HOBBIES WEEKLY

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IN THIS ISSUE

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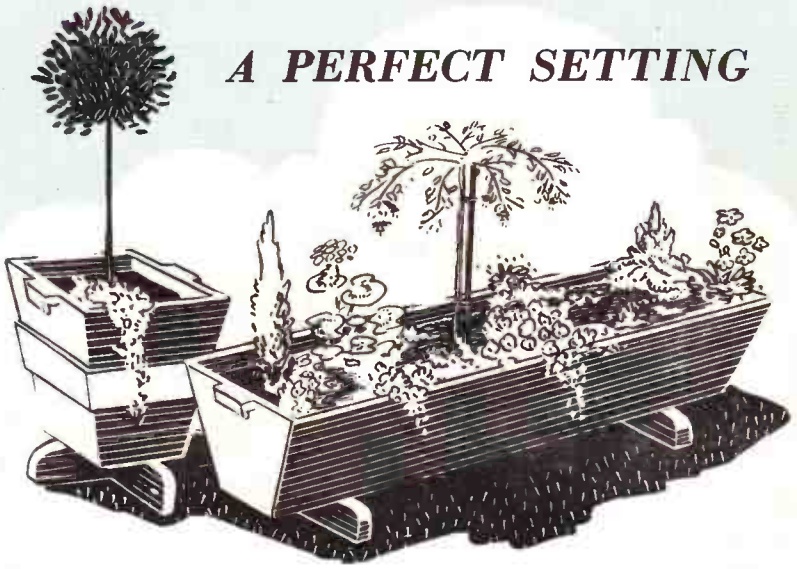
PLANT boxes of the type shown here can be useful and decorative in any garden whether small or large, formal or otherwise. In the formal garden they may be painted white to show off the colours of the plants and flowers. In other settings they can be stained green to blend with the surroundings. In both cases the boxes are provided with handles to facilitate moving.

DIAGRAMS ON NEXT PAGE

During the winter the boxes and tender plants can be moved into a greenhouse or frost proof shed.

The large box, shown in Fig. 1 is constructed from ¾in. wood to the measurements indicated. The length can be altered, but the other measurements can remain the same. This gives plenty of room for large flower pots, or for soil.



A PERFECT SETTING

BOXES FOR PLANTS

A detailed view of the construction is shown in Fig. 2 where it will be seen that the sides can consist of two or more pieces as desired. Cut the pieces to size and then chamfer to fit at the corners and secure with screws or pins. The handles can be made from odd pieces of wood and screwed in place from the inside. Note that the bottom has ½in. holes bored at intervals to facilitate drainage. The feet are cut from 1½in. wood and are screwed to the bottom, again from the inside.

The smaller box is also made from ¾in. wood, with ½in. for the decorative band round the outside (Fig. 3). Chamfer the corners to fit and secure with screws. The feet are halved together (Fig. 4) and fixed with screws from the inside. The height of the box can be increased to 15ins. when used for a permanent

subject such as the bay tree illustrated.

Before painting, the boxes should be given a coat of wood preservative and allowed to dry. Use a good quality outdoor paint, with priming and undercoat according to the maker's instructions and the boxes will always look smart and tidy.

The boxes will hold pots or can be filled with soil. If you are an expert gardener you will use your own mix of soil, but otherwise you can purchase potting soil ready mixed with the correct amount of fertilizer, from your local seedsman. Garden soil may be used, providing it is in good heart. Mix some general fertilizer — say National Growmore — with it to provide the plants with food. Put an inch layer of crocks and stones in the bottom of the box to provide drainage.

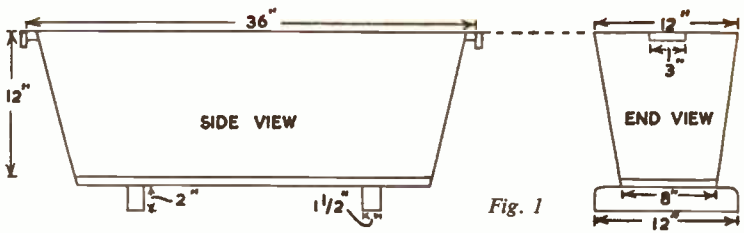


Fig. 1

Many suitable plants can be obtained, which will give a good show for many months. Use standard fuchsias, bay trees, camellias, dwarf evergreens and geraniums for the taller growing kinds. Others to use are trailing lobelia, allysum, annual phlox, verbena, begonias and dwarf french marigolds. (M.h.)

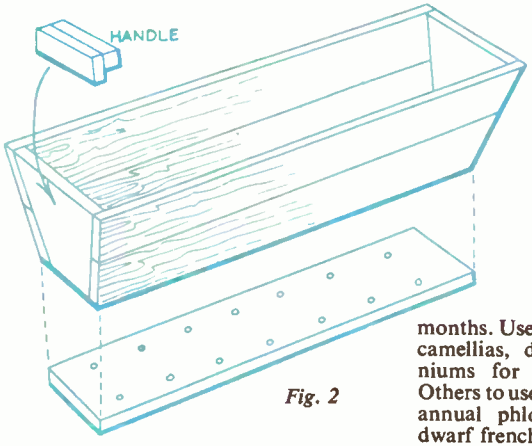


Fig. 2

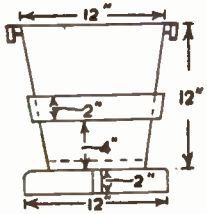


Fig. 3

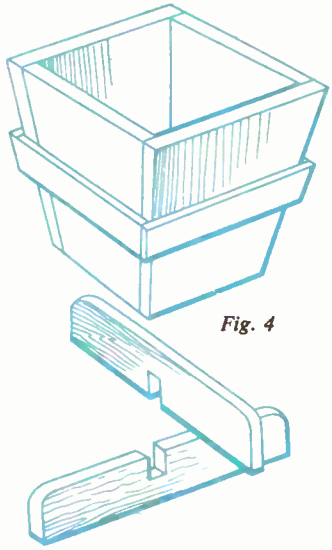
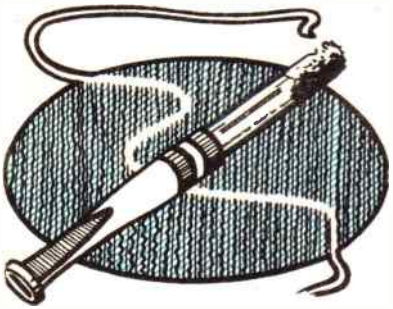


Fig. 4

MAKE CIGARETTE HOLDERS



AFTER a considerable amount of experiment as to which of our garden-grown kinds of wood would be most suitable for making cigarette holders, I have no hesitation in recommending that of the ornamental Philadelphus, often otherwise known as 'Mock Orange' and Syringa.

In every way, the wood of this shrub is ideal for our task. It is hard enough to resist the teeth of the user, yet it is a wood that is easily worked, and is capable of taking a fine polish. It does not burn or char readily and, perhaps, best of all, Nature has endowed it with a natural 'bore' of exactly the right size. In other words, once the pith is pushed out — a job presenting no difficulty — the most difficult part of cigarette-holder making is accomplished.

For the manufacture of the articles, few tools are required, although the appearance of the finished article may greatly vary, according to the taste and the ingenuity of the maker. In the last twenty years I must have made several score of holders, and yet I do not suppose there would be more than two or three the same. My tools are a small hacksaw, a kitchen skewer with a blunted end (used for pushing out the pith after the twigs have been cut to a suitable length), and a small-bladed pocket knife which I keep really sharp. I also have beside me odd pieces of glass for use as scrapers for removing the bark and some sheets of fine glasspaper for final polishing.

Now the Philadelphus is a vigorous grower. Soon after it has become established as a shrub it produces a profusion of long switch-like growths. Cut these in spring (for then the rubbery pith is more easily pushed out after all pieces of convenient diameter have been cut off). In practice, and for normal requirements, pieces about 3ins. long by ¼in. will be found to be the most useful for the standard size of cigarette.

In every case the cigarette holder must be furnished with a 'lip' and the other end will require to have the bore enlarged to allow a cigarette to be inserted for at least ¼in. For these operations I found the small-bladed knife as useful and as rapid as any other tool.

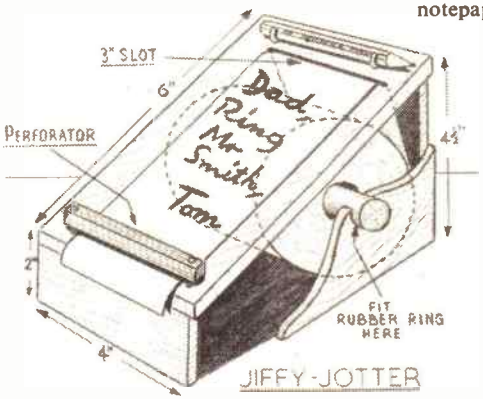
What the finished article will look like will depend on your own ideas. To my mind, the most attractive are those with the bark partly left on the middle part in something of the style of a cherry-wood pipe. But have a look at your local tobacconist's stock of cigarette holders. You will be sure to pick up a few ideas and he may even become a customer of yours. Remember, your holders have not cost much to make — much less than the price of those he has for sale! (M.H.G.)

Economical pads

MAKE A NOTE OF THESE

NEARLY everyone has a use for a note-pad. Mother uses one for her shopping list or to leave instruction for the milkman. Father likes one handy near the telephone. Junior invariably has one at hand when doing his homework.

Stationery is expensive these days. Yet by using a roll of the cheapest wallpaper cut into 2½in. wide sections and enclosing the same in an easily made cabinet, constructed from offcuts found in any workshop, it is possible to produce 870 messages of a 4in. by 2½in. size, and more if you are content with a smaller note. And won't your friends be enthralled by the built-in perforator.



THE JIFFY JOTTER

Make up a bottomless cabinet, with a sloping top, from ¼in. plywood and of the approximate sizes shown. The bottom is omitted for ease in refilling the spools of paper.

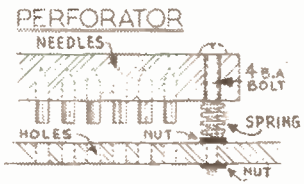
The spindle is ¼in. dowelling, emerging through drilled holes in the cabinet sides. When the spools are loaded they are kept in a working position by the placing of thick rubber bands on their protruding ends. Old tyres from toy motors are admirable.

A roll of wallpaper is approximately 12 yards long by 20ins. wide. Cut it into eight sections by rolling it up very tightly and cutting through with a fine hacksaw. Buy the cheapest paper. You will find this is called 'lining paper' and it also has the advantage of being white on both sides.

Cut a 3in. slot near the top of the sloping piece through which the paper is threaded. Just above the slot fix two small hooks as a pencil rest.

You can now work your note-pad as it is, ripping off the paper as it is used. Much more efficient, however, is to incorporate a perforator.

This is simply made and consists of a 3in. length of ½in. square deal into the underside of which has been driven a row of gramophone needles, spaced as close together as is possible. Keep the protruding ends level. The needles, when their wood housing is pushed down locate into a row of holes drilled through the cabinet sloping top, perforating the notepaper as they pass through.



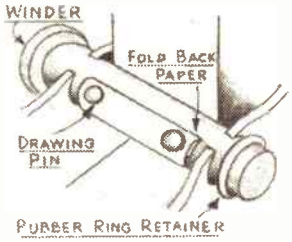
RUBBER RING

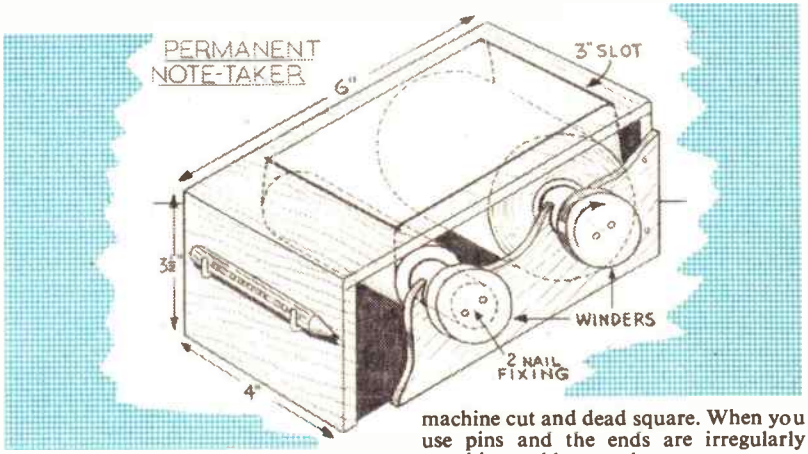
The return action is effected as shown, by a 4 B.A. bolt, which is locked through the sloping piece but traverses freely through the ½in. square plunger. A simple coil spring is fitted between to give the return action. You can make your own spring by winding some tensile wire around something of approximately ⅜in. diameter.

To work the perforator, write your message on the paper, pull it through the perforator, press down the wood plunger and release. Then pull the paper through a little distance to give you room to tear off at the perforation.

You can, if you wish, use pins instead of gramophone needles. Naturally, you will cut off the heads of the pins.

If you find the pins do not release easily from the paper after perforation, stretch a thin rubber band across the gap under the perforator and held around the two coil springs. Fit it so that it stretches just under the level of the pins when they are raised in their static position. This will hold the paper whilst the perforator is rising. Normally, you will not encounter this trouble with gramophone needles as their ends are machine cut and dead square. When you use pins and the ends are irregularly cut this trouble may, however, occur.





PERMANENT NOTE-TAKER

You will find this a useful fitting for taking down the minutes if you are secretary of the local club. It is useful also for any other permanent notes you wish to retain and has the additional advantage that the spool can be wound

● **Continued on page 21**

Constructor's Radio Guide—1

TUNED CIRCUITS

As a result of the interest in radio construction, it is proposed to cover the most important points in a series of articles. These will explain how receiver circuits work, and will also give practical information which can be made use of at once.

By F. G. Rayer

RADIO transmitters broadcast their programmes upon different wavelengths, to avoid interference with other stations. Any particular transmitter can thus be selected by the listener, by tuning his receiver to the correct wavelength. A means of tuning thus has to be used in any receiver, whatever its type. In very simple receivers such as crystal sets, tuning may be effected by using a tapped coil, or a coil with a sliding contact. A suitable number of turns can then be selected for the required station. But when more accurate tuning is required, as in a valve set, other means are employed.

Condenser tuning

Most receivers employ a coil, with variable tuning condenser connected in parallel with it, as in Fig. 1. The condenser has one set of fixed plates, and one set of moving plates, fitted to a spindle. This spindle is turned by a control knob or reduction drive to which a dial, scale, or station-indication pointer is connected. As the spindle is turned to make fixed and moving plates overlap, the condenser capacity increases, thereby causing the coil to resonate, or tune, to a longer wavelength. For the usual medium-wave stations of about 200 to 550 metres, a condenser with a maximum capacity of ·0005μF is normally employed. With it, any station between 200 and 550 metres may be tuned in, without any need to change the number of turns on the coil.

The most efficient type of tuning condenser has air-spaced plates, and is called an 'air dielectric' condenser. Smaller condensers have very thin plates which are separated by thin sheets of mica or other insulating material. These are termed 'solid dielectric' condensers. They work satisfactorily, but are a trifle less efficient than the air dielectric condenser, because the thin insulating material is not such a good insulator as air. It is thus best to use an air-spaced type of condenser, unless space is important. The condenser may have a bush for panel fitting; or feet may be provided so that it can be screwed to a chassis or baseboard.

When condenser and coil are tuned to the station, the signal picked up by the aerial develops a voltage across the coil. The station is then 'tuned in' but it cannot yet be heard, because the signal is an alternating current at radio frequency. To make the signal audible, it has to be 'detected'. Detection is possible with devices which rectify the alternating current — that is, change it into currents flowing in one direction only. Suitable detectors include the old type of crystal and catswhisker; the modern crystal diode (which can be regarded as a fixed crystal and catswhisker detector); a valve; or a transistor. Crystal and diode detectors cannot amplify (that is, make the signal louder) and are thus only used alone when headphones are to be operated. Valves and transistors can amplify, and are used when louder signals (as for working a speaker) are necessary.

Receiver circuit

Fig. 2 shows the tuning coil, with the condenser in parallel, forming the tuned circuit. A crystal detector or diode is added, to permit headphone reception of the signal tuned in. These items (coil, condenser, and detector) form a complete crystal set. Such circuits are popular because there are no running costs, and good headphone volume can be expected, with a reasonably effective aerial and earth.

The waveband tuned by the condenser will depend upon the inductance of the coil, which in turn depends upon the size of the coil. A coil enabling the medium-wave band to be tuned is usually most suitable to begin with, as at least one M.W. B.B.C. transmitter is likely to be fairly near. Tuning coils may be wound on any insulated tube or coil former. Paxolin and ebonite tubes are often used. Cardboard tubes are also satisfactory, as are tubes made by winding glued brown paper or thin card round a suitable object. Card tubes are

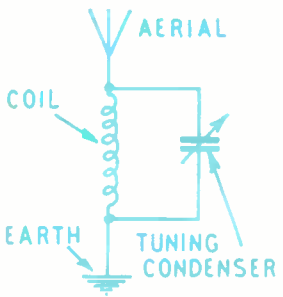


Fig. 1—Tuned circuit

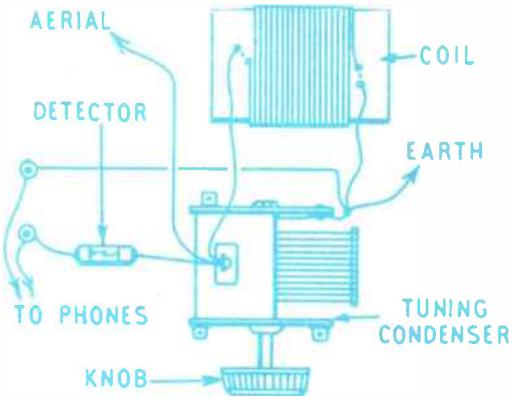


Fig. 2—Tuned circuit with detector

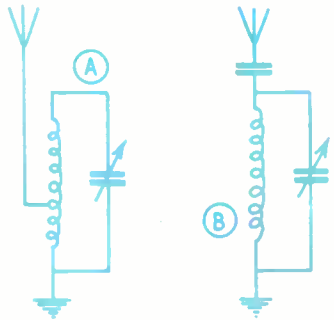


Fig. 3—Aerial coupling arrangements

best varnished, to keep out damp, which would reduce efficiency.

Winding a coil

Though ready-made coils can be used, coils are quite often wound by hand, for simple receivers. A little latitude in the exact diameter of the tube, and in the number of turns, and kind and size of wire, makes no real difference to results. Suitable coils for the M.W. band may be wound as follows:—

Diameter of Tube.	Wire.	Number of Turns.
1in.	32 S.W.G. enam.	90
1¼ins.	32 „ „	82
1½ins.	30 „ „	73
1¾ins.	30 „ „	60
2ins.	30 „ „	52

Silk and cotton-covered wires are also used instead of enamel-covered wires, though the latter are cheaper. Turns are wound closely side by side, all in the same direction. The ends of the winding can be secured by passing the wire through small holes in the tube, and the leads can then be taken directly to the condenser, as in Fig. 2.

Commercially-manufactured coils often have all turns wound in a compact pile. This saves a lot of space when several coils have to be employed. The coils may also have cores of powdered metallic dust, which increases the inductance, so that fewer turns are required. However, for the simpler type of receiver, where space is available, the air-cored coil (that is, one wound upon an insulated tube as described) is perfectly satisfactory.

Increasing selectivity

A circuit such as that in Figs. 1 and 2 is rather unselective, and does not give sharp tuning. If the aerial is very long, tuning may become so flat that two or more stations may be heard together. To avoid this when necessary, forms of aerial coupling permitting sharper tuning are very often employed.

One such method is shown at (A) in Fig. 3. The coil and tuning condenser remain exactly as described, but the aerial is now taken to a tapping on the coil. The nearer this tapping is to the earthed end of the coil, the sharper will tuning become. However, moving the tapping towards earth also reduces volume, so that a compromise is necessary. A tapping about 1/3rd from the earthed end of the coil is usually satisfactory — that is, 30 turns from earth, with the 90 turn coil, and so on. Or a number of tappings can be made, and the best one (which depends upon the aerial, and reception conditions) can then be found by trial.

A similar improvement arises from adding a condenser in series with the aerial, as at (B). The smaller the condenser capacity, the sharper will tuning become, though volume is also reduced, as with circuit (A). Condensers of ·0001μF to ·0003μF are often used in this way. Or a 'pre-set' condenser may be used, its capacity being adjusted by means of the screw provided, for best results. A variable condenser, like that used for tuning, could, of course, be employed instead of the pre-set condenser.

Coupling windings

Aerial coupling may also be provided by using a separate winding, as shown in Fig. 4. Here, the coupling

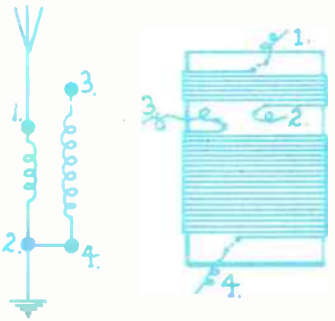


Fig. 4—Primary for coupling

winding, also termed the 'Primary' is between points 1 and 2, and consists of about 1/3rd the number of turns found on the tuned section (or 'Secondary') which begins at 3 and ends at 4. About ¼in. clear space exists between the separate windings. Signals flow from aerial to earth, through the primary. This induces signals in the secondary, which is wired to the tuning condenser exactly as with the earlier circuits shown.

This form of coupling is much used in modern receivers. It may also be employed with a radio frequency valve amplifier stage. In such circuits, point 1 would go to the valve anode, and point 2 to high tension positive.

With short-wave coils having very few turns, the primary is sometimes interwound with the turns of the secondary. This will be shown when short-wave coils and receivers are dealt with. The gauge of wire used for any coupling winding is not very important. Quite thin wires are usual, such as 34 or 36 S.W.G. If the tube is sufficiently long, both primary and secondary may be wound with the same gauge of wire.

'Auto-transformer' winding

When a tapping is provided, as at (A) in Fig. 3, the section of coil between this point and earth functions as a primary. For this reason, a tapped winding of this kind is sometimes called an 'auto-transformer' winding, especially when the component is not a tuning coil, but a choke or transformer used elsewhere in the receiver.

In addition to the M.W. band (200–550 metres), the long-wave band is often used, and extends from about 1,000 to 2,000 metres. Short waves are also used, and refer to wavelengths under 100 metres. To tune L.W. and S.W. bands, coils with a different number of turns are required.

Dual-wave coils, tuning both L.W. and M.W., are often employed, and are dealt with in the next in this series, together with valve detectors, which give more volume than crystal detectors.

● Continued from page 19

Permanent Note-Taker

back to refer to anything you have written previously.

Here the cabinet is rectangular and does not have a sloping front and the pencil is housed on the front of the cabinet. Again, the box is bottomless to allow for easy re-filling of the spool. Two spindles are fitted 3½ins. apart. A rubber band is used to retain same at one end only. The other end is kept in position by the oversize of the winding spindles. These are made from 3-ply wood of 1½in. diameter. When loading the spools, the spindle is pushed through the side hole into the cabinet, the paper wound on, the spindle end pushed through the opposite hole in the cabinet side and the rubber retaining washer affixed.

Two 3in. slots will be needed instead of one to allow for a continuous flow of paper. It will also be necessary to anchor each end of the paper spool to the spindles. Drawing pins form this fixing as shown. Fold back the paper before pinning, for added strength.

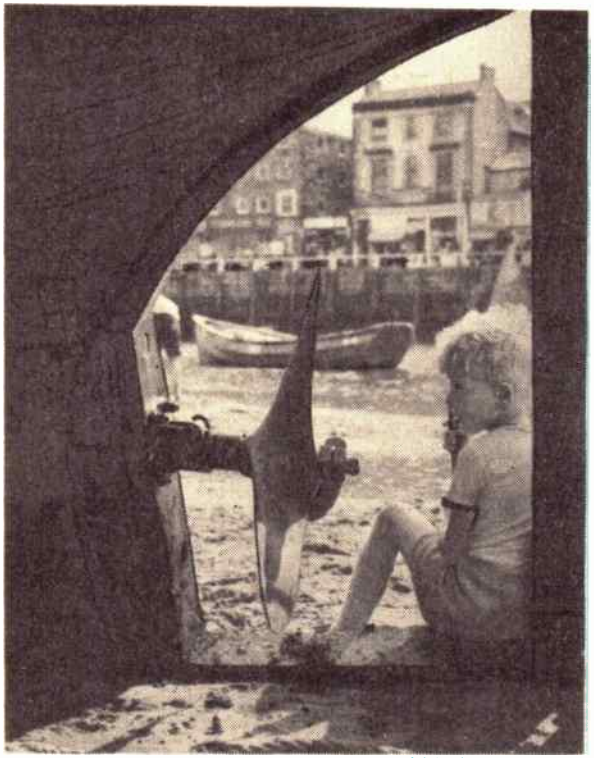
For economy, when the spool is exhausted, the spindle positions can be reversed and the paper run through again, using the reverse side. (E.C.)

Make a Ukulele

The ukulele is becoming increasingly popular. A free design showing how to make your own instrument will be given in next week's issue. MAKE SURE OF YOUR COPY.

Out with a camera

'Framing' Pictures Naturally



DREAMING OF THE SEA. Rear end of a small boat used as a decorative frame, also to give feeling of the sea to this child study. (1/100th. f8. Adox R 17 film.)

By C. Robinson

AMATEUR photographers in their endeavour to make their pictures attractive must utilise many 'dodges' to ensure that the viewer's eye is held in the picture area and not allowed to wander away from the subject.

In a previous issue of *Hobbies Weekly* I described how pictures lacking the necessary composition to do this could often be rescued by the printing in of a 'frame' in the nature of a thin black border. This to be done in the darkroom.

If such a 'frame' can be introduced into the picture at the time of taking, the result will of course be much more realistic than one which has to be added afterwards, and the object of this short article is to draw attention to the wide variety of objects which can be used for this purpose, and the method of using them photographically.

The most popular of these are archways, and trees, but I have made use of windows, jetties, bridges, doorways, and a host of others which proves that it pays to have a good look round before making your exposure.

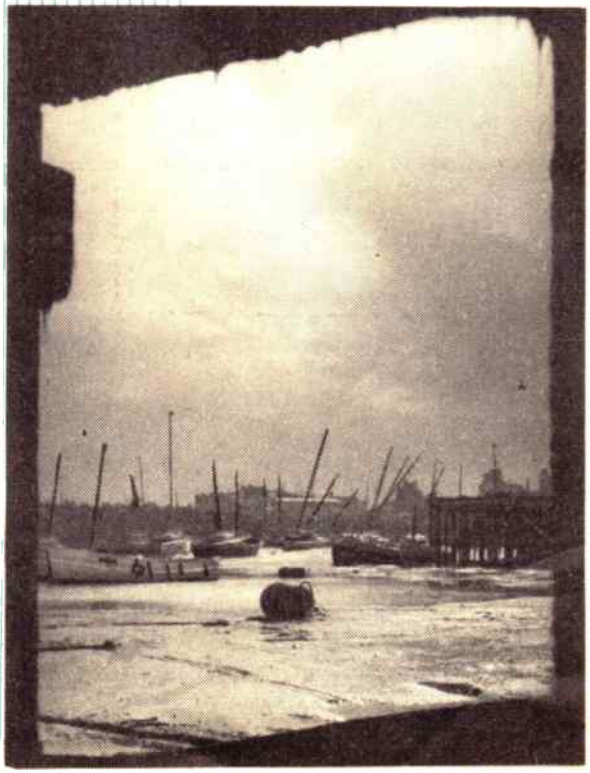
To have most effect the 'frame' portion of the print must be the one having the darker tones. The easiest way of ensuring this is to photograph 'into the light' which will place the object used for framing in shadow. This type of lighting can be most effective for the scene too, giving it great depth.

Usually, in pictures, it is desirable to have objects in the foreground critically sharp, and allow the distant scene to fall off in definition, giving a feeling of depth.

Depth is adequately taken care of in the pictures I am speaking about by the use of 'back lighting' and the illusion created by looking through the 'frame' into the picture, so these can be regarded as exceptions to the rule.

Focusing should be adjusted for the distant scene. The frame then being the nearest object to the camera will not be in focus, but if exposure is also calculated for the distant scene, this object, as previously stated, will be placed in shadow and accordingly underexposed which will result in it being printed as a silhouette, where critical definition is not essential.

● **Continued on page 23**



LOW TIDE AT BRIDLINGTON. The structure of the jetty is used here as the frame for a harbour scene. (1/100th f8. FP 3. 2x yellow filter.)

Did you solve them?

DRAUGHTBOARD SOLUTIONS

FOLLOWING the draught and draughtboard puzzles given in our last issue we now show an accompanying diagram, Fig. 7, showing how the 65 squares appear to result when the four divisions are assembled in the form of an oblong. It will be seen that no matter how carefully you cut the pieces there is really a small gap running diagonally, but this small gap is sufficient to account for the area of an additional square, creating the illusion of 65 squares. Note that our diagram is slightly exaggerated for the purpose of illustrating this solution.

The reverse happens in the smaller puzzle where again the parts do not exactly fit, and it will be found that there is a slight overlapping, apparently reducing the number of squares by one.

You may have found the draught puzzles a little more exacting, but returning to Tait's puzzle where the eight draughts had to be arranged into their two colours after only four moves, here is the solution.

Refer to Fig. 8 where the draughts have been placed in a row with ten numbered positions. Note that these numbers only apply to the positions and not to the draughts when checking the answer.

1st move	Remove draughts 2 and 3 to positions 9 and 10,
2nd move	Remove draughts 5 and 6 to positions 2 and 3,
3rd move	Remove draughts 8 and 9 to positions 5 and 6,
4th move	Remove draughts 1 and 2 to positions 8 and 9.

You will now find that the puzzle is solved.

The leap frog puzzle demands even more patience and it is probable that you were unable to solve this puzzle. If you did you were very clever and may compliment yourself on your skill, for nineteen moves are required to change the places of the two colours. Once again, a diagram will help and Fig. 9 shows the original positions where the numbers refer to the positions — not draughts.

The correct moves are as follows, and it should be noted that the first figure represents the position of the draught to move, while the second represents the new position, move 4 to 5, 6 to 4, 7 to 6, 5 to 7, 3 to 5, 2 to 3, 4 to 2, 6 to 4, 8 to 6, 7 to 8, 5 to 7, 3 to 5, 1 to 3, 2 to 1, 4 to 2, 6 to 4, 5 to 6, 3 to 5, and 4 to 3.

After making the above moves you will find that the two sets of draughts have completely changed places.

FIG 7

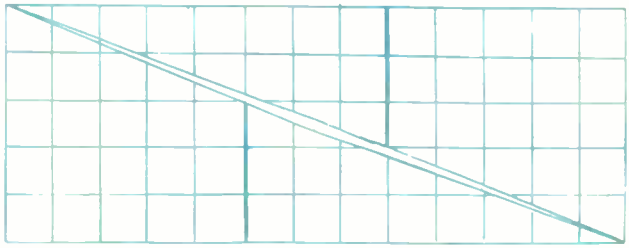


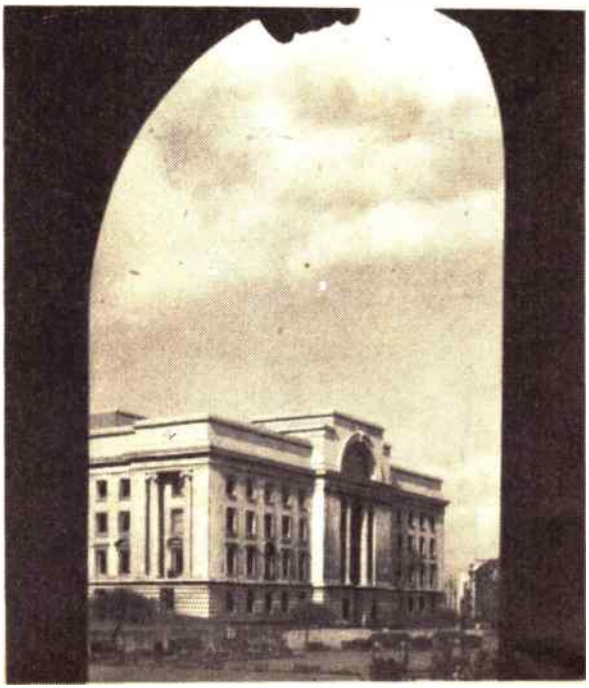
FIG 8

FIG 9

● Continued from page 22

'Framing' your Pictures

When the 'frame' is being utilised merely for a decorative purpose, and the main subject is in the same plane, as, for example, a figure seated in a window, or my child study, framed by the rear of a small boat, focus should be set for the main subject allowing the background to remain out of focus.



CIVIC BUILDINGS BIRMINGHAM. Arch used as a frame for an architectural subject. (1/250th F8. Kodak verichrome pan film. 2x yellow filter).

Hobbies

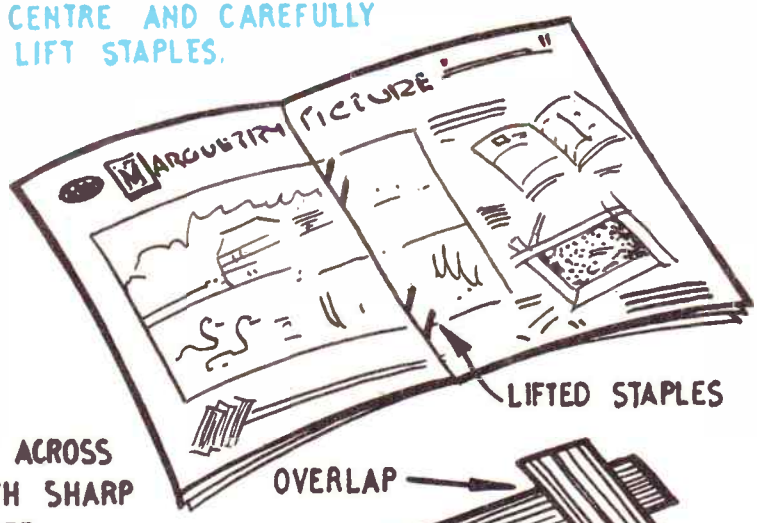
MARQUETRY

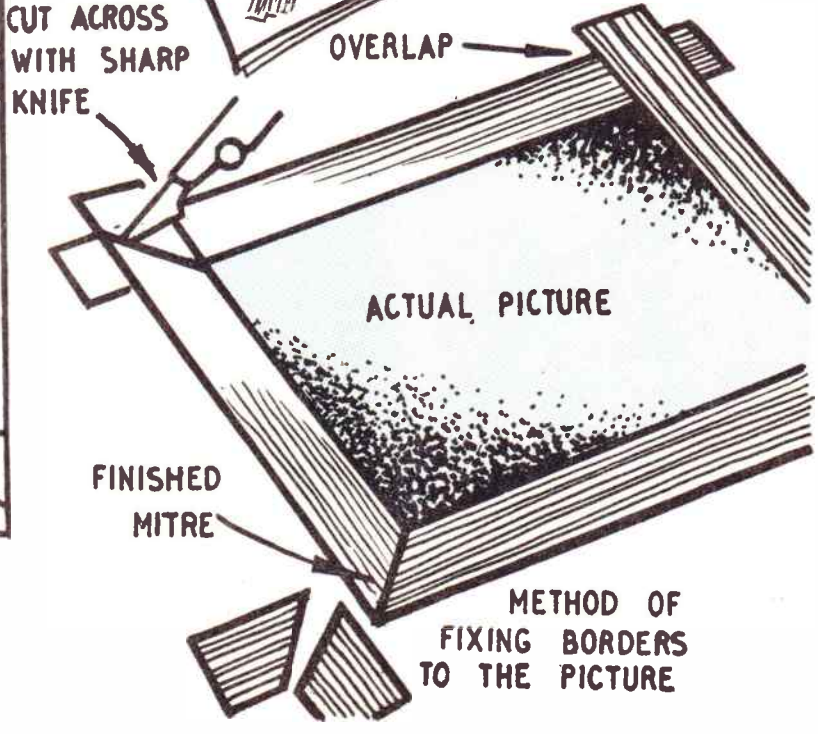
CHOICE OF VENEERS IS LEFT TO

PICTURE - "A NORFOLK SCENE"

THE WORKER

TO REMOVE THIS CENTRE SPREAD WITHOUT CAUSING DAMAGE TO YOUR 'HOBBIES WEEKLY' OPEN TO CENTRE AND CAREFULLY LIFT STAPLES.





METHOD OF FIXING BORDERS TO THE PICTURE

SWITZERLAND

—By R.L.C.

SWITZERLAND has been called the playground of Europe, because it has such charming lakes and glorious mountains.

Geneva, the largest lake, 330 square miles, is depicted on charity stamps of 1931 (20 cent lake, 4d. used).

The mountains are featured in many cheap sets, but pictorials of 1911, 'Various Mountain Views', now listed at 10/-, should prove a good investment.

Amongst the mountains many glaciers are found. There are upwards of 400 in Switzerland. These are formed by the snow which falls on the summits of the mountains, and gradually moves down into the valleys. Some of these glaciers are 20 miles long and three miles broad. They move about 500ft. in the year; and as they take with them immense masses of rock, stone, and gravel, called moraines, they completely alter the valleys into which they find their way.

The Swiss are celebrated for their butter and cheese. The farmers drive their cattle, sheep, and goats up into the mountain pastures during the summer months, and the shepherds and herdsmen go and watch over them in the little chalets — wooden huts. '1936. 10c.+5c. purple — Freiburg Cowherd — 10d. used. 1946. 5c.+5c. green — Cheese Making — 6d. used; 20c.+10c. red — Chalet in Appenzell — 6d. used.'

Zurich and Basle manufacture ribbons, cottons, and tobacco; Aargau and Lucerne are noted for straw-plaiting; Neuchatel and Geneva for watchmaking and jewellery.

Exports are wood, cattle, cheese, butter, watches, jewellery, wood-carving, silks, and cottons.

Imports: corn, salt, salt-fish, iron goods, and raw materials for manufactures.

Wild animals are the ibex, chamois, marmot, wolves, bears, foxes, and eagles.

Switzerland is divided into twenty-two provinces or cantons, which, although in a measure independent of one another, act together for the general good, as the country is a republic.

These are the names, in rhyme:

Zurich, Geneva, Ticino, Lucerne,
Appenzell, Schwyz, Unterwalden, Zug, Berne,
Neuchatel, Glarus, Schaffhausen, and Basle,
Vaud, Uri, Fribourg, Soleure, and St. Gall,
Grisons and Thurgau,
Valais and Aargau.

Each canton has its own coat of arms and distinctive costume, most of which are illustrated on various charity stamps. The common values are useful for stampevising the 'Swiss Story'. As a separate collection these stamps have a very promising future.

William Tell — legendary national hero of Switzerland, whose deeds are based on a Teutonic myth of widespread occurrence in northern Europe — appears on stamps of 1910 (14 values, 2/8d. used). Tete-beche (pairs) of the 10 cent red are cat. 3/6 mint or used; and, 15 cent violet at 30/- mint, 25/- used. Tell's son appears on issues of 1907, 1908, and 1910. The first issue of 3 values is cat. 1/5 mint, 1/- used. In the second issue — 3 values, 11d. mint, 6d. used — the cord of the crossbow is passing in front of the shaft, while in the third set of 13 values — 5/7 mint, 2/2 used — the cord is passing behind the shaft.

William Tell's Chapel is depicted on a 10 cent charity stamp of 1938 (6d. used).

Basle is a quaint old Swiss town, with picturesque over-hanging roofs, fantastic chimneys, antique turrets and gables.

The cathedral is built of red sandstone. Over the clock-tower of the bridge there was once a large wooden head which rolled its eyes and put out its tongue. It was erected in order that it might mock at the inhabitants of the other side of the river, with whom the people of Basle had had some dispute. Not to be outdone, the natives of Klein-Basel, on the other side, had their wooden head, which also rolled its eyes and wagged its tongue in opposition. At last the dispute became too absurd, and it was ended by sending one of the heads to the cathedral museum. '1949. 40 cent blue — Basle Harbour — 1d. used.'

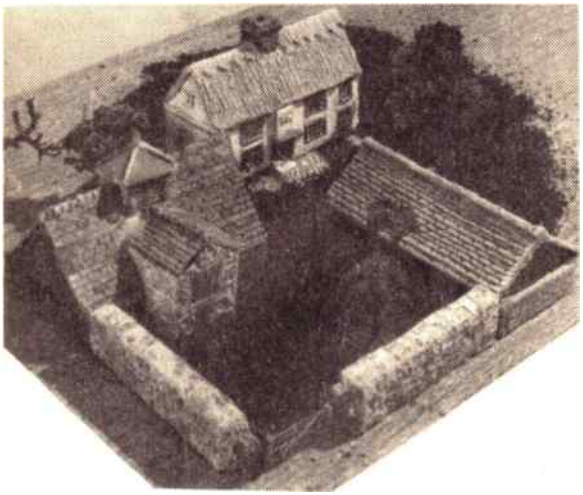
Long roomy carriages are a pleasing feature of Swiss railways. When tired of being inside, passengers can mount up by steps to the roof, and enjoy a view of the country. 1947. Various Railway Designs — set of 4 — 1/4 used.'

Switzerland, 210 miles long and 140 broad, is bounded on the North and East by Germany, on the South by Italy, on the West by France.

'1954. 25 cent green, blue and red — Map and Steering Wheel — 4d. used. 1948. 5c.+5c. green — Frontier Guard — 6d. mint.'

As well as the usual themes, Swiss labels offer many novel ideas, for example, the recent 'Domino Set' of match labels. I have pasted these covers on strong card and carry them in the pocket for a game during a journey, etc. But keep a set for your album — they may rise in price.

This model farm cost less than 2/6



It was made from a half-crown tin of Sankey's PYRUMA — farmhouse, barn, implement shed, walls and gate — and there was still plenty of this grand modelling material left to build many more farm features, by simple methods described in the Instruction Book (see Coupon below).
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MAKING FITTED DRAWERS

THERE are times when it is a decided advantage to divide a drawer or tool box into several divisions, either for keeping knives, forks and spoons handy, or for separating various sizes of nails, screws, pins and the like. There is also the possibility of fitting a drawer with divisions for ties, collars, handkerchiefs and similar wear. The task is simple and the time spent in making will be amply repaid in the future. All that is required is some plywood and quarter round section.

When dealing with a drawer as shown in Fig. 1 the specific divisions should be decided and provision must be made for the size of the cutlery. For example, many knife-boxes are far too small to accommodate the carving knife and fork, and a division for these should be made large enough. Similarly, divisions for knives, forks, or spoons should be prepared accordingly and accurate measurements taken, remembering to allow for the thickness of the plywood used. Note that it is not necessary to make the divisions the same depth as a drawer which will then hold such things as table linen.

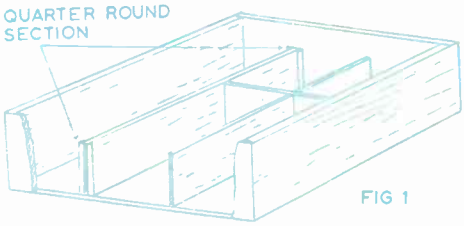
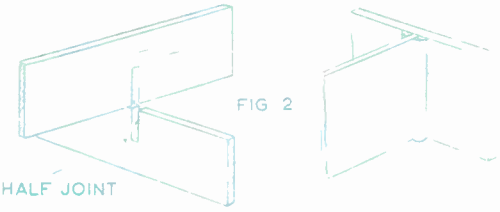


FIG 1



Tight fit

Parts are fastened together by means of the simple half joint as shown in Fig. 2 and here the slots must be cut out to the thickness of the material and halfway down the depth. It is better to cut for a tight fit, and a rasp will quickly remove small amounts to ease the joint if necessary. Another detail worthy of attention is the upper edge of the plywood. It is advisable to both round off the edges and smooth with glasspaper if you wish to avoid any injury to the fingers by way of sharp edges or splinters.

A unit made to fit a drawer as shown in the diagram will be quite firm without any other attention, and a permanent fixture is not to be recommended since cleaning would prove very awkward. It is far better to leave the unit firm, but free of itself, when it may be removed quite easily for cleaning out the drawer at any time.

Often the sides of a drawer are trenched to accept such fittings, but if absolutely necessary you may fix strips of ⅜in. quarter round section to the drawer sides as shown in Fig. 2. A strip on either side of the plywood division forms a convenient slot and this method will be found most useful where long partitions are not held firm by other cross members.

Baize lining

It may be mentioned that cutlery drawers are often lined with green baize to prevent scratching and if this is desired first lay the material on the drawer bottom, fitting in the unit afterwards. Whether the partitions should be stained, polished or painted is a matter for personal decision. (S.H.L.)

FLOWER POT DECOR

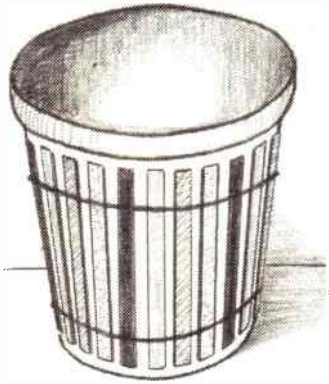
FOR ninepence (perhaps, less in your district) you can dress up in a contemporary style all the flower pots in your home.

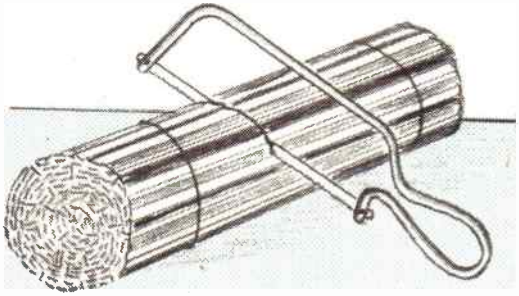
Buy a bundle of pipe-lighters — those gaily dyed slivers of wood, commonly called 'spills'.

By E. Capper

Cut the spills a uniform length to the depth of the flower pot, less 1in. Use scissors to cut single slivers or use a small hack-saw to cut quantities.

Hold them, evenly spaced, around the pot with elastic bands, mixing up the different colours in uniform patterns.





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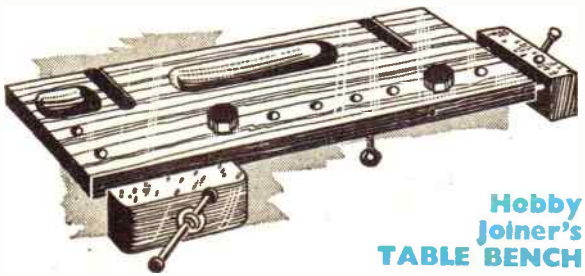

Hobby Joiner's TABLE BENCH

Cramps to kitchen table to provide an ideal working surface for cutting shaping and assembling small parts. The spaced holes and pegs permit work to be held for planing. Two sturdy vices, two metal cramps. Size 20 ins. long. Made of seasoned hardwood for years of service. **37/6**

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COT FITTINGS (full size)

The fellow handy with tools can make quite easily a drop-side Cot using these fittings. The set comprises two bright steel rods 36ins. long, six heavy-duty screweyes (four plain and two threaded for rods) and two catches. **Price 7/11 Set.**

Cot Design 3202 1/3

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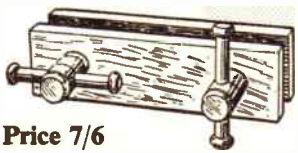

A strong hardwood vice which can be screwed to the work bench. A real serviceable tool, well made, and fitted with hardwood screws. 12ins. long.

Price 7/6

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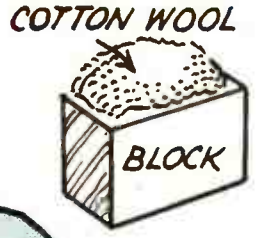
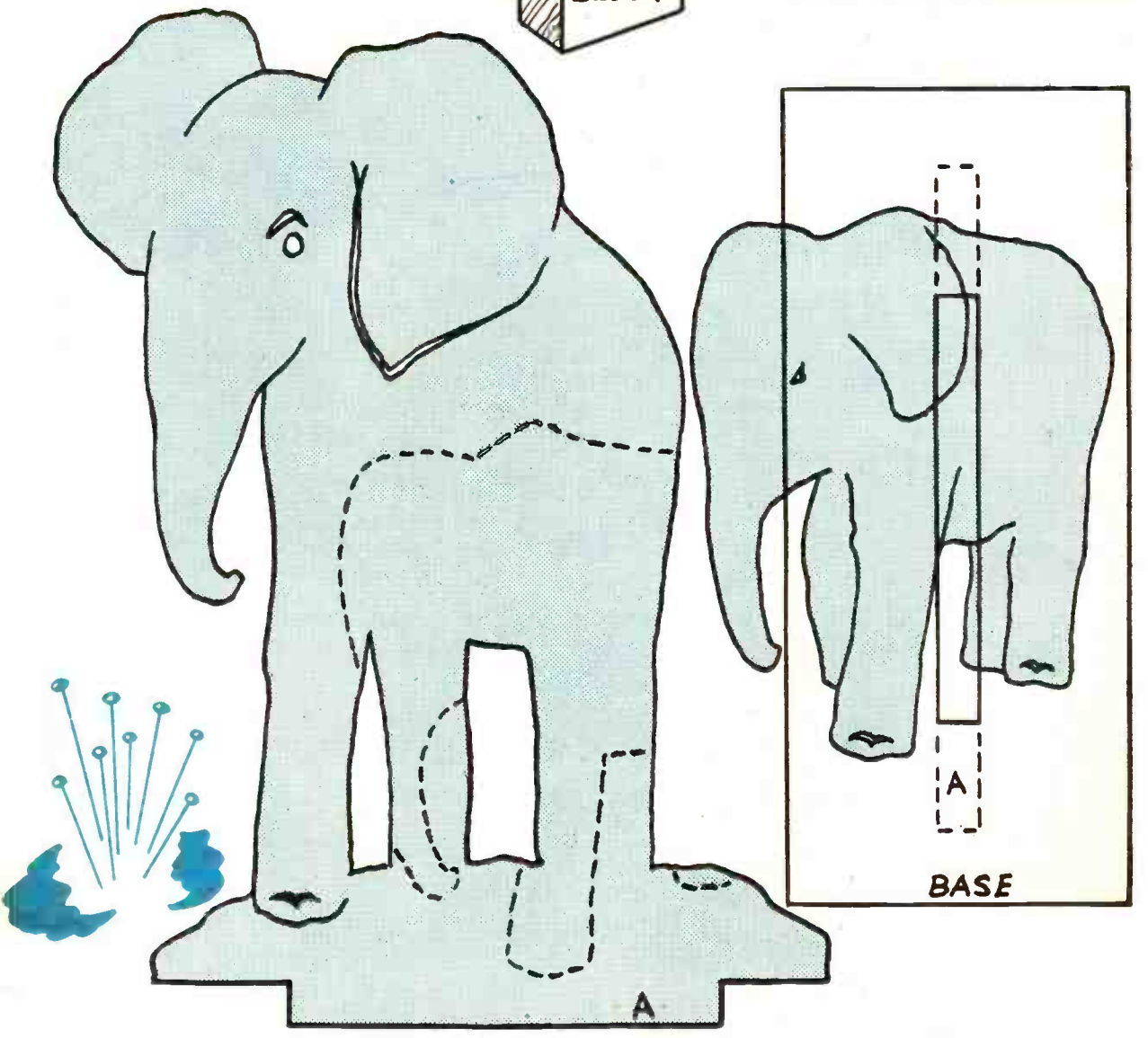
Job for the fretsaw

'ELEPHANT' PINCUSHION

CUT the two elephants and the base from ¼in. wood. Glue the large elephant into the mortise (A) in the base and glue the small elephant on the front of the larger one as shown by the dotted lines. Paint pale grey, picking out the features, such as ears, in darker grey.

The pincushion consists of a block of wood, measuring 1½ins. by 1in. by 1in. with a wad of cotton wool on top. It is covered with a piece of cloth and then glued to the back of the elephant. (M.p).





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Hobbies

BUILDING COSTS FROM ABOUT £7

These plans contain all the information needed to build the canoe and its accessories. The main frames and other shaped parts are drawn full size for tracing direct on to the wood. There are plenty of constructional diagrams, with step-by-step instructions, and a detailed material list. Accessory instructions include the making of paddle, spray cover, trolley, rudder, sailing gear, etc.

All of these canoes are of the decked kayak type and are primarily paddling craft, but sail is useful as an auxiliary and can add to the fun of canoeing. If sailing capabilities are particularly required, PBK 20 is the best selection.

A canvas canoe can be built by the novice with limited equipment, and the average handyman can complete the job in about 40 hours. The structure consists of widely-spaced laths on cross frames, covered with a fabric skin. There are no difficult joints or awkward work. Plywood skinned canoes need more skill and a larger tool kit.

Building costs range from about £7 (for the PBK 10). We do not supply materials for building, but addresses of firms who do so are included with the plans.

DETAILS OF PLANS AVAILABLE

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PBK 10. Single seat, 11 ft. long, 28 in. beam, normal max. load 300 lb. The shortest satisfactory canoe. Economical in size and building costs. Room for lightweight kit. **Price 11/-**

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