HOBBIES WEEKLY

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IN THIS ISSUE

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A handyman can make this

DECK CHAIR

Described by S. H. Longbottom

WHY not make your own deck chairs ready for some leisure time in the garden this summer? By following these instructions you will have no jointing difficulties, the only materials required being dowel rods, lengths of 1½ins. wood, some bolts and canvas.

The 1½ins. by ⅞in. stuff for the framework should be carefully selected. See that it is free from knots, well seasoned and preferably of beech, while ¾in. dowel rods form the stretchers.

We need two pieces 3ft. 10ins. long, two pieces 3ft. 4ins. long and two pieces 2ft. long. The first two are drilled with the centres 1½ins. from the ends to take the dowel rods. If you cramp two lengths together you will be sure of making the holes in alignment, besides speeding up the job, but the brace must be held perfectly vertical.

The smaller frame is only fixed by a dowel rod at one end of the two lengths and forms the support for the chair.

CUTTING LIST

Outer Frame	
2 pieces	3ft 10ins. by 1½ins. by ⅞in.
2 dowel rods.	1ft. 8½ins. by ¾in.
Inner Frame	
2 pieces.	3ft. 4ins. by 1½ins. by ⅞in.
2 dowel rods.	1ft. 7½ins. by ¾in.
Support	
2 pieces.	2ft. by 1½ins by ⅞in
1 dowel rod	1ft. 10½ins. by ¾in.

Figs. 1, 2, and 3 show these three sections. The width is clearly shown in the diagrams and dowel rods should be prepared accordingly, allowing an extra inch in each case.

There are two ways of fixing the dowel rods firmly in position. The easiest way is by applying glue, attaching the leg, then pinning with a nail, finally trimming away the surplus. The other way is to make a sawcut in the end of the rod, knocking in a finely tapered hardwood wedge, trimming away the

surplus as before and pinning. The latter method makes an extremely firm joint.

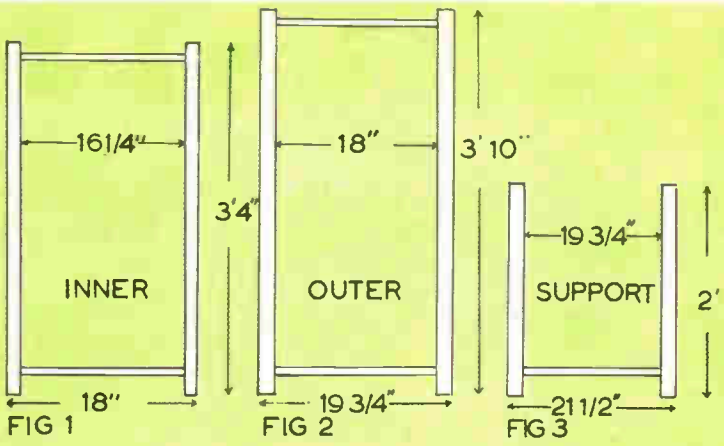
Before assembling the smaller section, provision should be made for the different adjustments of the sitting position. This is done by making three notches in the top side of each leg, measurements being shown in Fig. 4. Cut these notches out with a saw, smoothing off with a file.

The sharp edges of all the long pieces should be well smoothed with glass-paper and the ends neatly bevelled.

Now assemble the three sections, afterwards fitting together on the floor as shown in Fig. 5. This will enable you to mark the positions for the bolt holes. See that the frames are all quite square before marking out or the frame will be out of true when finally erected. Now refer to Fig. 6, which shows where to make these holes. In each case the distance is from the ends. Countersink the holes on the inside frame, placing a small washer in between the moving frames. Four bolts, 2½ins. by $\frac{5}{16}$in., and eight washers are required. Alternatively you may rivet the sections together, placing a washer between the frames and one at each side of the rivet.

The whole frame may be given an application of wax polish to finish, or you may paint it a gay colour.

Canvas seating may be bought ready cut and packed with tacks, although it is sometimes cheaper to buy by the yard, and this material is available at most curtain shops, or furnishers. When buying, remember to allow for the turnings when attaching, the correct method being shown in Fig. 7, where the wrap over covers the tacks.



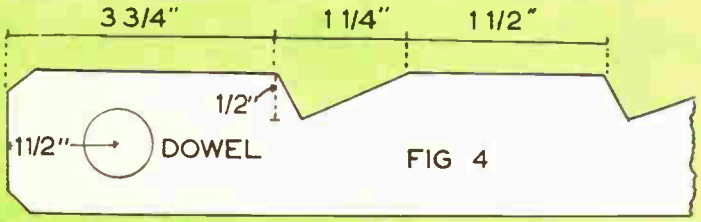


FIG 5

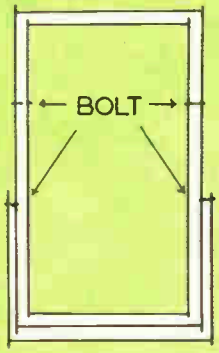
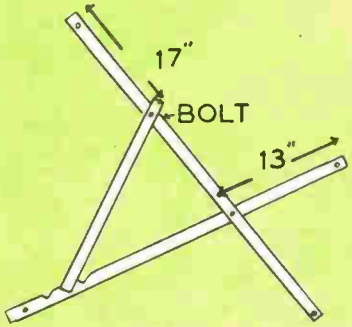


FIG 6



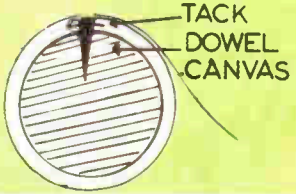


FIG 7

A 'Carrot' Basket

A PRETTY hanging basket can be made from 4ins. or 5ins. of the top or crown end of a large carrot. The inner part is scraped out with a knife, leaving a shell about ¼in. thick. Three or four cords are fastened to the rim, and the basket is ready to hang up at a window.

The cavity of the little basket must be kept well filled with water, and care taken that it does not become dry.

After a while the carrot will start to sprout, and as the delicate, finely divided leaves appear, they will turn upwards and curve inwards, soon covering the little basket with here and there the orange colour of the carrot showing through with good effect.

Should the leaves need training to arrange them satisfactorily around the basket, it may be easily done by means of a thread passed around them, or a bent pin stuck into the carrot may be used to hold a leaf in place. (R.L.C.)

Next week we shall give a free design and full instructions for making a popular musical novelty, in the shape of an old-time barrel organ — complete with handle and monkey on top. Make sure — and order your copy!

Spring-cleaning your Camera

THE approach of summer is a good time to attend to the condition of a camera, for although photography is an all-seasons hobby nowadays, the instrument will be used more often during the next few months. It will also be subjected to rougher treatment out-of-doors than in home snapshotting.

Above all, it must be perfectly clean, inside as well as out. Specks of dust in the interior are liable to settle on the film, causing 'pinholes' which come out as black spots on the prints.

By A. Nettleton

Perfect cleanliness is particularly important if a miniature camera is being used, for the pictures will have to be enlarged. Any flaws in the negative will be enlarged with the picture, and even a minute dust speck may mar an otherwise excellent photograph.

Such flaws can be removed by retouching, of course, but it is better to avoid them entirely by seeing that the inside of the camera is free from dust. A small watercolour paintbrush, slightly dampened, is ideal for cleaning the interior, as it will reach the corners and crannies and will enable the folds of the bellows to be cleaned.

Dust is better removed in this way than by blowing it out, since the latter method gives no guarantee that the dust will not settle again before the camera is closed. Blowing is more likely to merely scatter the dust than remove it, even if a cycle pump or some similar aid is used.

Dust on the lens will not cause pinholes in the negatives, but it will impair the general quality of the image. Fingermarks on the glass are likely to have a still more harmful effect, so this part of the camera, too, needs to be kept quite clean.

Lens cleaning, however, calls for great care. Any scratches made on the surface of the glass will cause a permanent decline in the quality of the pictures, and such marks are easily made if the lens is polished too vigorously.

Modern camera lenses are coated to eliminate harmful reflections, and the coating may be damaged or removed by over-zealous polishing. Only the softest cloth or a piece of special lens cleaning tissue should be used, and it should be applied gently.

Another reason for gentle polishing is that rapid cleaning may electrify the glass, causing it then actually to attract dust, so that the whole job might just as well have been left! Anti-static cleaning cloths, which will not easily cause electrification, can be bought.

Only rarely is it necessary to clean the inner surfaces of the lens, by unscrewing the separate elements, and if this has to be done great care must be used to avoid damaging the screw threads. It is equally important to screw back the lens cautiously, ensuring that the threads meet properly and the lens is not replaced askew. Any failure here is liable to prevent the camera from giving sharply focused pictures when it is used again.

Any rollers or velvet strips inside the instrument should also be cleaned. Dust or specks of grit on the rollers over which the film runs are a frequent cause of 'tram lines' on negatives — lines running along the whole length of the film.

The ends of the rollers may be given a spot of oil to make them run freely, but no trace of lubricant must be allowed to reach any place where it may be transferred to the film, and, on no account, should the shutter be oiled. Folding cameras, however, may be lightly oiled on the side struts, so that they open and close more easily.

The ruby window at the back of the instrument should not be omitted from the cleaning operations, as it is apt to become obscured so that the film numbers are hard to see. Similarly, an eye should be given to the tripod bush, which may have collected some foreign matter, especially if the camera has been left lying around.

The wise photographer will not only give his instrument a thorough spring-cleaning in these ways, but will take care that it is clean each time it is loaded. A few moments spent on removing dust, before inserting the film, will be repaid by photographs free from small defects.

Hobbies' Crossword No. 6

Note: Figures in parentheses denote the number of letters in the words required.

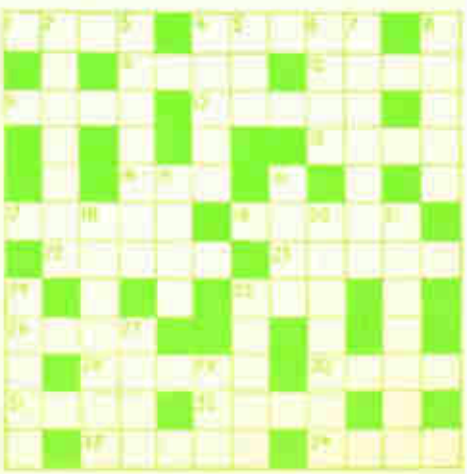
ACROSS:

1. Pip's afternoon companion (4).
4. One of those decorative extras (5).
9. Fish that gets walked on (4).
10. Describes a greaser (4).
11. A thief would take half (4).
12. It may conjure up wonderful visions (5).
13. Can you spare it, buddy? (4).
14. Goalkeeper's charge (3).
17. It is spelt differently (5).
19. Bird of evil omen (5).
22. Salary lift (5).
23. Hero's reward (5).
25. Saloon rail? (3).
26. It helps to produce a clean result (4).
28. The make up of the rogue (5).
30. Preposition (4).
31. Far from looking pleased (4).
32. Pull it to keep warm (4).
33. A river flood, maybe a pest (5).
34. Prepare for publication (4).

DOWN:

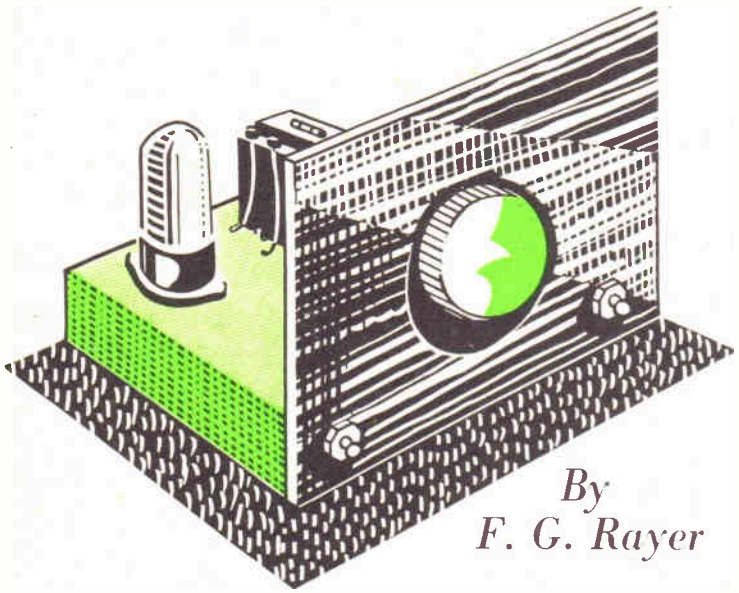
2. He is responsible for upsetting the mare about the nag (7).
3. It has an altered arrangement in West Africa (7).
4. How to stay aloft at sea? (5).
5. A piece of Crêpe de Chine (3).
6. This speaker is plainly heard (4).
7. Frequently describes the company's liability (7).
8. They depend on inflation for smooth running (5).
15. Bit of essence (4).
16. A Bhuddist Priest (4).
18. Subject of a miracle (7).
20. Naturally it's green (7).
21. City of East Africa that has an air of its own (7).
24. Custom that has a spice of wisdom in it (5).
25. A musical note (5).
27. Elgar associated it with circumstance (4).
29. Obtained (3).

★★★★★★★★★★★★★★★★
★ SOLUTION WILL BE ★
★ GIVEN NEXT WEEK ★
★★★★★★★★★★★★★★★★



For radio fans

LOUDSPEAKER ONE-VALVER



By F. G. Rayer

AN economical circuit capable of giving sufficient volume to operate a speaker can be made by using a crystal type detector, followed by an amplifying stage. This only requires one valve, which reduces cost and current consumption. Indeed, if a crystal set is already to hand, very few extra parts will be necessary.

The receiver described here combines crystal detector and an 'all-dry' type of valve, and thus does not need an accumulator. It will give good speaker volume when used in circumstances which would allow a crystal set alone to provide good earphone results. In less favourable circumstances (as with an indoor aerial, or far from a transmitter) quite reasonable speaker volume is obtainable, so that the set is ideal for bedside purposes. It could also be used to provide really loud headphone signals.

As described, the receiver is intended for use with a 1½ V L.T. such as the Ever Ready AD35, and 90 V H.T. such as the B126. But it is worth noting that if space is of no importance, the large type of 90 V H.T. battery will have a longer life. If phones are to be used, a 60 V battery will be sufficient. L.T. can also be obtained from any single-cell dry battery, or from a battery using a number of cells in parallel. Torch batteries, used in this way, are satisfactory. More than 1½ V must not be used for L.T., as would arise if a battery with two or more cells in series were fitted.

No grid bias battery is required, as bias is developed across the 450 ohm resistor.

Components

Any dual-range tuning coil will be satisfactory, ready-made, or home-wound in accordance with instructions given in various past issues. The variable tuning condenser is preferably air-spaced, and is of ·0005μF capacity, with a knob or dial. Two small switches are necessary, one for on/off, and one for wavechange purposes.

The 450 ohm bias resistor is of the usual small carbon type, and the bias condenser may be anything from 4 to 50μF, 6 V to 50 V working. A 25 V 25μF component is readily obtainable, but this exact rating is not important. Any crystal detector is suitable.

The coupling transformer is of about 1:3 or 1:5 ratio, of the usual kind for inter-stage couplings. Doubtful transformers should not be fitted, as they may spoil results. Should no suitable transformer be to hand, resistance-capacity-coupling can be used instead, as shown in Fig. 2. This will be better than a poor transformer, or a transformer not really designed for such purposes. R.C.C. will not, however, give such loud results as a good transformer.

If R.C.C. is used, the component values are not critical. Resistor R1 can be about 100K to 250K (·1 to ·25 megohm), and the coupling condenser C can be ·005μF to ·5μF, about ·01μF being usual. Resistor R2 is of ·25 or ·5 megohm value. These three parts entirely replace the transformer, being wired in instead.

Valve to use

Connections are for the 3D6, because this is very cheap, easily obtainable, and gives good amplification. Needless to say, other valves will work in the same manner, though some give less powerful results. All the miniature and octal all-dry valves of output type, such as the 3Q4, 1A5, 1C5, 1LA4, 1S4, 3S4 and 3Q5, will give good results.

For powerful phone signals, the more economical type of amplifying valve will give enough volume. Among such valves are the 1H5, 1L4, 1S5 and 1T4.

Should a valve other than the 3D6 be fitted, the holder must be rewired to suit. The miniature type of valve will also require a B7G holder, instead of the octal one.

For normal components, the flat portion of the chassis only need be 4ins. by 7ins., with a panel 7ins. by 5ins., both of 3-ply.

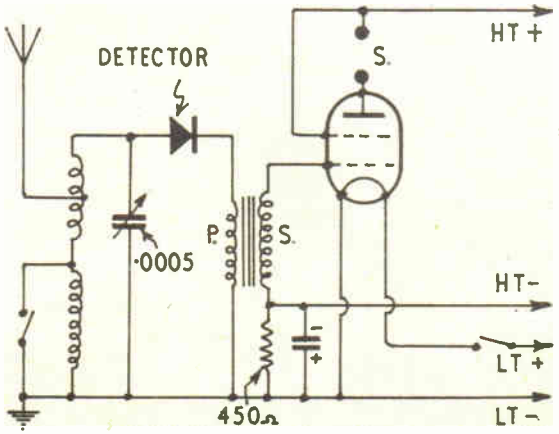


Fig. 1.—The circuit

Two side runners, of ¼in. wood, 4ins. long by 1¼ins. deep, complete the chassis. After the hole for the valveholder has been cut, the flat section is secured to the runners by panel pins, and the panel screwed or nailed in position.

The various parts can then be located as indicated in Figs. 3 and 4, and screwed in position. To reduce wiring to the minimum, no rear terminal or socket strip has been used. If one is fitted, it should have four sockets or terminals, for aerial, earth, and speaker connections.

No difficulty will arise with soldered joints if the iron is really hot (but *not* red-hot), and the tags and wires are perfectly bright and clean. Cored solder does not need any further flux, and it should be melted directly upon the joint, not upon the iron itself. The set can be wired throughout with thin flex. Or flex may be used for the external leads only, with 22 S.W.G. or similar wire for the other connections.

So that Fig. 4 can be followed, the key-way of the octal holder must face the panel. The bias condenser will have the usual signs, or red and black, to indicate positive and negative. Negative must be taken to the H.T. negative lead.

When the transformer is connected, its primary must go to detector and earth, and its secondary to H.T. negative and valve. Some transformers will have tags or terminals in different positions from that in Fig. 3. Others may simply have (P) to indicate the primary, and (S) to indicate the secondary. Others, again, have primary tags marked (OP) and (IP), and secondary tags marked (OS) and (IS). With the older type of transformer (which can give very good results), the primary is indicated by (A) (or P) and (HT), and the secondary by (G) and (GB), as in Fig. 3.

The coil does not require special mention, except to note that tuning condenser, wavechange, earth and aerial leads are suitably connected, as in Fig. 3.

A coil may be wound on a 1in. diameter former, using 32 S.W.G. enamelled wire for medium waves, and 38 S.W.G. wire for long waves. Between the tuning condenser and wavechange switch points, 90 turns are required (32 S.W.G.) side by side, with the aerial tapping at the middle (e.g., at 45 turns). A space of about ¼in. is then left, and 200 turns of the thinner wire are wound on, in two compact piles of 100 turns each, the end going to earth. Both the end of the 90 turn winding and the beginning of the 200 turn winding go together to the wavechange switch, and all turns throughout are in the same direction.

Any ordinary type of speaker, for battery sets, will do very well. The average type of speaker has a cone about 5ins. in diameter, but larger or smaller models will be satisfactory. If it has a transformer, the two leads are simply taken from the receiver to this.

Should the speaker have no transformer, a suitable one must be added, or reception is impossible. For the usual 2/3 ohm speaker, the transformer has a ratio of about 60:1. The secondary, or low-resistance winding, goes to the speaker. The primary, or high-resistance winding, goes to the receiver.

The speaker should be fitted in a cabinet, as without this it cannot give best results. This cabinet need not be large — just sufficient to accommodate the speaker, and about 2ins. to 3ins. deep.

A good earth will greatly increase volume. A fairly short lead, going to a metal spike in damp soil, is best; a connection to a descending water pipe is also good. Gas pipes, or ascending pipes, should not be be used.

The best type of aerial is fairly long (say 60ft. of wire for horizontal portion and down-lead), and is as high as possible, and clear of walls, etc. However, an indoor wire will give enough volume in many areas, especially if upstairs. The aerial can then be of thin insulated wire, carried along two walls of the room, near the ceiling. Indoor aerials do not work satisfactorily in dwellings with a metal fabric.

The receiver will operate exactly as with a crystal set, except that it has to be switched on, and volume will be very much greater. In the unlikely event of no signals being heard, the valve should be examined in darkness. If the filament cannot be seen lit, the L.T. circuit, or on/off switch, and connections thereto, must be suspected. If the filament lights, phones may be taken to the primary of the transformer. If there is no signal, this shows that the fault is in the crystal detector, coil, or tuning part of the set. But if signals are heard in the phones, yet not obtained from the speaker, then the transformer, valve, or speaker must be suspected, if the H.T. battery is properly connected.

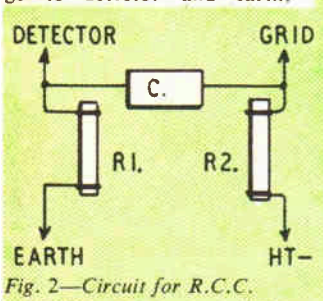


Fig. 2—Circuit for R.C.C.

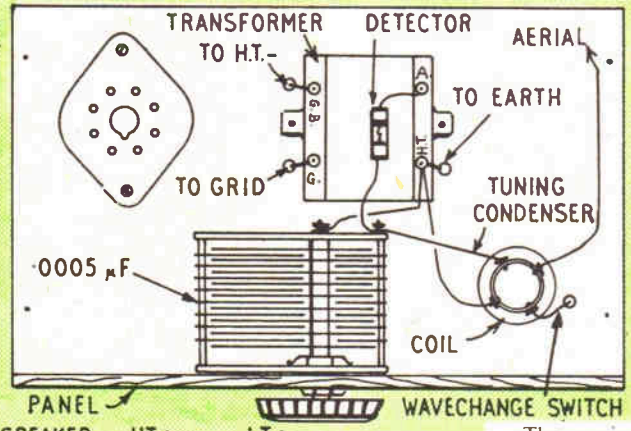


Fig. 3—Top wiring plan

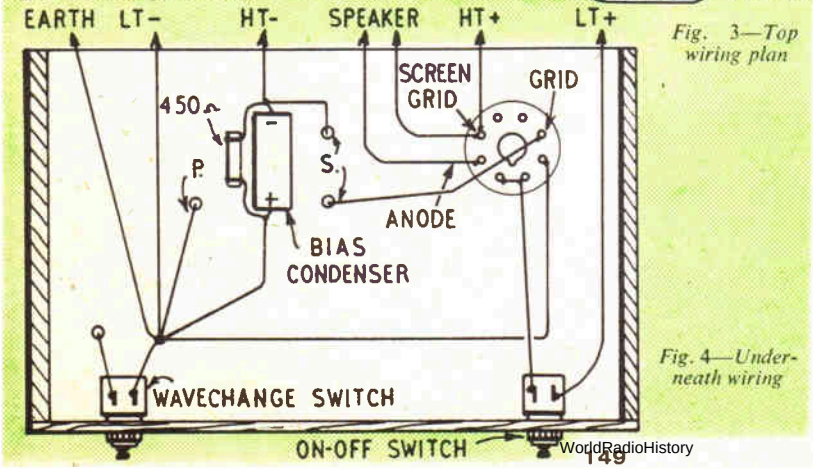


Fig. 4—Underneath wiring

REBINDING BOOKS

NEARLY all of us have one or two books which with over-use or the passage of years have begun to show unmistakable signs of wear and tear. They are dog-eared, the backs are coming off and the sections are working loose.

If they are good books, they are worth repairing. The task is a very pleasant one and the results give great satisfaction and pride. The expense is insignificant.

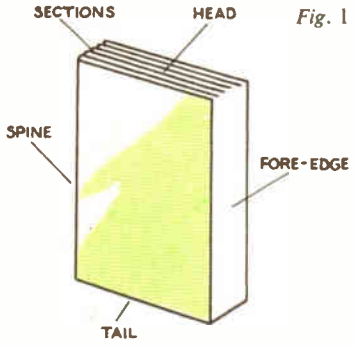


Fig. 1

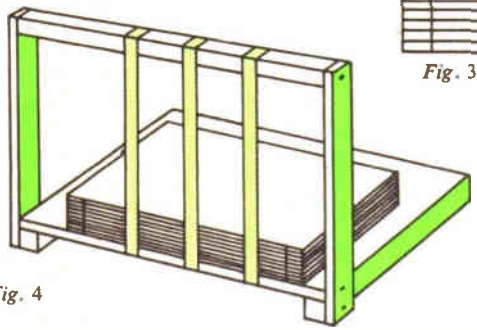


Fig. 4

Although special equipment may be bought for bookbinding, the average household can provide make-shift substitutes.

In dealing with an old book, first take it to pieces as carefully as possible.

Remove the back by cutting along the hinge with a sharp knife. Remove also the dirty end-papers that come next to the back. Next, remove most of the glue from the back (or spine) of the book. With this will come the paper and mull (muslin) which is nearly always there, to strengthen the book. Hard, stubborn glue can be softened a little by holding in the steam from a kettle spout, then scraped off with a knife.

Be careful in this operation not to damage the paper of the sections.

Now, cut the threads which were used to sew the sections together. Some of the sections will now come apart themselves. Others will have to be coaxed with a knife slipped down between them. Glued ones will have to be loosened with a little steam from the kettle.

Examine the sections one by one. Remove the threads inside them, and if the fold in the middle of the section has been torn by the old thread, or the hole has worked too big, then paste a strip of thin, strong paper (e.g., typewriting paper) along the fold. Torn pages can be repaired with transparent Sellotape.

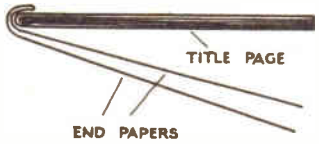


Fig. 2

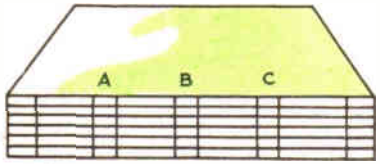


Fig. 3

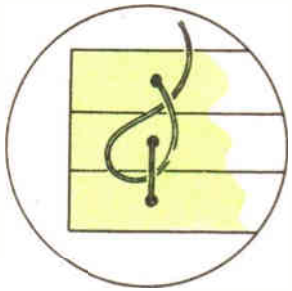


Fig. 5

The sections will probably be turned up slightly along the fold, due to the book being 'backed'. So flatten each section by placing a length of strawboard along and hammering it down.

Next, cut out a sheet of paper (thin cartridge will do) which when folded in two will be the same length as the book, but a ¼in. wider. Then fold over the folded edge right along to a depth of ¼in. Paste the inside of this narrow fold and insert into it the front section (title page section) of the book. The folded sheets (which will be the endpapers of the book) cover the title side of the section. (See Fig. 2). Rub down the folded section and hold it tight to the section to dry.

This endpaper now forms part of the first section and will be seen through with it.

The last section in the book is treated similarly, to form the endpaper at the back.

Now, reassemble all the sections of the book in their correct order, placing them one on top of the other. Bring all the tops and backs into line, and place between two wooden boards and grip fast in a vice or press. Failing these latter, use a couple of cramps.

With a pencil, mark on the first section the positions for sewing. Mark a point about ½in. from the head and another one the same distance from the tail. Between these, mark the positions of the tapes (½in.) (A), (B) and (C). (Fig. 3).

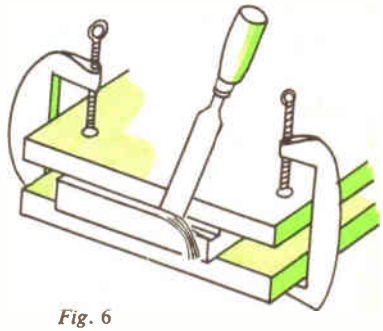


Fig. 6

With a set square, carry these points right across the other sections of the book. With a very fine saw, saw across

these lines to the depth of the inner leaves of the sections. It might be well to point out here that it is best to avoid using the old sewing holes, so mark the new ones away from these.

We now need a sewing frame and this can easily be knocked up from odd bits of wood. The construction is easy as seen in Fig. 4.

Release the book sections from the press, and place the first (title page) section on the board, with backfold towards you and title face down. Then, with drawing pins, fix three ½in. tapes as shown. The lower ends of the tapes should be pinned on the underside of the board. The tapes should be positioned, using the marks on the first section as a guide.

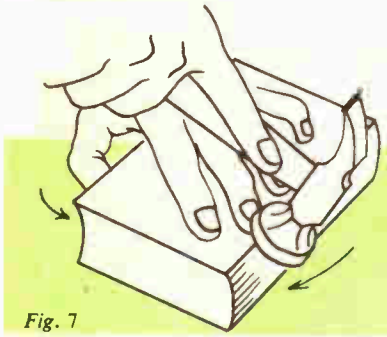


Fig. 7

Use a darning needle and light coloured linen thread (although ordinary sewing cotton will do). Double thin thread is better than single thick thread.

Open the book section at its middle and hold it there with the left hand, then insert the needle through point (A). Bring it out through (B), drawing the thread so that about 3ins. is left dangling at (A). Then pass over the tape and enter at (C), bring out at (D), then over the tape and enter at (E), and so on, finally coming out at (H). The thread should be kept firm, but not too tight. Fig. 5 illustrates this.

Place the second book section on top of the first, and again holding it open with the left hand, enter the needle at point (I). Bring out through (J), pass over tape, and enter at (K) — and so on to point (P). Pull the thread up tight here and tie it to the loose end from (A).

Now, add the third section and enter at (Q), proceeding as before. When you come out at (X), pass the needle under the thread joining (H) and (I), and then again under the loop so formed, and pull tight. This is the kettle stitch. See detail, Fig. 5. After this, enter the fourth section and proceed. Use the kettle stitch at each end henceforth. At the last, make two or three for security. If thread runs out before work is complete, join new thread so that the join is within the fold of the section.

Cut the tapes, next, leaving about 1½ins. projecting in each case. Then place in the improvised press and leave for some hours. The tapes should be left out of the press and should be straightened.

After this, release the book and place between two pieces of strawboard and place in the press again, with the spine just free of the press. Then glue all the back except the tapes. A good glue is made from one part of glue size in one part of water and melted with heat.

The next operation is cutting the edges. Without a proper plough, one must make do with an ordinary woodworker's chisel. See Fig. 6. Cut about $\frac{1}{16}$in. deep at a time. Afterwards use a glasspaper block to finish off smooth. Treat the head and tail in the same way.

Now, the spine must be 'rounded' for strength. First, soften the glue slightly

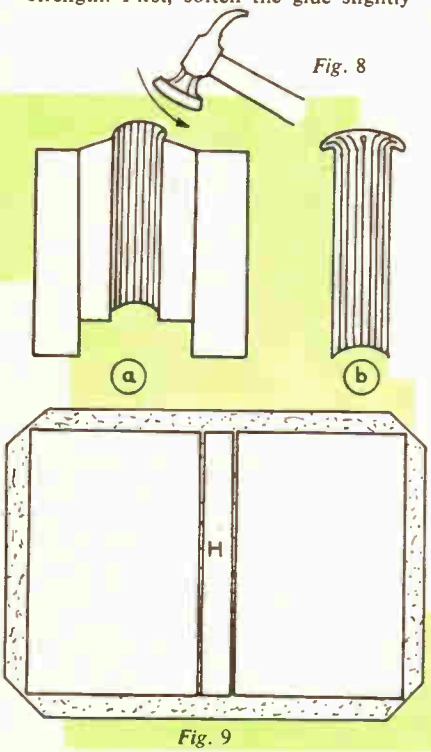


Fig. 8

Fig. 9

on the spine with a little steam from the kettle. Lay the book down, placing the fingers of the left hand on the top, and press the thumb into the fore-edge. Hammer the spine carefully, while pulling with the left hand fingers on the top and pushing in the fore-edge with the thumb. Turn the book over and repeat. Fig. 7 illustrates this and Fig. 8(a) shows how the book should appear when finished.

Next, the book sections must be 'backed' to provide a ledge for the cover to swing upon. Place the book in the press so that ⅛in. is projecting. The press must be tight, and the holding boards chamfered off at an angle. (See Fig. 8a.) With the hammer, tap down all along the centre of the spine, then with sideways glancing blows, work the sections carefully until they overlap the holding boards. See that the turnover and curvature is even and regular all along. The result should be as in Fig. 8b.

Leaving the book in the press, cut a piece of mull ½in. less than the length of the book and 2ins. wider than the width of the spine. Brush the spine with glue all over, and fix the mull upon it and brush down again. Now, cut a piece of brown paper the same size as the spine and glue this over the mull.

The boards for the back are now needed. For the average book the strawboard used should be about $\frac{1}{16}$in. thick. The boards should project ⅛in. beyond head and tail and fore-edge. The back edge comes up against the ledge on the spine.

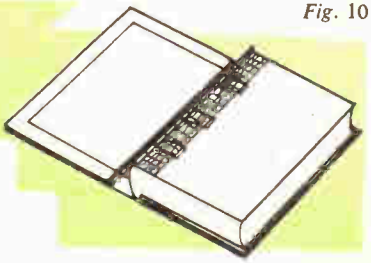
Next, cut a piece of strong paper the exact length of the boards and in width $\frac{1}{16}$in. wider than the distance round the spine of the book. (This is called the 'hollow'.)

Then cut out a piece of bookbinding cloth large enough to cover the whole book, plus 1in. extra all round. Lay it flat and paste it over. Place the strawboard backs in position, with the paper 'hollow' (H, Fig. 9) in between. Cut off the corners of the cloth at an angle of 45°, leaving a small distance between the edge and the board corner.

Fold over and stick the flaps of top and bottom, then the sides. Next, test this back on the book to see that it fits nicely in position. Then put the back aside to dry. Keep flat with weights to hold down.

When the back (known technically as the 'case') is quite dry, it can be attached to the book.

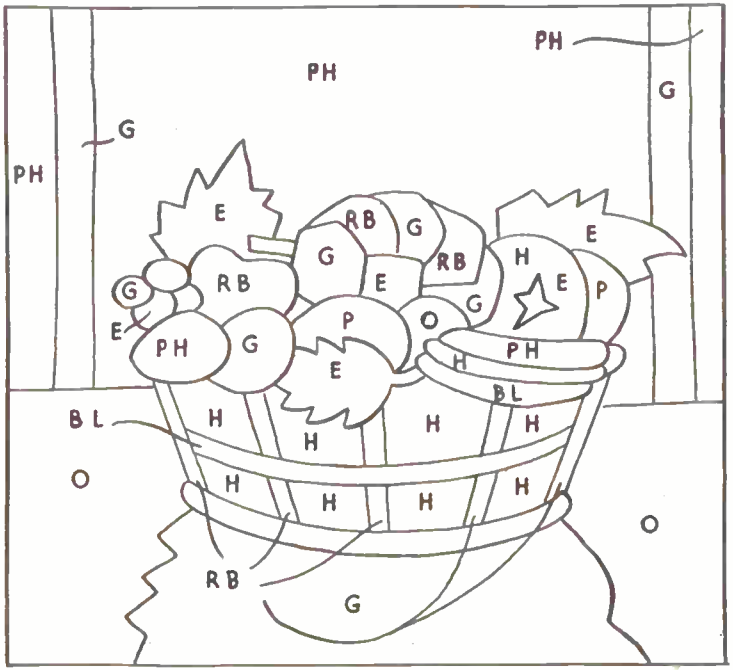
Fig. 10

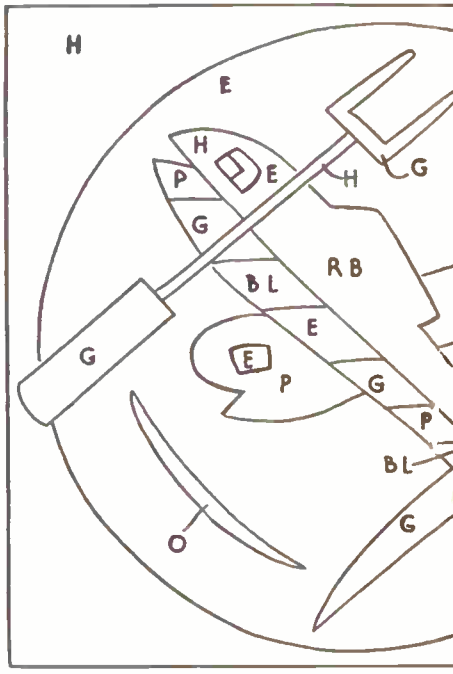


First, place a sheet of waste paper (larger than the book) under one end-paper, for protection. Lift up the tapes and the mull, and paste the whole surface of the end-paper. Lay down tapes and mull and paste these also.

● **Continued on page 154**

Hobbies MARQUETRY DESIGN





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E	EBONY
BL	BLACKWOOD
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PH	PURPLE HEART
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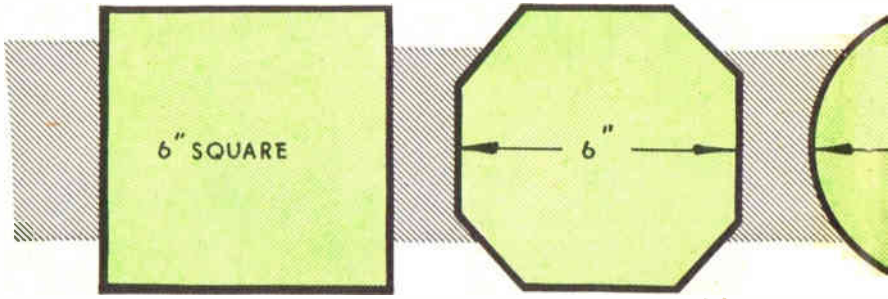
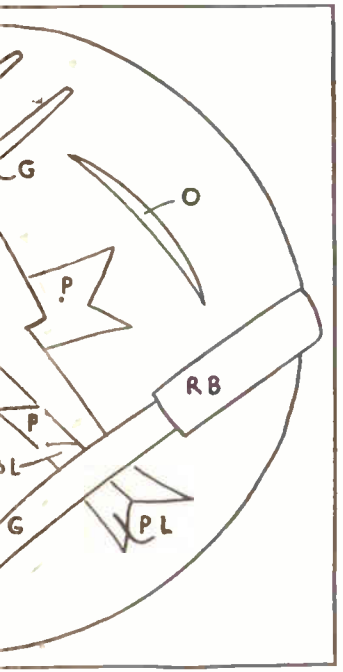


THREE SUGGESTED SHAPES

TABLE MATS
AND HOLDER



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AND HOLDER

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ONE PIECE
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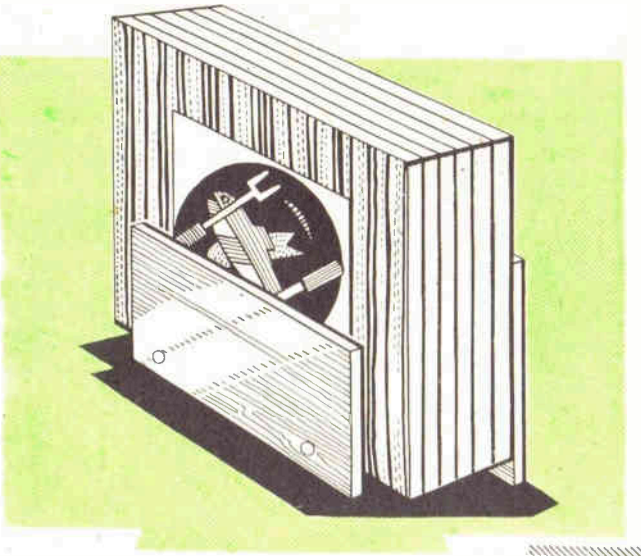
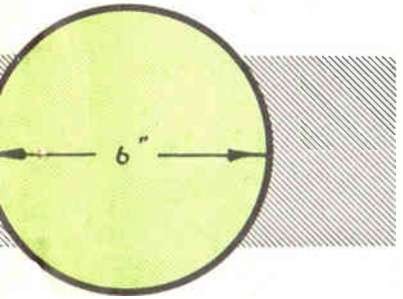
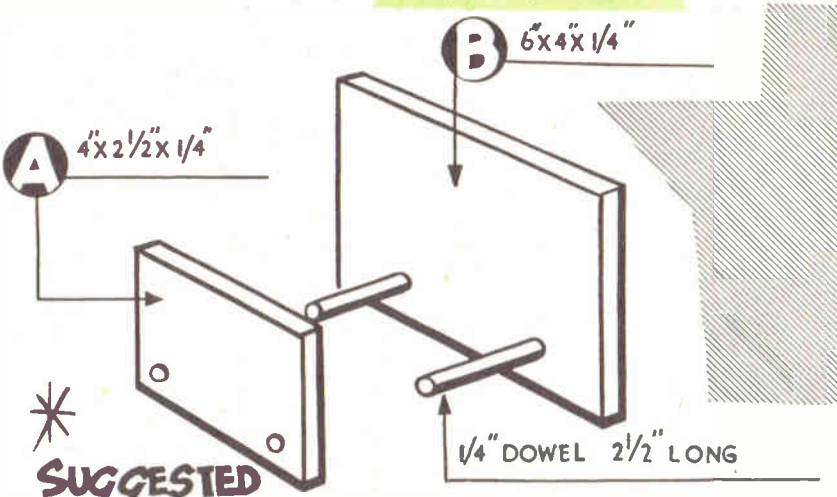
6 INS LONG







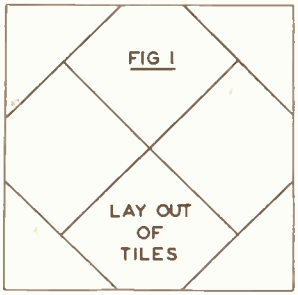
SUGGESTED
HOLDER DESIGN

Renovating a Card Table

WHEN the card table begins to look shabby, it is time to apply severe remedial treatment. And you are recommended to dispense with the old-fashioned baize top by replacing with lino tiles. These are both decorative and easy to keep clean. The table can then be used by the children for games, for a snack by the fireside, or its normal purpose.

You may make a formal design as shown in Fig. 1, which, incidentally, uses the least material, or create an original and modern effect from scraps of surplus linoleum. In the latter case you have to be prepared for the additional task of fitting and cutting. If you have to buy tiles, choose according to your own taste either self colours, mottled, plain or in contrast.

First remove the strips of moulding from the outside rim, taking care not to split the wood, then remove the old baize cover. All tacks must be removed.



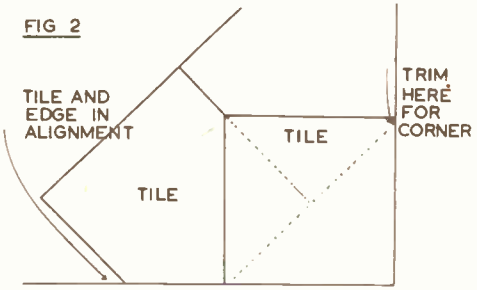
Before proceeding, it is essential to examine the top for any warping of the plywood. Look at the edges, where the plywood is nailed to the cross-members, securing with additional panel pins if necessary. Where the plywood is in really bad condition, it is safer to replace with a piece of hardboard since we must have a good foundation.

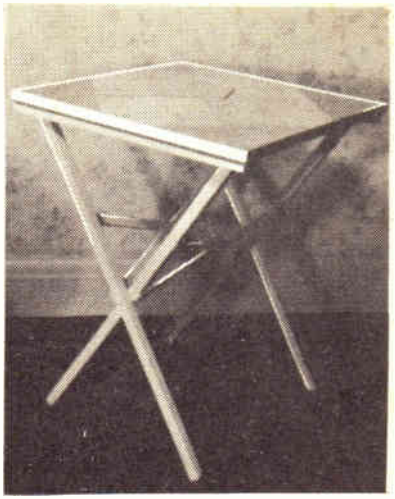
With the top prepared, mark in the diagonal lines with a pencil, giving the true centre of the top. The tiles, which are 9ins. square, may be laid on loosely to form the design, or to decide on the arrangement of the colours.

We now take one tile, laying cornerways at the centre, so that one side just overlaps the edge of the table and as shown in Fig. 2. Holding the tile quite firmly, place a straight edge in alignment with the table edge, so that a guide line may be drawn on the tile with a sharp knife. Note that it is most important that the alignment is correct, for if the tile is cut short, there will be a small gap between the tile and the moulding when replaced. It is better to have the tile a little larger, removing the surplus with a file, than to have the gap for which there is no remedy.

After careful marking, the tile is cut and attached to the table with the special adhesive recommended for this process. Apply the adhesive to the table top with a small piece of celluloid — or you may use the small triangle of lino just cut away — spreading an even coating over that area where the tile will lay and no more. The next tile is then laid in position alongside, fitted, trimmed and attached as before. It will be quite sufficient if even pressure is applied to the tile with a clean duster for the adhesive sets quickly.

With the four central tiles fitted, we turn our attention to the corners, where approximately only half a tile is used. Here we use the diagonal of the tile, with the square angle fitted to the corner of the table. See that the tile fits this corner perfectly, is in alignment with the other two tiles, then mark the fitting points with your knife. Fig. 2





reveals the method of marking off this particular tile, but before attaching to the table, smooth off the joint with glasspaper to give a good fit. Any surplus adhesive should be removed with a damp cloth before it is allowed to set on the surfaces of the tiles.

With the tiles all laid in position, the moulding may now be replaced to the level of the table top. Should it happen that your fitting has not been too accurate, especially at the edges, you may be able to fill in the spaces with a little plastic wood or putty.

A coat or two of hard-gloss paint will make all the difference to the finished appearance of the table, and here again a nice bright colour is suggested. In the table shown, mottled tiles of different colours were used with the exception of the two opposing corners which matched and it was painted in a mushroom colour, six tiles only being used.

The same idea may be used for the treatment of dinner trolleys, buffet tops or kitchen tables. (S.H.L.)

● Continued from page 151

Rebinding Books

Take up the book and lay it, pasted face down on the appropriate cover, seeing that its position is correct. Paste out the other end paper, then draw over the cover, fitting the board into correct position on the end-paper and snug into the ledge on the book spine.

All being well, put the book into the press and give it a nip to fix it, then remove and carefully lift the covers one by one to see if all is as it should be. It may need a little smoothing down here and there, and any surplus paste should be wiped off. Finally, close the book and replace in the press or under heavy weights to dry. Fig. 10 shows the book just before the last cover is brought over into position.

The book-binding proper is finished, but much is still left to the reader if he wishes to improve the book. There is the titling of the book. There is scope here, but the simplest method is to print the title neatly on a label and paste this to the front cover. A single or double line round the edge of the label improves the effect.

Further improvements to the book lie in colouring the edges of the pages (preferably with spatter), and also in decorating the end-papers with repeat patterns. (A.F.)

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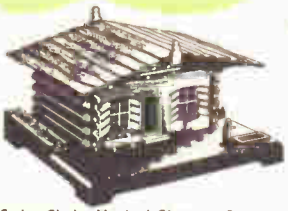

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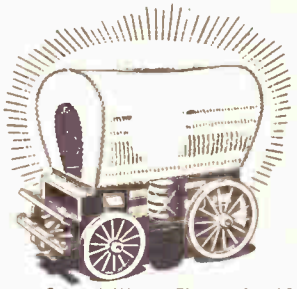

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Youth Hostels are also established for those young — and not so young — folk who desire to spend an out-door holiday on foot, by bicycle, or canoe. You can acquire all information about joining the Y.H.A. by applying to the Youth Hostels Association, Trevelyan House, St. Albans, Herts.

Most hostels provide cooked meals and packed lunches, but all have excellent cooking arrangements for hikers who desire to cook their own meals. All members may use the hostels managed by the Y.H.A., the aims and objects of which Association are concerned with the welfare of our young folk on holiday. No matter whether young or old, the hostels enable you to spend a grand out-door break without need to find any other accommodation than the hostels. In them, open-air devotees find good fellowship with others of like mind, willing, in return for the many advantages obtained by a member, to assist with the hostel work, such as making their own beds, cooking meals, or doing some little job of work, and in general serving themselves and each other.

A tramping holiday

There are few parts of Britain, tempting to the hiker on account of picturesque scenery, where the Y.H.A. sign does not hang out beckoning youth to happy holidays. Armed with his membership card the eager rambler can obtain a bed and facilities for spending a night or more for a modest sum. Sleeping bags can be hired on the spot. Membership is 15s. a year for those over 21, 7s. 6d. for those aged 16 and under 21, and only 2s. 6d for ages between 5 and 16.

To see the best bits of country, to enjoy the glamour of green lanes and brown paths, to tramp across the heaths and fells, one must go a-foot. There is something fascinating about a tramping holiday that appeals to the strain of wanderlust inherent in most of us. But there is an attraction about the walking tour that makes it all great fun.

You will be well advised to give serious thought to the matter when planning your holidays this year. If you take your outing, avoiding the months of July and August, you will find the hostels less crowded, even in very popular areas.

There is no holiday so pleasurable and health-giving as a bicycling tour carrying you into ever-changing scenery and lovely countryside. As when hiking, you can make your own plans and be completely independent; or you can join a party and stay the night at hostels. About 40 miles to double that distance in a day's riding will give you the chance to make acquaintance with a good stretch of country.

Plan your day carefully, and allow an ample margin for stops, rests, explorations, sight-seeing and unforeseen delays. Do not forget to take a useful map of the area you intend to travel. A map with a scale of 1in. to 1 mile is advocated; you will find signs showing hostels marked on the more up-to-date road maps.

Overhaul your bike

See that your bike is in good condition. Before starting out overhaul it and see that brakes and tyres are in perfect order. Check the items you will require, such as lighting-set, tool-case, toilet requisites, etc. Pack spare clothing and essentials in a saddle-bag, or better still, in light-weight panniers carried on a frame over the rear wheel.

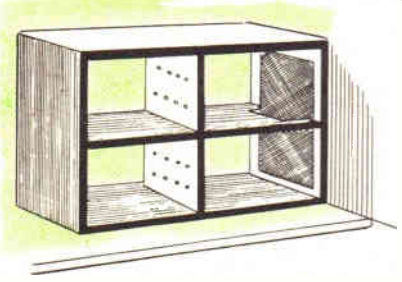
Choice of clothing is important. Open-necked shirts and windproof, zipped lumber jacket that fits nicely will be found very handy and comfy. Remember, it is advisable to have a supply of dry air circulating round your whole body. Thick, tight clothing does not allow this — so wear clothes that give you plenty of freedom. Shorts are very useful, and in wet weather have an advantage over long trousers.

By A. Sharp

Only cheerfully optimistic people would ever think of going on a bicycling tour without a good waterproof cape or 'mac'. Always carry it with you in the pannier or saddle-bag — in case. And be sure to take with you a few essential tools — you never know what sort of a mishap may befall you. Spanners, oil-can, and repair outfit complete with rubber solution and patches should not be forgotten. A piece or two of old cotton rag will probably be useful if you have to do any repairs.

It is a good idea for the would-be cycling tourist to join the Cyclist's Touring Club and be a member. The subscription is £1 1s. 0d. for adults, lesser rates for juniors. Apply, Secretary, C.T.C. 3, Craven Hill, London, W.2. Membership gives many advantages, the C.T.C. caters for cyclists at home and abroad.

AN EXTENDED SAFE



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The addition can be made in four divisions and in hardboard on 1in. by 1in. prepared wood, which will work out cheaper than having to buy boards for the job. As the whole of the fitment is mobile, the end nearest the window does not have a side at all, and is held together with the left-hand outer panel and the main central one. It can extend above and below the window and well out on each side. To permit ventilation, drill a liberal number of holes in the parting walls. Perishable items should be kept nearest to the window, and less perishable will be quite safe in the further compartments. Make it to fit tight, and light doors can be made to hinge or fit in the front. V.S.

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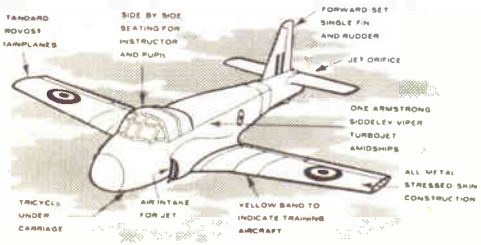

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(M.p.)

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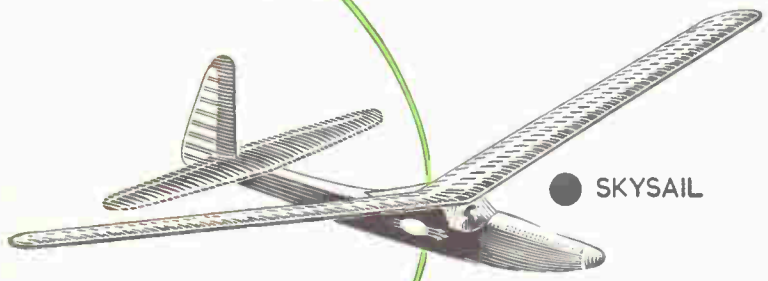

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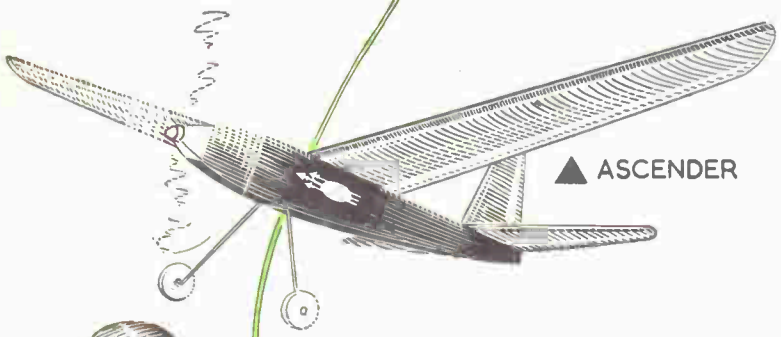

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