Also in this issue:

A 'HOUSE' FOR THE LAWN MOWER
COLLECTORS' CLUB
REFLEX CIRCUITS FOR TRANSISTORS
DISC BREAK WITH BERT WEEDON
PLAN FOR 'GOOD LUCK' PLAQUE
RECIPES FOR HOME CHEMISTRY
NOVELTY BAGS FOR LAVENDER
SHIP MODELLING ETC. ETC.

Free Design

CHILD'S IRONING BOARD

LATEST STAMP NEWS AND GOSSIP

Up-to-the-minute ideas
Practical designs
Pleasing and profitable things to make

JUST LIKE MUM'S!
On the 1st February 1951 Canada issued a most interesting 'fishing' stamp, 1 dollar in value. It showed in the centre a picture of a fisherman hauling in a net. But really it is the frame surrounding the picture which is more interesting than the picture itself, for all around in this border there are very good illustrations of the chief fish that are caught in and around Canada.

When you look at the stamp, starting at the scallop on the top and going round in a clockwise direction, you see a lobster, an Atlantic salmon, a Sockeye salmon, a lake trout, a whitefish, haddock, oystera pribilof seal, a clam, Tuna (albacore), halibut, herring, mackerel, cod, and a shrimp. One could almost say a very good catch for a dollar! Can you find the date on this stamp? Take a good magnifying glass, and search for it.

Other fishermen are shown on the stamps of Finland (Red Cross 1946), and the 1938 St. Pierre et Miquelon. Then, of course, you have the Barbados 6c of 1950, showing a native casting a net in a very different manner from the way adopted in this country. And don't forget the various stamps showing men shooting or spearing fish such as the British Guiana 2c of George V, or the 4c of Queen Elizabeth II.

Tristan da Cunha, which was so much in the news at the end of last year owing to the terrible volcanic eruption which rendered the island uninhabitable, had just issued a complete set of stamps from the 1d. to the 10s. 0d., devoted entirely to the fish that are found around the coast. Just before the islanders came away there was a second set with the same designs, but in the new decimal currency.

Half of the designs of the present Turks and Caicos Islands set are of fish, but in each case these are to advertise the sporting side of fishing rather than the commercial value of the catch. The fish is shown in the foreground, while in the background is the man sometimes in a boat, and sometimes wading to enjoy his sport.

Iceland shows us two very familiar fish — the cod and the herring. Newfoundland also gives us a very good cod. The stamp is large enough to enable us to examine the fish carefully if we use a good glass. The specimen illustrated here is from the additional Coronation issue, the 1c stamp of 1937. The reason why the term 'additional' is added to the Coronation set is because Newfoundland issued the usual three Coronation stamps (2c, 4c, and 5c), showing portraits of King George VI and Queen Elizabeth, and also eleven others of which the one illustrated is typical, showing some product or industry of the island. Notice that on this stamp there is the inscription 'Codfish — Newfoundland currency', which indicates the importance of the fishing industry on the Grand Banks.

New Zealand issued a very good picture of a trout on the 1s. 3d. stamp of 1960, and on the 5d. of the 1939 set there is a spirited picture of a swordfish, which is said to swim faster than any other fish. (See illustration). There is an interesting item about the perforation of this stamp. You will see in the catalogue that it is perforate 13-14 x 13½, and this means that the horizontal perforations of each stamp are in two sizes, one half of each horizontal side measuring 13 and the other 14. The vertical sides are both 13½.

The parrot fish shown on the 3d. stamps from the Cayman Islands, both King George VI and Queen Elizabeth sets, has a most remarkable jaw, rows and rows of small teeth being soldered together to form sharp-edged plates. The structure resembles the beak of a parrot, hence its name. They eat green food, which they chew with their teeth, after having cut it with the curious plates. They are themselves good to eat.

The flying fish shown here on the 12c of Barbados do not of course really fly. That is, they do not flap their fins like a bird flaps its wings. But their pectoral fins are so enormous that if the fish flicks its tail very vigorously as it leaves the water, it can, by spreading its fins, carry as far as 150 yds. Generally it will be quite close to the water, but in stormy weather it is sometimes carried on to the deck of a ship.

It is rather curious, but although France has issued a very great number of stamps, and is largely a Roman Catholic country, fish and fishing have played very little part in the designs of her stamps. There are one or two views of

*Continued on page 3*
CITY OF NASSAU CENTENARY

AND whereas we have resolved in pursuance of all powers and authorities whatsoever by Statute or otherwise howsoever vested in us to establish within the territorial limits of the said late Diocese of Jamaica a certain new separate and distinct Diocese to be called 'The Diocese of Nassau'... now know that in pursuance of our intentions aforesaid we do by these presents constitute and ordain the said Church of Christ Church to be a Cathedral Church and Bishop’s See and do ordain that the whole town of Nassau aforesaid shall henceforth be a City and be called 'The City of Nassau...'.

With these words from the Letters Patent issued by Queen Victoria in 1861, the City of Nassau was established. To commemorate the centenary of this event, the Government of Bahamas issued two special stamps on 30th January. The 10d. purple illustrated features the Nassau Public Library and the 8d. value (green) shows Christ Church Cathedral, Nassau.

Continued from page 2

St. Malo, with a number of fishing boats in evidence. In 1941 a fisherman was depicted on the stamp in aid of the National Seamen's Relief fund. Also, with the exception of St. Pierre et Miquelon, the French Colonial stamps are also not 'fishy'.

Trieste shows quite a good picture of fishermen on the 1949 Labour Day Stamp, and Yugoslavia in 1956 had a set showing Adriatic sea fish, with a very lively-looking sea-horse on the lowest value.

The 72c of the British Guiana stamps of 1954 shows a picture of the arapaima, the largest fresh-water fish in the world.

Have you found the date on the Canadian stamp mentioned previously? If not, then look just below the left sleeve of the fisherman.

DECEMBER 28th, 1961, saw the release of a 4 Kopeks stamp, marking the '15th anniversary of the Bulgarian People's Republic'. (See first illustration).

Another 4 Kopeks value marked the '20th anniversary of the defeat of the German troops near Moscow'. This is also illustrated.

A 6 Kopeks value of 30th December 1961, completed the 'Youth at vanguard constructions of the 7-years plan' set.

The centenary of Fritjof Nansen's birth (1861–1930) was also marked by a 6 Kopeks stamp on the same day Nansen who appears on the stamp shown on the right, was the Norwegian explorer of Arctic regions.

Advertisers' Announcements

G.B. SILVER JUBILEE set complete (21d. very scarce), price 2/- or if Commonwealth Approvals requested, 6d. only. — Sterling Stamp Service (H), Lancing, Sussex.

100 DIFFERENT stamps free! Request 1d. upwards discount approvals. — Bush, 53 Newlyn Way, Parkstone, Dorset.

FOR SALE — NEWFOUNDLAND STAMPS! 100 fine NFLD stamps $1.00 — 1,000 $9.00 — 2,000 $15.00 — 50 all different $2.00 — 100 all different $6.00 order now from HARRY PHILLIPS SALES, BONAVISTA-2K, NEWFOUNDLAND, CANADA.


100 DIFFERENT FOREIGN COINS, 100 different denominations of 65 different countries all brilliant uncirculated in exchange for any four Great Britain or British Commonwealth crowns or any eight George V and Edward VII half crowns. Free eight-page foreign coin price list. — Regency Coin, Rupert Ave., Winnipeg, Canada.

FREE FREE FREE super stamp album plus a free packet of exciting stamps send 4d. stamp for approvals. Reeder, 68 Blackmoor Road, Leeds 17.

100 STAMPS FREE request approvals. — Nunn. 80 Chantry Road, Cheesington, Surrey.

This beautiful set of stamps from Ruanda Urundi depicting 'Cathedrals' is now on general release.
A MODERN CRUET

This modern cruet stand is simple and inexpensive to make, yet it is attractive enough to grace any table. The base consists of two identical rectangles of \( \frac{3}{4} \) in. thick plywood, one with holes cut in it to take the condiment containers, the other left plain.

It is advisable to decide whether the stand is to be painted or to have its base veneered before cutting out these parts, as any veneering should be done first. Bond the veneer to a piece of ply, and leave under pressure to dry; then mark out the outer shape and the two holes. The holes can be circular or square, depending upon your own preference, and they should be large enough to hold the bases of the containers without actually gripping them tightly. Take your measurements from the containers to be used. Drill a starting hole at each position, thread the fretsaw blade through, and carefully saw out the scrap wood.

Take care with this cutting, so that the plywood and the veneer do not split, and the sides of the holes will need only very slight finishing with glasspaper. The top part of the base is next glued to the lower part, and laid aside to set. The outer profile can then be carefully cut with the fretsaw, and the edges glasspapered smooth.

The stem of the handle is cut from \( \frac{1}{2} \) in. diameter dowel, finished square at its lower end, and with an \( \frac{3}{4} \) in. radius groove at the top. A short piece of \( \frac{3}{4} \) in. diameter dowel is glued centrally in the groove. If desired add a single pin to strengthen the joint. The handle is fixed to the centre of the base by inserting a No. 2 screw through from below. A trace of glue on the bottom of the stem prevents the handle from turning, and so becoming loose.

Four small feet support the base, and these are cut from \( \frac{3}{8} \) in. diameter dowel, and have their lower ends completely rounded. It is important to finish all the feet to the same length, or the stand will tend to rock when in use. The feet are just glued in position near to each corner of the base.

The bottom of the recesses can be painted any colour, preferably not the same one as the containers to improve the effect. (A.E.B.)

CRAFTOYS FOR CHILDREN

ATLAS' Craftoy kits are produced with the main aim of providing children with really profitable leisure. The three presentations reviewed here have the merit of not only offering a sense of achievement in making really worthwhile, usable articles — the preparation and thought put into the designing and instructions ensure a 100 per cent success for each subject attempted. Too often children are frustrated with complex workings and inferior materials, but in all cases these 'Atlas' kits turn out exactly as pictured and described on the colourful boxes. All the articles made from these Craftoy kits would make novel 'I made it myself' gifts.

RAFTIWORK REVELS — With this outfit children can make gay baskets and mats. The work is threaded through pre-punched holes with Raffene, a highly coloured synthetic raffia with a smooth, silky finish. A feature is the instructions presented pictorially in an easy-to-understand story book manner — particularly exciting for the very young.

Price 9s. 1½d.

FELTWORK FANTASIES — Here the child assembles the prepared stamens, leaves and petals, etc, to make multi-coloured floral posies. These in turn are arranged in the real miniature pots provided to form attractive novelties.

Price 10s. 6d.

FASCINATING FELTWORK — A kettleholder, dressing table set and comb case are some of the 'homeworthy' projects provided for in this kit. The pre-punched patterns and detailed instructions make it easy to 'sew' a variety of these useful felt articles. Price 18s. 6d.

These sets are obtainable from all Hobbies branches and stockists or direct from Hobbies Ltd, Dereham, Norfolk (post extra).
IRONING BOARD

CHILDREN love to copy Mummy's activities about the house, and this special ironing board will give hours of pleasure in this respect. It will keep the child happy and contented, and enable Mum to get on with her own chores. When she is busy ironing the weekly wash, her young daughter can also be busily occupied in 'going over' dolly's dresses, and, perhaps, she can also find time to take on some of the grown-ups' handkerchiefs!

Our design is a replica of a full-size ironing board, complete with asbestos pad on which to place the 'hot' iron. Imitation irons suitable for use by children are available from toy shops. When open, the board stands 18 in. high and it is 25 in. long. It folds flat for easy storing. The construction is very sturdy, and it will fulfil all the child's expectations.

Hobbies kit contains all the necessary wood, asbestos, beading, pivot screws, hinges, etc, and the ironing surface of the board can be padded with any suitable material to hand, as will be described later.

All the illustrations showing the makeup of the board are given on the design sheet. From the outset the worker is advised to spend a few minutes going carefully through the diagrams, measurements, and joints on the pattern, to get a complete picture of the job in hand. It will be seen that all the necessary measurements are detailed on each section of the work on the pattern, and cutting of the timber required can be made from these.

The top consists of a single piece of ½ in. wood 8 in. wide. It is shaped at one end as shown in the diagrams. Three battens are glued and screwed underneath to strengthen and prevent warping of the board. Notice that the battens (11 and 12) are slightly shorter than the full width of the board. The ends can be chamfered to give a better appearance. The two stops (13) are also glued in position, and strengthened by the insertion of screws.

The making of the hinged leg can now be undertaken. Cut all parts to the measurements shown, and assemble them, temporarily, to check the alignment. It will be seen that piece 5 is fixed on the underside of the leg.

The second leg (the 'free' leg) is made up on a different principle, using round dowelling instead of square sectioned timber for the cross-pieces. When cutting the legs, allow spare wood on the ends, across which should be nailed temporary spare pieces of wood to ensure that the legs are at the correct angle while boring the holes for the dowels. Incidentally, to serve as a guide it should be noted that this leg will fit inside the hinged leg already made up, with just a small gap for the washers.

To ensure straight boring, mark the dowel centres on both sides of the leg, and it will be seen that the inside marks on the opposite leg will serve as an aiming point. The top of this 'free' leg is constructed as shown on the design sheet, the cross-piece 10 being glued and screwed between pieces 6 as indicated. This piece 10 fits into the stops under the top when the board is erected.

Pivot the legs together by means of two round-head screws inserted into pieces 6. Holes to take the screws should be drilled in pieces 2, making a loose fit, and the screws will then be fixed into pieces 6. Don't forget the spacing washers between the legs to ensure an easy action.

The long leg is now hinged to the batten by means of two skew hinges, which allow for the angle of opening. The diagram on the design sheet shows the approximate position of the skew hinge.

Trim the legs for steadiness when open. If there is any rocking, stand three legs on a table, and turn the board round until the longest leg is overhanging an edge. Mark this off, and trim the waste, and the ironing board should now stand level.

A piece of asbestos ¾ in. by 7½ in. is required for standing the 'hot' iron on, and this is framed in place on the end of the board by ½ in. quarter-round beading supplied in the kit. Small fretpins and a touch of glue will hold the beading, which is mitred at the corners. A touch of glue will also hold the asbestos in position.

Two thicknesses of old blanket will do admirably for padding the top of the board. Cover this padding with a piece of white cotton or linen material, stretch it tightly over the board, and tack around the edges. Finish off with a length of gimp or tape all round the edge of the board, fixing with small drawing pins.

The ironing board can be left in its natural state, but two or three coats of brush polish, glasspapered between coats, will give a good finish, and facilitate wiping down.
should you wish to get out quickly and polish the car, a rubless polish is indicated. Though this is not so durable as the conventional rubbed polish, it will give a quick gloss. To make it, mix together 20 fluid ounces of light liquid paraffin and 10 fluid ounces of raw linseed oil in a dry bottle. Mix 1 fluid ounce each of benzene and kerosene and add this mixture to the oils. Shake thoroughly until an even mixture is obtained.

CAR POLISH AND OTHER HOME AIDS

When time is not so pressing a wax-based polish can be used. Melt together in a water bath 2½ ounces of carnauba wax and ½ ounce each of Japan wax and rosin. Remove the flame and stir in 6 fluid ounces of white spirit (turpentine substitute). Then stir in ½ fluid ounce of a 1 per cent solution of potassium hydroxide. Lift the vessel from the water bath and stir until nearly cold.

Grease and dirt should, of course, be first washed off the enamel. This polish gives a hard glossy surface which is durable and can be rubbed up repeatedly.

Aluminium wash
When aluminium becomes dull it can be restored by a simple product. Dissolve 3 grams of borax in 100 c.c. of warm water, let the solution cool and add a few drops of ammonia. Rub over the metal with a cloth saturated with the solution until it brightens and then rinse with plain water and rub dry.

Matting aluminium
Should you require a matt surface on aluminium, make up a 10 per cent solution of sodium hydroxide and then stir in as much common salt as it will dissolve. Heat up the solution and immerse the metal in it for about a quarter of a minute. Lift, rinse well with running water and work over the metal with a stiff brush. Immerse again for half a minute, lift, rinse and dry by dabbing with an absorbent cloth.

Note that sodium hydroxide solution is corrosive to the skin, hence the hands should not be dipped in it. If any does come in contact with the fingers, swab with vinegar and rinse with water. Rubber gloves and goggles are best worn, both for convenience and safety.

Degreasing compound
Mechanics, amateur or professional, will welcome a product to remove grease and oil from steel components. This consists of a solution of 3½ ounces of sodium hydroxide in a quart of water. Heat up the solution and immerse the work for half an hour. Remove, rinse, and brush off any residue. Note that this is for use on steel only. Aluminium, zinc, tin and their alloys are attacked by this treatment.

Pipe cleaning
Tobacco pipes which have reached the stage where pipe cleaners are not completely effective are due for a 'decoké'. Scrape the inside of the bowl first, tap out the char, plug the mouthpiece and fill the bowl with iso-propyl alcohol. Do not let the alcohol run over the outside of the bowl, or it may remove the polish. Allow to soak for two days, run out the alcohol, swill through with more and then allow to dry thoroughly.

Washing powder
A cheap and effective washing powder may be made up by mixing thoroughly 3 ounces of soap powder, 8 ounces of soda ash, 4 ounces of powdered washing soda and 1 ounce of borax. If a scented product is desired, add a few drops of oil of citronella, shaking the whole well in a closed jar.

Laundry blue
This may be made up very cheaply from ultramarine and sodium bicarbonate. The ultramarine is obtainable in powder form from laboratory furnishers and many oil and colour shops. Mix well one part by weight of this with 2 parts of sodium bicarbonate. This product is, of course, in powder form, a sufficiency being added to the blueing bath. If blocks are insisted upon by the lady of the house dissolve a little glucose in water so as to form a syrup, grind enough of the syrup with the laundry blue powder to stiffen it, wrap in muslin squares and allow to dry.

Shellac varnish
This useful quick drying varnish is easily made at home by putting into a dry bottle 1 ounce of shellac and 5 fluid ounces of methylated spirit. Close the bottle and shake occasionally until the shellac has dissolved. It should be noted that with age shellac becomes partially insoluble in methylated spirits. Hence if you have any difficulty, buy the shellac or the varnish will not have so full a body.

Cheap oak varnish
Simply dissolve 3½ ounces of paraffin in a half pint of genuine oil of turpentine (not turpentine substitute).

Ticket writing ink
Shopkeepers and market dealers can make up a cheap ink by first dissolving 2 ounces of gum arabic in a half pint of water by occasionally shaking in a bottle. Grind 1 ounce of lampblack to a paste with some of the gum solution and gradually work in the remainder of the gum solution.

If a waterproof ticket ink is required, this must be based on a shellac solution. Dissolve ¾ ounce of borax in a half pint of boiling water. Then gradually stir in 1 ounce of shellac. Let the solution cool and use a little of it to grind 1 ounce of lampblack to a paste. Work in the rest of the shellac solution.

Waterproof adhesive
A glue which is resistant to water may be made up by dissolving 2½ grams of gelatine in 25 c.c. of hot water and adding thereto 0.5 gram of potassium dichromate previously dissolved in the smallest possible volume of boiling water. Use the adhesive as soon as prepared and while still hot, for on cooling it solidifies.

When the work has been joined it must be exposed to light (preferably sunlight) for some days. Under the action of light the gelatine undergoes a change which makes it insoluble in water. The adhesive is therefore suitable for mending crockery and similar ware.

For larger work, such as in boats, glue should be substituted for gelatine, when light causes a similar insolubilizing action.

Foot ointment
For those who intend to take up hiking there is a preparation which will help them over the initial foot hardening stage. Smear over the feet before hikes it will inhibit blister formation.

In a water bath melt together 10 grams of spermaceti, 4 grams of white wax (bleached beeswax) and 36 c.c. of almond oil. Pour out into a clean tin or heated jar and allow to cool.
BERT ('Mr Guitar') Weedon was born in East Ham, London, on 10th May 1921, and began studying classical guitar at the age of 13, when he bought an old guitar for fifteen shillings in Petticoat Lane. He didn't realize then, of course, that he had made the most important purchase in his life.

Serving in Civilian Rescue during the war, Bert became a professional artiste when the war ended. He has since played with such famous bands as those of Ted Heath, Geraldo, Lou Preager, Harry Leader, Oscar Rabin, Harry Gold and the Squadronaires, and has also accompanied such great stars as Gigli, Paul Robeson, Judy Garland, Frank Sinatra, Eartha Kitt, Mel Torme and Rosemary Clooney.

One of the most sought-after 'session men' in British recording, he has been the guitar playing power of many of today's top 'pop' artistes, including Tommy Steele, Marty Wilde and Cliff Richard.

Bert began his solo disc career with Colombia, later changed to Parlophone, and is now one of 'Top Rank's' artists. Guitar Boogie Shuffle, his first disc for 'Top Rank', was in the top half of the Hit Parade here for weeks. His solo variety début was at the Newcastle Empire on 28th September 1959.

Bert is also noted as a composer and arranger. His guitar was specially made for him in Germany and all the metal parts are gold-plated.

His first release on 'Top Rank' under the E.M.I. banner was Sorry Robbie and Easy Beat on J A R 517, which again enjoyed success in the Hit Parade.

A Simple Game of Magnetic Golf

A young child will be intrigued by this pleasant pastime with a magnet, a small ball, and a card marked to represent a stretch of the fairway upon a golf course. You will need a miniature Alnico magnet, which may be bought quite cheaply, and a ball bearing about ½ in. in diameter.

The 'course' is painted upon a piece of stout cardboard, measuring 6 in. by 8 in., as illustrated. Begin by indicating lightly, in pencil, a long tortuous 'track', hardly wider than the diameter of the metal ball. Paint the surrounding area bright green, and colour the winding track white or yellow. Paint a little red arrowhead at the 'tee' where the course begins.

Bore a hole, through which the ball will pass easily, at the end of the track. Use a cork borer to obtain a neat effect. Erect a paper flag upon a pin pole near the hole. Tell your young friend that he must hold the magnet beneath the card, and use its power to guide the ball cleanly along the track and into the hole. The ball must not go on to the green 'grass'.

(A.E.W.)
The lawn mower frequently gets badly treated by being left out-of-doors during the summer — and sometimes all the worst part of the winter as well. All too frequently it is just too much trouble to put it away brushed and cleaned off after use.

Cause of the neglect, perhaps, is that the tool house or shed where the mower belongs is often at the far end of the garden. Why not then make a made-to-measure portable house to fit the lawn mower? It could well be stood inconspicuously in a corner or adjacent to the tool shed, which, even if not too far away, may have become chock-a-block with tools, and perhaps, a goodly amount of junk at the expense of the mower.

The house is simple to build and economical as regards the timber, etc. It is made so that the mower can be run into it easily and shut in by a pair of doors, which, being made purposely very narrow, take up the minimum of space.

Our illustration of the house speaks for itself, and the following details and description make it clear how it is constructed.

First, it will be necessary to have some sort of hard floor for the mower to stand on. A wood floor is not advisable as this will soon rot if laid direct on the ground. A square of concrete with 1 in. or so showing above the ground surface is perhaps the best, but care is needed in the mixing and the laying of this, and by many would perhaps be thought not worth the time and trouble.

Next best would be a brick floor laid as shown in Fig. 1. Old bricks, provided they are fairly even and whole, would answer well, and if laid to the plan shown, only 24 bricks are required for the whole floor. They should be laid to half-depth in the ground and bedded firmly on sand. If a little cement grout could be mixed up and run into the joints of the bricks, so much the better.

During the laying of the bricks, four pieces of strip hoop iron about 7 or 8 in. long should be built into some of the joints to hold the house securely in position. The strips should be bent at right angles for about 1 in. to lie under the bricks, then brought up for 3 in., twisted and punched with a hole through which a nail or a screw is run into the lower rails of the framing.

The house is built in six distinct and separate sections, or panels, including the two doors. Wood 1½ in. by ¾ in. in section is used throughout. Each panel is afterwards covered with roofing felt.
The panels comprise two sides, back, roof and two doors. The sides should be made first, and Fig. 2 shows their construction. The half-lapped joint, the simplest conceivable, is used at all junctions and crossings of the timber framing. A square should be used for marking out all the joints and a small tooth tenon saw for cutting them in.

Fig. 6—The finish at the back rails

In starting on the sides, mark off and cut the four rails all with square ends. (A) 39 in., (B) 39 3/4 in., (C) 46 in. and (D) 18 in. Lay these flat on the ground and in their true position, rails B and D resting on top of rails A and C, and with their ends arranged ready for marking across with the pencil to form the halving joints. See that rails B and D are at right angles with rail A before marking across. Then set out the joints, cut them and nail them together.

Next cut rails E and F, lengths 33 in. and 25 in. respectively. Lay them across the frame and mark off the angles of rail C and the square joints at the base on rail A. Cut the joints in all the rails and nail them together.

Finally, lay the horizontal rail G across as shown and treat the joints in the same way. A strong and sturdy framework should result. Having completed this one, the second frame can easily be made up from it, the rails being all simply laid on and marked.

Trim off the ends of the upright rails where they project beyond the sloping roof rails. Fig. 3 gives a good idea of how the halving joints will appear after cutting and just before assembly.

The frame forming the back of the house is shown in Fig. 4. Here again the simple halving joint is used. The enlarged detail in Fig. 4 shows exactly how the covering material will be nailed on. The back frame when completed will butt on to the edges of the uprights D, (see Fig. 1) and will be either nailed or screwed.

Fig. 7—Door details

A somewhat similar frame to the back is made for the roof, and dimensions and plan of rails are shown in Fig. 5. The felt covering for this frame is cut flush at the sides, but should overlap at the top and bottom as shown in the cut-away detail of the corner. When covering the main side frames with the felt, allow this to project about 3/8 in. or 3/4 in. on the back upright edges and along the sloping edge of the roof rails. The two details in Fig. 6 show the finish at the back rails, the one on the right, after the back panel has been nailed in.

All frames should now be firmly held together, any necessary blockings for strengthening may be added before the doors are made and hung.

Fig. 8—Weatherproof skirting

Two simple narrow frames for the doors are made up as shown in Fig. 7. As a strengthening medium, lengths of ordinary builders' sawn laths may be cut mitred and nailed on as shown in the circled diagram in Fig. 7. The doors are hung to the upright rails B with ordinary brass butt hinges, and made to close neatly in the middle, a covering lath being nailed to one of the doors if desired. Block handles or knobs can be fixed for opening.

To form a good weatherproof skirting to the sides of the house, strips of roofing felt should be cut off and nailed with broad-head tacks as shown in Fig. 8 and allowed to just overhang the brick edge so as to throw the water clear. It would be a good plan to coat all the timbering with creosote or other wood preservative before the outside covering material is tacked on.

(E)
OUR puritanical Victorian ancestors disapproved of gambling to such an extent that they even forbade their children to use dice for toy board games. In order to eliminate the need to employ such 'sordid devices' as gaming dice, the clever little six-sided teetotum top was invented. A different number, from one to six, was printed against each of the six sides. In use, the top was spun and note was taken of the number written on the side upon which the top rested when the teetotum ceased spinning. A set of seven specially numbered teetotums, without spindles, will comprise the elements of a tantalizing puzzle. You will need to make seven teetotums of identical size, as illustrated and it will be necessary to draw seven perfectly regular six-sided figures, or hexagons.

There is a neat and classical method of constructing a hexagon. Begin by drawing a 1½ in. radius circle. Place the point of the compasses anywhere upon the circumference and swing an arc, with the same radius (1½ in.) to cut the circumference at another point. Do not alter the 'set' of the compasses. Insert the point of the compasses where the arc cuts the circumference and swing another arc to cut the circumference at another place. The sixth time you do this you should swing an arc exactly through the point upon the circumference where you started. Complete the hexagon by ruling lines to join up the six points upon the circumference.

Draw your hexagons upon stout white cardboard and cut them out, using a keen edge guided by a metal ruler. Decorate the centre of the hexagon teetotums with large black spots and write numbers upon the various edges as suggested by the diagram. The object of the puzzle will be to reassemble the shuffled pieces to form the flower or 'asterisk' pattern illustrated, where, it will be observed, all the adjacent edges have matching numbers upon them. Mix up your teetotums and try to place them together correctly as soon as you have made them. Your task will not be easy.

Construct a splendid permanent set of teetotums in thin plywood, using a fretsaw to cut out the parts. Finish off the shape tidily, using fine grade glass paper, before painting the teetotums in various bright colours and neatly appending the numbers in black.

(A.E.W.)

---

NOVELTY BAGS FOR LAVENDER

By

Anne Bradford

In our illustration we show some novelty lavender bags for hanging in the wardrobe. They are very decorative, and easily made from plastic doilies.

For each novelty you will require a doily approximately 8 in. in diameter, and these are readily available at most large stores in many colours. In addition you will need a small bag of lavender. The bag may be made in matching material or crêpe paper, and filled with a generous supply of dried lavender.

The edges of the doily can be bound in one or other of the following methods. The easiest way is probably to apply a coating of a plastic adhesive around the edge of the doily, fold in the centre, insert the bag, and then fix bulldog grips at the rim until the adhesive sets.

A more attractive method is to crochet or blanket stitch the edges in either a matching or contrasting colour of wool, but this depends on your ability with a needle. The embroidery should be started at one end, and the lavender bag inserted before completion.

The finishing touch is a length of ribbon threaded through the spaces as shown, allowing for a little extra at the top to make a hanger.

Since these plastic doilies usually bear many apertures in the decorative design, the lavender is free to exude its perfume, and will last for a considerable time.

These novelty bags can be very quickly made at little cost, and while they are acceptable as gifts, they may also make attractive items for bazaars and the like.
There's nothing like real SECCOTINE! For over sixty years Seccotine has been indispensable to every handyman. For sheer adhesive power buy Seccotine with the efficient new "pop-on" seal and open-nozzle tube ready for use.

STILL ONLY
1/3
PER TUBE

Safeguard your copies of 'HOBBIES WEEKLY'
The amazing 'EASIBINDER' (Pat.) makes it simple

With the new EASIBINDER, specially prepared for Hobbies, you can bind each copy of Hobbies Weekly as you get it, turning your favourite magazine into a permanent, easily-consulted library of immense value, and avoiding the delay and despair occasioned when copies are accidentally mislaid or destroyed. Carefully finished in black leather-cloth and gold-blocked on the spine, each binder is strong, serviceable and neat. It will hold two complete volumes (52 copies) and costs only 8/6. Each copy of the magazine is quickly inserted by means of a flexible steel wire, and can easily be removed if necessary. Easy-to-follow instructions with each EASIBINDER. Get one today and take care of your copies of Hobbies Weekly.

NOTE From the issue April 10th, 1957, there is a slight difference in the size of the magazine, and two sizes of Easibinders are available. Type A is for binding issues published before April 10th and Type B is for those printed subsequently. To avoid confusion, when ordering, please indicate clearly the type of Easibinder required. Indices for each completed volume 1/- each post free.

To: HOBBIES LTD., Dept. 99 Dereham, Norfolk.
PLEAS SUPPLY EASIBINDERS
(Type ______ ) at 8/6 each (post each 1/3).

NAME
ADDRESS
P.O. for

enclosed
IN a reflex circuit, the signal is amplified by a transistor, then passed back through the transistor a second time, so that it is amplified again. A single transistor thus acts in much the same way as would two transistors which were in a circuit which was not of reflex type.

A reflex stage of this kind is found in many receivers of fairly simple or inexpensive type. One transistor, in a reflex circuit, will give results similar to an ordinary 2-transistor circuit, as mentioned. In the same way, reflexing is much the same as having an 'extra' transistor, in larger receivers. A 4-transistor set, for example, with one transistor in a reflex circuit, would give results similar to those of an ordinary 5-transistor set.

When actual circuits are made, it will be found that the reflex stage, using one transistor, is not quite as good as if two transistors were employed. This is only to be expected. But the increase in amplification is so great, that a reflex stage is generally well worth while, especially in a fairly simple receiver.

Change of frequency

The signal cannot be passed twice through the same transistor, except when it has been changed in frequency. The reflex stage is thus generally used as both a radio frequency amplifier, and an audio amplifier. That is, the signal is amplified at radio frequency, then detected to give an audio signal, then passed through the same transistor again, the transistor then working as an A.F. amplifier.

If the signal were passed back to the transistor at the same frequency, the stage would simply act as an oscillator.

For the same reason, a reflex stage cannot be moved in an audio amplifier, because there is no change of frequency all amplification being at the same audible frequency.

Reflex one

If a single transistor is used in a reflex circuit, this can give very good headphone results indeed. A miniature personal phone can, of course, be used instead, if preferred. These deaf-aid type earpieces have already been covered.

Fig. 48 shows a reflex circuit with one transistor, and Fig. 49 is an approximately equivalent circuit, which will help to make the working of Fig. 48 clear.

For tuning, a ferrite rod is used, with reaction or regeneration. Regeneration greatly improves results, with weak signals. The ferrite rod aerial can be made exactly as described for Fig. 33.

When the signal first reaches the transistor, it is at radio frequency. That is, the frequency, or wavelength, to which the set is tuned.

The High Frequency Choke prevents the amplified R.F. signal passing, but the 1000pF (0.001µF) condenser allows this signal to go to the diode detector. The output from the detector is audible, and the programme could be heard here, with phones. The first transistor and detector, in Fig. 49, would work in the same way.

In the reflex circuit (Fig. 48) the signal, which is now changed to audible frequency, goes from detector positive to the bottom of the tuning coil. The winding on this coil has scarcely any effect at all at audible frequency, so the A.F. signal reaches the transistor base. The transistor then acts as an A.F. amplifier.

The 1000pF condenser will not allow the A.F. signal to pass, but the high frequency choke (H.F.C.) only works at very high (radio) frequencies. The audible signal therefore passes through the choke, to the phones.

When the transistor in Fig. 48 is working as A.F. amplifier, it is performing the same function as the second transistor in Fig. 49. So the circuit in Fig. 48 works as if it had two transistors.

Building points

Any of the forms of construction described will be satisfactory. The transistor must be able to work at radio frequencies, so an OC44, or similar type, will be most suitable.
If size is not important. A surplus diode detector of doubtful efficiency is simply not worth while, as a tested and guaranteed one, such as a Mullard OA81, is quite inexpensive.

The value of the 82K resistor has a great effect on results. Generally, 82K will be satisfactory. But if other types of R.F. transistors have been used, it is worth trying various values from about 75K to 100K or so, or regeneration may be a little fierce.

If the regeneration is working properly, as described for the circuit in Fig. 33, a fair number of stations should be heard at good strength, without any external aerial. A ferrite rod between about 5 in. and 8 in. long will do very well, but if a small set is wanted, a rod only 2 in. or so long should provide enough volume from some local stations.

Amplifier

The set can be used with an extended wire or similar aerial, such as that in Fig. 40, if wished. Regeneration will then be much less important, and signals will, of course, be received more loudly.

The output from the reflex stage can be coupled to an amplifier, for speaker reception. A suitable method of coupling is shown in Fig. 50. It will be seen that a 3-9K resistor replaces the phones, and a 0.1µF condenser goes from the junction of H.F. Choke and 3-9K resistor, to the amplifier.

The positive line of the reflex stage is wired to positive on the amplifier, so that the one battery provides current for the whole circuit.

An extremely simple circuit, for speaker listening, can be made by adding one transistor as amplifier. A circuit for this purpose could be that in Fig. 20, or Fig. 23. There will be two transistors in all, giving results similar to three transistors.

For greater volume, a 2-transistor amplifier, such as that in Fig. 19, can be used. This will give a 3-transistor set, with results approaching those of a 4-transistor set. Such sets are best run from a 7½V battery of 5-cell type, because the single output transistor consumes rather a heavy current for a miniature battery. Such circuits are, in fact, made for miniature batteries, but battery replacements are needed fairly often.

For good volume and economical running, the driver and output stage shown in Fig. 26 will do very well indeed, and may be run from a miniature battery. Current for the reflex stage would be obtained by taking its negative lead to the junction point of the 33K and 470 ohm resistors in Fig. 26. The set will have four transistors in all, with efficiency similar to a 5-transistor set. Such receivers are made and used in large numbers, giving good results from fairly powerful stations.

Taking the reflex stage output (0.1µF condenser) to the second OC71 base, in the circuit board amplifier in Fig. 44, would also give a 4-transistor receiver. There is also no reason why other amplifiers should not be used.

Later, actual constructional layouts and wiring plans of some receivers will be given, but the reader who has followed all the articles so far in this series will probably be able to build the stage in Fig. 48 without much difficulty.

Hear All Continents

With H.A.C. Short-Wave Receivers

Suppliers for over 18 years of radio S-W Receivers of quality.

One-Valve Kit, Price 25/-
Two-Valve Kit, Price 50/

Improved designs with Denco coils. All kits complete with all components, accessories and full instructions. Before ordering, call and inspect a demonstration receiver, or send stamped addressed envelope for descriptive catalogue.

H.A.C. Short-Wave Products (Dept. 22), 11 Old Bond Street, London, W.1.

Hull

Do You Know?

Hobbies LTD. have a branch at 42 Savile Street
(Removed from Ferensway)

where the manager and staff are always willing to give you the benefit of their experience with any of your handicraft problems.

Why not pay a visit?

Enjoy Writing? Then write for Profit. Send for Writers' Handbook (free) detailing countless opportunities for beginner or experienced. — Writers' Ring (H.W.), 5 Edmund Street, Birmingham.

Stop Smoking

You can overcome the Smoking habit in 3 days or money back. Safe, pleasant, permanent. The only scientific way. No will power necessary.

'Conquered the habit in 2½ days.' — F.C. 'Within 2 days I was free.' — W.G. Complete Course 7/6

Conquered the habit in 2½ days' — F.C. 'Within 2 days I was free.' — W.G. Complete Course 7/6

For good volume and economical running, the driver and output stage shown in Fig. 26 will do very well indeed, and may be run from a miniature battery. Current for the reflex stage would be obtained by taking its negative lead to the junction point of the 33K and 470 ohm resistors in Fig. 26. The set will have four transistors in all, with efficiency similar to a 5-transistor set. Such receivers are made and used in large numbers, giving good results from fairly powerful stations.

Taking the reflex stage output (0.1µF condenser) to the second OC71 base, in the circuit board amplifier in Fig. 44, would also give a 4-transistor receiver. There is also no reason why other amplifiers should not be used.

Later, actual constructional layouts and wiring plans of some receivers will be given, but the reader who has followed all the articles so far in this series will probably be able to build the stage in Fig. 48 without much difficulty.

Hobbies 1962 Annual

180 pages - 2 free designs

There maybe a copy available at your branch or newsagents

Price Only 2/-

If in difficulty send 2/6 P.O. to

Hobbies LTD, Dereham, Norfolk.

Buying or Selling?

Classified advertisements on this page are accepted at a cost of 6d. per word prepaid. Use of a Box No. is 1/- extra. Send P.O. with advertisement to Hobbies Weekly, Advert. Dept., Dereham, Norfolk. Rates for display advertising on application.
We now come to the period when decoration reached its height, the seventeenth century in particular being remarkable for the amount of time and money that was spent in this direction. For the English ships there was a break in this custom during the Commonwealth, but before the end of the seventeenth century there was still a large amount of decoration on warships.

We have already noticed that the shape of the stern gradually changed, the alteration at this time taking place at the water-line, where the square tuck began to be replaced early in the century by the round tuck. Later in the series we will find a further change, the round stern coming above water.

Many of the changes in stern design were brought about with the general improvement in ship design and experience. It was found that open stern galleries on two and three deckers had many inconveniences. Also, this method of construction resulted in a lack of strength in the after end of the vessel. This led to two major changes. The galleries were closed in, and later the part projecting beyond the stern frames was removed.

Another item bearing on the gradual changes was the fact that all this elaborate design of stern and quarters left the vessel for all practical uses unarmed at this part of the vessel. This led to the introduction later of the circular stern, which we will discuss in our next article.

WOODEN SHIP BUILDING—19

By ‘Whipstaff’

In the principal maritime nations of Europe, England, France, Holland, and Spain had their own particular type of stern. In the Dutch seventeenth century vessels the poop had a gallery without a balcony. It formed a pronounced double curve, joined to small round-houses on each side, with decorated windows to port and starboard. It was in these that the officers’ quarters, etc, were installed. The English stern had almost as many balconies as decks. Together with round-houses, or demi-quarter galleries, this made the English stern, which was square, more clumsy in shape than the Dutch. The Dutch form originated in Spain, where the proudly erect after-castles formed a very tall stern.

It was left to France to produce the most elaborate and beautiful sterns. The richly carved woodwork never seemed at odds with the trim lines of their ships. For a long time they retained the high stern castles. In fact they still seem to have been popular with French ship builders at the end of the sixteenth century. This, together with the tumble-home designed to balance the weight of guns when firing, resulted in an increase in height of the tall tapering stern. In point of fact on the after end of the poop, during the early part of the seventeenth century, three men could not stand side by side across the width of the extreme end of the poop.

While at this period France led in the design of European ships, she drew on the improvements evolved by the navies of her rivals. The French designs appear to be a mixture of English and Dutch, improved by her own inventive naval architects. The complicated poop had a quarter gallery and three storeys containing windows. It was secured to the hull by a large bracket, the first storey beginning at the second deck. The storey corresponded with the balconies with their windows and carvings of marine deities, giants, famous men, etc. In place of the Holy Image so beloved of the Spanish, and, indeed, on earlier French ships, there now appeared a figure in bas relief of Apollo.

Because of the difficulty of modelling these decorations they seem to be too exaggerated. This is due to the alteration in proportions when the modellers struggled with the problem of reduced size. In actual fact, when related to size of the hull they were not so ostentatious as at first appears.

It was usual on these French vessels to surmount the taffrail with three very large lanterns of crystal and gilded copper.

Our sketches show typical stern decorations of this period.
‘GOOD LUCK’ WALL PLAQUE

Trace this pattern and transfer to ½ in. wood. Cut the letters separately from ⅛ in. wood, and glue in place. Clean up, stain to the required shade, and finish with clear varnish.

M.p.
KITS FOR MODERN FURNITURE

Finest quality materials from which the handymen can make attractive contemporary furniture for the home, and save pounds!

Obtainable from all Hobbies Branches or Stockists, or by post from Dereham, Norfolk.

Contemporary Plant Stand

Although simple in construction, this Contemporary Plant Stand makes an elegant showpiece in the modern home. Trough measures 30 in. by 7 in. Supported on 15 in. contemporary style legs, giving an overall height of 21 in. Kit contains design and instructions, panels of wood, and four ‘screw-in’ legs.

U.K. orders 30/- and over post free

Record Cabinet/Bookcase

Planned so that anyone who can handle simple woodwork tools can make a really good job of this Record Cabinet and Bookcase. A handsome cabinet 34 in. high, 20 in. wide and 13 in. deep to accommodate over 200 records and a quantity of books.

Kit contains planed wood, plywood, four contemporary style ‘screw-in’ legs, hinges, beading, ball catches, cabinet stays, handles, etc.

Small Cabinet

Kit No. 3144

Ideal as a bedside cabinet. Size 27 in. high, 18 in. wide. Kit of selected dowel rod, hinges, handle, design and instructions, etc.

72/- (post free)

Kits for Modern Furniture

Finest quality materials from which the handymen can make attractive contemporary furniture for the home, and save pounds!

Obtainable from all Hobbies Branches or Stockists, or by post from Dereham, Norfolk.

Record Cabinet/Bookcase

Planned so that anyone who can handle simple woodwork tools can make a really good job of this Record Cabinet and Bookcase. A handsome cabinet 34 in. high, 20 in. wide and 13 in. deep to accommodate over 200 records and a quantity of books.

Kit contains planed wood, plywood, four contemporary style ‘screw-in’ legs, hinges, beading, ball catches, cabinet stays, handles, etc.

Small Cabinet

Kit No. 3144

Ideal as a bedside cabinet. Size 27 in. high, 18 in. wide. Kit of selected dowel rod, hinges, handle, design and instructions, etc.

72/- (post free)

Save Pounds

Kit No. 3262

Marquetry Firescreen

This Marquetry Firescreen depicts a colourful bird with outstretched wings against a background of foliage. Overall size of the screen is 28 in. high by 18½ in. wide. Kit contains hardboard, planed wood, moulding, wood balls for feet, round rod, and selected veneers for marquetry picture.

15/9 (post 2/)

To HOBBIES Ltd. (Dept. 99)
Dereham, Norfolk

Please send me free booklet showing other kits available and

Kit No........................................

Name...........................................

Address........................................

..............................................

P.O. or Cheque for.......................... enclosed.
CHILD'S IRONING BOARD

SIZE: 18 in. HIGH, 25 in. LONG

JUST LIKE MUMMY'S

A KIT OF MATERIALS FOR MAKING THIS DESIGN IS SUPPLIED BY HOBBIES LIMITED, DEREHAM, NORFOLK
PRICE ON APPLICATION

THE WORLD'S STRONGEST GLUES

Stick it with-

Croid AERO

This is a hot animal glue of tremendous strength. Prepared ready for use in tins of convenient sizes 4 oz. 1/6d, 8 oz. 2/4d, and 1 lb. 4/-.
A KIT OF MATERIALS FOR MAKING THIS DESIGN IS SUPPLIED BY HOBBIES LIMITED, DEREHAM, NORFOLK. PRICE ON APPLICATION.

THE WORLD'S STRONGEST GLUES

Stick it with-

Croid AERO

This is a hot animal glue of tremendous strength. Prepared ready for use in tins of convenient sizes 4 oz. 1/6d, 8 oz. 2/4d. and 1 lb. 4/-.

BUY CROID FROM YOUR LOCAL HOBBIES BRANCH.

PRINTED IN ENGLAND.