Hobbies
A WEEKLY JOURNAL FOR AMATEURS OF BOTH SEXES

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FEBRUARY 21. — 1920 —

OUR FRETWORK DESIGN.
Centre Flower Vase Stand.

THE Design selected for the Presentation Sheet this week consists of an attractive and substantial Vase Stand for the centre of the table, as illustrated in the centre of the page. With its four fretted columns and wings it is a very effective piece of work. The Stand has been designed with a view to fitting the Vase shown in the illustration; it is a Vase of good dimensions, and capable of holding a large bunch of well-displayed and arranged blooms.

Materials.

Some fretworkers are very keen on the making of such articles as these. Like brackets, vase stands are of endless variety, and always popular, and a fretwork stall at a bazaar would not be considered complete without them. In its construction there are four thicknesses of wood required, viz., ¼in., 3-16in., ¼in. and ⅜in., though the ¼in. can be dispensed with in favour of ⅜in. for the feet. The Special Parcel of wood prepared for this design at Hobbies Sawmills consists of all that is necessary in the way of wood, and includes some No. 18 prepared moulding required to encircle the sides of the Stand.

No. 1271.
Centre Flower Vase Stand.

The only fitting needed is the Vase itself and which is included in Hobbies Catalogue as fitting No. 6007. This Vase is made of the popular plain green ware, and is of British manufacture. It may be obtained from Hobbies Ltd., Dereham, by post, or from any of Hobbies branches or agents.

The Patterns.

Although the uprights are large, it has been found possible to print both in full and independently upon the Design Sheet; there are, however, two parts which will need duplicating, viz., two of the side panels, and one for which a pattern must be provided by tracing, viz., the lower member of the base.

In regard to the former — the two additional sides — these will be cut two at a time from the two patterns provided; thus there is no difficulty there. In regard, however, to the base, which consists of two members, a pattern will have to be made, but it can be done very simply by following the directions which we give. The pattern-lines for both of these parts are given, but they are printed one within the other. Now our readers have to decide which one shall be traced

and ⅞ which cut from the paper ⅛ pattern. There is only one decision which can be arrived at, if a moment's thought be given to the matter, and is that the lower member is the one to be traced, as it is by far the more simple. True, the slots for the uprights pass through both parts of the base but these can be cut together after the outlines have been executed.

First, then, trace the outline of the larger, *i.e.*, the lower member, direct on to the wood intended for it, by means of a piece of fine carbon paper with the printed pattern placed over it. The outline can then be cut. The other member of the base will be cut also to outline only at first from the printed pattern which will, of course, be affixed to the wood in the ordinary way.

When the outlines of both parts have been executed the parts will be glued finally together without the printed pattern being removed from the upper one. They will be tightly cramped up until the glue is set hard, when it will be possible to cut the four slots through both parts at the same time from the printed pattern.

The Cutting.

The decoration consists mainly of free scroll-work of the kind that will occasion little difficulty to the cutter. It will be as well to use as fine a saw-blade as possible for the cutting of the four side panel, and the two uprights, for a fine blade will leave the cut edges of the frets so much cleaner and crisper than if a coarse blade is used.

The small circular holes which exist in the four columns may best be drilled with a sharp twist drill of the correct dimensions, the drilling being done upon a stout piece of common board, and being continued into same in order that the under edge of the hole shall be clean and unfrayed. As there are eight of these holes a good deal of time may be saved by doing this, besides which the holes will be perfect circles.

Chamfering.

The lower member of the base will need its edge chamfering to the thumb-moulding as indicated by the hatched section on the printed sheet. This will be done with a coarse fish tail file and afterwards sandpapered.

The side panels will need mitreing, which is best accomplished by a plane before the actual fret-cutting is done. It is a good plan to make such mitres as these on the wood before cutting and to make a preliminary fit between the sides, and the uprights, afterwards fretting the decoration.

The Feet.

It is provided on the Design Sheet that the four feet are cut from wood ¼in. thick, but if it is preferred they may be cut from the waste wood taken from the curved sides of the ⅜in. thick member of the base. It will be as well to round off the edges of the feet after cutting, and it can be done simply with a file, the foot being meanwhile held by a nail to a piece of rod of smaller section.

Construction.

When the cutting is finished the parts will go together as follows: First fix the feet under the base by glue and a pin driven through their centres, a hole having been drilled for the pins previously. Next, the two uprights will be fitted and glued together, and then inserted and glued in the four slots in the base.

The side panel will next be fitted and glued to the uprights, and the top added. It will only remain to prepare, mitre and fix the four pieces of moulding beneath the decorated rectangular panel in the sides. The moulding should be glued and pinned. The addition of the vase will complete a most handsome table ornament.

E. S.

FRETWOOD.—For this design we supply a selected parcel of Fretwood together with sufficient No. 18 Moulding, 3s. 3d; post free, 3s. 9d.

FITTINGS.—British Made New Green Ware Vase, No. 6007, 1s. 10d.; post free, 2s. 4d. Postage on complete parcel, 9d.

The above prices are subject to revision without notice.

THE EDITOR'S NOTE BOOK

The Bevel Cut and What it Does

THE bevel cut is really one of the wonders of fretwork. Its possibilities perhaps are only known and recognised by a fretworker here and there, and it is in order that the uses of the bevel cut may be more widely appreciated that this note is written. Its most ancient use, and the purposes for which it is most generally known, is in the cutting of inlaid work. There are two varieties of inlay, it is true, but there is only one real inlay, and that is executed by the bevel cut. In the production of inlay it is of course essential that the tiny parts fit into each other perfectly, and this can only be done by cutting them together so that the slightest variation made in one is automatically repeated in the other. If, however, the two parts, *i.e.*, the inlaid part and its surrounding wood were cut together by employing the vertical stroke there would exist a gap between them when they were assembled, the gap being occasioned by the loss of the sawdust from the path of the saw. Apply the bevel cut, however, and the parts will fit each other tightly owing to the bevel, causing the upper part to be the wider of the two, and it will therefore make it fit exactly into the opening cut in the lower of the two parts.

THE SUBJECT OF NEXT WEEK'S DESIGN SHEET.

Then there is the use of the bevel cut for the execution of Antofret, which is somewhat similar in idea to the principle of inlay-work, inasmuch as the parts are made to exactly fit into each other, although they are not permitted to enter the surrounding wo dwork so far as to make them finish flush with each other's surface. The difference in this direction is made by a slight alteration of the angle at which the bevel is cut. A further use of the bevel cut is in the formation of certain chamfers and bevels in ordinary fretwork. There is the case in which the interior edges of an overlay for a mirror or a photo frame are to be executed. When such a bevel or chamfer is regular and continues from the upper surface to the under surface of the work it may be executed by the ordinary bevel cut with the fretsaw instead of by the more laborious method of forming it with a file and sandpaper which never produce such a clean even bevel or chamfer as the bevel cut by a fretsaw.

1920 in the Garden and Allotment

We are now well into the new year of 1920, and those of our readers who possess gardens or allotments are considering their cropping plans for the season. With the cost of living so high, there is no doubt that utility gardening will remain the favourite outdoor occupation for spare time. When one remembers that every cabbage is now worth at least fourpence or fivepence, and with potatoes in the towns and suburbs being sold at twopence a pound, utility gardening is now among the most profitable of hobbies conceivable. Even a garden of average size is capable of yielding £10 to £20 worth of food. We should like all our gardening readers to adopt the true amateur line of action and take a pride in cropping their land well and excellently. By now all land ought to have been turned over with the fork, while impoverished beds should be trenched when the weather is dry, and manured. The more interesting work will soon be commencing, for some of the early seeds will need sowing—spinach, broad beans, and the like. Our readers should send for the Hobbies Annual Seed Catalogue, which is an admirable help in the selection of the most suitable seeds to secure.

THE EDITOR.

MY FRETSAW AND I

X.—A Chat About Plural Cutting and Overlay.

FIG. 1.

What is Plural Cutting?

PLURAL cutting consists of the cutting of two or more parts from a single pattern at the same time. Suppose there are two parts of a given design identical, they may be executed in one operation by putting the two pieces of wood from which they are to be cut together. That is plural cutting, and it will be found to come to the assistance of fretworkers in many directions.

Its chief use is naturally as a labour-saving device, for by cutting two parts together the work is of course halved, while in the case of a greater number of sections being cut simultaneously there is a far greater saving still. One other main reason exists for the adoption of plural cutting, and that is the need for some form of support for some of the fragile sections during the process of cutting. It is only natural that when two thicknesses of wood are being cut together they are much stronger than if they were executed individually.

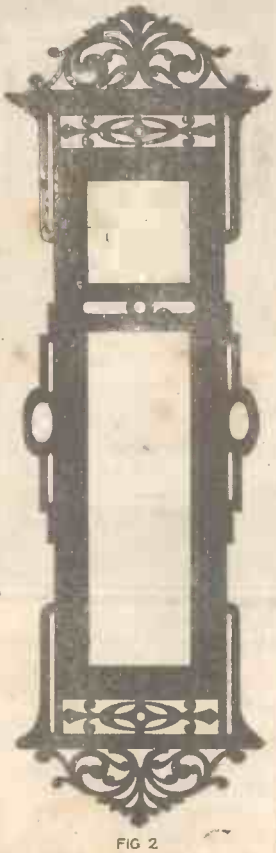

FIG 2

When Plural Cutting Should be Adopted.

Plural cutting, being primarily a labour-saving device, would, of course, only be employed in cases in which the labour saved in the cutting is more than the labour employed in fastening the pieces of wood temporarily together in preparation for plural cutting. For instance, in the case of quite plain parts or parts which have no particular decorative features, it would not pay the fretworker to go to the trouble of arranging for plural cutting.

On the other hand, where the decorative features are very florid and the interior fretted openings very numerous, plural cutting is essential. Look, for instance, at the illustration, Fig. 1. This is a Fern Boat possessing two sides identical. Great saving can be effected upon such a design as this. Our illustration, Fig. 3, is a very suitable design for plural cutting, and for two reasons, viz., it is a very frail piece of work, and therefore needs some effective means of support during the process of cutting, while moreover it possesses a perfectly extraordinary amount of work for the fretsaw, and by producing two of these Mirror Frames at one operation the amount of time expended upon each is halved, while a pair of the mirrors is produced without any more trouble than one. Fig. 3 represents a Mirror Frame of purely geometrical design, and is one of the most exacting undertakings with which a fretworker will be faced while he is doing ordinary fretwork.

Another type of plural cutting is that illustrated at Fig. 2. This is the overlay upon the front and sides of Hobbies recently published design for a

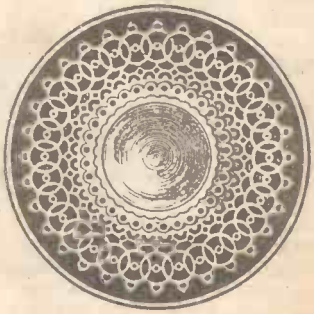

FIG. 3.

FIG. 5

Gramophone Cabinet. Overlays of any nature are among the most suitable subjects for execution by plural cutting, for they are almost always frail, being usually cut in very thin wood, while the very thinness of the wood gives the worker the opportunity to cut a number of the overlays together, and it is no uncommon thing for four overlays of identical design to be required for a single article. It will be recognised that the overlay shown at Fig. 2 has a very large rectangular opening, which would make it a very fragile piece of work during the saw work; in plural cutting, as in single, such a part should be left until the last before it is cut out. The number of the design from which this overlay is taken, by the way, is Special 120.

The Commercial Aspect of Plural Cutting.

There is one aspect of plural cutting upon which I have so far not touched, and that is the commercial possibilities which repose in plural cutting. There are thousands of our readers who contrive to pay for their favourite hobby by the sale of their work; the price at which any particular article can be sold is mainly governed by the amount of labour involved in its cutting and construction. Let me assume for a moment that my reader has selected a particular design for a photo frame; it will consist of the main fretted frame, in which usually reposes the major portion of the cutting and the fretted overlay, the former is almost invariably executed in wood 3-16in. thick, while the overlay is usually 1-16in. thick, or ⅛in. thick material. It therefore follows that it is quite an easy matter to cut both the heavily fretted frame and the overlay plurally, thus producing two or more photo frames for the same expenditure of labour as would be required to produce one. It will be seen, therefore, that granted a popular selection of a photo frame design is made, the plural cutter finds it is possible to produce fretwork for commercial purposes. This principle, of course, applies equally to other subjects than photo frames.

Method for Plural Cutting.

It stands to reason that where two or more parts are being cut at the same time they need some method of temporary fixing. There are two ways by which this temporary fixing can be done, the first being by the employment of

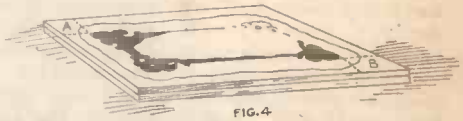

FIG. 4

fine fret-pins, while the second is an arrangement consisting of soft paper and paste; the former is the method usually adopted. The fret pin is really a specially fine nail something after the style of a brad, and they are obtained from any of Hobbies stores or agents in a variety of lengths. Holes are drilled through two or more thicknesses of wood id such positions that they will be ultimately cut away in the waste wood.

At Fig. 4 a diagram illustrating one of the best arrangements of fixing by fret-pins is shown. The diagram illustrates an overlay required for Hobbies Design 712, which is to be produced in duplicate. The paper design is affixed to the upper piece of wood by paste in the usual way; holes should be drilled at each corner, at points approximately A and B; the interior frets will then first be cut and lastly the outline; it will be noticed that the dotted lines each side of A and B join the

(*Continued on page* 389.)

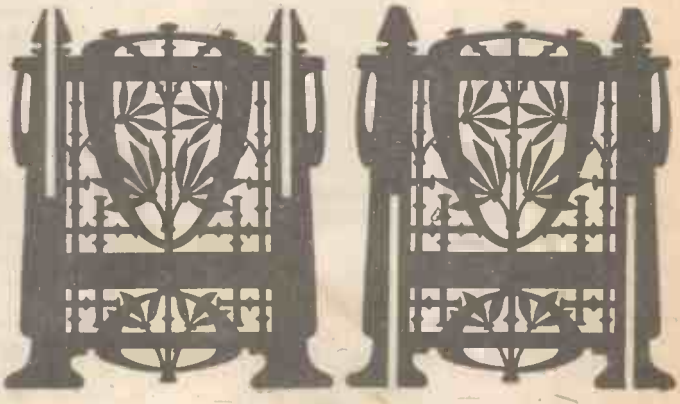

FIG. 6

PHOTOGRAPHIC ACCESSORIES.

WHEN an amateur photographer looks through a photographic dealer's catalogue, or around the store owned by a good dealer, he finds scores and scores of things used in photography, and if his pocket is not deep he begins to wonder what he really must have to complete his photographic outfit, and what he can do without. Many amateurs who can afford it buy many additional things some of which they rarely if ever use. The many accessories offered undoubtedly make photography easier and more certain, but it is surprising what one may do without, and how an ingenious worker can "make shift," and yet produce the most perfect work. We therefore propose to deal with a few of the things offered to amateur photographers.

It is assumed that the beginner has a camera and lens, a red light and the necessary chemicals for developing, as it is impossible to get along without these. We will also suppose that he has the necessary frames and chemicals for producing prints.

The most important accessory is the red light, and it is a mistake to attempt too much economy in this matter as far too many plates and films are fogged or entirely ruined by unsafe red lights. A lady reader of HOBBIES recently complained about fogged negatives saying that she was sure her red light was safe because she was careful to use the best red ribbon tied over the front of a cycle lamp! No red dress material or other variety of fabric used for domestic purposes can possibly be safe, as white light invariably finds its way through the threads. A red fabric is often used, but it is a specially made fabric, closely, woven, and sold specially for photographic red lights by photographic dealers at about 3s. per yard. Red paper of the proper kind will serve, but two or three thicknesses of it are advisable Red glass, however, is better than either paper or fabric, and as red lamps are fairly cheap, we advise one fitted with red glass and burning oil. Candle lamps are often bought because they are the cheapest, but they get very hot, causing the candle to melt or play inconvenient tricks. The oil light has many advantages.

Then there is the question of dishes. Porcelain or glass dishes are the best for developing negatives and prints, also for the treatment of self-toning papers, but for fixing negatives, films, and developed prints—*i.e.*, for plain hypo baths—black (ebonite, xylonite or papier maché) dishes serve excellently. A point to bear in mind is that dishes used for hypo should never be used for any other solutions, and by having black dishes only for hypo it is not easy to mistake them. As black dishes are, as a rule, cheaper than white ones, it is a good plan to have a dish large enough to fix two plates side by side, say a half-plate dish when working quarter-plates.

An accessory many amateurs ponder carefully and long over is an exposure meter A meter is of great assistance to beginners who cannot judge the strength of the light and give fairly accurate exposures. Exposure tables are also of great assistance, but all need to be used with care and thought as they are not magic things that make every exposure accurate. Meters measure the light, but when tables are used one has to use judgment concerning the light. If a beginner can afford it he should purchase a meter, but if cash is a consideration a careful study of exposure tables should be made. The "Imperial" meter and exposure tables are the cheapest and can be recommended, but the worker who after many attempts cannot estimate correct exposure, would do well to purchase a "Wynne" pattern. Such things are, however, not a necessity, but a great help—and plate savers.

Another great help, but not a necessity, is a washing and drying rack for negatives. Many amateurs use a wooden drying rack, either commercial or home-made, but wash their plates just anyhow. Metal washing and drying racks are advisable because the plates may be placed in them after fixing, washed, and then dried without handling. Plates when wet are very fragile and easily damaged, the less one handles them the better, and the metal washing and drying rack (a tank is optional) enables one to carry the plates from fixing to drying without any great risk of damage. Plates always wash better and quicker when in a vertical position, and as metal tanks hold the negatives upright they wash very much quicker than they would lying flat in a dish.

Isochromatic (yellow) screens or filters are very attractive things, but they are of no use to users of ordinary plates and films. These screens are for use with isochromatic and panchromatic plates. A popular plate to-day is the "Self-screen" or "Non-filter" plate, a plate that gives (without a yellow screen) practically the same result as an isochromatic plate used with a yellow screen. A yellow screen will not work with an ordinary plate, but it may be used with a self-screen plate,

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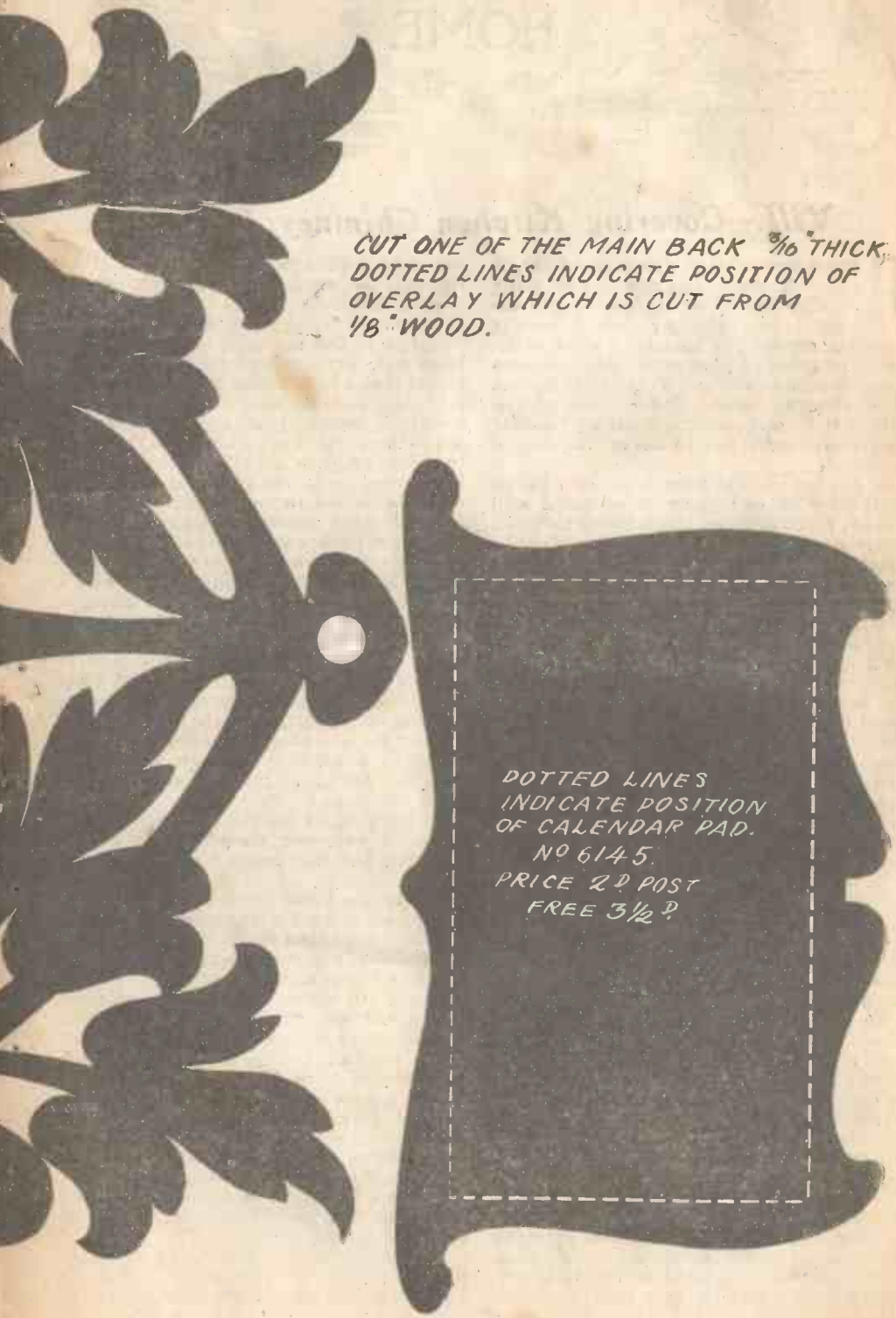
EXTRA DESIGN SHEET No. 415X.

CALENDAR MOUNT.



VIII.—Covering Kitchen Chimney Breasts.

IN small houses, very often the kitchen is the general living room, and many people have a strong objection to the ugly black chimney breasts usually provided around the kitchener, which spoils the appearance of what might otherwise be a good room, with the result that many have a wood covering made. The business of this article is to give easy methods for making inexpensive structures to answer the desired purpose.

It has become the practice to cover panels of doors with odd pieces of embossed wall papers, which are then painted with the door. There is no reason why this idea should not be extended to the fireplace. Fig. 1 gives a very simple and inexpensive idea where embossed wall papers are put direct on to the chimney breast, and then light framing is fixed over it, the whole lot being painted to match the rest of the paintwork in the room.

The first step will be to make three light wood frames of stuff, 1¾in. or 1½in. wide and about ½in. thick; the two side frames would be constructed as in Fig. 2 with simple halving joints well screwed up, the bottom rail being about 7in. up so as to allow for a plinth. It is impossible to give sizes for the frames owing to variations in individual fireplaces, but the outer edges of the frame would have to coincide with the edges of the concrete or brickwork; a third frame must be made for the top, with, possibly, a crosspiece in the centre. Of course, if the fireplace is not very big, one complete set of framing could be constructed; naturally stronger jointing, such as dovetailing, could be used if thought necessary.

To give a good finish at the sides, strips about 2½in. wide and ¾in. thick are made and fixed along the edge of the frames A (Fig. 1); these pieces are rounded off at the front edge, and project forward, they also have one corner of the far edge rounded. The correct idea is given in Fig. 3, which is a section taken through the framework. These side strips might be any width to cover ugly sides of plaster, etc. The fixing is perhaps the most difficult thing, and, unfortunately, direct instructions are not of much use, owing to the different nature of the construction of the fireplace in each case. If the mantelshelf should be of wood, that eases the situation a bit, since either by securing at an angle upwards, or by going down through the mantel-shelf the top can be secured sufficiently. Then some means must be found for fixing lower down. One way would be to find the brick course under the lower rail, which should be rather wide to ensure that a brick course is covered. Get a cold chisel and chip away a little plaster until a suitable mortar joint appears, then chip out in the mortar joint a length of about 2in. to about 2½in. deep. A plug of wood will now be required to fill the gap, but it must be correctly formed to be reliably firm; get a block of wood about 2in. wide and about ¾in. or ⅞in. thick, any length not too short for working with, mark the upper end of the wood as in Fig. 4. Next proceed to shape with a chisel to the form shown in Fig. 5, giving a twisted shape to it. Let the chisel cuts be unsmoothed off, so as to give uneven surface, giving a good grip. The plug must now be firmly driven into the wall, and sawn off flush. If the mantle board is also made of plaster, plugging of the wall may also be required under the top rail. A plug of this sort grips firm owing to a tendency through its twisted form to screw round from the straight when being driven in.

Having plugged the wall both sides, get the pieces of wallpaper pasted on in correct positions, and then screw framework up in place.

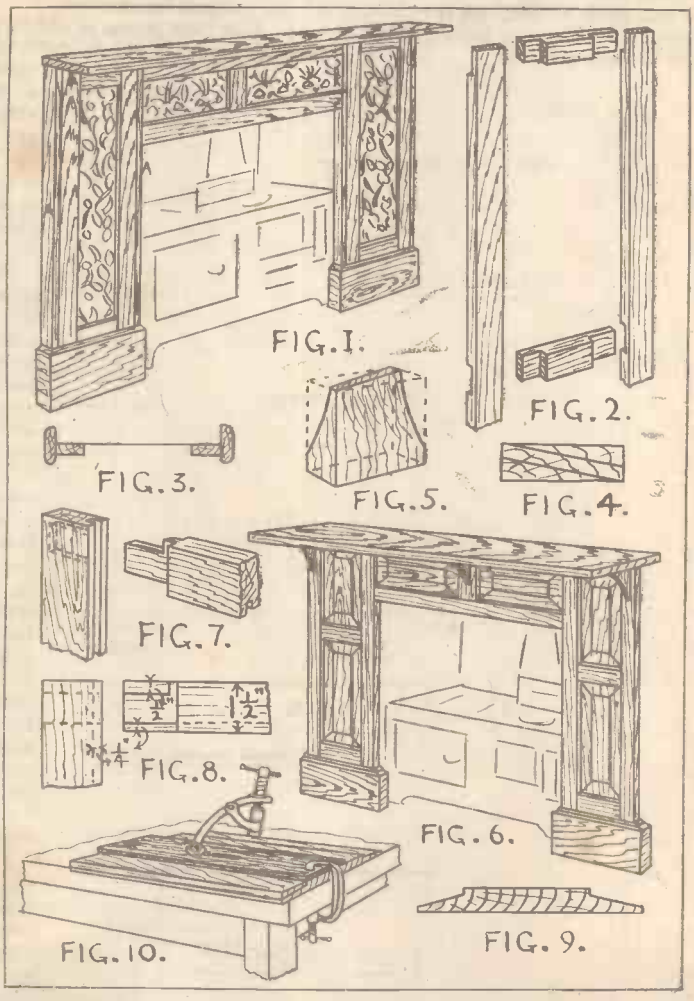
But as mentioned before, special circumstances will rule in almost every case. In one case cupboards filled the recesses each side of the fireplace, and it was possible to make a complete fixture to this woodwork and avoid plugging. Of course, wherever possible, plugging should be avoided, in some cases small staples can be arranged, and the framework hooked up, the advantage being that the whole thing can be taken down in a moment.

Next prepare some 7in. by ¾in. stuff with a bevelled or moulded upper edge, and cut suitable lengths to mitre around the bases to form plinths, nailing them on after cutting back the projecting round edge of the side pieces at this part, so that the plinth comes flat against the frame. Finally paint the whole affair as required.

A more ambitious scheme is given in Fig. 6. by using thicker framework and inserting raised and fielded panels. Naturally the

amount of wood required will make this one more expensive. The framework must be quite ¾in. thick, and made complete, mark out all the joints as mortise and tenons. Fig. 7 gives a general idea of the jointing. Fig. 8 shows setting out of one joint to measurements, so as to show allowance to be made for the plough grooves that must be made around all inner edges of the frame to insert the panels into.

The raised and fielded panels, a section of which is given in Fig. 9, are not by any means difficult to make, and are very effective. First cut all the necessary panels to the actual size required, not forgetting to allow for going into the plough grooves, which are ¼in. deep; the panels should be ⅜in. thick. Now set a gauge to ⅜in., and gauge around all the edges, including the ends, from the face side. Next set the gauge to, say, 1½in., and gauge around on the face side from the edges and ends. The working should be done along the sides first, to save danger of breaking away at the corners. Put the panel flat upon the bench, and cramp it down, with a spare straight edged piece of wood upon the top, so that this straight edge comes along the gauge line (see Fig. 10); now get a rebate plane and rebate the side down ⅜in.; then don't reduce any lower on the inner part, but tilt the rebate plane slightly, and plane at the required angle to reach the gauge line upon the edge. Notice in Fig. 10 that the panel overlaps the edge of the bench slightly; this is so that the ploughed edges of one piece of the frame can be put on the panel to make sure of the desired fit, without having first to undo the work. When doing the ends, since it is across the grain, a tenon saw cut must be made to the ⅛in. depth against the line on the surface, so as to avoid tearing the fibres, and getting a bad result.



It is a comparatively simple matter to glue up; the whole thing should be put together dry first, then if everything comes up correctly, don't take it right apart, but knock the tenons back to within ⅛in. of their ends, so that all the frame work keeps just together and the panels remain between the rails. Use the glue brush around the exposed parts of the tenons, and then hammer all home again, cramp up and wedge. The advantage of this method is that there is no delay through fumbling about getting panels in place after the glue is on the joints, when it will be getting cold and thickening, and possibly cause trouble.

An improved appearance can be gained by stop chamfering all inner edges of the frame, which, of course, would be carried out before putting it together. Still further improvement can be made by fitting new mantel board to project over the old one, and arrange a bit of cornice; also brackets, etc., could be fitted according to one's taste in these matters.

The final stages, fixing, etc., will be the same as in the first example.

The Closing Date of the B.S.F. Competitions is March 31st.

HOW TO MAKE A BOW-SAW.

HOME-MADE tools are always a great attraction to either the professional or amateur woodworker, and the craftsman who can make his own tools to suit himself can pride himself on the fact, for there is a great advantage in having a set of tools adapted to your own use.

Speaking generally, the making of tools is an industry to itself, and some of the tools of to-day are almost perfect in regard to their shape for handling purposes. When one comes to consider, it is really remarkable how the hundred-and-one various tools have come to be made for the various industries.

The Bow-Saw is one of the simplest tools to make at home. Like its companion, the fretwork saw, it has a frame which allows it to travel around various curves.

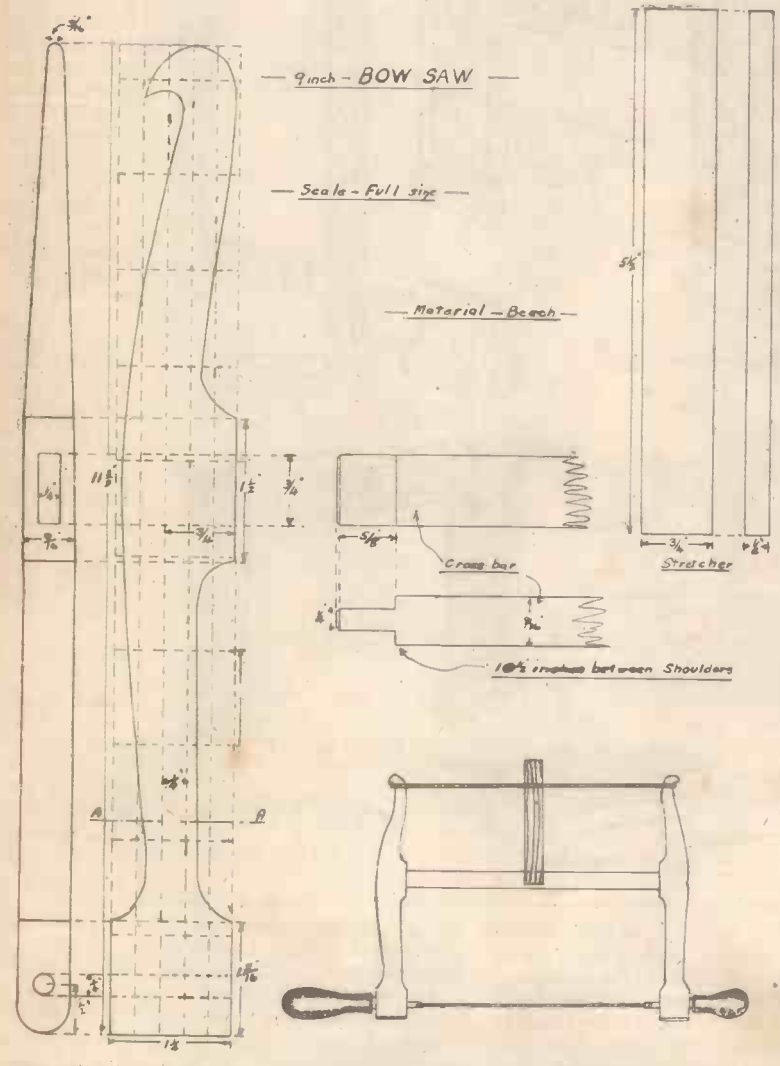
It is, of course, much stronger than the fretsaw, as it is used for cutting out stronger material. It has also two handles; the smaller one to be used to keep the saw out of twist, and the larger one to take hold of.

These handles, which should be of either beech or boxwood, can be bought or turned in a lathe. The frame consists of two uprights with a plain cross-bar morticed and tenoned into the latter, a stretcher, and a tension cord, the two latter being utilised to lighten the saw-blade.

In the place of the tension cord, wire is often used with a coupling screw in the centre to draw the frame together.

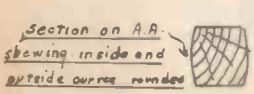
The shape of the two uprights of the frame should be marked out on drawing paper, and then glued on to the wood for cutting out. All the material should be planed up, first in its rectilinear state and then marked out.

Beech is a very suitable wood for making the frame of, though sycamore can be used with advantage. The cross-bar should be stub-tenoned into the uprights and shouldered, as shown.



Front and Side Elevation of Uprights shewing Method of setting out to shape

SKETCH OF BOW SAW



corners of the overlay, and this slight junction will be left to the very last in order that the pins may hold the parts together until the cutting is practically complete. The saw will therefore cut down the dotted lines shown, but will not cut the narrow neck until the rest of the outline is completely executed.

It is always as well to employ fretpins of rather greater lengths than the combined thickness of the parts that are to be joined together, as this will enable their points to be turned over on the under surface in order to make a good clench. For example, if the combined thickness is ¼in. a pin ⅜in. long could be employed, and so on. In doing this there is one matter that must be guarded against, and that is in turning over the points they must be kept entirely clear of the cutting line, for if one of the delicate fret-saws were to come into contact with one of the pins it would inevitably snap.

The paste method of temporarily fixing parts together in preparation for plural-cutting is as follows: Cut a piece of ordinary newspaper to the size of the wood to be cut; paste both the surfaces of the paper with some diluted paste and place the paper between the two pieces of wood, afterwards placing them beneath a weight until the paste is dry After the plural cutting has been done the paste may be severed by carefully inserting an old thin bladed table knife between the paste, when it will be found that the soft newspaper offers little resistance to the separation of the paste. The two pasted surfaces of the wood will naturally have to be cleaned up with coarse sandpaper. It will be seen that this method entails a rather greater amount of work than if the fixing is done by fret-pins, but some painstaking fret-workers of my acquaintance seem to prefer it.

Corner Brackets.

It will be found that corner brackets frequently consist of two sides identical save for one slight exception, so that it is possible to cut the whole of the decorative work of the two parts plurally, leaving the variation to be cut independently in each.

At Fig 5 we print one of the identical sides of a corner bracket as produced from Hobbies Design No. 200. The joints of its back edge will be seen to have been marked A and B respectively, A representing the projecting tenon, while B represents the open slots. In the other side of the corner bracket, however it follows that the positions of these tenons and slots are reversed, so that A would become an open slot, and B would become a tenon. Thus it is possible to execute the decorative features on the two sides by a single cutting operation. while leaving the joints to be cut independently.

Jardinieres.

These usually consist of four identical sides Reference to Fig. 6 will show that there is a slight difference, also only connected with the joints, but as two parts of each side are required, each pair is usually cut plurally, including the slot variation; however, when joints of this nature vary in parts which it is desired to cut plurally, both of the slots will naturally have to be cut separately. E. S.

PHOTO STUDENTS' CIRCLE.—Continued.

with the latter the screen causes the blues in the view to "come out" very much darker in the photograph than they would otherwise do. For ordinary subjects, however, a yellow screen or filter is of no use.

It is difficult to get along without a glass measure, although some beginners try to do so, especially as measures are now so expensive, but carefully used a glass graduate will last a life time. As, however, they are used in dark rooms they often get knocked over and broken. It is a good plan to paint the rim and foot of the glass with white paint so that it may be the more easily seen in the semi-darkness, while another pan is to stand the measure in front of the red light where it may be distinctly seen. The most useful measure is a 4 ozs. size, with drachm markings, if possible. Of the many shapes the best is the cylindrical or tumbler, as the conical form is difficult to clean thoroughly, and the foot is more likely to get broken off.

We often get enquiries about burnishers, perhaps because they may often be bought second-hand very cheaply. They are out of date machines for giving a gloss to the photographic point, and are rarely seen described in modern catalogues. They were in common use when albumen paper was used, and before the days of P.O.P. There are a few workers now who say that they can burnish (polish) P.O.P. with a burnisher, but it is a difficult task, as the machine--a sort of heated mangle—was made for use with albumen paper and no other. The most suitable accessory for giving a glaze to prints on gelatine papers to-day is a ferrotype plate or pulp slab. Many workers use a sheet of plate or other good glass for glazing, but it is better to use a ferrotype plate, the latter does not give so high a polish as glass, but prints are not so liable to stick.

Print trimmers and glass cutting shapes are for use when the sensitive paper is bought in large sheets or rolls, nowadays, when printing papers are sold in cut sizes all ready for use, there is little demand for trimming knives and shapes. Cutting shapes are of little use to-day, but a good print trimmer is a convenience, though not a necessity. Our favourite pattern is the "Merrett," but it is a rather expensive luxury (about 7s. 6d.) for a beginner.

THE GARDEN

SUMMARY.

Sow Sweet Peas. Start Gloxinias. Sow Tomato Seed. Sow Brussels Sprouts and Cauliflowers.

THE FLOWER GARDEN.

During the month of February the temperature outdoors generally fluctuates to a very considerable extent, and judgment is in consequence necessary in stoking. The fires must be kept in sympathy with the climatic conditions that may prevail.

Some evergreen trees suffer at this season by a heavy fall of snow resting upon and bearing down the foliage until it breaks. They should be shaken occasionally. The Cedar of Lebanon often suffers in this manner.

Of course, when the thermometer is for the greater part of the day below freezing point very little can be done in the outdoor garden However, good time may be spent in affording protection to Rose trees that are of delicate nature. A few sprays of bracken tied around the stems, and particularly at the bases of rose trees, often makes the difference between life and death.

Ferns under glass, and in a genial temperature and moist atmospheric surroundings, will soon be showing signs of activity. At the appearance of new growth the desirability of repotting should be considered, as no better time occurs. Use for the operation a compost in which loam is the chief ingredient.

Those who have not sown Sweet Peas should lose no time in making a sowing. We recommend periodical sowings, in order that a succession of blooms may be obtained.

Sow Hollyhocks, Lobelias, Golden Feather Mimulus, and Sweet Sultans during February, or at the earliest opportunity.

The old stock plants of Lobelias are very liable to decay away and die at this season, it is therefore expedient that one takes all the cuttings possible They should be inserted in sand or very sandy soil.

Dormant bulbs of Gloxinias should not be started for another fortnight, and perhaps Begonias had better not be started for another month.

Begonias that were raised from seed last year and have been stored for the winter, are perfectly safe if frosts are prevented from interfering with them.

Give young Chrysanthemum plants plenty of air. Where there are several in a pot they should be separated as soon as possible, as when the roots become matted they cannot be separated without injury.

Auriculas in pots require very careful attention at this season, as if water is allowed to run into the centre of the plants they are almost sure to rot

THE FRUIT GARDEN.

Peaches in the green-house which are opening their blooms should be artificially fertilised or assisted in self-fertilisation by the aid of a camel-hair brush. The operation is best performed between eleven and twelve o'clock in the forenoon.

THE VEGETABLE GARDEN.

Those who know best how to treat Tomatoes are now making sowings for early crop. Amateur gardeners who are not perhaps so conversant with the treatment will be wise in deferring the sowing of the seed till March.

Make up hot beds in the garden ready for the sowing of seed of early Radishes, Carrots, Lettuces, Cauliflowers, and Brussels Sprouts. Early Beans, Peas, and Parsnips should be sown outdoors.

Keep all young green crops well dusted with soot and lime, as if attacked by a flock of sparrows much damage will be done in a few minutes. Where Peas have been sown it is advisable to freely dress the surface of the soil with soot in order to prevent birds from scratching them up.

If a frame can be spared a small sowing of Brussels Sprouts may be made. If there is no available frame room use a warm border. If the weather is frosty when the seeds are germinating it is advisable to protect them, as seeds are very sensitive while germinating.

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