HOBBIES weekly

13th MAY 1964 VOL. 138 NUMBER 3570

OCCASIONAL TABLES

Hobbies

FOR CRAFTSMEN OF ALL AGES

6D

THE BRITISH COMMONWEALTH

By L. P. V. Veale

MOST philatelists started the hobby in their early days by collecting every single stamp that they could lay their hands on, irrespective of country or continent. Then as the size of the collection grew so they decided that it was impossible to continue trying to make a complete collection of all the stamps of the world.

The question arose as to the best way of limiting the size of the accumulation. There is not much fun in collecting stamps when you know perfectly well that you will never be able to complete this, yet the same can be said if you know that you will be able to complete the collection without any effort. The problem is to find a task that can be completed yet which will require considerable effort in order to maintain interest.

In general it was found that many turned to the stamps of the British Colonies. Stanley Gibbons, the firm responsible for most of the catalogues, found it worth while to prepare one for the British Colonials alone. Now the problem is: What does one mean by British Colonials? So many territories which were once termed British Colonies seem to be turning to self government or some form of independence.

This week we hope to clear up some of these problems and make suggestions as to which areas should be admitted into a British Colonial collection — or as it should now be called, a Commonwealth Collection.

One rather easy way of saving oneself the task of making a decision would be to buy a British Commonwealth catalogue and include anything and everything which is mentioned in that. Yes, that would be the easy way, but it is the lazy way. You don't even have to take the trouble to think if it is proper to include a certain region — the fact that it is mentioned in the catalogue is sufficient.

No, the better way is to try to find out something concerning those regions which at one time issued stamps bearing very obvious indications of association with Great Britain but which now issue stamps which clearly indicate that there has been a considerable change.

The Commonwealth

There is no written constitution for the British Commonwealth of Nations but the members feel to be bound together by a similarity of interests and ideals which have grown up during the course of history, forming a tradition and giving a similar pattern of government throughout.

They all have their laws made by an elected parliament and at the head of each parliament is the Queen who is represented by a Governor General. This officer is appointed by the Queen on the recommendation of the government concerned. Naturally those countries which are Republics will have their elected Presidents as heads.

Let us trace the history of Ghana, as it is now known, but which originally was a dependency of Sierra Leone. In 1874 it was joined with Lagos into a Crown Colony and the first Gold Coast stamps appeared in 1875. Lagos was given its own stamps and in 1886 it was separated from the Gold Coast and itself became a British Crown Colony.

Key and dates

The first illustration of the 1d. value of the 1898 issue from the Gold Coast should be noted carefully as this design is frequently met with in British Colonial stamps. For instance we find it coming from Gambia, Leeward Islands, Grenada, Fiji, Ceylon, Cayman Islands and so on. The design is known as the Key and Duty type. The stamp is made up in two printings, one producing the design minus the letters showing the name of the colony. Then the letters and figures denoting the value are added in a second printing.

This would obviously save a considerable amount of time because the main part of the stamp could always be available and it would only be necessary to take the correct colour and print in the name and value and the stamps could be despatched immediately. The first part is called the Key plate and the second is the Duty plate.

The stamps of the Gold Coast showed two departures from the usual Key and Duty plates. Each gave a picture of Christiansbourg Castle at Accra, one in the reign of King George V and the other in that of George VI. Then came

the change to the pictorial set of 1948 and the same designs were used for the Queen Elizabeth set of 1952, although some values were transposed.

Then in 1957 we had the change. On the 6th March Ghana gained independence. Four new stamps were issued, showing a map of Africa (with Ghana marked), a bird, (the fish eagle) and a portrait of Dr. Nkrumah. On the same day nine of the Queen Elizabeth II stamps were overprinted 'Ghana Independence 6th March 1957'.

Starting from that date you come to the real departure from custom. First of all there is quite a riot of issues — over 80 stamps in four years. Every possible occasion was used as an excuse for the issue of three or four stamps with the designs in complete contrast, many of them having to be described as simply multi-coloured. In the opinion of many collectors this was a great pity because it seemed that Ghana was mainly concerned with producing fresh stamps for sale to collectors rather than with improving the service which the purchase of a stamp ensures.

Note the changes

Now the most certain way of cutting out the interest of collectors is to produce an abnormal number of stamps without any reason. Collectors very soon realize that they are being exploited so they refuse to buy the stamps and the country becomes unpopular from the philatelic point of view.

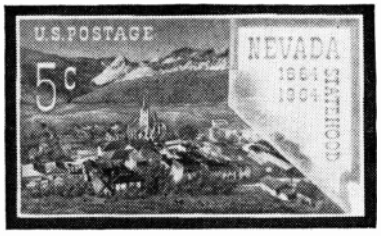
If we are going to confine ourselves to British Colonials then we finish with the stamps of the Gold Coast on 6th March 1957. But if we collect Commonwealth then we continue with the stamps of Ghana and likewise for the other regions.

So far as is possible one should continue. It is the same area of land that is using stamps and further, one has the extra interest of watching the changes in the issues.

Look at the illustrations for this week; first the Key and Duty type, then the rather more interesting type, the cocoa farmer, the same design of which was used for the Queen Elizabeth II stamp of 1952. Then compare these with the change for the two stamps of Ghana. Try to see the real stamps, then you will be able to appreciate the colours and the printing.

Readers would do well to complete sets from regions, such as those in Africa, where decisions on change of status are the subject of consultations between the various factors.

U.S.A.



During the coming Autumn a special American stamp will celebrate 100 years of Statehood for Nevada. It shows a view looking down from the mountains of Virginia City, Nevada.

* * *

U.S.S.R.

A commemorative marking the 80th anniversary of the birth of F. A. Sergeev, the Revolutionary hero, appeared on 1st January. Another 4 Kopeks value was devoted to the 25th anniversary of the birth of the Lithuanian poet K. Donelaitis and a further set of four values featured Space Research, the 10K value being illustrated here.

The 'Innsbruck Olympic' set was released on 29th January. The five values carry typical sporting designs.

PEN-FRIENDS are required by the following to whom you are invited to write regarding mutual hobbies.

C. OKELL of Liverpool Road Farm, Buckley, Hants, is 16 years old. He would like Scandinavian pen friends.

DOMINGO PLA FONT of Apzrtado 1326, Barcelona, Spain, has many old and modern Spanish match labels for exchange. He also collects cigar bands.

I. DHARMALINGHAM of 351 Trincomalee Street, Kandy, Ceylon, needs friends for stamp exchange. He is 28 years old.

THIS HOBBY WORLD

LESLIE R. SHAW writes: 'I would be glad if you would publish my name on the pen friends page. I collect brewery labels and have not yet been able to discover a satisfactory method of mounting labels, nor a safe way of storage'. Leslie lives at 2 Park Place, Warwick Road, Kineton, Warwicks.

For the information of Leslie and others with this problem the only safe way of mounting labels is with stamp hinges.

A large scrap album makes a good home for labels. These are obtainable from all stationers.

FRAU ERIKA LAEMMERHIRT of Delitzsch, Bez, Leipzig, West Germany, would like friends throughout the world, She collects brewery labels, postcards. stamps and plays chess.

MAQBOOL AHMED NAIZI of Honse AA/240, Nehiu Road, Rawalpindi, West Pakistan, would like pen friends from all parts.

For further friends contact the following readers who have sent requests:

RICHARD KOH, P.O. Box 73, Mirr, Sarawak, Borneo. Stamps. Pop Music.

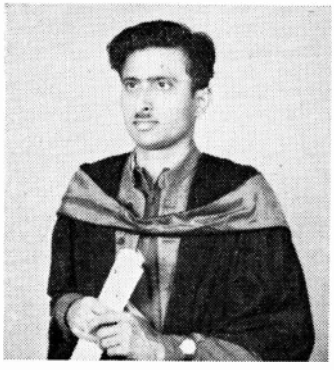
CONSTANTIN MINACOULIS, Suez Canal Authority, P.O. Box 20, Port Tewfik, Egypt. U.A.R. Stamps, Labels.

S. A. D. R. SAMMARASUNDERE, Kumbukka, Gonapola Junction, Ceylon. Stamps, Labels, Records.

G. W. SHARP, 12 The Square, Bottesford, Nottingham. Match Labels.

PHILSBY FARINOLA PHILSBY, St. John's College, P.O. Box 3053, Ibadan, Nigeria. Stamps, Music.

IAN BRINK, 55 Chestnut Avenue. Cowgate, Newcastle Upon Tyne, 5. Beer Mats.

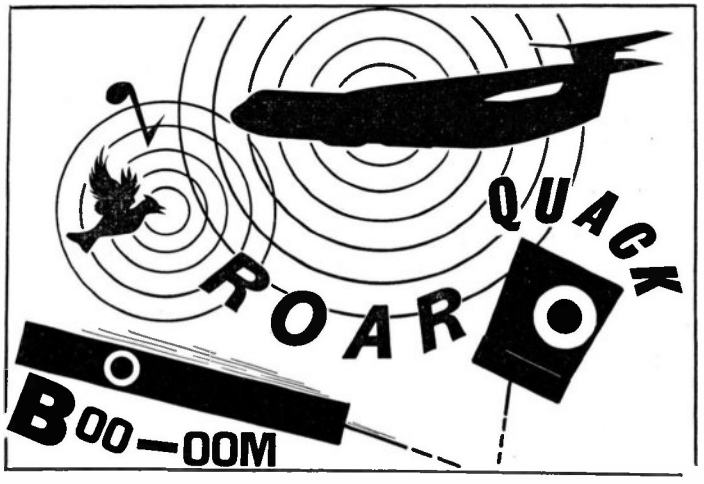


SHRI-KRISKNA MISHRA of Life Insurance Corporation of India, 1 Chakrata Road, Dehradun-(U.P.)-India, would like English pen friends.

Have you heard this?

SOME NOTES ON NOISES

A JET plane flying low overhead will deafen the neighbourhood. Even a skylark five hundred feet above the earth will produce successive shell-like sound waves of slightly-compressed air, which will expand outwards and be effectively heard within a sphere of the atmosphere one thousand feet in diameter. The little bird's vibrating vocal cords can set eighteen tons of air in motion, so you can imagine the effects upon air of a set of powerful jet engines. And yet, without the air, both bird and machine would not be heard at all, because 'sound' can only be transmitted by intervening matter.



By A. E. Ward

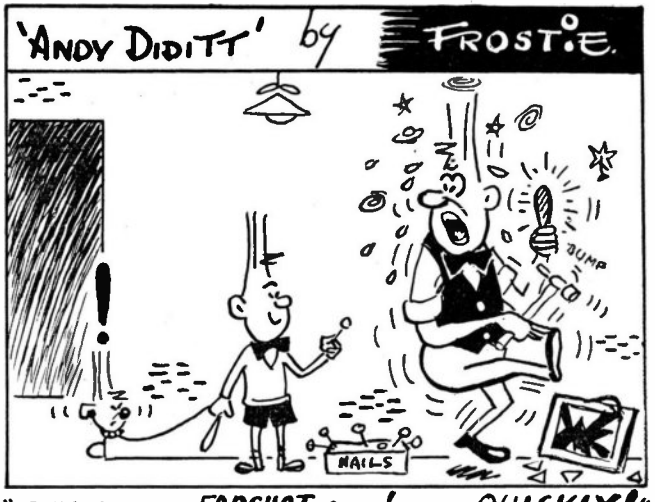
But have some fun making interesting sounds. Begin by boring a little hole in one end of a ruler, then tie on a long piece of light string. Twirl the ruler around your head in a wide circle. The ruler will begin to spin fast and set air vibrating to give a succession of sound waves which will be heard as a mighty deep booming noise. Your friends, standing aside, may notice that the note produced as the ruler whizzes towards them is 'higher' than the note sounded as the ruler swings away. A similar effect is noticeable when you stand at a railway station and listen to a whistling express train approach and pass.

A blade of grass gripped tightly-stretched between successive bones of your respective two thumbs, will emit an ear-shattering screech when you blow at it edgeways on. Tighter blades give out higher pitched shrieks. The vocal cords of a woman are smaller and tighter than a man's, which enlarge and slacken when he ceases to be a boy. Try different sorts of papers instead of grass leaves.

Thread a button twice upon a length of strong thread. Join together the ends of the thread to form a loop, which you can 'catch' between fingers of opposite hands, to let the button dangle in the middle. Hold the thread loosely and fling the button around in a circle many times, to twist the double thread. The button will spin when you pull the loop taut.

By letting your hands approach each other as the spinning continues, and then drawing them apart, you can keep the button spinning at fast rates for a long time and thereby produce a series of buzzing or whizzing sounds which vary in pitch as the buttons speed alters. Try larger buttons, or a cardboard disc with some big holes in it. Hollow 'humming tops' have holes in them to produce beautiful notes, which descend in pitch as the tops' spinning actions slow down.

Next you can make a delightful noise like a duck quacking, by jerking upon a string rubbed with resin, which is threaded up inside a hole in the bottom of a waxed ice-cream carton, then tied across a match stick. Your jerking makes the cardboard bottom and the air in the ice-cream pot vibrate, and the shape of the container tends to concentrate or 'amplify' the resulting sound waves forwards, like a megaphone used to shout at competitors across a sports' field. Other containers of various sizes and made of different materials may be adapted to produce a whole range of dog barks, puppy yipps, growls and terrifying roars.



DEAN AND JEAN

THE young coloured couple Dean and Jean set the American charts afire with an irresistible toe-tapper called *Tra la la la Suzy*. Dean comes from Ripley, Tennessee, Jean from Dayton, Ohio.

Dean (real name Welton Jones), left his family and friends to seek his fame and fortune as a singer, the career he had set his heart on ever since he entered starry-eyed adolescence. He headed north, but nothing much seemed to happen on the way, and he stopped off at Dayton, Ohio, where he took a job with a cement firm. Potential singing stars have to eat!

But he kept practising on his guitar, and his talent for playing this instrument plus his highly individual voice soon attracted quite a bit of attention.

He was offered a job with a professional bunch of troubadours called 'The King Toppers'. His stay with the group took him further north to New York, but the group found the competition too great, and Dean found himself back on the cement scene in Dayton, where he met a girl called Brenda Lee Jones. She was to become Suzy, the other half of the now much-in demand duo.

Brenda's particular forte — apart from singing — was her ability to play a swinging piano. She started taking lessons at school, and graduated to the usual run of small-time radio and television appearances on local stations. It wasn't the big stuff, but before long she had won herself a reputation as one of the most sought-after girl singers around the Dayton area. Bandleaders always asked for Brenda when they needed a vocalist at dances and parties in the neighbourhood.

Coincidence has resulted in instant success on innumerable occasions, and by sheeer coincidence, Brenda turned up to do a spot with a band in which Dean was featured on guitar. Dean and Jean were born. The two became firm friends, and together they spent hours working out and experimenting with new musical ideas. A record had to follow, and it was not a national hit. This didn't constitute any major disaster, for the record scene in the States is so vast that you can make a profitable name for yourself with a regional hit. Which was what they had with their disc — *We're going to get married*. It was a sizeable hit in the Midwest without making the national charts, and it led to a string of cabaret and concert dates in other parts of the States.

But all the time, the pair were submitting examples of their work to the big record companies in New York. One of their songs was called *Tra la la la Suzy*. One of the record companies was called Laurie Records, who signed the artists. And *Tra la la la Suzy* quickly climbed the American best sellers.

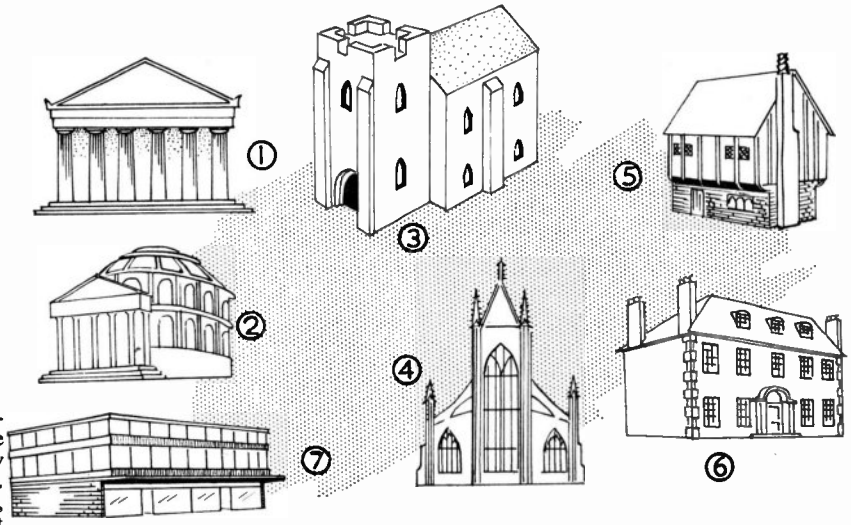
THE FEDERALS

GOING up the chart ladder? These are the Federals, Parlophone recording group, who are hoping for a foothold in the charts with their recording of the old Coasters favourite *The Climb* (R5100). This out-of-the-rut beater has already been attracting attention since it was used to back a demonstration of a dance called *The Climb* on READY STEADY GO!

The sound of The Federals has been heard in Naples, Cologne, and Frankfurt, and one of the group's distinctive features, the trumpet playing of Frank Milne, is spotlighted on the record, behind Tony Bolton's vocal.

Of interest to modellers

Notes on Styles of Buildings



LOOKING at buildings, and being able to recognize the style in which they are built, is a hobby which can be pursued almost anywhere. As one learns about the subject, houses, churches, and office blocks become not just buildings but recognizable styles of architecture, and are seen in a completely new light.

In an article of this length, it is clearly impossible to do more than show some of the commoner building styles found in this country, and to indicate the ways of recognizing them. It will probably be surprising how many of these are already known, which is an encouraging start for a hobby.

Illustrated here are some examples of building styles, and some rules for recognizing them.

1. GREEK. Buildings in the classical Greek style have fluted pillars with heavy stone lintels above them. The roof is triangular at the front and is often decorated with sculpture. There are no curves, arches or domes, for the marble blocks which the Greeks used limited them to this pillar-and-beam type of building.

2. ROMAN. Roman style buildings also have pillars, but these are incorporated with arches and domes, for the Romans took over the Greek style and added it on to their own particular type of building; this had arches and great domes, for the Romans invented a kind of cement which allowed them to use these shapes in their large public buildings.

3. NORMAN. These buildings look massive and heavy, with small rounded windows and deep rounded doorways. Their most frequent shape is either round or square. The heaviness of Norman buildings is due to the fact that their walls were made of two outer skins of stone, filled in with rubble between; this kind of wall lacked strength, and so had to be made very thick to compensate this.

4. GOTHIC. Gothic style buildings appear to point skywards, with many pinnacles and large windows. Sometimes the whole building is richly decorated. Their form sprang from the idea of building as high a structure as possible, using as little stone as possible. Wide and strong-looking at the base, the building tapers as it rises, with buttresses and sometimes bridge-like flying buttresses.

5. TUDOR. Tudor houses very often have a stone or brick lower storey, with an overhanging upper storey built of beams with whitewashed plaster between. Small-paned windows and decorated chimney-pots were another feature of this style of building. The beams in the wall were set very close together — it was not until Elizabethan times that builders felt confident enough to move them further apart.

6. QUEEN ANNE. The Queen Anne style of house, made of either brick or stone, is simple in shape, with a roof that slopes up from the eaves on all four sides. The bold chimney stacks rise above the end walls, and the door has a canopy over it. The attic windows have little roofs which repeat the shape of the door canopy, either rounded or pointed. Blocks of stonework very often decorate the corners.

7. CONTEMPORARY. Contemporary, or truly modern buildings, have clean, angular lines, and little in the way of decoration. Modern building materials such as steel and concrete enable whole buildings to be supported on interior pillars, so that heavy outer walls are no longer necessary, and a whole wall may be made of glass panels. Large blocks, where the whole of the building seems to be resting on the plate-glass fronts of the shops below, show this clearly. (A.L.)

The 'Vanishing Lady' Illusion

PUT a penny stamp under a glass filled with water. Look down through the water and glass bottom, and you can see the Queen's portrait very clearly.

Then cover the glass by standing a saucer upon it. When you do this, the stamp will disappear.

Try as you will, you won't be able to 'find the lady', without lifting up the saucer again.

The vanishing trick illustrates refraction, or the bending of light rays when they pass between transparent media having different densities.

Light rays reflected off the stamp that try and emerge from the water into the surrounding air — through the side of the glass — are all bent upwards towards the underside of the saucer.

(A.E.W.)

OCCASIONAL TABLES

By H. Mann

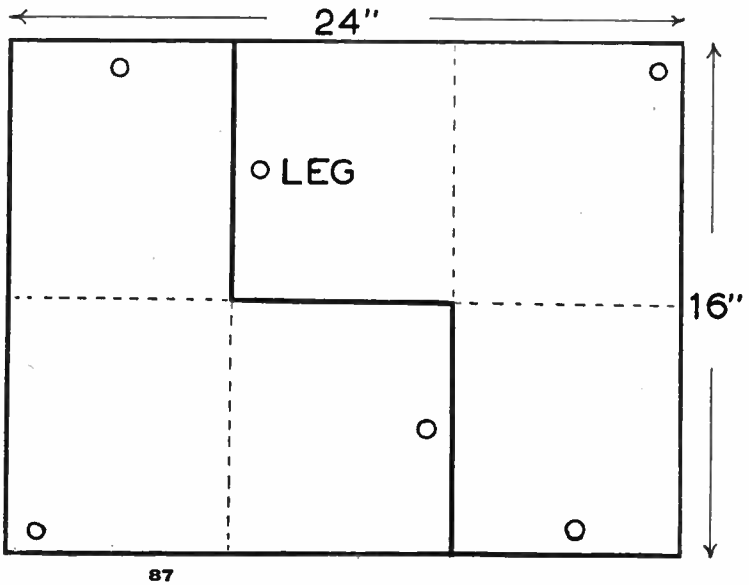
OUR illustration shows a nest of occasional tables which may be placed at the corner of your easy chair for a cup of tea while watching the television. Each table is shaped like a letter L, so that it will fit the corner of a chair, yet when united with its partner will make a small rectangular table. Moreover, one may be stood on top of the other in a corner when not required as a table, and used as a small display stand.

Any size of table may be prepared, but we suggest that a piece of ½ in. plastic laminate measuring 16 in. by 24 in. would be convenient. Reference to the diagram will show how to plan the two L-shaped pieces. Divide in half and thirds, marking out accordingly. Use a fretsaw or padsaw for cutting out, rounding off the corners. Veneered board may be used if desired.

Three legs are required for each L section, and the height of the table may be governed by the height of the chair seats. Normally, 12 in. legs are sufficient for our purpose, and there is a wide choice of legs at your disposal. It is important to note that the legs should be fastened in the positions shown in the diagram, otherwise the small L shapes would overbalance.

The popular type of splay legs, tapered to the base, may be used along with plates for attaching underneath the table top, or you may favour the cheaper variety made from stout wire. It is also possible to make a set of legs by heating the end of a length of ⅜ in. rod, flattening one end, and then drilling two holes for screws. These are then painted, and wooden balls of suitable diameter attached to the feet. In this case it should be remembered that the flattened portion must be bent at an angle, and all the rods must be at the same angle.

The project may be finished by gluing a strip of suitable banding around the edges of the two tables or suitably painting to match the table top.



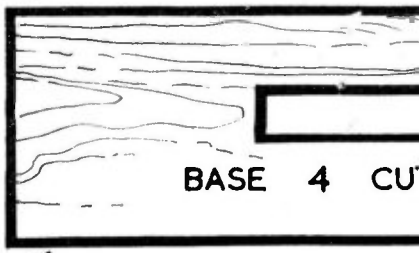
EVENING PROJECT

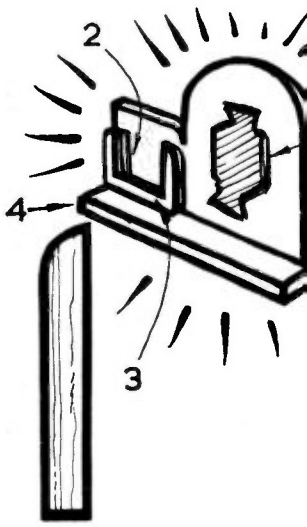
TRUMP INDICATOR

CUT FOUR FROM CARD

PAINT ON

CALENDAR





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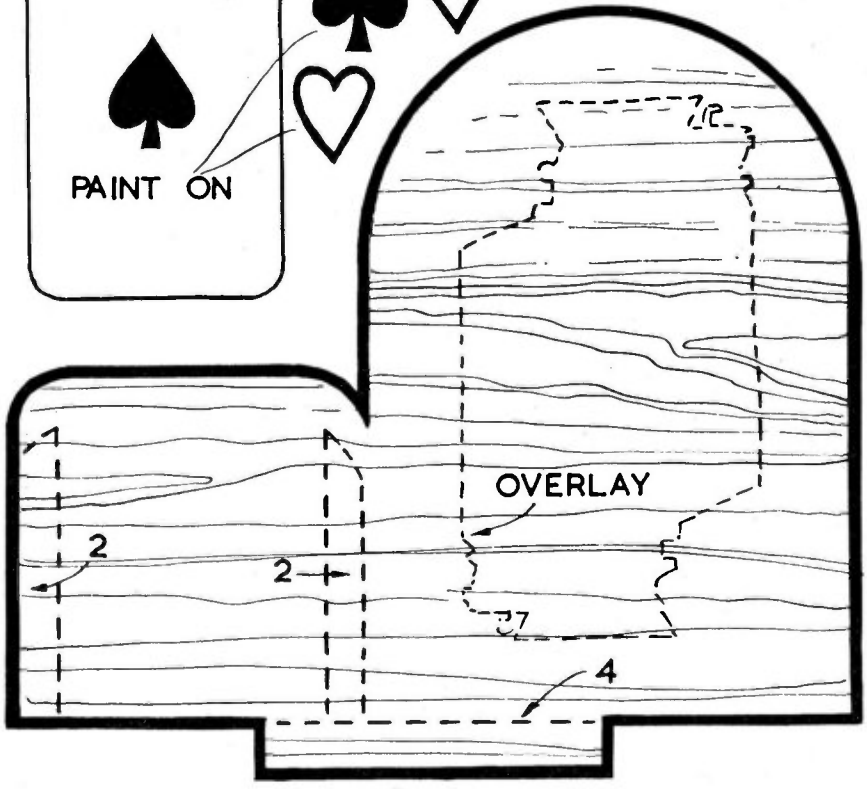
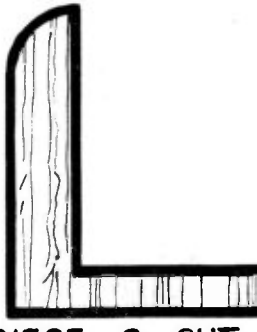


PIECE 1 CUT ONE 1/4 IN.



PIECE 3 CUT

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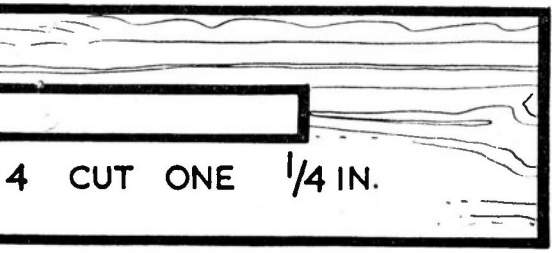
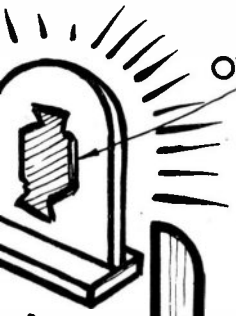


4 CUT ONE 1/4 IN.



OVERLAY

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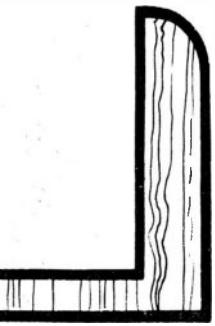
OVERLAY CUT
ONE 1/8 IN.



CUT ONE 1/4 IN.

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A.C./D.C. High Tension Supplies

ALL A.C./D.C. circuits closely resemble the circuit shown in Fig. 1 of a standard high tension supply, and all operate on the same principle. So if you understand one, you understand the lot. The rectifier, which in this case is a valve, may also be a metal rectifier, either copper oxide or selenium, or a silicon diode. Or smoothing resistance may be used instead of the smoothing choke, but the connections are precisely the same.

By C. N. G. Matthews

Apart from short-circuits, the only possible faults are no HT, low HT, or hums caused by faulty smoothing. Considering the valve rectifier first, the procedure outlined in the article on heater circuits will show up the short circuit, if any, before the set is switched on.

The most likely cause, if there is a short circuit, is one of the two smoothing condensers. Measuring the resistance between points 1 and 2 and chassis will show up the faulty condenser immediately. For example, if the smoothing condenser is short-circuited, the resistance between point 2 and chassis will be only a few ohms, while that between point 1 and chassis will be this resistance plus the resistance of the smoothing choke or resistance. If the reservoir condenser is short-circuited, then the readings will be the other way round.

If you suspect either of the condensers, disconnect it and check again. It is very unlikely that a short-circuit would be due to anything but a condenser, but if it is, you have only two or three leads to check, so you should be able to find it easily enough. Measuring from point 1 and 2 will localize the short circuit whatever kind of rectifier is used.

Once the short-circuit question has been settled — by replacing one or both condensers if necessary — switch on the receiver. Measure the voltage at points 1 and 2. This should be D.C. The actual voltage will depend upon the receiver, but you can feel that the circuit is in good order if it is in the region of 200 volts at point 2, and higher at point 1.

If you did have to change a short-circuited condenser, though, it is probable that you will get no reading at all, because the heavy current will have burned out the valve. As you have cleared the short circuit, it should be perfectly safe to plug in another valve.

If a rectifier or silicon diode is used instead of a valve, and there is still no HT after changing a short-circuited condenser, switch off the receiver, and measure the resistance of the rectifying device by touching the meter leads to points 1 and 3. Note the reading — the meter should, of course, be on a resistance range — and then interchange the meter leads so that you have a reading for the rectifier resistance measured in both directions. One reading should be quite low, say, a few hundred ohms, and the other very high.

As a rectifier is a device that passes current in one direction only, it must give this kind of resistance reading if it is in good order. If the reading is the same, either low or high, in both directions, then the rectifier has been ruined, and must be changed.

Incidentally, when a valve rectifier in an A.C./D.C. receiver burns out, the heater is usually not damaged, the trouble being the fusing of the internal link between cathode and valve pin. So it is possible to make a very satisfactory repair by leaving the valve in position, and soldering a silicon diode between anode and cathode pins on the valve-holder. These rectifiers, which are not much bigger than a pea, are both cheaper and more reliable than a valve. It is essential to leave in the valve, otherwise the continuity of the heater chain will be broken.

Now suppose that the rectifier is working and there are no short circuits,

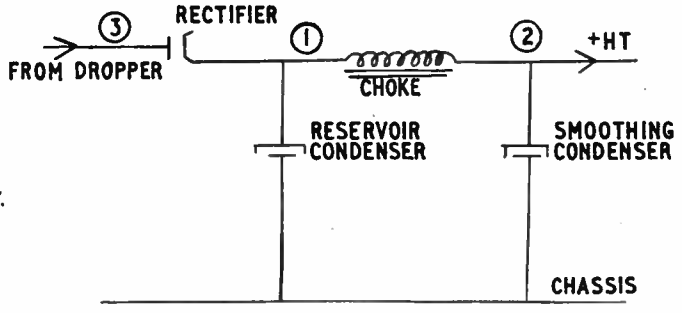


Fig. 1—H.T. Supply

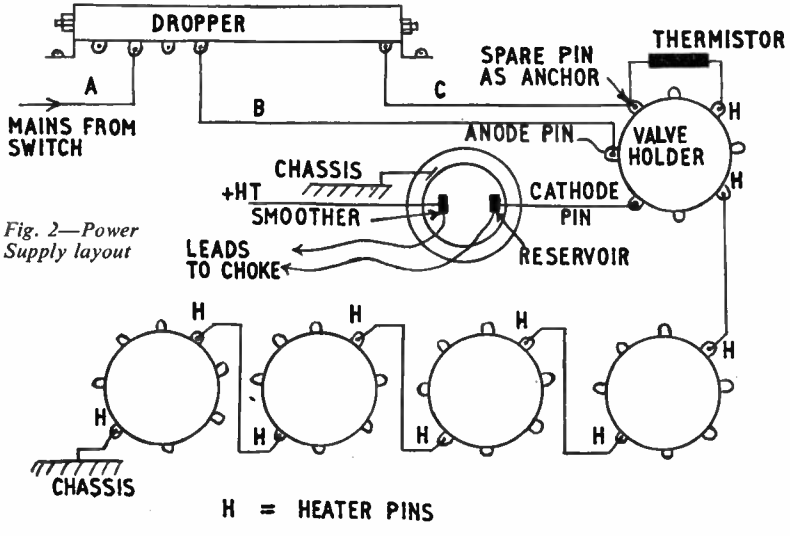


Fig. 2—Power Supply layout

but you get a low HT voltage and hear a loud hum as soon as the receiver has warmed up. This can be due to either of the condensers being open-circuited. The best way to check on this is to connect another condenser of about the same capacity across each in turn. If the HT voltage goes up to normal and the hum disappears, then you know that the condenser across which you have connected the spare is open circuit.

What to look for

This is about all there is to trouble-shooting power supplies, except for one very important detail. How are we going to identify the components and test points, especially if we have no circuit diagram? A good service engineer should be able to look at the average receiver and know exactly where to make his tests without having to waste time poring over a blueprint. It is simply a matter of knowing what to look for.

Consider Fig. 2. This gives an idea of the power supply and valve layout on a modern receiver. Of course, there are minor differences introduced by individual makers — the dropper and smoothing choke may be mounted on top of the chassis for instance — but the overall pattern is really the same. Once you have taken the trouble to trace out the circuit on a few receivers, you will see it at a glance on almost any other. Let us examine this layout in detail.

As we saw in the last article, one side of the mains goes to chassis, either direct or through one half of a double-pole switch. The other side goes to the mains dropper, which is the component we seek first. It should be easily recognized as a cylinder about 6 in. long and ½ in. in diameter, with either a dull or a glazed ceramic finish and a few tapping points close to one end. The mains lead is connected to one of these points. Somewhere on the receiver will be a plate indicating the correct tapping point for various mains voltages, and with a strange receiver it is not a bad plan to check that the right point is being used.

If we call the first lead — from mains to dropper — A, the next lead B along this resistance carried the A.C. to the rectifier. So by following this lead we know which pin is the anode of the valve. The main heater lead C is connected through the thermistor to one side of the rectifier heater. Usually, an unconnected tag on the valve holder is used as an anchor for this lead and one end of the thermistor. So if you see a fairly battered looking resistor on the rectifier holder, you are safe in assuming that this is the thermistor. The heater wiring can be recognized at once as leads of a similar colour leading direct from one valveholder to the next. One side of the heater last in the chain is connected to a chassis tag. Thus there is no trouble at all about identifying the heater pins on each valve.

Identification at a glance

Normally, there will only be one other lead from the rectifier holder. This is the cathode lead, which carries the pulses of rectified A.C. to the smoothing circuit. This lead will go direct to a large condenser — the reservoir condenser — which is usually an electrolytic of anything up to 100 microfarads. The connection to this condenser is test point 1. The smoothing choke or resistor, either of which are large and easily recognizable, leads from this point to the smoothing condenser at test point 2.

Thus, without looking at a circuit diagram or referring to a valve manual, we can identify all the power supply circuit virtually at a glance. We can make our tests just as rapidly. It is just as easy if a metal rectifier or silicon diode is used.

Once you have traced out the circuit on a few receivers of different makes, you will find that you know exactly where everything is, apparently without looking for it. This is the secret of successful servicing. It is very easy indeed with the power supplies, and in the next article we shall see that it is very little more difficult when dealing with the output stage.

FUN WITH GLOVE PUPPETS

By

P. Taylor

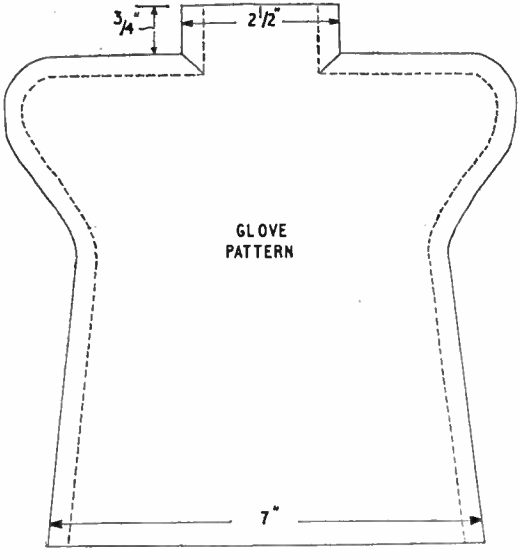
GLOVE puppets are simple to make and are acceptable presents for children of all ages; even toddlers get endless fun and amusement playing with them. They are not beyond the capabilities of quite young children to make.

Puppets can solve 'What can we do now?' problems in long school holidays. Happy hours soon pass in making the funny little figures, dressing them, writing little plays and giving performances.

Little or no skill is needed and results are quick and satisfying. The materials needed are few and inexpensive: cardboard, newspaper, flour or other paste, a variety of enamel paints, plus a little imagination.

First a cardboard tube is needed. This is easily made from an old piece of birthday card 4 in. by 6 in., rolled to 3–3½ in. round and secured with a couple of pieces of adhesive tape.

Tear up (don't cut), a quantity of newspaper into rough pieces about 4 in. square, another pile of 1 in. pieces and a few strips. With the fingers, liberally daub several larger pieces with paste and mould into a rough yet firm egg shape. Jam this over the top of the tube and secure it with strips of pasted newspaper which should continue down and round the tube, leaving at least 1½ in. for the neck. By continually dipping the fingers into the paste and generously smoothing it over the newspaper the whole thing remains securely stuck together.



The features are built up round the basic shape, always remembering that in a puppet face everything is exaggerated and not 'pretty-pretty'. Noses, foreheads, and chins are moulded from newspaper lumps soaked in paste and fixed in place with newspaper strips or smaller pieces. Mouths and eye sockets can be formed with fingers or a stick. Ears, plump cheeks, a ridge for a moustache or a pointed beard are easily added. Endless variety can be achieved by hats, formed in well pasted neswpaper lumps and then firmly attached by overlapping strips.

Continually smooth firmly to avoid air being trapped between the layers.

When the head is complete give it a good paste over and a final layer of either small bits of newspaper or tissue paper, smoothing down all rough patches. Dry off the head for several hours in either a warm oven or by a fire and it will become very hard and tough.

If several puppets are being made it is advisable to get them all to this stage before painting is done. Give the head a coat of white flat or emulsion paint and allow to dry.

Paint the features with quick drying plastic enamel and again remember to exaggerate features — thick eyebrows, large mouths and huge eyes. A skin with yellow and green colour in it looks better than a pinky white. Some heads should have eyes turned sideways as well as forwards if several puppets are being made. Hair can be either painted on for men, (and aluminium paint gives a distinguished air), bought by the foot and stuck on, for women. Hats are of course, painted a suitable bright colour.

The heads are best left to dry standing upright on skewers or rods fixed in sand or Plasticine. Don't be too liberal with the paint as it is likely to run down the face.

Cut out the glove from any firm material, allowing a generous turning at the neck when sewing the two pieces together. Turn up a small hem at the bottom. Snip to stitching at either side of shoulders.

With the glove turned inside out, put the head, neck first, inside. Secure with glue and either fine wire or adhesive tape. Pull glove carefully over the head and the puppet is ready to amuse and give amusement for many hours.

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Edited by A. T. Collins

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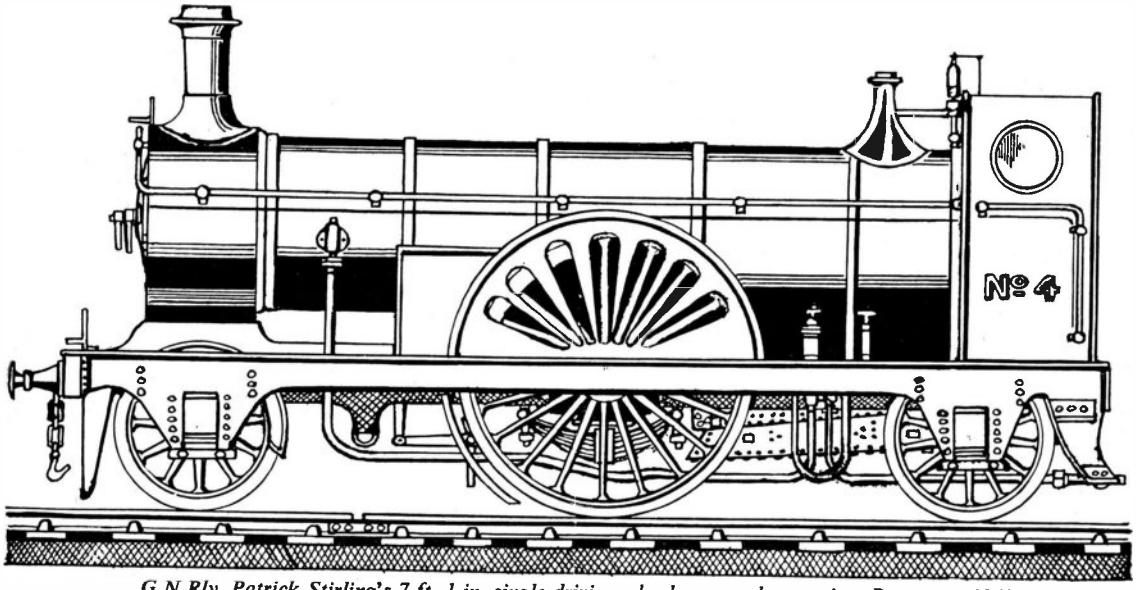
252 spcl.	Royal Charles	11 ins.	26/-	2/6

(The Royal Charles has a partly-shaped hull and includes paint and glue)

Interesting Locos— 72

Patrick Stirling's 7 ft. Singles



G.N.Rly. Patrick Stirling's 7 ft. 1 in. single driving wheel express locomotive. Doncaster 1868

AFTER 13 years as Locomotive Superintendent of the Glasgow and South Western Railway Patrick Stirling took charge of the G.N.R. locomotive department at Doncaster in 1866. On his appointment he determined to adhere to single driving wheel locomotives for the principal express duties of the line just as he had done on the G. & S.W.R.

His first express engines for the Great Northern were a batch of 12, 7 ft. 1 in. 2–2–2 inside cylinder singles built at Doncaster in 1868–70. These however differed very much from his outside cylinder and inside framed design for the Scottish railway, the G.N. engines being of a much larger and improved design having inside bearings for the driving wheels only and outside bearings for the leading and trailing wheels, as shown in the drawing. Mr Stirling immediately adopted Archibald Sturrock's (whom he succeeded) long wheelbase design of locomotive with the leading wheels having the axle under the centre line of the smokebox. He also provided the very excellent G. & S.W.R. cab for the enginemen which had circular side windows. The boiler was of the domeless type having perforated steam pipe, and the large driving wheel splashers had seven perforations each.

The cylinders were originally 17 in. by 24 in. but some years later were enlarged to 17½ in. diameter. The wheelbase was 9 ft. 6 in. + 7 ft. 6 in., total 17 ft. 0 in. The boiler, a very excellent one at that time, had its centre line 7 ft. 2 in. above rail level, and contained 192 tubes of 1¾ in. diameter giving a heating surface of 922¼ sq. ft., the firebox providing 89½ sq. ft. giving a total heating surface of 1,011¾ sq. ft. The grate area was 16·4 sq. ft., and working pressure a moderate one of 130 lb. per sq. in. In working order the engine weight was 33 tons, of which 14 tons were carried by the driving wheels. The hornblocks were made of cast steel and the firebox roofs were stayed by girders.

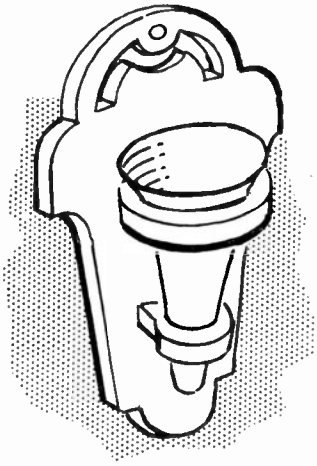
In 1870 Mr Stirling broke up Sturrocks' large bogie 'Single', using the wheel centres and a few other parts in the construction of a 2–2–2 engine similar to the above. This engine No. 92 had 7 ft. 7 in. driving wheels and a longer wheelbase, this being 9 ft. 9 in. + 7 ft. 9 in., total 17 ft. 6 in. The tenders of all these engines were the usual G.N. six wheel type having outside frames of Mr Sturrock's design.

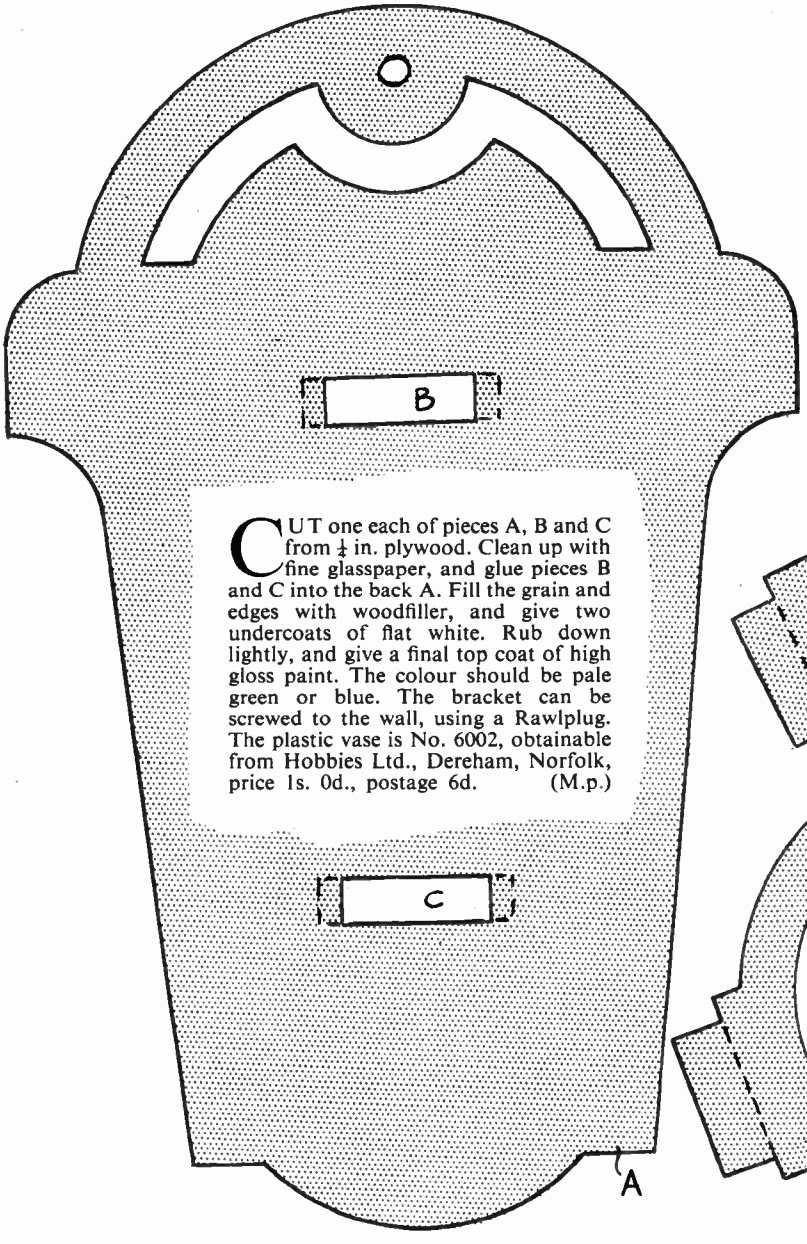
In 1867 Mr Stirling had designed a small batch of 2–4–0 coupled engines, these however were not main line express engines as were the 'Singles', but were used on the short distance and lighter passenger trains, the 'Single' engine reigning supreme for G.N. express work all through Mr Stirling's regime.

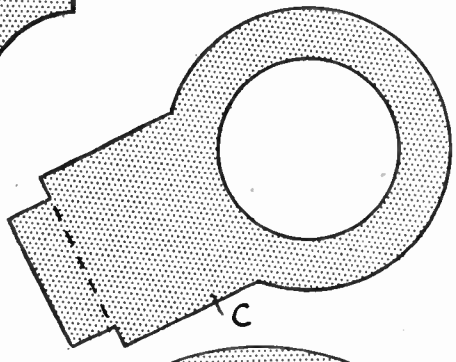
(A.J.R.)

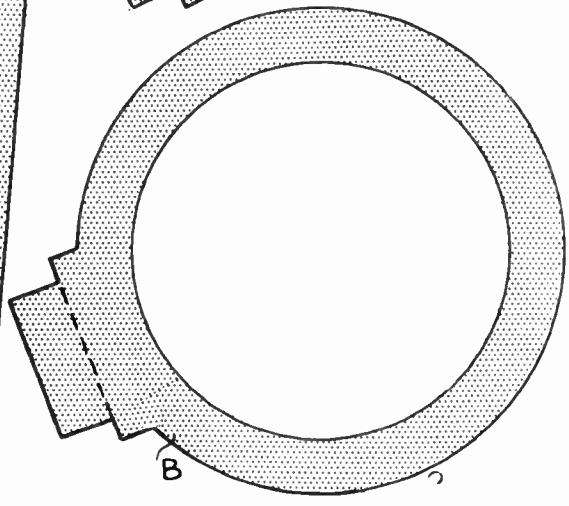
Project for the fretsaw

VASE HOLDER BRACKET









CUT one each of pieces A, B and C from ¼ in. plywood. Clean up with fine glasspaper, and glue pieces B and C into the back A. Fill the grain and edges with woodfiller, and give two undercoats of flat white. Rub down lightly, and give a final top coat of high gloss paint. The colour should be pale green or blue. The bracket can be screwed to the wall, using a Rawlplug. The plastic vase is No. 6002, obtainable from Hobbies Ltd., Dereham, Norfolk, price 1s. 0d., postage 6d. (M.p.)

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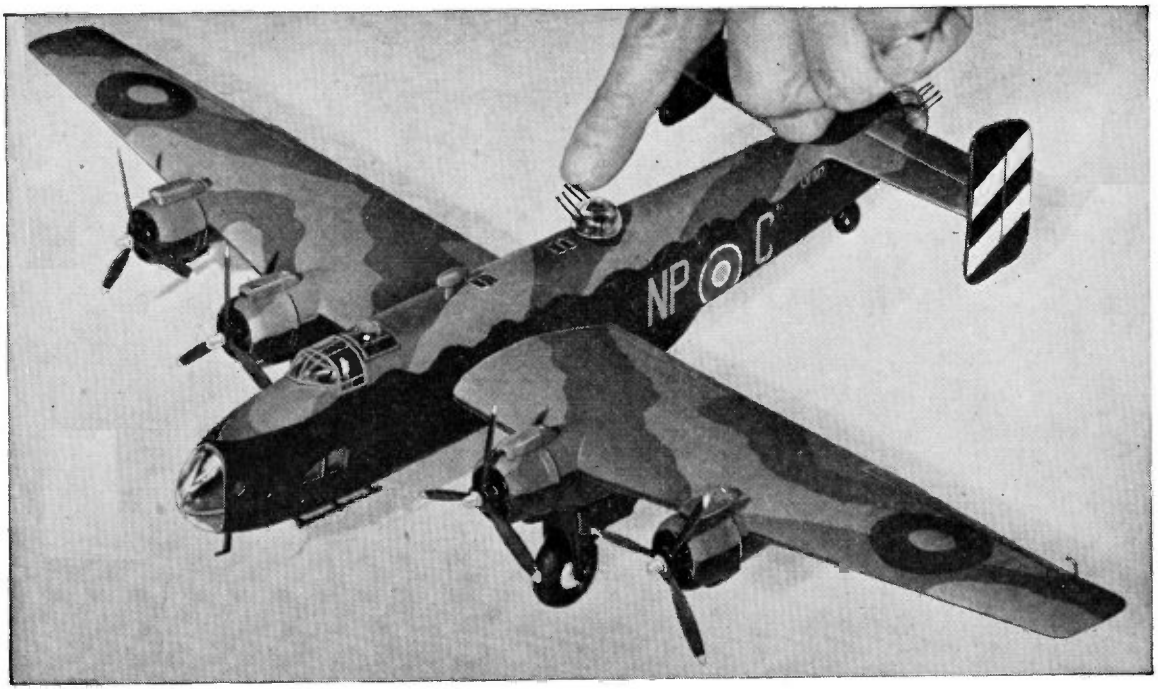

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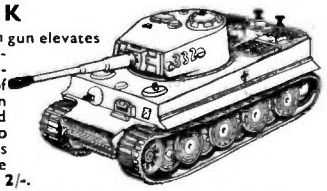

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