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THE ORIGINAL
'DO-IT-YOURSELF'
MAGAZINE

HOBBIES *weekly*

FOR ALL
HOME CRAFTSMEN

BE PREPARED FOR THE SNOW

Also in this issue:

HISTORIC STAMPS
FROM S. AFRICA

TRANSISTORS—A
SIMPLE RECEIVER

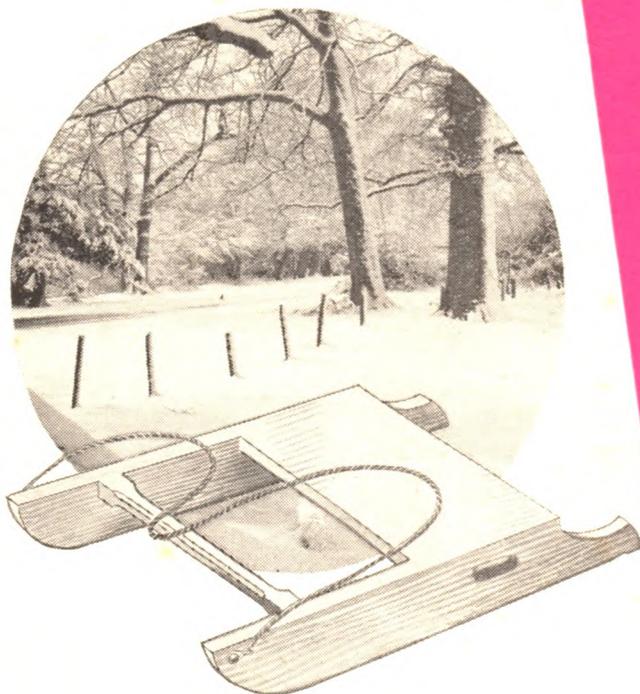
RAILWAY
MODELLING

NOVEL EGG
TIMER PLANS

MAP-MAKING
IN MARQUETRY

DISC BREAK—
NAT KING COLE

PARTY GAMES
ETC. ETC.



A
HOLIDAY
PROJECT

MAKE A SLEDGE



Up-to-the-minute ideas

Practical designs

Pleasing and profitable things to make

5^D

A SIMPLE RECEIVER

A RECEIVER using a single transistor can give good head-phone results in circumstances where a crystal set is unsatisfactory. The receiver may be run from a 1½V. or 3V. dry battery, and this will have an extremely long working life. For many circuits of this type there is no point in using a larger battery. But when a loud-speaker is to be operated, a 6V., 7½V., or 9V. battery will generally be used.

A simple single transistor receiver is shown in Fig. 4. Constructors who have built a crystal set will recognize this as being a crystal receiver, with a transistor added. The diode crystal detector is also tapped down the coil. This is not essential, but normally gives best results.

An existing crystal set can easily be converted into a transistor receiver, in this way. Note that diode negative goes to transistor Base, to obtain the small negative voltage necessary here.

Any A.F. type transistor may be used. Connections for all types were given in Fig. 2. in the previous article. In circuits, Emitter, Base and Collector are shown in the transistor symbol as in Fig. 4.

Such a receiver can be constructed in an extremely small box, if required, and it can be run from one or two pen torch or other small dry cells. It may be switched off by disconnecting the phones or earpiece, or by inserting a switch in one battery lead. With dry cells, the zinc case is negative.

Emitter detector

In Fig. 5, the transistor emitter acts as detector. The phones are returned to battery negative, as in Fig. 4.

This circuit can work well with an efficient R.F. transistor. An A.F. type transistor needs a diode for detection, however, as in Fig. 4.

In many transistor receivers, crystal diodes are used for detection purposes. For good results, it is essential that the

crystal diode is in proper working order. If the diode is inefficient, no circuit in which it is used will be able to give really satisfactory results.

By 'Radio Mech'

Simple transistor receivers usually have a diode detector, and a number of amplifier stages. More complicated receivers may use a transistor as detector, with reaction or regeneration, which increases sensitivity to weak signals. More expensive receivers employ a 'superhet' circuit. These arrangements will be described later.

Coils

Fig. 6 shows three types of coils which may be used in a transistor set. In portables, the coil winding is on a ferrite rod or slab, and this acts as the aerial, so that no external aerial or earth is required. Such ferrite rod aerials can be used in even very simple receivers, but

the signal pick-up is very small, compared with that of an extended aerial wire. It is thus necessary to use more transistors, to compensate for this.

A ferrite rod aerial, for medium waves, can be about 4 in. to 7 in. or so long, and about ½ in. in diameter, the winding having about 52 turns of 26 s.w.g. cotton-covered wire. In very small receivers, slightly smaller rods are used. Ready-bound rods, for medium waves, or both medium and long waves, can be obtained. With the winding described, the tapping can be about 8 turns from the end of the winding.

An external aerial may be added, in addition to the ferrite rod aerial, if necessary. A few feet of thin, insulated wire will usually be sufficient.

A ferrite rod aerial, with a single transistor, will only give sufficient phone volume when used very near a broadcast-station. Two transistors, with regeneration, will usually give phone reception in most localities. For speaker reception, with the ferrite rod only, four to seven transistors are usual.

A small coil, wound on a ½ in. dia. former, with dust core, is also shown in Fig. 6. This can have 15 turns from 1 to 2, a further 15 turns from 2 to 3, and 35 turns from 3 to 4, of 34 s.w.g. wire, making 65 turns in all. Point 2 is the diode tapping, and the aerial can be taken to point 3, to sharpen tuning. Several feet of thin flex may be used as aerial.

When small size is not important, an air cored coil (that is, one wound on a paxolin, cardboard, or other insulated tube) can be used. For medium waves, this can have about 90 turns of 32 s.w.g. enamelled wire. The tapping 2 is about 18 turns from point 1. An aerial tapping can also be provided on the coil. The

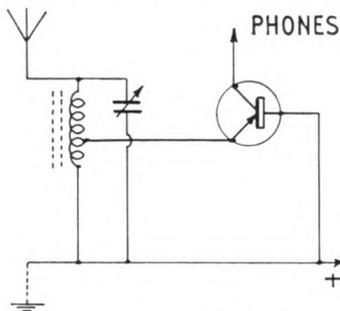


Fig. 5—Emitter detector

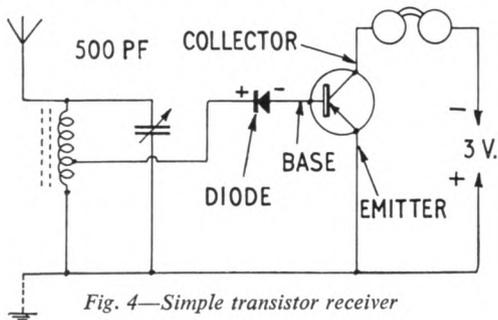


Fig. 4—Simple transistor receiver

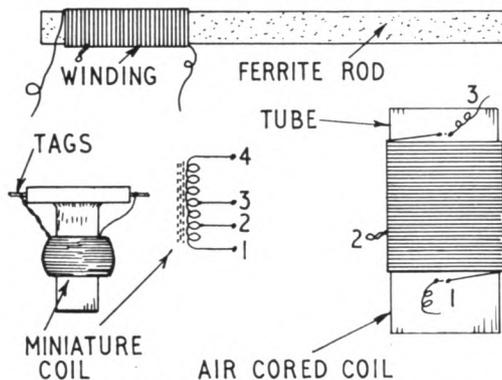


Fig. 6—Some coils for transistor circuits

tube should be about 1 in. in diameter. If it is slightly larger, use a few less turns.

The tuning condenser can, of course, be an ordinary one, or one of the miniature condensers previously shown in Fig. 3. With the compression or trimming type of condenser, the coil should generally have a few less turns, because the minimum capacity of the condenser is quite high.

Receivers with ferrite rod aerials should be rotated for best reception of any particular station, because this type of aerial is directive.

Condenser coupled

In order to obtain more control over the base voltage, an isolating condenser can be added, as in Fig. 7, and negative bias obtained through a 100K resistor. This type of circuit is often used in simple receivers, and can give improved results.

Operating conditions depend on the battery voltage, resistor value, and transistor current. With surplus transistors, the transistor characteristics may vary considerably. Because of this, it may be worth trying other resistor values, to find one which is best for the actual transistor.

The main advantage of the circuit in Fig. 7 is that it needs only two components, in addition to the transistor. The condenser may be a miniature, low-voltage electrolytic of $2\mu\text{F}$ to $8\mu\text{F}$, instead of the 0.25 μF shown.

As mentioned, the circuit has the disadvantage that results depend on the transistor, and may vary considerably from one transistor to another, even when they are supposed to be of the same type.

Emitter bias

To overcome the effects of slight changes in transistor characteristics, the circuit in Fig. 8 may be used. The base voltage is held at a steady figure, by means of the 47K and 10K resistors across the supply. In addition, the emitter is made slightly negative, by the 1K resistor.

As a result, the circuit will operate successfully with almost any transistor of A.F. type. For this reason, it is usually employed in ready-made transistor receivers, since it is known that any normal transistor will work satisfactorily.

Any of the A.F. transistors previously listed may be used with this circuit, and no experiment will be needed to obtain proper results. Various R.F. transistors are also satisfactory, and an R.F. transistor which does not give good results when used for its original purpose may often be employed as an A.F. amplifier, in this way.

In early stages (as, for example, when using Fig. 8 to amplify a crystal set signal) the values shown are frequently

used. If the stage is to work a loud-speaker, or already has earlier amplifier stages in front of it, some of the resistor values may be reduced. The transistor can then handle more power. Values are not reduced in this way in earlier stages, as this could cause a noisy background.

Results to expect

If a crystal receiver which gives very good headphone volume is used, with a single transistor as amplifier, this can provide just about enough volume for personal listening with a loudspeaker. Such a receiver could provide a simple bedside unit, for local stations.

When the lack of an earth, or the use of a poor, indoor aerial, results in the crystal set giving insufficient volume for comfortable headphone reception, a single transistor amplifier will usually be able to increase signal strength enough to allow comfortable, or even loud, headphone reception.

If no aerial or earth are to be used, it is necessary to have more transistors, or use regenerative circuits. These need more components, and will be described later.

When a loudspeaker is used, there is no need at all to use a miniature speaker, unless a miniature receiver is wanted. Fairly large permanent magnet speakers (say 3½ in. to 6 in. diameter) as used with

battery operated valve sets or portables, can give very good results indeed. They may thus be used in transistor sets which are large enough to accommodate them.

In miniature receivers, 2½ in. loudspeakers are most used. These are generally of 2-3 ohm moving coil type. As this is a very low impedance, a matching transformer has to be used between the output transistor, and speaker.

Miniature speakers are also made with 75 ohm coils. These can be connected directly to the output transistor, and need no transformer. They are most suitable for extremely small receivers.

Balanced armature and similar headphone units are often used as 'loudspeakers' in small sets. The results obtained from these can be good enough when the receiver is fairly close to the ear, but the sound output and quality of reproduction will usually be low, compared with any kind of proper loudspeaker. Such phone units are very cheap.

Cabinets and cases

It is not proposed to deal with these in detail, because many novel boxes and cases are available. The cheapest form of ready made case is the transparent plastic box, with lid, which can be purchased in various sizes. These can be cut and drilled to form speaker openings, or provide holes for controls, etc. They may be given an attractive finish by painting them on the inside with enamel. When seen from the outside, this will give a very even, smooth appearance.

Small plain and coloured boxes, with hinged lids, can also be obtained. Cases of any required size can also be constructed from perspex, or thin wood.

Tins or metal boxes should not be used, because the metal will prevent the receiver working properly. There would also be a risk of short circuits.

Some strong cardboard cartons, of various kinds, make suitable, and possibly decorative cases. A novel case can be made from a disused book of suitable size. All the pages are removed, and a box is constructed to fit between the covers. It is painted to resemble pages, and is glued to the back cover, the front cover forming the lid. Such a box may contain a receiver, with its battery, and phone for listening. Or it could house a complete receiver with speaker.

Plastic cases for transistor receivers, with speaker openings, etc, may also be purchased. These give a very neat result, but have the disadvantage that it will probably be necessary to use a particular model of speaker and tuning condenser, to fit the holes.

The next article will describe how to add a transistor to give increased volume and loudspeaker reception of local stations.

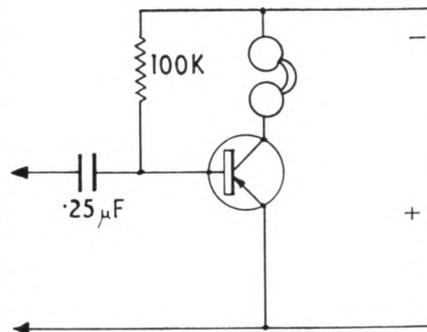


Fig. 7—Condenser coupled amplifier

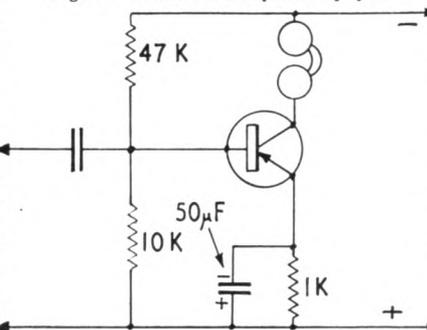
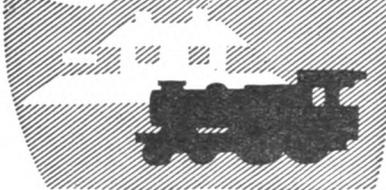


Fig. 8—Amplifier with emitter bias

NEW Thoughts on

RAILWAY MODELLING



TUNNELS are a 'must' with model railways. I know that when I have the famous Maryville, Fredricton and Westbury Model Railway on exhibition everybody asks to see a train disappear under one of the bridges or tunnels. It is a pleasant sight to see a train disappear for a few moments to emerge in a different place, and this is a feature that you should try to get on your own layout.

Sketch A shows a short tunnel, one where you are able to get your hand right through it. It is very strange, but model railways, being the temperamental things that they are, if you are going to get a derailment, or perhaps sticking of the engine, or something that prevents

the train from running as it should, it always seems to happen in a place where you have a job to get at it. And tunnels, especially if they are on a curve, are just the places small engines look for in which to go wrong!

With this thought in mind always make sure that you are able to get to them with the least trouble. Keep your tunnels short if they are to be built according to plan A. In any case you will want to get to the tracks for cleaning purposes, so this in itself is sufficient reason for keeping them short so that you can get the cleaning block through them. Where you want to build a longish tunnel, especially where these occur at a corner (and nothing is better to disguise a corner), make them with a removable top as in Sketch B.

The method of building both types is the same. Start off by making up the side of the inner former. If it is to be a

short one you can build up a box without a bottom. I suggest that this should be 4 in. high, and about as wide, if it is for single track, but if you are running two tracks through it, it will have to be wider, say 6 ins. Now please do bear in mind that this is only the width of the inner former, it bears no relation to the

TUNNELS

By F. A. Barrett

actual track gauge or the size of the opening in the tunnel mouth, but you need this size to get your hand in for cleaning purposes.

The material to use for this former, and for all other formers, is not critical. You can use any material that you have around the house — plywood, hardboard, Weyroc, or any other wood that you have. It will not be seen, but it must be strong enough to support the covering. You do not want it to bend when you are stretching the material over the crumpled paper. This means that the minimum thickness should be $\frac{1}{4}$ in.

This former can be held down to the baseboard by gluing and screwing small blocks of wood to it and the baseboard, on the outside. You could, of course, put a strip of wood, say 1 in. square, right along the bottom of the thing on each side, but small blocks would be just as good. The main idea is to get the whole thing firm. I have, of course, gone ahead of myself a little, I should have told you to paint the inside of the former first. I would suggest that you use a black matt paint for this. Just imagine what the inside of a tunnel would look like after the years of smoke and soot that have been deposited there by passing engines.

Removable top

Then go ahead as we did for the embankments, and cover the whole thing with crumpled newspaper, and then a covering of hessian, and finally the plaster.

For a longer tunnel, in order to make the tracks easily accessible, we must make the top removable for cleaning and

AT the Model Railway Hobby Show, reports 'F.A.B.', one of the main attractions among the trade stands was a new type of controller, and I was fortunate enough to get one of these for my own use. I can thoroughly recommend it as one of the best I have ever seen. It is called the 'ROLLA-CONTROLA' and it is marketed by Messrs W. A. Rollason & Sons of Birds Hill, Letchworth, Herts.

The one that I have takes the form of a 4 ampere transformer and rectifier and combines four speed controllers which supply the track with 12 volts D.C. There is also a tapping which supplies power at 16 volts A.C., which would be ideal for point motors, etc. The amazing thing about this controller is its ability to control the speed of the motors on the locomotives down to a crawl.

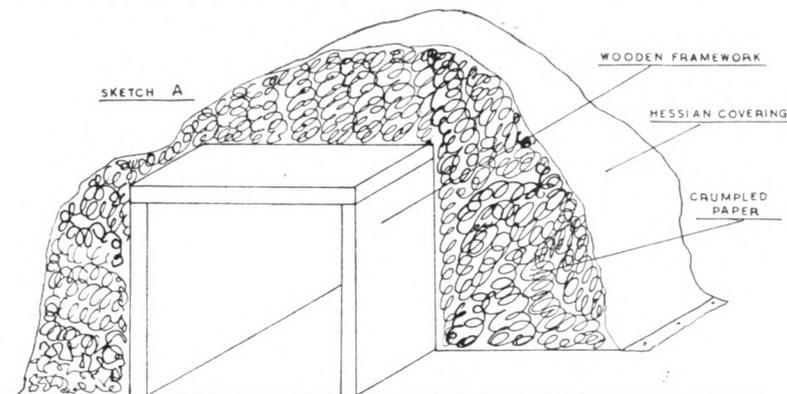
The idea is that here you have pulse power. In other words the power is fed to the tracks at 12 volts D.C. but it is sent out in pulses. Thus the longer the interval between the pulses the slower the locomotive will run. The beauty of it is that there is no loss in power. You can run a long train and it will still crawl if you want it to. I put a finger against the locomotive I was testing to try to stop the thing, but although the engine stopped, the wheels were still turning.

And gradients make no difference to it either. At the Exhibition the makers had tracks at adjustable gradients, and these were very severe at times, something like 1 in 9. It made no apparent difference to the running of the locomotive and train.

The price of the controller I have is £7. 15s. 0d., and this is very reasonable bearing in mind that you have four controllers and all the usual features, such as automatic cut-out, combined in a very powerful outfit. For shunting in the goods yard, realistic slow starting from a station, and slowing down on a gradient, etc, this is a 'must'. I should explain that although this is fine for slow running, it does not mean that fast running is not possible. You have the full variation of speeds, and the assurance that whatever speed you set the controllers to, the engine will run. Unlike most controllers, where you have sometimes to put them on at full speed and then slow down after the engine starts. The 'Rolla-Controla' is on sale at most model shops, and there are versions that do not contain a power pack. For these you use your own transformer, etc.

other attention. In this case something more elaborate is called for. You will note from sketch B that we have the two walls of the tunnel and that these are supported on formers, much the same as we had for embankments and cuttings, but with the slight difference in that they have a separate top to them.

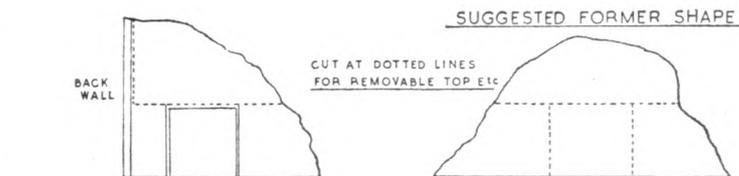
Now it is suggested that you make up



your side walls, supporting them once again with small blocks of wood, and then cut your formers for each side, and glue these into position. Across the opening of the tunnel place a stringer which has been cut to the width you need for the upper section. Here I would suggest that you draw a pattern of the three formers, but in one pattern as I have shown on the sketch, and cut the formers as I have shown along the dotted lines. Then you will have your shape for all the formers that you need, which should be placed at about 2 to 3 in. intervals.

It may so happen, of course, that you wish your tunnel to go right at the back of the layout, in which case you would make one side of it with a flat shape to fit into the background board. The idea is explained in the illustration.

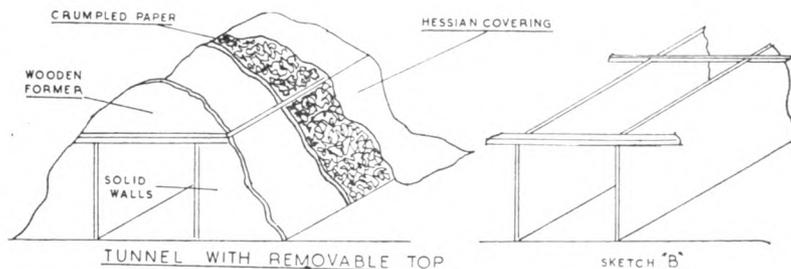
Having got the two side walls of the tunnel fitted with whatever shape formers you choose, you should then put stringers in place along the top of the tunnel walls at about 12 to 15 in. intervals, these should go right across to the maximum width, and they should be let into the walls by cutting a small piece out to receive them. To make up the top of the tunnel get a piece of wood, and here you want something fairly strong that will not warp, and cut to the width of your lower framework. Place this on to the framework of the tunnel, and mark the positions of your stringers on it. You will need to drill holes in these positions, and drill the holes through the stringers as well, I would suggest holes large enough to take some $\frac{1}{4}$ in. dowel rod. Make up some small pegs of this



range made by Messrs Killick of Crowborough which includes lichen and dried flowers, etc.

Make it 'natural'

The main thing with modelling Nature, and that is exactly what we are doing, is to make everything look natural. The trouble I have found with most model railways, my own included, is that when one uses flock powder, and puffs it on with a spray or some such thing, the whole effect is something like a billiards table, and that is not natural. One wants to be really severe about this type of thing. Rough up the surface with small stones, or else puddle the plaster on thickly and as uneven as possible. Then



dowel and glue them into the stringers, say one at each end, and about 1 in. in from the end, and one in the middle. You will readily see that these dowels and holes are to hold the top on without it moving.

When you have the holes drilled in the top strip of wood, or base for the upper section, then put into position your upper formers. You can if you like, and I think it would be a good idea, put some spare lengths of wood between the formers. This would help to stiffen the whole thing. Now you can proceed in the usual way to fill the spaces between the formers with crumpled paper, and cover with hessian or whatever material you are using. In the case of the top section you can glue and pin this on the underside of the long base. With the side covering, nail and glue this to the inside of the tunnel walls. Finish off with paint when the plaster has dried and you have a basis for your final decoration.

Hobbies Ltd sell a flock spray at their branches. This is ideal. There is also a

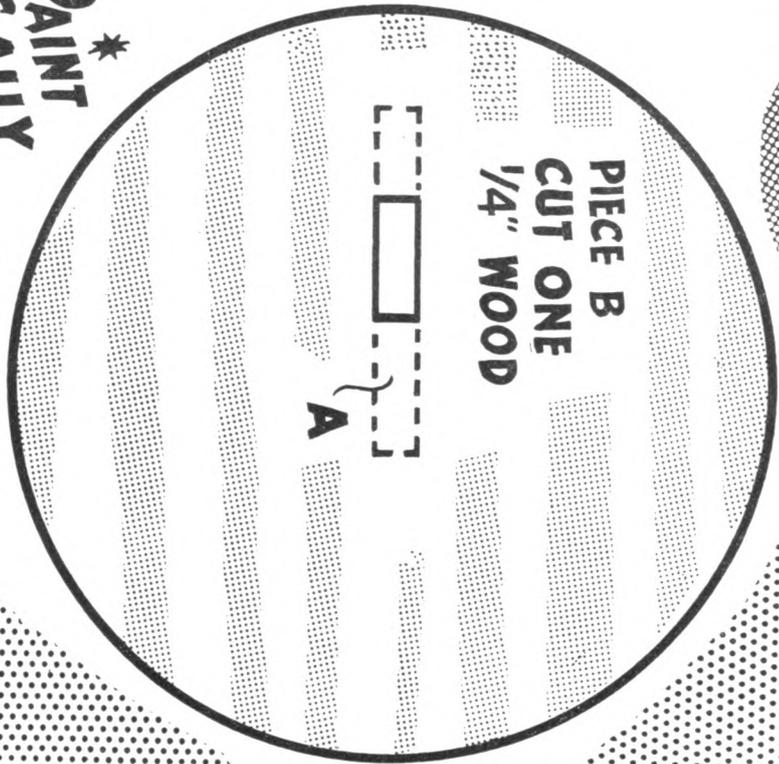
you get something approaching the right effect. And here is a little tip that might help you. When you are using flock powder, assuming that you are finishing off an embankment or something of the like, mix a few spots of other colours with the green, say red, yellow, white, blue and rather more of brown. Then when this is applied you get the little touches of colour that look like small flowers in the grass. And don't forget to make some patches of brown here and there to represent bare spots of earth in the grass, and plenty of small bushes. These are easily represented with lichen or something of the sort. Bear in mind that the reason for these articles is to tell you how to 'Do-it-yourself' — it is the cheapest and most rewarding way of railway modelling.

In my next article I am going to describe the 'hide away' type of baseboard, the answer to the problem of storage of a railway model especially for those who have only a limited space at their disposal.

The Drummer

EGG TIMER

THE ONLY TOOLS NEEDED

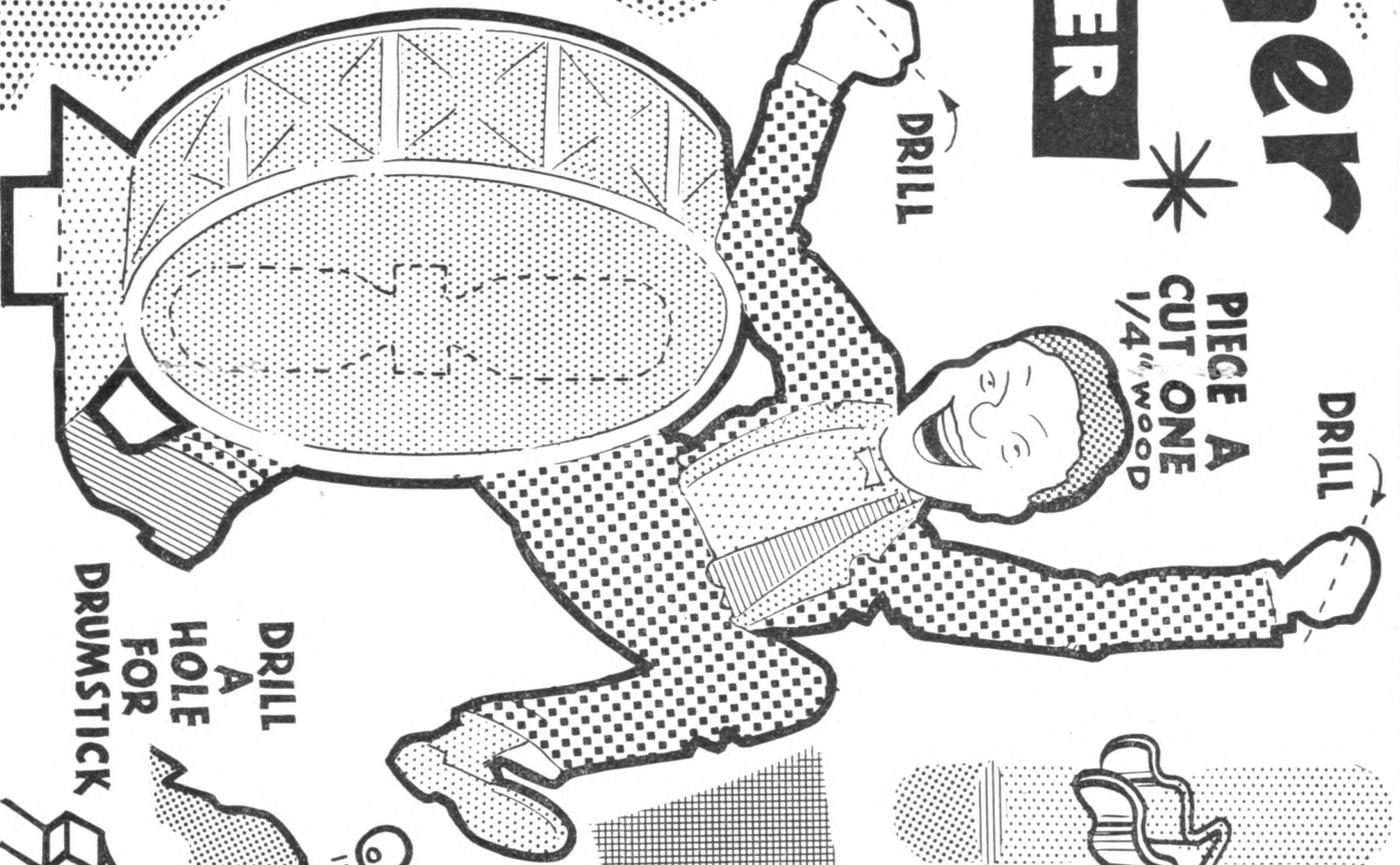


*
PAINT
GAILY

*
PIECE A
CUT ONE
1/4" WOOD

DRILL

DRILL



SAND GLASS
& CLIP
AVAILABLE
FROM
Hobbies
LTD.



WIRE

PRINTED IN ENGLAND

INSTRUCT FOR CUTTING FULL-SIZE

THIS 'drummer' novelty egg is made from two pieces of wood which are cut with a fretsaw to the outlines shown. Trace pieces A and B, and cut them out with a hand saw. The egg can be made actively if you do not mind detaching the drumsticks.

Commence by cutting out the drumsticks. Cut the drumsticks as under the right arm of the figure. Prick a hole with a burnisher or the fretsaw through. Next cut the drumsticks out and clean up the edges. Piece A is glued to the drum.

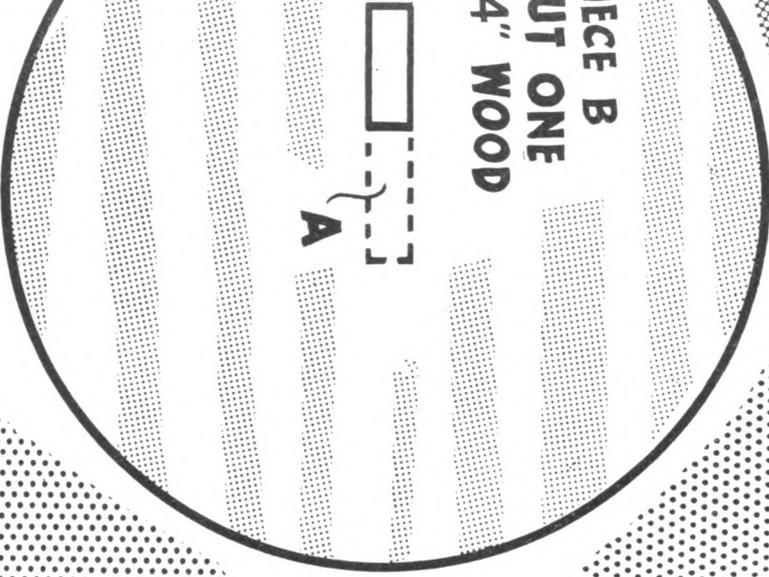
Paint the base and figure with white. Lightly glasspaper and give two coats of high gloss enamel black and the drummer in red. The drum will be coloured. To finish off the drumsticks of wire, with two pieces of wood glued to the ends. The plasticine would be quite suitable.

The sand glass and clip are available from Hobbies Ltd, Dereham, Norfolk. Price is 1s., postage included. Make sure that the drum is finally clipped to turn. The glass is finally clipped.

2 Drummer

EGG TIMER

THE ONLY
TOOLS
NEEDED



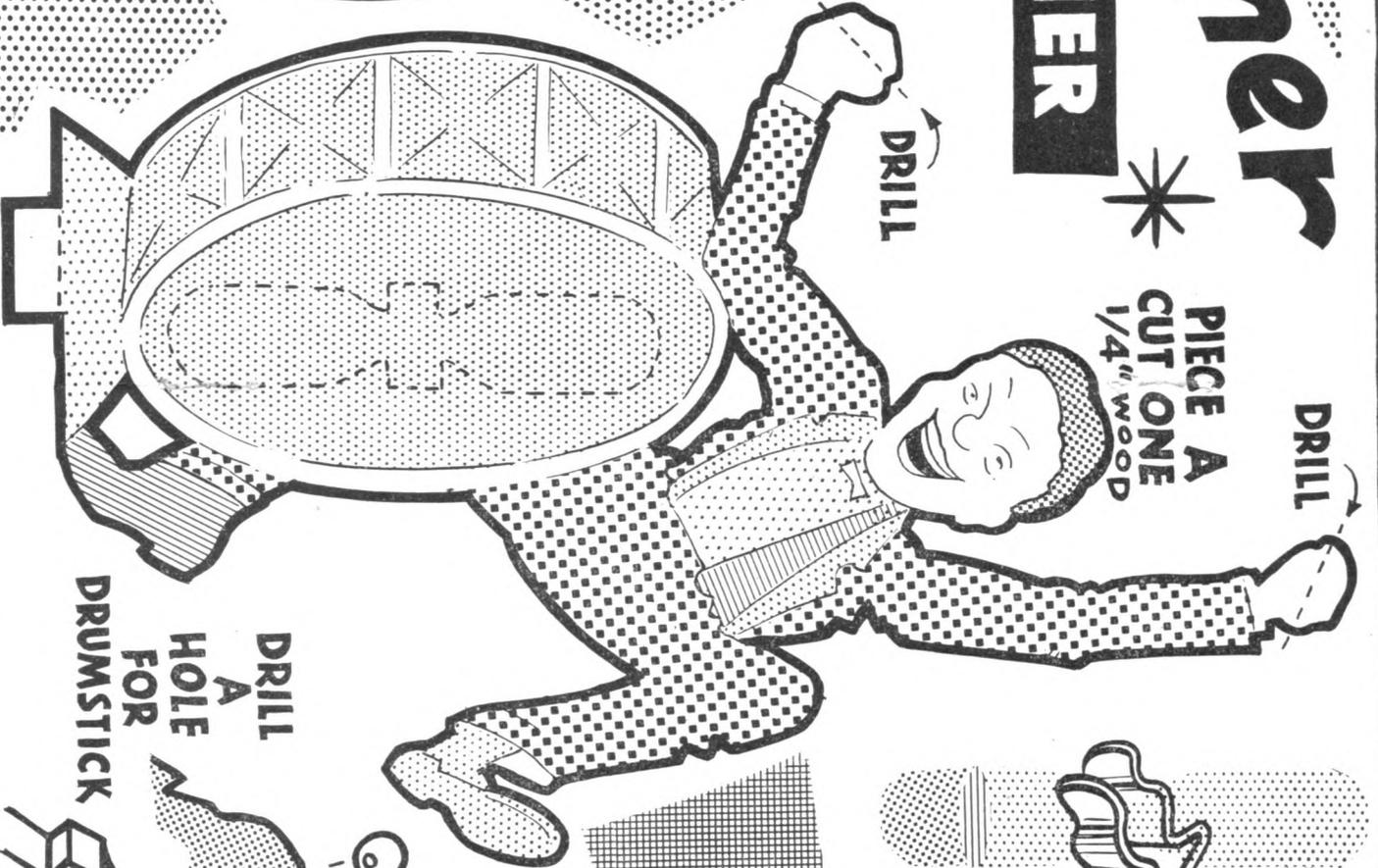
PIECE B
CUT ONE
4" WOOD



PIECE A
CUT ONE
1/4" WOOD

DRILL

DRILL



SAND GLASS
& CLIP
AVAILABLE
FROM
Hobbies
LTD.



INSTRUCTIONS FOR CUTTING OUT FULL-SIZE PLANS

THIS 'drummer' novelty egg timer consists of two pieces of wood which are cut to shape with a fretsaw to the outside edges of the thick black lines.

Trace pieces A and B, and transfer them to 1/4 in. wood by means of carbon paper. Alternatively if you do not mind detaching the pattern you can transfer direct.

Commence by cutting out the interior frets such as under the right arm of the figure. Drill each one, or prick a hole with a burnishing awl and thread the fretsaw through. Next cut round the outside carefully and then clean up the edges with glass-paper. Piece A is glued securely in the base B.

Paint the base and figure with two undercoats of white. Lightly glasspaper and apply the finishing coats of high gloss enamel. The base can be black and the drummer in appropriate bright colours. The drum will be cream with brown or red markings. To finish off the drummer add two drumsticks of wire, with two beads or shaped pieces of wood glued to the ends. A small blob of Plasticine would be quite suitable.

The sand glass and clip are available from Hobbies Ltd, Dereham, Norfolk, or any branch or stockist. Price is 1s., postage 3d. Screw the clip to the drum, making sure that it is not too tight to turn. The glass is finally clipped in place. (M.h.)

DRILL
A
HOLE
FOR
DRUMSTICK



WIRE

PRINTED IN ENGLAND

Novel Methods in Marquetry

IN the last article I dealt with the cutting of the block; now all that remains to be done is the assembling and finishing.

Your block has been cut and you are left with a number of small pieces which will fit together. But before assembly you must soak off the paper from each piece: a slight swelling in the wood due to the soaking will not matter; indeed, it will serve to tighten the fit. With all the paper removed, get out your paints — powder colour is preferable, for obvious reasons, and paint each piece separately, the sea blue, the lowland green and the highland brown, and so on.

By H. Stewart

In painting, chose tones of these colours which will give the most striking tonal contrasts. For instance, make the sea a pale blue if the adjacent green is dark in tone, and vice versa. The colour representing the high land should be either white (for snow) or dark brown, and you need not limit yourself to just one depth and one colour for the sea. Make a separate piece for the shallow water and paint it a paler blue, and the effect will be to lift the land out of the water.

Another effective trick is to leave unpainted the piece that represents the height of land that is next above the

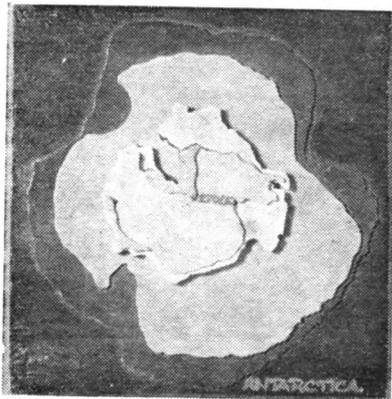


Fig. 6—Antarctica — here the pieces are arranged not according to height of land, but to the country owning them. Notice the tonal differences

Make the background as plain as you can, not as here, where the inclusion of the N. African shore detracts the eye from the central theme — Spain. This is where planning beforehand becomes essential, and if necessary a little 'trimming' of the picture should be done

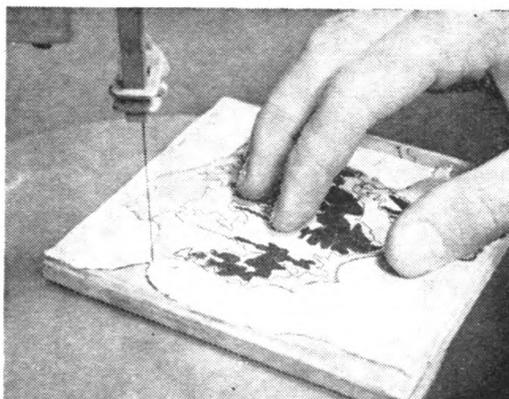
lowest level and merely polish the wood. It will serve as the next colour up, a pale yellow ochre, and look very good. The powder-colour will, of course, dry matt; a clear varnish may therefore be added afterwards, but in my opinion a matt finish looks finer and more professional.



Fig. 7—Notice the effect of the lighting, to darken the lines and so to make the feeling of contour more distinct. If you are going to hang it on a wall, be sure that the available lighting will show it up to the best advantage

But remember, paint not only the top surface of the pieces but also the sides, so that the appearance at the end is consistent.

There only remains the assembling the vital step in which particular care must be taken. When the paint is dry, take the piece which represents the highest land together with the next highest, and stick them together with balsa cement so that the higher protrudes about $\frac{1}{8}$ in. above the other to give a sort of 3D effect. Then, when it has set, cement on the next piece down $\frac{1}{8}$ in. lower, and so on until all the pieces have



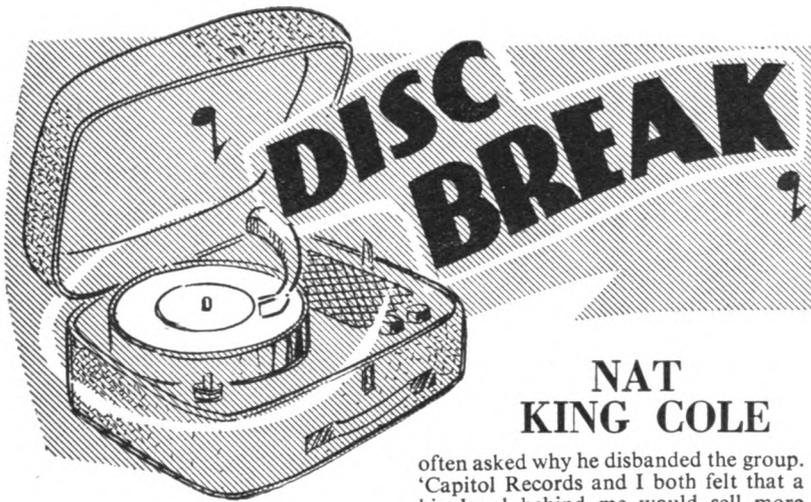
been stuck together and the whole block takes on a step-like appearance. In certain cases, naturally, the step doesn't have to be exactly $\frac{1}{8}$ in. — this is only for the sake of uniformity at the beginning. However, the step between the sea and the land may certainly be larger than the rest, since this would give it a cliff-like look and accentuate the profile of the land.

The block is now firmly assembled; all that is to be done is to mount it. But first you must retouch it. Almost certainly a little of the paint you put on before gluing up will have come off, so now you must just touch up these parts with a fine paint-brush. The next step, the mounting, is not absolutely necessary: it merely is a matter of taste. You can, however mount it in any way you like — on hardboard, wood, fabric, anything at all. However you choose to mount it, be it fibre board or an old picture frame, the mounting must not be of a sort of colour that will detract the eye from the work itself — it should be plain and match the most prevailing colour in the work. Personally, I prefer not to have it mounted but left just plain and simple.

The underlying essentials are care in design and harmony of tone. In the first instance, designing the block should be very carefully thought out before cutting. Eliminate all unnecessary lines from the drawing you first make and leave plenty of space around the actual land masses, as seen in the top illustration. I mentioned how to choose a design in the previous article, but whatever you choose, keep it bold and keep it simple!

Tonal contrasts play a large part in the whole effect. Carefully balance up the tonal difference between land and sea — pale against dark or dark against pale. Choosing the number of contour lines you are going to show on your drawing: if the land starts at sea level and goes up to 15,000 ft., say, then perhaps five contours representing 3,000 ft.

● Continued on page 211



NAT KING COLE

IF Nat King Cole's dreams come true he will buy a 'plane and get a box in every baseball park in the country! 'Then', he says, 'I'm going to fly from city to city and do nothing but watch baseball games. And in the winter, I'll go to Cuba and watch the games down there.'

Unfortunately for Nat, it looks like being a long time before he can even come close to living his 'dream' life. For the present he will have to sandwich in ball games between the scores of club dates, concert tours, recording sessions, television appearances and motion pictures that now earn him more than \$10,000 a week.

Born in Montgomery, Alabama, on March 17th, 1919, Nathaniel Adam Coles was the son of a Baptist minister. His name was abbreviated years later when he became a professional entertainer. The family, which included three other boys and a girl, moved to Chicago when Nat was four years old. Nat's brothers, Eddie, Freddie, and Isaac, are all professional singer-pianists.

Nat's mother has played a great influence in his musical ambitions. She encouraged him to play the piano, and at four he could pick out the melody of *Yes, We Have No Bananas* — with both hands! While he was attending high school Nat formed a fourteen-piece band in which he played piano.

On leaving school Nat joined a road company revue, *Shuffle Along*, as band-leader. Of his early life he recalls that he never earned more than \$5 a night after working in every bar in Southern California.

Nat formed his first trio for a nightclub manager. Although instrumental trios were not generally favoured in those days, the Nat King Cole Trio developed a large and faithful following. Nat is

often asked why he disbanded the group. 'Capitol Records and I both felt that a big band behind me would sell more discs. *Nature Boy* was the first of these, and I've never regretted my decision.'

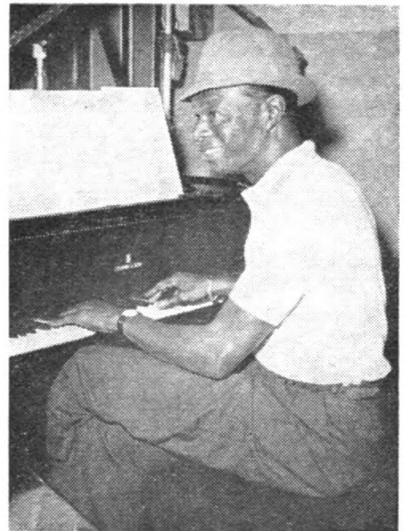
Nat's singing career was inadvertently created for him by a patron at a small Hollywood nightclub, who insisted that Nat should sing *Sweet Lorraine* for him. Until that night Nat had never considered singing seriously, but in order to quieten the customer sang the request. Everybody in the nightclub liked his voice.

Conversely, now that Nat is world-famed as a vocalist, many people are unaware that he is one of the best jazz pianists of the day.

He was one of the first artists to join Capitol Records, just after the company was formed, and has recorded more than 600 songs for the label. Together his discs are reported to sell more than 7 million copies a year!

Cole-Belafonte Enterprises Inc., was formed between Nat and his close friend, Harry Belafonte, for the production of media for Negro artists in motion pictures, television and the stage.

One secret ingredient of Nat's success



is his enthusiasm and his desire to inject something new into every engagement. He usually prepares as much as six months in advance of an engagement.

The selection of LP's, EP's, and singles that Nat King Cole has recorded is vast. Among the popular LP's available are *10th Anniversary Album* (LCT 6003), *Love Is The Thing* (LCT 6129), *This Is Nat King Cole* (LCT 6142), and *Songs of W. C. Handy* (LCT 6156). His EP's include *Love is a Many Splendored Thing* (EAP 1010), *The Christmas Song* (EAP 1036), *Moods in Song* (EAP I-633), *After Midnight* (EAP I/2/3/4-782), *Around the World* (EAP I-813), *Hit Calypsos* (EAP I-852), *St. Louis Blues* (EAP I/2/3-993), and *The Very Thought of You* (EAP I/2-1084). Single waxings include *Mona Lisa* (CL 13308), *Too Young* (CL 13564), *Unforgettable* (CL 13637), and *Autumn Leaves/Love is a Many Splendored Thing* (45-CL 14364).

● Continued from page 210

NOVEL MARQUETRY METHODS

each would be satisfactory. It depends, of course, on the size of map as well as the degree of intricacy you are prepared to go to. And to get a fair representation of the actual land the contours should rise at even intervals. You need not stick to contours. Fig. 6 shows how pieces of different height in the block need not represent actual land height; here it's merely different territories. These you can colour anyhow you like, in the most attractive scheme.

When you are going to put the finished article on the wall, just stop and think if it will be in a good position. For the

three-dimensional effect will be lost if the steps are not shown up: it will simply become another ordinary map. So, choose the lighting carefully so that it causes shadows on the raised parts. The exaggerated side-lighting in Fig. 7 shows this unmistakable effect.

In conclusion, therefore, we see that care in designing, cutting and displaying is essential to get the best effect from this method.

An alternative method of cutting with the blade at a slight angle will be described in a later article.

HERE are some new games guaranteed to make your party go with a real swing. The first is a good one to start with since it helps your friends to get together and become friendly.

MONEY FOR NOTHING

CUT out some discs of thin cardboard to the sizes of a penny, sixpence and a shilling. Write these values on the discs and for success you will probably require about four times the number of counters as you have players. The 'coins' are then scattered about the house or room as you wish but left so that they can be seen without disturbing the furniture. The game is started at a given time and at the end of a decided period — say five minutes — a halt is signalled. The winner is the player who has collected the highest value.

GUESSING THE MIME

FOR this game everyone goes out of the room except one who has to invent a mime (e.g. putting a coin into a slot machine, lifting the packet of chocolate out and opening). This little mime is performed to the first person who is called in. The solution is not revealed but this player has to pass on the mime to the next person who is called and similarly until everyone has seen and done the mime. Finally, the last player has to perform the mime before all and endeavour to guess the solution when a comparison is made by the originator. This is rather fun since the mime becomes more and more confusing as it passes from one to the other!

SHOPS

THIS is a fairly noisy game so you are warned!

Once again one person leaves the room while the others select a particular type of shop, say a grocery store. Each guest then selects some item sold in the shop such as tea, coffee, bacon, flour, rice, soap and so on. The player is recalled and the players shout out their different items, sharply and loudly on a signal given by the leader. It is best if the leader gives a count in, like a bandleader, and if the contestant can guess the type of shop after three attempts he is asked to indicate who gave the clue and this person then takes his place when another type of shop is selected.

TUNE TAPPING

WE have two teams for this game and each in turn must decide and tap out a tune which the other side tries to guess. It is best to have pencils and pieces of cardboard ready for this game and the winning team is the one which guesses the most tunes.



HOW ARE YOU!

THE guests should form a circle with one in the centre. The latter points to one player and says 'How are you today?' The correct answer is 'Quite well, thank you.'

But if the centre player points to someone and does not speak the player indicated should not reply. If he does reply — although never asked — he

must take the centre. Or if the questioner merely says 'How are you?' — without the 'today' the one addressed is caught out and must take the centre.

MUSICAL GAMES

WITH the aid of a little music there are several other games at your disposal. First of all we have the popular Musical Chairs. When the music stops the players have to find a seat and the one without it 'out'. A chair is removed and the game proceeds to the last player.

For Musical Parcel, wrap up a small gift in lots and lots of paper and string. When the music stops the player holding the parcel is allowed to begin opening but must pass to his neighbour when the music starts again. The parcel is passed round in this fashion until the gift is finally revealed.

Musical mat is game where a mat is placed on the floor and the guests walk over this while the music is playing. When the music stops anyone on the mat is out and once again the last player to be in the game is the winner.

MEMORY TEST

THIS is another intriguing game to test the memories of your guests. You should have pencils and paper ready for the written answers. All you have to do by way of preparation is to arrange about 20 different articles on a tray and exhibit these before the guests for a minute or so. Do not allow too long for this. Small articles such as needles, pins, spoons, matchboxes, rubber bands, hairclips and the like may be used and the winner is the one who eventually proves to have remembered the most objects.

The tray may be exhibited again after an allotted time has elapsed and the lists checked with the articles.

BLACK MAGIC

THIS is a different type of game where the leader requires an assistant who goes out of the room for a moment or so. The remaining guests are asked to select some visible object which has to be guessed by the one outside. On returning the leader asks his assistant 'Is it this' or 'Is it that', pointing to some object at the same time. The secret of this game is between the leader and his assistant only and for your information when the former has pointed to some *black* object the assistant knows that the next will be the one selected. Note that by arrangement the colour can be changed and anyone who thinks he has guessed the secret is invited to test his skill.

These games should give a good selection for any type of party but to ensure success it is as well to make a programme, have some pencils and paper ready and a few prizes. And we do hope you have a happy time. (S.H.L.)

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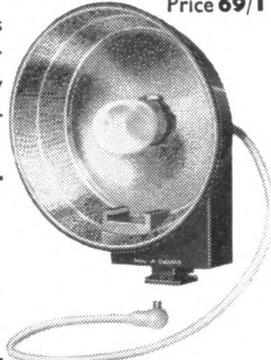
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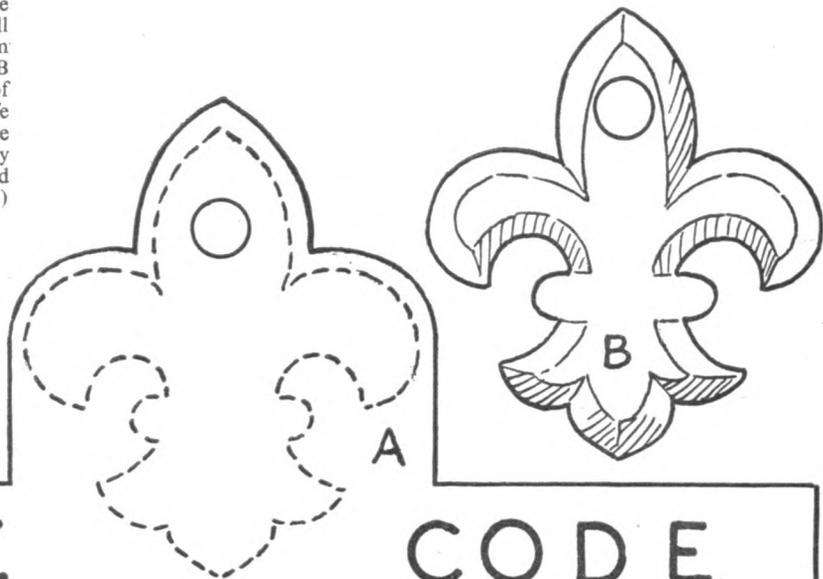
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A MORSE REMINDER

FOR the Boy Scout or anyone else interested in signalling, this morse reminder can be hung on the wall where it is easily seen. Cut piece A from $\frac{1}{4}$ in. fretwood using a fretsaw. Piece B is also cut from $\frac{1}{4}$ in. wood. The edges of this are shaped with a modelling knife as indicated by the shading. Cut out the morse code and paste to A. Alternatively the letters and symbols may be marked in pokerwork. (M.p.)

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MORSE

CODE

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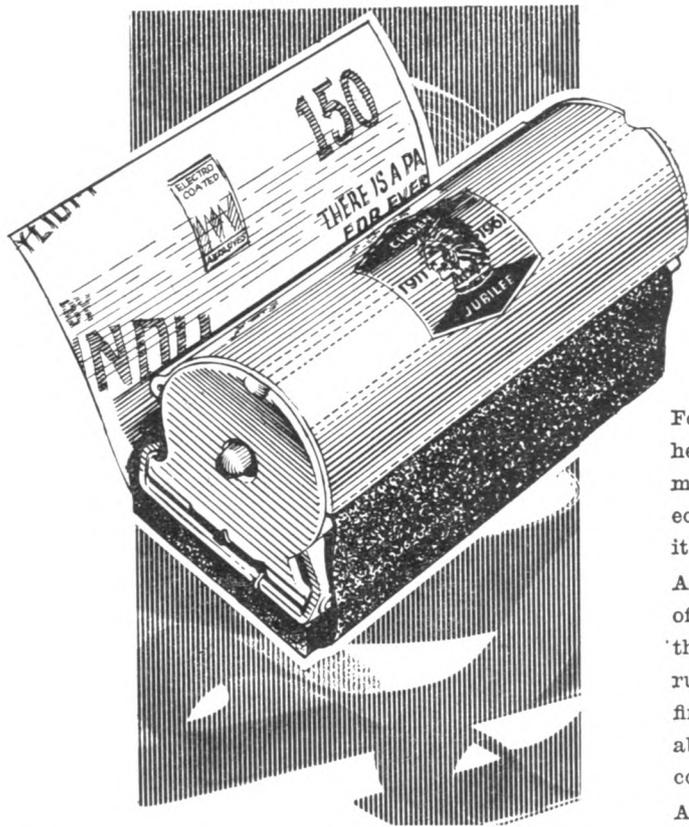
B.... G— L.... Q... V... 2.... 7.....

C... H.... M— R... W... 3.... 8.....

D... I.. N.. S... X... 4.... 9.....

E . J... O... T - Y... 5..... O.....

Z....

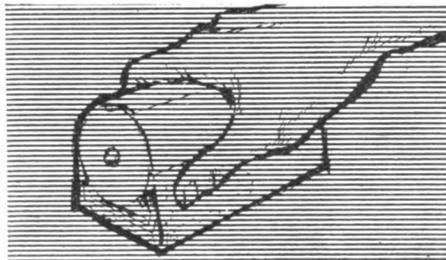


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