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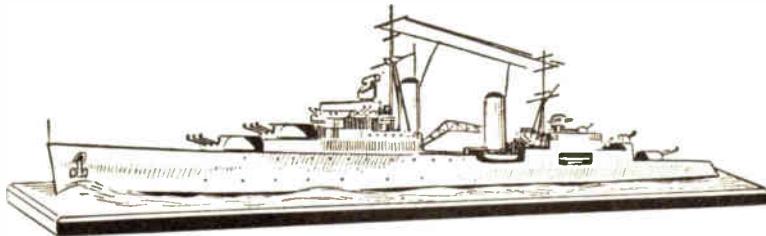
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★ Make it from FREE design inside

*Waterline Model
of a
British Warship*



THE CRUISER 'SUPERB'

MANY of our readers have shown a keen interest in waterline models of famous ships, and we are pleased in response to requests to introduce this new model cruiser, the *Superb*, which is one of the latest of Britain's warships. Carrying a crew of 867, the *Superb* is 555ft. long, and has a beam of 64ft. Our model is to a scale of approximately 1in. equals 45ft., and makes up to 13ins. long. It will make a pleasing addition to the collections of all ship modellers.

To commence, trace the parts from the design sheet on to their appropriate thicknesses of wood as indicated, and cut them out with a fretsaw. Take particular note of the shaping of piece 2,

which gives a downward sweep towards the centre of the ship, and also the scooped-out sections in this piece, in which the small boats will be situated. Clean up all parts ready for assembly.

FOR ONLY 6/11

All the wood, wire, and card, etc., necessary for building this fine model ship are included in Kit No. 3146, which costs only 6/11 from Hobbies branches etc., or post free from Hobbies Ltd., Dereham, Norfolk.

GET A KIT NOW

This should be started by gluing piece 2 to piece 1. Continue building up the superstructure on piece 2 by adding pieces 4, 5 and 6 and so on, as indicated by the dotted lines on the various pieces on the design sheet.

Continue this step by step, building up on the stern of the ship, starting with piece 3 on which pieces 26, 27, 28, etc., are placed. A study of the numbering in Fig. 1 in conjunction with the diagrams on the design sheet will give a clear indication of how the superstructure is built up.

Next the large guns consisting of pieces 15 and 16 should be finished. Glue these in position on pieces 14, two

•Continued on page 291

All correspondence should be addressed to The Editor, Hobbies Weekly, Dereham, Norfolk

**For Modellers, Fretworkers
and Home Craftsmen**



PAGE 289

A fascinating hobby

CANEWORK BASKETRY

BASKETRY is one of the oldest of man's handicrafts, but only a few people practised it until recently, as it was thought that it needed a high standard of skill. However, a system of weaving on to plywood bases has been introduced. While the true basketry 'strokes' and basic methods are still used, the craft has been greatly simplified, and the making of such items as wastepaper baskets, lampshades and flower baskets in cane can now be done by any keen hobbyist.

Tools Needed

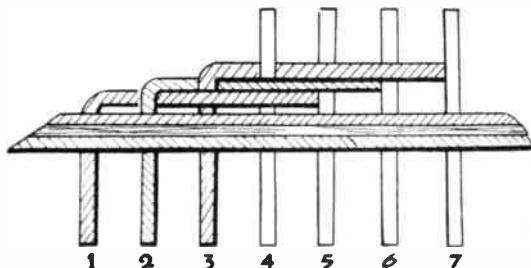
First, a word about the tools and necessary materials. The tools required are few and sufficiently common to be in every craftworker's kit. They include a really sharp knife, a ruler and Bradawl. A pair of round-nosed pliers for kinking cane will be invaluable, while to make the cutting of cane on the inside of

could well be home-made it will probably be more satisfactory if these, too, are purchased. They are of $\frac{1}{8}$ in. or $\frac{1}{4}$ in. ply of birch, alder, and similar light-

~~~~~  
*By Christopher Allan*  
~~~~~

coloured woods, and carry a series of holes drilled through the face at a short distance from the edges, these holes being intended for upright stakes. They can be obtained in oblong, square, circular and oval shapes, in a wide variety of sizes. Thus, square bases can be obtained with sides 3ins. to 14ins. or 16ins. long, and ovals and oblongs of all sizes up to a maximum of 12ins. by 18ins., suitable for trays, etc., are similarly obtainable.

The price of these bases will vary



finished work easier, a pair of side-cutting pliers will be found useful.

Cane is usually sold in hanks of $\frac{1}{2}$ lb. weight, though many firms supply the material in smaller hanks at a correspondingly cheaper price. This cane is white in colour and comes from China, the Netherlands East Indies and neighbouring regions, being the core of the rattan palm. Very long lengths are obtainable (a $\frac{1}{2}$ lb. hank may consist of only a few strands), it is of circular shape, and its size is indicated by a number such as 'No. 3 cane', 'No. 8 cane', and so on. This is an easier system of describing cane than by its diameter, which may range from 2mm. for size 3 cane up to 4 $\frac{1}{2}$ mm. for size 16 cane.

In addition to the round centre cane an oval-shaped 'lapping cane' can be purchased by the foot, and can be obtained in various colours such as pink, red, cream, green and yellow. It is used for wrapping around the handles of baskets or to add a touch of colour to the work. Lapping cane is not used to any great extent by the beginner, who will find that centre cane of sizes 3, 5 and 6 are the most commonly used.

Although the necessary plywood bases

according to size. Some makers' stocks are rather cheaper than others, but prices of from 5d. to 5/- represent the average range for bases of, say, 3ins. to 16ins. diameter. Usually such bases have one completely defect-free face, so that it may be stained, painted, polished, etc., as desired, and it is also possible to buy bases having a plastic or similar decorative surface. These, however, are rather expensive and are not recommended for beginners' use.

Practise the Strokes

Before seriously attempting any canework it is advisable to practise the various weaving strokes. This can best be done by drilling a series of holes $\frac{1}{8}$ in. apart on a strip of plywood and using this as a practice board. The holes should be about $\frac{1}{8}$ in. in diameter. A supply of sizes 3 and 5 cane will be needed, and this is not necessarily wasted, as it can be resoaked and used afresh.

Centre cane must be made pliable before it can be worked satisfactorily. To do this it must be soaked in a bucket of water for ten minutes, and as it has a tendency to float, it must be anchored down, so that it gets thoroughly wet.

After removal from the bucket it should be warped in a damp cloth for a further twenty minutes before being used. It is also important to note that once weaving has started the cane must never be allowed to dry out, or it may tend to break rather than kink, and will not weave easily. When it becomes dry, therefore, it should be damped with a wet cloth.

With the material in a pliable condition, cut off a suitable number of 12ins. lengths of No. 5 cane, and thread each through a hole in the plywood, allowing each to project about 3ins. through the bottom.

The first attempt at weaving should be a 'foot trac', which is a type of border used to secure the upright stakes and to raise the base. The border is shown in Fig. 1.

To make the explanation easier to follow, the uprights have been numbered 1, 2, 3, and so on. The plywood is turned upside down, and where the stakes pass through the base, they are nipped with the round-nosed pliers, so that they will kink more easily.

Follow this Order

Stake No. 1 is bent down behind No. 2, passes in front of Nos. 3 and 4, and is then left inside No. 5. Similarly, stake No. 2 is bent behind No. 3, passes in front of 4 and 5, and is then left inside No. 6. When the border is woven as far as possible, spare ends of the stakes inside the border may be cut off with the side-cutting pliers.

The making of a continuous trac border and some other weaving strokes will be considered in the next article in this series.

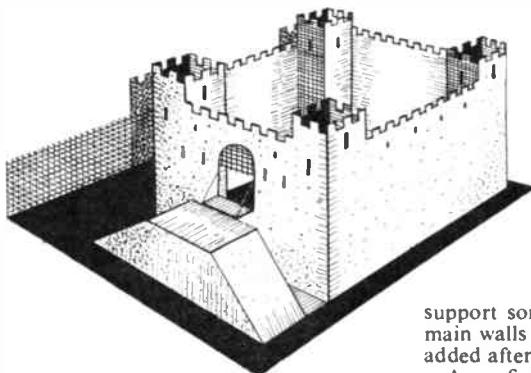
FOR YOUNG FRETWORKERS

On pages 296 and 297 will be found the first of a series of fretwork patterns which will be published to assist newcomers to "get the feel" of this fascinating hobby. Experienced fretworkers will also find the projects well worth making up.

It is suggested that the complete centre page should be carefully withdrawn by lifting the wire binding staples to facilitate tracing the various parts. The pages can later be replaced to keep your copy of *Hobbies Weekly* intact.

Made from Strawboard

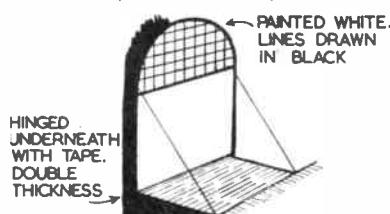
A TOY FORTRESS



THE toy soldier fortress illustrated is made from strawboard, a heavy type of cardboard. One big advantage of using this material is that it can be easily cut with a sharp knife. Strawboard is sold by shops which stock artist's materials and one sheet measuring 34ins. by 24ins. costs approximately 2/-.

All the various pieces of the fort are held together by pieces of gummed paper which has great strength when two pieces are gummed over each other. Experience has taught the use of a finger dipped in a glass of water as a moistener when wetting the gummed paper.

From the diagrams illustrated, the various pieces are marked out on the strawboard, then carefully slit apart



The drawbridge

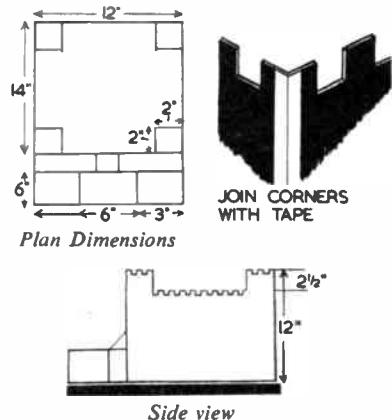
with a keen bladed knife. The fort components are built on a base measuring 12ins. by 22ins., being securely held together by strips of gummed paper. For further strength add one or two extra strips at the corners.

The drawbridge is also hinged with strip paper and two pieces of cord are added to help the appearance of authenticity. The portcullis is painted by using a water-colour brush and Indian ink. Windows in the towers and sides of the fortress are also applied with the same brush.

When constructing the towers a platform could be added roughly 1½ ins. from the top of the walls. This is to

Described
by
James
MacIntyre

More walls and towers, a moat surrounding the whole fortress or, perhaps, a miniature platform around the walls, could be added. Or again, if photographs of famous castles and fortresses are available there is nothing to prevent the reader from constructing exact replicas.



Side view

Continued from page 289

British Cruiser 'Superb'

at the forward end and one aft. Continue by assembling and fixing the small guns, torpedo tubes, boats and other equipment. Note the positioning of the crane (22) behind the forward funnel.

The masts should now be assembled from wire and card. The sections can be soldered together or bound with thread and glued. Holes should be drilled in the appropriate positions on the decks to receive the legs of the masts, and a touch of glue applied.

At this stage, fix the completed assembly to the base which is cut from stripwood and $\frac{1}{4}$ in. fretwood to the dimensions given on the design sheet. Secure the ship by screwing from underneath the base with $\frac{1}{4}$ in. screws. Alternatively, the *Superb* can be glued to its base.

The model should now be painted all over, preferably a battleship grey with a matt finish such as is obtained with poster paint or a flat undercoat.

Readers may have their own ideas on the simulation of the sea which is painted on the base. A good effect can be obtained, however, by the following method. First paint the top of the wood base blue, allow to dry and then coat with glue. Lay on this a covering of thin Cellophane and before the glue sets,

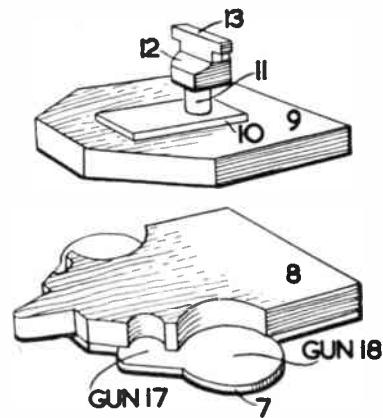


Fig. 1

this can be pushed and manipulated to form wrinkles which make realistic scale-sized ripples. Paint the top of these ripples white round the ship and in her wake. An imitation sea can also be made with Plastic wood, glue and sawdust or plasticine suitably painted. There should, of course, be a slight bow wave and a stern wash.

For your home

AN EXTENDING TABLE

DEIGNED on more simple principles than the commercial pattern of extending table, the one illustrated is easier to make, and quite within the scope of the average wood-worker. It extends from its normal length of 3ft. to double, providing extra space on party occasions.

By W. J. Ellson

A side section of the table is shown in Fig. 1, and an end elevation in Fig. 2. As the area dimensions are the same, the table being a square, measurements not found in Fig. 2, can be gained from Fig. 1. For construction, beech is suggested for the legs and oak or other suitable hardwood, which will take a stain to imitate it, are recommended for the rails and slides of the extending parts of the table top. For the tops, both extending and fixed, deal will serve for the frames, with a covering of $\frac{1}{4}$ in. plywood, thus avoiding the rather troublesome business of gluing boards together, edge to edge.

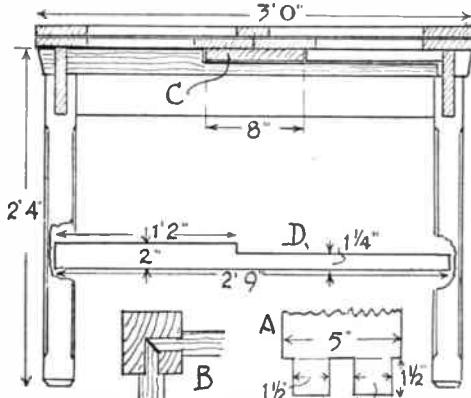


Fig. 1

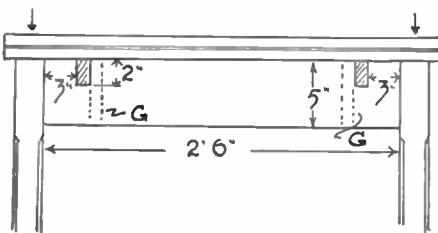


Fig. 2

Take the legs, and at 6ins. down from the tops, chamfer their corners to 4ins. short of the bottom ends. The actual ends are bevelled off, as seen in the drawings. Cut the rails to length, plus tenons. At detail (A) the tenons are reduced as a useful guide. The rails are reduced to $\frac{1}{2}$ in. thick at the tenon ends, a $\frac{1}{4}$ in. slice of the wood being sawn off each side. Set out the mortises for these tenons on the legs, positioning them for the rails to be exactly central in their width. As the tenons of adjacent rails will meet in the mortises, as at (B), they must be bevelled off to 45 degrees.

Slots for sides

At one end of the table, shown in Fig. 2, a couple of slots are cut for the passage of the slides (to be dealt with later). Similar slots are cut for the same purpose in the opposite end, but as the slides working through these will be inside those of the opposite end, the position of the slots must be at distances of 4ins. from the legs, as will be fairly obvious. Glue all together, and knock the joints well home. Leave for a while for the glue to set hard. Metal plates, shown by dotted outline (G) could use-



Fig. 3

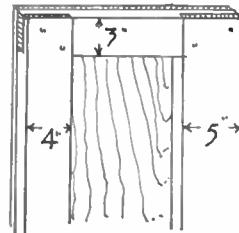


Fig. 4

fully be screwed to the rails, inside, to prevent the wood splitting between the slots.

The frames for the table tops can now be made up. The one for the fixed top,

CUTTING LIST

Legs.	(4). 2ft. 4ins. by $2\frac{1}{2}$ ins. by $2\frac{1}{2}$ ins.
Rails.	(4). 2ft. 9ins. by 5ins. by 1in. 2ft. 7ins. by 8ins. by $\frac{1}{4}$ in.
Slides.	(4). 2ft. 9ins. by 2ins. by 1in.
Extending tops.	(2). 2ft. $11\frac{1}{2}$ ins. by 4ins. by $\frac{1}{4}$ in.
Extending tops.	(4). 1ft. $5\frac{1}{2}$ ins. by 3ins. by $\frac{1}{4}$ in.
Extending tops.	(2). 2ft. $11\frac{1}{2}$ ins. by 5ins. by $\frac{1}{4}$ in.
Fixed top.	(2). 2ft. $11\frac{1}{2}$ ins. by 4ins. by $\frac{1}{4}$ in.
Fixed top.	(2). 2ft. $11\frac{1}{2}$ ins. by 3ins. by $\frac{1}{4}$ in.
Fixed top.	(1). 2ft. 6ins. by 3ins. by $\frac{1}{4}$ in.
Edging strips.	22ft. run of $\frac{1}{4}$ in. by $\frac{1}{4}$ in. wood.
Panels of plywood.	1—2ft. $11\frac{1}{2}$ ins. sq. and 2—2ft. $11\frac{1}{2}$ ins. by 1ft. 5ins.
dowel rod.	6ins. 4 metal plates (G) $\frac{1}{4}$ in. by 5ins.

as we can describe it, is 2ft. $11\frac{1}{2}$ ins. square, with a central bar notched in. Deal of 4ins. width for the ends, with 3ins. wide stuff for sides and middle bar. For the extending parts, two frames of length 1ft. $5\frac{1}{2}$ ins. by width of 2ft. $11\frac{1}{2}$ ins. will be needed. The timbers for these are detailed in Fig. 4. Note here that the 5ins. sized ends of these are to meet together, when in position on the table, under the fixed top, and the corner joints of all just halved together and glued. The slides are screwed to these to permit of their being drawn apart far enough for the fixed top to fit between, and thus extend the length of the table.

Cover all three frames with plywood, glued and pinned over, then hide the edges with strips of $\frac{1}{4}$ in. fretwood $\frac{1}{4}$ in. wide. The meeting edges of the extend-

• **Continued on page 293**

The Syrian Heart Wire Puzzle

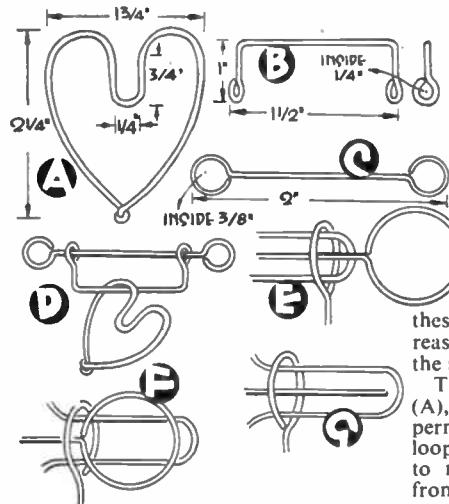
PEOPLE of all ages are interested in wire puzzles and will generally 'have a go' in order to try and prove their skill. Some puzzles are easy to make, and when you know how, are equally easy to solve.

Being small and compact, wire puzzles can be carried about quite easily, and are ready to use on your friends on all occasions. With 'time on your hands' on a bus or train journey, or when waiting in a queue, a puzzle of this type can be an ideal companion and help to relieve what might otherwise be a monotonous period.

The Syrian Heart is an excellent example of a wire puzzle which can be made from a length of wire in a short time. A pair of ordinary pliers will do the job, but a neater finish will be achieved if the loops are made with round-nosed pliers.

Iron wire of 16 or 18 S.W.G. is probably the best type to use, and will not be difficult to bend to the correct shape. Either of these gauges will retain their shape reasonably well, the 16 S.W.G., being the stoutest, of course.

The puzzle consists of three parts (A), (B) and (C), the bar (C) being permanently fixed through the two loops of (B). The object of the puzzle is to remove the heart-shaped wire (A) from the other pieces without bending



the wires or forcing them in any way.

Apart from the measurements mentioned below, considerable variation is possible without affecting the working of the puzzle. However, the loop in the heart-shaped piece (A) must not be any wider or any shorter than in the drawing, and the rings in (B) and (C) must be exactly as given.

By A. F. Taylor

The complete puzzle is shown in Fig. (D), with the heart-shaped piece (A) hanging on loop (B). In the next three drawings the solution is given in detail. Starting with (E) the loop of the heart piece (A) is just entering one of the rings in piece (B) with the large ring (C) lying flat on the heart loop.

Continue sliding the ring (B) until it reaches the end of loop (A) as shown at (F). It is now only necessary to give the large loop in (C) a quarter turn as in Fig. (G), pass it through loop (A) and slide (B) off. Replacement is just as easy.

●Continued from page 292

An Extending Table

ing frames are not so covered, it not being necessary. As a concession to neatness, mitre the ends of these covering strips. Place all three tops aside for the moment and proceed with the cutting of the slides.

Firstly, across the rails of the table fit an 8ins. wide board of deal, exactly at the middle. This is shown in Fig. 1 at (C) and can be notched into the rails, or screwed to wood fillets, nailed and glued to the rails beforehand at the correct distance down for (C), when fixed to them, to be just level with the top edges of the rails. The slides, lettered (D) in Fig. 1, four of which will be needed (two to each extending frame) are cut to the shape shown.

A half plan of the underside of the table is given in Fig. 3, showing the position of the slides. Place the extending frames of the table upside down on a bench, and then position the table, also upside down, upon them. See the tops extend an equal amount over the table. Place the slides in their respective slots, as in the diagram, and taking particular care to see they are truly parallel

in pairs, screw them to the underside of the frames, two screws to each slide.

To guide them in their travel, nail fillets of wood against them, as at (E), these being not so close as to impede the free passage of the slides. The fillets are nailed to middle bar (C). Bring the table right side up, draw the extending frames aside, and try the fixed top between. All being well, remove fixed top, close extensions together, then replace the fixed top above them.

Keep all three in their correct respective positions, either with hand cramps, or the assistance of a friend, then at each corner of the fixed top, and in a position directly over the centre of the legs beneath, drill $\frac{1}{8}$ in. holes through and about $\frac{1}{8}$ in. into the legs as well. Cut four pieces of $\frac{1}{8}$ in. dowel rod, about $1\frac{1}{2}$ ins. long each, and glue these into the corner holes in the fixed top, to extend beneath about $\frac{1}{8}$ in. or a trifle less and form pins, which will keep the fixed top in its place, table extended or normal.

It would be as well, to prevent the extending frames being drawn too far out, to fit a metal stop to each slide.

This is quite a simple job. Cut four strips of metal $\frac{1}{8}$ in. wide and 2ins. long, and screw one to each of the fillets (E) in the position indicated at (F) in Fig. 3. These cover the slides. Draw the slides apart, enough to let in the fixed top between, then drive a nail or screw into each slide to butt up against these stops and so prevent further movement outwards. It will be noticed in Fig. 3, that only two such stops are shown, but the diagram is a half plan. The stops for the other two slides would be screwed to the fillets at the ends not in view.

One final point. If, when closing the extending table to normal, the meeting ends of the slides tend to catch, just bevel off a trifle at their ends. They will then glide past each other quite freely. Finish the table by staining and polishing, or varnishing, to the tone preferred.

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A PORTABLE BOOKCASE

By F. Gilson

THIS useful bookcase can be packed into a parcel measuring 34ins. by 6½ins. by 2½ins. Consequently it is easy to transport, and to store until required. Strong and firm, the shelves are deep enough to hold many large books. To assemble takes only a few minutes. Students, especially, will find it most serviceable, on account of its convenient size and easy portability.

It is made throughout of $\frac{1}{2}$ in. thick wood, and consists of seven lengths (4 shelves, 2 sides, and 1 locking piece on the top shelf). Eight wooden pegs are also required for keeping the shelves firm.

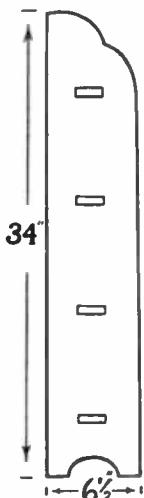


Fig. 3 Top of Side

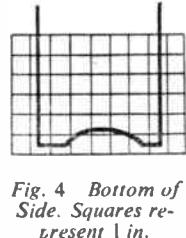


Fig. 4 Bottom of Side. Squares represent 1 in.

Fig. 2 Side

Make the sides first (Fig. 2). Two pieces of wood are needed, each 34ins. by 6½ins. Shape the top as indicated in Fig. 3, and the bottom as Fig. 4. In each of the sides make four slots, 2½ins. wide and $\frac{1}{2}$ in. deep (Fig. 2).

For each of the four shelves, take the $\frac{1}{2}$ in. wood, 28ins. by 6½ins., and cut it as in Fig. 5. The holes (A) and (B) are to receive wooden pegs. Each peg should be cut from a piece of the $\frac{1}{2}$ in. wood, and measures 3ins. by $\frac{1}{2}$ in. Taper gradually to $\frac{1}{2}$ in., so that the peg can be inserted half way in the hole (Fig. 6).

The top locking portion is cut from wood, 25½ins. by 5ins. Shape according to Fig. 7. To receive this, a slot $\frac{1}{2}$ in. deep, and 2½ins. long, needs to be cut in each of the side pieces.

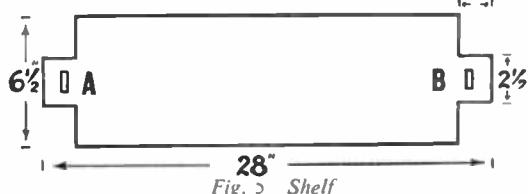


Fig. 5 Shelf

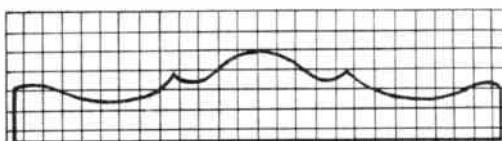


Fig. 7 Locking Piece

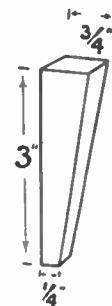


Fig. 6 Peg

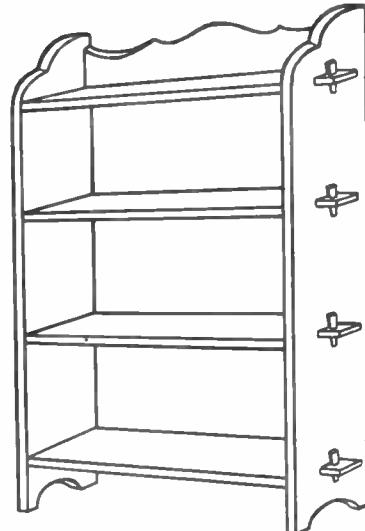
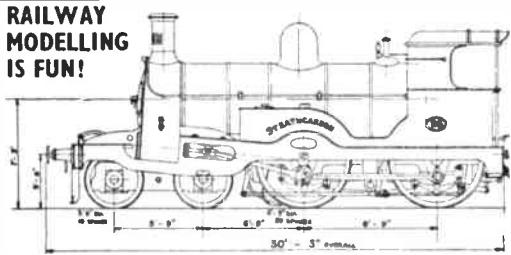


Fig. 1 The Bookcase assembled

Fit all the pieces carefully together, and push the eight pegs into the holes. Then, having tested the bookcase for rigidity, take it apart. Stain and varnish each of the seven pieces, including the pegs. When dry reassemble.

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Better Short-Wave Listening

MOST present-day receivers have a short wave range, yet few people make much use of this. They may try it when the set is purchased, but soon decide that it is not worth bothering with. There is, however, actually much of interest on the S.W. band, and it is hoped that a few notes will help listeners to obtain more enjoyment from it, no matter whether they have a commercially-made receiver, or a special or home constructed S.W. set.

Reception Differs

Reception on the S.W. bands is very different from that on the Medium and Long Wave bands. First, S.W. signals travel much greater distances, so that world-wide reception is possible. Secondly, the various 'bands' come into use at certain periods of the day. Finally, tuning is very critical, due to the small separation of stations. For example, on the Medium Wave band of 200 to 550 metres several metres are usually allowed between stations. But with S.W. stations this is not so. Between 25 M. and 26 M., for example, in a space of only one metre, there are over two hundred transmitters, any of which could be picked up in this country when conditions are favourable.

Aerial System

Powerful stations in U.S.A., Africa, etc., will generally be audible with even a poor inefficient aerial. But much better results will be had from a good outdoor aerial, which will give a stronger signal, especially from weak stations.

Fig. 1 shows a simple S.W. aerial of good type. It should be as high as possible, and the down-lead must be as far from walls, etc., as can be arranged. A distance of less than 2ft. from the house should be avoided. Signal pick-up in the down-lead will then be good, and the horizontal portion may be omitted altogether, if circumstances make this necessary. For the one shown (known as an Inverted L) a length of 7/22 or similar wire (that is, having 7 strands of 22 S.W.G.) is best, and the whole can be 45 to 60ft. The wire is uncut right from the receiver, forming one uninterrupted length. The farther it is from trees, walls, chimneys and gutters the better, and two insulators should be used at each point of suspension. It will also give very good M.W. and L.W. reception.

S.W. 'Bands'

Stations do not appear all round the S.W. tuning scale, as they do round the M.W. scale. Instead, most are congregated into 'bands' of only a metre or so,

blank spaces (or Morse stations) arising between.

The more important bands are as follows:

<i>Wavelength</i>	<i>Usual Name</i>
13.8 to 14 metres	13 metre band.
16.7 to 17 metres	16 metre band.
19.1 to 20 metres	19 metre band.
24.5 to 26 metres	25 metre band.
29.5 to 32.5 metres	31 metre band.
40 to 43 metres	41 metre band.
47.5 to 51 metres	49 metre band.

There are also amateur transmitter bands, those most used being the 20 M. and 40 M. bands, corresponding to actual wavelengths of around 21 M. and 42 M.

Other stations will, naturally, be found outside these bands, but they are relatively few.

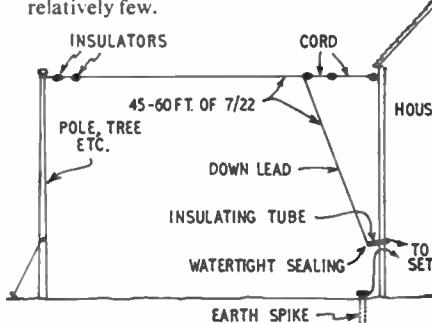


Fig. 1.—Aerial for all-wave reception

As darkness moves round the Earth, the propagation of S.W. signals varies. Because of this various bands come into use, then sink into disuse, every 24 hours. The hemisphere from which signals come best also depends on the time of day. For example, in the early morning strong signals may be received from Australia, on the 25 M. band, yet none from U.S.A., while Australia may be inaudible during the evening, but the band crowded with U.S.A. and other 'local' stations. In general, the following results will most often be obtained on the various bands.

13 M. band. Afternoon, Far East (Japan, China, Philippines).

19 M. band. Morning, European. Afternoon, Far East, Near East and Africa. Evening, U.S.A.

25 M. band. Morning, Australia and European. Afternoon, Asia. Evening, Europe, Africa, Americas.

31 M. band. Early morning, Australia. Evening and Night, Asia and Americas.

41 M. band. Early evening, Asia and Africa. Night, U.S.A., Asia and Africa.

49 M. band. Afternoon, Europe. Night, U.S.A. and Africa.

Conditions vary—some days a remote station may be loud, and another it may be unheard. 'Local' stations such as those in Germany, France, Italy and Russia will usually be audible on almost any band at any time, but the above gives a good indication of the manner in which more distant stations usually grow audible. Hundreds of stations announce in English, or give English programmes. When these are heard, they may be noted down, with the time, for reference.

Careful Tuning

Even very powerful S.W. stations require to be tuned in very accurately. With weak stations, *very slow* tuning is essential—otherwise it is possible to tune right through a station without hearing it. Almost at once various European and U.S.A. stations will be

By F. G. Rayer

heard. Radio Moscow also radiates at great power. But for really distant reception these powerful signals should be ignored, and a search made for weak stations.

More than anything else, long-distance S.W. reception depends on the user. Patient, slow tuning is required. If one band seems dead, attention may be given to another. During winter evenings most bands are worth attention.

Some Stations

So many S.W. transmitters exist it is impossible to list them all, and such lists may be purchased. Below are given some of the more easily-received stations, which anyone should be able to tune in after a few days practice. These have English programmes.

Rome. 13.91 M. 16.85 M. 19.58 M. 25.2 M. 30.67 M.

Moscow. 100 stations in 19, 25, 31, 41 and 49 M. bands.

Ankara. 16.84 M. 19.79 M. 25.51 M. Switzerland. 19.84 M. 25.28 M. 31.43 M.

U.S.A. 13.88 M. 16.78 M. 19.57 M. 25.21 M.

Australia. 16.82 M. 25.21 M. 30.99 M.

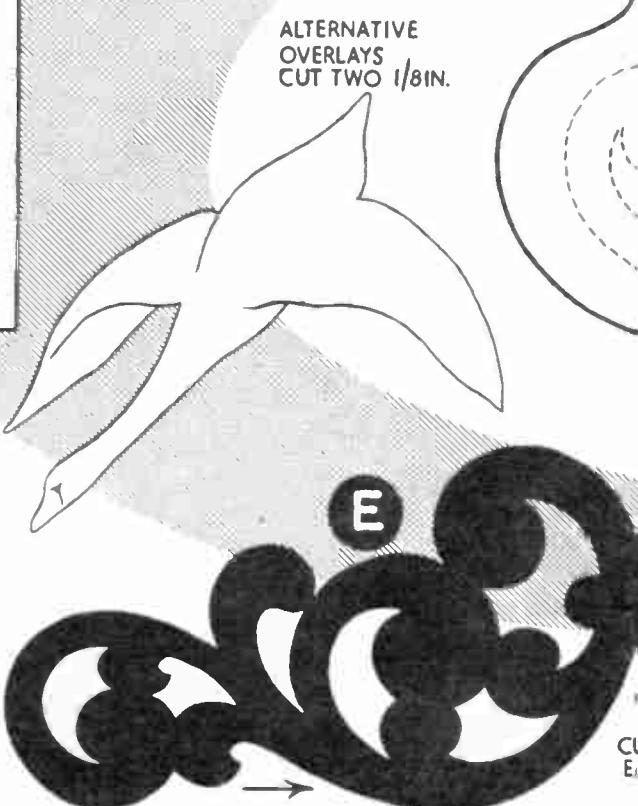
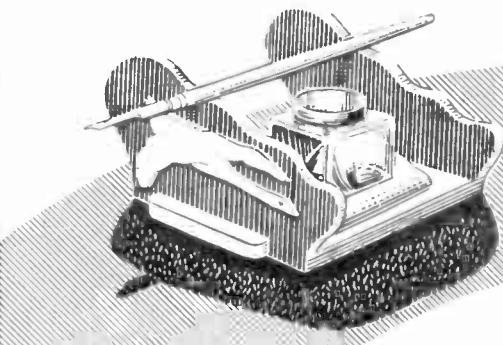
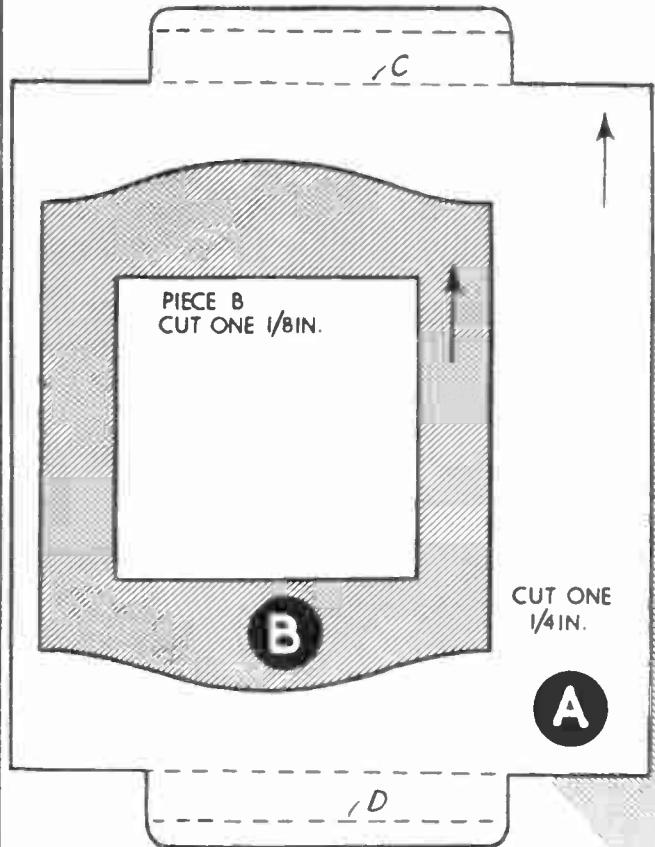
Conversion into metres

Many stations give frequencies instead of wavelengths. These are in megacycles, and may be converted into metres by dividing into 300. E.g., 31.25 M. is 9.6 megacycles, etc. Some stations use the same wavelength as others, but operate at different hours.



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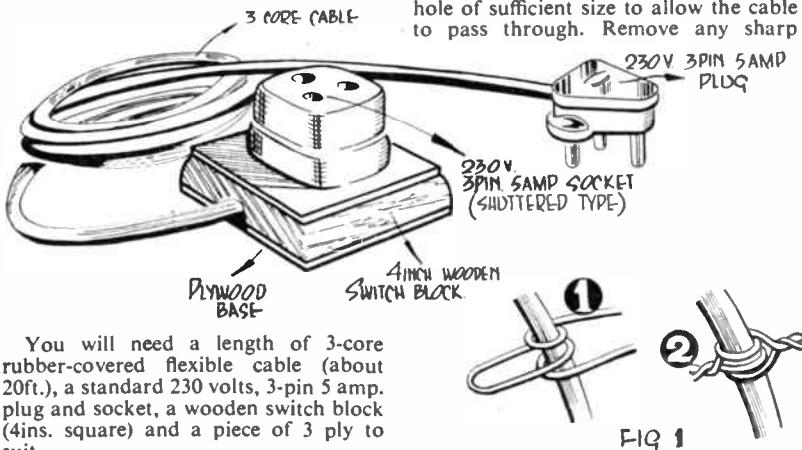
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CUT ONE OF
EACH 1/4IN.

CIRCLES
OMITTED
IF ALTERNATIVE
OVERLAY IS
USED

OVERLAYS
E & F
CUT ONE OF
EACH 1/8IN.

An Electric Extension Lead

FOR owners of the various types of portable electric drills, this extension lead will prove a very useful item.



You will need a length of 3-core rubber-covered flexible cable (about 20ft.), a standard 230 volts, 3-pin 5 amp. plug and socket, a wooden switch block (4ins. square) and a piece of 3 ply to suit.

First cut the plywood to fit the base of the switch block and drill it with four countersunk holes for screwing on. In the centre of one side of the block drill a hole of sufficient size to allow the cable to pass through. Remove any sharp

edges each side of the hole.

The 3-pin socket is now fitted to the block. This is done by removing the cover, placing it in the centre of the block and marking through the fixing holes. Three holes about $\frac{1}{8}$ in. diameter should be made for the wires to the socket. These can be marked through in the same way as for the fixing screws. Screw the socket into position.

The cable is now passed through the hole in the side of the block and the ends stripped back for connecting to the appropriate sockets.

To prevent the wire from pulling out it is cleated as shown in Fig. 1. This cleat is made from 20 S.W.G. copper wire and twisted up tight with pliers.

Now connect the leads as follows:— Red to 'L' terminal, Black to 'N' and Green to 'E'. At the other end of the lead the 3-pin plug is fitted in a similar manner.

Finally fit the plywood base to the block with small brass countersunk screws. (J.A.H.)

Protect Fish from Fungus

ONE of the commonest diseases to which fish are prone is fungus, attacking as it does both wild fish, especially the game species as salmon and trout, and also aquarium and pond varieties. Fish confined in tanks are peculiarly susceptible to its ravages.

Fungus (*Saprolegnia ferax*) is a growth that affects any part of the body of a fish, occurring, in its earlier stages, chiefly in small patches. Injured fish are liable to the disease, which also attack weakly fish and those in poor condition following a strenuous spawning experience. In this latter category we have 'kelt' salmon, many succumbing to it after the spawning season.

The ailment is easily recognised; it is a growth appearing in the form of white or greyish threads protruding in clusters from the body of a fish. In its early stages it may be rubbed off with your fingers, and many fish so treated have ultimately recovered. Fungus is rooted in the skin, and often affects the underlying muscles; if it gets into the gills it is beyond remedy, causing in time the death of the affected fish. Otherwise there is a chance of saving the victim.

As wounded and injured fish are more liable to develop fungus than healthy ones, it cannot be too strongly urged

upon all who handle live fish from time to time to exercise greatest care when doing so, being particular not to injure the scales.

Fungus is thought to menace all kinds of freshwater fishes, and on occasions the disease has caused high mortality in various waters. In the hatcheries where thousands of fish are confined, lack of cleanliness, and the neglect of clearing out any deceased fish, and also uneaten food decomposing at the bottom of tanks and ponds may well predispose the fish to contract fungus. Attention to these details will help to minimise the trouble.

Placing affected fish in a bath of salt and water, or in a solution of permanganate of potash, is recommended as a likely cure. In *River Management* (Lonsdale Library) by H. E. Towner Coston, the following treatment is said to be satisfactory: 'Put the affected fish into a 3 per cent solution of common salt and leave them there until they show signs of distress. Slightly affected fish need only one bath, but if the disease has taken a firm hold, successive baths may be needed. Another method consists of dipping the fish into a bath of one part copper sulphate per 2,000 parts of distilled water, for one minute.'

Fungus has been described as the

'aquarist's enemy' and it certainly is a troublesome thing. An important matter is to detect it in good time, before it can become deep-seated. As soon as the disease is seen and identified, get the salt bath going. An easy way of measuring the strength of the solution is in the ratio of one ounce of salt to one gallon of water.

Be sure and have your tank emptied of its contents and thoroughly sterilise it before returning the fish after treatment. It is as well to retain the unaffected fish in a suitable receptacle for a few days until you feel sure that none of them have developed signs of the fungus. Do not put back the affected fish until you are sure they are quite cured. Spratts Patent, Ltd., supply a good steriliser, Spratt's Germicide, for purifying the aquarist's tank or aquarium. This can be obtained from most dealers of aquarium supplies.

You can help to avoid your fish contracting this disease by stocking your tank with only healthy fish in the first place. Then, when introducing additional new stock, keep the same in a separate vessel for a little time, two or three days, to ensure there is nothing wrong with them. One affected fish put into your aquarium among your stock can do considerable harm. Do not overcrowd your fish. Keep the tank clear of decomposing food, etc., as much as you can, and see that the water is well aerated. (A.S.)



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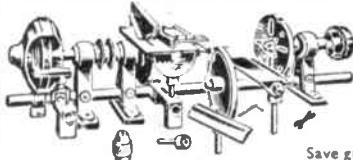
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With it seeds can be sown the correct depth. The V-point of the tool opens out just the right shaped drill for most kinds of seeds that are sown in the open. No need to improvise with a hoe when you can make a proper tool for the job.

The fretsaw is used to make the head of the tool, which is cut from 1 in. thick wood. Use hardwood, preferably oak, and choose a piece which is free from knots and shakes. You will need a piece just over 9 ins. by 6 ins.

*And be
ready to
start the
first sowing
of the
season*

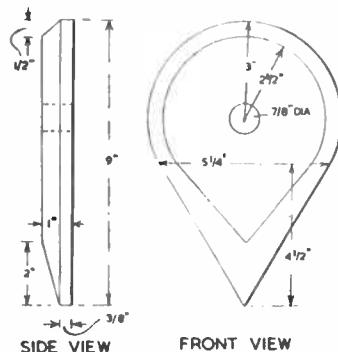


Fig. 1



Fig. 3

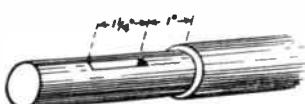


Fig. 4

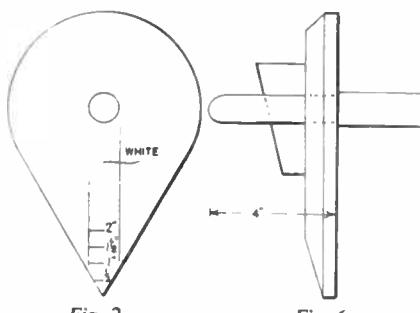


Fig. 2

Fig. 6

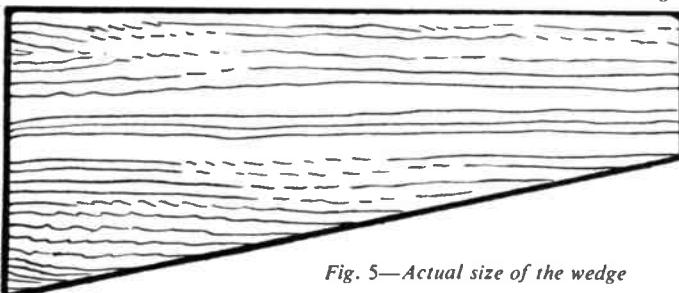
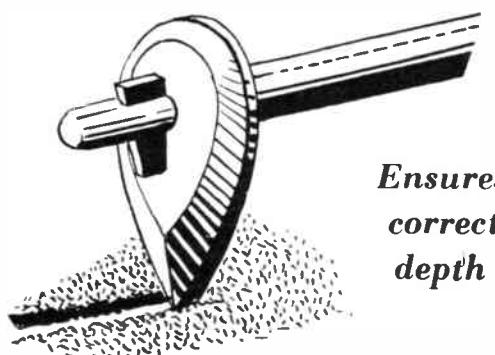


Fig. 5—Actual size of the wedge



*Ensures
correct
depth*

Mark out the shape shown in Fig. 1, using compasses and rule where possible. Note that the 3 ins. and 2 1/2 ins. circles must be scribed before cutting out the central hole. Cut round the outline and then chisel away the sides to make a chamfer all round. The angle of the chamfer varies as you can see from the side view. When most of the wood has been chiselled away, you can finish off with a rasp or wood file and then with coarse glasspaper. Finally rub down with fine grade glasspaper and give two or three coats of brush polish.

The back of the head can be marked out with depths from 1 in. to 2 ins. or even 4 ins., as shown in Fig. 2. Paint a strip about 1 in. wide with white paint or

enamel, giving two or three coats in order to obtain a really durable finish. The markings can be made with black paint, using a fine-pointed water-colour brush.

Next make the shaft, using a hoe or pitchfork handle. Cut it about 5 ft. 4 ins. overall and shape one end with a shoulder as shown in Fig. 3. The slot is for the wedge which holds the head in place. Cut the slot 1 1/2 ins. long as shown in Fig. 4. It should be just over 1 in. wide to take 1 in. wood.

The wedge is shown full size in Fig. 5. It is cut from 1 in. oak or other hard wood and cleaned up ready for inserting in the handle. Fig. 6 shows how the wedge is inserted to hold the head in place. It must be given a gentle tap to fix it securely and prevent it falling out when the tool is in use.

After a final rub down with glass-paper, the tool can be given two or three coats of brush polish and a coat of varnish. Allow to dry for at least three or four days before attempting to use in the garden. (M.h.)

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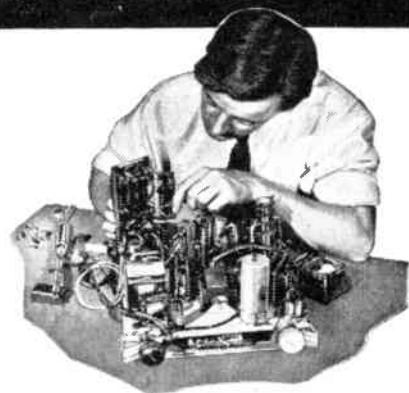
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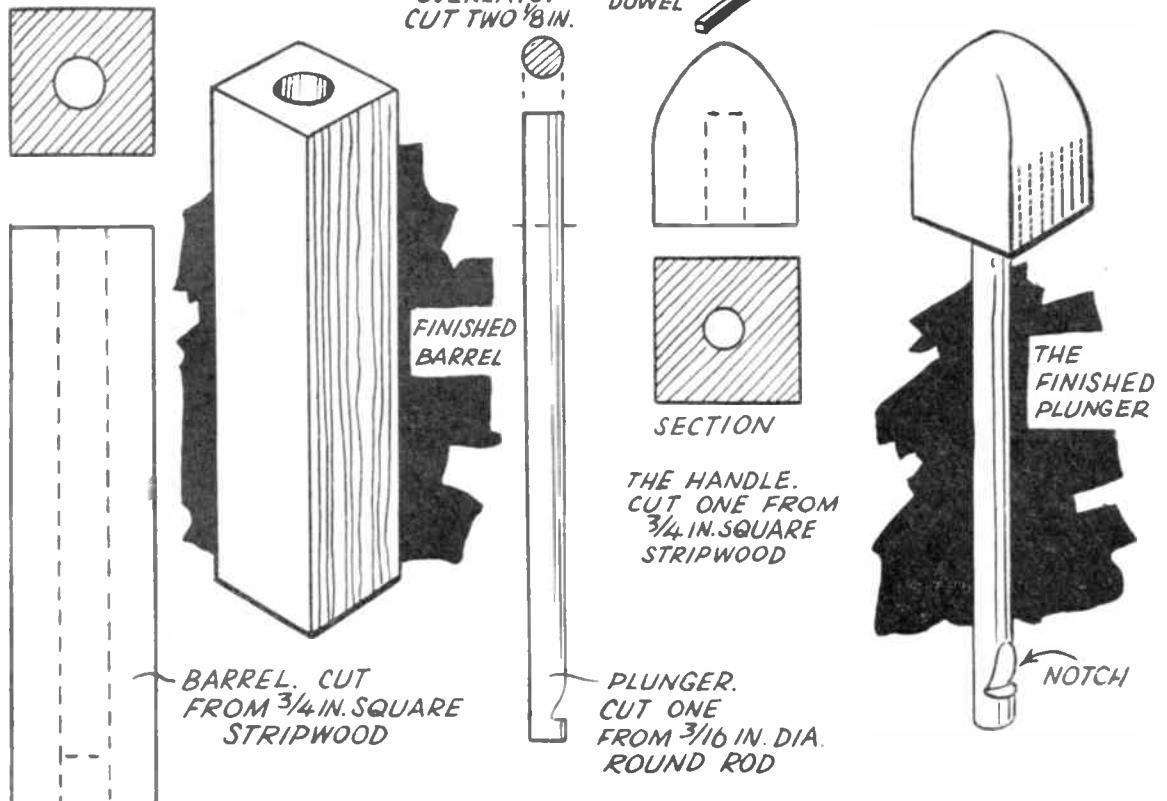
Mystify your friends with

THE SNAP PUZZLE

THIS little wooden puzzle will completely mystify your friends. They will try for hours to hook the elusive elastic.

The diagrams show all the construction. The plunger is provided with a notch, and you are supposed to hook the 'elastic loop' inside the barrel. Tell your friends to hook the loop, and watch their antics.

As will be seen in the diagrams (A) and (B) there is no loop inside at all. It is camouflage, the two ends of elastic giving the appearance of a loop inside. When showing your friends how to 'hook the elastic' you put the plunger in as far as it will go, twist it round, first in one, then in the other direction. After a few 'false' tries you pull it out gently for about 1 in., then snap it back. The 'snap' is caused by squeezing the handle between the finger and thumb. If the handle is smooth you can make it snap back just as if you had in fact hooked the 'loop of elastic'. (M.p.)





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Fine saws priced to suit all pockets. They're manufactured by the makers of the craftsman's first choice—world-famous 'Spearior' Handsaw.

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THE WORLD'S OLDEST SAWMAKERS

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a lavish,
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Only 73/- for a bedstead . . . or 50/3 for a coffee table . . . or 218/6 for a wardrobe! Yes, you save pounds when you furnish the Wren Craft way. And assembly is so very, very simple. Every outfit contains perfectly fitting, precision-cut parts, screws, pins and special glue. Simply follow the step-by-step instructions to

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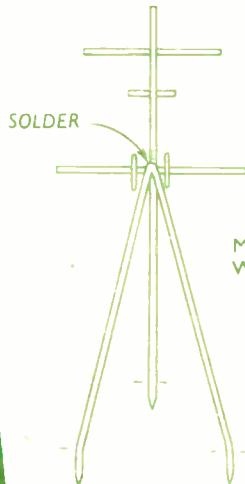
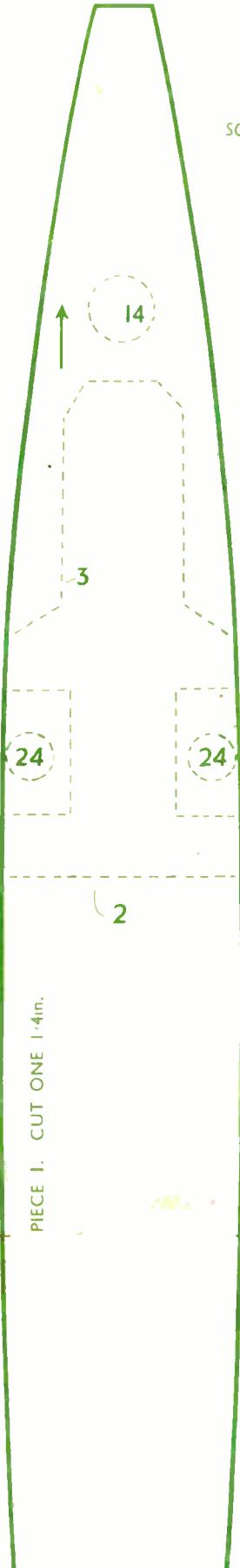
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ADDRESS _____

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SOLDER

MAST A.
MAKE FROM
WIRE AND
CARD.

THIN
CARD

SIDE VIEW.

PIECES 25. CUT SIX
FROM MEDIUM
GAUGE WIRE.



MEDIUM
GAUGE
WIRE



CUT THREE 3/16in. MAKE
UP INTO UNITS (19) AS
SHOWN ABOVE.

GUNS 18. SHAPE NINE
FROM WASTE WOOD AND
THIN WIRE.

GUNS 17. SHAPE SEVEN
FROM WASTE WOOD
AND THIN WIRE.



SHOWING HOW THE
BASE IS MADE UP.

SECTION

PIECE 13. SHAPE ONE
FROM 3/16in. WOOD.

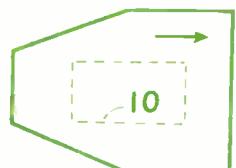


PIECE 12. CUT ONE 1 4in.
SHAPE TO SECTION.

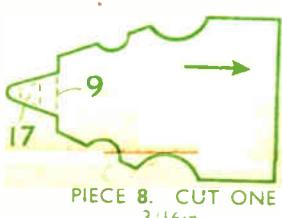
PIECE 11. CUT
ONE 3 1/16in.



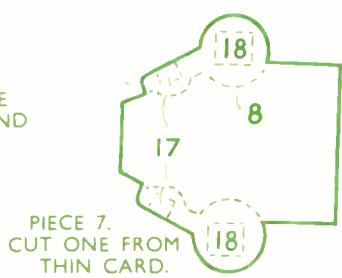
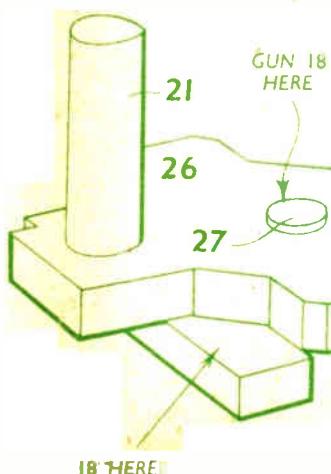
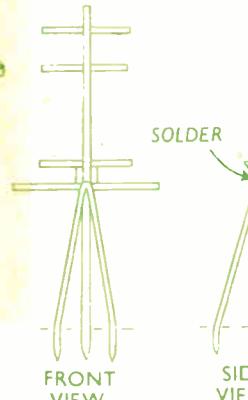
PIECE 10. CUT ONE
FROM THIN CARD.



PIECE 9. CUT ONE
3/16in.



MAST B.
MAKE FROM W
AND CARD.

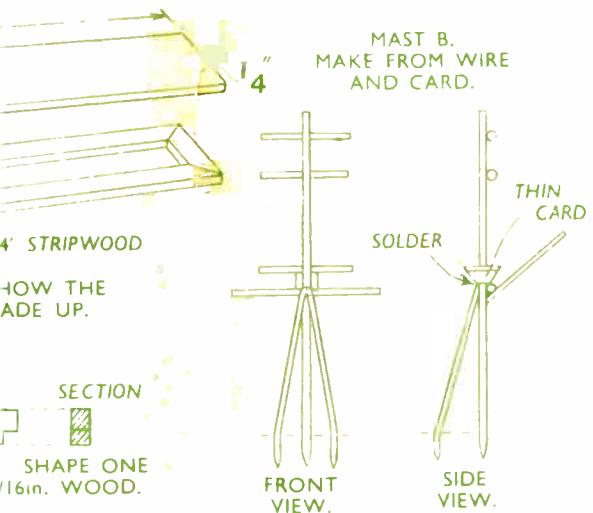




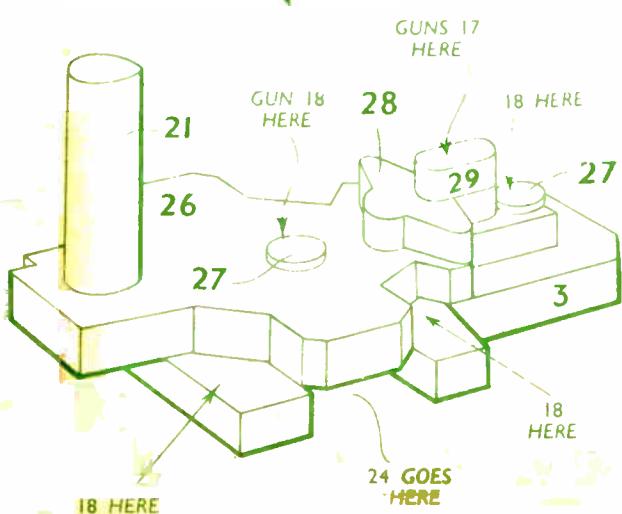
DESIGN

No.
3146

MODEL CRUISER ('SUPERB')



SIZE
12 $\frac{1}{2}$ ins.
LONG.



PANELS OF WOOD
REQUIRED FOR THIS DESIGN

ONE H4 . ONE GD6 . ONE G3

A complete kit of the above materials can be obtained from
HOBBIES LTD., DEREHAM, NORFOLK

Glue it with Croid

LIQUID GLUES OF QUALITY
UNIVERSAL GLUE for use cold straight from the Tube 1 oz. or Tin 2 oz.
AERO GLUE for quicker setting, in the Home Outfit 4 oz. or in Tins from 1/3d. each.
POLYSTIK PVA ADHESIVE a new adhesive in Polythene bottle at 2 oz.

The world's strongest glue is
available from all branches of **Hobbies Ltd.**

PIECE I. CURE



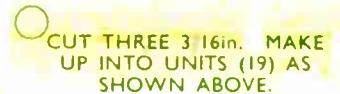
SIDE VIEW.
FULL SIZE.

19



18 HERE

18 HERE



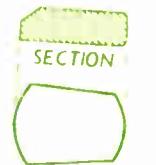
1

GUNS 18. SHAPE NINE
FROM WASTE WOOD AND
THIN WIRE.



GUNS 17. SHAPE SEVEN FROM WASTE WOOD AND THIN WIRE

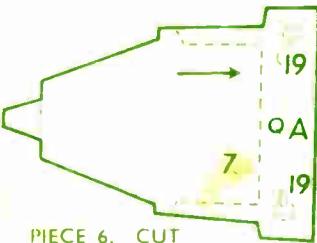
**GUNS 16. CUT NINE
MEDIUM GAUGE WIRE.**



PIECE 15. CUT THREE
3 16in.



PIECES 14. CUT SIX
FROM THIN CARD.
GLUE TOGETHER IN PAIRS.



**PIECE 6. CUT
ONE 1 4in.**

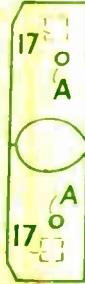


**PIECE 22. CUT
ONE 1 4in.**

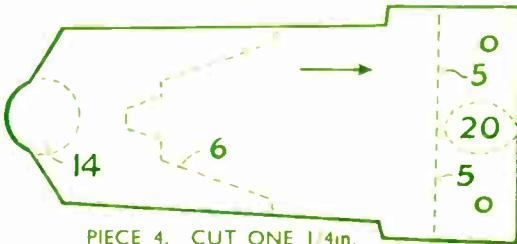


SECTION
FUNNEL 20.
ONE 3,8in.

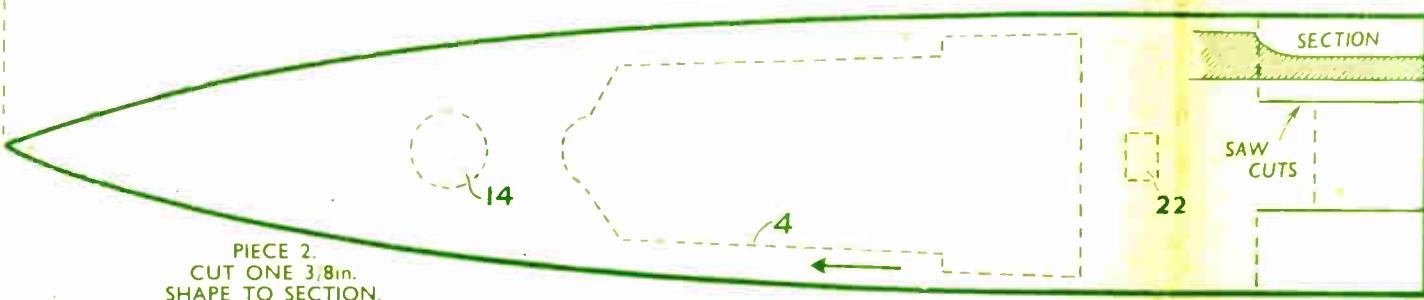
CUT
SHAPE TO SECTION.



PIECES 5.
CUT ONE
OF EACH
FROM
THIN
CARD.



SECTION



Glue it with **ROID**

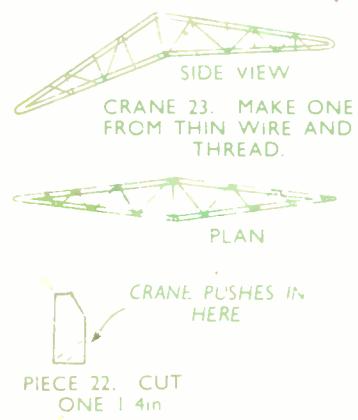
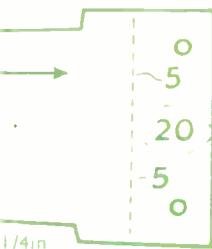
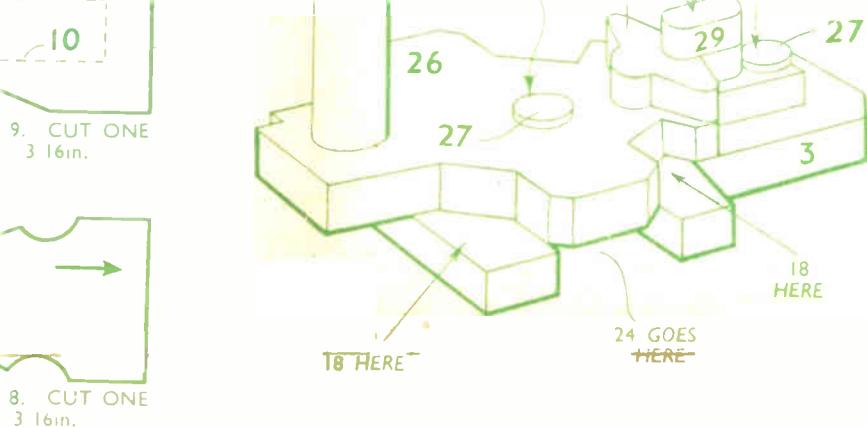
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PIECES 5. CUT ONE OF EACH FROM THIN CARD.

