PENCIL CASE NOTE PAD DESIGN INSIDE

Hobbies WEEKLY

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A Useful Paper-weight model of a FLYING BOMB

THOSE who have seen the Pilotless Plane see it only in flight, put-put-putting across the sky or as it descends to earth and blows itself to smithereens.

A description or drawing of such a robot plane, of course, is never so satisfactory as a model, so why not make an identification model, such as is shown at Fig. 1. It can be made to serve as a paper weight, if desired . . . . or for adding to your collection of miniature model planes.

Readers will recall publication in Hobbies of a model jet-propelled plane. The robot bomb works much on the same principle and makes an interesting comparison.

The Bomb Body

The torpedo-shaped bomb body should be made first of all. It is built up from three shaped layers of wood, i.e., a ¼in. thick centre piece and two 3/16in. cover pieces. The centre piece is cut to the shape and size at A, Fig. 2, omitting to cut out the wing aperture near the nose end.

The cover pieces are cut similar, but the tail aperture is omitted in both cases and the main wing slots included. When neatly cut out, glue the cover pieces to each side of the centre piece.

Incidentally, there is no need to make the cover pieces the full length; you can cut them shorter (to 6¼ins. long) at the tail end, for you will have to remove as much waste when shaping the work as shown by the view at Fig. 3.

The side shape, beforehand, of course, is marked on the wood, at the top and bottom side. One side is shown shaped; the other side is shaped identically. This shaping gives a square sectioned fuselage, and the squared work is ultimately rounded in section to a diameter of ¾in. at the thickest point.

A sharp penknife is useful for

Fig. 1—The finished model put to a useful purpose!

paring off the corners roughly. A spokeshave, rasp and glasspaper will do the rest of the shaping. Try and get the body shape neat and quite smooth.

Fitting the Wings

The main wings on the flying bomb are very short. The size and shape is given at B, Fig. 2. Cut two such wings from 3/16in. wood, then plane a taper at the undersides, then round over the leading edges and shape the wood to the usual streamline, as per wing root slots, so they fit in neatly.

All this is indicated at Fig. 3. In regard to the tail wing (C, Fig. 2), it is cut from ¼in. wood and shaped to the section, i.e., so it fits into the slot provided, as shown at D.

The rudder, the size and shape of which can be gathered from D, is cut from ¼in. wood, then carefully drilled for a wire support. The latter, which is more clearly shown in the side elevation at Fig. 3, can be bent from a large pawn pin or a hairpin or safety-pin.

If using the large pin, make a tiny hole for it in the bomb body at the point shown, insert the pin up from beneath, bend it back towards the rear end, then bend it upright and insert the rudder over its point.

Jet-propelling Device

The jet-propelling device is suggested with a tapered piece of dowel and two thinner supporting dowels. Obtain a piece of ¼in. dowel rod 3¼ins. long and two pieces of ¼in. rod ¼in. long. Holes for the entry of the latter are bored in the thicker dowel to be 1¼ins. apart, as shown at E, Fig. 2.

At the front end of the dowel a ¼in. hole is bored about ¼in. deep. A ¼in. hole is bored ¼in. deep at the opposite end. Have these holes bored centrally, following which the dowel is neatly planed to taper in the manner indicated.

Glue in the supporting pieces of dowel, then bore suitable holes for these in the top of the bomb body, at the approximate position to be judged from the side elevation. A tiny hole for the entry of the rudder pin point is also made in the propelling chamber. It may be necessary to cut the pin shorter in length; its shank should only project about ¼in. from the top of the rudder.

Having attached the propelling device, the model is completed by giving it a coat of black poster paint and lining the work with white poster paint as shown at Fig. 1.

A better finish is to stain the wood with ebony spirit stain and apply two thin coats of ebony french polish, using a soft mopping brush or the usual rubbing pad. White lines can be drawn on with white ink or poster paint; if such lines are scratched on first, so much the better.

A Suitable Support

As the flying bomb has no undercarriage, it looks like nothing merely lying flat on its belly. A suitable support should be made so the model can be arranged in a flying position.

Such a support is shown at Fig. 1. The three base pieces are cut from ¼in. wood, shaped up, then glued centrally together. A piece of stiff wire about 6ins. long, such as that provided by an old bicycle wheel spoke, is fixed in the base and in the bomb body, just behind the main wings. Have the model in a diving position, just as it appears when it drops silently from the skies.

The base of the supporting wire could also be ebony polished to match. Should the model appear to be top heavy, it may be necessary to drill, or rather, bore a 1¼in. diam. hole in the bottom piece of the base ¼in. deep and load it with a 1¼in. diam. by ¼in. thick disc of lead.

To make such a weight, of course, it is only necessary to bore a 1¼in. hole in a scrap piece of ¼in. wood, nail it upon another scrap piece, then melt a piece of lead piping or sheeting in a tin and pour the molten lead into the mould.

When cool, the cast weight is forced out, drilled and countersunk for a 1in. by 6in. flathead screw, then filed and fitted into the base, the bottom of which can be covered with a piece of green baize or felt.

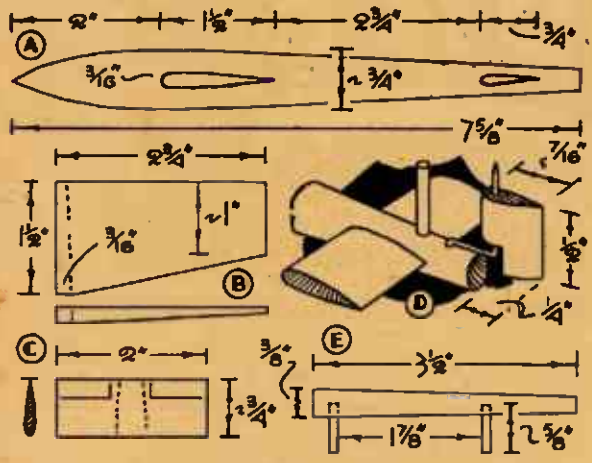


Fig. 2—Size and shape of various parts required

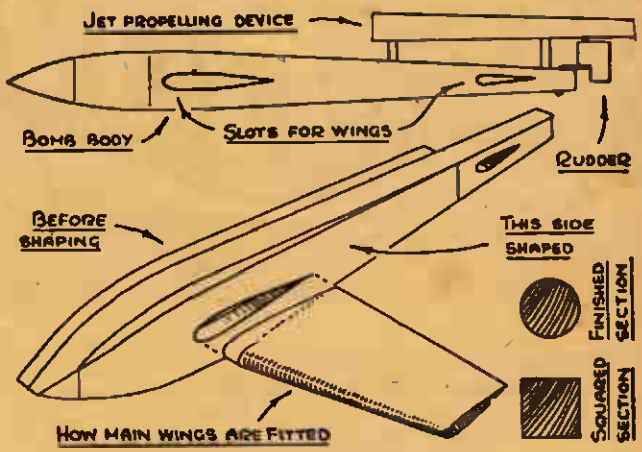


Fig. 3—Side elevator and constructional details

An Aeromodeller's Association

THE number of aeromodellers in Great Britain must now be colossal. It is estimated there are more than a quarter of a million with more to come when hostilities cease. Every walk of life provides these enthusiasts, as is revealed by the interest in our pages relating to this subject. Now a new association for these model makers has been formed under the title of The Association of British Aeromodellers. The principal object of it is to promote, encourage and develop the movement and to assist its members in many ways.

It will also seek to regulate, encourage and foster the building and flying of model aircraft of all kinds; promote competitions, exhibitions and scholarships; foster research and education; give sound advice and assistance to members on matters relating to their problems; establish and support social clubs, libraries, and co-operate with all other organisations likely to advance the well-being of aeromodelling.

Membership is open to all British subjects and subscriptions are 5/- under 25 years of age and 10/6 for Associates over 21 years. The new Association has post war plans to meet the immediate needs of those who enjoy this fascinating and instructive hobby. Any reader interested can obtain further details from the Secretary, 84 Hillway, Holly Lodge, London, N.6., if they mention Hobbies Weekly when they write.

For all seasons the gardener finds a use for

A GARDEN TRUCK

THE hand barrow shown in our sketch on this page would be most useful in the garden during the Autumn.

It is just the thing to push round on path and lawn after the leaves have fallen and littered the garden.

The barrow is light in construction but strong, and it is so pivoted on its two wheels that it can be tilted forward to empty easily. This is well illustrated in Fig. 1 where the dotted lines indicate its forward movement. The general construction of the article is plainly understood from the sectional diagram, Fig. 1.

There are two sides, a back, floor, a shallow front and a top board, the two latter binding the sides together and making a strong box-like barrow.

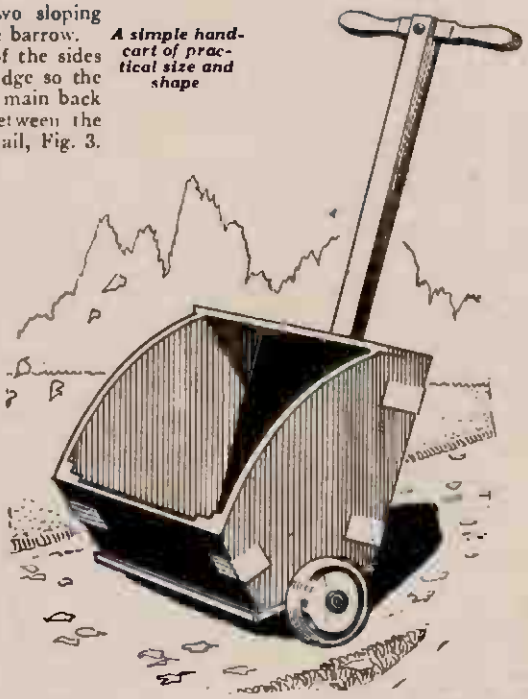
The Sides

Each of the sides is made from three boards. The overall size before being cut to shape is 12ins. by 13ins. high, as shown in Fig. 2. The two top boards are each 5ins. wide and the lower one 3ins., and all ⅞in. thick.

The two battens holding the boards together are of 1¼in. by ½in. stuff, the long one being 12ins. and the front one 6ins. These battens should be nailed to the three boards and the shaping afterwards done to the latter by means of the fretsaw or bowsaw.

The front board (see portion of it in Fig. 2) is 13ins. long by 5ins. wide by ½in. thick, and to strengthen the end fixing there are two battens nailed on each end, these fit afterwards in between the two sloping battens on the sides of the barrow.

The long back batten of the sides is kept ⅜in. in from the edge so the actual boards forming the main back of the barrow may go between the sides, as shown in the detail, Fig. 3.



A simple hand-cart of practical size and shape

The Box Frame

Here again there must be two 1¼in. by ½in. battens nailed to the three boards forming the back which consists of ⅞in. battening. The extreme top of the "box" measures 14ins. by 5ins. by ½in., and it is firmly nailed to the sides, a strengthening fillet being added inside in the angles if considered necessary. The floor consists of two 5in. by ⅞in. boards nailed across on the sides.

The axle for the wheels must be firmly nailed or screwed through from inside the floor, or better still bolted by two 2½in. bolts with nuts and large washers.

A Rest

A foot upon which the barrow will rest is made from a piece of odd wood about 1¼ins. thick cut to the shape and measurements shown in the collection of details in Fig. 4. The handle pillar is shown 33ins. long in Fig. 1, but it may vary in length to suit the person who will use the barrow. The pillar is 1¼in. square in section, and the top is checked out to receive the handle as is shown in the detail in Fig. 4.

The handle is of hardwood of 1in. square section, rounded off to make convenient hand grips. A bolt with nut and washer makes a suitable fixing.

It would be a good plan to stiffen up the "box" by adding metal angle plates as shown, two along the back edges and one at the front edge.

Finishing Work

All the woodwork of the barrow should be glasspapered up at completion and given two coats of paint. A cheaper method of preserving the wood would be to coat it with creosote or other similar preservative. The pillar and handle might be varnished.

A pair of wheels may be cut from fairly thick wood if it is found impossible to purchase them. They are attached to the axle by stout iron round-headed screws, iron washers being added one at the rear of each wheel and one behind the head of the screw.

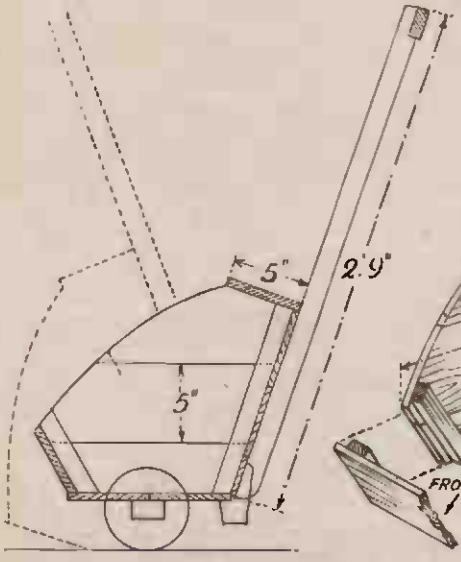


Fig. 1—Side elevation and sizes

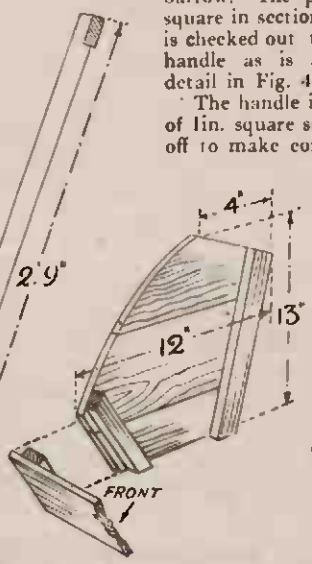


Fig. 2—Construction of side

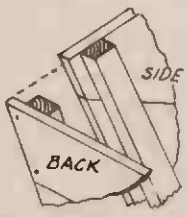


Fig. 3—The corner joint

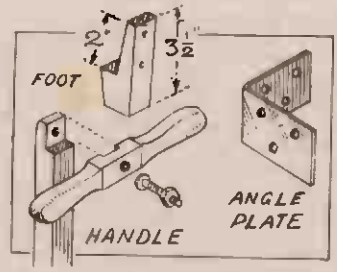
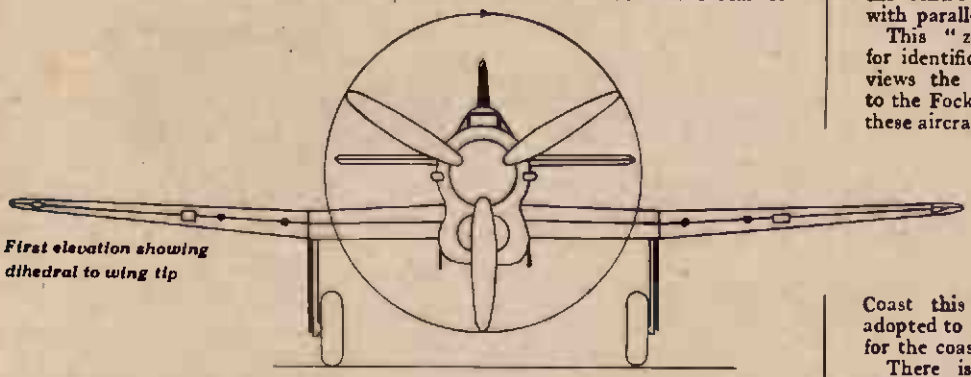


Fig. 4 Handle details

Final details and painting instructions for our MINIATURE MODEL TYPHOON

Last week we gave patterns and particulars for general construction of a model of the Typhoon Monoplane of the non-flying type in wood. We can now complete the incidental details and assemble. Full size colour chart and assembly drawings were given in last week's issue.

The control hinge lines, representing ailerons, rudder, elevators, trim tabs, etc., should be scored into the wood in their respective positions with the point of a sharp penknife, or any similar instrument. This is much more effective than painting in these lines when the model is completed. Similarly the cockpit framework may be scored, although this will be painted later and is not so important.



First elevation showing dihedral to wing tip

The detail fittings should then be prepared. The exhausts are carved in one block from a matchstick or piece of wood of similar size. Small nicks representing the individual stacks (there are six of them on each side) may be enlarged to the correct shape by sanding with a scrap of very fine glasspaper.

The aerial mast and cannon are merely small pieces of wood, rounded and smoothed to shape. The mast is oval, the cannon circular.

Wheels may be purchased or turned up on a small lathe. Home-made wheels seldom look satisfactory if merely made from a disc of wood. A better method is to cut a small hub and then mould tyres from plasticine or chewing gum. These tyres are readily deformed, but are most realistic in appearance once painted and distort in the same manner as a full size tyre.

Three airscrew blades are required, carved from thin wood and tapered towards the top. The spinner is made from dowelling. Take a convenient length of dowel (about 6ins.) and roughly carve to shape. Wrap a piece of glasspaper around this and twist with the fingers. This removes the rough cuts and, continuing, a finely shaped and smooth spinner will result. Bore small holes into the spinner and glue the airscrew blades in position. Finally bore a hole through the axis of the spinner and insert a pin for attachment to the front of the fuselage.

Assembly

Before assembly each component should be carefully smoothed and, if desired, the grain of the wood filled with any of the recognised fillers. This will give a fine, even paint finish.

The wings are glued into the slot in the fuselage and the resulting gap, filled in with a block of scrap wood. This is then carved and sanded down to the correct underbody shape, blending in with the other fuselage lines. A slot is cut in the rear of the fuselage to accommodate the tailplane, which is glued in place, and the fin and rudder then added.

It is advisable at this stage to give the model its coats of camouflage paint before adding the various fittings. These should be painted before attaching, as this lessens the danger of smearing one colour over the other. Paint cockpit light blue and line in panels with black.

The undercarriage is extremely simple. A pin, with the end bent at right angles, serves as the leg and carries the wheel. The point of the pin is pushed into the undersurface of the wing. The fairings, cut from thin card, are glued to this. The undercarriage well fairings, also from thin card, are glued to the bottom of the fuselage.

Cannon, exhausts (painted black), and the aerial mast complete the model. The aerials, if fitted can be of very thin florists' wire, not cotton, which is far too thick. The tailwheel, mounted on a pin leg, may be formed in a similar manner to the main wheels.

Colouring Details

The assembly drawing shows the camouflage colour scheme standard on the Typhoon Fighter. The upper surfaces are shadow-shaded in dark green and grey. The undersurfaces are light grey, with the exception of the centre section which is white with parallel black bands.

This "zebra" marking is done for identification purposes. In some views the Typhoon is very similar to the Focke Wulf 190 and since both these aircraft have been over the South Coast this distinctive pattern was adopted to provide ready recognition for the coastguards and spotters.

There is, of course, nothing to prevent the Germans painting their Focke Wulfs in the same manner, but up to the present they do not appear to have done so, although they have sometimes carried markings very much like our familiar roundels and fin stripes.

The spinner is painted white, and there is also a white band passing right around the fuselage just in front of the tailplane.

Targets and Letters

National markings consist of red, white, blue and yellow roundels on each side of the fuselage; red and blue roundels on the upper surfaces of the wings; red, white and blue roundels on the lower surfaces of the wings; and red, white and blue fin stripes. The correct proportions are shown on the plan.

Squadron code letters are light grey, painted on each side of the fuselage. A black serial number is also painted on the fuselage, on the white band. The first two letters are the squadron letters, and the third the machine squadron letter.

Thus the model is machine "A" of squadron "US." The marking shown here does not mean that Typhoons are being flown by Americans.

Full size patterns are given on Cover iv for making

AN A.T.C. SHIELD

ARE you a member of the Air Training Corps? If so, why not make the novel shield illustrated herewith for your headquarters, study or room? It has been designed for such a purpose and, being finished in silver and black, looks neat and workmanlike.

The overlay, has of course, been based on the actual A.T.C. badge. We provide a full size drawing on one of the back covers of this issue. An outline of the shield is also given.

The overlay is cut from ¼in. wood, the shield requiring a thicker wood, such as ½in. or ¾in. or even ⅛in. stuff. Now, there is a good deal of fine cutting in the overlay, so before beginning, try and obtain a fine fretsaw blade. Big, thick coarse blades will only ruin the frets.

If desired, you could obtain two contrasting pieces of wood cut to your requirements.

The Overlay

Trace the shield outline (by means of carbon paper and a hard-pointed pencil) and thus leave the pattern of the overlay free for pasting down on its particular wood. Of course, the overlay could be traced out, but if you adopt this plan, be wise and pin the pattern down on the wood with thumb tacks.

The grain of the wood runs upright with the shape. When cutting, remove all the inner frets first. The outside shape of the overlay is the last thing to be cut. Glancing at the overlay, you will realise that, cut in plain fretwood, it is a very delicate article.

Unfortunately, we cannot present it to you in any other way, otherwise it would differ fron the actual A.T.C. badge. By exercising care in the cutting, however, one is quite capable of cutting the whole thing out without any mishap. When you have cut out the overlay, glasspaper the back of it to remove the "trimmings" left by the sawing.

The Shield

The shield is comparatively simple to cut out and prepare. The outline edges can be kept square and plain. If you care to bevel the shield edges, as shown in the illustration, the bevelling is easily done by first scribing a guide line around the wood on the surface side. Hold the pencil in the fingers so the point projects about ¼in. inwards from the edge of the shape.

The ¼in. marginal line is then scribed, the large finger tip serving as a "fence" and thereby ensuring good gauging. The waste is removed to the pencil lines with a spokeshave, following which the wood is glass-papered neat and smooth.

A half-round edge would look just as nice. An ⅛in. bevel would also be attractive. A completely rounded edge would be quite in keeping with the work, especially if ¾in. or ½in. thick wood is used.

Completing the Shield

Having prepared both parts of the shield, run a light pencil line down the middle of the shield. The overlay is adhered on top, the guide line helping you to "centre" it.

It is advisable to set a plain piece of flat wood on top, then put some heavy object on top, such as a few heavy books. When the glue sets, the face side of the overlay is smoothly glasspapered, then the work dusted.

To fix to a wall, one could make use of large-size picture wall hook pins. It is only necessary to bore a couple of holes on the overlay for the pins (obtainable at most art stores or shops). The pins are merely driven through the shield into the wall; the whole thing thus goes against the wall quite flat.

Methods of Hanging

It is possible to hang the shield by means of fine picture chain. We have a preference for this suggestion. It means screwing a couple of split-rings to the back of the shield, attaching a couple of lengths of chain, with a split-ring connecting the chains in the centre, this same ring being fixed on a wall hook.

Why not hang the shield by the "invisible" method? Chain is not wanted. Two wall hooks are affixed to the wall so the split-rings (on the back of the shield) engage on them. It is a cheaper, up-to-date way of hanging the shield.

If you are making the shield from any fort of wood of suitable thickness

and thus desire to finish it in silver and ebony, cut out the parts and glass-paper smooth.

Silver and Ebony Finish

The overlay is then given a coat of silver paint. Coat all of it, i.e., excepting the back of it. Set aside for a day to dry thoroughly.

Meanwhile, the shield part is stained black, then polished with ebony polish, such as black shoe polish. The latter is rubbed well into the wood then brushed up to a glossy shellac polish. This is brushed on, allowed to dry, following which it is rubbed down smooth and coated again. When dry, give a third coat and leave bright or reduce to an "antique" gloss by rubbing lightly with a piece of "flour" glasspaper.

A good plan is to try the process out first or an odd piece of wood so you may be sure to get the result desired.

Six Finishes for Wood—

WHATEVER woodwork you are undertaking, it is always well to remember there are six ways in which you can finish it. You can let it remain plain, or oil it, varnish it, stain it, polish it or paint it. Give a little thought as to which of these will suit the particular job and, moreover, what materials it is now possible to obtain. If to be left plain, then a cleaning with fine glasspaper will be sufficient. For an oil finish you rub into the wood a little raw linseed oil on a rubber with a piece of linen over it. Varnish can normally be obtained clear (almost colourless) and coloured, and is applied with a soft brush. The staining colours the wood as required, but leaves a flat matt surface. It should be covered with a varnish or polish as a thin coating. French polish consists of shellac, with other gums, dissolved in alcohol, but is now difficult to obtain. In use, it produces a beautiful polished surface, but experience has to be gained by practice before one can get a really professional result.

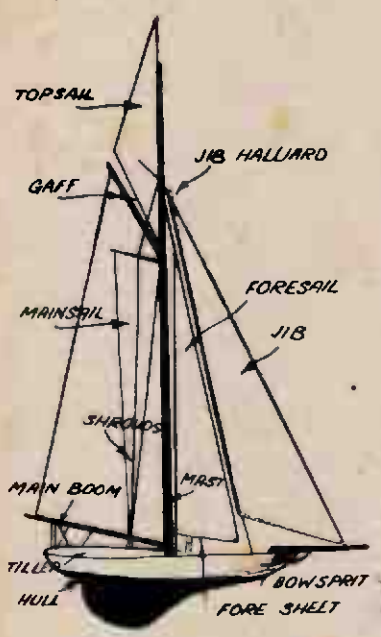
Interesting and instructive details about handling

MODEL SAILING BOATS

THE hobby of model yacht sailing is one of the few which need not have suffered from the restrictions of the war, although of course, in many cases the yacht ponds of peace days are not kept in the state they were. There are usually, however, pieces of calm water —not static water, of course—which one can use for the purpose, and many interesting and often exciting hours can be spent.

A Scientific Hobby

The hobby is much more scientific than at first appears, and in the pre-war days of active Yacht Clubs, some brilliant sailing competitions were held by enthusiastic owners and club members. There is, of course, a big difference between the



Names of the principal parts

small toy yacht which merely floats upon the water, and the large sized, fully rigged raters which members of real Model Yacht Clubs entered in the big competitions.

Whilst it is virtually impossible now to buy complete, properly rigged yachts, the handyman can, if he has the material, make one. The proper sailing yacht demands much care in the building, and accuracy of lines, balance, etc., We have, however, had articles in Hobbies Weekly for the construction of small model sailing boats which in themselves will provide quite a lot of interest.

Remember, to begin with, that a solid piece of wood shaped like a boat is not necessarily an efficient yacht.

Hollow Hull

To get the best out of it, the hull must he hollowed so that the body of it is light and buoyant. This in turn means that a suitably weighted keel must be added to drag the hull down into the water and yet maintain a correct balance when the sails are put to the wind.

This question of buoyancy and weighted keel can only be found by trial and error, and having constructed the boats according to the details given, they can be tried out in a tub of water or even a bath to see that they halance correctly.

The deck, of course, will have to be covered sufficiently to prevent the water flowing in when the craft heels over in the wind. This is usually one of the first disasters which is apt to dishearten the beginner.

Shape of Hull

The hull itself should be streamlined, and in this there are a variety of designs for breadth of boom compared with the length of the hull, the shape and size of the keel, the number of sails carried, etc. One must remember it is not merely a piece of wood with some canvas on it, but a properly proportioned boat with correctly rigged sails.

The normal small boat has two sails, the mainsail, which is behind the mast, and the jib, which stretches forward to the bowsprit projecting beyond the bow. These two must be in the correct proportion, and the sailer will have to learn to know when a jib is required, and when it can be dispensed with. The object of the mainsail is to take the bulk of the wind to drive the boat forward. The jib catches the further eddies and holds the bow on the course.

Setting the Sail

Ohviously, too, if you get the full force of the wind broadside on to the sails, the boat will promptly collapse or turn off course and into the wind. The idea of setting the sail is that the wind cuts into the canvas at an angle and "bounces off" again at a tangent. The difference between its arrival and departure angle forms the forward thrust to the boat.

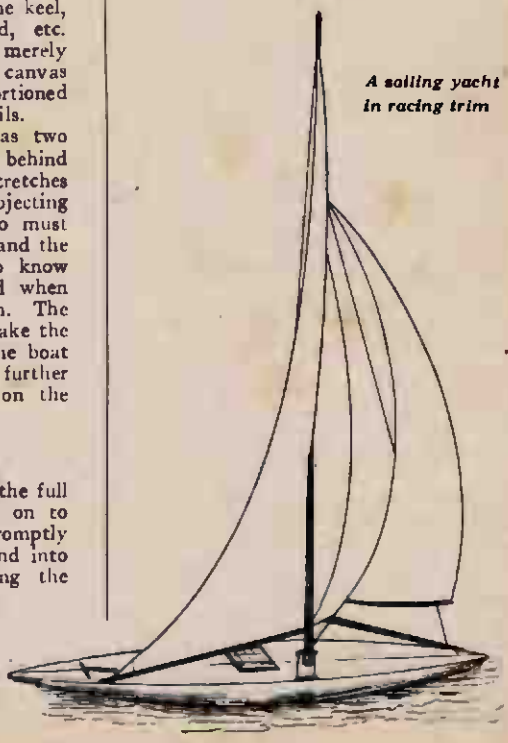
If, therefore, you have a light wind, the mainsail can be floating outboard at rightangles to the hull, the wind carrying it steadily forward. If the wind is a little strong, then the sail must be half way into the hull or at an angle of 45°.

If it is catching the wind correctly the boat will then drive straight forward, but if the angle is incorrect the hull will turn off the wind and go nff course at a tangent. It means that the sail will have to be drawn in a little more so that by trial and error the boat is kept on its true course.

Fixed Jib

The jib is normally fixed and the alteration only made to the mainsail until one has acquired experience. Some idea of a good sailing angle in a reasonable wind is shown in the drawing herewith.

The boat having gone from one end of the pond to the other with the wind, it will, of course, have to he brought back again to recommence its run. It should not, however, be necessary to carry the hoat once you have got the idea of sailing into



A sailing yacht in racing trim

the wind. This cannot be done directly head on, but by "tacking" across and across.

The sails are drawn more inwards, and the course of the boat made so it cuts across the wind and at the same time makes a little forward drive.

When it gets to the opposite side of the pond the boat is turned again and cuts into the wind with, of course, the sails bearing over the other side. This carries the hull across on what is called the other tack, so making sufficient leeway to carry it forward slightly on each crossing.

This is where the personal element comes in, and the enjoyment of putting your own knowledge and skill against the undefinable attitude of the wind itself. For "tacking", it is helpful to have two people, one on each side of the water to prevent the constant running round. The second person should also be able to set the sails, letting them out a little more if possible, or drawing them in if necessary to get the boat more into the wind.

Running Lines

The sails are fixed by means of the running lines from the rear end of the boom to the stern portion of the deck, where they must be fixed securely on what is known as a cleat. This makes the cord easy to undo, but equally easy to fix again when necessary.

This art of sailing can only be taught by practical experience, and it is a pity if one gives up after the first few attempts which are sure to be disappointing. A knowledge of the boat itself, however, can be learned apart from being at the pond, and all keen owners will want to know the boat thoroughly in order to be able to display their knowledge in talking about their yacht correctly.

The drawing herewith shows the principal parts of the boat, and although the list of these may appear long, they are soon remembered, particularly in company with other keen boat owners who can "speak the language" as well.

The summer, of course, provides an ideal time for use of these boats, but it is advisable with the ordinary small sailing yacht to use them on smooth water. Do not expect them to take a rough sea or a rippled river, with the same accuracy and buoyancy that they would on a calm stretch of pond.

See page 157 for particulars

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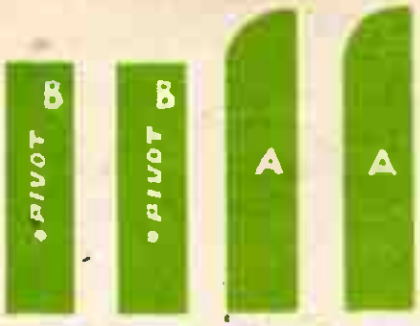
The arrows indicate the direction of grain of wood.

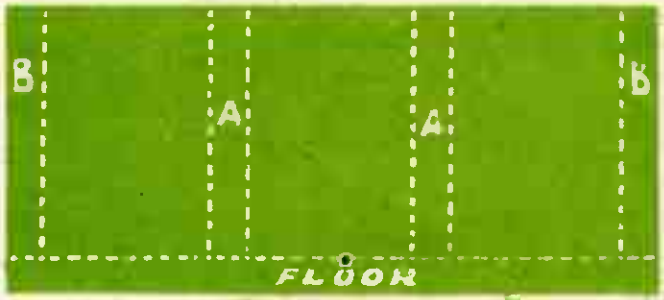
MAKE A NOTE OF IT

OVERLAY ON DOOR. CUT ONE 1/8in.

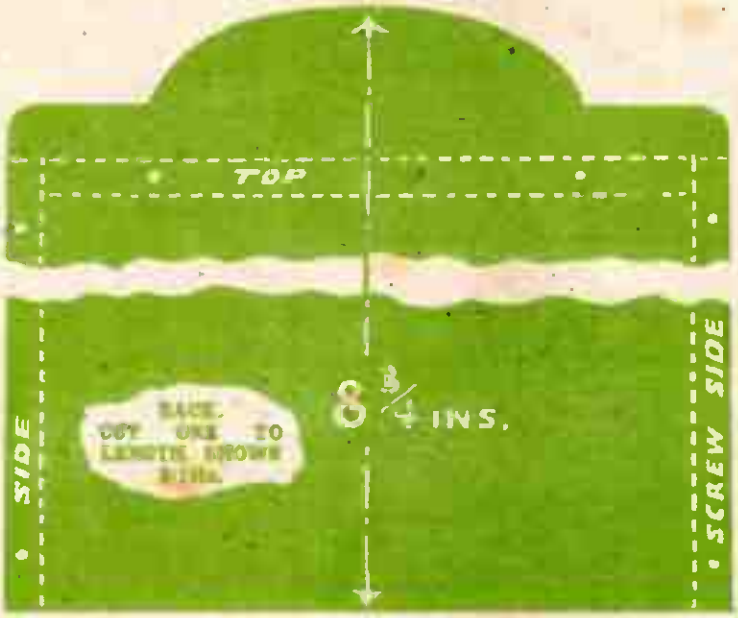


PENCIL CASE PARTITIONS. CUT ONE OF EACH 3/16in.

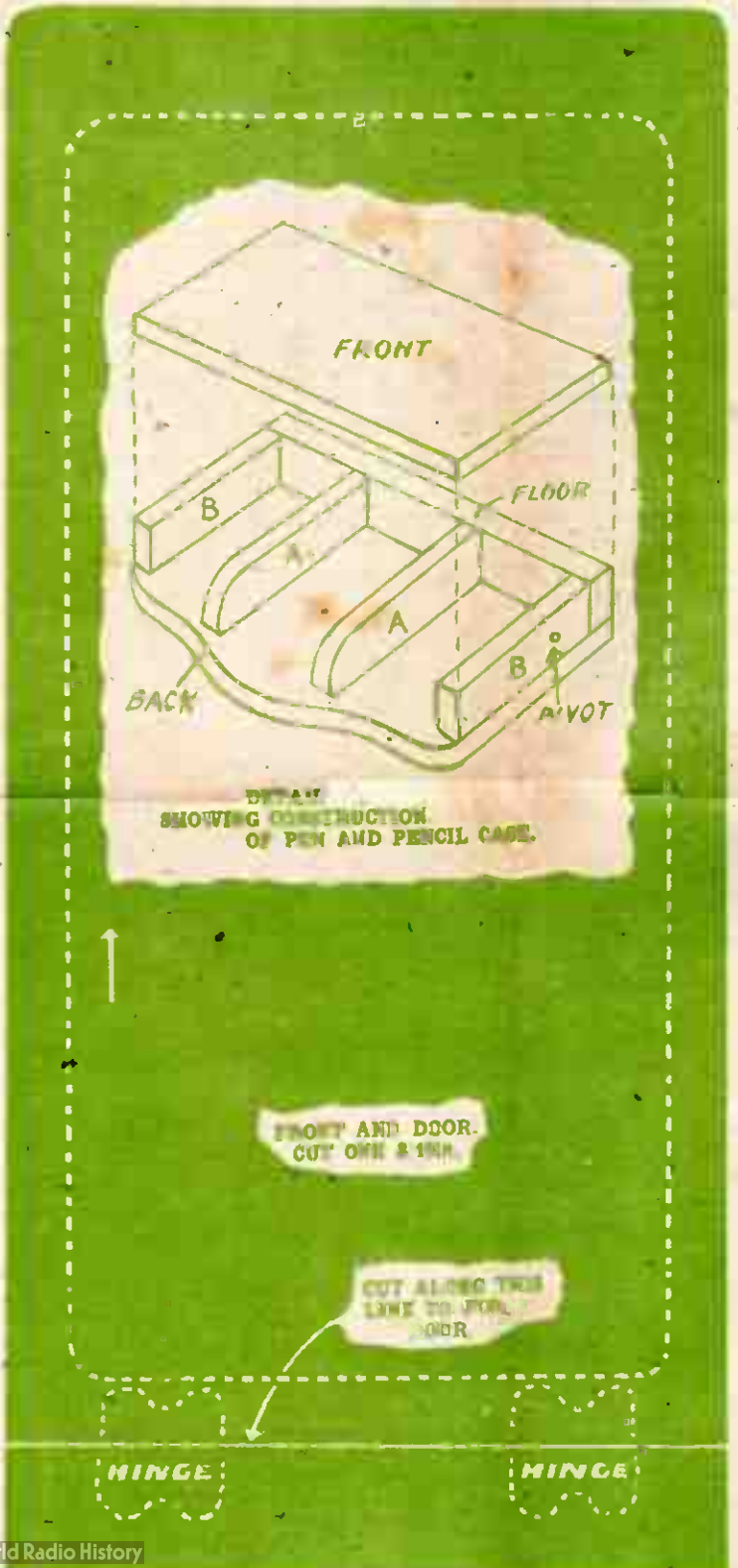
NOTE.—This design sheet is only presented free with the current issue of Hobbies and not with back numbers. Further copies may be obtained.



FRONT OF PENCIL CASE. CUT ONE 1/8in.



SIZ
HEIGHT
WIDTH



DETAIL SHOWING CONSTRUCTION OF PEN AND PENCIL CASE.

DE
HOW
PIVOT

The arrows indicate the direction of grain of wood.

AKE
NOTE
E

DOOR. CUT ONE 1/8in.

NOTE. This design

Hobbies DESIGN

No. 2548
16. 8. 44

SUPPLEMENT TO HOBBIES No. 1949

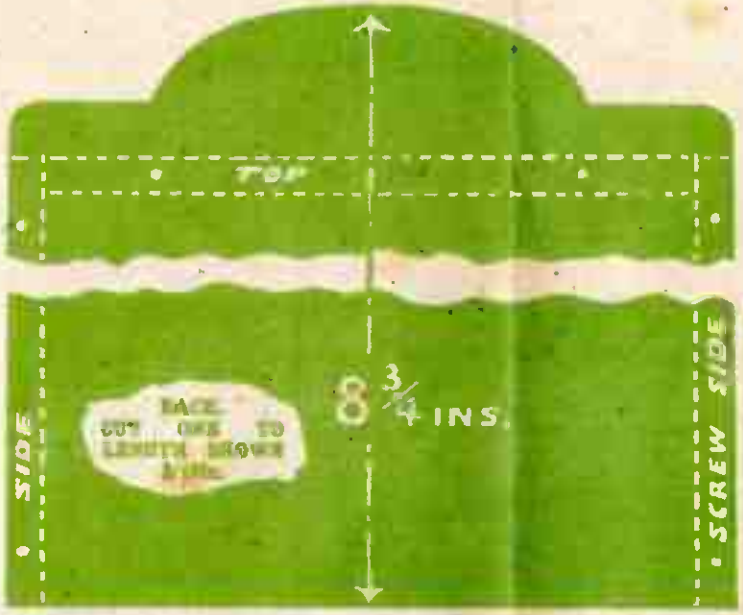
NOVELTY PENCIL CASE AND NOTE PAD COMBINED

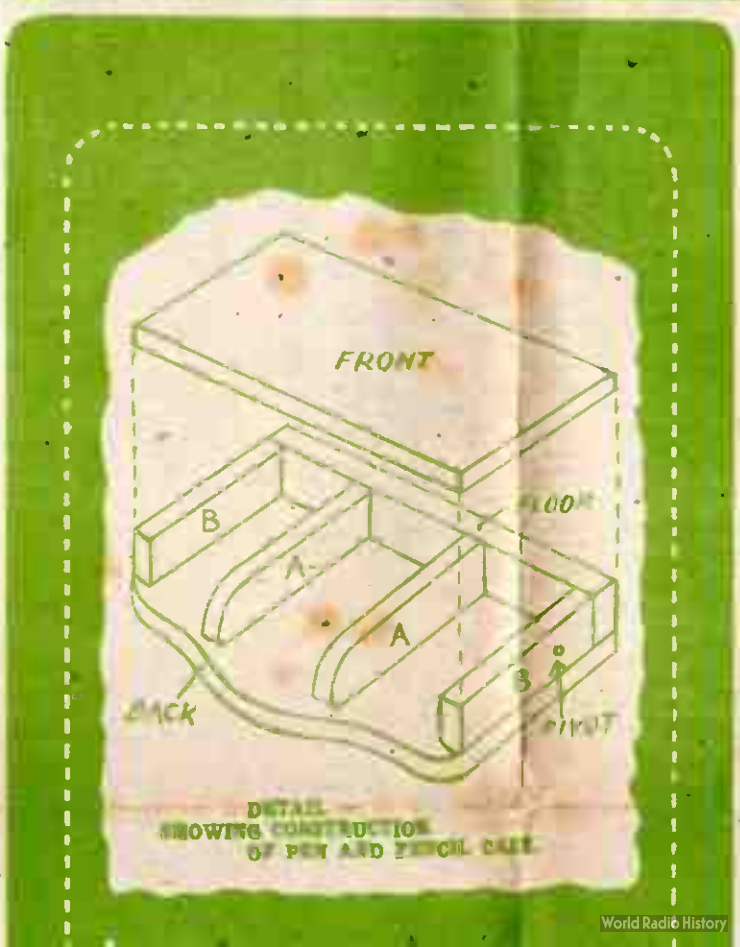
PANELS OF WOOD REQUIRED FOR THIS DESIGN

ONE G2, TWO H3

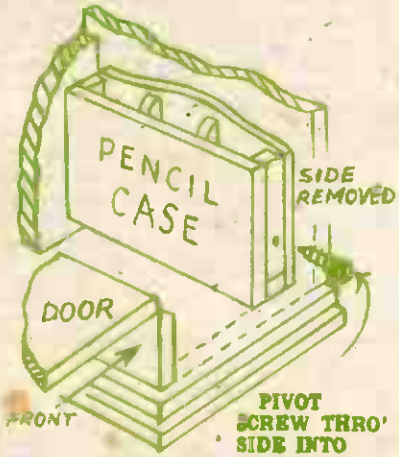
The price is shown in Hobbies Weekly, August 16th, 1944, but is subject to revision. See the current edition of Hobbies Handbook, or write for price to Hobbies Limited, Dereham, Norfolk.

—SIZE—
HEIGHT 9ins.
WIDTH 6½ins.





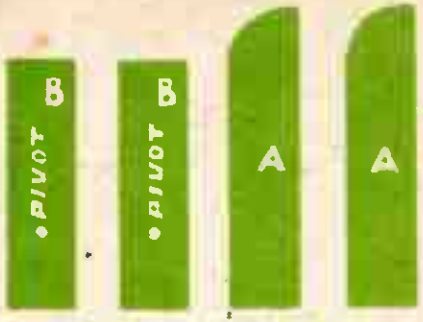
DETAIL SHOWING CONSTRUCTION OF PEN AND PENCIL CASE.



PIVOT SCREW THRO' SIDE INTO SIDE OF CASE.

DETAIL SHOWING HOW PENCIL CASE IS PIVOTED INSIDE.

OVERLAY ON DOOR. CUT ONE 1/8in.



PENCIL CASE PARTITIONS.
CUT ONE OF EACH 3 16in.

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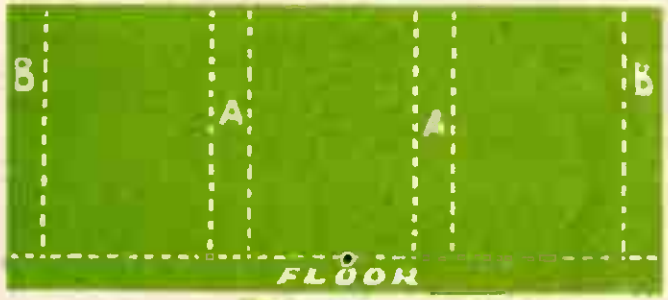
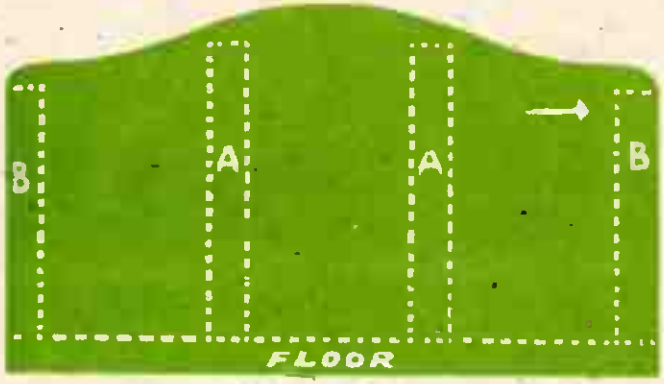


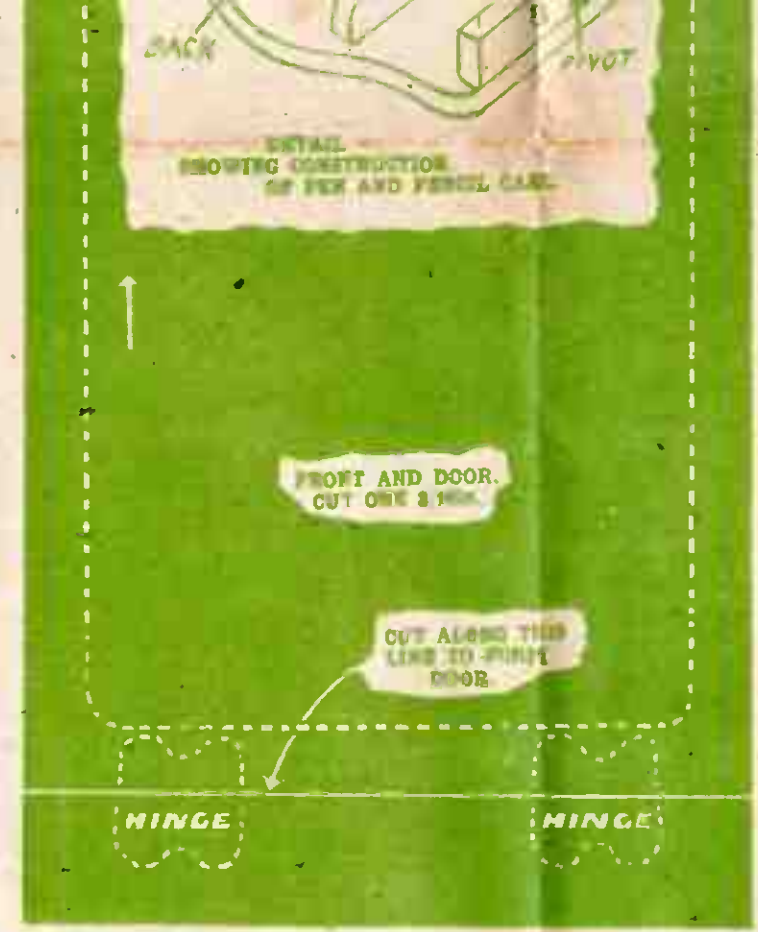
FRONT OF PENCIL CASE. CUT ONE 1 8in.

FLOOR OF PENCIL CASE. CUT ONE 3 16in.



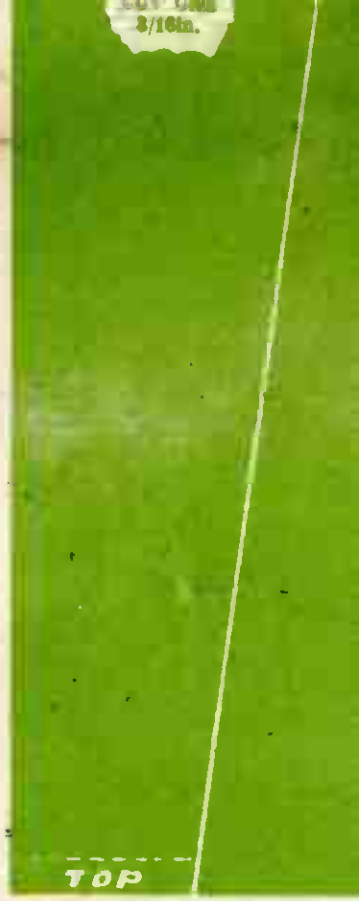
BACK OF PENCIL CASE. CUT ONE 3 16in.

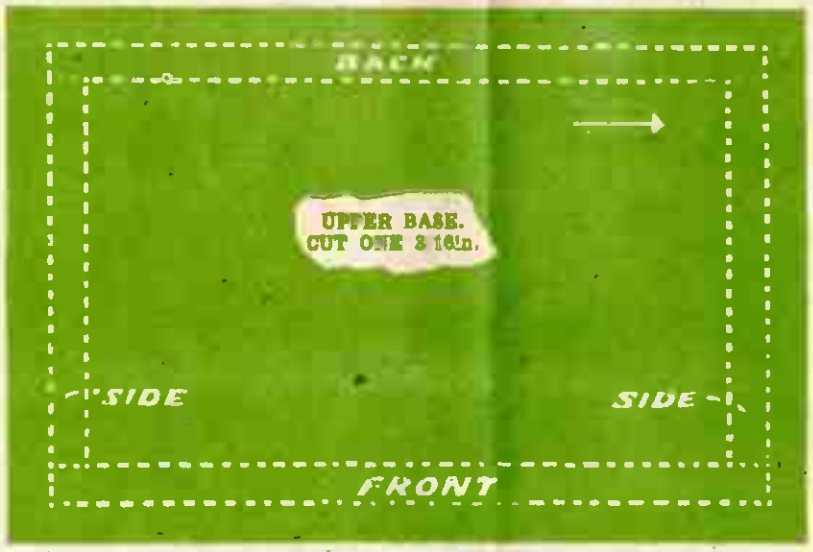
PRINTED IN ENGLAND.

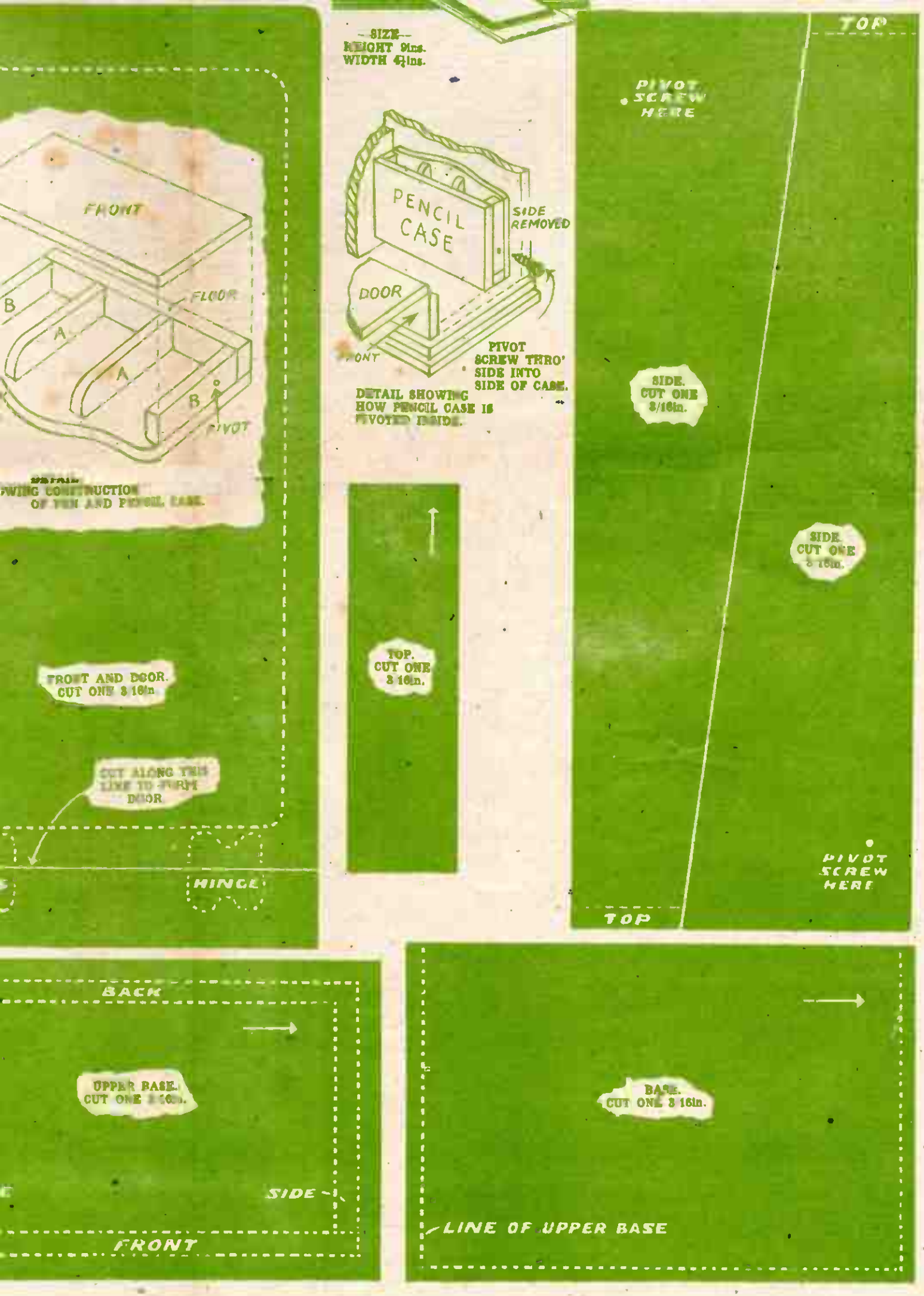


DETAIL SHOWING CONSTRUCTION OF PEN AND PENCIL CASE.

DETAIL SHOWING HOW PENCIL CASE IS PIVOTED INSIDE.







NOVELTY PENCIL CASE

THE patterns shown on the reverse side should be pasted down to wood of the thickness shown, or can be drawn direct on to the boards by tracing paper or carbon paper. The parts are then cut out with the fretsaw and cleaned before being assembled.

It is best to build the parts on to the upper base first, in order that you may be able to drive screws upwards into the uprights before adding the lower and larger base.

In adding this base, by the way, notice that the back edge comes in line with the edge of the upper base which provides a projection then on three other sides. Get out two side pieces and the back first, and stand them in place on the upper base about ¼in. inwards as indicated by the dotted lines.

The two sides butt up to the front of the back, and should be screwed from behind to make a strong joint. The top goes between the sides but is screwed on to the face of the back at the point shown.

Notice, by the way, that the pattern of this back must be extended to 8¼ins. before being cut out. Notice, too, the two small pivot holes marked in the sides, and drill them before fixing. These are to take the small pencil holder inside, which can thus be tilted slightly forward to make for the easier extraction of the pencils themselves.

The front of the case is cut first as a plain rectangle, and then a strip taken off ¼in. from the bottom to provide the hinge piece. These plain or fancy hinges are fixed to the two pieces again, and so provide for the upper portion to be lowered.

When this piece is open the inside provides a suitable sloping board to which can be fixed a small notepad after the whole work has been finished. The outside to the front or door portion can be decorated also with the fretted overlay bearing the words "Make a note of it." A detail showing these portions with the door open is printed on the sheet.

A drawing is also provided of bow the pencil case itself is made up. The front and back have a floor and four partition pieces between. Glue them all firmly together ensuring that the whole thing will fit comfortably between the two sides.

Notice also in the pieces B the small hole provided for the pivot screw. This should only be just indicated and not definitely bored right through. When the case is complete, put it in position inside just above the floor and slightly away from the back. It will then drive a small screw through the pivot hole in the sides to engage in the hole made in the small pencil case.

Round-headed screws should be used, projecting just enough to pierce into the inside wood. It must not, of course, be put right home or it will be apt to bind that part.

If, of course, you feel that this work is too difficult, you can quite easily glue the whole pencil holder to the floor and back.

As most of the parts concerned are plain rectangles or pieces with straight sides, it may be advisable to use a small tenon saw in cutting these if the worker is not confident of keeping the fretsaw perfectly straight.

If the edges are not so cut, then a bad butt joint will result, and the finished case will not be as rigid and safe as it should.