probably too long to go completely inside a locked part. You can still protect them from pilfering if you put slots in the sides of the doors — then with the blades inside they cannot be pulled out.

The deck should be left as clear as possible. It should not be necessary to lash any kit on the deck, but you should make seamanlike stowages for the two rope painters and the paddles. The bow painter should be a little longer than the canoe, and kept ready for use coiled on a





hook outside the point of the cockpit (G). For most purposes the stern painter can be short and finished with a loop, on a hook behind the cockpit (H). A paddle bracket is a larger hook, which allows you to put your paddle down without the risk of it falling overboard (I). The painter hooks may be strip brass about in. by 16 in. section and the paddle bracket may be sheet brass about 1in. wide by 18 gauge. Pull the loops to shape in a vice (J) and bend up the ends for fixing to the coaming. As the coaming is rather thin, wood screws will not make a secure joint. It is better to use small nuts and bolts, or to rivet through, using boatbuilders' nails and rooves. To make a rivet, the nail is driven through a closefitting hole, then a hammer held against its head while the rove (a conical washer) is driven over its point with a strip of wood having a hole in its end (K). The nail is cut off a little way above the rove (L), then the end hammered over while the other side is still supported (M).

If you are canoeing in a large party on a rapid river it is worth while having at least one spare paddle in case one is broken. It is a bulky thing to stow with your other kit and one way of carrying it is to have the halves each side of the cockpit with the blades in pockets sewn on the deck and the looms held by tapes (N).

If you want to fly any flags, it is correct to have either a personal or a club pennant at the stem and a Red Ensign (not a Union Jack) at the stern. Some people sew the flags to the deck, but if you decide to make little flag staffs it is best to allow for the occasion when you run under an overhanging branch and the staff catches. Include a short length of stout rubber tubing in the staff. The bottom piece can merely push into a hole in the end of the canoe (O).

It is useful to have a compass with you when touring. There is not much fear of losing your way on a river, but it is easy to lose your sense of direction as the river winds, and you may have difficulty in locating exactly where you are on the map. Quite a simple compass will do. One way of stowing it out of the way is to make a little shelf from two pieces of plywood which pivots under the cockpit coaming (P). Another way, which keeps it always in position is to fasten it by its strap to a brass bracket outside the coaming (Q). Make sure it is in a place which you will not hit with your knuckles when paddling. This method is particularly suitable for a wrist compass.

There is one thing to beware of when making fittings for your cance — overdoing it! It is possible to load your cance with gadgets, many of which are not really necessary. Do not be tempted to fit your cance with navigation lights, ventilators and other big-ship equipment. Weigh up the advantages and disadvantages of any suggested addition.

## Hobbies plans for Canoe Building

Plans for building your own canoe can be obtained from branches or by post (9d. extra) from Hobbies Ltd., Dereham, Norfolk. Building costs range from about £7 for the PBK 10. Materials are not supplied but addresses of firms who do so are included with the plans. Those available are:

RIGID CANVAS-COVERED CANOES PBK 10. Single seat, 11 ft. long, 28 in. beam, normal max. load 300 lb. The shortest satisfactory canoe. Economical in size and building costs. Room for lightweight kit.

Price 11/-

PBK 14. A roomy single for the big man, or a two-seater for an adult and child, or two young people. 14 ft. long, 29 in. beam, normal max, load 500 lb. Popular tourer. Price 12/6

PBK 15. Single seat, 14 ft. 6 in. long, 26 in. beam, normal max, load 400 lb. The enthusiast's fast touring craft. Safe and stable. Suitable for any waters. PBK 20. Two-seat, 15 ft. long, 32 in. beam, normal max, load 600 lb. Stable and seaworthy. Easily paddled and a good performer under sail. Popular with scouts and youth clubs.

Price 12/6

#### RIGID PLYWOOD-SKINNED

PBK 16. Two-seater. 16 ft. long, 32 in. beam, normal max. load 700 lb. Flat-bottomed. Safe and robust. Popular for local hire on sea and river. May be left afloat. Price 12/6

#### FOLDING

PBK 24. Single-seat, 11 ft. long, 28 in. beam, normal max. load 300 lb. Similar lines to PBK 10 but longer cockpit. Only canoe which packs into one bag small enough to go on a bus. Price 12/6

Price 12/6

# 22nd APRIL 1959 VOL. 128 NUMBER 3312 'DO-IT-YOURSELF' MAGAZINE THE ORIGINAL 'DO-IT-YOURSELF' MAGAZINE

FOR ALL HOME CRAFTSMEN

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EXTRAS FOR CANOE COMFORT

MODEL SWISS

COLLECTORS' CLUB

PATTERNS FOR

ЕТС ЕТС

★ FREE Design Supplement

# TREASURE CHEST

# A MUSICAL TRINKET BOX

Hobbies

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

World Radio History

# MAKING THE TREASURE CHEST

PARTIALLY buried in the sandy bottom of the 'sea', this charming reproduction of a pirate's treasure chest is designed to hold trinkets and jewellery or cigarettes. Fitted with a musical movement, it plays the tune of your choice when the lid is raised, and the music stops when the lid is lowered again.

It is made of wood and the decorative brass bandings, metal hinge plates, anchor and chain give an authentic air which is accentuated by the addition of shells and seaweed, etc. The chest is fixed in a wooden base which is shaped to represent heaps of sand, and it makes an excellent ornament for the dressing table or sideboard. The overall dimensions of the box are  $4\frac{1}{2}$  ins. by  $3\frac{1}{2}$  ins. by 3 ins. high.

The decorative bandings, hinge plates and handles are all contained in Hobbies kit, and for those working with their own materials these can be fashioned from the appropriate metal. All the parts which go to make up the treasure chest are shown full size on the design sheet. Trace these and transfer them to their appropriate thicknesses of wood by means of carbon paper and cut out with a fretsaw. Note that pieces 1 and 2 may be cut together as one and then separated, and this will ensure a perfect fit for these two parts.

Make a start by assembling the chest, which consists of pieces 1, 3, 4, 5, and 6 as shown in Fig. 1. Glue and pin these parts together. The positions of pieces 3 and 4 are shown clearly by dotted lines on the design sheet. The rebates in piece 6 have been cut to take the hinges, and this piece 6 is added to piece 4.

When this part has been assembled the musical movement should be inserted, and its position is shown by dotted lines on the base on the design sheet. The winder shaft of the movement goes, of course, through the hole provided in the base (5) and the move-

## **KIT FOR 15/-**

Kit 3312 contains all materials for making the Treasure Chest, including anchor, chain, metal strip, plastic wood and stain, etc. Kits from branches, price 15/-, or from Hobbies Ltd., Dereham, Norfolk. (Post 1/6 extra.)

Musical movements to insert in the Treasure Chest cost 15/6 (post 6d. extra). Suitable tunes available are:

Swedish Rhapsody
Merry Widow
Auld Lang Syne
Limelight
Moulin Rouge
Greensleeves
Home Sweet Home





ment is screwed in place. The floor (piece 11) is supported on four pieces measuring  $l\frac{1}{2}$  ins. long of Hobbies No. 34  $\frac{1}{2}$  in. quarter-round beading which are glued in the corners (see Fig. 2). The floor is not permanently fixed to the corner pieces, and this will enable it to be removed for attending to the movement if it becomes necessary.

The wire arm which starts and stops the movement is bent horizontally and parallel with the back (4). The plunger, which is shaped with an eye at one end from medium gauge wire, is slipped over the arm of the movement, and held in place by a notch cut in piece 11 and a staple inserted in piece 4. This is illustrated also in Fig. 2. The staple is bent from a fret pin from which the head has been removed.

Fig. 3 shows the addition of lengths of  $\frac{1}{2}$  in. by  $\frac{1}{3}$  in. stripwood to the sides of the chest.



Next commence to make up the lid. Glue together pieces 7, 8 and 12 as shown in Fig. 4. Add the lid ends (pieces 2) and the six pieces of  $\frac{1}{2}$  in. by  $\frac{1}{2}$  in. stripwood to the top. Test the lid for SHAPE a good fit to the box, chamfering the AWAY two pieces of stripwood as necessary as shown in Fig. 5. The hinges are fixed in position by screwing.

Pin the ornamental hinge plates provided in Hobbies kit to the lid and back, the longer pieces being on the lid. These plates can be cut from sheet brass using a metal-cutting fretsaw blade and lubricating it with oil. Strips of jin. brass are pinned round the front, back and lid, making nine pieces in all, cut to the length required. Brass can be pierced for pinning by tapping with a panel pin or burnishing awl. The positions of the bands can be gauged from the illustration of the completed chest.

Fig. 6 shows how the brass strips in the front of the box are curled round at the top ends, thus allowing a piece of wire to be inserted through the loops in order to suggest the old method of securing the lid of the chest. Brass handles are fixed to each end by pinning.

For the base, glue two pieces 9 and 10 together as shown in Fig. 7. The chest is glued in a tilted position in the opening in the base, so that the key for the musical movement will come at the endas indicated in Fig. 7, thus ensuring that it does not protrude below the base.

Add glue or plastic wood to hold the chest securely in place, and when completely dry, shape off the base as indicated in Fig. 7, plastic wood being added to fill up any hollows left after shaping.



finished by lining the interior with flock paper. Stain the outside, and it can be left thus, or finished with a coat of brush polish or varnish.

To obtain the sandy surface surrounding the chest, first of all give the woodwork a coat of paint. Allow this to soak in and dry, then add a further thick coat of sandy coloured paint which should be sprinkled with fine sand and left to dry.

The anchor and chain may be located as shown in the finished illustration, fixing with glue, plastic wood or pins. Ribbons of plastic wood may be shaped with a pointed piece of stick to represent seaweed, and small shells glued on to the sandy base.



Workers will use their own discretion on further shaping of the base to give an authentic 'bottom of the sea' contour.

At this stage, the chest should be

# How to be Fly-free

V ISITORS are invariably intrigued by the fly-door I have attached to the back door of my house. I became used to one in Australia, but see no reason at all why they should not be universally used in the summer months in Britain. In fact, considering the nuisance and menace of flies, I should think the first essential job of any do-it-yourself expert is to make a fly-door, either to the kitchen itself or to the outside door nearest to it.

Mine has weathered eight summers, and is still quite good. It fits flush into the outside of the back doorposts, being fitted by two lift-up spindle hinges, so that it can be detached easily and put away for the winter. It is made from punched zinc (wire mesh will do, too) nailed to the outside of a wooden frame. The frame is strengthened by a central cross piece from which a spring is hooked to a staple inside the doorpost. This, with a ball press catch for fastening, allows the fly-door to swing shut by itself. It opens outwards, of course. There is a wooden knob, for facility of pulling open only, on the outside.

With one of these frames fitted you can have fresh air all day without the intrusion of flies, or, incidentally, stray cats and dogs! If the structure of your back door does not allow the addition of a fly-door, make a similar frame for the kitchen window. (J.E.E.)

# Radio Control of Models-2 FREQUENCY. METERS

HEN a transmitter is used to control a model, some reliable means of checking the transmitter frequency should be available. This unit is termed a 'frequency meter' and can be made up in various forms.

One type of frequency meter employs a tuned circuit suitable for the model control band, with a crystal diode detector, and milliamp meter. Resonance (or the correct tuning position for the transmitter) is then indicated by the milliamp meter. However, the latter item is fairly expensive, and is not essential.

If a milliamp meter is to hand, and it is decided to use this in the frequency meter, connections are as follows: fixed plates of tuning condenser to negative end of crystal diode; positive end of diode to positive on milliamp meter; negative on meter to moving plates tag of condenser. A meter with a full-scale reading of 5mA or 1mA will be suitable. Sufficient readings may be obtained with the transmitter a little distance away, and the correct tuning point is that which makes the milliamp meter pointer read as high on the scale as possible.

#### A bulb meter

A frequency meter using a bulb as the indicating device is more portable and costs very little to construct. With this type of instrument, the correct tuning position is that which causes the bulb to light most brightly.



The circuit for this type of frequency meter is shown in Fig. 1. The coil and condenser can be set to the correct frequency (say 27 mc/s, though other frequencies within the permitted band are in order). Current is taken from the coil, on resonance, by the small loop winding, and even a small 1-valve transmitter will give sufficient radio-frequency power to light the bulb in this way. It is necessary, however, to bring the frequency meter coil near the anode tuning coil in the transmitter, because the bulb takes very



much more current than would a milliamp meter of the type mentioned.

For tuning, a small short wave type variable condenser is best. Its capacity is not very important, but a maximum value of about 35pF or 50pF is most satisfactory. It must have a dial, or knob with pointer, so that the proper tuning position can be noted.

For the average small transmitter, a low consumption bulb is required. This may be of 2 volt .04 amp rating, or 6 volt .06 amp rating, the latter type being used in the rear fitment with cycledynamo sets. Ordinary torch bulbs consume much more current, and will not light, except with powerful transmitters. The low consumption bulb is thus recommended. It may be fitted in a holder, or connections may be soldered directly to it. Soldered connections are recommended, to assure perfect contact. In addition, it must be remembered that tuning may be slightly modified if a holder is used and the bulb is changed.

#### The tuning coil

Formers of many sizes can be used, but the turns must not be loose, or able to move in any way, or tuning will become incorrect. For this reason, a ribbed former, with notches into which the wire can be wound, is most satisfactory. However, a smooth former can be employed, if the turns are held secure with a trace of varnish or other adhesive.

A 6-ribbed former with a diameter of lin. over the ribs will be satisfactory, and if it is notched each  $\frac{1}{2}$  in., then  $11\frac{1}{2}$  turns will be correct. The wire used may be bare tinned-copper, or enamelled, 20 or 22 S.W.G. The ends are secured by passing them through small holes, and are left long enough to reach the tuning condenser. In Fig. 2, '1' indicates one end of this winding, and '2' the other end.

For a smooth former,  $10\frac{1}{2}$  turns are used. Varnish or adhesive must not be applied to the turns *after* noting the correct pointer or dial reading, or the tuning will then become incorrect.

The loop winding consists of two turns of insulated wire. Thin rubber or plastic covered flex or connecting wire is satisfactory. These two turns lie between turns of the larger winding, near one end. The exact position is unimportant, but touches of adhesive should be applied so that the loop cannot move about. In Fig. 2, points '3' and '4' denote the ends of the loop, which are left long enough to reach the bulb.

#### Paxolin strip

It is most convenient to fix coil, bulb, and condenser in line on a strip of ebonite, paxolin, or varnished plywood, as shown in Fig. 2. A few inches should project beyond the tuning condenser, to form a kind of 'handle' by means of which the meter can be held, when approaching the coil to the transmitter. In all, a strip about 5 ins. to 6 ins. long, and 1 in. to  $1\frac{1}{2}$  in. wide, will be satisfactory.

If the coil former is tapped for a screw, it can be bolted to the strip. If not, a suitable disc of wood, or a strip about  $\frac{1}{2}$  in. wide, can be bolted in place, and the coil pushed on to this.

When the bulb is to be soldered into circuit, a hole is made just large enough to clear the screw-in section. Durofix or a similar adhesive will hold the bulb firmly. The ends of the loop are taken directly to the bulb, one lead ('3' in Fig. 2) being soldered to the screwed part of the bulb, and the other lead to the bottom pip.

The tuning condenser must be securely fitted, and the knob locked tightly on. The ends of the larger winding are then taken directly to the condenser tags, as in Fig. 2, and soldered on.

#### Frequency calibration

The meter may be calibrated from any ready-made or ready-tuned model control transmitter. To do this, switch on the transmitter, and bring the meter coil near the transmitter coil. The meter tuning knob is now slowly turned until the bulb begins to glow. If it lights so brightly that it is in any danger of burning out, the meter should be moved a little away from the transmitter coil.

The correct tuning point is that where the bulb lights best. This point can most easily be seen by keeping the meter so far away from the transmitter coil that the bulb only just glows, at the exact tuning point. The dial or pointer reading should then be noted for future reference.

If no ready-made or tuned transmitter can be borrowed for this calibration, then a crystal-controlled frequency oscillator can be made up, as will be described later, and used to calibrate the bulb meter. This method is useful for constructors who are not members of



any group, and have no chance of borrowing a transmitter.

To bring the transmitter into the permitted band, the bulb meter dial or knob is left at its correct setting. The meter coil is then approached to the transmitter coil, and the transmitter tuning condenser or trimmer is adjusted until the bulb lights. The correct tuning position is that which lights the bulb best, but the bulb meter should always be kept fairly well away from the transmitter coil to avoid blowing the bulb.

Such a bulb meter also provides an immediate means of checking that the

transmitter is functioning. If the transmitter is not radiating a signal, due to any fault whatever, the bulb will not light, even when the equipment is adjusted to the correct tuning point. It also allows a fair comparison to be made between the power available from various transmitters, by noting how far away the bulb meter coil can be, without completely extinguishing the bulb.

The next article will describe how to make a one-valve transmitter for medium range, to control boats on a yacht pond or land models indoors or in the garden.

# Keep a Nature Diary

NOTHING could be more fun than to keep a Nature Diary, and write in it all the things you see in your walks and holidays.

It is much more fun than filling in the tiny lines in your pocket diary, because you can keep a record of your pets, and their health, and of the flowers you have found, and how many kittens old Polly has had through the years, or how many fights and scrapes your pet dog has had to be rescued from.

First of all you want a good thick exercise book. The best to buy have alternate drawing pages, like your science books at school. This will be your log book. Just as a captain in a ship has to keep records, so you will be the captain of this voyage of discovery into natural history.

Cover your book with gay paper, and cut out pictures of your favouriteflowers, or animals, or fruit. There are lovely pictures to be found in the advertisements in magazines. Now print in your best, most bold lettering — MY NATURE DIARY

Seedsmen's catalogues often provide lovely pictures of flowers which you can use to decorate your book.

Now decide what you wish to record. Do not start a day to day diary unless you are sure you will not get tired quickly. It is much better to write a page each week. If you have any facts to record, such as the date you found your first violet, or when you got your jar of frog spawn, be sure to remember to write the date in the margin, neatly underlined.

Watch your pets. Guinea pigs, cats, rabbits, can be weighed each week, just as mother weighs the baby. These weights can be entered in your book.

Keep your eyes on the skies; if you see some lovely clouds (these clouds have names, which you can find from books), or a vivid sunset, or some falling stars, note the times, dates, and what they looked like. Learn to talk about these things in your diary, just as you would tell Daddy or your best friend.

When you find that first bluebell, or see the hedges turning green with young leaves, put it in your book, so that next year you will know whether the spring is early or late.

Watch out for butterflies and birds' eggs. Seek out birds' nests, but learn to be quiet and gentle about this so that the bird will not be afraid of you and desert her nest. Never take birds' eggs. Writing a Nature Diary will help you not to want to spoil the nests, but will make you proud to know you can share a robin's secret and not betray her trust in you, because now you are a naturalist.

On every opposite page where you have written down these things either draw a picture of what you have talked about, or paste cut-out pictures about them. You can either paint them or colour them with pencils. Press wild flowers between pages of blotting paper in a heavy book until they are dry and ready to be stuck carefully into your diary. Print their names carefully underneath. It is always good to try to learn the Latin names of flowers. It is not hard to do and sounds very grown up and important when you call them by their correct names.

Keeping a Nature Diary is such good fun, and it also helps you to write essays at school and to paint and draw, and even to become a detective if you are very crafty and learn to distinguish bird tracks and paw marks in the snow.

But please, if you start a Nature Diary in the Spring, leave plenty of room in your book to write about all the jolly things that happen in Autumn and Winter, such as the day old Joshua the tortoise has to be put away for his long sleep, and how late roses smell so sweet although it is December, and how many different birds come to your garden for crumbs. (G.K.)

Next week's enlarged issue will describe how to make a dartboard case and other projects for the handyman; also patterns for doll's house furniture, etc. Make sure of your copy.

# FUN WITH VORTEX RINGS

**WERYBODY** envies the expert smoker who is able to blow perfect rings of blue smoke that hover mysteriously in calm air. And who has failed to be intrigued by the monster white haloes sometimes puffed out by railway engines?

A box from which vortex rings can be produced is quickly constructed from a shoe box, which should be in good condition. Cut a neat round hole about 14 ins. in diameter in the centre of one end of the box, then cut out a large rectangular space, leaving a zin. margin, from the opposite end. Cover the large opening with a piece of strong cloth, which should be stretched tightly and held in place with strips of Sellotape. This can conveniently be done while the box is filled with books or blocks of wood that will prevent the box from deforming while the cloth diaphragm is secured in place. Complete the apparatus by sealing on the lid of the box with Sellotape. If you wish, you can make your 'vortex ring machine' look attractive by covering it with coloured paper and pasting on an interesting design in cut paper.

Try out your box by placing a smouldering piece of oily rag or corrugated cardboard inside the round hole and tapping gently upon the cloth diaphragm. If you do this in a room where there are no draughts, a succession of smoke rings will hurry from the opening and will begin to rise in the air, expanding and becoming distorted as they do so. Soon the upper part of the room will be filled with a display of vortex rings in various states of disintegration. Be careful not to let smouldering material damage the cardboard box. Keep turning the box over while it is in use.

If you set up your apparatus in a darkened room in which a small candle is burning, you can direct vortex rings at the flame, which will flicker as the rings of smoke strike against it, and then be extinguished. The shadows of smoke rings cast by candlelight will be fascinating to watch as they move across a plain light-coloured wall. You can prove that vortex rings are made in air if you discard the smouldering rag and direct invisible ring-form air disturbances at the flame. You may succeed in blowing out the flame.

Vortex rings will turn a lightweight paper wheel if it is mounted upon a spindle which is able to roll freely, supported between two piles of books in such a manner that the wheel is suspended in the space between them. Make such a wheel from a  $3\frac{1}{2}$ in. diameter paper disc in which four slots are cut. Glue four paper vanes into the slots and glue the wheel in position on the centre of a steel knitting-needle. Ensure that the piles of books are equal in height and perfectly level. Aim a stream of vortex rings at the wheel and watch it spin.

With patience you may be able to

bounce one ring off another and observe what happens when you direct a vortex ring through the middle of another.

Smokers will be able to manufacture miniature 'vortex ring machines' from short pieces of mailing tubing. These can be charged with puffs of cigarette smoke. (A.E.W.)



# Gadget for opening jar caps

THE secret of successful fruit and vegetable bottling is to have a wellfitting cap, which forms a perfect seal. In order to achieve this it is necessary to tighten the screw cap so much, that it is often very difficult to get it off again.

Here is a gadget which can be made in a matter of minutes, and will be found to do this job quite well. All that is wanted is a strong cramp and a few odd lengths of wood.

The cramp must open wide enough to take the largest cap that it is intended to undo, and for most ordinary purposes this need not be more than 4ins. It is very necessary, however, to get a cramp that is robust and with a substantial screw, which will in some cases be used as a lever to give added pressure to very obstinate caps.

The cap is held tightly between two hardwood blocks cut to fit it, as shown in the illustration. A good close fit is necessary in order to obtain a satisfactory grip. It is, therefore, a good idea to have a pair of blocks to fit each size of cap. Serrate the curved surface of the blocks to obtain a stronger grip. (A.F.T.)





# For cruising comfort **EXTRA CANOE EQUIPMENT**

RE you planning to go cruising in your canoe this summer? A decked canvas canoe will take you and all of your camping kit almost anywhere where there is at least 6in. of water — and that means there are thousands of miles of inland waters you can explore. There are several things you can to do to improve your craft for cruising — making it more convenient and comfortable. the rear one, but otherwise its construction is the same as for a singleseater. Stretch your canvas over the cockpit and mark the outline of the coaming with chalk. Cut about 3ins. outside this, and arrange the corners to overlap (A). Turn in about  $\frac{3}{4}$  in. all round and sew the corners. Try the cover in position and roll back enough so that the rolled part forms a breakwater just in front of you — it will be held like this with straps during the day. Fix the cover with press studs of the spring action type — you want fastenings that would come away easily in an emergency. The lower part of a stud screws to the wood. The other section is in two parts. The tubular part goes through the other and is spread with a centre punch (B). Fix webbing or rubber straps for the breakwater (C) to complete the job.

It is not seamanlike to have much kit

# By P. Blandford

No one can guarantee the weather so you must be prepared for rain. The decking will protect most of your kit, but if you fit a spray cover to the cockpit and wear a short oilskin coat or anorak outside of it you can travel all day in bad weather without you or your equipment getting too wet. If the spray cover is large enough to cover the cockpit completely you can leave the boat sealed up or use it alongside your tent at night as a store place.

The spray cover may be made of canvas about 12oz. grade, preferably the same colour as the deck. This thickness can be sewn with a domestic sewing machine. In a two-seater the front section should be long enough to overlap





under the decks. However, there are things you will want during the day such as wet weather clothes, food, camera and map. A neat way of stowing these conveniently is to make bags to fit under the side decks each side of your seat. These can be shaped to press-stud to the gunwale and coaming (D). Make a card pattern of an end first. Fasten the bag with a zip-fastener or buttons. An alternative to bags is shelving (E).

in the cockpit. If you divide it into a number of bags you can stow it mostly

An alternative to bags is shelving (E). Use thin plywood fastened to frames and a stringer. Put a strip at the front to prevent things rolling off.

When touring, you sometimes wish to leave your canoe unattended. It is safer to be able to lock the under-deck compartments, and doors there serve to keep the kit in place in any case. There is not room for hinged doors and they should be made removable. Use plywood of the same thickness as the frames. Fix stops on the insides of the frames and pieces on the door to locate it (F). The lock can be a small cupboard type with a keyhole through the plywood. Your paddles are an important part of your equipment,

# A MODEL SWISS AERIAL RAILWAY

MODEL cable railway of the kind used in the Alps will give endless hours of fun in the garden, and costs very little to make. All that is needed is a sloping site. The system can be of any length, but a fifteen foot run is a good length to start with.

First, two pegs with hooks in them are fixed securely in the ground six inches apart at the lower end of the line, and a second pair of pegs, also with hooks, is fixed at the top end. These should also be 6ins. apart. Small pulley wheels of the kind used in curtain runners are then fixed in place with a nail as shown on the top of each of the upper pegs (Fig. 1).



Next, each pair of hooks is joined by a length of plastic covered wire. These lines should be fairly taut, and strong, as they form the carrying cables for the cars.

The two cars have plywood tops and bases, and wood or cardboard sides. They should be 6ins. long, 2ins. wide and 2ins. high. Provide open platforms at each end. Windows can be painted in or cut out and covered with cellophane.

## **Trolley gear**

The trolley gear (Fig. 2) is made from two small brass pulley wheels, again using curtain rail fittings, mounted on wire 'axles' which are soldered to a bearer plate cut from a piece of tinplate and shaped as shown in Fig. 3a. A metal strip (3b) is bent as shown and screwed to the centre of the roof of the car. The trolley plate is fixed to this strip with a small rivet or nut and bolt so that the joint swivels. This will keep the car horizontal when the angle of the trolley alters.



A small hole in the trolley plate is used for fastening the end of strong thread which pulls the cars. This thread should



be long enough to allow one car to be at the upper station while the other is at the lower one, and it passes over the pulleys at the upper end (Fig. 1). Between these pulleys is placed a peg which has a pulley wheel mounted horizontally on it. This wheel should be three or four ins. in diameter and can be made from two tin lids with lips bolted together, one of the bolts, a long one, serving as a handle. A strip of adhesive plaster in the groove of the wheel will prevent the thread from slipping, and as a further precaution, the thread can be looped once round the wheel.

#### Add stations

A more ambitious lay-out can include plywood stations at each end, and a small reversible electric motor mounted vertically on a peg to provide power, using a direct drive with a small pulley-wheel on the motor. Since the cars balance each other, whatever the slope, the power needed to operate the system is not very great, and this is provided, of course, in the layout described here, by turning the large wheel.

The Lapuing in Spring

N early Spring the lapwing is conspicuous among the birds of moor and fallow. When passing' over a stretch of ground where a pair or two are nesting you cannot fail to thrill at their tempestuous flight, their meteoric swoopings, and wonderful 'stunting' in aerial display. Diving, soaring, 'looping the loop' in seemingly joyous flight, lapwings afford much entertainment.

This springtime play is sheer revelry the wine of spring has 'gone to their heads' and they throw themselves about, tumble and toss, rejoicing in the clean winds and bright sunshine. It may well

> **4 5** World Radio History

be that the males are 'showing-off' before their mates; for these are the frenzied days of courting time.

Later on, when mottled eggs occupy the rough nest — a mere depression in the soil lined with dry bents — the actions of the anxious parents often appear alarming to the person invading their strip of territory, for they come nose-diving from the sky, with every sign of assailing the intruder. But it is an onslaught appearing more aggressive than it really is, for the birds usually dash past one's head harmlessly, with quick wing-beats. (A.S.) LEVEDON Confectionery have issued many interesting card sets with their sweet cigarettes. There is a set of 50 Regimental Badges which contain valuable information obtained direct from the War Office. This set, now obsolete, is a collector-piece.

Other titles include: Weapons of War (50), Transports (50), Famous Screen Stars (50), Famous Cricketers (40), Road Safety (50), British Aircraft (50), etc.

New issues for 1959 include: Famous Football Managers, TV Celebrities and Wagon Train — as featured on ITV.

## CLEVEDON ISSUES —By R.L.C.

1 met Mr. D. H. Green, Clevedon's Managing Director, at Blackpool station. On the way to the factory he said: 'All hobbies deserve their proper place and we at Clevedon think that cartophily has been neglected.'

'What do you intend to do about it?' I asked.

'To form a Clevedon club with free membership and issue cigarette cards on subjects suggested by collectors,' he replied.

I saw the chance for a novel theme — 'The Blackpool Story' — a must for any album.



Within a 1 mile radius of the Clevedon factory are Blackpool Tower, Palace and Winter Gardens and many famous hotels, all of which may be depicted in poster stamps and postcards. But include a label from the Clifton hotel which is widely known and stands in Talbot Square, overlooking the sea and the North Pier.

The liquorice root (Glycyrrhiza Glabra) is raised mostly in the South of Europe — 'Czech. match label 1956.'

At Clevedon, the black liquorice sticks and 'Allsorts' are made of liquorice juice boiled down. The liquorice is poured into metal trays, about 3ft. square. These trays are mounted on trucks which are wheeled into the ovens and left for 24 hours. At the end of that time, the liquorice is ready to pass through the press and on to the cutting machine, from the mouth of which the 'Allsorts' emerge, all ready to be packed into boxes by a team of waiting girls.

There are 10 liquorice refiners in England.

Čartophilists will find it worth while to join the Clevedon Club, Clifton Road, Marton, Blackpool. News features, etc., will appear at intervals in *Hobbies Weekly* — to avoid disappointment, place a regular order.

Blackpool is a popular holiday resort and offers a wide choice of entertainments. It offers hobbyists an exciting story for their album — a thematic pastime which could involve many other seaside resorts throughout the world.

## CATTLE BRANDS ON BUTTONS

EARLY every subject under the sun can be found depicted on buttons. Several modern American sets feature the ancient art of branding.

One set consisting of copper buttons with a raised design show brands of Z slash D, Turkey Track, Andiron, Running Wand, the Lucky Horse Shoe. There is also a set of twelve leather buttons, each featuring a famous brand, while a third set is of ceramic buttons.

It is unknown where or when branding originated. Ancient brands are found in Egyptian tombs. The branding of criminals and slaves was popular in Rome and Greece, and the Chinese branded animals long before that.

Branding, of course, is a means of identifying one owner's herd of cattle from another. We have all read of how rustlers rebranded or changed an original brand into one of their own designs, thus enlarging their own herds, running the risk in so doing of being caught, and hung on the nearest tree.

While some brands are easy to identify, there are those which create much thought and study. But this fascinating subject is worth research. Readers in need of help should write to The Editor, Hobbies Weekly, Dereham, Norfolk. And don't forget to enclose stamp for reply. (R.L.C.)





A coffee table, TV table, footstool, etc. . . . all can be made in quick time with these Contemporary style legs. Beautifully turned in Scandinavian beech, they can be left in their natural colour, or stained. Each leg is threaded at one end to screw into a hardwood block (see inset) which, in turn, is screwed to the underside of a piece of plywood or suitable material which forms the table top. Simple . . . and a perfect job. The legs are obtainable in three sizes:—10 ins. 2/3 each, 15 ins. 2/6 each and 20 ins. 3/- each. Postage on 3 or 4 legs 1/6 extra. Legs from branches or:

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# HAPPY DAYS AHEAD FOR THE TROUT ANGLER

ROUT fishing begins in earnest during April.Trout are beginning to move, a south-west wind of humid caress brings forth much insect life, as well as damson blossom in the orchard. When you happen upon a really nice April day, your spirits soar. What a glorious change from the long weary days of the past frost-laden winter!

Of course, it depends upon the way you look at it. If you happen to be an angler, and a trout devotee at that, then all is well. As the late Lord Grey says in his classic on trout-fishing: 'There will be a spirit in the air, an appeal, a promise, a prophecy to make a young man's heart leap up within him.'

#### Snatch a day in Spring

Anyway, it's a grand time. The whole long season for trout is before you, with plenty of time for hiking, camping, canoeing, cycling and the hundred and one countrygoer's activities thrown in. But I say — 'Give me a day or two in Spring with a handy trout rod, a wellstocked sizeable burn or brook, and I care not a bit for any other outdoor joys and pleasures. Let the actual take be as it may be in weight of spotted fish, good, bad, indifferent; a day with rod and line does take some whacking for good fun.' Just try this year!

For trouting, much will depend upon the sample of weather doled out by the meteorological office. We do not need a wintry spell, which has an adverse effect on insect life of the trout-stream, for there is little inducement for the larvae or nymphs to come forth from the water into the cold air. Much depends upon an interlude of warm weather! The angler says a little prayer for a week or so of sunny days with every sign of better summer time in prospect!

## Requirements

But now, let us see what he will require for his pleasant outing. What will the young man need? First, a smallish fly-rod say. seven to nine feet in length, of split cane or greenheart, a 30 to 40 double taper fly-line with a few yards of backing line, one fly-reel,  $2\frac{1}{2}$  in. to  $2\frac{5}{2}$  diameter drum, of light gun metal or aluminium; half-a-dozen 3-yard taper casts of nylon or monofilament of a good grade; a



Burn trout in Spring

dozen points six 3x gut; and half a dozen patterns of flies, hook sizes 00–1, more or fewer of each size of fly as may be required.

Other accessories include a handy landing-net, a canvas bag to carry trout, a fly-box for your flies, and waders if needed. A pair of angler's scissors, a useful knife, and an old rag to wipe your hands with after handling fish.

Trout on small streams feed largely on nymphs and similar small underwater fare, and we think that lightly-dressed flies are superior to over-dressed artificials. Most years my early-caught trout are taken on small spider flies known as 'Black Spiders'. We use one fly only, but some anglers prefer two or even three flies on their trouting casts. I prefer only one, though the total bag in the day may have suffered a bit, but experience has proved my 'one-fly' selection as being the most killing of the lot during a spring day by the waterside.

## Flies to take

For a fishing trip in Spring you can take with you at the least six patterns of flies, including hackle March Brown, Greenwell's Glory, Partridge Spider, Woodcock and Hare's Ear, Blue Dun, Yellow Dun, Waterhen Blue, Hackle Blue Upright, and also a sprinkling of fancy flies will not be out of order. But don't overload your tackle book with too many flies to select from.

The usual method of trouting in spring is by the wet fly method, in which you allow your fly to sink a few inches in the water just below where you try for a trout seen rising thereabouts, and not allowing the fly to float over the place where the fish is roving about, as in dry-fly work.

In early spring we may find streams have risen, due to heavy showers. We then pay more attention to the quieter places near the banks, and to the slacker flows of water, leaving the rougher water alone until the streams subside to more normal level. Later in the season with normal conditions abounding, we can fish the faster 'stickles'. There is another reason why, in springtime, even when the waters are lower than expected, we should devote the pools and steady flows to a trial, because trout at this period are often in rather weaker condition than they will be in May and June, and are not able to maintain themselves in the colder, strong-running streams.

If the weather is wild and boisterous, we should look for the trout in the sheltered places. In April such spots as quiet eddies, holes under bosky banks; behind rocks and boulders trout move into shallowar runs in quest of food — a point worth remembering. On specially favoured days of warmth and sunshine, we may fish the runs and tails of pools, and hope for a bit of luck.



#### **BUYING OR SELLING?**

Classified advertisements on this page are accepted at a cost of 6d. per word prepaid. Use of a Box No. is I- extra. Send P.O, with advertisement to Habbies Weekly. Advert. Dept., Dereham, Norfolk. Rates for display advertising on application.

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THE making of sweets at home is not only an interesting pastime, but a highly economic proposition if the cost of the material is compared with the shop price for the commercially made article. Some confections do not need a mould but many, especially of the candy variety, do require one.

The mould described here is expressly designed for coconut ice, a highly popular sweet and one of the easiest to make, but it would be equally suitable for either coconut candy, or fudge.

The mould is composed of  $\frac{1}{4}$  in. thick wood. It will be noted that it is a double mould, and there are two reasons for this. Firstly, two blocks can be made at one operation. Secondly, if making a sweet of two layers, such as coconut ice which usually has one white and one red layer, the coloured one can be made first, by pouring half in each mould, the white being added when the red is set hard.

#### Groove the sides

The sides of the mould (A) in Fig. 1, are grooved across where indicated by dotted lines, the grooves being  $\frac{1}{2}$  in. wide and  $\frac{1}{8}$  in. deep for the ends of the mould (B) to fit in. The slots at the ends of (A) are cut midway to suit the screw bolts (C) which hold all parts firmly together. The ends are grooved across at the dotted lines, as for parts (A) and hold in place a central division (not included in Fig. 1). The nominal length, however, is  $6\frac{3}{2}$  ins. The screw bolts should be  $5\frac{1}{2}$  ins. to fins. long and provided with wing nuts for rapid adjustment.

Clean up all parts and fit together. As it is essential for all the top and bottom edges to be level, plane up as may be necessary to ensure this, as any gap between mould and the flat board it stands upon may cause the molten sweet to seep out and spoil the shape, or even spread out over the table with subsequent loss.

The mould should be well greased with margarine or lard and laid upon a greased paper, and when the sweet is ready, the mould should be pressed down to the table while the hot mass is poured into it. Take care the sweet is really set

# A MOULD FOR HOME-MADE SWEETS

before freeing the screws and taking the mould to pieces.

Many readers are possibly aware of the method of making coconut ice, but to those who are not, the following instructions on making may be welcome. For one bar or mould: 11b. white sugar; 20zs. dessicated coconut, and 1 small teacupful of milk will be required.

Mix these ingredients in a pan of suitable size and place over gentle heat for a few minutes to melt the sugar. Then



raise the heat, and when the contents begin to rise and boiling is imminent, note the time and boil for 10 minutes. Stir as little as possible, only enough to prevent any burning.

Remove from the heat and stir the sweet for 5 to 6 minutes. As you stir, scrape the pan round with the spoon at frequent intervals, also add a few drops of cochineal (if a pink colour is desired) and any flavouring agent required. The flavouring is optional, but a few drops of almond or vanilla make for improvement. The molten sweet will thicken, and

5 minutes of stirring, then pour into the mould. It soon sets, but leave it for an hour or so before releasing it from the mould.

If you intend a block as a little gift, it is a good plan to make up a simple holder for it. Such a holder is partly shown in Fig. 2 and is easy to make. Lay the block of coconut ice on a small sheet of thin

FIG.2

cardboard — the material generally used for drapery boxes is quite suitable. Run a pencil round the block, as it stands on the cardboard, then remove and, allowing lin. extra all round for the sides of the case, cut out. Bend up the sides, then paste a 1§in. wide strip of fancy paper round the sides to hold all together. Paste surplus paper at top and bottom and press over to the inside and over the case bottom. Wrap the block in cellophane and place inside the case to complete. (W.J.E.)

# **Recipe for Swiss Milk Tablet**

**PREPARATION** is the secret of success with the making of delicious Swiss Milk Tablet, ingredients for which are: 1 lb. sugar, 1 tin condensed milk (11 ozs. full size), 2 ozs. margarine, one tea cup of cold water.

Weigh out the pound of sugar and cut off the 2 ozs. of margarine. Grease a shallow tin tray and place to one side. Open the tin of condensed milk and have handy.

Take a deep saucepan and wooden spoon and pour in a teacupful of cold water. Add the sugar, stirring occasionally to help it to dissolve, and bring just to the boil. This takes about 10 minutes. Add the half tin of condensed milk and margarine. Stir continuously to prevent boiling over, and boil till a small quantity dropped in a saucer of cold water forms a soft ball. This takes about 20 minutes.

Remove from the heat and beat with the wooden spoon until the contents thicken and show signs of setting. Pour out on to the greased tin tray and allow to cool. Before it finally sets, mark into squares with a table knife. (I.S.)



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