

# Hobbies

## WEEKLY

### CONTENTS

	Page
Toy Petrol Lorry - -	81
Mechanical Football Game -	83
Winter Angling - - -	84
Home Telephones - -	85
The Highwayman Figure	86
Picture Hints - - -	87
Model Railway Bridge -	88
Home Cinema Projector	89
A Table Candle Holder	89
Decorative Teapot - -	91
Stamps of Newfoundland	93
Highwayman Patterns -	95

November 9th, 1949

Price Fourpence

Vol. 109 No. 2819

## The handyman can easily make A TOY PETROL LORRY

**H**ERE is an attractive and simple toy to make up, and one which should give endless hours of fun to any youngster. The completed toy is 15½ in. long by 4½ in. wide and 4½ in. high.

In Fig. 2 is given a scale diagram of the side view with certain dimensions added which will help in the construction. Beneath this diagram is added a scale, and the idea of this is to help in scaling off some of the parts which may not be exactly clear to the worker. With the aid of a pair of dividers or even a pair of compasses it is quite a simple matter to span the required parts and hold the instrument on the scale.

### Wood Required

Most of the wood used is ½ in. thick, but one or two blocks and the cross axles for the wheels are ¼ in. thick. We

commence making the model by drawing out and cutting the floor (A) which is 15½ in. long by 2½ in. wide from ½ in. wood.

On each side of this floor and at the rear part are the sides (B) which measure 12½ in. long by ½ in. by ½ in. in section. Glue these pieces on and add one or two fine nails. Next mark out and cut the back of the cab, or the fire shield, as it is properly termed. In Fig. 3 the dimensions for this are given to be cut from ½ in. wood. Round off the top corners neatly as shown. Glue this to the floor and close up against the sides (B) and put in a few fine brads or wire nails from beneath.

The sides (D) of the cab are next to be made, and Fig. 4 gives all the dimensions necessary for drawing one out on ½ in. wood. It should be laid on a second piece of ½ in. stuff and a pencil line made all

round the outline, including the two window spaces. The two parts can be glued to the edge of the floor (A) and to the back (C). The lower edges of the sides (D) should come flush with the lower edge of the back.

### Cabin Parts

The roof of the cabin is next made, and a piece of ½ in. wood measuring 3 in. by 1½ in. is wanted for this. The squared up piece, just as it leaves the saw may be glued in place on the cabin sides and to the back (C). The shaping is afterwards done on three edges as seen in Figs 1 and 2. If preferred, however, the shaping could be done before the roof is glued on. Add one or two small gluing blocks where possible to add to the strength of the joints; they should be put along inside where not particularly seen.

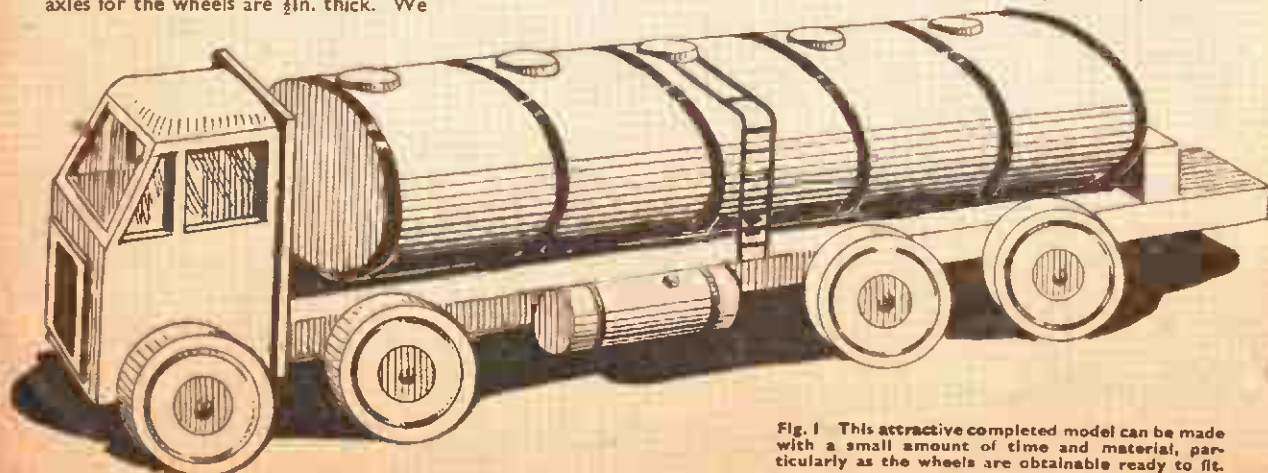


Fig. 1 This attractive completed model can be made with a small amount of time and material, particularly as the wheels are obtainable ready to fit.

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

The front of the bonnet is next made, and a piece of  $\frac{1}{2}$ in. wood  $2\frac{1}{2}$ in. long by  $1\frac{1}{2}$ in. is wanted. In the marking out, check the length between the sides (D) of the cabin before the cutting is done, and round off the top edge and make smooth with glasspaper. The painting of the inside of the cabin should be done before the bonnet front is put on for sake of convenience in handling the brush.

### Wheel Work

We now make the axles for the wheels, and it will be seen from Fig. 3

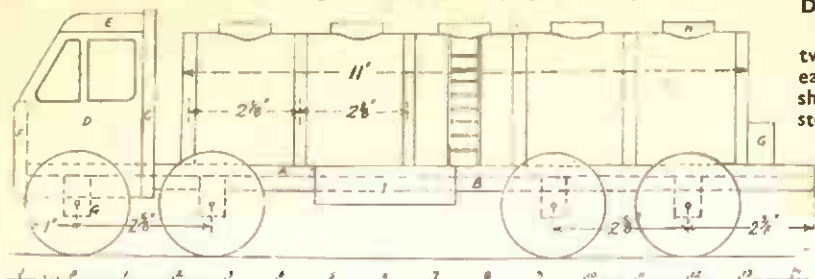


Fig. 2—Side elevation with dimensions of parts

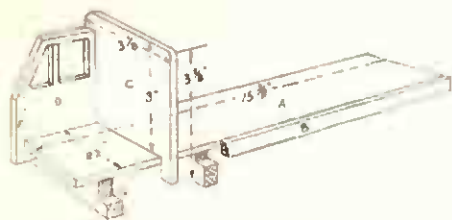


Fig. 3—General construction work



Fig. 4—Cab sides

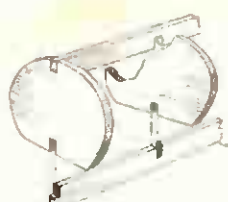


Fig. 6—Ribs of the tank

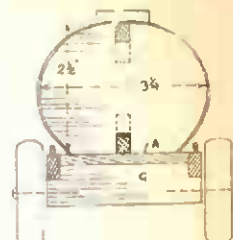


Fig. 5—Rear section

that the front one (G) differs from the rear three. The axles are all the same length and are  $\frac{1}{2}$ in. by  $\frac{1}{2}$ in. in section.

The front one needs cutting down a little in excess of the others to fit between the sides of the cabin. The rear three axles fit in between the sides (B) and are notched out to fit round them as seen in the cross sectional view, Fig. 5. Get the axles square across the floor by first marking their positions and then add screws to make a good firm fixing through the floor. The proper spacing of the axles is given in Fig. 2.

With the exception of the wheels, we have now completed the chassis and the cabin of the toy. It would be best, we think, to leave the fixing of the wheels almost to the last, and when the painting has been done.

### The Tank

The making of the tank is not too difficult a task, but a certain amount of care must be exercised in the assembling of the parts.

The length overall of the tank is 11in., and it is made of four shaped uprights held together by two rails and afterwards covered round with stout card or thin plywood if this can be obtained. Each of the uprights is elliptical in shape, the two diameters being those shown in Fig. 5.

In setting out this shape, first erect the centre line either on the wood or on paper, and at one side of the centre line

draw in one half freehand. Trace this on to paper and then repeat the line on the other side of the centre by means of carbon paper. A flat must be cut on the finished ellipse to fit down on to the floor.

Now in each upright cut two open mortises as shown  $\frac{1}{2}$ in. deep and  $\frac{1}{2}$ in. wide to receive the long rails. Each long rail has four square notches cut in it, and two open notches, one at end as shown in Fig. 6. This diagram gives a portion only of the make-up of the tank.

Take care to get a firm fit between rails and uprights and glue them all

overlay of card should be glued on each end of the tank to the outer face of the end upright.

The whole tank, as one complete unit should be glued to the floor centrally and one or two screws run up through to hold it firmly in place.

The manhole covers consist merely of  $\frac{1}{2}$ in. thick discs 1in. in diameter.

To get them to saddle properly over the tank it is best to first bend a piece of coarse glasspaper round the top of the tank and then rub the discs down to it, finishing with fine glasspaper.

### Details and Colours

The ladder can be made from wire, two long side pieces being pointed at each end and let into the wood, with shorter pieces soldered on to form the steps.

The small tank at the side of the chassis can be made from  $\frac{1}{2}$ in. round rod or from a piece of  $\frac{1}{2}$ in. square stuff  $2\frac{1}{2}$ in. long shaped up as desired.

The colouring of the toy can be left to choice, but bright paints should be adapted. Pillar-box red for the tank,

yellow for most of the cab, with black for the fireguard behind the cab. Black, too, for wheels and floor and manhole covers. The roof of the cab should be light grey. The window glass could be represented by gluing in some pieces of celluloid or cellophane.

## CO-OPERATIVE MODEL MAKING

This is an example of the sort of get-together we so frequently recommend in these pages. One fellow making a lay-out like this, would take just years—and probably get tired. Working with his pals everyone gets more fun out of it—especially when you can have an exhibition of your work such as these enthusiasts in model railway work at Wellingborough Grammar School.



Photograph by Northamptonshire Evening Telegraph

# Players can 'get a kick' out of this novel mechanical FOOTBALL GAME

**W**E are indebted to reader Mr. J. Spencer, of Altrincham, for some interesting suggestions, on which this article is founded. It is an indoor game with mechanical footballers, and can be played by two or more players, the object being to kick a goal. The footballers are made from fretwood, and provided with a simple mechanical movement to kick with; the player, of course, working the movement with a pull of the finger. Two such footballers must be made, one for each player, but more can be made up, as the figures are easily cut, for three or four to join the game.

The figure (or figures) is drawn over  $\frac{1}{2}$  in. squares in Fig. 1. Copy these squares on paper, and trace thereon the footballer. The outline can be transferred to  $\frac{1}{2}$  in. fretwood and the figure carefully sawn out. The left leg is cut off, where seen in the diagram, and replaced in position with a  $\frac{1}{2}$  in. brass hinge, so that it can kick out. The  $\frac{1}{2}$  in. tenons on the feet,  $\frac{1}{2}$  in. long, are reduced back and front to  $\frac{1}{4}$  in. also, so these tenons will finally be  $\frac{1}{4}$  in. square.

## The Base

The base is shown at (A), and should be cut to the length shown for all figures, except that one to be given the post as goalkeeper. In this case, cut the base half the given length only to allow of sufficient movement in the more limited space between the goal posts. Glue the figures to its base, cutting a  $\frac{1}{4}$  in. square mortise slot, where shown for the tenon on the figure to fit in.

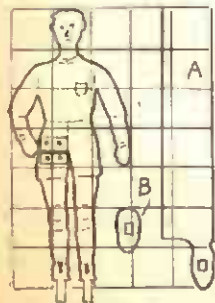


Fig. 1 - Figure and baseboard shapes

At (B) is a foot; cut this carefully out, not forgetting the mortise slot, of course, and glue it to the swinging leg. The sole of the foot should be rounded to a slight curve for it to swing out and back without scraping

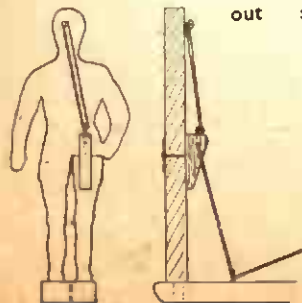
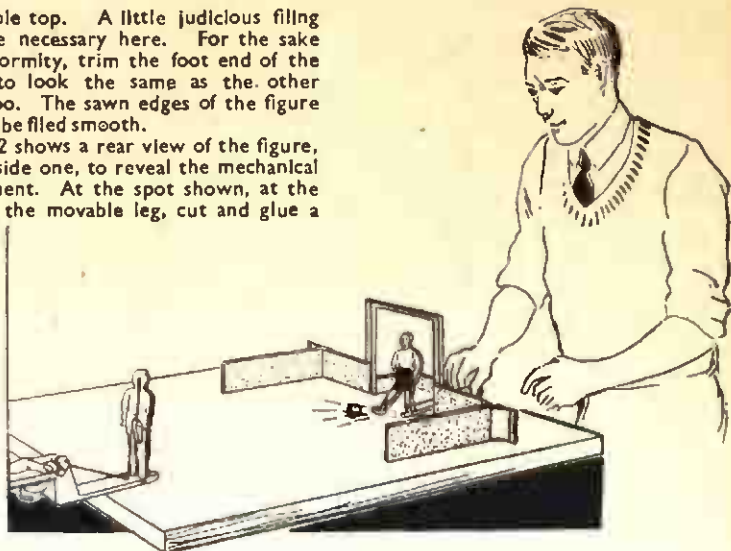


Fig. 2 - Views to show elastic

the table top. A little judicious filing will be necessary here. For the sake of uniformity, trim the foot end of the stand to look the same as the other foot too. The sawn edges of the figure should be filed smooth.

Fig. 2 shows a rear view of the figure, also a side one, to reveal the mechanical movement. At the spot shown, at the top of the movable leg, cut and glue a



shaped piece of the fretwood, making it about  $\frac{1}{2}$  in. long. This has a small hole bored through,  $\frac{1}{4}$  in. from the top, and at the top a tiny hook is driven in.

This hook can be easily made by driving a stout pin partly in, and cutting it off, leaving enough to bend to hook shape. Glue the piece to the movable leg only. When the glue is set hard, connect a rubber band to the hook, and stretch it over a round-headed screw, driven in as high up as possible. In the hole thread a short length of thin cord, or gut, and pass this under a screw eye, fixed in the base.

To the other end of the cord, tie a curtain ring for the finger to enter and pull the cord. Try the movement, and see that when the cord is pulled, the leg kicks out promptly, as seen in Fig. 3.

## The Cord Fixing

This diagram shows the completed base. It is provided with a  $2\frac{1}{2}$  in. length of the fretwood, for the thumb and finger to grip, the length being glued and nailed to a block of wood, 1 in. high. Arrange the length of cord for its ring to be just the right distance for the finger to enter and pull. Stiffen the figure with a small angular bracket of fretwood, glued behind, as at (C).

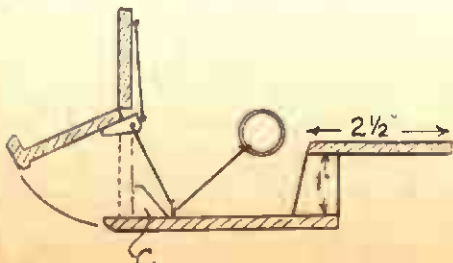


Fig. 3 - Mechanism of leg and cord

The figure, or figures, should be painted to represent a footballer, according to the ability of the reader. This can be done directly on the wood itself, and the edges of the figures should be painted black. The backs can be left plain. An alternative method of colouring these figures would be to paint them, or colour with crayons, on the paper, then to cut out and glue to the wood. Treating them, in fact, just the same way as coloured almanacs, or other coloured work.

## Goalposts

The game will, most likely, be played on a table, though very young readers may prefer the floor. Goal posts must be added, as the fun of the game consists in kicking for goals, and the human goalkeeper doing his best to prevent that by working his figure, more or less accurately.

A suggestion for such goalposts is sketched at Fig. 4. The posts are cut from

(Continued foot of page 84)

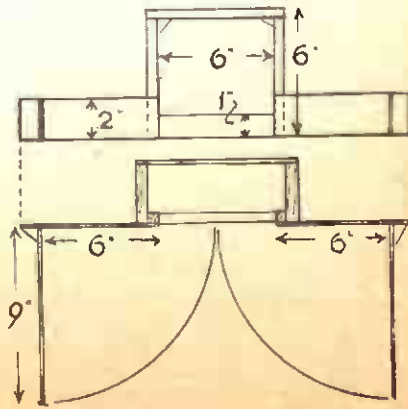


Fig. 4 - Goalposts fitted with side wings

# Properly clothed and with right tackle you can enjoy WINTER ANGLING

**N**OVEMBER and December are usually good months for winter angling. Now, do not get it into your head that fishing at this season of the year is a 'mug's game'. We know that there are many days when, obviously, it is foolish to venture forth to the waterside, with weather inclement and rivers often running in flood, or packed with ice and 'snow-broth'.

But, what of the many other days, when mild conditions and waters in good fishing order combine to make an outing well worth while? Never pack your tackle away in winter! Select your day—your free Saturday or mid-week half-day—and if things seem favourable, get busy.

Remember, many of the big fish that get into the record list are captured in winter! The fish, too, are in excellent condition now—bright, firm as rubber, full of mettle, providing fine sport.

## Winter Fish

Not all fish, of course, are to be caught during winter. The pike is at its best in the colder months, but this fish requires special tackle and is not for every young angler. What, then, shall we seek? Four species, at least, are plentifully distributed in rivers and brooks and still waters—and these afford fishing in winter available to most of us. These fish are the roach, chub, dace, and perch; in this order because that is how they are likely to appear in order of merit.

Roach are grand winter fish and are the mainstay of the young angler. Chub are also well distributed and are excellent winter quarry. Dace and perch, though not abundant in all rivers, are still sufficiently well scattered in many waters to afford us chances of sport. All these four fishes are in their best condition from autumn to end of February.

## Baits for Winter

Baits for general fishing are numerous and varied, but the list of winter baits can be reduced to just a few. These are Worms (red worms and lobworms), Maggots, Breadcrust, Pastes, Live-baits (as minnows for perch-fishing), Pith and Brains (for chub-fishing), and Cheese-

paste. These will suffice for the kinds of fish available for the average angler in the cold months.

To keep worms in winter, stock them in an old tub placed in outhouse or cellar where the frost cannot get to it. In the tub put earth and leaf-mould, with bits of old sacking. After putting in your stock of crawlers, place old sacking on top and keep it moistened with water. Inspect your stock periodically and remove all dead worms, for usually a few succumb.

Maggots can be kept during winter as follows. Half-fill a good-sized tub with damp sand and garden loam, and, as late in the autumn as possible, lay some fly-blown liver or offal on top. Set in a dark place secure from frost, and the maggots will feed on the meat and bury themselves in the soil. Another plan is to cork up full-grown maggots in a bottle of garden soil and bury until wanted.

However, nowadays it is possible to obtain maggots nearly all through winter from the bait-dealers, and this is the method recommended of getting winter baits. If you have to keep these for a week or so before you can use them, bury your maggot-tin and contents in soil.

One of the best baits for roach in winter is breadcrust. It is prepared from a well-soaked loaf, the crust being lightly pared off and cut up into tiny cubes.

## Water Conditions

Water conditions vary in winter from week to week. When the stream is normal and weather also normal for time of year, fish favour the deep, slow-flowing swims and holes. The colder the temperature of the air the deeper they will be. In frosty weather roach retire to the deeps. But, as the frost abates and the temperature of the water responds to the sun's influence, they will work out into shallower swims.

When a river is in flood but not over its banks, the fish will generally take a bit of finding. They will avoid the strong currents and retreat to slacks, and slow deep eddies well inshore under the banks. Other likely spots are at ditch-

mouths, in 'pockets' between tree-boles, in sheltered eddies, holes, and quiet lay-bys. Backwaters, too, should be tried. Try tail-end of a lob, or a nice red worm, under such conditions, for bait.

When floods are out over the land it is wiser to stay at home, but if you must go a-fishing you may get sport once you have located the whereabouts of the fish. In grassy hollows at some distance from the river you may find shoals of fish. If you see them 'priming' that is the spot to try. I have known of good takes of roach rewarding winter anglers, flood-time fishing in submerged roadways.

## Keep Warm

Clothe yourself sensibly when winter fishing. An old overcoat that is still waterproof and weatherproof should be worn on top of a warm woollen suit and woollen underclothing. Stout waterproof boots to keep feet dry and snug, with an extra pair of wool socks to ensure comfort are much better than rubber boots; but that may be a matter of opinion. Wear a soft felt hat or a warm cap, and, if weather is likely to turn to rain, carry a mac. Dubbin your boots the night before.

It is a wise plan to take along a Thermos flask filled with tea—nothing beats a cup of hot tea on a winter's day at the waterside. It is more stimulating than anything, though cocoa or Bovril are very sustaining.

## General Hints

When the water is in favouring condition—running with good flow and tinted a brown ale-colour, fish in the Nottingham style for roach and dace, using such baits as crust, paste, maggot, or red worm.

In very clouded waters when the river is fairly high, try legering with tail-end of a lobworm in the quieter swims and holes.

For winter chub use maggots, worms, pith and brains, cheese-paste, small live-baits like minnows (if you can get them at this time o' year), and macaroni. In winter you may employ rather stouter tackle than in the clear waters of summer.

## Football Game—(Continued from page 83)

½ in. square wood, with a top rail nailed across. A fence of fretwood, or cardboard, 1 in. high (not higher), is nailed to these posts to form an enclosure some 6 in. square, or a little less in depth. The upper corners of the goalposts are best stiffened with small corner blocks, remembering that there is no bottom rail to keep the posts apart.

The side wings can with advantage, be added, to keep the ball from rolling off the table. These could be of cardboard, also, though a stronger affair would

result naturally, if they can be made of wood. Perhaps a few strips of box wood could be utilized here, fretwood being too precious nowadays to use for such a purpose.

It is a good plan to fix these wings, as in the diagram, with tape hinges, to fold inwards when not wanted for the game. To keep them from moving backwards, when struck by the ball, glue a small block at each end, to which the wings can butt against when opened out, the back pieces being allowed to extend ½ in. each

end to provide the space for the wood blocks to be glued to.

Measurements given are suggestive only. Where a fairly commodious table is available, the stretch of both back and wing pieces could be lengthened. For a ball a marble is suggested as best for the game, as it is not likely to bounce on being kicked. A small rubber ball would, and fly either off the table or at least, too far above it for the footballer to kick. The game forms an interesting and exciting game for a winter evening.

# Several ways in which the amateur can set up his own HOME TELEPHONES

THE construction of a simple form of telephone is very easy, and will provide hours of amusement, besides having practical uses. It is also possible to make up a proper system, complete with bells or buzzers.

For both microphones and earpieces ordinary earphones are used. All good phones will function well; ex-service balanced-armature phones are also very good and extremely cheap. The phones are removed from the headband, and only one set of headphones is required to make the simplest system, shown in Fig. 1.

## A Simple Two-Way Phone

In Fig. 1 the phones are simply joined together by two leads of appropriate length. For the latter, twin flex can be used, or the bell-wire cheaply sold in the well-known stores. The leads can be taken under the carpet, or wherever convenient, and a good example of the results to be expected will be obtained.



Fig. 1—The simplest form

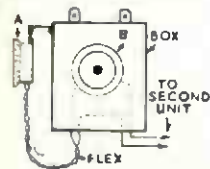


Fig. 2—Double phone system

In this simple system, one individual listens while the other speaks. When conversation in the other direction is required, the speaker transfers his phone to his ear, and the original listener uses his phone as a microphone. Though volume is not up to ordinary telephone standard, it is normally sufficient for all ordinary purposes.

## A Double Phone System

So that it is not necessary to move the phones from ear to mouth, two may be used at each end. One will then be retained for listening, and one will be spoken into, so that rapid two-way conversation is possible.

For convenience, one phone may be mounted in a small box hung on the wall, and the earpieces used for listening may be connected to a length of flex, as shown in Fig. 2. The phone (A) is used for listening, and may be provided with a wire loop so that it can be hung on the hook when not in use. All the phones are wired in series, and as a result the speaker will also hear his own voice. This is no disadvantage, but the fact that more phones are being operated results in some loss of volume, compared with the simple circuit in Fig. 1.

Amplifier circuits could be used, but would cause complications. Actually, they are not really necessary if a few points are noted.

Phones which have a number of extremely small holes in the ebonite cover restrict the extent to which sound-waves reach the diaphragm, and do not function very well as microphones. The type of earpieces with a fairly large central hole is better.

It is also possible to remove the cover, and saw a large central hole, to which a small horn cut from tin can be fixed. However, this is scarcely required unless the builder is anxious to obtain the maximum volume and will not wish to use the phones for ordinary wireless reception at a later date.

It is also best that all the earpieces used should be of the same type. If phones of very different resistances are wired together, reproduction on some units will be louder than on others, and volume on all will be reduced.

To call the distant person's attention, an electric bell or buzzer is required. If the circuit in Fig. 1 is used, one of the leads can also be common to a small

wishes to summon someone on the right. The person at the left depresses his bell-push. This connects the battery to both buzzers, which are in circuit through the contacts under the spring hooks. His buzzer, and the buzzer at the right will then sound.

When the person on the right hears, and lifts his receiver from its hook his buzzer will stop, and when the person on the left lifts his receiver, the receivers will be connected through the contacts above the spring hooks, the buzzer circuit will be broken, and conversation is possible. If the person on the right rings up that on the left, the same result will be obtained.

## Spring-Hook Arrangement

This is illustrated in Fig. 4. A strip of metal about  $\frac{1}{4}$  in. wide and  $3\frac{1}{2}$  in. long is screwed to a small block of wood and normally springs up so as to touch the small upper bracket, which is wired to the receiver. But when the receiver is hung as shown, its weight bends the hook downwards, making contact with the lower bracket (wired to buzzer or bell).

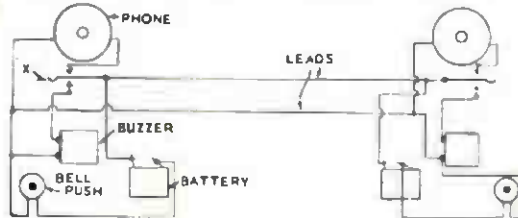


Fig. 3—Circuit of complete system with buzzers

buzzer and battery, with a bell-push in circuit. The one operator may then press his bell-push, operating the distant buzzer, but this will require an extra lead.

Actually, this is no great disadvantage unless the two telephone units are a long distance apart. It is, however, possible to wire up a system which requires only two leads, though this is a little more complicated.

## Complete Two-Way System

A complete two-way system with bells or buzzers is shown in Fig. 3, and when its method of working is understood, it will not appear unduly complicated.

At each unit a spring hook (X) is provided. When not in use, the earpieces are hung on these hooks, thus switching the circuit to the buzzers. But when the earpieces are unhooked for listening, the hooks spring up, disconnecting the buzzers and connecting the earpieces, so that additional leads between the units are not necessary.

In Fig. 3 two complete units are shown, and the right-hand one is in every way the same as that on the left.

Imagine both phones are hung on their respective hooks and a person at the left

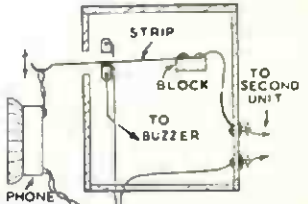


Fig. 4—Details of hook

The whole is fitted in a small box, Fig. 4 being a back view. The buzzer and battery are also placed in the box, and the bell-push is screwed to the front or side.

Two terminals are fitted for connections to the second unit, which is built up in exactly the same way. The leads between the units may be twisted, but should come out the same as shown in Fig. 3. If they are crossed, as regards electrical connections, proper operation will be impossible. It should also be noted that if both earpieces are lifted at the same time the buzzers will not function. But this is not likely to occur, and listening or speaking into the phone will immediately show what has happened.

If desired, two phones may be used each end, as in Fig. 2, so that a complete two-way system comparable to an ordinary telephone is obtained. This may be fitted between rooms, or used to connect a workshop or tool-shed with the house, etc.

If no buzzers are to hand, simple ones can be made with ease. It is also possible to use small torch bulbs as signal lamps instead, though these are less reliable in attracting attention.

# A novel replica of a china figure can be made in THE HIGHWAYMAN



**C**APTAIN Moonlight rides again! This time, however, he does not ride the turnpike to hold up a stage coach at pistol point. The picturesque mustachio'd old ruffian, who probably ended up on the gibbet, now rides a colourful wooden cut-out figure, on the side-board or mantelpiece.

He is based on a Staffordshire china figure, one that used to be on cottagers' mantelshelves. Now such figures repose, expensively acquired, in china-collectors' cabinets. The original on which our model is based was sketched in a museum. Though some simplification is evident, the complete model follows, in general shape and colouring, the original. It is made entirely of scraps of wood, shaped with a fretsaw and afterwards gaily coloured.

## Patterns to Trace

On the inside back cover of this issue a full-size design is printed. From this the separate parts must be traced. Unlike some fretwork designs, it is not possible to paste the complete design (on the inside back cover) straight down on to the wood. Fig. 1 shows, on a small scale, the parts to be traced off.

Part (A) goes all round the main outline at the top but misses the near legs of the horse. This part is cut in  $\frac{3}{4}$ in. plywood with the outside grain of the wood running the long way of the legs. The opening between the elbow and side, on the right of the drawing can be cut out but there is no need, at this stage, to cut out the corresponding small hole on the left. Cut as accurately as possible. The pattern can be traced directly on to the wood if the latter is clean and white, otherwise the pattern is traced on to white paper and this, in turn, pasted to the wood.

All the rest of the parts can be cut in  $\frac{1}{4}$ in. plywood, though some parts such as the coat cuff (C) and boot top (H) as well as (J) and (F), if necessary, can be cut from cardboard with scissors. In the finished job, some lines are to be painted in, as for example, the lines on the mane. The saddle cloth is entirely painted in. If Fig. 1 is studied, however, no difficulty will arise.

Before gluing up, all parts should be glasspapered clean, care being taken to avoid whiskery edges.

## Assembly

The legs (B) and (C) are glued in place on (A). Then parts (D) and (E) are fitted. Then apply (F) and lastly (G), (H) and (J). Place under pressure until the glue has set hard. Take care not to let the parts slide out of proper fit.

In theory, the left-hand side of (D), for example, should coincide with the left of (A), but in actual practice some trimming will be necessary. A set of fretwork files is useful here.

Care should be taken not to let unsightly streaks of glue ooze out between the parts. If this has occurred, scrape it off. The opening at the elbow on the left-hand side may now be pierced. The best way to do this is to drill a couple of  $\frac{1}{16}$ in. diameter holes and then file out the rest.

## The Base

The base (J) can be made whilst waiting for the glue to set. This is  $\frac{6}{16}$ in. by 2 $\frac{1}{2}$ in. and should be  $\frac{1}{4}$ in. thick. It can, of course, be solid wood. Two slots marked off from the main job have to be made to take the tenons of part (A). These go only  $\frac{1}{4}$ in. deep in the wood. They have to be chiselled. Alternatively, make the base in two parts, each  $\frac{6}{16}$ in. by 2 $\frac{1}{2}$ in., but each part only  $\frac{1}{4}$ in. thick. One part can have the slots cut out with a fretsaw, and the two parts afterwards glued together. The corners are rounded off.

Probably the most interesting part of this job will be in the painting of the model. First give it a coating of size, particularly if any of the parts have been made of cardboard. Some tube glue thinned down with warm water is as good a size as anything. When quite dry, painting can commence. Bright enamels are used.

It is best to

start off with the flesh parts as if any of the pink gets on surrounding parts, it can very easily be painted over. For flesh tint mix white, yellow and red. Only a very little red is required, though in the present model, a more ruddy complexion would not be out of place. Paint all over the face. The mask can be painted on afterwards.

The horse is light grey. For grey, mix red and blue, and dilute with white. Go over the horse first with a very light grey and again (when dry), in parts, with a stippled darker grey. The base is bright green.

The reason for the 'prop' under the horse is that, in the original model, which was made of china, an extremely delicate model would have resulted had the weight been taken on three thin china legs. As it is, the bent leg is resting on another support and the body is supported as shown.

The jacket, including the cuffs, is bright blue with gold fastenings. The collar is white with red looped decoration. The hair is light brown. The top of the boot is bright yellow, and the boot itself is black. The horse's hooves are, of course, black.

The saddle itself is bright red, and the lower part is the same colour as the horse's body. The waistcoat is grey and the cravat green. The reins can be cut from very thin leather with a razor blade and glued in place. If one is good at lettering, the words CAPTAIN MOONLIGHT can be lettered on in old-fashioned lettering, as shown.

The back of the model can be painted black—the eggshell black as used for calendars, etc. being particularly useful. Perhaps this blacking, however, had best be done first. In the finished sketch, a black circle is shown in the rear. This is purely for artistic effect. It is not part of the construction.

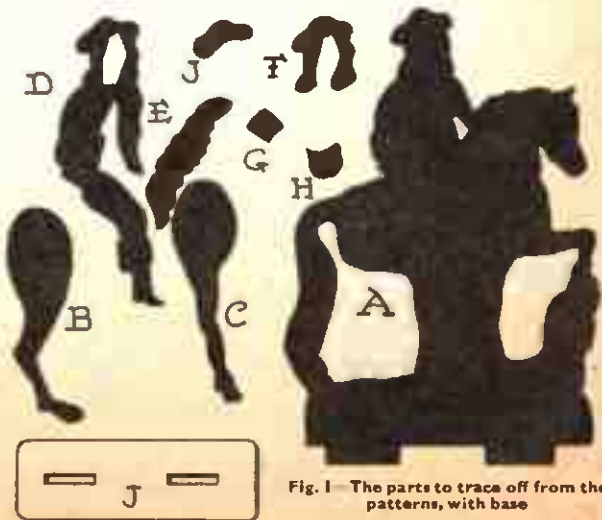


Fig. 1—The parts to trace off from the patterns, with base

# PICTURE HINTS

## A Hanger for Flexible Cords

THE detachable cables of domestic or workshop electric appliances need more care when not in use than is often bestowed on them. Now that replacement may be difficult when worn



Fig. 1—How not to hang them

out, premature wear must be avoided. Hanging them on ordinary hooks is to be strongly deprecated, owing to the excessive bending and wear (Fig. 1). Placing them in a drawer is likely to result in tangling and other inconveniences.



Fig. 2—On holder

suitable for several cords. A thin recessed electric fitting block, 2½ in. diameter provides the base. In the front is a circular piece of plywood. Between the two is a length of stout wooden curtain pole, mounted eccentrically so



Fig. 3—With wall batten

as to give most space at the top where the cords rest. A pair of 'glass plates' are used to hang the fitting on a wall or fixture, one being placed where shown and the other on the back of the block, projecting above the bottom of the recess. These make it quite steady but readily detachable.

The idea can be duplicated on a batten as seen in Fig. 3. This is advisable where there are longer lengths of flex to be accommodated.

## Motorists' Wheel Scotchies

EVERY motorist will find one or more of the wheel scotchies shown here, a convenience in and out of the garage.

When a car has been garaged, it should not be left with the brake on, as that would keep the parts under need-



less stresses. The scotchies shown in Figs. 1 and 2 will readily secure this. In the first instance, a piece of wood about 4 in. by 3 in., laid on the floor of the garage will enable the driver to bring the car always to rest in the same place, the wheels being slowly brought against it, acting as a buffer. If the floor should not be level and the car tends to run back when driven in forwards, both sides of one wheel should be held by the scotchies

seen in Fig. 2. They are also a great help when making adjustments and are generally useful. Wooden blocks of square section have a corner cut off and



light handles are glued into holes so that they are splayed out cornerwise slightly. These need not be as long as shown.

The scotchies in Fig. 3 are for carrying on a car and are similar to the last mentioned, the handles being replaced by the piece of chain, linking them together.

## Simple Car Ramps

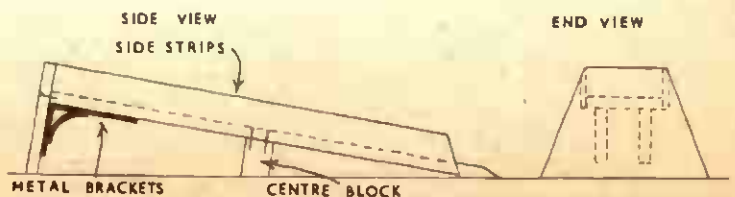
**M**OTORIST mechanics will find the pair of ramps here illustrated a help when working under the car, specially those of low power, with which the ground clearance is small. By their means the front or rear wheels can be raised as much as 8 in. off the ground, so giving valuable extra space. Also when draining the crankcase of oil, the ramps enable the car to be tilted towards the draining plug, so getting rid of dirt and sludge which would otherwise remain.



The ramps are made from wood, about 1½ in. thick and 9 in. wide, the length being approximately 4 ft., the actual dimensions not being important. The splayed end supports prevent the weight of the car pushing them over sideways. Also, the middle support to prevent springing should be noted.

In use, the ramps are placed so that the wheels will run in the centres of the boards and the car is carefully driven up the slope. After applying the brake, the wheels are scotched to ensure its remaining there. After use, it is slowly lowered again, keeping it under control with the brake.

This idea is used on a large scale in service stations, where all the four wheels are raised on a ramp, for carrying out adjustments underneath, or a hydraulic lift for short periods.



# Model railway lattice work for sections of A GIRDER BRIDGE

**T**HERE are few simply-made model railway accessories which contribute more to the general appearance of a layout than a nicely-proportioned lattice girder bridge. It can be built very conveniently from stock lengths of the stripwood used by aircraft modellers, and which is now quite easily obtainable almost everywhere.

Most model railways suffer from a 'flatness' complex. The additional reality which can be gained by sinking the baseboard to represent a water-course, and crossing this by a girder bridge, has to be seen to be believed.

## Representative

The lattice girder-bridge design given is in no sense intended to be an exact replica of any particular structure, but is broadly representative of full-scale practice. It is essential only that the depth of the girder (B, Fig. 1) should bear an approximate proportion to the span length (A) of one to five. The length of span is, of course, determined by constructional requirements.

If the making of several spans (two girders for each) is contemplated, a simple jig should be made by outlining the shape of the standard girder on a flat piece of wood. Then cut pieces of triangularly-shaped wood to fit between the wooden girders, and tack them in place, as shown in Fig. 2, thus forming a simple former around which any number of similar girders can be built quite easily.

## Two Methods

There are two methods of girder construction available, both of which use the same jig. One, in which the diagonal strips are glued at their ends to the under edge of the top main girder and to the upper edge of the lower main girder, as shown in Fig. 3 and 4.

The second method is that of sandwiching the diagonal girders (cut to a slightly greater length) between duplicated top and bottom girders, as depicted in Fig. 5. It will be seen that fine panel-plin may be used to produce a much stronger finished assembly.

## Stripwood Girders

In the case of both 'OO' and 'O' gauge, the girders are built from stripwood or thin metal strips and wire. The two side members are finally screwed to a rigid plywood floor or roadway, which carries the actual weight of the train. There is, no doubt, that for indoor railways, wood is the best and most permanent material to use throughout.

The length of span should not be overdone, or the general appearance of the structure will be spoiled. It is suggested that in no case it should be

greater than 15in., thus giving the depth of girder (B, in Fig. 1) at 3in., which will give a well-proportioned structure.

## Simplicity

Many model lines are often arranged to cross large 'ravines' merely by a stout board, with or without some form of disproportionate parapet of a ridiculous depth above which only the roofs of passing trains are visible. Whereas by arranging a pair of lattice-bull girders on either side of the board bridge-floor, a much more engineering-like structure can be produced with very little extra effort or materials.

In positioning the bridge, it should be remembered that headroom—between the floor of the bridge and the surface of the 'water' below—should be anything up to 9in. This dimension represents (in 'O' gauge) a clear height of about 32ft. If this figure is exceeded, there will be a tendency on the part of the model to look undersized.

When it is considered that the ordinary model railway layout does not exhibit the undulating surface which a viaduct or long-span bridge really

pression across which a proportionate bridge can be thrown.

In this respect it will be found advisable to use stripwood of  $\frac{1}{8}$ in. width for the main girders, and  $\frac{1}{16}$ in. for the diagonals—in 'O' gauge; halving these dimensions for 'OO'. If wider sections are used, the ultimate 'latticed' appearance of the girders will be ruined. It is for this very reason that girders constructed from commercially available strip-metal never look 'right'. They are grossly overscale—particularly for 'OO' scale.

## For Ease of Construction

It will be noticed that 'N' diagonal girdering has been chosen in preference to 'X' type, and this is because of the greater ease of construction of the former type in which the diagonals are not required to cross each other at any point. As to the thickness of strip material to use,  $\frac{1}{8}$ in. is quite suitable for 'O' gauge structures and  $\frac{1}{16}$ in. for 'OO' models, though oversize in this direction is by no means so noticeable in the finished girders.

To get a realistic sound effect by

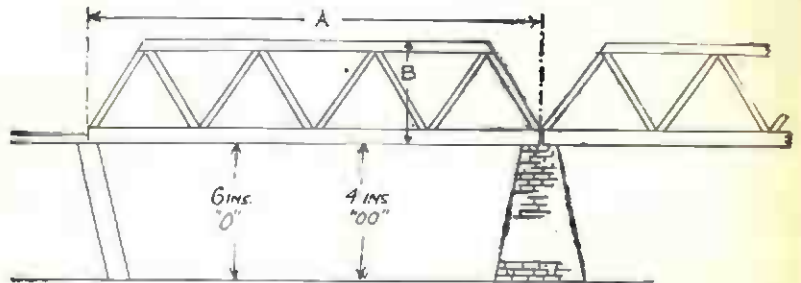


Fig. 1—A section on a girder bridge on a brick pier

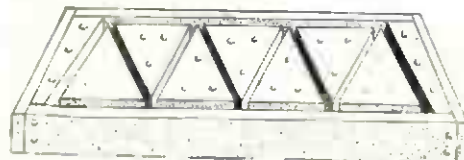


Fig. 2—A simple jig for a girder

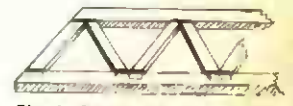


Fig. 4—Showing fixing of cross pieces

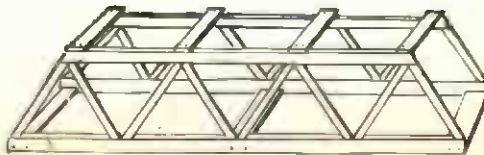


Fig. 3—The girder pattern made into a section



Fig. 5—Example of sandwich type of girder work

requires it will be readily realized that if the depression is made much deeper than 9in. or longer than about 2ft., the bridge will appear as though it was not built for the site. Moreover, the lowering of a section of the railway baseboard is not a light task. So it is as well to set about making a proportionate de-

trains passing over the bridge, the track should be laid on a length of thin tin, over which the rolling-stock will produce quite a loud metallic noise compared to that which they make when running over normally-laid track at other parts of the layout. This striking effect has to be heard to be believed.



# Concluding details for the making of a home CINEMA PROJECTOR

**L**AST week we gave some details for commencing to make a working home cinema to operate 9.5 films. Here are further and final details, so readers with care and the material mentioned, make a practical and entertaining model.

All being O.K., cut a disc of cardboard,  $2\frac{1}{2}$  in. diameter and as thick as the metal used for the tooth on the traveller. Cut a  $\frac{1}{2}$  in. hole in the centre of the disc and lay it over the cam, the compressor is laid over this, and a nail should be driven through both compressor and cardboard into the cam beneath, so that all move together. They must, however, be in a certain position to each other.

This is easily arranged. Turn the cam until the traveller rises to its highest point. Hold it so, and without disturbing it shift the compressor until it just contacts the traveller. In this position drive a nail through the lot.

## A Smooth Operation

Now watch the action, as this must be correct for the motion to be satisfactory. As the cam is turned, the traveller should rise, when at its highest the compressor should come into action and force the tooth end through the slot and keep it there while the traveller descends. At that moment the compressor should move off and allow the tooth to rise from the slot and continue its upward movement again. A little patience will be needed here, but is worth it later on.

It will be seen that the end of the brass tooth, which protrudes beyond the panel, must be filed to fit easily in the sprocket holes of the film, as at (F) in Fig. 3. Make sure the fit is an easy one, or damage may result to the film. Now limit the outward movement of the upper half of the traveller with a small bent piece of tin, seen in Fig. 1 (4). It can be about  $\frac{3}{4}$  in. long and should rise above the panel  $\frac{1}{2}$  in., its bent-over edge just catching the traveller and preventing it rising higher. To regulate the distance travelled by the tooth, fit the part (5) (the regulator, seen on the pattern page) just below the traveller, when the latter is at its lowest point.

## Fitting the Shutter

The shutter (7) can now be fitted. Turn the cam until the traveller rises and the compressor is just coming into action, then fix the shutter in the position shown in Fig. 1 where one arm just covers the window (8). It can be fixed with a small screw to each arm of the compressor below.

Get a cotton reel, glue one end and press over the bolt to stick it to the compressor. Let the reel get set before proceeding further, then fix, with screws, a small handle to it for turning the whole. The stand can now be twisted round for fitting the film gate.

This part, shown at Fig. 4 (G) is cut to the size given from  $\frac{1}{4}$  in. wood. Cut it as a plain rectangle first. Then cut a second bit of the wood,  $\frac{1}{2}$  in. wide and  $1\frac{1}{2}$  in. long. Get this an easy fit in the film groove, then glue it behind the gate in the centre, shown by the dotted lines. Glasspaper the surface of this to reduce its thickness just enough to allow the film to pass between it and the panel. Test this with a piece of the actual film.

Through the two, saw out a slot  $\frac{1}{2}$  in. long and  $\frac{1}{4}$  in. wide.

## Testing

The part glued on (H) should be reduced in thickness to about  $\frac{1}{8}$  in. above and below the slot. To these reduced portions glue tiny pieces of velvet, or other material, just thick enough to press on the film, and prevent it shifting about. Test this to see it acts satisfactorily, substituting a thicker, or thinner piece of material as may be necessary.

When right, saw off a  $\frac{1}{2}$  in. strip of the gate, each side. Hinge the gate to one

strip, and screw both strips to the panel, with a metal catch on one to hold the gate shut. The exact position of the gate is easily found, as it should be such that the tooth can work up and down in the slot.

## Film Holder

The film spool holder, Fig. 5 (J) is cut to the shape and size given. In the small hole shown drive a  $1\frac{1}{2}$  in. brass screw partly in. Saw the head off, leaving the shank to act as a pin on which the spool can work. The wooden spool on which the film is wound, works quite well and there is really no need to purchase a special metal one.

Fit a spool on, and where shown in the diagram fix with a round-headed screw, a bent strip of tin which will keep the spool from riding off its pin, and can be swung round to release it for changing, as desired. Fix the holder to the panel with a screw, in the position to allow the film to be directly over the groove in the panel.

As the light, owing to the design of the

## Tent pegs are used to make an attractive TABLE CANDLE STAND

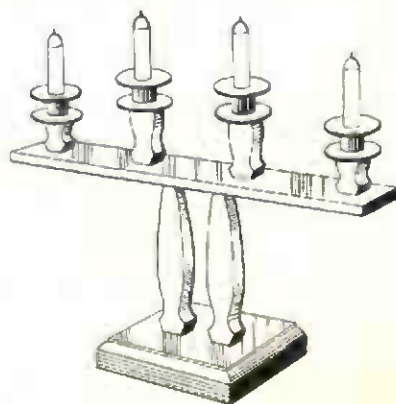
**C**ANDLELIGHT is decorative and kind—and sometimes compulsory—when a fuel cut comes along. Be prepared for any eventuality by making a table candelabra so you can read or work in comfort—it can be made for a few shillings. One like the picture is wooden, safe, artistic and does not take more than an evening to assemble.

First collect your materials—they are practically ready for use as they stand. The 'spindles' are beautifully turned, the base ornamental, and the candle-holders perfect for the job. Here is your recipe—all of which is easily obtainable.

## Materials Needed

You need six army tent pegs from a Surplus Government Store; one switch-block from an electrician's; one length of wood, 16 in. by  $1\frac{1}{2}$  in. by  $\frac{1}{2}$  in.; and four or more empty spools from 1 in. adhesive tape.

The method of procedure is quite straightforward. Leave two of the pegs as they are, for the base. Shorten the others to the desired length to support the four candles. With a brace and  $\frac{1}{2}$  in. bit cut holes in the switch-block base. Cut four more at suitable distances along the middle cross-bar, cutting clean through the wood



each time. With a  $\frac{1}{2}$  in. bit make two holes on the underside of the bar to take the top of the spindles.

## Fit to Base

Now with a pen-knife whittle away all the peg ends so they fit into the holes snugly. Do the same where they fit into the spools. Smooth over with glasspaper, then glue into position. Stain or stain varnish, and paint the spools gold.

Should you feel the candelabra requires a heavier base for security fill in the empty sockets on the under side with putty or lead. Or this can be sunk into holes drilled underneath.



projector, must be fitted to one side, a mirror, to be arranged to an angle of 45 degrees, must be fitted behind the film window. A metal case, made up from tin or thin brass sheet, should be made to the pattern at (K). Bend it to shape (L).

### Mirror and Lens

Cut a piece of thin mirror glass, the thinner the better, and slip in the case, the bottom edge being bent over to hold it, and the side pieces being folded inwards to keep it from slipping sideways. Fix this with a single screw to the under edge of the spool holder, as near to the window as possible, without it getting in the way of the shutter. It should be adjusted to its 45 degrees angle and be, of course, directly behind the window. The lens can now be fitted.

Provided that the light is supplied from a pocket lamp, with a bull's eye condenser, a single lens will suffice. It is disappointing to stress any particular size of lens as the chances are that it will not be obtainable. Most readers can expect, however, to get a small magnifying glass which will answer the purpose. One of about  $\frac{3}{4}$  in. to 1 in. diameter and focal length of 2 in. or thereabouts will serve.

### Focussing

For this a focussing tube will be required, or two tubes really, one sliding in the other. The arrangement sketched at (I) in Fig. 4 will show what is required. The inner tube is the same inside diameter as the lens, and is fixed in position with two  $\frac{1}{8}$  in. rings of cardboard, glued in. Both tubes can be more easily bent up from brown paper, glued

round a wooden rod. The length given will be right for a lens of 2 in. focus, if the lens to be used is a longer or shorter focus, then amend the length of the tubes in proportion.

At the end (rear end) of the outer tube glue a wood ring, and fix the whole to a rectangular piece of  $\frac{1}{2}$  in. fretwood, shown at Fig. 6. This part is cut to size and in its centre a hole is cut  $\frac{1}{4}$  in. wide and a shade over  $\frac{1}{2}$  in. high. Above and below this, at the back, are pieces of  $\frac{1}{4}$  in. wood glued, to fit in the film groove. These are bevelled at their upper edges to allow a free passage for the film.

Glasspaper these thoroughly to slightly reduce their thickness just enough to pass the film through. A slot,  $\frac{1}{2}$  in. long, is cut each side, just clear of the lens tube, when the latter is glued on. Fix the whole over the film window on the panel, with a screw through each slot.

Now thoroughly glasspaper every part of the panel groove and fittings over which the film passes, filing off any sharp corners, especially at the top. Lubricate all the wooden working parts with a paste of blacklead and a spot of tallow. With a film in position, test the action.

### Regulating Action

Quite likely it will be found the tooth does not quite come to the correct place, when it rises, to press in a sprocket hole. This will be so if the distance travelled is just too much. Loosen the screw of the regulator and turn the disc a trifle, and repeat this until the tooth presses into each succeeding sprocket hole in turn, without fail.

No 'take up' spool is provided, as the drag on the film all the time makes some friction brake necessary, and unless this

is very finely adjusted, much damage results to the sprocket holes. Much safer to do without it and allow the film to run over the table to the floor, or into an empty box. Another point, unless the reader can show that his projector is not likely to damage the films, he will find that proprietors of film lending libraries will be reluctant to supply.

### Torch Battery Light

A  $4\frac{1}{2}$  volt torch battery can be fitted on a home-made stand, as in the general view, to focus its light in the mirror. Shift the torch to and fro until the beam gives the best results. A large picture must not be expected, the source of power not being strong enough. If a 6 volt lamp, powered from a car accumulator can be substituted, better results can be expected. The best results, however, will be obtained if lighting can be taken from the house supply, a 50 watt lamp being used.

In both cases, the lamps should be fitted to wood discs, in a suitably sized tin, as a lamp house. At the open end fit a cheap magnifying glass, as a condenser, and slide the lamp to and fro until the beam is condensed to go through the window. A hole should be cut in the lamp house, for ventilation, and the light shielded with a tin cover.

Adjust the position of the lens by shifting it up or down, until the picture is properly framed, showing one complete picture and not half a one and part of another. Finally, to prevent the cam and compressor riding off its bolt, drill a small hole in the bolt, just in front of the handle, and press a very thin split pin through. And happy entertainment when the apparatus is running!

## From The EDITOR'S NOTEBOOK—

HERE'S a hint which will appeal to our numerous lady readers who use a fretsaw and is a point which would not have occurred to me as a mere male. Our usual way of fitting a blade in a handframe is to press the handle into the stomach whilst getting the right tension, so allowing both hands to operate on the frame and the blade. This apparently is not kind for ladies, and the point of issue is overcome in a note received from a very enthusiastic reader in New Zealand—Mrs. Lorna McLeod, of Otupua Rd., Timaru. She suggests a small V notch cut into the front of the table or work bench. With the top of the frame in this notch one hand can press the handle, the other can tighten the screw holding the blade 'thus saving' as she puts it 'much wear and tear on the midriff!' Well, there you are. If you want to save your 'midriff' try it out.

THOSE who are apt to tire of their hobby in a few years, will do well to remember Miss Eileen Porter, of Gunnerside Home, North Road, Plymouth. She commenced dabbling paints at the age of

2 years, showed promise as an artist when a 17-year-old girl, and now still provides interest at the age of 91! During that lengthy period she has varied her work with designing and colouring greeting cards, painting flowers on satin cushion covers, and decorating glass sets. Miss Porter claims to have painted over 300 works during her activities, and is now completing plans for the next Christmas cards. There's an example for you!

THE making of model galleons and old time ships remains as popular a hobby as ever, and the twelve well-known ones in Hobbies series have been completed literally in almost every country by people of all ages. I sometimes wonder what is the record number by any one maker. I know Mr. Vedmore of Green Lane, Heaton Moor, Stockport has produced 20—each, he maintains better than the previous one. And they are no ordinary kind, for he introduces the stern walk in ivory, the windows and lamps of mother of pearl, brass turned belaying pins and cannon barrels. These

touches of originality definitely add to the interest of making. And I should still like to hear of somebody who has made more than 20 model ships!

THERE can surely be few more interesting or intriguing mail-bag contents than those an Editor receives. Take this example of three from one morning's postal delivery. A nicely-typed and worded letter, the author of which offered to write an article on Hobbies in His Majesty's Prisons. Among his qualifications was one of having served a sentence for manslaughter! A London reader wanted to have 'an alarm clock which sets a device to wake me up automatically by the hour in the morning because I am too deaf to hear it'. A third letter spoke of the joy of toy making on an old stool on the floor, necessitating kneeling or sitting on the floor to be able to operate properly. All were dealt with, to the entire satisfaction of the correspondents, I hope. The friendliness of our readers and the variety of their needs are a never-ending surprise to me!

The Editor

# As a novelty decoration piece here is how to make A CHINESE TEAPOT

As will be seen from Fig. 1, this Chinese pattern teapot makes a fine decoration for the mantelpiece or sideboard. As it is made entirely of wood (though, as we shall see, painted to look like china) it cannot actually hold liquid tea, though it will, if so needed, make a fine tea-caddy.

As a general guide, some dimensions are given, but these need not be adhered to strictly. As will be detailed later, it is possible to use Chinese pattern transfers for the decoration, and if these are available, it is best to dimension the tea-pot from them, rather than place the pictures awkwardly on an existing model.

## Sides and Top

First cut two sides (A) of 5in. by 3½in. by ½in. solid wood, and two other sides (B) of 5in. by 4in. by ½in. stuff. Odd pieces of different kinds of wood can be used as they are afterwards painted. These four sides can be nailed up to form a carcase 5in. high and 4in. square. A base (C), 3½in. square by ½in. thick is added. Before nailing up, however, a slot for the spout (K) is cut in one side. More of this in a moment. A section of the whole thing is seen in Fig. 2.

A top (D) is now added. This is a 4in. square of ½in. or ¾in. plywood. It has a hole 2in. square cut in the centre see

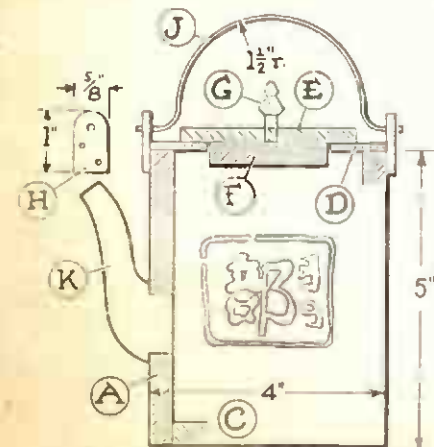


Fig. 2—Section showing parts

method (Fig. 4). Transfer this to the wood and cut with a fretsaw round the outline. The wood can now be tapered slightly towards the top, so it is slightly wedge-shaped. With a knife, sharp corners are taken off so that in section it is more or less octagonal.

## Careful Joint

The grain, obviously, goes the long way of the spout. The wood at the tenon part will be ½in. thick, but by means of a small shoulder cut each side, this thickness may be reduced. A neat slot is cut in one of the sides (before assembly) to take the spout in a tight glued fit.

It is best to insert the spout after the main carcase has been thoroughly cleaned up. This is a job that must be really well done, as the aim is to get the final coat of paint glass-smooth. Glasspaper well. The sharp corners may be rounded off a little. The open grain of the edges of sides (B) should be filled with woodfiller. Let not the slightest sign of a gaping joint or imperfectly planed wood be seen.

## Painting

A first coat of white paint can be applied, and when quite dry, rubbed lightly with fine glasspaper. A second undercoat can also be applied and then the final one of glossy enamel. A broken white is best, or an ivory tone. To obtain an ivory tone, add a very little yellow and still less red to the white (about one of yellow to thirty parts of white and half a part of red).

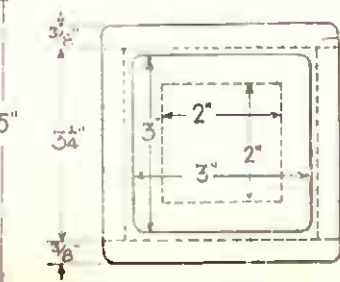


Fig. 3—Plan of the top

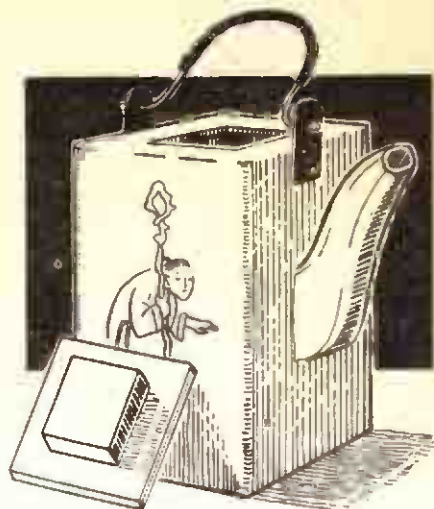


Fig. 1—The complete painted article

of the handle can be bound with fine twine (see Fig. 1).

## Chinese Figure

On Fig. 1 can be seen a Chinese figure on the side of the pot. There are not many readers who would have the skill to paint this on, though ideas for such themes can be obtained from books; for example, in Puffin Picture Book, Lo Cheng. As already mentioned, it may be possible to get transfer pictures, but take care they are Chinese subjects. Do not put on roses or Dutch-boy figures!

Falling this, an effective idea is to paint Chinese characters on the sides, as seen

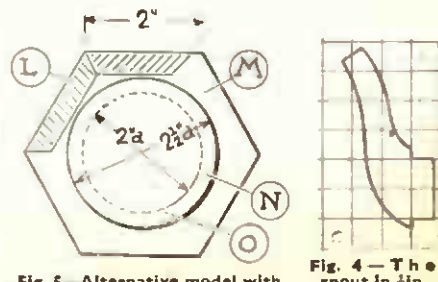


Fig. 5—Alternative model with six sides

Fig. 4—The spout in ½in. squares

Fig. 1). An outline of the part needed is given in Fig. 3.

The lid is formed of two pieces. One is just under 2in. square and ½in. thick (F) and the other is (E) 3in. square and ½in. thick.

The two pieces are glued together and a knob (G) added. This latter may be a ready-turned wooden part, or may be improvised from the plastic cap of a small bottle. The lid should fit easily but not too loosely into the square opening whichever way it is turned.

The spout (K) is carved from ½in. wood. First make a pattern by the squaring-up

It is, of course, possible to paint the teapot any other colour, but a white ground looks best, especially in view of the decoration to be described.

## The Handle

The handle (J) is made from a piece of stiff thick wire. The lugs to take it are best made from metal or a piece of plastic sheet. There are three holes. One is to take the end of the wire handle and two for small screws to attach it to the side of the teapot. In fitting the handle, make sure that the lid of the pot can be removed easily. The centre part

in Fig. 2. To avoid confusion of the drawing, the characters are shown in outline, but in actual practice they are done in solid black.

There is no handle at the back, of the way. Though a square pot is quite effective, an even better effect is obtained with a six-sided one, but this is much more difficult to make as the sides ((L) Fig. 5) have to have their edges bevelled accurately. The top (M) will now be hexagonal, but may have a round hole, 2in. diameter in the centre. The lid, made of two parts, (N) and (O) will also be circular.

# MISCELLANEOUS ADVERTISEMENTS

The advertisements are inserted at the rate of 3d. per word prepaid. Name and address are counted, but initials or groups, such as E.P.S. or £1/11/6 are accepted as one word. Postal Order and Stamps must accompany the order and advertisements will be inserted in the earliest issue. Announcements of freework goods or those shown in Hobbies Handbook are not accepted. Orders can be sent either to Hobbies Weekly, Advert. Dept., Oareham, Norfolk, or Temple House, Temple Avenue, London, E.C.4

**STAMP** approvals from 10 a penny. Send 2½d. Albums free.—Day, 73 Thornton Gate, Cleveleys, Blackpool.

**THREE** beautiful Newfoundland stamps. King, Queen, Princess portraits. Free to all approval applicants sending 2½d. postage.—W. Tucker, 2 Monmouth St., Topsham, Exeter.

**LEAD** toy casting. A new book with 126 illustrations, 2/6 posted, with catalogue of moulds. Sample mould, 4/6.—G. F. Rhead, Thurston End, Hawkedon, Bury St. Edmunds.

**ELECTRO** plating can be done at home. Silver plating—gold—nickel—copper—brass—chromium and zinc. For full instructions, send 10/- and S.A.E. to—N. Desforge, 7 Church St., Mkt. Rasen, Lincs.

**INTRODUCTIONS.** Pen friends, companionship or marriage.—V.C.C., 34 Honeywell Road, London, S.W.11.

**APPROVALS** 3 a penny. First 18 stamps free. S.A.E.—Jeffreys, 2 Bay View, Craigavon, Port Talbot.

**IT'S** unique! It's handsome! It's the best table-lighter yet! Constructional details and drawing can be yours for 3/6, or rush 1d. stamp for details of our all-embracing offer.—Cherry, 9 Selborne Ave., London, E.12.

**PAY** what you like. Amazing stamp service. S.A.E. details.—M. Hogg, 85 Pavilion Way, Eastcote, Middx.

**100 DIFFERENT** stamps free (including triangulars and pictorials), to approval applicants enclosing postage.—N. Johnson (Dept. H.), 19 Hillside, Slough, Bucks.

**PLAY** as you earn, with our waxcraft and Perspex construction kits, compendiums. Cement, polish, brooch bases, pins, wax, tools, Perspex, etc., available. Catalogue, 6d.—Plastics Home Products, 18 St. Mary's Road, London, N.9.

**PLASTICS.** Catalin rods, sheets, cylinders and profile shapes. 5 lbs. and under, 4/6 per lb. Over 5 lbs., 4/- per lb. Perspex, ½ in. thick sheeting, 6/6 square foot, choice of ten colours. Perspex offcuts, 2/- per lb. Perspex and Catalin glue, 1/- per jar. Cash with order.—Eastern Plastics, Sungate House, Collier Row Road, Romford, Essex.

**STAMPS** Free—Queen Victoria packet, including old Colonials, free to approval applicants.—Robert J. Peck, 7A Kemp Road, Bournemouth, Hants.

**HAPPY** Circle introduces pen pals everywhere. Teenagers welcome.—18 Upper North St., Brighton.

**MODELS.** You can make lasting stone-hard models with Sankey's Pyrama Plastic Cement. Supplied in tins by Ironmongers, Hardwaremen and Builders' Merchants. Ask for instruction leaflet.

**GLAZED** pictures, jig-saw making. 1/3 per dozen post paid.—'K' Toys, Brookfield Rd., Bristol, 6.

**PERSONS** required to fill vacancies in our outwork department. Write—Dept. 11, Empire Co., 117 Nottingham Road, Loughborough.

**BÉ** Taller. Quickly! Safely! Privately! No appliances—no tablets—no dieting. Details, 6d. stamp.—Malcolm Ross, Height Specialist, BCM/HYTE, London, W.C.1.

**TRANSFERS** for decorating toys, trays, furniture, fancy goods. List and samples free. Flowers, pixies, dogs, nursery rhymes.—H. Axon Harrison, Jersey.

**EARN** Shorthand by 9th December (1 hour's study nightly). 1st lesson, 2½d. stp. Duttons (Dept. H.B.), 92 Gt. Russell St., London, W.C.1.

**RUBBER** typed metal disc wheels finished in red, green or blue enamel. 2ins., 2/6; 3ins., 3/- per set of four. Post paid. Other sizes available up to 9ins.—The Joyden Toy Co., 193 Chase Side, London, N.14.

**DOLL'S** House fittings and papers, send S.A.E. for list. Doll's house plan special, send 2/6. Trade supplied.—Zimplan, 88 Ware Road, Hoddesdon.

**YOUR** winter hobby. Build a fleet of Wilson's Lorries. Photographically illustrated lists, 6d.—Wilson's Lorries, Dept. H., 1 Gt. Winchester St., London, E.C.2.

**PERSONS** required make fancy goods at home. Write for details.—Melton Manufacturing Co., Southgate Street, Leicester.

**AMERICA'S** famous magazines, post free for one year. Popular Mechanics, 32/3; Popular Science, 28/9; Mechanix Illus., 18/3. For a list of others, send S.A.E. to Willen Ltd., Dept. 57, 101 Fleet St., London, E.C.4.

**LAY** your own Wood Parquet Squares, 17/6 square yard, with simple instructions. 3/- for sample.—New-Een (h), 101 King's Cross Road, London, W.C.1.

**BÉ** taller in 14 days or money back. Details, 1d.—Stebbing System, 28 (HB) Dean Road, London, N.W.2.

**PERSPEX** flat sheets, clear or 17 colours, patterns cut; corrugated Perspex rooflights. Aluminium sheeting, mouldings, plastic panelling.—Henry Moat & Son Ltd., Atom Works, Newcastle, 1.

**WHEELS** for toys, and other accessories. Full lists will be sent on application to The Joyden Toy Co., 193 Chase Side, London, N.14.

**DOLL'S** House papers. 30 designs including green and red pantile. Samples and patterns, 1/-.—Sutton Models, Billericay.

**A SENSIBLE** Xmas present for him. The home watch and clock repair outfit. These precision jeweller's instruments, including watchmaker's eyeglass, tweezers, screwdrivers, oilers, brush, bottle oil, plus explanatory book and blueprints, make watchmaking easy. Invaluable for all fine work. In container, 12/9 inclusive.—S. Bolster (Dept. A), 5a Station Parade, Ashford, Middx.

**NEW** Plywood, immediate delivery, X free of licence. 9 panels 20ins. x 20ins. x 3/20in., 20/- C.O.D. Dept. H., J.D.D. Storage, 71 Northcross Road, S.E.22. BRI. 7441.

**BLUSHING**, shyness, nerves, self-consciousness, fears, ended. Details under plain cover, 1d.—Stebbing Treatment, 28 (HB) Dean Road, London, N.W.2.

**100,000** Government surplus bargains. 16-bank switches (16 separate plated snap action switches in panel approx. 8ins. x 4ins.) in deal for models, etc., 7/11 (4p. 6d.); Plunger switches (make good foot switch), 1/- (p. 3d.); Aluminium rivets, handy box, approx. six gross assorted, 2/6 (p. 6d.); 5-stage Epicyclic Gears, 7/6 (p. 9d.). Send 3d. stamp and S.A.E. for 16-page list packed with bargains for the Hobbyist.—Milligan's, 24 Harford Street, Liverpool, 3.

**NOVELTY** Calendar designs painted Non plywood for cutting out. Date cards supplied. Excellent Xmas gifts; profitable to sell. 1/9 each, half dozen 9/-.—Cleaver, 50 Windsor Road, London, N.W.2.

**LONELY?** Then write Secretary L.U.C.C., 5B.B. Hay St., Braughing, Herts. Genuine. Est. 1905.

**CONJURING** and Magical tricks. Lists, 3d. De Hempsey, 363 Sandycroft, Kew Gardens, Surrey.

**HOME** Movies, 9.5 film library. Projectors, films, in great variety. Sale cheap. Stamp lists. Wayland, 223 Longley Road, Tooting, S.W.17.

**EARN** 5/- hourly making Biltex Model Bungalows at home. We provide plans, instructions and buy your work at fixed prices.—B.9. Biltex, Chiswick, London.

**£5** to £20 weekly earned at home, running your own Mail Order business. Details, 1d.—Stebbing Publications Ltd. (HB), Naphill, High Wycombe.

**PLYWOOD** offcuts. Birch and Gaboon in various thicknesses. Handy sized parcels for the cabinet, toy, model maker, and all handicrafts. Parcels made up in £1 and 10/- lots. Carriage paid. Send P.O. to Reeves, Plywood and Timber Merchant, 33 Front Street, Monkseaton, Whitley Bay. Tel. W.B. 4677.

# STAMP COLLECTOR'S CORNER

## The Stamps of Newfoundland

**A**T the beginning of April this year our oldest Colony—Newfoundland—joined forces with the Dominion of Canada, so no longer shall we have stamps coming to us from Newfoundland as a separate stamp-issuing country.

The stamps from this Island have always been popular with collectors and this is very understandable, as some of the designs of her early stamps were works of art. The first stamps came out in 1857, the main theme of these being the rose, thistle, and shamrock. The 3d. value was triangular, after the style of the stamps of the Cape of Good Hope.

### A Variety

In 1866 the designs of the stamps changed completely. The lowest value, the 2c., showed a picture of a codfish which is one of Newfoundland's great assets. The 5c. showed a seal on an ice floe, the 10c. showed a portrait of the Prince Consort and the 12c. and 24c. portraits of Queen Victoria. The other value, the 13c., showed a picture of a boat, the first of a series of boats which have appeared.

Another feature of the stamps which can be collected from this part of the Atlantic is the really beautiful portrait gallery of royalty. There is no other stamp-issuing country which can show such a number. We will pick out these two topics—boats and portraits and deal with them separately later on.

### Codfish

The first illustration is of the 1880 2c. codfish design. The one already mentioned had the figure 2 in each of the four corners. In 1887 the colours were changed, although the designs remained the same, and the ½c. stamp showing the head of the Newfoundland dog was introduced. This stamp is used for the second illustration.

The 400th anniversary of the discovery of Newfoundland by Jean Cabot, was in 1887 and the date also coincided with the 60th anniversary of the accession of Queen Victoria. So, to celebrate these two events, fourteen stamps were issued. Jean Cabot was shown on the 2c. and Cape Bonavista, where Cabot landed, is shown on the 3c.

The three chief assets of the Island are shown on the 5c., 6c. and 8c.—mining for iron ore, logging, and fishing respectively. On the 4c. there is a picture of caribou hunting. If you want to know what the caribou is like, then you have an enlargement of his head on the 1919 set which we will meet in due course.

Partridge, seals and salmon fishing form the subjects for the 12c., 15c. and

24c., while the 30c. depicts the seal of the Colony "Fishermen bringing gifts to Britannia", followed by an illustration of an iceberg off St. John's. The 1897-1918 sets will be dealt with under portraits.

A very nice map of the Island was issued on the 2c. stamp of 1908. In 1910 we find a portrait of John Guy on the 3c. and his ship the "Endeavour" on the 4c. Sir Francis Bacon, a logging camp and a picture of paper mills come to us in the same set.

### A Famous Set

After the first World War we have the famous "Caribou" set, each value of this set having a similar design to that shown but instead of the name of the action "Suvla Bay", as on this one, there is a different action for each stamp. The 2c., 5c., 8c. and 12c. stamps, however, have the word "Ubique" instead, with "Royal Naval Reserve" in place of "Trail of the Caribou".

Just at this time Hawker was to attempt his Transatlantic Flight to try to win the *Daily Mail* £10,000 prize. On this flight he carried some mail franked by a "Trail of the Caribou" stamp overprinted with the words "First Transatlantic Air-post, April, 1918". These are worth something in the region of £500 each; while one of the stamps for DePinedo's flight would fetch about £800.



The 1880 2c. Codfish



The 1887 ½c. Dog's Head



(3) Trail of the Caribou

### Publicity Issue

In 1923 various views of Newfoundland were issued on a set of fourteen stamps and in 1928 the Publicity issue appeared. These in addition to certain portraits had a map, an express train, the War Memorial at St. John's, the G.P.O., and a view of Great Falls. Two sets came out, one printed by Whitehead Morris Ltd., and the other by Perkins Bacon. There are very small differences between the two printings, but they are interesting differences and an excellent test for sharp eyes. So if you have two stamps of similar design, make sure they are exactly the same before you part with one of them.

In 1931, Newfoundland issued three air stamps. There was a 15c. showing an

aeroplane over a dog team travelling in the snow and a 50c. showing a Vickers Vimy leaving St. John's with the first Transatlantic air mail passing over the first carrier of ocean mail. Then the \$1 shows a map of the Atlantic marking routes—but more about these stamps later.

### Royal Portraits

In 1932 we saw rather a mixed set. The lower values were Royal portraits and the values 10c. and upwards similar views to the additional Coronation set which came out in 1937. The latter had a portrait of King George VI, as well as the following designs—1c. codfish, 3c. map, 7c. caribou, 8c. Corner Brook Paper Mills, 10c. salmon—king of the river, 14c. a Newfoundland dog, 15c. a Northern seal, 20c. Cape Race, 24c. loading iron ore, 25c. sealing fleet, 48c. fishing fleet.

The year 1933 was the 350th anniversary of the annexation of Newfoundland by Sir H. Gilbert, so a set was issued with such home views as Compton Castle (Devon), Eton College, Gilbert's statue at Truro, together with his portrait, coat of arms, his receiving his Commission from Queen Elizabeth, his arrival at St. John's and a map of Newfoundland.

Sir William Grenfell is commemorated on a 5c. blue stamp of 1941 showing him on the *Strathcona*. An air stamp appeared in 1943 and so did the 30c. showing the University College, and three years later this stamp was surcharged 2c.

The 450th anniversary of Cabot's discovery of Newfoundland was celebrated by a 5c. stamp showing Cabot off Cape Bonavista and now we have the stamp from Canada to commemorate the joining of these two stamps issuing countries.

*Index for Vol. 108, for six months ending Sept. 30th, is now available for 1/- post free from the Editor.*

# The *NEW* JUNEERO Engraving Tool

MAKE IT  
YOURSELF  
FOR

ONLY  
76<sup>1</sup>/<sub>2</sub>!

Here is a useful tool for home and workshop use, which you can make yourself at a modest cost. It will engrave on all the usual metals and materials, and is designed on exactly the same principle as the ordinary electric Engraving Tool.

JUNEERO Design Sheet No. 125 gives clear details of the simple construction of the Engraving Tool, and you can obtain the Solenoid Coil, with 4ft. of three-core safety flex attached for 6/-, at your usual JUNEERO dealer. The rest of the tool is constructed from standard JUNEERO material at a cost of less than 1/6.

See your dealer today and start to build this interesting and useful tool.

For use with mains supply 200/240 volts A.C. only.

Ask Your Local Dealer for Details  
or, if any Difficulty Write to  
JUNEERO LTD-STIRLING CORNER  
BOREHAM WOOD-HERTS



FOR A  
REAL  
Professional  
FINISH

'FINISH' is the true test of craftsmanship. It's easy to impart a real professional 'finish' to woodwork and furniture you make at home with "COLRON" WOOD DYE—the finest stain for all practical purposes.

One coat of "COLRON" is all that is required to emphasise the natural beauty of the wood grain. No smears—no 'overlaps'—no trouble. Leave from two to three hours, burnish with rough dry cloth and you have a perfect base for french polishing or for waxing with "RONUK" FLOOR POLISH.

**COLRON** WOOD  
DYES

12 SHADES—ALL SIZES

Write for colour guide and full details to :  
RONUK LTD. (Dept. 62) Portslade, Sussex



## BRITFIX BALSA CEMENT

★ The ideal transparent cement for Balsa Ply Wood, Hard Woods, and Plastics, combining rapid drying with utmost tenacity.

Remember  
**STICKBY  
BRITFIX**

Large tube  
7d.

Small tube  
(with special  
long nozzle)  
5d.

THE HUMBER OIL CO. LTD., HULL

## Plastics (MANCHESTER) Ltd.

11, WHITWORTH STREET, MANCHESTER, 1  
Tel. CENTral 0272 & 1725

THE LEADING STOCKISTS OF PLASTICS FOR THE MODEL  
MAKER, THE HOBBYIST AND INDUSTRY.

As Official Stockists for  
IMPERIAL CHEMICAL INDUSTRIES LTD., ERINOID LTD.,  
and UTILEX LTD., we stock:

'PERSPEX' (Acrylic) Sheet, Rod and Tube. 'CRINOTHENE',  
P.V.C. SHEETING (Admiralty Specification).  
'CASEIN' Rod, Sheet and Tube.

CAST RESIN in a variety of shades and forms.  
CELLULOSE ACETATE, Film and Sheet.

Lacquers, Dyes and Paints for 'Perspex'. Cements, Polishes, Luminescent  
Powders, Transfers, Instructional Manuals, etc.  
Contractors and Suppliers to the Admiralty, Government Departments,  
Schools, Hospitals, Institutions, etc.

Your technical and general enquiries are solicited.  
Materials cut to size; contours or fabrication to your specification.  
Specialists in fabrication, injection moulding and engraving.

## YOU CAN BECOME A HANDICRAFTS INSTRUCTOR

Experience not essential

Men who enjoy making things in wood or metal can turn their hobby into a well-paid, permanent and interesting Career. Short hours, long holidays, and security in a job you would really enjoy, can be yours if you become a Handicrafts Instructor. Let us send details of the easiest and quickest way to get the necessary qualification.

We definitely guarantee  
"NO PASS NO FEE"

If you would like to know about our unique method of preparing you for one of these excellent appointments, write today, and we will send you our informative 175-page Handbook—free and without obligation. Mark your letters "Handicrafts Instructor."

BRITISH INSTITUTE OF  
ENGINEERING TECHNOLOGY

595 Shakespeare House  
Scrattford Place, London, W.1

**BIET**

## TOY AND MODELMAKERS SUPPLIES

1" Hardwood Wheels, Recessed	... 1/6 dozen,	7/6 half-gross,	14/6 gross.
1 1/2" " " " "	... 2/- "	11/- "	20/- "
2" " " " "	... 2/3 "	12/6 "	23/- "
1" Pressed Metal Wheels	... 1/- "	4/- "	7/6 "
1 1/2" " " " "	... 1/3 "	5/- "	9/- "
2" " " " "	... 1/6 "	6/6 "	11/6 "

Stove Enamelled Wheels, Rubber Tyred Wheels, Doll's House Windows,  
Doors, Papers, Model Kits and Accessories. Catalogues and Lists, 1/-

JASONS, 135 Nags Head Rd., Ponders End, Middlesex

## WEBLEY

AIR PISTOLS

Marvellously accurate for target practice.  
No licence required to purchase.

Senior Mark 1  
Junior Webley Air Rifle  
Write for List. WEBLEY & SCOTT LTD.,  
166 WEAMAN STREET, BIRMINGHAM, Eng.



## THE HIGHWAYMAN

Parts can be traced off as instructed on page 86



# YOU, too, can get to the Top . .

WITH OUR HELP  
—by POST

Don't be content to stay among the crowd—RISE to the topmost, best paid appointments by your own efforts. The Bennett College will train you to get to the top, by postal tuition in your spare time—just as thousands of others have been helped to success and prosperity. This is the famous Correspondence College which gives personal tuition to each individual student and you just cannot fail to make good.

Let us advise you NOW. Write to-day, telling us the work in which you are interested. We shall be glad to give you full and free information of how The Bennett College can train you at home to reach the top ranks in a very short time and at a very small cost.



WHATEVER  
YOUR GOAL  
—WE WILL  
TRAIN YOU  
FOR IT

## ★ SIMPLY CHOOSE YOUR CAREER

Accountancy Exams.	General Education	Road Making and
Aviation (Engineering and Wireless)	G.P.O. Eng. Dept.	Maintenance
Book-keeping, Accountancy, and Modern Business Methods	Heating and Ventilating Institute of Housing Engineers	Salesmanship
Building, Architecture, and Clerk of Works (A.R.I.B.A. Exams.)	Journalism Languages Mathematics Matriculation Metallurgy Mining. All Subjects	Sanitation
Cambridge Senior School Certificate	Motor Engineering Naval Architecture Novel Writing	School Attendance Officer
Carpentry and Joinery	Plastics Play Writing	Secretarial Exams.
Chemistry	Police, Special Course	Sheet Metal Work
Civil Engineering	Press Tool Work	Shipbuilding
Civil Service	Pumps and Pumping Machinery	Shorthand (Pitman's)
All Commercial Subjects	Quantity Surveying —Inc. of Quantity Surveyors Exams.	Short Story Writing
Commercial Art	Radio Service Engineering	Surveying (R.I.C.S. Exams.)
Common Prelim. E.J.E.B.	Radio (Short Wave)	Teachers of Handicrafts
Draughtsmanship, All Branches		Telecommunications (City and Guilds)
Engineering.		Television
All branches, Subjects and Exams.		Transport Inst. Examinations
		Viewers, Gaugers, Inspectors
		Weights and Measures Inspectors
		Wireless Telegraphy and Telephony
		Works Managers

If you do not see your requirements above, write to us on any subject. Full particulars free.

Direct Mail to DEPT. 62

# The Bennett College

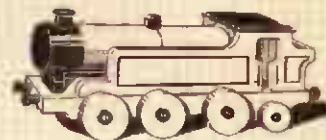
SHEFFIELD 

## Complete Kits for the Craftsman to make these fine models

Imagine the fun and pleasure you get from making any of these. Quite simple because a large plan sheet of patterns, instructions, and all wood and materials are provided. A Hobbies Outfit provides the necessary tools for making them, and hundreds of other models, toys or pieces of fretwork.

### Doll's House

From Kit 2666. Stands 1ft. 6ins. high and 1ft. 8ins. wide. With hinged front. Composition board, and wood, with paper for inside and outside walls and roof, and full instructions, 32/6, carr. 3/6.



### Tank Engine

From Kit 2636. A sturdy pull-along toy, 17ins. long. Design, wood and wheels supplied, with full instructions. Price 4/6, postage 9d.

### Petrol Lorry

From Kit 2696. A realistic miniature 12ins. long, built in wood. Pattern and instructions. Wood for all parts. Price 4/8, postage 9d.



### Stage Coach

From Kit 236 Special. A popular model 10 1/2 ins. high, easy to construct. Large full size patterns. Complete instructions. Kit of wood, and accessories for building as shown, 7/9. Postage 9d.

Separate designs are also obtainable if desired.

There are Hobbies Outfits from 9/-, each of which provides the tools you need. A wide range of over 300 things to make is shown in the Hobbies 1950 Handbook, as well as complete catalogue of Outfits, Machines, wood, tools and materials for the craftsman, price 1/- (post free 1/2). There are endless things to do and make if you have a Hobbies Fretwork Outfit.



Ask for them at any Ironmongers or Stores or Hobbies own Branches in London, Glasgow, Manchester, Birmingham, Sheffield, Leeds, Southampton and Hull. Free leaflets on request to

HOBBIES LTD., DEREHAM, NORFOLK