HOBBIES WEEKLY

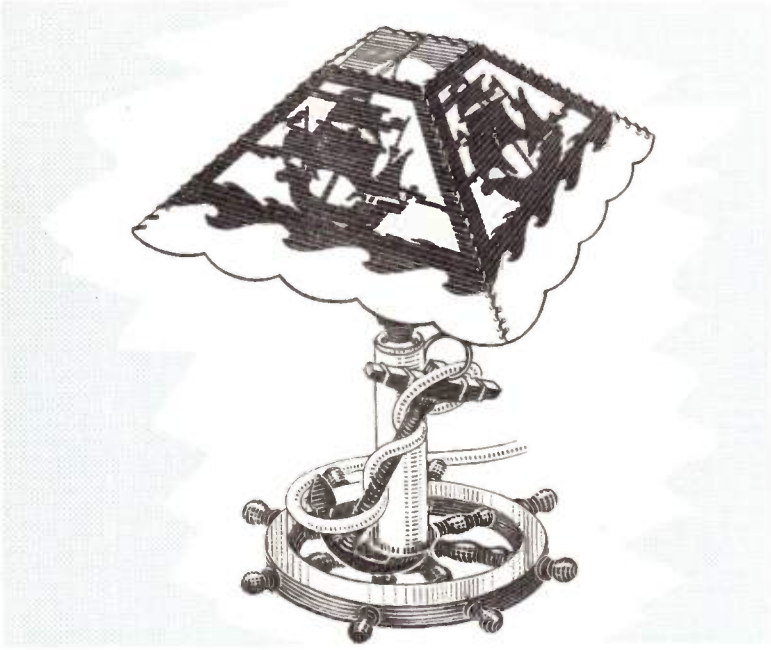
AUGUST 13th 1958 VOL. 126 NUMBER 3276

IN THIS ISSUE

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

★ *FREE design and full instructions for making*

'GALLEON' TABLE LAMP



THIS delightful table lamp with its 'nautical' motif should prove very attractive to the modeller and handyman. Its pleasing lines and novel presentation make it an ideal piece of work for home use or for making up as a gift, while production workers should find it a ready seller.

The base is in the shape of a ship's wheel, and the design also provides for a ship's anchor, curling around which is the line, consisting of lamp flex. Continuing on this theme, the parchment shade has overlays of brightly coloured galleons which show up very effectively in silhouette when the lamp is lighted.

Trace the various pieces from the design sheet and transfer them to their appropriate thicknesses of wood and to the parchment and flock paper by means of carbon paper. Cut out the wood bases with a fretsaw and clean up well with glasspaper. The galleon overlays on the flock paper are cut out with a broken razor blade.

The spokes of the ship's wheel should be partly rounded and pieces (10) are cut and shaped from the solid as shown in the various stages in Fig. 1. Make eight of these and insert them in holes drilled

opposite the spokes of the wheels, fixing by gluing.

For the upright pillar, pieces (4), (5) and (6) are glued together as seen in Fig. 2. When dry, this assembly is rounded with a modelling knife to give the tubular shape shown in Fig. 3.

Now insert the flex through the hole in piece (5) and thread it through piece (7), which can then be glued to the top of the pillar (Fig. 3). Next screw the nipple of the bulb holder to piece (7), and this section is then ready to glue to the centre of the wheel.

Making the anchor

The anchor is made up as shown in Fig. 4, from which it will be noted that the two pieces (8) and (9) are halved and glued together. Odd scraps of waste wood should be glued on either side of piece (9) at the ends, and the whole anchor is then shaped as shown in Fig. 5. The stock is drilled to take a ring of wire of about 1in. diameter.

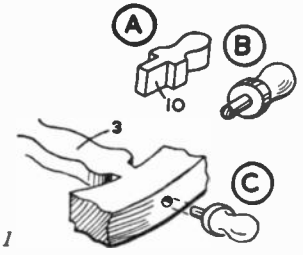


Fig. 1

Now fix the anchor to the pillar by means of a single fret pin and a touch of glue. Its position and angle of setting can be gauged from the illustration of the finished model.

The shade is made from four pieces of parchment (2) and four pieces of flock paper (1). As stated, the galleon motif is transferred to the back of the flock paper by means of carbon paper and carefully cut out with a broken razor blade. These four galleon overlays are stuck on to a piece of parchment (2) in the position indicated by dotted lines on the design sheet.

These four panels are now laced together to form the shade. Punch an equal number of holes down the sides of each piece and bind them together (not too tightly) with plastic thonging. Finish off the thonging at each side by tying inside the shade.

Wire shade holder

The metal shade holder which clips to the bulb is made from wire (about 18 gauge) as shown in Fig. 6. The square dimensions should be equal to the opening in the top of the shade already made, and as these will vary with individual workers, no exact measurements

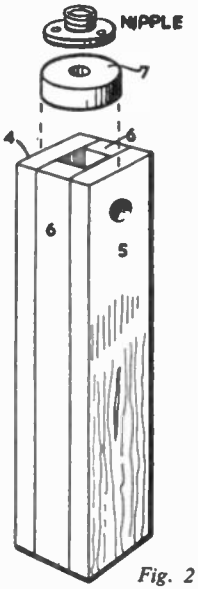


Fig. 2

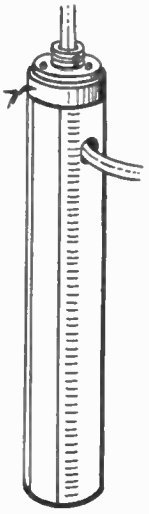


Fig. 3

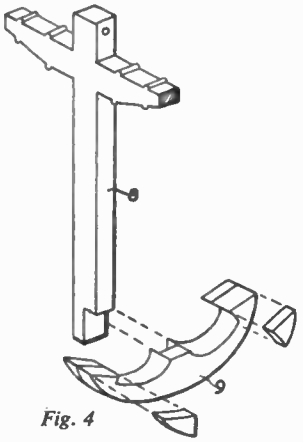


Fig. 4

are given. Using a pair of pliers, commence with the wire at (A) and bend it at right angles at (B), (C), (D) and (E). Then cross over to the centre at (F). Form the first ring and then take the wire round and under at (G). Cross to the centre again, forming the second ring. Carry on to the right angles at (E) and (A) and finish at (B). Note that the approximate size and shape of the rings are given in the lower sketch of Fig. 6. When the wire shape has been accurately determined, apply solder along the lines (AB) and (EG). Alternatively these can be bound with thread and coated with balsa cement for fixing. This wire section is now bound to the shade with plastic thonging.

Finally wire up the flex to the lamp holder, which is then screwed to the nipple, already fixed on top of the pillar.

KIT FOR 9/-

Hobbies Kit No. 3276 for making this charming lamp contains wood, flock paper, parchment, thonging, lamp holder, etc. Obtainable from branches, etc., price 9/-, or from Hobbies Ltd., Dereham, Norfolk (post 1/6 extra).

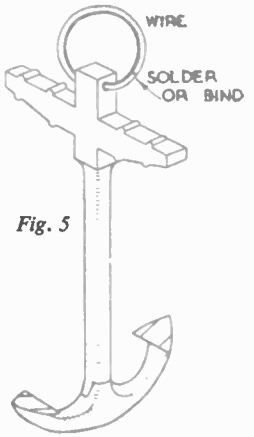
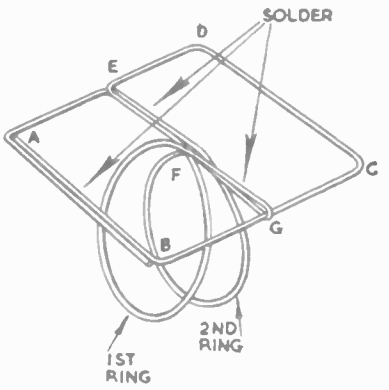


Fig. 5



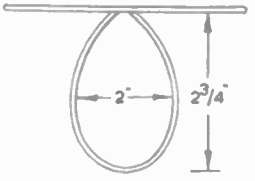


Fig. 6

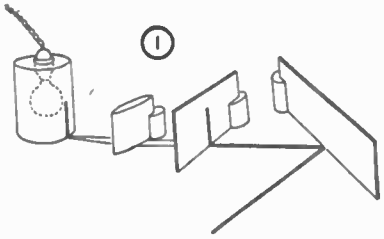
Finishing is left to the choice of the worker. If the lamp is painted, the ship's wheel can be brown, with the anchor grey and the pillar white.

Simple science experiments

REFLECTION FROM A MIRROR

APPARATUS required: Cylindrical cigarette tin with a narrow slit cut in it, 6 volt lamp, lampholder, short focus cylindrical convex lens, piece of cardboard with a narrow vertical slit, plane mirror, corks with vertical saw cuts, flex, battery, switch, protractor.

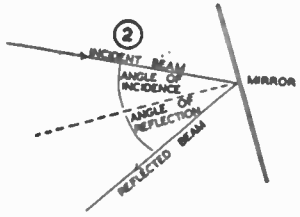
Join the flex to the lampholder and fix the lampholder and lamp in the tin as shown in Fig. 1.



Connect up the lamp to the battery (or other six volt source of electric current) and switch, and place the tin on a sheet of drawing paper.

A diverging beam of light will emerge from the slit in the tin. Mount the lens, cardboard and mirror in the corks and place the lens in the path of the diverging beam of light, adjusting its position so that the beam becomes parallel after passing through the lens. Allow this parallel beam to fall on the narrow slit in the cardboard. This will produce a very narrow beam of light on the drawing paper. Place the mirror first at right angles to this beam and then slowly rotate it, noting how it deflects the light.

Place the mirror at various distances and at various angles to the incident beam of light, each time marking on the paper the positions of the mirror and the incident and reflected beams of light as shown in Fig. 2.

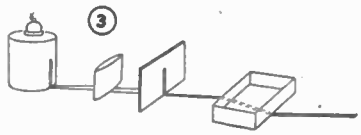


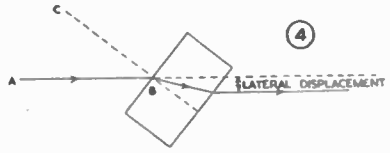
If you draw a line at right angles to the line representing the position of the mirror at the point where the incident beam strikes the mirror, you will find the angle of incidence is always equal to the angle of reflection. Light is always reflected in this way from a highly polished plane surface.

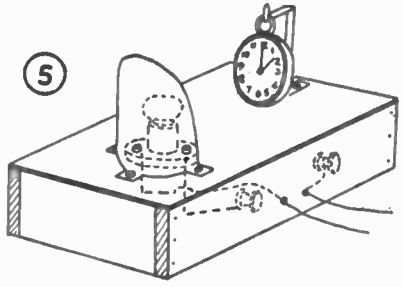
The bending of light

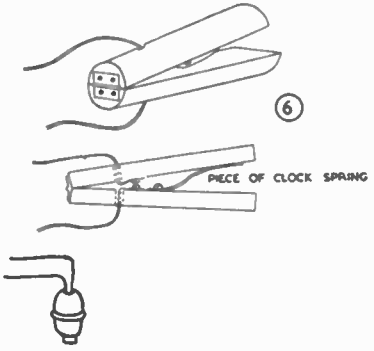
Apparatus required: Flex, lampholder, 6 volt lamp, switch, drawing paper, cylindrical convex lens, glass block with base roughened with emery paper, cork, cylindrical cigarette tin with a narrow slit, piece of cardboard with a narrow slit in it.

Join the flex to the lampholder and fix the lampholder and lamp in the cigarette tin. Connect up the lamp to a battery (or other source of current) and a switch, and place the tin on a sheet of drawing paper on the bench. Mount the lens so that it receives the divergent beam which emerges from the cigarette tin and makes it into a parallel beam. Make this beam into a narrow beam by using the narrow slit in the cardboard as shown in Fig. 3.









Place the glass block in various positions in the path of the narrow parallel beam of light and note how the bending of the light, as it passes through the block, produces greater and greater displacement as the angle of incidence A B C is increased (Fig. 4).

A bed-side watch light

Apparatus required: Small pieces of wood, three-cell battery, 3·5 volt lamp and lampholder, switch, piece of tin plate, strip of brass or tin plate, screws, flex, nails.

This is a night light (Fig. 5) arranged to shine on a pocket watch or wristlet watch, so that the time may be easily seen during the night without inconvenience.

It consists of a flat wooden box containing a three-cell battery and having a 3·5 volt lamp mounted on the top, with a reflector to direct the light on to the face of the watch. The battery and lamp are connected to a pear push-switch which can be fixed near the bed head.

The bottom of the box should be removable so that a new battery may be inserted when the old one is worn out.

Invalid switch

This simple switch (Fig. 6) requires only the slightest pressure in the palm of the hand to operate it, and it can be used easily by a person too weak to operate the usual type of push switch. In circuit with an electric bell and battery it can be used to attract attention when required. (T.A.T.)

Next week's issue will give details for making a delightful pool for the garden; also radio and other regular features, toy patterns etc.

Try this German method

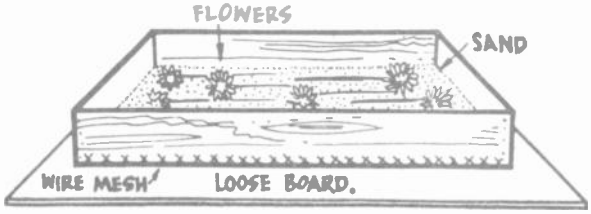
ROSES IN WINTER

THE use of roses for indoor decoration during the dismal dark days of winter would appear to be a luxury beyond the average purse. However much the housewife may adore flowers, it is during the dark days, when their morale boosting presence is most needed, that the garden produces little or no bloom, and the price in the shops is too high to admit of purchase except on the rare and particularly festive occasion.

Despite all to the contrary, here is a method whereby any housewife may surprise her friends, please her family and confound the housekeeping budget by producing on the table the lovely flowers of summer whilst the blizzard outside hurls the snow in cloudy drifts across the frozen fields.

It is an old German method which may be adopted by anyone possessing patience and a delicate touch. The results will be found to more than repay the time and trouble spent.

To begin with, a wooden frame is required. The dimensions are not critical but it must be long enough to accommodate the flowers on their stems when these are laid lengthwise in the frame. Any spare pieces of timber of, say, ¼in. thickness, may be used, the depth of the frame being from four to five inches.



The first layer

Having nailed the frame together, cut a piece of small mesh wire netting, slightly larger in area all round than the frame. Turn down the overlap of netting on each side of the frame and tack in position. We now have a simple form of sieve or riddle.

Cut a piece of plywood or hardboard some 4 or 5ins. all round larger than the frame to act as a removable stand or base.

The frame and stand completed, purchase some silver sand. This is easily and cheaply obtained from any pet store. The quantity will, of course, depend on the size of the frame. You will want enough to cover the flowers when they are placed in the frame. Although the sand, when bought, may appear to be clean, particular care must be taken to ensure that it is completely free from dirt. To satisfy yourself on this point, place the sand in a large dish and fill it with water. Stir and then drain away any scum which may rise to the surface. Repeat until no scum rises. Now spread out the sand on a large tray and leave to dry.

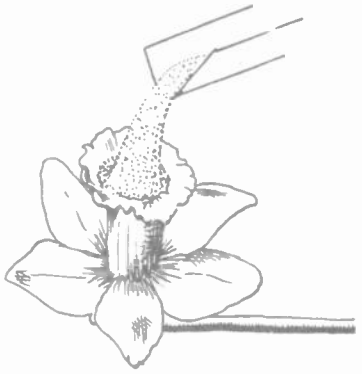
When you are satisfied that the sand is completely dry, place the tray of sand in the oven and leave it there until the sand becomes hot.

The next stage is important. It is the waxing of the sand, and is most essential. Each grain of sand must be coated with a film of wax to enable the sand particles to slide off the flowers when they are eventually lifted from the frame. If unwaxed, the sand would cling to the flowers, spoiling the preservation.

To accomplish the waxing the operator has two methods to choose from. The first method, suitable when a small quantity only of sand is to be waxed, requires an ordinary household candle. Hold the candle in the hand and quickly stir the hot sand with it, making sure that all the sand is ultimately stirred. This will result in all the grains of sand becoming covered by the wax.

The second method, to be used when a larger quantity of sand is to be treated, is performed by putting a small piece of wax, beeswax or household candle into the hot sand, stirring it well and thoroughly with a stick or spoon. Avoid the mistake of using too much wax.

All is ready for the preservation of the flowers. Place the frame on its base, netting side, of course, touching the baseboard and pour sufficient waxed sand into the frame to just and evenly cover the netting. Spread the flowers singly over the sand bed. They must not touch each other. Take care to spread the petals in their natural position. Having thus arranged the first layer, pour sand over them until all flowers are completely hidden. Arrange another layer and cover with further sand, continuing the layers until all flowers are used or the frame is full.



Filling 'cupped' flowers

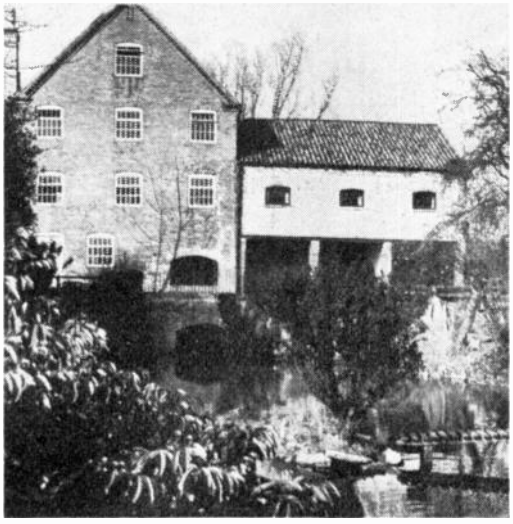
Remove the frame, complete with base, to a dry and sunny position. If a spell of hot dry weather is being enjoyed at the time, so much the better. An ideal spot for the flowers would be a greenhouse exposed to the rays of the sun. Failing such conditions keep the frame in a room where there is a constant warm temperature, near the fire or kitchen boiler. If drying is performed under natural conditions, such as in the greenhouse or in a sun parlour exposed to frequent direct sunshine, it will take ten days to complete, but a fortnight should be taken if the flowers are dried indoors.

At the termination of the drying period take the frame and its base to the

● **Continued on page 293**

Out in the open

PICTURESQUE WATER MILLS



The water mill on the beck

WATER MILLS are the most beautiful and most memory-haunting things in the world. 'When did you see a water mill that was not set in Fairyland?' writes William Bliss. It is easy to agree with such sentiments, for it is true that most of the ancient water-driven mills in this country are set amid sylvan surroundings which may, with a little stretching of one's imagination, be likened to an elusive dreamland associated with elves and fairies.

Lingering by such an old water-mill, one listens to the slow rumble of the pounding wheel, a deep 'rub-a-dub, rub-a-dub,' and the everchanging music and splashing of the overflow, swish, swish, swish, swish.

Charm and beauty

How many years, we wonder, has the ancient mill with its big wheel performed its useful work? For hundreds of years seeing that for centuries it doubtless played an important part in the life of the little wooded valley that meanders with many twists and turns, through pleasant meadows and by alder woods, to link with the brimming river.

A water mill gives charm and beauty to a stream, and the one pictured here is no exception. Above the mill, where the little stream flows deep and slow, impounded to provide the necessary power to move the under-shot wheel, pollarded willows, old and gnarled, some tilted at crazy angles above their velvet-black reflections, arch overhead, forming a green alleyway of leafy foliage.

Here, in the depths, fat trout cruise in Mayfly time, occasionally leaping out at the dancing insects, and showing golden flanks shimmering in the sunlight. Marsh-tits have their nests in summer in the clefts of the old grey willows, and their 'chee-chee-chee' amid the sun-drenched leaves on a sun-bright day is incessant from dawn till dusk. And the swallows and martins weave to and fro above the small mill dam.

Stop and admire

So pleasant it is here, and few country-lovers can pass by such a treasured building without pausing to watch the waters race out of the mill-tail, and to admire the ducks revelling in the lively current, bobbing and quacking, and flapping their wings. Or one may linger and peep inside the mill, and see the milled stuff come pouring down to fill the sacks below the hoppers.

If perhaps you step inside to give the miller greeting, the air is filled with fragrant dust that settles on everything, and festoons the cobwebs hanging from the rafters in strange woolly designs, and ere you leave the mill-room, powders you with greyish particles from top to toe! The floor vibrates to the rumbling of the big iron wheel, and there is a continuous racket all day; with the swishing of splashing water falling into the iron buckets of the wheel.

With a passing of the mill from our little valley a most interesting feature of the spot will go, and a life that has lasted since early times will vanish.

(A.S.)

● Continued from page 292

Roses in Winter

workshop or kitchen table. Lift the frame from its base and very gently shake the sand from the frame. The sand will run out leaving the flowers resting on the wire netting.

This is where the delicate touch comes in. Lift the flowers out very gently and with extreme care. They will be very brittle. Place them carefully on the shelf of a dark room or cupboard and leave for three or four days. The immediate placing in darkness is imperative as this stops the fading of the natural colours.

If kept from direct sunlight the flowers thus preserved will last for years. At all times avoid leaving them in damp conditions.

The most suitable flowers for preserving are the daisy type, but success with these will lead to more ambitious attempts and roses, violets, anemones, narcissi, wall flowers, jasmine, almond blossom, etc., will prove to respond well. White flowers are not very suitable, in fact, the brighter the colour the better the result. Make sure that the flowers are freshly gathered and quite dry.

With cup shaped blooms the interiors must be carefully filled with the sand. This applies to tulips and daffodils. In the case of roses and carnations, in order to keep their true shape they may have to be placed in the frame in an almost upright position in order that the sand may be poured in between the petals. A little practice and common sense will resolve each individual method of treatment and the results will give much pleasure to many.

(K.S.)

IN ancient times the only carriages were two-wheeled carts called chariots, which were used both for pleasure-riding and in war. The war-chariots were open behind, so that the warrior could easily jump in and out.

TRANSPORT - *By R.L.C.*

About the time of Christ the chariot went out of use, and a carriage with four wheels, fitted up with cushions, and sometimes with an awning or canopy overhead, and drawn by four or six horses, became popular among the rich. But this rudely made springless vehicle soon went out of fashion and people travelled from place to place on horses, mules or asses.

About 400 years ago carriages again became popular, though none but Kings and nobles possessed them.

In 1550 there were only three coaches in Paris. Fourteen years after this Queen Elizabeth I had a carriage built for herself, in which she rode on state occasions.

In the 17th century there were but few carriages in England and most belonged to the nobles. About that time a few hackney coaches were kept in London.

In 1823 cabriolets came into public use. They conveyed only one person, the driver sitting by the side of his fare. These were soon exchanged for the cab, which has room for more passengers, while the driver sits apart.

After the roads had been improved stage coaches ran between all principal cities, and travellers availed themselves of these until railroads were built.

Omnibuses were first used in Paris about 1827, and in London about three years later.

When trams became popular for passenger transport many municipal authorities acquired control of the tramways. In 1904 nearly 1,500 miles of tramway were in use in England.

People soon began collecting tram tickets, which, in those days were of little value. But the decline of the tram has caused many of the first issues to become scarce. Some are valuable. Early omnibus tickets are also eagerly sought by collectors, particularly those issued by firms who no longer exist.

Enthusiasts should consider the large range of stamps, labels and trade cards available depicting transports. Here's a short check-list.

Stamps: Australia 1955. 3½d. brown — Stage Coach — 2d. used. Canada 1951. 7c. blue — Mail Coach — 10d. used. Finland 1946. 30m. black — Motor Coach — 4d. used.

Match labels: India 1956 — Tram — 1d. mint. 1957 — Native Cab — 1d. mint. Austria 1956 — Tram and Conductor — 2d. mint.

Cigarette Cards: British American Tobacco — 48 Transport — Then and Now — 3/- a set. Phillips — 50 This Mechanised Age — 3/- a set.

Trade Cards: Beano Ltd. — 50 Wonders Modern Transport. 50 Buses and Trams.

ROMAN COPPER COINS

MANY Roman coins are valuable and beyond the average collector's scope. But others may be had from dealers at prices ranging from 2/6d. to £1.

The *As*, which originally weighed one pound, was composed of a mixture of copper and tin. In the age of Cicero it was worth about three farthings of our money. In its earliest state it bore the impress of a bull, ram, boar or sow, emblematic of the flocks and herds which constitute the wealth of all primitive ages. Afterwards the more usual device was a double-headed Janus on one side with the prow of a vessel, or of Mercury, the god of traffic, on the other.

The *Semissis* (Half an As) was of copper and weighed 6 ounces. On one side was stamped the letter S to denote the value, and the Head of Jupiter, Juno, or Pallas, with the prow of a vessel on the reverse.

Extremely rare

Few enthusiasts have a copper *Quincunx* in their collection. This coin, weighing 5 ounces, was distinguished by 5 balls to denote its value. It is extremely rare and the British Museum does not possess a specimen.

The *Triens*, another copper coin weighing 4 ounces, had 4 balls stamped upon it to denote its value.

Here's a short check-list of other copper coins worthy of note:

Quadrans — Marked with 3 balls to designate the weight (3 ounces), accompanied with the device of an open hand, a strigil, a dolphin, grains of corn, a star, the image of a ship, or the head of Hercules or Ceres; all of which are found on different specimens in the British Museum.

Sextans — Weighing 2 ounces with two balls to denote its value.

Uncia — Equal in value to one-twelfth of an As, the value being denoted by a single ball.

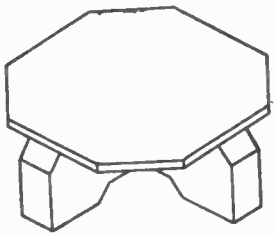
Decussis — Equal to ten asses and marked with the letter X.

Dodrans — Extremely rare in actual coinage. But an example is said to exist in a coin of the Cassian family. It bears the letter S, and three balls representing its value—nine Uncia, or three-quarters of an As.

Old Roman coins are often found in the most unlikely places — in gardens and fields. So keep your eyes open!

Woodwork for juniors

A PLANT POT STAND



By Finlay Kerr

PLANT pots containing indoor plants and bulbs are very fashionable nowadays for decorating the home. To avoid the pots (or bowls) damaging polished furniture it is advisable to place them on suitable stands. The plant-pot stand illustrated above is very simple to construct and is a job which is well suited for the junior home craftsman.

The frame is made from 1½in. by ½in. timber. Cut two pieces 6½ins. long and plane the timber smooth on all sides. After this, cut the pieces to the shapes shown in Fig. 1; one piece to shape (A) and the other to shape (B). When cut, the two pieces should fit snugly together to form a cross.

The top is made from a square of plywood 6ins. by 6ins. This should be cut to the shape of an octagon as shown in Fig. 2.

Once the three parts of the stand have been cut to their respective shapes give them a good rub over with some glasspaper and then assemble the stand. Insert a few panel pins through the plywood top into the frame.

Complete the job by staining and varnishing or by applying a coat of lacquer. If desired, small pieces of felt may be glued to the underside of the 'feet'.

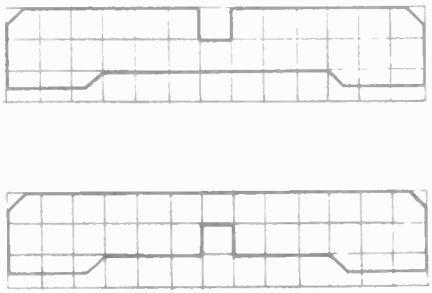


Fig. 1

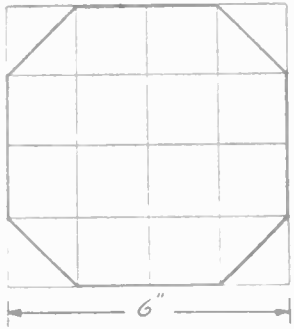
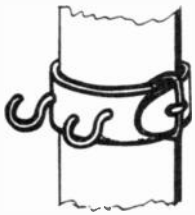


Fig. 2

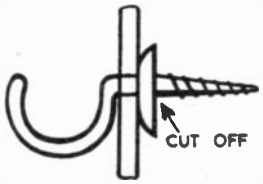
A Gardener's Clothes Peg

IT is often a problem for the gardener to know where to put his coat when at work, especially when the ground is wet. Here, then, is a handy little gadget which should prove very useful for the man who likes to be tidy, and has a place for everything, with everything in its place.



The gadget consists of an ordinary leather strap into which are inserted a few screw hooks, and when this is tightly fastened round a tree or post, the hooks are held quite secure. Besides its use to the gardener, there are many other ways in which it can be of service. When camping, for instance, it is attached to the tent pole for hanging up the clothes or anything else which must not be left lying on the ground.

The leather strap should be of good quality, and if it is to carry any weight at all, should be reasonably wide. 1in. would be sufficient for anything light,



but 1½ins. or even 2ins. would not be too much when many hooks are needed. The greater width does, in fact, help to keep the hooks rigid when weight is applied to them.

Brass screw hooks with a substantial shoulder are the type needed, and these must have all the screw sawn off and filed flat as shown. When punching the holes in the strap it is advisable to make them a trifle smaller than the hooks, so that they have to be forced in making them more secure. (A.F.T.)

Removing Tar from Clothes

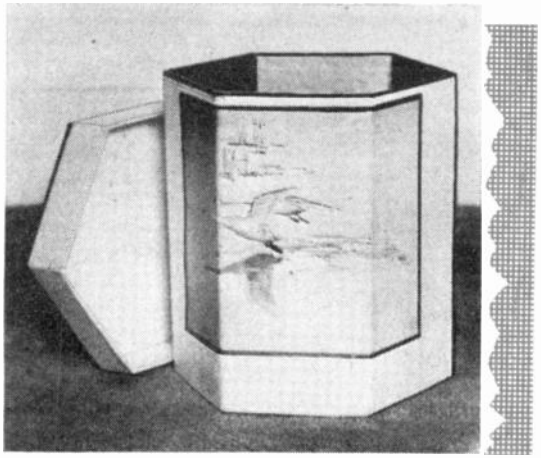
THE season for retarring roads and paths is now in full swing, and as the warmer weather arrives, the fresh tar becomes very tacky, and is easily transferred to your shoes. When on holiday, the tar washed up on the beaches by passing ships is also liable to mark your clothes. Once on your shoes and clothing, it becomes very difficult to satisfactorily remove.

However, the following method will be found successful, even for the most difficult marks. Obtain a small quantity of eucalyptus oil from the chemist and thoroughly soak a piece of clean cloth in it. On using the cloth to rub the affected area, the tar will be completely removed. A garment from which the tar has been removed should be washed in warm water. (K.D.)

When making glass shelves, if you wish to round off the sharp corners and edges then the job can be done with an oilstone. Rub it over the edges with circular motions and lubricate with water or turpentine.

CONTAINER FOR WASTE PAPER

By S. H. Longbottom



OUR illustration shows an entirely different type of wastepaper basket you can make quite easily. It has a lid, like a dustbin, which can be placed at the bottom to form a base. In the first place the whole makes an attractive gift box for any type of article. It is made from an old carton, fancy wallpaper, or gumstrip and you will see that a picture has been attached to the front for decoration.

You will need a piece of stiff cardboard measuring 8ins. by 21¾ins. scored into six equal sections as shown in Fig. 1. If your card is too short it is possible to use two equal pieces divided into three equal sections, both being joined together with paper gumstrip on each side. With the single piece the two ends are similarly joined to make a hexagonal tube. It may be advisable to reinforce the scorings by a length of gumstrip but here you must use your own judgment after forming the tube. A further piece, shaped in the form of a hexagon, is required for the base to be fitted inside and is made to appropriate dimensions.

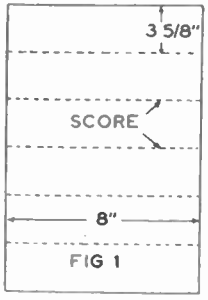


FIG 1

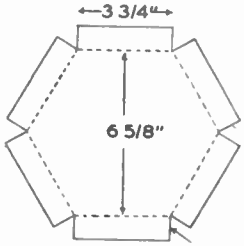


FIG 2

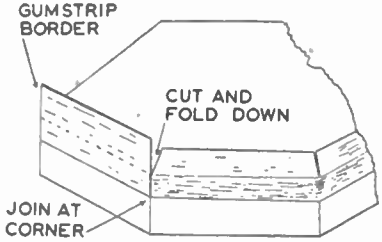


FIG 3

The lid is made as shown in Fig. 2 from a piece of card as shown. Flaps, each 1½ins. in width, extend from each section and are cut out as in the diagram. Later, these are folded down and fastened together by means of a length of gumstrip running all the way round.

Having prepared the few parts required we now come to the process of assembly and the following instructions should be carefully noted.

Reference to Fig. 3 will show that first of all the flaps of the lid are folded down at right angles after scoring on the dotted line and a piece of strong gumstrip applied all the way round the perimeter both inside and outside. Next comes a strip of decorative material covering the top edge of the lid and again applied so that half covers the top and half lies on the sides. You may use a contrasting gumstrip or passe partout for this purpose, laid on but cutting half the width at each corner as shown, to prevent any buckling tendency. When this rim has been treated we prepare a piece of fancy paper for the top, surplus wallpaper will be found suitable for this purpose — but slightly smaller than the actual area so that about ⅛in. of the binding is left showing as a border.

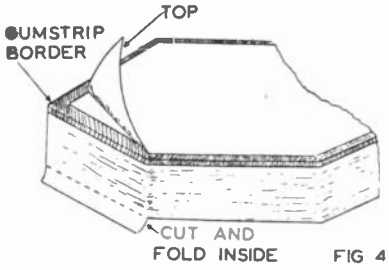


FIG 4

The sides of the lid are finished by preparing a strip of the same paper two inches wide and the length of the outside perimeter. Start at a corner laying the paper round the lid side, cutting at each corner and then turning inside the lid as shown in Fig. 4. Preparation of the lid will reveal how the box itself is prepared, starting first with a strip of binding round the top rim only. Again it be will necessary to cut at each corner so that the coloured strip will fold inside quite easily. Next a lining paper is inserted on the inside and it is better that this should be of a contrasting colour to the outside. In the example shown gilt paper was used for the lining and binding of the rims, while a lighter paper was used on the outside.

Before starting on the outside decoration it will be necessary to glue a strip of thin card ½in. wide all the way round and inside the base of the box portion. This strip will be thick enough to support the cardboard base which has already been mentioned.

The outside is finished in a similar fashion to the lid, applying paper round the box and not vertically, again starting and finishing at a corner. Allow an extra half inch for folding underneath the bottom and do not forget to leave an ⅛in. at the top to reveal the decorative binding as a border. The extra half inch of paper at the base will fold over, covering the strip for supporting the bottom of the box. The bottom of the box is now covered with lining paper and pushed in from the top when it will

●Continued on page 297

A JUMPING JACK

YOU can make simple paper pop-ups like this Jumping Jack shown in Fig. 1 quite easily from stiff paper or thin card and they will amuse any child. When the pull at the base is moved the arms flap, the tongue moves in and out, while the eyes roll.

All you require is some stiff paper, preferably white, indian ink, scissors, a sharp knife and a pair of compasses.

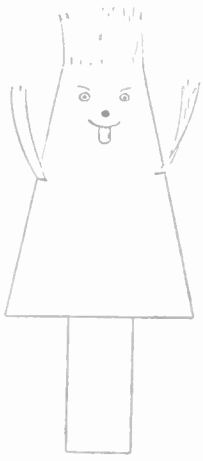


FIG 1

The toy is in two parts and reference to Fig. 2 shows the outer part which forms the head and body of our Jack.

Prepare a quarter circle using a radius of 4in. and drawing a centre line in pencil for guidance. This line is erased later but will prove helpful in making accurate positions for eyes, nose and mouth. Now describe another arc with a 1in. radius from the same centre to indicate the margin of the fringed hair, and a second arc, using a 3in. radius where slots for the arms will be made.

After these preliminaries the quarter circle may be cut out and the position of the eyes marked. Here two holes, about ⅜in. in diameter are cut out, but the nose and eyebrows are drawn in with indian ink. A slot is cut for the mouth as shown, and two slots for the moving arms, when the temporary centre line may be erased. This part is completed by fringing the hair with scissors to the prepared line.

It may be mentioned that with a little modification all kinds of funny faces may be made, or you may add buttons down the front to give the appearance of a coat.

The second part, which moves the features and the arms, is made from a piece of similar material in the form of a cross as shown in Fig. 3. Take careful note of these measurements and after cutting out, add the pupils of the eyes.

It will be found advisable to lay this second part underneath the first so that the correct position for the pupils can be ascertained. When laid centrally make pencil marks to correspond with the holes for the eyes, also making a pencil mark through the slotted mouth. On removal of the part you may then ink in the pupils in the centre of the circles and cut out the tongue. Note that the latter remains attached to the part and is merely slotted with the knife, then folded as indicated by the dotted line. All that is required to finish this part is the shaping of the ends of the arms to resemble fingers.

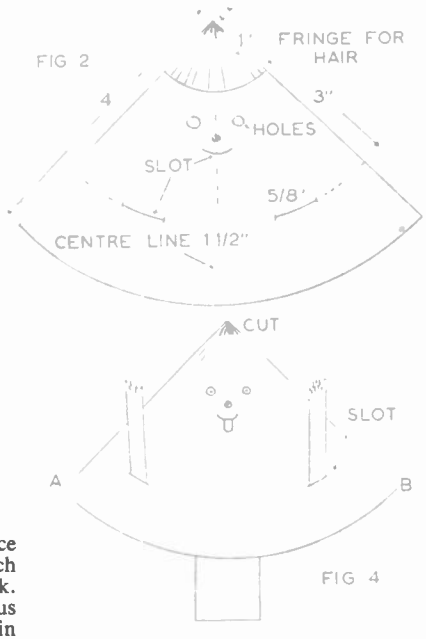


FIG 4

On completion of the second part the arms are folded where shown in Fig. 4 and pushed through the slots in the body so that they are vertical. The tongue is now pushed through the slotted mouth, pressed down flat and the two parts will be reasonably locked together. Finally the body is fashioned in the shape of a cone by attaching side (A) to side (B) with a little gum (Fig. 4), the hair is fringed out a little as required, and the arms adjusted to any position. (S.H.L.)

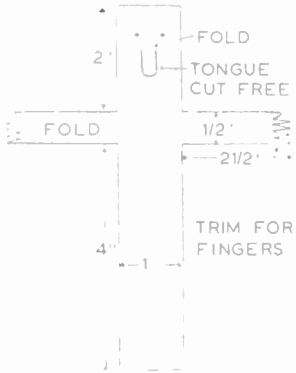


FIG 3

● **Continued from page 296**

Waste Paper Container

rest on the strip supports, holding the box in shape.

It will be seen that a picture has been applied to the wastepaper basket shown in our illustration and no doubt you will be able to find a suitable coloured picture in some magazine. After cutting out, neatly lay on the box for the approximate position noting that it must not be lower than 1½ins. from the bottom. When in use as a wastepaper basket the lid can be placed at the bottom where it makes a simple base and it is preferable that no part of the picture should be obscured by the lid. If light pencil marks are made to indicate the ultimate position you can also make a border for your picture by applying strips of coloured gumstrip as used for binding the rims. This will give a most attractive finished appearance to the picture.

We should mention that throughout the work of applying the decorative paper to the outside and the lining it is essential to avoid soiling the surface with paste and you must use a clean duster when smoothing down the paper.

MAINLY for MODELLERS

FITTINGS — PART 3

By 'Whipstaff'

THE next details we have to consider are concerned with ships from the 18th to the 19th century onwards.

In this period we have the round threehole deadeye discussed in part 2 of this series, in addition to which we find when rigging a vessel of the late 18th and early 19th centuries, we need several other types of block for the standing rigging.

Fig. 1 shows two types known as long tackle blocks, used in the erecting of the preventer stay. If you find that the scale plan to which you are working calls for these details, they can be modelled by using patience, the quality that all our readers seem to possess in abundance.

The top one is best made by carving from holly. If your scale is small, the block is carved to shape and drilled with two holes to take the rigging line, but if modelling on a larger scale, they can be drilled and the holes lengthened by filing with a rat tail file, the brass sheaves being turned from brass rod of suitable diameter. The brass sheaves are actually small brass pulley wheels. These can be drilled with a fine twist drill and axles to secure them in the block can be made from lill pins (bank pins).

Fig. 2 shows the mounting of the futtock shroud deadeyes at this period, and, as mentioned in the previous article, we need a new method of chain plates or stropping. To make this assembly follow the details in Fig. 3.

Take some soft wire, and bend a suitable length around the groove of the deadeye, using round nosed pliers. Close the wire around the deadeye, solder the wire together as shown, squeeze the wire assembly flat in the vice, file to shape, and drill the end.

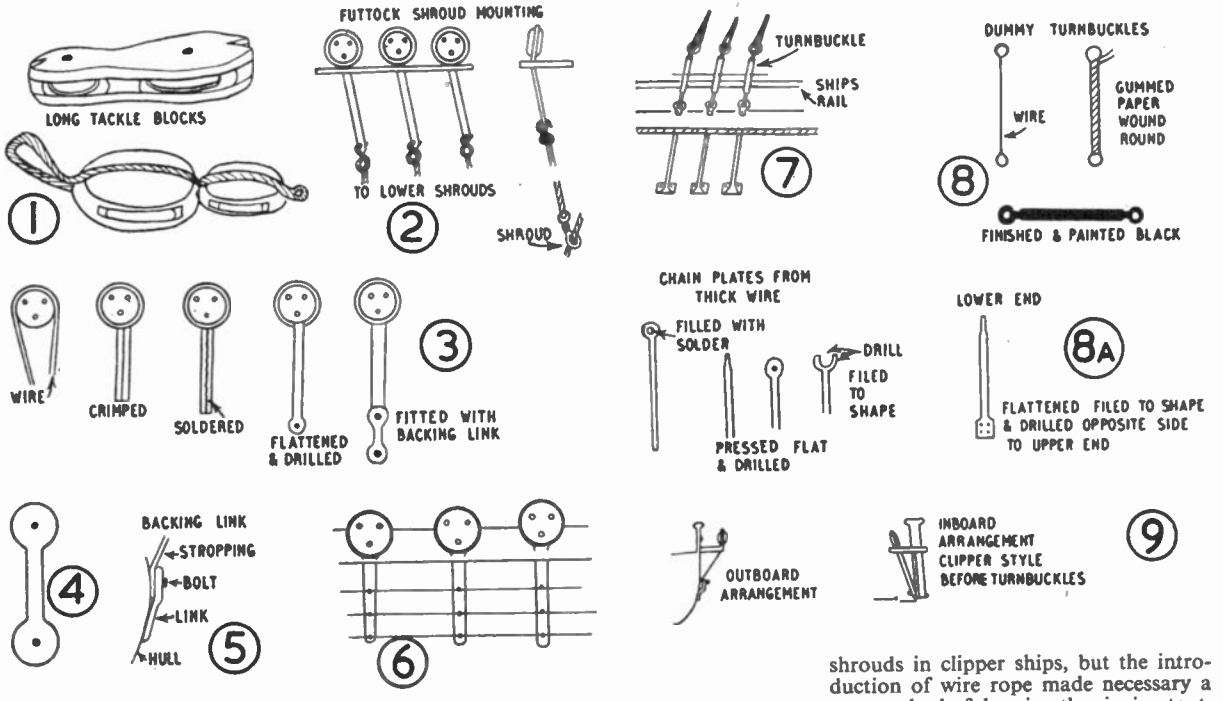
This assembly is for the futtock shrouds, where this type is required for the lower shrouds, which it most certainly will be if it is used in the futtock shrouds. You will need to make a backing link as in Fig. 4. This can be cut from thin metal, cut or filed to shape, drilled for both holes and bent to shape. This link secures the metal stropping to the hull as shown in Fig. 5.

Another method of attaching the lower deadeyes of the shrouds is shown in Fig. 6. This is found in many types of 19th century sailing vessels, and your plan or blueprint will show whether this applies to your model. They are made by the wire and solder method as before, but instead of using backing links, the chains or strops are drilled with three holes and bolted direct to the hull.

Before the advent of turnbuckles, deadeyes were used for setting up the shrouds in clipper ships, but the introduction of wire rope made necessary a new method of drawing the rigging taut, hence the introduction of the turnbuckle.

In building a clipper your plan will show, or should do, the particular method of erecting the shrouds. They may be set up as shown in Fig. 7.

It is possible to purchase commercially made turnbuckles for model ships and for those who have not the time or experience to make up these numerous small fittings, they are better purchased.



●Continued on page 300

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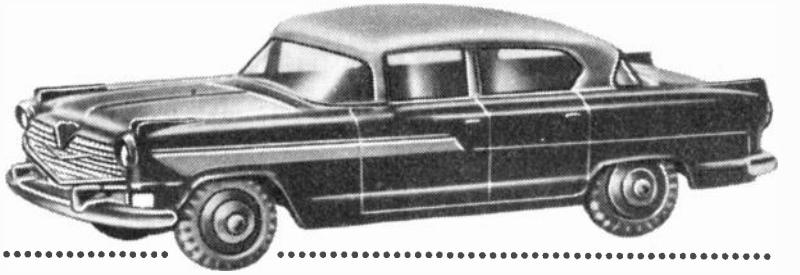

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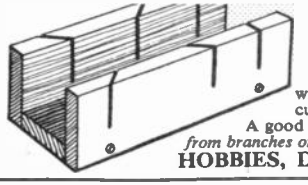

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MENDING PLASTIC TOYS

THE large number of plastic toys about nowadays no doubt gives rise to many repair problems. After a few unsuccessful attempts with an adhesive, father or elder brother probably considers it a waste of time and consigns the pieces to the dustbin, much to the disappointment of the young owner.

By using the correct methods, however, many toys can easily be repaired and will be as strong as before. Some knowledge of the plastics concerned will also indicate when hopes of repair are slight, and thus avoid waste of time. Plastics may be stuck really effectively if a solvent for the particular material can be used.

By P. R. Chapman

Present-day plastic toys are mostly constructed from four different types of material and a little experience will enable the repairer to distinguish between them. These are (A) polythene, (B) polystyrene, (C) cellulose acetate and (D) perspex.

Polythene toys

Polythene (with which may be classed P.V.C. or polyvinyl chloride) is very well-known today owing to its extensive use for the manufac.ure of bowls, soap dishes, buckets and many other domestic utensils. As far as toys are concerned the polythene type of plastic is mostly used for the manufacture of dolls, babies' toys and of late toy soldiers. Since these materials are strong and comparatively soft, there are unlikely to be any breakages to repair, but occasionally a limb may need to be replaced on a toy animal or soldier. There are, unfortunately, no solvents for these plastics, which must be heat welded. Touching the ends with a hot soldering iron and immediately pressing the broken ends together will usually effect a repair.

Polystyrene is a hard, somewhat brittle plastic used extensively for toys, particularly small train sets and cars. It may be colourless, or almost any colour. This material is readily soluble in chloroform and broken ends can easily be stuck by soaking them in this solvent for about half a minute and then placing carefully together. In a few minutes they will have set sufficiently to be laid aside to harden properly.

Cellulose acetate plastics, or 'nonflam', replace the older and highly inflammable celluloid (composed largely of cellulose nitrate). In appearance they are rather less hard than polystyrene, but the simplest test is with a solvent. This material is not affected by chloroform but is soluble in acetone and exactly the same procedure may be used as described previously, using acetone.

Perspex varnish

Perspex does not appear to be greatly used for toys, although it is employed for some ornamental purposes. As far as the repairer is concerned it may be treated exactly like polystyrene and stuck with chloroform. Incidentally, a solution of odd scraps of Perspex in chloroform makes a quick drying varnish for labels, etc.

Acetone and chloroform are quite cheap and may be purchased from a chemist. Chloroform, being poisonous, will be supplied only if the purchaser is known to the chemist, or explains the purpose for which it is required, but little difficulty should be experienced, Provided it is not drunk (which is unlikely!) or strongly inhaled, chloroform is quite safe and is non-inflammable. Acetone, although not poisonous, is inflammable and should be kept away from naked flames. Needless to say, both should be kept out of the reach of young children.

Initial dual test

When faced with a broken toy, the best course (unless the toy is obviously polythene) is to test with both acetone and chloroform to ascertain the appropriate solvent.

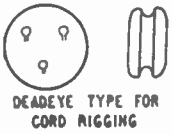
Bakelite is the other common plastic, less used for toys than previously. This has no solvent and thus cannot be stuck as readily as the others. The modern adhesive 'Araldite' will, however, give quite reliable joins.

●Continued from page 298

Modelling Fittings

For small models, where cord is used for the rigging, the following method is very useful and gives a very realistic turnbuckle when painted black.

A piece of wire is bent to shape shown in Fig. 8, It is then thickened on the shank by wrapping with gummed paper. The thin transparent kind as used for repairing music is most suitable, as being thin, it enables one to get a good wrapping around the wire. Paint it black.



For the chain plates on this type of rigging, wire can be used. A loop is formed in one end and soldered at the point shown. The ends are pressed flat on opposite sides to one another and drilled as shown.

In Fig. 9 two methods of mounting the deadeyes and chain plates during the 19th and early 20th century are shown, one outboard and the other one inboard. Use the type either shown on your blueprint or find out the type used on the prototype.

In Fig. 10 is shown the difference between the deadeyes for rigging with cord and the type used with metal strops.

There is a very large variety of blocks used in rigging, and readers may, in making a model, come across the metal type of block. These are simple to make, and for the purpose of illustration we will show the method of making a single metal block.

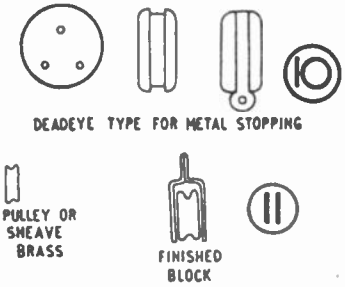


Fig. 11 shows the sheave housings cut from thin tin, such as that used in tobacco tins. I have also found thin aluminium very useful.

The sheaves can be turned from rod of suitable diameter, either brass or aluminium, and mounted in the housing as shown.

Small rod cut in short lengths can be put in the drill chuck of your lathe, and the groove filed in, cutting off each sheave with a small hacksaw, and filing the faces smooth.

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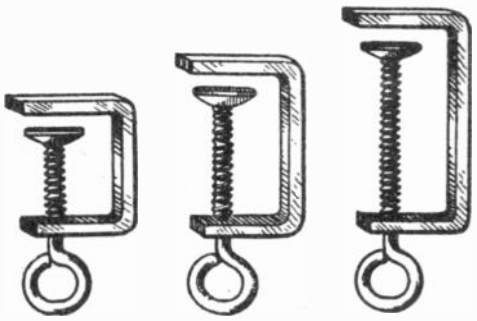

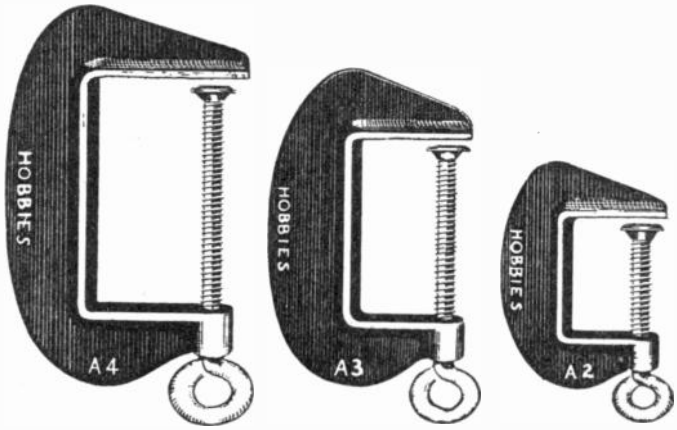

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Piece (C) should be the same shape as (B) but omitting the well at the top. Note the wire handle and thread 'rope' on piece (B).

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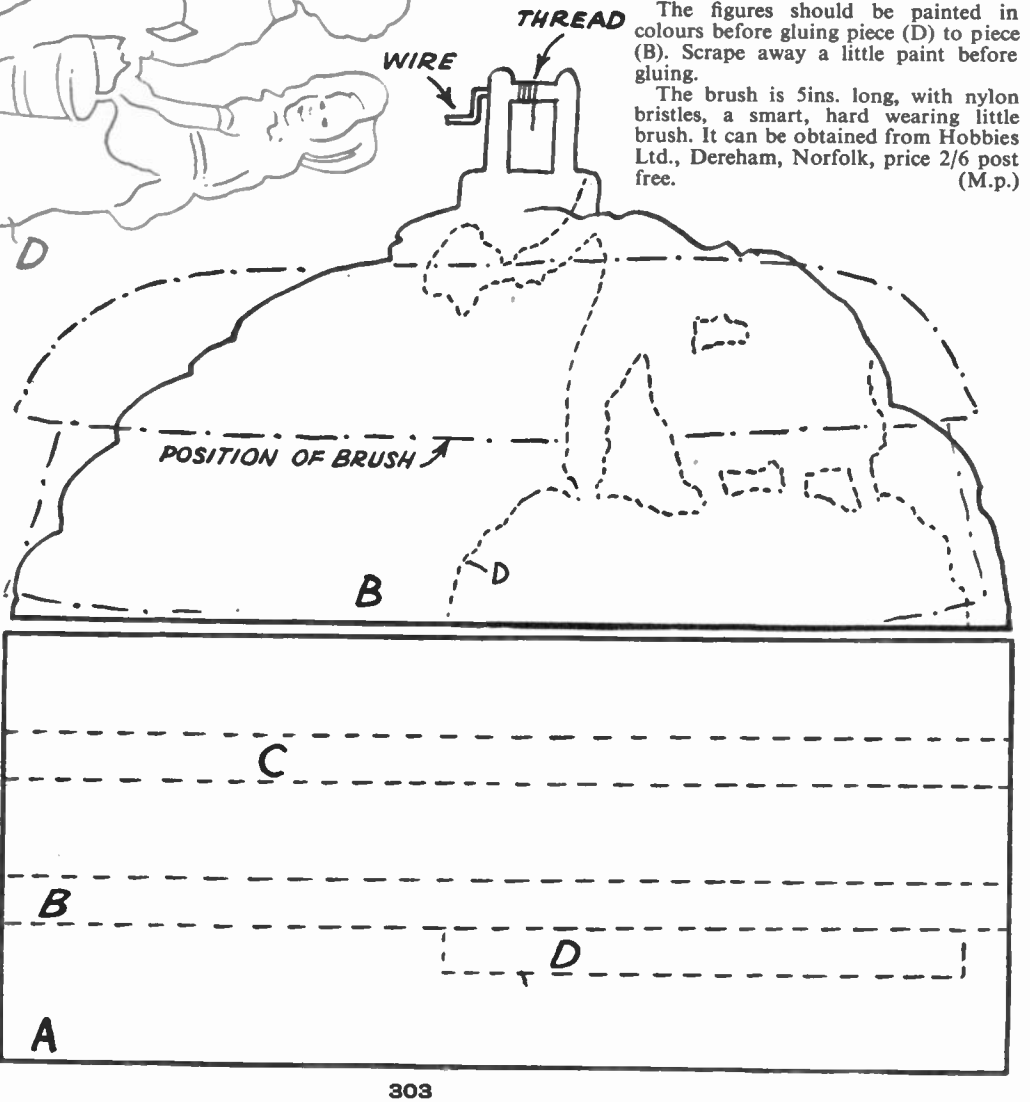

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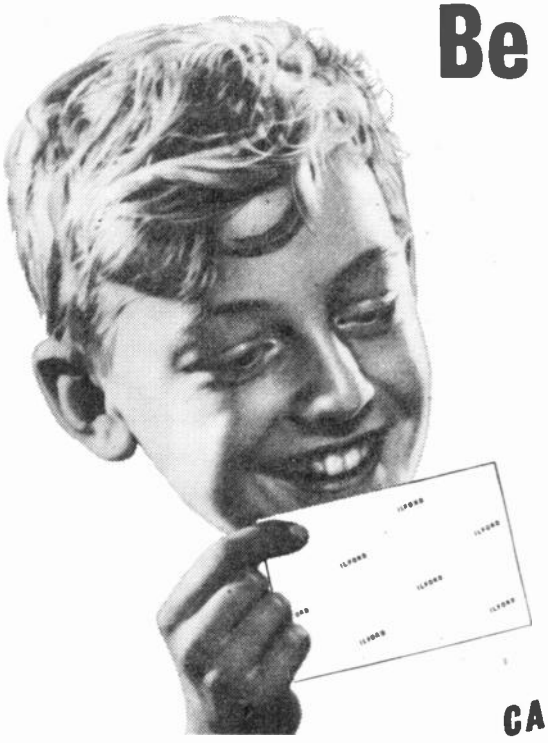

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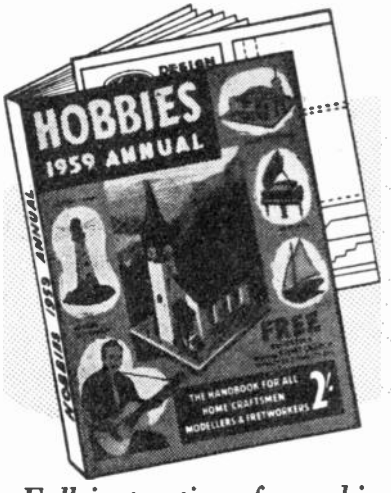

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