

Hobbies

WEEKLY

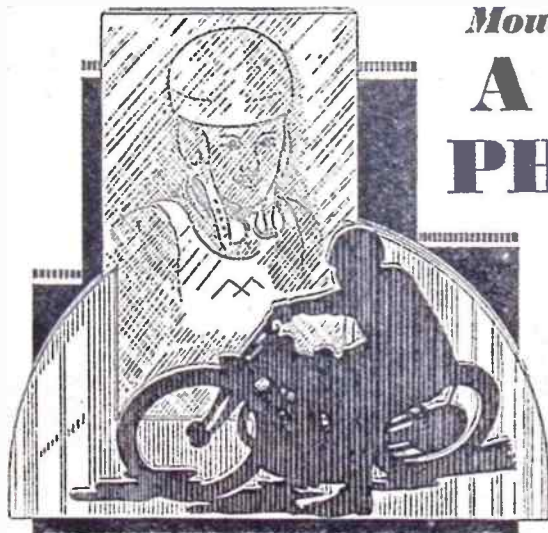
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DESIGN FOR A SPEEDWAY PHOTO FRAME	

March 5th, 1952

Price Fourpence

Vol. 113 No. 2940



Mount your favourite's picture in A SPEEDWAY PHOTO FRAME

This attractive photograph frame is easily made from Design No. 2940, which is presented

**FREE
INSIDE**

THE speedway season will soon be with us, and countless 'fans' will be travelling hundreds of miles by coach and train to see their favourite riders collecting points for their teams. Practically every fan with a car or motor cycle files the pennant of his particular team, and even boys of school age sport them on their bicycles.

Personal Contact

Keen supporters have their own clubs where they come into contact with riders at socials and dances. In fact, to them, speedway riding becomes quite a personal thing, with individual riders known to them by their christian names.

We have prepared, especially for supporters, a speedway photo frame for

postcard size photographs. Other size photographs can be modified to fit; for example, by pasting small snaps to a postcard size mount, or, in the case of a somewhat larger head and shoulders, by cutting the portrait out in silhouette fashion.

Although we term it a photo frame, it is really a photograph holder of the frameless type, which looks very neat and attractive. Of course, these frames may be made up by individual supporters, but we suggest that there is a good opening here for the handyman who can turn out several and sell them at a profit.

Materials

Hobbies can supply a parcel of wood, and two pieces of glass cut ready to size,

sufficient to make one complete frame. When you receive your parcel of wood, put it on a flat surface and place a few books or suitable weights on top to prevent it warping. Thin wood will warp very quickly if left lying around in a warm room.

Marking Out

Transfer the parts on to the correct thickness of wood, paying particular attention to the grain, and note that they must be arranged as shown in Fig. 1 in order to get them all out of the wood supplied. The usual method of transferring is by means of carbon paper. Place the carbon paper between the design and the wood, pin the design down to prevent it moving, and trace the pattern through with a hard pencil. Carbon paper can be bought ready for use, or can be made by scribbling on the back of a piece of notepaper. Dust the excess carbon off lightly with a duster.

Cut out the parts carefully and clean up any particularly rough edges with glasspaper, making sure that the two pieces of glass will drop into the slots made by the overlapping pieces (A) and (C). Glue the three pieces (A), (B) and (C) together, so that (B) comes between (A) and (C). This is shown clearly in diagrams on the design sheet. Place them under suitable weights until perfectly dry.

Meanwhile cut out the strut piece (D).

All correspondence should be addressed to The Editor, Hobbies Weekly, Dereham, Norfolk.

DESIGNING AND BUILDING MODEL RAILWAYS

By E. F. Carter

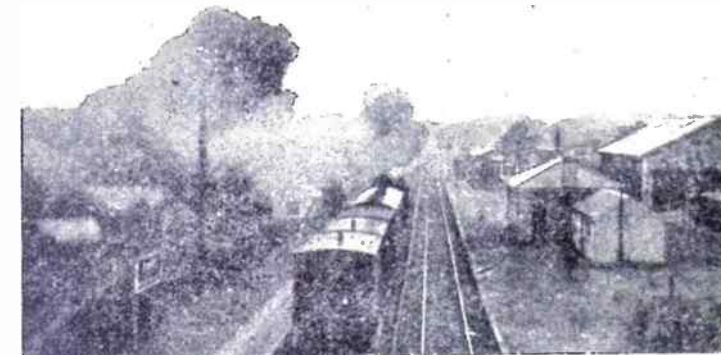
HAVING given some idea of the general arrangements which are required to house an 'O' gauge railway in a fairly restricted space, let us now consider some of the simple ways in which a layout can be planned to produce greater realism; as well as taking note of some of the mistakes made by many modellers.

Primarily, a railway exists to convey passengers or freight from one place to another, so if our model stations are placed too closely together, the very reason for the line is non-existent. By the same token, if the sidings of one station overlap or merge into those of the next, then the impression of distance between stations is destroyed completely.

Accommodating

The human brain is an amazingly accommodating piece of apparatus, which can adapt itself to some things, yet refuse to accept others. It will imagine easily that a theatre back-cloth is real trees, and will fill in most of the deficiencies of a poorly-set stage; but it will not make a long train look shorter, or a length of model track look longer, unless some subterfuges are discreetly used to assist its imagination.

Thus we have to use every means possible to simulate distance as applied to a moving object—such as a train, and though we have already touched upon the desirability of low scale speeds, and shortened trains, there are other means of heightening the 'distance' effect on a small railway layout.



Looking north towards Caernarvon

One of the most important things to observe is that not too many stations—even small ones—are included, three at the most are all that are required on our 10ft. by 10ft. layout. If more are crowded in, the good effects produced by the short trains and low speeds will be completely nullified.

Station platforms need not—indeed, should not be longer than the length of the longest train it is intended to run,

and the length of sidings should also be determined by the maximum number of wagons to be run in any freight train.

This cutting of the proverbial coat to suit the cloth will at one fell stroke reduce the amount of track-work and its expense, whilst at the same time inevitably producing a more proportionate and realistic railway, both from a constructional and operational angle.

Modifications

When desiring to model your favourite station—maybe a smaller local one, it will usually be found necessary to effect many modifications to the track layout, and these will usually be of an omisive character. However simple a station layout may be in prototype, it will almost always be necessary, for reasons of lack of space or expense, to remodel it to suit the contingency of the model terrain.

Sidings can be shortened, as can platforms, and complicated pointwork can frequently be eliminated by studious designing, using simple right and left-hand points, and crossings. As long as the function of the model station is not affected by the track modifications, there is everything to be said for such a planning procedure.

Every reasonable and legitimate

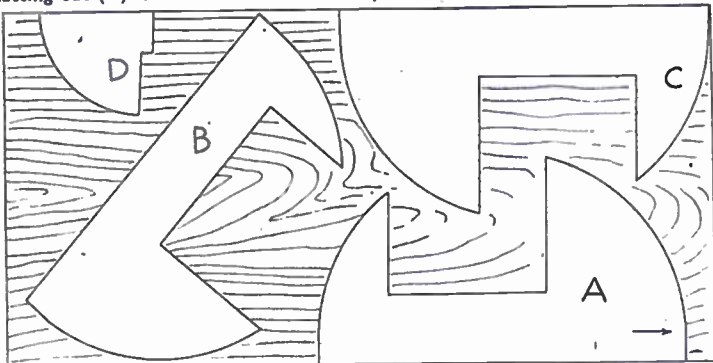
(Continued on page 356)

A specimen of simplicity

the design sheet. Try it first to see if it wants any trimming, and then glue it in place. Notice that the bottom of piece (D) is sloped slightly to give the frame a backward tilt. When the strut has been secured, the bottom of the frame can be chamfered to match.

The photograph, postcard size, is now placed between the two pieces of

and the figure of the rider piece (E). Take care, when cutting the latter piece, that the fragile pieces do not break off. The safest method is as follows. First cut out all the interior frets with the exception of the front wheel portion marked (X), then cut round the outline, and finish off by cutting out (X). Thus the front forks of



How the pattern pieces should be laid out on the 1/4 in. wood

the motorcycle are not so likely to get broken off. This overlay can now be glued in position on piece (A) as shown by the dotted lines. Here again suitable weights should be used until the glue has hardened properly.

glass and dropped into place. If the fit is too loose, all you need do is place an extra piece of card behind the photograph.

High gloss enamel is the obvious choice for a finishing medium, since it is easy to obtain and apply. Three thin coats—with fine glasspapering between each—will be sufficient, and the colours

The Strut

You will see how to fit this by studying

should conform to those of the team you support. The speedway rider should, of course, be painted in a colour contrasting with the background, so as to form a silhouette.

Alternative Treatments

Those who are sufficiently artistic may like to paint the actual rider and bicycle in detail, in which case true colours can be represented on the helmet and clothing. Alternatively, the overlay could be cut from plastic or even metal. Hobbies metal cutting sawblades will deal with any thin metal you are likely to use.

Lastly, we suggest cutting the overlay in 1/4 in. to 1/2 in. wood and carving with a penknife or proper chip carving tools. Suitable parts can be gradually chipped away and others left in relief, to give a lifelike representation of the speedway rider in action.

Whatever the method of finish chosen, do the job carefully, and your photo frame will be really worthwhile.

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It's sometimes handy to know

How to make a Corkscrew

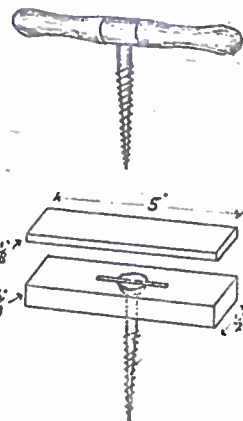
A CORKSCREW is a handy implement to have about the house, but generally when wanted, it is not possible to find one. Why not save all that unnecessary searching by making one or two? It is not such a difficult task as it may appear to be, and very little skill is needed to turn out a really first class job.

Hardwood Needed

The handle is made of the hardest wood that it is possible to find—the kind does not matter in the least so long as it is really tough. Boxwood is probably the best but it is a somewhat difficult wood to work, and you will have to be content with oak or ash.

The drawing clearly shows the two pieces of wood needed—the main piece 5ins. long, 1/2 in. wide and 1/4 in. thick, and the cap which is the same length and width but only 1/4 in. thick.

Drill a hole in the centre of the main piece just large enough to be a tight fit for a 2 1/2 ins. countersunk wood screw



No. 10 or 12. Carefully countersink it so that the screw fits snugly and does not wobble about. Make the top of the screw head level with the wood.

When the screw is in place, mark and cut a groove on either side which is to take the piece of iron or steel wire. This wire should be a good fit in the screw head slot and is to keep it from turning: it can extend on either side to a distance of about 1 in.

The cap can now be glued on, and clamped down tight while it sets hard. When thoroughly dry it can be either glasspapered smooth and left square or brought to a more convenient shape to hold.

Round Is Best

The round pattern as shown is, perhaps, the best shape and is not difficult to make. First cut off the corners with a chisel or plane, thus making it into an eight-sided figure. It could be left this shape if desired, but if it is wanted round, a file and then glasspaper will soon do the job for you. It can then be given a coat of green enamel to match the usual kitchen utensils or just given a rub with polish. (269)

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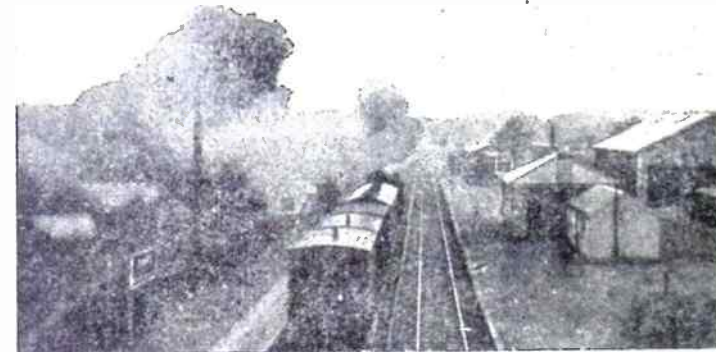
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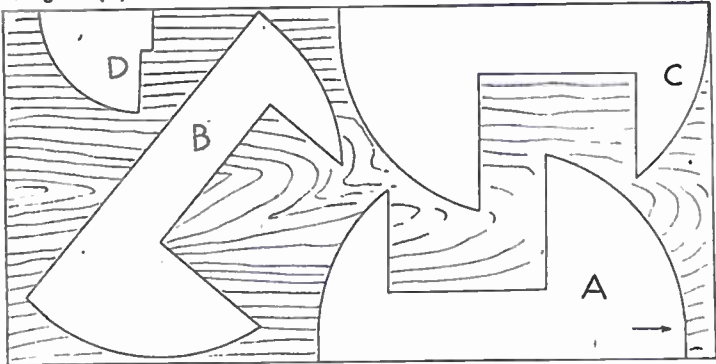
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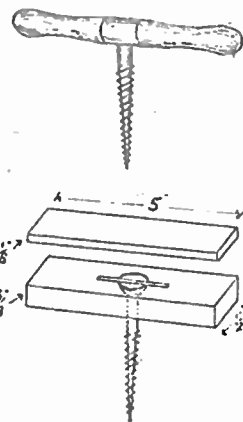
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Before you begin, read these HINTS FOR LAMP SHADE MAKERS

LAMP shade making is one of the best paying crafts for the worker at home. But it often happens that people with little knowledge of the subject start and waste much material. It is best to consider what you intend to make, and start in a small way first.

The most popular covering is lamp shade parchment, and this is mostly size 20ins. by 50ins., and in medium pink, heavy natural, medium eggshell, medium natural and crackle. Prices per sheet range from 2/3 to 6/6, and the crackle is the most expensive.

Imitation sheepskin parchment is handy and easy to use, and the shades here are white, pink, green, biscuit, salmon and pale blue. Sizes are regulation 20ins. by 50ins. and the price about 2/3.

Plastic Material

'Crimoche' is another material used, and is a plastic with a pleasing wrinkled surface. It is delicate in texture and will not crack; it can be washed, is not inflammable, and can be stitched, thonged or glued. Chalk is the best medium for marking it. The shades generally are amber, ivory, peach, pink, pastel blue and pastel green. It is 34/6ins. wide and costs about 10/6 a yard.

Imitation paper parchment is sometimes available, but is not a particularly satisfactory proposition for a really good job.

Some people prefer thonging for their finish to the shade. This costs about

2d. a yard and the following colours are mostly available:—brown, orange, light green, mid green, light blue, mid blue, navy, red, coral, yellow and black. A thonging machine is needed to make the holes.

Russian braid is also used but is not so neat to look at in the finished article.

Popular Finish

Cut fringe is the most popular finish, and this is stocked in a depth of 1 1/4 in. double looped size, and works out at something about 10d. a yard. Careful measuring is necessary on ambitiously shaped frames, otherwise you can waste so much. Shades here are peach, pink, rose, orange, old gold, beige, sky, light green, green and nigger.

Sometimes, readers may have seen ornamental shapes in shades specially made for the type needed. They may have noticed that the seams are neatly covered over on the rounded bends. This is professional finishing, but is easily achieved by using 1/2 in. art silk gimp, which is an ornamental braiding, and when stitched on will look most effective. As a rule it will tone in with your scheme of parchment, as the following shades are to be had:—peach, pale pink, rose, light blue, nigger, rust and green.

There is also an art silk gimp which is 1/2 in. wide, but this is mostly used for the base trimming when a fringe is not needed.

For attaching fringe, gimp, etc., to

lamp shade coverings you should use Bateman's Household Adhesive in tubes at 1/- and tins at 3/6.

If you have a good class art and craft shop in your area I suggest you visit it before you start on the work. They will, as a rule make up special shades to all shapes and I can assure readers that this is much better than trying the work out yourself.

There are shapes for all needs. There is the pendant fitting for hanging from electric light fittings. The gimbal fitting is handy because this is fitted with jointed brass struts which allow it to be tilted at any angle. Then, for chandelier shades we have the bulb clip fitting. Another popular one is the duplex fitting for electric standard lamps.

'Bull' Frames

All manner of what are known as 'bull' frames can be had at slightly higher cost. In these you have petal frames, fluted frames, circular types and all manner of special shapes for bedside fittings.

Some of the more elaborate shapes cost up to 9/-, but one must bear in mind that, purchased at the shop you will be paying 100 per cent Purchase Tax, which is quite a lot. Most art shops have a range of books on the subject and these give you the fullest particulars. One word of warning. Study the books before you start. (285)

DESIGNING MODEL RAILWAYS

(Continued from page 355)

method should be used to conserve space-area, so that the maximum running-road trackage can be obtained; but at the same time, the greatest care must be taken to ensure that undue complications are not introduced. Simplicity is the keynote of success in track planning, and the best layout is by no means necessarily the one boasting the most motley array of pointwork and crossings.

Never be tempted to lay in a point just because it happens to be a spare one on hand, but let every inch of track and every point and crossing have a well-thought-out reason.

One of the cheapest and simplest ways of proving the workability of a station layout plan—or, indeed, that of a whole model railway, is to draw up a plan, drawing it accurately to a scale,

letting each foot on the layout be represented by 2ins. on the plan. If all the contemplated track is drawn in on such a plan, small buttons or squares of card can be used to represent locomotives, coaches and wagons; colouring the cards accordingly. These can be moved about on the railway plan to

graphically depict train make-up, shunting and other movements. This may seem a very elementary scheme but a similar type of device—much more complex—is used by the real railways for educational and other purposes.

Time used on drafting such a plan with its moving units will be well spent, for it is both easier and cheaper to rub out a pencil-drawn siding or platform than it is to remove the actual models once they have been fixed in place. (301)

REMEMBER APRIL 2nd

Yes, that's the day you will get your Hobbies in a bright new cover. But you will also get something else—complete instructions for building PBK 14, a GRAND TWO-SEATER CANOE designed by P. W. Blandford, who was responsible for Hobbies now famous single-seater, PBK 11. The issue will also contain a free design sheet for a large doll's shop, and many other splendid 'how-to-make' articles. Subsequent issues are being planned to give you plenty to occupy mind and hands during the spring and summer — among them model aircraft and boats. Make sure your newsagent has your regular order.

A quaint figure enhances this NOVELTY CIGARETTE BOX



which details of the mechanism will be plain. Two side pieces are cut from the fretwood to dimensions given at (A). These are provided with front tenons to fit the mortises in the figure front. At a distance up from the bottom, and on the centre line, bore a 1in. hole for the roller, through both side pieces.

At (B) is shown the back piece of the box, also cut from the fretwood, or can be cut from plywood if preferred. The

THIS novel little box delivers a cigarette at a turn of the knob. The action is quite a simple one, and if well made never fails. A rather quaint figure is used to face the whole, and give added interest to the job. Fretwood, 1/2 in. thick is recommended for making the case, with a piece of plywood for the figure, as its size would, otherwise, need a fairly large panel of fretwood, much of which might be wasted. There need be no difficulty about painting the figure, as the facial details are so simple, and a

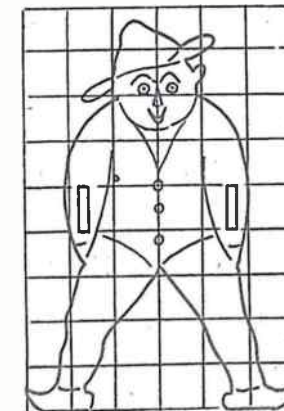


Fig. 1

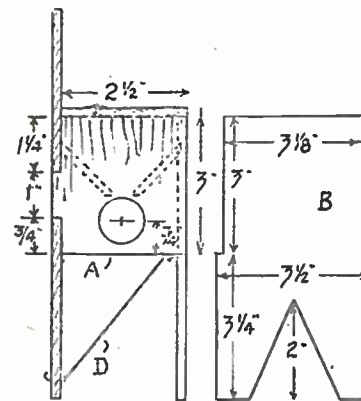


Fig. 2

quaint result will certainly ensue whatever the artistic qualities of the maker may be.

A pattern for the figure is given in Fig. 1, drawn over 1in. squares. Copy these full size on to thin white paper, and trace through on carbon paper to the plywood. An important point to notice is the width between the mortise slots must be 3/4 ins. to correspond with the width of the back of the case. At Fig. 2 a side view of the box is given, from

above the roller, as shown by dotted lines in Fig. 2. Drop a few cigarettes in, and turn the roller, when the cigarettes should drop out one at a time. If any catch, a little further widening of the groove in the roller should make all right. Everything being O.K., re-nail the disc on the roller. Now cut another and third disc of wood, this time, 1 1/2 ins. diameter and nail this over the smaller disc, as shown on the right in Fig. 3, to act as a knob for twisting the roller.

The Top

To the top of the case fit a top cover of wood. A portion of this (just over half in fact), cut off from the cover, and hinge it to the remainder, to act as a lid, allowing the case to be restocked with cigarettes. Fit a hook and eye fastener to this to keep it down. A slide is now to be constructed, to guide the cigarettes to between the feet of the figure. This is shown at (D) in Fig. 2 and can be made up from tinplate taken from an empty food can.

Remove top and bottom from the can, and cut out the side seam, then flatten the remainder on a piece of hardwood or

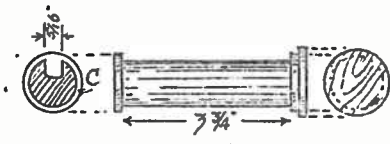


Fig. 3

shape is quite straightforward and can be pencilled direct to the wood. Now glue the sides to the figure front and give the back between. A few fine fretwork nails can be added to strengthen the whole. For the roller, Fig. 3, a length of 1in. round wooden rod will be required. This can be cut from a broomstick, if nothing better is available. Lengthwise down this a channel, 1/2 in. wide and deep, is sawn and chiselled carefully out. It should be tested for size, and should hold a cigarette easily. Try it out, and enlarge it, if necessary, until a cigarette drops easily in, and out. To both ends nail a 1 1/2 in. disc of thin fretwood, as at (C), nail one, temporarily, to allow it to be removed for inserting the roller in its case.

Try the Roller

Now try the roller in position. Cut two strips of fretwood, 1 1/2 ins. wide and as long as the interior of the case. Bend the top and bottom edges of these, and nail them across the inside, just

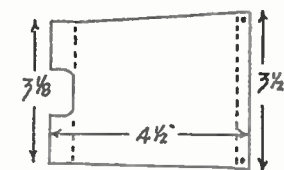
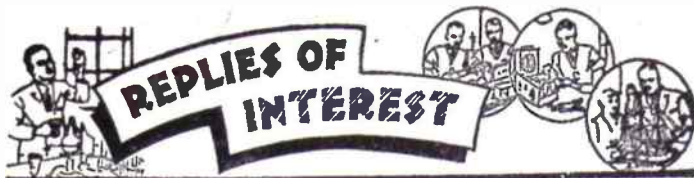


Fig. 4

metal plate. From this cut out the shape given in Fig. 4. See that the narrow edge can fit between the feet of the figure. At 1/2 in. from the top edge, bend over to 45 degrees, and punch a small nail hole near each corner.

The bottom portion, where shown by dotted lines across (about 1/2 in.) curl over. Fix the slide with small nails or screws to the bottom edge of the side pieces (A) of the case with the curled-over lower part between the feet of the

(Continued on page 358)



Transformer Heats Up

I HAVE an old-fashioned wireless set which works very satisfactorily, but the transformer gets very hot and smells. I am wondering if I should have a new transformer, or if there is anything that can be done to remedy the trouble mentioned. (R.R.—Mitcham).

If the transformer heats up unduly this suggests that it is out of order or that some fault has arisen in the set which results in excessive current being drawn. It should also be checked that the receiver is suitable for the mains voltage applied; possibly an adjustable link or plug may be found so that a tapping for your mains voltage may be used. If the heating is severe, a complete breakdown is likely to arise eventually, and you would be well advised to check and test the transformer and receiver or have this done by someone, in order that any fault may be eliminated. The heating may arise from a partial breakdown in the insulation of a smoothing condenser or other part in the set, thus imposing an excessive load on the transformer. If so, the transformer winding may eventually become burned out.

Treating Wood-Block Floors

HAVING planed the block wooden floor of a room, also sanded and sized same, I now intend to finish the surface with french polish, keeping as near as possible the original colour of the wood. I understand a french polish can be made from orange shellac crystals and methylated spirit. Are any other ingredients required? Also what are the proportions for mixing? A french polish suitable for brushing on is required. Another room of block flooring is in good condition and does not need planing, but I require this one done in the same manner, and should be obliged if you could advise me the best method of removing the old

dark varnish stain, apart from planing or sandpapering. (B.C.L.—Cardiff).

THE usual mixture for a pale french polish is 4ozs. bleached shellac to 1pt. methylated spirit for hard grained wood, and 6ozs. of the shellac to 1pt. for open grained wood. If you have difficulty in obtaining the shellac you could apply white polish which is much the same. Polish, however, is intended for application with a rubber, not painting on, but subsequent applications of Johnson's polishing wax would improve the lustre. Re your second query. The old varnish is best removed by employing a proprietary brand of paint remover, which you can purchase at any oilshop. Removing the stain left is a different matter, and a more difficult one, depending on the depth the stain has penetrated. We can only suggest here that you use a household bleaching agent and when that has operated, go over the floor with a wood scraper. We rather doubt, however, whether you will entirely remove the old stain, but would expect the result to be patchy.

Cleaning an Old Sword

A FRIEND has an old souvenir sword which has got rather rusty. He has tried cleaning it with emery paper but it is not very successful as the sword is rather pitted. Is there a chemical or acid which would do the job better? (D.J.K.—Derby).

THERE are a number of proprietary brands of rust remover on the market, and usually obtainable from motor garages and ironmongers. These remove the rust but do not prevent a recurrence of the trouble. Most of the rust patches could be cleaned by carefully scraping with a styli or sharp-pointed scriber of the like. Then, after removal of the rust and polishing with superfine emery paper, the surface should be well rubbed with boiled linseed oil and left for a few days. The

surplus oil can then be removed with a clean linen rag (not any kind of fluffy material), lightly repolished and given a coat of clear lacquer or cellulose dope.

Lights that Go On and Off

I WOULD be much obliged if you could give me a simple idea for operating decorative lights so they go on and off at pre-arranged timing. I have the working parts of two old alarm clocks; maybe they can be used for this. (E.S.—Glasgow).

IF you are using a low-voltage circuit (battery or mains-transformer) you could easily arrange a small cam on one of the spindles of the clock movement, so that a pair of contacts are pressed together at intervals. If the full mains voltage is used, however, this arrangement is not recommended. What you make up largely depends upon the materials you have available. Any switch used to interrupt mains current should be well insulated and quick acting; it should be possible to operate a small toggle switch from a suitable clockwork arrangement, or to build up a contactor arrangement as suggested.

Trouble with Stain

I FINISHED veneering a table top and, after smoothing it down with glasspaper, I stained it, then left it for three days. I then applied a wax filler prior to using shellac, but the rubbing of the filler removed the stain in places, leaving a blotched finish. Can you tell me the proper procedure to get a really highly polished finish? (W.L.—Rugby).

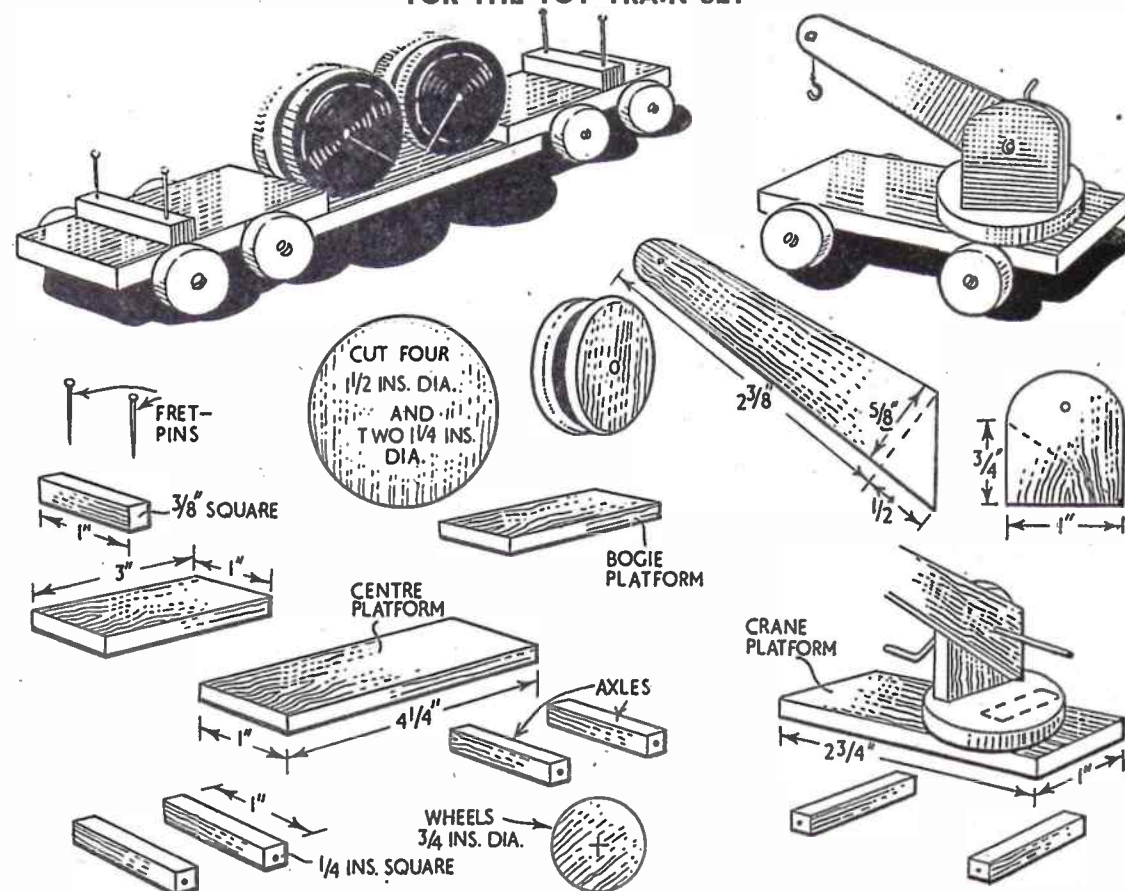
YOU should remove, with wood scraper, as much of the stain as possible, then rub over any weak spots with diluted spirit stain until the depth is as even as possible. Apply two coats of white hard spirit varnish, allowing the first coat to dry before applying the second. Finish off with a polish rubber, lightly charged with French polish, with a spot of raw linseed oil on it to even out and bring up the lustre. In future, when staining before French polishing or wax polishing, mix a little varnish or polish with the stain before applying; this will help to prevent the stain rubbing off.

in black, with a small brush. The slide can be coloured or black enamelled as preferred.

Poster paints would serve for colouring nicely, or the small tins of art enamels if a glossy result is desired. Two panels of 3/4 in. fretwood, 4ins. by 9ins. will provide sufficient wood for the case, with a piece of plywood or hard-board, 6ins. wide and 9ins. long, for the figure front. (259)

TROLLEY WAGON & CRANE TRUCK

FOR THE TOY TRAIN SET



HERE is another useful addition to our Toy Train Series. The trolley wagon and crane truck are both made up in the usual way from odd pieces of wood and the construction is clearly shown in the details here.

The diagrams on the left of the page show that the main part of the wagon consists of three pieces of 3/4 in. wood. The centre platform is glued underneath the two bogie platforms, with an overlap of 3/4 in. at each end. Glue one piece of 3/4 in. or 1/2 in. square wood, 1 in. long, in position on each bogie platform, approximately 1/4 in. from the ends, and drive in the 3/4 in. fretpins as shown in the sketch. These should be about 1/4 in. in from each end. The axles, which are cut from 1/4 in. square wood, are glued under each bogie platform approximately 3/4 in. apart. Drill the holes

to take the screws which secure the wheels in position. The cable drum is made up from two pieces of 1/4 in. wood, 1 1/2 ins. in diameter, and one piece 1 1/2 ins. in diameter. The three pieces are glued together as shown in the sketch, and when complete, are screwed in position on the wagon. A fairly long screw, about 1 in., should be used here. Note that a hole is bored right through the centre of each cable drum to take the dummy fixing ropes which are made from ordinary thread.

The platform is cut to the dimensions shown, and the axles are glued to the underside, approximately 1 1/2 ins. apart. The crane turntable is a disc of 3/4 in. wood, 1 1/2 ins. in diameter. The crane sides, cut from 1/2 in. wood, are glued on to the turntable 3/4 in. apart. Make sure that the crane arms, cut from 1/2 in. wood, are glued between the sides at the same

angle. The crane hook and the handle are both shaped from wire. A small hole must be carefully drilled in the centre of the turntable to take a 3/4 in. screw, and the whole thing should be made to swivel easily on the platform.

The wheels for both the trolley wagon and the crane truck are made from a piece of 3/4 in. round rod, cut off in 3/4 in. lengths. A small hole should be drilled in the centre of each wheel, and they are fixed to the axles by means of a 3/4 in. round-head screw.

After assembly, clean up all surfaces with glasspaper. When painting, use quick drying enamel, and allow to dry thoroughly before applying a second coat. The actual colouring is a matter of personal preference, but it is not advisable to paint too much detail on the toys. (300)

NOVELTY CIGARETTE BOX

(Continued from page 357)

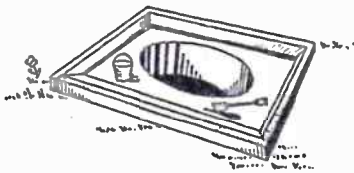
figure, as in the finished view. This completes the work of construction, bar the painting.

The case itself can be left plain or just varnished, as preferred. Give the figure a coat of white paint or undercoat. When dry, trace the details and features through carbon paper. Colouring is,

naturally, largely a matter of choice. As a rough suggestion, the face, legs, hands, and triangular portion above the waistcoat could be coloured yellow, hat and waistcoat, green, and boots, black or brown. A spot of any other colour will serve to distinguish the buttons, and the features can be put in

Start now making a CHILDREN'S SAND PIT

HAVE you noticed how each summer you intend to do a certain job, and each year it becomes crowded out by other more important projects. A sand pit for the children is just like that, each year you intend to do it, but when you return from your beach holiday, the children, in the absence of sand, carry their enthusiasm into the garden. They attack the flower beds with bucket and spade and in desperation you once again vow that the sand pit will have to be made. So why not tackle it at this time of year and have it all ready for the summer.



The general layout

It can be made quite inexpensively and in such a manner that when the children have tired of it, an attractive pool for water lily and rock plant can be made.

Old Bath Needed

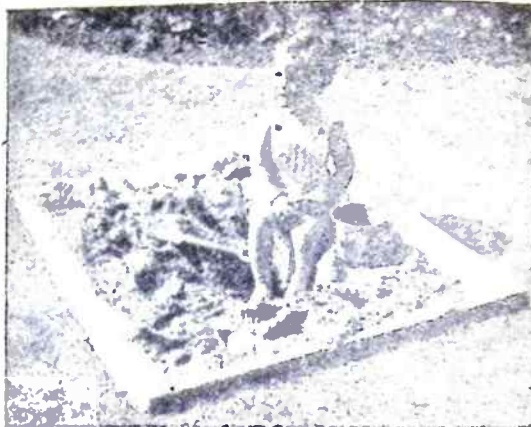
Obtain an old galvanised bath. These can often be picked up quite cheaply at second hand shops. Place it open rim downwards in the position in which you have decided to have the pit and mark round the shape with a trowel. It will be found advisable to keep it well out on the lawn, away from flower beds to reduce the chance of the earth dirtying the sand. Also place it with a view to it ultimately becoming a lily pond.

Now mark out a square, with the sides 9ins. from each end and side of the bath. Next, cut out the earth in the oval of the bath to sink it down with the sides projecting about 1in. above the grass.

Then cut out the square surrounding the bath to a depth of about 2ins. or 3ins. and level off the soil. Collect a pail of small stones and bricks. These can often be found quickly by putting the heap of garden rubbish that usually accumulates at the bottom of the garden through a sieve. Tip these evenly on the earth surrounding the bath and bump down hard.

Mix one part of cement with three of

This charming picture shows how well a sand pit can look in a garden. It is easily made and, when the children have outgrown it, it can be used as a lily pond.



sand and concrete the floor around the bath to a thickness of about 2ins.

Making the Shoulder

A small shoulder should be made on each side of the pit to prevent dirt and grass mixing with the sand. To do this, a frame of wood about 2ins. in height is placed round the outside of the concrete floor. If the wood is treated with oil or whitewash it will prevent the concrete adhering to it, although this is not altogether necessary with such a small job.

When the floor has set, concrete the



A section showing the foundations

shoulder on each side, the wood framework making a true outer wall. The inside edge can be kept straight with the edge of a short plank. Take care to see that a good bond is secured with a concrete flooring. When the concrete has set remove the frames.

Great ingenuity can be exercised by addition of small articles set in the concrete surround, such as pieces of piping which the children can use as small tunnels for their cars, etc.

For the Future

When the children have outgrown the sand pit, the bath can be filled with water and planted with a water lily. A rockery can be made round the concrete edge, and plenty of soil and rock plants will convert it into an attractive miniature trough garden. (245)

A Novel Night Light

IT is amazing how much consolation a little child derives from the comforting gleam of a candle left burning all night. But apart from the expense of buying these night lights—and it is bound to mount up over a period of weeks—one can never be quite sure that the thing is not going to topple over as soon as your back is turned.

Safe and Efficient

Now here is a bright idea which will provide you with a perfectly safe and efficient night light and it costs less than a halfpenny a week to maintain.

All you need is an empty tin with an air tight lid, about 4ins. high and 3ins. in diameter—a tobacco tin will do—some old rags, a bicycle valve, and cotton wool.

Punch a hole in the lid just large enough to allow the valve to fit snugly with $\frac{1}{4}$ in. sticking up on the outside like a chimney.

The Wick

Now push a short length of cotton wool up the valve and trim until only $\frac{1}{4}$ in. protrudes at the top. All that remains now is for you to fill the tin with rags and soak both rags and wick with paraffin. Clamp the lid on securely and light the cotton wool.

Burns for a Week

It will burn with a steady flame for about a week and if you want to save matches, too, why not stand it on the gas cooker when not in use during the night? (229)

Here are the facts on

HOW TO TREAT WOODWORM

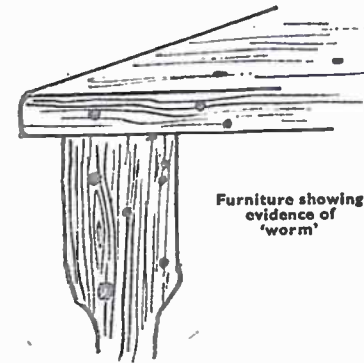
WOODWORM can be treated and its activities permanently stopped. Many people are eager to burn a piece of furniture that shows the characteristic holes of 'worm in the wood', but that piece of furniture can be saved and there are simple precautions that will protect the other furniture in the house.

Both English and American species fall easy victims to the same treatment. The most important thing is the time of the year chosen for wiping out the pest.

The Life Cycle

The woodworm has been well studied and a knowledge of its life history shows us the best time for taking action.

The female beetle lays its eggs from June to August, and chooses for its nest the tiny cracks to be found in the rough unpolished under-sides of furniture. It is



Furniture showing evidence of 'worm'

the rough wood that attracts the female and these are the parts to keep in mind for treatment.

About fifteen days after being laid, the eggs hatch into tiny, white, thread-like grubs—so small that a magnifying glass is needed to see them at all clearly.

Immediately they are born, the grubs start feeding on the surrounding wood, and so eat their way into the solid interior of the timber. They tunnel along the grain of the wood and, at this stage, are completely unseen and unsuspected.

For eighteen months they bore their way here and there through the furniture, digesting the wood and excreting the undigested remains in the form of a very fine powder. As they eat they get fatter, and as they fatten they make their tunnels bigger.

At the end of 18 months they reach maturity and instinctively move near to

the surface of the wood. A little way under the surface—still unseen—they come to rest and it is here they change into the chrysalis state. This natural process is exactly the same as that of the caterpillar changing into a chrysalis before it emerges as a butterfly.

The adult beetle emerges from the chrysalis and bores its way to freedom, leaving behind it, as evidence of its 18 months' work of destruction, the tiny gaping hole of its tunnel.

The hole in the furniture means that the damage has already been done. But it also means that other grubs may still be at work and that more holes will appear later on.

The fully grown beetle crawls away to other attractive pieces of furniture. It may even fly from one room to another. In fact, no place in the house is safe from its ravages.

The Time for Treatment

From this knowledge of the life cycle of the insect, two important facts are seen. First, the killing solution must be made to penetrate right into the wood. It is no good at all just treating the surface of the affected furniture.

Secondly, the best time for treating the wood is from March to April when the grubs and beetles are nearest to the surface. At other times they are deep in the heart of the wood.

The Treatment

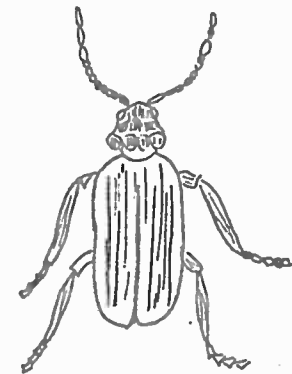
There are many chemicals and ordinary 'household' liquids which can be used to kill off the woodworm both in the beetle and grub stage. One of the most effective is a fifty-fifty mixture of paraffin and creosote. The creosote stains, however, and this remedy is best used on sheds and outhouses. Mix the paraffin and creosote in a pail and then immerse the pail in a bath of hot water. The hot solution is more easily absorbed by the wood.

Paraffin alone leaves little or no stain. Another very effective remedy is a solution of copper naphthanate dissolved in paraffin.

A chemical that does not stain is ortho-dichlorobenzene. This does cause a slightly unpleasant smell but that

again soon disappears. The chemical can be bought from any firm supplying laboratory equipment, and is now stocked by some ironmongers.

There are also quite a few proprietary brands of anti-woodworm chemicals on the market, and these can



An enlarged sketch of the mature beetle

be had at both furniture stores and ironmongers.

Applying the Solutions

Brush the solution well into all the unpolished parts of the furniture, and then into all the parts showing signs of holes. Use a fine brush to force the liquid down into these holes. These tunnels are, of course, empty now, but they form an entrance into the heart of the wood, and the further down the chemical reaches the more effective will be the remedy.

Repeat the treatment two or three times during March and April. Later, fill all the existing holes with plastic wood and finally re-varnish the affected parts. Keep a good watch on all the furniture, especially during the following Spring, looking for powder on the floor as well as holes in the wood, and repeat the treatment as soon as there is the slightest sign of further trouble.

By these means the whole house can be cleared of the woodworm pest. (241)

Don't keep a good thing to yourself—let your friends know about our forthcoming April 2nd issue (see note on page 356). They'll appreciate the information.

Hints on the art of RETOUCHING PHOTOGRAPH NEGATIVES

NEGATIVE retouching and spotting is, admittedly, a highly skilled art, but much may be acquired by the amateur photographer through practice.

It is most annoying to have an otherwise perfect portrait spoiled through dust specks on the negative surface. Dust specks cause that part of the negative upon which they rest to be unexposed, and show as white transparent spots upon development.

The obvious cure is to always keep the camera interior absolutely dust-free by cleaning with a soft non-fluffy cloth at every change of film or plate.

With roll films there is a tendency in warm weather for static electricity to generate on the sensitized surface should the film be quickly wound in the camera. This electrical condition will attract any dust particles that may be in the vicinity. Therefore, as a precaution in warm weather, the film should be wound slowly and evenly.

Incorrect lighting and exposure can cause unsightly eye-shadows and also unduly accentuate facial blemishes such as wrinkles, etc.

All these faults are capable of correction in varying degrees according to the skill and practice acquired by the retoucher. The amateur photographer will find that retouching offers an indefinite scope for pictorial improvement and, moreover, provides an increased interest in his hobby.

For successful negative treatment a retouching desk is indispensable. Although these can, of course, be purchased, it is not very difficult to construct one.

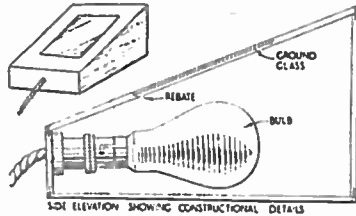
A square box is made approximately 12ins. in length and width, with the top set at a 45 degrees angle for ease of operation. A rebated square is cut in the top and a piece of ground glass is inserted. The rebate should be sufficient to allow the glass to lie flush with the surrounding surface, and the matt side should be uppermost to prevent the negative slipping during retouching.

A batten type bulb holder is next fitted within the box and so arranged that the bulb comes directly beneath the ground glass. The bulb should not exceed around 15 watts, otherwise the glare will cause discomfort to the operator. The bulb holder is suitably wired for connection to a convenient point. The illustration gives an idea of the construction for the completed retouching desk.

We will now assume that the negative

for treatment has several transparent dust spots upon its surface. These defects will, of course, show on the positive as black spots.

The negative is gone over very sparingly on the emulsion side with retouching medium. Use a soft non-fluffy cloth and apply with a light circular motion, then place aside to dry. This will only take a few minutes. The retouching medium provides a trans-



Details of a retouching desk

parent key to work upon. Suitable medium can be purchased from photographic suppliers or can be made by dissolving 12 grams of resin in 1 ounce of turpentine, but the quantity required is so small that it is more economical to purchase ready-made.

When the medium is quite dry the negative is placed on the retouching desk and the illumination beneath will clearly indicate the faults in the negative.

Work Carefully

The spots should be gently filled in with a sharp pointed pencil. Dense negatives should be worked with a 'soft' B pencil, while normal or relatively thin negatives should have 'normal' or H.B. pencils. The filling in of the spots should consist of a series of fine lines drawn horizontally, then crossed by a similar number of vertical lines until the defect is entirely obliterated.

A positive can now be taken of the negative and the results of the retouching noted. Should the filling in be insufficient, a second pencil application should be made.

It is now more than likely that the former black spots on the positive will show as white or grey ones and to correct these is a simple matter. Go over the spots very lightly with a pencil until they blend with the surrounding surface (it is assumed that the print surface is unglazed), then fix by holding over steam for a few minutes. If the work has been carefully done, it will be almost impossible to detect any former faults.

For negative correction due to incorrect lighting, over development and

incorrect exposure, total or local reduction is necessary.

Total reduction should be applied to where the negative is either over exposed or over developed. A satisfactory reducer to use is Farmer's, which is sold in packeted form by photographic suppliers.

Usually two packets are enclosed which are dissolved in separate amounts of water. Before working on the negative it should be soaked for a few minutes in water to soften the emulsion, otherwise the reducer will not work evenly and will spoil the negative by streaking it.

There are two ways of using the reducer, both being satisfactory and effective. One method is to soak the negative for a short while in the yellow solution (potassium ferricyanide), then wash in running water until the water comes clear. The negative is then placed in the clear solution (hyposulphite) until the fog is removed and the negative clear. It is then washed for a few minutes and dried.

The second method, which is preferred by the writer, is to mix the two solutions and to soak the negative until sufficient reduction is reached. In the former method it is largely guesswork, due to the clouding over of the film in the yellow solution.

Local reduction is required to lessen the effect of blemishes such as wrinkles, etc., which are thrown into high relief by incorrect lighting.

Local reduction is achieved by a 50 per cent weakened mixture of the two solutions which is applied to the defective parts with a fine camel hair brush. The negative is placed on the retouching desk and careful application of the reducer made. Only a very slight reduction should be made to soften the effects on the finished print. Too much reducing will be apparent by a dark shadow on that part of the print, and should be avoided at all costs.

Usually, only a few seconds' application of the reducer is sufficient. The negative is then quickly removed and placed into brisk running water. The water should be really quickly running in order to remove the reducer instantly, otherwise it may run on to the surrounding parts of the negative and do harm.

If the reducer has been carefully applied there should be no discerning line visible on that part of the negative. Should there be one, however, the negative should be allowed to dry thoroughly, when an application of retouching medium is applied and the line carefully obliterated with the aid of a pencil. (298)

How to make A CHILD'S MODEL WASHDAY OUTFIT

THIS unusual set is just the sort of thing that will delight a little girl grown tired of her more ordinary playthings; and it has the advantage of being sturdier in construction than many bought toys, as well as costing considerably less. In fact, since the handyman never throws away his offcuts in these days, its cost is likely to be very little indeed—which is another source of satisfaction to the 'old hand' who believes in making things for himself.

To provide real water with the toy is

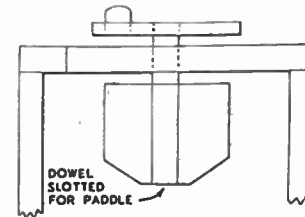


Fig. 1—Details of the lid and paddle

rather asking for too much mess; but the child's demand for realism is satisfied by the revolving paddle which is fitted into the lid of the washer, a wringer that really does mangle dollies 'smalls', and a clothes line for finishing off the job.

There is no need for the more valuable woods to be used—oddmolds of 3/4in. box wood will do admirably, with a few pieces of plywood and dowel as suggested in the Cutting List. The measurements given make up a toy that is big enough for the child to really use, but where wood is available they could be increased if desired.

The Base and Washer

The base measures 18ins. by 7ins., on which are mounted the four pieces making the body of the washer, the front and back overlapping the sides. The lid, a piece measuring 6ins. by 5ins., is hinged to a fixed piece 6ins. by 1in., on which the wringer is supported. The 1/2in. hole in the lid for the paddle needs to be 2 1/2ins. from the front and 1 1/2ins. from the back, so that the paddle falls in the middle of the washer when the lid is closed.

The paddle spindle is a piece of 1/2in. dowel 3ins. long, and the single paddle is cut from a piece of plywood 2 1/2ins. by 2ins., with the bottom corners removed

so that it clears the side of the washer when the lid is opened. The bottom of the spindle is slotted for a distance of 1 1/2ins. to allow the paddle to be glued in. Cut a piece of plywood 3ins. by 1in. for the handle, bore it centrally for the 1/2in. spindle, and make a little knob from a 1in. piece of the dowel, boring the handle for this 1/2in. from the edge.

Two 1/2in. washers and pins are required to fix the paddle into the lid, so drill the spindle with two fine holes for the pins, one 1/2in. above the paddle and the other about 3/4in. above the paddle, according to the thickness of the washers. Glue the paddle into the spindle and the knob into the handle. Then put a pin through the bottom hole in the spindle, followed by a washer, push the spindle through the hole in the lid, add the second washer and pin, then glue on the handle.

The Wringer

The frame of the wringer is cut from a piece 6ins. by 4ins. and is in the shape of a letter U 1/2in. wide. Fairly stout wood is needed for this, and if an oddmold of multiple plywood is available this makes a stronger job, though ordinary box wood will serve if the corners are not cut out too sharply.

The wringer support piece, which is

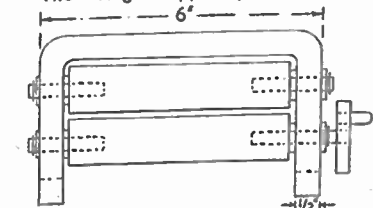
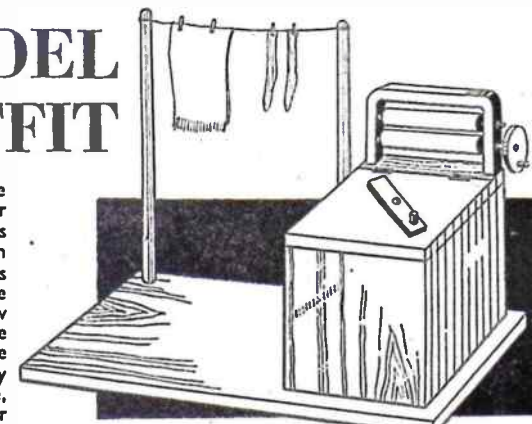


Fig. 2—The wringer

screwed to the top of the washer, is first slotted at each end to accommodate the ends of the wringer frame, as shown. The rollers are two pieces of 1in. dowel 4 1/2ins. long and are held on spindles of 1/2in. dowel. Three of these dowels will be 1 1/2ins. long and the fourth 2ins. to take the handle, but it is a good plan to leave



these a little longer than this and trim them to the exact length required later on. Bore two pairs of parallel holes 1/2in. diameter in the sides of the wringer frame for the spindles. One hole on each side will be 1 1/2ins. from the bottom, then there will be a space of 1in. before the second hole, measuring from the circumference of the holes in each case. The rollers themselves also need boring at each end to a depth of 3/4in. with the same bit.

The handle is a 1 1/2in. disc of plywood bored centrally for the spindle, and again 3/4in. from the edge for a little knob made from the 1/2in. dowel. Have some 1/2in. washers, pins, and glue ready, and the rollers can then be fitted into position by pushing the spindles into them from the outside of the wringer frame. Put a little glue into each spindle hole in the rollers (a touch on the ends

(Continued on page 364)

CUTTING LIST (For wood of 3/4" thickness except where stated)		
No. of pieces	Description	Size
1	Board ...	18" x 7"
2	The Washer	Front and back ... 6" x 6"
2	Sides ...	6" x 5"
1	Lid ...	6" x 5"
1	Wringer support	6" x 1"
1	Handle ...	3" x 1"
1	Knob ...	1" x 1/2" dowel
1	Paddle ...	2 1/2" x 2" x 1/2"
1	Spindle ...	3" x 1/2" dowel
1	The Wringer	Frame ... 6" x 4"
2	Rollers ...	4 1/2" x 1" dowel
3	Spindles ...	1 1/2" x 1/2" dowel
1	Handle	spindle... 2" x 1/2" dowel
1	Handle ...	1 1/2" dia. x 1/2"
1	Knob ...	1" x 1/2" dowel
1	The Posts	Long Post 12" x 1/2" dowel
1	Short Post	7 1/2" x 1/2" dowel
1	Bearer	2" x 1"

Making a simple LETTER RACK

TO make this letter rack, start by cutting two identical sides from $\frac{1}{2}$ in. ply to the pattern given in Fig. 1. Mark the position of the $\frac{1}{2}$ in. diameter holes on one side, pin the two sides together and drill these holes. This will ensure a pair of matching sides.

The remaining parts are detailed in Fig. 2. The shelf is a rectangular piece of $\frac{1}{2}$ in. ply, notched as shown. The sides are a sliding fit in two shallow grooves in the underside of the shelf and can be

pinned and glued in place. The two small brass hangers fit flush with the back edge of the shelf and should be screwed in place—Fig. 3.

The lower edge of the assembly is completed with a strip of 1 mm. ply, glued in place. It only remains to add the four $\frac{1}{8}$ in. dowel lengths fitting in the holes drilled in the sides. Glue in place and finally glasspaper the assembly down smooth. Finishing can be to personal taste. The wood can be stained and polished, varnished or painted.

Arrange the two wall screws engaging

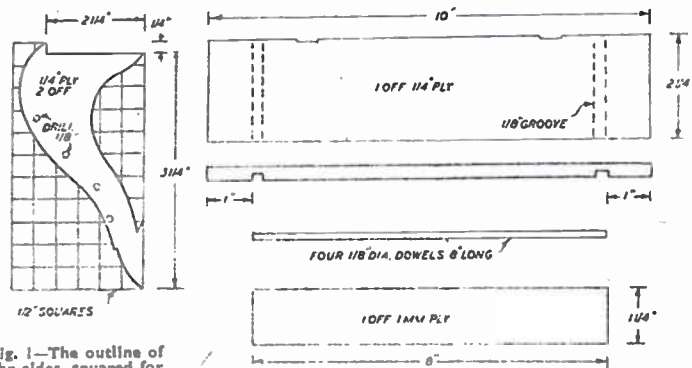


Fig. 1—The outline of the sides, squared for enlargement

Fig. 2—Dimensions of the various parts

Fig. 3—Fitting the hangers

the brass hangers so that the inner edge of the shelf rests flush against the surface of the wall. The whole bracket will then rest in place quite rigidly with the bottom edge forcing itself against the wall. Letters slipped between the dowels will not fall through. (249)

MODEL WASHDAY OUTFIT

(Continued from page 363)

will also hold the washers in place temporarily, then with the rollers held opposite their holes in the frame, tap in the spindle pieces as far as they will go. Trim off the spindles if necessary, leaving just enough room on three ends for a washer and pin, and on the fourth for the handle disc to be glued on, with the little knob glued into it.

The Clothes Line Posts

For the line posts cut two pieces of the $\frac{1}{2}$ in. dowel, one 12 ins. and the other 7 ins. long. The longer one fits into a $\frac{1}{2}$ in. hole bored in the base, about 1 in. from the end and 1 in. from the back edge. The other piece is fixed on to the side of the washer, but to prevent the lid from catching on it when it is opened sandwich in between a piece of plywood 2 ins. by 1 in., putting this level with the top edge of the washer side.

Bore holes in the top of each post and fix in a piece of cord for the line. The

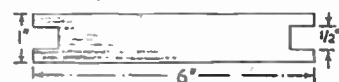


Fig. 3—The wringer support

longer post must fit tightly into its hole in the base, but the writer found it better not to glue it in. It can then be pulled out when the toy is not in use, his first glued-in attempt getting broken off in the toy cupboard!

Painting Asbestos Sheet

I AM lining my kitchen walls with asbestos sheet, and intend to paint it. Could you inform me if there is any certain paint or special preparation required for this kind of work? (R.S.—Burnley).

WE are not aware of any special paint for coating asbestos, but it would be better to enquire at your local paint shop to be certain. The smooth surface of asbestos sheet makes it

Make a few little pegs from pieces of wood $\frac{1}{16}$ in. by $\frac{1}{16}$ in. by cutting a narrow V-shaped slit at one end, and finish off with white enamel or clear varnish, as preferred, leaving the rollers plain. Little embellishments such as a screw on the top of the wringer and a little tap (carved from an oddment of hard wood) on the washer, can be added if desired. But these are the sort of pieces that are first to get broken in a child's none too gentle hands, and since we are making a usable toy rather than a scaled model, there is something to be said for keeping it as simple and sturdy as possible. (297)

difficult to paint, but we suggest you apply a coat of boiled linseed oil with a little driers mixed with it. Ordinary paint may adhere to this, at any rate it could be tried on a spare bit of the material. Alternatively, have you tried Hall's washable distemper? We think this would be more successful than paint for such a job.

TIPS FOR THE GARDENER

SAFETY-FIRST WITH THE FORK

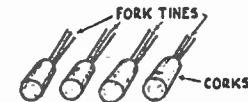
THE garden fork is too dangerous an implement to be thrown about haphazardly, particularly if there are children around. Between jobs, when not actually in use, it should be stuck firmly into the ground and not left lying around with its points sticking upwards. One should always be conscious of the potential danger of certain tools.

A Menace

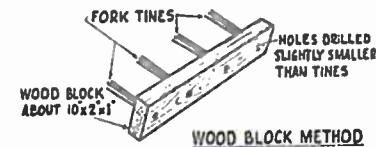
A fork, when carried by a careless type of person, can be a menace to society. It has its good points, and its bad points. Even when carried by the most careful person its points are a danger—he may drop it on his toes, or be knocked down and fall on it.

When carried along a populated area the points of the tines should be rendered ineffective. A simple and common method of doing this is by means of ordinary corks stuck one on each tine.

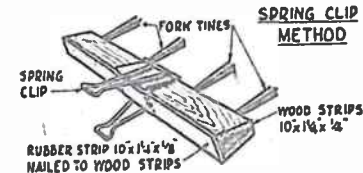
Another way is to drill holes in a fairly thick piece of wood, spacing them to suit the pitch of the tines and of a diameter to arrest the wood before it



CORK METHOD



WOOD BLOCK METHOD



SPRING CLIP METHOD

Various methods of ensuring that the tines cause no injury. The lower sketch shows the most effective guard

slides far enough on to expose the points.

A failing in both these methods is that the corks or the wood are liable to fall off, unknown to the carrier.

Spring Clip Type

My own point-guard is built around an ordinary 'Bull-dog' spring clip, and maintains its hold on the tines, even if it becomes slightly misplaced. Two pieces of wood of the sizes given in the sketch are passed through the clip. A piece of sheet rubber or similar strong material is then obtained and nailed to the backs of the wood strips, holding them in position on the clip and forming a clip of sufficient width to hold the four tines of the fork. When attached to the fork the rubber strip forms a guard over the points.

It is an advantage to cut notches on the inside faces of the wood strips to take the tines, as this prevents the attachment from being pushed sideways.

The wire levers on the type of clip shown can be hinged over to lie between the two centre tines making the attachment more compact. (293)

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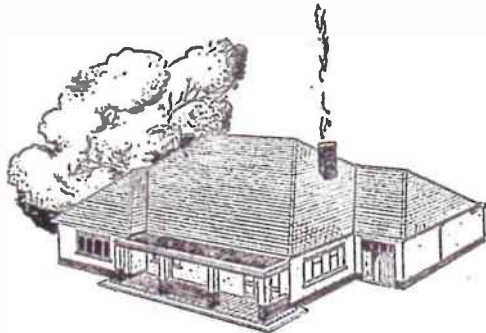
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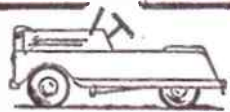
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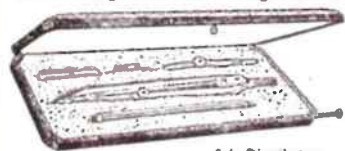
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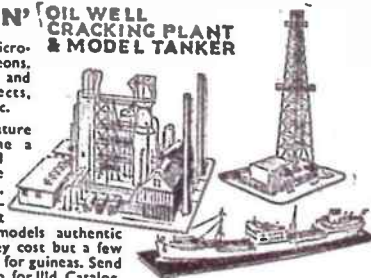
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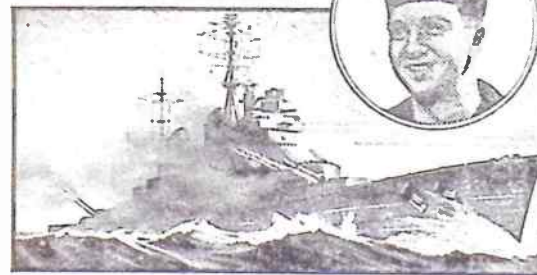
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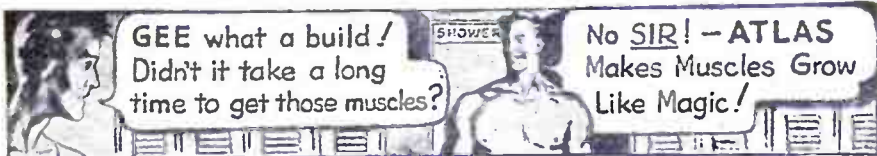
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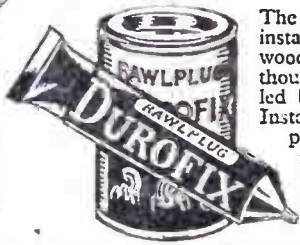
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