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A WORKING MODEL STEAM ROLLER

HERE is another working model which can be fitted with a Meccano clockwork motor as there must be many readers who have one.

The length of our model steam roller is nearly 16ins., and it stands 9½ins. high. As in our previous models the size is controlled by the dimensions of the clockwork motor.

A general idea of the model is

shown at Fig. 1. Below this diagram we include a scale for scaling off the sizes and positions of certain parts.

First take in hand the main body, that part which contains the motor.

In Fig. 2 we see this section complete and with the motor installed. The two sides are cut from ¼in. thick wood 7½ins. long by 5½in. wide. At the rear end of these pieces diminish to 2½ins. wide.

The holes in the sides through which pass the main driving axle, the

winding spindle and the driving pulley spindle are shown and if necessary these can be scaled off from Fig. 1. The upper floor (Fig. 2) measures 3½ins. by 1½ins. and ¼in. thick and the front of the motor compartment fits down on to it as Fig. 1 shows.

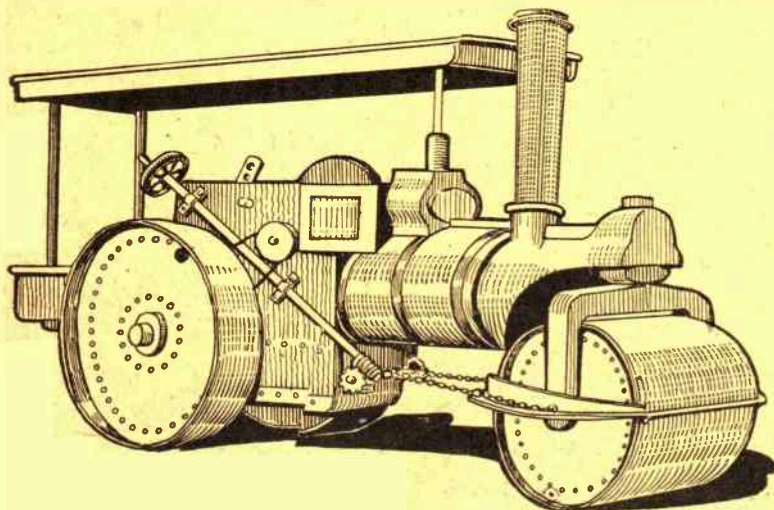
The main floor of this compartment is 6½ins. long and 1½ins. wide and ¼in. thick, and again (as the upper floor) it fits between the two sides. The front of the motor compartment has a slot cut in it through which the reversing lever of the motor passes.

The Motor Fitting

Stand the motor in place now, hard against the side shown in Fig. 2, and mark it off in pencil. The piece can then be removed and the slot cut with the fretsaw. It is afterwards glued between the sides. The back of the compartment is 2½ins. long and 1½ins. wide and ¼in. thick.

In Fig. 3 the opposite side of the motor compartment to that in Fig. 2 is shown. Here we see the spindle and pulley for the flywheel and also the driving spindle of the two side rollers with a large grooved wheel attached.

The flywheel spindle passes through the two sides of the compartment and through holes in the metal sides of the clockwork motor. The position therefore of the holes in the wood



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sides must be indicated while the motor is held temporarily in its place. The flywheel spindle is 3ins. long and 3/16in. in diam. and the main driving spindle 5ins. long and 1/4in. in diam.

The driving pulley, (omitted from its spindle in Fig. 2) is 3ins. in diameter, and goes between the roller and the side of the compartment. A tip of this pulley is seen in Fig. 3, while its position again is seen in Fig. 1. All pulleys are cut from 1/4in. wood, while the flywheel, 2 1/4ins. in diam. is 3/8in. thick wood.

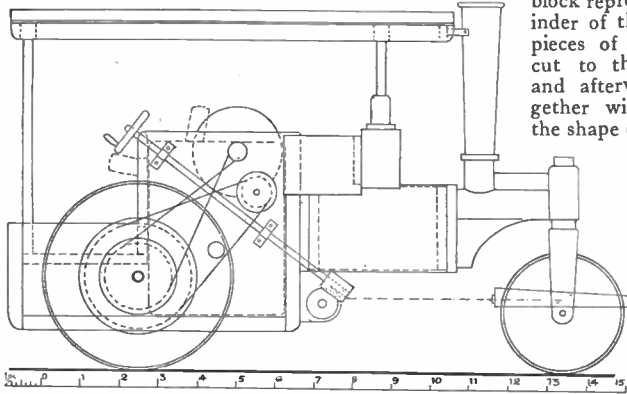


Fig. 1—Side elevation of model with scale

The boiler measures 4ins. overall. It is constructed of four 1/4in. wooden discs, two of these being slightly less in diam. than the other two. They are glued up in pairs (Fig. 4) and glued to the ends of a piece of card tubing 2 1/4ins. in diam. and 3 1/2ins. long.

The tubing must be strong and stout and the inner discs must be well fitted and glued in. A reinforcement may be added if necessary

in the shape of a flat piece of wood 3ins. long and say, 1 1/2ins. by 1/4in. section glued between the disc ends. The completed boiler will be glued to the front of the motor compartment 1 1/4ins. down from its top edge.

The box-like fitting (Fig. 5) fits on top of the boiler and immediately in front of the motor compartment. It is made of 3/16in. wood cut to the shape of the boiler first. This front is 2 1/4ins. wide and it goes between the two sides as shown.

In front of this fitting again is the block representing the cylinder of the engine. Two pieces of 1/4in. thick stuff cut to the shape shown and afterwards glued together will be ribbed to the shape of the boiler.

The boiler front to which the front roller is later attached is shown in Fig. 6. Two pieces are required for this, the upper piece being 2 1/4ins. long and 3/8in. deep and 1 1/2ins. wide and shaped semi-

circular.

Funnel and Front

The funnel and its fittings are seen in Fig. 6. The shaft of the funnel with its two lower members should be held together by a dowel as indicated, the lower 1/4in. collar piece being first fixed to the boiler by a screw passing well down leaving sufficient space for the dowel above.

In Fig. 7 is shown the block which fixes to the front of the boiler extension and to which the front roller is attached. The rectangular block below measures 1 1/4ins. by 3/8in. by 1/4in. thick. It is rounded on two edges as shown and glued to the shaped upper block. The disc glued on top of the latter is 1/2in. diam. and about 1/4in. thick.

In Fig. 8 the frame is shown. Cut from 3/4in. wood with the lower extremities afterwards rounded. The holes are 1/4in. diam. to take a piece of dowelling of that size, the latter passing right through the roller which is properly centred and made up as the upper details show in Fig. 8.

Making the Side Wheels

In making the rollers first cut two 1/4in. thick discs 3ins. in diameter. Bore an 1/8in. hole in the centre of each, the holes being enlarged slightly so the finished roller may revolve.

Now cut four pieces of 1/4in. stuff 2 3/8ins. long by about 1in. wide and glue between the discs. Bend round this framework a strip of stout card 3ins. wide and after gluing it to the disc insert some 1/4in. fret pins round the edges. When fixing the card see the joint comes centrally along one of the connecting pieces between the discs, and here insert pins at close intervals.

When the glue has hardened cut a strip of stout paper the full width of the roller (3ins.) and of sufficient length to go twice round it. Finally glue the two 1/4in. washers, 3/8in. diam. to the outside surfaces of the discs as seen in Fig. 8 and put in the axle touching the ends lightly with glue so that they remain fixed in the supporting frame.

It must be mentioned, however,

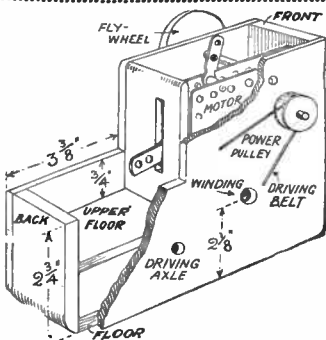


Fig. 2—Detail of casing

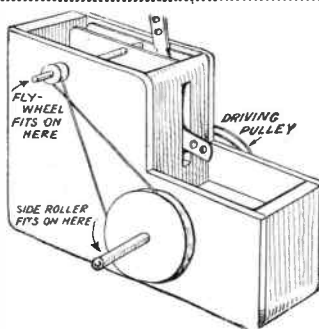


Fig. 3—Opposite side of carcass

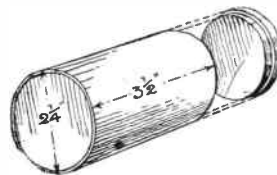


Fig. 4—The boiler

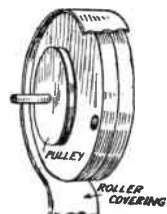


Fig. 9—The large wheels

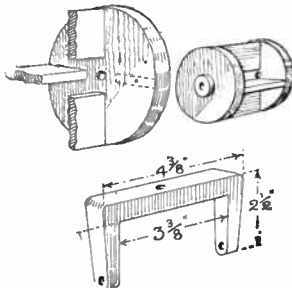


Fig. 8—Details of main roller



Fig. 7—Roller top extension

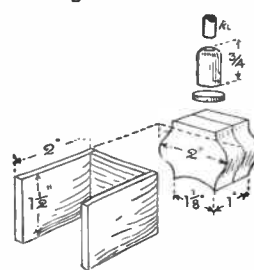


Fig. 5—Rear boiler fitting

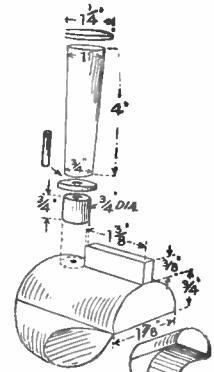


Fig. 6—Funnel and boiler front

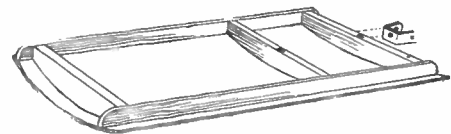


Fig. 10—Underview of the drivers' cabin

that the frame should be screwed to the boiler extension with a lin. long countersunk screw before the roller and its axle are inserted. The hole in the frame (Fig. 8) must be large enough to allow the screw to pass easily through so the whole roller with its frame pivots and moves freely.

An outer frame to support the steering chain may be made from flat ½ in. pieces of wood with stout wire or flat strip metal as connections at the front and rear of the roller. This frame must be glued and pinned to the roller frame as shown in Fig. 1 just above where the axle comes.

Large Wheels

The large rollers are made by first cutting four discs measuring 4½ in. in diam. from ½ in. wood. Through their centres bore a ¼ in. hole for the axle. Glue up the discs in pairs, and then cover their edges by gluing round stout card, as shown in Fig. 9. The card strips will be 1 in. wide and will therefore project beyond the faces of the discs ½ in.

Through one of the rollers bore a ¼ in. hole quite near the outer edge.

Its correct position will be found by first temporarily fixing one of the rollers to its axle and pushing this through the sides of the body of the engine.

Now, assuming that the motor is fitted in its place, mark where the winding spindle of this comes in relation to the roller. It will be seen that in winding up the motor, the key has to be inserted through the roller and on to the squared end of the spindle.

The roller shown in Fig. 8 is the driving roller and comes on that side of the model shown in Fig. 2. It has a large pulley wheel 3 in. diam. fixed to it round which runs the belt connecting up to the pulley on the clockwork motor

Roller and Washer

Note must be made that there is a washer set on the spindle between the above large pulley wheel and the inner face of the roller. This is to allow for the overhang of the card round the roller. The pulley wheel on the opposite face of the body (Fig. 3) is 2 in. in diam. and this drives the flywheel as shown.

The main axle is ½ in. and the rollers and pulleys are glued to it with outside washers added finally. The rod connecting the steering wheel with the gearing down below to which the chain is attached, passes behind the driving belt and is held by wire clips screwed on.

Driver's Canopy

A detail of the underside of the canopy is given in Fig. 10. It is made up of three cross braces of ½ in. stuff with ½ in. rails connecting them at the ends so as to form a complete frame. On the top of this a piece of stout card is bent over and glued and pinned.

The middle cross brace has a hole in the centre to take the upright from the apex of the cylinder. The canopy is held to the funnel by a metal clip bent to shape and screwed on. The rear is firmly held by two uprights fixed in the angle of the body and to the rear cross brace of the canopy.

The whole model should be suitably painted up and finished off realistically.

With a few odd pieces of wood anyone can make a GARDEN DISPLAY STAND



WITH a few feet of deal board, 1 in. thick quite a useful stand can be made for use in the garden. It is just the thing on which those ferns and flowers which during the winter have to be sheltered in the home, or greenhouse, can be displayed in the open during the warmer months.

Apart from the small quantity of wood needed, its main merit is its simplicity—it can be made in one evening with the most simple tools, just a saw and chisel, in fact. Board about 8 in. wide is most convenient, and there is no objection to using second-hand wood for the job, if it is sound, and is cleaned up, of course.

The parts, composing the stand, are shown in the drawing. Cut two

of parts A. The slots are sawn down to exactly half the width of the board, and should be 1 in. wide or the exact thickness of the wood used. Measure the wood carefully first, as 1 in. planed wood may be only ¾ in. thick actually, and a tight well-fitting joint is necessary.

These parts are to be joined together in the centre, so in one of them the middle slot only should be cut from the bottom upwards (see dotted lines) instead of as shown.

A Halved Joint

This, of course, will be obvious to readers familiar with a halved joint. Cut the ends of the parts slightly sloping, not too much, then join them together at right angles in the centre.

Of parts, B, cut four to shape up as shown. Cut the slots carefully then they can be fitted over the slots in A one at each end. Here it is well to drive in nails at the bottom to fix them in position securely. Bore holes for the nails to prevent the wood splitting, at points, lettered A-A.

Cut parts C, two being needed. In one saw the slots from the bottom upwards, instead of as shown, and join them together at the centre. The part can then be laid on the centre of A and nailed to it at points B-B.

Give all the wood a good clean up and a coat or two of paint, preferably white or green. The stand will accommodate fine flower, or fern pots, as shown.

To prevent them from falling off, or being perhaps blown off, drive nails in the wood round the pots and at the same angle as the slope of the pots. The nails press against the pots and hold them.

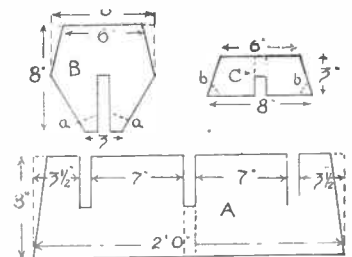
Long Nails Wanted

Rather long nails, say 4 in. ones should be used, so that they stick up 2 to 2½ in. above the wood. They should be painted also to prevent rusting.

In place of the nails, strips of tin, cut from empty cans, and about 1 in. wide could be used. They should be about 6 in. long and have their top ends curled over outwards, to look a trifle artistic.

They are bent at the centre, one half being nailed to the wood and the other pressed against the pots.

The completed stand should have a coat of paint every season and will then last a long time, even if left in the open.



The only parts required are these

Hints on getting real pictures in a town for our HOME PHOTOGRAPHY

LAST month we considered some types of subjects which the amateur can find when he goes walking in the country. This month let us turn our thoughts to the one who is living in a big town, has very few opportunities of going out into fields and countryside and is too keen on his hobby of photography to give it up.

It is surprising what numerous opportunities can be explored by the man-about-town-with-a-camera.

Most large towns have a few old Churches. Some have a Cathedral or large Parish Church where there should be many suitable items of sufficient interest to the average amateur.

Get Permission

The first thing to do if you intend spending any time on such a building is to contact the Vicar. Get his permission to do photography, then find the Verger and make friends with him. He can be extremely useful to you in pointing out the most interesting items and imparting useful information.

Having accomplished this walk round the interior making notes of any particular part of the edifice that may strike you as being suitable for your camera and at the same time consider how the lighting is, whether it would be better at another time of the day. Draw out the tripod and fix up the camera so you can give further consideration of the item in the viewfinder or focussing screen.

The Window Trouble

Most of us are impressed and usually take a view looking down the nave from the west door to the east window. Unfortunately for us photographers there is usually a very strong light from the latter and this tends to halation which becomes very noticeable in the print and is often impossible to avoid.

If the window is a stained glass one with heavy colouring much halation is avoided. Usually a time exposure is required and it is better to use a small stop, such as F22 or even F32, and to give a fairly generous exposure running into minutes.

This will enable you to ignore any movement of an individual who may be walking about while the exposure is being made, provided he is not near the camera or happens to stand for some time in one position where the lens can see him. In that case you must put the cap on the lens but while doing this and when taking the cap off again for continuing the exposure use the utmost possible care to prevent moving the camera.

Otherwise you might get a double image in your result.

The Chancel and Altar with the East window would require much less exposure. In fact, if the lighting is really good and there are no dark patches such as organ loft or dark oak choir stalls, a fast film might only require 1/10th. second with a large stop such as F5.8.

The Pulpit, Lectern, Font, old tombs, Lady Chapels, Brasses etc. are all items which would appeal to the amateur who is keen on interior work.

Antique Shop Fronts

The old streets of a town are always worth a visit and if there are any shops in these they are usually unspoilt by modernising. The fronts have probably not been altered, the windows consist of a series of panes of glass of about 18 or 24 inches by 12 and probably an old sign is hanging in front.

It is best to stand on the opposite of the narrow street, focus the camera and decide on the exposure. If you desire to have someone gazing at the contents of the window wait until a suitable being comes along; if the shop is selling antiques you must wait for a lady or gentleman; if it is a "tuck" shop then obviously you want boys or girls.

Should the street be one consisting of old time cottages, wait until you have the necessary little group of 2 or 3 of the inhabitants meeting and

gossiping in front of one of the cottages. Many a picture has been made of such a spot quite void of any living being but looking very beautiful as the result of sunlight and shadow.

Pictures at the Station

You could take a stroll down to the railway station and wait for the 3.30 train to come in. Try your hand at taking a scene of the hustle and bustle which occurs when a large number of passengers are being disgorged or taken on the popular train of the day.

Most big towns have a field or park where games are played and many opportunities of "active" life subjects will present themselves. It needs a little experience for such pictures as sports but it will be found worth while. You will soon get to know the capabilities of your camera and lens with the present day fast films.

Keep Records

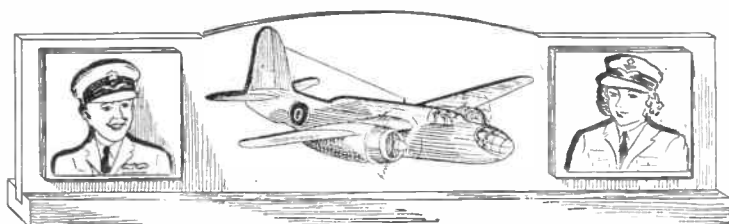
All experiments should be carefully noted, the records should indicate the make of film, time of day with the month, the stop and speed of shutter used and also the developer and time of development. In this way you will learn a lot of valuable information serviceable to you not only for this class of work but for any other which you may have the opportunity of doing.

A READER AND HIS WORK

THE picture is of one of our enthusiastic readers, Robert Traynor of Crawford Street, Burnbank, Hamilton. Proof of his ability to use the A1 machine is provided in the numerous pieces of work he has completed on the table. He is an ardent cutter, and says it is "one of the best ways of passing the black-out evenings when they come."



Photographs and emblems can easily be made into TOPICAL CUT-OUTS



THE use of the fretsaw for cut-out statuette figures may not be new to a number of our readers. On the other hand, many who have recently become followers of these pages may not yet have learned the effectiveness of this type of work.

In any case, the suggestions here given should prove helpful in an up-to-date sense in utilising pictures and photographs of people and things more common now than they were in pre-war days. Moreover, these little novelties enable one to use up odds and ends of wood which might otherwise be considered waste.

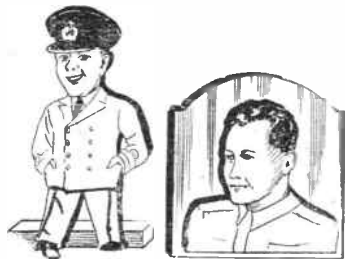
Simple and Quick

The work is simple and the ingenuity of the individual can be brought into play in a wide range of subjects, and a great variety of their use. The idea was formerly suggested in conjunction with little cut-out calendars, and formed a distinctly popular novelty.

Although calendar pads are no longer obtainable, there is no reason why the little articles should not be made on their own. The idea, as can be seen by the illustration, is to cut out pictures or photographs in a silhouette type and make them stand on their own, or mount them upon a shaped background. An example of the cut-out pictures was seen recently in the farmyard animals published in these pages.

Picture Cut-outs

It simply means cutting out the picture, and forming some suitable base on which it can stand upright. The most pleasing, of course, is the

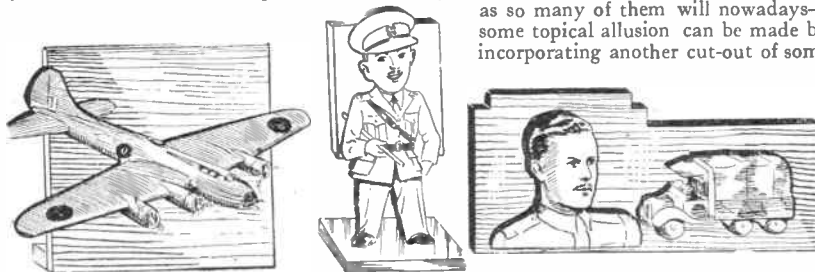


A Naval Figure Head and shoulders only

photograph of a relative or friend, cut out full length to the outline and fixed to stand in some simple manner.

If the photograph is of head and shoulders only, it would not look so well, but the drawings here show some suggested ways in which it can be used. First of all there is the question of the picture and the wood.

The photograph having been selected, cut roughly round the outline—about $\frac{1}{8}$ in. or $\frac{1}{4}$ in. away from the subject—and mount it upon $\frac{1}{4}$ in. wood with a quick-drying photo mountant such as Grip-fix or Stick-



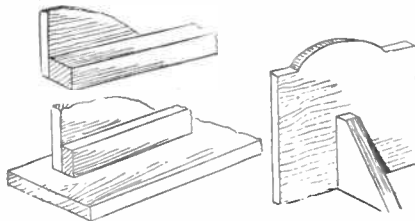
Examples of how the cut-out can be made up

phast. If the picture is a tall one have the grain running up and down to give greater strength.

Points to Note

Apply the paste thinly to the back of the paper, lay it in place, cover it with a piece of clean paper and press firmly on to the wood. Leave it until dry before cutting. The bottom edge must be perfectly straight in order to stand flat to the base. The outline is carefully cut with a fine fretsaw, care being taken with any small corners.

The flat front photograph is the best to use as having a clear, sharp outline. If there are any delicate



Three simple methods of making the cut-outs stand

projections then it is best to leave a plain panel behind them as suggested in one of the illustrations herewith. Whether this is going to be done or not must be decided before you cut off the shape with the scissors, and sufficient paper left accordingly.

The picture can be made to stand by a little blocking strip behind, or it can be fixed upon a flat base and another narrow piece of board glued behind the statuette to stiffen it up.

Panel Effect

Apart from the actual cut-out figure, there are several means of making a novel panel with the addition of a photograph. This is done by cutting out the head and shoulders, and then gluing that to a background panel either square, rectangular or even circular. This panel can then be made to stand in a similar method as before.

Assuming that the photograph relates to someone in the Services—as so many of them will nowadays—some topical allusion can be made by incorporating another cut-out of some

suitable subject. For instance, if the picture is of an airman, a miniature cut-out outline of a plane can be added. If the picture is of a member of the A.T.S. who is in the M.T. section, then a lorry or small car can be cut in outline as a suitable adjunct.

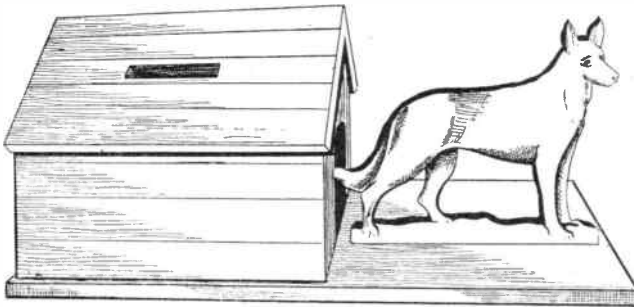
Topical Additions

The backboard should be plain in outline and the auxiliary subject smaller than the actual picture so it may not be predominant. It should be possible to obtain all these subjects from any illustrated paper. Get them if you can, from some of the better class ones where they are printed on a stronger paper. If, of course, you can purchase postcards with their glossy surface, so much the better.

The cut-out outline of the vehicle or plane or ship can be painted up in realistic fashion, and the edges of the wood can be made either jet black or be left natural. On the other hand, an artistic effect can often be obtained by painting the edges the same colour

(Continued foot of next page)

Full-size patterns on Cover iv for the dogs for this NOVEL MONEY BOX



HERE is an article that all thrifty fretworkers should make up—a doggy money box. It is of ample dimensions and will therefore hold quite a lot of savings, and when full the money may be removed from the hole in the base of the house.

In making the money box the base will first be set out and cut round with the fretsaw. A piece of 3/16in. wood will have an oblong drawn upon it 8 1/2 ins. by 3 1/2 ins., care being taken to get the corners square by using a set square and rule.

Clean up the edges with glasspaper and then lay it aside while the dog is being made. Some full-size pictures of various kinds of dogs are given as a page design in this issue and after choosing one of these all that is necessary is to cut out the pattern and paste it down to 3/16in. wood.

Fixing the Pattern

Take care to get the pattern well covered with the paste, and also allow it to stand aside for a minute or so for the paper to absorb the moisture and so become stretched before it is put on the wood.

If just a silhouette is wanted of the dog, the paper could be cleaned off after cutting with the fretsaw. The wood in this case would be afterwards painted suitable.

If, however, it is desired to leave the paper on the wood, then the water colour can be applied direct, a very realistic appearance being thus obtained.

Cut-outs—(Continued from previous page)

as the front to get the rounded effect if the subject requires it.

The cut-out subject is, of course, glued to the background and that part should be varnished or coloured whatever shade you are going to have it, before the overlay is fixed on. Get the edges of the wood perfectly smooth too, and be careful the odd spots of glue or paste are not to be found on the surface.

The baseboard can be left with a

It will be noticed that a tenon is worked on the stand of the dogs 1 1/2 ins. long, and when this has been cut the whole dog may be laid on the base of the kennel and the tenon marked off for length and position.

It must be noted that a length of 4 1/2 ins. must be allowed for at one end of the base for the kennel to stand clear. Do not glue the tenon of the finished dog in the slot yet until the kennel has been made.

The Kennel

The kennel consists, as the sketch Fig. 1 shows, of two sides, two ends and two roof slopes. The sides are alike and are cut from 3/16in. wood to the dimensions shown, the full width of wood before the bevel is made being 2 ins. The gable ends of the kennel measure 2 1/2 ins. high to the point and are 2 3/8 ins. wide.

Set out one of the ends first either on paper or direct on to wood. If on paper, the points may be afterwards pricked off and then lined up on the wood in pencil.

Or again the paper may be stuck down to the wood and the outline cut round with the fretsaw. The ends of the kennel may now be glued in between the sides, care being taken to get all the angles square and the lower edges level so that they stand evenly upon the base.

Now make the two roof slopes as shown in Fig. 1 from 3/16in. wood, making a slot in one piece 1 1/2 ins. long. With a plane or rasp and file, from the bevels on the sides of the house the same slope as that on the ends so that the roof slopes bed down evenly all along.

As the roof slopes run at 45

degrees each, their junction at the meeting point at the ridge is made easy and the two pieces are simply lapped and glued together and glued to the pointed ends and to the bevels of the side walls.

When the glue has hardened stand the house on the base temporarily in its true position and mark round it lightly in pencil. Now in the centre of the oblong thus made, describe a circle about 1 1/2 ins. in diam. and cut round this with the fretsaw, holding the frame to a slope so that a bevel cut is made see side diagram in Fig. 1. The disc of wood thus removed may be returned to its former position (from the outside of course) and held there by gluing over a square of stout paper.

Removing the Money

When it is desired to remove the money from the box, the point of a knife may be run round in the cut of the disc and the paper so severed and the disc taken out.

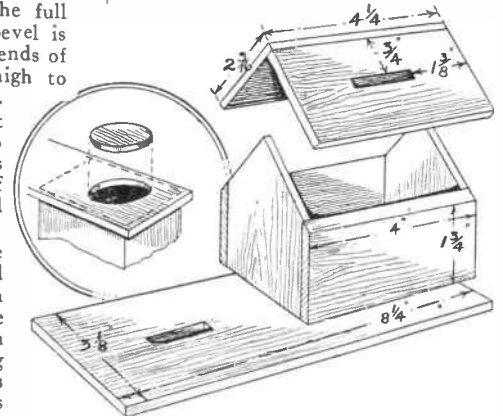


Fig. 1—General constructional details with sizes

Touch the bottom edges of the walls of the kennel with glue, and put it down on to the base, and as extra security run in one or two screws up through the base into the wood above.

The walls and roof of the house may have lines drawn on in hard pencil and the whole then coated with clear varnish.

straight edge or can be ornamented by glasspapering it round or having an addition of small strip or fancy moulding if you have it.

The idea presents a wide range of shapes for the panels. Two or even more pictures can be incorporated, and if a whole family is serving in something or other, then an interesting historical group can be made.

The suggestion also lends itself to even larger pictures—apart from

small stand, cut-out. You can, for instance, cut out the picture and add it in an ordinary photo-frame behind glass.

You can even fix the picture in wood to a piece of mirror and so get a novel and artistic background. Such a mirror could well be hung without a frame, or have narrow passe par-tout strip glued round its edge.

Or a smaller piece of glass could be used for the dressing table.

FREE TRANS-JORDAN AND FREE NYASALAND

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1 1/2" x 3/4"	2d.	1 1/2" x 1"	4d.	1 1/2" x 1 1/4"	8 1/2d.
1 1/2" x 1"	2 1/2d.	1 1/2" x 1 1/4"	5 1/2d.	1 1/2" x 1 1/2"	8 1/2d.
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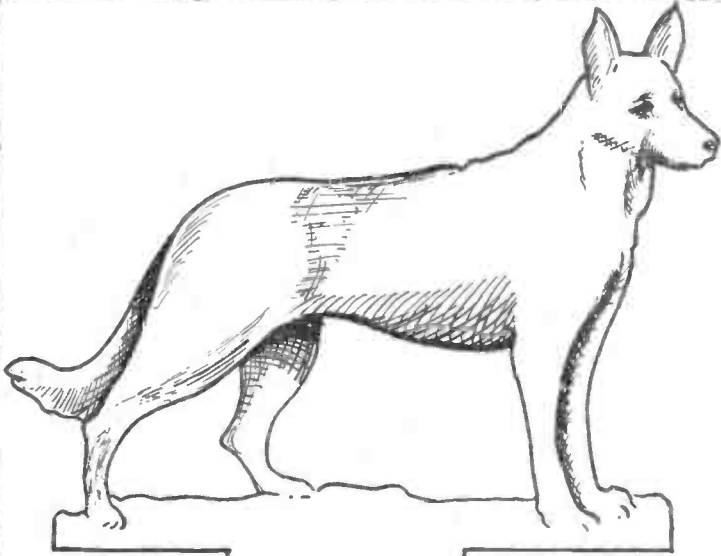
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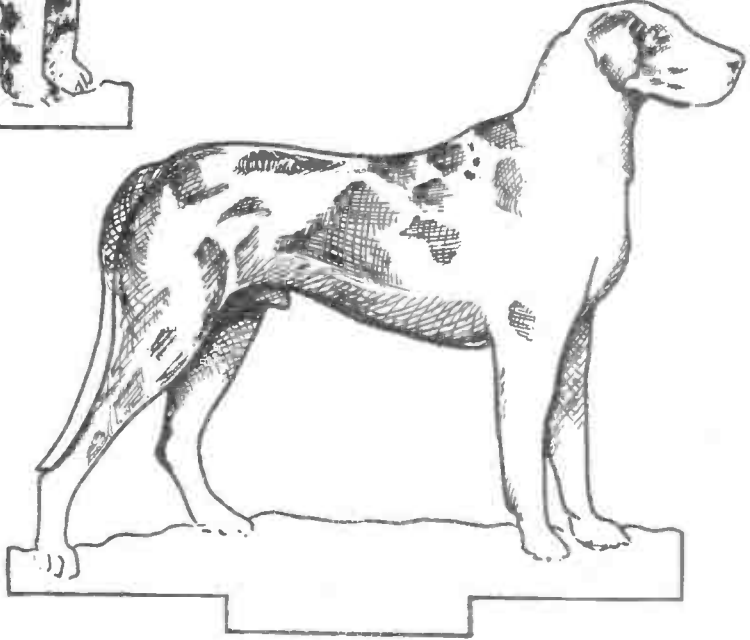
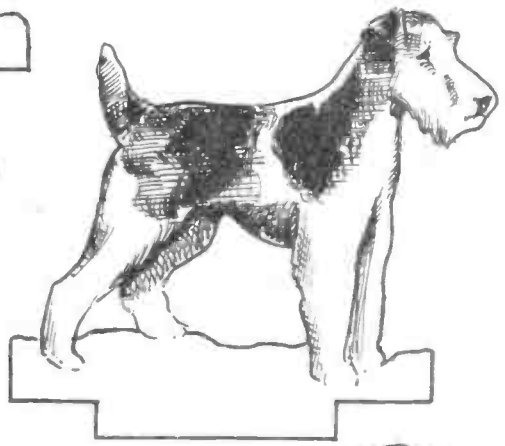
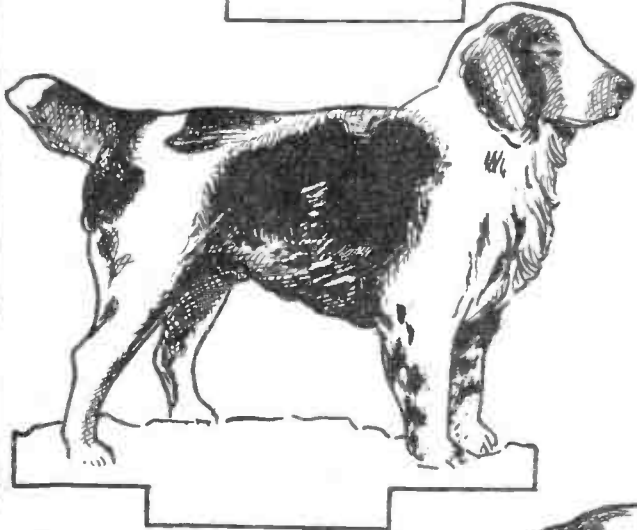
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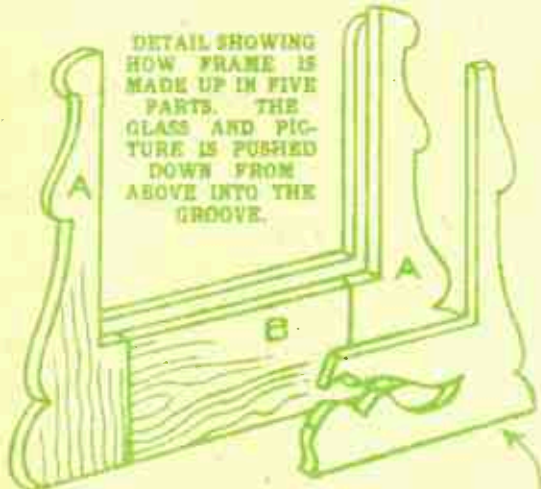


Dog Pictures
for the novel
**MONEY
BOX**
shown on page 126



*DOGS
CUT FROM
3/16 IN. WOOD.*

DETAIL SHOWING HOW FRAME IS MADE UP IN FIVE PARTS. THE GLASS AND PICTURE IS PUSHED DOWN FROM ABOVE INTO THE GROOVE.



PORTION ONLY SHOWN OF FRONT OVERLAY.



SHOWING HOW FRAME AND OVERLAYS ARE CHAMFERED AT BOTTOM.

FRAME, CUT ONE OF EACH 1/8".

RELATE FOR P.C. GLASS



HINGE

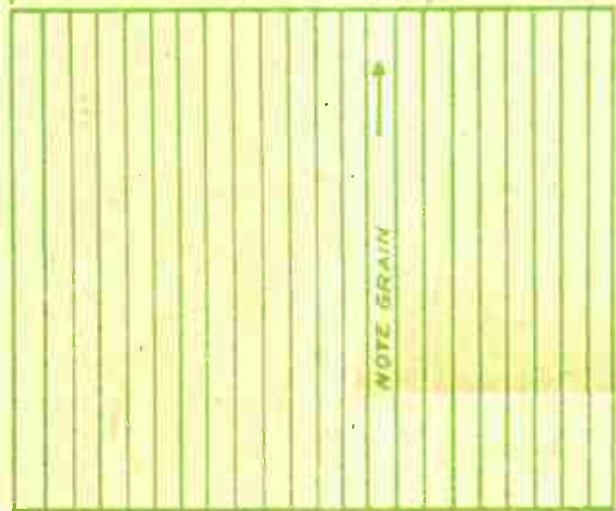
FRAME, OUTER SIDE OVERLAY, CUT TWO TOGETHER 1/8". THICK.



B. FRAME, CUT ONE 1/8".

UPPER FLOOR

8 1/4"

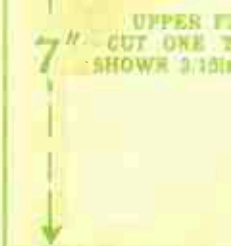


NOTE GRAIN



FLOOR OF BOX, CUT ONE TO SIZE SHOWN 1/8\"/>

7 5/8"



UPPER FLOOR, CUT ONE TO SIZE SHOWN 3/16\"/>

SHUTTER FORMING LID.

CUT TWENTY-TWO STRIPS OF WOOD 1/8\"/>



HANDLE ON SHUTTER LID, CUT ONE 1/4\"/>



SUPPLEMENT TO HOBBIES No. 2492

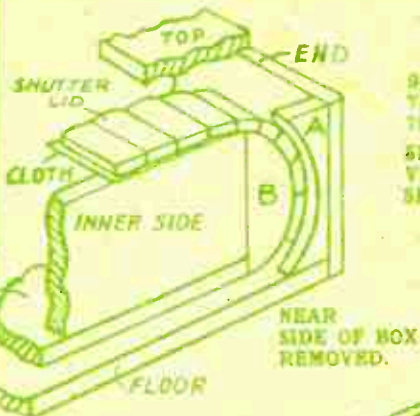
BOX FOR LADY'S DRESSING TABLE with SLIDING SHUTTER LID AND PHOTO FRAME

PANELS OF WOOD REQUIRED FOR THIS DESIGN

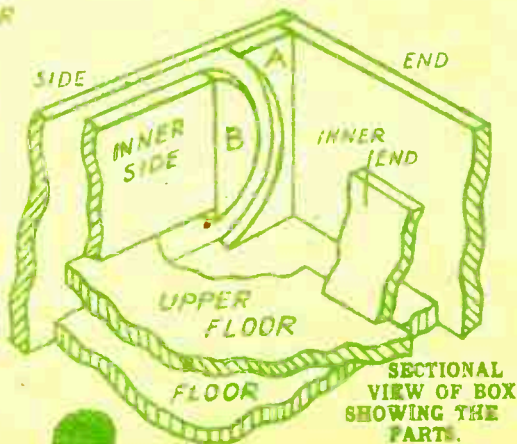
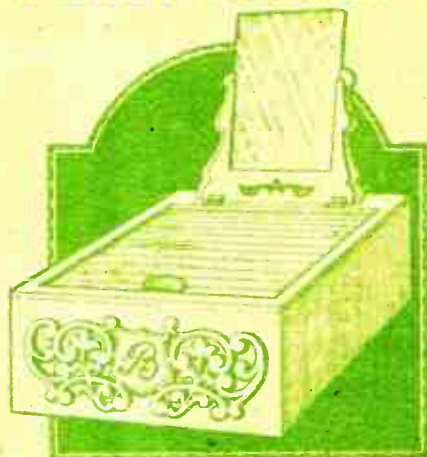
TWO G2 ONE H2 TWO J3
ONE J4

The price is shown in Hobbies Weekly, No. 2492, but is subject to revision. See the current edition of Hobbies Handbook, or write for price to Hobbies Limited, Dereham, Norfolk.

FRAME.
CUT ONE OF EACH
1/8in.



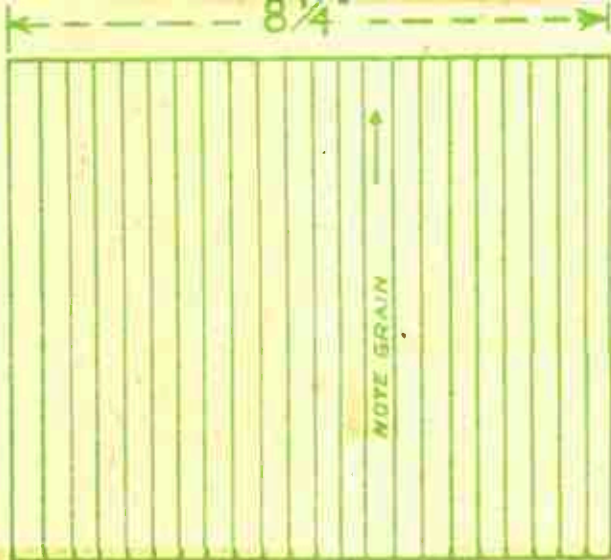
SIZE
9ins. BY
7ins. BY
7ins. HIGH.
SECTIONAL
VIEW SHOWING
SHUTTER, ETC.



STRIPS TO HOLD SHUTTER LID IN PLACE. CUT FROM 3/16in.

SHIELD FOR MONOGRAM.

OVERLAY.
CUT ONE

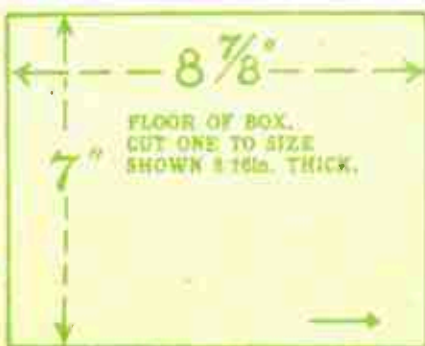


SHUTTER FORMING LID.

CUT TWENTY-TWO STRIPS OF WOOD 1/8 IN. THICK, 7 IN. LONG AND 3/8 IN. WIDE AND GLUE THEM AS SHOWN TO A PIECE OF THIN BACKING CLOTH. DO NOT ALLOW GLUE TO GET ON TO THE THIN EDGES OF THE STRIPS. FIT THE SHUTTER IN THE GROOVES FORMED AT TOP OF BOX.



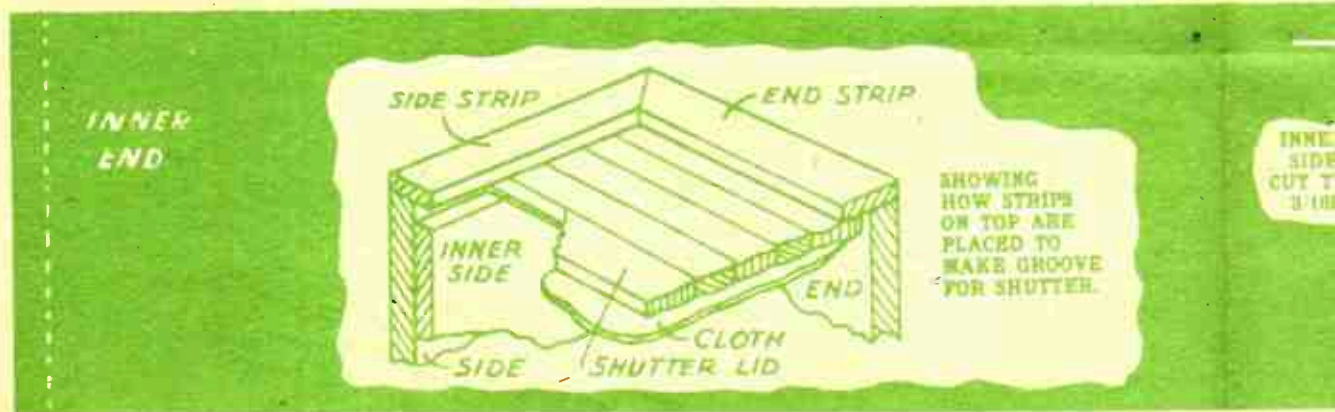
HANDLE ON SHUTTER LID.
CUT ONE 1/4 IN.



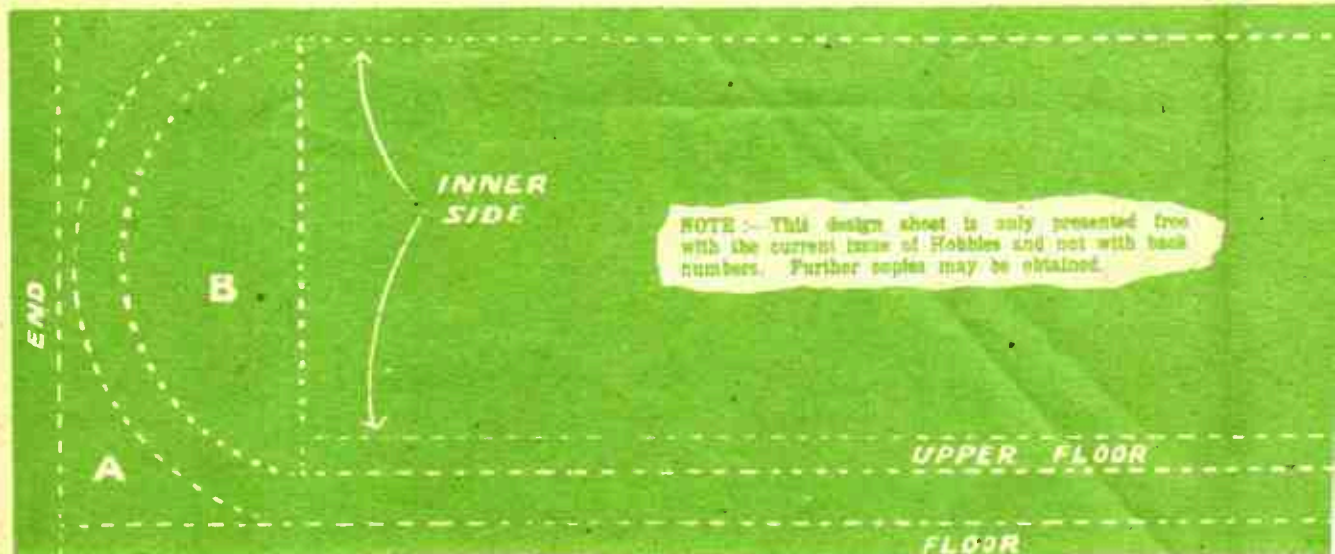
FLOOR OF BOX.
CUT ONE TO SIZE
SHOWN 3/16 IN. THICK.



UPPER CUT ONE SHOWN 2 1/2 IN.



SHOWING HOW STRIPS ON TOP ARE PLACED TO MAKE GROOVE FOR SHUTTER.



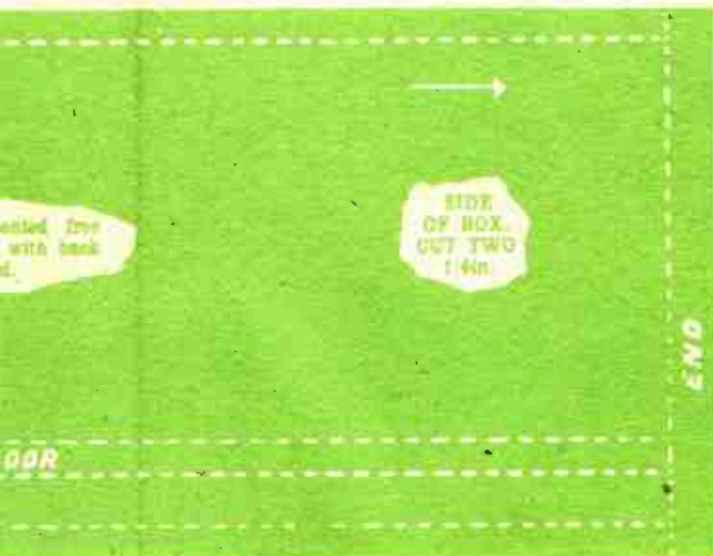
NOTE - This design sheet is only presented free with the current issue of Hobbies and not with back numbers. Further copies may be obtained.



STRIPS TO HOLD SHUTTER LID IN PLACE. CUT FROM 2 1/8 IN.



OVERLAY.
CUT ONE
1/8 IN.



LADY'S DRESSING BOX

THE design sheet provides patterns for making an unusual compact box as shown by the illustration. The flat top is of the roller desk pattern so that the shutter slides along and disappears underneath. At the back a mirror is fitted into a stand upright which can be shut down flat and compact when not required.

The box itself is $9\frac{1}{4}$ ins. long and $7\frac{1}{2}$ ins. wide, and when the mirror is open the top of it stands 7 ins. high. The general construction is shown on the opposite side of the sheet by the details, and a study of these should be undertaken.

The Sliding Shutter

Notice that the shutter is made up of 22 narrow strips glued to a piece of American cloth or similar thin, strong, material. This when slid along, runs round a semicircular end and disappears beneath a false floor. If you look at the pattern of the side you will see the position of the two floors, and the rounded end forming the groove along which the shutter runs.

The first work is to get out the two sides and two ends and glue them together as a hollow frame. Fix them firmly with screws to strengthen if necessary, and test the corners for rightangles. Now glue into the sides the two pieces A and B, spacing them exactly as shown by the dotted lines on the pattern of the sides.

The Upper Floor

Turn the framework upside down and fit in the upper floor. It will rest on the inner side and come between one end and the semicircular part B. Get the edges smooth so that when the shutters run along they will slide over the whole surface. You can try this shutter out now.

In gluing the strips to the canvas or to the material, see the adhesive does

not go between them. Press the cloth down firmly and then trim off the ends to the proper length afterwards.

Having seen the shutter portion runs satisfactorily, turn the box over and fix in the actual floor. The shutter is finally placed in position, the little upright handle glued on and then the whole thing held in place by the edging strips along the top of the box.

Notice the back of the box where the mirror is a plain wide piece $7\frac{1}{2}$ ins. long and $12\frac{1}{2}$ ins. wide. This comes over the back where the shutter disappears, and where the mirror has to be fixed later.

In front of that wide piece, and along each edge are the strips holding the shutter lid in place. Use the two strips which have one end cut square, the other end being mitred. You thus form the complete frame round the top by adding the other strip with its end cut to an angle of 45 degrees. In addition to glue, a small pin should be added along this edge.

Additional Decoration

The box can be left as it is now, or you can add the overlay and mirror holder as shown. The frame for the glass is made of three layers, and the glass itself projects above the holder. Cut out two pieces AA and the spacing piece between B. Then there is an outline piece of the outer overlay, two of which are cut $\frac{1}{8}$ in. thick.

The pieces A and B are now glued together between these two, so forming the groove into which the glass will fit; a detail on the design shows how. This frame is fixed to the top by means of two small hinges screwed on at the position shown, with the other flange at the top of the box.

Remember that short screws only must be used or they will pierce through the strip into the shutter lid.