

May 13th, 1942

Price Twopence

Vol. 94. No. 2430

# A RUBBER STAMP PRINTING PRESS

OR making the simple printing press shown herewith, you need an old rubber stamping outfit which you probably have about the house. The press is made from parts of this and other odds and ends.

You also need some plain paper, such as white wallpaper. In fact, any sort of paper (if plain on one side) would serve and the amount of wording (copy) depends on the size of the rubber type holder and the founts of type in your outfit.

#### **A Handy Device**

The printing press will come in handy in many ways. In action, it works rather on the same principle of a flatbed printing press—just a back and forward movement all the time.

Unlike these — and any other—machines, however, the stuff on which you can print, such as small envelopes, card, paper, etc., is not held to a platen with metal fingers, but rests on the bed, freely, against an adjustable guide. This guide enables you to centre copy or have the matter printed at an angle, if desired. The ink feed is an ordinary self-inking pad. It is the type-holder which is screwed to the handle bar of the device, of course, and once attached, there is no need to remove it to set up new copy.

#### Preparing the Bed

The size and shape of the bed of the press is detailed at Fig. 1. It is cut from in. or 3/16in. wood, the only cut-outs being the mortises.

The ink pad well is formed with a circular disc of  $\frac{1}{2}$  in. wood having an

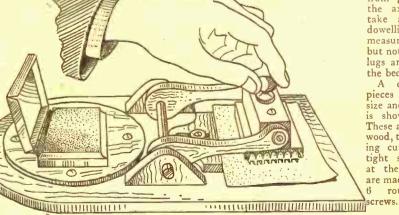
oblong aperture the exact length and width of the bottom of the ink pad tin, i.e., the casing. You should be able to pick up a pad the size shown; if not, the well space must be cut to suit your requirements.

Attach the well disc with four §in. by 4 roundhead brass screws. Keep the disc neatly in the middle of the bed at the semi-circular end; you could, with the compasses, scribe a 4in. circle on the bed for guiding purposes.

#### The Arm Lugs

You now require two arm lugs (Fig. 4) which are cut from 1 in. stuff. Have the axle holes cut to take a piece of 1 in. dowelling with some measure of freedom, but not too loose. The lugs are then glued to the bed mortises.

A couple of arm pieces are wanted, the size and shape of which is shown at Fig. 3. These are cut from  $\frac{1}{2}$  in. wood, the axle holes being cut to be on the tight side; the holes at the opposite ends are made to suit  $\frac{3}{2}$  in. by 6 roundhead brass

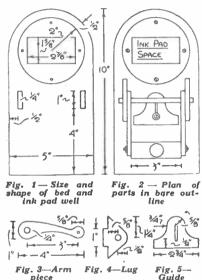


Letters to the Editor should be addressed to Hobbies Weekly, Dereham, Norfolk. Address orders for goods to Hobbies Limited.

A bar of wood measuring 3ins. by lin. by Zin. is screwed between the arms. It is advisable to have the screws screwing in tight, with the heads based with small brass washers to facilitate movement and prevent too much side play and also save the screw heads from eating into the arms.

#### Assembly of Arms

At this stage, you should bore a suitable hole in the centre of the type holder bar for a wooden knob



piece about Iin. in diameter. Any suitable sort of knob is required, whether wood, metal or composition. Two side holes are also bored in the bar for

attaching the type holder. The arms are then affixed between the bed lugs with 41in. length of in. dowelling (see Fig. 2) and glued. In respect to the handle knob, by the way, you may be able to utilize the type holder knob belonging to the printing outfit.

The guide piece (Fig. 5) is cut from in. wood and the screw channel cut to suit a kin. by 6 roundnead screw. When attaching the guide piece to the bed, this screw should be based with a small washer.

The printing press is now complete. You can leave it in its natural state. It would be better-only in view of the fact that dust and finger marks soon dirty the untouched wood-to give the work a single coat of varnish.

#### The Ink Pad

After a time in use it will be necessary to add ink to the pad, of course, and even reverse it in the well. Apply the special marking ink with a small brush, putting it evenly over the pad.

Do not have the pad generously saturated with the ink, otherwise the type face will clog and print unsightly blots. Purple coloured ink gives most lasting results.

#### Make Your Own

You can make your own ink pad easily enough from baize and linen, but it is hardly worth while. The bought article has a special tin casing, with a lid which protects the pad when not in use.

It might happen that your ink pad and type holder is not suitable in size to the dimensions of the press as provided in the diagrams. <sup>1</sup> Having got the general idea, you should be able to make the device according to individual requirements. It may be noted, however, that the type holder must, at least, be lin. shorter in length than the handle bar.

#### A Six-line Holder

Most rubber printing outfits have type holders measuring 23ins. long and that is why the bar is shown 3ins. long-to enable the holder to pass through the arms easily.

Incidentally, if you have two type holders giving three lines of type only, you could remove the metal strips and fit them on to a piece of wood permitting six strips.

Sometimes the metal strips are held by tiny pins driven through bent tabs into the end of the wood. More frequently, however, a saw kerf is made along the ends of the holder block into which the bent tabs are inserted.

Failing either method, the two holders, if identical, could be held together by gluing a piece of wood on

#### MATERIALS REQUIRED

1 bed board-10 by 5ins, by 1in, 1 ink pad piece-4 by 4ins, by 1in, 2 lug pieces-21 by 11ins, by 1in, 2 handle arms-4ins, by 1in, by 1in, 1 guide piece-21 by 21ins, by 1in, 1 dowel akle-41ins, by 1in, diam, 5 wooden knob-1in, in diam. Screws and washers as mentioned.

top of them, using kin. stuff. The metal holder strips are brought together closely in the centre and probably an extra strip could be added.

The number of strips is limited to the width of the ink pad, of course. Six strips is about the most adequate. The length of the strips must also be considered in conjunction with the length of the inking pad.

You see, if the length of the pad is on the small side, the metal strips would press on the tin casing edges and thus interfere with the inking of the type somewhat

#### When Printing

When printing, set the paper to be printed on the bed, then swing over the holder on to the ink pad and press the holder down lightly, then swing it over on the paper and press lightly, rocking the holder, if necessary, to get a good impression.

If the ink pad has just been recently inked, there should be **no** reason to keep inking the type every time you make an impression. The one application of ink should last two or three times-that is to say, give two or three impressions.

#### Another fascinating Crossword Puzzle

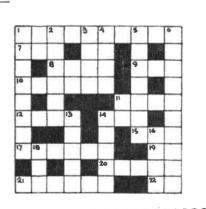
**HOSE** who want to spend a quiet few minutes should study this simple Crossword. All clues are straightforward and all words used are of an everyday character. See what you can do about it and check your result with the solution which will appear next week.

#### **CLUES ACROSS**

- You belong to the present one. A kind of beverage. To stroll about aimlessly.
- <del>.</del>
- 9.
- Holds clothes on line. Distinctively beautiful. 10.
- 11. 12.
- May find in tin hat. To chuck out. What we hear from Germany. Job patrolling it nowadays. 14. 15.
- Help to flavour meat, etc. 17.
- Two-thirds of A.T.S. 19.
- Temporary cessation of hostilities. The peak of anything. At the ends of "head." 20.
- 21.

#### **CLUES DOWN**

- 1. Model ones are sure popular.
- 2. Old people's are shaky.
- 3. Very like the thing.
- 4. Makes a man of you.
- 5 To produce a mark by pressure. Sharp corners are easily this with a fine fretsaw blade. б.
- 11. Short name for " father."
- 13. Not good for air tubes.
- Strong eddies of wind. 14.
- 16. Every one.
- 18. Many dog-fights up in it.



### A novel "runabout" for anyone is provided if you make A SCOOTER FROM SKATES

OLLER Skates are good things in their way, but you are apt to grow tired of them after a time. Variety is the spice of life, so after a bit of deep meditation, we thought of incorporating their use into a novel scooter. That it was an idea—a practical one—with possibilities is shown herewith.

As you know, wheels are scarce, almost as scarce as wood, whether of metal or wood. Home-made wooden wheels are out of the question where a scooter is concerned, if it is, at least, going to be a decent, smooth-running and lasting article.

Roller skates, especially old skates, solve the problem nicely for they ensure good running, particularly the ball-bearing type. A scooter with roller skates for wheels is thus as free as a push bike—and you are running on eight strong wheels, not just two !

#### Just One Skate

Of course, it is not necessary to use a pair of skates for the construction of a scooter. If of the adjustable type, one skate could be unbolted and the two halves separated. The halves give you two wheels for the back and two for the front, the running board and steering column respectively. See the idea? You could make two scooters from a pair of skates in this way!

If you decide on this plan, the front part of the scooter need not be changed in design. Just keep it as it is, with the wheels in the centre of the "foot" of the column, if possible. The back half of the skate will, of course, go to the rear of the running board.

#### Steering Column and Head

For the steering column, you require a piece of  $\frac{7}{8}$  in. stuff 29 ins. long by 6 ins. wide—the biggest piece

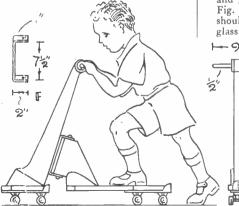


Fig. 1-A side view with rear view of steering column

wanted. It could, however, easily be jointed up from 3 in. or 2 in. wide laths—two of the former and three of the latter to make up the desired width.

The shape of the column is shown at Fig. 2 (C). It is cut out with the aid of a padsaw or keyhole saw, plus a panel saw. The handle hole is ½in. in diameter.

#### Footboa

A foot piece (A) is also cut out, including two ankle pieces (B). The ankle pieces are glued and nailed, one at each side, to the bottom end of the column, as shown. Level these off with a finely-set block plane and then spokeshave the rest of the column neatly and smoothly.

Having made the heel of the foot piece fit neatly into the heel part of the skate (assuming you are using a whole skate), the skate is affixed in place by means of screws.

There should be holes and slots in the upper part (sole) of the skate to permit screwing, but if not, holes can easily be drilled and countersunk, or just drilled, as roundhead screws could be used. By the way, the ankle pieces are cut from  $\frac{1}{2}$  in. thick wood.

#### A Handle

A handle piece is now cut from  $\frac{1}{2}$  in. dowelling 9 ins. long and glued centrally into the top of the column. For strength purposes, two  $\frac{1}{2}$  in. washers  $2\frac{1}{2}$  ins. in diam. are cut out and glued over the handle ends (see Fig. 1). The ends of the handle should be rounded over by paring and glasspapering.

9"→ The steering head consists of a wooden support and a metal connection. This connection is de-



tailed at Fig. 1 (F). It is bent to shape from Iin, wide by  $\frac{1}{2}$  in. or 3/16in. flat mild steel or iron bar.

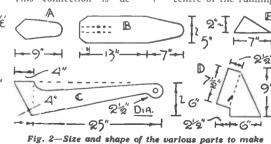
A hole is drilled in the bent up "ear" part, with three other holes in the flat part, all for screwing purposes. Do not, however, attach the connection to the column at the moment.

#### **Running Board and Support**

The running board (B) at Fig. 2 is cut from  $\frac{2}{5}$  in. wood as shown. Like the front foot part, the rear end is made to fit the heel of the skate neatly. When cut out trim with plane and spokeshave, then glasspaper smooth.

Now, the steering head support (D) while cut from  $\frac{1}{6}$  in. wood, must be done in a special way so as to be as strong as possible, for this has to take most of the strain when turning and twisting. Therefore, when marking it out, have the grain running on a parallel with the metal connection (see dotted line).

The support is screwed to the centre of the running board, flush at



the end. To lend further strength, two "wing" pieces (see elevation and illustration) are glued and screwed to bottom support and cut from ½in.

Prior to screwing the metal connection to the column in a tested position (approximately 3ins.) from the base of the foot piece, the front edge of the support needs to be rounded over with a plane to permit the column to turn from side to side without hindrance.

The support is fixed between the connection with heavy round-head screws serving as pivots. Be sure to use fairly long screws-2ins. or 11ins., nothing less.

With the rear skate attached, the scooter is complete. The whole thing should be enamelled an attractive colour or simply clear varnished.

How about an all green finish, with black steering head and skates ? That would be simple and pleasing enough to the eye. Two alternate coats of enamel would suffice for the job, or even one good application.

#### Oil the Skates and Head

When the paint has dried, apply oil to the skates and steering head pivots, so the toy runs quite smoothly and turns easily. When running on a straight course, you will find that, owing to the double wheels, it is quite simple to keep an upright balance while moving ever so slowly.

You may imagine, as you glance at the side elevation, that in turning, there is bound to be much slipping and scraping of the front skate wheels. Actually, owing to the angle of the steering column, you turn on the two front wheels of the front skate only.

Naturally, because of the size of the wheels, you should scoot on even road surfaces to get the best fun out of the scooter. Do not, however, use a main road with much traffic upon it. Such work is dangerous. 

#### MATERIALS REQUIRED

- 1 steering column, 29 by 6ins., by {in. 1 dowel handle, 9 by {in. diam. 2 ankle pieces, 7 by 2ins. by {in. 1 running board, 20 by 5ins. by {in. 1 support piece, 9 by 8 ins. by {in. 1 foot piece, 9 by 3ins. by {in. 1 metal bar, 12 by 1in. by 3/16in. 1 pair roller skates.

#### There's wood or work needed in making a not much GARDE OLDING



UR illustration here shows a very comfortable garden or porch chair. Although the armrests are perhaps a little unusual in this type of chair, it is well worth the extra wood and the time in making them for the additional restfulness to the arms which they give.

Almost any kind of wood will answer, but the harder close-grained variety is to be preferred, as usually these chairs come into a lot of hard usage. Stuff 2ins. in width is used for all parts, and the lengths and other details are given in the combined details at Fig. 1.

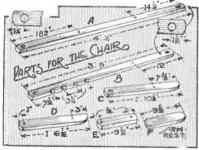
#### Simple Assembly

Fig. 2 is a side detail, and all pieces are lettered so the assembling

should not be difficult. Care must be taken in cutting the wood to length, and in boring the several holes for the fastenings, to get each pair exactly alike in order that the chair may stand correctly.

In boring the holes, too, see they are made properly at right angles to the top surface, and wherever possible clamp the pairs together and run the holes down through both at the one time to ensure accuracy.

The semi-circular notches in the rails (B) may be cut with the fretsaw, or the two rails could be clamped together edge to edge and the brace and bit used to get a clean-cut circle. Five §in. diam. or §in. diam.



#### Fig. 1-Details of parts needed

dowel rods will be required, of which two rods are each 18 ins. long; two 201 ins., and one 221 ins. It would be well to cut each rod a little longer than required, so that the ends which may be imperfectly formed may be cut and cleaned off neatly.

These rods should fit tightly into the rails and may be fastened in addition with a small screw or nail driven in from the underside.

The arm-rests (F) should be nailed or screwed to the rails (D) before these latter are bolted to the chair. The bolts should be ‡in. diam. and of the following lengths. Four bolts are 21 ins. long, two 2 ins. long and two 3ins. long. Washers should be placed between adjacent pieces of wood which are fastened together with bolts and also at both ends of the bolts. Thus you will require 26 washers altogether.

#### **Two Timber Thicknesses**

There are two thickneses of wood used in the construction of the chair and all parts are Fin. thick or Fin. thick, with the exception of the short rails (E) and the arm-rests (F) which are §in. or 1 in. in thickness.

The seating material must be strongly nailed to the two rods, and should be coiled twice round before the large-headed brads or carpet nails

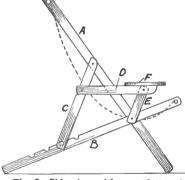


Fig. 2-Side view with parts lettered

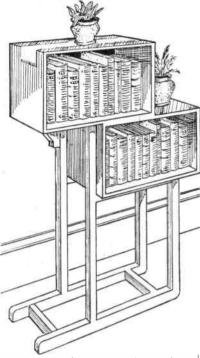
are driven in. The wood should be cleaned up at completion and either left or stained and varnished.

#### Index to Vol. 93, for Six months ending March last, is now obtainable from the Editor for 9d. post free

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World Radio History

### With a couple of boxes and some splines you can make A FUTURIST BOOKCASE



THIS design of bookcase is in the futurist or ultra-modern style, and may interest those readers who wish, for a change, to make something just a little different in the furniture line.

A special point in its favour nowadays is the limited quantity of wood required to make it, as compared to that needed for the more conventional type. It has not, of course, much capacity, but can hold quite a few good books.

Dimensions given in Fig. 1 should be regarded really as a help if the boxes are to be made up at home. But any boxes, within reasonable limits, can be used if they are rendered smooth with planing or glasspapering.

#### The Boxes

Those from the grocer's or oilman's are generally rather roughly made, but much can be done to improve even them, and make them suitable, if the wood is at all up to the mark.

If too rough, then knock them very carefully apart, plane up the wood, and re-nail together---with glue additions to the joints.

The framework supporting the boxes is made up of lin. by 1½in. strips of deal. A piece of lin. planed board will furnish these. The measurements given in Fig. I for these strips can stand. The remaining measurements can be got when the boxes are finished, as it is obvious that such measurements are going to depend on the dimensions of the actual boxes used. The boxes, by the way, should be cut down to a depth of 9 ins., whatever their size.

#### Screws and Joints

They are joined together with glue and screws, one half-way over the other. Drive the screws through the lower box into the upper box so that the heads will not be on view.

The joints used for the framework are shown in Fig. 1, that of the right hand bottom corner being the same as the upper corner. The tenons do not go right through but only about two-thirds of the way, say, lin. long in fact.

say, lin. long in fact. The corners where shown are neatly rounded off. Not too nuch or the joints may be weakened. It is important to get the top horizontals at right angles to the long legs to ensure a good fit to the box. Any gap here will spoil the effect.

The back frame is fixed to the boxes flush with the back surface. The front frame about lin. from the front edges. Fix with glue and nails.

#### Joining the Frames

Join the frames together at floor level with the two cross bars shown. These are cut to fit tightly between, and are merely glued and nailed across.

The bracket A is cut from a piece of lin. board. It measures 4ins. each way but can be less if the boxes are small. Fix it in the angle with glue and nails as shown in detail Fig. 3. Two strips of wood lin. square stuff or thereabouts are then fixed in the right hand angle as at B. Cut the outer ends of these to a bevel and mitre the inner ends to meet together as in Fig. 4. This finishes the woodwork part.

Give the whole article a thorough clean up. Any sharp edges left on the boxes should be rubbed off with a file, and subsequently smoothed off with glasspaper.

Where possible, punch all the nails down and fill up the holes level with stopping. Usually bought boxes are nailed with french wire nails which cannot be punched down. Where the heads of these are not seen it does not matter, but where they are on view it would be a good plan to withdraw them and substitute oval nails in their place. Now dust off and finish the bookcase as choice may decide.

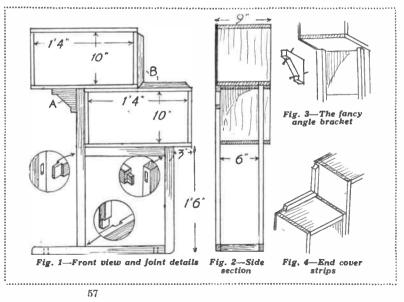
#### Choice of Finish

For an article of this description there are several finishes to choose from. It can be stained and varnished, of course, but a painted or enamelled finish is to be preferred, better results being generally possible. Such finish will hide faults and

Such finish will hide faults and blemishes much better than stain and varnish, for in fact, the latter often accentuates them.

If the bookcase is for the living room, then painting in oak colour or red brown, and then varnishing should result in a pleasing appearance.

If it is to be a bedroom or drawing room piece of furniture, it could be painted or enamelled white or pale green. With an article of this design, a brilliant colouring could be effected.





The books reviewed here have recently been published and are of particular interest to readers. Mention of Hobbies should be made when ordering from the addresses given and postage should be added.

#### The British Journal Photographic Almanac

THIS is another standard reference work more especially prepared for the Trade and the expert amateur. It is always a mine of information and has been brought right up to date with the latest news of photographic needs, and as usual a beautiful section of sepia pictures illustrating a wide range of the art.

In addition to tabulated details on all processes, there are articles on colour portraiture, portraiture at home, table-top photography and an unusually interesting one on Record Work in Ecclesiastical subjects showing how, where and when to get a number of out-of-the-common pictures in churches.

(Published at 2/6 by Henry Greenwood & Co., Ltd., 24 Wellington St., Strand, London.)

#### The Art of Story Writing

LOTS of people are now involved in adventures, dangers and episodes which would not befall them in normal peace times. And how many realize what an exciting and interesting story such a business would make? Many indeed make a hobby of writing up the stories which they learn about in their neighbourhood, and many more would undoubtedly like to if they knew the way.

For there is a right and wrong way of doing that—as in everything else, and a discerning Editor can soon tell the work of an amateur badly done. A story has to be "built up " properly, with correct emphasis at beginning and end, with facts properly set out and in order.

All these points are dealt with in an interesting little book called "The Art of Story Writing," of which over 16,000 copies have been sold. The author deals simply with the technique of all kinds of writing and any interested reader of Hobbies should write for particulars or send a P.O., for the book as below.

(Published at 5|- by the Stone Publishing Agency, Redcar, Yorks.).

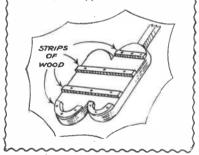
#### **Turning and Screwcutting**

So many fellows are now being trained as mechanics in the Services and munitions that they will be interested to hear of a new little pocket workshop manual called "Turning and Screwcutting" recently brought out by Pitt's Popular Publications. It is packed with information and gives a number of tables which are essential to the engineer—change wheels, constants for various threads, letter sizes, number sizes, natural sizes, etc. Altogether a rattling good book for 2/-. When you send for it add 2d. for postage and mention Hobbies Weekly.

(Published by Pitt's Popular Publications, Ashton Clinton, Bucks.).

#### Non-Slip Treadle

TFIND that the solid foot plate of the Fretmachine gives no grip to the feet when working, I have fitted strips of wood across in the idea given in the sketch. This stops this slipping of the feet and therefore a more constant speed is kept up.— (E. Dcan, Shirley).



#### Handbook of Home-grown Timbers

Dept. of Scientific and Industrial Research

We usually imagine scientific and industrial research matters to be dry and uninteresting, but here is a book which definitely gives the lie to that. Whilst wood is not now plentiful, every reader of Hobbies Weekly should be interested in the variety of timber which is normally obtainable.

This 68-page booklet is a new edition and comprises short details of a very wide range of timber. Being of a scientific character, it naturally deals with research subjects; they are stated so easily and in such an interesting manner that one learns a terrific lot without being bored.

It gives much technical information on mechanical properties, natural durability, fire resistance, and the general description of the tree and timber. For any student or would-be technical teachers, the book is a mine of information. (Published at 1/6 by H.M. Stationery Office, York House, Kingsway, London, W.C.2.)

#### I Made It Myself

#### by A. C. Horth

THIS well-known writer of pastimes of all kinds has introduced another useful book to add to the library or to borrow for ideas. The book is very fully illustrated on almost every one of its 120 pages and in addition to the explanatory drawings, there are excellent photographs.

For instance, details of how to make a mill are given, and then there is a picture of one of the historical ones at Ashurst to show how true to type the model is.

Altogether over 80 separate toys or models are provided for with further suggestions which can be worked up in an interesting manner to provide budding craftsmen with a delightful occupation.

The range includes quaint working toys, movable figures and animals, doll's houses, railways, puppet making, cross bow, complete farm, etc. Altogether an excellent book of suggestions which any reader would enjoy.

(Published at 6/- by B. T. Batsford Ltd., 15 North Audley St., Mayfair, London, W.1.)

#### **Dictionary of Photography**

HERE is unquestionably an indispensable reference book for all photographers, and is a revised edition of a standard work for both the beginner and the advanced worker. Its details and explanations are simple and understandable, and the book is set out with the items in alphabetical order after the way of an ordinary dictionary.

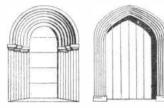
In consequence, reference is easy and clear type with simple diagrams make the book legible as well as interesting.

Naturally, a number of tables of weights and measures and a range of formulas are given, and it is not too much to say that every one of its 701 pages is packed with information. The fact that this dictionary is the 16th edition since 1888 proves its need and popularity. Every reader interested in photography, and certainly every Society, should have this book of reference.

(Published at 12/6 by lliffe & Sons, Ltd., Dorset House, Stamford St., London, S.E.1.)

## Recognising

¬EW people realise what a fascination can be obtained from a good knowledge of church architecture. The studying of it entails virtually no cost but yet teaches real history in an interesting manner.



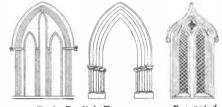
Norman Doorway Gothic Doorway

Look, for instance, at the types of doorways and architectural style shown herewith and you will realise how each can be built into a story of the particular period in which it was built. Most parish churches in your own town or district will be worth a study, and you will soon be able to recognise earlier types of architecture to be found in some of the older country churches.

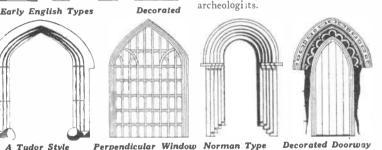
The Norman style with its massive,

Architectural Styles

solid, square doors, rounded arches and pillars, covered a period approxi-mately 1050 to 1200. Then the Early English style was gradually developed when buttresses began to appear, the windows, arches, etc. became lighter and spires were added. This covers from about 1150 to 1300.



gradually brought into being and panelling became more and more common with profuse ornamentation and much carving. Each of these types and periods can be seen in most districts, and each is worthy of study in conjunction with books obtainable on the subject or the knowledge of local architects and



A Tudor Style

#### ISCELLANEOUS ADVERTISEMEN NIS.

The advertisements are inserted at the rate of 2d. per word or group of letters prepaid. Postal Order and Stamps must accompany the order, and the advertisements will be inserted in the earliest issue. Fretwork goods or those shown in Hobbies Handbook not accepted. Orders can be sent to Hobbies Weekly, Advertisement Dept., as below.

**B**E TALLER !! Quickly !! Safely !! Privately !! Details 6d. stamp.--Malcolm Ross, Height-Specialist, BM/HYTE, London, W.C.1.

KEYHOLE SAW. Should be in every kit. Complete with 8in. blade 1/3. Post 4d.-Hobbies Ltd., Dereham.

**ONELY** ? Then write Secretary; U.C.C., 5B.B. Hay St., Braughing, Herts. Genuine. Est. 1905.

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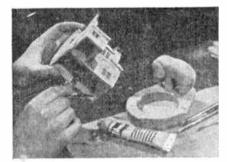
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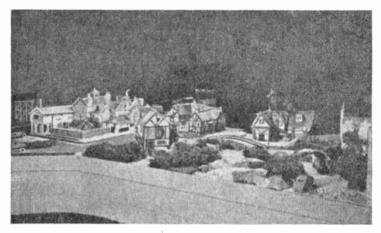
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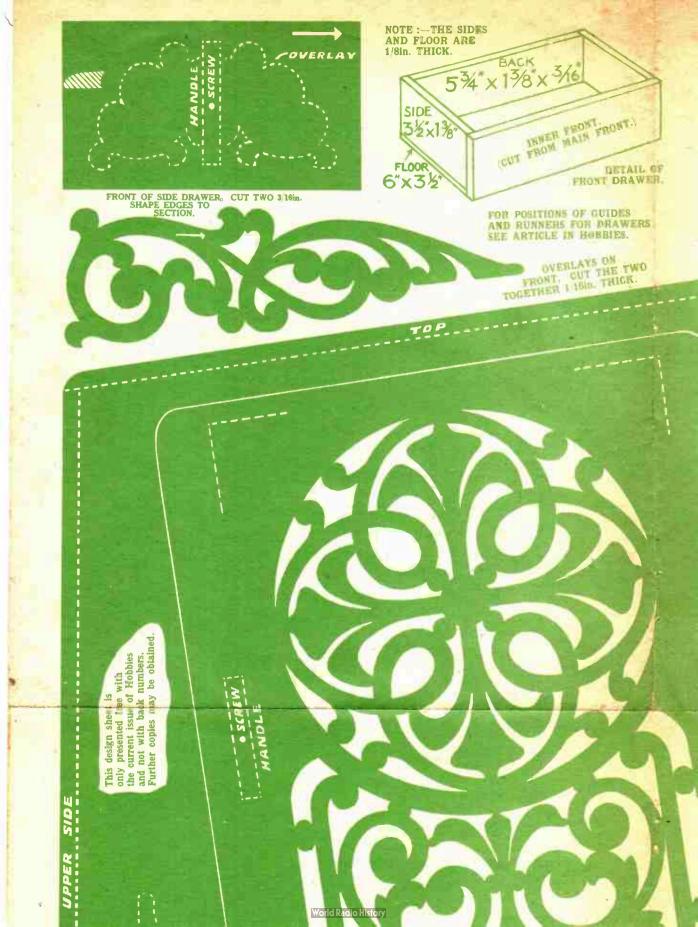
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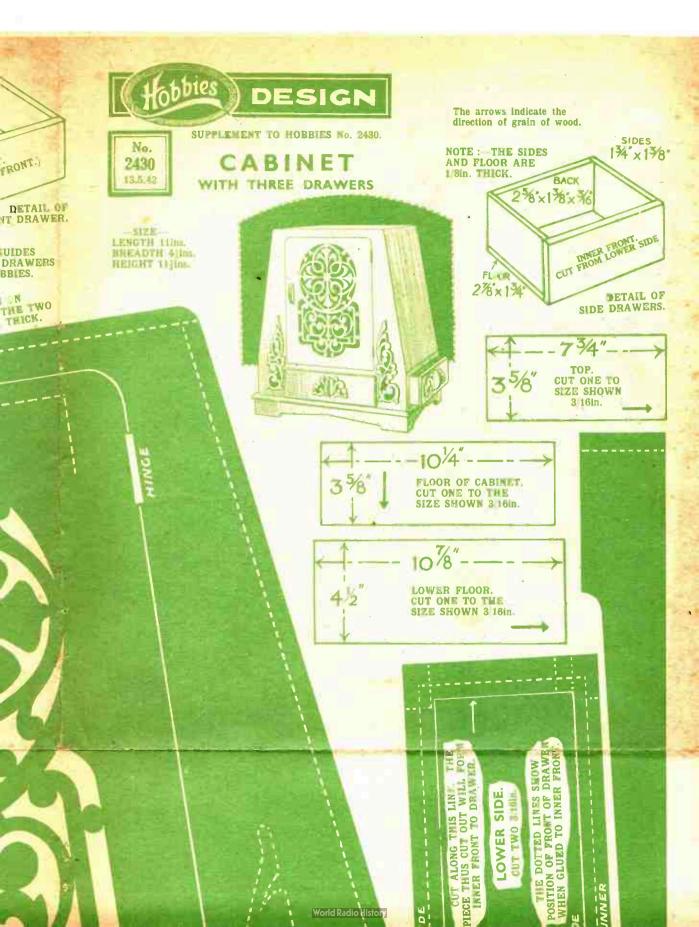
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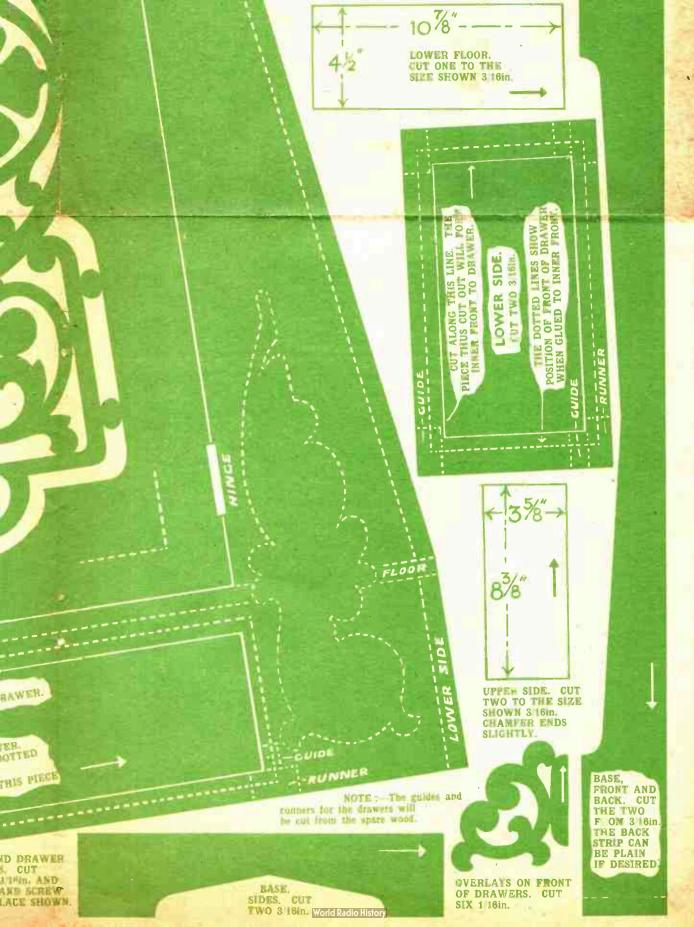
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# Hobbies Pattern Sheet No. 2430 for making a CABINET WITH 3 DRAWERS

THE patterns on the other side of the sheet provide for a useful cabinet of unusual type. It is fitted with a hinged door in the front above a drawer, whilst two further smaller drawers are shown in each end at the sides.

The construction is interesting, and all the parts required are shown on



General view of framework of front and back

the sheet. Some of them will have to be drawn out to the dimensions printed, and one should study the various dotted lines which give the position of adjoining parts as the construction proceeds.

It is as well to read these instructions to get a "hang" of the whole thing before one actually starts work. In cutting the parts, test each out in its proper place and never cut them on the underside.

#### Constructional Work

All work can be done with the fretsaw, but as there are a number of straight edges which butt up to others, be careful to get the cutting lines dead straight. Where parts are alike, too, check them up with each other to see they are exactly similar, otherwise the whole construction will be thrown out of true.

The details given here show the interior parts, and at Fig. 1 we have a diagram of the general framework of the whole thing. The lower piece is cut first and three of its edges rounded. Leave the back edge plain. Have the back and front of the cabinet ready, and the four pieces forming the sides as well as the piece making the top.

#### The Front

The front, it will be noted, contains two openings to be cut out for the door and the drawer front. Cut between the line marked, and use the pieces so taken out as the actual parts to replace later. An inner floor is provided, and this is fixed between the door opening and the drawer.

Get the lower sides between the back and front, then add the floor on the top of them. Above this the upper sides are raised and glued between the back and front again. The top is clapped down on to these sides. The upper sides must have the top and bottom edge slightly bevelled, to take

the slope, and the top itself is afterwards rounded off in line with the curve of the front and back. Get these parts all strong and if necessary glue little blocking pieces in the upper compartment in the angles.

#### The Door

The door is decorated with a fretted panel behind which a backing of 1/16in. wood or even fancy material is added so the interior is not visible. A detail of how the drawers are made is given with the patterns. The parts which came out of the sides and front form the actual front to the drawer.

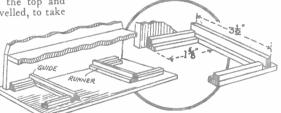
To prevent it going right in, however, a further front is added which is larger than the opening. Construct these drawers carefully according to the diagram, and ensure that they pass through the opening in the framework.

To let them slide freely, guides and runners must be added on the inside and the detail at Fig. 2 shows their construction. The long drawer in the front slides on the guides placed inside. The outer side of these guides is the back stop for the end drawers which are provided with side runners.

#### To Prevent Binding

These are placed on the floor close in the angle of the base and front and back are glued there securely and tested with the actual drawer for position. If there is any tendency for the drawer to bind, rub graphite from a pencil on the wood.

There only remain the incidental pieces to fix. The drawers are provided with fancy projecting handles on each side of which are placed little ornamental overlays.



#### Detail of runners and guides for drawers

A further upright overlay is glued on each side to the long drawer on the front. A handle similar to the drawer one is placed on the door a little above half-way up.

The whole cabinet is now lifted on a false base formed of four strip pieces. The two end ones go between the back and front, and the whole lot are glued under the floor a little way inwards from the edge.