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THE ORIGINAL
'DO-IT-YOURSELF'
MAGAZINE

HOBBIES *weekly*

FOR ALL
HOME CRAFTSMEN

Instructions for making . . .

Up-to-the-minute:

USE FABRICS TO
MAKE PICTURES

COLLECTORS CLUB
AND STAMP HINTS

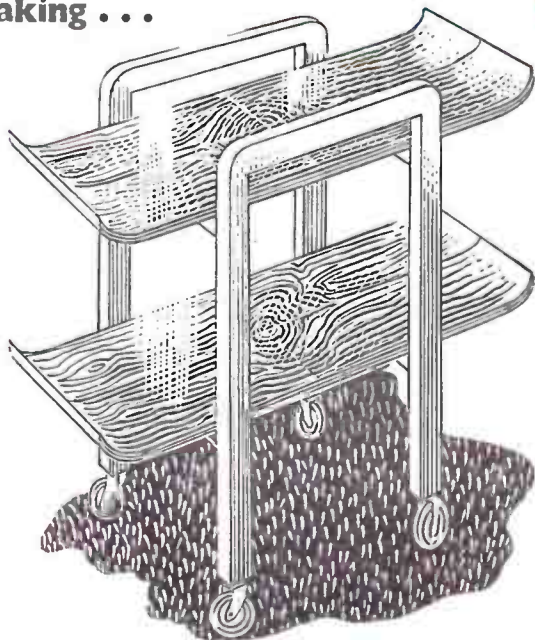
BUILDING MODEL
RAILWAY LAYOUTS

BALANCING THE
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PROJECTS FOR
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NETWORK PATTERNS

ETC. ETC.



TWO-TIER TROLLEY



Up-to-the-minute ideas

Practical designs

Plans and projects to make

5⁰



GUY CLAXTON of School House, King's School, Worcester, writes — 'Please do you think you could have an article in "Collectors Club" on beer mat collecting? I only started collecting beer mats last year, but I have 200 now. A boy in our house has 600, all different.'

BEER MATS

Nearly all breweries issue beer mats for advertising purposes, and use at their inns and taverns. Pub landlords are the best people to approach for mats. I have never been refused yet. If you write to the breweries for mats, always enclose return postage — this is important.

Many beer mat designs are replicas of those found on beer labels. Among unusual designs we find portraits of Queen Elizabeth II, Sir Winston Churchill, and American Presidents on Australian mats. Also pictures of Sydney Harbour Bridge, various badges, and animals.

A set from New Zealand shows Mount Cook, Lakes Wakatipu and Taupo, and native art. The kiwi and other birds are also featured.

Czechoslovakian mats cover most subjects, including views, castles, hotels, crests, trinkets, uniforms, flowers, animals, etc.

Many breweries at home and overseas issued special mats to commemorate the Olympic Games of 1960.

In 1956 a Danish firm produced a set to mark the Jubilee Jamboree of the Boy Scouts Organization. Many other attractive mats have come from Denmark for commercial use, and for collectors. These mats are found everywhere in Denmark. But so many are produced that it would be difficult to keep trace of them all.

Some of the world's most beautiful beer mats come from Austria. Designs show seaside towns, ships, athletes, Coronation scenes, bridges, famous men, and women, etc.

Beer mats cover an enormous field. Often they are an accessory to stamp, and label collecting, enabling collectors to give additional interest to their chosen field by adding mats illustrating certain points not fully brought out by other issues.

If you collect beer mats, and need pencils for exchange write to any of the following readers — **George E. Hardy**, Breakneck Hill Road, Framington, Mass. R.F.D.2, U.S.A. **Alois Blahna**, Ceska Kamenice 71, Czechoslovakia. **J. Soeters**, Graaf Florisstraat 1 GB, Rotterdam 3, Holland. **Alfred Kronegger**, Graz-Eggenberg, Bayernstrasse 12, Austria. **Folkmann Eduard**, Krenngasse 31, Graz, Austria. **P. Bristol**, 73 Wilton Street, Shankill Road, Belfast, N. Ireland.



E. A. Amuah

PETER TRIPP of 34 Northgate Way, Little London, Terrington St. Clement, King's Lynn, Norfolk, would like to exchange match labels with fellow readers throughout the world.

'My hobbies are collecting postcards, stamps, and labels', says **E. A. AMUAH**, of P.O. Box 199, Tarkwa, Ghana. 'I am 17 years of age, and would like pen friends.'

'I started collecting advertising pencils about a year ago, and today my collection amounts to 145', writes **GERARD VINEY** of 52 Coriolis Avenue, Rose Hill, Mauritius.

'Most of my pencils come from local firms. But I have a few from Australia and England. I have some nice souvenir pencils. My other hobbies are photography, fretwork, and postcards.' Gerard would like to hear from readers to exchange postcards against advertising pencils. He will also exchange colour slides of Mauritius against slides of any country.



G. Viney

Illustrated on front

TWO-TIER TEA TROLLEY

THIS pleasing piece of furniture is easy to make if these instructions are carefully followed. It is a full size trolley with easy running wagon castors and trays with contemporary curved ends.

The trays can be fixed to the cross rails 3 or can be left free to be lifted off. If left free, four small blocks should be fixed, two at each end, to prevent the tray from sliding off the trolley. These small blocks will also act as feet.

sapele or walnut. These panels can be obtained direct from Hobbies Ltd, Dereham, Norfolk, price 27s. 6d. postage 3s., or from any Hobbies branch or stockist.

Commence by cutting the uprights 1, the top rails 2, and the cross rails 3, to size. The cross rails are mortised and tenoned into the uprights as seen in Fig. 2 and the top rails as in Fig. 3. These joints should be glued together and the excess glue wiped off before it has time to dry.

After fixing the top rails and allowing them to dry, the corners should be rounded off as indicated in the side view. The veneered panels are fixed as shown in Fig. 4, the screws being recessed by boring a 3/8 in. diameter hole. Take care to ensure that the holes are all drilled to exact depth so that the screws will not protrude through the panel.

Finish off by staining and filling the grain, sanding lightly before applying polish or varnish.

The 2 in. wagon castors are fixed after the finish has been applied. They can be obtained from Hobbies Ltd, by post 4s. per set of four, postage and packing 1s. 9d. (M.h.)

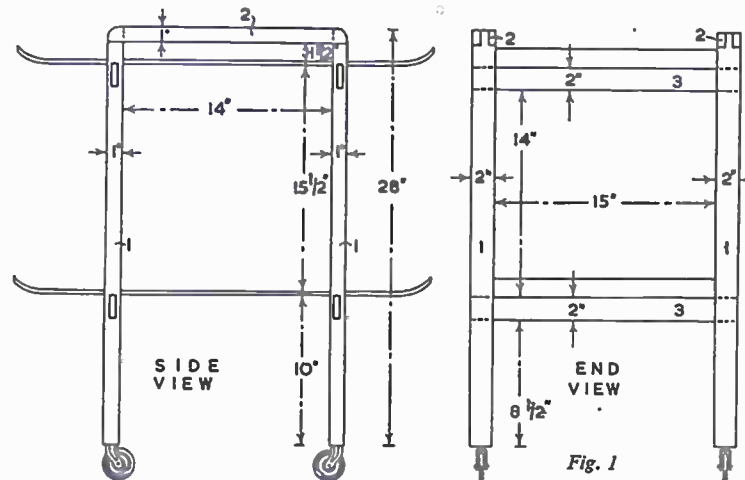


Fig. 1

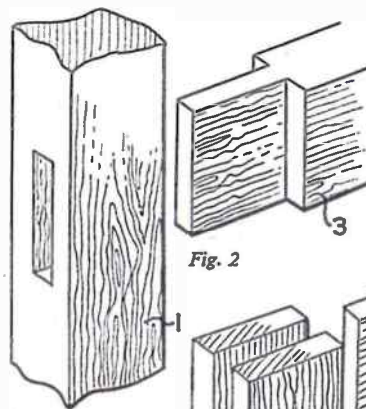


Fig. 2

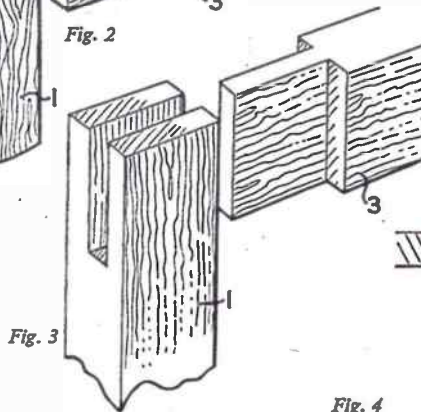


Fig. 3

Before cutting the timber, study the diagrams to get a clear idea of the work involved. Fig. 1 shows the side and end views, giving the main measurements. Notice that the trolley itself is made entirely from 2 in. by 1 in. material. Use oak for preference and stain to match. The trays are two of Hobbies veneered panels with curved ends and measure 28 in. by 15 in. They are available in oak,

Marshall's Book of Railways

IN this book will be found a rich collection of hitherto unpublished photographs, many from overseas. The fascinating stories of inter-company rivalries, their struggles for railroad supremacy and many of their achievements are related by a distinguished list of contributors.

However wide your knowledge of railway history, it is safe to say you cannot fail to find further enrichment in this new presentation of aspects of the world's railways.

This beautifully produced book is excellent value for money and has real 'gift' appeal. Its general interest theme should make it a welcome addition to any bookshelf.

Published by Percival Marshall & Co. Ltd, 19-20 Noel Street, London, W.1. Price 12s. 6d.

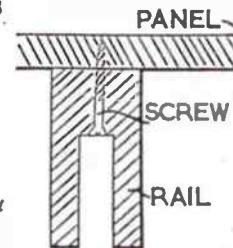


Fig. 4

Next week's free design will be for a handsome Extending Workbox on legs. **MAKE SURE OF YOUR COPY**

USE FABRICS TO MAKE PICTURES

WHEN an assortment of differently coloured materials are cut out into a variety of shapes they can be combined by either making fabric pictures or designs. While these may ultimately be made into a picture for framing and hanging on a wall, they may also be arranged into a design, and the resulting panel utilized for decorating a useful article. For example, use them as panels in place of tapestries for fire screens, glass-topped tables, and all manner of things.

By Anne Bradford

We have two methods at our disposal, and each will be found useful according to the type of material being used. There is some relation in this work to the established form of appliqué or patch-work.

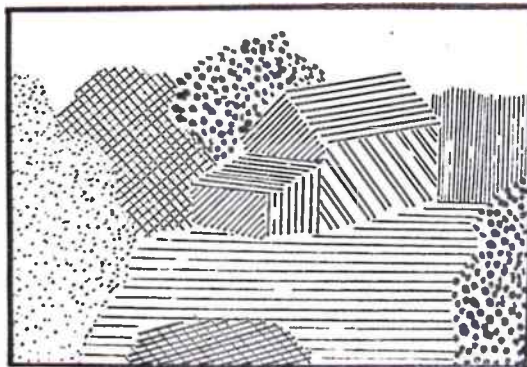
It is mostly a matter of working backwards, and you will realize that the background must be the first to be attached, while details are the last, and the work progresses until the entire canvas is covered. For example, a country scene may be made by using a pale blue background, but we shall have to cover the foreground with pieces of green materials to represent grassland. Fields, buildings, and other features are then added in appropriate materials. On the other hand, a modernistic design may be in the nature of a patchwork, but here it is advisable to use a canvas base, and attach your coloured materials, which will necessarily overlap in places.

The alternative method avoids stitching. Pieces of fabric are attached to a stout paper backing by means of a rubber mountant, like Fabrex or Copydex, ultimately cutting out and sticking on to the basic fabric. Note that this method is suitable for fabrics which fray, and that it is best to apply the



Wastepaper bin covered with a fabric design. Note the braid at the top and bottom rims

was used, so templates in a number of sizes were employed for preparing suitable shapes. In addition, printed fabrics, again depicting leaves, were also incorporated in the design.

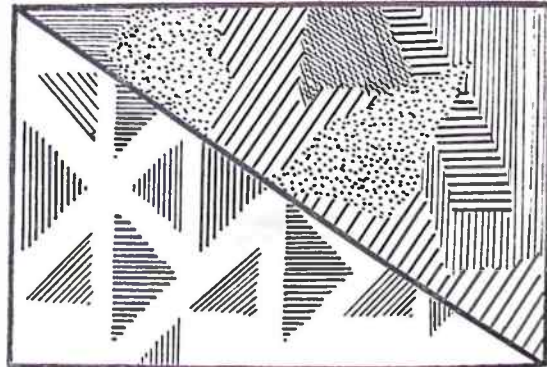


A simple picture which is easy to make with a variety of fabrics

First of all the material has to be selected for the ground, and this may be either a soft self-coloured flannel fabric or a strip of fine canvas interlining. When canvas is used — as in our example — it is almost like painting a picture, and work proceeds until all the base has been covered. A self-coloured material will, in some circumstances, supply part of the background, but much depends on the design. A picture or design is planned, pieces of other materials cut out to a desired shape, and sewn on to the base by blanket stitching all the way round.

adhesive to the paper, laying the fabric on top, and applying medium pressure. Excessive adhesive may penetrate and spoil the fabric, and this method is not always suitable for thin, silky materials. We should also mention that blanket stitching in itself is decorative.

When preparing a panel for a particular object, as with the waste paper bin, it is essential that the basic strip should fit, measurements being taken for the circumference and the depth. Templates are prepared for cutting out the shapes, and a variety of materials assembled. In this instance a leaf design



How to make either a geometric design from one shape of different sizes or an all-over patchwork design

The basic canvas is laid on the table, and the fabric cut-outs arranged in position. Some of them may overlap. They are pinned in position, and stitching should not be done until you are perfectly satisfied that the resulting combination is both pleasing and satisfactory.

As already stated, a blanket stitch may be used for sewing the pieces to the canvas background, but the extreme ends are left unfinished until it has been wrapped around the container. This can be done when the major portion of the

● Continued on page 26



RAILWAY MODELLING

parts can be obtained as the work progresses. In order to cut down the cost as much as possible I shall be giving you ideas for building much of the layout from scratch, and from materials that are readily obtainable. In this way you will find it cheaper.

I SAID in my last article that I would be telling you how to build up a model railway layout, and that we would take it step by step. Firstly, let us consider the size of the layout we wish to adopt, and then make up our minds as to what form it is to take. Next we must decide what type of material we are going to use. One of the proprietary brands like Hornby Dublo, Trix, or, perhaps, Triang, or hand-built scale. We have next to make up our minds about the actual scale we are going to adopt — OO gauge, TT 3, or one of the larger scales. Another point for consideration is the type of construction. Shall it be a permanent layout

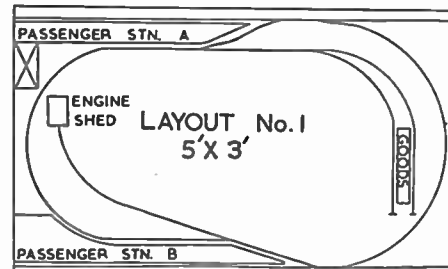
BUILDING A LAYOUT—1

I am describing in this article a couple of plans for layouts which will fit into a comparatively small room. In both cases the layouts are only a nucleus of a finished model, and can be expanded at the will of the builder.

I have recently been able to test the Kitmaster Electric Motorised Bogie and the Box Van with motor complete, and I can report that they are superb in every way. I fitted the Motor Bogie into a Kitmaster Coach as per the instructions and this is quite easy to do. I like the motor bogie is mounted into the roof. It is quite heavy and so holds the track well, but a suggestion is to put some weight in the coach over the other bogie to keep it on the track. I found that this bogie seems to 'float around' a bit, especially over pointwork.

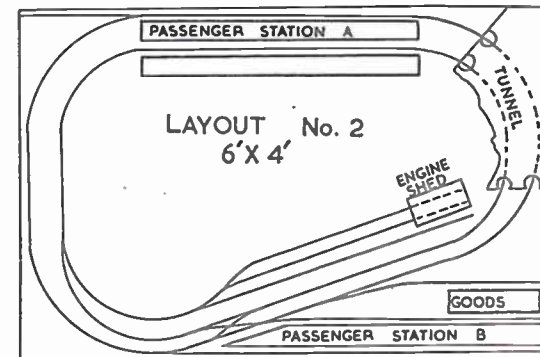
Two other recent models I have made in the Kitmaster range are of the Restaurant Car and the French Railway Coach. Both are excellent kits in every way. In the first named the seats are too small, so that scale figures cannot be used, but the detail of the tables and in the lavatories at each end is astounding. There are even taps on the sinks. The French car is the most detailed model yet. Not fitted with seats, I am sorry to say, but the detail in the sides and on the roof and the ends is really superb.

stations for passenger train working, and also a goods station, and a couple of sidings, and there is room for a small en-



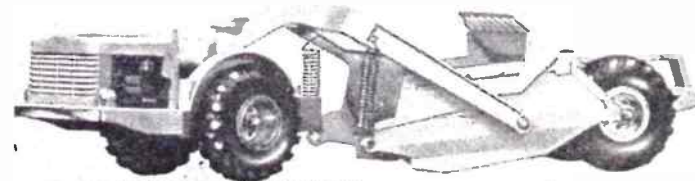
or sectioned for easy assembly and removal, like my Maryville, Fredricton, and Westbury Model Railway.

Naturally, the decision will be governed by the size of the room available, and also how much you are prepared to spend on the project. This last item is, naturally, of the utmost importance, but one should realize that it is not essential to purchase all the material at once. The



Layout No. 1 is 5 ft. by 3 ft. in size. Quite small, but you could have some interesting running with it. It houses two

FOR YOUR LAYOUT



Allis-Chalmers earth scraper. '00' scale 15 cm. long. 'Matchbox' model, 4/11

engine shed. There is room on this layout for continuous running around the ends, and also you will see that by adding other boards the layout can be expanded as time, space, and money permit. Scenic work will be added later.

It should be pointed out that this layout is for single line working only, and is designed for OO scale, but it could be adapted quite simply for TT 3, when, of course, one would have a little more running than is possible with the larger scale. There is no complicated pointwork, but curves would have to be kept down to the minimum.

Layout No. 2 is much more ambitious. It is 1 ft. wider in each dimension,

● Continued on page 23

BALANCING THE TONES

PHOTOGRAPHY experts tell us to avoid the high sun, and the hours close to noon. A brilliant high sun floods a scene with overall brightness, giving few shadows, and they are short, hard, and contrasty. The print easily becomes a soot-and-whitewash effect of brilliant highlights and splashes of black shadow. Overall brightness, just as in the case of overall dullness, causes lack of visual interest in the print — we lose the interesting inter-play of light and shade through to deep shadow.

By E. G. Gaze

A high summer sun gives the most brilliant overall lighting. At other seasons the lighting is more mellow, and evening and morning sun does give longer, softer, and more luminous shadow play. But often on holiday or an outing, the most interesting places seem to be reached when the sun is high in the sky! In these latitudes it is never directly overhead, so there is always some shadow, even if short, and by choice of camera position much can be done to find shadows to break up otherwise over-brightly lit foregrounds.

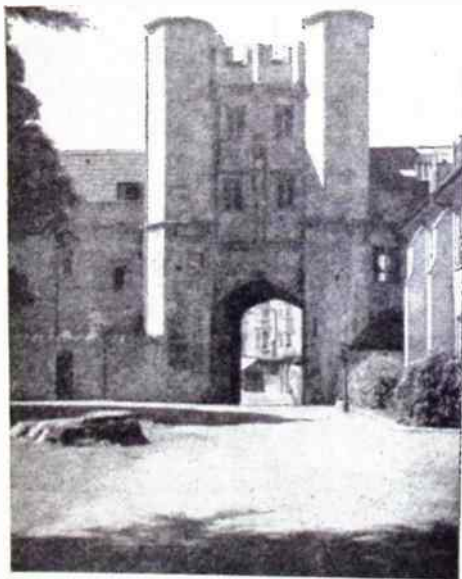


Fig. 2—Short deep shadows break up 'flat' foreground

With high sun position the high-lights will lose texture, especially if your exposure is adjusted to bring out detail in the shadows and, with any fairly high, bright sun position, it is generally useful to visualize a scene in terms of composition tonal values, choosing camera position relative to the sun to balance high-lights, deep shadows, and more luminous ones to avoid a 'bitty' effect.

In fact it is a very good policy, whatever the sun position, to move around the scene. Find a snapping position which breaks up large areas of foreground with as much shadow detail as possible, which concentrates the high-lights against the shadows in the main scene in a way which gives a 'smoothness' to the composition, and avoids 'bittiness'.

Photograph No. 1 was snapped with a high sun almost facing the camera. The result is an overall bright road foreground lacking in interest. There is a 'bittiness' about the splashes of highlight elsewhere. The shadows are short and hard and splashed around throughout the scene. A soot-and-whitewash, 'bitty' effect with no balance in composition and tonal values.

For No. 2 there was a high, strong sun, but camera position was chosen to make the most of the fairly short, deep shadows of trees to break up the brightly lit foreground. High-lights are quite large in area on the print, but are not 'bitty'. The lighter shadow areas are also massed in area.

The sun was not so high in the sky for No. 3, but was still strong. The



Fig. 1—Visually 'flat'—and bitty

shadows and high-lights form well defined areas, avoiding 'bittiness' and balancing with each other. Very often, too, in strong sun-light with a high sun, clouds are light and airy against the blue. Skies tend to print light, and a deep yellow or green filter will give tone, and make the most of light cloud forms.

Completely toneless, blank skies don't give a 'natural' look to the print, and a filter will give some tone even on a cloudless day, provided exposure is not over-much. On a brilliantly lit scene a small filter-exposure factor of 1½ or even 2 can be ignored. Tone will be obtained in the sky portion, and sufficient exposure given to the main scene. It is a matter for individual experience matched with your normal exposure and film development technique, but a little experimenting with filters on a bright scene will enable you to judge for yourself the effect you wish to get.

Another way to break up a clear blue, strongly lit sky is to chose a camera position which places a tree shape against the background sky. This is particularly effective in the leafless days, when branch patterns are delicate and attractive. Often a large tree in the middle foreground when in full leaf will itself be either too dark a shadow mass, or too



Fig. 3—Shadowed foreground, remainder balanced to concentrate interest and avoid bittiness

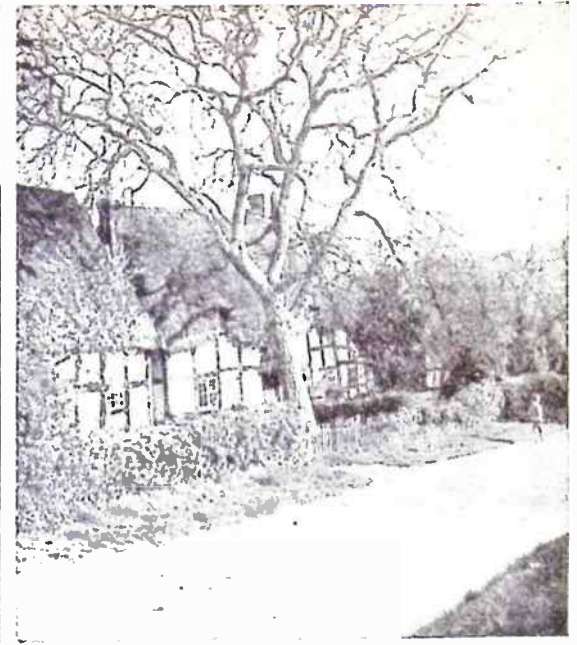


Fig. 4—Spring sun, quite high but softer sky

conflicting an area of deep shadow and reflecting high-light leaves. It may then 'steal' eye interest from the main scene. But in spring, late autumn or winter, tree shapes are useful without necessarily being too prominent in the print. In No. 4—the spring sun is soft. Shadows are softer and longer when used to break up the high-lighted road surface in the foreground. The sun position is still quite high, but high-light and shadow areas are massed in area, and not

'bitty'.

From these examples it can be seen that, even with a high or fairly high strong sun, the 'bittiness' of brilliant highlights and scattered shadows, even the lack of contrasting tonal values due to overall bright, even lighting, can usually be avoided by a little care in choosing the camera snapping position. Aim to balance tonal values in masses to concentrate visual interest in the print, and still obtain an effect of bright, high

sunlight. Morning or evening sun, throwing softer, longer shadows, avoiding harsh shadows, giving luminosity to the shadows, lends itself to pleasant tonal values. But even with a high, strong sun care in a camera position relative to the angle of lighting, and massing of the contrasting tones to avoid visual 'flatness' or 'bittiness', will give visually pleasing prints while retaining the effect of a bright, sunny time of day.

● Continued from page 21

MODEL RAILWAY LAYOUTS

and it also houses two passenger stations, one of which has two platforms. There is a goods shed, a larger engine shed, two roads, and up in the far right-hand corner a tunnel which spans two tracks.

This layout is designed for two track working. It has continuous lines, and the curves are not so sharp in radius as Layout No. 1. This is quite a sound little layout, and will allow for quite a bit of scenic work, which will be described later.

I shall give you some more layouts in my next article, the aim being to give you the idea of how much can be put on a board of a given size. This ground work is most essential, it is not much use just making up your mind that you are going to build a layout of a certain size without first considering what you want to put on it. One has to cut one's cloth, as it were, according to the pattern, and the important decision to make is 'just what do I want?'

If you want to run long passenger trains, then you must have a larger layout. Nothing to my mind looks worse than long trains running on tight curves. One must consider the size of things. A large Pacific class engine measures about 11 in. long, and coaches are not far short of this measurement, so you can see a five-coach train with engine will measure over 4 ft. long, and on a layout of 5 ft. by 3 ft. it would be a case of the train chasing its own tail-light all the way. But on the same layout a small engine with, say, two or three small coaches, would look just right.

I will deal with two more layouts in my next article, and then we will get on to the method of building up the base-board to take the railway.

"THE QUARTET" TODDLERS

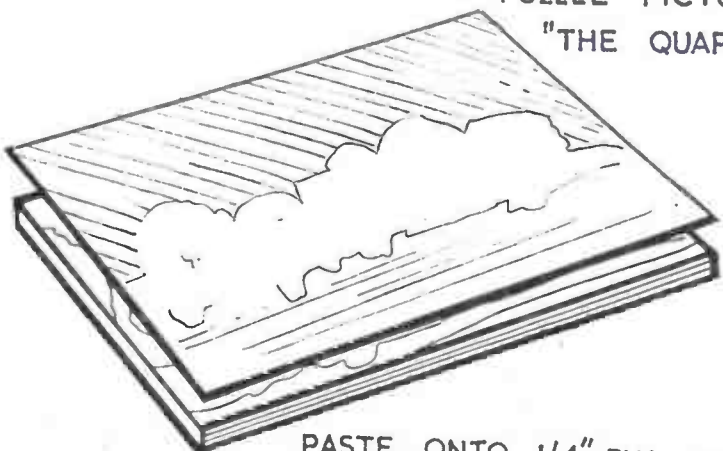
TOOTH BRUSH TIDY



THE ONLY
TOOLS
NEEDED

THIS PROJECT
WOULD MAKE
AN IDEAL
GIFT FOR
ANY YOUNGSTER

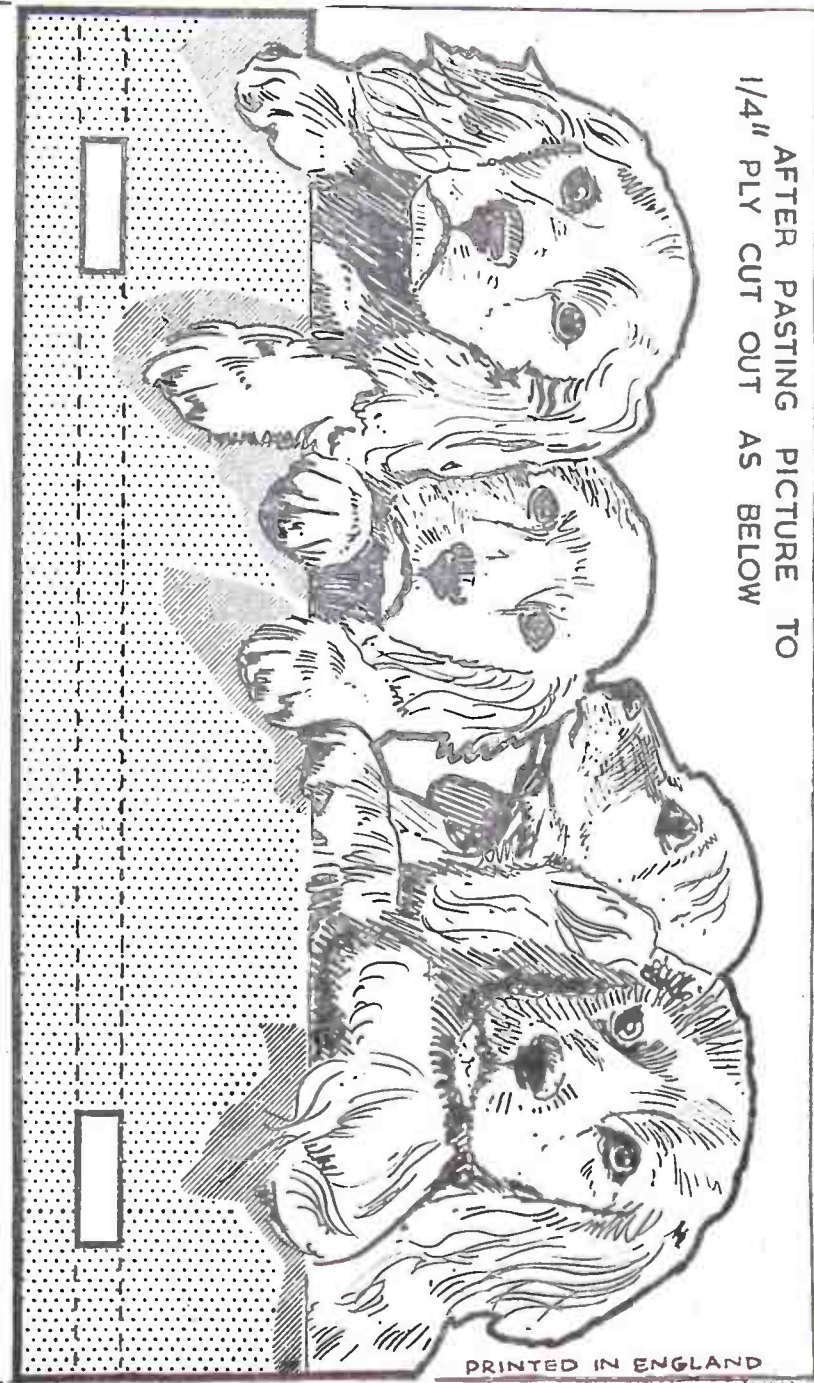
HOBBIES JIGSAW
PUZZLE PICTURE
"THE QUARTET"



PASTE ONTO 1/4" PLY AND CUT
OUT AS INDICATED

THIS HOLE
WILL DEPEND
UPON THE SIZE
OF TOOTH MUG

CUT ONE FROM 1/4 IN.



AFTER PASTING PICTURE TO
1/4" PLY CUT OUT AS BELOW

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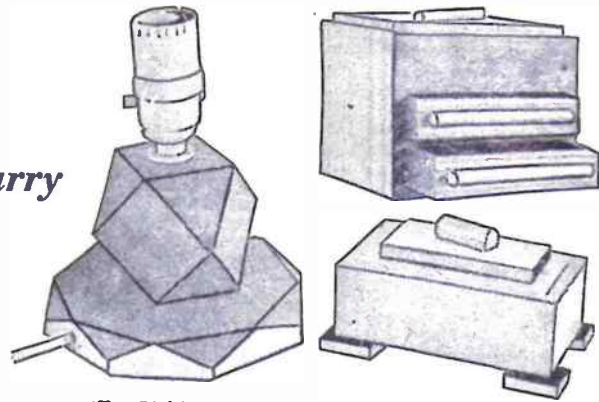
PROJECTS FOR VENEER WORK

THOSE who are not temperamentally equipped to make marquetry pictures calling for time and patience will be interested in another use for veneers. The types of articles that can be made are shown in the photographs and the reader will undoubtedly think of many others which could provide a profitable and inexpensive pastime. The only materials required are a packet of veneers (or left-overs from making a marquetry picture), pieces of plywood, a tube of glue and panel pins.

The idea is simply to make the box or other object first with scrap pieces of plywood glued and panel pinned together as shown. Then cover it with different veneers until no trace of the original plywood can be seen. Joints are not necessary but it is important to cut the pieces accurately and to glasspaper thoroughly to provide a perfectly flat base on which to glue the veneers. Ensure that the panel pin heads do not protrude above the surface of the wood after glasspapering. Curved surfaces can also be veneered but it is advisable to begin with flat surfaces.

You can use a contact adhesive for gluing the veneers to save time in waiting for the glue to set, but remember that there will be no 'second chance' once the piece of veneer has been placed in position. Cut the veneer slightly larger than the surface to be covered (about $\frac{1}{4}$ in.

By
J. H. Parry



(Top Right) Small cabinet suitable for stationery
(Bottom Right) Cigarette or Trinket Box
(Left) Faceted table lamp veneered as described

all round) and place in position. After a few seconds the edges can be trimmed off with a sharp knife or a small Hobbies fretwork plane and finished off by glasspapering.

When all the veneering has been completed, smooth down well with glasspaper and round off all the sharp edges and corners. Polish with wax as used for marquetry or french polish. Wax polish should be well rubbed in and given an occasional rub down with fine glasspaper in between. French polish gives a better gloss and can be applied with a brush. This should also be glasspapered down

in between coats.

Finally, do not overlook the insides of boxes and small cabinets. These should be lined with suitable material. Self adhesive plastic covering is very useful and small pieces are often left over from other jobs. Glue pieces of felt under any objects that stand on polished tables to prevent them from scratching the surface.

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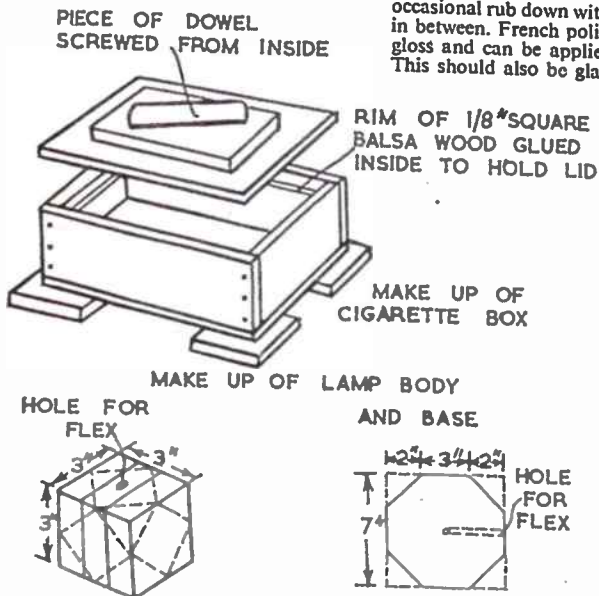
FABRIC PICTURES

work has been completed. It is not advisable to have any overlap of the canvas at the joint. Trim the ends so that they touch, sew together, keeping the picture as taut as possible, then cover this joint with the addition of the few remaining fabric pieces.

You will notice that braid has been added to the top and bottom rims. While this is decorative, it also hides the raw edges of the canvas, and can be stuck into position by means of a light application of Fabrex.

Perhaps we should mention that a large toffee tin was obtained for this purpose. The grooved rim was levelled by filling with a plaster filler, and then painted. The inside and the bottom were also painted in a light pastel colour.

The term 'fabric pictures' should be construed in a wide sense, for while it is possible to make pictures in the ordinary manner, experiments can be made with modern fabric designs, using conventional geometric shapes in many colours, or by using odd shapes for novel effects as in the diagrams.



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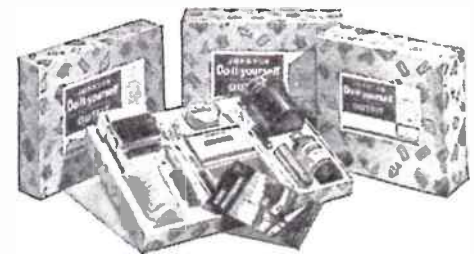
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FOR CONFIDENCE IN PHOTOGRAPHY

Replies to Readers

Rust Preventer

I WISH to prevent rust on steel which is exposed to damp weather. Your advice would be appreciated. (C.M. — Bromley).

HERE is a cheap simple treatment which you can make up yourself. It consists of four volumes of orthophosphoric acid and one volume of water. Orthophosphoric acid is a syrupy liquid which you can obtain from a dispensing chemist. Simply stir it with the water until an even solution is attained. Scratch brush the steel to remove any existing rust, and immerse in the mixture for a few hours. Lift and allow to dry without rinsing. The steel blackens, and may be improved by a light rubbing with thin oil.

Re-gluing Joints

I HAVE some furniture which needs re-gluing owing to looseness of joints. Having stripped it down, I find an excessive amount of glue. Can you tell me an easy method of removing it? (J.W. — Manchester).

IF it is really necessary to remove the glue from the joints, the safest method is to soak the tenons in hot water, and

scrape the glue away. We think, considering the looseness of the joints, which points to bad workmanship, the best plan would be to remove part of the glue by careful chipping, and possibly filing, then to re-glue and clamp up. If you remove the whole of the glue you will have to use a thick mixture to fill up the joints again, which will take time to harden.

Car Anti-freeze

CAN you please give me a recipe for an anti-freeze as used in cars? (W.S. — Aberdeen).

A SIMPLE anti-freeze can be made from one volume technical grade glycerine, and three volumes water, thoroughly mixed. It is used neat, will stand 22 degrees of frost, and is non-corrosive to metal. Also commonly used is a neat mixture of equal volumes of ethylene glycol and water. Provided you use technical grade glycerine, the first recipe will prove the cheaper. If you cannot obtain it from a local pharmacist or laboratory furnisher, you should contact a soapmaker, such as J. Crosfield Ltd, Warrington, Lancs., or Thom Ltd, Pendleton, Manchester.



"WE'D BETTER THIN THAT PAINT DOWN A LITTLE MORE, ANDY."

Painting a Boiler

COULD you suggest a remedy for rust on a galvanized (electric) wash boiler? I have tried aluminium paint, but this keeps peeling off. (C.R. — Cookham). **THE** important thing is first to remove the rust, using one of the preparations sold by ironmongers, as well as emery cloth. This should be followed immediately with a heat-resisting enamel.

Colouring Water

CAN you advise me as to what chemicals to use in colouring water? I intend to fill jars and bottles with it, and place lights behind them. (S.J. — Derby). **THE** cheapest method is to use red, green, blue, and violet inks, or cake icing colours, suitably diluted with water. Chemicals will give a wider range if desired, and the following are very suitable for the purpose:

Cobalt chloride	red
Potassium dichromate	orange
Potassium chromate	yellow
Nickel sulphate	green
Copper sulphate	mid-blue and pale blue
Copper sulphate and clear ammonia	deep blue
Methyl violet	violet
Potassium permanganate	purple

Strength will have to be a matter of judgment, for effectiveness depends on the thickness of solution through which the light must pass. To make up the solutions, powder the chemicals and stir them into the water, a little at a time, until the required depth of shade is reached. In the case of copper sulphate and ammonia for deep blue, first dissolve the copper sulphate, and then add ammonia little by little until the solution deepens no more; this solution can then be diluted with more water if it appears too deep.

Rust in Iron Tank

THE inside of our galvanized cold water storage tank has rusted. Is there any way of removing this and preventing its recurrence? (W.H. — Portslade).

YOU should empty the tank and dry. Remove rust with a vigorous rubbing with a wire brush, and dust out. Now apply two coats of lime white, prepared thus: slack quicklime with water to form a thick cream, add a little glue dissolved in hot water, and $\frac{1}{2}$ pint linseed oil to each gallon of the wash. Thoroughly mix and rub well into cracks and crevices. When dry, apply a second coat, and let that dry, too, before filling the tank with water.

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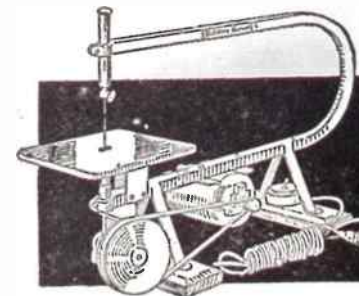
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WE have already written about what to collect, now we come to the all-important question of what to do with what has been collected — that is, placing in the album.

There are three kinds of albums to consider. First we have the lowest priced type, each page of which is ruled in squares or rather oblongs. Into each of these you are supposed to place a stamp. We will assume that the stamps are ready for mounting — that is, they have had all the paper taken from the back either by placing them face upwards in a dish containing wet blotting paper or by treating with one of the patent solutions for removing paper. But remember, please, that stamps printed by the photogravure process, and that includes the present day issues of Great Britain, must not be placed in benzene, or the colour will be destroyed. Try putting a 2d. Queen Elizabeth stamp in benzene, and see what you get when it dries out.

Now one of these printed albums will have sufficient spaces for the stamps of a beginner, but if, for example, you have a relative abroad who sends you lots of stamps from one country, then you must be prepared to place a neat piece of paper in the album to help out the space for such a country. Suppose you consider the arrangement of the stamps of Great Britain, because you should have more of the issues of your own country than of any other. These must be arranged according to the reign in which they were issued. For instance, all the stamps during the reign of Queen Victoria must come first, then those of the reign of King Edward VII, followed by those bearing King George V's portrait. Then King Edward VIII, and so on.

What amount of space should be allowed for each reign? Well, if you are the possessor of a Stanley Gibbons catalogue — the simplified version is all that is necessary at this stage — you will see that they have listed eighty-four stamps as issued during the reign of Queen Victoria. Then they have eighteen for the reign of King Edward VII, forty-seven for King George V, four only for the very short reign of King Edward VIII, forty-two for George VI, and so far thirty-one for Queen Elizabeth. These figures do not include all the regional

stamps — Jersey, Guernsey, and Isle of Man (a 3d. stamp each), and Northern Ireland, Scotland, and Wales (3d., 6d., and 1s. 3d.). Also, there are the postage due stamps, and the official issues.

The stamps of each reign must be kept separate. Nothing looks worse than to see a page of stamps in which the portraits of the monarchs are all confusion.

ARRANGING THE COLLECTION

By L. P. V. Veale

Now it is hardly likely that you will have all the stamps from Great Britain, nor is it likely that the stamps you have are in exactly the same proportions as those mentioned in the catalogue. You should have practically all the thirty-one stamps for the reign of Queen Elizabeth, and also a large part of the forty-two issued in King George VI's reign, but you will only have a few of the stamps of King Edward VII. The best thing to do is to count up the stamps of each reign that you have, and allow space according to that requirement, remembering the other figures, so that you will be able to estimate how many spaces you are likely to fill for each reign.

It is fortunate for us that all the stamps of any one set of Great Britain are the same size and shape. That is not exactly true, because the £1 of the Postal Union Congress issue of 1929 is very large, while the low values are the usual shape. But as the £1 stamp is costly, either used or unused, it is not likely that many beginners will be worried with that.

Before we go on to describe the way to arrange the stamps in a loose-leaf album we had better give a little advice on albums. Although you may be able to get a better and bigger album, consider if it is the best thing to do. Nothing is more disheartening than to have an album of large proportions but with only a very few stamps in it. It is much better to stick to your small album until you have more stamps than you can mount

in it. Then when you decide to get a larger album you will have plenty of stamps to go in. A new album also gives you the opportunity of arranging your stamps in a proper fashion, and to clean them up.

Of course, the loose-leaf album is the best for most purposes. If it is a normal size then you can always get some spare sheets as they are needed. You have the advantage of being able to house a large collection from one small part of the world as well as a general collection. But you have to take quite a lot of care in arranging your collection.

Suppose we examine a definite case — the last set issued for the Gold Coast before it became Ghana. There are ten stamps in the set up to the 2s. 0d. value. The stamps are oblong 3.4 by 2.5 cm. Seven values, the ½d., 1d., 1½d., 3d., 4d., 1s. 0d. and 2s. 0d. are horizontal, and the 2d., 2½d., and 6d. are vertical. To mount these directly in order of value, the ½d. first, and so on, would make a very poor show. You would have three horizontal and two vertical, then two horizontal, one vertical, and two more horizontal. If, however, you decide to mount them so that they look nice, you will have the first four horizontal stamps on one line, three more horizontal on the next, and then three vertical stamps at the bottom.

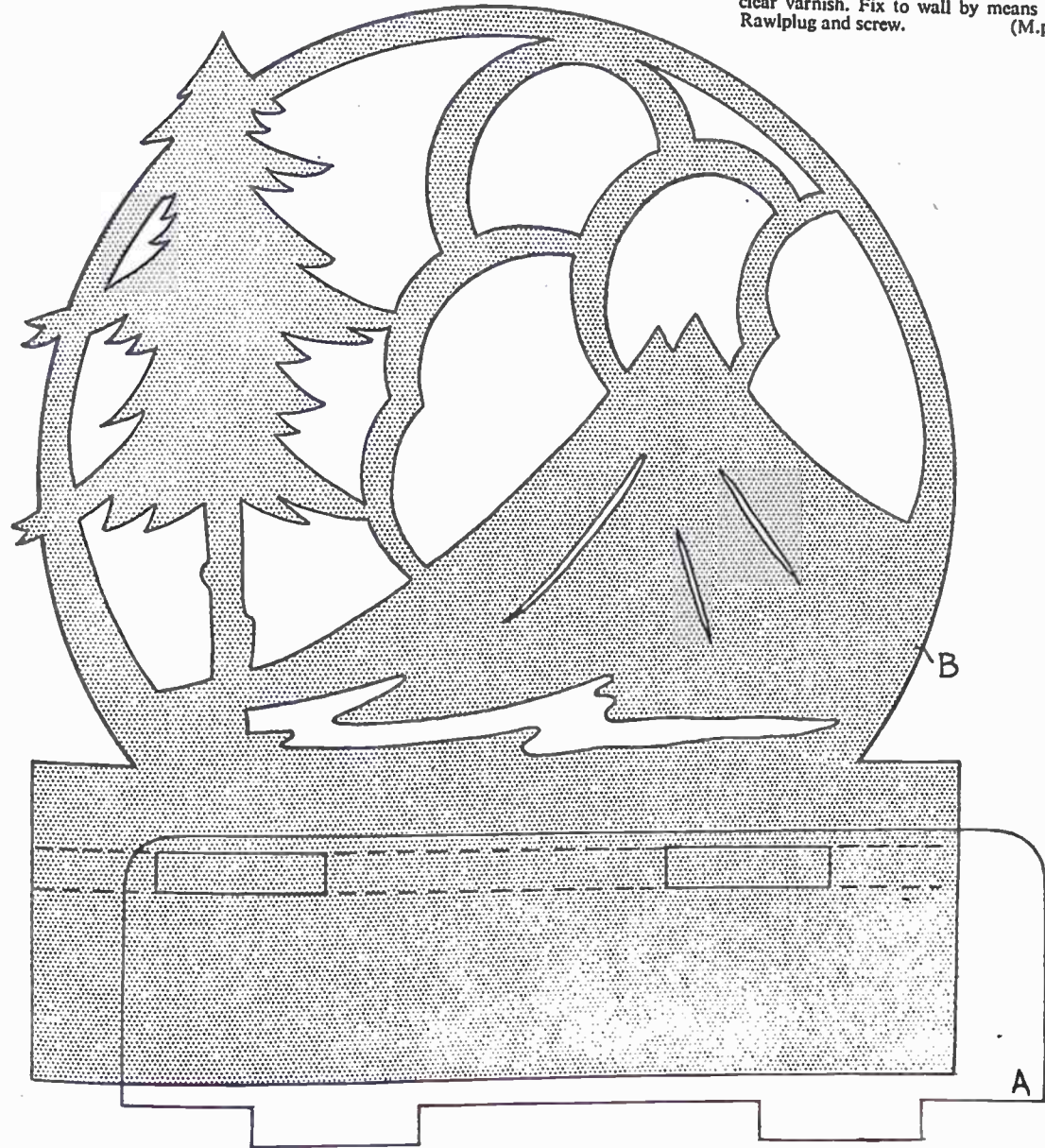
By being even more careful you can improve on this. Each value shows a medallion with the portrait of Her Majesty. In some the portrait faces to the right, and others to the left. Try to arrange the stamps so that the portraits face inwards. If you have not got all the stamps of the set at the time you want to mount, well mount those that you have got in the best possible manner. When you do get the rest, rearrange them all. After all it is only going to cost you a few stamp mounts.

The arrangement of the colonial stamps is fairly easy, because you know which monarch came after which, and that is your guide. But with the foreign stamps things are much more difficult, and you can hardly be expected to know where to put them unless you have a catalogue. This is not very expensive, and it is not by any means necessary to have a new one as soon as it comes out. In fact for most countries an out-of-date catalogue is quite sufficient, and can be picked up quite cheaply. Any stamp that you have which is not in the catalogue must have been issued after the catalogue was printed, so that gives you a guide to the date.

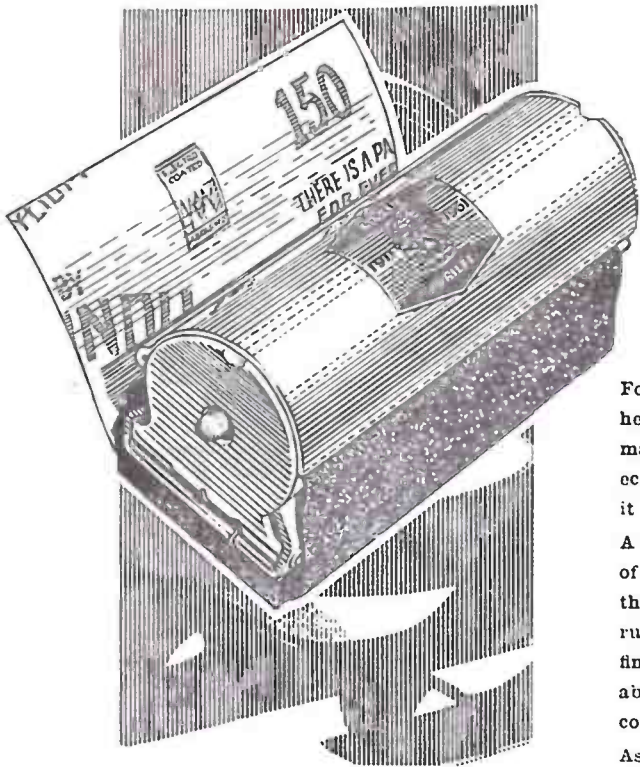
Now how about rearranging some of those pages in your album? Take one country at a time. Do not pull all the stamps out at once. Choose a fairly easy country first, and when you see the improvement, you will almost certainly want to get on with the others.

Canadian Bracket

CUT one each of A and B from ½ in. wood using a fretsaw. Glue A into B, clean up and stain. Finish with clear varnish. Fix to wall by means of Rawlplug and screw. (M.p.)



31



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.

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THE following covers have recently arrived from Czechoslovakia. 'Days of Friendship between Czechoslovak and African Peoples'. This cover depicts the face of an African woman on a background of the African continent and the Czechoslovak flag. It was issued on June 26th. 'Czechoslovak Puppets and Marionettes.' This is an interesting cover because the Czechoslovak puppet and marionette plays which began in the 17th century are still very popular throughout the country.

Designs, some of which are illustrated, are as follows:
 30 h. red and yellow — a puppet.
 40 h. brown and green — Faust and Punch.
 60 h. blue and pink — Spejbl and Hurvinek — a popular couple of father and son whose fame has already crossed the frontier of Czechoslovakia.
 1 Kcs. green and blue — a scene from a puppet show.
 1-60 Kcs. Jananek from Brno — in original colours — green and blue.
 The covers were issued on June 20th.



Mr. Raymond L. Cantwell
 16 Grange Road, Minchery Farm
 Littlemore — Oxford
 England

NUCLEAR RESEARCH ISSUES

WITH the inauguration of the 'Democritus' Nuclear Research Centre at Aghia Paraskevi, Greece takes her place among the countries which have the means to exploit the possibilities that atomic energy offers for peacetime projects. This event was marked on July 31st, by the issue of two special stamps. One pictures Democritus, the Greek philosopher, who first conceived the atomic theory, 2,500 years ago. The other presents a view of the reactor building. The 1,000th anniversary of the Liberation of Crete was celebrated on September 22nd, with the issue of a special stamp depicting Nikiforos Phokas, the Byzantine Emperor.



'Democritus' research centre commemorative

THE Hungarian 'Folk-lore' set of colourful match labels has just arrived. Two are illustrated here. Many readers have asked where to write for labels. Dr. Takacs Tamas of Gyor, Reval v.5. Hungary, will exchange Hungarian labels for those of England.

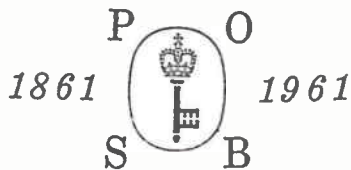


HUNGARIAN 'HORSE SET'

ANIMAL-LOVERS will like the Hungarian 'Horse' set of stamps issued on July 23rd. It includes the following designs:
 30 fillér green, brown, violet and black — close fight of three race-horses.
 40 fillér green, brown, yellow, and black — three horses in hurdle-jump.
 60 fillér brown, green and black — trotting race.
 1 forint orange, black, grey and green — trotting race.
 1 70 forints green, brown, and black — horses of breeding stock with foals.
 2 forints brown, black, and blue — the best Hungarian racehorse — 'Baka'.
 3 forints blue, brown, yellow, and white — 'Kincsem' — famous racehorse of the last century.

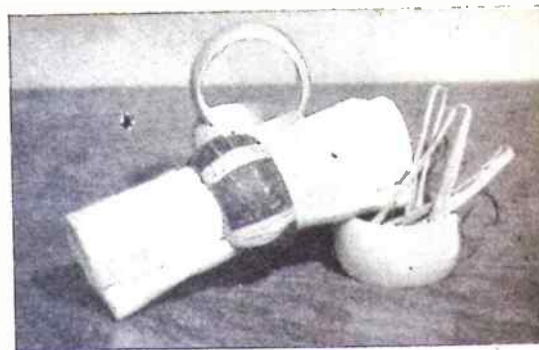
POST OFFICE SAVINGS DEPARTMENT SYMBOLS

THE Post Office Savings Department has adopted a new symbol. It takes the form of a key incorporating a representation of the 'Edward' crown, and has been produced by the Design Research Unit. This new symbol has been widely used in connection with the Centenary celebrations of the Post Office Savings Bank on September 16th, and for this purpose was amplified by the letters 'P.O.S.B.' and printed between the dates '1861-1961'.



MAKE DAINTY NAPKIN RINGS

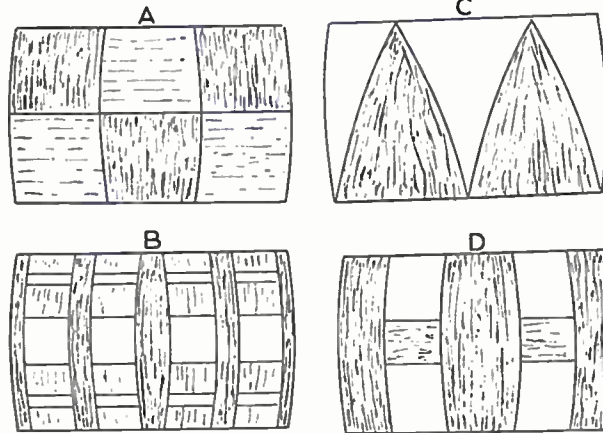
By
 Anne
 Bradford



NAPKIN rings covered with raffia look most attractive and are easy-to-make gifts. The basis is a wooden ring specially prepared for the purpose, as shown in our illustration, and obtainable at most arts and crafts shops. You will also require small quantities of raffia in different colours, the idea being to make distinctive patterns which are easily recognisable when these gifts are intended for children. The method of decoration is quite easy but before starting it is best to dampen the raffia by placing a few strands between the folds of a damp

towel. Note that the raffia must not be saturated and if treated as mentioned it will be quite sufficient. The chosen design will determine the method of wrapping but in most instances the whole ring should be wrapped

in a basic colour, finishing off by knotting on the inside and pushing underneath the remainder. This will give a neat finish. Take a long strand of raffia, winding through the centre of the ring until the outside is completely covered and remembering to make any joins on the inside. A contrasting colour can then be woven in the opposite direction if a bodkin is employed for this purpose. Variations in the designs can be made by modifications in the original wrapping and some of these are shown in our diagrams but no doubt you will be able to invent many more, weaving in an initial if desired. Another modification is a rosette, bow or tiny flower made by a few loops of raffia. Figure A shows a check pattern first wholly wrapped in one colour. The check is made by weaving in another colour horizontally with a bodkin. B has a basic covering, three horizontal bands woven in and further bands may be added in the basic or another colour. C again has a basic wrapping with alternating triangles while D is made in a similar fashion to B.



THE HISTORY OF AVIATION SHOWN BY 1,300 MODELS

MORE than 1,300 different model aircraft, which tell the story of the history of aviation in miniature, are in the collection of Mr Peter Farrar, of Barton Road, Torquay, who has assembled each model. One of the most significant features of Mr Farrar's collection is that all the models are made to a constant scale of 1:72. This means that any one model, when viewed in comparison with another, gives the same impression of relative proportion as does the full-size aircraft.

Although Mr Farrar has made many from his own materials, his collection includes some 500 models assembled from Airfix plastic construction kits. Mr Farrar has not been satisfied with making, say, one Spitfire to record its place in aviation. But he has built a new model to record the most detailed change in specification. That meant making 24 models of the Spitfire for the British services alone! In addition, there are models of the Spitfire as used by other countries.

Mr Farrar who began making models

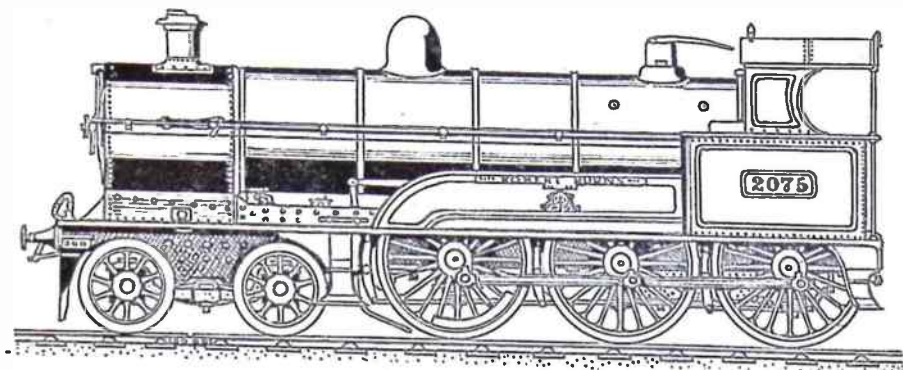
in 1933 (at the age of 11), served during the war in the R.A.F. as an aircraft recognition instructor, and his models have been shown at many exhibitions up and down the country. He himself confesses to a preference for old biplanes, and has made a Vulcan bomber from part of an old stable door and the fuselage of a Beverley transport from part of a neighbour's discarded piano. Storage (each model has its own box) and transportation are quite an undertaking and a bedroom and attic in his Torquay home are necessary to provide space for an office, storage and a workshop. Oldest models in the collection are of 1918 aircraft. The smallest is a Comper Swift (a pre-war single-seater light aircraft) and the largest an American Martin Mars flying boat. (E)

THE 'PRINCE OF WALES' CLASS

MR C. J. Bowen-Cooke's first 4-6-0 type express locomotive for the London & North Western Railway was the popular 'Prince of Wales' class. They were in reality a development of Mr Whale's earlier 'Experiment' class of 1905, the only marked difference being the provision of 20½ in. diameter cylinders (the 'Experiments' had 19 in. cylinders), and the Schmidt superheater.

occasion was provided with a Belpaire boiler and outside Walschaerts valve gear, and was the joint exhibit of William Beardmore and the L.M. & S.R. She was Beardmore's 304th product, and was finished in the L.M.S. red livery, with the 12 in. numerals on the tender, and the coat of arms on the cab panels. After the exhibition, and on being put into regular service, the name plates were removed.

The class totalled 246 engines, and carried the following details. Wheel diameters, bogie 3 ft. 9 in., coupled 6 ft. 3 in. Cylinders, 20½ in. by 26 in. stroke. Total heating surface, including superheater tubes 1,816 sq. ft. Grate area 25 sq. ft. Boiler pressure 175 lb per sq. in. Weight engine in working order, on bogie 19 tons 10 cwt., on driving wheels 18 tons 5 cwt., on intermediate wheels 15 tons 5 cwt., and on trailing coupled wheels 13 tons 5 cwt. Total equals 66 tons 5 cwt. Coupled wheelbase, 13 ft. 7 in., total engine base 26 ft. 8½ in. The centre line of the boiler was 8 ft. 7 in. from rails, and height to top of chimney 13 ft. 4½ in. The tenders ran on six wheels of 3 ft. 9 in. diameter, and had a tank capacity of 3,000 gallons, coal space of 6 tons, and weighed full 39 tons 5 cwt. Total weight engine and tender in working order, 105½ tons. The piston valves were driven by rocking shafts.



The first two engines, Nos. 819 *Prince of Wales*, and 1388 *Andromeda*, left the Crewe erecting shop in October 1911, followed in November by Nos. 1452 *Bonaventure*, 1454 *Coquette*, 1537 *Erchantress*, 1691 *Pathfinder*, 1704 *Conqueror*, 1721 *Defiance*, and in December by Nos. 2021 *Wolverine* and 2359 *Hermione*. These first ten engines which carried Crewe Works numbers 5030-5039 in the same order were immediately put into main line express work, where they replaced the 'Experiments' on the Euston-Scotch expresses. In 1923 they became L.M.S. Nos. 5600-5609 in the same order.

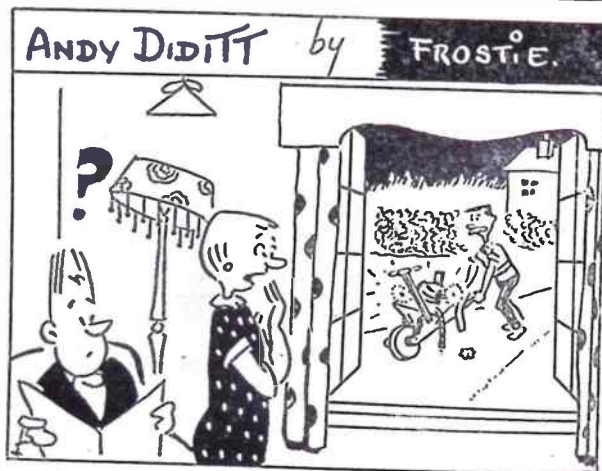
The next batch came out in October 1913, and between that date and November 1919 a total of 145 'Princes' were built to Mr Bowen-Cooke's design, and these were renumbered in the L.M.S. list, 5610-5754. In 1921-22 Capt. H. P. M. Beames, who became chief mechanical engineer in 1920, ordered a further ninety from the firm of William Beardmore & Co. Ltd of Glasgow, these carrying L.M.S. Nos. 5755-5844.

For the British Empire Exhibition at Wembley in 1924 William Beardmore & Co. Ltd built a further one, L.M.S. No. 5845. This engine which was specially named *Prince of Wales* for the

In 1924, four of the earlier 'Princes' had also been fitted with outside Walschaert's valve gear, these being Nos. 964 *Bret Hartic*, 867 *Condor*, 2340 *Tara*, and No. 56 (unnamed).

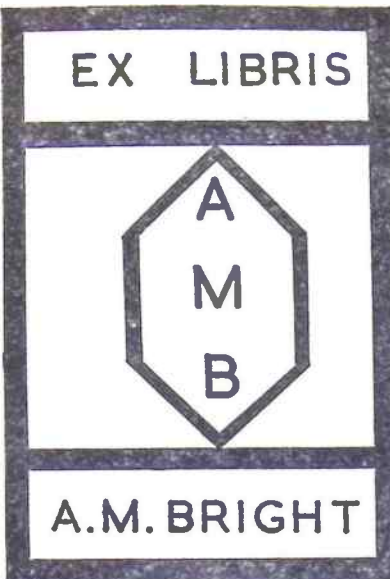
engine and tender in working order, 105½ tons. The piston valves were driven by rocking shafts.

(A.J.R.)



"HE'S BRINGING YOUR LAWNMOWER BACK AT LAST ANDY — ONLY THIS TIME IN A WHEELBARRROW."

SIMPLE PRINTED BOOK-PLATES



A damp chamois leather is laid in contact with the paint overnight. Next morning the unwanted paint (i.e. the areas to be printed black) bounded by the various lines can be peeled off. The negatives should be left for a while to let the remaining paint harden, when the clear glass can be cleaned up.

The printing frame is a piece of plywood 8½ in. long by 6½ in. wide, with a rectangular opening 6 in. long by 4 in. wide sawn out of its centre. Four strips of 1 in. by ¾ in. wood are glued and pinned round the edges of the plywood, and a plywood 'drop in' back is prepared. The back can be kept in close contact with the glass by a thin strip of springy brass, the ends of which fit into staples on the long side of the frame.

This frame and negative can be used for making contact prints for use as the finished book-plates, but an even cheaper method is to make one's own printing-paper.

A simple way of doing this is to coat

good quality paper with a strong solution of nitrate of silver. This must be done in a dark room, and the drying paper shielded from the light.

Alternatively, blue-print paper can be used. The two solutions needed for making this are (a), an ounce of ammoniac citrate of iron dissolved in 6 oz. of water and (b) one ounce of potassium ferri-cyanide in 6 oz. of water.

The two solutions must be kept in the dark in separate bottles. When required for making blue-print paper they are mixed in the dark-room in equal quantities, and swabbed on to a good quality paper with a soft sponge. Again, the drying paper must be shielded from the light.

After exposure to sunlight behind the negative for five minutes or so, the exposed areas will take on a yellowish shade. Developing and fixing is done by plunging the exposed sheet into clean cold water for a short while, and then allowing it to dry. (F.H.T.)

THE LORD'S PRAYER TABLET

READERS may recall that when we published a design for making a 'Lord's Prayer Tablet' in our issue of March 22nd, it was suggested that instead of using a printed version of the wording, experienced fretworkers might execute this in the form of a cut-out overlay.

Our photograph shows such an application by Mr G. Beardwell, of Dagenham, Essex. The panel of cut-out lettering was placed over a green flock paper background and surrounded with half-round ¼ in. beading, to quite good effect. Another reader has replaced the cross in the top of the design with a figure of Our Lord, and no doubt other amendments have been made according to individual taste.

Included in Hobbies Kit No. 3406 for making this 19 in. by 9 in. tablet is a panel of acetate sheet on which the words of the prayer are printed. This can be used quite successfully by workers who do not feel capable of cutting out the intricate shapes in wood, as Mr Beardwell has done so well.

The kit costs only 12s. 9d. from branches, or direct from Hobbies Ltd, Dereham, Norfolk (post 2s. 3d. extra).



IS THIS THE CAUSE OF DRIP?

REWASHERING a tap is just kid-stuff and old hands at house repairs won't need to be told how to do it. However there are occasions when putting on a new washer doesn't seem to do the trick; or if it does, the cure doesn't last long and it is only a matter of weeks before it again needs a pretty firm twist of the tap to stop that incessant drip... drip... drip....

This, as like as not, is because the brass seating, on which the washer fits, has become corroded or furred up with the calcium deposits from hard water. A lot of folk (and many plumbers among them) just shrug their shoulders and fit a new tap. At 15/- a time this isn't too extravagant and is good business for the brass-foundry trade!

But it is a very simple and entirely costless job to reface the old tap seating. A power tool helps, but is by no means essential. All you need is a hand drill, a clout headed nail (or an old No. 12 or larger countersunk screw), a bit of emery paper, and an adhesive such as Bostik.

First (having turned off the water) unscrew the tap and remove the jumper. Taking a pattern from the washer cut a circle of fairly coarse emery paper, just a shade smaller than the washer. If it is fairly stout emery paper and only a 1/4 in. tap this will be strong enough by itself. If it is a 1/2 in. tap you want to reface, or if the emery paper is thin, it is wise to

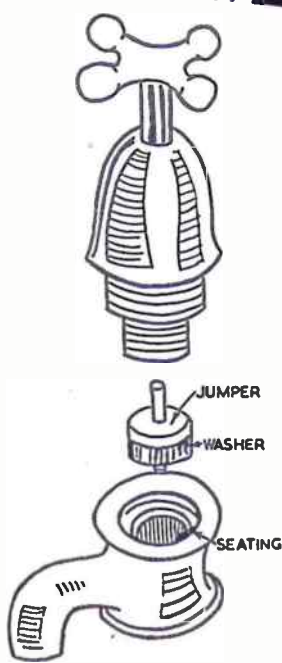
Where a new washer on the tap does not solve the problem this probably will...

says
Michael F. Tilley

strengthen the paper by mounting it on a similar sized circle of thin cardboard. Now stick this to the head of the nail or screw and give the adhesive time to set firm. Then fix the point of the nail or screw in the chuck of the drill.

It is as well to push your little finger down into the tap, where the water is probably still standing level with the tap washer seating. This pushes the water out of the tap, lowers the water level, and so prevents the drill from spraying it all over the place. It also keeps the emery paper drier and so cuts the washer seating surface more readily.

If you are going to use a power tool you will need a pretty steady hand and only very little sanding is needed to reface the seating. You must also be careful to keep the tool upright and so face the seating square and level — otherwise the tap will drip worse than before. A look at the face of the seating each time you remove the drill is advised. If it is cleaning up and getting bright evenly all round you are doing well. If one side is be-



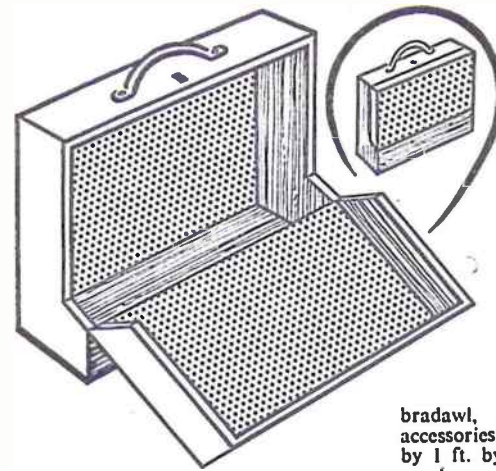
coming brighter than the other you are leaning the drill over on that side and so must straighten up to get the seating face level. Frequent inspections are necessary to make sure you are keeping the seating true. Once the whole surface is bright and shiny the job is done.

Now flush away the debris, clean round the top of the jumper and its seating in the top of the tap, reassemble — and good-bye drips....

severely, and I got hold of a piece of well seasoned oak. A fat little girl and an angel duly came into being, while the odds and ends were turned into a couple of hares and a grinning cat. By now my hands were showing evidence of the sharpness of 'Lot 217' — chisels slip easily when one is concentrating on creation! I added to my tools, buying sharp penknives, a whet-stone and a hacksaw. The latter provided a quicker method of cutting off waste wood than the gouging process I had used for my Sitting Woman.

Of course, I am still very amateurish in my carving, but I have found that it is great fun and that even a beginner can whittle away and make something, however crude. Next winter I am going to take lessons at the local art school, for I want to know how to use my tools properly, how to smooth and polish; how to make rippling muscles and the secret of fashioning a smiling mouth.

Yes, wood carving is a creative and fascinating hobby, albeit a messy one. (B.V.H.)



A HANDYMAN'S TOOL CASE

By
Finlay Kerr

If you require a handy tool box just large enough to keep a few basic tools in for taking on small jobs then you will find the one illustrated to be ideal for your needs. The case folds up like an ordinary attaché case, and if desired, a small tray with separate compartments can be included to keep useful accessories such as nails, screws, Rawlplugs, washers, nuts, bolts, panel pins, tacks, etc.

The design of this tool case is similar to those used by carpenters for carrying their tools around from job to job. The construction is very simple and does not call for the making of any intricate joints.

The size of the case will, of course, depend on how many tools you will want to carry. If you want to include a hand-saw, then, obviously, the length of the case must be made to suit. For carrying a few basic tools like a chisel, screw-driver, light hammer, small saw, small block plane or shaper, sharp knife, rule,

bradawl, etc. together with a few accessories, a case measuring 1 ft. 8 in. by 1 ft. by 7 in. will be found to be ample.

Construct the basic framework from 1/2 in. thick, planed timber. When ordering your timber it is best to get it ready planed on all sides, as this will save you a lot of work. Cut two sides and two ends to the required lengths, and make sure that the ends are perfectly square. Assemble these four members together to form a rectangular frame using open housing joints at the corners. Secure each joint with a little strong glue in addition to nailing. When inserting the nails they should be driven in at an angle, as this produces a stronger fixing.

Then glue and nail on the side panels, which can be cut from either hardboard or plywood. Before fixing these panels, however, it is essential to ensure that the framework is perfectly square. This can be easily done by checking the diagonals as shown in Fig. 1. They should measure the same.

Fig. 1

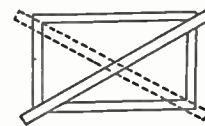


Fig. 2

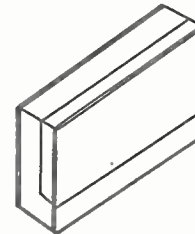
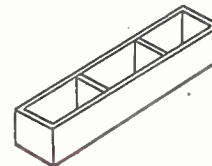


Fig. 3



The next job is to cut out the lid, and this is shown in Fig. 2. A suitable width for the lid is 2 in. When cutting the lid remember to use a fine toothed saw, and keep it as flat as possible to prevent ragged edges being formed inside the case. Once this is done, glass-paper the sawn edges very lightly to remove any roughness. Two hinging strips should now be attached to the case and lid. Use 1 1/2 in. brass butts.

If a handy accessories drawer is required then this can be easily assembled from 3/4 in. thick planed timber, using either butt joints or open housing joints at the corners. A strip of hardboard or plywood can be used for the base. To keep the drawer in its position two wooden bearers should be attached to the sides of the case as shown in Fig. 3. Two small knobs can be screwed to the front of the drawer or finger holes made.

Finally, fix on a carrying handle and a suitable catch or lock.

Complete by giving the case a good rub over with fine glasspaper, and apply necessary coats of paint or stain and varnish. Transfer initials may also be added.

Tackle Model Railways this way

By E. F. Carter

DURING recent years there has been an increasing trend towards the purchase of ready-made model railway components, particularly by those entering the field for the first time. Gone are the days when almost everything had to be handmade — the days of true railway modelling. But in place of tedious hand-work, today the enthusiast can purchase his track and rolling stock, and thus is able to devote more time to the actual running of his model line.

This book is written with this new angle on model railwaying well in mind — the accent being rather on arrangement and operation than on constructional work. Servicing and repair also find a place in its pages.

Among some of the contents are: Layout Designing — Tracklaying — Making and painting Scenery — Building Bridges — Tunnels, etc. — Servicing Electric Locomotives — Operating — Signalling — etc.

Published by Stanley Paul & Co., 178-202 Great Portland Street, London, W.1. Price 12/6d.

The Carving 'Bug'

IT all started years ago when a local carpenter made a wooden curb for my sitting-room fireplace. There was a fat chunk of wood left over, and he handed it to me, remarking: 'Maybe one of these days you will take to carving, Miss'. I replied that it would most likely be chopped up for firewood, which obviously shocked him. 'Not a nice piece like that', he chided me.

So I put the chunk in a cupboard and forgot about it for at least ten years, until one day I went to an auction sale looking for chairs. There were not any at my price, but 'Lot 217' was a set of wood carving tools, and suddenly I remembered that comfortable lump of wood lurking among the gumboots and junk under my stairs. I broke into the rather languid bidding and secured the box for a pound.

When I got home I routed out the

wood block and set it on the kitchen table. Smooth and pale, it challenged my ability to fashion it into something. But what? I picked out a sharp chisel and wooden mallet from the box. My fingers tingled with excitement as I started to cut away at the block. Slowly a squatting figure, huge of head and heavy of limb began to emerge, and I worked carefully, afraid the chisel would slip and gouge away some vital part.

At last I had carved a shape which was reminiscent of Easter Island, and also of more modern sculpture! I spent days filing and glass papering my creation, finishing off by colouring it with strong permanganate solution and polishing with boot-polish. A caller, spying it on the bookcase, asked me where I'd got 'that Aztec god'!

By now the carving bug had bitten me

Instructions for making

EXTENDING WORKBOX

THIS handsome piece of furniture consists of an extending workbox for use by the lady of the house which stands on contemporary legs. It is 21 in. high, and is thus at a convenient working height from a sitting position.

The comprehensive workbox consists of one large and four smaller containers, which are cleverly jointed to give an extension effect. The sides are opened by individual handles, thus exposing the contents of all the trays to give an immediate selection of the article or material required. The box is 11½ in. long and 6 in. wide.

Most pieces which go towards the make-up of the box are shown full size on the design sheet. These should be

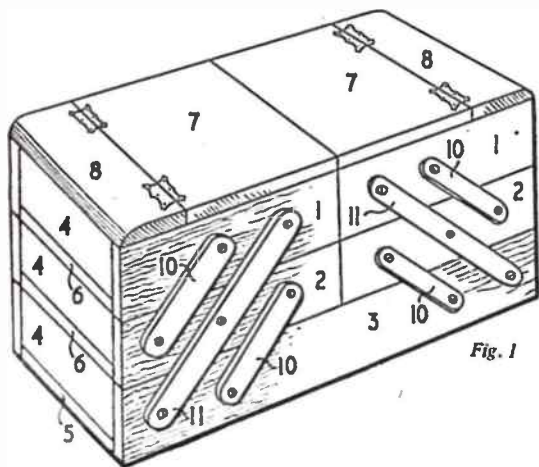
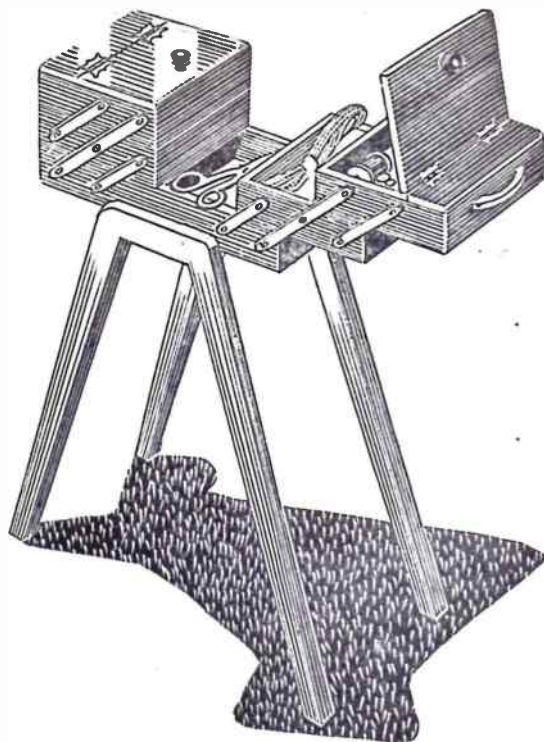


Fig. 1

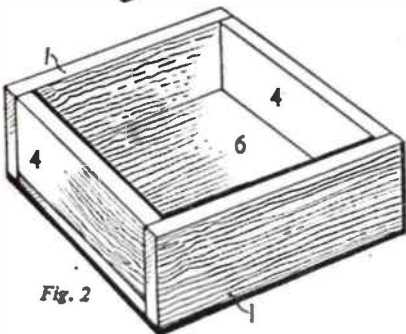


Fig. 2

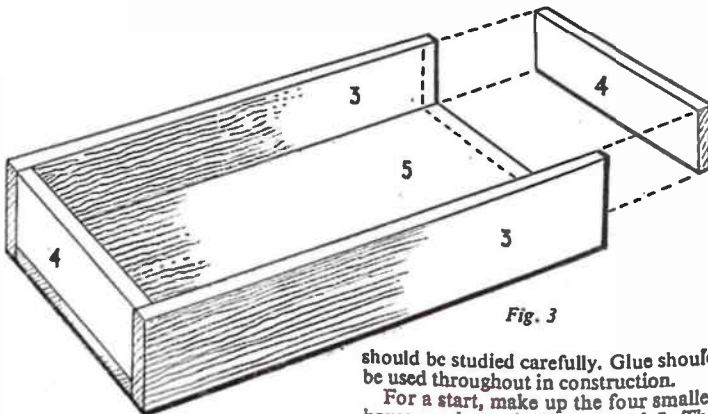


Fig. 3

should be studied carefully. Glue should be used throughout in construction.

For a start, make up the four smaller boxes as shown in Figs. 1 and 2. The

make-up for the larger box is clearly shown in Fig. 3.

Finish off the two top boxes by adding the lid portions (pieces 7 and 8) which are hinged together as seen in Fig. 1. Suitable pins for affixing the hinges are supplied in Hobbies kit of materials.

Now arrange the boxes in the final assembly order shown in Fig. 1, and screw the extending wood links (10 and 11) on each side. The positions of the holes made in these pieces are clearly indicated on the design sheet. These should be made with a ½ in. drill to allow free movement of the screw shank. The exact positions where these links will be screwed into the sides of the boxes are shown by dotted lines on the design sheet. Before the screws are driven right home, test the opening action of the boxes to ensure that everything is free and balanced. Finally, add the knobs and side handles.

Once the box assembly has been made to your complete satisfaction, it can be dismantled in order to add the finish, which can be by painting, staining and varnishing or polishing etc. It will be found convenient to number the various links, so as to ensure their correct

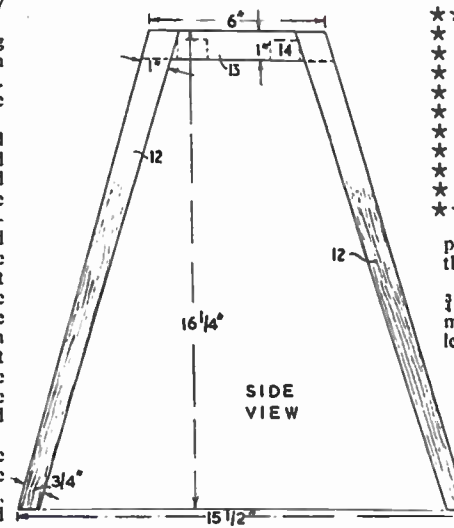


Fig. 4

 * Hobbies Kit No. 3436 for *
 * making the Extending Work- *
 * box contains all wood, hinges, *
 * knobs, handles etc. Kits price *
 * 24/6 from branches, etc., or *
 * direct from Hobbies Ltd, *
 * Dereham, Norfolk (carriage, *
 * etc, 3/3 extra). *
 * *****

positions when re-assembling after the finish has thoroughly dried.

The legs are made from 1 in. by ½ in. stripwood to the approximate measurements shown in Fig. 4. The legs should be planed to a taper, and pieces 12 and 13 halved together to form a neat joint. The details on the design sheet show how these joints are completed. Pieces 14 are also glued in position, with the addition of screws for strength. The length of pieces 14 should be sufficient to allow the box to sit squarely in position.

Finally, the box is fixed by screws through the lower tray inserted from the inside.

REPAIRING A TURNED LEG

THE repairing of a broken chair or table leg is a job which the home craftsman is sometimes called upon to tackle. If the leg is a square one or a flat-tapered type then the repair can quite easily be carried out with the use of metal strengthening plates screwed over the fracture. In some cases, however, the fracture may be in a turned leg and the method of repair is somewhat different.

Such a fracture usually occurs at the weakest section, at the point of smallest diameter. It is no use merely gluing the two parts together because this would

not produce a strong enough joint for normal use. What is needed is a wooden dowel to connect the two portions firmly together.

To bore the necessary holes to receive the dowel it is essential to locate the exact centres of the two portions. In most cases this will not be a very easy job to do with a satisfactory degree of accuracy because the surfaces of the fracture will most probably be jagged and irregular.

Once the repaired leg is all glued up it will be slightly shorter than the remaining legs (due to the saw-cut). This should be remedied by adjusting the castors.

DID YOU KNOW...

If you soak even thick leather in water before you cut it, it's easy.

If you want to loosen a rusted-up nut or a rusted-in screw and have no penetrating oil, try tincture of iodine, washing the job in water afterwards.

Melted down tinfoil and the metallic wrappings of sweets and tobacco make useful solder.

Spanners should have 1 in. of length per ½ in. of the nut's diameter.

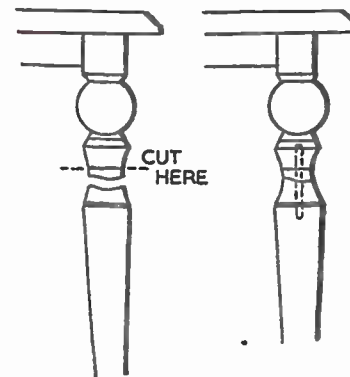
Slots can be cut in metal with two or more hacksaw blades abreast in the saw frame.

Grease is removed from aluminium with turpentine.

By Finlay Kerr

This difficulty, however, can easily be overcome by sawing off part of the leg at another convenient position as close as possible to the fracture. The small portion of leg can then be glued into its proper position, which means that two flat surfaces are now provided. It is then an easy matter to locate the centres on both parts of the leg and bore the necessary holes.

The length and diameter of the dowel will, of course, be dependent on the nature of the fracture and the diameter of the leg.



An experiment to try

THE FLOATING CANDLE

IT is doubtful whether the Greek philosopher Archimedes really possessed a candle, but without doubt here is an intriguing little experiment which illustrates an aspect of his famous principle of buoyancy and flotation.

By A. E. Ward

Fill a glass tumbler with water, and provide yourself with a 'stick' of candle about 3 in. long. Push a nail into the wax at the base of the candle, and float the arrangement in the water. The structure should float in an upright position, and will burn quite naturally if you ignite the wick. If your added ballast is just right, your candle will float so low in the water that it almost sinks and, since a well of wax will be formed around the wick, part of the flame may lie below the water level.

As the candle burns away it does not become submerged and extinguished, but actually rises, almost imperceptibly, to sustain the flame.

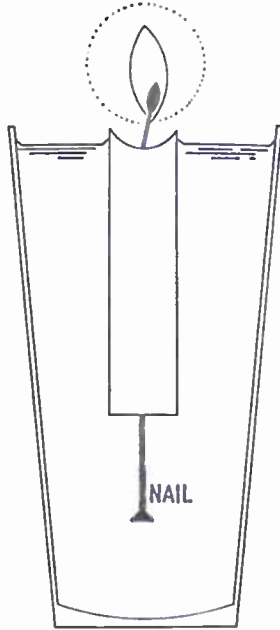
The weighted candle floats because the weight of water which it would dis-

place, if forcibly immersed, is greater than its own weight, therefore the water pushes upwards upon it with a force sufficient to prevent it from sinking.

Casual observers of the floating candle often comment that the flame cannot possibly survive more than a few moments after being lit, and that the candle will surely sink when all the wax 'above the water level' is burnt. The fallacy of this argument is that, as the candle is consumed by the flame, its weight decreases, and the upthrust of the displaced water will continue to support the candle wick above the surface.

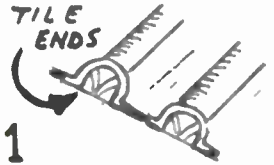
Provided that the nail is not too heavy, the flame will continue to burn for several hours, until all that remains of the candle is a shallow shell-like 'boat' of wax. When this stage is reached, water will soon be able to flow into the well of wax through a breach in the dwindling 'hull' of the candle boat, and the flame will be extinguished.

'Archimedes' Candle' has a handy use as a safe night-light. If the 'light' is accidentally knocked over, the tumbler full of water will be spilt, thus preventing any possibility of a dangerous conflagration, and the flame will neatly extinguish itself when its vigil is ended.



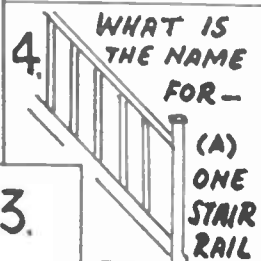
TWO-MINUTE QUIZ ^{by} Ed. Copper

1. NAME ORNAMENTAL BLOCKS CONCEALING TILE ENDS

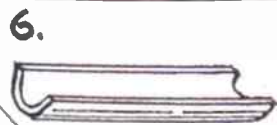


2. JUST what IS meant BY Aggregate?

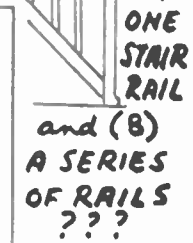
4. WHAT IS THE NAME FOR—
(A) ONE STAIR RAIL
and (B) A SERIES OF RAILS ???



5. NAME THE TYPE OF DRAIN PIPE
6. DECIPHERED, THIS MEANS A NARROW STRIP OF WOOD



3. NAME BOARDS FRONTING RAFTER ENDS IN ATTIC



7. What is Cathedral Glass?

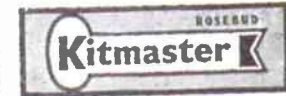
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An Aircraft Landing Strip

LANDING a plane successfully is an operation which calls for skill and judgment on the part of the pilot. A model landing strip or aircraft carrier on which solid model planes can be landed by means of a linen thread makes a game which also calls for skill in operation.

By A. Liston

All that is required is a long pole, a piece of hardboard about 2 ft. by 1 ft., and a length of linen thread. A 3 in. high wooden tower is screwed to one end of the hardboard runway, and one end of the linen thread, which can be as long as the space available, is screwed to an eye or nail on the top of the tower. The other end of the line is attached to the top of the pole, as shown in Fig. 1, or some other high object.

The planes themselves can be of the type made up from kits, or simple models can be made as shown in Fig. 2. A 4 in. length of $\frac{3}{8}$ in. by $\frac{3}{8}$ in. stripwood is rounded off for the fuselage, and 6 in. wings of $\frac{1}{2}$ in. thick wood are screwed in place. The tail plane, also of $\frac{1}{2}$ in. wood, is glued in as shown, and the rear of the fuselage is slotted to take the tail fin. The wheels are metal curtain runners on bent wire legs, which are inserted in the fuselage, and the engines are lengths of $\frac{3}{8}$ in. dowel rod, slotted into the wings. A hook is screwed into the top of the fuselage at the point of balance.

The runway can be moved to various positions, but there should always be just enough slack in the line for the plane to make its approach run and touch down at the end of the runway.

An alternative version is to make an aircraft carrier instead of a runway. This is simply a rectangle of hardboard screwed to a block of wood, which has been tapered at each end to a simple hull shape, and given upperworks of $\frac{3}{8}$ in. by $\frac{3}{8}$ in. stripwood. The lower end of the line is attached in this case to a 4 in. length of stiff wire at the forward end of the flight deck. The size of the carrier depends on the materials available, but the wing span of the plane should be less than the width of the flight deck after the upperworks are in place.

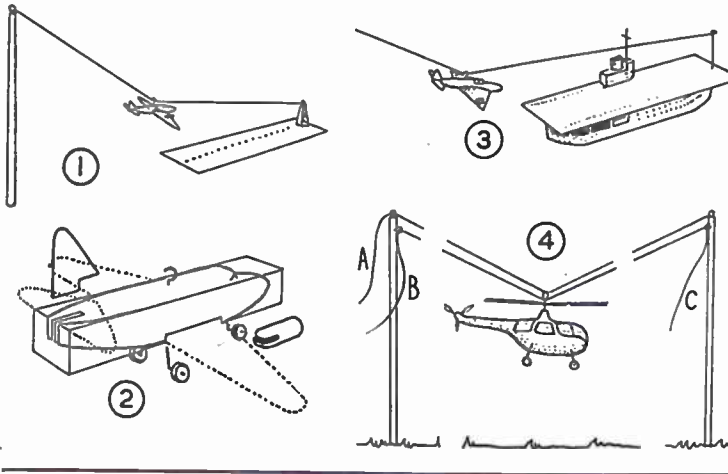
A model helicopter, made from a kit or cut from a 6 in. length of 1 in. by 2 in. wood in the shape shown in Fig. 4, can be operated in conjunction with a model

army by means of lines. The rotor is of tinplate or $\frac{1}{2}$ in. thick wood, and revolves on a shaft of stiff wire terminating in a hook.

Line A, which is tied to a pole at one end only, controls the altitude of the plane: lines B and C, which are each tied to the rotor shaft of the plane,

control movement to the left and right. Realistic 'flights' can be simulated after the knack of handling all three control lines simultaneously has been mastered.

All these models look best finished off in plastic emulsion paint, grey being the most suitable colour for the runway and aircraft carrier.



First Aid for Knives

TABLE knives having plastic or ivory handles should never be fully submerged in hot washing up water. This practice causes the cement or adhesive holding the handles in position to loosen their bond, with the result the handles eventually become loose.

Although this piece of advice is fairly well known it is surprising the large number of people who completely ignore it and later are annoyed because handles have become loose. If you have a table knife in such a state then don't discard it as being useless. A little first aid is all that is necessary to refix the handle securely again.

Remove the loose handle completely from the blade. If the handle does not come away easily by pulling then dip it into some hot water for a while.

The tang (the part of the blade which enters into the handle) and the handle should then be cleaned to remove every particle of the old adhesive or cementing compound. To clean the tang either scrape it with an old knife or dip it into hot water. For the handle, however, the best method is to push a hot steel knitting

needle (not red hot) up the hole in the handle, but take care not to scorch or mark the outer part of the handle.

To refix the tang in position use a mixture of molten resin and Plaster of Paris. Heat a little resin in a tin and shake some of the plaster into it. Stir until a creamy consistency is obtained. Pour this into the hole in the handle. Then heat the tang over a gas flame for a moment (not red hot) and immediately thrust it into the handle, which should be held secure in a vice.

Proprietary cements are also obtainable in small tins and tubes.

Sometimes knife handles become faded and stained and lose their attractiveness. A good tip is to coat them with bright Chinese lacquer and you will have gay knives for use on picnics, etc. (F.K.)

ANSWERS TO QUIZ (see page 42)

1. Antifixae; 2. That part of concrete which is bound together with a cement; matrix; 3. Ashlaring; 4. (a) Baluster; (b) Balustrade; 5. Batten; 6. Channel Pipe; 7. Translucent pebble glass.

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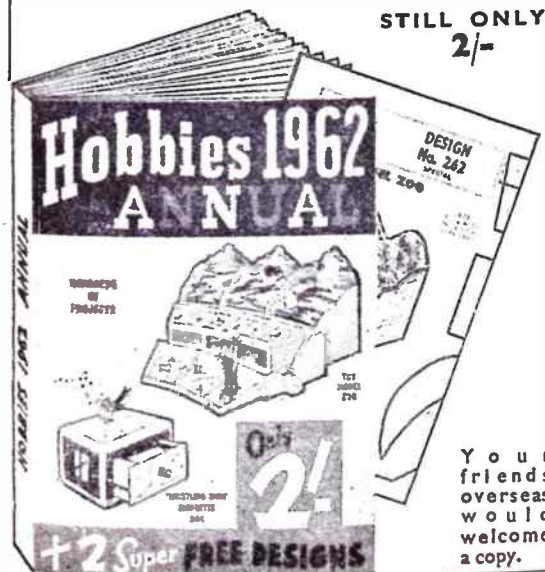
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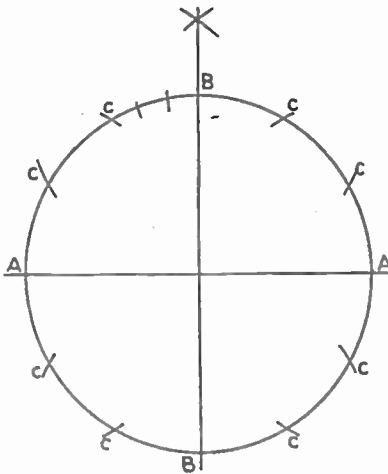
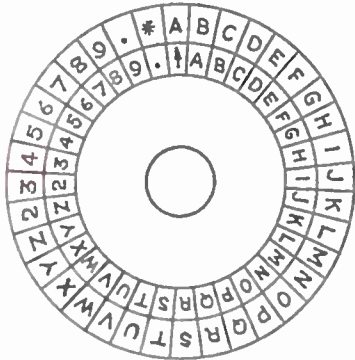
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SECRET CODE COMPUTER

MOST of us have at some time or another enjoyed the thrill of receiving a message from a friend written in code, and then in sending a reply either in the same code or else a new one.

By A. F. Taylor

The usual trouble with secret codes is in having to work out a new one and letting your friend have a copy whenever you wish to change it. With the aid of this secret code computer, however, it can be changed instantly at the touch of a finger. And this can be done 36 times, giving a different code each time. More-



over, by fitting another circle to the gadget it is possible to double the number of changes that are available.

Stout white cardboard will be the easiest and quickest material to use. It will stand up to a fair amount of use, but a more robust job can be made in either thin plywood or sheet metal, with the addition of a piece of white paper glued on to set out the code in a legible manner.

The large circle is 4 in. in diameter. The one on top of this is $3\frac{1}{2}$ in., with a small disc of 1 in. as a protection for the centre pivot wire. Marking out must be

done carefully so that both circles correspond exactly when they are moved round. Each circle is divided into 36 equal parts and the illustration shows how to do it accurately. Draw a line across the centre of the large circle (AA) and bisect this to give a quarter division (BB).

Now with a compass opened to the radius of the circle, and placed in turn at A A B B make a further eight points as shown at C. The distance between each division is 1 in. so it is therefore easy to further divide these into three, making thirty-six divisions in all.

Pin the two larger circles and the small top disc together with a piece of wire at the centre. Bend the wire over, curl each end round as shown and stick a piece of cellulose tape on to hold the wire secure. Draw in the dividing lines from each point on the circumference towards the centre on both the large cards.

Making up the codes must be left to your judgment. In the sketch both circles are marked out exactly the same, but those on the larger circle may be arranged in any order. Try putting them backwards or all jumbled up.

Various symbols, such as circles, angles, crescents, etc., may be used instead of letters and figures to give variety to the code. The arrow on the top circle (inner readings) indicates the code being used. If, for instance, you start your message with an arrow followed by the letter K it means that you have set the arrow on your code computer to point K on the outer circle. Therefore when your friend receives the message he will set his computer the same and he will then be able to decipher the message.

How to Remove old Picture Rails

ALTHOUGH it is not common to have picture rails on the walls of modern houses they are frequently found in the older types of property. When moving into houses where there are picture rails most people make a point of having them removed before re-decorating the walls and this is a job which the home handyman can carry out.

When removing picture rails it is important to remember not to use a claw hammer or chisel to prise the moulding from the wall. This practice invariably results in the hammer or chisel being

squeezed into the plaster, causing it to break away and leave large holes. This only leads to excessive patching up afterwards.

One method of removing picture rails is to locate the nails and punch them deeper into the moulding, which in most cases is not very thick. If this is possible then you will find that the rails will come away quite easily, leaving the nails in the wall protruding only a short distance. It is then a simple matter to extract them with a claw hammer because the bond between the nails and the plugs will be broken. Remember, however, to lay a

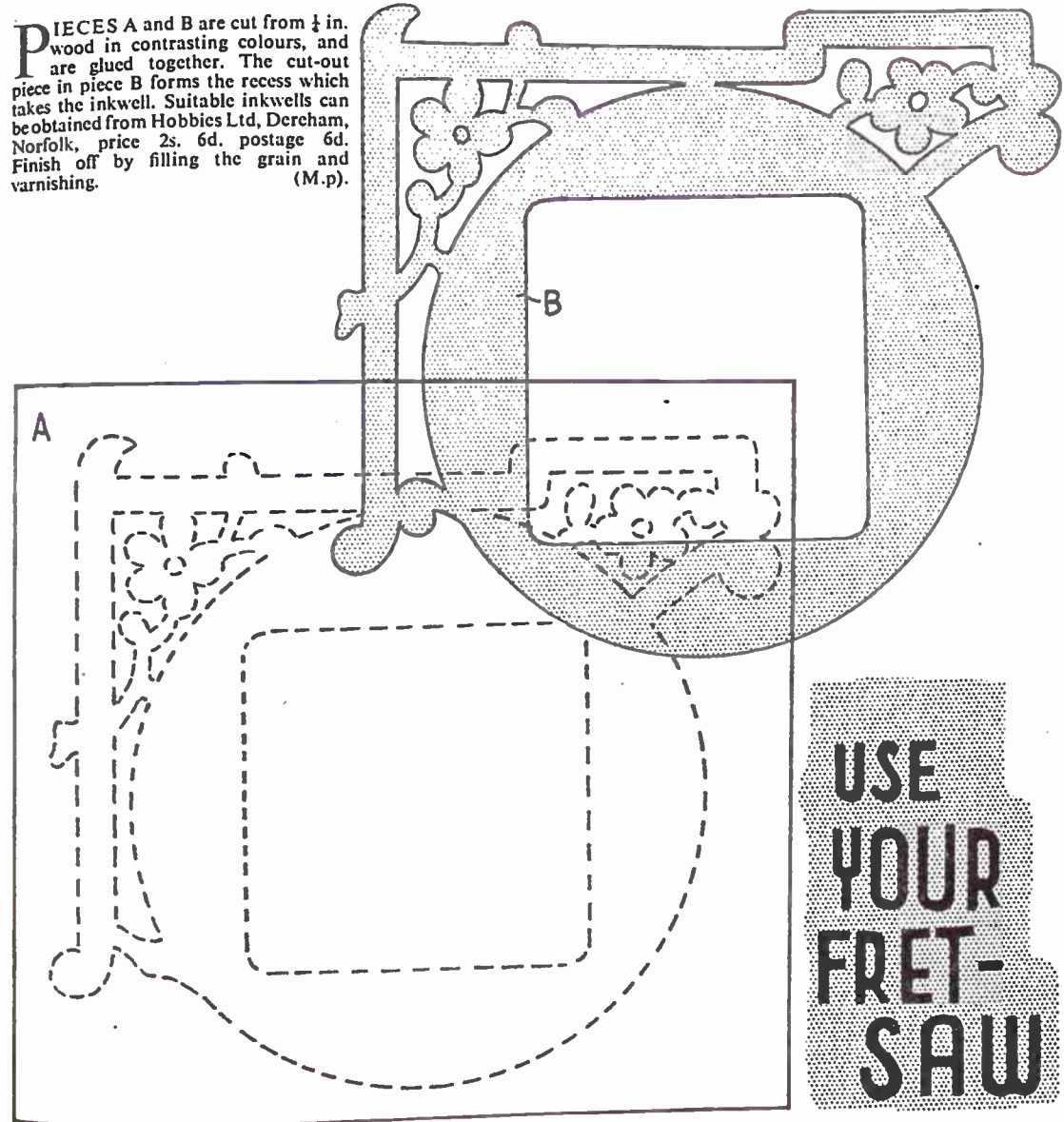
piece of sheet metal (a flat wood scraper is ideal) on the face of the wall to prevent the hammer head digging into the plaster.

If you find that only some of the nails can be located then an alternative method is to split the picture rails along the line of the fixing nails.

Although this method may appear wasteful at first there is really not much use for the old picture rail moulding even if you should be able to remove it intact. Once the rail is split away the nails will be left protruding, but before extracting them it is a good idea to hammer them into the plugs a little in order to break their bond. You will find that this will enable them to be removed much more easily. (F.K.)

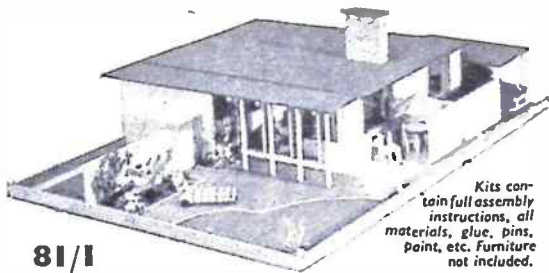
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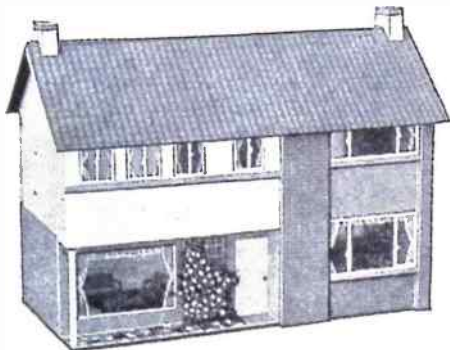
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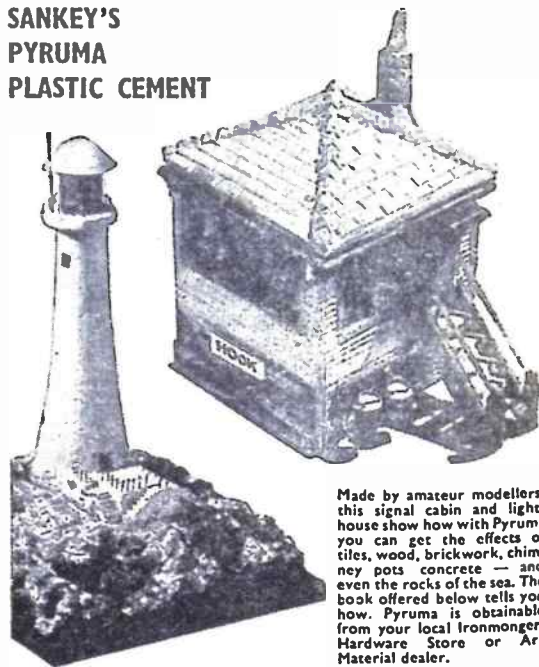
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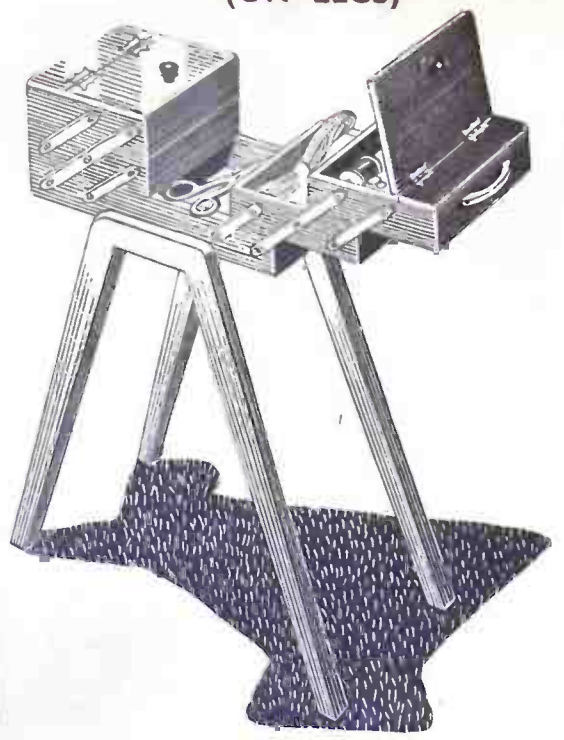
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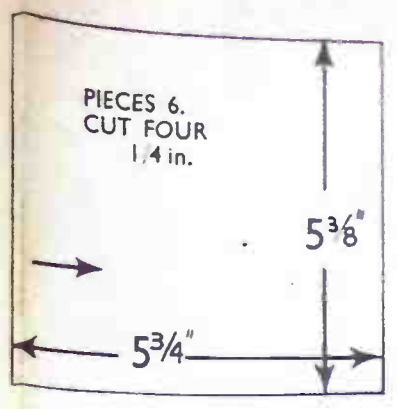
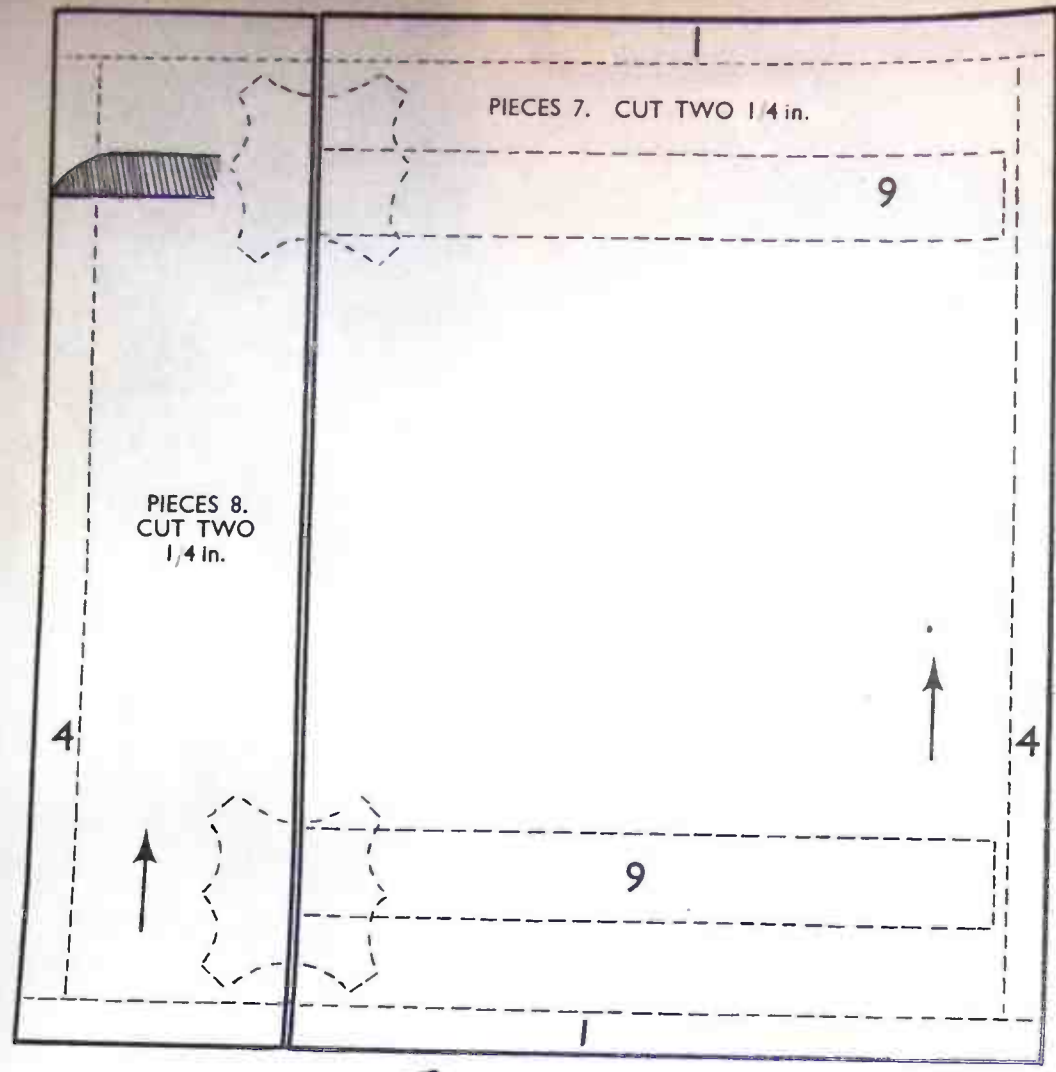
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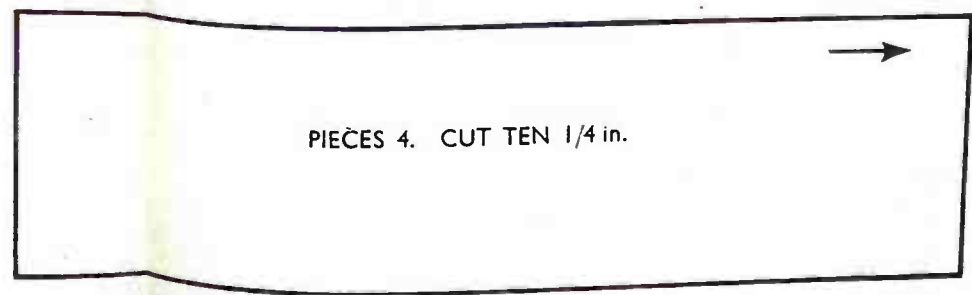
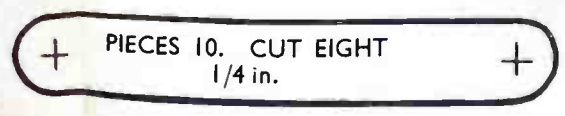
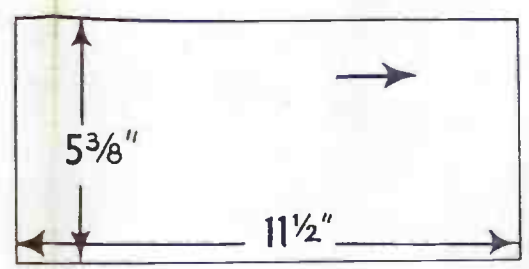
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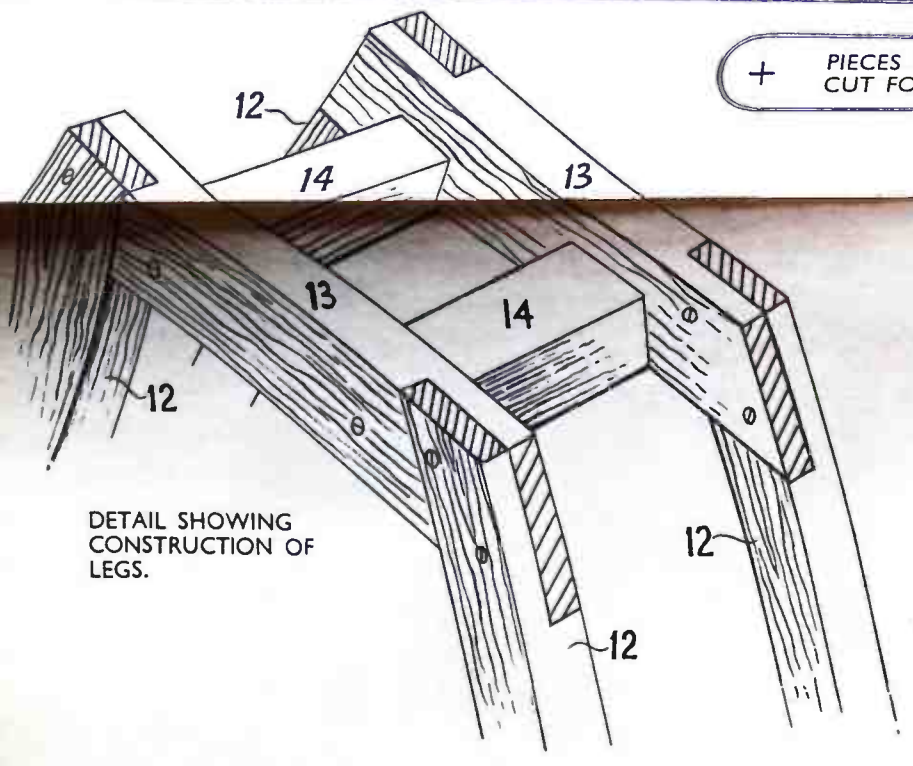
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