HOBBIES WEEKLY

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Hobbies

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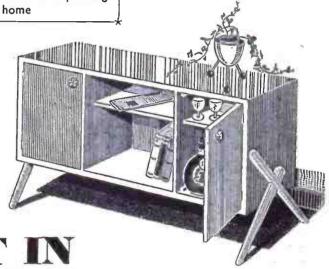
NUMBER 3114

The subject for this week's FREE Design Sheet is a pleasing piece of furniture for the home

HIS fine piece of furniture in the contemporary style can easily be made up at home by the average handyman, with careful studying of the design sheet and following the instructions closely.

With an open section in the centre and two outside sections with doors, it can be used as a cocktail cabinet, or for more general purposes such as a side-board. If the worker uses Hobbies standard panels, it will be found that measurements have been worked out which give but the minimum of waste.

Cut out all the pieces of wood according to the measurements given on the design sheet. It will be noticed that the shelving consists of one piece of wood which runs right through the three compartments, and is halved into



A CABINET IN CONTEMPORARY STYLE

the central upright partitions.

Another point of which to take note is that alternative joints are given for the top, bottom and sides of the cabinet. These parts can be butted together for simplicity, in which case the dimensions given on the design sheet will be

followed. Other methods of jointing, however, are given in Figs. A and B on the design sheet. B is the more difficult joint to make, but will give a much neater and more professional look to the finished article. It will be realised that if joints A or B are used in conjunction

with Hobbies panels, the measurement of the sides will have to be reduced to give an *overall* length of 172 ins. in order to get them both out of Hobbies 36 ins. panels.

Clean up the bottom and top picces

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

For Modellers, Fretworkers and Homé Craftsmen



Making a Multiple Retort Stand

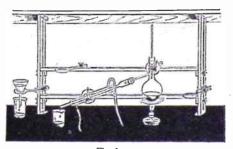
N our article, An Easy-to-Make Retort Stand, mention was made of the multiple stand now in use in many laboratories. Such a stand calls for a superstructure of vertical and horizontal steel rods and its cost, with

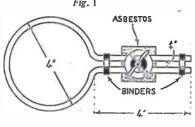
the unoccupied fitments. The convenience and compactness is self-evident.

The two verticals are screwed to a shelf above the bench, but if a shelf is not already there or is impracticable, a length of wood of the same width as the

down adjustment of the horizontals. the latter being secured by wing nuts and bolts at either end. A slot in each horizontal provides lateral movement of clamps, rings and funnel supports.

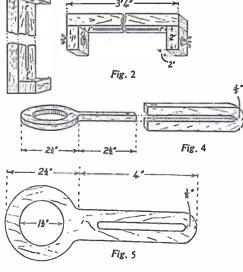
Provision is also made for further fitments on the verticals. The funnel support at the left can be swung to the





clamps, bosses and rings, runs into many pounds.

Fig. 1 shows a substitute which costs only a few shillings. The operations shown in progress would need three retort stands and a further two to hold



verticals can be screwed across and the corners made rigid by two triangles of wood at the back edges. The lower ends of the verticals are screwed to the bench. The slots in the verticals allow up and

side of the vertical if the bench space at the front is needed. The unoccupied ring on the right vertical can be used to heat an odd beaker.

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Contemporary Cabinet

(I and 2) and sides (3), and plane them square and true. Then prepare them for dowelling as shown in the diagram on the design sheet. From this it will be noticed that dowel holes must also be made to take pieces 5 and 6.

The shelving (5) and partitions (4) can now be prepared for dowelling in the same manner.

The back consists of three pieces (6) glued and dowelled together and planed down to an overall depth of 173ins. This section forms the complete back which goes between the two ends. The length of the back is, therefore, 334ins.

To assemble, first put together the shelving and partitions, back, ends and

YOU CAN BUY A KIT

For making this cabinet you can buy kit No. 3114, containing wood, knobs, hinges, round rod and stripwood, from any Hobbies branch. or post free from Hobbles Ltd., Dereham, Norfolk, price 107/9.

top and bottom in that order. In all cases use glue to secure, in addition to the dowelling.

The legs are made as shown on the design sheet, being halved and glued together. These legs will come out of the spare wood from the shelving panel if

Hobbies materials are being used. About four countersunk screws will hold the legs securely to the sides. For preference, screw from the inside after having drilled holes to take the screws.

The doors should be made up as shown in the detail on the design sheet. These are of in. wood with lin. by Hins, battens glued and screwed in place for strengthening. After recessing for the hinges, fix the doors as shown on the design sheet. Four small blocks are glued in the positions indicated to act as door stops, and ball catches for fastenings can also be added if required.

Before the addition of the knobs. finish off the woodwork as required. This can be by staining and polishing, or by merely rubbing with linseed oil and wax polishing. In both cases the grain will have to be filled with a proprietary brand of woodfiller.

AMATEUR BOAT BUILDING

THE motor-boat is for the lazy man, the sailing enthusiast will say. Personally, for getting on the water at every suitable opportunity and being independent of winds and tides (to a large extent), give me a boat which has an assured method of propulsion all the time. The main difficulty, particularly as far as the younger enthu-

siasts are concerned, is cost.

Speaking of 'new' prices, the cheapest motor for powering a small craft will cost about £25. It is an outboard motor, of course, but forget any previous ideas you may have had put into your head about outboards being unreliable, difficult to start and giving only low power. A good outboard will slog away all day at full throttle, if necessary, as long as there is enough fuel in the tank. Starting is merely 'knack', which is simply another way of saying that you have to practice until you have got the hang of it. As to low power, well, you can buy a 25 horse-power outboard in this country, if you wanted to, and that is powerful enough to drive a 14ft. hull at some twenty knots!

The £25 outboard will develop just about I horse-power. That will push a small dinghy along at about walking pace, or a little better. A 4 horse-power outboard, which about doubles the price, will drive a 13ft. runabout at 8-10 m.p.h.-fast enough for most purposes, even on a tidal river. You can use low power on quite large boats on inland waterways with little or no tide. On a tideway, or if you contemplate popping out to sea for a short trip when the weather is fine, you want about double the speed of the tide at full throttle, to be on the safe side. Even then you would arrange to go 'with' the tide each way-it saves a lot of petrol on

a longish trip!

Not for the Amateur

Forget ideas about speedboats. A 25 h.p. outboard engine would certainly push a 14ft. hull along at a fair clip, but you would need a planing hull to take full advantage of that power. With an ordinary displacement hull the more power you apply the more the nose tends to rise-not necessarily dangerous, but not very efficient, or pretty, either. Speedboats are a class unto themselves. Amateur enthusiasts do build them, but for sport, not for fun. For the same total cost you could probably build a small cabin cruiser.

Yes, even a cabin cruiser can have outboard power. A 14 to 15-footer will just about give you a two-berth cabin and 4 to 5 horse-power will be ample to



Even a cabin cruiser can be outboard powered. Such an arrangement just about halves the cost of the motor unit. This 14-footer can sleep two

drive her. Total material costs would work out to between £90 and £100. exclusive of the motor. A suitable outboard would add about another £50. A comparable inboard motor (with the extra trouble of fitting the engine), more likely twice that figure. From there you can go on up. A 20-footer £150 to £200, plus engine-and now we are getting out of the realms of amateur boat building again.

Too expensive? Far too much for most of us. You could probably buy a second-hand boat, complete with engine, for less. The only thing is it might not be so much of a bargain in the long run-and in any case we are concerned with being our own boat builders.

Outboards are widely used by amateur enthusiasts because they are the cheapest form of marine engine-and also the simplest to fit. Buying secondhand you can again cut the price, but you may unwittingly be buying trouble. The best bargains in this respect are re-built engines with a manufacturer's guarantee (or similar) against mechanical defect. You can usually get these about a third less than new price and be assured of a reliable power plant.

With this in mind you can probably produce a powered dinghy for about £50 complete. If you want to be on the safe side and start with everything new, then about £100 should cover everything. It may seem a lot in one sum, but split it up amongst a group and it becomes less formidable. Remember,

too, that you need not buy the motor until you have completed the boat. And if you plump for a 'general purpose' small craft you might even think it best to wait until next year before you fit her with 'power'.

However you decide to go about it, do not be tempted into trying to make a business of the whole thing. For instance, you may think that you could start with a small boat, use her for a while and then sell at a substantial profit to finance construction of a larger craft, and so on. You may be lucky and bring it off, but the chances are that you won't. Boats, and particularly small craft, have a rather 'indefinite' re-sale value, especially if home built. A man who knew boats would probably not offer more than the cost of the materials in her for an amateur-built craft.

Your Own Skipper

If you tackle boat building, it must be purely for the fun of it-and the satisfaction of creating from lengths of timber and sheets of ply a presentable, seaworthy craft, of which you are the owner. Ownership means a lot. It is just as much fun on a nice day to fiddle about doing odd jobs with the boat moored to the quay-or even just sitting in her-as it is to be chugging or sailing up and down the stream. You will not envy the other fellow his larger, impressive yacht whilst you are your own skipper.



Ouery About Gramophone

T HAVE a 1938 Collaro gramophone I working off a 240 voits A.C. mains. I wish to modify it and in so doing, fix an indicator light in the circuit which lights up when current is switched on. Could you please inform me of the correct

circuit? (F.A.-Morden.)

It is only necessary to wire the indicator lamp in parallel with the motor, so that it will light when the motor is switched on. Any small mainsvoltage lamp would do. If required, a holder or panel fitment for the bulb may be purchased from a radio or electrical shop, or from a supplier of such items, such as Bulgin & Co., Bye-Pass Rd., Barking, Essex. A twin-flex connection from bulb-holder to motor circuit would then be satisfactory.

Repolishing Perspex

T HAVE a quantity of sheet Perspex to I make up into photo frames, cigarette boxes, etc. Would be glad of information regarding method of reglazing cut edges, repolishing scratched surfaces, etc .whether butt jointing with Perspex cement is strong enough. (H.C.-Lymington.)

A CUT edge of Perspex is repolished by breaking it down with successively finer abrasives—glasspaper followed by brass polish and finally silver polish, or the two grades of polish supplied by the makers. The makers' cement is strong enough for small articles. Surround the joint with adhesive tape to prevent surplus adhesive marking the surface. Roughen the jointing surfaces slightly-they will become clear again as they fill with

Liquid Paraffin Stain

IS there any way of removing liquid parassin stain from a carpet? (E.H.-Walford.)

LIQUID paraffin requires treatment with a dry cleaner, followed by a detergent. First remove as much as possible of the paraffin by placing absorbent paper above and below the another sheet of absorbent paper beneath the stain and rub the stain from the edge inward with a cloth soaked

with dry cleaner (either a proprietary such as Thawpit, or benzene, or carbon tetrachloride-benzene is inflammable). Blot the stain and rub again with the rag which has been re-charged with dry cleaner. Continue the treatment until the maximum effect is obtained. Complete removal is usual. Finish by applying a lukewarm solution of a household detergent, blotting between applications. A rub over with lukewarm water should be given last.

Paint for Rubberised Canvas DLEASE tell me how I could make I some black paint for rubberised canvas, as I cannot buy any anywhere? (P.J.—Reading.)

ORDINARY paint is unsuitable for rubber, as it will cause perishing. You should be able to get black tyre paint from a car sundries firm, such as Halfords, and this is quite cheap and preferable to making your own. It is

possible to thin Bostik adhesive with petrol and use this as a paint on rubber Alternatively, use a black pigment such as lampblack, with a little rubber solution, thoroughly mixed with petrol.

Scratches on Furniture

HAVE a light walnut bedroom suite which has been scratched on the surface, and I would be glad if you could tell me what to use to cover these marks. (M.J.-Lecds.)

TF the scratches are not too deep or many (in which case repolishing is the only remedy), try filling them with varnish, laid in the scratches with a fine brush. This can be effective sometimes. Rub over after a few days with furniture

Creeping Carpet

T HAVE a carpet with a felt underlay I which persists in creeping along the polished floor. Can you advise the type of glue to use to stick the felt to the floor? (F.S.-W. Bromwich.)

THERE is a proprietary preparation called 'Bateman's Rubber Paste' which should suit your purpose satisfactorily. It can be spread over the felt underlay, and prevents the slipping you complain about. A tin would be needed for such a job, and costs 4/6. You can obtain it from handicraft dealers and possibly from a local ironmonger.

• Continued from page 210

A Multiple Retort Stand

The stand is shown in its simplest form. Further horizontals and their rings and clamps could be turned out according to need.

The clamps shown holding the flask and condenser, and the ring on the right vertical, are of the same forms and dimensions given in the article An Easy-to-Make Retort Stand. Details need, therefore, only be given for the verticals, horizontals, funnel supports and for the ring beneath the flask.

In Fig. 2 are details of the verticals and horizontals, wood 2ins. by 1in. being used. The height of the verticals will depend on the height of the shelf. This will probably be in the region of 2ft. 8ins. The slots in both verticals and horizontals are lin. wide.

The ring for the horizontals (Fig. 3) is bent from fin. or in. iron wire. The two binders consist of sections cut from suitable diameter metal tubing and pressed into ovals. 11 ins. squares of stain and ironing with a hot iron. Place . in. thick asbestos millboard are positioned on each side of the horizontal to protect the wood from heat. Washers are inserted on the wing nut

and bolt. Fig. 4 shows the construction of the swivel funnel support depicted on the left vertical in Fig. 1. The ring is 2½ ins. in diameter, and with a 1½ ins. diameter hole. It is cut from in. wood. The slide shown to the right of Fig. 4 calls for 1 in. thick wood, 4 ins. long and lin. wide. The slot is \(\frac{1}{2} \) in. wide. A screw passes through slide and ring and so provides the swivel motion, and a wing nut and bolt through slide and vertical gives any desired adjustment in the two planes.

Lastly we have the simple funnelsupport for the horizontals (Fig. 5). For this, Jin. wood is needed. The slide end is 1in. wide. A 3ins. by 1in. slot gives ample adjustment. When not in use, this support can be turned out of the way by loosening its wing nut and sliding it round so that it rests along the horizontal.

As with the single retort stand described in our former article, the finish can well consist of aluminium paint for the woodwork and ferrous metal parts, and shellac lacquer for the

EASY TO MAKE

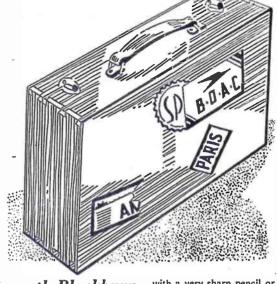
A Serviceable Attaché Case

SMALL case such as this is useful for a variety of purposes, and the sizes may be altered to suit the particular need for which it is required. It is of little use making a case to a set size only to find that it is too small to accommodate the articles it is intended to carry. If it is required for general purposes, however, the sizes given will probably be found suitable.

Construction

The lid and the container part of the case are made in one piece, and plywood is fixed to the top and bottom, making a totally enclosed box. Then the two sections are sawn apart. This method ensures a perfect fit of the lid.

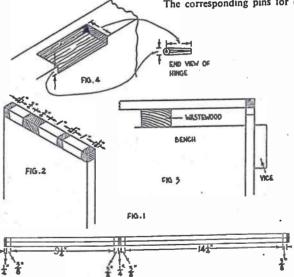
Two pieces of wood will be required, each 26ins. by 41ins. by 1in. Prepare these to 41ins, wide and 1in, thick, and place them in the vice together for the marking out, which is shown in Fig. 1. Each line is squared right round. The wastewood is then sawn away, giving the two sides and two ends of the case.



By Kenneth Blackburn

for sawing. Remove the wastewood from between the tails with a tenon saw and a bevel-edged chisel. A coping saw may be used to remove some of the waste, thus reducing the amount of chiselling.

The corresponding pins for each set



The dovetails are now marked on the shorter pieces (see Fig. 2). Notice how one socket is made wider than the others in order to provide sufficient for one pin of normal width on the lid and one on the lower part, with lin. extra

of tails are marked by placing the longer piece in the vice so that its end is level with a piece of wastewood placed on the bench. This provides a firm base on which to hold the wood down firmly while marking round the tails · 213

with a very sharp pencil or a compasspoint (see Fig. 3). Remember that the face sides should be on the inside of the finished case. Put identifying numbers on corresponding pins and tails, or you may be faced with a jig-saw problem later on.

Square the lines down with a trysquare to the shoulder-lines, and shade in the wastewood: Saw down these lines on the waste side and remove the waste with a coping saw and chisel. After fitting the joints, clean up the inner surfaces with a smoothing plane and glasspaper before gluing the case together. Test for square immediately after assembly.

The plywood top and bottom are cut to a size lin. bigger than the case, and secured with in. panel pins. A steel plane is used for trimming the plywood flush with the case. The whole outer surface is also cleaned up, planing to the centre of the wood to avoid splitting the dovetails.

Test with Try-Square

Two lines are now gauged right round the case in. apart in the centre of the wide pins. The lid and lower part are separated by sawing with a panel saw between these two lines. The edges of both parts are carefully planed to the gauge lines with a smoothing plane. The two parts should be tested together. If they do not meet perfectly, test the edges with a try-square: you will probably find that the plane has not been held square.

A pair of lin, brass hinges are used. They must, of course, be recessed into the wood so that no space is left when

a Continued on page 214

THE stool shown in our illustration has a somewhat old-time appearance, and would look well if made up in oak. But if this wood is considered too hard for cutting, then Spanish chestnut or any similar fancy wood may be used. Wood should be not less than in. thick, and all the cutting should be done with a coarse fretsaw.

The construction of the stool is shown in Figs. 2, 3 and 4. In the top edges of the two legs there are slots into which fit a pair of rails (A). The method of cutting the slots and fitting the rails to them is shown in Fig. 3. At a distance of 6ins. up from the bottom of the legs are cut mortises 2ins. long by in. wide to receive the tenons on the ends of the cross-rail (B). This rail is connected and fastened in the old-time method of wedging, the wedges being inserted through holes made near the ends of the rail, as seen in Fig. 4.

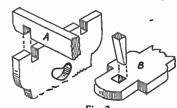
How to Begin

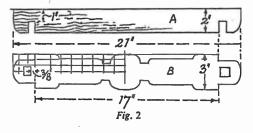
First make the legs by enlarging the pattern shown in Fig. 1. On one of the boards measuring 18ins. by 10ins., mark and rule in the centre line down its length and then set out a series of lin. squares as shown. Through these squares draw the outline, following each square of the diagram carefully.

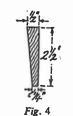
An Old-Time Stool

draw over the lines to complete the whole end. Carbon paper may be put between the two sheets to get a solid line on which to cut.

This done, use the fretsaw for the cutting, then take this cut-out as a template for marking out the second leg or end. The two rails (A) in Fig. 2 are plain in outline, but the slots must be carefully set 17ins, apart as shown. The lower rail (B) has its outline shaping carried out in much the same way as that adopted for the legs. Note the length of







Draw in the mortise for the cross-rail (B), and also the three frets to be cut out. Some workers may, perhaps, prefer to

leave out the latter frets altogether. Now make a tracing on thin paper of this half of the design, adding the centre line as well. Turn the tracing over and place the centre lines together, and then

17ins, again, and also the space of lin. near the hole for the wedges. This clearance allows for the wedges to be knocked into place after the rail has been inserted.

The wedges pull the parts tightly together. They must be carefully marked out and cut according to Fig. 4, but trial wedges may be made before deciding the true taper required for them. The top of each wedge may be chamfered on three sides for appearance sake if desired.

Making the Top

The top of the stool is a plain oblong of wood 22ins, by 101ins, and the edges may be planed to a wide chamfer if desired to lighten its appearance. Countersunk screws will hold the top securely to the rails, or glued angle blocks may be put underneath. Fill the screw-heads with a suitable filler before the actual wood finish is applied. After all surfaces have been cleaned off, a dark stain may be added, finished with either wax polish or varnish. (S.W.C.)

Continued from page 2[3]

A Serviceable Attaché Case

the lid is closed. The simplest way of doing this is to let the full thickness of the hinge into the lid. Square across a line about 2ins. from each end of the lid, and then a further lin. These lines show the positions of the hinges. The gauge is set from the hinge as shown in Fig. 4 to mark the width and depth of the recess. This marking must be done accurately if the lid is to close properly. If anything, set the gauge a trifle bare of

the sizes shown.

When the hinge is screwed into this recess, the centre of the hinge pivot should be level with the outer surface of the wood, and the knuckle should be flush with the edge of the wood.

A dark stain and a few coats of french polish applied with a brush provide a durable finish. The handle and clasps are easily obtainable, and are fixed after the last coat of polish is thoroughly dry, WITH ROD AND LINE

Have You Tried These Baits?

part omnivorous creatures, and will feed readily enough, when hunger-driven, on anything edible that comes floating downstream or can be rooted up from the gravel and mud, or sucked in from the water-weeds.

Surface flies, insects, etc., are also greedily scooped up, for fish are always on the watch for grubs, caterpillars, and larvae, that fall from the boughs of. trees and shrubs. Many-perhaps most -anglers seem to stick faithfully to certain popular baits, some half-dozen or so, and do not look beyond these, which include various kinds of worms, maggots, pastes, hemp, breadcrust, creed wheat, and so on. The great majority of anglers only fish these baits, overlooking the numerous lures and natural edible titbits that may well prove attractive to the fish.

During the summer season such baits are always worth a trial. Grasshoppers are 'good medicine' for trout, chub and grayling. So are beetles, as the fernbeetle, the common water or 'diver' beetle, the garden beetle, and others. The ladybird is another likely one for summer fishing. And the common cockroach, which can be caught in a beetle-trap, is often a killer.

An old Angler's Secret

An old angler used to get good trout in a stream just below an ancient corn mill, which, up to a few years ago, was still working by water power. One day his secret was discovered. He often helped the miller, and noticed that many cockroaches-the old mill was simply alive with them-found their way, unwittingly, into the water and were carried down into the mill race and thence into the pool below, where fat trout cruised around on the lookout for such food. The wise angler took his cue from this happy discovery, and many a nice fish was brought to the landing-net as a result!

Many kinds of fish, including trout, chub, tench, carp, and perch will not disdain such baits as snails, slugs, frogs, dock grubs, chafer grubs, wasp grubs, and many other larvae turned up by the fork when you are gardening. One successful bait for trout in spring is the small grub or larva, white, with a brown head, and about lin. long-sometimes referred to as a 'false' centipedefound among grass roots in gardens. A mint bed that has run wild will often yield many similar grubs if you shake out the roots as you dig them up.

By digging up the roots of dock

asks Arthur Sharp

plants, dandelions, and other similar plants, a fattish creamy-white grub with segmented body and brownish head that is hard and crusty may frequently be found; if lucky half-adozen from the roots of a single plant may reward you. Impale the grub on the hook, which is pushed through the body below the head, and leave point and barb bare. This is irresistible to trout.

Strange Tastes

Many fish acquire strange or unsuspected tastes. Trout readily take scraps of meat, cubes of fat mutton or pork. Macaroni is a titbit that chub are fond of. Carp like a parboiled potato, about the size of a walnut. Boil the notato in its skin, but peel before use.

Cold Yorkshire pudding, cut into small cubes, has proved successful in chub-fishing. Pieces of ham, small strips of tripe, of bacon rind, and raw meat have all been used with success at times. Trout have been caught on a small hook baited with a wood louse. Caddis larvae also tempt trout and other fish, as roach and dace. Dragonflies, butterflies, moths, crane-flies ('daddylong-legs'), bluebottle flies, and hairy caterpillars are other lures fished in a natural manner that various kinds of

fish gladly accept.

Many species of fish, especially chub, roach and dace, can be tempted with ripe fruits. When elderberries are nice and juicy, roach and dace fall for them. A strip cut from a mellow pear will prove attractive to chub; so, too, will a cube of banana.

Dead Sparrows for Pike

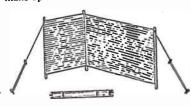
In old angling literature one finds references to the fondness of pike for rats and voics, for dead sparrows-the 'deader the better' says the old anglerand baby mice. One curious pike lure used evidently with some success in the past and is mentioned in ancient angling works, is the tip of a calf's tail, with a short length of leather bootlace attached. This strange device, attached to a simple tackle with fairly large hooks, is said to be very attractive to big pike.

As to artificial lures, they are legion. Many pages of fishing tackle catalogues are needed to accommodate them. Yet most of them appear to attract fish in due season.

In all truth, baits that will attract fish are exceedingly numerous; the old angler was right when he said: 'The trouble is to find out what not to use rather than what can be used.' Fish will on occasion take anything that promises to be edible, and strange and unusual baits tried as a last resource have been highly successful-at times.

A Shelter from the Wind

T is not always possible to have a complete tent in the garden for the summer days, but the handyman can make up this useful screen as illustrated.



It can be made with hessian, blind cloth or a similar material. Firms who supply tents sometimes sell special canvas in cut lengths.

You will require three uprights of wood about 7st. high and about 2ins. 215

By Victor Sutton

square. The ends should be cut so that they can be forced into the lawn. The material is fitted to the supports with felt tacks which have suitable large heads. It is best to have one full length, about 6ft., and the shorter length 4ft.

Hardwood Pegs

The arrangement of a few guy-ropes fitted in the same way as one would adjust a tent can be fitted to suit the angle and position. Pegs can be made from short pieces of stout hardwood.

This shelter can be rolled up as shown and secured with a couple of straps. If wet, allow it to dry in the sun before rolling up, or the fabric will be ruined by mildew.

In approaching this model, one of the finest in our range of Old Time Ship Models, I first decided to collect all the information I could about the period and the original ship. Much research has been done since the kit was first designed some years ago and we are always unearthing new facts about naval architecture and individual ships.

In this model we find we are up against the fact that there were several ships called the 'Royal Prince', 'Royal Charles', etc., some being built under another name before being renamed the 'Royal Prince' or 'Royal Charles'.

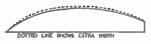
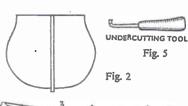
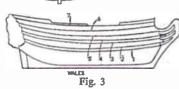


Fig. 1





Our design does not represent the 'Royal Prince' of 1610 as was intended when the kit was designed. The 1610 vessel was of a design that was intermediate between the galleon and the ship of the line of the Stuart period. She had the long beak of the galleon and an outside stermalk or gallery. Our model has the enclosed stern of the Stuart period and lacks the galleon beak.

No Difficulty

This is no detriment to our model and creates no difficulty for us. We merely have to use the knowledge available through later research and this identifies our model as the 'Prince' of 1670. We are now able to plan what is, undoubtedly, a very interesting model, and being certain of our prototype we shall be creating a model of historic worth.

THE 'ROYAL PRINCE'

Part 1—Building the Hull
By 'Whipstaff'

The 'Prince' was a first rate, a vessel designed by Phineas Pett and was launched at Chatham in 1670. She was flagship during the battle of Solebay, carrying the flag of the Lord High Admiral. At that time this office was held by the Duke of York.

Carrying a crew of 700 men under war conditions, she was armed with 26 forty-two pounders on the lower gun deck, 28 whole culverins (eighteen-

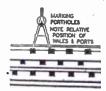


Fig. 4

pounders) on the middle gun deck, and 28 demiculverins (nine-pounders) on the upper gun deck. On the quarter deck were 10 sakers (six-pounders). The poop was armed with 4 three-pounders. She carried three boats and nine anchors. Her dimensions were: Length of keel 131ft, breadth of beam 45-8ft, depth of hold 19ft. Her tonnage was 1,463 tons burthen and her draught 21-5ft.

And now to our model. Commence by cutting hull pieces A and C 1 in. wider and piece B 1 in. wider as in Fig. 1. This will allow us to carve the hull to the correct shape, showing the tumblehome as in Fig. 2, which shows the midship section. The remaining parts of the hull can now be added as in the kit instructions; first the upper decks and finally the bulwarks.

In order to have the finished model as perfect as possible, I would suggest you line the decks in the same manner as was done on my own last two models of the ship. With a metal straight edge and a razor blade cut in the lines of the planks after first giving the decks two coats of shellac and allowing it to dry. Do not forget that the planks were laid in

lengths and not in one continuous plank. Make cross-cuts on the lines, staggering them to avoid an unseamanlike effect. Now give the decks a generous coat of artist's oil colour, burnt umber, then rub off the paint with a cloth. This will give the decks a warm, natural colour and the colour remaining in the cuts of the planking will give a realistic effect of the actual caulking between the planks.

The Wale

Having our hull complete, we now add the wales as in Fig. 3 (our sketch is not to scale, but foreshortened to save space). The wales are cut from wood in thick and in wide and are glued and pinned along the hull in the positions shown.

The next operation is to mark the porthole positions. To do this I use a pair of dividers to mark out the exact centre of each porthole, the porthole next being marked on the hull in pencil as in Fig. 4.

Now comes an interesting piece of work; in order to give our hull an



Fig. 6

appearance of being hollow and thus add to the realistic finish we are striving for, we give depth to the portholes. This is done by means of a special tool as in Fig. 5. To make this tool take a stout 4in. nail, drive it into a piece of thick dowel, say, in. Cut off the head, sharpen to a chisel point and bend over the end as illustrated. Now mark around the edge of each porthole with a sharp knife or chisel, and chisel out the port to a depth of in. to fain. (mine were the latter). Now with your specially made tool undercut the porthole on each of the four sides as in Fig. 6, which shows a section through the hull, in order that the operation may be fully understood. You will, of course, have to cut your guns that much longer than specified in the kit instructions.

The hull can now be painted white below the waterlines, the upper hull is golden brown and the wales black, but these should be left until all the carvings, etc., which we will deal with in our next article, are in place.

FOR THE HANDYMAN

A USEFUL SPIRIT LAMP

To be able to solder different metals in a satisfactory manner is one of the greatest assets for the handyman to possess. There are so many jobs always cropping up in the home and workshop which need this attention.

The good old-fashioned soldering iron is still a very useful tool, but it has some serious drawbacks. It must be used near a fire or gas burner, as it cools very quickly, and it must be cleaned quite frequently to keep it in good working order.

An improvement on this is the electric iron which keeps clean, but it must be used near to a lamp holder or

plug socket.

For work anywhere and under most conditions there is really nothing to beat a good spirit lamp, especially if it is fitted with a blowpipe attachment. By this means a very considerable amount of heat can be obtained, and what is very important it can be directed on to the exact spot where it is required.

Simple Construction

The subject of this article is a very efficient spirit lamp; it is simple to construct and if carefully made will give years of useful service. The body of the lamp which holds a supply of methylated spirit can be made from a large variety of articles and provided the lid or cap fits tightly it does not much matter what you use.

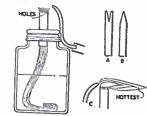
A glass jar with a metal screw cap is, perhaps, the ideal choice, as it allows the amount of the spirit to be observed at any time, and it is also very easy to fill up. Small metal cans with a push-in tin lid may also be used with equal

The size of the container will depend on the work which is to be done, but it is not advisable to have it too big, and something to hold about a quarter of a pint will be ample for most purposes.

Drill or pinch a hole in the top of the cap and file it so that a length of brass tube can be fitted in tightly, and then soldered to make the joint airtight. A piece about \(\frac{1}{2}\)in. diameter and \(\frac{3}{2}\)ins. long should have \(\frac{2}{2}\)ins. projecting at the top, and it is a good idea to have a row of small holes round the top, as this sometimes helps to make the flame more efficient.

For the blowpipe attachment quite thin tube may be used—in. to in being suitable. To make the end tapered, cut a V-shape slot as shown at (A), and carefully nip the tube together to form the end (B). If a needle is placed in the

By A. F. Taylor



end as it is being closed, a much neater job will result. Solder the join to make it tight. The V slot may be cut on both sides of the tube if a smaller hole is needed, but in this case, there will be two joins to solder.

Experiment will show the best position for the blowpipe, and it can be

wired to the cap while this is being carried out. When the best place is found it should be soldered firmly to the cap.

Adjusting the Air Pressure

About 18ins. of rubber tube connects the end of the blowpipe tube with the mouth and the amount of air pressure can be adjusted by blowing until the flame is the correct size for the work in hand. An oil lamp wick can be used for the jar tube and this should not be packed in too tightly. Half fill the container with methylated spirit and try it out.

It is possible with correct air supply to create a very hot flame and a lot of useful work can be done with it. The temperature of the flame varies considerably according to the part that is used; the hottest spot is indicated at (C).

A Sailing Model Viking Ship



BOYS will have a fine time sailing this little Viking ship. It is easily constructed and will give endless hours of fun.

Cut out the hull pieces (A) and (B) from \$\frac{1}{2}\$in. wood and the centre keel portion (C) from \$\frac{1}{2}\$in. or \$\frac{1}{2}\$in. wood. Shape the hull pieces to the sections shown on the patterns and glue one on each side of the centre keel portion (C). Use waterproof glue for this job. Screw two weights to the keel, sufficiently heavy enough to keep the boat on an even keel.

Give the ship two or three coats of

paint and then glue the shields along the sides. They should be about in. diameter and can be cut from thin card.

Step the mast in the hole provided, shaping it from In. wood, and make the sail from thin cloth. Sew the sail to the spar which should be tied to the mast. Insert a pin or screw-eye to the deck for attaching the running lines from the sail.

Try the little ship on the water and you will be delighted with its performance. (M.D.)

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MAKING PANORAMIC PICTURES

ROM time to time you have probably come across very extended subjects, like scenes looking away over a wide expanse of country, that just will not go on a single snap. Also you have found that if you go far enough back to get everything in the picture the principal part becomes so small and distant as to be

Such scenes can, however, often be taken quite well fairly near in by making a panoramic series of slightly overlapping prints and mounting these later By H. A. Robinson

plainest of foregrounds and with the line of country you want some little distance away.

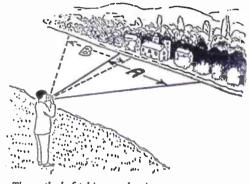
Thus, looking out on to a wide expanse of countryside from elevated ground is good for then there generally is no foreground at all. Looking over water is very satisfactory, too.

But much depends on the nature of the foreground, for often coarse grass and the like can be made to connect up

without much trouble even if it is not along the perfectly correct line of joining. The middle and far distance must join correctly, however.

Panoramas can be made up of two or three snaps. Often as not two snaps cover the subject, and, of course, this works out cheaper than with three exposures. But it is a case where it is best not to spoil the ship for a ha porth of tar. So if three shots are needed on some really splendid scene, do not begrudge the third piece of film.

The sketch shows how panorama



· The method of taking overlapping photographs

as a connected length.

The results obtained this way are very pleasing, giving a sense of space and width, just as do the wide-screen cinema films. Indeed, you seem, as with the films, to get better into the pictures. Unfortunately, not all scenes can be taken by this overlapping method—but some respond very well. The wide-expanse subjects that do not take too well are those where there are also numerous near-in features like trees, fences and hedges. Scenes that take the easiest, and the best, are those with the



These three prints make up the completed panorama shown below. In this case the picture was made by considerable overlapping of the prints. The scene is on the outskirts of Berlin



pictures are taken. By looking through the finder you see whether the scene will be well covered with two or three shots. If two, sight one picture taking, say, the right of the subject (A). Note some feature on the extreme left edge of the finder that just comes in. Now swing the camera, getting this feature in on the • Continued on page 220







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opposite side of the finder (right) and snap again (B)—not forgetting, of course, to wind on in between!

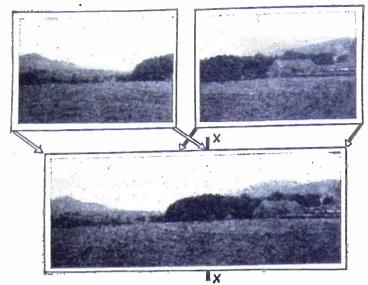
When three snaps seem necessary, snap the centre one first and then make two more pictures, one to either side. With three pictures you can often allow a little more overlap, which is all to the good.

When you have got the prints, examine the overlapping strip well for the best line of cutting. Sometimes a fraction of an inch to one side or the other will make all the difference between a satisfactory join or otherwise. There is generally one very best line of joining.

Cut with Razor Blade

The prints can be overlapped, but the best junction is made by accurately overlapping the similar parts, then pressing down with a steel rule and cutting with a safety razor blade through both prints. In mounting, the two cut edges can now be brought accurately up to one another and not overlapped at all.

The most ideal way to get panorama pictures is to be able to travel parallel to the scene and then take succeeding shots so that the picture ends just overlap. An excellent example of this would be going along the coast in a boat and covering a required length with a sequence of snaps.



A two-print panorama. The arrows show how the pictures overlap

The 'drawing' this way is very true. With the swinging method there may be a tendency for the ends of the scenes to look as though they were receding. But only in very exacting cases is this

noticeable as, perhaps, where a road runs straight across the field of vision in the middle distance. With fairly distant hills and other expanses this effect is never noticeable.





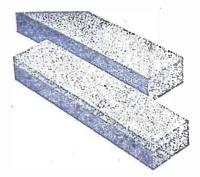
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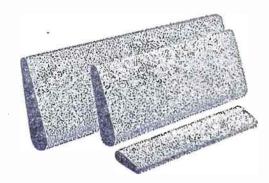
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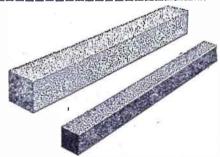
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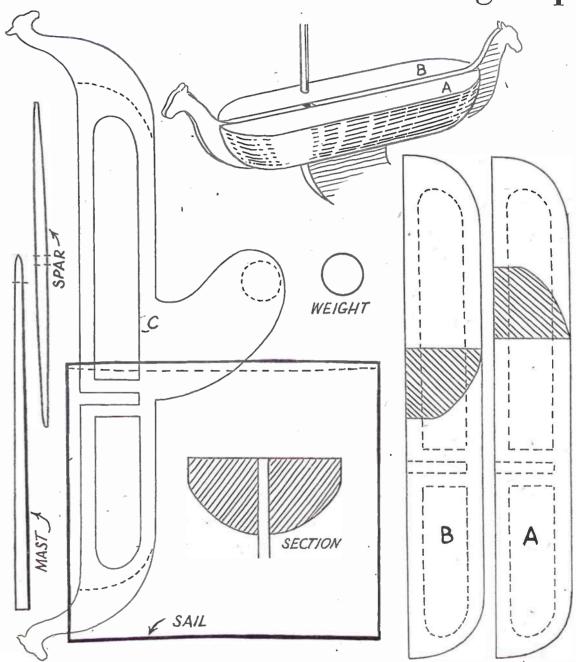
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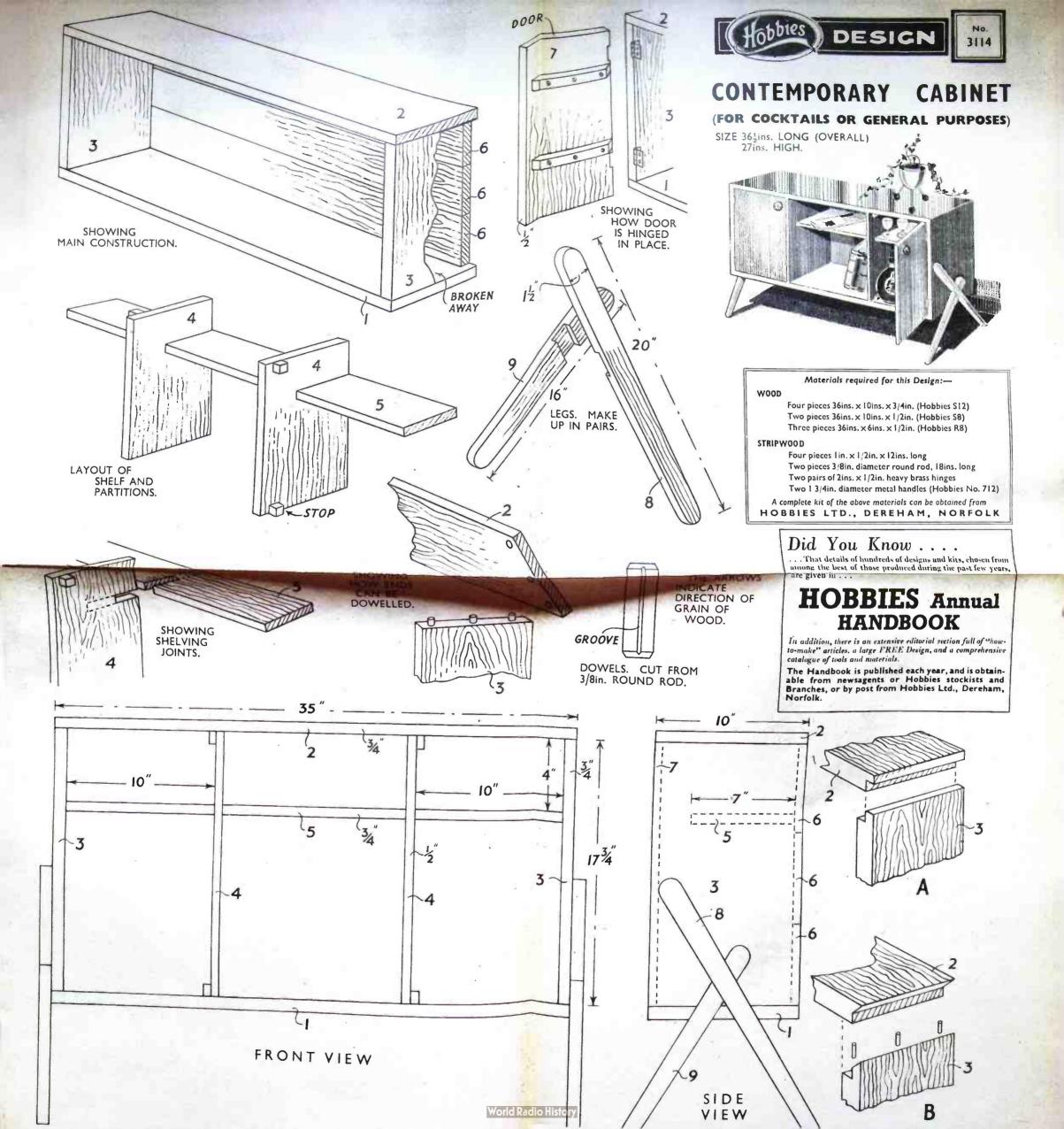
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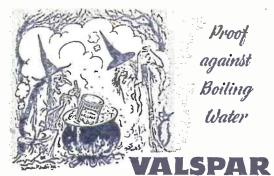


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