## HOBPB IN THIS ISSUE WEEKLY JUNE 29th 1955 <br> Cruet Set . . . . . . . . . 193 <br> A Composing Frame . . . . . 194 <br> Replies of Interest . . . . . . 195 <br> A Working Model Crane - . . . 195 <br> A Handy Folding Chair . . = . 196 <br> Making Radio Transformers - * . 197 <br> A Newspaper and Card Miracle - 193 <br> A Handyman's Tidy - . . . . 199 <br> Making a Toy Pull-Along Liner - 200 <br> Stamp Collector's Corner . . . 202 <br> Patterns for the Model Crane . . 207 <br> NUMBER 3113

## Instructions for making an attractive



HAND-MADE gifts are always much more appreciated than bought ones, especially when they are made by a personal friend. What could be more acceptable than this attractive cruet set with a hand-
made stand in contemporary style?
The wood can be selected from odd pieces, or can be purchased quite cheaply, and the neatly decorated floral cruet set costs only $4 /$ - post free, from Hobbies Ltd., Dereham, Norfolk.

Before you commence marking out the various pieces, study the diagram in Fig. 1 to see how the stand is constructed. Note that the handle is slotted on to the main base and the feet are each made from two pieces glued together.

## Making the Base

In Fig. 2 the dimensions of the base (A) are shown. You can alter these if you wish, but do not make it so large as to look clumsy. The shape can best be drawn out first on paper, commencing by drawing a line 6ins. long and halfway along this a perpendicular line sins. high. The top is 2 ins. wide, and the curve is obtained by striking an arc $1 \frac{1}{4} \mathrm{ins}$. down as shown. The centre of the first circle comes $1 \frac{1}{2}$ ins. down from the top, the diameter being $1 \frac{3}{8}$ ins. The centres of the other two circles are $1 \frac{1}{2}$ ins. from the bottom line and $1 \frac{1}{4} \mathrm{ins}$. from the centre line.

Now, turn to the handle part (B) shown in Fig. 3 and draw this out on paper in the same way that you did the base (A). The secret of an accurate drawing is to get the angle a true right angle. You can do this with compasses, but an easier method is to use a setsquare.


Transfer the patterns you have now completed to suitable wood, using a piece of carbon paper in the usual way. The base will be $\frac{1}{4}$ in. thick, and the handle $\frac{1}{2} \mathrm{in}$. Let the grain run in the direction shown by the diagrams. Utilize a straight edge of your wood where possible to save cutting.

The interior frets are the first to be
cut and these should now be drilled for this purpose. An ordinary fretwork drill can be used, or, if the wood is soft, holes can be made with a bradawl. Thread the sawblade through and cut out each hole, afterwards cutting round the outlines. Remember to keep the saw upright, especially when cutting the interior frets.

The feet (C) are intended to conform to the shape of the corners, and the easiest way to ensure this is to lay the

## GADGET FOR PHOTOGRAPHERS

 A Composing FrameACOMPOSING frame, although a simple gadget, is a most useful accessory for picture making. The one shown incorporates the rule advocated by artists as a means of ensuring balanced composition.

In use the frame is held about 1 ft . before the eyes, so that the scene before you is framed as it will be in the finished picture. The principal subject is situated in such a position that it coincides with one of the two horizontal or vertical lines, or at any one of the intersections.

It is true that a picture made in such proportions is properly balanced and we owe the origin of this principle to an ancient Greek philosopher named Pythagoras.

To make the frame, obtain two thin pieces of cardboard, cutting out the centre to the size of your usual negative, leaving a border lin. wide all the way round. The two pieces of card are glued together with a piece of blue cellophane sandwiched between them. Divide the cellophane into three equal sections and rule with pen and ink.


Blue cellophane is recommended for the reason that it subdues the natural colours giving an approximation of the appearance of the picture in the black and white tones of the photograph. You will most likely be able to find a piece of cellophane suitable for the job from some wrapping paper, without having to buy specially.
to ouy specranly.
(S.H.L.)


## Tape Recordings

AN you tell me how long, ufter a recording has been taken on a tape recorder, does it remain really clear when played back? (R.G.-Oxford.)
TF good quality tape is used, the tape 1 recording will last almost indefinitely, provided nothing is done to remove ite.g. it must not be run through with the erase head working, or anything of this kind. However, no recordings, even commercially produced disc records, will play back an infinite number of times, and a very slight deterioration arises each time the record is played.

## Scratches on Table

HOW can I touch up some scratches on a cellulose-finished table top? (J.M.-Glasgow.)

CCRATCHES in cellulosed surfaces Sare hard to eradicate. Try filling the scratches level with brush-on clear cellulose, applied with a small brush. If not satisfactory, it would be beiter to
remove the present surface with acetone and spray over afresh with cellulose varnish, or if a spray is not obtainable, a coat of the brush-on variety. If the latter, apply with a full brush, avoid going over any part twice, in fact, flow the varnish on.

## Making Balsa Cement

$P$LEASE tell me a satisfactory way of melting down celluloid to make balsa cement or clear dope for model aircraft. (S.W.-Mill Hill.)

Ycannot melt down celluloid, nor is this recommended to try, since celluloid is inflammable. However, a very satisfactory cement can be made by dissolving celluloid chips in acetone, which is obtainable from any chemist. Cut the celluloid into small pieces with scissors, or if thick stock, carve off chips with a knife. Add a little at a time to acetone and stir until dissolved. Repeat until you have produced a mixture about as thick as
cream, when it is about the right consistency for cement. Keep in a wellcorked bottle. To make model aircraft dope, work as above, but then add dope thinners to thin right out to a brushing mixture. It is advisable to use at least 25 per cent anti-chill thinners in making up a dope.

Use for Old Paraffin Lamp HAVE an old-fashioned paraffin lamp in good condition, which I should like to transform into an electric table lamp. Can you give me some advice on this matter? (C.P.-Morecambe.)

AS the bowl is of glass, great care would be necessary in drilling it to enable the wire to pass, and one of the tipped drills sold for this purpose, used as directed, would be best. The flex should pass into the bottom of the lamp, and up to the position normally occupied by the wick and burner, which would be removed. In this position, fix or cement a threaded type of lampholder. This holder could have a switch, if desired. These can be obtained from electrical shops. The lamp will then be complete except for the shade. Shades and supports may be purchased-the supports having a loop or bracket which is fitted to the lampholder. Or the shade could be made from stout wire, suitably shaped and covered with parchment or other material, sewn on or fitted with loops through punched holes.

# A WORKING MODEL CRANE 

ANY boy who can use a fretsaw will find it an easy job to make this toy crane. It can be made in a few hours and, when painted in bright colours, will be a welcome present for a small child.

These working toys are also excellent gifts for church bazaars and sales of work. They can be made cheaply, but command a good price when sold in this way.

## Construction

Cut out the base (A) and two pieces (B) from $i$ in. wood and glue the pieces (B) to the base. Note that these must be wide enough apart to take the crane arm which is mounted on pivots as shown. These pivots should be stiff, so that the arm will remain in any position. Cut the two fretted pieces of the crane arm (D) from $\frac{1}{8} \mathrm{in}$. wood and glue a block between them. The block (E) should be cut from a small piece of $\frac{1}{2}$ in. wood. This will allow plenty of clearance for the movement of the crane.

The wheels (F) are cut from $\frac{1}{4} \mathrm{in}$. wood and attached to the axles (C). A small piece of round rod pivots the crane arm, and pieces of wire are bent to form the handles. The cord passes over a fretpin which is pushed through the top of the

arm. Note that one handle lowers the crane arm and the other hoists the load. Paint the whole thing with plastic enamel paint to give a high-gloss finish.
(M.p.)


AFOLDING chair, the making of which is described here, would be useful for the garden or lawn, or it might be used for the seaside, a feature being that it folds together conveniently for carrying.

## Three Framed Sections

It should be made up from hard wood such as beech, and some little care taken in the measuring and setting out of the mortises, etc. There are three distinct framed sections to make, two forming the seat bearers, as Figs. 1 and 2 , and one for the sloping back, as


Fig. 3
Fig. 3. In Fig. 4 is seen a side view of the completed chair with overall dimensions included. The seat bearers, Figs. 1 and 2 , are made from $1 \frac{1}{2}$ ins. by $l i n$. for the top rails, $1 \frac{1}{2}$ ins. by $\frac{3}{4} \mathrm{in}$. for the crossed leg rails, and 1 in . by $\frac{3}{4} \mathrm{in}$. for the four tie rails at the lower ends.

The method of fixing the top crossrails to the legs is shown in Fig. 5. The
tenons are cut on the legs and with a cross-cut made with the tenon saw into which are inserted feather-edge wedges, these being carefully knocked in after, of course; the cross-rails are put over


Fig. 1

the tenons. The mortises in the rails are cut slightly tapered to allow for the thickness of the wedges which may be
coated with waterproof glue before being inserted.

Note on Figs. 1 and 2 the dotted lines which indicate where the pivot holes are to be made. Note also the back-


Fig. 2

rest will be held to the legs by $\frac{\mathrm{tin} \text {. bolts }}{}$ and nuts with thin washers on each face of the legs and one on the outside. The leg frames are pivoted by bolts or by a length of hardwood dowelling glued into the outside frame, the inner frame being loose on the dowelling. The circled diagram in Fig. 4 shows how the lower cross-rails are recessed into the legs. Notice also the side view of chair,

- Continued on page 199


# MAKING RADIO TRANSFORMERS 

MANY radio constructors like to make up suitable components, when possible, and some types of transformer are not difficult. Quite apart from making a new transformer, there is the possibility of re-winding a damaged one already to hand, or modifying it for a different purpose. In battery receivers, inter-valve coupling transformers and loudspeaker output transformers will usually be present. Microphone transformers may also be necessary, and all these can be wound at home.

A transformer core cannot be of solid metal because eddy currents would flow in it. To avoid these, which greatly reduce efficiency, the core is always


Fig. 1-Most common types of stampings
made up of thin pieces of metal, or stampings. These are of soft iron or similar alloys, and usually of 'W' shape, with a flat piece across the end, or of ' T ' and ' $U$ ' shape. Both are illustrated in Fig. 1. The bobbin, with windings, fits upon the centre limb, the outside limbs completing the magnetic circuit.

Though it is possible to cut such stampings, this is rather laborious. Stampings of many sizes may be purchased, or obtained cheaply from ex-service or damaged transformers. They should be covered with insulating material on one side. Some manutacturers use very thin paper for this; others a substance such as whitewash, which does not stick. Sticky paints or varnish must be avoided if there is any possibility that the transformer may be taken to pieces again to modify the windings.

When a core is made up, the stampings are inserted into the bobbin one at a time from alternate ends. The joints where one pair of stampings meets is thus covered by the next pair, which are the opposite way round, and this allows the core to be of maximum efficiency.

## The Bobbin

For small transformers, this is best made from strong card, two cheeks and a centre piece being cut as shown in Fig. 2. The centre 'tube' should be of

# By F. G. Rayer 

such a size that all the stampings can be inserted, while the cheeks will be of such dimensions that the outer limbs of the stampings can fit outside them. The bobbin should be strong, with the cheeks firmly glued in place, as any collapse during winding will spoil the work.

With large, heavy transformers, something rather stronger is necessary, and paxolin sheet can be used. But very stout material is not wanted for small transformers, as it would take up so much of the available winding space.

## Assembling a Transformer

One of the simplest methods of completing the transformer is shown in Fig. 3. Here, all the stampings have been inserted into the fully-wound bobbin. The stampings are held tightly together by means of four feet, or


Fig. 2-The bobbin to hold the windings
brackets, clamped in position by 4 or 6 B.A. bolts. These brackets can be cut from any metal, and may be of a length as shown, so that the two lower bolts are passed through holes drilled in the corners of the assembled stampings. Or the brackets may be slightly longer, the lower bolts passing under the core. If the stampings are drilled, this should be done after assembly, the whole core being held securely in a vice and the drill taken right through in one operation.

With windings of very thin wire, there is some risk of breaking connections off. To avoid this, thin flex may be soldered to the winding wire, the joint being covered with tape. The flex is then brought out through small holes in the cheeks. An alternative method is to bolt a small strip of paxolin along the top of the transformer, and to take the leads to tags or terminals on this.

A transformer has primary and secondary windings, as shown in Fig. 4.

It can function with alternating currents only. If the secondary has fewer turns than the primary, the voltage in the secondary will be smaller, but the current larger. If, however, the secondary has more turns than the primary, then the secondary voltage will be larger (though the current will be smaller). If the primary has most turns, the transformer is termed a step down' component; if the secondary has most turns, it is a "step up' transformer.

The relationship between primary and secondary turns gives the ratio. For example, if there are three times more turns on the secondary than on the primary, the component would have a step-up ratio of $1: 3$. For inter-valve coupling, a transformer of between 1:3


Fig. 3-A completed transformer
and $1: 5$ is usual. For carbon microphones, a transformer of 1:50 to 1:100 is usual. In loudspeaker circuits, a stepdown ratio of about $30: 1$ to $60: 1$ is required.

Two other factors require to be considered. First, the current a winding may be required to carry. This can be provided for by choosing a suitable gauge of wire. The inductance, or impedance, must also be suitable. This depends on the number of turns. For example, a transformer with 10 turns on its primary and 30 on its secondary, would have a ratio of $1: 3$, but could not function as an inter-valve coupling transformer, because its inductance would be too low. Many more turns would be required.

## Winding Data

The usual output transformer, for a 2 to 3 ohm speaker, can have 80 turns of 20 S.W.G. wire on its secondary. For battery type pentodes, a ratio of about 60:1 is required. The primary could thus be 4,800 turns. As the current is
small, 40 S.W.G. enamelled wire would be suitable. For mains type pentodes, a ratio of about $40: 1$ is necessary, so that only 3,200 turns are required. As a heavier current flows, 38 S.W.G. wire can be used. For mains triodes, a ratio of about $30: 1$ is best, and the primary can then be of 2,400 turns.
For inter-valve couplings, a very high inductance is required. As the current is very small, many turns of fine wire can be used. An average good-quality component of this type would have about 3,000 turns on the primary. The wire may be 42 S.W.G. or even thinner. For a $1: 3$ ratio, the secondary will require 9,000 turns. As the current here is negligible, the finest wire can be used.
A microphone transformer will requite a primary having about 90 turns of 20 S.W.G. wire, and a secondary with 4,500 to 9,000 turns of the finest wire. As with the other transformers, the exact ratio is not critical. Many transformers have tapped windings, so that various ratios can be selected, to find which is best with a given circuit.
In all cases the primary is wound on
first. When completed, it is covered with about two layers of tape, and the secondary is then wound on. The finished bobbin may be bound with tape to protect the windings.
Small windings, especially when of thick wire, can best be put on by hand. The bobbin can be pushed on a square piece of wood, forming a convenient 'handle'. For the larger windings, some form of mechanical winding is best. The simplest method is to mount the bobbin


Fig. 4-Transformer circurit
on a long bolt fitted in the chuck of a geared hand-drill. The drill may be held in a vice. Winding is then done by turning the drill with one hand, and guiding the wire evenly into place with the other. The step-up ratio of the drill should be noted, so that the approxi-
mate number of turns on the transformer can be ascertained by counting the number of times the drill handle is rotated. In this way even the largest winding can be accomplished in quite a short time. The spool of wire should be pivoted on a large nail, or otherwise arranged so that it can rotate freely.

From Fig. 1 it will be seen that the whole of the bobbin windings must pass through the window space. This explains why very thin wires are required when a large number of turns are to be used. With thick wires, insufficient turns would be accommodated on the bobbin.
An accurate idea of the amount of wire required for a winding can be obtained by measuring the length of the smallest turn (that near the bobbin centre), and adding the length of the largest turn (that which would be wound on last). The result is divided by two, and multiplied by the number of turns on the winding. Division by 36 will then give the length, in yards, of the wire required, if the original measurement was in inches.

## Here's magic for you !

# A Newspaper and Card Miracle 

REALLY good card tricks are always appreciated by an adult audience. Here is an item that all amateur magicians will delight to perform; for not only is it an easy trick, but the effect on the spectators is all that could be desired. Indeed, the thing appears an inexplicable miracle!

A pack of cards and a sheet of newspaper are on the performer's table. He shows the sheet of paper and proceeds to fold it until it is reduced to a small rectangle. Then he tears a bit from one edge and places the still folded sheet aside. It can be placed in a glass tumbler and held by a member of the audience until a later stage in the trick. The amateur magician should never miss an opportunity of allowing members of the audience to join in with his experiments.
The cards are now shown and fanned out so that it is obvious that all the cards are different and that the pack is quite normal. The performer next asks someone to call out any number between 10 and 20. Assume that the number 15 is mentioned. This number of cards is counted down on to a tray or on to the table while the performer stresses the point that the number has been freely chosen. Just to make sure that the correct number of cards is being used, they are taken up again and slowly counted from hand to hand. Of course, the cards are face down during this procedure.

## By R. W. Wood

Now the performer invites anyone to cut the packet of 15 cards into two heaps side by side. Again he stresses the point that perfect freedom of action is allowed. Next he asks someone to hand him either of the heaps, choosing quite freely.


This done, and the top card of the chosen heap is turned up for all to see. On the folded sheet of paper being opened out it is seen that a giant-sized reproduction of the card appears therewith the pips neatly torn out! The astonishing thing is that the paper was folded and torn before the card was chosen entirely by chance!

Now for the simple secret. Before beginning the trick have the six of hearts on top of the pack as it rests face down on the table. This is the card that is torn from the paper, and the sketch shows thow easily this is done.

When a number is called out-any number-and the cards are dealt down, the six of hearts must be at the bottom of the dealt pack. The re-count brings this card back to the top. Now when the cards are cut into two heaps the six of hearts is on top of one heap.

The performer next asks someone to pass him either heap. He does not ask for a heap mercly to be chosen. This is most important. Now if he is handed the heap with the six on top he merely turns it up, remarking that this card has been arrived at purely by chance. If, however, he is handed the other heap he merely says: "Thank you. Will you kindly take the remaining heap and just turn up the top card, like this', suiting the action to the words. In this case he merely pushes his own cards aside after showing what is required, concentrating attention on the turned-up six of hearts. This is such a simple move that no one ever stops to question it!

On the paper being opened out the trick is done-and it really does appear that "there is no deception'? The reader is advised to run through the above moves with a pack of cards in his hands. He will see that everything works quite automatically.


AUSEFUL piece of kitchen furniture for those who love tidiness in the home and have no workshop, can be provided by a handyman's tidy. It comprises an open compartment for holding lengths of stripwood and moulding, and two separate divisions, one for odd pieces of fretwood and shorter bits of stripwood, and one for containing junk for which, sooner or later, a use may be found. A small tray is included, for nails and screws, or other smaller items likely to be needed for household repairs, and woodwork generally.

## Material Required

For making, wood of $\frac{1}{2}$ in. or thereabouts would serve nicely. As a matter of economy, especially if suitable wood is not available, one or two boxes from the grocer might provide most, if not all, the timber required. Some of these boxes are made from very good wood indeed. Should the wood be rough and unplaned inside, as is often the case, force the boxes apart and smooth the wood with a few strokes of a plane, plus glasspaper. Save the nails, they may be used again.

The general construction of the box is clearly shown in Fig. 1, a view of the box with one end omitted. From this it will be seen that two divisional pieces are required, one to divide what will be the open compartment for long lengths of timber, and one to divide the remainder of the box into two compartments for shorter bits of wood, etc., and junk respectively. Note that this latter divisional piece has an extension at top

## A HANDYMAN'S TIDY

## By W. J. Ellson

of $2 \frac{1}{2}$ ins. high, for a handle. When cutting this, position the handle portion to come in the centre of the box, when fitted in, as shown in cross-sectional detail, Fig. 2.

The opening in the handle should be $3 \frac{1}{2}$ ins. long, and the easiest method of cutting is with a fretsaw. File and

glasspaper the opening quite smooth to make a comfortable grip for the fingers. Join the two divisions together, then fit inside the box and firmly nail therein. Add two or three thin screws, driven through the bottom of the box into the 'handle' division. The bottom of the box should not be nailed on, but cut to fit
inside, and be nailed through the sides. To one division glue a wood fillet each side to support the tray.

No sketch of the tray is given, as, obviously, it must be made to fit in the chosen division. Just four sides of 2ins. wide thin wood, nailed together to make a frame, with a plywood bottom nailed on is all that is necessary. It can


Fig. 2
be divided off if necessary, to suit requirements.

Give the whole job a good rubbing over with glasspaper, inside as well as out, to avoid any danger of splinters entering the hands when rummaging inside.

A dust cover is recommended. This can be cut from plywood or hardboard, and should cover the wood and junk compartments, leaving the open compartment open, of course. Let it overlap the box by $\frac{1}{2}$ in. on three sides, as in Fig. 2, and saw out a slot to fit over the handle.

The finish can be in stain and varnish or paint as desired.

## - Continued from page 196

## Folding Chair

Figs. 4 and 1 and 2. The arrangement of the two rails of the backrest are given. in Fig. 3 and seen also in Fig. 4. Note here that the top broad rail is recessed from the front, while the rail beneath it is let in from the back.

## Fixing the Canvas

The top cross-rails of the legs are rounded over to make them suitable for the canvas, which is carried round and nailed on underneath as in Fig. 4. A piece of stout chair canvas about
$25 i n s$. long by $16 i n s$. wide will be needed, and about three dozen largeheaded copper tacks. The length given allows for a double turn-up where the nails are to be inserted.

The framework can be either varnished, enamelled or given two coats of good oil paint. The woodwork should be thoroughly cleaned with coarse and fine glasspaper before the finish is applied. The lower extremities of the legs will need careful marking and cutting to get the proper level. (S.W.C.)

## HOBBIES PICTORIAL GUIDE TO MAKING A





ANIMALS and reptiles are a source of attraction to adults as well as children, and philatelic designers have used many of them for stamps. Many collectors have made them the subject of a thematic collection.

Of all animals, the lion, the king of beasts, is the most featured philatelically. Its tawny coat and shaggy mane can be seen on the Abyssinia 19193 dollars, the Great Britain 1924 and 1925 British Empire Exhibition stamps, the


Camel
Hungary 1946 75th Anniversary of First Hungarian stamps set, five values of the Italian Somaliland 1903 set, the Kenya 193510 c. and $£ 1$ and $1938 £ 1$, Mozambique Company 193745 c ., the New Zealand 1920 Peace and Victory issue and the Southern Rhodesia Silver Jubilees. The female, the lioness, is shown on the Italian Somaliland 1932 251., the Italian Colonies 1933 Fifth Anniversary of Eritrea and the Belgian Congo 5f. of the 1939 Leopoldville Zoological Gardens Fund set.

The Lion of the Tribe of Judah is depicted on many of the earlier issues of Abyssinia and can be seen attacked by the Italian eagle on the 1938 set of Italian East Africa. The Lion is the emblem of many countries and can be seen as such on the stamps of Belgium, Belgian Congo, Bulgaria, Czecho-Slovakia, Denmark, Estonia, Finland, Iran, Luxemburg, Netherlands, North Borneo, Norway, Paraguay, Schleswig, Sweden, Switzerland (on many Pro Juvenate issues), Tibet and Tuscany. The lion and the mythical unicorn appear on the coats of arms of Bavaria, Baden, Danzig and the G.B. 1938 high values.

Even more ferocious than the lion is the tiger, with its reddish-brown fur and black stripes. The tiger is featured on many of the 1900 issue of the Federated Malay States, the 1892 and 1896 issues of Negri Sembilan, the 1891 issue of Sungei Ujong, and the 1891 and 1895 issues of Pahang, Perak and Selangor. A rough drawing of the tiger appears on
all the stamps of Bussahir. The leopard, largest member of the cat family, is pictured on the Nyasaland 1934 and 1938 issues and the 1945 1d., the Abyssinia $1919 \frac{1}{2} g$., three values of the Belgian Congo and Ruara-Urundi 1942 sets, six values of the French Congo 1900 set, nine values of the Middle Congo 1907 set, the Liberia 1921 25c., Mozambique Company 1937 60c., and the Tripolitania 1933 51. The clouded leopard appears on the North Borneo 1931 25c. That agile climber, the jaguar, is shown on Bolivia's 1939 4b. and 5 b.

The elephant also finds itself on many stamps. The large, flop-eared, African

type can be seen on the Gambia 1922 and 1938 issues, two values of the Italian Somatiland 1903 set, the Liberia 1892 4c., 19061 c . and 19215 dollars, the Mozambique Company's coat of arms on the 1894 issue, the Northern Rhodesia King George $V$ and VI issues, 13 values of the Cameroons 1939 set, the Belgian Congo 1931 1f., the Abyssinia 19191 dollar, and the Eritrea 1933 21. An elephant hunt appears on the 1894 If. stamps.

Further scenes including the African elephant can be found on the Belgian Congo 1923 10f., the Southern Rhodesia Silver Jubilees, the Togo 1937 $40 f$., and the Sierra Leone 1933 5s. The more tame, small-eared Indian elephant is depicted on the Indo-China 1942 Fetes of Nam-Giao set, the Jaipur 1931 1a. and 4a., the North Borneo 1909 5c., the Burma 1946 Victory 3a. 6p. and 19494 a ., five values of the 1943 Japanese Occupation of Burma set, the Ceylon 1935 and 193850 c ., four higher values of the Federated Malay States 1900 set and five higher values of the Perak 1895 set.
The domesticated, but savage and sullen animal, the camel, being a means

## POPULARITY

## OF ANIMALS

By Eric L. Fenner

of transport, is featured on many stamps of the Middle East countries. These include Mauritania 1913 and 1938 sets, Tripolitania 1935 airs, many stamps of Nyassa, Tunis 1928 Child Welfare sets, Obock 1893 issue, Spanish Morocco 1937 40c., Israel 1951500 pr , Spanish Western Sahara 1924 and 1931 issues, many issues of Sudan showing an Arab postman, Cirenaica 1932 Air, Eritrea 1933 3c., many stamps of French Somali Coast and the Italian Colonies 1933 issuc. Further afield, the camel appears on the India $19373 \frac{1}{2} \mathrm{a}$. and the Mongolia 1932 5t. Distant relatives of the camel are the llama and the vicuna. The llama appears on many issues of Peru and on three of the Bolivia 1939 set, whilst the vicuna, reared for its soft, fine wool, appears on a further three values of the latter set.

The nearest resemblance to man in the animal world, the chimpanzee, is shown on the Liberia 1906 5c. and the


## Rhinoceros

young on the Belgian Congo 1939 1f. 50 c . in aid of Leopoldville Zoological Gardens. The Diana monkey appears on the Liberia 1942 10c. and the proboscis monkey on the North Borneo 1939 4c. The tree-swinging orang-utang is shown on the 18974 c ., 19316 c . and 193910 c . of the same country. The lemur, a peculiar monkeylike mammal, is the subject for the 1903 Madagascar set.

North Borneo's honey bear is pictured on the 189710 c . and the arctic Polar bear on the Greenland 1938 three high values and 19451 k ., the Norway 1925 set commemorating Amundsen's Polar Flight and the Russia 1931 Airmails commemorating the Graf Zeppelin's North Pole Flight. The wolf appears with Romulus and Remus on the Italy 1929 Foundation of Rome set and the 1944 50c. The Liechenstein 1950 80r. depicts the badger,

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whilst Canada chose the water-loving beaver for the 1851 and 1858 3d. and 1859 5c. The burrowing marmot was depicted by Liechenstein on the 1946 30 r . and the palm civet on the Liberia 1918 2c. The anteater, with its tubular muzzle and long tail, can be seen on many stamps of French Guiana and the chinchilla, valuable for its soft, grey fur on the Bolivia 193960 and 75c.

Australia has her own peculiar animals. The kangaroo, whose flesh is eaten and tail considered the tasty bit, is shown inside an outline map of Australia on the earlier issues and is pictured on the $1937 \frac{1}{2} \mathrm{~d} .$, the 1949 high values in the coat of arms, the South Australia 1894 $2 \frac{1}{2} \mathrm{~d}$., and the New South Wales 1888 Is. The egg-laying water mole, the Duckbilled platypus, is the subject of the Australia 1937 9d. The tailless koala, with its tufted ears, is featured on the 1937 4d.

The giraffe, which despite the length of its neck has only the same number of


Sambar Stag
neck bones as man, is honoured on many Nyassa stamps, the Northern Rhodesia K.G. V and VI issues, the Southern Rhodesia Silver Jubilee, the Mozambique Company 1937 1c., and the head only on the Tanganyika 1922 issue. The purple-pelted okapi appears on the Belgian Congo 1931 2f. 50c. and 3f. 25c. and 1942 20f. North Borneo depicts the shy, nocturnal tapir on her 19091 c . The ass-like but black-striped zebra is featured on many stamps of Nyassa, on the Mozambique Company 1937 20c. and the South West Africa 1931 2s. 6d.

Various types of buffalo can be seen on the Abyssinia 19192 dollars, the North Borneo 1909 8c., the Liberia 1923 25 c . and 1937 3c., hunted by Indians on the U.S.A. 1898 Omaha 4c., and as transport on the North Borneo 1939 1c. A stone age drawing of a bison adorns the Monaco 1949 18f. North Borneo chose the wild boar for her 1909 10c. and the wild bull for the 18 c . The clumsy, heavily-built but timid rhinoceros can be found on the Abyssinia 1919 8g., three values of the French

Equatorial Africa 1946 set and the North Borneo 1909 6c. The large white rhinoceros is featured on the Mozambique Company 1937 40c. The riverinhabiting hippopotamus can be seen on the French West Africa 1947 If. 20c., the Italian Somaliland 1932 101., the Liberia 18921 dollar, $190675 \mathrm{c} ., 1923$ 15 c . and 19374 c ., and the Mozambique Company $193780 c$.

The crocodile is depicted on the Basutoland K.G.V and VI issues, the Belgian Congo Leopoldville Zoological Gardens Fund 4f. 50c., the Liberia 1921 15c., the Mozambique Company 1937 50c. and the North Borneo 1894 12c. and 1897 12c. The alligator, with its shorter and broader head, is shown on the French West Africa 1947 1f. 20c.

The paddle-equipped seal is a favourite with Newfoundland, appearing on the $18665 \mathrm{c} ., 18805 \mathrm{c}$., 189715 c ., 1932 15c., and 1937 Coronation 15c.


The pointed-muzzled sea lion can be found on the Falkland Islands 1938 5s., whilst the whale appears on the 19336 d. of that colony. The Caribbean dolphin, which follows ships in large herds, is featured on the Cayman Islands 1938 $\frac{1}{2} d$. and 1 s . Cayman Islands also depict the hawksbill turtle, from which we get commercial tortoiseshell, on three values of the 1935 and 1938 sets, and the green turtle, from which soup is made, on the 19501 d . and 1 s . The giant galapagos tortoise can be seen on the Ecuador 1936 10c. of the Darwin's Visit to Galapagos commemoratives, whilst the giant tortoise of Seychelles appears on several values of her 1938 issue. Ecuador also depicts the giant lizard on the 5c. 1936 Darwin's Visit stamp, whilst Liberia chose the Agama lizard for her 1906 15 c . The non-scaly tuatara lizard is the subject of the New Zealand 19358 d . For her 1921 Registration stamps, Liberia selected the repulsive, venomous puff adder and Mozambique Company chose the non-venomous, prey-crushing python for her 193730 c .

Many deer and antelope have been philatelically honoured. The yellow springbok can be found on the Orange Free State 1903 issue and the South Africa $1925 \frac{1}{2} \mathrm{~d}$., and also as part of the British South Africa Company's coat of arms on the Southern Rhodesia 1940 $\frac{1}{2} \mathrm{~d}$. and on the earlier issues of Rhodesia. The white-tailed, long-maned gau
appears on the Orange Free State 1903 issue, the wildebeests on the South West Africa 19312 s .6 d . and the eland on the 1s. 3 d . of the same set.

The stag is featured on the Hungary 1933 International Scout Jamboree set, the Liechenstein 1946 20r. and the Turkey 1937 Historical Congress 3k. and $7 \frac{1}{2} \mathrm{k}$. The sambar stag was chosen by New Caledonia for her 1928 Postage Dues and the Malay stag by North Borneo for her 1894 and 1897 2c. Antelopes are pictured on the Portuguese Guinea 1948 1e. 75 c ., three values of the Togo 1947 set, and the Tripolitania 192950 c . and 193021.55 c . The Royal Antelope is featured on the


Liberia 1942 1c. Others appearing on Liberian stamps are the water chevrotain on the 1942 2c., the harnessed antelope on the 1937 2c. and 19424 c ., the white-shouldered duiker on the 1942 3 c ., the bongo on the 1918 lc . and 1921 1 dollar, and the zebra antelope on the 1942 5c.

The sure-footed, powerful jumping chamois was honoured by Liechenstein on her 1946 20r. and by Slovakia on her two 1939 25h. stamps. The kid antelope can be seen on the Andorra 1950 100f., and the kob antelope on the Liberia 1923 20c., and the Belgian Congo 1939 Leopoldville Zoological Gardens Fund 1f. 25c. Bahawalpur chose blackbuck antelopes for her 1945 2a. official and Liechenstein the roebuck for her 1950 $20 r$. Soemmering's gazelle appears on the Abyssinia 1919 1/8g., Grant's gazelle on the Italian East Africa 1938 set and the Italian Somaliland 1950 Express Letter stamps, whilst gazelles also appear on seven values of the 1939 French Morocco set, the Spain 1929 Express Letter stamp commemorating the Seville and Barcelona Exhibitions and the Tripolitania 1932101.

The domesticated reindeer have been honoured by Norway on her 1938 Tourist Propaganda 15 ore, by Finland on her 1942 Red Cross Fund 50p. (on the arms of Aland) and by North Mongolia on her 1927 1r. The nondomesticated American reindeer, the caribou, was selected by Newfoundland for her $18974 \mathrm{c} ., 1937$ Coronation 7c., 1932 5c. and the 1919 Newfoundland Contingent commemoratives.

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