

A need in every home is this simply-made RATION BOOKS HOLDER

WITH ration books, and clothing books, not to mention the personal ration books, some kind of case to hold them seems necessary if they are to be at hand when wanted.

A simple, but not inartistic case is drawn which readers may care to make for the purpose. It is easy and inexpensive to make, needing only cardboard and a piece of wood.

On the cardboard mark out the back of the case, as in Fig. 1. It is quite easy. Draw the bottom line, and in the centre erect a short perpendicular to the spot, and from there, and with the radius given, describe the part circle. This is the back.

The Front

On another piece of cardboard repeat this, but stop at the line A-B. On this line strike the two curves shown, starting them $\frac{1}{2}$ in. from each side.

This piece is the front of the case. Cover the face side of both cardboards with brown, or fancy coloured paper.

Get a piece of deal, or common box wood, anything from $\frac{1}{2}$ in. thick, and $6\frac{1}{2}$ ins. wide. Lay the front cardboard on it, and mark the end curves on the wood by drawing a pencil round the cardboard.

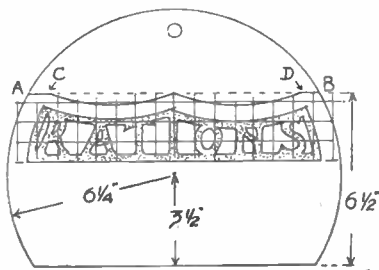


Fig. 1—Detail and shapes of the front and back

Now saw out the large opening, seen in Fig. 2. The piece sawn out is needed for the small pocket in front of the case.

Glue the back and front cardboards to the wood, the latter of course being sandwiched between, making a large compartment.

From the piece of wood sawn out cut the small pocket piece shown in Fig. 2. Lay this on some cardboard, mark its dimensions, and cut out.

This piece of cardboard, after covering like the rest, is glued to the wood to form the clothing card packet, seen in front in the general view.

From the scrap wood left over cut a strip $\frac{1}{2}$ in. wide and 4 ins. long. Cut one end (the top end) of this wedge shape, glue it, and insert in the middle of the case to divide it into two compartments, as shown by the dotted lines in Fig. 2.

The Pocket

Now glue the small pocket to the front of the case, just $\frac{1}{2}$ in. from the bottom edge. The sectional sketch, Fig. 3, shows these details.

See the edges of cardboard and wood are level, if not make them so. These edges should be covered with a paper banding. Any fancy paper will do for this.

One strip will be needed to go round from C, down the side and

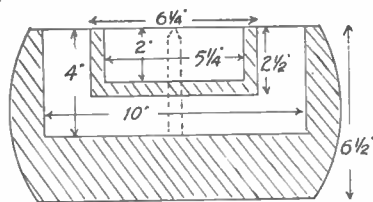
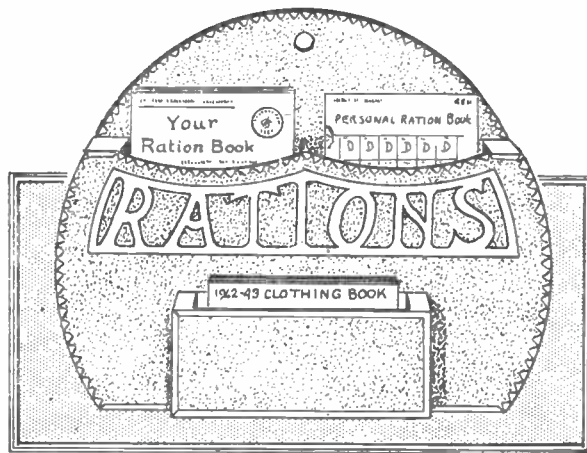


Fig. 2—The wooden partition pieces

bottom, and up to D. It should be wide enough to cover the edges and extend over back and front just $\frac{1}{4}$ inch.

Note that the overlap for the back will be cut off, not being wanted, between C-A and D-B.

Glue the edges and rub the strip



down on them, then cut the overlapping parts serrated, where they come round the curves, glue and press down back and front.

Along the straight edges of top and bottom serrating is unnecessary. Cover the remaining edges of the cardboard similarly, but use a narrower strip, say $\frac{1}{2}$ in. wide.

A similar strip to that used for the thick edges is also glued to the edges of the pocket in front.

Finish this part by applying a narrow strip to the top edge of the pocket. The inside wooden parts should be stained black to finish.

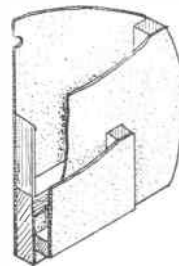


Fig. 3—Cut-away view

The overlay, shown tinted in Fig. 1, is optional. It certainly adds to the finished appearance. It can be cut in paper, preferably of a contrasting colour.

A good way to do it is to draw the $\frac{3}{4}$ in. squares, on which the overlay is designed, on thin paper first. Then copy carefully the outline and lettering. Trace this on to the overlay paper through carbon paper and cut out with scissors and a sharp pen-knife.

Gum it in place where shown in the general view. Punch a small hole in the back and hang the case in any convenient place.

Pecking Hens—(Continued from previous page)

Finally tie another length of the cord to the knot and connect with a weight. This weight may consist of wood cut and shaped to sizes given in Fig. 6 and fitted with a screw-eye in top to take the end of the string.

A little colour added to the toy makes it look very attractive. The birds could be enamelled or painted

with ordinary water colours—brown or yellow, with bright red for the combs. The top of the disc might be painted green. In the centre part a little glue could be smeared on and a grain or two of corn dropped.

The action of the birds feeding on the corn is given by holding the disc by the handle and setting the weight

swinging in a circular movement. This movement acts on all six cords in rotation, so that when cord D (Fig. 5) is pulled taut by reason of the weight swinging out in line with it, the cord E is loosened. This allows the head of the hen to drop; a process repeated to all the birds in succession as the weight swings round.

Any handy craftsman should be able to make and play A BURMESE UKULELE

THE novel ukulele shown here-with is based on a Burmese type of stringed instrument having a large circular body that produces an excellent, resonant tone. In fact, our design follows it rather closely, but is not so crude and gut strings are used—the usual four ukulele strings.

These strings are still obtainable from most musical instrument shops and are the only things you will have to purchase. Make sure you can get them, however, before you start work. Every other part, including the pegs is made easily by yourself. However, it should be possible to buy the four pegs which will save a little extra work.

Wood Obtainable

In case of difficulty locally, Hobbies Ltd. can supply you with the necessary fretwood required in making up the ukulele, but you will have a little rub-joining to do to make up the width and thickness of some parts, such as the neck handle, blocking and body sides. The body, you see, is 12 ins. in diameter and the widest panel available in $\frac{1}{4}$ in. thick hardwood is 7 ins. wide.

Plywood has a "deadening" effect on the tonal qualities and should not be used.

Preparing the Sides

The back and front sides require pieces of $\frac{1}{4}$ in. stuff 12 ins. square, but the nearest Hobbies Ltd. can do is to supply four panels (No. H.2) 14 ins. by 7 ins. by $\frac{1}{4}$ in. thick. Two panels are joined together by planing the edges square and straight on a shooting board.

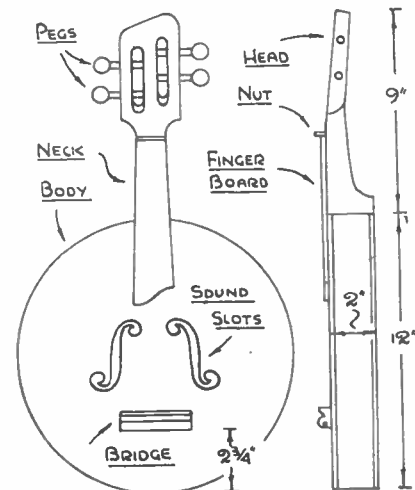


Fig. 2—Front and side view with sizes

Have the cutting iron of the plane sharp and finely set. The edges are glued and then rubbed tightly together until most of the glue (this should be warm and not too thick) is rubbed away, whereupon the panels will "hold" themselves together. It is a wise plan to rub the panels together whilst resting on a flat surface or, at least, with one panel, planed edge upwards, in a bench vice.

Helpful Views

The elevations at Fig. 2 give you some idea of the size of the ukulele, apart from the names of some of the parts. At Fig. 3 we show a top view of the bottom work, with a side view, then a constructional view appears at Fig. 4.

These diagrams suffice to show how simple the building of the body is and that the backing disc of fretwood is the foundation. So cut it out first and have pencil lines running down and across centrally so you will be able to judge the blocking positions without difficulty.

Filleting and Blocking

It will be seen that the back is a plain disc, whilst a sound hole

MATERIAL SUPPLIED

To help readers make the Burmese Ukulele described, we can supply sufficient fretwood as follows—

Four panels H2, 14 by 7 ins. by $\frac{1}{4}$ in.
Two " PPM, 11 by 4 ins. by $\frac{1}{4}$ in.
Three " OD12, 14 by 3 ins. by $\frac{1}{4}$ in.
for 6/6, postage being 7d. extra.

(about 2 ins. in diam.) or sound slots (as seen cut in violins) must be cut in the front disc. The position of the four blocks and the surrounding strip

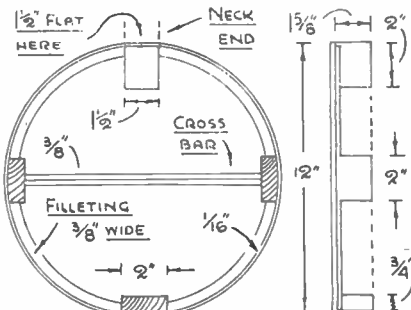


Fig. 3—Flat and side view of bottom of body

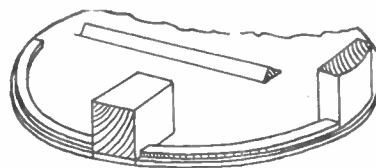


Fig. 4—Cut-away constructional view

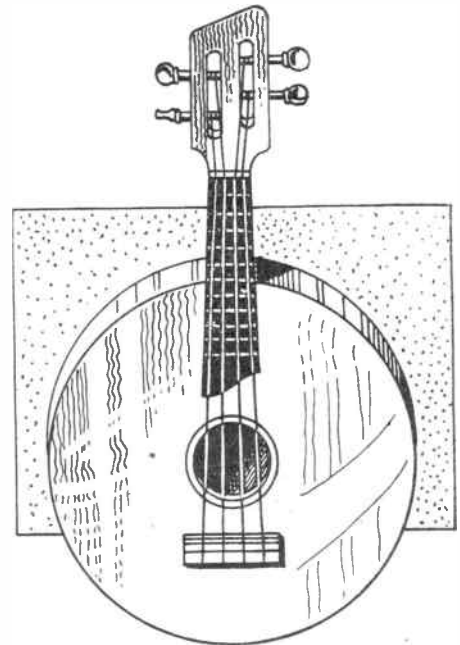


Fig. 1—The complete instrument

of wood, filleting, should be marked on the insides of the back and front of the body.

The blocks are then carefully shaped to size and glued to the back piece, then the filleting added, same being cut from any sort of $\frac{1}{4}$ in. wood, plywood or otherwise. The blocks, as well as the fillets of wood, must show an even $\frac{1}{16}$ in. margin all round for the edging pieces of wood.

Add the Front

At the moment, add the front disc on top, having adhered the four filleting strips of wood to it. It should fit down snugly on the blocking. Only glue should be used in keeping the parts together, but an odd panel pin may be tapped in to hold the parts down where there is a tendency to rise.

Having attached the back and front piece together, add a cross bar of wood to the back, this stretching across the centre. A piece of $\frac{1}{4}$ in. triangular fillet wood should be employed. The cross bar is for strengthening purposes, so do not omit it. A similar piece could be attached to the inside of the front piece, but see it goes near the base or bridge end, and does not show at the sound hole.

Edging Strips

To "edge" the bodywork so far, or rather, to complete it, you need two plywood panels (No. P.P.M) 11 ins.

by 4ins. by 1/16in. These give you the four edging strips wanted, the approximate length and width being 9 1/2 ins. by 1 1/8 ins.

The four joints meet centrally on the four blocks. So trim two ends square and glue them to the neck end block and tap in a couple of panel pins to keep them held firmly, then glue the filleting edges and gently, but firmly, bend the edge pieces down to the nearest blocks.

Attach the other two strips to these, seeing that the joint is neat, then bend towards the bottom block to complete the edging.

The plywood will bend easily, but if not, you can try "steaming" into

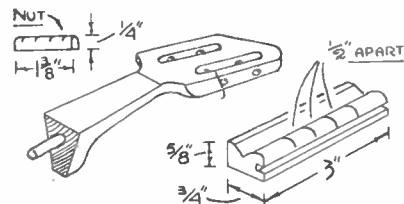


Fig. 5—The handle. Fig. 7—The bridge

shape beforehand. Get the joints as neat as possible, as all, with exception of the neck end one, will be visible to the eye.

The completed bodywork is then neatly glasspapered up, using a coarse and fine grade.

Neck Parts

The handle part has now to be made. It is built up from one piece of wood 8 1/2 ins. by 2 1/2 ins. by 1 in. and an end piece 1 1/2 ins. long by 1 1/8 ins. by 1 in. thick. Glue the latter to the underside of the former, flush at the end.

The side shape of the head and handle is marked on the side of the wood as shown at Fig. 5. Having shaped the wood accordingly, mark out the top shape and cut to shape.

The work is finally shaped up as shown at Fig. 5 in the completed state, following which a 3/16 in. dowel hole is bored at the end, with a corresponding one in the handle end of the bodywork, then a dowel glued and inserted.

Fixing the Handle

The peg holes in the head end are bored with a 3/16 in. bit. Note (from the frontal view at Figs. 1 and 2) that the pegs do not face each other directly in order that there will be no interference.

Proceed by gluing the handle to the body. See that the top (surface) of the neck is squarely flush with the top of the body. It is better to have the handle sticking up a trifle rather than the reverse way, for you can always reduce it flush by planing.

The Finger-board

The finger-board is cut from a piece of 1/2 in. or 3/16 in. fretwood 8 1/2 ins. by 1 1/8 ins. Mark the fret lines carefully across it with a set-square prior to cutting it to shape and attaching to the handle neck and body with glue.

Add the small nut piece at the head end (see nut detail at Fig. 5). This is made from hardwood or a piece of bone. The string "nicks" are about 3/16 in. apart.

The fret wire positions are now cut with a fine tenon saw or a sharp penknife. The depth is only about 1/16 in. Brass fret wire is usually obtainable from musical instrument shops, but failing a supply, one could use 1/16 in. strips of 1/16 in. thick brass sheeting. The tops, after being inserted with glue, are levelled off by glasspapering. In the case of brass, a file is used.

Try to remove any sharpness. Sharpness on the frets will fray the gut strings in time. Incidentally, you

may use 3/16 in. wide by 1/16 in. hardwood in place of brass or celluloid material.

The edges, too, of the frets, must be filed away at a slight angle. Butt edges are apt to catch and tear the skin of the left hand.

The Bridge

The bridge, a simple one, is detailed at Fig. 7. Cut it to shape as shown, the string slots being 3/16 in. apart. The slot along the back of the bridge is made by a tenon saw. This slot enables the knotted ends of the strings to get right underneath the string slots and become wedged.

Glue the bridge securely to the front of the body in the position shown, the distance from the bottom edge being 2 3/4 ins. (see Fig. 2). Be sure that the bridge sits quite flat on the front piece of the body. It has to take a big strain and bad gluing or workmanship will see it jerking off with a whanging of straining strings.

Making the Pegs

The pegs are easily made from 3/16 in. wood. Cut out the flat shape first, then round up the shank portion in a very slight tapering fashion. The finger grip part is kept flat or else "scooped" on both sides with the rounded side of a half-round file or rasp. Small holes are drilled in the stems for the stringing up.

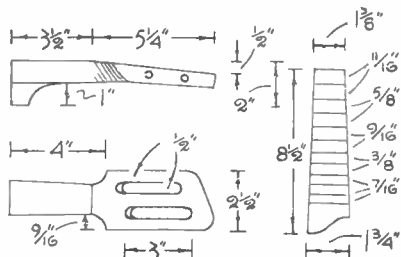


Fig. 6—Fret wire positions on fingerboard

As a finish, the ukulele can be clear varnished or polished. The finger-board, if brass or Ivorine frets have been fitted, should be stained black.

You could leave it in the natural state if it has been cut from a dark wood like mahogany or satin walnut. If the wood used throughout is of one light colour, the back, edges and handle should be stained and polished.

Lining and Tuning

The front piece should be kept light. If a circular sound hole has been cut, it should be lined with a pencil, including the edges of the body, pressing the point firmly down on the wood prior to varnishing or polishing. This gives the work a neat, finished appearance.

The usual tuning for a ukulele is A, D, F-sharp and B on a piano. In the event of not being able to obtain a set of gut strings, a half set of mandolin strings could be used, these consisting of steel.

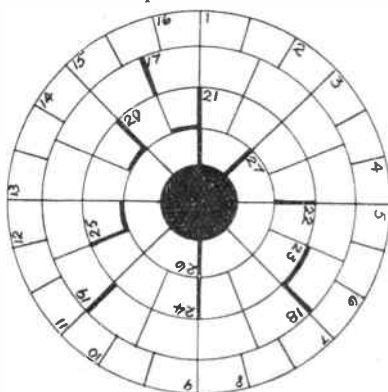
A Circular X-Word Puzzle

HERE is quite a novel form of Word Puzzle every reader will enjoy trying to solve. The words are formed round the four circles and in some cases also, towards the centre. The thickened black line marks the end or beginning of the word. See how you get on with it and then check your solution with the result which will appear next week. There are no prizes.

CLUES INWARDS : 1. Obtain by work ; 2. One of two ; 3. Trees ; 4. Untidiness ; 5. Island ; 6. Roman Coin ; 7. Large plant ; 8. Part of window ; 9. Fissure ; 10. Coagulate ; 11. Anger ; 12. Female ; 13. Rend ; 14. Tan reversed ; 15. First man ; 16. Tree ; 23. That is.

CLUES ROUND CIRCLE :

1. Wipe out ; 8. Put off ; 17. Unbridled ; 18. Horizontal bar ; 19. In front ; 20. Before Noon ; 21. Edges ; 22. Legal right ; 24. Thick Mist ; 25. Swallow ; 26. A limited period ; 27. Observe.



The Solution will be given next Week

Another interesting article on how to undertake HOME PHOTOGRAPHY

IN the article which appeared in the issue of September 2nd, several points were mentioned which, if practised, would prevent many of those unfortunate mistakes or accidents which are responsible for so many spoiled negatives.

Every camera, no matter what its cost, should have a protecting cap for the lens, even if it is there for keeping out dust particles only. Some of the box type do not have any cover, but we would advise those of you who are without, to cut a disc of felt or thick cloth to fit tightly into the open space in the front of the camera where the lens is sunk. You can easily attach a small loop to the material to remove the disc quickly and replace easily.

Light Stops

Those with folding cameras have a cap provided, but if through accident this has been lost, then buy another. It will only cost a few pence, but it is a definite economy.

You will probably have seen other photographers at times place a hood on their lens. These are used for the purpose of preventing reflection of strong light from the lens barrel to the film. If you were taking a subject against the light or one which is very strongly lighted and your lens had only a very narrow rim of metal, it would be possible for a patch of the light to strike the glass, pass through and be reflected from the inner tube of the lens on to the film. This would cause what is known as a 'flare' on the negative, and impossible to remove.

How to Expose

Concerning the holding of the camera when making an exposure, we are all inclined to think that with an exposure of a fraction of a second it is not necessary to take any precautions. We imagine it is impossible to shake when you are only giving 1/25th or 1/50th and that a press photographer will often make his snap by holding his camera quite close to his eye and therefore cannot take any special care.

Yes, but that man is always taking photographs and has cultivated much more care than you think and, further, his snap may be 1/250th or even 1/500th of a second only.

Let us be sure and prevent a double image by holding the camera firmly in the palm of one hand and slightly pressed against the body just below the chest, leaving the other hand free for manipulating the trigger. Just as you make the exposure hold your breath; this will

overcome quite an appreciable amount of movement, but it will not prevent your body from swaying.

One authority contends that where an exposure of more than a $\frac{1}{4}$ of a second is to be made, then a tripod must be used. We are apt to forget that there is always movement going on in our bodies. Even the pulse can cause a slight agitation of the hand, and it requires only a very slight shifting of the camera to spoil a film in this manner.

The Speed of Films

Many beginners in the past have been a little puzzled as to the make or speed of film that they should use. The speed usually gets them guessing and then they are informed that such and such a make will give better 'rendering' of this or that colour.

It is, perhaps, again fortunate that films are now of two or three makes only and of a restricted number of brands and speeds. Our choice, therefore, becomes easier. The writer is at present using the Selo H.P.3 and does not want to change even if he had the chance. It is of very high quality and free from blemishes, and as most of the work is out-of-doors, there is plenty of latitude in this brand.

By latitude is meant a certain amount of under or over exposure, makes no difference in the negative, and this is a point which can be appreciated by all amateurs provided they do not work on it too much.

Work for the shadows, is one of the oldest rules in photography. It may mean that the highlights of your subject will be over-exposed, but this fault is better than grossly under-exposed shadows which mean an absence of detail where it is most

wanted. In any case you are probably taking something which is of a contrasty nature and therefore not likely to give you a very pictorial result. So if you can take it at some other time when the light is better, do not risk the film. Always remember a 'soft' light will often turn away 'hard' contrasts.

The Question of Filters

Filters is a subject which possibly leads to more argument in camera circles than any other. We have always had the opinion that it is one that needs a lot more exploring than it has received. Beginners and young amateurs should not be too eager to take up filters until they have a very full understanding of their use.

After having the opportunity of discussing the subject with those who have specialised in filters, they admit that the subject is in advance of the knowledge of most of us. We are therefore reluctant in advice, but this is what the writer does. Carry one filter, a pale yellow which increases the exposure four times for orthochromatic and three times for a panchromatic film.

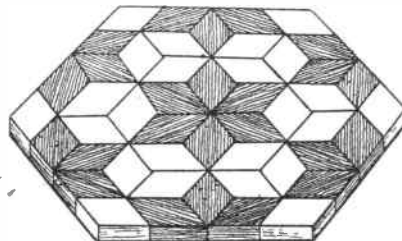
Results

Use it where the landscape has a long range of colour values or when the clouds are small and high. We have the impression that better gradation is obtained in the landscape and avoidance of a 'bald-head' in the other result.

We have such very good emulsion on our films that if the manufacturers say a film is panchromatic, then we must take their word for it. They have, with their scientific knowledge, given us something that is colour corrected and capable of giving good results.

Table Mats from Waste Wood

THIS little table mat is made from a lot of little pieces glued together and then to a thin wooden base. It looks difficult, but is not really, because every part is exactly the same shape. Cut out a diamond measuring 1½ ins. long and ¾ in. wide, from wood ¼ in. thick. You want 48 like that, cut with sharp straight edges. Then lay them out as you can see in the drawing and glue down together on to a baseboard. Afterwards cut away the baseboard to the same shape as the top and finish with glasspaper and a coat of polish or varnish. Your complete mat will be about 4½ ins. across—suitable for teapots, hot-water jug, or small vases or flower pots. The specimen from which the drawing was taken was sent in by J. Porter of Mistley, Essex, and is proof of novelties being made by many readers.



Hobbies

WEEKLY

October 7th, 1942

Price Twopence

Vol. 95. No. 2451

How the handyman can plan and cut out BLACK-OUT WINDOW SIGNS

ARE you an enterprising fret-worker? Why not construct dozens of "FISH AND CHIP" window signs (such as illustrated) and individual window signs and sell them to the different shopkeepers who will be interested. You could make a handsome profit on each sign—and this is just the time to get busy on the scheme.

Shopkeepers and shoppers are tired of the usual stereotyped "OPEN" signs. In the black-out, few people can tell whether it is a chemist's shop or a tobacconist's shop that display such signs, especially strangers.

Advertising certainly pays, even in this simple manner, as you will realize. The lighted sign serves to show that the shop is open, of course. And there is no need to be tied down to stencilled letters only, as we show by the silhouette of a fish in our illustration of the finished sign.

Catches the Eye

Here, indeed, is novelty. It catches the eye, even from a distance. One can use silhouettes of most

things in this manner according to the line of business. When, however, a silhouette cannot be found that will effectively take the place of a word, it is a good plan to, in any case, cut a silhouette of some article at one end of the sign to give it attraction.

For example, a coloured perfume jar in a chemist's sign, scissors in tailor's sign, a shaving brush (or comb) in a barber's sign and so on. The silhouettes would be of a different colour from the lettering to show up prominently. Coloured paper could be

so used, stuck inside the overlay of the box.

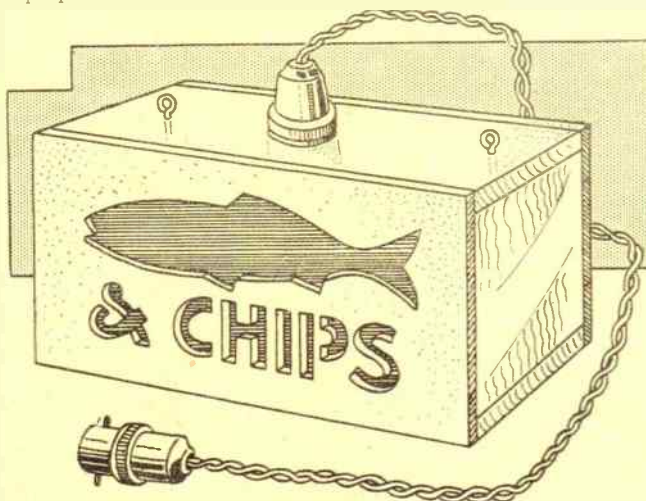
In the normal way, the cut-out letters (and silhouette, if any) is backed with blue-tinted glass. However, if a blue-tinted, 5-watt night-light lamp is used, coloured paper can be used, white being preferred for the lettering. A 5-watt lamp gives a soft light, does not heat up the sign box, and consumes little electricity.

You should, by the way, make a completed sign and take it with you in your search for orders. By doing so, you will know exactly the cost and be able to fix your price.

A useful size of sign box is 14ins. by 8ins. by 5ins. It may happen, however, that the shopkeeper's name is fairly long and cannot be worked into the panel comfortably. In consequence, there is no alternative but to reduce the size of the letters or lengthen the box.

Construction of Case

To make the box, the $\frac{1}{2}$ in. thick sides and ends are cut and trued. An old box will provide you with sufficient material to make several signs. Before gluing and nailing the sides on



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

top of the ends, prepare the back and front panel. These panels are cut from $\frac{1}{8}$ in. or $\frac{3}{16}$ in. fretwood or stiff cardboard.

The back panel is fretted to shape in the centre, then $1\frac{1}{2}$ in. wide strips removed at the sides (see Fig. 3). If you cut the back from cardboard, just remove a strip from the bottom edge,

MATERIALS REQUIRED

- 2 case sides—14 by $4\frac{1}{2}$ ins. by $\frac{1}{8}$ in.
- 2 case ends—7 by $4\frac{1}{2}$ ins. by $\frac{1}{8}$ in.
- 1 front and back—14 by 8 ins. by $\frac{1}{8}$ in.
- 2 glass slips—13 by $\frac{1}{8}$ in. by $\frac{1}{8}$ in.
- 2 ditto—7 by $\frac{1}{8}$ in. by $\frac{1}{8}$ in.
- 2 brass strut hinges—5364.
- 2 brass hooks and eyes.
- 1 piece glass—13 by 7 ins. by $\frac{1}{8}$ in.
- 1 5-watt nightlight lamp.
- 1 standard electric lamp fitting, plus wire flex.

using a sharp penknife and ruler. The top strip is merely scored with a blunt-pointed implement, such as a knitting needle, so the card will bend easily, then the score covered centrally with a strip of adhesive tape to strengthen the cardboard and provide a "hinge" at the same time.

If you are making several fish-shop signs, it is advisable to make a thin cardboard template of the stencilling. You will, as a result, be able to mark out repeats quickly and easily.

Points to Note

In respect to signs lettered to individual requirements, each will have to be worked out neatly on paper and then be traced on the cardboard or wood; if you can do this freehand, so much the better. Note that certain letters, like "O" and so forth (see Fig. 4), have to be cut in stencil form, otherwise the centres would fall out.

The letters and numerals that have to be cut with "ties" are all provided, including the abbreviated symbol for the word "and." A "9" and "6" need not be "tied" if cut in the manner shown by the "9."

Adding the Panels

Having prepared the panels, attach them to the casing with glue and

panel pins. You now need a piece of glass (plain or blue-tinted) 13 ins. by 7 ins. by about $\frac{1}{8}$ in., this being the thickness of 15-oz. stuff.

Place the glass against the inside of the front panel and keep it there with slips of wood (refer to Figs. 1 and 2). The slips can be either mitred or simply butted together at the ends. When putting them in place, have a few panel pins tapped almost through them.

If you use blue paper (light blue crepe or tissue paper is ideal), cut it to size and smear a film of glue on the inside of the front panel and press the paper in position. Try to avoid unsightly creases and wrinkles in the paper, including smears of glue, as

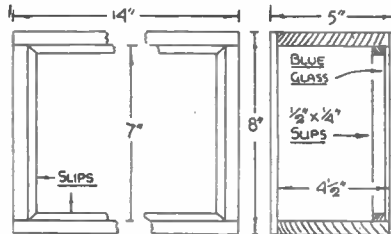


Fig. 1—Broken front view Fig. 2—End view

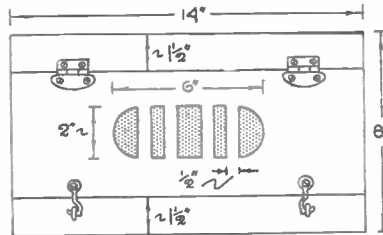


Fig. 3—Back view with air vent

this will show at the letters.

If cut from stiff cardboard, the back slip and joining slip only is adhered to the top and bottom side of the box. To keep the flap held down, use a couple of large photoframe clips, attaching them to the ends of the box so they cover the edge of the flap.

If cut from fretwood, attach the strips first. The heat vent part is hinged to the top strip and held at the

bottom with small hooks and eyes. It is a good idea to countersink the screw-eye holes so the hooks slip into the eyes easily.

Masking the Vent

The heat vent could be masked with blue linen that is "open" enough to permit the escape of heat. While hardly necessary, if a 5-watt lamp is used, it will serve to keep the sign dark at the back.

A suitable hole is bored in the centre of the top of the box for the electrical lamp fitting used, this being fixed in the wood as sectioned at Fig. 6. The length of the flex wire depends on the distance of the nearest electric lamp fitting or wall

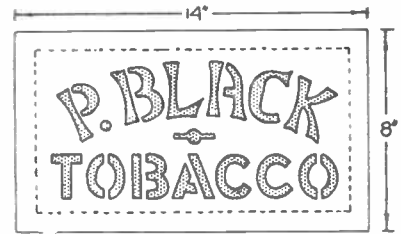


Fig. 5—The front overlay stencil

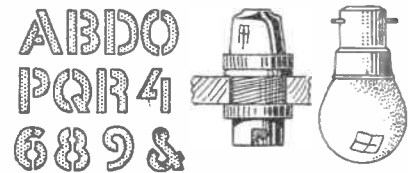


Fig. 4—"Tied" letters Fig. 6—Type of fitting and lamp

plug-in. In the case of a lamp fitting, the electrical connection is made by means of an adaptor (see illustration), this being inserted into the socket of the lamp holder in place of a lamp.

So that the box may be suspended with cord or chain in the window, two hook-eyes are screwed into the top, near the ends, as shown. For a finish, two coats of enamel paint will suffice, the colour being bright and attractive.

Collectors of "Tin" Soldiers

IN those piping days of Peace there were well-meaning folk who held up their hands in pious horror at the idea of playing with toy soldiers. ("Tin" soldiers they are called, although they are made from lead).

It was said that they "glamoured" war, and we were urged to collect model farmyards instead. Well, now that War is very much here and its horrors fully appreciated, there is no slackening off in the popularity of collecting miniature armies.

Many chaps get together a representative modern army with all its

impediments and personnel. Nothing crude or out-of-scale will do for them.

Manufacturers know this, and come out with all the latest types. Other people go in for historical models—soldiers and war machines of the Great War, the Boer War—in fact right back through history. One man has a set of "soldiers" representing a mediaeval jousting tournament. Another can show you a Roman legion.

In general, however, "serious" collectors aim at representing uniforms of the soldiers of this (and

other) countries, and specialise on one particular period.

Sometimes they are fortunate in getting the original old-time moulds of early "tin soldiers," but if they are wealthy they commission an artist to make a model and have copies cast. They then paint them by hand—a skilled job—getting their details from books on military history.

There is a British Society of Collectors of Model Soldiers, and many of the members command over 5,000 miniature soldiers. Very few of them were military men.

Any youngster will love to have this novel PECKING HENS TOY

WE think the following simple rhyming amply explains the little novelty we describe and illustrate.

*Here's a most amusing toy
Which should please both girl and boy;
Parents, too, will stand and gaze,
And ponder on their youthful days,
When watching these six hens so busy,
Making their old heads quite dizzy,
See the weight goes round and round,
And mark the grain upon the 'ground';
Each little beak goes pitta-patta,
As knives upon an empty platter.*

A few spare pieces of fretwood will make up this toy, the largest piece required being only $5\frac{1}{2}$ ins. square. All the working parts are from small pieces of $\frac{3}{8}$ in., $\frac{1}{4}$ in., etc. Care must be taken in the marking and setting out of the circular disc which forms the ground for the parts which go on top.

This disc is shown in Fig. 1, with the dimensions. This diagram makes it clear where the circular holes come, and where the mortises are to be cut for the tenons of the birds. Do all this work with the fretsaw and clean up afterwards with fine glasspaper.

The position of the six cross (dotted) lines, upon which the holes and mortises are afterwards plotted out, are got by a 30 degree set square marking across from the centre of the circle or by stepping six equal divisions round the circumference of the disc and then connecting them up as shown.

A simple handle for the disc is shown complete in Fig. 2, and it may be made from wood about $\frac{3}{8}$ in. by $\frac{1}{4}$ in. in section and glued and screwed

between one of the cross divisions. Each of the six birds is made from four pieces of wood as shown in Fig. 3. They will be assembled as follows.

Piece A is the body section, cut from $\frac{3}{8}$ in. stuff, with a tenon measuring $\frac{3}{8}$ in. long. To this piece there are pieces glued each side. Pieces B have holes made in the places shown for a pivot pin which will pass through. These pivots hold the head C of the bird. The piece C is shown also, and the hole in it must be sufficiently large to allow movement freely on the pivot pin.

In the end of this piece, too, there is a pin, or a small wire staple. Round this a piece of fine string is to be tied later on. In the sectional diagram (Fig. 4) the construction of the birds is seen, with the string connecting the head. In the lower (plan) diagram, the parts are shown assembled with parts B shaped to form the body and the tail end of piece A also shaped.

Full size patterns of the three parts of the bird are given here, and all the worker has to do is to stick these down to the wood of the thicknesses suggested and cut them out with the fretsaw.

Then, when the parts have been cleaned up with glasspaper, they may be used as templates for drawing round to produce the other five birds.

Glue the tenons into the disc, and then connect the strings to each bird as mentioned before and carry down the former through the holes in the disc and finish off in a knot below as shown in diagram at Fig. 5.

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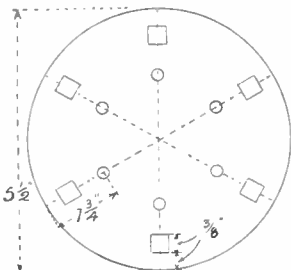


Fig. 1—The disc platform

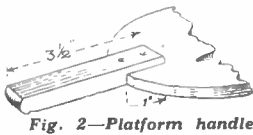


Fig. 2—Platform handle

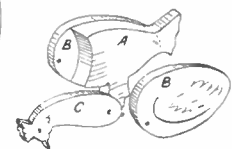
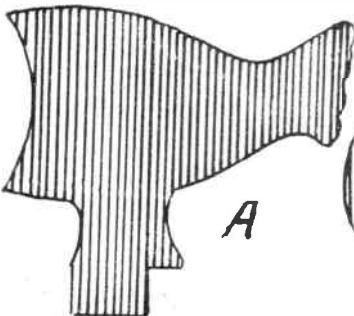
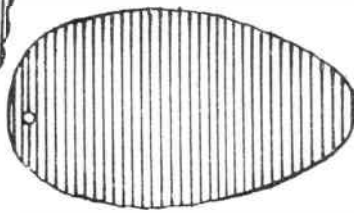


Fig. 3—The moving figures



A



B



C

Full size pattern of the three parts of the moving birds

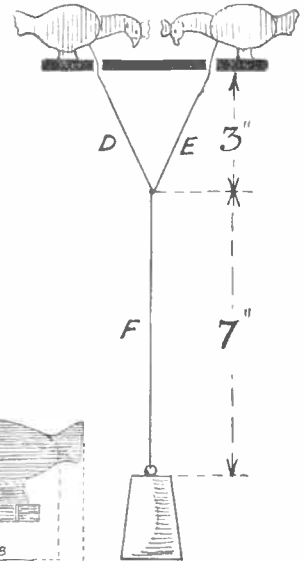
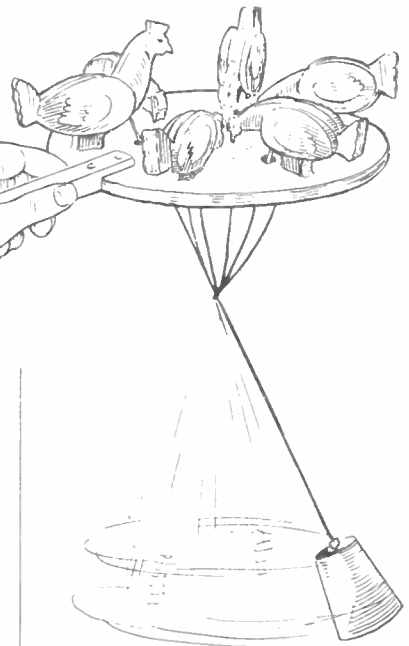


Fig. 5—General details

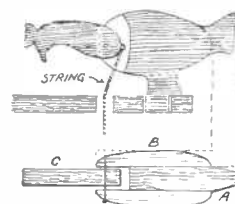


Fig. 4—Side view and plan of hen

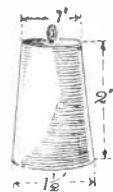
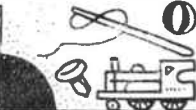


Fig. 6—Shape of weight

FROM ODDS AND ENDS



A Home-made Thimble



A THIMBLE, like a collar stud, is a thing easily lost. When in a hurry it usually cannot be found. Much time is wasted looking for it and, in the end, one has to sew without the thimble.

That means a sore finger tip. In fact, if the sewing is tough, and if one is not careful, the head of the needle is liable to puncture the skin and cause blood to flow—and a few cuss words into the bargain!

The average lad, unlike the average



Fig. 2—Bakelite bottle caps which can be used



Fig. 3—Drilled top

boy scout, never thinks of making such a feminine thing as a thimble. Scouts have to do their own button-sewing and mending, however, when camping or trekking. The following suggestion will, therefore, be of interest,

even to the average reader, who may wish to render a little service to his mother or a sister.

Bakelite Screw-caps

We always thought that those fancy, neatly-made bakelite screw-caps on hair-lotion bottles, scent-bottles and so forth could be put to some good use. They are too nice to throw away or destroy. We find that they make excellent thimbles for light and extra heavy work.

Two hair-lotion bottle types are shown at Fig. 2. Some of these caps, however, are deeper and thicker than others. If rather deep, a small disc of felt (or any similar sort of material) could be glued to the inside, as shown by the sectional view.

All you have to do to complete the thimble is to drill a series of indentations on the top end of the screw-cap, as shown at Fig. 3. The head end of the needle grips on these indentations and thus cannot slip off.

A fine twist drill about 1/16in. diam. or an ordinary fretwork drill will do the job satisfactory. You should, first of all, mark out the drill

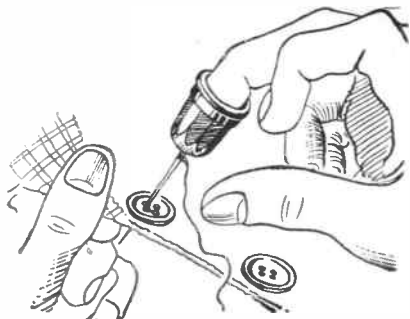


Fig. 1—Home-made thimble in use

positions with a sharp implement, such as a burnishing awl or the steel-pointed leg of compasses; just press the point into the bakelite as deeply as possible so the drill point obtains a grip.

Will Screw On

It will be noticed that, owing to the screw-threads cut inside the cap, the home-made thimble can screw on the finger rather than be wedged on, which is the general case with thimbles. There is thus little chance of the thimble working off.

Moreover, if the thimble is a rather tight fit, it is possible to remove the screw threads by filing with the end of a half-round file. But, as you will discover, there is no need to go to this trouble, as a thimble can be used equally as well on the index finger.



MAKING A SPLASH

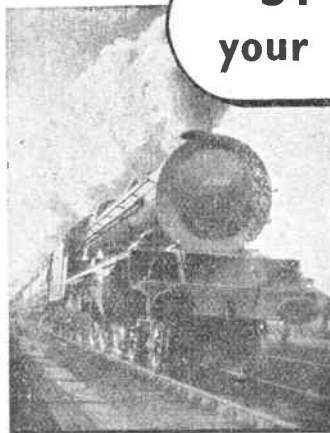
The time will come when you need no longer miss a good picture for want of a film. Meanwhile, the output of Selo films is necessarily restricted, but all available supplies are distributed through approved dealers. If your photographic dealer is out of stock, please do not write to the manufacturers; Ilford Limited cannot supply amateur photographers direct.



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