

HOBBIES

weekly

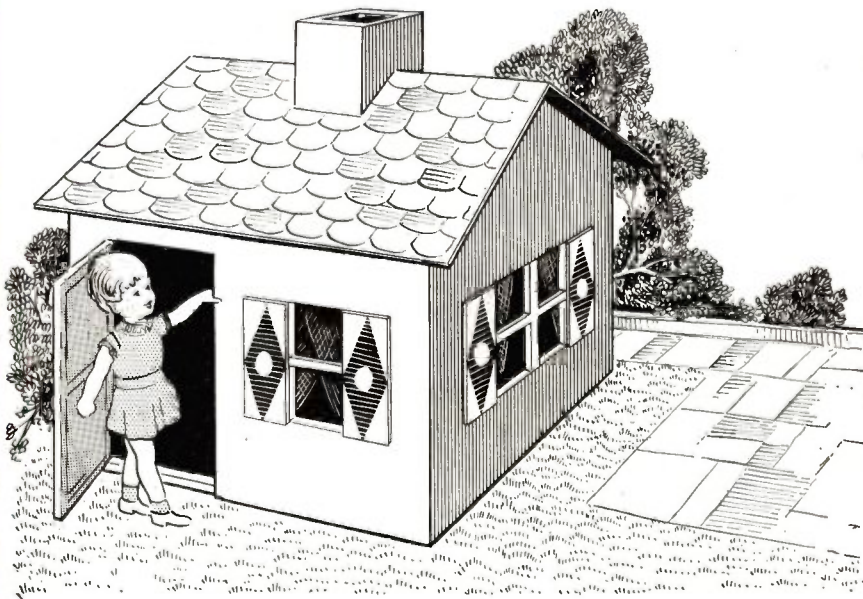
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**MAKE
THIS**

WENDY HOUSE



THE YOUNGSTERS WILL LOVE IT

FOR CRAFTSMEN OF ALL AGES

6^D



A WENDY PLAY HOUSE

THIS fairy tale house is made from hardboard and deal, and is as simple as ABC to construct. Give the children a real treat; let them have their own little house for playing 'mothers and fathers'. They'll be delighted.

The house is designed to stand outside during the summer, but can quickly be dismantled and stored away as required.

It is made in sections which are bolted together, with a roof of two loose sections, surmounted by a chimney. Finish can be of paint, with windows glazed with transparent acetate.

Suggested sizes are shown in the side and end views in Fig. 1. These sizes will enable you to cut the entire house from four 6 ft. by 4 ft. sheets of oil tempered hardboard. For a house permanently

outside, use $\frac{1}{2}$ in. marine plywood which will not only stand the rain and sun of spring and summer, but will also shed the winter snow. For a permanent house all parts should, of course, be bolted or screwed together.

Commence by making up two sections as shown in Fig. 2. One section, the front, will have a doorway and window, the other, the back, can be plain or can

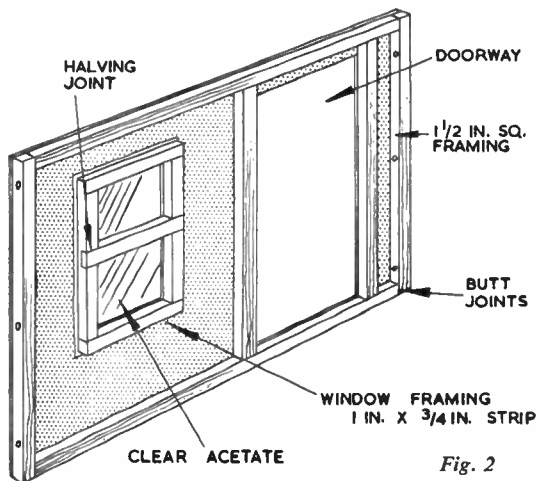


Fig. 2

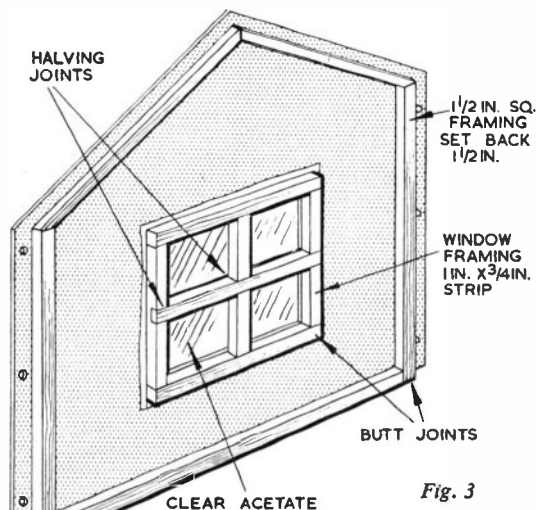


Fig. 3

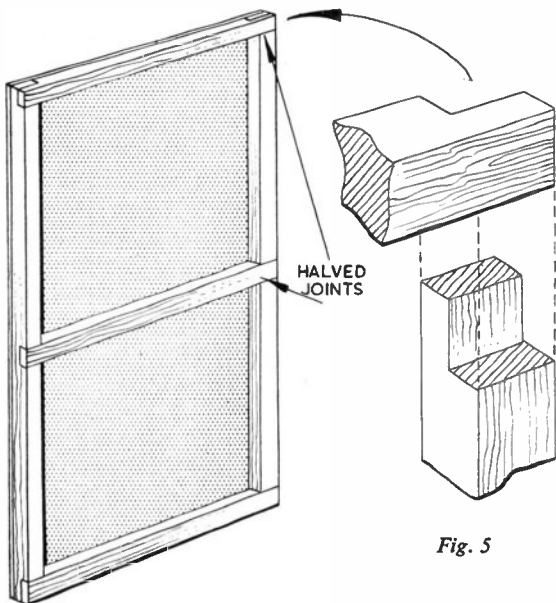


Fig. 5

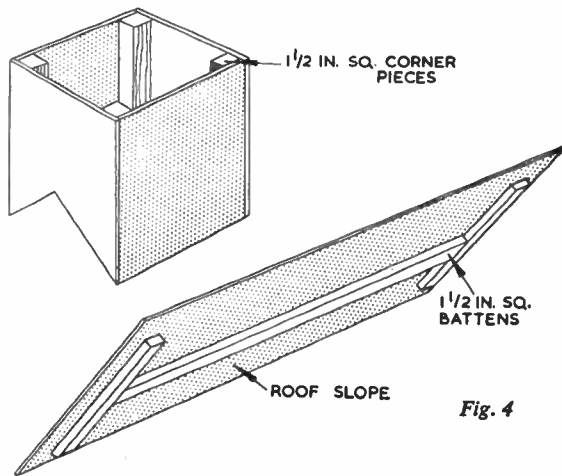


Fig. 4

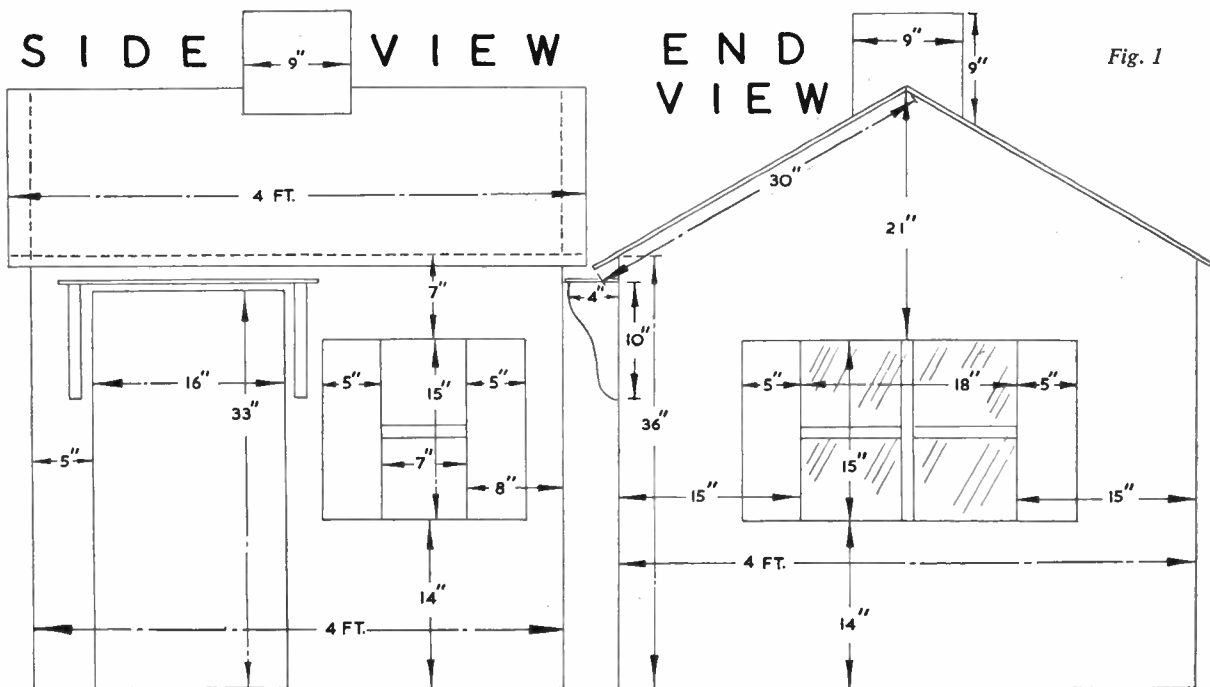


Fig. 1

also have a small window in the centre. Openings are started by boring a $\frac{1}{2}$ in. hole at one corner, cutting a little way with a keyhole saw and finishing with a tenon saw. The side is framed all round with $1\frac{1}{2}$ in. square deal, with strengthening battens on each side of the door. The window too is framed on the inside, using 1 in. by $\frac{3}{4}$ in. stripwood halved and butted together where appropriate. A piece of clear acetate is sandwiched between the hardboard and framing. The frame is secured by screws or panel pins from the outside through the hardboard.

Fig. 3 shows how the ends are constructed with the window framing and acetate in position. Notice that the main framing of the end is set back $1\frac{1}{2}$ in. so that it marries in with the framing on back and front. Sides and ends are now joined together by 4 in. bolts and wing nuts.

The roof slopes consist of two pieces of hardboard strengthened with $1\frac{1}{2}$ in. square battens as suggested in Fig. 4. Let the end battens be so situated that they come just inside the ends, and are just long enough to hold the roof slope in position. The battens should be trimmed to rest on the sides. The roof slopes are further secured by the chimney which sits on the top.

Cut the chimney pieces from $\frac{1}{2}$ in. hardboard and join them by means of corner pieces of $1\frac{1}{2}$ in. square wood as seen in Fig. 4. The chimney need not be fixed to the roof, it will stay firmly in

position by virtue of its shape.

If a door is required, it can be made up as seen in Fig. 5. The piece cut from the front can be utilized, and can be framed with $1\frac{1}{2}$ in. square wood halved together as seen in the detail. The framing can be glued and screwed together and the hardboard fixed with panel pins. Hang by means of small T hinges or heavy butt hinges, and fit a small handle and ball catch.

Finish off the construction by making a small canopy over the door, cutting two brackets from $\frac{3}{4}$ in. or 1 in. deal or obechi and capping with a piece of $\frac{1}{2}$ in.

hardboard.

The whole house is now given a flat undercoat of white and then coloured with gloss or eggshell finish. The sides, ends and chimney could be cream and the roof slopes red, marked out in black to simulate tiles. The canopy can also be red to match the roof. If shutters are required they can be cut from hardboard and glued or pinned in place. Colour them yellow and decorate in red.

The interior is finished with pale blue plastic emulsion paint, with window frames painted dark blue. Small pieces of voile can be hung as curtains. (M.h.)



"ANDY, WE CAN'T HAVE THAT VENETIAN BLIND FIXED THERE, THE SHADOW FROM IT MAKES YOU LOOK LIKE A CONVICT!"

MONTAGE

By A. E. Bensusan

How often have you wished that a portrait, animal study or a photograph of some other subject had a more suitable background? This is the type of problem which crops up fairly frequently in most people's experience, and it can be solved in one of two separate ways.

The first solution entails double printing, using the selected sections of two different negatives and enlarging them on to a single sheet of bromide paper. However, it is necessary to ensure that the unwanted parts do not print, and the appropriate area of emulsion must be protected from exposure. This means that either the two negatives must be accurately blocked out with liquid opaque, or cut-out masks have to be made. In any case, the work is lengthy and an exact match is extremely difficult to obtain.

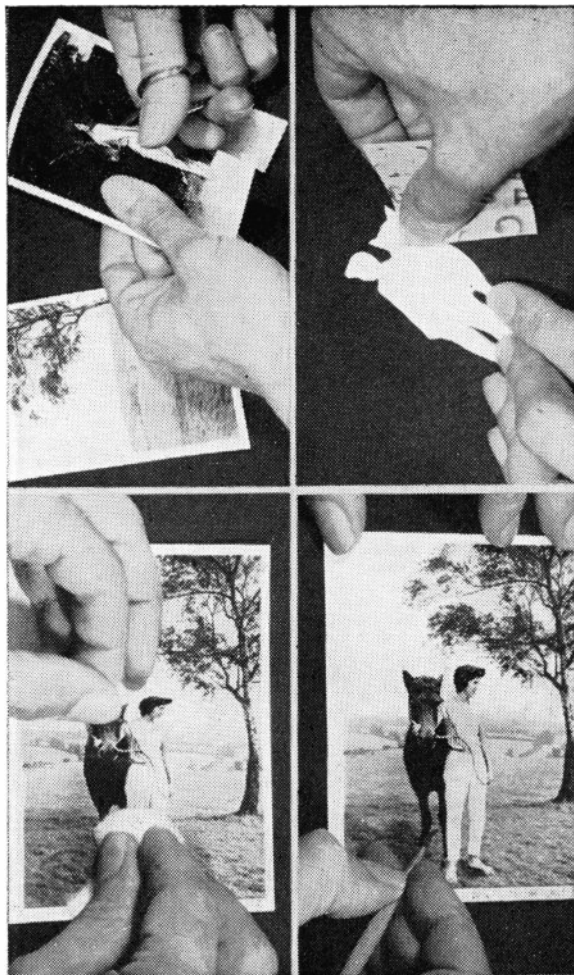
The other answer to the problem lies in making a photo-montage, and that is a far easier proposition which offers almost certain success. The first step is to make an enlargement of the figure or other main subject on glossy paper. This should be at least twice the size of the final composite print which will be required as any slight errors made while carrying out the work will be reduced by half or even more.

After fixing and washing, the print may be blotted off and left to dry naturally. Glazing only makes the final copying operation more intricate, for the danger of reflection from the surface would make the lighting angle critical. Stipple, lustre and other rough papers should be avoided for similar reasons although, there, the trouble would be in avoiding shadows thrown by the crests and depressions of the surface. In addition, definition would be impaired by the paper surface texture.

Next, the background picture should be chosen. The lighting direction and angle must be, as nearly as possible, the same for both components of the montage. The height of the camera from the ground, and the angle at which it was directed, must also be similar in both instances. Not such a tricky proposition as it might sound, for most people tend to use a camera in the position dictated by the viewfinder. That is, at eye or waist level.

An enlargement should be prepared so that the subject will fit neatly into an appropriate part of the background and, here, it helps to project the negative on to the print of the person, animal or whatever else you wish to superimpose. Scale and positioning are determined by adjusting the background image size until the combination looks right. A straightforward print of the background is then made on glossy, unglazed paper.

The smaller component of the montage must now be carefully cut out from its surroundings. Use a sharp pair of short-



Steps in making the montage: (top left) cutting out the print for superimposition, (top right) thinning the edges, (lower left) pasting one print on the other, (lower right) painting in the shadows.

bladed scissors to follow the contours as closely as possible. Take great care with this operation, as it is a vital factor in the success of the project. If the part to be superimposed is not thinned down around its edges, a tell-tale shadow will be thrown when the final copy is made. So, the cut-out is placed face down and the back edges thinned by the very gentle application of well-worn glasspaper. Take care not to break up the edges of the print while carrying this out. The safest direction to rub is along the cut edge of the print and not across it.

The two elements of the montage are now ready to be assembled. The best way to do this is with photographic rubber gum, as it permits the cut-out to be stripped off and re-located if the original setting is not quite correct. The back of the smaller part is gummed and gradually lowered into position from one end while being lightly rubbed down with a wad of clean cotton wool.

If the two original photographs were taken in reasonably bright light, it will be necessary to put in some shadows where the cut-out has been added. Dilute retouching dye, or indian ink, will be found quite simple to apply with an artist's or retouching brush so that the shadows are soft-edged and reasonably transparent.

A copy negative is made from this montage, either with the camera or by using film located in the negative carrier of the enlarger which has been sealed against light by multiple wrappings of black material. A medium speed panchromatic film, such as would normally be used for general photography, will give results of good overall quality. From this negative any number of enlargements may be produced in the usual

way, and there should be no indication that the principal subject and the background have been montaged.

After copying, the smaller part can be removed, any gum residue on the background is removed by being rolled off with a dry fingertip, and the painted shadows soaked off in water. The background print is then ready to be dried off and used again for other purposes. Montages may be made from more than two elements, and humorous pictures can be built up by this means. In addition, cloudscapes can easily be added to pictorial shots spoiled by a bald sky.

The process offers scope for results which are entirely unconventional and difficult, if not impossible, to obtain in any other way.



By A. Liston

A BAVARIAN wall-garden is a charming novelty which looks well in almost any setting, its varnished wooden finish harmonizing with both traditional and contemporary schemes of decoration.

It is simple to make in a range of sizes, although the one described here is 20 in. long, and is made from 3½ in. by ½ in. lengths of Parana Pine. This wood takes on an attractive golden hue when varnished, but other varieties can, of course, be used.

The method of construction is shown in the diagram. The base is 18 in. long, and to it are screwed the two 3½ in. square end pieces. The back is 19 in. long, and is first drilled to make two fixing holes for hanging. Each of these is a double or figure-eight hole, the lower one being ½ in. in diameter, and the upper one ¼ in. After the holes have been drilled, the back is screwed in place.

The front piece is 20 in. long, so that it projects by ½ in. at each end. Three ½ in. squares are cut out at each end of this piece, leaving four projecting sections, each ½ in. square also. Three heart-shaped cut-out sections, each 2 in. high, are first drawn with the aid of a cardboard template on the front section, then sawn out with a fretsaw.

The front piece is now grooved

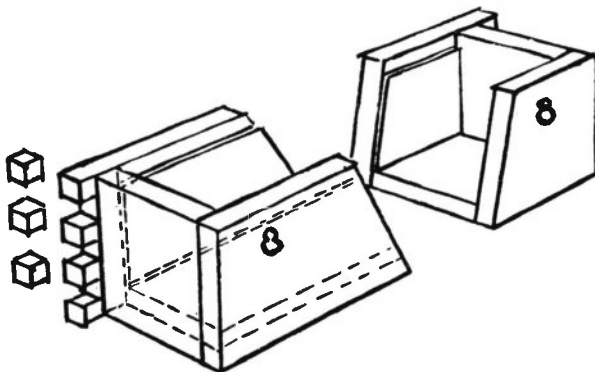
deeply with horizontal lines at ½ in. intervals, using a steel rule and a knife or the point of an awl. The two side sections are also scored in the same way to suggest planking, and the front is then screwed to the base and sides. At each end of the front, three ½ in. cubes, cut from a length of ½ in. square stripwood, are pinned and glued in place at ½ in. intervals, in a vertical line flush with the edges of the sides of the box. This produces an attractive simulation of the

BAVARIAN WALL GARDEN

traditional Bavarian dove-tailing of the timbers.

The inside of the front section is lined with an 18 in. by 3 in. piece of hardboard which is pinned and glued in place with its smooth side toward the front and showing through the cut-out heart shapes.

The fitting is then given three coats of varnish or clear polyurethane sealer, inside and out. This will turn the wood to a slightly deeper colour, but will darken the hardboard considerably, so that it contrasts with the wood. The grooves will also darken in colour and emphasize the timbered effect. The wall-garden is then ready for hanging in position.





10— 1-VALVE 'QUALITY' TUNER

IN the last article in this series a crystal diode tuner was described. The tuner shown here uses one stage of radio frequency amplification, followed by a crystal diode detector. It has two tuned circuits, so that it is also more selective. The valve provides a good increase in signal strength, so that the output should be strong enough for any ordinary amplifier.

Current for the valve is drawn from the same power pack as employed to supply the amplifier. A power pack able to provide current for both amplifier and tuner was described in No. 5 of this series. The tuner can also be used with most ready-made amplifiers which run from AC mains.

A tuner of this kind has a wide frequency response, and is thus recommended for best quality reproduction from those stations which are most strongly received in any particular locality. It can therefore be used to feed a high fidelity amplifier, as well as the ordinary type of amplifier. The tuner is not intended for the reception of weak or distant stations.

Tuner circuit

Fig. 30 is the circuit of the tuner, and it uses a 6BA6 valve. This valve needs 6.3V at 0.3A for its heater, and about 10mA HT, at about 200–250V. These supplies come from the amplifier with which the tuner is used, as mentioned. The

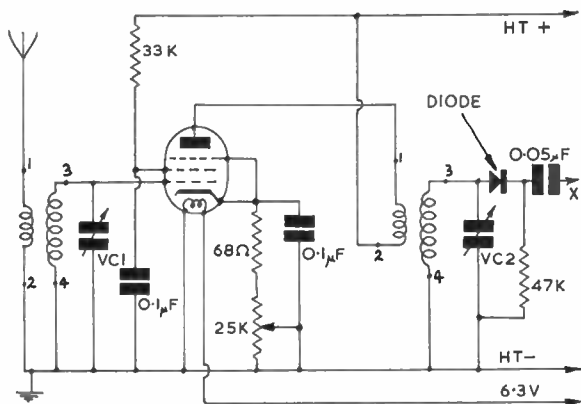
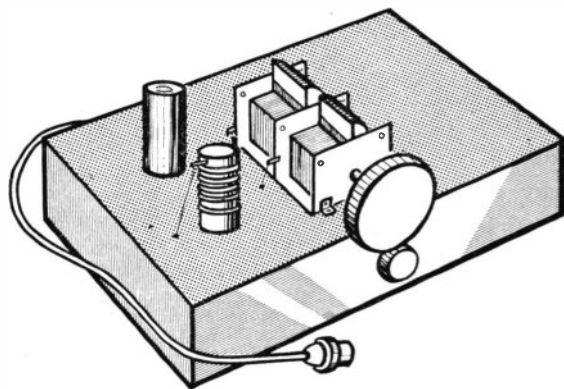


Fig. 30—'Quality' radio tuner



HT negative line is also the return circuit for the 6.3V circuit. The 25k potentiometer acts as volume control.

VC1 and VC2 are the two sections of a 2-gang tuning capacitor. One coil is fitted in the aerial circuit, and the other is used for the diode. VC1/VC2 can be a 2-gang 500pF capacitor, or it may be a 2-gang 350pF or similar component. Any usual type of control knob, dial, or reduction drive can be attached, and it should be of the kind fitted with trimmers. If not, then a 50pF trimmer should be connected from tags 3 to 4 on each coil. That is, one trimmer across VC1, and the other across VC2.

Coils

The coils for which tag connections are shown are Wearite 'P' coils. These are made for several wavebands, and the Range 2 coils are required. These cover approximately 200–550 metres, which is the usual medium wave band.

There is no reason why other coils should not be used, and they may be of the type with adjustable dust cores. The two coils must be a pair intended for use together.

The Wearite coils are numbered PA2 for the aerial circuit, and PHF2 for the detector coil. The aerial coil is on top of the chassis, Fig. 31.

Tuner construction

An aluminium chassis about 6 in. by 4 in. and 2 in. deep is most suitable. Cut a hole for the valveholder in the position shown in Fig. 31. The valveholder has a skirt, so that a metal screening can be placed over the valve. The holder is fixed with 6BA bolts, and a soldering tag is placed under each nut.

The 2-gang capacitor is mounted with its spindle centrally placed. Some capacitors have mounting feet, which are bolted to the chassis. This is usually so with the inexpensive surplus type of capacitor, which is perfectly satisfactory. Other capacitors have threaded holes, for fixing screws. The metal frame must be connected electrically to the chassis, and this is done by the fixing bolts and metal feet.

Connections and components under the chassis are shown in Fig. 32. Drill clearance holes for the sockets of the Aerial/Earth strip. The Aerial socket 'A' must be clear of the metal. The Earth socket 'E' is connected to the chassis.

All the points marked 'E' in Figs. 31 and 32 are connected to the chassis, and earth. The best method is to bolt

6BA tags firmly in place, and solder the leads to these.

Coil fixing

The coils mentioned are each secured by a 6BA bolt, which goes into a threaded strip near the bottom of the coil. This can be seen for the detector coil in Fig. 32.

The red sleeve tag of the detector coil goes to the front fixed plates of the gang capacitor. From here, an insulated lead passes through hole B to tag 1 of the valveholder. Two other tags (2 and 4 in Fig. 31) are joined, and taken to the chassis at E. An insulated lead goes from tag 1, through hole A, to the aerial socket.

With the coil under the chassis, the tag with the red sleeve is soldered to one lead from the diode. An insulated wire also goes from here, through hole C, to the rear section of the ganged capacitor, Fig. 31. Tag 1, Fig. 32, goes to tag 5 of the valveholder, while tag 2 goes to HT positive. Tag 4 is earthed.

The tag numbers in the diagrams are given to help identify the connections, and they will not be found on the coils. However, the coil tags are located as in Fig. 31, so correct connections can easily be made.

Other wiring

When connecting the resistors, note that yellow/purple/orange/silver is 47k. Orange/orange/orange/silver is 33k, and blue/grey/black/silver is 68 ohms. Capacitors usually have the value marked on them.

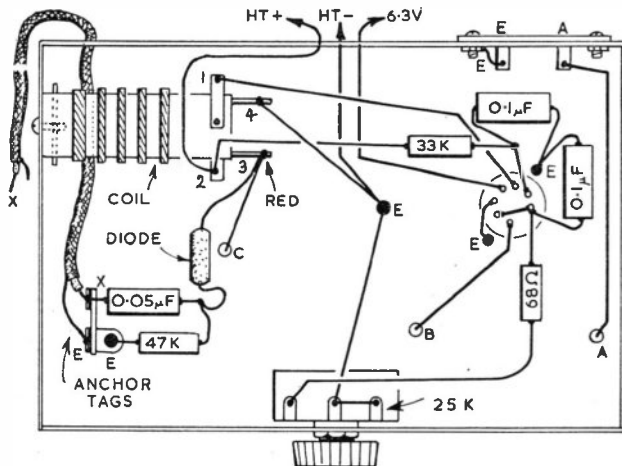


Fig. 31—Top of tuner chassis

Three lengths of coloured flex are used for the power supply leads. It is best to fit a rubber grommet in a hole in the rear runner of the chassis, and to pass the leads through this, so that the insulation will not be cut. For identification, use black for HT negative, red for HT positive, and some other colour for the 6.3V heater circuit.

A 2-tag strip is used to anchor the screened output lead, and 0.05µF capacitor. This strip has one tag which is part of the fixing bracket, and is bolted to the chassis. This tag is marked E. The other tag X is completely insulated from the chassis.

The screened lead is not always essential, but it is recommended as it avoids picking up hum here, or introducing

PARTS YOU NEED

6BA6 valve. B7G skirted holder with can.
Two 0.1µF 250v capacitors. 0.05µF capacitor.
2-gang 500pF or similar variable capacitor with trimmers.
Large knob.
(Two 50pF trimmers, if the variable capacitor does not have these.)
68 ohm, 33k, and 47k resistors.
25k potentiometer. Small knob.
Pair Aerial and Detector coils (see text).
Crystal diode. Chassis about 6 by 4 by 2 in.
Aerial/Earth sockets strip. 2-tag strip.
Flex, etc.

feedback which may cause howling. The outer braiding of the lead is undone, and the wires are twisted to form a pigtail. This is soldered to tag E. The inner connection goes to tag X.

The lead is of convenient length (say, 2 ft.), and it is best fitted with a co-axial plug, or jack plug, to suit the amplifier. If the tuner, and any pick-up or other items, all have the same plugs, any required equipment can be connected to the amplifier easily. Only a few moments will then be needed, to change from record playing to radio reception.

Power connections

The best method is to fit a 3-way socket to the amplifier or power pack, and to solder the tuner power supply leads to a plug to suit. Then inserting the plug connects up all the power circuits at once.

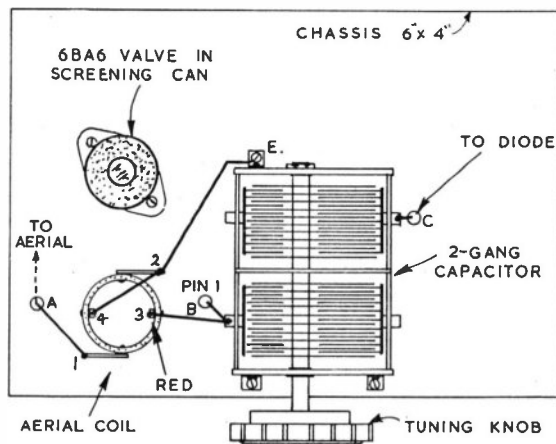


Fig. 32—Under the chassis

An old valve with a bakelite base is ideal for this purpose, a holder to suit being fixed to the amplifier or power pack. The valve pins are usually hollow, and can be cleaned out with the aid of a soldering iron. The supply leads can then be taken down the pins, and soldered.

Various plugs and sockets can also be purchased. Any of these will be satisfactory, provided there are at least three pins, and if the plug can only be inserted one way.

Trimming

When the tuner is connected to the amplifier, and is switched on, a local station should be received quite easily. The trimmers should be unscrewed about half way. If

possible, tune in a signal which is received with the ganged tuning capacitor nearly fully open. Then adjust the trimmers with an insulated screwdriver, for best volume. This adjustment is not critical. The coils mentioned have no adjustable cores, and need no adjustment.

If coils with adjustable cores have been fitted, adjust the trimmers as already explained. Then tune in a station with the ganged capacitor almost closed, and rotate the coil cores with an insulated tool, for best volume. The procedure (trimming, then core adjustment) should be repeated two or three times. The positions of the cores will also influence waveband coverage.

Home wound coils

Coils which have been wound at home can be used successfully in this circuit, if they are made with reasonable care. A Paxolin tube 1 in. in diameter and 2 in. long will do for each coil, and 32 s.w.g. enamelled wire can be used throughout.

The tuned windings, between points 3 and 4, each have 90

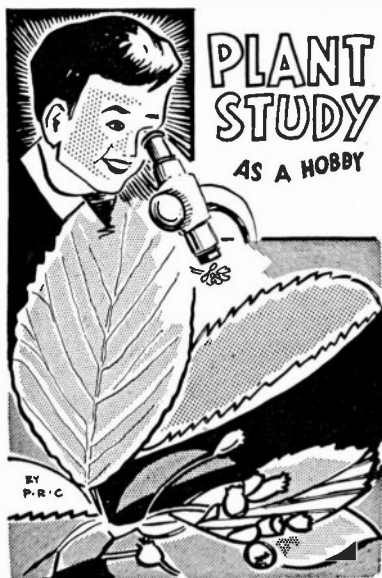
turns, side by side. Wind this part of each coil exactly like the other, so that they will tune simultaneously together.

The aerial coil has an aerial coupling winding between points 1 and 2. This is 25 turns, side by side, $\frac{1}{4}$ in. away from point 4. The detector coil anode winding, points 1 and 2, consists of 35 turns, side by side, also spaced $\frac{1}{4}$ in. away from point 4.

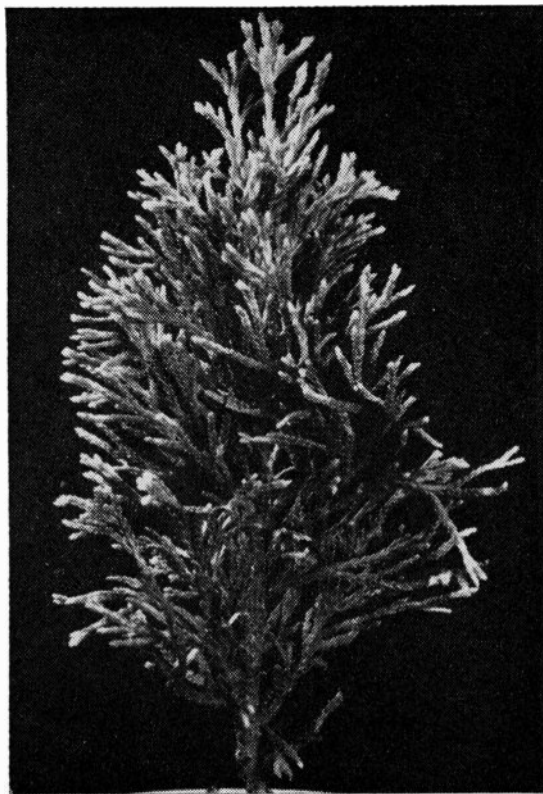
Case

The tuner is easily fitted in a box of thin wood, which has holes for the tuning capacitor spindle, and volume control fixing bush. A tuning scale can be drawn on thin card, and glued to the panel. The appearance will be improved if a piece of thin perspex is cut to cover the scale, and secured with four round-headed screws.

The tuner is intended for use with popular amplifiers in which heater and high tension currents are drawn from a mains transformer. It should not be used with an amplifier which has a live chassis connected directly to the mains.



DWARF TREES



Thuja plicata, 'Aurea Rogersii', with golden tips to the new growth

In the previous article on Bonsai, we discussed the artificial dwarfing of trees, as originally carried out in the East.

There are, however, many naturally dwarf trees which can be easily grown in quite small containers. Many of these trees are native to this country, mostly coming from the bleaker parts of Scotland, where conditions are such that natural selection has presumably given rise to these miniature forms. Others have been imported from various parts of the world, where conditions for plant growth are very difficult.

Plants will occupy any possible 'niche', as a particular type of environment is called, and if this is really unfavourable, evolution will have produced a form able to survive under these conditions. The plant then becomes a true dwarf species, and will not grow larger, even if the conditions are improved in cultivation. In fact, since the plant is adapted to

'living rough', it can easily be killed by kindness, and in order to keep such plants healthy they must not be 'coddled'.

In contrast to these plants, as most gardeners will know, plants which for some reason or another have not been given

the conditions they require, may be stunted and mis-shapen. This is purely due to the immediate environment, and such plants, if not too far gone, will change their characters and be healthier when grown under improved conditions.

Another way in which dwarf trees have been produced is by mutation. We have heard quite a lot about this word in relation to atomic radiation hazards, and, briefly, it means a sudden change in the inherited characteristics of a plant or animal. This can come about by artificial radiation and experiments have been done on these lines to produce different strains of plants, but it also occurs naturally, although rarely. When it does so, the seedlings from a normal tree, for example, may include one or two which grow into dwarfs, and these will breed 'true'; that is, they will themselves produce seeds most of which will produce dwarfs.

In practice, however, most of these little trees are propagated by cuttings; this will produce a plant identical to the parent. But nurserymen who do grow from seeds have been quick to notice any mutation in their seedlings which could develop into a new and interesting variety.

One great advantage of growing these miniature trees is that quite a number can be kept in a small space; they may be grown in pots or in a window-box. Because they must be kept 'tough', they are not suitable for growing indoors, although it is quite possible to bring them in for short periods for decoration.

Trees you can grow

Many of the dwarf trees are conifers, but amongst the others some of the most suitable are the various species of dwarf willow. Readers in Scotland may be familiar with these tiny trees, for the British species are to be found in the North. Most of the willows of the northern and arctic parts of the world are miniature.

The southerners amongst us will not see them growing wild unless we travel northwards, but these little plants can often be obtained quite cheaply from nurserymen. They are, of course, quite hardy in this country; in fact, the only danger in the south would appear to be that our typical damp, 'muggy' winter could possibly harm them, since they really prefer very cold, dry winters. For this reason they should be protected from too much rain by sheets of glass or plastic, but no artificial heat must be given.

The smallest of all, the Dwarf Willow (*Salix herbacea*) grows high up on hills, and is only a few inches tall. *Salix reticulata* is to be found on the mountains of northern Scotland and may be about a foot in height. *Salix arbuscula* is found in the same parts and makes a gnarled, twisted bush. *Salix lapponum* is about a foot high and has decorative catkins in the spring. This is commonly offered for sale, as also are *Salix apoda*, the male form of which has beautiful pink and orange catkins. *Salix myrtilloides* can also be found in the catalogues and has purple stems and silky young leaves.

None of these willows need cost more than five shillings, and most are cheaper. A point to note about the willows compared to the dwarf conifers is that the former have decorative catkins on the male plants. All willows are dioecious, that is the male and female flowers are carried on separate plants, and although they both have catkins, it is the male ones with the pollen which are the most decorative. Some nurserymen indicate in their lists which plants are male, otherwise you have to take a chance.



A dwarf willow tree, *Salix lapponum*, showing new leaves, in a 3" pot

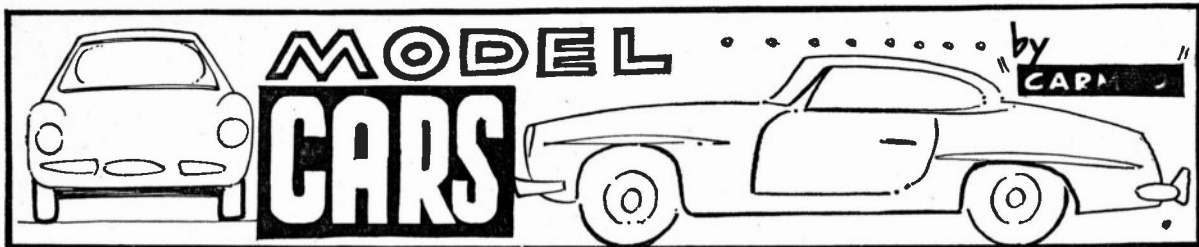
The conifers

The greatest number of dwarf trees that can be obtained and grown easily is found amongst the conifers. Some of these are actually dwarf species, and others are so slow-growing that they can be treated as dwarfs. Both types are found amongst the Cypresses, and these are mostly varieties of the Lawson Cypress, *Chamaeymparis lawsoniana*. The variety *ellwoodii* is often seen, and although it may reach a height of six feet, it is slow-growing and quite suitable for pot culture. The variety *nana* is a true dwarf, and also slow-growing; it is probably one of the best types. *Pygmaea* and *rigida* are also dwarf varieties. *Podocarpus alpinus* is a low, slow-growing little bush coming from Tasmania. The tiny, yew-like leaves are arranged in rows along the stems. The *Thujas* are somewhat similar in appearance to the Cypresses. *Thuja plicata* 'Aurea Rogersii' forms an attractive dense pyramid; the new growths are of a beautiful gold tinge. Although it may eventually reach a height of four feet in the open ground, it would probably take thirty years to do so!

Fir trees are very well-known and it may well be expected to find dwarf species amongst them. Possibly two of the best are *Picea mariana nana*, a neat, compact little plant (although the catalogue calls it 'rare', it only costs 5s.), and *Picea albertina conica*, forming a perfect little slow-growing pyramid.

All the above trees should be obtainable from a good nursery specializing in Alpine and Rock Garden plants, and for the few shillings they cost will give years of pleasure, requiring very little attention.

Next: Alpine Plants.



IT is only a few weeks ago that I described the modification of Dinky's Ford G.T. into its 1964 Le Mans form, but I make no apologies for considering another variation on the same theme.

There can be no doubt that we are to see a lot of interesting activity from Ford Advanced Vehicles in this and coming years. This marque, Shelby America, Brabham and, perhaps, McLaren are the up and coming sports and G.T. cars which must displace the might of Ferrari. It will be sad to see the Prancing Horse reduced in stature but that is the way of things; throughout motor racing history we have seen the rise of the great marques, Mercedes,

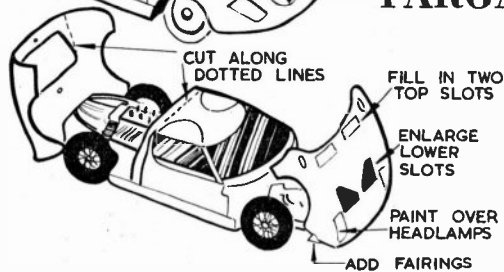
road circuit. The race was won by a Ferrari with Porsches coming second and third but this has not lessened the importance of the Fords and we must eagerly await the outcome of the Le Mans 24 Hour Race (which will be over by the time this is published).

The conversion from the Dinky basic is not particularly difficult and does not involve the taking apart of the several components. It is, however, desirable to replace the metal disc wheels with 'wires'. These can be of Marc Europa make (8 for 3s. 6d.) or even taking the wheels from a Lesney model and substituting the tyres.

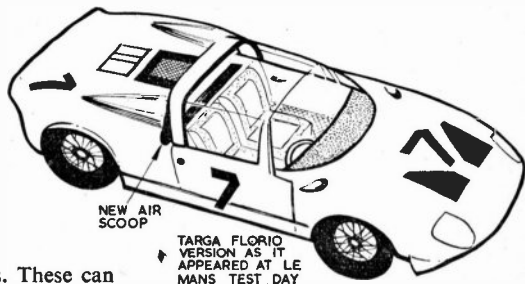
Taking the front end of the car first. Fill in the top two air slots with Plastone after smearing with adhesive. Two wedge-shaped fairings should be added

anti-roll crash bar, the door lines and air slits should be filled in with Plastone. It will be seen that the front door struts are angled differently: on the open versions they are near to vertical. It is advisable to use a fresh piece of clear plastic sheet for the windscreen, using the original as a pattern. The struts, cut from wood, can then be added.

The back end of the model calls for more work. Hacksaw away the forward upper part of the section over the rear window, along the dotted lines shown in the illustration, and remove the window. The side air scoops on the Dinky model are wrongly positioned for this modification and have to be filed flush with the body sides. The engine cover, air scoops and two 'fins' which extend rearward from the anti crash bar, now have to be built up with Plastone. This can be achieved by sacrificing the engine detail and opening rear end, in which case the whole part can be cemented down, or by cementing thin card to the under surface of the engine cover and building up on this. Build up Plastone to the shape



THE FORD G.T. TARGA FLORIO '65



Bugatti, Bentley, Auto Union, Aston Martin, all to be bettered as other cars took up the challenge. So let us not be too sad about the ageing giants: to be victorious at all in this tough sport is an achievement.

In April this year Ford Advanced Vehicles took their new open version of the G.T. car to Le Mans for the test day, although it is more likely they will use the closed cars for the actual race. The purpose of trying the open car at Le Mans was to give it a field test for the Targa Florio—the world's oldest surviving motor race—an event for which an open car is particularly suitable as real all-round vision is important on the twisting and, in parts, built up Sicilian

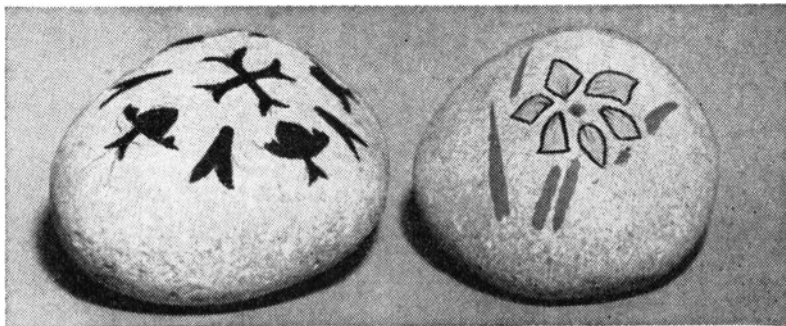
forward of the front wheels. These can be made from Plastone or can be carved from balsa wood. The ridges, between which the blue stripes are located, must be filed off and while doing this at the front end it is a good idea to take off these ridges on the other two parts of the model.

Passing on to the centre part—the cockpit section—cut across the roof at the dotted line in the illustration. Discard the roof and withdraw the windscreen. Seats and other interior details can now be painted (use a dark grey for the interior, black for the seats, silver for the steering wheel, spokes and dark brown for the rim). On the remaining part of the roof, which now forms the

shown in the illustration. Covers for the carburettor mouths are best marked in the Plastone while it is still soft.

Wire wheels, if desired, can now be fitted. Snip off the ends of the original axles with small pliers and withdraw. Insert into the new wheels, cementing those on the open ends of the axles. Finally the car should be painted all over white, including the headlamps, and race numbers '7' applied. These markings are for the Le Mans test day car. Details of the Targa Florio car are not available at the time of writing but I hope to add these particulars in the form of a rider to a future article in the series.

PEBBLE PAPER WEIGHTS



DECORATED pebbles make fine, inexpensive paper weights, examples being shown in our illustration. All you need are some clean, nicely shaped pebbles which can be found either at the seaside or by a river, plus some oil colours.

You will see all kinds of specimens on the beach but you should select those

shape and say about 3 in. long, only a little decorating is required. You may, however, obtain a smoother surface by rubbing with fine carborundum paper. It is useless trying to varnish the pebbles for this produces a dark colour and spoils the effect, moreover, the neutral light grey tones are the best ground for coloured work.

paints be used it is best to fix these by applying a coat of varnish. The latter must not overrun the decoration or, as previously stated, the pebble will be discoloured.

Any type of floral decoration is quite suitable and a few suggestions are shown in the diagrams. You may either trace these or copy them freehand on to a



which are nicely rounded, smooth and free from blemishes. Colours vary considerably in different districts and the ones shown are limestone pebbles obtained from a river bank. Sandstone pebbles are often coarse and soft — unsuitable for decorating — and these should be ignored.

Having found a few pebbles of good

The paper weight shown on the right has been painted in colours and given a simple flower decoration with leaves plus a black outline round the petals. The one on the left has been decorated with black Indian ink to give a contrasty effect. Glossy oil paints are advisable and small tins can be bought from a Hobbies branch. Should water colours or poster

pebble. You may use stencils for this purpose or rely on freehand sketches pencilled on the pebble before colouring. Alternatively, you may add silhouettes, monograms or whatever you like to make attractive little paper weights suitable for fund raising efforts.

(S.H.L)

The 'elasticity' of Skittles

ADROPPED glass marble bounces because of its elasticity, which means that, as it strikes the ground it is somewhat flattened or compressed, after which it returns to its original spherical form with such force that its whole mass is shot back into the air.

Elasticity is a property of matter

which different substances possess in more or less degree. The elasticity of compressed air eventually 'fires' a pop-gun and puts 'bounce' into tennis balls. Here is an interesting experiment in elasticity with some wooden skittles:

Suspend half a dozen skittles by threads from a horizontal bar. The skittles must just touch each other. Then,

lift back an end skittle and let it swing against its neighbour. A wave of successive pressure impulses passes down the line.

Respective skittles are momentarily compressed and then, in turn, rebound to pass on the force of impact to adjacent skittles. The skittles in the column remain more or less stationary, but the skittle at the far end is flipped up, by itself, almost to the height from which you released the first skittle.

(A.E.W.)

A DECORATIVE BUTTERFLY

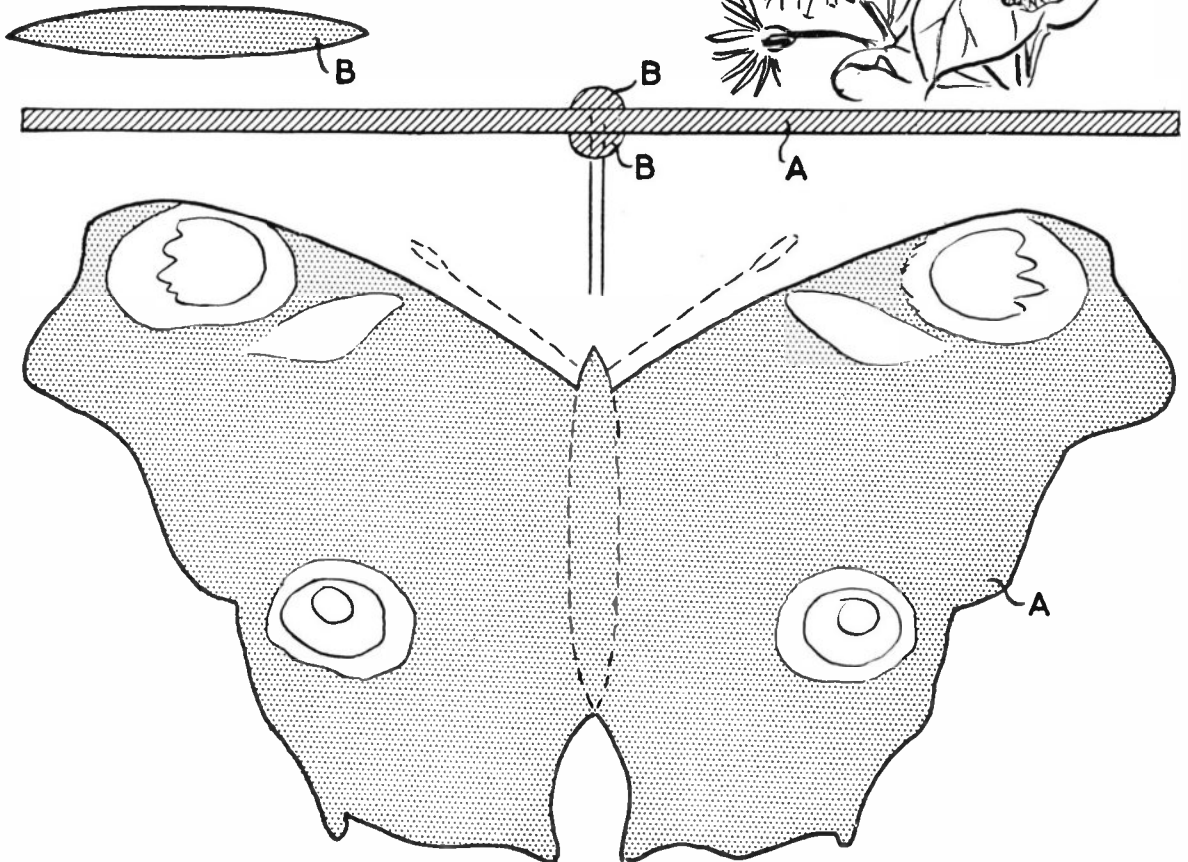
BEAUTIFY your window box with a giant size butterfly.

Cut out the shape A, from $\frac{1}{8}$ in. wood and the two body pieces B, from $\frac{1}{8}$ in. Glue the body pieces to A after rounding them off to the section shown. The antennae are short lengths of thin wire with blobs of solder at the ends. To support the body on the flower insert a length of wire into B on the underside. The hole should be drilled to prevent splitting.

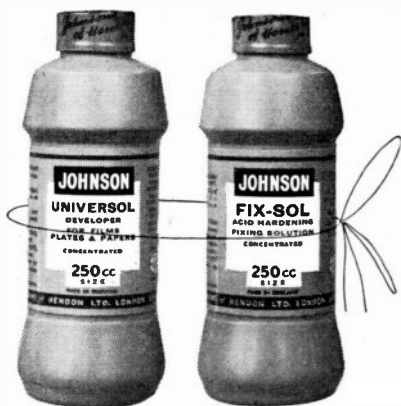
The butterfly should be coloured realistically for effect and the Peacock

shown is predominantly red and brown with dark and light 'eyes'. To get the best effect of colouring, copy from the real thing or from a coloured picture. Any of our colourful butterflies can be imitated in this way to bring an extra touch of colour to the garden or flower arrangement. (M.p.)

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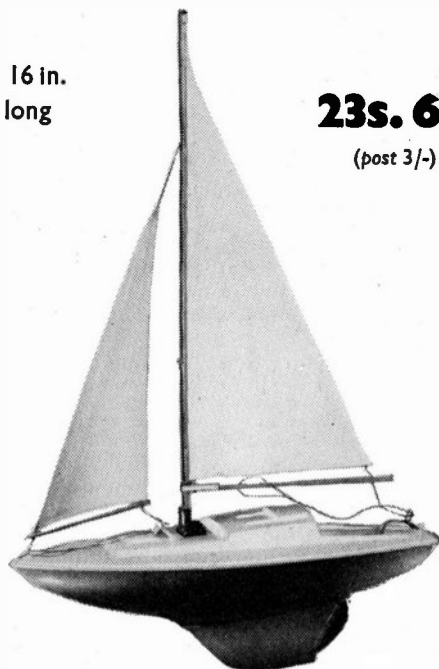
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MARTHA AND THE VANDELLAS

FOR some time now showbiz folk have been enthusing over the talents of these three young girls from America. Martha and the Vandellas are one of the most talented and successful girl vocal groups in the United States today.

The girls hail from Detroit and record for the Motown Record Corporation. While Motown President Berry Gordy was in Britain he told this story of Martha's start in show business.

'We already had a group called The Vandellas, who were brought to our attention through backing other artists, Marvin Gaye in particular. The way we found Martha was very funny. She was so crazy about pop music that every day she would come along to the building and somehow get admitted to the A & R Department where she would happily work away as a secretary for nothing.'

DRY baking powder keeps stable indefinitely, but a drop of water makes it froth and fizz. Baking powder contains dried tartaric acid and sodium bicarbonate, that can react together, to produce carbon dioxide. However, they need stimulating.

CATALYSTS

Water makes tartaric acid and sodium bicarbonate react, though the water is not used up. Such chemicals are called catalysts. They start or hasten chemical changes without themselves becoming permanently changed or used up.

Thus a catalyst can play a vital part **DURING** a reaction, but its form and quantity are the same at the finish as at the start.

Ask a friend to try and set fire to a sugar lump with a match. He fails. To succeed, he must flick some cigarette ash over the sugar. The ash itself does not burn, but it serves as a 'catalytic wick' to keep the sugar alight.



You need a special pass to get into the building, so sometimes Martha didn't manage it. We eventually made her a member of the staff and her duties included making tapes of songs for artists to learn. One day she was at a Vandellas session when one of the members fell ill. We gave Martha a chance and she was so great that we signed her as an artist and created Martha and The Vandellas.'

Martha and The Vandellas were an instant success. Their first disc 'Come and get these memories' was an immediate hit. They followed this with a record which really established them, 'Heat wave'. Issued here on Stateside, this was followed by 'Quicksand', 'Live wire', 'In my lonely room' and their biggest successes 'Dancing in the street' and 'Wild one'.

These three young ladies, all born in Detroit, are Martha Reeves, Rosalyn Ashford and Betty Kelly. Betty is the latest addition to the group. She replaced Annette Beard who left over a year ago to get married.

The little spare time that the girls have they devote to their big passion of bowling. Martha started singing in her local church choir and still does whenever she is in Detroit. Clothes are another big interest with the girls (they prefer simple styles) and wherever they are shopping is very important.

In November, 1964, Martha and The Vandellas made their first visit to Britain to promote their disc 'Dancing in the street' on radio and television.

On LP Martha and The Vandellas were featured on 'The Sound of the R & B Hits' on Stateside SL10077 and were heard, too, on the EPs 'R & B Chart-makers Nos 1 and 3' (SE1009/1022).

In March this year, Martha and The Vandellas returned to this country with other Motown artistes for TV and concert appearances. At the same time E.M.I. launched here their Tamla Motown label and Martha and The Vandellas were featured on one of the first 'singles' on the new label, 'Nowhere to run' and on the LPs '16 Tamla Motown Hits' (TML11001) and 'Heat wave' (TML 11005).

Miscellaneous Advertisements

APPROVALS. Purchase stamps in the comfort of your home, from Derricks Stamps, Dept. H. W., 33 Station Road, Twyford, Berks.

UNDER 21? Penfriends anywhere — details free.—Teenage Club, Falcon House, Burnley.

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FRENCH penfriends, all ages under 21. Send s.a.e. for free details. Anglo-French C.C. Falcon House, Burnley.

STAMPS FREE—Empire packet with Approvals (4d. Postage). John Peck, 143 Markham Road, Winton, Bournemouth.

FRETWORK machine required. Good condition, reasonable. Appleyard, 14 Stony Road, Farsley, Pudsey, Yorks.

FREE STAMPS — apply to 236 Mauldeth Road West, Withington, M/C 20.

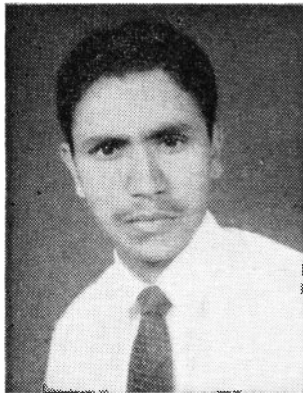
MISS A. A. Carr of Box 19, Kingston, Jamaica, would like readers to open correspondence with her. Her hobbies are dress-making and stamps.



Miss A. A. Carr

'I would be pleased to see my name published in the magazine,' says Esek Chandra Rai of St. Kavier's Gedauari School, P.O. Box 50, Kathmandu, Nepal. 'My interests are collecting stamps, insects, labels and cards, reading, basketball, football, and writing letters to friends. My age is 15. I have some nice stamps of my country for exchange and will answer all letters.'

'I collect match labels,' writes Lee Thinesen of Holbergsgade 25-1, Aarhus



S. H. Panse

TOPICS FOR COLLECTORS

C, Denmark. 'I have many Danish and Finnish labels for exchange — the latter are used in Denmark and include ships, cars, and a new Sampo series of warships. There is also a Danish set of views. I would like to have labels from England Australia and Russia.'

'I want to get to know people in other lands,' writes Preu Mohinchra of 4-35 Roop Nagar, Dellie 6, India. I collect stamps and labels. I will answer all letters.'

'I am an Indian fellow of 21 years of age, living in Satara City, in the State of Maharashtra, says S. H. Panse of 6 Vyankatpura Peth, Sudam Kutti, Satara City, Maharashtra, India. 'I have now completed my secondary education. I began stamp collecting on May 1st 1958 after reading a stamp article in *Hobbies*

Weekly, and now have a large collection. I would like readers to send me American stamps and I will send them stamps from my own country in exchange.'

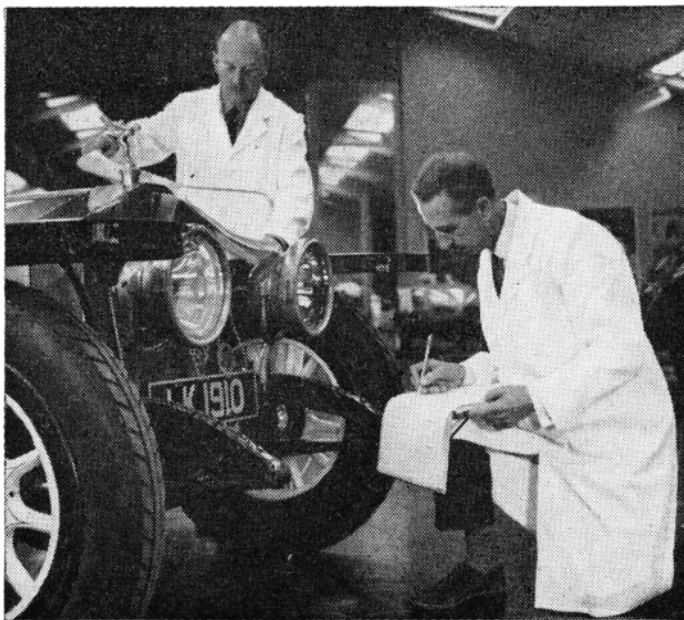
Stanislav Radouch of Puklicova 9,



Stanislav Radouch

Ceske Budejovice, Czechoslovakia, collects match labels and would like friends throughout the world.

If you would like a friend from North Borneo write to either of the following: Chong Chee Vui, 74 Chester Street, Tawau, North Borneo. Hiew Min Fah, 18 Dunlop Street, Tawau, North Borneo.



Chief 'Matchbox' Designer Fred Rix sketches and photographs the beautiful 1907 Rolls Royce 'Silver Ghost' touring car at the Measham Motor Museum, near Burton-on-Trent, England. Mr Rix is assisted by 'Matchbox' modelmaker Ken Wetton who checks for the 'super' details that are a must for the specification of the proposed model.

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READER'S REPLY
HW JULY 1965

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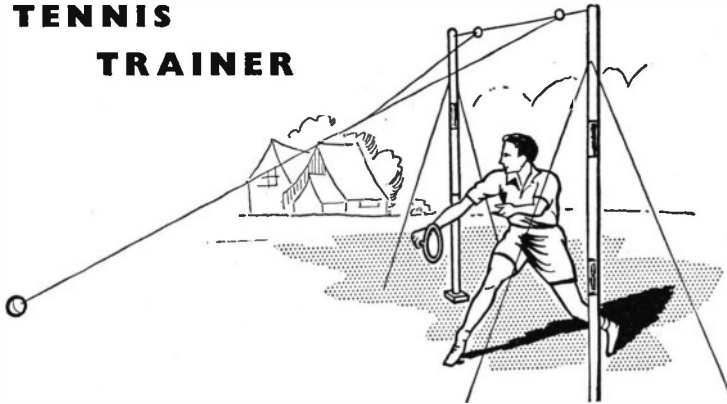
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