8th NOVEMBER 1961 VOL. 133 NUMBER 3439

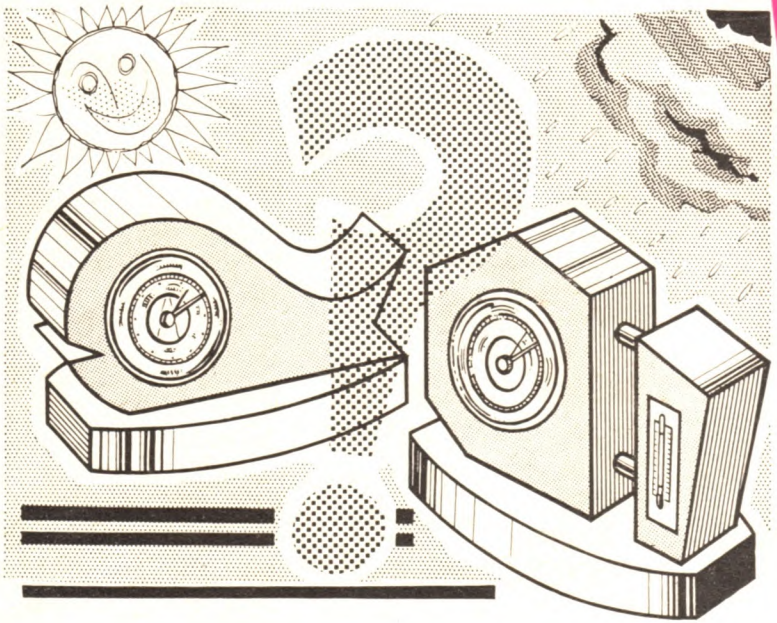
THE **ORIGINAL** 'DO-IT-YOURSELF' MAGAZINE

HOBBIES *weekly*

FOR ALL HOME CRAFTSMEN

Instructions for making . . .

Also in this issue :



BAROMETERS

(In Contemporary Style)

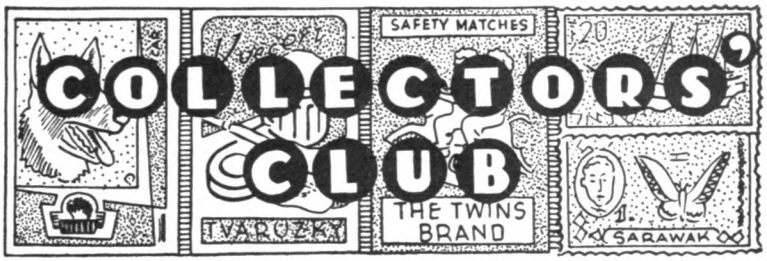
Hobbies

Up-to-the-minute ideas

Practical designs

Pleasing and profitable things to make

5D.



KITES

KITES get their name from the kind of hawk called a kite, which may often be seen in the air almost as still as a paper kite, gliding along without moving its wings.

The Chinese and Japanese are skilful in making kites. The frames are of light bamboo sticks, and the covers are of thin, but very tough, paper. They are of many different shapes — often like animals, ships, carts, castles, trees, or flowers. Castles, palaces, or pagodas may sometimes be seen in the air, with all their windows lighted by small lamps, so as to look like real houses at night. The lamps often set fire to these air castles, and burn them up.

Some kites are like great bouquets of flowers, or trees, with leaves, flowers, and fruit on them, the fruit containing fireworks which go off in the air. Some are hung with lanterns or made like fire-wheels, the spokes of which have fireflies fastened to them.

In Japan one may often see in the air a whole menagerie at once, such as horses, cows, dogs, monkeys, owls, hawks, bats, crows, fish, and snakes, as well as dragons, babies which cry, boys with their arms and legs spread out, hunters with bows and arrows, and soldiers with battle-axes and spears.

Many of these kites have a thin strip of bamboo or whalebone stretched tightly across the top, which hums, buzzes or sings in the air like a hurdy-gurdy or a swarm of bees.

Japanese boys send messengers up to their kites. They also dip about 10 ft. of the string next to the kite into glue, and then add bits of broken glass. When the string is dry it is covered with many little slivers of glass as sharp as a razor. When two boys are flying kites they often try to cross each other's string, and saw off the cord. Many Japanese kites have no tails, but some have two, one at each corner, made of rice straw.

Kites are sometimes used by engineers to carry lines across deep chasms. This can be done only when the wind is right, so that the kite will fly over the place where the line is wanted. It is then made to fall down, so that those on the other side of the chasm can get hold of the string. Larger and larger cords can be fastened on and drawn over until one of the size wanted has been carried across. In this way the first wire of the Niagara suspension bridge was got across the Niagara River. Kites have also been used in a similar way to get a rope to a vessel wrecked near shore.

But the most important use to which a kite was ever put was when Dr Franklin employed one during a thunderstorm (15th June 1752) to draw down lightning from the clouds. By using his kite in this way he discovered that lightning rods might be employed for the protection of buildings.

Now see how many stamps and labels you can find connected with and depicting kites. There are many available with which you can add this story to your album.

* * *

TWO NEW SERIES OF STAMPS FROM BULGARIA

TWO new series have just appeared from Bulgaria. There are six values in the 'Folk Tales' set including the following designs:

2 Stotinki yellow, green, and black — The Golden Girl.

8 Stotinki yellow, blue, and black — The Living Water.

12 Stotinki yellow, green, and black — The Golden Apple.

16 Stotinki yellow, brown, and black — KRALI-MARKO; National Hero.

45 Stotinki yellow, blue, and black — SAVOVILA-VILA; Fairy.

80 Stotinki yellow, green, and black — The Span Man; Tom Thumb.

Subjects featured in the 'Come To Know The Mother Country' set include:

4 Stotinki yellow, green, and black — Tourist's Camp.

12 Stotinki yellow, blue, and black — Tourist.

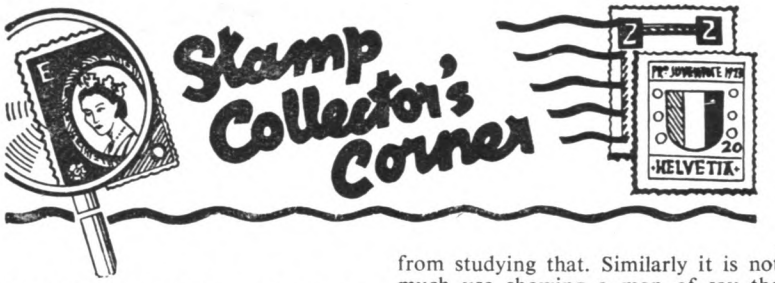
16 Stotinki yellow, blue, green, and black — Rest House 'SRECET'.

1·25 Leva yellow, blue, brown, and black — Alpinist. These last three are illustrated.

* * *

AND A 'PARTY' SET

A SET commemorating the Bulgarian Social-Democrat Party in BUSLUDJA (1891–1961) has just been released. The design shows the Congress at Busludja Top.



MAP STAMPS

By L. P. V. Veale

ONE of the most suitable designs for a stamp is surely a map. After all, the stamp is a piece of paper showing that a certain amount of money has been paid for a service, that of carrying a letter a journey from one place to another. If this service was only a local one, carrying a letter from one town to another town in the same country, then a map would not be very applicable as most people would be conversant with the situation of the places. But as the service relates to the whole world a map is a most suitable design for a stamp.

Now there are so many interesting stamps which have a map as part of their design that in order to deal adequately with the subject we must divide it into two parts. One will deal with Colonial stamps and the other will be for foreign issues.

Not all of the maps that are produced on stamps are good. Some are quite useless. Take for instance the map and kangaroo stamp of Australia. The map is much too small to do more than just show the outline of the island continent. A philatelist is not likely to gain much from studying that. Similarly it is not much use showing a map of say the world. The Canadian stamp of Christmas 1898 was issued to celebrate the fact that a number of British Dominions and possessions agreed to a uniform rate of postage-one penny per half ounce. The way in which the map has been drawn makes it impossible to compare, for instance, the area of Canada with that of Australia. In fact it quite distorts and gives one a very wrong impression of the areas.

Of a rather different nature is the 12c. stamp of the 1927 issue. This was produced to commemorate the Confederation and although the map is of a comparatively large area yet it is to show the progress that was made in the Confederation. The dark printing on which 1867 is printed is very small while the area which has 1927 on it is very much greater.

A rather extraordinary design is that used for British Central Africa in 1897. The design has two natives supporting the arms in a shield standing on a map of Africa. Look carefully and you should see the map.

One of the best map stamps that has ever been produced is that issued in 1931 by Newfoundland. It is the 1 dollar value of three air stamps. It shows a picture of the Atlantic Ocean and on it are traced the routes of the first seven historic flights across the Atlantic.

That Newfoundland stamp is a most interesting specimen to possess. Strangely, it has gone down in value. Generally a stamp increases in value as it gets older, but this one which in 1954 was catalogued at 90s. was priced at 80s. in the 1959 catalogue.

A very large number of colonial stamps have maps for their designs, but in many cases the maps shown are lacking in useful information. Take for example the Bermuda Queen Elizabeth II stamps. The 3d. and the 1s. 3d. simply show the island with no lines of latitude or longitude drawn, and unless one already knows something about the island the map gives nothing. There are, by the way, two dies of this design. On one the printing shows the word 'Sandy's' and on the second die the word is 'Sandys'. That is to say the first die includes an apostrophe. There is little difference in their values but the two rank as catalogue differences.

Other West Indian stamps generally show the lines of latitude and longitude but these are not generally of much benefit to the average collector as few know where these are on the globe.

A much better type of map is the one illustrated from Aden. Here you can see a part of the coast of Africa and Arabia with a small mark to show the situation of Aden. Now most people have a knowledge of Africa and Arabia so when they see this stamp they know exactly where they are, or rather where Aden is. Also on this map they have printed the lines of latitude and longitude 15 degrees North and 45 degrees East, so there is no excuse for any mistake.

Just across the water from Aden we have British Somaliland or as it is frequently known, Somaliland Protectorate The one rupee of the King George VI set issued in 1938 has the portrait facing to the left. Soon after this was issued this area was lost to us during the war. When we got it back after the war the stamps were changed and the new one had the same design but the portrait faced the front. The former is by far the better stamp.

If we travel diagonally across Africa from Somaliland we should come to the island of Ascension and we could find quite a problem map on the 1d. of the King George V set. There is an outline map of the island with a turtle on it, two wireless masts and two rather curious objects which appear to be floating in the water. They are marking buoys. Then if we look at the Queen Elizabeth II 2d. stamp we see the explanation, for on this stamp there is a map of the Atlantic Ocean showing South America and Africa with the island of Ascension clearly marked as the junction for cables. The stamp is called 'Cable Network' and that is the important office of Ascension.

From the British Solomon Islands we have two stamps, the 5d. and the 1s. The former shows a present day map of the

● Continued on page 85

Model Dwellings from Cane

REALISTIC models of dwellings from different countries, such as the American log cabin, the Kaffir huts of Africa, and the long house of a Malayan village, can be made from cardboard and odd scraps of thin basketry cane.

Huts for a Kaffir village A are made by taking a 10 in. long strip of 1½ in. wide cardboard, and gluing it into a ring shape, overlapping the end by 1 in. Four small tabs, 1 in. by ½ in., are then folded in the middle, and glued round the inside of the walls, as shown at B.

The roof is made from a 4 in. diameter circle of cartridge paper. A cut is made in it as far as the centre point, the two edges gummed together with an overlap of 1½ in. at the rim to give a conical shape, and the roof is gummed to the walls by means of the four tabs.

The walls are covered with 1½ in. lengths of cane. If this is not available, matchsticks which have been rubbed between two flat pieces of wood to remove their edges can be used. The cardboard wall is coated with glue in sections of about 1 in. at a time, and the cane or matchsticks pressed on, leaving a ½ in. wide gap at one point for the door.

The roof is covered with straw or yellow raffia cut into 2 in. to 3 in.

By A. Liston

lengths. A quarter of the roof is coated with glue, and a straw is pressed in place in the centre of the gummed section with its tip touching the point of the roof. The gummed section is now divided in two, and a straw is placed in the centre of each of these smaller sections. This process is repeated as shown at C, until the quarter of the roof is completely covered, and no paper shows. It also ensures that the straws radiate evenly from the centre.

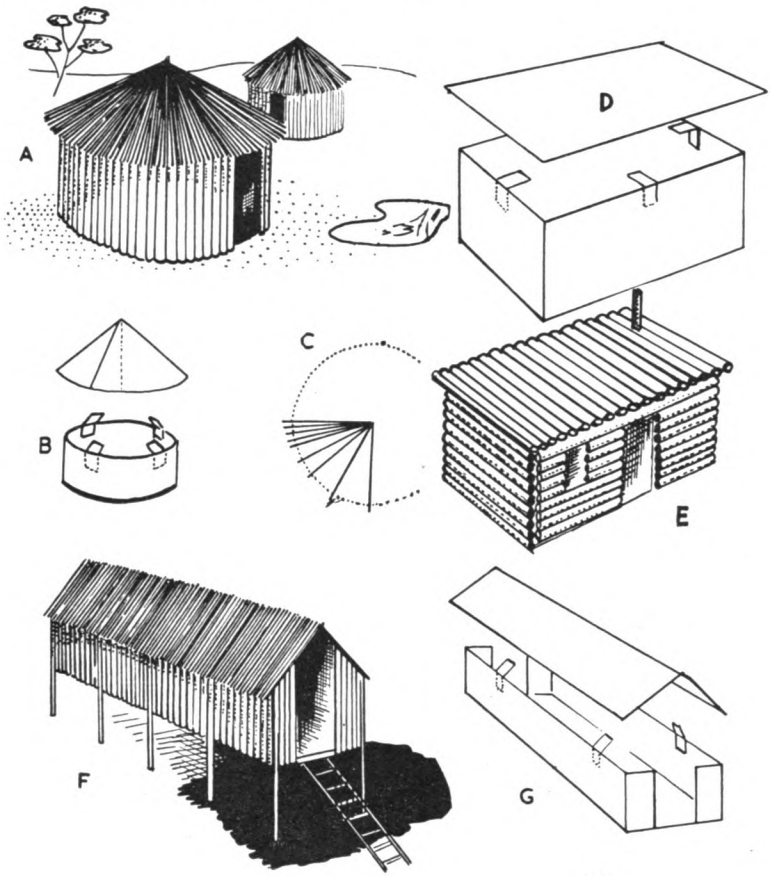
The rest of the roof is similarly covered, and when the glue is dry, the ends of the straws are clipped with scissors to give a neat thatched effect. The huts can be varnished if desired, and set on a gummed and sanded board, with a tinfoil pool and foam plastic trees on twigs to complete a realistic looking village.

A log cabin is made by shaping an 11 in. long strip of 2 in. wide cardboard into a box shape, with 3 in. long side walls, and 2 in. long end walls, plus 1 in. of overlap for gumming. The 2½ in. by 3½ in. cardboard roof is held in place by four tabs gummed, as shown at D.

The end walls are covered with 2 in. long lengths of cane, the back wall with 3 in. pieces, and the front wall is formed as shown at E, with gaps for window and door. The roof is also covered with cane, a short length glued vertically serving as a chimney. Doors and windows are painted, and the cane stained or varnished.

A Malayan long house F uses both cane and straw. A 6 in. long, 2 in. wide, and 1½ in. high box shape with open ends is made from cardboard, as shown at G, and the 7 in. long and 3 in. wide roof is folded and held in place with tabs.

The roof is straw-covered, all the straws running from top to bottom of the roof, and being parallel to each other. Five 3 in. lengths of cane are glued at intervals along each side wall. These form the stilts on which the house rests, and the spaces between them are filled in with 1½ in. long pieces of cane. A 2 in. long cane ladder is glued in place at one end to complete the model.



Illustrated on front page

CONTEMPORARY BAROMETERS

THE two barometers shown in the illustrations are of unusual design such as cannot be purchased in the shops. If you are contemplating a gift for a birthday or perhaps a present for newlyweds you cannot do better than make one of these attractive designs. A hand-made article is usually appreciated by one's friends.

The attractive barometer with chromium plated bezel is obtainable from Hobbies Ltd, Dereham, Norfolk, price 39s. 6d., post free. The thermometer (Hobbies No. 5015) can also be obtained direct by post, price 2s. 3d., postage 4½d.

Both designs are cut out with a fretsaw and assembled as shown in the diagrams. The main pieces are shown in Fig. 1. The squares are enlarged to ½ in. and the shapes carefully drawn in, one square at a time.

The design with the thermometer consists of two of each pieces A and B, one base C, and two lengths of copper tube or brass rod. Pieces A, B and C are cut from ¾ in. wood.

Glue the pieces together as shown in Fig. 2. Note that holes should be bored to take the ½ in. diameter brass or copper. Dowel rod could be used as a substitute for brass or copper. The faces and also the edges of pieces A and B can be covered with selected veneers to give an improved finish. The thermometer is recessed into the veneer as shown in the small diagram in Fig. 3.

Fig. 3

The other design, which represents a fish, is made in a similar manner from two pieces of ¾ in. wood (D) and a base (C) glued together as shown in Fig. 4. Here again veneer may be used to cover the face and edges.

Finish will consist of staining and polishing or varnishing according to individual requirements. Alternatively paint could be used to give a pleasing effect and it would not then be necessary to use veneers.

The barometer is fixed in position by means of the small screws provided.

(M.h.)

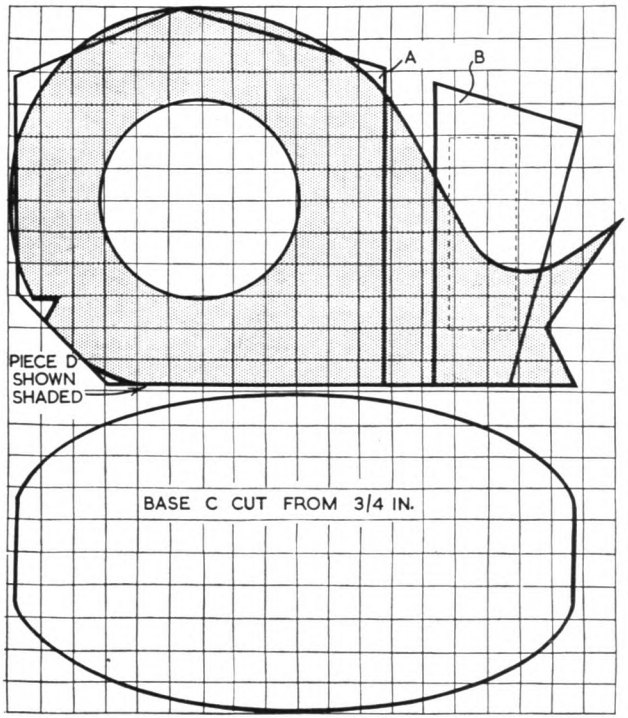


Fig. 1

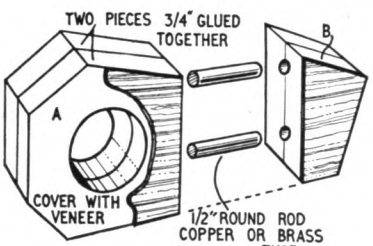


Fig. 2

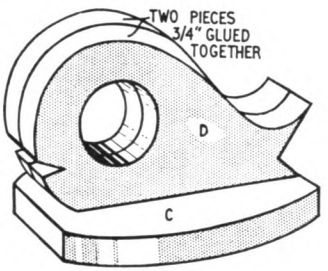


Fig. 4

● **Continued from page 83**

MAP STAMPS

islands and shows them as extending from 156 degrees to 165 degrees East and from 6 degrees to 12 degrees South. That should tell you exactly where they are. And the 1s. stamp depicts H.M.S. Swallow which sailed there in 1767 and it also shows the ancient chart that was used. When one compares the two one is rather surprised at the accuracy of the old one.

Fiji issued a pictorial set for King George VI and there were some very interesting examples. The 2d. stamp was one of these and a second printing had to be made. The two stamps are shown together — can you see why the second printing had to be made? In the first die they left out the 180 degrees so no one would know the size of the group of islands, but in die two this was added so now having the two lines of longitude the size of the group can be ascertained.

When we come to the foreign map stamps we shall find some interesting and very different types from those dealt with here.

In non-ferrous metals

SMALL-SCALE CASTINGS

By Peter Wix

CASTING is not generally regarded as one of the basic processes for the model engineer or home jewellery worker. This is largely due to ignorance of the fact that several quite simple methods exist, and that their practice is well within the scope of the average craftsman.

The value of being able to duplicate an existing part of complex shape, leaving the minimum of finishing or machining, is quite obvious: likewise, the possibility of casting from a wooden pattern, or, if you prefer, from an original carved in hard wax.

There is no reason why one should not, with a little practice, be able to cast a small cylinder head or a crankcase, though it is best to confine early attempts to parts in which small inclusions of foreign matter or slight porosity would not constitute a major problem. With purely ornamental or unstressed parts the question of flaws need give little concern. A locomotive wheel, marine fittings, even the screws of a model ship, and rings and simple brooches are not difficult projects.

The method of use depends mainly upon the type and complexity of the casting, and the degree of accuracy and quality required.

Four methods in all are possible in the home workshop: the one-piece, and the two-piece plaster moulds; the cuttlebone mould; and the waste-wax method, with a choice here of metal injection by steam pressure or by centrifugal force. Only the plaster and cuttlebone moulds will be dealt with in this article.

One-piece mould in casting plaster

This may be used only when air is not likely to be trapped when pouring the metal, and where one face of the pattern is flat, and will allow of some grinding or filing being carried out on that face of the finished casting. The procedure is simply to oil the surfaces of the original or pattern, fill a small tin with dental casting plaster, and embed the master in this while filling the tin. The flat part of the master should be depressed slightly below the level of the plaster to allow for shrinkage of the metal on cooling.

Casting in cuttlebone

Cuttlebone is a suitable material for almost any pattern which is small enough to be accommodated and which is not undercut. It is far quicker than any other method of making a two-piece mould, and its accuracy and detail are good.

You begin with an original to be copied, or a wooden pattern, the size of casting being limited only by the size of the cuttlebone. This method has been used by jewellers for many years, and specially selected cuttlebones are obtainable from jewellers' suppliers. These are the same as the cuttlebones one finds on the beach, but generally much larger.

Divide the cuttlebone into two slices, and rub the cut surfaces on glasspaper supported on a flat surface, so that the halves will bed together perfectly.

Three stiff wires, about $\frac{5}{8}$ in. long and $\frac{1}{8}$ in. diameter are pressed into one of the slices (Fig. 1), so that a little less than half their length embedded in the cuttlebone, leaving sufficient room between them for the master. Now lay the master in position, allowing about $\frac{3}{4}$ in. between it and the top of the cuttlebone. Press the second half of the cuttlebone on to the first, thus embedding the register pegs and then the master, until the mould halves are in complete contact. Strong pressure is needed to achieve this, and it is an advantage to place your hands between your knees for assistance. Pressing the cuttlebone against a hard surface would probably crush the soft material and is not advised.

Next separate the halves, very carefully remove the master without damaging the impression, and cut the pour with a sharp blade. The pour is funnel-shaped, and should be $\frac{1}{8}$ in. to $\frac{3}{16}$ in. diameter where it joins the impression, and about $\frac{3}{4}$ in. diameter at the top. Lines radiating from the impression are now scratched in both halves of the mould, using the point of a scriber. These must be many in number, but extremely fine, in order to prevent the entry of molten metal. They enable trapped air to escape from the mould during pouring. (See Fig. 1.)

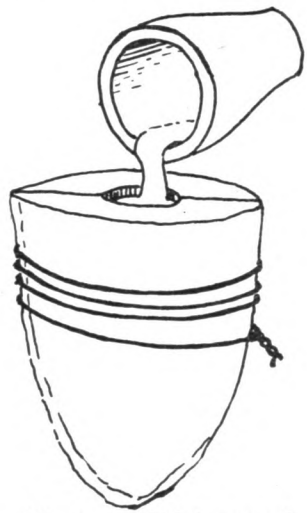


Fig. 2—Mould being poured

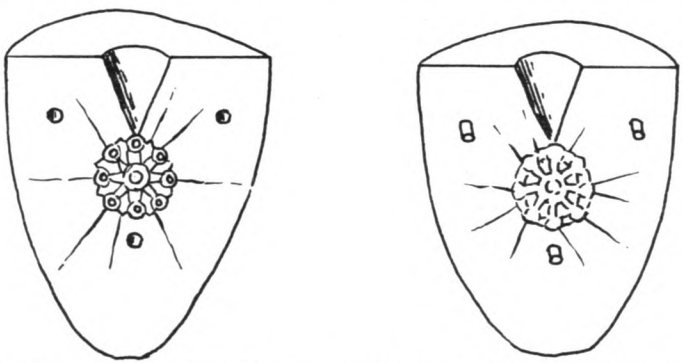


Fig. 1—The two halves of cuttlebone mould showing pour, impression, locating pins and scratches to release air

To improve the quality of the casting it is worth while dusting the impression with finely powdered graphite. This can best be applied by means of a small plastic puffer. The impression is finally dusted with a soft camel hair brush.

The mould halves can now be registered and tied together with soft wire.

● **Continued on page 87**

CATCHING THE FOXY CHUB—1

By 'Kingfisher'

THE Chub is a fish that offers the angler a greater versatility both in methods and baits than all our other coarse fish. It can be taken on a large variety of baits including flies (natural and artificial) spinners, minnows and frogs. A small plug is often effective.

The fish are fairly well distributed throughout the country but not in any great numbers. They are mainly to be found in the rivers but here and there they have been successfully introduced into lakes. For the purpose of this article, however, it is to the river where we shall wend our way.

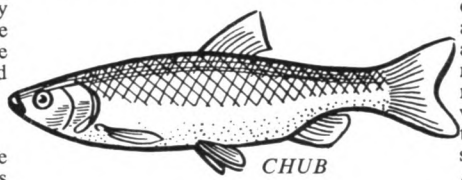
It used to be said that chub were always to be found under willow trees where they overhung the water. This may be true, but they are also found under any other kind of tree which offers shade from its branches and a safe lie-up amongst the roots under the water. Chub are also fond of lying up in weed-beds. They don't always wait under the trees for their food and if they are really hungry they go out and hunt for a meal.

The chub is a coarse-looking fish by comparison, say, with the roach. It has large white leathery lips so that your hook will remain in a firm hold. It is distinguished from the dace by its fins. The anal ones are convex on the edge whereas the dace's are concave or dented. Incidentally, many a beginner has brought home a small chub thinking it to be a specimen dace. All chub should be returned to the water as they are no good from a food point of view. I always think the ancient recipe for these fish is about the best there is. It says, 'Gut and clean your chub, then place on a clean piece of wood and roast in the oven. When cooked throw away the fish and eat the wood.'

Baits to use

Let's take a look at float fishing first of all. In the first place it is no use finding a swim where you expect to sit down all day. Chub fishing is not this kind at all. You may take one or two, perhaps three from a shoal and then the rest will disappear very quietly and you'll have to move on to find another swim. You have to stalk your fish and when you find a sheltered stretch keep well upstream of where your tackle is going to be. I use float fishing, laying-on and fishing the swim with the float just clear of the bottom. Both methods bring success.

Tackle up and then going out into the meadow come gently up to the bushes and throw a handful of maggots amongst the branches. These will gradually wriggle about and drop into the water in a natural manner and will encourage the fish to feed. Cast your tackle upstream so that the float has settled by the time it is passing you and then throw in a few loose maggots round it. When the hook arrives they'll be ready to take it. If you are using cheese or paste on the hook then a pellet or two thrown in loose will be all you require in the way of groundbait.



CHUB

I use hooks from size '12' down to size '16' and find these answer all my needs. A '12' will take a bunch of say three or four maggots whilst a '16' takes one maggot and I've taken plenty of chub on a single maggot. Another bait I've used successfully over many years is the green caterpillar found on cabbages. There are also the cheese and the bread and cheese pastes which I make up from processed cheese and which is well liked by these fish. Cherries are reputed to be a good bait but I've never found it necessary to use them. Macaroni is useful and I've had fish occasionally on stewed wheat. They take a lot of enticing to this bait but when one succumbs it's usually a good fish.

Once you've found a chub holt remember it, as the fish will be somewhere near even in winter and they are a good all-season sport. For float fishing I use a rod of 10½ ft. in length. The line is nylon of course, with a 3-lb. breaking strain and I've never found it necessary to use anything stronger. If I hook a big one — my best was a fish of 6¼ lb. — then it needs a bit more careful playing. If you want good fish you'll have to use fine tackle. They won't fall for the coarse stuff nor will they fall for careless fishing. An extra heavy footfall or a sight of you and you may as well leave that swim for a few hours because they'll have left, silently like the Arabs.

● **Continued from page 86**

SMALL-SCALE CASTING

Melting procedure is determined by the kind of metal to be cast. Pewter or white metal can be melted in an iron ladle or any strong iron or steel container. A fireclay crucible, heated in a furnace, or, alternatively, stood in small coke on a brazing hearth and heated with a brazing torch, will satisfactorily melt copper, bronze, casting brass, aluminium, silver, gold, etc. Suitable flux must, of course, be added to the metal.

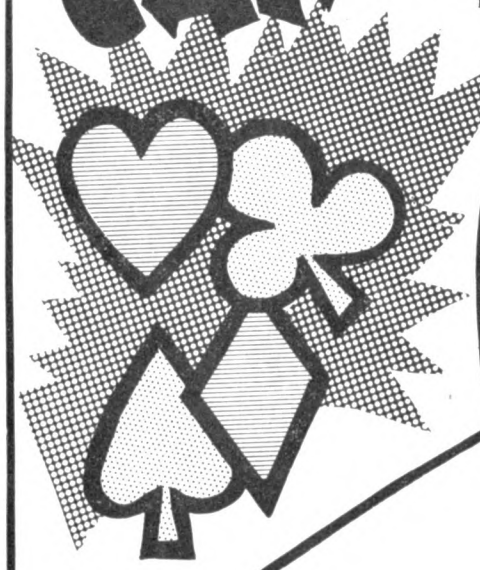
Even an open domestic fire, burning a fuel such as Coalite, and if very hot and clean, will melt these metals, though there is some danger of dirt falling into the crucible. It is as well to store cuttlebone in a warm place, or to warm the mould before pouring, as damp material will give defective castings.

The wired mould can be propped upright on an asbestos sheet. Crucible tongs are best for holding a small crucible for pouring. The entire surface of the crucible should be up to temperature, as molten metal flowing over a cool rim will quickly lose heat. Pouring should be done quickly and steadily, the metal running into the pour in an unbroken stream. The pour must be filled right to the top, as the weight of metal here plays an important part in filling the impression. (See Fig. 2.)

With the higher melting-point metals the mould can be used once only for an accurate reproduction, though the use of graphite may enable you to make second casting of fair quality. After a small casting, the cuttlebone halves can often be reduced in thickness, allowing another impression to be made.

It's Trumps!

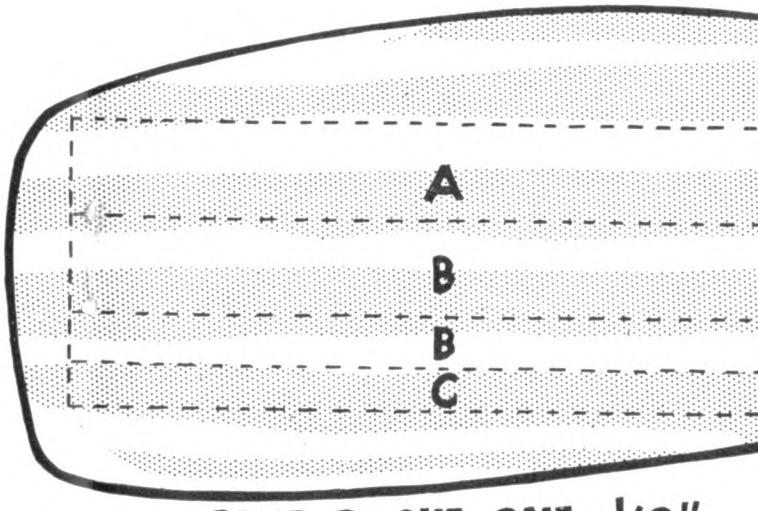
CARD PLAYERS TIDY



DRILL 1/4" HOLES

PIECE A CUT ONE 1/2"

PIECES B SHADED CUT ONE PIECE 1/2" & ONE PIECE 1/4"



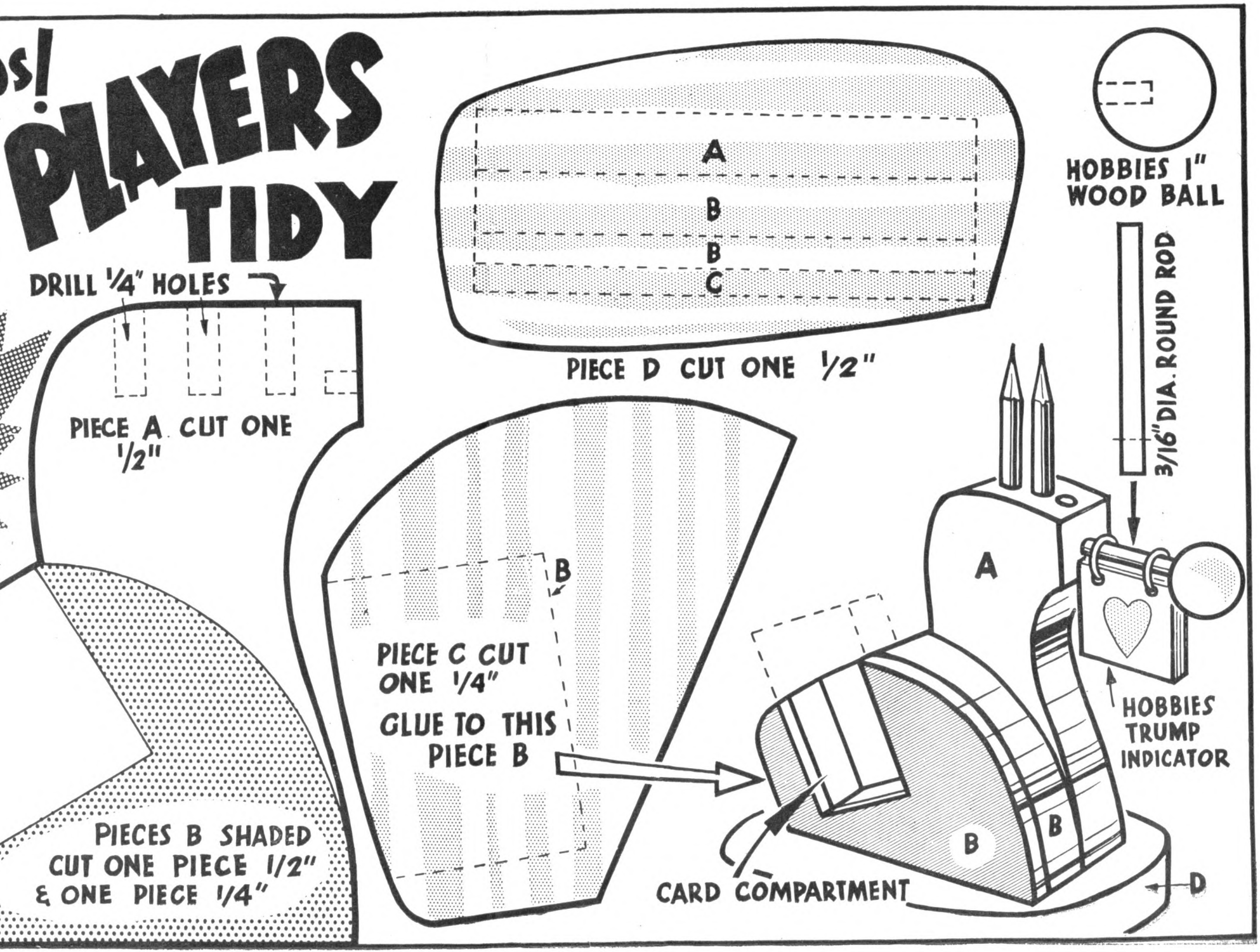
PIECE D CUT ONE 1/2"

B

PIECE C CUT ONE 1/4"

GLUE TO THIS PIECE B

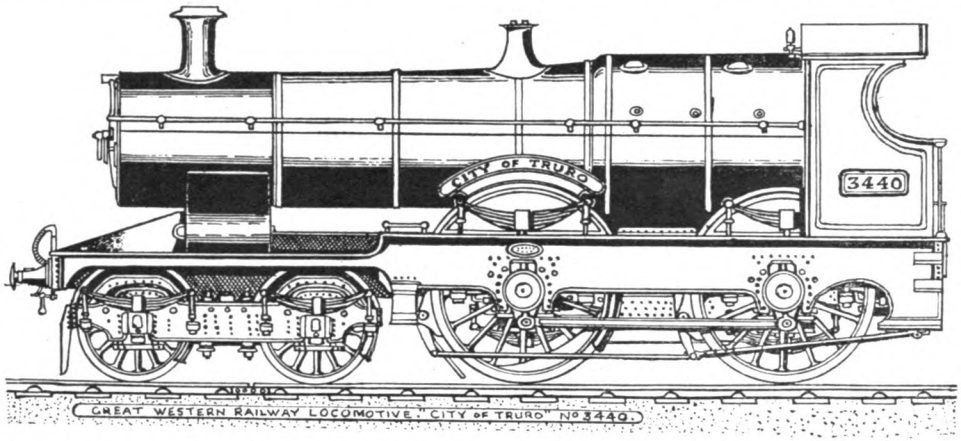
CARD COMPARTMENT


s!
PLAYERS
TIDY
DRILL 1/4" HOLES
PIECE A CUT ONE 1/2"
PIECES B SHADED CUT ONE PIECE 1/2" & ONE PIECE 1/4"
A
B
B
C
PIECE D CUT ONE 1/2"
HOBBIES 1" WOOD BALL
3/16" DIA. ROUND ROD
B
PIECE C CUT ONE 1/4"
GLUE TO THIS PIECE B
A
HOBBIES TRUMP INDICATOR
B
B
B
CARD COMPARTMENT
D

Interesting Locos—No. 38

THE G.W.R. 'CITY' CLASS

THE well-known 4–4–0 'City' class engines designed by Mr G. J. Churchward for the Great Western Railway were originally developed from the earlier Dean 'Atbara' class.



In September 1902 Mr Churchward provided one of these engines, No. 3405 *Mauritius*, with a larger Swindon standard No. 4 boiler in order to give extra reserve of boiler power for working the increasing weight of the fast and heavy West of England expresses. *Mauritius* proved sufficiently capable for these duties and Mr Churchward decided to build a further ten new ones of exactly the same design. These were the 'City' class proper, the first one, No. 3433 *City of Bath*, being erected in March 1903, and the following nine in April–May. They were originally numbered 3433–3442, and named after the following cities in the same order: *City of Bath*, *Birmingham*, *Bristol*, *Chester*, *Gloucester*, *Hereford*, *London*, *Truro*, *Winchester*, and *Exeter*. It will be noted that the last one, *City of Exeter* is out of alphabetical order, this due to the fact that the name *City of York* was originally chosen, but this not being in G.W.R. territory, *City of Exeter* was substituted.

The most notable engine of the class is, of course, *City of Truro*, which has now been restored, and preserved by British Railways as a locomotive of historical interest, and is used for hauling railway enthusiasts' trains and for other special purposes. On 9th May 1904 this engine created a speed record of 102·3 m.p.h. Hauling an Ocean Mails Special of five eight-wheel postal vans from Plymouth to London and running as far as Bristol two consecutive quarter miles were covered in 9·2 seconds and 8·8 seconds, the latter representing a speed of 102·3 m.p.h., and the half-mile speed 100 m.p.h. exactly. In 1907–10 Mr Churchward converted nine more of the 'Atbara's' to the 'City' class, and all these twenty 'Cities' were afterwards renumbered 3700–19, Nos. 3700–09, carrying the following names in the same order: *Durban*, *Gibraltar*, *Halifax*, *Hobart*, *Lyttelton*, *Mauritius*, *Melbourne*, *Malta*, *Ophir*, and *Quebec*. *Ophir* was later renamed *Killarney*.

As originally built the following were the leading details: cylinders, 18 in. diameter and 26 in. stroke; wheel diameters, bogie 3 ft. 8 in., coupled 6 ft. 8½ in.; boiler heating surface, tubes 1,689·82 sq. ft., firebox 128·3 sq. ft., total 1,818·12 sq. ft. Grate area 20·56 sq. ft. and working pressure 200 lb. per sq. in. (at first 195 lb.). In working order the engine weight was 55 tons 6 cwt. The coupled wheelbase was 8 ft. 6 in., and total engine 22 ft. 6 in. Superheating was introduced in 1910, the total tube heating surface then amounting to 1,443·82 sq. ft. (A.J.R.)

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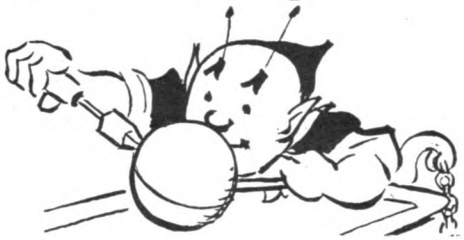
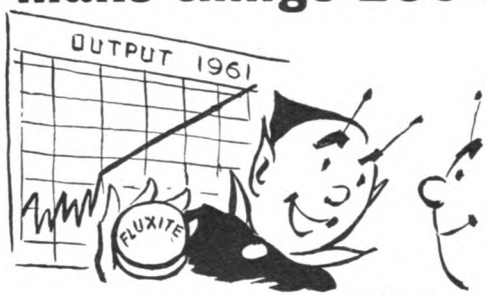


(c) make things ZOOM



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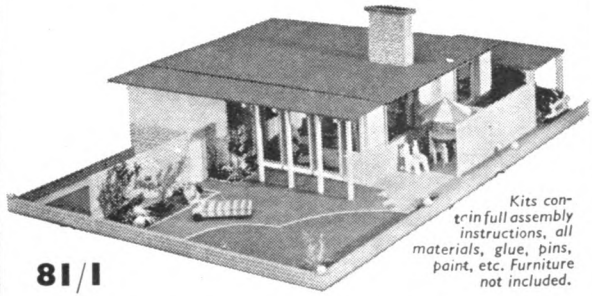


Kits contain full assembly instructions, all materials, glue, pins, paint, etc. Furniture not included.

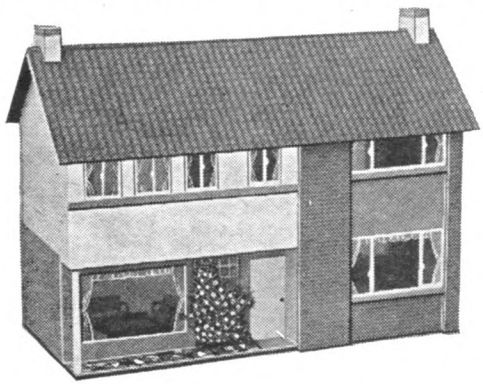
81/1

THE 'CELEBRITY'—RTA 7

Size 36 in. × 24 in. Five main rooms including lounge with dining recess. Gardens, car port, service area, sun trap, etc. Flat roof lifts off for easy access to each room.

ALL PARTS PRE-CUT
ALL READY TO PUT TOGETHER

For the 'Royal' and 'Celebrity' Dolls' Houses, Hobbies have prepared kits with all parts cut to size and shape, ready for you to put together and finish. These are ideal for the man who wants to make a really excellent Doll's House — in a hurry!



THE 'ROYAL'—RTA 6

Size 26 in. × 12 in. × 19 in. high. Double door opening at back. Modern lounge, hall entrance, kitchen/dining room, 2 bedrooms, bathroom and landing. **99/11**

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PLEASE SEND KIT No. RTA.....

NAME .....

ADDRESS.....

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P.O. or cheque for.....enclosed

A USE FOR OLD CARDS

OLD Christmas greetings cards can be used for many other purposes once they have fulfilled their original intentions. If you happen to be interested in raising funds for bazaars, scout troops or other organizations these ideas will be found really helpful.

Our first suggestion is the manufacture of gift tags. Careful inspection of the cards will reveal that many bear a seasonal inscription such as 'Greetings', 'Merry Christmas' and so forth. Fig. 1 shows many different specimens which have been cut out from cards. The sizes will vary but this does not matter a great deal for all we have to do is to cut out a suitable oblong sufficient to contain the greeting, leaving space for the name to be added.

Cutting with a pair of pinking scissors gives an attractive deckled edge. Alternatively, you may deckle the edges by tapping with a ruler. Add a piece of silk cord for tying on the parcel.

If the tags are to be sold at a gift stall it is a good plan to pack 15 or 20 into a small cellophane bag.

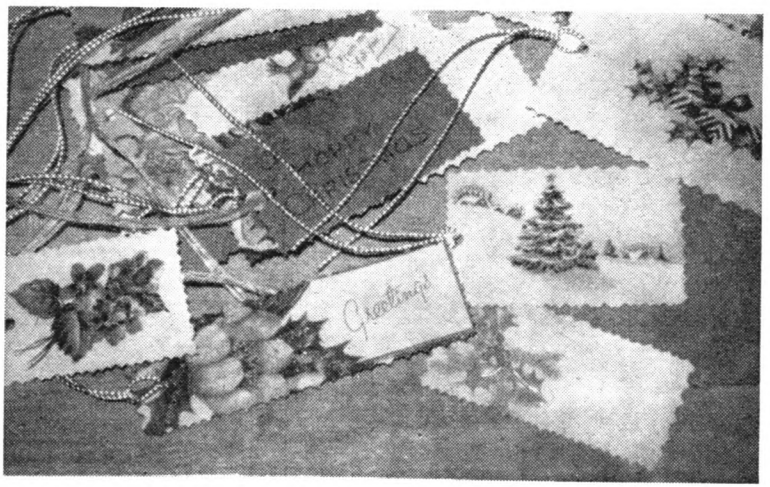


Fig. 1—A variety of gift tags made from old Christmas cards. Pinking scissors were used to make the deckled edge.

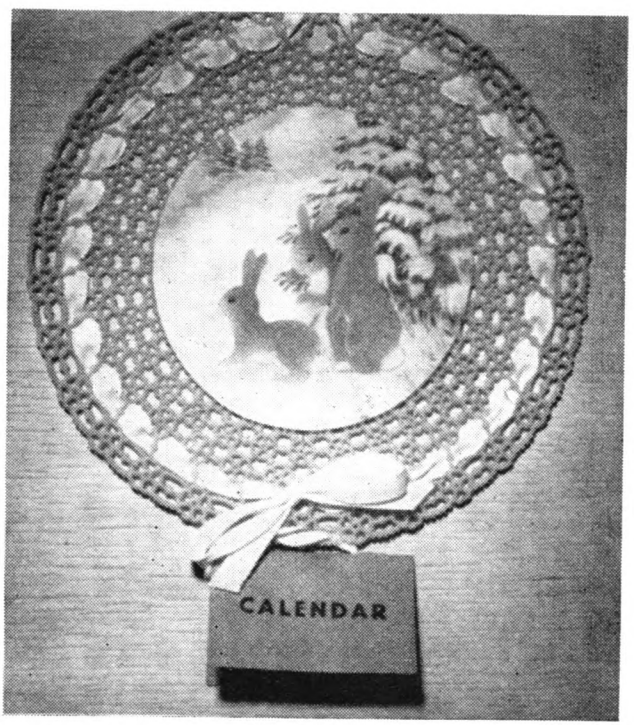


Fig. 2— The centre of this novelty calendar was originally a Christmas card

The plastic doilies shown in Fig. 2 are quite cheap and here we see how a calendar has been made, using an old Christmas card to provide a picture for the centre.

Measure the diameter of the centre of the doily for the picture, if possible obtaining a cup, or some circular container of the same size.

A ribbon is threaded through the pattern near the rim of the doily and finishes at the base with a bow. Leave a small loop at the top for hanging on the wall. The picture can be fixed to the doily by means of a few touches of a plastic adhesive. A calendar tab is attached by threading a further piece of ribbon through the doily and sticking to the back of the tab.

(S.H.L.)

MODERN DOOR PLATES

The latest addition to the range of products from J. Manger & Son, of Amasal House, Cannock Road, Stafford, are door finger plates specially designed to blend with modern decorations. They are made in P.V.C., measuring 10 in. by 2½ in. They are available in white, cream or transparent, and cost 1s. 6d. each.

Replies to Readers

Preserving Animal Skins

PLEASE tell me how to cure or preserve animal skins other than with saltpetre. (A.D. — Blackpool).

THERE are several methods, but for the amateur, the simple way of treating rabbit skins etc, as advocated by experienced rabbit keepers is as follows. Treat the skin side of the pelt with a dry mixture of equal parts of alum and salt. The pelt should be treated soon after removing from the carcase, as the mixture has a better opportunity of acting on a damp surface. A thin layer of the mixture is rubbed well into the skin (not the fur side), and the pelt is then folded sides to middle with the fur outermost. The pelt is rolled up tightly in newspaper and put away in a dark and fairly cool dry place for about three weeks, or until the paper is seen to be saturated with moisture — and then allow the parcel to remain wrapped for a further week or ten days. The pelt is then unrolled and kneaded in the hands for a short time. It will then be found that the unwanted tissue can be peeled away starting from the outer side and working inwards, leaving the surface of the skin like chamois leather. To cure a sheepskin or similar large animal, the simplest way is to stretch it on a board when 'green' and freshly removed from the animal, and simply dry in the sun, sprinkling well with powdered alum before and during drying.

* * *

Restoring Rusted Tools

PLEASE help me to restore my set of tools to its polished state as purchased, because after a few months I find they are all badly rusted through exposure in a garden shed. (P.K. — Hereford).

SOAK the tools for some time in sweet oil, then brush over with emery powder, using a stiff brush, until the rust is removed. Polish off with flour emery powder and finish with powdered lime. This should leave the tools in good condition, and it would be as well to rub them over with a rag smeared with vaseline, as some protection for the future.

* * *

Treating Plastic Wood

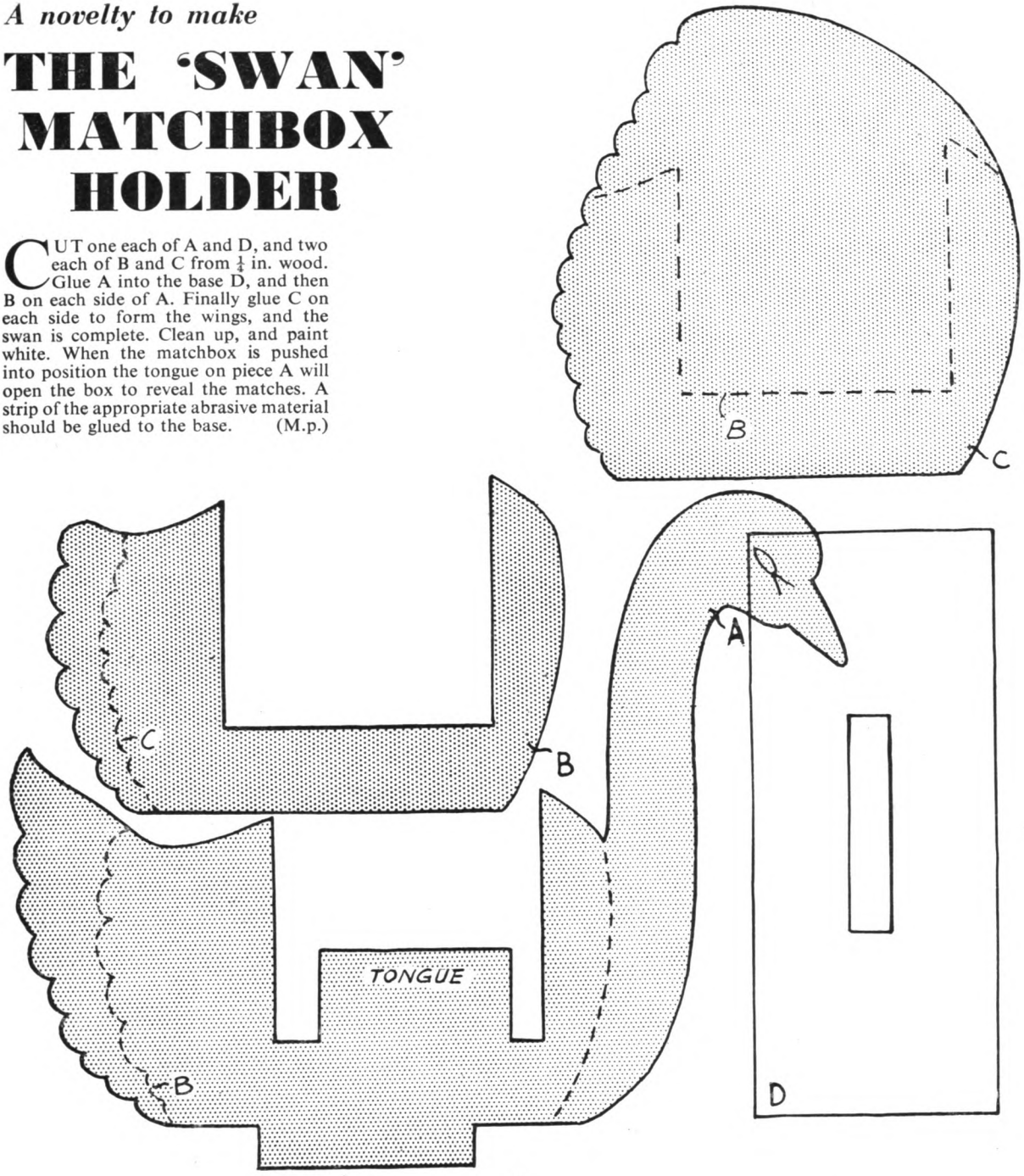
I HAVE completed an electric standard lamp, and filled the pin holes with plastic wood. When this was completed I applied satin wood water stain, but the plastic wood showed a much whiter colour when dry and left white spots along the standard portion of the lamp. I have come up against this difficulty on several occasions when I used plastic wood. Kindly tell me how I can overcome the trouble so that the finished article will have a uniform colour. (A.M. — Gt. Yarmouth).

I AM afraid you will always experience this difficulty with plastic wood if you continue to use it in the way you are doing. The right way to use plastic wood is to stain it the required colour while it is still pliable, and before you fill the holes with it. Then when the remainder of the work is stained later, the woodwork and plastic wood are a match. If you do not do this, plastic wood will always show through lighter than the remainder of the woodwork. There are, of course, ready-stained shades of plastic wood available.

A novelty to make

THE 'SWAN' MATCHBOX HOLDER

CUT one each of A and D, and two each of B and C from ¼ in. wood. Glue A into the base D, and then B on each side of A. Finally glue C on each side to form the wings, and the swan is complete. Clean up, and paint white. When the matchbox is pushed into position the tongue on piece A will open the box to reveal the matches. A strip of the appropriate abrasive material should be glued to the base. (M.p.)



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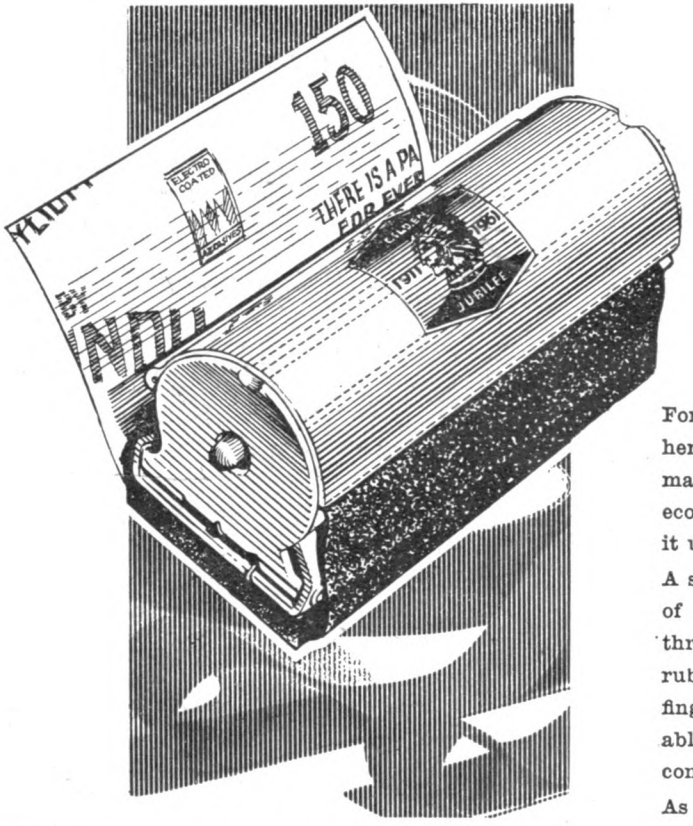
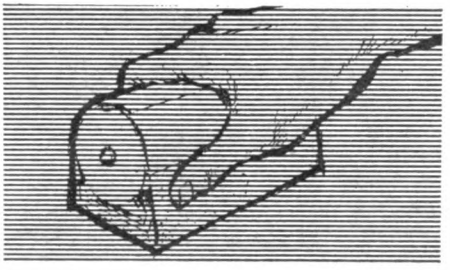


For the professional or amateur handyman here is a device that was really needed. It makes sand papering easier, quicker, more economical and gives a better result too — it uses all the abrasive paper uniformly.

A steel cylindrical container holds a roll of abrasive paper which is withdrawn through a slot and folds round the resilient rubber base where it is firmly held by fingers and thumb — the rubber base enables the abrasive to make a better all-over contact.

As each portion is used to the limit, the roll is pulled out just the width of the base again — no waste in time or material.

the new SLIK sander



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