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THE ORIGINAL  
'DO-IT-YOURSELF'  
MAGAZINE

# HOBBIES *weekly*

FOR ALL  
HOME CRAFTSMEN

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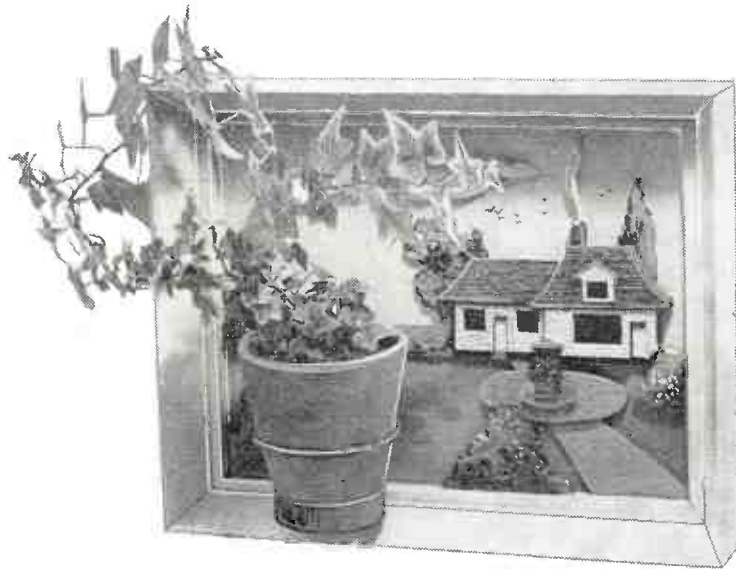
A MODEL RED  
INDIAN VILLAGE

CHEMISTRY AND  
SCIENCE

HOME PROJECTS

ETC. ETC.

★ **FREE** Plan for making . . .



## A PICTURE PLANT HOLDER

Up-to-the-minute ideas

Practical designs

Pleasing and profitable things to make

World Radio History



**5<sup>D</sup>**



### Czechoslovak Culture

**A** SET of five stamps and two First Day Covers have been prepared to mark the anniversaries of outstanding personalities in Czechoslovak culture. The 60h. dark green depicts Jindrich Mosna (1837-1911), Czech actor. The outstanding Moravian painter Joza Uprka (1861-1940), appears on the 60h. black. Pavol Orszagh Hviezdoslav (1849-1921), Slovak poet, appears on the 60h. blue. The 60h. red-brown shows Alois Mrstik (1861-1925), Czech writer. And Josef Hora (1891-1945), Czech poet, is depicted on the 60h. brown.

A nice set of stamps and covers.

### Austria

**S**IXTEEN European Ministers of Transport met in Vienna during May to co-ordinate and promote the activities of international organizations concerned with European inland transport. And as a symbol of this spirit of co-operation a special commemorative stamp was issued.

Several postage stamp exhibitions that turned out to be regular milestones in the history of philately have been organized in Austria, and especially in Vienna. 'WIPA 1933' is especially re-

membered in this connection. About a year ago, the Federal Association of Austrian Philatelic Societies decided to arrange an Airmail Exhibition in Vienna. The event, held in May, was marked by the issue of a special stamp.

### Selangor



The special 10 sen stamp marking the Coronation ('KEMAKHOTAAN' in Malay) of His Highness TUANKU SALAHUDDIN ABDUL AZIZ SHAH IBNI ALAMARHUN TUANKU HISAMUDDIN 'ALAM SHAH ALHAJ, Sultan of Selangor, on the 28th June. It features a portrait of His Highness, and a reproduction of the State Crest in full colour against a purple background.

### Collector of Fish

**G**EORGI Krutikov, a retired officer of the Russian Air Force is a passionate lover of nature. His main hobby is fish collecting. His collection includes forty-five species, and he has to create and maintain specific conditions for those from remote places, so that they survive, and give birth to young.

He has managed to get the young from many species which do not ordinarily breed in aquariums. At the moment he is trying to get the young from the *Brachyobius*, whose habitat is the road ditches in Central India, from the *Pterophyllum scalare*, and the striped *Nannostomus Marginatus* which live in the Amazon.

The feeding of fish is one of the major problems of keeping them in artificial conditions. Krutikov is experimenting with the laboratory breeding of the *Rotatoria*, one of the most nourishing feeds for the young in their first stage of development.

This enthusiastic collector does a lot of reading of Russian, and foreign books by fish specialists, maintains contact with a research institute of fish and marine economy, the Agricultural Academy, Moscow University, and is a member of the Moscow Society of fish collectors.

### Russian Labels

**MRS KATHLEEN ADAMS** writes — 'I have heard from Russia, and had some very interesting labels sent. Thanks for the introductions. I have over 400 labels now, and my collection is growing by leaps and bounds'. Write to — 'Black Cottage', Woolton Common, I.O.W.

Further names for your pen friend list:

**CYRIL A. SMITH**, P.O. Box 1335, Colombo, Ceylon. Stamps and labels.

**MIGUEL G. PORTES**, Mosguerrastr, Tumaco — Narino, Colombia. Stamps.

**M. SHINBARA**, P.O. Box 30, Yahata-Kyusu, Japan. Stamps and labels.

**MR C. TAYLOR** of 117 Harold Road, Hastings, Sussex, would like to exchange brewery labels with collectors throughout the world.

**MR FRED BARRETT** of 23 Westbury Road, Walthamstow, London, E.17, is interested in stamps, labels, and model railways. He writes 'I am the proud owner of a large model railway, a picture of which you published in *Hobbies Weekly*. I should be pleased to write to people all over the globe, and will answer all letters.'

Would new readers please remember that all requests for pen friends must be sent to 'The Editor, *Hobbies Weekly*, Dereham, Norfolk'. And do please remember to include a 3d. stamp for reply.

Imprime

PAR AVION

PRAGA



1962

Praga 121



To mark the occasion of the International Philatelic Exhibition 'Praga 1962', the Government of Czechoslovakia are to issue special stamps and a First Day Cover.

## ZOO 'SHOOTING'

**N**OT everyone can afford the time or money involved in big game hunting, and if we wish to take some animal pictures the best way is to visit a zoo. And you may be sure that there is ample opportunity of getting plenty of shots in complete safety providing you can overcome the few snags which arise.

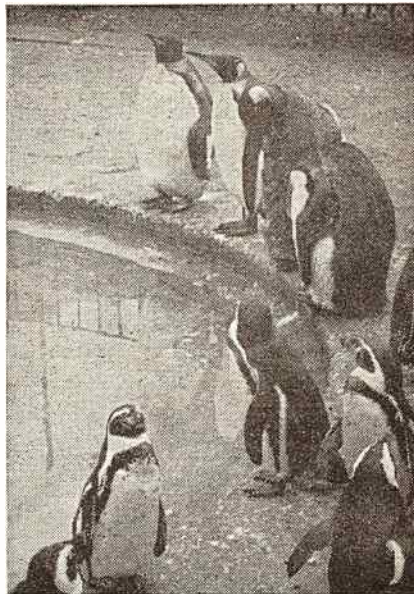
**By S. H. Longbottom**

With the exception of, perhaps, the elephants, nearly all the wild animals, birds of prey, and reptiles are, necessarily, confined to some form of cage. We require pictures of the animals, and not the heavy iron bars, so speaking generally, you will find that the lions and tigers do not make good pictures, because they are behind these bars.

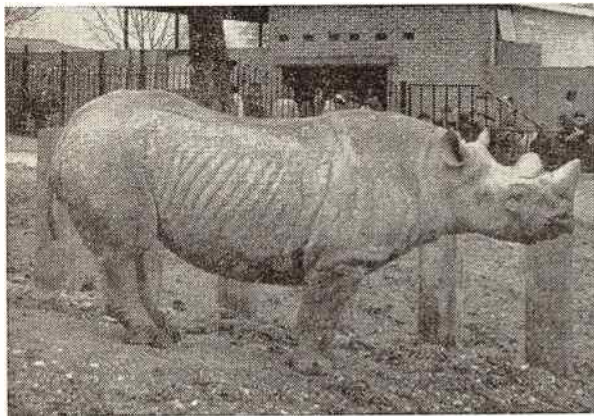
When confronted with animals behind wire netting the position is not quite so bad, and more often than not you may stand close to the mesh. You may hold the camera up to the netting without fear of it spoiling your picture, for it will be too close and out of focus to cause even a blur, providing the mesh is not actually in contact with the lens. Where the mesh is a little larger, you may have room for the lens.

Another snag is that most of the animals will keep prowling about, and will not stay in one position long enough for you to focus, so let's see what practical steps we can take to obtain our pictures.

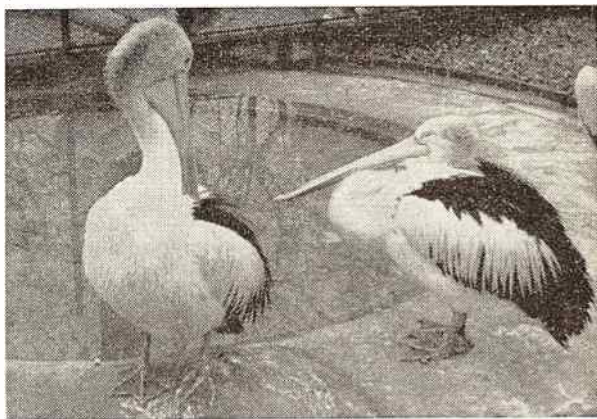
Fortunately, it is not essential to have brilliant sunshine for zoo pictures, and as a matter of fact the accompanying illustrations were taken at the London Zoo quite recently on a cloudy day. Brilliant sunshine will cause hard contrasts, clogging the highlights of the



*A shot where the netting has been avoided. FP3 film, 1/100 sec. f/6.3*



*This huge chap was on the move all the time and could only be caught by focusing on a selected spot. FP3 film, 1/100 sec. f/6.3*



*The camera was pointed downwards for this shot. FP3 film, 1/100 sec. f6.3*

Nevertheless, you may find them in the open in some zoos in the same way as bears, but there remains the question of a near enough approach.

If you value your camera — and, maybe, your life — it is wise to heed the warning notices attached to the cages of ferocious animals. Remember that there is no such thing as a tame wild animal. If you stand too close to the cage and try to focus through the small viewfinder it is possible you will not be able to keep your eye on the animal, which may mistake your intentions, and make a swift spring at you. Yes, there is a reason for those notices.

lighter toned animals and birds. In general you will find that diffused side lighting will be best while back lighting is of little or no use at all.

We have mentioned the fact that most of the animals persist in roaming about their cages or terraces, and how difficult it is to catch them still. The remedy is to watch their movements for a moment or so, then select a particular spot where they will go. Focus on this, keep the camera steady, and wait until the animal moves into range. The bears often prowl about in this fashion, but it is wisest to work as stated. If you are reasonably near, and the animal is of the

slow-moving type like the rhinoceros you may have time to adjust your focusing. For practical purposes you should always try to focus on the eyes, using a large aperture on dull days to give maximum speed. Incidentally, this will have the effect of limiting the depth of field, and will throw the background out of focus to give a blurred effect to the advantage of your subject.

You will find some animals in pens rather than cages, as for example pelicans, penguins, and storks, and you should have no difficulty in capturing these without interference from the

**● Continued on page 324**

# SWEETS LIKE GRANNY MADE

**M**ANY of the old-fashioned sweets which were popular in our grandparents day are still firm favourites. These recipes are all easy to make with simple ingredients.

Let us start off with a very simple recipe that needs no cooking.

## PEPPERMINT CUSHIONS

- 1 lb. Icing sugar
- about 1 gill Cream
- 1 teaspoonful (level) Cream of tartar

Peppermint Oil

Pass the icing sugar through a sieve and if it is at all lumpy crush with a rolling pin and sift. Well mix in the cream of tartar and then slowly add the cream. Too much cream will spoil the sweet, and you may need only between three and four tablespoonfuls. Mix in just a little at a time and do it thoroughly and slowly.

Now well knead with the hands, at the same time adding just a few drops of the oil of peppermint — one drop at a time. It has a very strong flavour and needs using with care, so don't overdo it, and taste the mixture at intervals until it is just right. Put it on to a board which has been sprinkled with sugar and knead for a further period. If it becomes sticky you may work in a little more sugar. Then cover with a cloth and leave for an hour. Now roll out with a rolling pin dusted with sugar to an even thickness and cut up into squares, circles or any other shapes. It may be necessary to wait a little while for the mixture to harden before cutting up, and this may be anything up to a few hours.

## EVERTON TOFFEE

This is probably the most famous of all toffees, and many different recipes have been evolved. Here is quite a simple one to try.

- 1 lb. Demerara sugar
- $\frac{1}{2}$  lb. Butter
- $\frac{1}{2}$  pint Water
- Pinch of Cream of tartar

Lemon juice

Dissolve the sugar in the water, add the cream of tartar and bring to the boil. Continue boiling until the syrup has reached the 'hard ball' stage. This is the way to tell. Dip a fork in the syrup and place it immediately into cold water and remove the sugar adhering to it. If it can be moulded into a hard firm ball it has reached the correct temperature (250°).

Now take it off the fire, add the butter, which has been previously cut into small pieces and boil again to the next stage. This is the 'soft crack' degree (280°) and you can tell when this is reached by again dipping the fork into the mixture, placing

it in cold water and it will break with a snap or crackle.

Quickly stir in the lemon juice or essence and pour out into greased tins

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*By A. F. Taylor*

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and allow to cool. Mark out in squares and when quite cold break off and wrap in waxed paper.

## COCONUT ICE

For this delicious sweetmeat the following recipes are from old notebooks and have been well tested. One is for uncooked coconut ice while the second one needs boiling.

- 1 lb. Icing sugar
- $\frac{1}{2}$  lb. desiccated Coconut
- White of 1 egg
- 1 tablespoonful Milk

Ensure that the icing sugar is not lumpy. Add the milk and coconut and thoroughly mix together. Beat up the egg white into a nice snowy froth, then mix this with the other ingredients, adding a little at a time. You may not need all the egg — use just enough to make it into a medium texture paste.

Line a tin with greaseproof paper and put in one half of the mixture. Mix a few drops of red colouring into the remainder and put this on top of the white portion. Allow to set, preferably in a warm room for at least 24 hours.

Here is the recipe for the cooked sweet.

- 1 lb. Granulated sugar
- 4 oz. desiccated Coconut
- 1 gill Water
- Vanilla essence

Put the sugar and water into a saucepan over gentle heat. Thoroughly dissolve and then boil to the 'feather' degree (240°). To test for this dip a fork in the syrup, withdraw it and blow on the fork. The syrup should leave it in light feathery flakes.

When this degree is reached take the pan off the stove and beat until the mixture turns nearly white. At the same time gradually add the coconut and a little vanilla essence. Pour out into a greased tin and allow to set, colouring as before.

## EDINBURGH ROCK

- $\frac{1}{2}$  lb. Granulated sugar
- $\frac{1}{2}$  pint Water
- Pinch of Cream of tartar
- Peppermint flavouring

Put the sugar, cream of tartar and water into a saucepan, place over gentle

heat and stir until thoroughly dissolved. Now increase the heat and boil until the 'hard ball' (260°) stage is reached. When a little of the syrup is put into cold water it will form a hard ball which nearly approaches the 'crack' degree mentioned earlier.

Turn out on to a large flat dish moistened with water and leave to cool slightly. Then with a spatula or flat fish slice turn the sides into the middle. While doing this the flavouring such as peppermint, clove or ginger and any colouring needed can be added a few drops at a time. After doing this for a little while the mixture will begin to go cloudy and be cool enough to handle and pull into rock.

A candy hook or a large wardrobe hook is used to pull the rock on. Fix it at about 4 ft. from the ground. Dust the hands with icing sugar, throw the mass over the hook and pull, and keep on doing this until it starts to get light in colour and becomes stiffer in texture. Do this in a warm room to keep it from setting too soon.

When it begins to get stiff roll it out into neat bars of rock on a smooth flat surface and cut up into convenient lengths. Allow time to set and then wrap in waxed paper and store in an air-tight tin.

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● Continued from page 323

## ZOO 'SHOOTING'

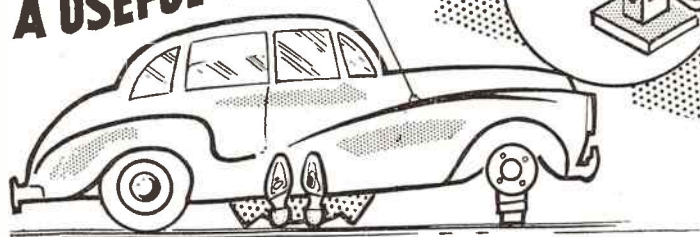
netting. Point the camera downwards to your subjects, and this will help to soften the background, and avoid other distracting features.

Unlike the animals, most of the reptiles lie quite still for a time, and appear to be asleep. The difficulty here is that they have to be housed in special quarters, and are mainly kept in glass cases with artificial lighting. This necessitates a longer exposure, and we have to avoid reflections from the glass. If you like to have a try at these subjects it is best to attach a supplementary lens to your camera, enabling you to get closer.

The monkey house may not be light enough for quick shots of these active animals, but you could try some shots with the aid of a flashgun. Similarly, all other animals confined in indoor cages.

No doubt you will find the elephants out of doors, and within easy reach, providing other people do not interfere too much. With patience you can get suitable shots.

FOR THE REPAIR-IT-YOURSELF  
MOTORIST  
**A USEFUL GARAGE JACK.**



or four holes are bored through both sides of the slotted upright to take the bolt on which the lever-handle hinges. Bevel the bottom edges of the slots to increase the leverage movement.

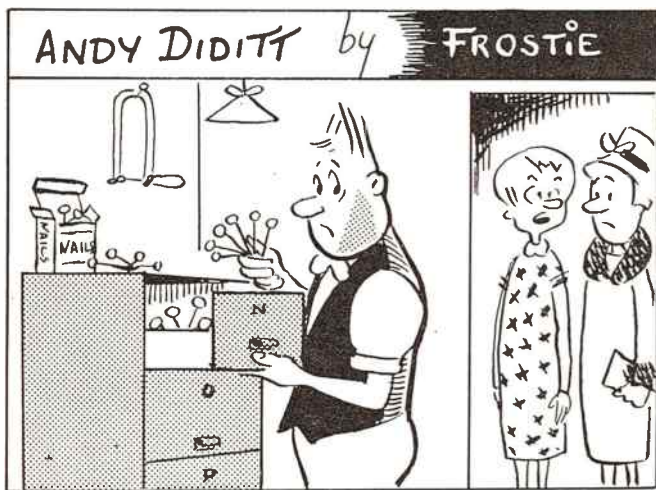
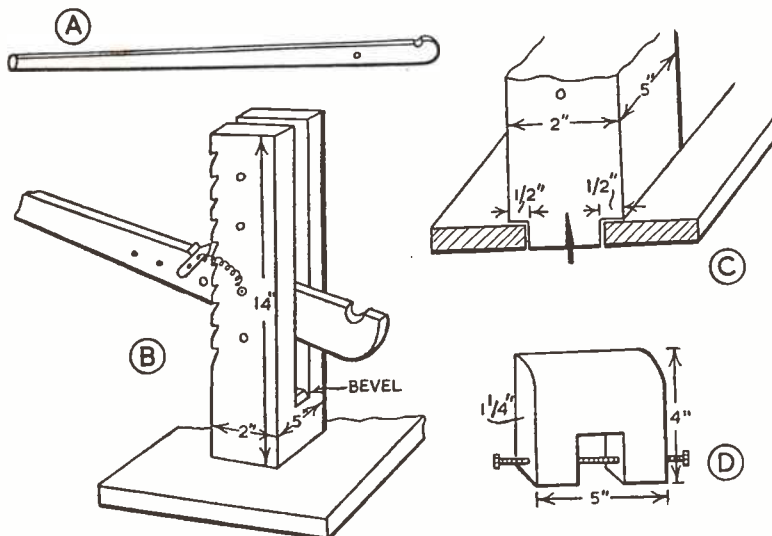
A sectional drawing of the baseplate with the upright morticed into it and wedged is shown at C. Make these fittings accurately and always slightly on the tight side, especially if you are using green oak. The baseplate should measure 12 in. by 9 in. cut from 1½ in. thick wood.

Fig. D shows the wooden ratchet, cut and shaped from a piece of 5 in. by 1½ in. wood. Cut notches as shown at B on the back of the upright before fastening into place in the base plate and be sure to mark them correctly across the slot with a square. Both cuts may be

**T**HE garage jack illustrated is easy to make and simple to use. It is invaluable for changing wheels, adjusting brakes and for lifting the car to place it on blocks when working beneath it. The cost is very low and it will last almost indefinitely if given reasonable care. It is adjustable and sufficiently rugged to handle a car of average size.

Use oak if possible. For the lever-handle it should be of long or twisted grain. I used an old fence post and it's as hard as iron. Roughly shape the handle as shown at A, with a small axe, then trim with a plane and sand. Note the groove for engaging under the axle.

The upright post as shown at B, should be made from a piece of 2 in. by 5 in. oak and the height may vary according to your requirements, but should not be less than 14 in. above the bedplate. A slot of 2 in. in width is cut to a depth of 3 in. above the bedplate, to take the lever-handle. Then according to height, three



“ANDY’S IN THE WORKSHOP, FILING HIS NAILS.”

sawn out at the same time and then shaped out with a sharp chisel.

The wooden ratchet is fastened with a bolt and can be moved when the lever-handle is altered to a new position so that it will be sufficiently close to the notches in the upright to engage them. A small loop-ended spring can be used so that the ratchet will engage automatically when the lever-handle is depressed. I use a strong rubber band hooked over nails driven into the upright near the bolt holes and on the side of the ratchet. One each side would be better. A string or length of wire can also be attached to the ratchet, whereby a pull will disengage it from the notch.

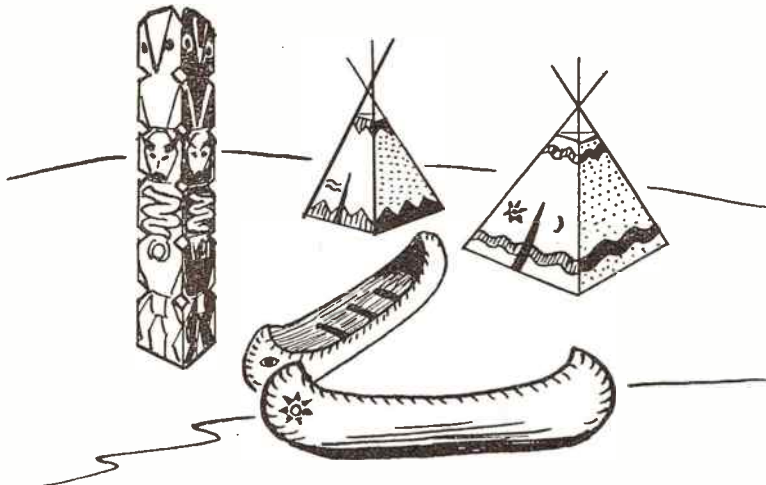
Before boring the holes to take the ratchet, set the lever-handle in each position. Slide the ratchet close to the upright so that it will engage correctly. Repeat this for each position and make a mark to bore a hole for the ratchet in the lever-handle.

(F.C.)

# A MODEL REDSKIN VILLAGE

and C are extended as shown to produce three  $\frac{1}{2}$  in. wide flaps.

The complete shape is cut out, the corners cut off along lines C, and three sides folded up along lines B. The flaps are folded inwards and glued to the adjacent sides, and three matchsticks or



An attractive Redskin village is easily made, using only cartridge paper and matchsticks for canoes, tipis and totem poles.

Each canoe is made from a 6 in.  $\times$  3 in. piece of cartridge paper. The ends are rounded and the upper edge curved as shown at A. The two sides can be held

on the sides.

The Indians lined their canoes with cedar strips; here, matchsticks may be used if desired, glued in rows as shown at C. Use shorter lengths of matchstick towards the bow and stern to take up the curvature of the hull. Matchsticks can be glued across the inside of the canoe for seats, whether it has been lined or not.

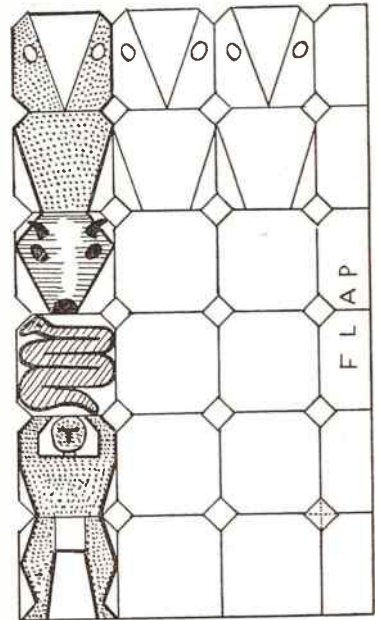
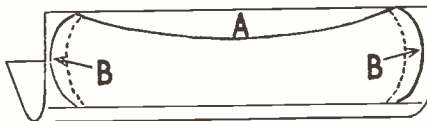
A coat of paper varnish is applied to stiffen and waterproof the paper. This size of model can carry a small plastic figure.

Each teepee is made from a triangle with 10 in. sides, white cartridge paper being used here also (see D). Three lines marked A are drawn from the centre of each side to the opposite corner. The mid points of the sides are then joined by three lines marked B. The short lines at each corner of the triangle marked C are 1 in. from the corners. The lines B

*By A. Liston*

together for cutting, but it is important that the paper shape should not be creased along its length in doing this. The two sides are glued together at the ends B, and left to dry.

The edges of the canoe are painted in a pattern of short strokes to represent thonging, and a design may be painted



pieces of cane are glued in place at the open top in the angle between the sides, to represent the top of the teepee frame.

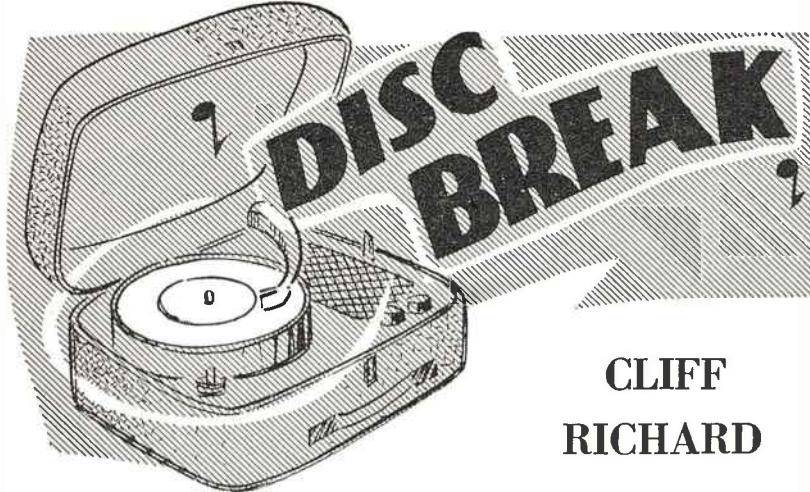
The sides are painted in a triangle, wave, or semi-circle pattern, and a door-flap added. The teepees are also given a coat of paper varnish.

The three-sided totem pole is made from a piece of cartridge paper 6 in.  $\times$   $3\frac{1}{2}$  in. It is marked off in 1 in. squares, and  $\frac{1}{2}$  in. diamond shapes are drawn where the lines of the squares cross.

The paper is folded down the three vertical lines and the diamond shapes are cut out.

Each of the squares in the end vertical column is filled in with a Red Indian symbol. The same pattern is repeated in

● Continued on page 327



## CLIFF RICHARD

**C**LIFF Richard, born in Lucknow, India, on October 14th, 1940, has been interested in music since the age of three, when he was given an old-fashioned gramophone.

By the time he came to this country at the age of eight, his musical interests had begun to fade — firstly because there was no gramophone at his grandparents' home, where he was living, and, secondly, because most of his time was taken up with sport. He was a keen footballer and held the school championship for javelin throwing.

As a member of the school drama society he appeared in many plays. After one of these, in which he sang, Cliff was persuaded by enthusiastic friends to take up singing. This, plus the fact that he had now moved to his parents' home in Cheshunt — where he had a radiogram — sparked off his interest in music again.

Joining a vocal group, Cliff appeared at local dances and clubs and built himself quite a reputation. This prompted him to form his own accompanying group, which he called 'The Drifters'. They have since changed their name to 'The Shadows', and have become very popular recording artistes in their own right.

After appearing at Soho's famous 2 1's coffee bar, Cliff and 'The Drifters' received a number of bookings. The one which started a truly momentous career was at The Regal, Ripley.

While appearing at The Gaumont, Shepherd's Bush, Cliff was introduced to Columbia recording manager Norrie Paramor. A successful recording test followed and within a few days Cliff and his group cut their first two sides for Columbia — *Schoolboy Crush* and *Move It* on DB4178. The publisher of *Schoolboy Crush* heard the record and was so impressed that he arranged an audition with Jack Good for the *Oh Boy!*

TV show. Cliff was immediately booked for the series.

He made his first appearance in the Hit Parade in this country with *Move It* which was joined in the charts by his second release, *High Class Baby* (DB 4203). Both numbers, incidentally, were written by Ian Samwell when he was guitarist with the original 'Drifters'.

Success upon success came to Cliff Richard. In a nationwide popularity poll, conducted by the *New Musical Express*, he was voted 'Favourite New Singer under 21', he was featured in the film *Serious Charge*, and continued to make more hit *Oh Boy!* television appearances, besides starring in the stage production of the show.

It was this *Serious Charge* that led to one of Cliff's greatest hits — the fabulously successful *Living Doll* (45-DB4249), which installed him at the top of the Hit Parade for many weeks, sold over one million copies and earned him a coveted Golden Disc.

He followed this with the immensely popular *Travellin' Light* (45-DB4351) — and this, too, soared to the number one position in the charts.

He consolidated his position as Britain's Number One Teenager with a third hit record, *Voice in the Wilderness*,

from the film *Expresso Bongo*, in which he played the part of Bongo Herbert, and *Don't be mad at Me* (45-DB4398).

Since then he has gone from success to success and has claimed places in the Top Ten with his other 'singles' — *Fall in love with You/Willie and the Hand Jive* (45-DB4431), *Please don't Tease/Where is my Heart* (45-DB4479), *Nine Times out of Ten/Thinking of our Love* (45-DB4506), *I Love You/D-In Love* (45-DB4547).

A tribute to his unrivalled popularity and the remarkable consistency of his record sales (which total nearly six million), is the award of seven Silver Discs — awarded by the publication *Disc* to mark sales of over 250,000 — for each of his 'singles' since *Living Doll*.

In 1960 he flew with 'The Shadows' to America for television appearances and a series of one-night shows throughout the country. He completed a memorable year by being booked for a season at the London Palladium — and was voted Top British Male Singer in the *New Musical Express* poll.

Stamps and labels with a 'doll' theme could well be included in a thematic study of Cliff Richard, while India opens up many more possibilities.

● **Continued from page 326**

## A MODEL REDSKIN VILLAGE

the other two vertical columns. The chosen symbols should be simply drawn so that they can be repeated accurately. In the example shown, a bird shape — the Thunderbird — occupies the top two squares of each column. The other symbols shown, an animal's head, snake, and man, would be repeated in the other

columns. The flap is glued inside the totem pole and the symbols painted in bright strong colours. The small areas surrounding them are best painted in a light colour such as yellow. The pole is also given a coat of paper varnish when dry. It can stand on a simple cardboard base as shown at E.

# MAGIC WITH A PENDULUM

**A**RE you impressed by the strange happenings said to occur at Spiritualist séances? Probably not, but the curious behaviour of a simple pendulum held by you will be sure to remind you of the rising tables and mysterious tappings said by believers to be the work of spirits.

Try this little experiment. Make a pendulum by tying a heavy bolt or curtain ring on to a 12 in. length of thread. Remove the kings and queens from a pack of playing cards and scatter them, faces upwards, over the top of a table. Sit down, or lean over, and hold the pendulum in one hand whilst you rest your elbow upon the table. Suspend the pendulum over each of the cards, in turn, and observe what happens. The pendulum will swing to and fro sideways over a king, and the swinging bob will describe a circular motion over a queen. In fact your device will veritably behave as a 'sex detector'. With such simple apparatus it has been claimed possible to determine the sexes of embryo chickens before they are hatched.

Let another person hold the pendulum and state that, when a hand is held just beneath it, the bob will swing crossways for a gentleman and in a circle for a lady. Your friends will be fascinated to witness the uncanny accuracy of the pendulum's seeming intelligence. Scatter photographs upon the table, and let the swinging pendulum indicate the sexes of

the various portraits. Turn the photographs faces downwards, and repeat the experiment. You may be really surprised to discover a large number of correct divinations when the pendulum is allowed to swing over the blank backs of the pictures. Try placing objects belonging to ladies and gentlemen into

turned over. In the case of the shuffled envelopes, maybe the bulkiness and hard or soft 'look' of the envelopes will give the bearer of the pendulum subconscious clues as to the sort of objects which are actually enclosed. In occult circles the study and use of pendulums to divine or locate hidden objects has been developed as a serious 'science'. For example, it is claimed to be able to locate the whereabouts of natural mineral deposits in the earth by the comfortable expedient of merely suspending a pendulum over a map of the territory being prospected. Similarly some adepts with the pendulum allege that missing persons may be discovered with its assistance.

Hypnotists sometimes use a pendulum for a suggestion technique used to convince their subjects that they will be easily hypnotized. Prepare three diagrams upon postcards, as follows. Draw a circle, a square, and a triangle. Give a pendulum to your subject, and state that the pendulum will trace a circle above the first diagram, will move from left to right across the square, and will swing towards the apex of the triangle. Hold the cards, one at a time, beneath the pendulum and observe how the bob will swing. With most people the pendulum will behave exactly as suggested. Say that the pendulum will now slow down its pace, or quicken its motion, or even commence to swing in a different manner, when you touch the forehead of your subject. The pendulum will probably 'do' as you say. At this stage a hypnotist would either employ further techniques of suggestion or begin to induce an hypnotic trance in his subject.

Experiment freely with the pendulum yourself, and try to create new effects. You will be able to perform a modern type of conjuring called 'psychological magic' by its devotees. Endeavour to find reasonable scientific explanations for your experiments, and do not be afraid to discuss your theories with your audience when you perform. Your demonstrations will not lose in entertainment value as a consequence. Learn all you can about the occult uses of pendulums by consulting the psychology section of your local library. When performing a routine with the 'sex detector' request the loan of a wedding ring for use as a bob, and tie it upon a length of black thread in the presence of your audience. Stress that only a wedding ring will do. By such means you will imply that a wedding ring has special powers, and your audience will be immediately intrigued.

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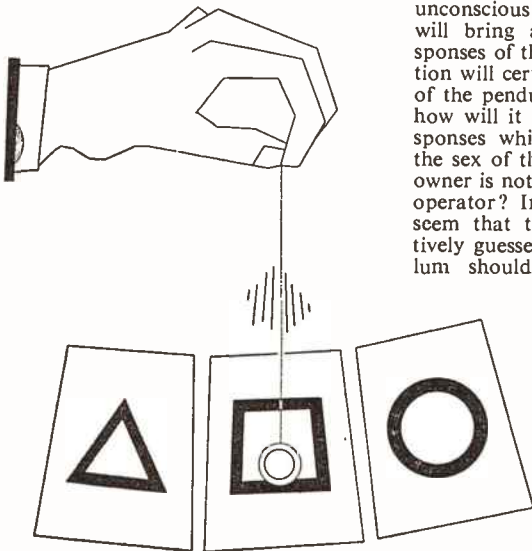
*By A. E. Ward*

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envelopes, then letting the pendulum indicate the sexes of the owners as the bob is permitted to swing over the sealed and shuffled envelopes. If the last two experiments fail to produce convincing results, do not worry, for such negative results may help to explain to you how the pendulum works.

The power of suggestion and the unconscious knowledge of the person who holds the pendulum certainly both play a part in these weird phenomena. Before demonstrating the effect to a family group, or larger audience, it is an important prerequisite that you state most clearly how the pendulum will behave in response to a male or female 'stimulus'. By suggesting to your assistant what is likely to happen you will cause his mind and body to produce unconscious muscular contractions which will bring about the appropriate responses of the pendulum. This explanation will certainly explain the reactions of the pendulum to visible stimuli, but how will it account for the correct responses which sometimes occur when the sex of the picture or of an object's owner is not obvious to the pendulum's operator? In these instances it would seem that the operator himself intuitively guesses correctly how the pendulum should swing and his muscles automatically behave so as to bring about the appropriate reaction.

Perhaps the operator has unconsciously perceived the shapes and physical conditions of the photographs when their faces were exposed, and then used these clues to 'divine' the sexes correctly when the photographs were





# PICTURE PLANT HOLDER

**T**HIS three-dimensional picture illustrated on the front page is executed in bold relief, set in a deep contemporary frame, and incorporates a trailing plant such as one of the decorative ivies. It can be stood on a flat surface such as a sideboard, or hung to good effect on a wall.

This is essentially a project for the fretsaw, although no intricate or critical cutting is involved, as any deviation from the lines given in the design will not seriously matter or affect the beauty of the picture. The idea is to build up from the cut-out shapes a pleasing design which when viewed from a distance will appear in the correct perspective, and give a three-dimensional effect.

All the parts are shown full size on the design sheet. They should be traced and transferred to the appropriate thicknesses of wood, and cut out with a fretsaw. Note that pieces 4 to 12 inclusive are shown on piece 1 in the exact positions they will occupy when they are glued to piece 1, which is a plain panel of wood.

## Adding the pieces

Make a start in building up the picture by mitring or butting the  $\frac{1}{2}$  in. by  $\frac{3}{8}$  in. stripwood (pieces 2 and 3) round the edges of piece 1, as shown in Fig. 1. Pieces 4 to 12 can now be glued to their positions on the base of  $\frac{1}{4}$  in. plywood. Place these under weights, giving the glue plenty of time to thoroughly dry. Then glue piece 13 to piece 4, and piece

14 to piece 7, once again allowing time for the glue to dry. Piece 15 can next be added to piece 13, and piece 17 to piece 16, all their correct positions being shown on the design sheet. Finally add pieces 16, 18, and 19 in positions indicated by dotted lines on the design sheet. In all these stages of adding pieces, allow time for the glue to set.

## Carving the picture

You will now have a relief picture which can be improved by a little carving with a modelling knife or gouge. For instance, the edges of the trees, shrubs, cloud, and smoke can be rounded and slightly indented on the surface. The roofs can be slightly shaped back, and ridged with a V-tool.

Mitre Hobbies No. 12 contemporary moulding round the picture. Fig. 2 shows in section the position of the moulding in relation to the stripwood and base. The moulding is glued in position, and can be strengthened if necessary by the addition of small pieces of waste stripwood or triangular fillet at the back.

To paint the picture, apply one undercoat of flat white over all. The horizon is roughly half way up the picture. Finish the sky in pale blue, and the foreground in light brown. Fleck the foreground while it is still wet with dark brown and yellow paint. The trees and shrubs are light green flecked with dark and medium green to give light and shade. Similarly the cloud should be streaked with grey and white to give shape and depth. These flecks should be added while the background is still wet, in order to avoid hard outlines.

The roofs, chimney, and sundial brickwork are finished in red, and the stone

KIT FOR ONLY 11/6

Hobbies Kit No 3428 for making the Picture Plant Holder contains all wood, moulding, picture rings, wire, etc. Kits price 11/6 from branches etc or direct from Hobbies Ltd, Dereham, Norfolk (post 1/9 extra)

pathways (7 and 14) are light brown. The roof is streaked with yellow to suggest tiling, and the pathway, etc, can be marked in with pencil to represent crazy paving and flagstones. The fronts of the house are light fawn flecked with light brown, and the sunken portions of the windows are jet black with frames and doors in bright yellow. Live up the trees and shrubs with dabs of light brown and white, etc, to represent flowers. Birds in flight can be added in the sky, and the frame should be finished in a pastel shade of blue.

The flowerpot is supported quite simply with a ring of plastic-covered wire, the ends of which are inserted through two holes in the base (1) and bent at the back (Fig. 3).

Note that if the picture is to hang on a wall it will have to be balanced properly. Fix two picture rings, and stretch cord tightly across them at the back. The cord will hang over two hooks placed in the wall. Normally the plant will be removed from its wire holder for the purpose of watering. A tin lid suitably painted can also act as a drip saucer.

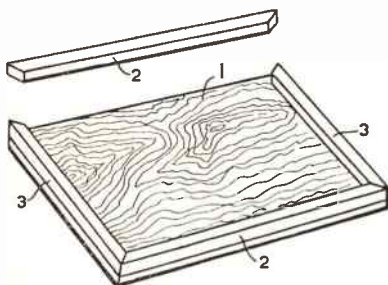


Fig. 1

Fig. 2

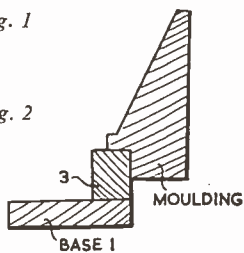
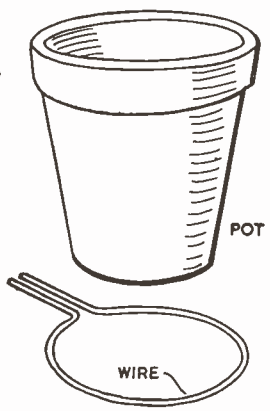


Fig. 3

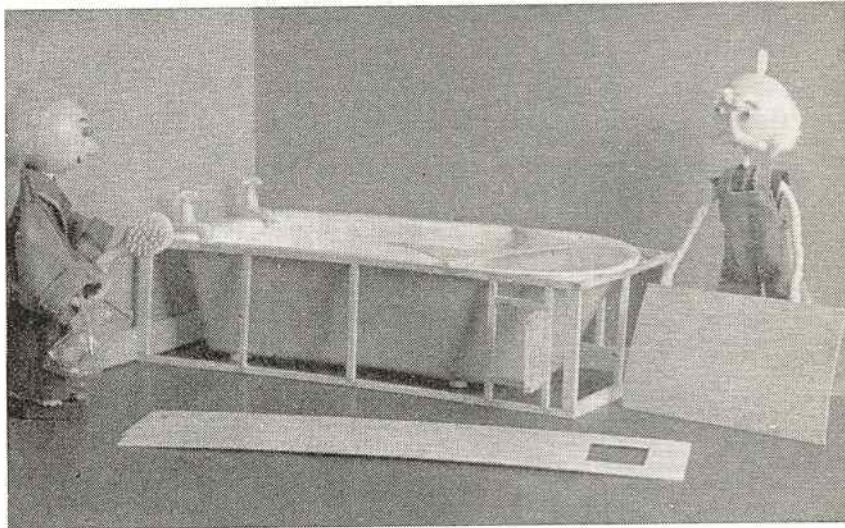


\*\*\*\*\*  
 ★ Instructions for making a Child's ★  
 ★ high chair will be given in next ★  
 ★ week's issue. Also 'making a simple ★  
 ★ wall dressing table' and other ★  
 ★ modelling and home projects. Make ★  
 ★ sure of your copy of Hobbies ★  
 ★ Weekly. ★  
 ★ ★  
 \*\*\*\*\*

# ENCLOSE THAT UGLY BATH

TALKING to a plumber the other day, I was surprised to learn of the high proportion of householders who still tolerate an unpanelled bath in their homes. Nothing looks more ugly in an otherwise presentable home than a bathroom containing an ugly, naked, 'legs-on-show' bath. It takes one back with a shudder to Victorian days. And yet the panelling-in of a bath is so simple a job, that even the most amateur of handymen can tackle it.

*By E. Capper*



*These quaint models are in the process of enclosing a bath. Note piece lying across bath, which will be fitted to rounded end.*

The job is economical, too. Framework need be no more than 1 in. squared timber, and even this need not be of the planed type, for none of it will show when the task is complete. The framing is covered with  $\frac{1}{2}$  in. hardboard, another reasonably priced material. In fact, it should be possible to enclose any bath for under £1.

The photograph shows clearly the construction, although this is only a model. It illustrates one of the really old-fashioned baths with a rounded end. If you have a more modern, square-ended bath, the job will be even simpler.

Make up the framework separately, and then screw it into position. In most cases baths will be found to be positioned in one corner of the room, which means that only a front and a return side have to be enclosed.

If you have a rounded-end bath, first make a template from stiff cardboard of the semi-circle end, and keep it by you. It will be used later on to cut the actual hardboard that will fit around the curve.

Where most amateurs go wrong is that they build the panelling flush with the outside edge of the bath rim. Consequently, any water running over the bath side runs down the panelling, and will in time leave streaks on the finished paintwork. It is far better to allow for the hardboard panelling to tuck up tight *under* the rim of the bath so that any overflow of water will drip to the floor.

Therefore, the 1 in. framing should be set back  $\frac{1}{4}$  in. from the underneath inside edge of the bath rim (see Fig. 1). It cannot be fitted under the small part of the rim that comes on to the squared-up framing for the side of the bath. This is, of course, unavoidable.

First, make the front framing, adding sufficient intersecting uprights to take any sag out of the long top and bottom horizontal members. Here, you must decide whether you would like to incorporate a small doorway in the panelling so as to give access to a compartment in which to store cleaning utensils. You will see the door to the

right in the photograph. On the floor is the sheet of hardboard with an opening cut out for this doorway, and which will be fitted when the framing is complete.

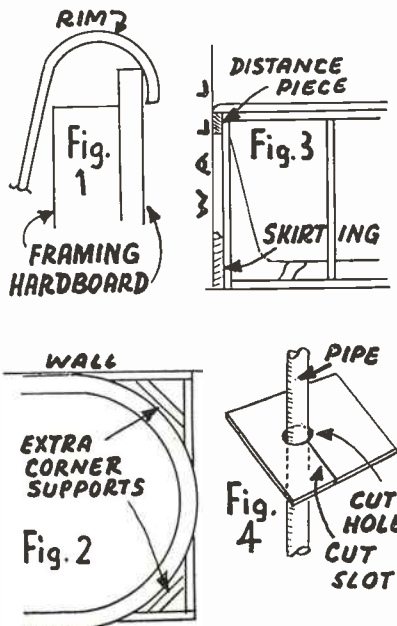
If a door is decided on you can add extra framing to act as supports. The actual door can, of course, be made and fitted later.

Make the end framing in a similar way, and join it at the corner to the front framing. Notice in the photograph that some framing has also been placed at the back of the bath, near the wall. This will be necessary to act as a support for the hardboard that is later cut and fitted around the curve of the bath-end.

It will usually be necessary to fit a horizontal member between the corners of the framing to act as additional support for this curved shape of hardboard (see Fig. 2).

When the framing is complete, slide it into position, and screw it to the floor through the bottom horizontals. It will also be necessary to hold the framing in place near the top, by screwing it into Rawplugged holes made in the wall. There is no need to cut out profiles on the bottom of the upright abutting the skirting. The gap at the top of the framing is filled up with a distance piece of timber (Fig. 3). The hardboard panelling will, of course, need a piece cut out to allow for the skirting.

Cut the hardboard to a height equal to that from the floor to level with the underside of the bath rim, plus  $\frac{1}{4}$  in.



Then tuck up the extra  $\frac{1}{4}$  in. under the rim, as explained previously.

It is best to fix the hardboard with  $\frac{1}{2}$  in. countersunk brass screws. Use only sufficient to hold the panelling in place. Don't be tempted to sink them under the surface, and to fill in the depressions with filler. You must face the fact that you may need to call in a plumber one day, who will want to get at the pipes.

You don't want to be scratching around all morning trying to locate the screws in order to remove the panelling. The screws won't show too much if they are fitted carefully, flush with the outside face of the hardboard.

The best finish for the panelling is black paint or enamel. This will fit into any contemporary scheme you may decide upon. If you feel your effort

deserves a real pukka finish, cover it with Fablon or Contact plastic sheeting. There is a wide range of patterns to choose from.

If you have geyser pipes that pass through where your panelling will be fitted, first make up paper templates before attempting to cut the hardboard. How to fit the hardboard around these pipes is shown in Fig. 4.

## Use cement for these accessories

**M**ODEL railway accessories such as tunnels, bridges, and cuttings can all be made simply and cheaply, using the method described here. Being made of concrete, they are suitable for use with an indoor or outdoor layout. The material used is a type of concrete which requires the minimum use of wooden moulds, as the

mixture is capable of being built up without losing its shape when it is wet.

The medium which is the basis for all these models is made by mixing equal quantities, by bulk, of cement, sand, and peat. The ingredients must be thoroughly mixed before the water is added, a little at a time, until a stiff concrete mixture results.

The method of construction is very simple. For a tunnel, all that is required is a hardboard or wood core, which may be solid or hollow, a few inches longer than the desired length of the tunnel. This is lightly smeared with grease or oil, and laid on a level piece of wood or hardboard, also lightly greased, and the concrete mixture pressed over it to a depth of 2-3 in., as shown in Fig. 1. The sides are sloped and thickened towards the base, and the ends may be smoothed with a knife blade

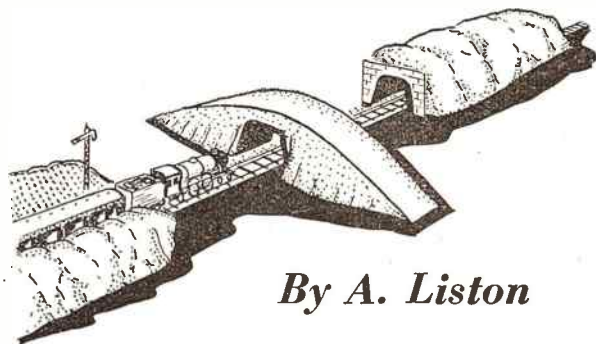
to represent masonry. While the mixture is still wet, a piece of rough stone or broken brick is pressed over the sides to give a rough finish.

The model is best left for two days before the core is carefully withdrawn. At this stage it will be very dark grey in colour, and it should be left to harden off and dry out to its final pale grey colour, a process which will take a week to ten days. After this, it can be painted with a flat finish green paint, or left in its natural colour.

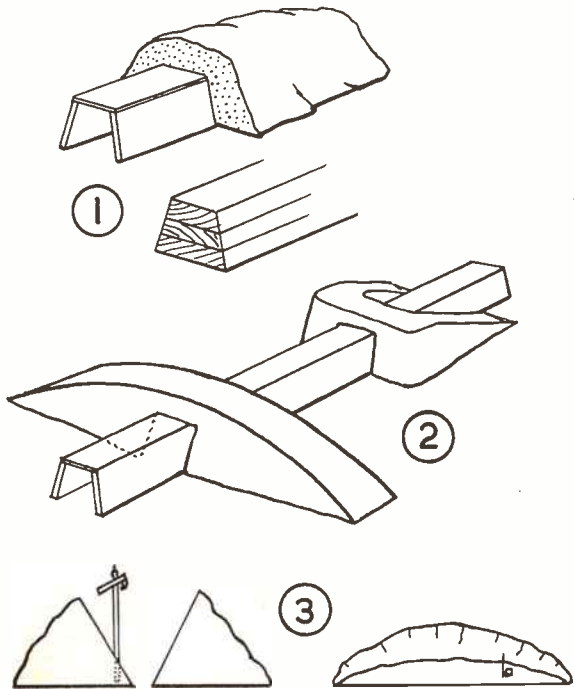
### Reinforced bridges

The same mould can be used to make bridges crossing the railway line, by shaping the concrete in the ways shown in Fig. 2. For these structures it is desirable to have some form of reinforcement at the point of strain, namely the arch. This reinforcement can take the form of a strip of wire netting or lengths of stiff wire, such as lamphshade frame wire, which is embedded in the arch during construction.

Cuttings, between which the rails can pass, need no mould, but are built up with a smooth sloping inner face and a rougher outer one. Fig. 3 shows a section through the middle of a pair of cuttings, and also a plan view of one. It adds greatly to the realism of cuttings if small accessories such as telegraph poles or signals are embedded in the concrete while it is still wet. If the medium is to be painted after it has dried out, it again looks more realistic if the outside face only is painted.



*By A. Liston*



# CHEMISTRY AT HOME

THE parent substance of the chlorides is, of course, hydrochloric acid, HCl. This acid has been known since the 15th century. As it was prepared from common salt (sodium chloride), NaCl, it was named 'spirit of salt', a name which is still used in everyday language, especially for the not quite pure technical grade of the acid.

## EXPERIMENTS WITH CHLORIDES Part 1

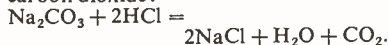
The strong acid contains about 36 per cent of the dissolved gaseous acid, and is corrosive to the skin. Hence any which comes in contact with the fingers should be flushed off with water and wet sodium bicarbonate, NaHCO<sub>3</sub>, applied.

Where it is required in the experiments a dilute solution may be used, unless otherwise stated. Stir 100 c.c. of the strong acid into 200 c.c. of water and then make up to 360 c.c. with more water. This gives roughly a 10 per cent solution.

Take a few crystals of washing soda (sodium carbonate), Na<sub>2</sub>CO<sub>3</sub>·10H<sub>2</sub>O, and dissolve them in a small quantity of water in a beaker. Little by little add hydrochloric acid. Effervescence occurs owing to evolution of carbon dioxide, CO<sub>2</sub>. When this finally ceases, test the liquid with blue litmus paper. If the paper reddens, the end point has been reached. If not, continue the addition of hydrochloric acid until it is.

Now boil down the solution to dryness. A white solid is left. Moisten your finger, dip it in the white solid and taste it.

Salty! The hydrochloric acid has converted the washing soda into salt with simultaneous formation of water and carbon dioxide:



This, the commonest of the chlorides, occurs not only in vast quantities in sea water, but also in large underground deposits. Here in England, the Cheshire deposits supply our needs both for everyday life and for the manufacture of many chemicals.

To a few c.c. of silver nitrate solution, AgNO<sub>3</sub>, add sodium chloride solution. A curdy white precipitate of silver chloride, AgCl, appears, sodium nitrate, NaNO<sub>3</sub>, remaining in solution:



Wash the precipitate by almost filling the test tube with water, closing the mouth with the thumb and shaking. When the chloride has settled, pour off the upper liquid, remove a little of the silver chloride to a watch glass and expose it to light. It turns violet and then darkens further. To the remainder in the test tube add some sodium thiosulphate solution, Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>·5H<sub>2</sub>O. The silver chloride dissolves with formation of silver sodium thiosulphate, AgNaS<sub>2</sub>O<sub>3</sub>, and sodium chloride:



Now add sodium thiosulphate solution to the darkened silver chloride in the watch glass. This is not dissolved.

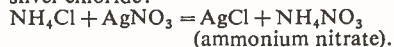
### A simple photograph

Here we have the principle of photography. If a sheet of paper be impregnated with silver chloride and a leaf placed on it, exposure to light will cause the uncovered part of the paper to darken, while that under the leaf will remain unchanged. By soaking the paper in sodi-

um thiosulphate solution the unaltered silver chloride will be removed and a permanent image of the leaf be obtained.

To try this out, float a small sheet of drawing paper on a solution of 1 gram of ammonium chloride, NH<sub>4</sub>Cl, in 50 c.c. of water for five minutes. Pin it up to dry. In a very dim light, float the paper (ammonium chloride treated surface undermost) on a solution of 2 grams of silver nitrate in 25 c.c. of water for three minutes. Pin up the paper to dry in the dark.

The surface of the paper now contains silver chloride:



Treated surface upwards, place the paper on a sheet of glass, lay a leaf in the centre, cover with another sheet of glass and fix together with rubber bands as shown in the diagram. Expose the whole to bright light until the uncovered areas of the paper darken no more. In a dim light, remove the paper. The leaf image stands out white on a dark background.

Fix the image by soaking the paper for ten minutes in a solution of 20 grams of sodium thiosulphate in 100 c.c. of water, followed by washing thoroughly in running water.

### A pretty effect

The crystallisation of lead chloride affords a pretty effect. To a few c.c. of dilute hydrochloric acid add lead acetate solution, (CH<sub>3</sub>COO)<sub>2</sub>Pb·3H<sub>2</sub>O, drop by drop. When a small amount of a white precipitate has formed (lead chloride, PbCl<sub>2</sub>), heat the mixture until it clears. Now let it cool, preferably in sunlight for the best effect. A silvery shower of lead chloride crystals falls through the solution.

To make a specimen of the chloride, which is formed according to the equation:



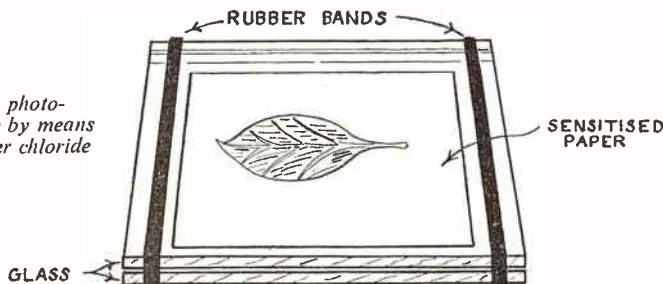
PbCl<sub>2</sub> + 2CH<sub>3</sub>COOH (acetic acid), dissolve 18.6 grams of lead acetate in 125 c.c. of water, adding a little acetic acid to clear any turbidity. To this add 36 c.c. of the dilute 10 per cent hydrochloric acid. Filter off the precipitate, wash it at once with water and then let it dry.

Fuse a little of it on a tin lid. On cooling it assumes a curious horny form.

Lead forms a basic as well as a normal chloride and this is useful for the preparation of a yellow pigment known as Turner's Yellow. The hydrated basic lead chloride, PbCl<sub>2</sub>·3PbO·4H<sub>2</sub>O, is prepared by heating in a flask in a water bath 8.92 grams of lead oxide, PbO, and a solution of 1.16 grams of sodium chloride in 25 c.c. of water until the lead oxide turns white. Sodium hydroxide NaOH, is also formed in the reaction and this was once

● Continued on page 334

Simple photography by means of silver chloride



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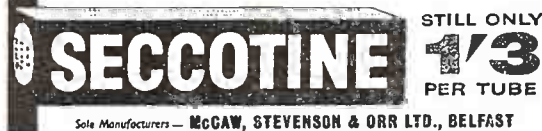
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# Stamp Collector's Corner



By L. P. V. Veale

**I**n my last notes I raised the question of watermarks and the necessity for their collection. Well, the same thing must be said about the various perforations — the number of holes there are in two centimetres of stamp.

If you take one of the present day half-penny stamps and count the number of holes along one side you will find there are 18. But this side is more than two centimetres long. If you count the number of holes in two centimetres then you will find that there are only 14 and that is the perforation of that side of the stamp. On the top you will be able to count 15 holes in two centimetres of stamp so this stamp is said to be perforate 15 by 14. The top of the stamp is always given first.

If you look at the illustration of the 1d. stamp on the perforation gauge you see that the right hand side corresponds with the 14 dots.

A very good illustration of the importance of perforation in modern times is the Gibraltar King George VI. 1½d. stamp perforate 14 catalogued at 1/3 whereas if perforate 13½ then the catalogue value is 80/-, quite a difference for only half a hole in two centimetres? By the way, notice that the correct way of writing this is 'perforate 15' not 'perforated 15'.

Now as the size of your collection grows and with it your knowledge, you will have a favourite country or region, so that when you obtain a stamp from there you are much more pleased than if you get one from somewhere else, and you will always be trying to exchange stamps for specimens from this area. You are getting to the stage of specialising. You may even be tempted to sell all your stamps from the rest of the world in order to have money to buy more of the region you favour. Try to resist this urge. By all means try to increase the collection

of the chosen area but keep the others if possible.

You may be surprised to hear that there are fashions in stamps; there are most certainly changes of taste and consequently changes of value. You see the value of an article depends on how many people want it. If at a sale there are half a dozen people wanting a certain stamp



Note how string behind shaft — — and bow string in front of shaft

then the price paid will be high, because one will bid against the other. But if only one person wants it, then he or she will get it easily and cheaply. If one could only predict which country will be fashionable in a few years time then one could 'take up' that country and reap a good harvest. Generally it is safe to go for British Colonials, they always seem

to be popular. If you can manage it you should join a stamp or philatelic society. Then you will have the opportunity of seeing what other people do with their collections. You will find advanced collectors write up their collections. On each page of the album they will write up very carefully all about the stamps found on that page, giving such information as the date of the issue, the name of the designer, the method of printing, the type of paper used, the watermark, and the perforation.

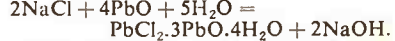
Do not attempt to make these 'write ups' for a whole world collection. It would be quite impossible to carry it out properly, but there is no reason why you should not choose a country and write up about that and still collect other stamps. As your knowledge grows so you will want more than ordinary notes. Sketch maps can show where the first post lanes were. Insert these in one colour and then choose a second colour to put in the next route, and so on. Find out the cost of sending a letter in the early days and compare it with the cost now; collect all the information that you can and then when someone has a look at your collection you will be able to interest them more than ever with your notes.

Diagrams are very helpful in adding interest to a collection. Remember that to the non-collector all stamps which have practically the same design are the same unless the difference is carefully pointed out — and what better way of pointing out a difference than a clear diagram? For example, look at the two Swiss stamps illustrated. If you show these to the average person he will stare at them for quite a long time before seeing any difference. But if you show a card with the difference illustrated there will be much more interest.

Continued from page 332

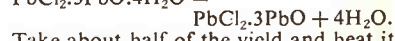
## CHLORIDES-Part I

used as an industrial method of preparation of the hydroxide:

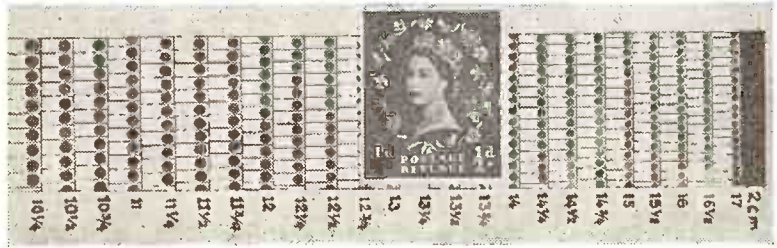


Filter off the basic lead chloride, and wash it on the filter until it is shown to be free of sodium hydroxide by one water not turning red litmus paper blue. Let the compound dry.

To prepare Turners' Yellow, which is the anhydrous basic chloride,  $\text{PbCl}_2 \cdot 3\text{PbO}$ , it is only necessary to heat it, when it loses water:



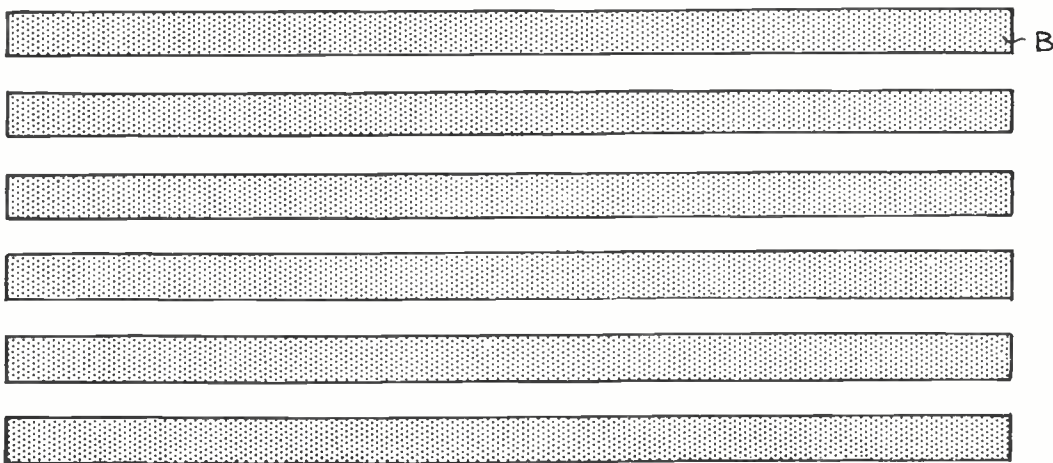
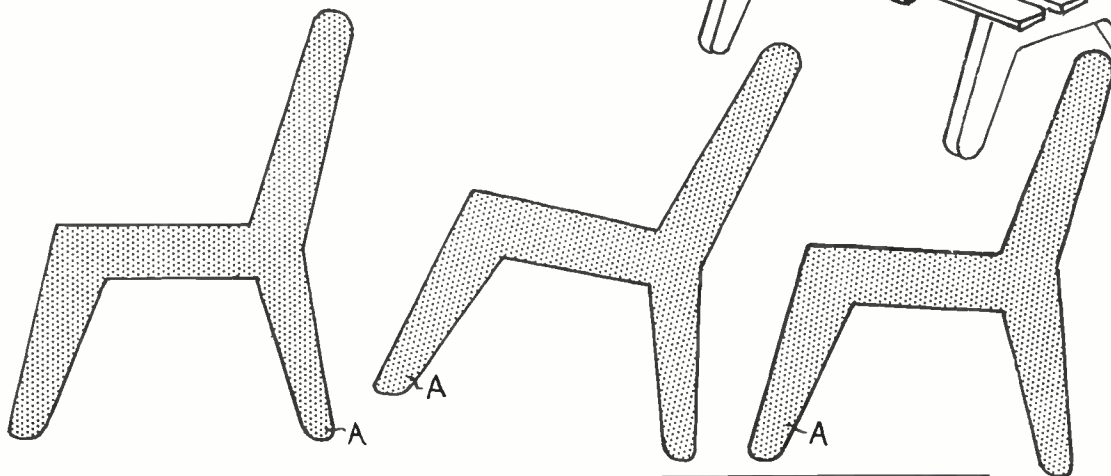
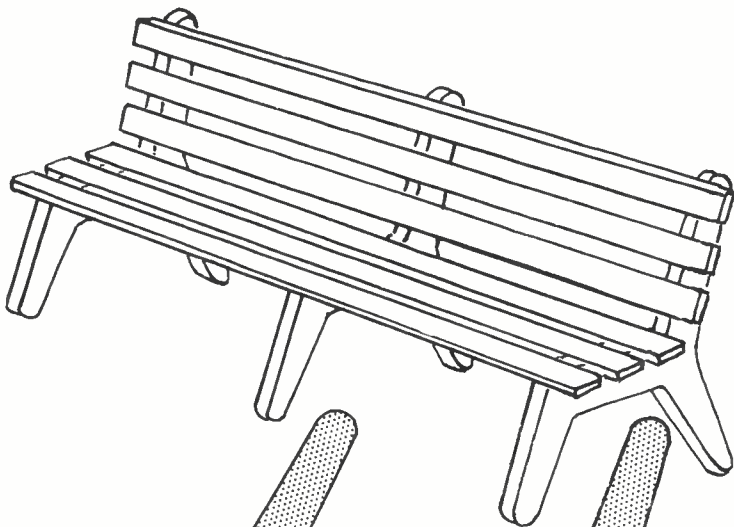
Take about half of the yield and heat it in a crucible until it has turned uniformly orange. Remove the flame and watch. The orange colour pales to yellow as the solid cools. This is Turner's Yellow.



Full-size patterns for making

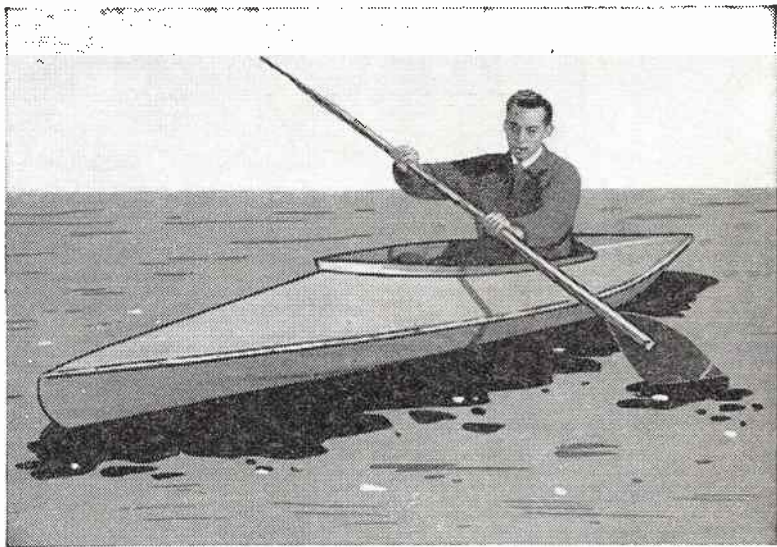
# DOLL'S HOUSE SEAT

**T**HIS garden seat will be an added attraction to your daughter's doll's house. It is cut out with a fretsaw, glued together and painted white. The pieces A should be cut from  $\frac{3}{16}$  in. plywood and the strips B from  $\frac{1}{8}$  in. fretwood. Alternatively the pieces B can be cut from  $\frac{1}{4}$  in. by  $\frac{1}{8}$  in. stripwood. After gluing together the pieces are given one white undercoat and one topcoat. (M.p)



# Single seat and two seat CANOES

COMPLETE AND READY  
FOR THE WATER — OR  
IN KIT FORM TO MAKE  
YOURSELF



THE PBK 10 SINGLE SEATER

These popular craft are designed by that well-known authority, P. W. Blandford. With canvas skins, they are propelled by double-bladed paddles and are thoroughly at home on lake, river or canal — or even on the sea in experienced hands. They are offered as complete canoes, or as specially prepared kits, which include full building instructions. Easy terms are available, subject to the completion of a simple form of Agreement.

**PBK 10** Single seat — 11 ft. long  
28 in. beam — load 300 lb.

**COMPLETE CANOE** (without paddles)  
CASH PRICE **£24.5.0** (part p. & p. £2 extra),  
or EASY PAYMENTS **£6 DOWN** (plus £2  
part p. & p.) & 6 monthly payments of £3.4.8.

**COMPLETE KIT** (except paint and  
varnish and without paddles)  
CASH PRICE **£15.10.0** (part p & p. 15/- extra)  
or EASY PAYMENTS **£4 DOWN** (plus 15/-  
part p. & p.) and 6 monthly payments of £2.0.9.

**DOUBLE-BLADED PADDLES, 47/6 Complete** (part p. & p. 2/6 extra)

**PBK 20** Two seater — 15 ft. long  
32 in. beam — load 700 lb.

**COMPLETE CANOE** (without paddles)  
CASH PRICE **£32.10.0** (part p. & p. £2.10.0  
extra), or EASY PAYMENTS **£8 DOWN**  
(plus £2.10.0 part p. & p.) & 6 monthly pay-  
ments of £4.6.9.

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varnish and without paddles)  
CASH PRICE **£22.5.0** (part p. & p. 20/- extra)  
or EASY PAYMENTS **£5.10.0 DOWN**  
(plus 20/- part p. & p.) & 6 monthly payments  
of £2.19.4.

(DEPT. 99)

## DEREHAM



## NORFOLK