

# Hobbies

## WEEKLY

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## A "SHOWMAN'S" SHOCKING COIL

**T**HIS is a real money maker, specially welcome now when so many worthy causes are in desperate need of funds. As will be seen from the dimensions, it is an imposing affair, and though the power of the shocks obtainable is not, to be frank, any stronger than that from a pocket-size coil, it looks stronger and that, from the point of view of the showman, is the thing.

Many readers have seen the formidable electric coils at fairs, etc. — well, in designing this a leaf has been taken from the fair owner's book and a striking looking instrument is the result.

### First Work

The bobbin (Fig. 1 shows a section of it) consists of two cheeks, joined together by a paper tube. The cheeks are cut to octagon shape from  $\frac{3}{8}$  in. fretwood. Fig. 2 shows how to mark out the octagon. In the centre bore a hole for the tube A. Make the tube first and bore the hole to fit it tightly.

To make the tube get a 12 in. length of thin brass tube  $\frac{1}{16}$  in. diameter. Roll a sheet of newspaper round this three times and stick the ends down.

Then over this roll some stout paper three times again, gluing the paper as it is rolled. Rub it down firmly and see none of the glue gets on the newspaper beneath it.

When dry, work the brass tube out. If the newspaper comes out too, all the better, if not, pull it out. When the tube is hard, the brass tube should slide in and out freely. Cut a disc C of  $\frac{1}{4}$  in. wood 2 ins. diameter, and bore a hole in its centre to take the tube. Slip it on.

Now cut two rings of fretwood,

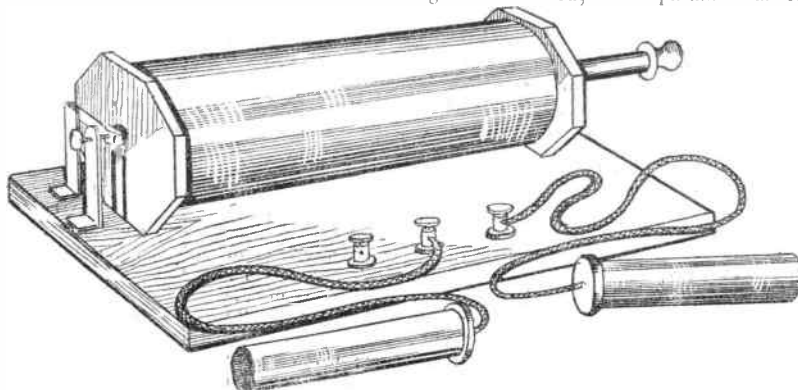
shown shaded in Fig. 2, nearly as large as the cheeks, and glue to the inner face of them. Glue the ends of the tube to the cheeks, setting them 10 ins. apart, and then cut off any superfluous tube. At 4 ins. from the left cheek, glue the disc C.

### Winding the Bobbin

The operation of winding the bobbin has been dealt with several times in the past and need not be detailed here. Sufficient to say that the bobbin, and this term now means the space between the left cheek and disc C, should be wound with 4 layers of No. 22 D.C.C. wire for a primary.

Over this spread half melted paraffin wax to fill up spaces. Over the primary wind two layers of waxed paper.

The secondary winding is 60zs. of No. 32 D.C.C. wire. Wind as evenly as possible and insulate every other layer with waxed paper. The ends of primary and secondary are passed through holes in the cheeks, and enough should be left for the connections afterwards. Coil the ends round



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a pencil to keep them out of harm's way.

It may be added that as winding is a tedious operation, the bobbin should be mounted in some way to revolve easily. One way is to fix a length of  $\frac{1}{2}$  in. dowel rod to the bench or table, letting 10 ins. extend over the edge.

On this the bobbin can be pushed and revolved for winding by fixing a handle to one cheek temporarily, of course. A piece of dowel rod would serve for a handle.

This would leave a hole which should afterwards be filled up level. A better method would be to leave one

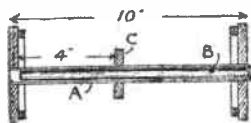


Fig. 1—Section of bobbin

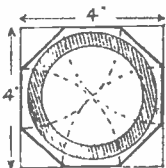


Fig. 2—The octagon

corner of the cheek untouched when sawing it to octagon shape, and to fix the handle to this corner.

Afterwards when the winding is finished, the corner can be sawn off, handle and all. Now finish the whole bobbin with stain and varnish, ready for mounting.

Take the brass tube and cut it to a length of  $9\frac{1}{2}$  ins. At one end fix a wood knob. The tube should now be long enough to reach nearly to the end of the bobbin when pushed in as at B, Fig. 1.

### The Core

For the core of the coil get some soft iron wire and cut to  $\frac{5}{16}$  in. lengths. Pack as many as possible in the brass tube, then push them out and wind silk round them tightly from one end to the other to make a solid firm core.

This should be fixed in the paper tube by wrapping enough silk round one end to make the core a tight fit in the hole in the cheek, and there

gluing it in. Set it central in the tube. The section through the coil, Fig. 4, will show this and also details of the windings.

Keep the core central until the glue is hard, by pushing the brass tube in over it. Let the end of the core extend beyond the cheek by a full  $\frac{1}{8}$  in. and file it level.

### The Baseboard

Cut the baseboard from a piece of  $\frac{1}{8}$  in. thick wood to the size given in Fig. 3, which shows a plan view of the completed coil. At the spats shown, fix five brass terminals.

Now mount the coil on the base-

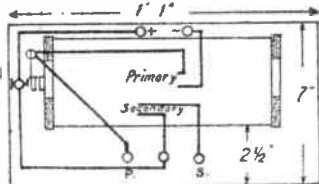


Fig. 3—Plan of board and circuit

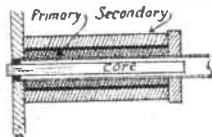


Fig. 4—Section through coil

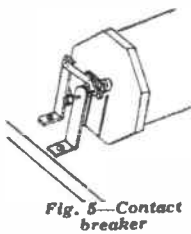


Fig. 5—Contact breaker



Fig. 6—Handle fitting

board with screws from underneath. Round off the sharp corners of the board, and fix underneath a small foot at each corner. The baseboard, by the way, should be stained and varnished before fixing the coil, of course.

The contact breaker is better bought than made, unless the reader has some skill in this matter. Alternatively, the contact breaker from an old electric bell could be utilised, as in Fig. 5.

Here the armature and its spring are riveted to a brass bracket at the correct height. The contact screw is then fitted to a similar bracket so that its platinum tip makes contact with the platinum tip on the spring. Adjustment of these parts can come later.

### The Connections

Now for the electrical connections which are shown by thick black lines in Fig. 3.

Connect the primary wires as

shown and then connect the rear terminals to a dry cell of the large type. If connections are O.K., the armature should be immediately attracted to the core of the coil. A little adjustment may be necessary here.

This right, make the secondary wire connections. All these connections look much neater if the wires are drawn through holes in the baseboard and attached underneath.

### The Electrode

For the electrode, get two 4 in. pieces of brass tube, say,  $\frac{1}{8}$  in. diameter. Incidentally, if an old brass bicycle pump can be got, this will provide the right diameter of tube needed.

At  $\frac{1}{2}$  in. from one end of each, drill two small holes. Cut a disc of wood for each, to be a tight fit in the tubes. To these discs glue larger ones, and in the centre of both, bore a hole for the flex leads.

Pass the flex through these holes. Bore  $\frac{1}{8}$  in. of the flex and splay the bared ends over the edges of the discs so that when the latter are pushed in the tubes, these ends will be forced into contact with the metal, as in Fig. 6. Fix the discs in place with small nails through the tubes.

The free ends of the flexible leads should be provided with brass connectors for attachment to the terminals of the coil.

### Regulating the Shock

The strength of the shock from the coil will be regulated by drawing the brass tube slowly out. To prevent drawing it too far, drill a hole through the tube at  $4\frac{1}{2}$  ins. from the knob and push therein a piece of stiff wire or a nail, long enough to catch up against the cheek and act as a stop.

Now test the instrument. Adjust the contact breaker until it works with a hum. One electrode is connected to the middle terminal, the other is connected either to terminal P for low power, or terminal S for high power.

All being satisfactory, press a sheet of thin cardboard round the coil, nailing it to the rims of the fretwood rings on the cheeks, to hide the small inner coil. Over this glue a covering of velvet, or fancy material to finish.

### Dominoes—(Continued from opposite page)

mark off a segment to cross the line at the point needed. The actual size of the circle is  $\frac{1}{4}$  in. as is shown by the full size diagram at Fig. 3.

Do all the cutting of the pips first and then saw up the piece of wood into the domino parts. Clean up after all have been completed and paint the base portions black as mentioned.

Glue on the upper piece, taking care that the glue does not squeeze into the holes or out of the edges. The two parts should be heavily

weighted or put in a cramp between other boards to prevent the thin top surface turning off.

Readers who have a selection of odd waste wood of the former popular varieties will have an excellent opportunity of making really handsome sets, if you use, for instance, beech or padouk or mahogany for the body of the domino, with holly or whitewood for the top.

The great point of course, is to see that all dominoes are exactly alike.

If you have not sufficient wood of one variety you can mix it, but make sure that you stain all down to the same black or very dark shade. You see, should any of the dominoes be distinctive, then the users will gradually know the denomination.

If, of course, you are fortunate enough still to have a panel of ivory in this, too, makes an ideal top. In that case, remember you must scratch the underside to get the glue to hold firmly to the wood.

# Some scraps of wood and paint enable anyone to make HOME-MADE DOMINOES

THE suggestion for making a set of dominoes should appeal strongly to any of our readers for a number of reasons. Games have become more than ever popular in both civilian and Service circles. More time is available to a good many people to sit down and have a quiet game of dominoes.

There is a restfulness in playing which very largely counteracts the subconscious nervous tension of war-time living. In making such dominoes one gets the interest of the work and also has the knowledge that there will be a ready demand for the result of one's labour.

## Games to Sell

The worker who can find the odd pieces of suitable wood should have no trouble of disposing of nicely made sets to shopkeepers.

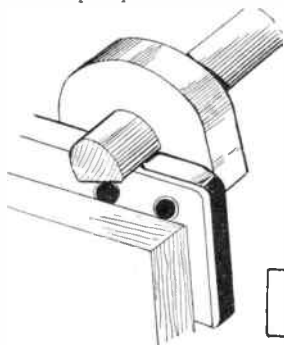


Fig. 1—Marking an edge

Those who are not out for profit would gain the gratitude of many soldiers if they sent them to the isolated posts dotted all over the country where time is apt to hang heavily away from centres of amusement or activity.

## Gifts are Appreciated

Hospitals, of course, are always grateful for gifts of this kind, and readers who wish to dispose of them in this direction can get the necessary addresses to which to send them from the Editor.

The work involved in making is neither long nor arduous, and the only tools needed are a fretsaw or tenon saw, a small brace and bit and the usual glue, glasspaper, etc. The necessary wood should not be a great problem because most readers will have odd waste pieces about the house.

Each domino is made up of a thick body piece and an upper piece of a contrast colour into which the actual pips are cut. The lower piece of wood

can be  $\frac{1}{2}$  in. thick on which an upper piece of  $\frac{1}{16}$  in. thick is glued.

All whitewood can be used, but the lower piece should be stained jet, with flat Eggshell Black (obtainable from Hobbies Ltd.) before the upper piece is glued on. This upper piece is left white so that the black shows through the openings for the pips.

## In One Piece

If, on the other hand, you cannot obtain any  $\frac{1}{16}$  in. wood, you can make the complete domino as one block with the pips sunk into the top and then carefully painted black. In this case you can mark on the edge of the wood all round a line with the marking gauge to about  $\frac{1}{16}$  in. from the top.

Then the remaining thickness of the wood can be painted black to get the effect shown in Fig. 1. Here the marking gauge is shown passing round near the top to give a definite line between the black and the white.

## Of Equal Size

Care must be taken to see that all the dominoes are cut the same size, square and true with smooth edges. The actual corners can be lightly rounded, otherwise the dominoes will not lie close together neatly when you are playing with them.



Positions of the pips in the complete series

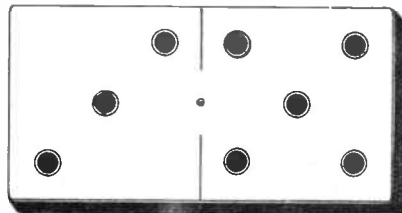
By the way, if you are using the thin wood for the top of the domino it is usual to have a tiny round-headed brass pin through the centre as shown in the picture. This, however, is not absolutely necessary.

The actual size of the domino is given in the drawing herewith and is  $\frac{1}{2}$  ins. by  $\frac{1}{2}$  in. The sets vary in number, but the generally recognised game comprises 28 pieces. The whole of these can be cut quite easily from half a square foot of wood.

## Alternative Sizes

You need not, however, persist in this actual size, but can make them larger if you wish or happen to have a box into which they would fit better. It must be remembered, however, that the dominoes are twice as long as they are wide, so that each half is a complete square on either side of the centre line.

The numbers which are required are from the double six to 6—0, the double five to 5—0, the double four to 4—0, double three to 3—0 and



Picture of a domino, actual size

double two to 2—0, double one and 1—0 and finally 0—0.

## Uniform Positions

In making the dominoes it is obviously essential that the pips are not only neatly cut but in uniform positions on each part. The actual cutting is by means of a brace and  $\frac{1}{16}$  in. bit which bores a hole about  $\frac{1}{16}$  in. into the top.

If you are using the top layer as a separate piece, the bit goes right through. If you are making the dominoes from a solid block then, of course, it merely sinks that distance into the wood. The edge of this hole should be bevelled by using an ordinary rose bit countersink.

## Marking Out

First of all, of course, you must mark out the pips. The best plan is to set the dominoes out in pencil on the piece of wood. Rule off the sizes of each—2 by 1—then mark up the individual domino for its pips. The position of the various dots is given at Fig. 2 and in order to get these all in the same line, a simple method of

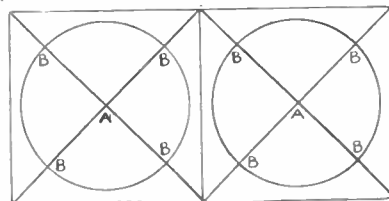


Fig. 3—How to mark out the face

setting out the centres and circles is shown at Fig. 3.

On the actual shape of the domino you draw the centre line from side to side and end to end to give you two complete squares. Across these squares draw the diagonals to each corner. Then with a pair of compasses you can mark the circles, using the crossing line at A for the purpose.

Where the circle meets the other lines at B mark the centre of the pip hole. You need not, of course, complete the whole circle, but merely

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# How the handyman can convert barrels into small TUBS AND BUCKETS

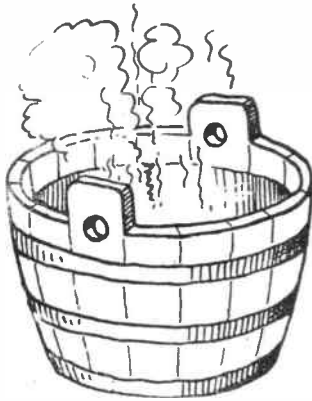


Fig. 1—A home-made wash-tub

WASHING baths and buckets are rather scarce. In fact, the average housewife has given up the task of looking for new ones and is trying to make the rusty leaking tubs and buckets do another turn each week.

Is there no remedy? There is if one can pick up a beer barrel or porter barrel. There are for instance water butts that could be used in making the washing tub at Fig. 1, whilst similar barrels are used for holding the weekly collection of soiled linen and clothes.

## Making the Tub

The approximate size and shape of these barrels is shown at Fig. 2. The bung-hole is frequently bored at one side, in the centre as shown, and not at a bottom side like some of the small beer barrels. Therefore, by cutting the barrel completely in half with a panel saw, two useful sized tubs can be made.

An alternative idea is to cut the better half of such a barrel in a way that "lugs" are provided, as can be seen at Fig. 1. These lugs are handy for lifting and carrying the tub about.

It will be noticed that the bung-hole is incorporated in the suggestion. A similar hole is bored at the opposite stave, using a centre-bit. Generally these staves are equal in width and face each other all round.

## Drying and Marking

If you decide to adopt the suggestion of lugs on the tub, give it a good scrubbing outside and inside, then let the barrel dry in the sun or some warm spot. Proceed later by finding the centre of the length of the barrel and chalking a ring right around it (see dotted lines).

To find the stave opposite to the one in which the bung hole is already bored, turn the barrel up on its end

and put a chalk mark on the stave containing the bung-hole. You can then count the number of staves or simply judge the proper stave by the eye alone.

## Cutting in Half

Having bored the hole proceed to cut the barrel in half with the panel saw. Of course, a cross-cutting saw may be used, but the teeth of this implement are a bit on the coarse side and you may splinter the inside edge of the tub.

Start the cutting half way between the lug hole staves and work round to the lug staves. To leave the lug part projecting, a  $\frac{1}{2}$  in. hole is bored and the stave cut by means of a keyhole saw.

When cut out the tub only requires to be smoothed at the edges with a spokeshave, then glasspapered. The lug holes could be rasped and glasspapered at the edges to remove the sharpness.

If desired the outside of the tub could be painted green with black hoops to give it a neat appearance, but few barrel tubs ever need to be finished in such a manner, unless extremely dirty looking and out of harmony with the surroundings.

## Not for Boiling Clothes

Being composed of wood, of course, clothes cannot be boiled in the tub. It is merely for washing boiled clothing, i.e., scrubbing, cleaning and rinsing. Some housewives boil part of the wash in a large bucket, then empty the contents into the tub.

Others put the unboiled clothing in the tub, empty buckets of boiling water over them, then allow them to steep in the water to which a washing powder had previously been added.

Incidentally the second half of the barrel will be found quite useful for other purposes. One could for instance make a fern tub out of it, or use it for holding potatoes and vegetables. Another tub, smaller in depth could be made, with the handles from an old bath (the usual galvanized type) screwed to it.

## A Bucket

It is just as easy to make a couple of useful buckets from a small beer barrel. The bung-hole, if bored in one end, is plugged with a wedge-shaped disc of wood, then the barrel cut in half.

Many of the smaller barrels are staved with fairly thick wood which tend to make an extremely heavy sort of pail, so if possible, obtain the lighter variety. We show at Fig. 3 a small barrel having four hoops only, but some have five hoops and the extra



Fig. 4—A handy bucket

hoop may knock the idea of two buckets on the head.

So long as you are able to get one decent bucket, why worry? Make sure, however, that the half reserved for the bucket is not the bung-hole end, so you will not have to plug this up.

The finished bucket is shown at Fig. 4. The handle provided consists of a piece of sash cord about  $\frac{1}{4}$  in. diameter. The wooden portion of the handle is a piece of broom stick about 5 ins. long and a  $\frac{1}{4}$  in. hole is drilled centrally through it, working from both ends, then the cord inserted until half way through.

## Attaching the Handle

Now to keep the handle from slipping about, two or three panel pins are driven into the handle and thus into the cord. As the handle is possibly 1 in. in diameter, you should use  $\frac{3}{4}$  in. nails.

Holes are drilled or bored through the side of the bucket, then the cord ends inserted and knots tied at the ends. The result is a novel wooden pail which will be found handy for many purposes.

If, too, you own a small dog, you could make the bucket its own washing tub, and as previously mentioned, the tub bucket could be painted green with black hoops. The paint will also help to preserve the wood.

As you know, much depends on the tightness of the metal hoops around a barrel. If in the sawing, the central ones seem loose, turn upside down and tap the hoops with the hammer edge.

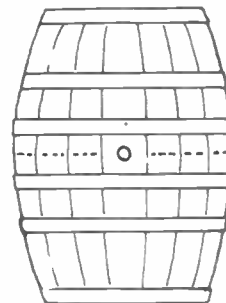


Fig. 2—Typical type of barrel

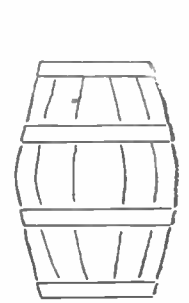


Fig. 3—A small but useful beer barrel

# An effective display with our planes needs this MODEL 'DROME IN CARD

A MODEL aerodrome is always a good means of getting the public to save for aircraft. There is every indication that Bomber weeks will follow the very successful Warship Weeks and it is a good plan to have a scheme ready. Fortunately, thanks to the various models which have been featured in Hobbies, plenty of suitable models should be available even in the smallest town.

## The Layout

First of all let us deal with the groundwork. This could be covered with a sheet of lining paper, brown paper or, failing this, piece together some old bills which should be placed, printed matter downwards. Now, with a thick black pencil, mark out the suggested positions of the buildings, roadways and paths.

Paint all the green verges first, then the tarmac and finally the roads. The roads look well if covered first with

get sufficient cardboard cartons to make say, four or six, as you require.

## The Doorways

Place the carton in position as shown in Fig. 1 and take out the front to make the opening for planes to leave and enter. To make the domed roof, cut two sections as illustrated, one for the front and one for the back, leaving the small lips (see Fig. 2) on which to stick the roof.

When gummed in position, the roof can be placed on and painted grey. Roof lights can be picked out with black enamel. Paint the fronts of the hangars with a mixture of grey paint and sand, using a short stubble of brush. If you wish, silver sand on thin glue would also do. Short slide-along doors can be made from oddments of cardboard to fit inside the fronts of the hangars.

Probably you will make quite a good show with four of these hangars but the number used depends on the space you have available.

Now we must make a control tower to be the centre of attraction. For this you will have to sort over a dump of cardboard cartons to get the boxes you require, because the

windows and gum these on, giving definite black lines on the edges to show off the windows. The balconies can all be painted in grey or marked in with a black paint brush as railings and the main surfaces covered with small brick paper or thin glue and sand.

Do not forget windows at the top of the tower must be wide and sweeping as shown in the illustration. Further details are available in books dealing with aircraft.

Arrange your various model planes in realistic fashion, but do not make the display look like the window of a toy shop. Very tiny model planes could be suspended on thin wire or black cotton.

## Miniature Additions

Probably you can find use for the aerodrome fire-engine, ambulance, tractors, supply motors, staff cars and also portable searchlight units.

Hobbies have, in the last year featured many very suitable models for this show and full use could be made of all of them, including of course, the guns and emplacements. Our recent range of Miniature Aerodrome models would be ideal.

Dummy bombs always attract attention and if you got some made up in wood or plaster and in small sizes, you could make up a bomb train on which you could hitch the tractor and make it appear as if going across the aerodrome to load up some bombers. The little train of bomb carriers could be made up with some odd wooden wheels fitted together with some wire and bombs rested in between.

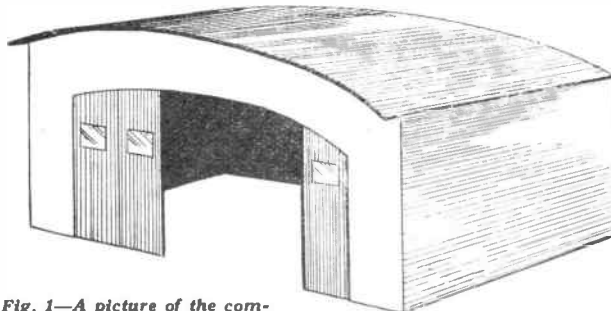


Fig. 1—A picture of the completed hangar

some thin glue and then a layer of silver sand or cement would do.

The background could be made up from sheets of cardboard, thick paper or any other material which would take paint. Black-out paper would be ideal because this rough surface will take oil-paint, distemper or thick whitewash.

If you cannot tackle this job, then appeal to the local Headmaster of a school, and he will find someone who will take this job off your hands. Do not strive for a perfect oil painting, blue clouds with white spaces between will be ideal for this.

## Suitable Publicity

Get in touch with the local publicity man on the savings committee also, for he will probably have some of those bills which show various War Weapons in circles complete with the cost of each item. Splashed about on your background they will add realistic interest to your show.

You will want some hangars and these are very simple to make if you

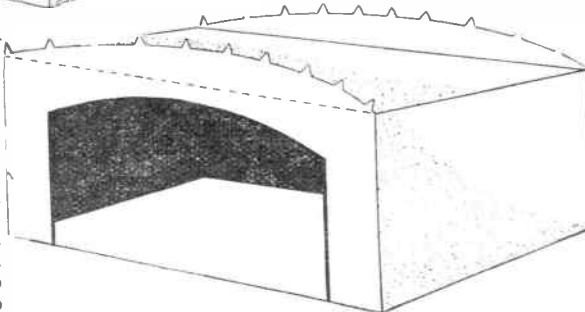


Fig. 2—Bending tabs on which to glue the roof

success of this depends on the shapes you pick out.

Starting with a square tall box at the bottom, you simply build up like a child does with bricks till you are happy that the required effect has been obtained. You must also satisfy yourself regarding the box lids which, inverted will form the balconies. If you choose the boxes carefully, the tower will very nearly make itself as seen in Fig. 3 of the completed model.

All you need do is paint in sets of

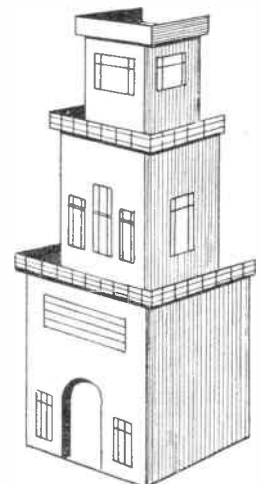


Fig. 3—Three cartons to form a control tower

# How to use figures from Design Sheets for making PICTURESQUE SPILL HOLDERS

**N**EVER before have spill holders been so popular as they are at the present time. And never before has so much wood been used for the purpose of making the thin shavings and spills to fill them. By their use the saving of matches must be enormous!

In fancy shops, and especially in tobacconists, we see different designs and patterns for spill holders, and it must be said that they do at least form useful ornaments for the home, and give a splash of colour when the brightly coloured chips are so displayed.

## A Number of Ideas

We have, from time to time, given suggestions and designs in these pages for all kinds of spill holders, and we think the one shown and described here will prove as popular as they did.

Looking through Hobbies handbook we see quite a number of fretwork designs which incorporate birds and animals and sometimes ships. These are all suitable for copying off and including with such useful gadgets as here shown.

The Stag spill holder shown here

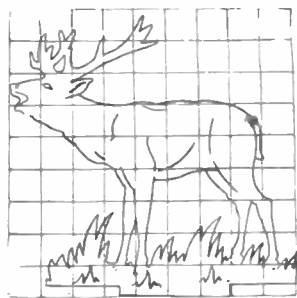


Fig. 1—An outline of the animal

must be said to present an interesting piece to make up and a useful and attractive article when completed.

The main feature of the design—the stag, of course—has been taken from Hobbies design No. 2217, and if the would-be maker hasn't this design by him, he may purchase it for 5d. or make an enlargement from the

diagram supplied here in Fig. 1.

On a  $4\frac{1}{2}$  in. square of  $3\frac{1}{16}$  in. thick wood, a number of  $\frac{1}{2}$  in. squares are set out and the outline of the stag carefully made by following the lines through each. When the drawing is complete, the pencil lines should be thickened up with a hard pencil and the guide lines cleaned off.

If a number of these spill holders are going to be made for selling in shops it is advisable to make a paper tracing of the animal, so it can be readily reproduced on to the wood by means of carbon paper.

## Cutting Out

In cutting the wood use a fine grade fretsaw, and do the four internal openings before cutting round the outline. The markings on the animal can be put in either with a penknife, making a Vee cut for each line, or the marks can be cut in with the fretsaw.

In the latter case do not extend the cutting too much towards the outer cut edge or the whole thing will be weakened and not stand much handling.

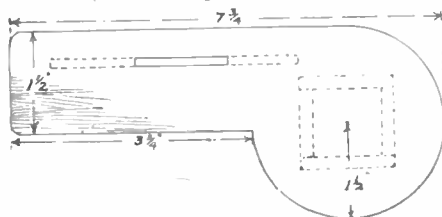


Fig. 2—How to mark out the base

A suitable base is shown in Fig. 2, and it may be cut from either  $3\frac{1}{16}$  in. or  $\frac{1}{2}$  in. fretwood. Before cutting the mortise in which the stag upright will be glued, check off the length of the tenon from the latter so that a good fit may be made.

When the outline of the base has been cut, finish the edges with glass-



paper, and paper off also the top surface before the upright and the box is put on.

## The Holder

The simple box is shown complete in Fig. 3. This is made of  $3\frac{1}{16}$  in. wood, the back and front being of the wider wood, with the  $1\frac{1}{2}$  in. pieces glued between.

After the parts are set out on the wood and cut, the edges should be cleaned off by rubbing them on a flat board covered with glasspaper.

Again, after the four pieces have been glued together and time allowed for the glue to thoroughly harden, all four surfaces must be cleaned off and rubbed down until the jointing of the sides is almost invisible.

The top and bottom of the box is similarly cleaned off, the sharp outer edges of the top being slightly rounded.

It only remains now to finish the base either with stain and varnish, or stain and wax, the edges being carefully done with a small brush. Treat the box in the same manner, and then glue it to the base, putting in one or two flat-head screws from beneath to make a good strong job.

Leave to dry thoroughly before use.



## A Super Model Coach

**T**HIS excellent model (from our Design No. 1935) measures 21 ins. long and was made by C. E. Smith of Camberley, Surrey, who has been a reader since 1910. The coach is complete with interior lights, clock, upholstered seats, etc., and even headlights have correct black-out masks. The wings are turned from thin copper and the removable wheels held with lock-nuts. The bonnet is made from aluminium correctly slotted. Licence plates, number plates, destination indicators are all in their proper place.

# Here are some matters which will undoubtedly affect YOU AND YOUR BICYCLE

**N**OW that most of us have to depend more and more on our bicycles these days as the sole means of transport to the office or factory, a little attention to the "jigger" each week is not only necessary, but highly important. It is so easy, you see, to arrive home, bung the bike in the shed any old way, then go in for supper, with the full intention of repairing that loose mudguard or faulty rear light later on in the evening.

## Putting it Off!

After the meal, you feel too tired to do anything about it. "Tomorrow is another day," you tell yourself, yawning, then stretching your weary limbs out over the settee, you pick up "The Case of the Dirty Spot on the Window"—a real go-getting, quick-action detective thriller you want to finish—and to cut a long story short, tomorrow never comes, so far as bike repairs are concerned.

The thriller is read through, however, and replaced by another. That other kind of "thriller" called "The Case of Dirty Work on a Bike" has palled on you—and the good old trusty (or is it, rusty?) steed suffers as a result of your negligence!

## A Bike-shed Motto

"Never put off till tomorrow what you can do today," is a wise saying. The writer has it painted on a piece of cardboard which is nailed against a wall inside his bike shed. He knows from sad experience how wise it is, having had a long walk home one dark night due to a slow puncture which should have been given careful attention weeks ago.

Then he suffered the awful ordeal of going to court to pay a fine for not showing a rear red light. "Endangering public safety and a menace to motorists and yourself," concluded the Magistrate sternly. The bike, by the way, had been borrowed from a friend, but it was no excuse for riding in the black-out with a rear light that blinked on and off with every jolt on the road.

## Minor Adjustments

See what harm one can do to others as well as one's self? It puts the owner of a faulty bike in a very unenviable position. He would sooner repair a hundred red lights than see an unsuspecting friend summoned for being a careless cyclist.

Why wait for something to happen rather than prevent it from happening? Many of the fatal and very

serious accidents are caused by worn brake shoes, badly inflated tyres, wrongly adjusted saddles and so forth. A few hours' work would put matters right again.

## Comfort in Cycling

Apart from cycling easily and freely along the road, you should be comfortably seated on the machine. The bane of motorists and pedestrians alike is the wee rider on a big bike—or the short-legged fellow on a saddle that is much too high.

He leads an up-and-down existence, and boy, does the seat of his pants get hot! It is a week before he can sit down in comfort again—all for the sake of getting out a spanner and lowering the saddle to suit his requirements.

Of course, if the saddle is already lowered to its minimum, then the frame of the machine is too large and nothing can be done about it, unless the bike is sold or exchanged for a smaller one.

If, therefore, you ever decide to obtain another bike, here is a hint that will help you to judge whether it suits you or otherwise.

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| L | O | V | E | L | R | O |   |   |   |
| E | E |   | D | E | N | T |   |   |   |
| O | U | S | T | G | A | S | I |   |   |
| N | A | U | S | E | A |   |   |   |   |
| S | A | U | C | E | A | T |   |   |   |
| I | K | T | R | U | C | E |   |   |   |
| C | R | I | S | I | S | H | D |   |   |

**Solution to last week's Crossword Puzzle**

When astride the machine see if your heels are able to touch the pedals comfortably at their lowest points. If not, and you find that the saddle cannot be lowered any further, then make the test on a smaller machine. You can always raise the saddle as your legs grow longer.

## Saddle Comfort

Saddles nowadays are comfortable and easy to sit on, but a saddle, lowered completely on the frame and swinging from side to side because of a battered nut which cannot be tightened, makes sitting a nightmare.

Obtain a new sleeve nut and thus correct the fault; do not put up with the bother any longer, tired and fed up as you might be feeling. Owing to the side-play, you might as well be running as seated; a lot of extra energy is wasted trying to keep yourself rigid, moreover.

Always see that your tyres are

properly inflated, i.e., not too hard, nor too soft. Tyres are not only meant to take the shock of bumps, but also to prevent undue vibration which, by the way, is just as tiring to the nerves as the pedalling is to the body.

Apart from jarring the body receives on very rough roads and rutted lanes, the soft tyres, striking against a fairly sharp obstacle such as a jutting stone, are apt to be squeezed against the wheel rims and thus become cut or frayed to such an extent that the inner tube develops a slow leak, if not an instant blow-out. Not only is this likely, but you also stand the chance of damaging the rim of the wheels.

Cycling is a pleasure when the tyres are nice and hard. You get over the ground much easier and quicker. There is a constant "drag" with soft tyres, as a test on a level stretch of road will prove.

When a tyre becomes soft after a short run on the bike, we instantly think there is a slow puncture in the inner tube. Rather than go to all the trouble of removing the offending tube and testing it in a basin of water, you should look at the air valve tubing. If not covering the air inlet holes properly, there is bound to be a leakage, so make sure about the tubing first.

## When Cycling

On a very busy thoroughfare, it is not uncommon to see a few cyclists look back over their shoulder to see what is coming towards them from behind. This is often done prior to putting out their hand to show what direction they are intending to turn.

There is not much harm in that, but when they keep looking backwards, with one hand off the handlebar, there is a grave risk to life and limb. This could be rightly termed "jay-riding" just as we have "jay walkers."

The writer witnessed an accident which illustrated how easily danger lurks for the unwary. A cyclist, free-wheeling down a hilly part of a road at a fairly high speed, glanced backwards and put out his hand—and ran right into a stationary lorry which had been proceeding in front of him. Not only was the fellow damaged, but his bike, too, as you can imagine.

The driver of the lorry had pulled up sharply because of a dog which had ran across the road. Such is the irony of fate at times. Such is the reason why an adjustable mirror on your handle-bars is a good investment—it puts eyes in the back of your head!



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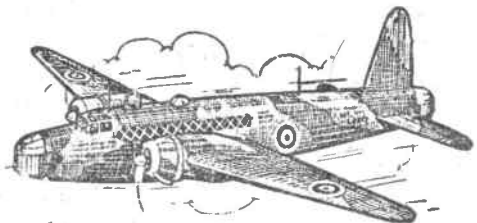
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