

Hobbies

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Patterns provided for making this striking "BRITANNIA" DRAWER

THE patterns, printed on a separate sheet and obtainable from the Editor for 3d. post free, provide the fretworker with a useful little piece of work which he will be able to complete in an hour or two. Only a few odd pieces of wood are required $\frac{3}{8}$ in. and $\frac{3}{16}$ in. thick with one piece of $\frac{1}{16}$ in.

The result is a striking figure of Britannia overlaid on an elliptical background and standing upon a useful little drawer.

The actual construction of the drawer is shown in the detail herewith and this is fitted between two shelves and two sides which are in turn fixed into the back. The cutting is quite straightforward and the patterns can be either pasted to the wood or traced out through carbon or on tracing paper.

Cutting Thin Wood

It is advisable, however, to paste the pattern down of Britannia in order to save a lot of drawing and to ensure accuracy in detail. This figure is actually on $\frac{1}{16}$ in. wood, but such thin material is apt to be broken unless supported by another board.

A good plan, therefore, is to paste the pattern to a piece of $\frac{3}{8}$ in. wood then nail this to the $\frac{1}{16}$ in. piece beneath it. The thin $\frac{3}{8}$ in. or $\frac{1}{2}$ in. fret nails are suitable. The points will protrude beyond the back and are then turned over to grip the two pieces of wood firmly during the cutting operations. These nails must be driven in at

various points round the outside of the pattern, and that edge is the last one cut. By undertaking the interior cutting first you have a substantial piece of wood to operate on with less likelihood of damaging than if you used the $\frac{1}{16}$ in. piece alone.



When the interior work is completed the outline is cut round so releasing the two boards nailed together. In this way you have the complete design in the $\frac{1}{16}$ in. material ready, to use apart from a little light rubbing of glasspaper on the back to take away any saw burr.

In papering this do not forget to lay it quite flat and keep the glasspaper on a block of wood so it does not tear up the edges or damage any of the delicate projecting parts.

Hints on Cutting

In using the handframe, too, be very careful to keep the saw upright. If not, you may not get a good pattern on the actual work. The sawcut may be going along the line on the upper piece of wood—the $\frac{3}{8}$ in. part—but if it is not upright you will find the design on the under piece of wood—the $\frac{1}{16}$ in. piece—to be quite different.

The long narrow frets are cut by getting a very fine drill hole and a fairly coarse saw. Put the drill hole where it will not be seen and do not have it thicker than the cut line.

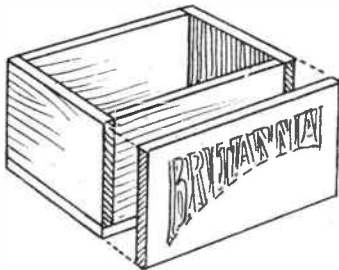
If you do not think you can get these feature lines satisfactory a better plan is probably to cut them into the wood with a V-cutting tool. This will make a fairly deep recess as you would in carving without going right through.

A Colour Scheme

Another plan is not to fretwork the part at all, but to colour up the figure

with enamels or ordinary paint. Get a painted figure of Britannia to copy, and follow this out with the red, white, blue and silver, taking care to let each colour dry before the adjoining one is added.

The only other actual interior work to be undertaken is the word "Britannia" on the front of the drawer. As



Details of drawer construction

this is in 3/16in. wood, however, there is no need to nail it to another piece. Cut the lettering carefully and run a pencil line along the top and bottom of the letters first as a guide. This will ensure the continu-

ity of the edge of the letters. This part, by the way, when it is glued in place, can be backed up with a piece of silver paper or bright material which will serve to make the lettering stand out more strongly.

Another suggestion is to paint the lettering Britannia in silver or gold, doing the inside edges first. This must be undertaken before being glued on.

So far as the general construction is concerned, you first have to cut out the back with its two tenons AA then cut and fix the top and floor in the horizontal position. Between this, slightly inwards from the ends, come the two sides, but before fixing these it is as well to complete the drawer itself.

This drawer is made as shown in the detail, as an open box to which the fretted front is later added. Glue the upright sides to the floor and test them out with the square and rule to ensure that all parts are upright and correctly distanced. This drawer must be quite true in construction, otherwise it will not slide in and out.

Now you can place it between the top and floor fixed into the back. That will give you the position in which the two sides have to be glued on. These sides should come close between the top and the floor, and are there glued in place with a strengthening nail or screw driven in from behind if necessary.

The drawer will slide better, by the way, if you rub the corners and underside with graphite from a lead pencil.

Beneath the floor is a little upright bracket which fits into the right-angle of the back and underside. This will help to square up the whole thing, and should fit snugly and centrally where shown by the dotted lines on the pattern parts.

The position of the fretted overlay of Britannia is also shown by dotted lines on the pattern of the back, but if these have been cleaned off you can easily see where it comes by reference to the picture herewith of the finished article.

Finally, add a small knob to the front of the drawer.

HOW TO USE IT... PLIERS AND COUNTERSINKS

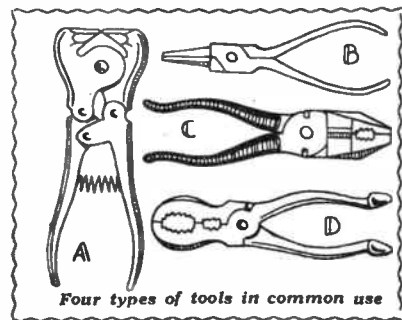
WHO doesn't know how to use a pair of pliers? Still, as with nippers, there are a few points about pliers worth touching upon.

If you are buying pliers, you should invest in a good implement.

Consider, too, the kind of pliers you need, for there are several shapes. That shown at A is used mostly for cutting wire netting and general light, similar work, the cutters being at the top; owing to the shape, great leverage is obtained at the minimum of pressure on the handles.

The Long Variety

The long, round-nosed pliers at B are used mainly by radio engineers and tinsmiths. Some have side



Four types of tools in common use

cutters, with half-round noses. Then we have insulated, wire-cutting pliers at C which are suitable for wiremen, electricians and general purposes, the handles withstanding 5,000 volts.

The pliers at D are known as "gas pliers" and are, as the name implies, used mainly by plumbers and all those who work with pipes. The jaws have two sets of teeth to take standard piping and a wire-cutting slot is provided; they are obtainable 6ins., 7ins., and 8ins. long.

For General Use.

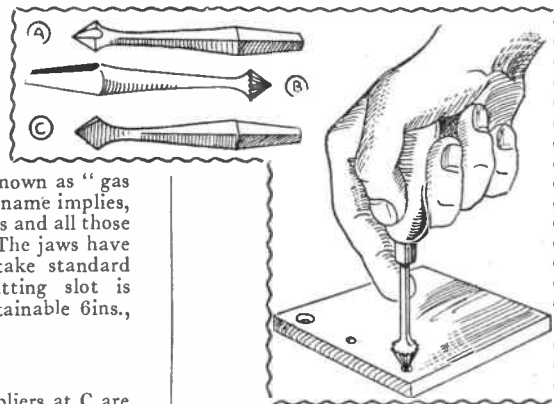
For general use, the pliers at C are the best and strongest. The jaws are suitable for holding small piping, for slackening and tightening nuts, for cutting wire, bending tin, and apart from the side cutters, there are two wire-cutting slots.

These slots enable you to cut wire squarely and without putting a "kink" in it. This is apt to happen when you cut heavy wire.

By the way, when using pliers, always keep the small finger of the right hand over one of the handles. This finger is used when you wish to open the jaws of the implement, or you could use the third finger; few "general purpose" pliers are fitted with a spring as with those at A.

THE countersink is a bit for recessing the tops of holes for flathead and raised-head screws so that the heads screw in flush, or slightly beneath, the surface of the wood.

We show three types of countersink bits, that at A being a snail-horn by name; it is used in countersinking holes in soft wood and must be kept



sharp with a rat-tail file and an oilstone slip, otherwise it will not "cut" properly.

The rose head bit (B) is used for countersinking hard wood and soft metals. It is sharpened with a flat file or triangular file. This bit "rasps" the wood or metal.

It should be confined to countersinking wood, however, as there is a special countersink bit for metals, this being flat and pointed at the end, with two sharp side edges serving as cutters. This bit is shown at C.

The bits are fitted in the chuck of a brace and the countersinking done in an upright manner, except in the case where a hole is drilled on a slope. After making a start, the brace is held at the same angle.

The metal countersink bit is best sharpened on a grindstone. The temper is usually hard—about the same as a file so that such an implement has no effect upon it.

It is possible to make such a bit from an old snail-horn or rose-head countersink, the heads being ground flat, then the edges sharpened.

Another of our small ship series with patterns is for a MINIATURE MODEL BRIG

WE are telling our model makers this week how to make a Naval Brig—a type of vessel that was common in the early nineteenth century. Our particular design here is of the “Fantome,” a brig which was launched at Chatham in 1839. This vessel carried four 32 pounder guns and twelve 32 pounder cannonades, and her complement was 130 men.

Such a ship as this makes a very interesting model, and it must be admitted that her lines are graceful and attractive. We are showing on a separate sheet all the full-size details necessary for making the hull complete with deck and bulwarks, and for the main sails. The Sheet is obtainable from the Editor for 3d. post free.

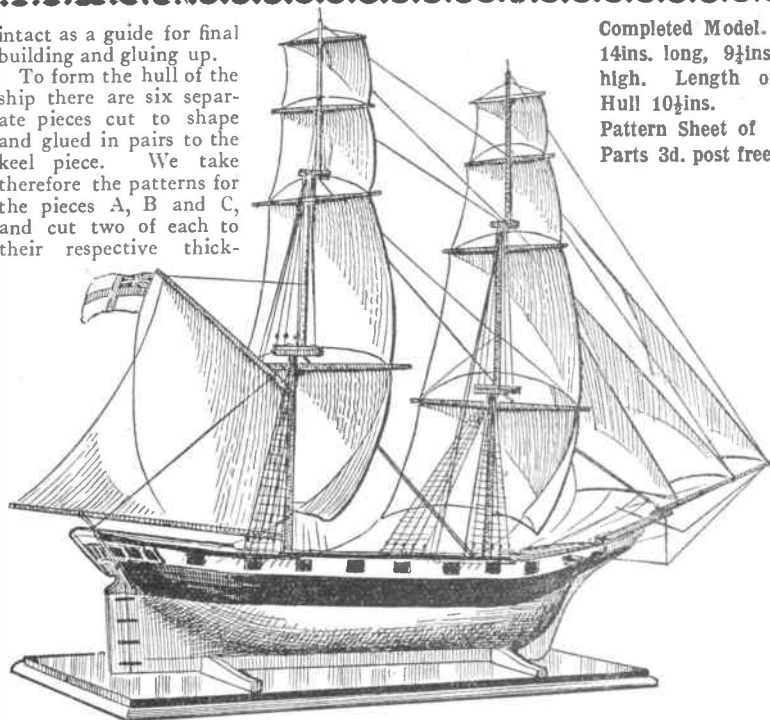
Sails to Draw

Those sails, however, at the fore part of the ship and connected to the bowsprit, are not shown, as space does not permit of their being included with the rest of the sails. The size and proportion of these jib sails, however, can be easily scaled off from the side view of the ship Fig. 1, which figure also gives the positions of all the spars and ropes.

In commencing to make the model, cut out the keel piece accurately from 3/16in. wood. It is suggested here that the outlines of all the parts which have to be cut with the fretsaw and those also which will be afterwards shaped, should be transferred to the wood by means of carbon paper so that the patterns may be preserved

intact as a guide for final building and gluing up.

To form the hull of the ship there are six separate pieces cut to shape and glued in pairs to the keel piece. We take therefore the patterns for the pieces A, B and C, and cut two of each to their respective thick-



Completed Model.
14ins. long, 9½ins.
high. Length of
Hull 10½ins.
Pattern Sheet of
Parts 3d. post free.

nesses, and roughly shape them to the hatched section shown on each piece.

When this has been done, each piece will be glued to the keel piece, according to the dotted lines shown on that part and the final careful trimming and shaping put in hand. The section amidships of the hull, etc., is shown here in Fig. 2, and this forms a helpful guide for the worker in showing the position of all the

necessary parts of the hull.

The Bulwarks

The upper sides or bulwarks of the ship are shown in outline on the pattern sheet. Two of these are to cut out and glued to the hull pieces as diagram Fig. 3. The small blocks—pieces (D) on the sheet, are glued to the deck and to the upper sides to hold the latter together strongly at the bows.

At the stern of the ship the upper sides are held similarly by the stern blocks (E). Fig. 4 shows how the stern shaping is done before the upper sides are attached or the stern board cut and glued in place. The dotted lines on the diagram of this stern board indicate where the upper sides butt on.

Rudder Fixing

The hinge plates of the rudder may be simply put in with indian ink or they may be better represented by sticking on little slips of thin card. In finishing off the hull of the ship, use coarse and fine glasspaper freely, and above all see that each side is identical in actual outline.

As a means of getting the hull shaping accurate each side, cardboard templates may be cut and placed against the work as it proceeds.

Such a template is shown in Fig. 4, and it would be well to make, say, three of these. One is to be used at

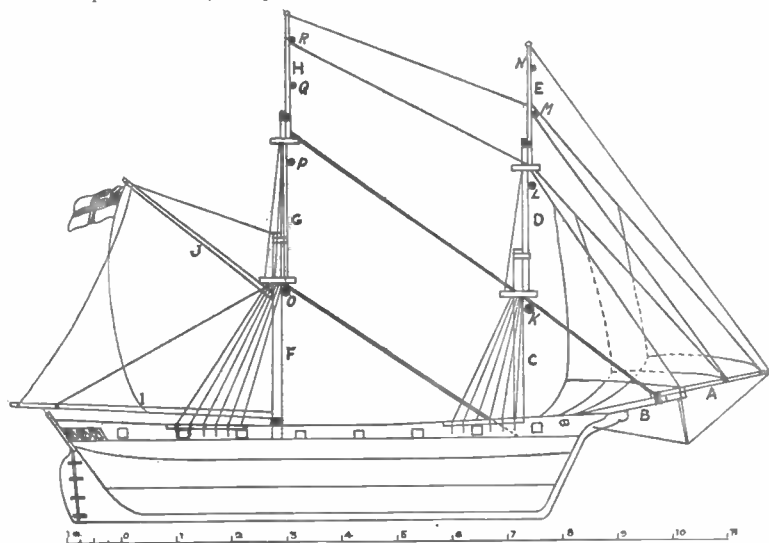


Fig. 1—Scale drawing of hull, sails, etc.

about 1½ ins. from the bow of the ship, another used amidships and the third at about 1½ ins. to 2 ins. from the stern.

The Masts

Having set out the positions of the masts on the deck, proceed to make them to the lengths and diameter here given. Mast (C) is 3½ ins. long, 3/16 in. diam.; (D) 2½ ins. long, ¼ in. diam. and the top-mast (E) 2¼ ins. long, also ¼ in. diam. Mast (D) laps over (C) ¼ in. and (E) over (D) ¼ in. For the main mast (F) is 4½ ins. long and 3/16 in. diam. (G) 3½ ins., ¼ in. diam., and the top mast (H) 2½ ins. long and ¼ in. diam.

Each of these masts lap over the other as on the foremast, and at each junction there is a platform cut from thin wood to the shape shown at the top right of the pattern sheet.

When the various masts have been glued up, each junction is bound with

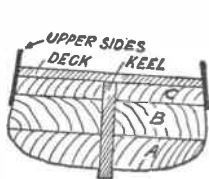


Fig. 2—Section of hull parts

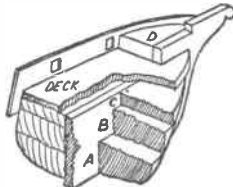


Fig. 3—Constructional details

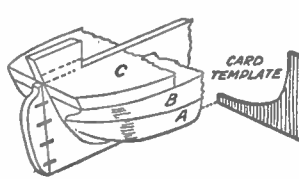


Fig. 4—A shaper for the hull

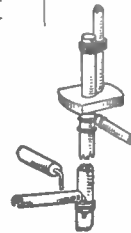


Fig. 5—Mast fixings

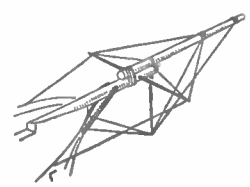


Fig. 6—Details of Bowsprit

fine twine and the whole afterwards coated with thin varnish. In Fig. 5 an idea is given of the platform and junction of the masts, and this shows also how the lower boom of the spanker sail is fastened to the main mast.

The Channels

There are two channels each side of the ship to take the shrouds or ladder ropes leading to the mast platforms. The positions of the channels can be seen from the view Fig. 1, while the actual shape may be traced from the pattern sheet.

If the channels are made from thin wood, care must be taken to bore the holes in them before cutting round to outline to avoid splitting the wood. Glue them in place on the ship's side and lead the ropes of the shrouds through the holes and down to small wire staples driven in the wood.

Make the ladders from thin twine. From Fig. 1 it is plain to see how the ladder ropes are spaced and brought up to the masts, the cross steps being short lengths of the twine spaced off and laid across the upright ropes and the junctions lightly touched with glue or Durafix. The unwanted ends may afterwards be trimmed off with scissors.

The bowsprit construction is shown in Fig. 6. This is made in two lengths, the outer piece (A) being 2¼ ins. long and piece (B) 2½ ins., both being shaped up from ¼ in. round rod. Lap the two together for a length of ¼ in. or so and bind well with fine twine. The whisker spar and the spar underneath can be formed from wire, the

connecting "ropes" being of fine twine fastened on the bow and sides of the ship by means of wire staples.

The patterns for eight of the sails are shown on the sheet. Half only of each one is given for sake of taking off the measurements, and this applies also to the spars which are shown lettered ready for attaching to their respective positions on the masts.

The Spars

First measure off each spar and then cut to length from ¼ in. rod. From the centre of each, taper towards the end as shown and smooth with coarse and fine glass-paper. In Fig. 1 the respective positions of each spar is shown, and after the sails are attached, they may be bound with fine twine and glued also to the masts.

In making the sails, choose either a stiffish white paper or some lamp-

shade parchment paper. Set out each sail as shown, measuring for width from the centre line and allowing ¼ in. or so for gluing round the spar as a strong fixing.

The spanker sail may be scaled off for size, and the spars (I) and (J) made from ¼ in. rod to lengths of 4½ ins. and 3½ ins. respectively. The jib sails may also be drawn out to scale and glued neatly to the ropes fastened to the bowsprit and led up to the mast and tied neatly. The 'Bitt' to which is fastened certain rope ends is glued to the deck just to the rear of the foremast. This, like the deck, should be painted buff colour.

It should be mentioned that if the deck is to be lined to represent boarding, this work should be done, of course, before mast and sails are added.

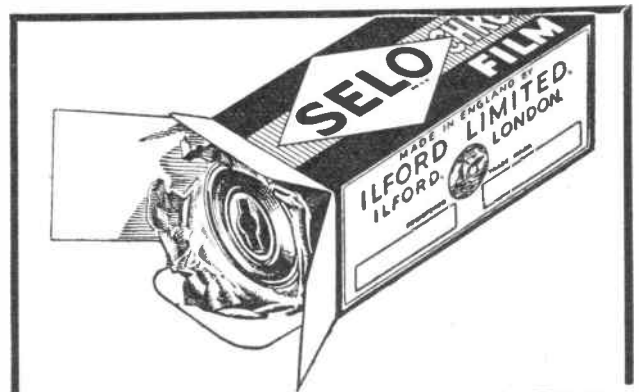
The lower part of the hull and the keel board should be painted buff colour, while the top part above the waterline and the bulwarks should be either black or dark brown with a white band running from bow to stern.

The Gun Ports

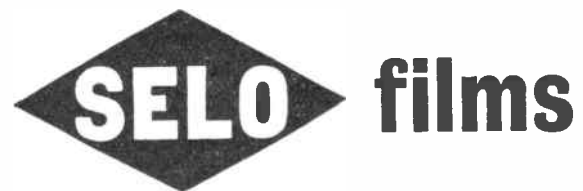
If the gun ports have not been fretted through, they should be painted dark on the white band. Varnish the deck after it has been "lined." This latter process is done with a sharp-pointed hard pencil on the ochre-painted deck.

A base for the model should be made, measuring 12 ins. long by 4 ins. wide. One piece of ¼ in. wood to the size given, with 1 in. wide by ¼ in. thick strips underneath mitred at the corners makes a very sub-

stantial and solid base. It should be either french polished or painted a definite colour to show up the model.



Although there is not enough SELO FILM today to meet the big demand, all available supplies are being distributed through the usual trade channels.



made by ILFORD ILFORD LIMITED, ILFORD, LONDON

Use up those odd pieces in striking designs for SOME WOOD MOSAIC

EVERY user of the fretsaw is, at one time or another, amazed at the quantity of small pieces of waste wood which have to be thrown away. Some workers, indeed, have a box in which these odd pieces are thrown because occasionally they come in useful. We say occasionally because the trouble usually seems to be whenever you want an odd piece of wood you can never find it quite the size and shape or class needed.

How to Start

Then comes the question as to the size of the pieces which shall be kept, when you make up your mind to discard anything under, say, 4ins. square or keep everything over 2ins. square. In any case, if you keep all the odd little pieces, quite an accumulation soon gathers in the box or corner wherever they are kept, and sooner or later one wonders just what to do with them.

Have you ever thought of using them up for mosaic work? This is a pleasing little change of job, and at the same time provides the possibility of making up a number of everyday useful articles without any cost at all beyond the time spent and the odd material such as glue, glass-paper, etc.

Things to Make

The illustrations above show several things which can be made, and a glance also provides the way in which they are brought about. All these little odd pieces about which we have been speaking are cut to certain geometrical shapes, then glued together on a base to form either an article in itself or else a decoration for some other article.

There are, of course, in these geometrical shapes an almost endless variety of angles which can be

obtained, but generally speaking squares, rectangles, triangles and diamonds are the most suitable.

First of all you have to draw out your own design, and those who attend Manual Centres will find a variety of suggestions or can obtain some from their masters. For little things like stands or table mats, the design should not be large, but should be of an all-over pattern.

Edging Parts

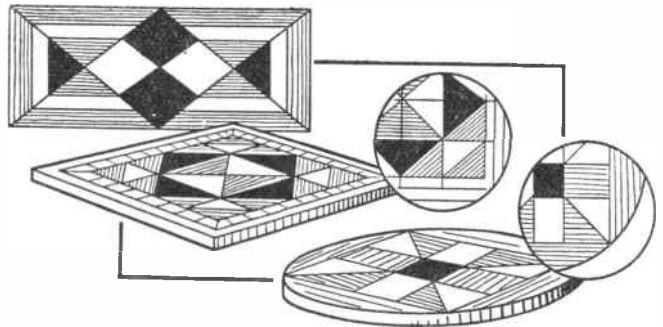
That is, the geometrical design parts should extend over the whole of the work, being accommodated merely round the outside by a strip border to hold them neatly together in a frame. The design should incorporate several pieces the same shape and size, rather than have every one different.

If the whole design is a square it can be cut in four and only one quarter drawn, as shown at A, Fig. 1. On the other hand, if it is a long rectangle a centre line must be drawn to provide a complete half of the design as in B, Fig. 1.

Shapes Needed

There is really no need to complete the whole of the pattern, but note should be made of the parts which are alike in shape. These are plainly shown in the details by the shading, and if, say, there are three pieces similar in a quarter of the design, obviously you will want four times this number to complete the whole thing.

Make a rough list, therefore, of the various numbers and shapes, because



it will be necessary to ensure that you have sufficient odd pieces of wood of the particular type required.

The beauty of this mosaic is from the variety of the grain of the wood used, and as much contrast as possible should be obtained between them. As far as possible the grain should be running one way.

Having settled your design, sort out from the waste pieces, wood of the various varieties from which to cut the parts. All squares should be in, say, mahogany with the triangles in, say, satin walnut and the rectangles in beech or padouk.

Marking the Work

Next you have to mark on to the wood the exact shape and size of the parts required. Get out as many as you can from the same piece, and make quite sure you have measured them up correctly so each one is alike.

In very small pieces of waste wood you will only get perhaps one or two odd parts, whereas in the larger pieces you may get the whole necessary half dozen.

The cutting should be done on a cutting board, and a light tenon saw used if you are not able to cut a dead straight line with the fretsaw. The fretsaw is possibly easier for the

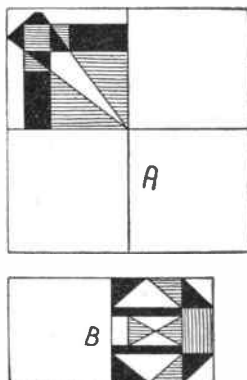


Fig. 1—Two suggestions for mosaic designs

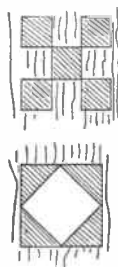


Fig. 2—Simple shape pieces to make patterns

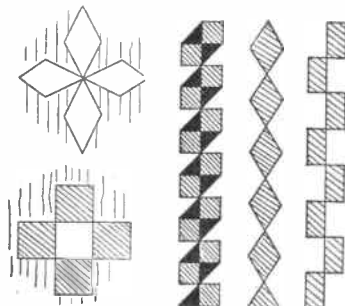


Fig. 3—Strip edging shapes

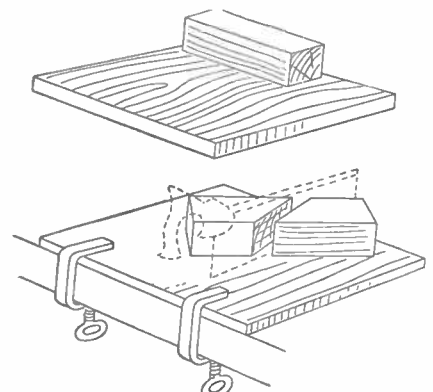


Fig. 4—Two types of useful cutting boards

small work but the essential point is naturally, to keep an upright edge to all the pieces.

When the parts are cut out, lay them together into the required shape after having lightly cleaned up the back to prevent any saw burr allowing them to come together close. Next you want a thin backing piece to hold them firmly. This can be in 1/16in. plywood and should be left larger than the actual design before it is cut down.

Edging Strips

Round the design itself a narrow strip to form a trimming must be provided. This should be cut from material the same thickness as the little mosaic parts, or it can be slightly thicker if one requires to have a raised rim.

These strips are cut at an angle of 45 degrees at each end to form an accurate rightangle when two parts are put together.

Next we come to the gluing. Put the glue fairly thickly on the baseboard so it actually squeezes up between the little parts, or you can put it thinly on to the back of the actual mosaic part and treat the edges with glue which will be next to some adjoining pieces.

Gluing Hints

There is no need to glue every edge but see that all parts are glued together beneath and round. If the glue squeezes out on top it does not matter because this will have to be cleaned up thoroughly afterwards, and it is better to have a firm joint than an air gap where there is an absence of glue between the parts.

Having got the design together, glue on the rim piece forming the frame, then put a piece of thin paper over the whole thing and weight down heavily until the glue is set.

Remember, too, to put a single flat board over the paper so the weight is evenly distributed over the whole design. If only a small piece is put on, some of the parts are apt to stand up instead of being held down.

Finishing Touches

When the glue is set, the waste portion of the backing board which projects beyond the sides is cut away flush with the framework. The top is then thoroughly glasspapered using a coarse grade (No. 1½) first and finishing up with a smooth (OO) to ensure a semi-glossy surface without any scratches or blemishes.

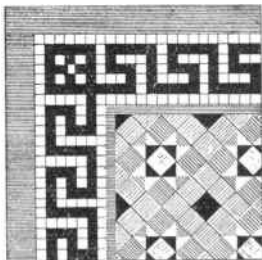
Be sure to use the glasspaper on a block of wood or cork to prevent its edges catching into any of the little parts and pulling them up.

Be sure, too, to keep it flat when you get to the edges, in order to prevent them being tapered down thinner than the rest of the work. If the rim stands above the actual surface it can be left square or slightly rounded down—whichever is preferred.

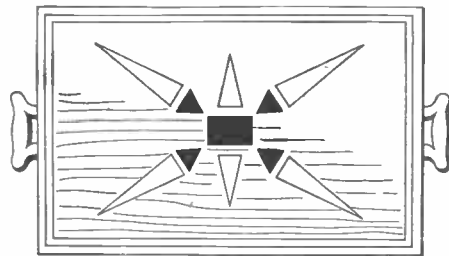
In addition to the actual stands and ornamental pieces which can be made, these small geometrical parts can be used to decorate certain other pieces of furniture. For instance, the plain shapes shown at Fig. 2 are quite simple and suitable for putting on, say, the front of a wardrobe door, sideboard door, or almost any piece of furniture.

Use on Furniture

Here you have, of course, only four or five simple geometrical pieces to cut, and they should not be more than ¼in. or ⅓in. thick or they will look too heavy. Of course, if you wish, a much more elaborate design can be incorporated into some of the



An elaborate geometrical pattern



Odd pieces used to decorate a tray pattern

work, and a really artistic effect can be obtained in this way.

An illustration is shown at Fig. 3 of a design carried out something after the type of marquetry banding where a long strip of work is carried through by a series of small parts.

Geometrical Designs

Where you get a lot of these little parts cut the same shape and size, or where you are going to undertake a considerable number of similar articles, a good plan is to form a little cutting table and fence. Have a fairly thick board and to one end of it glue an even thicker piece of wood to form a stop.

The whole of this board is cramped to your worktable by a couple of Hobbies light steel cramps then by pressing the wood to be cut against the fence or stop at the back, your saw can cut true.

Two or three of these simple boards can be made as shown in Fig. 4, the stop at the back being cut to

whatever angle is required in the actual work. One of them is shown in the picture at an angle of 45 degrees, so the tenon saw in cutting as indicated by the dotted lines, will take off the part at the same angle every time.

The guide forming the saw-cut is glued accurately and

provides just enough room for the saw to pass between. These completed stands can be finished off with stain and polish or varnish.

You can, of course, polish the stand without applying any stain first; indeed, if you have a variety of wood this is probably the better way.

Polish or Varnish

The edging can be treated with Eggshell Black which serves to bring up in greater relief the interior surface. The whole of the backboard and edges, too, can be treated with black, whilst the addition of four little round toes on the underside at each corner will complete any

stand to be used for a teapot.

Table Mats

If the work is being done for table mats, nothing thicker than ¼in. wood should be used, and this is glued to the usual 1/16in. backing. If the table mats are for large dishes—that is, anything over 6ins. square—a thicker backboard should be put on (¼in. is sufficient) to make the whole thing firm and rigid.

Here then, is an excellent method of using up all those little odd waste pieces, and provides another pastime which should prove a source of profit to the capable and ingenious craftsman.

Look out for a Model Locomotive Design Sheet shortly

—YOURS ?—

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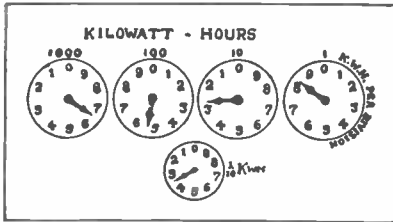
WINDSOR STAMP CO. (Dept. 12), UCKFIELD, SUSSEX

A Craftsman's Notebook

Read Your Own Meter

It is useful to know how to read your electric meter and be able to calculate for yourself at any time the quantity and cost of electricity used. A specimen meter is illustrated here. Five dials—four large and one small—are shown, though yours may have an extra dial marked 10,000 at the extreme left.

The small dial, which is sometimes red instead of black, registers tenths of a



unit and may be disregarded as it is used mainly for testing purposes.

The reading we require is taken from the large dials, and it will be noticed that the hands on adjacent dials turn in opposite directions—that is, the first and third anti-clockwise, the second and fourth clockwise. These dials register units, tens, hundreds, and thousands of units (kilowatt hours).

Start at the left and read each dial in turn. If the hand is between two figures take the smaller figure. If the hand is directly on a figure again take the smaller figure unless the hand on the next dial to the right has passed the 0 mark. It will be seen that the reading on the meter in the diagram is 6,528 units.

This reading gives the total number of units consumed. Hanging near the meter is a card on which the electric light official puts down the reading each time he takes it, the new reading being subtracted from the previous total to find the amount used during the current quarter.

For example, suppose the last reading entered on your card is 6,642 and the present reading is 6,528. The difference in this case is 114 units and this is the amount you are charged for. Knowing what your local charge per unit is you can then calculate the cost.

Exit Cigarette Cards

WHAT a life of ups and downs cigarette cards have had" was a thought that occurred to me the other day when packing my collection away for the duration. It is little more than fifty years since they originated—not in their present at-

tractive form, but as blank stiffeners for the flimsy paper packets—yet they have already had to be discontinued twice.

The first time was in 1917, and they did not appear again till 1922. Since then well over a hundred thousand collectors have taken up cartophilia as a serious hobby. The second occasion was, of course, last December.

A collector I know made a rough estimate that the quantity of card used in this way must amount to twenty thousand tons yearly—a good saving of material in war-time, but good for industry, and hobbyists too, in peace-time.

Looking through my cards it seemed to me that almost everything has been covered, natural history, cycling, pottery, even the construction of railway trains. Different ideas have been tried from time to time.

In some sets, including "Birds' Eggs" and "Children of all Nations" the picture is partly cut out so that it can be raised up from the base, and in a few series the picture can be moistened and transferred to another support. We all know the more recent pre-war fashion for adhesive backs. Another thing I noticed was that the cards have been thinner during recent years.

Many cards issued at the very beginning fetch good prices; but even in my own modest collection, which dates back only fifteen or so years, I have cards like "Merchant Ships of the World" which are now worth

more than ten shillings a set, provided they are in spotless condition.

I can let you know where you can still obtain complete sets or even odd cards if you still collect or would like to have them.

Use for Milk Cartons

THE cartons in which milk is often delivered can be made into attractive containers for spills or tapers. One or two such boxes are always useful in the house, particularly so at the present time when we use spills to save our matches.

The carton tapers towards the bottom, and to avoid a top-heavy appearance it is turned the other way up so that it is wide at the base and slightly narrower at the top.

Remove the metal clip which seals the top of the carton, then open both ends carefully. The narrow end which is to be the top of the box, should be trimmed down to within about a quarter of an inch of where it has been folded. The bit that remains should be turned inside and glued down.

At the other end the carton should be cut as necessary and folded down to form a flat bottom. Glue down and finish the bottom off by sticking on a square of cardboard.

Paint the box inside and out with brightly-coloured enamel, and when perfectly dry finish it off round the top edge with a strip of equally bright passe-partout binding.

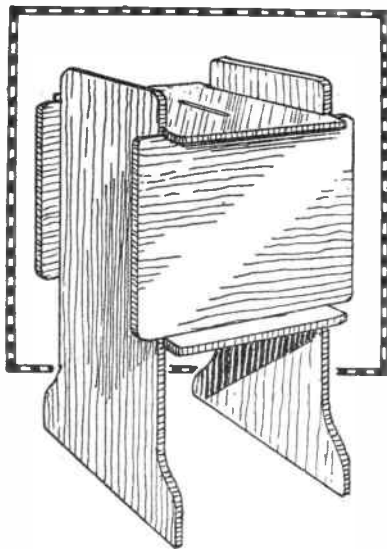
The Craftsman

Model of a Canadian House

WE endeavour to show in these pages what a wide variety of work is undertaken by our readers, because some of the ideas may open a new line of thought to others. Here you have a photograph of a model of a typical Canadian house, raised above ground level, with its verandah in front for that quiet chat in the summer evenings. This particular replica is another instance of the interest by hobbying seagoing folk, for it was made by Petty Officer Instructor Graham. So keen was he for accuracy that he fitted each tile individually and even made all doors and windows to open.



There's a real novelty in making this PUZZLE MONEY BOX



THIS form of puzzle box is an old favourite, not so often seen nowadays. Well made it presents difficulty in opening to those not knowing the secret. It makes a good savings box for a youngster, and a fairly safe one too, provided the owner is ignorant how to open it.

A good point in its favour nowadays is it requires no nails or glue—no hinges and no lock.

The box is composed of six pieces all told, two cut to pattern, Fig. 1, and four to pattern, Fig. 2. Cut the parts from 3/16in. fretwood. Inside lines A and B cut grooves 3/16in. wide and half-way through the wood.

Parts to Fit

Cut these accurately so that the wood fits in them as a close fit, or the box will be rather shaky. In one piece, the top one if you like, cut a slot 1 1/2ins. long for the coins to enter.

The corners of each piece should be nicely rounded to look neat. The ends need not be left plain, but can, if desired, be sawn to any fanciful pattern.

In one box seen by the writer the ends were scalloped, in another a series of half-round indentations were made, apparently with a file.

As constructed, five of the pieces will fit together easily enough, the last piece, which we will call the locking piece, will not however, as experience will show, unless the wood is very thin when it may be sprung in position with pressure from the thumbs.

To help in this a strip is cut out, as seen in Fig. 3. This strip should not be thicker than a full 1/16in. and extend from the centre

of one groove to the centre of the other.

In other words it should be as long as the width of the wood employed, viz., 3ins. It can now be pressed in place with a little trouble.

How to Open

The box is opened by pressing out the locking piece. The remainder will then come apart as easily as it was put together. The box should be finished off a little with a coat of polish, or varnish, according to the wood used.

Readers who may wish to make such a box, but have other thicknesses of wood than those mentioned, can utilise such wood if the following points are noted, and followed. If the distance between the lines A and B should be equal to the width of the wood, plus its thickness. If the grooves should be as wide as the wood is thick. If the strip cut from the locking piece should not be more than half the thickness of the wood.

Varying Sizes

For example, suppose the available wood is 4ins. wide and 1/2in. thick, then the distance A-B will be 4 1/2ins. the grooves 1/2in. wide, and the strip cut out just a shade less than 1/2in.

As designed the box is quite plain, but it can be made more attractive by adding some transfer designs as decoration.

Also, overlays where the reader can make up some simple ones for himself. A neat overlay surrounding the coin slot would be an advantage.

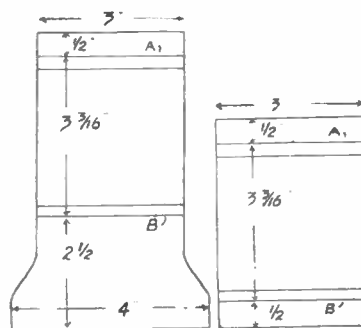


Fig. 1—The long box sides Fig. 2—The short box sides

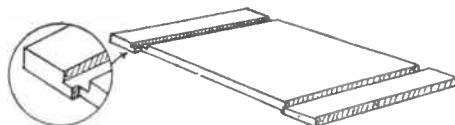


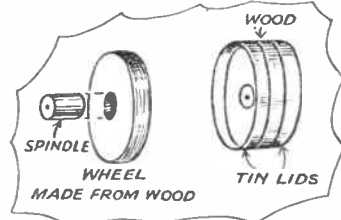
Fig. 3—The puzzle part

Some Useful Hints & Tips

sent in by our readers

Wheels

IHAVE a tip for making wheels for lorries and child's runabouts, etc. First get two lids off two paste jars, and then saw a circular piece of wood.



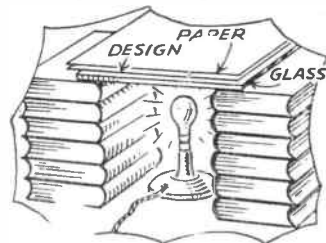
Next cut a piece of wood with a hole through the centre for spindle, then knock one hole through each of the paste jar lids. When finished will look as shown in the picture.—(R. Turner, Horsham).

Suede Renovation

FOR bringing old suede shoes up like new, hold over boiling kettle, steaming shoe all over, after first removing dust from shoe with brush. This also applies to suede gloves and felt hats.—(J. Greenhouse, Havant).

Pattern Duplication

THIS is an easy way to trace designs, etc., through ordinary thick paper. It is done by placing a piece of glass on two piles of books, each about 1ft. high. On top of the glass is put the design and on the



design is put the plain paper, while a table lamp is stood under the glass as shown in the diagram.—(E. Goacher, Guildford).

Glasspaper Block

GET a piece of wood 3/4in. thick and 12ins. to 1 1/8ins. long. From one end make a handle about 3 1/2in. long. Then, 1/2in. from the handle, glue different grades of glasspaper, each about 7ins., on to either side. In the absence of a glasspaper-block, the "file" is very handy. The handle looks very attractive if it is enamelled some bright colour.—(K. P. Bullock, New Moston).