## FOR ALL

HOME CRAFTSMEN

Also in this issue: build a model. VILLAGE COLLECTORS' CLUB CACTI GARDENS FOR CHRISTMAS ADDING COLOURS TOO SLIDES

GARDENING JOBS FOR NOVEMBER

SHIF MODELLING AND NOVELTIES ETC. ETC

## Up-to-the-minute ideas

## Practical designs

Pleasing and profitable things to make

friend, either sex, aged about 30 years. My hobbies include stamp collecting, visiting zoos, old churches, museums, and historical places, also reading, etc.'

## REQUESTS FOR MORE FRIENDS

Vernon E. White, F.R.G.S., is starting a collection of brewery labels. "The jam makers have very attractive labels, and it is my intention to collect these as well', he says. 'I am a land surveyor. My son collects stamps. We would like to exchange items of interest with other readers throughout the world.' Write to 19 Lancaster Street, Coorparoo, Brisbane, Queensland, Australia.

We get hundreds of pen friend letters. Here's a list of addresses to choose from:

Miss Jean Beer, 84 St. Aidan's Road, East Dulwich, London, S.E.22. Aged 16. Hobbies include stamps, cheese labels, and letter writing.

David Harrison, 40 Shawbridge Street, Clitheroe, Lancashire. Stamps, match labels.
P. Tickner, 32 Brent Way, Wembley, Middlesex. Age 16. Fishing, scouting, camping.

Lawrence Bush, 12 Agnes Road, Northampton. Age 15. Stamps, beer mats, records.

Colin H. Stewart, 544 Rutherglen Road, Glasgow, C.5. Age 20. Photography, beer labels, coins.
L. O. Fisher, 6969 N. Figueroa Street, Los Angeles 42, Calif., U.S. Stamps, postcards.

ALLAN CALVERT writes: 'Since I last wrote to you I have received over 900 beer labels from England, Canada, South Africa, India, Holland, and Ceylon.'

Allan would like pen friends throughout the world. You can write to him at 33 Locksley Park, Finaghy, Belfast, 10.
'I have been a reader of Hobbies Weekly for over three years, and have seen no other magazine to beat it', says Clive Astley of 108 Buxton Lane, Caterham, Surrey.


Hungary has issued an attractive set of match labels commemorating the Olympic Games, including the above.
'I would like pen friends in Australia, New Zealand, and Ceylon. My hobbies are photography and geography."

If you still need friends, choose them from the following:
S. Goodyer, The Wingrove, Keynsham, Nr. Bristol. Age 12. Hobbies include stamps, labels, cards, etc.
Vytis Vabalas, S. Neries Street, 28B Kaunas Centr, Lithuania, U.S.S.R. Collects: match labels, unused stamps, playing cards. Languages: Russian, English, German, French.

Frank G. Myers, 718 Union Avenue, Los Angeles 17, California, U.S.A. Collects: match labels, hotel labels, stamps, postcards. Languages: English, Italian, French, German, Portuguese.

Walter M. Loeb, M.D., 4568 E. Mercer Way, Mercer Island, Washington, U.S.A. Collects: paper money of the world.

Vadim Shchelkunov, Ul. Prof, Popova $41 / 5$ KV, 63, Leningrad P. 137, U.S.S.R. Collects: match labels, stamps. Languages: English, French, German.


CACTUS gardens if properly planted can be attractive decorations. The containers for the gardens can often be improvised from such things as posy rings and plastic shaving bowls. However, with a little extra trouble, attractive conerete troughs can be constructed to measure.

To do this, a strip of thin aluminium sheet about 18 in . long and $2 \frac{1}{\frac{1}{3}} \mathrm{in}$. wide should be obtained. This is bent to an oval shape, or circular if a round bowl is required, and the ends fastened together by means of a piece of thin wire passing through holes in the ends of the strip. The metal ring so formed must be covered with paper on the outside to prevent the concrete from sticking. This will be found to be quite easily done by folding the paper over the top and bottom, and, if necessary fastening with Sellotape.

The prepared ring is stood on a sheet of paper on a piece of glass, and the rough shape pencilled on the paper. The concrete mixture should then be mide up from one part cement, one part soft sand, and two parts sharp sand. It must be thoroughly mixed and sufficient water added to produce a stiff paste. Some is then spread on to the paper on the glass to fill the marked shape, and levelled to approximately $\frac{1}{4}$ in. thick. The mouid is then stood on to this base, and, using the fingers (rubber gloves may be worn) pieces of the mixture are taken up and plastered on to the outside of the mould. working from the base to the top. If the
consistency is correct, the concrete will adhere readily, and should be about $t$ in. thick. Care should be taken to ensure that the pieces placed on to the lower parts of the sides stick well to the base conercte. Finally a brush over with a paint brush dipped in water will finish off the job.

## 10-Gardens for Christmas Gifts

The prepared bowl should be alfowed to remain undisturbed for three days, and then the wire fastening the aluminium strip can be cut, and the strip carefully removed. Any paper adhering can be washed off. If drainage holes are required they may be poked in the base with a pencil before the concrete has set, but generally speaking, for indoor bowl gardens, they are not necessary,

When preparing the container for planting, the first thing to do is to place a 1 in. layer of coarse gravel in the bottom (less for a very small one) for drainage. A mixture of sand and John Innes' No. 1 compost is then added. A little bone meal should be mixed into the compost to provide a slow acting fertilizer for the plants.

In choosing plants it is important to obtain dwarf or slow growing ones that will not swamp your contaliner in a
matter of months. It is also important that the plants should have the same growing period. A pan of Lithops growing amongst pebbles of a similar colour is the most fascinating way of arranging these plants, but they should be grown on their own and not mixed up with eacti which have greater water requirements.

Assuming that the average person wants an attractive mixed bowl of plants and not a specialized collection of Lithops or any other genera, the following plants are excellent to start with: Opuntia microdasys, varicty minima, Rebutia minuscula, Frailea columbiana, smatl Echinopsis off-sets, Ceropegia woodsii, small off-sets of Aloe varieguta, cuttings of Crassula lycopoidiodes. However, there are lots of other plants that can be used, so if you have any off-sets or spare cuttings by all means try them ont. Ceropegia woodsii is a trailing plant that can be used to grow over the edges of the container or over pieces of stonc.

Once the plants are in place, the surface of the garden may be decorated by means of appropriately placed picecs of stone and pebbles. The surface may be top-dressed with sand or granite chippings if desired.

The completed garden should be gently watered and placed in a light position. If your container has no driainage hole it must always be watered carefully. Always make sure that it has dried out from previous waterings before moistening again. If there is a drainage hole the garden may be kept just moist in summer, but during the winter it should be kept much drier. If kept in a heated living room it may need a weekly watering during the winter to counteract the dry atmosphere.

Small gardens made up on the lines suggested, in good time, make excellent Christmas presents, far better than the pathetic and exorbitantly expensive cfforts often seen in shops. (P.R.C.)


A plastic trough


A home-made concrete bowl

## Build yourself a Village-(1)

SOME four miles from Eastbourne on the South Coast there is a small village named Polegate where the renowned Wannock Gardens are situated. These are ornamental gardens of interest to gardeners in general for there are tropical fruits in the hothouses, walks with trained fruit trees, ornamental shrubs, a wishing well, and an attractive novelty in the form of a miniature village.

Our photograph shows part of this village, which has many interesting and humorous features. At the tittle cafe we see such notices as 'Try our Dear Little Teas' or 'You won't be fed up here' while a forcman in charge of some

## By H. Mann

workmen is asleep in a bed. There are humorous notices on tombstones in the village churchyard where 'A Vicar with Sober Habits is required' and many, many other features which make this village so interesting. There is a row of shops in the village square, a church, a castlc, a windmill, a village lock-up and even a few merry-go-rounds which revolve on the turn of a handle.

The entire miniature village is built in a corner of the gardens and miniature shrubs are used for trecs, and although you may not be able to build such a village in your own garden this idea can be the basis of a fascinating hobby of building your own village from matchboxes on a piece of hardboard. The building may go on indefinitely and you will start a fascinating projoct in which your family or friends can join. This will be realised when we come to the more detailed instructions about building.


The miniasure village at Wannock Gardens

First of all we require some kind of plan for the layout of our village and we can do no better than start with a map. This will be needed throughout the building stages and will be required for reference. In Fig. 1 we suggest a plan for a small village of this kind and you will see that we have provided for a strect, square with a row of shops and other features. This is only a suggestion and you may be able to produce a much better scheme for your own village or adapt one from a large scale ordnance survey map. Whatever method you follow it is best to make a note of what features you desire, inserting them on the
map before embarking on the building programme. Morcover, we may incorporate a river, duckpond, or even a railway line, but it will beappreciated that having embarked on a set plan it is impossible to make drastic alterations when the building has progressed.

Another factor we have to consider is the advantage of a lay-out which bears a gentle slope up towards the back. This makes the rear buildings stand a little higher and they may be seen to better advantage than on a flat lay-out which is uninteresting. Here again your incline must be planned in advance.

A further reference to the photograph


HARDBOARD
CARDBOARD


FIG 2
may help you to decide what features should be incorporated in the village and provision must be made for alt types of inhabitants. We must remember a school for the children, the church, houses, shops, a cafe, perhaps a castle or windmill, white you may include some unusual feature in the form of stocks or market cross, at your discretion.

Let us now return to our map in Fig. 1
and study this a little more closely. The road from the base can be made to rise on a slight gradient towards the castle on the top of the hill and this will make the whole so much more realistic. Then we have the shopping area in the centre and houses can be built around this, while the church can be made in a corner to itself.

Much depends on how large you wish to plan your project but we would suggest obtaining a piece of hardboard not less than 15 in . by 20 in . If your project is to be more ambitious the size may be greater or you may make a much smalier village if desired.
We have already mentioned the value of making the village rest on a sloping site and this is done by using layers of cardboard and odd scraps of hardboard.

Glue a piece of hardboard on to the centre of the base as shown in Fig. 2 and
where the shopping centre may be placed. Odd pieces of hardboard and cardboard of varying grades and each of smaller size can then be positioned and glued to make a gradient as shown. The whole is then covered with a plaster crack filler to make the foundations of the village. You may proceed similarly if you prepare your own plan but remember to leave those areas Ievel where shops or houses are to be built.

It will be appreciated that the use of scraps of cardboard not only economises in the plaster filler but also makes the entirc foundations much stronger. Apply the plaster from the bottom, working upwards, and smoothing over the joints while the plaster is still wet. It is as well to give a coating of filler to the entire base and ultimately it will be possible to scrape away the material in places where it is uneven and where a building site
may be involved. The coating of plaster should not be too thick yet it must not be so thin that it would crack, so endcavour to lay an even application about $\frac{1}{2}$ in. thick over the cardboard laycrs, smoothing out with a small piece of .elluloid as you proceed.

When the surface has dried we must refer to the original map of the village for the next step. A real builder will first plan the roads on his site so we must do just the same, marking in the roads and any paths with a crayon. The roads must be made and you have the alternative of colouring with water colour or applying a 'tar macadam' surface. The latter can be made by painting the roadways with glue and then applying sand or sawdust. Any surplus will brush away when the glue dries, and then we can start erecting our buildings.

To be continued

# The 'Shoe House' visits a Mospital 

WE have often published stories in Hobbies Weekly of how readers have given pleasure to children in hospital by making them toys. Our picture illustrates how we at Hobbics also have the welfare of children at heart.

It all started with an exhibition in a London hotel, when models made from Hobbies kits and designs were on show.

Representatives from the national papers and leading magazines were there, and a centre of attraction was the Old Woman in the Shoe musical box, which is the subject of one of the free designs in Hobbies 1961 Annual.

The chef at the hotel was also obviously impressed with the novelty of this design, as he decided to make his own version of it - in cake form! There


Admiring glances from some of the young 'walking' patients before the cake was sampled
[Photo: Courtesy 'Eastern Evening News']

It was, the shoe and the house, complete with details such as toadstools, doors and windows, and even the shoelaces. All in delicious cake covered with marzipan and icing in appropriate colours.

This, we thought, was too nice for grown-ups - so it was decided to send the cake to a children's hospital. Your editor had the pleasure of presenting it to the Jenny Lind Hospital, Norwich, where, after being admired by the staff and children, it was cut up for their enjoyment.

Kit No. 259 Spel. for making the model - in wood, of course - includes all materials, and costs only 24/-. There is a choice of twenty-seven tunes which can be incorporated into the model, and these musical movements are 14/11 extra. The tune starts when the roof of the house is raised, and there are compartments inside for trinkets or cigaretles, etc.

Next week 'Radio Mech' will describe how to make a 4-transistor amplifier. Also novelties and projects for all the family will be featured.
MAKE SURE OF YOUR COPY

# ADI COLOUR TO SLIDES 

THE colouring of black and white lantern slides with photo tints is quite a simple task. The photo tints are sold in boxes containing a number of small bottles of strong transparent colours, and these colours. diluted with water as required, are brushed onto the stides. The slides must be illuminated from below, and the box described in this article was constructed for that purpose.

It consists of a wooden box containing an electric light bulb at one end. At the other end is a mirror inclined at an angle of 45 degrecs. The mirror throws a beam of light through a ground-glass screen, and then through the slide. The box provides a comfortable support for the hand holding the paint brush, and as the bulb is not directly under the slide, it does not dry the slide too quickly.

The box is made from +in . wood. Plywood is satisfactory, although solid wood is superior but more expensive. The only tools required are a fretsaw. small drill, and glasspaper.

The base consists of a piece of $\frac{\mathrm{in}}{}$. wood 9 in . long by $6 \frac{1}{2} \mathrm{in}$. wide. The sides are 9 in . by $3 \frac{\mathrm{in} \text {., and one side has }}{}$ a hole to accommodate the lamp socket. This hole is $1 t \mathrm{in}$. in diameter, and is 2 in . from the end and 13 in . from the edge. The end pieces of the box are 6 in . by 3 l in., and each has a ventilation slot, as shown in Fig. 1 , measuring 4 in . by $\frac{1}{2} \mathrm{in}$.

The top of the box also consists of a picec of f in . plywood, 9 in . by $6 \frac{1}{\frac{1}{\mathrm{in}} \mathrm{in} \text {. At }}$ a distance of $\frac{1}{2}$ in. from one end, cut out a section 3 in. square, cquidistant from either side. This is the aperture to allow the light to reach the slide, and is. of course, slightly less than the size of a $3!\mathrm{in}$. stide.

## By N. $E$. Jenkinson



The fimished illuminator, showing adaptor for $2 \times 2$ slides in the foreground.

The frame to hold the slide in position over the aperture is shown at $\Lambda$ in Fig. I. It consists of a 4 in . square of $\frac{1}{8} \mathrm{in}$. plywood. From the centre of this piece is cut a 34 in . square, feaving a narrow frame of wood in. wide. To fucilitate the removal of the slide from the frame a space $\frac{1}{2} \mathrm{in}$. wide is cut from one of the sides. This enables the finger to lift the slide out of the frame. Secure the frame to the top of the box by means of four screws, thus leaving a rim $\frac{\mathrm{i}}{\mathrm{i}}$. wide to hold the slide over the aperture.

Now obtain a square of ground glass from any photographic dealer. It should be slightly larger than the apcrture, say, 4 in . square. Secure it to the underside of the top of the box by means of a narrow wood frame. The top of the box is now finished, and merely requires holes for the fixing screws which secure it to the box.

Oblain a piece of mirror, 6 in . by $4 \frac{\mathrm{in} \text {. This is inclined at } 45 \text { degrees }}{3}$ inside the box, and to hold it in position a strip of wood $\frac{1}{2} \mathrm{in}$. wide is secured to the bottom of the hox, $3 \frac{1}{2} \mathrm{in}$. from the end, as at $B$ in rig. $l$.

The box is now ready for assembly. Insert a peari bulb in the lampholder. A 40 watt bulb is ample, and anything of greater power will tend to dazzle the eyes. Fix the mirror in position, and screw the top of the box in place. rinalty affix four rubber fect to the bottom of the box.

As constructed, the box is for use in puinting the $3 t$ in. slides, but it can, of course, be used for the smalier 24 in ., and 2 in . slides. To adapt it for use with the smaller slides it is easy to construct a wooden frame to drop into the aperture, and one for use with the 2 in . square slides is shown in Fig. 2. It consists of a piecs of wood 3 in . square containing an aperture $1 \frac{18}{8}$ in. squarc, and a thin frame to hold the slide in place.

With a little practice it is relatively casy to colour the $3 \frac{1}{4} \mathrm{in}$. slides, and a surprising amount of the details can be added with a fine hrush. The smaller slides are more difficult, and it is usually possible to colour only the broad outlines such as hills, sky, etc. However, the effect on the screen is well worth the trouble.


## Illustrated on front

WHEN visiting a circus, children are always thrilled by the antics of the performing seals, and even parents are amazed at the dexterity with which these animals are able to balance a revolving ball on their noses.


Such a performing seal is featured in our design which makes up into a delightful model, and would look its best in gaily painted colours. As the toy is pulled along by the child, the ball revolves realistically on the nose of the seal. This action is obtained from the movement of the front wheels, a disc on the axle transferring the drive vertically by means of a dowel rod on which is fixed the ball.

All parts for making the toy are shown full size on the design sheet. They should be traced and transferred by means of carbon paper to their appropriate thicknesses of wood, and cut out neatly with a fretsaw. Be particularly careful to make neat circles when cutting out the holes, such as in the sides for the axles. Clean up all parts thoroughly with glasspaper.

Commence assembly of the toy with the body of the trolley. This consists of piece 1 , two pieces 2, and two pieces 3, which are glued together as shown on the design sheet. Next make up the seal, consisting of two pieces 4, between which are sandwiched pieces 5 and 6 so as to form a channel to take the $\frac{1}{1}$ in. dowel (piece 7). Fig. 1 clearly shows how the parts are assembled to form the seal and the channel. Allow the glue to dry thoroughly and then round off the edges of the animal to give a good shape, an idea of which can be gained from Fig. 2.

SAMMY THE SEAL

Now glue the seal in position on the trolley, ensuring that the channel exactly coincides with the position of the hole in piece 1 .

At this stage the seal and platform should be painted in appropriately gay colours to outlines as suggested in the finished illustration. When the paint is dry, push the rear axle (piece 9) through the holes provided in the sides (pieces 2),

and glue the wheels (pieces 11) on to the ends.

Drill a $\frac{1}{}$ in. hole to a depth of $\frac{1}{2}$ in. in a Hobbics $1 \frac{1}{\mathrm{i}} \mathrm{in}$. diameter wood ball, which can now be painted in a striped

Hobbies Kit No. 3386 for making "Sam" the Performing Seal contains all wood, round rod, ball, etc., and costs
4/11. Kits from branches or from Hobbies Ltd, Dereham, Norfolk. (post $1 / 6$ extra).
design, and glue the vertical shaft (piece 7) in the hole. Drop this down the channel in the seal and at the bottom end of the dowel rod glue on the disc (piece 8).

The makeup of the front axie is shown clearly on the design sheet. Glue on one wheel (11), insert the axic through the hole in the side, and slide on the driving dise (piece 12). Glue this in position as shown by the dotted lines on the design shect. This disc should be located on the axle so as to engage satisfactorily with disc 8 , and thus rotate the ball quite freely. These adjustments should be made at this stage and care should be taken to ensure that the discs engage satisfactorily. Finally, glue the other wheel on the end of the axle.

Paint the wheels, add a screweye to the front for pulling the toy along with a piece of string. Incidentally, it should be noted that graphite makes quite an effective lubrication to the dowel rod in its channel. This can be obtained by means of rubbing an ordinary lead pencil on the sides of the channel.

## Towel Rail on

## Kitchen Drawer

IS your wife always asking you to fix her up with an additional towel rail in the kitchen, and you find that there isn't any wall space available? If so, then it is most probable that you will have a kitchen table with a drawer. Remove the drawer handie, and replace with a towel rail. This will serve the dual purpose of towel rail and drawer handle.
(F.K.)

## Proving that Metal Expands

WE all know that metal expands when heated. Otherwise, why would they have small gaps between lengths of railway track? Hut can you prove it? This little gadget, quickly made, will prove it to your most sceptical friend.

## By E. Capper

Obtain two wooden boxes of equal dimensions, and fay them on the bench about 10 in. apart. Find a length of flat iron bar that will bridge the two boxes.

Place a weight over one bar end - a brick will do. Now, take a steel knitting needle, and at right angles to one end. solder on a length of thin wirc. Now place the knitting needle under the free end of the bar.

Make a graduated scalc on the box side immediately behind the thin wire. Now, set a bunsen burner going, and stand it under the centre of the flat iron bar. As the bar becomes heated yoll will see the indicator wirc move on the scale. What happens is that the iron bar
cannot move at the end where it is held by the weight. so it expands at the other end only. As it docs, so it pushes the knitting needle, which in turn rolls and moves the indicator wire attached to it.

The movement is, of course, very slight at its source, but is exaggerated by the length of the indicator arm. It is, you will find, quite a conclusive experiment.


## TRINKET BOX

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PL.EASE to remember, the 5th of November, gunpowder, treason, and plot', and please remember. too, that this is a golden opportunity for getting rid of the accumulation of ruhbish from the greenhouse and shed.

Prunings, old cahhage stalks, diseased plants, dead leaves from the rose beds, and anything burnable will add to the size of the bonfirc. Later the ash may be spread on the plot reserved for next year's crop of potatoes to provide an additional source of potash.

## Outside

TRY to fork over the borders where spring hulbs are planted. If you do if this month you will not damage the new growth. If you leave this work until after Christmas you will find that tulips and daffodils have made considerable progress, and many bulbs will be damaged. Soil that has not been limed for several years can be dressed after digging.

Set out plants of pansics, sweetwilliams. Canterbury bells. Set tulip bulbs any time before the end of the month. Roses and other hardy shrubs can be planted from now until March, provided the soil is not frostbound.

ROCK GARDEN - 1)cad leaves causc decay, and many choice alpines are lost from damping off through this cause. Remove dead leaves and flowers, and put ashes over tender crowns to protect from frost during the winter. Continue to bait for slugs and snails.
fruit garden - Prune orchard trees, and make new plantings where required. Currants, gooseberries, etc, should he set in well-drained and well. manured soil. Good preparation of soil pays dividends later on.
vegltable garuen - Cut down asparagus, clean up bed, and mulch with

## NOVEMBER

THESE NOTES REFER CHIEFLY TO MIDLAND GARDENS - DLE AIILOWANCE SHOULD BE MADF. FOR CHANGE OF I.ATITLDE.
well-decayed manure. Dig when weather is suitable. Give leeks and celery the final carthing up. Protect celery with straw during frosty weather. Examine onions in store, and remove any that are decayed.
lnside - warm house and cool houme

D() not be tempted (1) give too much heat yet. Keep the house dry and well ventilated. Bulhs required for early flowering should be brought into the warm house. Keep scedlings of annuals as near to the glass as posisible.

## Culd house

THERE is litte to do this month except to hecp clean and well ventilated. Lettuces need as much air ass possible, but should be kept dry. Keen ventilators open except during frosty nights. Chrysanthemums which have bloomed should be cut down to athout 9 in., and removed to cold frames. (M.h)


# A TELEPHONE UNIT IN CONTEMPORARY S'TYLE 

WI'TH this streamlined unit there will be no more fumbling for pencil and pad to take down that urgent phone message. You simply write it straight on to the built-in blackboard. What could be simpler?

Designed with clcan lines, the unil can be made for less than fl , and it will grace the hall of the most modern of open-plan houses.

The two uprights are 1 in . planed deal or oak, topped with two wooden balls, painted red. These can be obtained from Hobbies (1 in. diam.) at 2 d . each, plus 3d. postage.

The blackboard is a suitable sized rectangle of hardboard or threc-ply wood. nailed across the uprights with panel pins. It is enclosed in a framing of $\frac{1}{4} \mathrm{in}$. by $\frac{1}{1} \mathrm{in}$. stripwood, also oblainable from Hobbics at 8 d . per 3 ft . length, plus $1 / 6$ postage. Special blackboard paint can also be obtained from Hobbies (1/3, plus 9d. postage). On no account
use ordinary paint; the chalk will just slide over the surface.

The matching wing sides are made from $\frac{1}{2}$ in. plywood, as are the two shelves. The wings are glued and screwed to the sides of the uprights, whilst the sheives are held hy screwing through from the outside of the wing picees. Do remember to fill in any screwhead cavities with wood filler.

Note that rebates are cut at the back corners of the shelves to allow them to fit around the uprights.

The unit should be screwed to the wall through the two uprights. If you would prefer to conceal these screw heads, leave out the fitting of the hlackboard until last. and fit it over the screw heads bolding the unit to the wall.

Such a unit looks best painted really gay in a contrasty colour to the main scheme of the hall. Have a shallow tray on the top shelf to carry the chalk.
(E.C.)


# A Power-Driven Whirligig 

TH IS little toy is simple to make, and will a muse a child for hours.

First, take a cotton-reel, and part way into the central hole force-fit a length of dowelling. With a razor blade (do use care), cut a slot across the top of the dowelling, and insert into it a length of stiff card as a vanc.

Now trim down another short length of dowelling so that it is an casy, revolving fit into the lower part of the hole in the cotton reel. This is the axle, and it should be fitted into a length of wood or baseboard.

Now, fit three hooks in the baseboard at the positions shown. The top hook should hold an elastic band. To the elastic band tie a length of strong thread, loop it around the cotton reel, as shown, and bring the free end through the remaining two hooks.

A pull on the thread will send the vanes revolving backwards and forwards. If the vanes are painted in multi-coloured stripes, it will give the effect of a spiral, rising and falling.

You can, of course, experiment with

SINCE ancient times magicians have possessed the power of locating the whereabouts of concealed objects . . . In such a manner you may choose to introduce a startling 'experiment' in the art of divination. Your simple apparatus will consist of four matchbox trays, a pencil, and a wooden draughtsman. The trays will be used as covers neatly numbered from one to four.

different tops to the spindle, instead of vanes. A gaily-painted circular piece of
card, held with a drawing pin, gives a colourful effect.
(E.C.)

The effect is possible because you have previously glued a dark, lady's hair upon the bottom of the draughtsman. Thus, when you wished to "divinc' the hidden counter, you merely looked for the hair which protruded from beneath one of the covers and, latcr, you made the pencil dip in the proper place. Naturally, you must select a hair which is longer than the matchbox trays, and the trick must be performed upon a rough, dark

## Protect your Pets' Drinking Water

THE water for pets may be safely put outside without fear of spilling if this simple wire spike is made. Tilt the container to remove for cleaning.
(M.h)



At good toyshops, hobby shops, department stores. Leaflet on request, together with name and address of nearest stockist if required. J. W. SPEAR \& SONS LTD. (Dept.H.W.), ENFIELD, MIDDLESEX

# Mantlinimodellers 

I$N$ place of the usual method of gluing and tying shrouds in place at the top of the mast, here is a way that is both neat, secure, and more authentic in appcarance.
Using a piece of rod or dowel of suitable size in relation to your mast, twist a figure 8 loop in fine wire. I use strands of copper wire from discarded electric flex. Slip one loop over the mast head, and attach the starboard shrouds to it. A similar figure 8 is then added for the port shrouds. This gives a firm and neat fastening for the shrouds on any of our sailing ship models.

## Dead-eyes for miniature models

Very often when making a small scale model the question of dead-eyes, gives the beginner trouble. Commercial deadeyes are usually too large, and without a small lathe, the making and drilling of small scale items can be very tedious, so much so that it may put off the aspiring ship modeller. Here is a method that, while taking some patience, is not beyond the powers of any beginner, and, indeed, can be used by the more experienced modeller with advantage.
The only tools needed are a small leather punch, No. 2, a razor blade or stencil knife, and a needle for boring lanyard holes. Materials needed are finc fuse wire, and No's. 2 and 4 Bristol Board.

On a piece of No. 2 B.B., glue discs of No. 4 B.B. that have been punched out with your leather punch. Cut out from No. 2 when the glue has set, and trim around the edge of the No. 4 discs, sufficient to allow you to glue around the piece of fuse wire to form the chain plates. Finish by gluing another disc of No. 2 on top of each No. 4 disc. This may seem a littie complicated, but it is surprising how simple it becomes with a little practice.

## Duplicate carvings

In models like Hobbics 'Roya! Prince', etc, a number of carvings may be required, which are all alike. For example the circular port wreaths on the model mentioned. Apart from the time taken to carve a number of these, unless one is very expert the carvings will be sure to differ slightly.

The old method was to run glue around, and rough it up to represent carving. While giving quite a reasonable effect, it did not satisiy me as looking like authentic carving. Thereforc, I
started using the following method.
A really good carving was made in hardwood to use as a master. Use a hard wood with smooth grain. Holly is excellent for the purpose. To make the mould, build a small box of plywood. For the wreaths it was $1 \frac{1}{\text { i }}$ in, square and $\frac{1}{2}$ in. deep. Fill this with plaster of paris, coat the master with 3 -in-1 oil, and press into the surface while soft. Leave until the plaster has set. On removing the master you will be left with a mould from which you can take a large number of impressions.

## FITTINGS AND FINISHING By 'Whipstaff'

Bcfore each casting, coat the mould with oil to prevent sticking, and to enable you to remove castings from the mould without damage.

Castings can be made from plaster of paris, non-shrinking plastic wood, or cven Barbola paste. I prefer the plastic wood as giving a stronger casting than the plaster. Figure-heads can be cast by forming in two halves, and gluing them together, while anchors, etc, may also be repeated in this way.

## Weathered effect on sails

In earlier articles I have described methods of shading parchment sails to give the effect of the weather stains and colouring. But for some years now I have discontinued the use of parchment for this purpose. All my models, both when made from a Hobbies plan or plans drawn by myseif or authentic ship draughts, are now fitted only with fabric sails. Apart from the fact that parchment sails always eventually break at the corners when the model is being cleaned, as they alt must be, fabric sails besides being authentic, also enable us to secure and rig them correctly. Some of the detailed rigging I have given over the past years for our Hobbies models really need fabric sails if all details are to be added.

Before we shape the sails we must stain them to get the required weathered effect. This can be done by dipping in strong tea or coffee (no sugar or milk, of
course), and hanging up to dry. The surplus liquid will drain downwards, and give the heavy staining necessary in the lower corners.

To get the sails to retain the billowed shape I have found a way that gives me better results than older methods. This is to secure the sail over a curved block of wood, and give one or two coats of Britfix Sanding Filler, according to the texture of the fabric being used. This has the advantage that it does not dcteriorate like starch, nor make the matcrial thicken up; it also enables you, where necessary, to paint on designs with very little chance of the paint running, and giving the blurred lines so often seen on fabric sails. I have painted on fabric so treated 'with water colours and artist's oil colours.

## Painting a clear watcrline

Most beginners and, indeed, many more experienced model makers often have difficulty in painting a straight line around a hull, whether this is a thin waterline or the meeting line in a two colour hull. The best method I have found is the usc of cellulose masking tape now available in small rolls at most departmental storcs and paint shops.

In a two colour hull, such as are most of our old time modcls, paint the lighter colour first, going slightly over the dividing line. The tape is then put on over the first colour when dry, and with its edge along the line where the two colours arc to meet, the second colour is painted on. When the tape is stripped off, which it does quite cleanly, you will have the two colours mecting on a perfect line.

For fine waterlines two tapes must be put on, the space between being the width of the painted line required. The line is painted, overlapping the tape slightly, and when dry, the tape is stripped off, leaving a perfect waterline.

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UT two each of pieces A, B, and
C from 4 in. wood. Glue pieces B
between pieces A, and use one
piece $C$ for the bottom and one for the
lid. The lid will be hinged in place, and
the bottom glued.
The head $E$ and the washer D are cut
from $\frac{1}{2}$ in. wood. Glue a piece of woolly
material round the head to represent the
hair. To make the spring, wind a piece of
springy wire round a length of $\frac{1}{2}$ in.
dowel and fix to the head and washer.
The washer will, of course, be glued to
the bottom of the box. Hold the lid in
place with a hook and eye. (M.p.)
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