# IOBBINEveckly 



Up-to-the-minute idean

## Practical dexikns

Pfatain ह and profftable things to muine


M ${ }^{\text {R D. M. M. SEATE }}$ Donald Street Timaru MacCanterbury, New Zealand, has sent the Health stamps (illustrated). Two
native birds are show native birds are shown. The Tete or Grey Poaka or Pied Stilt on the 3d. and Id. values.

## HEALTH STAMPS

This popular series, which has been issued annually since 1929, was based on been adopted by many countries. Originally the proceds from the surcharge were intended for the upkeep of sanatoria and for other health purposes, and
the stamps were inscribed "Charity' the stamps were inscribed 'Charity'.
However, as the funds were being used for the maintenance of camps where children were receiving remedial treatment, this term was not truly descriptive
of the objects of the stamps. So, in 1932 and all subsequent issues, the inscription was changed to 'Health'.
The Health Camp Movement in New


Tge E word April has many sug-
gested derivations. The most likely gested derivations. The most likely
one is from Aphrodite, the Greek name for Venus, for the first of A privee consecrated by the Romans to Venus (shown, on the Greck 1937, 80 lepta stamp) 'the goddess of love and beauty'. robed in green, and wearing young gir myrtle and hawthorn buds, holding in one hand primroses and violets (on Austrian stamp of 1948, 10 groschen) and in the other the zodiacal sign of The first day Fool Day'. In France, the 'foos' 'April called Poissons d'Arril' (April Fish). In
Scolland te are ing the gowk'. Franklin
April 1945. Roosevelt died on 12 h April 1945. Several countries besides America have issued stamps and labels to commemorate the President. April 1926. A pleasing reminder of 21 st 454

## Illustrafed on front page

## MAKINT A BABY'S BASKET

a world-wide financial depression and years wenty, sales were small. in lat stamps was established, it was found that the demand for the 'Boys' wa greater than the supply, and prices began The 1938 stamp showing children a play is of some interest, as one of the children is shown as being left-handed Actually this is a composite design take
from two photographs of the same child


RAYMONO CANIWELC
48 FOUR:H HUANVE
SLADE PARK,
/lERDINGION
OXFORD. ENGLRND
Wactor in , has become an important factor in promoting children's health. Everyone interested in stamps has which were the two values in the boys set. Prominence has been given to this

But because of the difficulty in obtaining a suitable pose to fit the design, the so thegraphic negative was reversed, and engine with his apears to be winding the If ine with his left hand
If you need a New Zealand pen friend,

## THE MONTH DF APRIL

Royal occasion is the 1953 stamp of New
Zealand, depicting Her Majesty on horseback in military dress. The famous Mutiny
look place on 28th April the 'Bounty' chairn Island stamps of 1940 you vill ses Christian of the 'Bounty', also LI Bligh and the 'Bounty'.
This month sees the end of the Associaion Football season. Two racing classics One Thousand Guines thousand and the 'Stamps: Bolivia 1951, 1 Boliviano 40 cent - Football. Same issuc, airmail 20 cent shows Horse-jumping'
 $\star$ Readers are reminded that all $\star$ $\star$ eorrespondenee relating to collect$\star$ ing hobbles must be addressed to * the Editor, Hobbies Weckly, Dere$\star$ stamp for return and reply coupon $\star$ t cut from page 471.
$\star \star \star \star \star \star \star \star \star \star \star$

T
the to a worthwhile project for Baby's married family man. pins, brushes, etc, cin powder, safety gether ready to hand when required in this neat basket. It is light and casily moved, and does not present any difficulty in construction. It can be made with a minimum of tools, and at a low cost. Since the wood is not thicker
I in., it can all be cut with a fretsav. The materials you require are one piece 1 in . plywood $13 \frac{1}{2} \mathrm{in}$. square for the base, one strip of wood 6 ft . by 1 in . by in. for the legs, two blocks of woo


STAGES IN CONSTRUCTION
and a quantity of thin reeding. Commence by cutting the four legs not as yet cut the slope on the ends Now scribe a 13 in, circle on the $t$ in. ply wood base, and cut out with a fretsaw Glue the 6 in . blocks on the underside as seen in Fig. 2. The legs are screwed to the sides of the 6 in . blocks, and they at the top (Fig. 3). Splay them to about 12 in . at the bottom, and secure with a screw. The slope on the ends of the legs is now determined and cut. Screw and glue the legs in position. If you think
that the legs need any further strengthen
ing, two cross braces of 1 in . by in. wood may be added, as shown in the inished picture. If the screwing and gluwill not normally be necessary. Round the edge of the base, space out lorty holes, to be drilled to a depth of approximately in. If you make a depin gauge, as shown below, the drile will be approximately I in. apart, and will be drilled to take the thin cane. Cut the cane into twenty pieces 9 in. ong, and glue into the holes around the edge. As shown in Fig. 4, the ende for holes apart. Thus the first piece goes in holes 1 and 4, the second piece in 3 and 6, carrying on right round the circumference. The reeding is now interwoven round the frequarters of the way up the canes. Finish off by smoothing with fine
glasspaper, and painting in a pastel glasspaper, and painting in a pastel
shade such as pink, or pale bluc. Apply shade such as pink, tor the inside of the basket, and attach small rubber feet.

## A DEPTH GAUGE FOR DOWELLING

$\cdot{ }^{+}$
${ }^{7}$ HIS easily adjustable dowelling
gauge is made from a wire nail and
a cork. Place the cork in a vice, and drill with a Place the cork in a vice, and the nail through. A 4 in . nail will be long enough for most jobs. If the nail is a
tight fit, it can be moved as required and yet be tight enough to remain in position. always be ready for use. (M.h.)
(4)


455

## EXIPEIRIMENTS WITH <br> A SIPHON <br> Static electricity will explain the un

WilL a long rubber ube with can perform several unusual experiWater, place a finger over cach end, bucket. Remove your finger from under the water. Drape the other end of the tube over the side of the bucket in such a manner that the still covered end of the
tube is well below the level of the water tube is well below the level of the water
within. When you take away your finger,
water will begin to flow out of the Within. When you take away your finger,
water will begin to flow out of the
bucket, via the tube. You will have mad a siphon, one of the simplest picces of many uses.
many uses.
The principle of the siphon is not hard to understand. The weight of the water
in the exit arm of the tube causes it to fall, in response to gravity, and at the same time the water trics to leave a
vacuum in the tube. However, the force of atmospheric pressure does not permit a vacuum to be formed, and constantly pushes more of the water into the siphon the water above the mouth of until all o the water above the mouth of the tube From a 4 f . length of 4 in. diameter glass tubing you will be able to make a
special type of siphon with which you ments. Heat the glass tube in a hot
bunsen flame about 3 in . from one cnd, bunsen niame about 3 in . from one end,
whilst rotating the glass between the fingers of both hands. It will be convenient if you let the heavier end of the

## By A. E. Ward

tube rest upon a pile of books while you do this. When the glass is red hot and gently pull apart the glass, to form narrow constriction. Let the class harden and cool. Use a sharp-edged file to make a nick in the constriction, and break the glass, to form a narrow 'jet'.
Heat the glass about 6 in. below the jet, and wait until it is son before bend ing it around, to form a shape like a walking stick handle, with the jet pointing away from the line of the glass stick at $45^{\circ}$. In the same way bend over the rection, and bend it downwards so that it is paralicl with the'stick' in the same pan

When you bend the tub-
ing be most ing be most careful to obtain graceful curves, angles. The diagram will make these instructions clear. Finally, 1 in. length end of a diameter rubber tubing to form a sharp lip, and then fit this little
rubber tube upon the rubber tube upon the
un-narrowed end of the glass tube, as illusStand a jar of water upon a stool, above the and start your sipho, and start your siphon Hang the apparatus
over the edge of the over the edge of the
jar, so that the rubber
lip is immersed $\mathrm{lip}_{\text {water }}$ immersed in the water and the jet hangs
over the sink. Now suck through the lower part of the tube until the
water starts to flow, Cease sucking, and let the water continue to
flow down from the jar by siphon action. The water will leave the arched fountain.

Whilst the fountain is pt experiment. comb through your hair a few times, run a hold it near the spraying water. Minute droplets of water will be attracted by the negative electric charge you have inwill be enveloped by swirling the comb superfine spray. When you hold of electrified comb near the highest point the fountain, the divergent streams of water will be united, and fall as a single flow. If you place a piece of stiff paper notice the different sound made by will descending drops when the comb is held near the fountain. Your hair and hand must be quite dry when you use the comb. if you vish, instead of the comb you may use
scaling wax. g wax.
carefully raise rubber lip is half-way out of the water Bubbles of air will be drawn alternately into the tube with small quantities of a constant procession of bubbles passes down the siphon, and the prettiness can be greatly enhanced if you colour the water with ink or a few crystals of A third experimetash.
A third experiment will illustrate the siphon is flowing raise the rubber lip 8 in. column of of the water, and let an 8 in . column of air enter the glass tube. Lower the lip back into the water, and
watch the air pass slowly down the tube as the siphon continues to function. when the air reaches the exit it will be expelled with considerable violence, and ome of the water which follows will attain the same velocity and be pro-
jected high into the air. Y ou will be well advised to perform this experiment where the sudden rush of water can do no harm.
TAPESPONDING'
E have received a letter from
22ss7s19 Cpl. Edwards, L. C.,
A.C.C. Att. H.Q. Squadron,
24 Signals Regt., Gaza Lines, Catterick
Camp, Yorks., concerning an unusual
hobby in which he is interested. This is
called 'ape-sponding', and entails
corresponding by tape, the tape in this
instance being that from a recording
machine. Cpl. Edwards collects sound
effects of all kinds on tape., and would
like to obtain some from other countries
on an exchange basis. We presume
Cpl. Edwards is thinking on the lifies of
bird calls, etc, and any reader interested should write to him direct.

## HOBBYING IN LAKELAND

N EVER before have we. the great British public, been subjected to
such an intensive barrage of publicity in the press, on television, and exhorting us, or otherwise prevailing upon us to take our annual vacation on this or that sunny beach, on this or that picturesque coast, in such and such country's wonderful. climes. particular emphasis on travel abroad may simply reflect the nation's prosperity, or more probably it may be aimed at those who, in the opinion of the travel
agencies, have 'never had it so good'.

## By G. Allen

Much of this high-pressure inducement may well irritate the true "hobbyist' - the level-headed practical and crea-
tive man - for he knows from extive man - rerience that real pleasure and happincss come 'from within', largely by his own imaginative and often unique efforts. Even at holiday times he is not likely to be influenced by batant advertising;
rather is he likely to find a congenial spot within our own islands (spots which, he will tell you, the holidays-abroad-brigade don't even trouble to explore), where he can excrecise his in-
dividualism hand-in-hand with his own pet hobby. Moreover, away from the crowded holiday resorts with their attendant

here is in the British countryside that atmosphere of calm leisurely life which
o fev of us experience these days, and in this atmosphere the hobbyist can ften find ncw sports and pastimes to add o his enjoyment.
That, at least, is my own conviction after spending many happy holidays in Britain's own glorious Lake District, so you are on the look-out for something Lakeland has to offer to the man with a hobby.
Immediately you reach Windermere village, and travel along the Lake Road towards Ambleside, on admirable 'focal point' for the visitor, the scope for nobby number one comes into sharp ocus - that of pholography - par-

A feast of colou
Almost at every turn in a road or along a mountain path thered fell quisite picture; from a rugged feli lookriver looking in every direction there are scenes to capture the imagination and the camera's cye. Colour and variety of subject-matter abound everywhere and graduations of light and shade, provide excellent material, particularly for the landscape photographer in black and
white - especially if he knows how to white his filters. especialy is to be spent during If the holiday is to be spent during
September, or even early October, the photographer in colour will find that
Lakeland is a paradise, for during these


Anglers on Rydal Water
months the scencry must surcly be be yond comparison. The harmony of
natural colour is truly remarkable; the natural colour is truly remarkable,
tender green of the meadows; the grey, tender green of the mead ows; the grey,
mossy rocks; the gold of standing corn the crags and fells glowing with ferns of dozen hues; the calm blue lakes; the brilliant yelloiv tints and shades of trees and foliage; the deep greens of alder and
ivy on rocks and cottages. All these combine to make unforgettable pictures. One tip; an exposure meter is invaluable
for the lighting can be most deceptive.

Correct attire
But you don't have to be a photographer to appreciate the beauties of the
Lake District. Perhaps rambling, and i you are more ambitious, hiking and main you could hardly choose a bett location or even a better hobby, for the inest way to explore this lovely country s on foot.
Commonsense and experience will suide you as to the correct attire for
serious walking, but in the Lakes a stout pair of shoes or brogues, metal studded possible, are an essential. Shorts o lacks, a windcheater or pullover, an oil weight haversack and a stick, whittled from one of the hundreds of choice woods found anywhere en route, com-
plete the list of indispensables. Don't plete the list of indispensables. Dont
forget to include in your haversack a forget to include in your haversack a
small first-aid kit and, to allay those pangs of hunger before you reach tha inn or return to your headquarters, suggest you also include a slab 457
cake (as used by the Everest expedition)
which can be obtained at almost its a most every shop
gizer! To describe all the rambles around Anibleside, let alone the whire volume. Suffice it to say that if you set out in an) dircction, and follow your inclinations and indulge your whims there are no restrictions up there as to where you aura go), you will head straight into an aura
of beauty and charm seldom, if ever, experieneed in our everyday lives.
For the cyclist
There are those who, when you mencyclist could do a lot worse than 'go wheeling in Lakeland, but because of the very nature of the terrain with its
countless hills, dales, paths, and passes, countless hills, dales, paths, and passes,
, there are obvious restrictions. Neter-
theless there are many excellent roads in Westmorland and Cumberland; even some of the pathways off-the-beatentrack are accessible to the keen cyclist.
If he combines pedalling with walking If he combines pedalling with walking,
by riding to a chosen spot, and then exploring the area on foot, returning to his machine by one of a score of devious but delightful routes, he can cover a great deal of territory beyond the scope
of the ordinary rambler, and discover of the ordinary rambler, and discover
for himself the true enchantment of one of thiscountry's mostcherished heritages.
if you choose Ambleside at the head If you choose Ambleside at the head
of Windermere Lake as your 'basce, as 1 have suggested carlier, it won't be long
before you find yourself at the lake-side.


Sweden Bridge-two miles from Ambleside

Herc, several opportunities for the lively hobbyist present themselves at once, and
these are by no means confined to this hese are by no means confined to this
one locality. Among the hobbies which you can easily pursuc are boating, you can easily pursuc are boating,
canocing, fishing, water ski-ing, and swimming.
Sport on the water
If you have your own yacht, canoc or dinghy, you are at liberty to make use of the amenitics of the lake. And when you know that Windermere is more than ten miles long and a milc-and-a-half wide,
dotted with small fascinating islands dotted with small fascinating islands,
skirted by bewiching bays, and fed by lovely luzy rivers and streams, you begin to realize hows yast those amenities are. If you just like 'messing about in boats many types can be hired quite cheaply
from any of the many small concerns who have their own "piers" around the lake" edge. Even fast speed-boats are obtainable, which are necessary if you and a
friend have included water skis in your friend have in
holiday gear.
Although. no official restrictions are
placed on swimming in Windermere. thcre are special areas set aside for the purpose in the interests of your own safety. The lake is vast and deep, with
some very tricky under some very tricky undercurrents, and these boundaries to get full enjoymen from your dip. Rydal Water (Wordsworth's lake), a
couple of miles couple or miles glorious walk from
Ambleside, and nestlo scting, is another happy a geplashing
ground, for the swimmer ground' for the swimmer.
There are endless possibilities for There are endless possibilities for the
angler of all degrees of skill in the Lake
District lake which does not hold its own par-
ticular attraction for anyone, young or old, whose hobby is fishing. However
one or two of the places are preserved one or two of the places are preserved,
available only to residents at hotels close to the fishing ground, or to people with permits. But the vast majority of the streams and lakes are at the visitor's disposal. Salmon, sca-trout. brown roul pike, and perch, are to be found, as the
varieties, and are to angler will appreciate, in differing en vironments. Less frequently, roach, bream, tench, and chub can be caught Salmon, frecly distributed in streams connected with the sea, including the river Leven, which flows out of Winder mere at Levens Bridge at the souther end of the lake
Angling equipment and accessories are casily obtand as you can guess, the shops are staffed by experts!

## Nature study

Of particular interest to the angler, and to the naturalist - yes. nature study is another fascinating hobby, wotany, for
cludes bird-watching and bol which Lakeland provides truly rema the able scope - is the behaviour of At char and the trout in Windermers. An the approach of the spawning sease tothey can be seen leaving towards the gether, and proceeding Roway and Brathay join forces (close to Ambere the) and flow into Windermere. Here by by uniformly separate, almost, it seeming to previous agreement, the char to the
the Brathay, and the trout top Rothay - with never a single exception There are scores of excellent boags
(to let). Where the tourist can stay, but for the more adenturous and hardy ing in the Lake District is an excellent way of spending a holiday, particularly for the youngsters. Farmers and property owners are most co-operative, provided and I know many boys who have spent delightrul holidays in the shadow of Lakeland's crags and fells. Sparkling resh mountain water and camp-fire fuel abound in plenty, and wonderful farm
produce in abundance is available, always close at hand.
Something for all tastes
One private establishment in Ambleide - there are others in different
centres - which caters for a popular


As the dajs lengthen and ground temperatures rise, March sowings are making headwas, and we can look forward to enjoying loug evenings in the garden.

Outside

IIRST job is to complete the rose pruning, tying in the climbers where necessary. Plant out sweet peas which have been hardened off. Bor-
der chrysanthemums may be planted out der chrysanthemums may be planted ou other dianthus may also be planted this month. Other subjects which may b planted are gladioli, hardy lilises, an most kinds of herbaccous perennials. Li and sivide kniphofas (red hot pokers) ROCKGARDEN-Sow hardy annuals in bare pockets. Try a few new varietics selected from your seed cataloguc. Watc
out for damage from slugs, and put down out for damage fly top dressings of ligh soil around plants showing bare roots. A few minutes wceding now will save hours later on.
FRUIT GARDEN - Plant fig trces, cul trees. Spray apples for weevil, codlin trees. Spray apples
moth, and March moth as trees come into bloom. Ask your seedsman to recommend a spray. Pick off 'Big Buds from blackcurrant bushes and spray whould be dusted with sulphur (green) powder to prevent mildew.
VEGETABLE GARDEN - Plant potatoes, protect peas from birds with black
cotton or pea guards. Thin out overcrowded brassicas in the seed beds, also thin out parsnips, lettuces, onions, ctc.
Brassicas may bc sown carly in the Brassicas may be sown carly in the
month. Sow successions of lettuce and radish for tender salad crops. Prepare ground for runner beans. There is still lime for planting onion sets or plants sovn under cloches carly in the month. Inside - warm housc
POT up tubers of begonias and geas into peat and sand (no lime for leas into peat and sand (no lime for
these), and continue general poiting as necessary. Strike cuttings of any decor ative plants such as colcus, fuchsias,
cte. Sow primulas, senensis, and stellata, ctc. Sow primulas, senensis, and stellat,
for next year's display. for next year's display,
Commence repotting cacti. Cut of damaged roots, and allow a day to
callous-over before replanting. Begin to callous-over before replantime Begarent.
water as new growth becomes appane but do not give much at this time. At

## Cool house

Cup seedlings as necessary, Halfhardy annuals may still be sown. and hardy annuals may sin

Next week's free Deslgn will be for ing novel 'Bird Vases'

MAKE SURE OI:
YOUR COPY
taken.
taken.
Not all of the facilities in Lakeland which have a particular appeal to the man with a hobby have been covered in this article. climbing, mountaineering, hunting shooting, and others, but sullicient ha been included, ! believe, to show what wealth of "pastime' interest there is in this small area of Britain; a place which globe have described as one of the most globe have described as one or
beautiful spots in the world!

## APRIL

THESE NOTES REFER CHIEFLY TO MIDLAND GARDENS. DUE ALLOWANCE SHOULD BE MA
shrubs may be hardened off by placing acking if frosts threaten. Fumigatc regularly.

## Cold house

SEEDS of half-hardy annuals may be Ssown now without any heat at all. Close up the house at night, and cover Lettuces may be given a little water when growth accelerates.

## General

R EPAIR concrete paths, make up where necessary

## Roofing with Corrugated Asbestos <br> will fracture. This type of fixing is shown

YORR UGATED cement asbestos sheeting is a very popular rooting
material for garages, annexes, outuildings, and workshops. When properly fixed it will provide a sound, watertight roof covering, but being a rather used with care. The sheets are normally fixed to
purlins, which can either be metal purlins, which can either be metal fixing the sheets to angle irons, special
hooked bolts are used as shown in Fig. 1

nuts are positioned on top of
gations - never in the hollows. gations - never in the hollows.
To spread the pressure imposed by the fixing nuts over a larger area, metal
washers of diamond shape should be washers of diamond shape are generally curved to suit the corrugations on the sheets. Felt washers arc also used in addition to metal washers so that cach fixing is made water-tight.
When securing asbestos shects with hooked bolts, it is best to work with an
assistant. One can then be inside the assistang. pushing the bolts through the holes in the sheets and hooking them round the angle irons, whilst the other crs and tightening up the nuts. If the sheets are to be fixed to timber purlins, then special screw nails are used. Holes are bored in the shects as beforc and the screw nails are driven home
with a hammer. The threads on the nails cause them to twist as they are bcing inserted, thus giving a firm grip of the wood. Care must be taken not to drive the nails in too far, othervise the sheets
in Fig. 2. Corrugated asbestos sheets are ob and lengths, so have no dificulty in handyman should pan the full eyty in getting material to oof is double pitched the roof. If the mecting at a central ridge, then spepes ridge pieces must be used.
will is most probable that the sheets will have to be cut to size and this can be Don't use a good saw for cutting cemen asbestos because it will play havoc with the tecth. A special type of hack saw fo cutting these sheets is illustrated in Fig. 3 . It uses ordinary sized hacksaw blades and is designed so that the top bar does not get in the way when cutting. grey colour, then why not paint the shects? Special paints are now manufactured for this purpose, and can be btained for paint stores. Ordinary paint is not satisfactory.
(F.K.)

## A JIG FOR SHARPENING TOOLS

A LL woodworkers know the value A a truly-honed cutting edge, and sharpening jis have to be experienced to the believed.
Construction is simple, and needs no description other than hat the spindle aole of the cotton reet will probably need moothing with glasspaper wrapped about 2 in . wide, and the side pieces can be of plywood or aluminium. The plane cutter is screwed down to the jig by a $\frac{1}{2}$. bolt and washer, as shown in the
angle by sliding the blade the correc necessary, using the cade up or down as ensure accuracy.
By R. N. T. Burke If the axle of the roller is not quite true. this can be compensated for by pivoting the blade slightly about the a barret-shaped roller which com pensates autonatically.

The plane blade lucked in the jig.


## erower of Hanois Puzzle in Wood

EEW people can resist the challeng -1 to solve a problem if it is pregood puzzle, well designed to try your wits, will keep you tantalized for hours, and will be a considerable source of pleasure and pride when you finally disHanoi', reputed to have originated in the East Indies, is easy to construct, and will provide a great deal' of a musement.
Select a piece of scrap wood, roughly of Select a piece of scrap wood, roughly of the dimensions 20 in . by
Bore three $t$ in. diameter holes, 5 in apart, in the middle of the baseboard into which three 4 in . lengths of dowe rod can be inserted in vertical positions - Round over the tops of the rods, using securely into place, as illustrated.
Next you must make a set of six discs to fit neatly over one of the dowel 'pegs' to form a pyramid, progressing upwards These may be cut out of plywood, usin a fretsaw, or can be a series of carefully selected tin lids. Bore holes in the centres of the discs, so that they will slip

Hold the blade firmly with the whole edge flat against the oilstone whils
perfectly flat stone. Chisels are sharpened by trapping them under one side of the nut and washer, and not forgetting that many chisel blades taper, check
cutting angle against the template. The fifteen minutes or so spent in making this little accessory for your workshop will soon be regained in saved planing time.

apparatus in bright and contrastin


The object of the puzzle is to shift the 'tower' of six discs from the left-hand to the right-hand pegs, in as few moves as possible, whilst adhering to two rules
By A. E. Ward

Firstly, you must only move the discs singly, and secondly, you must never place a large disc upon a smaller one. obe same order at we be piled up, in and finish of your manipulations. A minimum of sixty-three moves will be necessary, so that any score which ex
arded as the proper solution to tho There is a curious legend associated with the problem. The story relates that, somewhere in the East, there is a Hindu temple which houses an elaborate version
of this puzzle, made up of a hundred of this puzzle, made up of a hundred
beautifully carved ivory discs and three pillars encrusted with precious stones. Day and night, for hundreds of years priests have been at work shifting the
tall pyramid of discs between the first tall pyramid of dises between the first
and third pillars. The dises are moved strictly in accordance with a mathematical formula, so that no moves are wasted. Even so, with a hundred dises it will take thousands of years for the completed. The legend goes on to say that on the day that all the discs have been shifted across, the world will come to an end!


461 d _ 號號


The hooked part is slipped around the iron and socured with a fixing nut on top
of the sboet. When making the boles in the asbestos sherts mak rocive the kxing bolts, ute a brace and drill. Don't try to
punch the holes with a sharp tool. This punds the break away the lowert surfance, thus reducing the effective thicknecks of
the sheels. Alwiys ensure that the efxing



## Kitchen Units <br> CABINET WITH DRAWEIR

THIS simply-made cabinet is a drawing, mark the positions of the companion to the comer cabinel
described earlier in Hobbles Weekly of course, it can also be used as an independent unit. Two or three of thould provide a most effective addition to the modera kitchen.
As with the corner cabinet, and as shown in the drawing opposite, the main structure of the cabinermed by covering medium hardwood frames with hardboard.
By G. Allen

Make the back panel first. Cut a sheet true and 'square'. On the rough side mark with parallel pencil lines the exact
 crosspicoes and the 1 in, by 1 in. crosspiece which is level with the bottom square the ends, and then glue and pin them in place.
The side papeis are identical, although they must be 'handed'-i.e. one lenbuilt up on a sheet of plain hardboard measuring 28 in . by 18 in . As before, mark in pencil the positions of the up rights and crosspieces. Cut the sectioned
drawing, mark $1 \frac{1}{2}$. by 1 in. and 1 in. by $\downarrow$ in cut-outs in the four uprights, and chisel. Glue and pin them in place as indicated. Then cut the drawer runners and glue and screw these leve with dge of the appro shown. Stand the rear panel and the two side panels upright and try them for fit. The glue and screw them together by applying glue to back edges of the uprights ind the side panels, and to the cut-outs, and screwing through rear panel into the uprights. Pin the edges of the hardboard to the uprights. As you are assernbling the three pancls do not forget to introduce the thin by edge of the middle shelf. This cannot be fixed at a later stage, and is glued in place at the same time that you glue the panels together. out the cabinet top and the two shelves, making sure that they are perfectly square and that the cut-outs in the helves are accurately cut. Glue and screw the two sheives in place on the Follow this by gluing and screwing the three remaining 1 in . by $\frac{1}{2} \mathrm{in}$. cross pieces in place in the front of the unit Then glue and screw the top in place, and plastic as indicated.


| you will need |  |
| :---: | :---: |
| Medium Harduood $1 \underline{1}$ in. by ${ }^{\text {g in.: }}$ - |  |
| ${ }_{4}^{4}$ pieces 28. in. lonk | Main uprichts. |
| ${ }_{6}{ }^{\text {piecers }}$ is in. lone. | Crosspieces. |
| Medium Hardnood I in. by 1 in.: |  |
| 5 pieces 18 in. long. | Crosspic |
| ${ }_{2} 2$ pieces 15 in. 15 inns. | Crosspices. |
| Medium Hardwood I in. by in.:  <br> 2 picees $21 t$ in. long. Door uprights. <br> 3 pieces 15 in. long. Door crosppices.  <br>   |  |
|  |  |
| $\begin{aligned} & \frac{1}{2} \text { in. Plywood: } \\ & \frac{3}{\text { pieces }} 18 \text { in. square. } \end{aligned}$ | Shelies and top. |
| 1 in. Plynood: |  |
| 2 2piceses 17 in. by 3 in. | Plinth. |
|  | Plinth. ${ }_{\text {Prawer base. }}$ |
| din. Sortwood: |  |
| 2 picees 17 in . by 3 in . 2 pieces $16 \frac{1}{2}$ in. by 31 in . | Drawer sides. Drawer sides. |
| Hardboard: <br> 3 pieces 28 in. by 18 in. <br> 1 piece $21!$ in. by 17 in. Pancling, Door panelliag. <br> ppece fluted 21 inn by 171 in . Door facing. <br> 1 piece fluted $17 \frac{1}{2} \mathrm{in}$, by 4 in . Drawer facing. |  |
|  |  |
|  |  |
|  |  |
|  |  |

Cut the four pieces of i in. plywood which form the plinth of the cabinet and the bottom four crosspicces, flush with the underside of the bottom shelf. Next, the drawer. This is built up on a baseboard of in. ply to the dimensions given. Make sure that this is square and that the sides of $\frac{1}{2}$ in. wood are kept up-
right when they are pinned and glued in place. Try the drawer for fit and ease where necessary with a hand plane. Face the front of the drawer with handle. Bandle.
Build the door frame on a panel of 17 in ., as shown mand face the other side of the frame with reeded or fluted hardboard. Then add a handia. Fix two hinges to the upright in $\begin{aligned} & \text { about } 14 \mathrm{in} \text {. apart, recessing the leaves. }\end{aligned}$ Cut away the hardboard at the back of the door to accommodate the freo leaves of the hinges, and screw the doing in place. Fit a commercial shelf, and the cabinet is ready for painting.
Apply a priming coat to all the external surfaces and finish with a coat our emulsion paint in colours to mack cabinet corner cabinet. The inside of the cabser may be painted also, and the shecvec 28 Fablon.

## How the parts are assembled



## Replies to Readers

Removing Carbon-paper Marks Camy possible wray of removiug writing eft by blue carbon paper on thin white paper? (T.H. - Drugheda.) Aette lighter fuel will remove the With roughish papers, or in the case of cavy marking, faint blue marks will emain and there is no chemical means damacing the paper. With normal apers and markings results are very good.

Removing Colour from Prints Colean "u photograph that hus bech lightly colourced with water-colour painti want it to be its origitnal colla T ENGTHY soaking in changes of Lexesn water, or immersion in running hater should eventually remove most o the colour, especially if pure water colour are embedded in the paper, ligh dabbing with cottonwool should help o remove these. Twenty-four hours in but it will not stand up to rubbing. If the photo. is of particular value, and cannot be cleaned or all colour, it could be copied, and new prints made from done by photographing the photo. with a close-up lens or attachment. It you have no suitable camera for this, a processing firm such as Wallace Heaton Wi, could make the Sopicet, London,

## Care of Paint Brushes

HAVE some paint brushes which are you sell me how to make shem sof enaught to use aguin? (G.B.- Nombmuel.) $T$ HERE are several patent clecaners prove satisfactory. Anter use, brushes should be cleaned in turpentine, then rinsed in soda water, and then in clear water. They can be re-shaped with the
fingers, and if they are going to be put fingers, and if they are going to be put
away moisten the bristles with linseed oil, which will keep them soft and pliable.

Guitar Amplifier HA V'E a modern record-plaser which like so amplify a guitar through the record-plajer. I have a good pick-up on my gnisar and a jack-phag holder. Conld yol please jack-plug holder go? (MM.-Jarrow,) T F the record-player uses a crystal Lpick-up, follow the two leads (or screened lead) which go from the arm pivot mounting to the amplifier volume
control. Wire the jack socket to these same points, using screened wire as for the pick-up. Screened wire will probably be needed from jack-plug to guitar. If so, take care to wire jack-plug side and
end contacts correctly so that the screening (which usually forms one side of the circuit), goes to the braiding side of the circuit in the record-player. This will be suitable for a crystal or high impedance pick-up unit on the guitar.
If some other type of unit is fitted, then a transformer coupling circuit may be needed. If the record player is of AC DC type, or derives high tension curren from direct connection to the mains,
the guitar leads, etc., must be insulated so that no bare connections, etc., can be touched. If the player is for AC only, with mains insulating transformer, this danger of mains shocks does not arise.

> Radio Transmitting

CANNOT find in Hobbies Weekly a description for ar rransmitter-recciver be able to describe such a set in detuil or print a circnit diagram. (R.F.-Woburn.) TRANSMITTING equipment for cause a special GPO licence is required before it can be used. The usual trans mitting licence is only granted after an examination has been passed, to ensure
that interference is not caused. In a few cases communication may be allowed for particular purposes, but it is of some doubt whether this would be permitted for the purpose you requirc. In view of this it can only be suggested that you
write to the GPO, RadioServices Dept. Headquarters Building, St. Martin's-leGrand, London. E.C.I, to obtain details of the circumstances in which ment to be used. Usual licence requires a City and Guilds or equivalent examination pass and GPO Morse test pass.

Pick-up Transistor Amplifier HAVE becn experimenting with pick-up with threce of them. Is this passible? W'hen ! connected up the speaker. he noise was 'throaty' and was inclined to or trausistor coupliug to use a resistor or transistor coupling condenser to
c'liminare this? It is internded for reproduction of 78 r.p.m. records and if possible a microphone. (D. F. - Hornsey.) $T$ RANSISTOR amplifiers may be 1 used for such purposes, but to obtain proper results an approved circuit
should be followed, with the values and ransistors specified by the transistor maker. The number and type of transistors will depend on the volume amplifier circuits will resemble the used in transistor radio sets, tuning and associated circuits being omitted. Manuacturers such as Brimar, Standard YalveDivision FootsCray Sidcup Keciver Valve Division, Foots Cray, Sidcup, Kent,
issue transistor data and circuits. The suppliers of surplus transistors also supply suitable circuits in some cases.

## Wall Mirror

AM building a bathroom and have' a large mirror to put in, but this mirror way' to fasten it int you plectse weall so that the buck will not flake or corrode? (P.P.Kettcring.)

THE back of a mirror may be predamp if it is fom becoming damaged by paint. Fastening directly to a wall is not advisable. It is better to have a wood back. A piece of plywood about ${ }^{3}$ in.
thick may be used. It should be bonded with a synthetic resin glue (either 'exThis should be marine' grade plywood). mirror and screye same size as the mirror and screwed to plugs in the wall.
The mirror is fixed by metal edges for mounting frameless mirrors.

Making Cement Blocks
LSHOULD like jour assistance in stone blucks for a small wall artificial Sutton-in-Ashfield.) ( FOR small artificial stone blocks you need a mixture in the proportions and of coloured to cements may be bought and coloured cements may be bought You can get a number of free booklets on this work if you write to the Cement and Concrete Association, 52 Grosask for their garden construction leafiets and general concrete instructions.
arth in for


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pazid after the initial down payment, and subiect to the complefion of 2


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## A NEW MODELLING MATERIAL

NEW modelling material called
Modolo is sold in packs containModolo is sold in packs containprimary colours, red, yellow, and blue. An important feature is that these three any desired tint, and in many cases no further treatment is required. The material dries hard after modelling although there is ample time for manipulation - and this allows very paint brush.
You will find this material very useful if you are a model railway enthusiast, for it is just the thing for making hills and
clifts, covered with green grass, and clifrs, covered with green grass, and
trees for placing alongside the track. Other small accessories may also be
about 1 in . wide or a table knife. Cut-out hapes can be made with the knife or mpty tins of all kinds, but here th basic material must be in sheet form pin. Small model houses or buildings call for sheets of the modelling material about fin. thick, and are quite sub stantial if supported by means of a card board model, or a matchbox, the texture you may wish to texture the roofing slates, brickwork, doors, and windows, after the shell has been buitit on a card board model. With Modolo you can of the roofing tiles, brick, and stonework in their respective colourings.
So far as hills are concerned, othe
colours. Once again the cat is reinforced by having a thin piece of stick in the body, the head being fitted on top. Fig. 2 shows rolls of the three primary ment bearing two figures. The old lad wears a pink dress adorned with small flowers. The latter are made from sheet material cut out with a knife. Wire has arms and keeping the heads firmly attached to the bodies.
Modolo is quite easy to work in the hands, and it should be kneaded by the fingers until sufficiently pliable. In this
state it will roll into balls, strips or sheets. When a different shade is needed half of the usual quantity is required of two colours, and the following are speci-


Fig. 1
made, provided they are reinforced by wirc, matchsticks, toothpicks or even board. Moreover, this material is very good for making small animals or ob jects for the miniature farmyard. It also sonal decorations such as earrings necklaces, and bracelets, particularly with floral designs.
Fingers are used for much of the modeling, but simple tools can be and these may be small sticks sharpened at one end, knitting needles, or steel pens. When the figure requires a hat, make a cutting out an accurate circle with a tin lid or similar tool. A pen-nib makes a tiny gouge if the point is inserted into the holder, and with a little ingenuity you
will be able to fashion many other will be able to fashion many other Apart from the basic ball shapes, we
onen require cylindrical shapes or long strips, and these may be rolled out with a rolling tool -a fiat strip of plywood We should the material.

common materials such as pebbles, coke, or stones form the core..This not only reinforces the model in the same way as the cardboard and toothpicks, but also
We should also mention the use of
wire as an aid to reinforcement wire can always be used as a base where a curve is essential, a typical example being the folded arms of a figurine. You will find that wire is a really useful floral wire also serves as a des white in Fig. 1 you will see a Disncy-like creation of a few mice asleep in a four-poster bed, while a cat sits at the side looking is shown in with the prospects. The bed you may see how wire has been used for the posts. These can be covered with strips of Modolo wrapped round in a siral. The mice and the cat have some nice thin wire whiskers! The canopy is the edges, and again reinforced by wire across the centre, while the bed itself is composed of three sheets in different

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Fig. 2 men blends: green - mix blue and yellow; orange - mix red and yellow;
purple - mix blue and red. Intermediate tones can be achieved by modifying the quantities of each, the colours being kneaded together until blended. Always remember to mix sufficient for the parA model
naturally, but if it is placed to harden oven it is but if it is placed in a warm unused Modolo should few hours. The the plastic cover and stored in a closed the plast
As previously stated, you can achieve direct coloured effects by careful blending of the material, and it is unnecessary to paint the models in most cases. There may, however, be instances where need
details, such as the eyes or mouth, nee painting in. Models may also be varnished for protection.
The Modolo handipack costs $2 / 11$, plus post and packing 1/6, from Seamer Products (Sculptorcraft)
Eastbourne Strect, Hull.
(H.M.)
-

## COLOURFUL

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 PRING cleaning must be tackled
with a system; it is so easy to miss something important. If we take the jobs in alphabctical order, not much overiooked.
A - Air bricks should be cleaned out A with a stick. If air does not circulate keep free from dry rot.
B - Bath (and sink) discoloration,
$B$ caused by dripping taps, is cured with a strong solution of boiling water and soda. In stubborn cases use a proprietary o
C-Ceilings looking shabby are reC vived by brushing over lightly with a solution of a blue bag in a pail of water. rotect walls with pinned-up newspaper. own by dissolving 2 oz. soap. $\frac{1}{2}$ oz. soda, 3 spoonfuls of ammonia in warm water. Rub in until frothy, then dab dry with D.

D-Dustbins should be scrubbed out under the lid to keep flies away ozonizer
F - Earthenware that is yellowing can Esometimes be revived by rubbing over with a cut lemon.
F - Fireplal types of the old-fashioned metal type are improved by decoking the layers or metal polish with french chalk.
Furniture suffering from the same accumulation of polish can be decoked for walnut, paraffin, and for oak, old

- Gilt picture frames are cleaned
$G$ with boiled onlon water.
Hoiling And dould receive a good heels on sash windows. To dieels on sask windows. To oll a lock, few times.
Ilemon juice. If stubborn mix loz of


## YOUR A.B.C. OF SPRING CLEANING

oxalic acid in cup of cold water dab on and rinse well. Images and statucties of marble are cleaned with soapy water with a long haired stiff brush.
-Junk. If you haveaccumulated attic or under-stair cupboard, now is the ime to have a clear-out.
K - Keyboards of pianos are cleaned - with a rag dipped in milk.

- Linoleum should be washed over with a mild soapy solution, not with use spirit-based polish on rubber tiled floors. It will soften the surface.
M- Mildew is caused by damp or Hack of air. It will recur unless the cause is traced and corrected, so mak
N - Noxious smells from gullies and drains should be overcome by scruboda. Afterwards, flush liberally with a trong disinfectant solution.
O- Oil paintings can be revived by rubbing over with a cut potato. Do a small section at a time. Do not let potat rubbings remain long on painting, bu
wash off with clean cold water im mediately.
P- Paintwork should be washed down with warm water and deter gent, finished off with chamois leather. Pram coachwork is cleaned with
- Quarry tiles should be ool. Ancrwards cover and polish with a proprietary tile colour.
$\mathbf{R}$-Rainwater tanks should be Rcleared of any accumulated cum or dead leaves, and scrubbed out with detergent-charged water. palvanized surface may be the aged, allowing rust to start.
S- Silverware responds to a Swashover withadashofparaffin plate polish. ate polish
T- Tools, left unattended during rust spots, can be cleaned with fine emery cloth or wire wool dip-

470
ped in oil. Next winter, remember to smear over with Vascline before storing
U -Upholstery of the moquelte typ $U_{\text {is best shampooed with a cleaner }}$ like ' 1001 '. Leather work enjoys a rub
over with Vascline. over with Vaseline.
V-Varnish that has dulled can be revived with a mixture of $\frac{d \mathrm{lb} \text {. soap to }}{} \mathrm{l}$ oz. borax, warmed to melting point Apply vigorously, and clean off with cold water and chamois.
W -leaned by that is grimy is W cleaned by rubbing over with a lump of dough. De-scalc the dough as i
becomes grubby. Remove grease paper by placing hot iron over a piece of flannel on the stain (see top photo).
Dirty windows respond to a mixture of equal parts of water, paraffin, and meth. spirits.
X-Xylonite and other celluloid is born scratches can first be removed with oil and abrasive pastc.
Y- Yellowing of various parts of the home fixtures, usually on cream or white paint, is a natural change made in the paint content by exposurc to light. re is a repaint.
7 - Zest is the spirit with which all tackled.
But don't try to do everything in a das: ltemize the work so that jobs requiring the same or near same treatment are donl rogether.
 paraffin closh.



