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FOR CRAFTSMEN OF ALL AGES

6^D



GUINEA pigs are ideal pets for children, especially where space is limited, and are most suitable for keeping indoors. Since this popular rodent cannot jump, climb or burrow, the housing requirements are extremely simple and if properly looked after there should be no offensive odour from the cage. The animals can be purchased in many different colours ranging from pure white or black, to chocolate or mahogany, with many intermediate shades and variegations.

It is, of course, essential to feed guinea-pigs properly, and like rabbits they can be offered a succession of greenstuff in season. Fresh green food can be given early in the year when the wild hedge parsley can be gathered. From then onwards, grass, plantains, knapweed, sow thistles, shepherds purse, hogweed, dandelion and garden greens or beet can be given. Care should be taken not to overfeed with greens from the garden.

In the winter months when little greenstuff is available the pets may be fed on mash, which is a mixture of bran, ground oats or barley meal with boiled potatoes, soaked bread and any other cooked vegetables which may be available. Mix up until the mash is moist but not sloppy. The amount given will naturally depend upon the needs of the individual pets, but in any event food, particularly mash, should not be left longer than 12 hours before clearing away.

Other points to remember are that the change over from mash to greens should be gradual, giving small quantities at first and gradually increasing the



HOW TO MAKE GUINEA-PIG HUTCHES

amounts. Also make sure that the guinea-pigs have food to nibble most of the time, since they seem to prefer this to having one or two meals a day. Hay can also be given provided it is of good quality and not mouldy or musty. Keep a little water in the hutch to provide them with a drink when required. Again, the water will need changing frequently.

Cleanliness in the cage is very important. It is wise to clean out every other day if you are to avoid smells. You

can wash out the cage during the summer when drying conditions are favourable. Cover the floor with sawdust or dry peat to a depth of about $\frac{1}{2}$ in. Bedding should consist of straw or hay and must be changed at least once a week. If kept clean and properly fed, guinea-pigs seldom suffer from illness.

Breeding can be quite successful, and the animals will produce young when only seven or eight weeks old, but it is more usual to leave them until at least six months old. If you intend trying to breed guinea-pigs, however, it would be wise to purchase a handbook on the subject. These are easily obtainable and are quite inexpensive.

A suitable run and hutch is shown in Fig. 1. The run is open and at one end is a covered portion for sleeping quarters. This is a suitable run for keeping in a covered shed where the animals will have a little protection from cold winter winds and frosts. The run can be stood on contemporary legs of convenient height.

The measurements shown are not critical and the length and width can be varied according to the space available. Make up the bottom from three or four suitable boards battened together as indicated. The sides are screwed to corner posts about 1 in. square, the posts at the hutch end being shorter to allow for the top covering. Make the entrance portion from $\frac{1}{4}$ in plywood, with corner posts at the back for strength. The top of the covered portion can be made to lift off for cleaning purposes. Give the whole run and hutch a coat of clear Cuprinol to preserve the wood.

A small hutch, which is suitable for indoors, is shown in Fig. 2. The measurements are shown on the diagram and it can be constructed mainly from $\frac{1}{2}$ in. plywood, exterior grade if possible. It can be stood on a bench or table, or can be provided with legs if required.

Cut the plywood to shape and pin together at the corners. Pieces of triangular fillet are added in appropriate positions for additional strength. There are two compartments, the smaller being the sleeping quarters.

The door to the smaller compartment is a piece of $\frac{1}{4}$ in. plywood and is hinged as shown in Fig. 3. The door of the other compartment is made up from $1\frac{1}{2}$ in. by $\frac{3}{4}$ in. stripwood, halved together as shown in Fig. 2 and hinged in place as seen in Fig. 3. Cover the back with small mesh netting pinned in place. Provide stops and catches for both doors. The top can be covered with a sheet of $\frac{1}{2}$ in. hardboard pinned in place.

Finish off by giving a coat of clear Cuprinol. The outside can then be painted, using a suitable undercoat and finished off with a top coat of high gloss enamel. (M.h.)

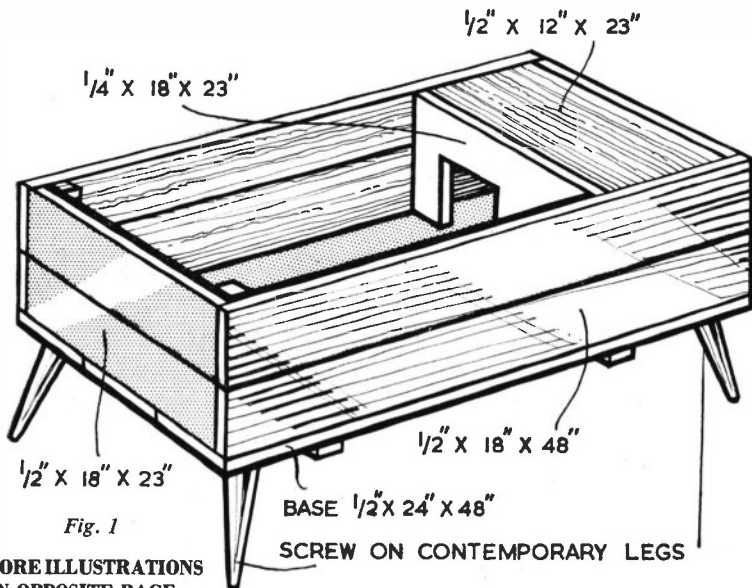


Fig. 1

**MORE ILLUSTRATIONS
ON OPPOSITE PAGE**



GUINEA PIG HUTCHES

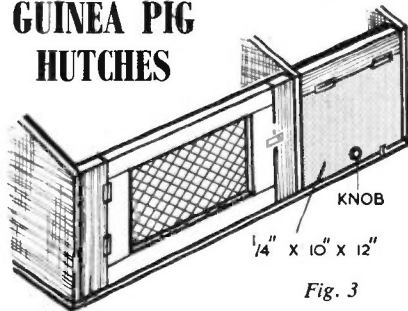


Fig. 3

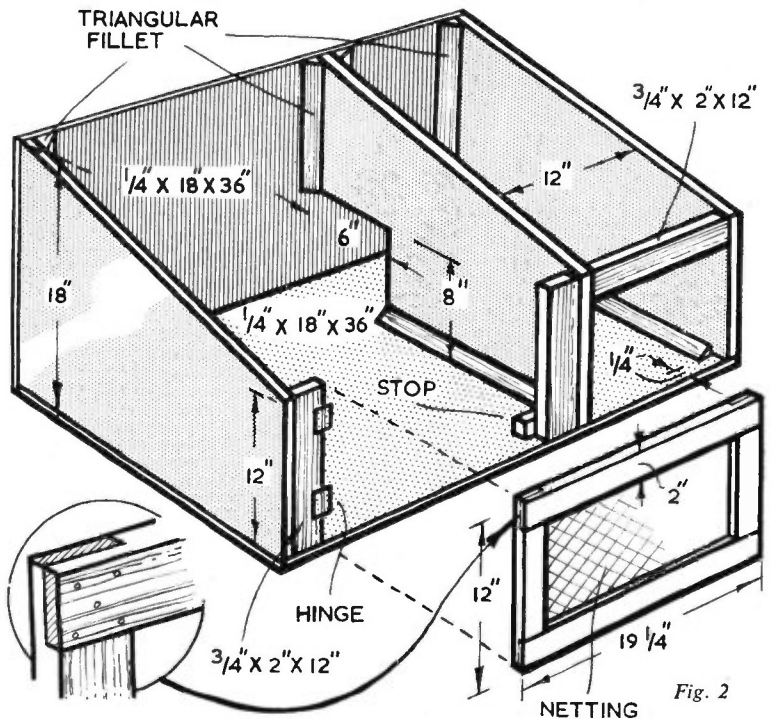


Fig. 2



SAMANTHA JONES

WHEN singer Samantha Jones was offered an important recording contract by an American company, what did she do? She consulted her astrologer. When she had to make her first record under the new contract, what did she do? She consulted her astrologer. And if and when some man asks her to marry him, what will she do? She'll consult her astrologer.

For Liverpool-born Samantha Jones would not dream of taking a step in her professional career — or making a move in her own private life — without first consulting her astrologer.

Samantha, a former Vernons Girl who shared in such disc hits as *You know what I mean* and *Funny all over* recorded a song for composer Charles Blackwell

who wanted to send it to United Artists in America as a demo disc.

U.A. president Mike Stewart heard the record and liked the singer so much that he started immediate negotiations to sign her to a contract. The result was that E.M.I. released Samantha Jones' *It's all because of you* and *I woke up crying* (United Artists UP1072).



HINTS ON MAKING TABLE LAMPS

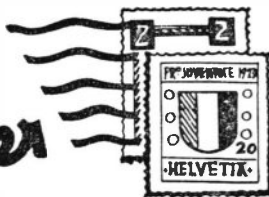
WHEN making table lamps from empty wine bottles or glass articles of a similar nature, especially when an 'adaptor-lamp' is used, always fill or partly fill the bottle with sand or plaster of paris. Pour the liquid plaster into the bottle, then insert the adaptor and leave to set. This adds weight to the bottle and makes it less likely to be knocked over.

The plaster may be dyed to any desired shade to suit the general colouring of the room, by adding a water soluble dye or paint to the water when mixing the plaster. Layers of different shades may be obtained by filling the bottle just so far and letting it set before adding the next colour. Some very pleasing effects may be obtained in this manner.

For another pleasing effect pour a little paint into the bottle and twist it around so that the paint makes an irregular pattern on the inside of the glass. Leave to dry and repeat with other colours if desired. Always fill with sand or plaster afterwards to add the necessary weight to prevent spilling. (E.M.)



Stamp Collector's Corner



WHERE TO PUT THEM

New Name.	Suggested place in the fixed album.
Ghana	Gold Coast
Malagasy (Malgache)	Madagascar or French Colonies
Mali	Sudan (French)
Zambia	Northern Rhodesia
Malawi	Nyasaland
Malaysia	Malay
Sabah	
Sharjah	
Abu Dhabi	
Dubai	
Ras al Khaimah	Trucial States if not Iraq.
Ajman	
Umm Al Qiwain	

PLACINGS FOR NEW ISSUES

By L. P. V. Veale

should always be able to find the information.

There is one book that is most valuable in that respect and that is the complete

ANYONE who takes up a newspaper nowadays will almost certainly come across the name of a country or district which will make him pause and consider what and where it is.

Naturally stamp collectors will be even more likely to meet these new names, and some of the readers of *Hobbies Weekly* have been experiencing a certain amount of difficulty in knowing what to do with these new stamps with their unfamiliar names. Now it is not very easy to decide what to do when you have a fixed leaf album, and this might be the case with the vast majority of younger collectors. If you have a loose leaf album there is no problem at all, after you have found out in which continent the stamp issuing country is situated.

If you keep all your countries in strict alphabetical order irrespective of continent then you do not even have to find out where the country is; but that is really very poor collecting. Suppose someone looking through your collection turned to you and asked you where that stamp — pointing to some specimen — came from. You would surely feel rather small if you could not answer them. With all the various books and atlases that are available these days one

in. If this is the case then these should be used even if the place does not quite come where you want it. Or again, sometimes there are spaces at the end for new issues and these will obviously be the spaces to use. Title them as neatly as you can and they will not detract from the appearance of the album.

Now to get down to the 'where and what'. Let us take an easy example to



Left: Uhuru on 9th Dec. 1961. Right: Jamhuri on 9th Dec. 1962

edition of Whitaker's Almanack. Notice that we especially mention the complete edition, because there are two — the shorter edition and the complete — and the information concerning all the regions of the British Commonwealth of Nations and all foreign countries is only to be found in the complete edition.

If you have not got a loose leaf album then the best thing that you can do is to cut some sheets of paper $\frac{1}{2}$ in. wider than the width of the album. Carefully bend this $\frac{1}{2}$ in. back and using as little gum as possible stick this to the page in front, as close to the binding of the album as possible. This will enable you to turn the pages over more easily than if you did not have the folded portion. Rule the sheets in the same way as the pages of the album. If this is done carefully the result should be as neat as the original.

Sometimes a fixed leaf album has places where one can stick a fresh page

start with, that of Ghana. If your album was printed before 6th March 1957 there will not be any place into which you are obviously expected to put these stamps because that was the day on which Ghana came into being as an independent state. The first illustration should help here, the Gold Coast stamp overprinted 'Ghana Independence 6th March 1957'. It adopted a republican constitution on 1st July 1960. Now speaking correctly one cannot place the stamps of Ghana under any other title than Ghana, but as the area is of the old Gold Coast Colony one could write the name Ghana half way down the page devoted to Gold Coast Colony, and there you have the best solution for the fixed leaf album.

A completely new name in the stamp album is that of the Republic of Malagasy, new that is since the end of 1958 when the French island of Madagascar became an independent republic remain-



Top: Birth of a new stamp-issuing country

Below: A French colony becomes independent

ing within the French community. Here you have very nearly the same conditions as Ghana, so that the stamps of Malagasy (see illustration) could go on the same page as those of Madagascar.

Not quite so simple is the case of the Republic of Mali, formerly the French Colony of Sudan, which on 24th November 1958 became a republic. But Senegal seceded and on 22nd September 1960 it formed a republic but no longer as a member of the French community.

A fresh page

Well obviously you have a difficulty here in that Mali does not really represent an old territory. The only thing that one can do in this instance is to introduce a page.

Senegal is another problem. Until 1944 it issued stamps as a French Colony; then until 1959 the stamps of French West Africa were used. But then for a year it used the stamps of the Mali Federation and from September 1960 we have the Republic of Senegal again. Here the wisest thing to do is to forget the lapse of time and put all Senegal stamps together.

A similar situation arises in the case of Northern Rhodesia, stamps for this region were at first those issued by the British South Africa Company in 1890, and in 1909 these stamps were over-printed 'Rhodesia'. In 1910 both names appeared on the stamps and these were in use until 1924. Then in 1925 the Northern Rhodesian stamps came out with the portrait of King George V above the giraffe and elephants (King George VI and Queen Elizabeth II had the same design). From 1954 to 1963 the stamps used were those of Rhodesia and Nyasaland. In 1963 there was a new set with the arms of Northern Rhodesia and the portrait of H.M. Queen Elizabeth II and now of course since the 24th October last the name is Zambia.

Well, these are the facts and what is the best thing to do about it? The desirable solution would be to head a page 'British South Africa Company', put in all the stamps bearing this name at the top of the page for say two lines, then head the next few lines 'Northern Rhodesia 1925'. Allow space for those stamps and then have another heading 'Rhodesia and Nyasaland 1954-1963'. A couple of lines should be sufficient for these and again we have 'Northern Rhodesia' for the last set, and finally 'Zambia'.

Numerous issues from Ghana

Now we do not know about the number of stamps that Zambia will issue. Remember Ghana. When the area was known as the Gold Coast from 1875 to 1953 (a period of 78 years) some 165 stamps were issued. As Ghana from 1957

to 1963 (only six years) exactly the same number of stamps have been issued, showing pretty clearly that they are trying to make money out of the sale of stamps to collectors. That makes it practically impossible to state how much space is required for such collections.

Two terms which may puzzle you are illustrated by the two stamps from Tanganyika. The first 'Uhuru' will be seen in very small print on the left side of the stamp at the head of the patient. With it is the date (9 Dec. 1961) and this supplies the clue. That is the date on which independence was granted. Then on the adjoining stamp you can see the word 'Jamhuri' and again they have given the date (9 Dec 1962) when it was proclaimed a republic.

The Nyasaland stamps (Malawi) have the word 'Ufulu' and the date of their independence, so from that date the stamps will be named Malawi, but it will doubtless be better to put them under Nyasaland.

Another new name is that of Sabah, and that is what the stamps of North

Borneo will be called, the name being changed on joining the Federation of Malaysia. Now Malaysia includes all the stamp issuing units of the Federation of Malay, that is: Johore, Kedah, Kelantan, Malacca, Negri Sembilan, Pahang, Penang, Perak, Perlis and Trengganu together with Sabah (as above), Sarawak and Singapore. So one really must have a fresh page in which to put these.

Deciding factor

Aden has ceased issuing separate stamps now that those of the Federation of South Arabia have appeared, but the states of Qu'aiti and Kathiri will continue to issue their own.

The main thing is surely to know from whence a stamp has come and that should be the deciding factor as to where it goes in the album, subject to realising the possibility of some areas joining together to make a completely new stamp-issuing region. And when this does happen then you are almost compelled to offer them fresh quarters.

FUN WITH A 'HULA TOP'

DID you ever spin a 'hula hoop' around your body, by swinging round your hips in the manner of Hawaiian hula dancing girls?

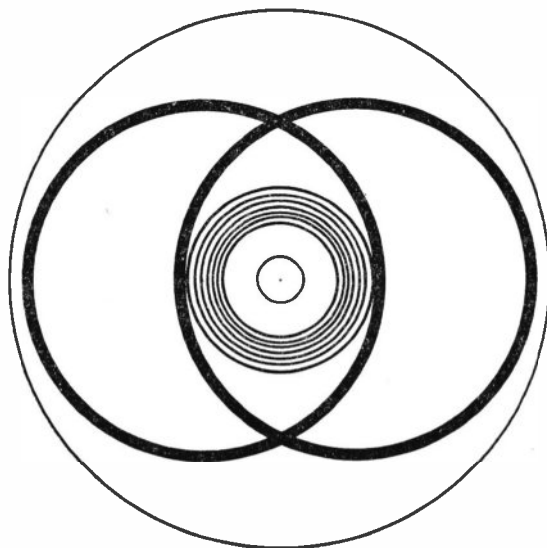
Here is a remarkable toy top that will remind you of two hula hoops being 'spun' together by a veritable champion.

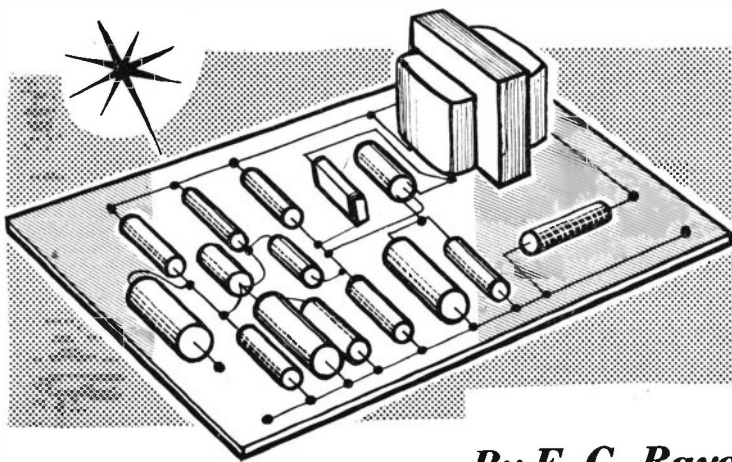
Copy the diagram on to white cardboard, using black ink, pen and compasses. A good diameter for the 'disc' is 6 in. Cut out the disc with scissors and make it into a top. Prepare a top 'spindle' by sharpening an end of a 2 in. piece cut off a wooden penholder.

Make a hole in the disc, to take the spindle. Insert the spindle halfway into the hole, and secure it in place with glue.

Spin the top in good light. When the speed of the top has sufficiently decreased, the amazing 'hula hoop effect' will commence. The two black 'hoops' will appear to be hurled around the 'waist' of the little shaded circle. You can paint the small circle red.

Furthermore, you may believe that you can see the separate hoops passing each other in a realistic '3D' manner. (A.E.W.)





By F. G. Rayer

TWO-TRANSISTOR AMPLIFIER

FOR loudspeaker results from a record pick-up or crystal set or tuner, a 3 or 4 transistor amplifier is often used. If some reduction in maximum volume can be accepted, then a simpler circuit, with fewer transistors, can be employed. The 2-transistor amplifier described here will give sufficient volume for many purposes, such as listening at home when great volume is not wanted.

The circuit is shown in Fig. 1, and uses an OC71 as first amplifier, followed by an OC72 output stage. These transistors are very easily obtained. Other transistors of similar type will probably work satisfactorily — a few notes on using them are given later. The signal to be amplified is taken to points X and Y.

The loudspeaker is separate, and can be in its own cabinet.

Loudspeaker

If a miniature speaker is to hand, it can be used, though a larger speaker will give better results. A 3½ in., 5 in. or 7 in. speaker, or any similar unit, including oval speakers, will be satisfactory. It should be a permanent magnet one, with 2 ohm or 3 ohm speech coil.

Many of the older speakers as used in small valve receivers can give very satisfactory results. These generally have an output transformer attached to them. This transformer will have a high ratio, and it is not suitable for use with transistors. So it must be removed or disconnected. Two leads from the out-

put transformer in the amplifier are then taken directly to the speech coil connecting tags of the speaker.

If a speaker with a cabinet is available, the transistor amplifier and its battery can probably be accommodated in the same case. Leads then only need go from X and Y to the radio tuner, crystal set, or pick-up.

For record playing only, it may be preferred to assemble the amplifier and speaker in a case which also holds the turntable and motor. Another method, with a fairly large crystal set, is to place the amplifier and battery in the crystal receiver cabinet, so that a loudspeaker can then be operated, instead of headphones.

COMPONENTS LIST

Half-watt 10 percent resistors:
 10k brown-black-orange-silver.
 47k yellow-purple-orange-silver.
 470 ohms yellow-purple-brown-silver.
 2.7k red-purple-red-silver.
 2.2k red-red-red-silver.
 12k brown-red-orange-silver.
 39 ohms orange-white-black-silver.
 0.25μF 150V, 2000pF, 8μF 6V, 50μF 6V and two 100μF 12V capacitors.
 OC71, OC72.
 Paxolin sheet. Length 1 mm sleeving. Thin flex.
 ADP2/S2 battery plug.
 (Above may be obtained from Home Radio (Mitcham) Ltd., 187 London Road, Mitcham, Surrey, or many suppliers.)
 QXO2 output transformer (Osmor Radio, 540 Purley Way, Croydon, Surrey) or similar.

Wiring up

All the components are mounted on a piece of 1/8 in. thick Paxolin, about 5 in. by 3½ in. Connections are shown in Fig. 2. The connecting points X and Y, and those for the speaker S and battery may be 6BA terminals or bolts. If soldered joints are preferred here, small staples can be formed from 24 s.w.g. or similar bare wire, and inserted in 1/8 in. holes. The ends are opened slightly, and leads can be soldered directly to the anchor points.

Wiring may be on top of the board, exactly as in Fig. 2. If a bare wire is stretched from Y to the battery positive point, all the components connected to Y and positive can be soldered on. The positive leads of the two 100μF capacitors and 50μF capacitor go to this circuit.

Another bare wire can be taken from the switch (negative) point, to A and B. The three resistors and transformer primary can then be connected to this circuit.

The 0.25μF and 2000pF capacitors can then be added, and the 8μF electrolytic capacitor, which has positive and negative ends connected as indicated. Some of the wire ends can pass down through 1/8 in. holes. The projecting wire is cut to leave about ¼ in., which is turned flat on

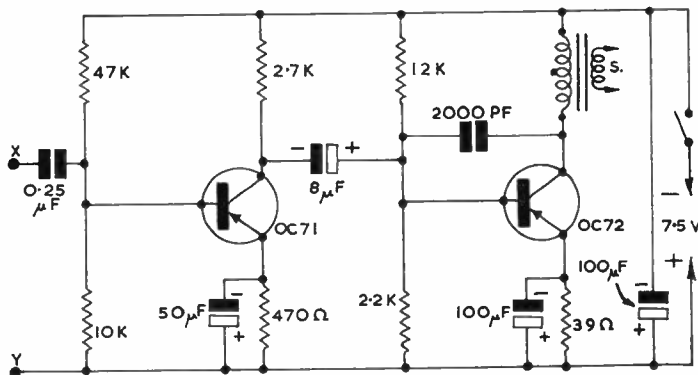


Fig. 1—Circuit of the amplifier

the board to anchor the component.

The transformer listed has two projections, which go through slots in the board. Slots can be made by drilling $\frac{1}{8}$ in. holes close together. The primary has three leads, and the centre one is not used in this circuit. (The transformer is actually designed for two transistors in push-pull.) Place insulated sleeving on the secondary (speaker) leads, or on the adjacent negative wire.

Other transformers of similar type should be satisfactory. A very small or miniature transformer is not recommended.

Transistors

Fig. 3 will help Emitter, Base and Collector leads to be identified. There is a red dot near the Collector lead, Figs. 2 and 3. In Fig. 2, B is Base, E is Emitter, and C is Collector.

All the transistor wires can be left at least 1 in. long, and there is no danger of damaging the transistors from overheating if connections are soldered rapidly. Insulated sleeving is placed on each Base lead, to avoid short circuits. It is as well to leave the transistors until other connections have been soldered.

Battery and Switch

The switch is placed at any convenient point in the negative lead to the battery. A 7½V battery such as the AD38 is convenient, with the correct type of non-reversible 2-pin plug. Battery connections must never be reversed.

The switch may be on the side or

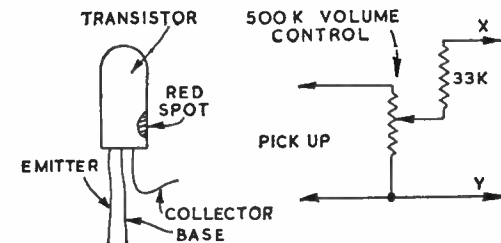


Fig. 3 (Left) — Transistors and volume control

front of the box or cabinet. If a volume control is used, this can have an internal switch, and a separate switch is then not wanted.

Enough volume for some purposes can be obtained with a 6V or 4½V battery. If a flashlamp battery is used, note that the zinc case of the cell will be negative, and the central carbon rod (with cap) positive. Should the battery be connected with the wrong polarity, this will probably destroy the OC72, at least.

Pick-up

A high output lightweight pick-up, such as the crystal type used for 33 and 45 r.p.m., will be most suitable. This

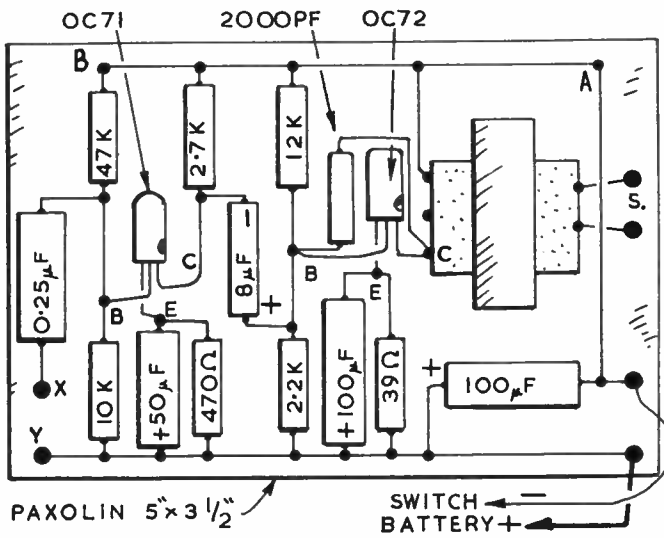


Fig. 2—Wiring plan of the amplifier

kind of pick-up is fitted to many of the small turntable units, which are made to run from a 6V, 7½V, or 9V dry battery.

When using a pick-up of this kind, a volume control can be added as in Fig. 3. The connection to Y will be the outer screening or braiding of the pick-up lead. The volume control can be near the turntable, or fitted in the box holding the amplifier, according to the way the

factorily instead of the OC71, without changing any component values here. Very inexpensive surplus transistors should not be expected to give results equal to those from guaranteed transistors of full efficiency. But there is no reason why any transistors to hand should not be tried.

For the OC72 position, a small out-

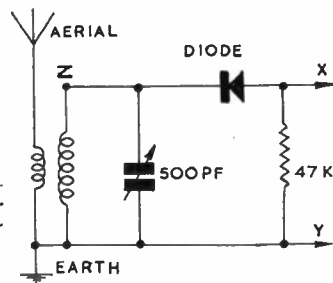


Fig. 4 (Right) — Radio feeder for amplifier

equipment has been arranged.

Radio tuner

If a crystal set is in use, it can be amplified by connecting its earth line to Y, and detector to X. Or a radio tuner can be made from the circuit in Fig. 4.

The coil can be for medium waves, or for both medium and long waves. If the aerial is short, volume will be improved by taking the aerial lead directly to Z. Generally enough volume can be expected from one or two local stations, but not from distant stations.

Other transistors

Many small audio amplifier and similar transistors will work satis-

put transistor is needed. It may be necessary to adjust the value of the 2.2k resistor until the collector current is about 12mA to 20mA, with a 7½V battery. Current is checked by including a meter in one battery lead. Reducing the value of the 2.2k resistor will reduce the current; increasing the value of this resistor will cause the transistor to draw more current. If current is very small, volume will be low, and results distorted. On the other hand, a very large current will reduce the battery life, and may damage the transistor. It is for this reason that the same resistor values may not suit other types of transistor.

Radio disguise for a Candid Camera

ANY camera, however small, is difficult to use unobtrusively for candid photography, which is becoming very popular. The ideal solution to this problem is to camouflage the instrument in some way. A dummy transistor radio was chosen as the disguise for two reasons. Firstly, it is now such a common sight that no-one ever gives it a second glance; secondly, its size and proportions render it easy to use, stow away and carry about. How this 'radio camera' appeared is shown in the photograph in Fig. 1.

Since the materials required to construct this disguise are few and simple, and can be found in most handymen's junk boxes, the cost is negligible. The sizes given in the drawing (Fig. 2a), are suitable for the Mycro IIIA sub-miniature camera. Modification will, of course, be needed to suit other makes.

The case may be made from $\frac{1}{8}$ in. thick hardboard or plywood, profiled with the fretsaw and edges sanded smooth. The parts are joined with a synthetic resin glue. Anyone preferring a metal case could use thin aluminium alloy sheet (say 22 gauge) bonded with an epoxy resin such as Araldite. Provided that the metal is cleaned effectively before jointing, the result will be almost as strong as that obtained by welding.

The camera compartment must be a good fit around the camera body, and strips of thin batze or felt should be glued inside to satisfy this requirement.

*Described by
A. E. Bensusan*

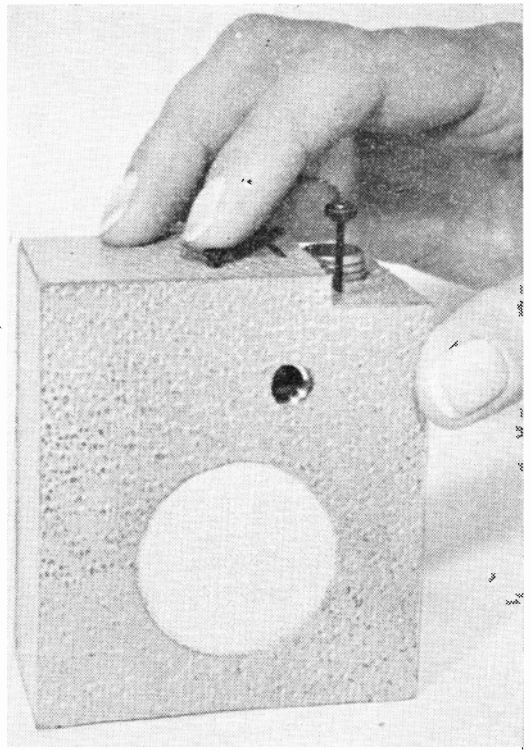


Fig. 1—Front view of the disguised camera in use

The hole for the lens needs to be slightly larger than the glass to avoid interference with the angle of acceptance. No hole is cut for the dummy loudspeaker grille, as this is simply a piece of wire mesh or coarse linen glued to the face of the case and seen through a circular hole cut in the leather covering.

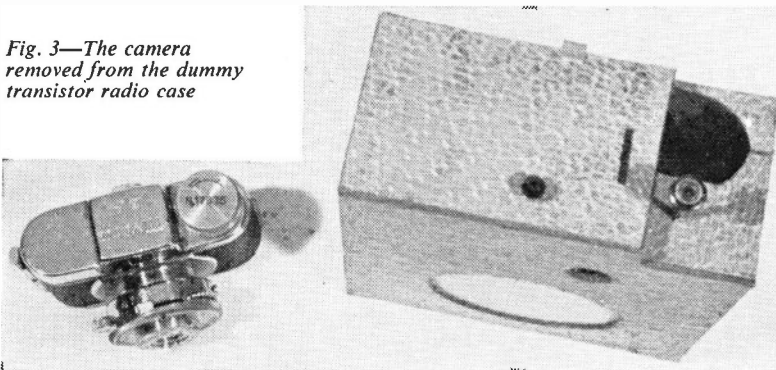
The film winding knob protrudes through a fretsaw cut-out at one side, where it performs its proper function while looking like a station selector. The back half of this shaped surround is

rigidly fixed to the door panel, and swings away with it to enable the camera to be inserted. The shape of the cut-out is seen more readily from Fig. 3.

The Mycro has a shutter setting as well as a release so two external controls are necessary, but this does not apply to all cameras. Two flat pieces of spring steel are bent up as shown in Fig. 2b, and oddments from the junk box pressed into service as buttons and stems. The springs should be bonded inside the case with epoxy resin before passing the stems through holes in the top face and bonding them to the springs.

It is essential to have slightly oversized holes in the top of the case for these controls to pass through, as there is a slight lateral movement when the buttons are pressed. A little experimentation soon establishes the correct positioning and sizing of these components. The door is also made from either hardboard, plywood or aluminium. It is shaped so that it fits neatly into the back of the case, coming to rest against the edges of the interior partitions. A fabric or leather hinge bonded along the lower edge connects it to the case, while a small clip operates on a pin to secure it when closed. If the camera has a film winding window, provision must be made for this to be seen, and its cover to

Fig. 3—The camera removed from the dummy transistor radio case



be slid back, through a suitably sized and shaped hole as shown in Fig. 4.

The entire case is covered with leather or imitation cloth; if you use an old wallet to provide this, its well-worn appearance will aid the disguise. Should the buttons and stems have already been fitted in place prior to this covering, a few short slits radiating from the holes will enable the buttons to pass through.

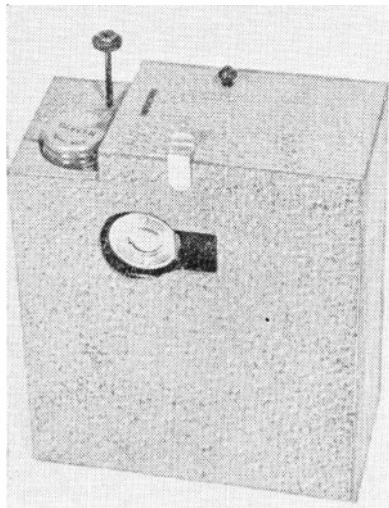


Fig. 4—Rear view showing the winding window aperture

When the leather is glued down, the slits will not show. The leather follows the contours of the case and has similar holes cut in it, with an additional one to and show the 'loudspeaker grille'.

The door is covered separately, allowing enough overlap all round to hide the edges of the case. While an extra pair of apertures could be cut, back and front, to enable the viewfinder to be used, the aiming line inked on the case, and shown in the photographs, is

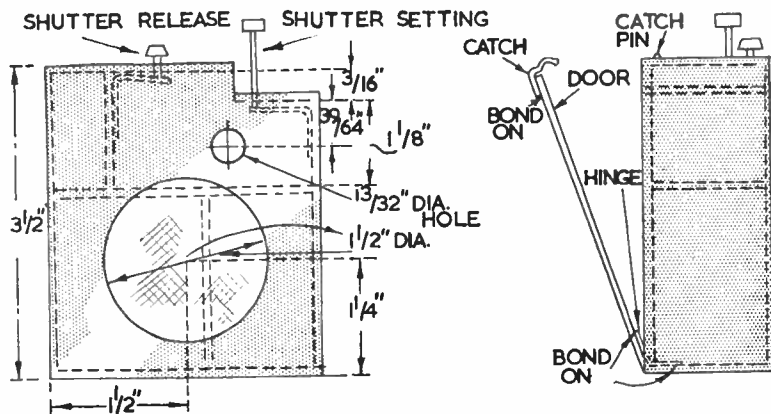


Fig. 2B—Details of buttons

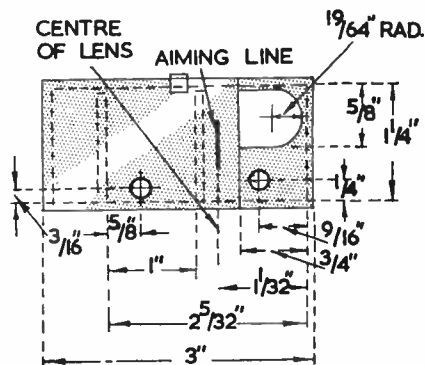
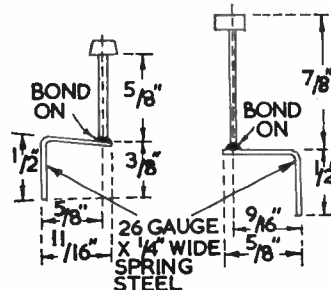


Fig. 2A—Construction of case

adequate when experience has been gained in estimating the field coverage. An alternative would be to fit a dummy handle which serves as a frame viewfinder.

Further external controls would be necessary to move the stop and speed levers on the camera, but it is quite satisfactory to rely on pre-adjusted



average settings. The 20 mm. lens of the Mycro does not focus so no control is needed there, although focusing lenses could be set beforehand to cover the desired depth of field.

The camera, in its disguise, can be used when carrying it in the hand, resting it on a table or, when sitting, by holding it on the knee. If you want to make a detail-perfect disguise of this sort you could even build in a transistor radio as there is ample room in the case.

EGG TRAYS ARE SO HANDY FOR SMALL PARTS STORAGE

SMALL parts storage is always a problem for the handyman, but those pasteboard egg trays discarded by the grocer can go a very long way towards solving the problem.

Each tray has 36 small depressions which can be utilised for storing small screws, nuts, bolts, nails, etc.

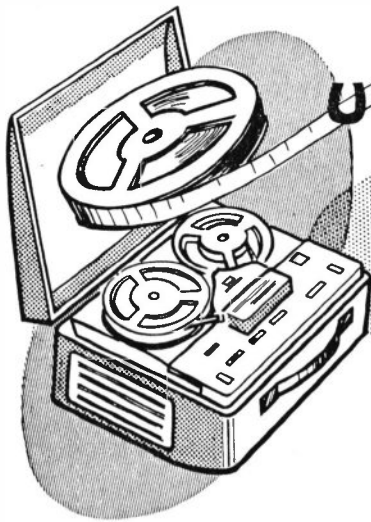
Give the tray two good coats of shellac varnish inside and out. Then

glue or screw through the bottom of the depressions to a sheet of $\frac{1}{4}$ in. plywood or $\frac{1}{4}$ in. hardboard of suitable size, and fix to the under side of the bench like a slide or shallow drawer. Those little items are then quite accessible although out of the way. The workshop can be kept tidy and few if any small pieces can get lost.

The writer has put six such slides into

a box-like cabinet and now has 216 containers for small items. The trays can also be used for temporary storage of those little bits stripped down when doing repairs or maintenance on the clock, toaster, car, washing machine, etc.

The similar type of egg container with a lid holding six or twelve eggs that the lady of the house gets her eggs in are also extremely useful for portable temporary storage. The lids are useful to keep the parts clean. Just give the containers two coats of shellac inside and out for stiffness. The shellac also makes the tray oil and waterproof. (E.M.)



USING YOUR TAPE RECORDER

HOW TO CONTROL SOUND SOURCES

IN tape recording technical jargon a sound source is the object making the sound. It could be a grasshopper or a fleet of supersonic jets. Between these two widely different sounds there is a connecting link. Rarely either can be simply recorded, such as a conventional household sound (e.g. door bells, whistling kettles, doors opening and shutting, etc.)

The two examples each come from opposing groups of difficult sound sources. In the case of the grasshopper the sound is elusive and small. With the supersonic jets the sound is apt to be overwhelming. Unless controlled in some way, the reproduced recording will just sound like a mess.

With insect noises, bird calls, and other delicate sounds of nature, a very

simple device is used, known as a parabolic reflector, which is a large bowl made of any convenient substance, from copper to papier-mâché, which causes all the sound waves to reflect in the manner shown in the illustration, to a central position, at which point an inverted microphone can pick up the concentrated sound. These reflectors can be mounted on a camera tripod.

When the recordist is faced with a sound source too unwieldy to get a clear recording by conventional methods, I have found that the best method is by using a low sensitive microphone. A recordist who uses several microphones — and after a few years at this hobby one does seem to collect them — will get to know which microphones are highly sensitive and which are not.

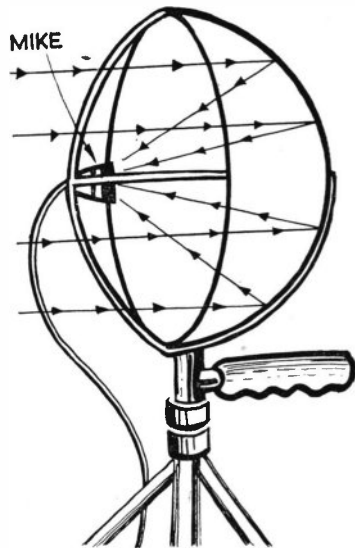
For example, my most sensitive microphone cannot be used for indoor recording if there is a clock in the room.

The ticking of even the smallest chronometer is expanded to the sinister proportions of a time bomb.

One of the most difficult sounds to record is a train when travelling on it. The old advice of holding the microphone out of the window is dangerous as well as illegal.

When I did it I used a low sensitive microphone, and also the lowest reasonable volume input. What microphone did I use? Why, the little microphone that came with the portable! It does come in handy sometimes. And the recording was very, very successful.

(G.E.G.)



A parabolic reflector



Miscellaneous Advertisements

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

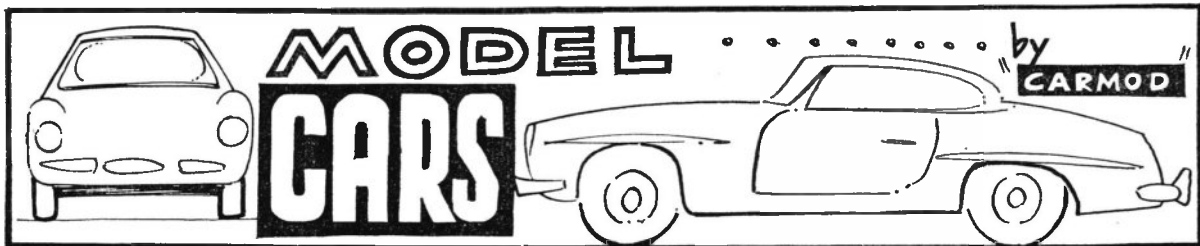
PENFRIENDS home and abroad all ages. S.a.e. for details. — European Friendship Society, Burnley, Lancs.

STAMPS from 1d. each. Request approvals.—J. Elsom, 64 Cooper's Rise, Rainworth, Mansfield, Notts.

DISPOSAL, nominal sum. **HOBBIES WEEKLY** January 1939 to June 1946.—21 Kingwilliam Road, Kempston, Beds.

MATCHBOX LABELS. Stamp for approvals. M State medium or advanced collector. "Beginner's Mixture" 1/9d. 100 c.w.o. Malkin, 130 Collyer Avenue, Bognor Regis, Sussex.

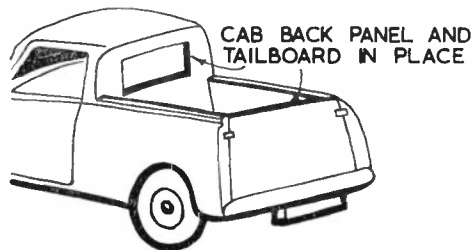
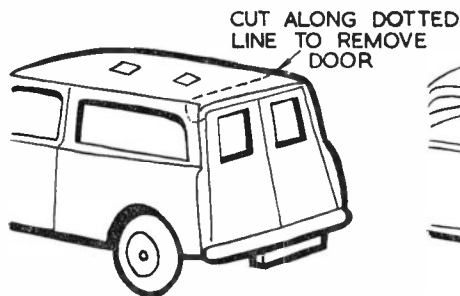
SUPERB FREE GIFTS to applicants. Whole world approval service from ¼ catalogue (3d. postage).—Normans, 12 Twist Lane, Leigh, Lancs.



THE B.M.C. type ADO 15 has undoubtedly, been one of the most successful vehicle designs of all time, not only in its original four-seat Austin and Morris Mini shape, but in a multitude of other forms including even

Saw vertically through the roof and sides to meet the horizontal cuts and so remove the van roof. The remains of the forward vent should be filed from the cab roof.

The cab back panel can now be cut



B.M.C. MINI PICK-UP CONVERSION

caravans and small prime movers for towing semi-tractors. Corgi, Dinky and Spot-On have all been reasonably true to the Mini and between them have produced both Morris and Austin forms of cars, vans and estate cars.

A pick-up using the Corgi Austin van as a basic is a fairly easy conversion and one which has tempted me since the model's introduction as a police van.

Firstly, remove the rear doors. This is done by making a hacksaw cut across the car roof about $\frac{1}{4}$ in. from the rear. The cuts should be continued below the line made by the top of the rear doors. Cut through the two side pillars and lift off the small roof section. The doors will then lift out.

Saw along the panel sides on a line just higher than the body side shoulders. These cuts should continue right up to the clear plastic screen behind the seats.

from thin card and cemented in place over the clear plastic.

A tailboard, also from thin card, is cut to shape and cemented in place. This completes the structural alterations. A sage green is one of the most popular

CHOPPING COMPETITION

Up to now in this series about model cars we have been concerned with the modification of mass produced die-cast miniatures (although one kit was included). The collecting of these miniatures is undoubtedly the largest division of the model car hobby and I make no apologies for concentrating upon chopping.

The time has now come to review the situation and to discover what classes of model vehicle conversions are most popular: racing and sports, commercials, or military vehicles, etc. To find out enthusiasts' tastes for future features I am offering Marc Europa construction kits of the 1964 Maranello Concessionaires Ferrari GTO as prizes for the three most original choppings carried out by readers of Hobbies Weekly. Sets of wire wheels, steering wheels and bucket seats will be awarded as consolation prizes.

In the first instance, send only a brief description of the work involved. The basic can be a die-cast miniature, a plastic construction kit or even an inexpensive toy. (One of the best choppings I have seen was a Ferrari 250 GT Berlinetta from a Hong Kong made Clifford plastic toy of a Ferrari Pininfarina 2 plus 2). Originality and ingenuity in the conversion are more important than money spent on the basic material.

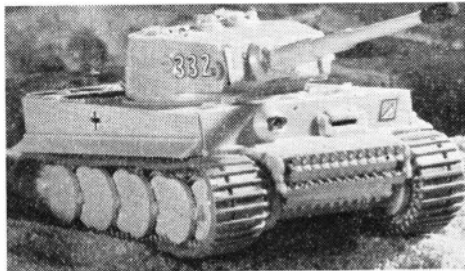
Choppers of selected models will be asked to submit their models for examination. They will be returned after judging has been completed.

Even if not taking part in this competition, I hope all model car enthusiasts will write and say what aspects of the hobby they would like to see featured.

Send your description and comments to: MODEL CARS, HOBBIES WEEKLY, DEREHAM, NORFOLK.

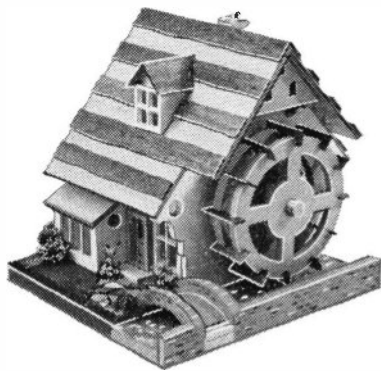
colours for Mini pick-ups (as it is also for many unlettered vans) but it may be preferred to make a replica of a locally owned vehicle.

Airfix model of the 'Tiger' Tank



Latest Airfix Guided Missiles and Armoured Vehicles series plastic construction kit is the German 'Tiger' tank in OO/HO scale. The 65-part kit costs only 2s. 0d. and has been designed with typical Airfix attention to authentic detail.

Models that are Exclusive



MUSICAL SWISS WATER WHEEL
No. 265 Special

This fascinating novelty lights up and plays a tune when the paddle wheel revolves. On a base 6½ in. square and standing 7 in. high, there is a compartment for cigarettes or jewellery. Note the dove-cote, dormer window in roof, bay window, lawn and stream with bridge.

Design and instructions only 3s. 0d.
(post 2½d.).

Kit to make Water Wheel £1. 6s. 3d.
(post 2s. 6d.).

No. 1 Musical Movement (choice of 20
tunes) 16s. 6d. (post 6d.).

★ ★ ★

DURING the last few years Hobbies have produced several designs bearing the 'exclusive' label and we have received many letters of commendation for providing model-makers with 'something different' to get their teeth into — particularly in the musical novelty field.

By 'exclusive' we mean something that cannot be bought ready-made for love or money. Plastic has invaded our lives in many ways and undoubtedly has proved of immense value in many spheres, but a turned-out-by-the-thousand repetition job has no place in the world of the *real* modeller. He wants something that the other fellow (and thousands like him) hasn't got. Consequently he designs from scratch or turns to Hobbies.

Making a model to your own design from personal observation, pictures and other published information is by no means easy. For instance the three subjects shown on this page involved our designers in many hours of careful planning before they were committed to the drawing board.

We aim to maintain at least the basic characteristics of the original subject when planning such as the Water-wheel or a Swiss Church which contain striking features applicable to their

own country. And the advantage about planning an individual model to be built from scratch is that all kinds of niceties and authentic features can be incorporated as distinct from the mass-produced article, where methods of production necessarily limit the detail.

If you intend to enter your work in competition or exhibition the judges will obviously be more impressed with an original individual model on which a good deal of work has been done rather than one made from pre-fabricated parts which is identical in detail and workmanship with thousands of others.

There is also the personal sense of achievement to be considered, even if you have no more ambitious thought than to use the finished model yourself or make it as a gift. There is a feeling of

★ ★ ★



PIXIE HOUSE MONEY BOX
No. 3340

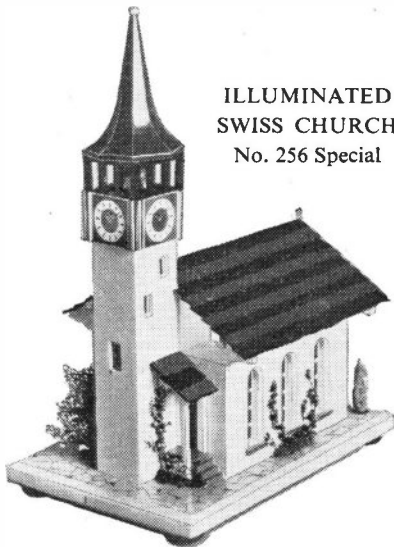
A charming Musical Money Box, about 7 in. square. As a coin is inserted a tune is played. A great favourite with young and old alike.

Design and instructions only 1s. 6d.
(post 2½d.).

Kit to make money box 9s. 3d. (post
2s. 0d.).

No. 2 Musical movement (Happy
Wanderer, Teddy Bear's Picnic,
Oranges and Lemons or Bells of St.
Mary's) (17s. 6d. (post 6d.).

**ILLUMINATED
SWISS CHURCH**
No. 256 Special



An authentic model of a Swiss Church standing 12½ in. high on a base 9 in. by 6½ in. Useful as a container for cigarettes or jewellery. When the church roof is raised the windows and clock face light up and a musical movement starts playing.

Design and instructions only 3s. 0d.
(post 2½d.).

Full kit to make church £1. 6s. 6d.
(post 2s. 3d.).

No. 1 Musical Movement (choice of 28
tunes) 16s. 6d. (post 1d.).

★ ★ ★

pride about such an achievement — a feeling which can never be engendered by a bought article.

As a reader from Welwyn Garden City writes concerning the Swiss Water Wheel No. 265 Special: 'Although I say it myself, I have now made a model that I can always be proud of. I was amazed at the superb quality of the materials in your kit. . . My sincere thanks to you for putting on the market such fine products'.

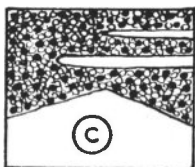
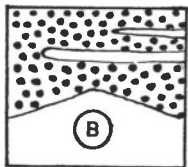
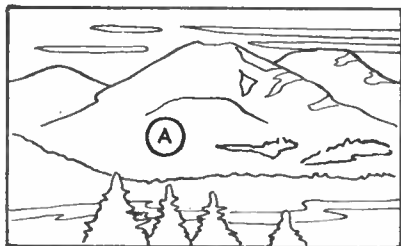
However, to prove our point about providing designs that are really exclusive and therefore well worth having a go at, we have chosen as typical examples from our range the three models illustrated here. Read their descriptions and we are sure you will decide that here is something well worth while. They will take time to do properly, but surely that's not such a bad thing in these days of rush and tear.

Come to think of it, there may be a call here from a health point of view. While you are engaged on this peaceful, interesting, and fruitful pastime it may give your duodenal ulcer a chance to settle down!

POINTILLIST PAINTING

CREATING a picture composed entirely of tiny dots of paint is a fascinating pastime. This technique was perfected by the French Impressionist painters of the nineteenth-century, and it produces a picture the colours of which are brilliant and luminous. This style of painting is usually called pointillism. The method described here is very simple, and calls for care rather than great artistic skill to produce an attractive scene.

To begin with, it is best to copy from a photograph, although this aid may be dispensed with later, as one gains more practice. A holiday snapshot of a favourite view, for example, serves admirably for this purpose. The procedure is the same for both water-colours or oil paints. For water-colours, cartridge paper can be used, and for oil-colours, a piece of hardboard, painted over with flat grey paint on its smooth side, is ideal.

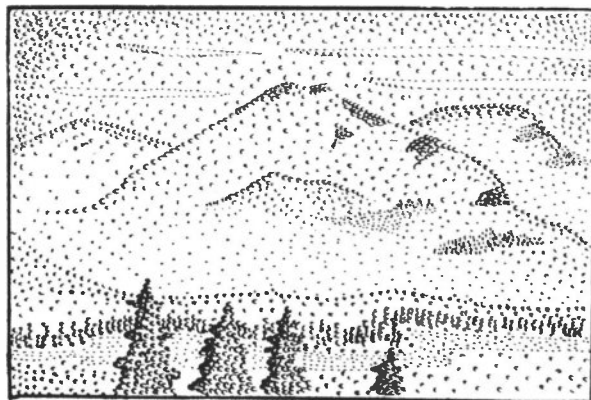


The outlines of the principal objects in the photograph to be copied are drawn in first, A. Charcoal is best for this purpose, but failing this, a soft pencil can be used lightly. When these guide lines have been drawn in, the colour can be applied. This is done either with the point of a small paint brush or the end of a matchstick. To begin with, it is easier — and cheaper — to use matchsticks, keeping one match for each colour. This makes it easier to keep the dots uniform in size.

Each colour to be used should be kept in a separate container — small tin lids will do for this — and the colours should be just liquid enough to be picked up on the end of the matchstick.

ATTRACTIVE
SCENES
PRODUCED
BY A SIMPLE
PROCESS

Described by
A. Liston



Water-colours should not be too weak, or this will give a disappointing 'washed-out' effect. Oil-colours should be thinned with a few drops of linseed oil and turpentine.

Only a small amount of paint should be kept in the tin lids, for dipping the matchsticks in the paint too deeply will cause over-large blotchy spots which will look unsightly. There is no problem about running out of colour and being unable to match the shade just used, for colours should not be mixed under any circumstances. They are applied in spots of pure colour, variations in shade being achieved by adding spots of a different colour which will blend with the others when viewed from a distance.

Thus all the paint mixing is not done in the palette, but in the eye of the viewer. It is this optical mixing of the colours which gives the picture its brilliance, for, as a little experimenting will show, the more colours are mixed in the palette, the less brilliant they become.

The painting of the sky will serve as an example of how the effect is obtained. Dots of blue paint are distributed evenly over the sky, B. This results in a rather dark colour which must be lightened by adding dots of white, C, or

white interspersed with dots of red to give an overall effect of a mauve evening sky when viewed from a distance.

Clouds are treated in the same way, the basic white dots being applied first, then blue and black spots added to shade the darker lower areas. The brilliantly luminous fringe often seen where the sunlight touches the edges of clouds is realistically shown by dots of pure yellow applied round these edges.

It is best to work on just one section of the picture at a time, adding the dots of colour until the area is completely covered. This calls for patience, and the work should be viewed from a distance at frequent intervals to judge the effect.

The charcoal outlines will be completely obliterated, of course, by the time all the colour has been applied. The finish will have an attractive mosaic-like effect when viewed at close quarters, but the spots will merge into a smooth matt surface from further away.

The colours of objects in the foreground should be stronger than those in the background; this can be achieved by keeping the spots of pure colour closer together in the foreground, and interspersing more white or pale spots between the colours in the background.

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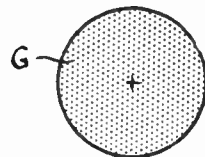
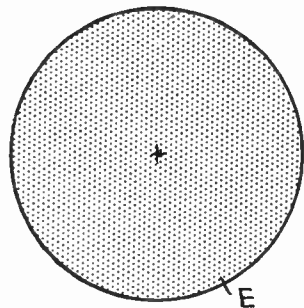
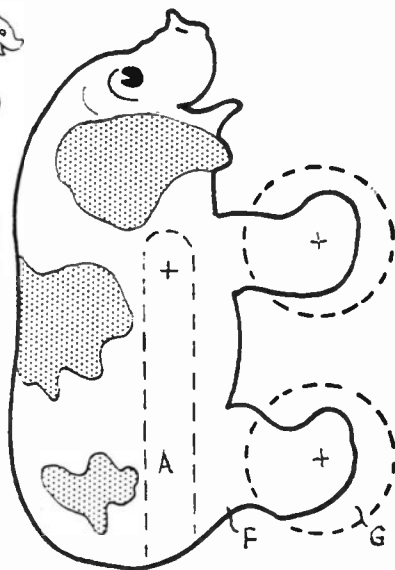
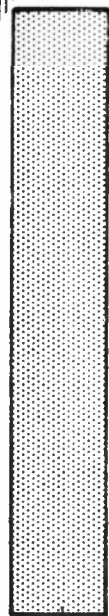
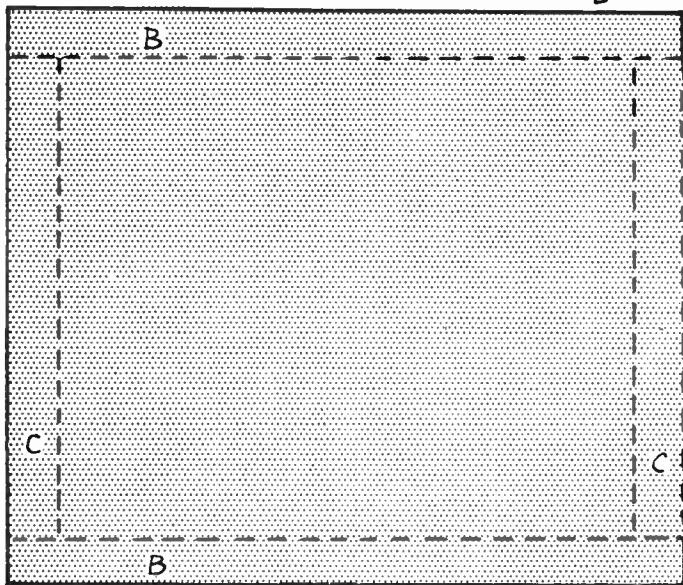
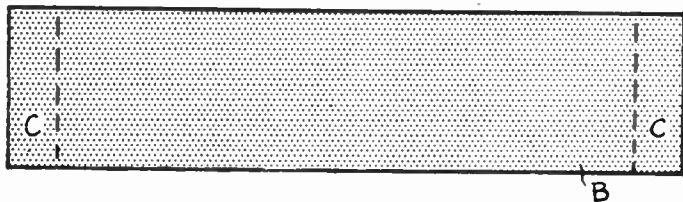
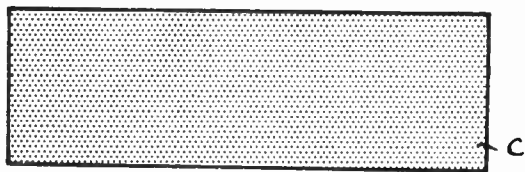
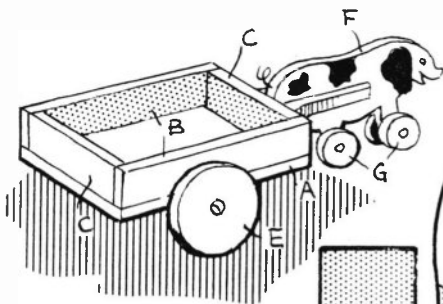
A PUSH-ALONG PIGGY CART

MAKE up this little push-along toy for the toddler. Cut the parts with a fretsaw, glue them together and paint in bright colours.

You need one of A $\frac{1}{4}$ in., two each of B, C and E $\frac{1}{2}$ in., four of G $\frac{1}{2}$ in. and one of the pig $\frac{1}{2}$ in. The axle D is a piece of $\frac{1}{2}$ in. square stripwood.

The small sketch shows how the parts are glued together. The wheels E are pivoted to the axle and the four small wheels G are pivoted to the pig F as indicated.

(M.p.)



KIT R.T.A.9



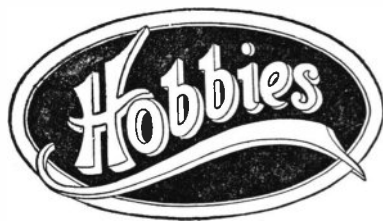
67/6
(Carriage free)

Size 21 in. x 18 in. x 17 in. high

A superior model, strong and realistically designed. All essential features including working drawbridge, ramps battlements and towers. Hinged bottom acts as the 'dungeons' for prisoners and as storage when the 'battle' is over. Complete kit of pre-cut parts ready to put together, special fort papers, paint, glue, etc. Soldiers available as an extra.

READY-TO-ASSEMBLE KITS

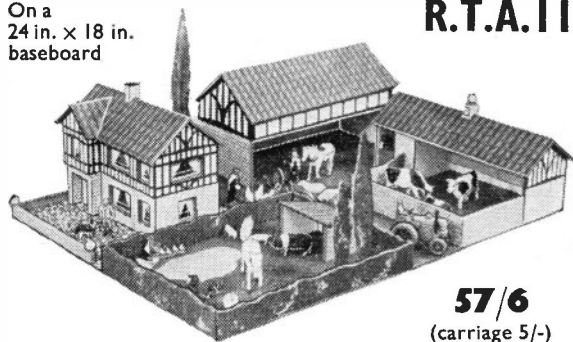
By



MAKE SUPERB GIFTS

KIT R.T.A.11

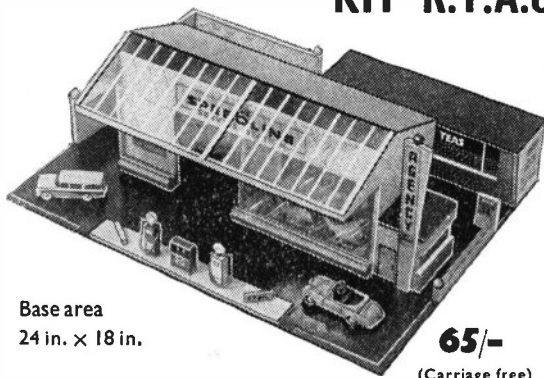
On a
24 in. x 18 in.
baseboard



57/6
(carriage 5/-)

This 'POPLAR' farm provides a compact layout for all farm activities. Farmhouse, barn, cowshed, stable, pigsty, paddock, stockyard, pond — and of course, the poplar trees! Complete kit of pre-cut parts, specially printed windows and half timbering, decorative papers, glue, enamel for finish, etc. Figures available as an extra.

KIT R.T.A.8



Base area
24 in. x 18 in.

65/-
(Carriage free)

A magnificent Garage in modern design and styling. There is a workshop, showroom, office, toilets, cafe, spacious car park at rear, and a sweeping glazed forecourt. Complete kit of pre-cut parts ready to put together. Doors, posters, windows, etc. are in full colour, and all papers and enamels, etc. are included. Also petrol pumps, but not the cars. Budge and Matchbox models available.

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and figures available

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