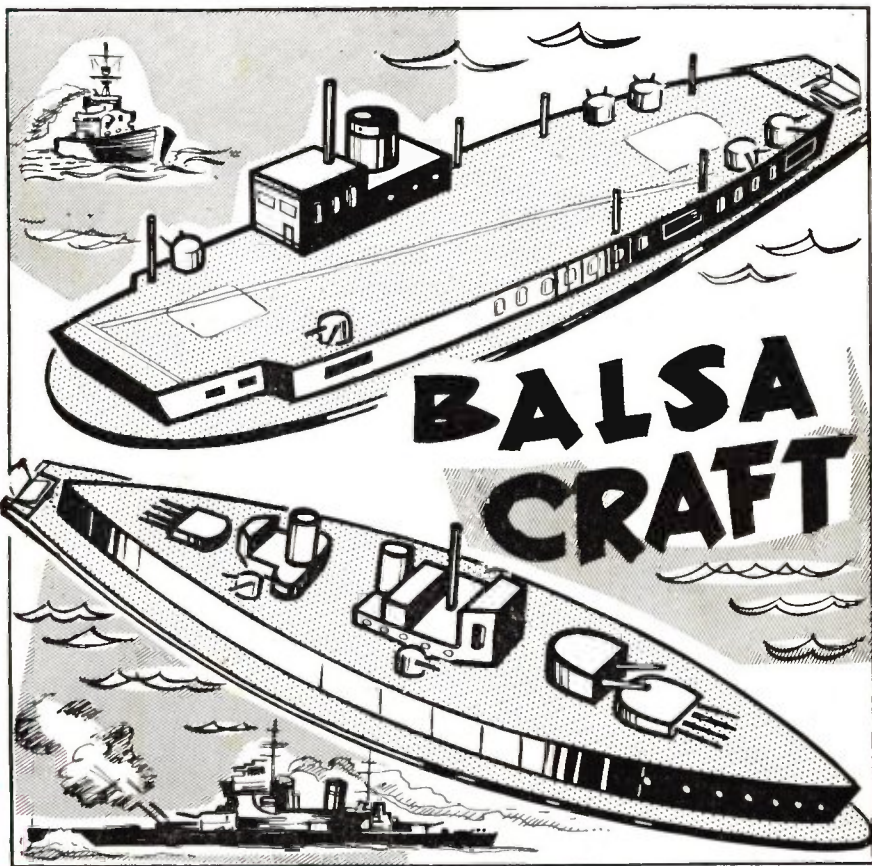


# HOBBIES *weekly*

24th JUNE 1964

VOL. 138

NUMBER 3576



**BALSA  
CRAFT**

**FOR CRAFTSMEN OF ALL AGES**

**6<sup>p</sup>**





*A handy conversion:*

# A KITCHEN CUPBOARD

**D**RAWERS from discarded old-fashioned sideboards and similar items of furniture, can be easily turned into useful cupboard units for the kitchen.

So as to provide adequate storage space, any drawer chosen for conversion should have a minimum depth of 6 in.

First, the knobs or handles should be removed and the holes filled with a proprietary wood filler. As this type of drawer is strongly constructed, the parts being invariably dovetailed together, no additional stiffening will be necessary and so the next step is to divide the drawer longitudinally by inserting a shelf.

To achieve this, a batten (1 in. by  $\frac{1}{2}$  in. approximately) is screwed and glued to the inside of each end of the drawer. These battens should only extend to within 1 in. of the drawer top.

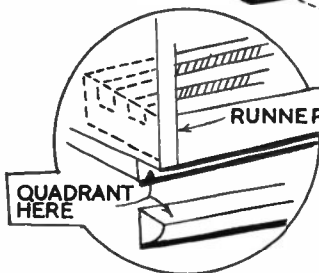
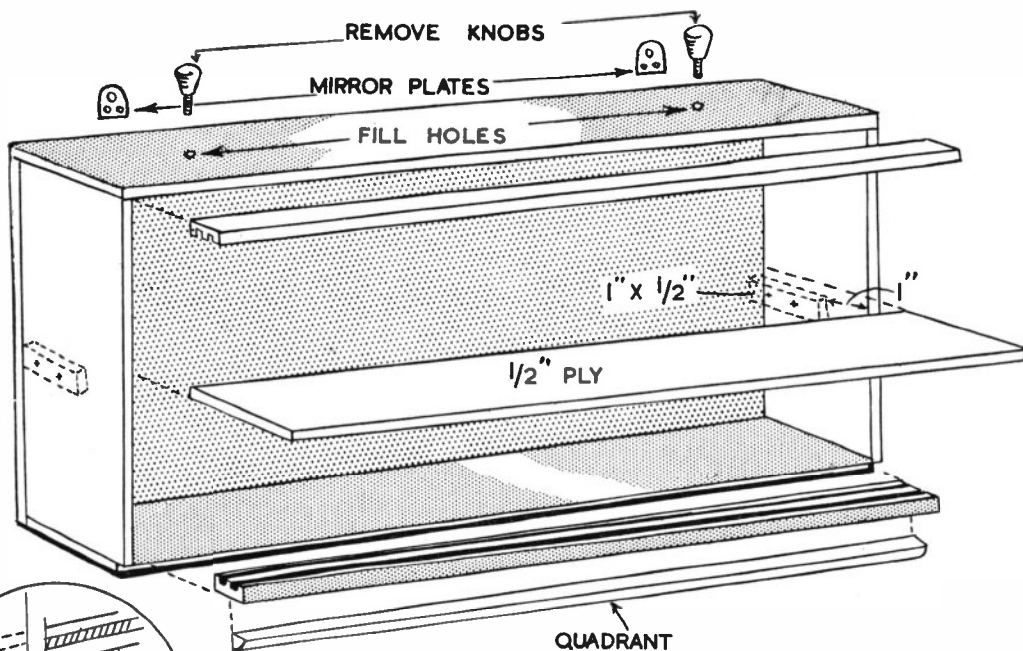
The drawer should now be stood on its rear side, which is henceforth referred to as the bottom of the cupboard. The distance between the sides should be measured, and a  $\frac{1}{2}$  in. plywood shelf cut and fitted into place. This shelf may be left loose. It too, should be recessed 1 in. from what is now the open front of the cupboard. The shelf and battens are set back in this manner to allow for the sliding doors, set in runners.

Suitable double-rebate mouldings for this purpose can be purchased for a few pence per foot. Two pieces, each the same length as the shelf, are required; but it must be noted that one of the pieces should have double-depth grooves. This particular length is now glued and pinned inside the drawer at the top, level with the front edge. The second piece is now fitted across the bottom. Most drawers are slightly lower at the back

to match the resulting curve.

We come now to the doors, two of which are required. Each is, in height, the distance between the two runners plus the depth of the groove in the top one. This allows the doors to drop easily in place. They should each be wide enough to allow an overlap of 2 in. or so, and may be made from a variety of materials; obscured glass, or plain ply of a suitable thickness, or perhaps ply faced with reeded hardboard.

Doors in ply or ply/hardboard should be about  $\frac{3}{8}$  in. thick, chamfered slightly at top and bottom to allow it to slide snugly in the grooves. As these doors slide across each other, handles or 'pulls' should be flush fitted. Suitable ones can be bought from most hardware stores, together with a pair of mirror plates, which should be screwed firmly to the back of the cupboard.



LEVEL WITH  
SIDE

(which is now the bottom of the cupboard), so this piece should be fastened level with the sides. When this is done, an angle will be formed between the moulding and the bottom. This can be conveniently filled by a length of quadrant, the cupboard sides being trimmed

It only remains to rub the whole job over with medium-grade glasspaper and give it a couple of coats of good quality paint.

The completed cupboard may now be fastened to a suitable wall by means of Rawlplugs, and the result is an attractive kitchen fitment in the modern manner.

(D.W.)

# Stationery or Magazine Rack

HERE is a design for a simple to make, but attractive, multi-purpose rack. This looks equally well used as a container for stationery, or as a tidy holder for magazines and newspapers. There are no difficult joints to make, as all the panels are butted up to each other and secured with glue and pins.

Two sets of dimensions are given in the diagram, the upper ones are suitable when the rack is intended for holding magazines, while the sizes in brackets are correct for octavo stationery (that is 8 in. by 5 in.) and the normal 6 by 3½ in. envelopes.

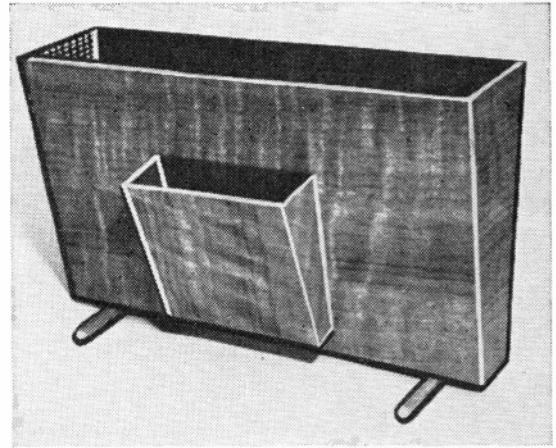
You can use any type of plywood for this job, so long as it is ⅝ to ¾ in. thick, and a plain unsurfaced ply will be quite suitable when the completed rack is to be painted. If you prefer a natural wood-grained finish, then you should buy a plywood which has already been faced on either one or both sides with a decorative wood veneer. The third alternative would be to use the plain plywood and then to cover the completed rack with one of the wood-grained or colourful plastic self-adhesive sheetings.

First cut out the two longer sides of the magazine or notepaper section, taking great care that the plys are not split in the process. Carefully sand all four edges of each panel, making sure that you avoid splintering. Plywood which is to be painted will not need its faces sanded, but veneers will benefit from a light sanding in the direction of the grain with flour paper. Use only

By

A. E. Bensusan

The completed stationery or magazine rack



very gentle pressure, for the veneers are quite thin and could be broken and pulled up if they are caught violently. The more thorough the sandpapering, the better will be the finish that you can obtain with french or button polish.

The two ends of the large section are the next pieces to be made, and it might be found preferable to cut these so that they interlock. That is, with the broad end of one against the narrow end of the other. This is more economical of material than cutting them side by side and the same way up. The bottom of the large section can be made either from the same plywood or from any suitably

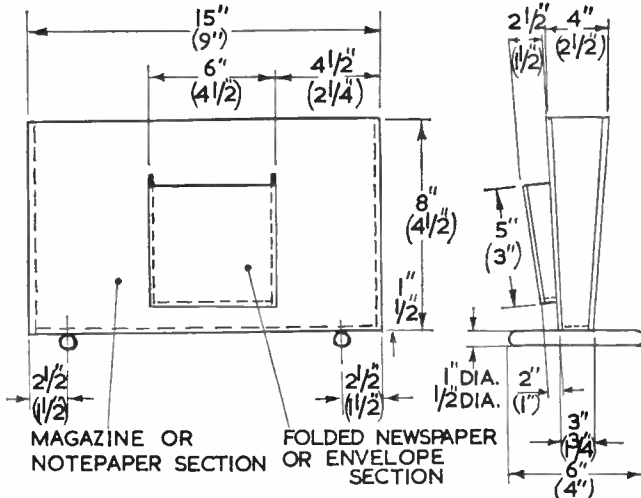
sized strip of ply or hardboard that you happen to have available.

Treat the smaller compartment in exactly the same way, but remember that this does not need a back since one of the longer panels of the main section will serve the purpose. Again, any scrap piece of hardboard or ply will do for the bottom of this compartment. Finish off all components just as you did the side panels and lay them aside while you cut the feet for the rack.

The feet are simply two pieces of round dowel, rounded at both ends to improve their appearance and to prevent them from the bottom of this compartment. To assemble the unit, first join together the end pieces and the longer panel of the smaller compartment. Use a good non-staining glue and insert two pins into each joint. Punch the heads of the pins down below the level of the surrounding wood, and fill with either plastic wood or a proprietary stopping compound.

After the glue has set, the smaller compartment can be attached to one side of the larger section, using glue and two pins in each side. The reason that the assembly is arranged in this way, is that it would be impossible to insert these inner pins after the larger compartment has been fully assembled.

Before going any further, finally trim the bottom of the smaller compartment so that it fits neatly inside the other pieces, and glue and pin it in place. Next, attach the two end pieces to the sides of the larger compartment and fit the fourth panel in position, punching down and



# Unusual Holiday

## Souvenirs

THE best holiday souvenirs are not always the ones bought ready-made at the gift shop, but very often those unique mementos inspired by ideas brought back from holiday places, whether they be only ten miles away from home or ten thousand.

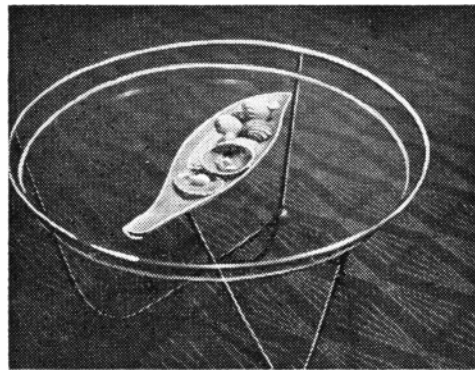
It is also much easier to bring back an idea than a fragile, bulky, or heavy souvenir. This year, then, when you are on holiday, look around for suitable ideas to turn into souvenirs.

For example, the popular holiday country of Switzerland is divided into twenty-two cantons, or counties, each of which has its own simple but distinctively coloured shield or badge. These colours are seen everywhere, and are an essential part of the Swiss scene. For a lasting memory of such a holiday, these shields have a striking effect painted at intervals round the walls of a hall, for instance (A).

Using a cardboard template 4-6 in. high for the shape, it needs no great artistic skill to colour them in, using enamels applied with a small water-colour brush. A gold gilt line, with scrolls at each corner, is painted round each shield as a finishing touch.

This same idea can be used if one has been on holiday in this country, using town or country plaques or crests as a

By  
*A. Liston*



basis for decorative shields. These can be found on guide books, travel brochures, road signs, and even on motor car plaques. The design can be simplified if necessary, of course.

The appeal of heraldry is universal, and no matter where one goes, there are usually rich sources of inspiration to be found.

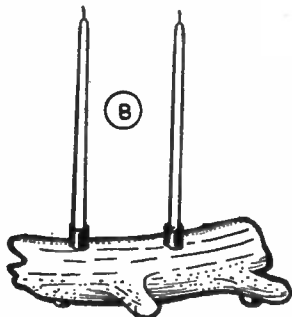
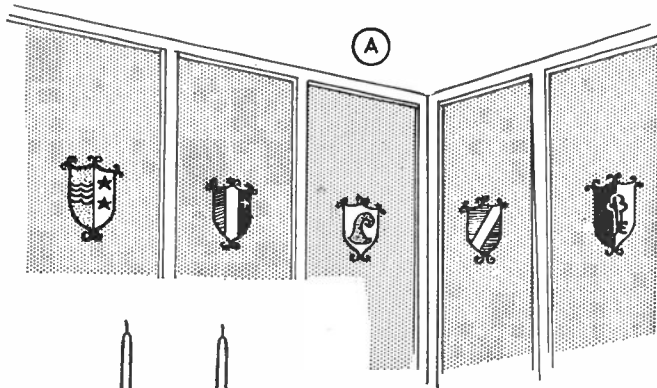
A seaside holiday is often remembered by a collection of sea-shells, usually stored in an old box or glued to various small objects to make a decorative pattern. A more sophisticated and unusual approach is to arrange a group of shells on a plain wooden tray to form an attractive decoration and talking point.

Choose a variety of large, well-shaped shells for this, making sure they are perfectly clean and dry. An interesting finish can be obtained by giving them two or three coats of clear lacquer or

of round, smooth pebbles and broken pieces looks very effective. They can be given a coat of clear, glossy lacquer or varnish, which will help to show up any faint markings on them.

Another attractive souvenir is a driftwood candelabra B. All that is needed is a piece of driftwood picked off the beach. Choose a piece with a pleasing shape and a smooth weather-grey finish. Smooth off any undesirable roughnesses and screw three dome-headed mirror screws into the underside of the wood, so that their heads form studs for the wood to stand steadily.

Two or three holes, 1 in. deep, are drilled on the upper side to take 2 in. lengths of copper piping which is polished then tapped in place in the holes to act as candle-holders. A protective coat of clear lacquer is applied, the candles fitted in place, and the candelabra is complete.



varnish. Shells which are perfect in shape, but have some blemish in their colouring, look most attractive painted in pastel colours, using emulsion paint, satin finish paint or high gloss enamel. Other unusual finishes are pearly nail varnish, aluminium lacquer or gold gilt.

Unusual-looking stones gathered on holiday can be treated in the same way and arranged on a plain tray. A mixture

● Continued from page 180

## MAGAZINE RACK

filling the pins as you go. Again, because the pins would otherwise be inaccessible, attach the feet to the bottom of the larger compartment before carrying out the final assembly. Be sure that these feet project equally on both sides, and by the same amount, or the finished unit will have an uneven appearance. Insert the bottom, glue and pin it, when the constructional work will be completed.

You can now apply whichever finishing treatment you have chosen, but be sure that the glue has entirely hardened before you do so.

# STORAGE RACK

**M**ANY model makers and 'Do it yourself' enthusiasts store their odds and ends, washers, cotter pins, nuts, etc. in tins and often resort to the round tobacco tins for this purpose. When the number of tins reaches double figures a simple rack for storing them in separate compartments becomes essential.

The one described is for tins  $2\frac{3}{8}$  in. diameter by 1 in. thick and is easily made from material found in most workshops. The rack can be placed on a shelf, hung on a wall or hung in a vertical position

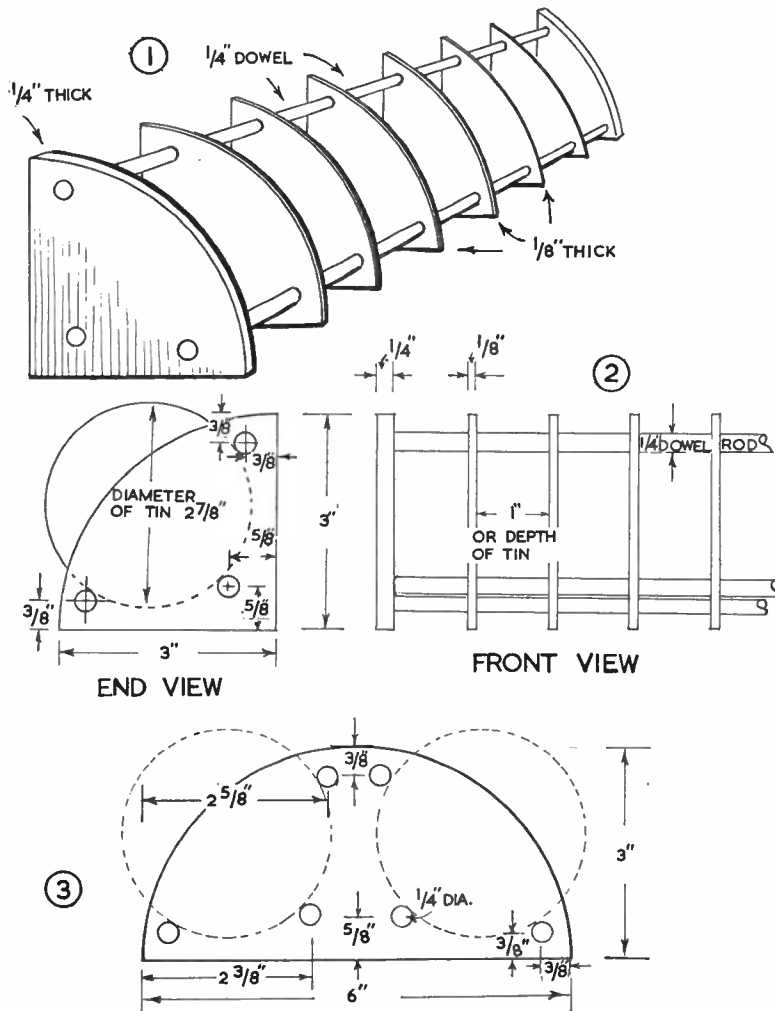
in the corner between two walls. Fig. 3 shows a double rack that can be made to take tins side by side.

From a piece of wood  $\frac{1}{4}$  in. thick cut two end pieces each side being 3 in. long and rounded off as shown. Similarly cut divisions from plywood  $\frac{1}{8}$  in. thick and bore holes in positions shown in Fig. 2, to take  $\frac{1}{4}$  in. diameter dowel rod. These dowel rods must be a tight fit. Assemble the parts together, gluing in position. For a ten section rack 9 plywood divisions will be required while the 3 dowel rods will be each  $11\frac{1}{8}$  in. long.

If the rack is to be fixed in a vertical position and the weight of the material in each tin is substantial, then in addition to gluing the end pieces and divisions to the dowel rods, they should be attached with fine steel pins.

The double rack is merely two single racks made as one. Cut and bore end pieces and divisions as shown in Fig. 3.

The tins can be painted and labels attached to the edges with adhesive tape. If larger tins are used the sizes given must be varied accordingly. (C.F.)



## DUCKS AND DRAKES

**I**F you fell a thousand feet into the sea from an aeroplane you would be killed outright, whether or not you could swim. For to hit water at great speed is like dropping off a tall building on to solid concrete. Try jumping off a tall diving stage into a swimming pool, and you'll feel the noisy smack as you strike the surface.

And yet normally water is such a mobile and yielding substance! The trouble is that water, like all matter, is 'lazy'. Or, to be more scientific, we say that water has the property of inertia. This means that, whenever we try to push against water, it stays still, and briefly resists our force before being moved aside.

So, for an instant, hitting water hard is like banging against a solid.

Usually, when entering water, we are moving comparatively slowly, and there is time to overcome water's inertia harmlessly. But a water-skier deliberately exploits inertia when he lets himself be towed along at sea, while he presses the upward-inclined fronts of his water-skis (or upturned soles of his feet) at steep angles against the surface.

To the water-skier moving fast, the sea's inertia acts like a great slippery board — and, under these conditions, a clever skier can virtually walk on water.

You also exploit inertia when you use oars to row a boat, or when you are swimming. And, when you play 'ducks and drakes' at the seaside by skimming flat pebbles out to sea, the stones can bounce because momentarily the surface does not appreciably yield to them. The inertia of water makes your game possible. (A.E.W.)

**P**LASTER casting from moulds is a favourite hobby, but did you know that successful casts can be made from lino cuts?

A convenient size of a lino block with which to start is 6 in. by 4 in. and these are easily obtainable from any handicraft shop. As one becomes more proficient one can use blocks of 6 in. by 8 in. Anything larger becomes rather difficult when making the plaster cast.

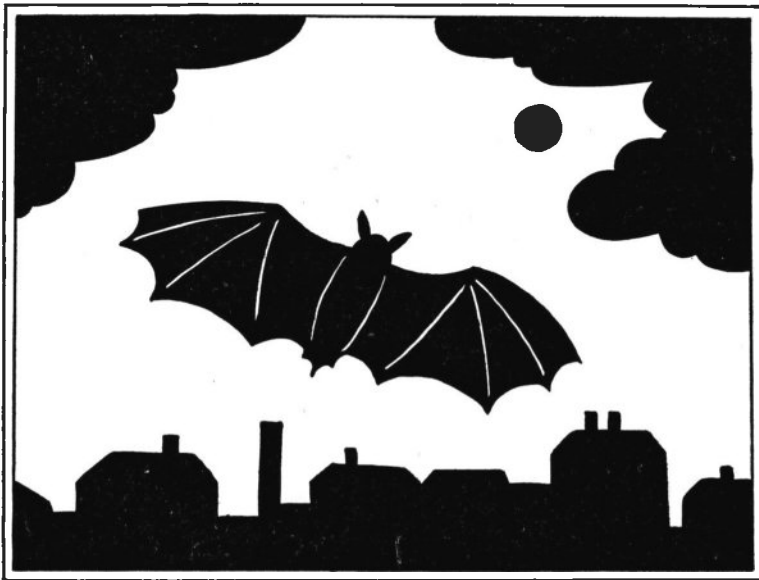
## PLASTER CASTS FROM LINO-CUTS

*By A. R. Watts*

In ordinary lino cutting for printing purposes the shapes and objects in the design or picture remain in relief while the background is cut out. But here the opposite is necessary. One has to cut out the objects to be cast and, what is more, they have to be cut out as deeply and cleanly as possible, leaving a smooth surface (unlike ordinary lino cutting where the cut surface is left furrowed).

The first step is the production of a suitable design or picture. Thin lines must be avoided. The accompanying illustrations will show the type of suitable subjects, which are traced on to the lino. The parts blacked in are the ones which will have to be cut out.

When the lino has been cut it should be placed on a flat surface and around it firmly fix four strips of wood about  $\frac{1}{4}$  in. in thickness. The complete surface of the



*A nocturnal scene*



*This 'fish' motif*

*comes out well*

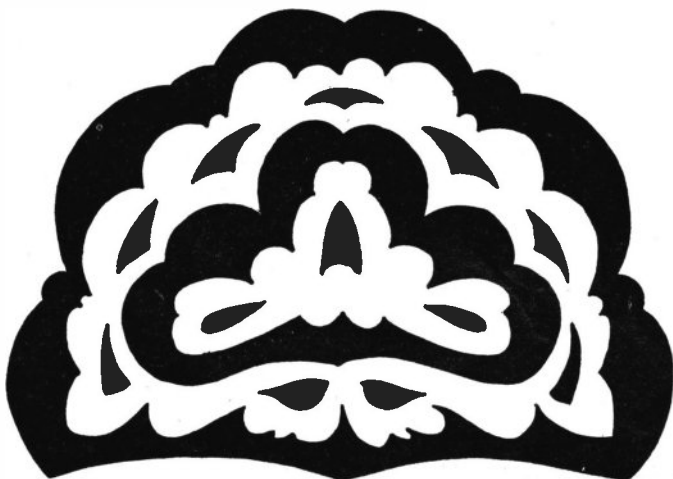
lino should be greased to prevent the plaster from adhering to it. If a substance like ground nut oil is obtained then a paint brush can be used to brush it into any awkward corners.

Plaster is mixed, remembering to add the plaster to the water and not the water to the plaster. Stir continuously so as to produce an even consistency without lumps. This mixture should be like cream and must pour easily. The first attempt will indicate the required thickness of the mixture.

Pour the plaster on to the lino to a depth of about  $\frac{3}{4}$  in. making sure that all the indentations are filled. If the plaster is fresh it will soon start to set so the operation must be carried out fairly quickly.

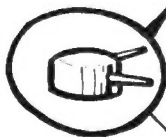
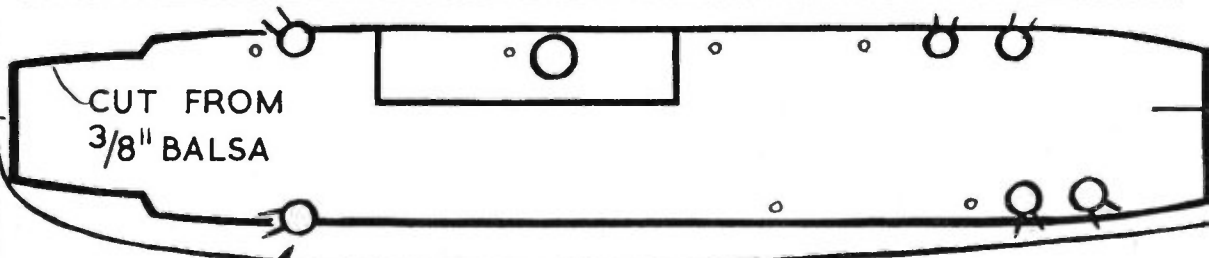
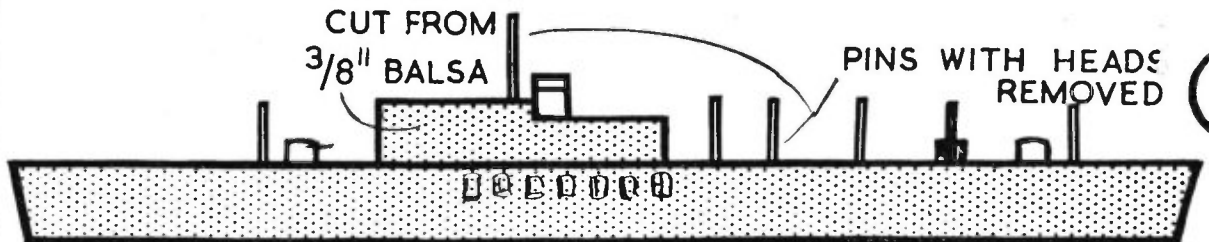
In 24 hours the pieces of wood can be taken away and the plaster cast carefully removed. Leave this face upwards so that it can harden off before tidying up the cast with a penknife or any other suitable tool.

The cast can be suitably decorated with various paints and varnishes.

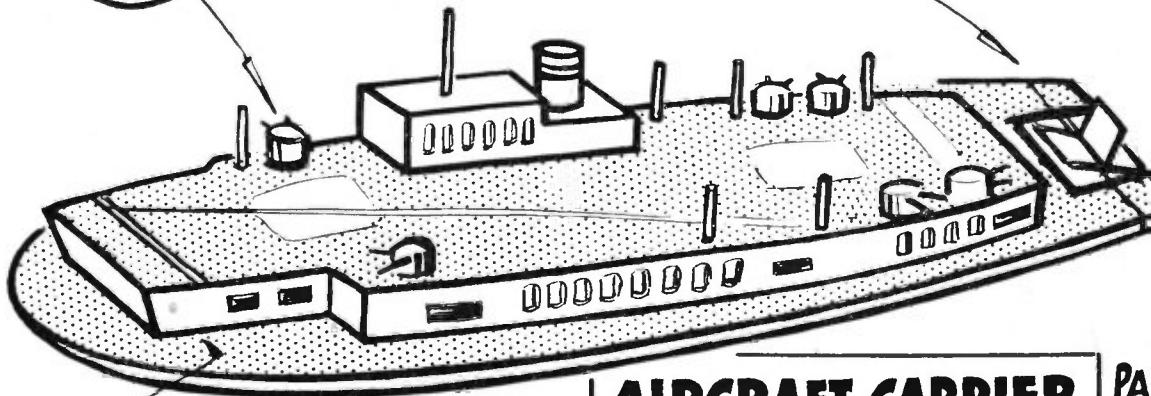


*Example  
of a  
pattern*

# BALSA-CRAFT



CUT FROM 1/16" SHEET B  
HALF ONLY SHOWN



**AIRCRAFT CARRIER** PA

**BUILD YOUR OWN**



# AFT

**PAINT WITH OIL PAINTS**

EDS

ET Balsa

C/L

PADDLES - THIN WOOD

RUBBER BAND

DOWEL

DECK FITTINGS CUT FROM ODD PIECES OF Balsa

CUT FROM 3/16" Balsa

GUNS

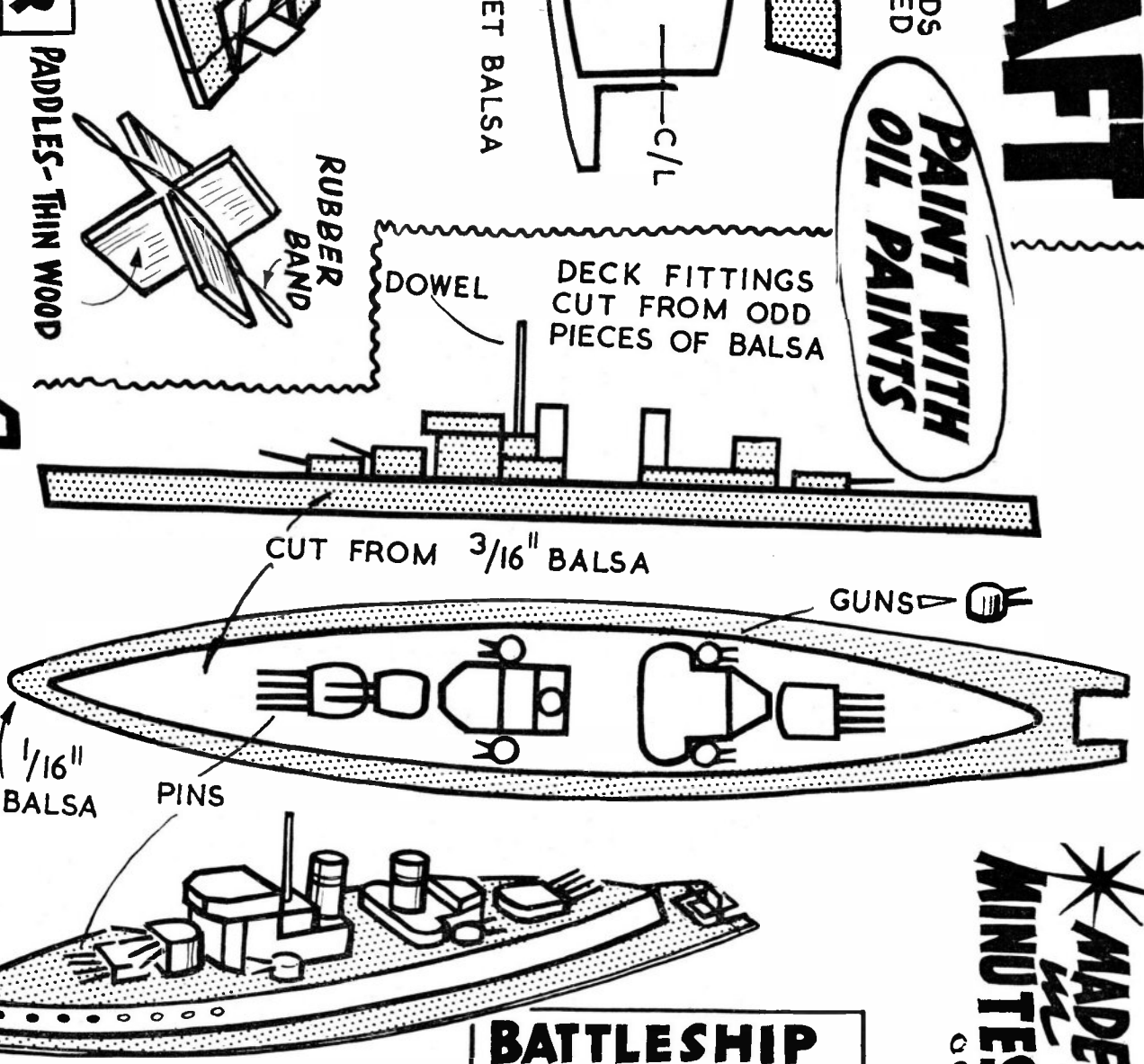
1/16" Balsa

PINS

# BATTLESHIP

**MADE IN MINUTES**

# OWN FLEET IN 1 EVENING



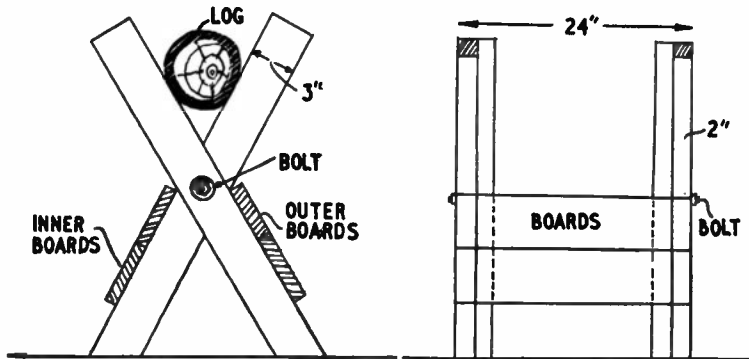
# FOLDING SAWING-HORSE

**T**HIS sawing-horse, which can be folded up and put away when not in use, is easily made from four 3 in. by 2 in. pieces of timber. The 'arms' are 32 in. long, and four pieces of 6 in. by 1 in. boarding complete its construction.

Firstly bore holes in the upper parts of the four legs to take  $\frac{1}{2}$  in. bolts, 12 in.

*By A. Gower*

from the top ends. Saw off the bottom ends to an angle of  $60^\circ$  from the faces. Then nail two 24 in. boards to the outer legs so as to allow the inner ones to make an angle of  $60^\circ$  with the former. The inner legs are then joined by boards of 20 in. in length. Insert the bolts, which allow the whole to be folded together, and adjust the locking nuts. These will be



loosened or tightened as desired, and wing nuts would give quick adjustment.

Dimensions are shown on the illustrations. Construction should be carried out with care to ensure that all the relevant pieces are square and/or parallel, otherwise the finished project

will be unstable and unsteady. If properly made, with due attention to these details, the result will be a good sturdy job which will prove a most useful accessory which stores away in a small space when folded against the wall of workshop, shed or garage.

# INTRIGUING WIRE PUZZLE

**H**ERE we have an intriguing wire puzzle for you to make, and one which will mystify your friends. You will see from the illustration that there are three parts to the puzzle all made from thin, flexible wire of reasonable gauge.

First we make a U shape of wire approximately  $3\frac{1}{2}$  in. wide by  $2\frac{1}{2}$  in. deep, with  $\frac{1}{2}$  in. loops at each of the two ends as shown in Fig. 1. Next we take a

U piece, twisting the two ends together as shown.

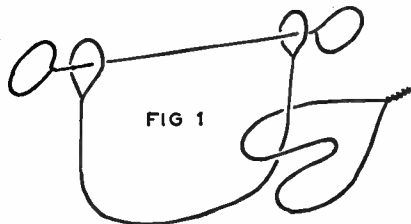
The puzzle is to remove the heart shape from the U piece and return. Note that the joints should be tight, and it is possible to manipulate the parts without

forcing the heart shape through the joints.

## Solution to wire puzzle

In Fig. 2a you will see that we take the heart shape up the side of the U piece in order to push the central portion through the loop. In Fig. 2b this is shown through the loop. The next move is to manipulate the dip over the ring at the end of the crossbar as shown in Fig. 2c, and when the shape will then slide through to release it as shown in Fig. 2d.

The heart shape can be just as easily returned to the U piece if the same routine is repeated in reverse.



*By S. H. Longbottom*

straight piece of wire to seal the top of the U piece. Make a ring at one end which is large enough to prevent it passing through the loop. Now thread the straight end of the wire through the loops, finishing this piece by making another ring, thus sealing the top of the U piece.

The third part of the puzzle is a heart shape which is fashioned with a narrow dip in the centre. Slip this piece over the

**MODEL 0-4-0  
SADDLE TANK LOCO**  
The 'Ugly Duckling' of the steam locomotive family — the 0-4-0 saddle tank shunting engine — is the subject of another construction kit from Airfix, which should interest railway modellers. Costing only 2s., the polystyrene components are accurately moulded and scaled to make up the model of this hard-working London Midland Region locomotive — first built in 1891 — which will fit standard OO and HO track. The kit includes transfers of British Railways insignias.

# Mainly for Modellers

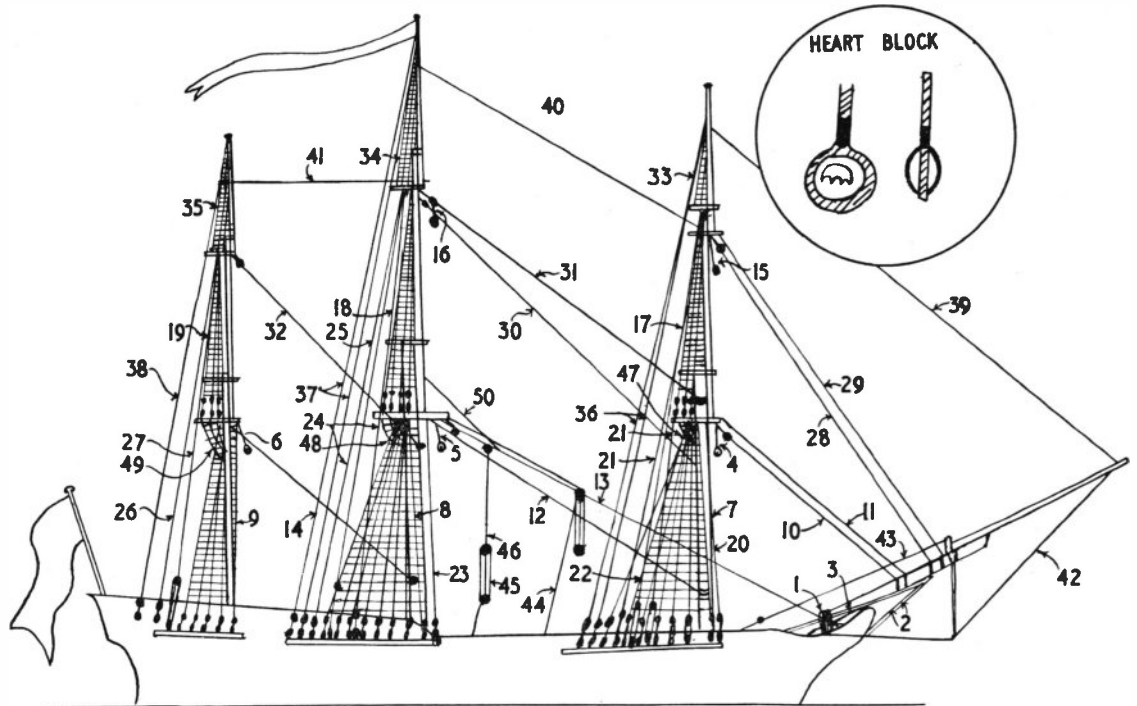
**T**HIS article covers the rigging of a 20-gun ship of the 18th century. A scale model of this type of smaller warship is possible at say  $\frac{1}{4}$  in. to the foot (usual museum scale for the period) making a model of less than 3 ft. overall length. Not too large, and yet the scale

## STANDING RIGGING 18th CENTURY 20 - GUN SHIPS

allows of complete detail for the serious model maker.

The illustration shows the standing rigging, and to avoid any confusion, the shrouds, backstays etc are shown only on the starboard side. They must of course, be balanced by an equal number on the larboard side. This also must be noted, if the model is of a ship of less than 20 guns. The preventer stays are sometimes found placed under the stays and it is to them the stay sails are bent (secured).

At this period we find that in addition to the gammoning to hold the bowsprit down on the stem, we also have the two



### STANDING RIGGING 18th CENTURY 20. GUN SHIP.

- |                                   |                                       |   |
|-----------------------------------|---------------------------------------|---|
| 1. Gammoning.                     | 17. Fore topmast shrouds.             | 35. Mizzen topgallant shrouds.            |
| 2. Bobstays.                      | 18. Main topmast shrouds.             | 36. Fore topgallant standing backstays.   |
| 3. Bowsprit shrouds.              | 19. Mizzen topmast shrouds.           | 37. Main topgallant standing backstays.   |
| 4. Foretackle pendants.           | 20. Fore topmast backstay.            | 38. Mizzen topgallant standing backstays. |
| 5. Main tackle pendants.          | 21. Fore topmast standing backstay.   |   |
| 6. Mizzen burton pendants.        | 22. Fore topmast shifting backstay.   | 39. Fore topgallant stay.                 |
| 7. Fore shrouds.                  | 23. Main topmast backstay.            | 40. Main topgallant stay.                 |
| 8. Main shrouds.                  | 24. Main topmast standing backstay.   | 41. Mizzen topgallant stay.               |
| 9. Mizzen shrouds.                | 25. Main topmast shifting backstay.   | 42. Martingale stay.                      |
| 10. Fore preventer stay.          | 26. Mizzen topmast standing backstay. | 43. Bowsprit horse.                       |
| 11. Fore stay.                    | 27. Mizzen topmast shifting backstay. | 44. Fore stay tackle.                     |
| 12. Main preventer stay.          | 28. Fore topmast preventer stay.      | 45. Main stay tackle.                     |
| 13. Main stay.                    | 29. Fore topmast stay.                | 46. Main stay tackle pendant.             |
| 14. Mizzen stay.                  | 30. Main topmast preventer stay.      | 47. Fore futtock shrouds.                 |
| 15. Fore topmast burton pendants. | 31. Main topmast stay.                | 48. Main futtock shrouds.                 |
| 16. Main topmast pendants.        | 32. Mizzen topmast stay.              | 49. Mizzen futtock shrouds.               |
|                                   | 33. Fore topgallant shrouds.          | 50. Stay-tackle tricing lines.            |
|                                   | 34. Main topgallant shrouds.          |   |

bobstays, one to counteract the pull of the headstay from the top of the mast and the other to offset the pull of the jib-stay at the end of the bowsprit. Originally, and still on some ships of this period made of heavy tarred rope, they were also at this period being made of chain.

The lower end of a bobstay is secured by splicing in an eye around a thimble, which in turn is shackled to an iron link bolted to the stem.

The bobstays are set up and tightened by lanyards in a similar way to the setting up of the shrouds. Instead of deadeyes, however hearts' are used. For those readers who have missed my

earlier articles on dead-eyes and blocks the small sketch shows the setting up of a heart block.

It is usual in the average run of models for the shrouds to be assembled in one piece on a board or card. Many of our model makers making a fairly large scale model may wish to erect the shrouds in correct ship fashion, rattling down (i.e. adding the ratlines) later.

In order to do this I will describe the method actually used briefly, 1st. shroud is the forward starboard one, placed over the masthead, followed by the opposite on the larboard side. Deadeyes are seized in the ends of each shroud. The two shrouds are seized (tied together) at

the masthead and thus form what is termed the first 'gang' of rigging.

The second gang or pair goes over the masthead and leads down to the dead-eyes on the *port or larboard side*. The third pair goes over the masthead and down to the starboard side and so they are staggered in alternate pairs — starboard, then port, starboard, then port etc, until the full number for the vessel is completed. Each pair is seized together at the masthead. All shrouds where they go round the masthead are seized (i.e. bound). If you wish for greater detail, this can be done with black thread.



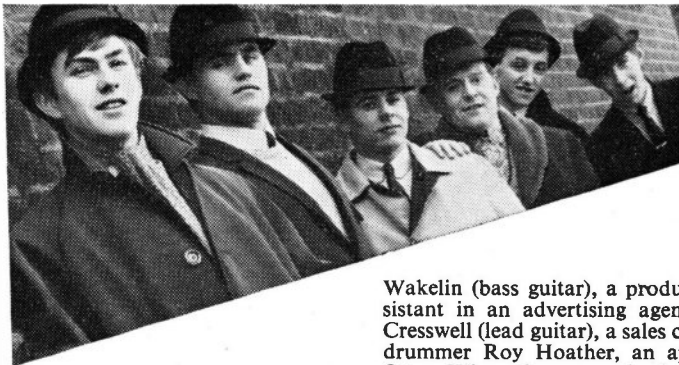
## THE NATURALS

**F**OR The Naturals, a semi-pro group from Harlow, it was an evening fraught with unnerving possibilities. In the first place, the six young men were overawed by the occasion — the 32nd birthday party of millionaire John Bloom.

Earlier the commissionaire at the exclusive block of flats in Park Lane had done nothing to inspire their confidence by refusing to let them past the door. It took quite a time before he was convinced that they were the band and had been booked to play.

Then, just as the music was beginning to swing, in walked some late guests The Beatles! 'As if playing for a millionaire wasn't enough,' says Naturals' leader Mike Wakelin. 'When they strolled in we had the jitters all over again — and just when we had settled down, too. We just hoped that nothing would go wrong, especially since we had just painstakingly learned some of their numbers. They stood around and listened and afterwards told us how much they had enjoyed our playing. We went home with our heads in the clouds.'

If the praise of The Beatles had set the seal of success on the evening for The Naturals, the music had obviously been very much to the liking of John Bloom and his guests. He rebooked them for his New Year's Eve party and then for his wedding anniversary celebrations — and these dates have led to other jobs at smart West End parties.



The Naturals, formerly The Cossacks, formerly The Blue Beats, began playing in Harlow in 1961. They found themselves invited to play at Mr Bloom's party through music publisher Les Conn, who is friendly with the washing machine manufacturer, and together with Beatles music publisher was responsible for introducing them to Ron Richards of Parlophone's recording staff.

The first disc was a Blue Beat number *Daisy Chain/That Girl* (R5116).

Founders of the group were Mike

Wakelin (bass guitar), a production assistant in an advertising agency, Curt Cresswell (lead guitar), a sales clerk, and drummer Roy Hoather, an apprentice fitter. When the group broke up, the three of them remained to form the nucleus of the present line-up, completed by Dougie Ellis (rhythm guitar), a glass packer, and the two vocalists Ricky Potter, an apprentice book binder, and Bob O'Neale — he also plays harmonica — a progress chaser.

Says Mike, 'We want to turn professional, but there has to be some incentive, like a successful record. While we have all got good jobs, it would not be worth throwing them up, unless it was for something better.'

## Miscellaneous Advertisements

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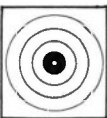
**FREE** — Interested in Marquetry? A special leaflet 'Making Pictures in Wood' by the fret-saw method is free for the asking. Send to **HOBBIES LTD, DEREHAM, NORFOLK.**

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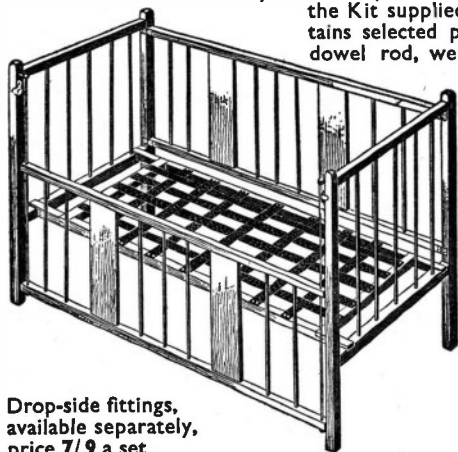
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# BOOK REVIEW

## TACKLE MODEL SOLDIERS THIS WAY

By Donald F. Featherstone.

SOMETIMES called 'Chess with a Thousand Pieces', war games can be simple affairs played on the dining room table with a handful of soldiers, or highly complicated battles involving two thousand troops or more fighting to realistic rules on large tables with hills, rivers, woods, villages, towns with factories and stations.

More than ever before, these enthusiasts can now obtain a range of cheap, but accurate, scale-model kits to make up into every type of military vehicle or building. An even greater fascination lies in turning out soldiers and military accessories to one's own choice. This can be a simple matter, well within the reach of the novice, as explained in this book.

This is essentially a technical book, than a manual on battles and manoeuvres, and should be in the possession of all enthusiasts on this subject.

Published by Stanley Paul & Co. Ltd.  
Price 12s. 6d.

\* \* \*

## POWER TOOLS

THE heart of the powered workshop for the home is the electric drill — a most versatile tool since besides its basic use as a drill it can take a wide variety of other fittings and attachments.

This book is a comprehensive guide on the selection, scope and operation of power tools of all types, based on the modern electric drill as the power unit. Particular attention is given to the selection of various tools and attachments to complete a home workshop, depending upon the type of work to be tackled, and the care of tools.

There are also chapters on wood-working with power tools, wood turning, metal working, working with plastics, etc. as well as domestic and miscellaneous applications of power tools. Useful working data are presented in the form of tables for easy reference.

Published by W. & G. Foyle Ltd., 125 Charing Cross Road, London, W.C.2. Price 4s. This book is also available from all Hobbies branches, or direct from Hobbies Ltd., Dereham, Norfolk (postage 5d. extra).

## DECORATING YOUR HOME

By A. T. Collins

THIS is a very useful book for the Do-It-Yourself home decorator, especially the owner-occupier. All interior jobs are covered very thoroughly, such as wallpapering, painting and ceilings, including the right kind of materials to use.

Tiling of floors, walls, fireplaces, etc. is clearly explained, together with condensation problems and their cure. The correct method of carpet and linoleum laying, especially how to tackle that very difficult problem of 'winder' stairs and door clearance, is fully covered.

A chapter is also devoted to most of the ordinary outdoor jobs usually done by the man of the house.

Published by George Newnes Ltd, Tower House, Southampton Street, London, WC2. Price 3s. 6d. paperback.

\* \* \*

## CAMPING

By P. W. Blandford

THE upsurge of public interest in camping over recent years has prompted this excellent book, written for the experienced camper and beginner alike. A surprising amount of detail on every facet of camping is included, and is well illustrated with line drawings and diagrams.

Much essential information is given on the different types of tents and camping accessories, and the writer gives the benefit of his vast experience gained over 40 years of camping.

Published by Collins, 144, Cathedral Street, Glasgow. Price 5s. 0d.

\* \* \*

## THE FIRST BOOK OF LIGHT

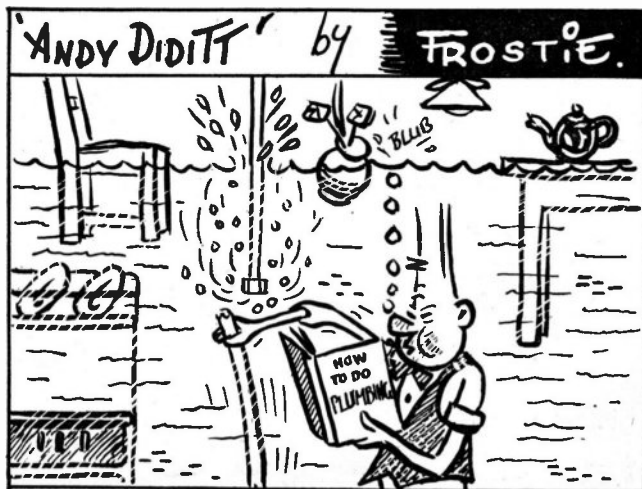
By G. R. Harrison

LIGHT makes life on earth possible — we need it not only to see with, but because it keeps the earth warm, and because without it we would have no food.

This introduction to light explores its many varied aspects, and gives simply and clearly the answers to dozens of different questions. Where does light come from? How does it travel? What makes the light in a flame? What are the different effects of lenses and prisms on the action of light? Reflection and refraction, real and virtual images, focus and polarization — all become clear and understandable when Professor Harrison describes them.

Photographs and many diagrams help the reader to understand the subject more fully.

Published by Edmund Ward, 194-200 Bishopsgate, London, EC2. Price 10s. 6d.

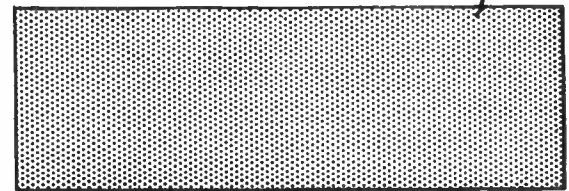
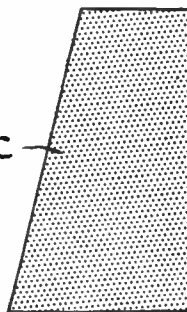
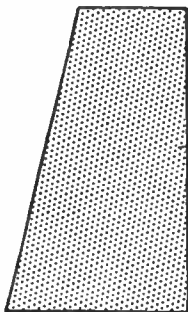
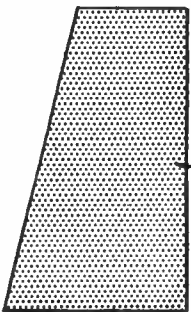
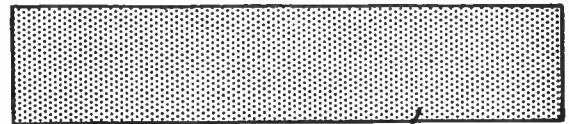
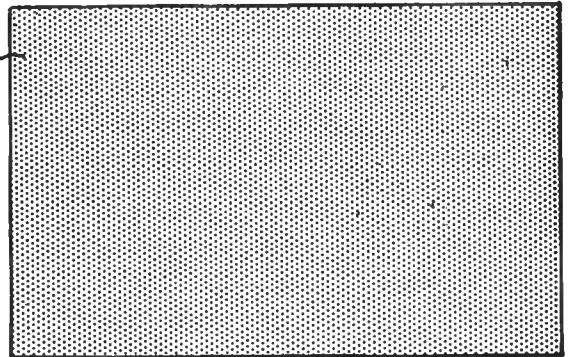
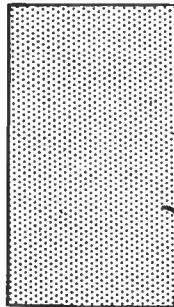
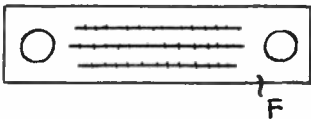
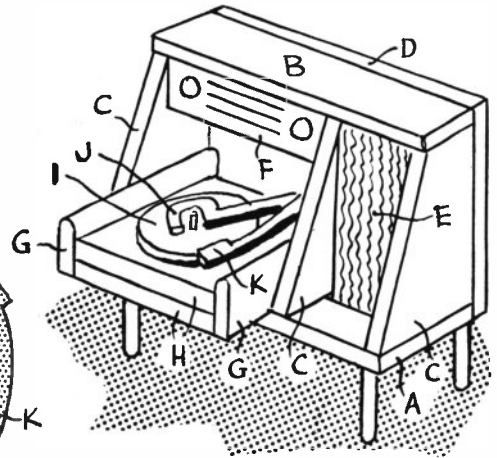
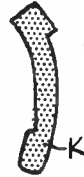
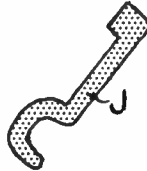
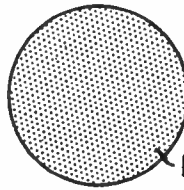
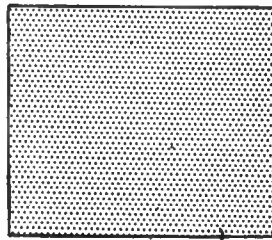


# Doll's House Radiogram

**T**HIS addition to the doll's house is cut from  $\frac{1}{4}$  in. wood, using a fine grade fretsaw. Cut one each of A, B, D, E and F, two each of G and H, three of C and one each of I, J and K from stiff card.

Assemble as shown in the sketch, using glue throughout. The pieces J and K are brought to the correct level by gluing a tiny square of card underneath. Piece J is then glued to the turntable I, and K glued to J. The feet are  $\frac{1}{4}$  in. lengths of  $\frac{1}{4}$  in. dia. round rod inserted into holes drilled in piece A after assembly. Finish off by painting brown, with cream turntable and gold speaker fret E.

M.p.



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