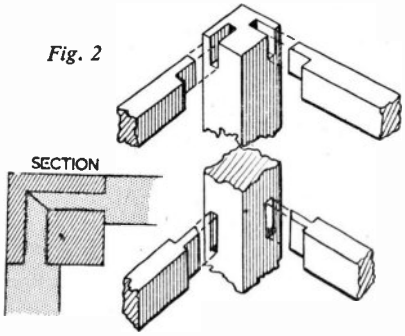
Two top and two bottom rails are now required and these fit between the legs along the front and back of the seat. The top rails are each 47 in. long by 3 in. by 1¼ in. and the lower rails 47 in. long by 2½ in. by 1¼ in.

The tenons can now be marked out on the ends of these rails in size and shape to those on the end rails, the distance between the shoulders this time being 43 in. The lower rail tenons must be mitred as before to fit in the mortises.

When all the joints have been cut and fitted, the tenons can be glued and the dowels driven through the legs into them as explained previously.

Now fix the top slats on to the assembled frame. These consist of two pieces of wood 51½ in. long by 3½ in. by 1 in. for the outside slats and six pieces, each 48 in. long by 2 in. by 1 in., for the intermediate ones. One edge of each outside slat must be rounded with a smoothing plane, and it is advisable to glasspaper the corners of the remaining slats to remove any splinters.

Fig. 2



The best way to fix the slats to the frame is to core a hole through the wood where the screws are to go and the tops are then countersunk deeply. The screws are driven in and the heads filled with putty or other suitable filling. Two screws driven in the ends of each slat is sufficient. Screw the two outside slats on first, and notice in Fig. 3 that they are 1¼ in. longer than the seat at each end, to receive the back rest. The intermediate slats must be level with the edges of the legs. These slats are spaced out carefully between the front and rear slats.

For the back rest use two side uprights about 39 in. long by 3 in. by 1¼ in., and two horizontal rails 50½ in. long by 1¼ in. Mark out the mortise and tenon joints, the tenons being one-third the thickness of the rail and passing through

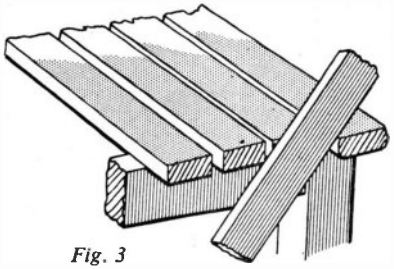


Fig. 3

the uprights. Cut these and fix them as before, by gluing and then dowelling. It is better to round the ends of the uprights and plane all the corners off before fixing together as above.

Next obtain two 4 in. by ¼ in. bolts, with nuts and washers complete, and bore suitable holes centrally in the lower rails to receive them. Fit the back in position, ensuring that it moves freely against the slats of the seat. Any clearance needed can be arranged by adding washers on the bolts.

Complete the seat by rubbing down with glasspaper and giving two coats of clear Cuprinol. Give a coat of pink primer, one undercoat and one top coat of exterior grade gloss paint. An alternative finish is to give a coat or two of Cuprinol 'cedar' which imparts a natural cedar colour to the wood.

(M.h).

CHEMISTRY AT HOME

SULPHURIC ACID EXPERIMENTS

By L. A. Fantozzi

IT has been said that the prosperity of a country may be judged by its consumption of sulphuric acid, H_2SO_4. There is a great deal of truth in this, for there is hardly an industry which does not make use of it at some point or other.

The strong acid is a skin corrosive. Consequently, care should be taken. Any coming in contact with the fingers should be flushed off with water and wet sodium bicarbonate, $NaHCO_3$, dabbed on. Its corrosive action is partly due to its great avidity for water, H_2O, the elements of which, hydrogen, H, and oxygen, O, it will remove from many substances, charring them in the process. An example of this may be seen with sugar, $C_{12}H_{22}O_{11}$. Add a few ml. of strong sulphuric acid to a little sugar in a beaker. The mass becomes hot and blackens. The acid has split off the hydrogen and oxygen into 11 molecules of water and left 12 atoms of carbon:

$$C_{12}H_{22}O_{11} = 12C + 11H_2O.$$

The evolution of heat explains why when diluting the strong acid water must never be added to it. Otherwise the great heat developed will raise the water to much over its boiling point, resulting in spitting. Burns from such involve both scalding and corrosion.

The acid must be added to water. The water cools the mixture. As many experiments can be done with the dilute acid here is the way to make a supply. Wear goggles. Stand a beaker containing 150 ml. of cold water in a basin of cold water. Measure out 10 ml. of strong sulphuric acid in a small measuring cylinder and stir it slowly in a thin stream into the water in the beaker. If the beaker begins to feel very warm, halt the operation until the outer cooling water has again lowered the temperature and then continue adding the strong acid. Finally, let the diluted acid cool and then make it up to 184 ml. with water. This will give a 10 per cent weight in volume solution, as 10 ml. of strong sulphuric acid weigh 18·4 grams.

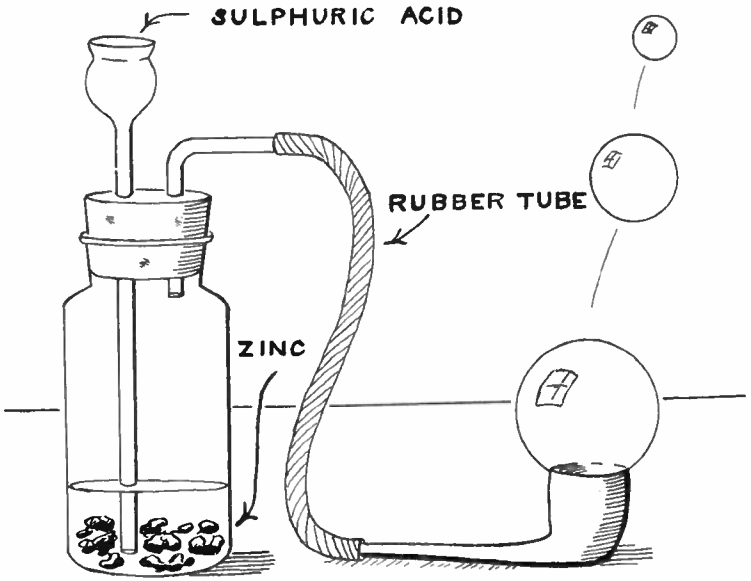


Fig. 2—Hydrogen filled bubbles

Invisible ink

Even this dilute acid can be made to char organic matter if the water is driven off by heat. On this depends an invisible ink. Make a quill pen by cutting a feather as shown in Fig. 1, and write on paper with the dilute acid. Let the characters dry off. The message is invisible. Now hold the paper before the fire or above a flame. The characters materialize in black. The formula for cellulose (of which paper consists) is a multiple of $C_6H_{10}O_5$. Here again the proportions of hydrogen and oxygen are just right for splitting off as water:

$$C_6H_{10}O_5 = 6C + 5H_2O.$$

Sulphuric acid is, of course, the parent substance of the salts known as sulphates. Common examples are Glauber's salt (sodium sulphate), $Na_2SO_4.10H_2O$, Epsom salts (magnesium sulphate), $MgSO_4.7H_2O$, and plaster of Paris (calcium sulphate), $2CaSO_4.H_2O$.

Fig.—1 How to make a quill pen

Hydrogen bubbles

When we prepare hydrogen in the laboratory we usually use zinc, Zn, and dilute sulphuric acid. Zinc sulphate, $ZnSO_4.7H_2O$, is also produced:

$$Zn + H_2SO_4 = ZnSO_4 + H_2.$$

This reaction can be turned into a rather spectacular affair, too. Soap bubbles when blown normally either drift on air currents or sink to the ground. By filling them with hydrogen they soar up and keep on going up.

Cover granulated zinc with dilute sulphuric acid in the generating bottle shown in Fig. 2. When gas is being briskly evolved dip a clay pipe into soap suds and attach it to the generating bottle by means of the rubber tube. The hydrogen filled bubbles leap away into the air.

When action ceases in the bottle the mixture need not be thrown away. Filter it from undissolved metal and insoluble impurities and boil it down to low bulk. When a drop taken up on a cold glass rod crystallises at once let the solution cool down overnight. Crystals of zinc sulphate separate which may be dried on a porous tile for your stock.

Uses for dyes

Sulphuric acid is widely used in dye manufacture. One use here is in the formation of sulphonic acids to convert insoluble colouring matters into soluble dyes. A typical and easily tried out example is Indigo Carmine, $C_{16}H_8N_2O_2(SO_3Na)_2$, which despite its name, is a blue dye.

Measure out 34 ml. of strong sulphuric acid, pour it into a beaker and mix in with a glass rod 5 grams of powdered indigo, $C_{16}H_{10}N_2O_2$. Heat the mixture to 90°Centigrade in a water bath for about half an hour, stirring occasionally with a glass rod. Let the mixture cool and stir it slowly into 300 ml. of cold water, filter from any undissolved matter. A solution of indigodisulphonic acid results:

$$C_{16}H_{10}N_2O_2 + 2H_2SO_4 = C_{16}H_8N_2O_2(SO_3H)_2 + 2H_2O.$$

Add this to 10 grams of sodium chloride, NaCl, dissolved in as small a volume of water as possible. Indigo Carmine (sodium indigodisulphonate), $C_{16}H_8N_2O_2(SO_3Na)_2$, is precipitated as a blue powder. Hydrochloric acid, HCl, remains in solution:

$$C_{16}H_8N_2O_2(SO_3H)_2 + 2NaCl = C_{16}H_8N_2O_2(SO_3Na)_2 + 2HCl.$$

Filter it off and dry it on a porous tile. This dye gives fine blue shades on wool and silk.

The 'indigo solution' of laboratory reagent shelves consist of a solution of indigodisulphonic acid containing free sulphuric acid and is prepared by a variation of the general method. Mix 0·4 gram of indigo with 5 ml. of strong sulphuric acid in a test tube and warm to 90° for half an hour. Stop heating the water bath and let the tube remain in it for 24 hours. Then mix the contents of the test tube with 100 ml. of cold water and filter it.

This indigo solution is a useful test for nitrates, chlorates, hypochlorites and free chlorine, Cl, being turned yellowish by them under certain conditions. In the case of nitrates add a drop or two of indigo solution to a little dilute hydrochloric acid in a test tube. Add about an equal volume of a solution of potassium nitrate, KNO_3, and heat the mixture. It quickly turns yellow.

The chlorate test may be shown with a solution of potassium chlorate, $KClO_3$, which has been tinted light blue with a drop or two of indigo solution. Add a little dilute sulphuric acid and then drop by drop a solution of sodium sulphite, $Na_2SO_3.7H_2O$. The blue turns to yellow.

Hypochlorites may be represented by a filtered solution of bleaching powder (chloride of lime), which contains calcium chloro-hypochlorite, Ca(OCl)Cl. On adding hydrochloric acid, calcium chloride, $CaCl_2$, is formed and chlorine liberated:

$$Ca(OCl)Cl + 2HCl = CaCl_2 + H_2O + Cl_2.$$

Tint the solution of bleaching powder with a drop or two of indigo and add dilute hydrochloric acid. The blue is rapidly changed to yellow.

ACTION PAINTING

By Joan Muir

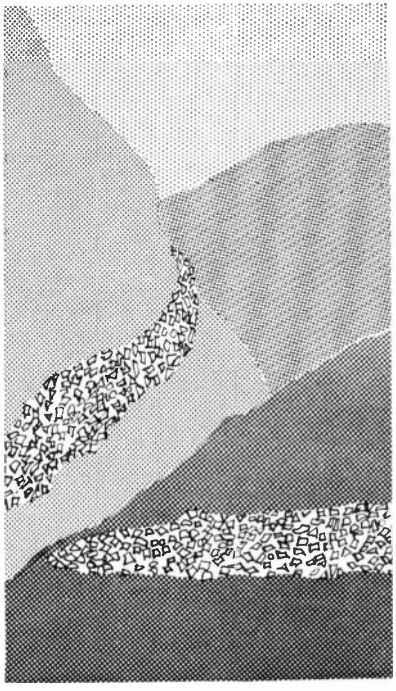
Our contributor sent with this article a picture executed as described in the following instructions. One member of our staff said it looked ghastly — 'a child of seven could do better'. Another commented that it was enough to make a chicken stop laying eggs! However, in view of the examples which nowadays pass off as 'art' we decided to give the details of this method of 'action painting'. No doubt the results will please somebody, but the main object would seem to be to create a puzzle.

FIRST determine what you are going to paint, and what colours you will need. Having decided on the chalks you want to use, take each chalk and grate it into a fine powder on the sheet of ordinary paper (or in the box lid). Take care not to mix the colours at this stage.

On the stiff absorbent paper outline your proposed painting in very faint pencil lines, smudging these with fingers. A landscape is favourite, and it is possible to produce a really weird moonscape, or a wild sea. For a real action painting, designed to puzzle all viewers, no outlines are required.

Now decide which part of the scape you're going to do first. It is best to start with the darker part.

Lightly spread glue over this with your finger — don't use a brush! Leave to dry for a few seconds, then sprinkle on the required colour. For a realistic vegetation, or to portray soil, mix green and brown; for lush grass use green only. Rub out, taking care to cover the whole glued surface, especially the pencil lines. Make upward strokes for shrubbery, tall plants etc.



A landscape such as this is best for this type of art

It is not necessary to wait for the 'treated' part to dry before starting on another section, but be careful not to smudge. Use green for distant hills, brown for rugged mountains, sky blue for sea, and a mixture of blue and white (with white predominating) for the sky.

MATERIALS NEEDED:

- **Pencil**
- **Glue**
- **Grater**
- **Carton of coloured chalks**
- **Egg shells**
- **Sheet of stiff absorbent paper or cardboard**
- **Sheet of ordinary paper or box lid**

Paths are made with egg shells. Crush the shells between your fingers, or under a pastry roller or milk bottle. Big pieces of brown or white shell can represent boulders or large stones. To glue on: leave the paths or patches to be egg-shelled till last — and in this case it is better to wait for the rest of the painting to dry, to avoid smudges. Spread glue liberally, and straightaway sprinkle on the pieces of shell, pressing down firmly with fingers.

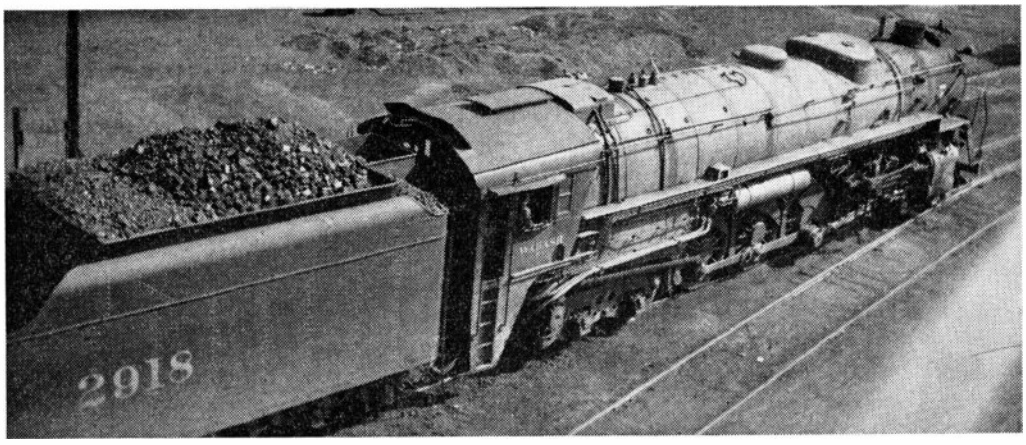
Put in safe place, and leave to dry.

To hang: lightly glue back of painting and press on cardboard of same size. A frame is not required, but a nice finish can be made with plain black passé-partout.

Warning: hands are the favourite for this kind of action painting as they are easily washed — it may take hours to get the colour off your toes!!

Interesting Loco's—81

THE WABASH 4-8-4



OF the various classes of American steam locomotives which carried the 4–8–4 wheel arrangement (known as the 'Northern' type) probably among the more noteworthy were the big '2900', class O.1 engines outshopped by The Baldwin Locomotive Works of Philadelphia to the order of the Wabash Railroad. 25 engines of the class were built carrying road numbers 2900–2924.

The first eighteen engines Nos. 2900–17 went into service late in 1930 and the other seven Nos. 2918–24 early in 1931.

The class was designed primarily to supplement the 25 4–8–2 'Mountain' class, '2800' M.1 engines (outshopped also by Baldwin at the beginning of 1930) which carried road Nos. 2800–24. In general design and outward appearance these two classes of heavy duty engines — fifty in number — were almost identical. They were primarily freight-haulers, but also saw service on passenger duties which included the fast and heavy services from Chicago to Decatur, Illinois, with trains weighing well upwards of 700 tons. In through freight service, the '2900' class were operated between Decatur, Illinois and Montpelier, Ohio, a distance of 272 miles which has ruling grades of 0·6 per cent eastbound and 0·9 per cent westbound.

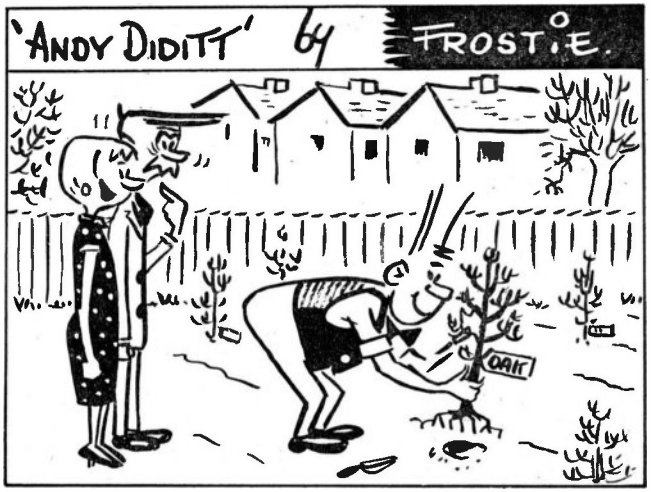
A distinguishing feature of these two classes was the commodious and fully enclosed cab, (not at the time frequently seen in America) which being completely enclosed from the tender gave much better protection to the enginemen.

The leading details of the '2900' class O.1 engine included — cylinders 27 in. diameter by 32 in. stroke. Wheel diameters bogie 33 in. driving 70 in. and trailer truck 43 in. Tractive force 70,817 lb. Length — engine and tender over couplers 100 ft. 0¼ in., total wheelbase with tender attached 86 ft. 10 in., wheelbase of engine — 7 ft. 2 in. + 6 ft. 1 in. + 6 ft. 1 in. + 6 ft. 1 in. + 6 ft. 1 in. + 8 ft. 6 in. + 5 ft. 0 in., total 45 ft. 0 in. Coupled wheelbase, 18 ft. 3 in. Boiler, maximum diameter outside lagging plates 8 ft. 4 in., working pressure 250 lb. per sq. in., height, rail to top of chimney, 15 ft. 11 in. centre line 10 ft. 8 in. The tender ran on twelve wheels of 36 in. diameter, the wheelbase being 4 ft. 5 in. + 4 ft. 5 in. + 9 ft. 7 in. + 4 ft. 5 in. + 4 ft. 5 in. total 27 ft. 3 in. The tank held 15,000 gallons and the coal space was for 18 tons.

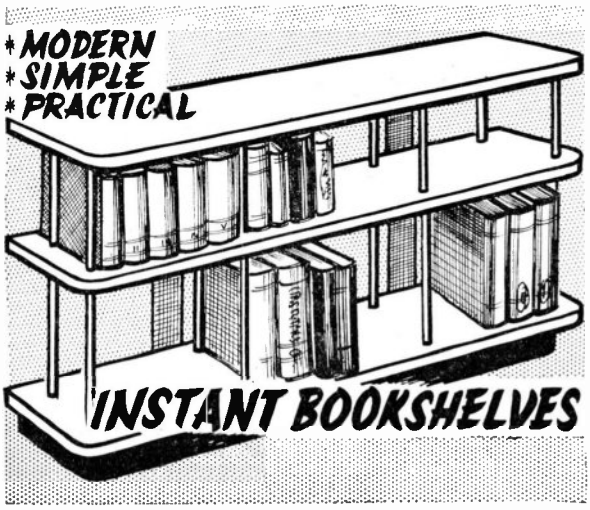
In full road order the weight of engine and tender amounted to 750,600 lb. In later years, a few minor modifications were made which included Timken roller bearings and the provision of a larger tender which has the coal space increased to 23 tons.

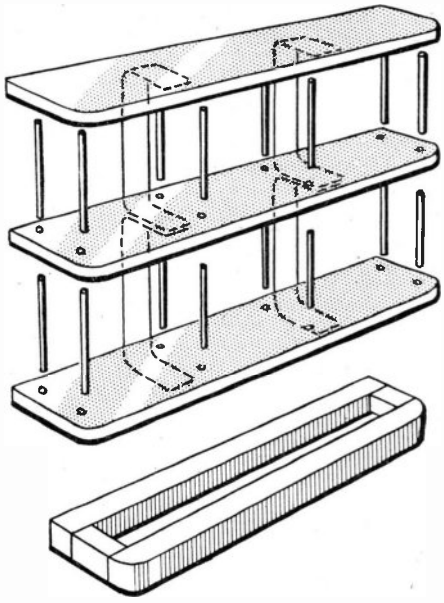
The engine No. 2918 shown in the illustration was built in January 1931 and carried Baldwin's No. 61572. She is here shown at Peru, Indiana, in 1941. (*The wheel diameters of American locomotives are always given in inches*).

(A.J.R.)



"ANDY'S PLANTING SOME OAK TREES — HE WANTS TO GROW THE WOOD TO MAKE US A NEW BEDROOM SUITE."





By A. Liston

SIMPLE modern bookshelves are not always commercially obtainable in sizes suitable for individual needs, especially when large and awkwardly-shaped books have to be accommodated. The method of construction described here, however, enables bookshelves to be made in an incredibly short time with the simplest of tools.

The wood for the shelves themselves is ¾ in. thick chipboard, 12 in. wide, and ready veneered to save time. The length of the shelves depends, of course, on the number of books to be housed, and the height of the shelves depends on the size of the books. When these dimensions have been decided, the pairs of metal brackets which support each shelf can be made.

The ones used for the bookshelves shown are of 3 in. wide steel strip, and are approximately $\frac{3}{16}$ in. thick. The horizontal arms of each bracket are 11 in. long, and the vertical section should be ¾ in. longer than the space desired between each shelf and the one above it. Two holes are drilled in each arm of the bracket to take the screws which locate the shelves on the brackets, and it is also advisable to have screw-holes in the vertical section, so that the bookshelves can be fastened to the wall, if necessary. For most people, the easiest way of having these brackets made to one's own specification is to get this job done by a local garage or blacksmith.

The plinth on which the unit is mounted is made from lengths of 2 in. by 2 in. wood. It should be 11 in. wide, and 1 in. shorter at each end than the shelf above it. Its front corners can be rounded off, and those of the shelves treated similarly to give a lighter appearance. The rounded edges of the shelves, from which the edging veneer will have been removed, can be covered with ¾ in. wide strips of matching veneer, ready coated with adhesive on the rear, and needing only to be pressed into place.

While the steel supports at the rear of the shelves take most of the weight of the books, they are supplemented by pairs of ½ in. diameter dowel rods spaced at 18 in. intervals along the shelves, and at each end of the unit. The ½ in. diameter holes to take these rods are ¼ in. deep, and their positions should be marked exactly on each shelf, using a paper template, to ensure that the rods are in line vertically.

The order of assembly is that the metal brackets are first screwed to the shelves, remembering that they are always fixed to the undersides of the shelves. The plinth is then screwed in place, being cut away where necessary on its upper surface to allow the metal brackets to pass across it. The dowel rods, which are cut ½ in. longer than the distance between the shelves, are then glued in place, and the complete unit is painted, varnished or treated with wood sealer before being put into service. The books hide the metal supports and also some of the dowel rods, giving a light, graceful effect, well suited to modern furnishing schemes.

THE HOUSE THAT BUCKNELL RENOVATED

FOR 39 weeks, millions of viewers followed on B.B.C. Television the romance of Bucknell's House unfolding. They saw Barry Bucknell converting a veritable wreck of a building into an attractive modern home. Now what was a romance on the small screen becomes a manual for the home improvements man.

All the snags likely to be met with in work of this nature are fully covered and because of the research which presentation for television entailed there was evolved much simplification of accepted ideas and methods. Constant reference is made to the numerous illustrations and diagrams which make the following of the text such an easy matter.

Every stage in renovation is fully covered — from negotiations for house purchase and the making of the workbench to the final fixing of the light in the outside porch. Every inch of the building is covered in detail. Barry also describes his designs for furniture and fittings — workmanlike jobs simplified for the amateur and yet comparing very favourably with the factory-made article.

This book is a 'must' for any home lover who is contemplating the conversion of even a single room or stairway. For the more ambitious who are thinking of 'doing a Bucknell' it is worth its weight in gold.

Published by Macdonald & Co., Gulf House, 2 Portman Street, London, W.1., price £1. 10s.

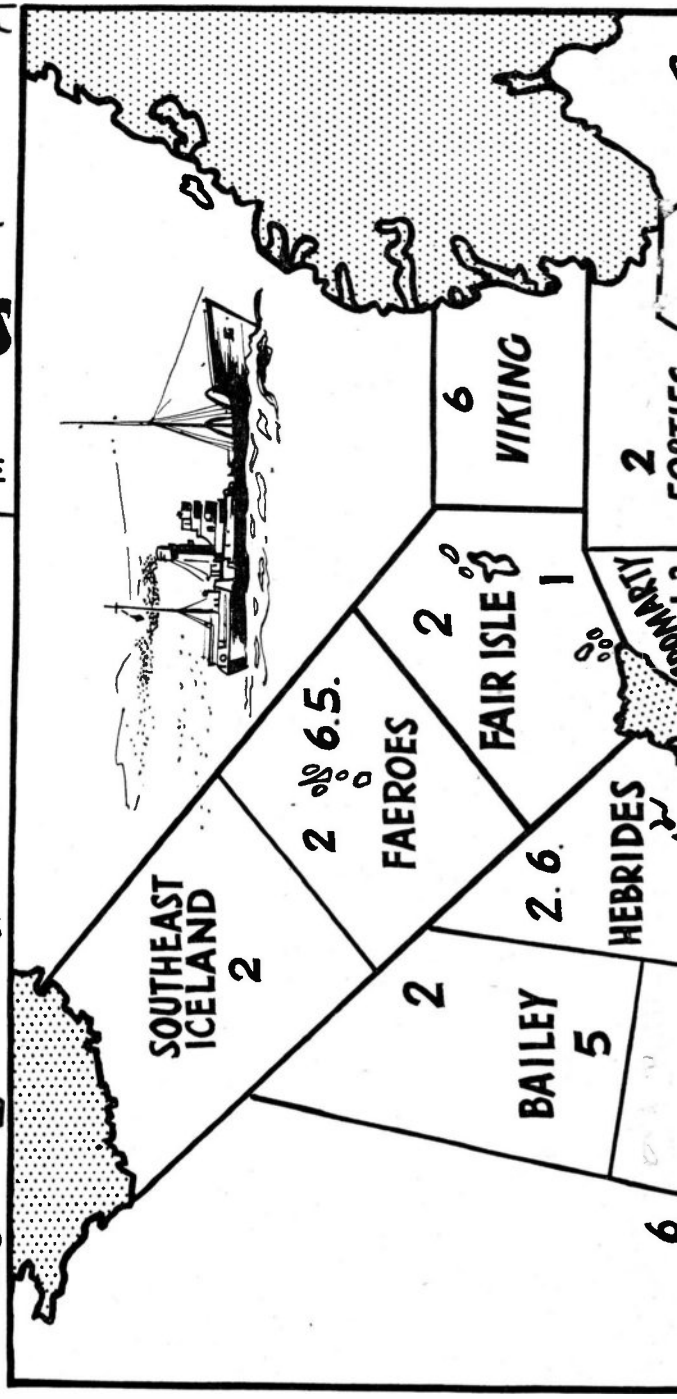
SEA GUIDE JIGSAW

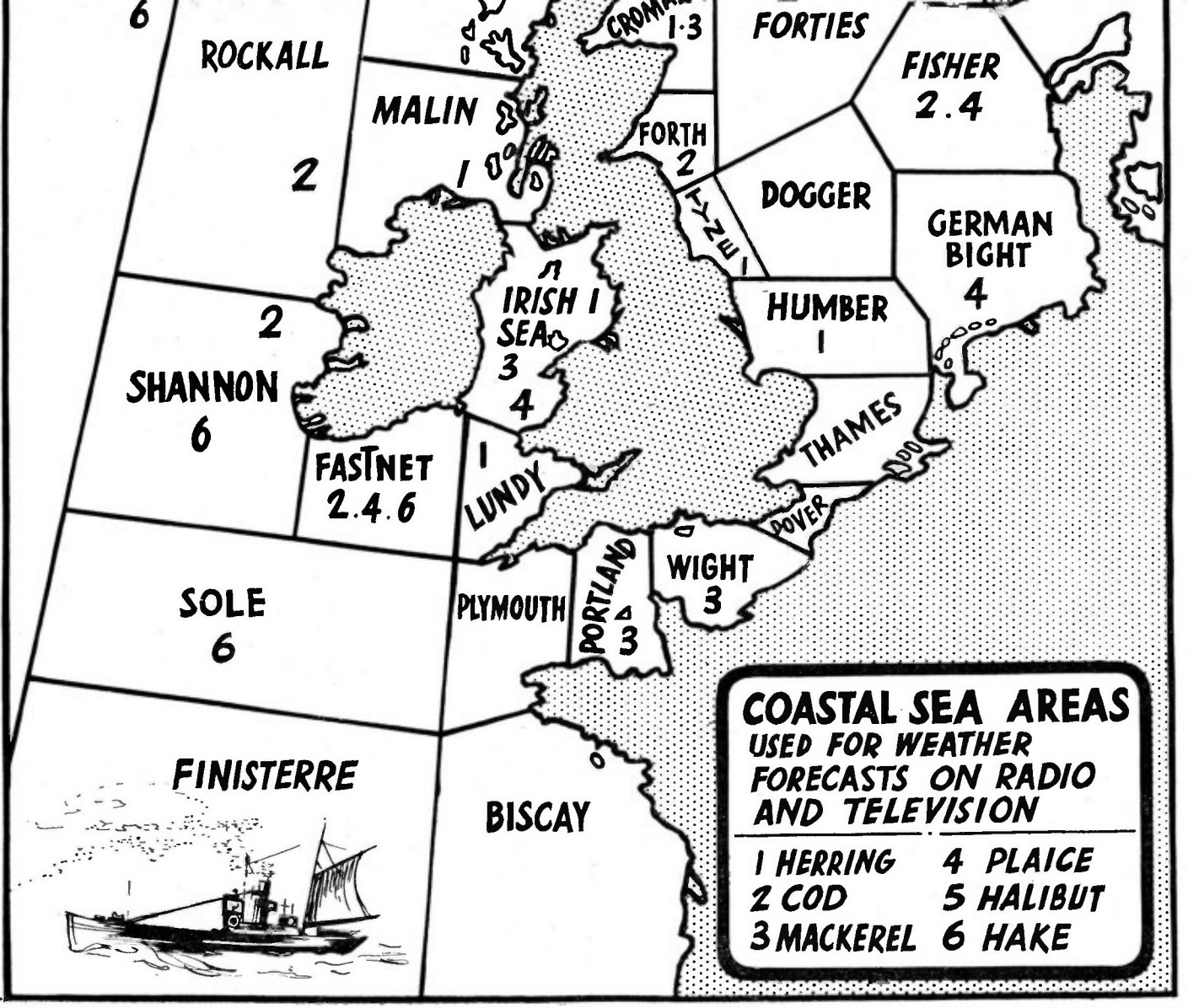
SEA AREAS & FISHING GROUNDS

1. CUT TO PUZZLE OUTLINE FROM 1/4 IN. WOOD
2. CUT OUT PUZZLE DESIGN 1/4 IN. WOOD
3. LAND AREAS SHOWN SHADED ARE NOW GLUED DOWN TO BASE IN CORRECT POSITIONS

✶ SMALL ISLANDS ARE PAINTED ON SEA AREAS

4. PIN 1/4" X 1/2" STRIPWOOD AROUND BASE TO FORM WELL FOR PUZZLE





TOPICS FOR COLLECTORS

BRITISH CAR REGISTRATIONS

By T. Gray

Comedian Ken Dodd is besieged by enthusiastic autograph hunters outside the Coventry Theatre. His car is a Jaguar Mark 10, registered KD11.

WE have come a long way since car registration numbers were first introduced in 1903. At that time, a letter or combination of letters issued to various towns and counties preceded the number or numbers.

Registrations were then introduced with the number preceding the letter with AXC 1 becoming 1 AXC.

Just recently, the car registration has turned a complete cycle and many towns and counties are now issuing number plates with the letters again preceding the numbers, but this time, with a further letter following the numbers. Thus we have AXC 1 A. The letter 'A' use after the number signifies the year of registration, in this case 1963, 'B' being used in 1964, 'C' in 1965 and so on.

Of course, the British car registration system is ideal for the person who wishes to signify ownership by having his own initial letters followed by the number 1 or whatever numeral is most suitable or indeed most easily available at the time. Acquiring one's own registration plate is no easy job in many cases, and often leads to some wild goose chase for ancient or even non-existent vehicles which bear the plate you require, and at the end of your search, despite all the trouble and expense so far incurred, there is a further £5 fee to pay for special registration.

'Is it worth it?' you may well ask. Whether your answer is 'yes' or 'no', there is no denying that car registrations, well chosen, certainly provide many a fascinating story.

It is fitting to commence with what must surely be the most sought after registration in Britain:

A 1 First registered in 1906, it was in the possession of Earl Russell for three years when it was passed to the Chairman of London County Council. Later a motor trader, George Pettyt, purchased the plates, car as well, using them on several different vehicles. On his death the plates were left to Trevor Laker, a friend, and in his will Mr Pettyt requested that Mr. Laker should make provision that, upon his death, A 1 should be sold to the highest bidder and the money given to a dog's home of Mr Laker's choosing. However the registration was sold in 1960 for £2,500, and the money passed to the Guide Dogs for the Blind Association, but the buyer's name still remains anonymous, he giving Mr Laker permission to retain the number during his lifetime.

A 1, still with Mr Laker of Leicester, is now on a Humber Sceptre, being the 34th car to hold this registration.

AD 1897 Owned by Commander E. D. Woolley of Shepperton and is on an 1897 Daimler. Probably the only car to have the year of its birth for a registration.

BF 1 Oops! This is one set of letters that just had to be withdrawn and until quite recently, no further 'BF' registrations have been issued. BF 1 was originally owned by Colonel J. R. P. Gooden of Sherbourne — but public reaction forced its withdrawal.

Two other registrations were also withheld until either the pressure of number plate allocation was so great that they had to be released, or the average citizen became broad-minded. They were WC and OO both allocated now to Essex. BF is now allocated to Staffordshire.

Typical of the subtle use of letter and number combinations is

RU 18 'Are you 18?', the number plate displayed over bars throughout the country. The present owner lives in Bournemouth.

Now just a few other subtle build-ups that spring to mind.

ONE 1 — Owned by the Vice-Chancellor, The University of Manchester.

BOD 1 — 'Body' was seen displayed on a St. John Ambulance!

DED 1 — The most suitable registration to follow 'Body' is 'Dead One', and believe it or not, this was formerly used on a vehicle of the Funeral Department of Middlesbrough Co-operative Society Ltd.

CUR 10 — 'Curio' specially selected by antique dealer Peter Pickering of Knowle, who caught up with this plate on an Austin 7 in a Wolverhampton breakers yard.

RAD 10 is owned by announcer Bob Danvers-Walker, while his wife owns TV 1, these being just about the most talked about registrations in the public eye.

Not far away is RAD 101 owned by Tommy Steele.

A question can be read into plate WAT 4 owned by sporting motorist Ted Bowers- Booth.

How subtle one can get is shown in POT 80. One hears rumours that it is owned by a pot-at-o merchant!

To close my list of subtle registrations, I give you —

SEX 1 This is often seen on your television screens, during motor sport programmes. It is owned by what must be a very brave 19-year-old lady, Michaelle Burns-Grieg Duns one of Britain's youngest racing drivers.

Many business men use their registrations as travelling advertisements, and following up on SEX 1 comes BRA 36 owned by bra manufacturer Abraham Geracht and described by its owner as 'the perfect bust measurement'.

R77 is owned by Mr 'Teazy-Weazy' Raymond of Mayfair, and 'R.77 cream shampoo' is one of his products.

Wellknown by poultry farmers throughout the country are Thornber Chicks with their breeding numbers 404, 505 and 606. Mr & Mrs Thornber display these numbers on their cars registered CT 404, CT 606 and D 505.

YG 1 is owned by Yana, but when the world's first astronaut Yuri Gagarin came to this country, he was given the use of a Rolls Royce with YG 1 number plates. Yana travelled to London and presented Yuri Gargarin with the plates for his use while he was in Britain.

FLY 1 was owned appropriately by Lord Brabazon of Tara, P.C., G.B.E., M.C. the first English Aviator.

Now look out for these famous registrations:

AA 10 — Arthur Askey.
AAA 1 — Marquess of Exeter, President of the Amateur Athletic Association.
5 ALE — Note the 'ALE' used on Mr Acker Bilk's Paramount Jazz Band 15 seater coach.
BUT 1 and **BUT 2** both owned by Billy Butlin.
CUE 1 — Joe Davis (very subtle!)
DOB 1 — Duke of Bedford.
HS 92 — Harry Secombe.
JS 954 — Jimmy Saville.
KH 6 — Kenneth Horne
MB 1— Max Bygraves.
NW 4 — Norman Wisdom.
PM 208 — Peter Murray on 208 metres
BC 1 — Billy Cotton.
BEV 33 — Beverley Sisters.
DD 200 — Diana Dors.
KD 11 — Ken Dodd.
VS 1212 — Victor Silvester (Senior)
VS 1234 — Victor Silvester (Junior)

TT 1 and PYP 2 are both owned by Tommy Trinder, so when he purchased his third car he obviously chose OWN 111 which of course, he does.

I have tried to fill in the story behind several registration plates that are particularly unusual or are linked up with a famous name, and if I have whetted your appetite just a little towards an interest in the 'registration game' of cars owned by the famous, I will have succeeded.

In writing this I acknowledge the assistance of fellow enthusiast Noel Woodall who has produced an excellent little book 'Car Number Galaxy — Celebrities', and would urge those of you who wish now to take an even closer look into famous registrations, to read more on the subject in this book obtainable, price 3s. 6d. from — Noel Woodall, 16 Boston Avenue, Norbreck, Blackpool.

Excellently produced and well illustrated, the book is of first rate value, All proceeds are donated to Trueloves School for Seriously Crippled Boys at Ingatestone, Essex.

NOTE TO CORRESPONDENTS

All correspondence on any subject covered in this magazine *must* be addressed to: The Editor, Hobbies Weekly, Dereham, Norfolk. If a reply is required, queries should be accompanied by a stamped addressed envelope and reply coupon inside back cover.

Would all readers kindly remember that it is as well to write in the first instance without sending any hobby items and then after a satisfactory agreement has been reached exchanges may follow.

Also, mention your age, and give some idea of your likes and dislikes. Do not, unless asked, bring up political controversy or any subjects which could lead to misunderstanding. Write an interesting account of yourself and your hobbies.

We regret that some photographs sent with letters are not suitable for publication.

DONAL CRONIN says 'I follow soccer and save programmes; also act in plays and do many other things.' Write to 21 Mary Street, Cork City, Ireland.

Here are further notes from pen pal letters received from readers.

'I would be glad if you would publish my name in the pen pal corner. I collect stamps and postcards. My age is 16 and I would like boys and girls of my own age to write to me from all countries.' T. MOHD HERMIS, House No. 2581, Shaikh Issa St., A.I. Muharraq, Bahrain, Arabian Gulf.

'I collect beer and hotel labels and like pop records,' says ISABEL BARBA, Avenida Jose Antonio, 631 Barcelona, Spain.

'I collect drip mats and brewery glasses.' L. AKERSHOSK, Columbusstraat 84, The Hague, Netherlands.

'All general label collectors should write to me as I have many desired items for exchange.' T. J. APEL, Meramec Station, Box 1973, St. Louis, MO, U. S. America.

'I would like to exchange stamps and miniature labels with other collectors.' Miss A. M. ARNALL, Av. Rio Brance, Victoria, E. E. Sante, Brazil.

PEN FRIENDS FOR READERS

'I have nice stamps and beer labels to exchange from my country. C. BABBAGE, Lithgow, New South Wales, Australia.

'I would like friends throughout the world. I collect stamps and postcards an am 16 years old.' IBRAHIM MOHD HERMIS, House No. 2581, Shaikh Issa Street, A.1. Muharraq, Bahrain, Arabian Gulf.

'I want friends in any country. I collect stamps, postcards and records.' DOROTHY FRANCIS, 32 Butler Crescent, Bullfarm, Mansfield, Notts.

For further friends write to any of the following:

Mrs R. RABAN, P.O. Box 4324, Tel. Aviv, Israel. Stamps. ERIK RYGAARD LASSEN, Great Street 1, Vivild, Denmark. Stamps. GENE E. JONES, Route No. 1, Cambridge, Ohio, U. S. America. Stamps. PETER MARIANC MUNK, Peliza 1270, Olives, Argentina. Stamps, records, cards. MRS NORA CHAN, Kazimierz, Zielona Gerra, Skrytka, Pocztowa 19, Poland. Stamps. MISS G. JAY, 674 Balliol Street, Toronto 7, ONT. Canada. Hit records, pop music. MARTIN A. SLABBERT, P.O. Box 1046, Port Elizabeth, South Africa. Stamps. JAN SKUCEK, Lucinam 2468, Praha 3, Czechoslovakia. Match box labels. Stamps, records. MESHE KASHTON, P.O. Box 5117, Tel Aviv, Israel. Stamps, labels, pop music. KAPTANSKI ANDRZEJ, Ul. Ochronek 12, Tarnow, Poland. Stamps.
MR F. EVANS, 89 Evandale Street, Floreat Park, Western Australia. Collects stamps and matchbox labels. Nimal Jayasinge. 'Lakshmigiri', Gregory Road, Badulla, Ceylon. Pen-friends required from all over the world.

Advice by D. H. Nicholson

HINTS ON BIRD WATCHING

'SOFTLY, softly catchee monkey' is a good motto for the intending bird watcher. When approaching any wild thing it is important to move very slowly and gently, transferring your weight gradually from one foot to the other, avoiding dry sticks and rustling leaves.

Don't walk on tiptoe, as you may have to freeze suddenly and if you are caught on one foot you won't be able to stay frozen for long without overbalancing. It is often better to freeze slowly, rather than with a jerk, and thus make sure that your weight is firmly distributed on both feet.

Be sure to wear suitable clothes of neutral colours such as grey, green or brown. Although animals (other than monkeys) are colour blind, this does not apply to birds. If you sally forth in a scarlet sweater they will see you coming a mile off. Cover up metal buttons or belt buckles which might catch the light and, if you have a camera, take care that the sun does not reflect off that, too.

Keep downwind so that any small sounds will be blown away from your quarry, and you may also catch glimpses of animals which would have scented you had the wind been blowing from you to them. Avoid walking with the sun in your eyes or you will be unable to see the true colours of the bird you are watching, but remember that if the sun is low your own moving shadow may startle your quarry.

Look well ahead so that you see a bird before it is aware of you and avoid going directly towards it. It is less likely to be alarmed if you walk quietly past as if you had not noticed it, then circle round and come back again from a different direction. Be sure to keep your eye on the bird all the time, as once you lose it you may have difficulty in picking it up again.

Allay suspicions

Sometimes if you quietly whistle to a bird (copying its own notes as much as possible) it makes it less suspicious of you and will allow you to approach nearer. You will have to be very good at imitating the bird's call before it will mistake you for another bird but, like humans, birds are curious and may come closer to see what sort of strange creature you are. I have held quite long 'conversations' with a willow warbler in this way.

When you have found a suitable spot for bird watching it is often better (unless the weather is very cold) to settle yourself comfortably with your back against a bank or tree (*not* on the skyline, and wait for the birds to come to you. Keep absolutely still, and if you do have to move — to make notes, for instance — do so very slowly and quietly. Frequently you will see more in ten minutes this way than in half an hour of aimless wandering about.

A nesting Gannet

It is quite permissible to use field glasses to extend your range if you wish though personally I have always felt that it is more satisfying to see birds at close quarters with the naked eye. Of course, for studying water birds binoculars are almost essential.

It is the early bird which catches the worm, so try to get out as early as you can. Even if you are camping, the birds will be awake long before you are. The middle of the day is not the best time for bird watching, but at dusk most birds will be found near their roosting places. A pond where birds come to drink or bathe is a good place to watch, or in summer you may find a place where sparrows and other birds enjoy a dust bath.

In places where birds know that they are protected they often take little notice of quiet unhurried people who visit their sanctuary. I well remember a day spent on the Bass Rock in the Firth of Forth during the nesting season. The keepers showed us all over the lighthouse and then we spent the rest of the day watching the seabirds which nested in thousands on every ledge of the cliffs. We saw eider ducks, fulmar petrels, gulls, shags, and the comical puffins or sea parrots. There were gannets everywhere, squawking angrily at us and rising in a white cloud circling seawards when we approached too near. We watched them courting, stretching their necks skywards and clicking their bills together. The kittiwakes were nesting too, but the guillemots and razorbills matched their surroundings so well that they were difficult to see.

Protective colouring

This business of protective colouring of birds is a challenge to every bird watcher. Although the cock birds often have bright colours to attract their mates, the hens, when they have any bright colours at all, usually have them where they show only when flying, or on the underparts which are hidden when the bird is on her nest. The more brightly coloured birds such as the bluetit, kingfisher and woodpecker, nest in holes or in high inaccessible situations.

Protective coloration is most noticeable in birds which nest on the ground, as you will soon realize if you try to spot a grouse in heather or a sandpiper on a stony hillside. They are practically invisible as long as they keep still. Young birds freeze instinctively if threatened by danger, and their mottled colouring matches the background so well that they usually escape detection. This protective colouring applies to birds' eggs too, and you will notice that those laid on the ground are much more pointed at one end than the other to stop them rolling away.

Recently I saw a wonderful colour film which had taken over five years to make. It showed some remarkable shots of curlews, and numerous other birds nesting on Forestry Commission land. When nesting on the heathland these curlews were almost invisible and their eggs matched the flint stones scattered over the sandy soil. But in some places they had forsaken their natural habitat and laid their eggs on the turf bordering the forest drives. Here they were so conspicuous that many of the eggs had been stolen by visitors to the forest.

The true bird watcher is also a bird lover and will be very careful not to frighten them in any way. It is also important not to disturb a nest or lead others to it. Birds have natural enemies as well as human ones, and if you disturb the foliage round a nest you may be exposing it to squirrels or magpies which will eat the eggs. If you leave footprints in the soil or a trail of trodden down grass, you can easily lead other people to a nest, so cover your tracks well.

Never approach too close to a nest when the bird is sitting or you may frighten her off. You must just have the patience to wait until she leaves the nest to feed. (If you haven't any patience you will never make a good bird watcher!) If you do frighten a bird off her nest accidentally, go away at once to allow her to come back before the eggs or young ones get cold. Don't be tempted to touch eggs or young birds, as this may be sufficient to make the parents desert them.

Use a periscope

If a nest is too high for you to see inside it, try using a pocket mirror on a stick as a periscope, but never do this when the bird is on the nest. Be careful, too, not to alarm the nestlings when they are growing big enough to move around, as they may scramble out of the nest in their panic and die.

If you are fortunate enough to find a nest in the garden or near at hand where you can watch it frequently, do make detailed notes. Find out when the eggs are laid and how long before they hatch. Do both cock and hen share in sitting on the eggs and in feeding the chicks? What do they eat?

I remember watching a coal tit's nest for half an hour and timing the visits of the parent birds with food for the baby titmice. Fourteen visits were paid, so that the average number was one in less than every three minutes. The longest interval between visits was five minutes. Several times there was an interval of only one minute, and once one of but half a minute. Which just goes to show how hard the parent birds had to work to keep the youngsters fed, and what a lot of insects were consumed in the process.

Always be prepared with a notebook and pencil and write down *at once* what you have seen or heard. It is no use trusting to memory until you get home. Remember to put the date, the state of the weather, and where you were at the time (i.e. woodland, hillside, river bank, etc.) When unable to identify a bird, draw a rough outline and mark in the colouring, especially any distinctive features such as white patches or bars. Did these show only when the bird was flying? Did it fly with quick short beats of the wings, with slow flaps, or hovering? What shape was its beak? How big was the bird compared with other birds you know well? Larger than a blackbird? About the same size as a robin? Did you hear its call or song? Did you notice its feet? Perhaps you can find its tracks in mud or snow.

Value of notebooks

If you are not sure on any point, don't be tempted to guess. Your notebook should contain facts though, of course, if you caught just a glimpse of red somewhere it might be necessary to put '? Red markings' to help you check up later.

The main thing is that you must be able to trust your own observations and not have doubts when you read a different description in a bird book. If your notes don't fit, then it must have been a different bird — and probably a much more common one, too!

Keep all your notebooks and you will find that they become increasingly valuable as the years go by. (D.H.N.)

Picture Decorations – By Smoke!

By A. Liston

HERE is a simple but effective way of making your own wall plaques — by soot. The design or pattern is extremely easy to apply, and the plaques can be purely decorative and pictorial, or they can be commemorative, bearing an inscription to celebrate a national, local or family event. They can also make attractive seasonable gifts or even holiday souvenirs to make and sell.

Each plaque is made from an old plate, saucer or other flat dish. This can be white or a pale colour, but it should not be patterned. The plate must be perfectly clean and free from grease, and completely dry.

It is held inverted above a lighted candle, with the fingers of both hands holding the plate by the rim, so that its face is not touched. The plate is lowered closer to the candle flame until it licks its surface. At this point a patch of carbon will cover part of the plate. It should be kept moving with a gentle circular motion until the whole of the surface is covered with a uniform black coating.

Once the art has been acquired, after a little practice, it will be found that the plate can be covered very quickly. A point to note is that no one part of the plate should be held above the flame for long, as this will cause the plate to crack.

The picture or design is drawn with the point of a sharp object such as a toothpick or a sharpened matchstick. This method creates a picture rather similar to an etching, composed of many fine lines, and this should be borne in mind when the subject matter is chosen. The medal-like design of the ship plaque shown here is one of the simplest possible designs. It is best to avoid having large areas where the carbon has been scraped away — a criss-cross pattern of lines should be used instead.

Should any mistakes be made in the drawing, the offending lines can be obliterated by holding the plate over the candle-flame until the desired area is completely blacked out again.

When the picture is completed, it is made permanent by coating it with fixative. This is best applied with an aerosol can, spraying on just a little at a time to prevent runs. Once the whole area has been coated, and is dry, the plaque is finished off by coating it with varnish, applied very gently with a water-colour brush to avoid damaging the design. A second coat can be applied for added protection, but the plaques, of course, are purely decorative, and should not be put to the use of normal plates.

SUSAN HOLLIDAY

PRETTY little Susan Holliday made a big impression with her first Columbia disc *Street of Dark Despair*. While looking for material for a new record a friend visited her and began playing a song which he said he had written.

Susan thought the number was great and took it to her recording manager Monty Babson. 'You must be joking', said Monty, 'I know that song'. He was right — it turned out to be one of the earlier songs written by talented composer Burt Bacharach.

Susan has undergone a change in appearance and looks very swinging these days with a cute hairstyle in a pretty shade of blonde and smart modern outfits. *Any day now*, her new disc, is a beautiful and powerful ballad and released on Columbia DB7403.

A Handy Clothes Brush Holder

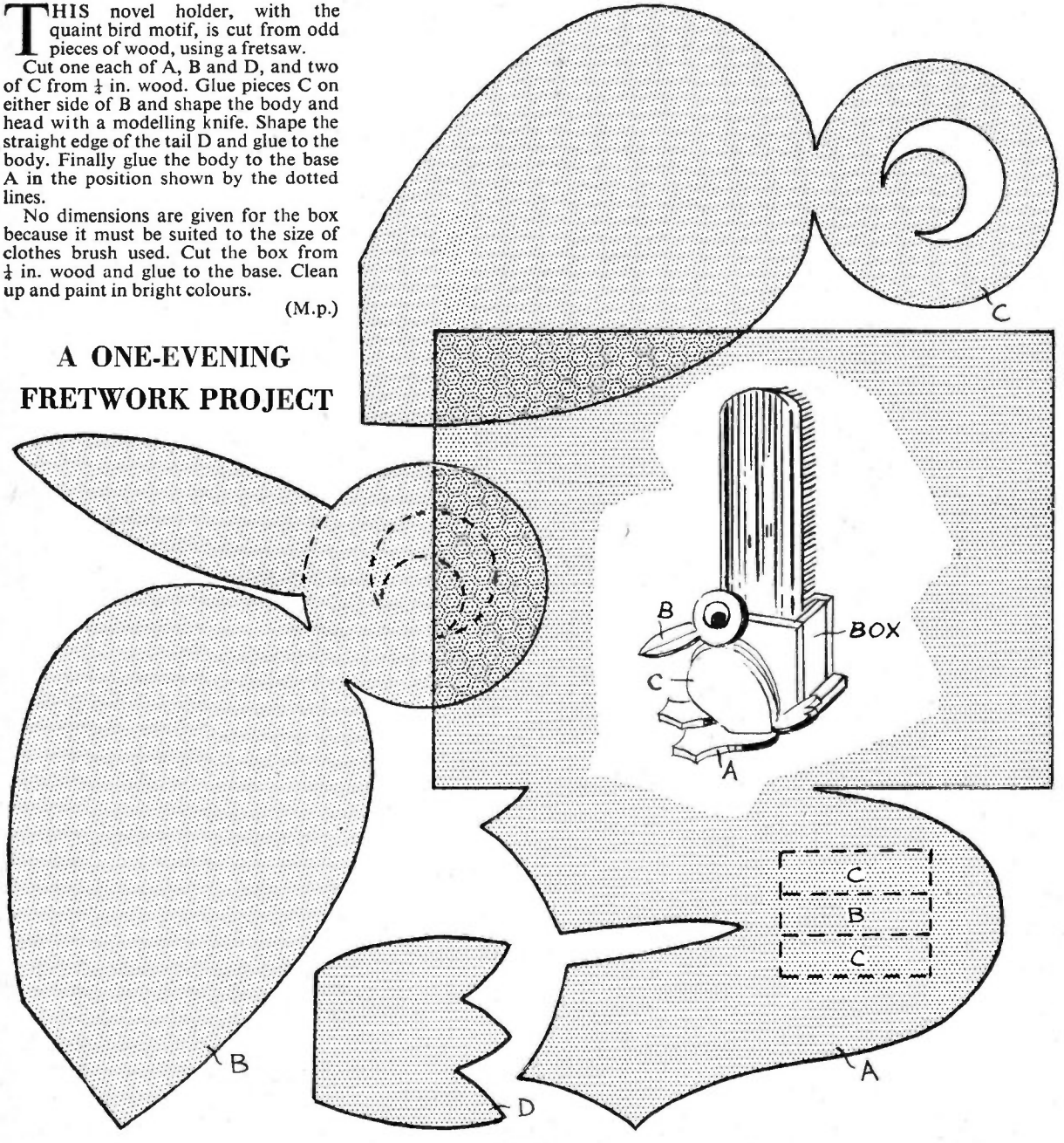
THIS novel holder, with the quaint bird motif, is cut from odd pieces of wood, using a fretsaw.

Cut one each of A, B and D, and two of C from ¼ in. wood. Glue pieces C on either side of B and shape the body and head with a modelling knife. Shape the straight edge of the tail D and glue to the body. Finally glue the body to the base A in the position shown by the dotted lines.

No dimensions are given for the box because it must be suited to the size of clothes brush used. Cut the box from ¼ in. wood and glue to the base. Clean up and paint in bright colours.

(M.p.)

A ONE-EVENING FRETWORK PROJECT



Printed by BALDING + MANSELL, LTD., London and Wisbech, and Published for the Proprietors, HOBBIES LTD., by HORACE MARSHALL & SON, LTD., Distribution Centre, 8-11 St. John's Lane, Clerkenwell, E.C.1. Sole Agents for Australia and New Zealand: Gordon & Gotch (A'sia.) Ltd. For South Africa: Central News Agency Ltd. Registered for transmission by Canadian Magazine Post.

BUILD YOUR OWN CRAFT

Plans for CANOES, DINGHIES, POWER BOATS

MUCH of the cost for a professionally built boat is for time, and a craftsman's wages can be a considerable item. As time costs the amateur nothing he can, solely for the price of the materials used, achieve first-class results if he is prepared to be patient and careful. The plans of the craft specified below are by the expert P. W. Blandford and provide all the information you need to build from scratch. Shaped parts are shown full size and there are detailed instructions. A list of firms supplying materials and kits is provided with each plan. Postage 9d. extra on each plan.

CRUISER

NOMAD. 16 ft. × 6 ft. 2½ in. double-chine cabin cruiser, with full-size bunks for two and room for two more on air beds in the cockpit. Space in cabin for cooker and toilet, and ample lockers. Performs well with outboard motor of 4–10 h.p. and will plane with 18 h.p. The complete boat weighs about 6 cwt. and is easily towed and launched from a trailer. Draught 12 in. Cabin 8 ft. long and 47 in. headroom, with 34 in. over the bunks. The prototype was built single-handed in one month at a cost of £100. **Price 45/-**

DINGHIES

WENSUM. 11 ft. × 56 in. double-chine plywood sailing boat. The basic boat is an open dinghy with a gunter rig of about 66 sq. ft. Weight complete about 220 lb. Draught of hull only 6 in. and with centreboard down about 30 in. The sailing gear is easily removed to make a general-purpose dinghy for rowing or outboard use. Suitable for sailing by a crew of two or will carry four for general use. **Price 17/6**

GOBLIN. 9 ft. 10 in. × 54 in. plywood pram dinghy of special form, light enough to be easily lifted on to a car roof. Construction is easy and quick. Good foredeck and buoyancy built in under side benches. Weight complete 120 lb. Sail area 52 sq. ft. in a single lug sail. Good performance as a racer and sail numbers are issued. **Price 16/-**

GREMLIN. 7 ft. 7 in. × 46 in. plywood pram dinghy of special form. This is the longest hull that can be got out of standard 8 ft. sheets of plywood. The bottom is a single sheet, split at one end and sprung to give a V forward and a curve aft. Has been built as a rowing boat for £10 and with rudder, dagger board and sailing gear for £16. Can be carried single-handed. **Price 15/-**

PETE. 6 ft. × 44 in. flat-bottom pram dinghy. The cheapest and simplest practicable boat. Can be built from one plywood sheet and may cost less than £5. Details of simple sailing gear included. Suitable for angling. Will carry two adults or three children. **Price 11/-**

CORRIB. 10 ft. × 51 in. single-chine V-bottomed plywood, general-purpose dinghy for rowing or outboard motor (3 h.p. is adequate). Simple construction, but a very shapely craft and a fine family boat. **Price 13/6**

VENTURER. 11 ft. × 54 in. double-chine fast outboard boat. Two versions are included. The basic design is a camping cruiser, adaptable to sleep two on air beds under canvas cover. Runabout version also described. A 4 h.p. motor is adequate for general purposes and the boat will plane with upwards of 10 h.p. The basic boat has been built for about £25. Not adaptable to sailing, but can be rowed. Normally seats four. **Price 17/6**

CANOES (Folding)

PBK24. A short single-seater of similar lines to PBK10, but with a longer cockpit. Packs into one bag. 11 ft. long, 28 in. beam, 55 in. cockpit, draught 4 in. Normal maximum load 300 lb. **Price 13/6**

CANOES (Rigid fabric-covered)

PBK 10. The shortest satisfactory canoe, carrying a man and camping kit. Suitable for most waters. 11 ft. long, 28 in. beam, 48 in. cockpit, draught 5 in. Normal maximum load 300 lb. **Price 12/-**

PBK 14. Roomy single for the big man or a two-seater for an adult and child or two young people. A popular tourer. Has crossed Channel as a single-seater. 14 ft. long, 29 in. beam, 76 in. cockpit, draught 5 in. Normal maximum load 500 lb. **Price 13/6**

PBK15. Fast touring single-seater, suitable for rapid rivers and the open sea in capable hands. Safe and stable. The adult enthusiast's canoe. Many Channel crossings. 14 ft. 6 in. long, 26 in. beam, 48 in. cockpit, draught 4 in. Normal maximum load 400 lb. **Price 13/6**

PBK20. Very stable and seaworthy two-seater, with sufficient beam to carry an efficient sail plan. Very roomy and popular as a tourer on most waters. 15 ft. long, 32 in. beam, 7 ft. cockpit, draught 6 in., normal maximum load 600 lb. **Price 13/6**

PBK26. Fast and stable single-seater with a shorter cockpit and a rockered keel, making it a good boat for rapid rivers. Many successes in long-distance racing. 14 ft. long, 26 in. beam, 39 in. cockpit, draught 4 in. Normal maximum load 400 lb. **Price 13/6**

CANOES (Rigid plywood skinned)

PBK16. A two-seater, flat bottomed, safe and robust. May be left afloat. 16 ft. long, 32 in. beam, 7 ft. cockpit, draught 5 in. Normal maximum load 700 lb. **Price 13/6**

PBK23. A single-seater with the same main dimensions as PBK15, but with V-bottom and hard-chine section. Roomy and stable, may be left afloat. 14 ft. 6 in. long, 26 in. beam, 48 in. cockpit, draught 4 in. Normal maximum load, 400 lb. **Price 13/6**

SEND FOR A PLAN AND GET CRACKING !

To HOBBIES LTD. (Dept. H.7.) DEREHAM, Norfolk

Please send me watercraft plan.....

for which I enclose ..... to cover cost and postage.

Name .....

Address .....

.....

.....