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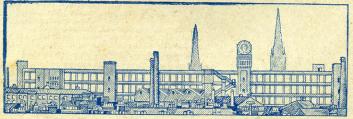
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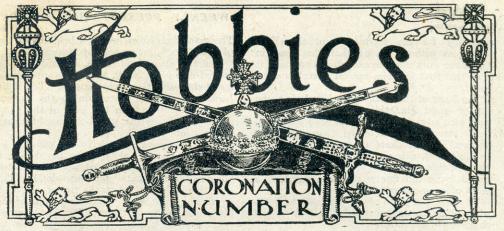
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VOL. XXXII. DOUBLE No. 814.

MAY 20, 1911.

CORONATION FRET DESIGNS.

T is only natural as this is our Coronation issue that we should present our readers with some designs by which the great event of next month may be commemorated. We are therefore this week publishing a Double Coronation Wall Plaque and patterns for making the famous Coronation Chair, while in addition to these two designs of topical interest, we also publish on the purple sheet a design for an excellent little Panoramic Postcard Frame.

CORONATION CHAIR.

More interest centres in the historic Coronation Chair than in anything else of a material nature connected with the Coronation. Its story has been oft repeated, but for the benefit of some of our younger readers it may be well to interest them with a few particulars concerning its history and the mystic stone it contains.

Just beneath the seat, a stout shelf has been constructed, and upon this rests what has been termed the "Stone of Destiny." This is a large stone of Frenchgrey colour with numerous red veins running through it. It actually measures 22in. long by 13in. broad and 11in. deep. Tradition states that this was the stone upon which the patriarch Jacob

rested his head at the time of his heavenly vision, but we should think that that was extremely doubtful. We are then told that it was conveyed to Egypt, after which it was brought to Spain by Gaethelus, founder of the Scottish nation. From this point onwards, its history is fairly certain. From Spain it was conveyed to Ireland by a Simon Brech, and placed upon the Hill of Tara, becoming

before the coming of Christ, when it was conveyed to Scotland by Fergus, who was the first of that name. After a lapse of many years, it was built into the wall of Dunstaffnage Castle whence it was removed by Kenneth, who in A.D. 850 placed it in the Church at Scone. From that year until the year 1296 each of the Scottish Kings was crowned seated upon it. It was then that Edward I., after his successful campaign, brought it to London and deposited it in Westminster Abbey, where it has played its important part in the Coronation of succeeding monarchs ever since. The Chair Itself.

the usual Coronation seat of the Irish Kings.

It remained there until approximately 300 years

The chair itself is of nothing like the antiquity of the stone. It was made to the order of Edward I. by Master Walter, a celebrated carver and wood worker of Durham. King Edward had originally intended that it should be made in bronze, but he abandoned that idea, possibly as being too costly. The actual value of the wooden chair is stated to be 100 It is constructed shillings. of solid oak, and in dimensions it measures 6ft. 9in. in height, while the seat is 2ft. 5in. broad. In decoration it

is purely Gothic, but it has been badly knocked about at certain periods of its history, so that the pinnacles have become partially broken off.

Our Patterns.

We have designed our patterns for the chair to produce a model which scales 1½in. to the foot, and the schedule printed on the purple sheet by the side of the patterns, gives practically all the instructions



MODEL OF CORONATION CHAIR. DESIGN 30X.

*

WEEKLY PRESENTATION DESIGN.

necessary for the production of the chair. It goes without saying that the wood in which the work must be executed is oak, and it is of this that Hobbies special parcel is com-

posed.

The back of the chair, part No. 1, is to be cut of wood ¼in. thick. The lions' manes may with advantage be put in with the lining tool even more effectively than with the fretsaw. The crockets above the back should be nicely cut, using a medium blade. A fine blade in this case would not be effective, as it would leave too fine a cut, whereas here a more pronounced cut is requisite.

The base is a piece of oak 7in. long by $3\frac{3}{4}$ in. wide, while its thickness is $\frac{1}{2}$ in. It should be

chamfered as shown by the section on the pattern on its three top edges, excluding the back. The other work upon it merely consists of the cutting of the three slots as shown. The shelf upon which the "Stone of Destiny" rests is in our model to be cut of 3-16in. wood. This is part No. 3, and is almost entirely plain. The actual seat is practically identical, pattern No. 4, but is cut of in. thick material. The sides, parts 10, are of 3-16in. wood. The two lions, No. 11, are of in. wood, and the numerous other small pieces as scheduled.

The two arms—parts No. 14—will need special attention in order that they may present a good finish. These will be cut from ½in. wood, and the upper edges will be rounded as shown by

the section. These parts must be well sandpapered when finished. The overlays, parts Nos. 12, 13, 15 and 16, will, as usual, be of 1-16in. thick wood—two of part No. 12 and two of No. 13 being cut together. No. 16, it will be noticed, is merely a small fillet, two of this also being needed.

The Construction.

Take parts 5 and the two parts 6 and halve these together at N. Next fit the tenons K with part 6 under and into the half of the slots K in part 3. Now halve the two small sections, No. 8, into the half-cut-through slots M in No. 7, and then join these up by inserting the tenons J into the slots ready to receive them in part No. 3.

The main seat, No. 4, will now be fitted on top of parts No. 7, being held by tenons H.

The two shaped sides, No. 10, will each be halved into parts No. 9, and afterwards will be inserted in slot G above the seat. The main back may now be placed on to the various tenons projecting from the back of the parts so far pieced together, glue being used for each of the joints.

The two separate lions, No. 11, will now be glued into the two slots, A, in the half-inch base, after which the partially constructed chair will be fitted and glued into slot B. The glue should be applied to the top of the back of the lions, just where the other portion of the chair will rest upon them. The special arms, No. 14, will now be

No. 14, will now be just glued on to the top of the sides:

The overlays will best be fixed with glue. The two of No. 13 cover the sides, the two of No. 12 go on No. 7. The small fillets, No. 16, will be glued as shown by dotted lines on parts No. 13, and finally the two overlays No. 15 will be glued at the top of the back of the chair, as also shown by the dotted lines.

"The Stone of Destiny."

We recommend the painstaking worker to obtain a piece of suitable size stone, or mould some plaster to the necessary dimensions, colouring it as described at the beginning of the article, so that it may be inserted under the seat, giving a completeness to the model which would be otherwise lacking: This chair should be fumed, but



SIZE, 18IN. BY 121IN.

the fuming process should not be carried too far.

DOUBLE CORONATION WALL PLAQUE.

THE patterns for this plaque appear on Hobbies Presentation Design Sheet No. 814, that is the sheet printed in green ink given away with this number. It consists of a main decorated back of shield-like form, comprising flags and laurel decoration, with space provided in the centre for the insertion of two china plaques of their Majesties King George and Queen Mary respectively, while the motto, "God Save Our King and Queen," is displayed partly above and partly below.

The height of the entire shield is 18in.,.

Hobbies

while its greatest width is $12\frac{1}{2}$ in. We have selected White Sycamore and Dark Walnut for its execution—these woods forming a very effective contrast.

Preparing the Patterns.

There is one portion of this design which will

meed tracing, but it is of such a simple nature that it will tax the abilities of no one. It is that section which forms the rebate or surround the two china plaques. It is heartshaped below, with the outline of the crown above, and is indicated on the design sheet by the diagonal etched lines. This will need to be traced by means of carbon paper direct on to the wood. The two circles for the reception of the plaques will have to be traced to the

dotted lines which are printed on the overlay. After this preliminary work has been completed, the solid printed overlay for the plaques and the overlay crown will be cut from the design sheet and pasted to the piece of 1-16in. wood from which they will be cut, while the remainder of the design for the back will be fixed to a piece of 3-16in. wood.

The Main Back.

Few instructions are necessary to enable the average worker to execute this portion of the design satisfactorily. For some of the finer cuts in the leaves a fine blade should be employed, but many workers will supplement the saw cuts which have to be made on the flags and leaves by employing the fretworker's Lining Tool—a useful little carving tool by which cuts and scores of varying depth may be made. It is sold by Hobbies Limited, at 9d. It goes without saying that the whole of the centre of the main back is left solid. The rebate piece has already been dealt with this having to be cut in wood \(\frac{1}{2}\)in. thick. It will be glued on to the main back.

The Overlays.

There are in all six overlays, each having to be cut from wood 1-16in. thick. As no two parts are alike, it will be impossible to cut more than one at a time—the usual plan backing the pieces of 1-16in. with commoner of wood being adopted in order to give strength while cutting. Here, again, the fretworker's lining tool may well be employed, especially for the shading on the ribbon and the two scrolls. For cutting all these overlays, the very finest blade should be employed, and the work should not be hurried. Each of the overlays will be fixed with glue in their respective places, the plaques will then be inserted in the rebate frame, after which the surround

overlay will be placed and fixed. In regard to the latter we would suggest that the glue be supplemented by a few roundheaded brass screws which can be driven in through the three circular holes which will be found on the small projections round each of the the

circles surrounding the

plaques.

The pair of specially manufactured china plaques of the King and Queen in natural colours are sold by Hobbies Limited at 1s. 2d. the pair, post free 1s. 5d.

PANORAMIC POST-CARD FRAME.

A N excellent design for a Frame to hold a panoramic posteard will be found at the back of the sheet printed in purple ink. In decor-

ation it is composed almost entirely of curves, so that it is eminently suitable for beginners.

The main back of the frame will be cut from 3-16in. Tasmanian walnut, the overlay being 1-16in. sycamore. The piece of wood, cut from the back to admit the glass and the card, should be taken out carefully in the first instance, as it will have to be re-inserted finally to form the backing. As the overlay is somewhat long and slender, care should be exercised in the cutting of this part. It should be as usual backed with a piece of commoner wood, with the grain running in the opposite direction, and the large opening for the photograph in the centre should certainly be cut last of all. The overlay will be fixed to the frame by means of glue.

A clear glass, No. 5811, measuring 9½in. by 4in., can be supplied by Hobbies Limited at 2d., post free 4d., including metal photo

clips.

PANORAMIC POSTCARD FRAME.

Fretwood, &c., for this Week's Designs.

FRETWOOD FOR CORONATION CHAIR MODEL.—We can supply a special parcel of FIGURED OAK of the thickness required for 1s., or post free 1s. 4d.

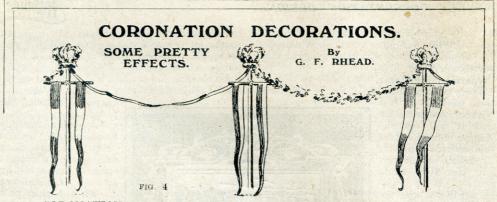
FRETWOOD FOR WALL SHIELD.—We can supply a parcel of SYCAMORE and DARK WALNUT for 1s. 10d., or post free 2s. 2d. (Weight, 11 lbs.)

CORONATION PLAQUES. — China Plaques of their Majesties King George V. and Queen Mary, handsomely executed, price 1s. 2d. per pair, or post free 1s. 5d.

FRETWOOD FOR PANORAMIC FRAME.—We can supply a parcel of DARK WALNUT, with SYCAMORE for Overlay, for 1s., or post free 1s. 4d.

Orders by post to Hobbies, Ltd., Dereham, or Hobbies London Depot, 186, Aldersgate St. Goods may be had at: London: 166, Aldersgate St., E.C. ,,, 147, Bishopsgate, E.C. ,, 79, Walworth Road, S.E.

", 79, Walworth Road, S.E. Glasgow: 326 and 328, Argyle Street. Manchester: 198, Deansgate. Birmingham: 2, Old Square. Leeds: 15, County Arcade. And of all Hobbibs Authorised Agents.



CORONATION is an event that occurs so rarely that everybody should welcome the opportunity of showing their loyalty to our Sovereign, if only by the exhibition of a few flags. But there are many, no doubt, who would prefer to do a little more than this, and it is those to whom this article is addressed, the suggestions which we make necessitating neither a great deal of time or expense; indeed the cost is so trifling that this should debar no one. It is possible to obtain a very effective display with only just a few things, by exercising some forethought in the arrangement; an artistic result will be far more gratifying than a few flags stuck promiscuously here and there, and will indeed be well worth the little extra time expended.

The Materials.

The materials which are employed for decorative purposes at such times consist chiefly of flags, either bought ones or homemade, Japanese lanterns and fairy lamps, painted shields, strings of green stuff, with artificial flowers, and drapery, which is most

Fig. 1.

useful for certain purposes. The scheme of colouring is, of course, governed by the national colours bright vermillion, Royal blue, and white and gold, and these are obviously the shades to which our efforts must mainly be confined. The illuminations at night must necessarily go hand in hand with the daytime decorations and should be made a distinctive feature.

Fig. 1 shows a scheme for a gateway; it consists of two stout bamboo poles sunk in the ground a foot or so, or buried in a flower pot or tub, a horizontal pole being tied across a little way from the top. A thin cane is bent into a semi-circle and tied on as shown. In the centre of this is firmly fixed a cross piece for supporting a large crown of green stuff, formed on a wire framework; underneath this is suspended a large lantern with a series of fairy lamps on each side. On the top of the side supports is fixed a bunch of green and paper roses, and on each side two red, white and blue streamers, which can be made at home very easily. Fig. 2 shows a scheme for a window decoration. The drapery may be in colour either bright red, blue, or purple; it is suspended from a large nail at the centre of the window, bunched up at the corners and allowed to hang, strings of green being carried round to keep it in place. In the centre at the top is fixed a wooden shield, upon which is painted the flat form of a rampart lion, copied from a flag, this in red upon a yellow ground.

Upon the window sill is fixed a light frame, enclosing a suitable motto painted in black letters upon some thin paper or calico, a row of fairly lamps behind creating a for transparency the night time. This completes the scheme with the exception of, if there is room, a flag underneath and two small festoons.

Illuminations.

Fig. 3 is an illuminative scheme, several of which could suitably be employed in the

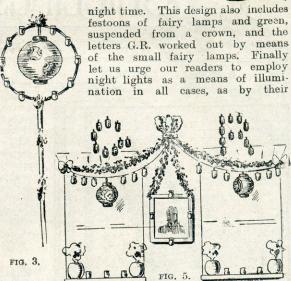


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front of the house; it consists of a stout bamboo pole similar to those used in the first example, with a child's hoop firmly fixed at the top, this being most effectually done by wiring the top of the pole to about 2in. down, and glueing a block of wood in the hollow end of the pole; to this the hook is screwed. hoop and pole should be painted red and a large lantern hung from the centre with a series of small lights all round. A string of green is wound round the upright, as shown. A Comprehensive Garden Scheme.

Fig. 4 shows a series of standards connected by festoons or ribbons; these would look very effective set round the garden, making a special feature of the gateway. The scheme shown in Fig. 1 would be especially Paint all suitable for this purpose. framework bright vermillion or blue, or in stripes. Fig. 5 shows a scheme

for two windows, which includes a portrait of the king. The fra The frame to which it is secured in is deep enough to allow of four fairy lights or small lamps to be hung behind and form a transparency at



use the danger of fire is practically eliminated, while the little candles sold for the purpose are very apt to flare and become a continua anxiety.

WEEKLY PROBLEMS. HOBBIES

Awarded every Week. 6d.

Problem No. 6.

TE came across an old railway puzzle not long ago which in its day was very popular. As it is quite likely a large rumber of the readers of this magazine have never seen it we give it here. The diagram represents a siding linked up to the main line by two small loop lines. For convenience of reference the different sections of line are numbered. On section 4 an engine is stationed, and on sections 2 and 6 respectively two trucks are standing,

designated by the letters A and B. In section 1 there is room for a truck but not

for the engine. The puzzle is to exchange by ordinary shunting operations the positions of the two trucks and for the engine afterwards to resume its position

Set out the different operations you consider necessary in tabulated form, thus:-E432. This means that you have moved the engine from the section 4 through 3 into 2. Similarly B21 would mean that truck B had been shunted from section 2 into 1 and so-on. Number your moves consecutively. If two trucks are moved together it counts as one

We shall award our usual prize to the reader sending a correct solution in the fewest possible moves. The most neatly written card will be awarded the prize in the

event of more than one correct solution. As it is clearly a matter of indifference whether a commencement be made on A or B please for the sake of uniformity start your operations on B.

Solution to Problem No. 3.

The question which really requires solving in connection with this problem is, what two arrangements of the numbers 12345 should be made so as to produce a differenc of 1,836 between the two. Only one pair of

numbers will produce the

Here they are:

34.251 32,415

1,836

As the greater of the numbers expresses the order in which the men passed the winning post, it will be seen they finished as follows:—1, 5, 2, 4, and 3. This result and the manner in which it has been obtained is most lucidly explained by Mr. B. A. Rice of Southsea and he has therefore been awarded our usual prize.

Each solution to be placed on the back of a postcard, and sent addressed "Problem No. 6," to the Editor Hobbies, 125, Fleet Street, London, E.C., to reach on or before Friday, May 26th.



A SMALL LADDER.

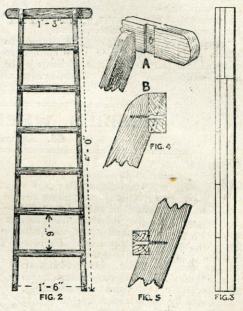


SMALL ladder is found to be of great use in any house, and that which we illustrate at Fig. 1, and show in elevation at Fig. 2, is of a most serviceable size, and is also very easy to make. Red deal is admirably suitable for making a ladder of this description, but it should be carefully selected as knots, shakes, and other imperfections would possibly lead to an accident before the ladder had been very long in use. The sketch (Fig. 1) shows a ladder, consisting of two sides, a top rail, and six bars, the whole of which may be out from a piece of lin. deal, 8ft. long by 6in. wide. A piece of suitable red deal should not cost more than 1d. or 11d. per ft. run bringing the total cost to 8d. or 10d. The only other material required is fourteen 2in. iron screws, so that the whole of the material could be purchased for at most a shilling.

The 8ft. board should be marked out as shown at Fig. 3; the two sides being marked so as to finally work to 2in. wide, the top rail to 2½in. wide, and the bars 1½in. wide. Saw out the whole, and plane up true.

In fixing the parts together, first frame the top rail into the sides. The joint between the sides and top rail is illustrated at A and B

(Fig. 4). The top ends of the sides are first cut to the shape shown, the correct shape being obtained by marking 21in. down at the edge and 7 in. in at the top and cutting straight across, the piece which is removed being indicated by the dotted line at B (Fig. 4). Next mark the correct width on the top rail, and set the sides in position on the rail, care being taken that they are set true, and are the correct width at the bottom. scribed line is then marked on the top rail on each side of the sides, and grooves about kin. deep are cut in the rail, into which the ends of the sides may fit (as shown at A, Fig. 4). A screw is driven through the rail into the sides, as shown at B (Fig. 4), when they are finally fixed together. Next set out the positions



of the bars on the edges of the sides, carefully scribe across to obtain the correct bevel, and cut small notches in the sides for the reception of the bars. The notches are in. deep at the bottom, and taper to nothing at the top (as shown at Fig. 5). Before finally fixing the parts together, first neatly round the top ends of the sides, and the ends of the top rail, as shown in the illustrations. In fixing together the top rail is screwed to the sides, as previously described, and each bar is screwed to the sides, the screws being driven as tight as possible. The ends of the bars, which may project beyond the sides, should then be cleaned off level, and the bottom ends of the sides are bevelled so that the ladder will stand at an angle of about 65 or 70 degrees. Give a coat or two of paint.



A CAMP STOOL.

A CAMP STOOL is always very useful, and that shown at Fig. 1 may be folded into a very compact space when not in use. It consists of two frames, which are hinged together in the centre, while the seat is formed with a piece of stout canvas which is nailed across the top of the frames. Fig. 2 shows a section through the stool; Fig. 3 elevation of the frames; Fig. 4 a detail of the legs; and Fig. 5 shows the method employed to hinge the frames together.

The wood portions of the stool can be of red deal, which should be carefully selected, and

free from all knots and shakes. The following will be required:— Four legs 2 ft. long by 11 in. wide by 1 in. thick; two top rails 1 ft. 6 in. long by $1\frac{1}{2}$ in. square; and two bottom rails 1 ft. 4 in. long by 1 in. square; the whole being cut out and planed up true to these sizes. The frames are next framed together, and it should be noticed that one fits within the other as shown at Fig. 3. In framing together, the bottom rails are framed into the legs, and the latter are framed into the top rails, ordinary mortise and tenon joints being used. Set

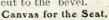
out the legs and rails with the mortise and tenon joints, and first cut the tenons, after which the mortises are cut, and the two are then fitted together, care being taken to see that good joints are obtained. The whole is then taken apart and cleaned up, and the edges of the legs and top edges of the top rails are slightly rounded. The frames are

then finally fixed together, the joints being secured with glue and wedges. Next bore a 3 in. hole in each leg as indicated at Fig. 4, through which iron rivets may The pass. narrower frame

is fitted inside the wider frame, iron washers about \(\frac{1}{2} \) in. thick are placed between the legs,

and the rivets are inserted and riveted up as shown at Fig. 5, small iron washers being placed underneath the heads of the rivets. The stool is then extended until the top rails are the correct height from the ground, and the bottom ends of the legs are marked and cut to the bevel.

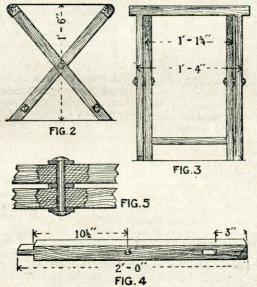
FIG. 1



The seat, as previously mentioned, may be of a piece of stout canvas. This is prepared to width, and a hem is doubled along one end which is nailed to the underneath side of one of the top rails. The canvas is then brought

over the other top rail, care being taken to keep the stool at the correct span, the canvas is cut to the required length and another hem is doubled at this end which should be fixed in a similar manner to the other.

The stool is then complete, and the wood portions may be finished by staining and varnishing.



EMPIRE DAY—WEDNESDAY, MAY 24.

MESSAGE FROM THE EARL OF MEATH TO OUR "SCOUT" READERS.

I am asked by the Editor of "Hobbies" to "send an Empire Message for the thousands of Scout' Readers of 'Hobbies' in the Empire Number." I accede with the greatest pleasure to his request. My message is a quotation from a speech by Lord Curzon:
"Let the ambition of each one of you be, to say when his time is nearing its end that

"Let the ambition of each one of you be, to say when his time is nearing its end that whether in a small way or a great, he has rendered an appreciable service to his native land."

MEATH.

 \diamond



What is it we Enjoy?

N enthusiast said on one occasion that without a three-speed gear it was practically impossible to enjoy cycling, a statement which set us wondering what it was in bicycle riding that we did enjoy. Different people take their pleasure in different ways. One man goes out to study nature, while another is ordered exercise, and takes it as he would take pills. A third lives only for speed-and there are others. I think the chief influence which prompts a man to ride a bicycle in the country is one closely connected with the sporting element in our nature. The healthy animal loves to use his muscles, and in cycling one has an excellent opportunity for muscular activity. Associated with this exercise we have the pleasurable sensation of rapid passage through the air, the advantage of being able to cover considerable distances, and other minor benefits.

It is certainly quite a mistake to suppose that pleasure from cycling is only to be obtained by using a particular kind of bicycle. Thousands have enjoyed themselves immensely on the old solid tyred high wheel, on heavy tricveles and, indeed, on cycles of every sort. When our machines were not so good as they are to-day we were quite content; we gloried in the speed we could attain and the distances we could cover. We enjoyed our keen exercise; we could take pleasure in a fast run with the wind or in a fight against the elements. These were not the sole delights of cycling, and they are not the sole delights to-day; but the sporting element is constantly making itself felt, even with most prosaic wheelmen. It may be put aside for a time, but it is safe to say that its influence, though not always felt, never altogether leaves us.

The Inventor of the Free Wheel.

It will probably be news to many that the free wheel was introduced for bicycles so long ago as 1882. The "Irish Cyclist," however, has unearthed the inventor, Mr. Michael M. Brophy, who, besides being an engineer, has been all his life a keen cyclist. In May, 1882, Mr. Brophy designed and patented a freewheel clutch for bicycles. It embodied silent pawls, being thus the exact forerunner of the modern free-wheel. He had it fitted to a

NOTES FOR CYCLISTS

52in. bicycle, and submitted it to the makers of that machine, a very well-known Coventry firm. The chairman of the company had the bicycle tried by one of the crack riders of the period. He rode it from London to Coventry, and reported enthusiastically on the invention. Thereupon it was decided to take up the innovation on royalty, subject to the approval of the shareholders. These ostriches, however, would have none of it. They voted the directors down, and the free-wheel was consigned to the limbo of forgotten things.

Seventeen years later it was resurrected, and now no self-respecting bicycle is without one. What must be thought of the shareholders

who thus refused a great invention?

A Huge Cycle Shed.

A large cycle storage shed, said to be the most roomy of its kind, has been erected at Golder's Green on the Hampstead and Charing Cross Tube. The shed, which will accommodate about 300 machines, is situated just outside the station premises, and is open from early morning until late at night, but is closed on Sundays. This shed has been erected for the convenience of those cyclists who ride from their homes to the station and complete the journey into the City by Tube. No charge is made for depositing the machines.

J. One of the booklets connected with cycling that one looks forward to every year is that entitled "All About Dunlop Tyres"—a real hardy annual in its way. This year prominence is given to the new pattern Dunlop tread, shown for the first time at Olympia, where it was fitted to the majority of the cycles on view. This new cover has been highly spoken of by some of the most experienced and practical riders in the kingdom. For this new tread cyclists are indebted to the motorcyclist, for it was experience with the motorevele that was the immediate cause of change. Another new thing introduced this year is the "Pericles" replacement cover, designed to meet the needs of those who require an inexpensive article which is reliable. The guarantee

for six months is a proof that the company has the utmost faith in this production. The book also deal with tubes, plain and butt-ended, valves, repair outfits, security patches, Dunlop belts, a belt piercer, and a variety of other goods. One of the newest of the sundries is a solution flask, to the stopper of which is fitted a brush with which to apply the fluid. The stopper screws down on a special washer, it is claimed that evaporation is prevented, and—the brush is never left behind. Copies of this book may be obtained from Dunlop depots, or most cycle agents.

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3 SPEED CYCLES

(Armstrong 3 Speed Gear).

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"Vaso1" is a scientifically graphited, highly refined libricating, not a "do-all" oil. It goes to the spot to be libricated and stays there.

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is just the low pleasing "whirr" of the wheels. The Silent Singer makes no other sound because its construction is as good as 37 years' experience of bicycle building can make it. Every bearing is perfect-gauged to one thousandth of an inch accuracy-every part of the machine is-and remains-right. What price do you wish to pay? We make Silent Singers from 6 to 16 guineas. for illustrated catalogue to-day.

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This is an excellent Overmantel for a small room. All the work may be done with a twelve-inch Hand Frame, and owing to the method of construction adopted, all the parts may be put together by the average amateur.

Fretwood.—Parcels of selected Satin Walnut, of the thicknesses recommended. may be had for 2/4; or post free for 2/10 per parcel.

Mirrors.—A handsome Bevelled-edge Rectangular Silver Plate Mirror (size 20 in. by 15 in.), framed in Reeded Frame of Satin Walnut, may be had carriage forward, for 11/-complete.

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With Double Doors.
Size 27 in. by 22½ in.
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are different, the figures being modelled in high relief. A pair of Panels, carefully packed in box, may be had for 2/6; or post free for 2/9.

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This Cabinet may be cut and built up by the average worker. Its totallength from top to bottom is over 27 inches, and its extreme width over 22 inches. The interior of the Cupboard measures about 16 inches in width, 11½ inches in height, and 6 inches in depth. So far as this depth is concerned, it may easily be increased as the worker pleases without any serious alteration of the pattern.

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Thirty - hour Clock (5502) 5/-, or post free 5/3





HEN Edward VII. was crowned on August 9th, 1902, no ceremony of the kind had taken place in this country since 1838; so there was much to discover, consider and revive. When King George V. and Queen Mary pass into Westminster Abbey on June 22nd this year, the interval will have been only one of nine years: the arrangements will be easier, the experience fresh.

A Religious Service.

An English sovereign is placed in legal possession of his rights by the Act of Settlement, by his proclamation, by his acceptance in the Privy Council, and by the oath of allegiance taken by the two Houses of Parliament. The position is one of enormous responsibility. Lords and Commons are his advisers; in his name and by his authority power to act is given to judges, magistrates, the Colonial Parliaments, the navy, the army, the diplomatic body, and all the vast branches of the civil service. His personal influence with his minister, as himself the permanent head of the State, should be very great. The effects of his personal character and example are unlimited. For the proper discharge of all these duties it has from the earliest days been felt that the office has essentially a religious character, and that the King should be invested with it at a reli-

gious service of the most solemn description. It is reasonable to look for primitive precedents in Scriptural times. David was three times anointed; first by Samuel, as the chosen future ruler; then in Hebron as King of Judah then again in Hebron as King of all Israel. Solomon was anointed as successor to David in his father's lifetime at Jerusalem by Zadok the Priest, and Nathan the Seer.

Gildas, the historian of the British people during the existence of the ancient British church, states that kings in like manner were anointed with oil. The earliest Anglo-Saxon document on the subject that we know is the Pontifical (or Book of Bishop's Offices) of

Egbert, Archoishop of York in a.D. 736; which says that the rite of unction formed part of the ceremony of Coronation. Egbert King of the Mercians, son of Offa, was crowned with great solemnity a.D. 796; the Saxon Chronicle states that by the use of holy o'k Egbert was "hallowed to be King." Archbishop Becket wrote to Henry II. that Kings were anointed on the head, breast and arms as a sign of glory, holiness and courage. "The

holy oil in the service being symbolical of the inward anointing of the soul with the unction of the Holy Spirit; the employment of it in the Coronation Service has ever been held to confer a sacredness on the person of the

Sovereign.'

The enlightened Bishop Grosstete of Lincoln, writing to Henry III., informs him that the oil used upon Kings is an outward sign whereby he received the sevenfold gifts: of the Holy Spirit. It was from having been thus anointed that our Kings have received the style "Dei gratia," by the Grace of God, which as an old writer of the 14th century says, could not be given to any one else of the laity.

The Regal Vestments.

The Vestments peculiar to the Regal office are first a

piece of square linen for the head called the Amice; then the Colobium Sindonis, a sleeveless tunic of white linen; then the Supertunica of Cloth

of Gold, a long tunic reaching to the feet, with a girdle; then the Armilla, a narrow strip of silk shaped like a stole, passed over the King's shoulders, the ends reaching to the waist, and fastened to the elbows by silken knots; lastly, the Imperial Mantle, or Cape, also of Cloth of Gold.

The Coronation oath was for several centuries, indeed in the time of Charles I., taken on a Latin copy of the Four Gospels, now in the British Museum, said to have belonged to King Athelstan, crowned at Kingston in A.D. 925. The oath was practically the same till the time of William III., when it took that denunciatory form against Roman Catholicism which has only lately been altered.



Photo] [Russell & Sons.

VEN. ARCHDEACON SINCLAIR.





The Coronation Service.

The authority for the form of the Coronation Service is the Liber Regalis (Book of the King) kept at Westminster Abbey, which dates back to the Coronation of Edward II. The Pontifical of Archbishop Egbert (795) has already been mentioned; there are also Pontificals of Salisbury, Winchester and Exeter. The service as used for King Edward VII. and Queen Alexandra was somewhat shortened from previous forms, and may be divided into XIX Sections. I. The Preparation: i.e., the laying of the Oil and Spoon on the Altar, and the procession of the Archbishops and Bishops to the Vestibule outside the West Door.

II. The Entrance, with the anthem "I



was glad." the King and Queen kneel before the Altar, and take chairs below their thrones. III. The Recognition. The Archbishop, with the Lord Chancellor, Lord Great Chamberlain, and Earl Marshal (Dnke of Norfolk) presents the King on the Platform north south, east and west with a loud voice. Bible, Platen and

Chalice placed on the Altar. IV. The Litany. The Regalia of the King and Queen are placed by nobles on the Altar. The King's: St. Edward's Staff, the Spurs, the Sceptre and Cross, the pointed Sword of Temporal Justice, the, pointed Sword of Spiritual Justice, Curtana or Sword of Mercy, the Sword of State, the Sceptre with the Dove, the Orb, St. Edward's Crown (and Bible, Platen and Chalice). The Queen's: The Ivory Rod with a Dove, the Sceptre with a Cross, the Queen's Crown.

V. The Communion Service. VI. The Sermon. VII. The Oath, in four parts, made on the Bible, and signed. VIII. The Anointing. The hymn: "Come Holy Ghost." Anthem: "Zadok the Priest." During the Anointing, for which the King takes off his Crimson Robes of State, four Knights of the Garter hold a canopy. After the Anointing the Dean of Westminster invests him with the regal robes. IX. The Presenting of the Spurs and Sword, and the offering and redeeming of the Sword. X. The investing with the Armilla and Imperial Cope, and the Delivery of the Orb. XI. The Investiture by the Ring, the Sceptre with the Cross, the Sceptre with the Dove, and the Gloves.

XII. The putting on of the Crown by the Archbishop. Acclamation by the people: "God Save the King." The Peers put on their Coronets. Trumpets sound. The great guns at the Tower are fired. XIII. The Presentation of the Bible (introduced at the Coronation of William III. and Mary.) XIV. The Benediction and Te Deum. XV. The Enthronization, the Bishops, Great Officers, and Nobles bear-

ing Regalia standing round. XVI. The Homage: done by the Princes and the head of each section of the nobility in turn, with a kiss on the King's left cheek. Anthem: "Kings shall see and arise." Drums, Trum-

pets and Acclamation.

XVII. Coronation of the Queen by the Archbishop of York. Four Peeresses hold over her canopy. She is anointed kneeling. While the Crown is placed on her head, the Peeresses put on their Coronets. XVIII. The Communion during which the King presents an Altar-cloth and Ingot of Gold, the Queen an Altar-cloth and Mark of Gold. XIX. The Recess. The King and Queen carrying their sceptres and rods, pass into St. Edward's Chapel behind the Altar, exchange the Imperial copes for the crimson robes of State, and proceed crowned to the west door of the Abbey, from which they depart.

A Splendid Scene.

No scene could be imagined more solemn, devout and splendid, or more suggestive of the tremendous duties of the highest of earthly offices. The Coronation banquet, which used to take place in Westminster Hall, has been for some time discontinued. Various events take place during the Coronation fortnight; the royal progress through the principal streets of London being one of the chief.

So, after the year of quiet mourning for the late King, opens the second chapter of the reign of King George V. Probably no King ever ascended the throne of this country with better auspices or with fairer promise. ourably known first from an honourable and strenuous career in the Navy, then for his earnest, self-restrained and conscientious discharge of his duties as Prince of Wales, intimately acquainted with every part of the Empire from his memorable progress round the Colonies, and his visit to India, devoted to his consort, his children and his home, taking every opportunity of showing his sympathy, with the poor, the sick and the suffering, a master, as his first year has proved him of wise and appropriate words, abstemious in his habits, and with a noble sense of the dignity and responsibilities of his exalted office, King George has already won the confidence and love of his people.

Our Art Supplement.

The Art plate with which we present our readers this week is a reproduction from a painting by a well-known London Artist whose work is seen in some of our foremost periodicals—Mr. Sidney Fitmore. It was expressly executed for Hobbies, and depicts the actual Crowning of King George V. by the Archbishop of Canterbury. The Archbishop of York is to be seen on the right hand of the picture. Next week we present our readers with the design for a fretwork frame for this Art Supplement.





ALL PARAGRAPHS PRINTED ARE PAID FOR AND A PRIZE GIVEN FOR THE BEST.

The Editor offers a Prize of 2s. 6d. every week for the best paragraph submitted. In addition the sum of 1s. will be paid to all others whose paragraphs are printed. Address "Kinks" to the Editor Hobbies, 125, Fleet Street, London.

The prize is this week awarded to Mr. A. J. GOODMAN, of Wellingboro', for the following "Kink."

An Improvised Pulley.

When in need of a pulley-wheel, a good one can be made from a cotton

A C

can be made from a cotton reel. Cut a piece of wood, in thick, to shape at A. Through B and C bore holes to take screws, and after screwing A into its place, the pulley can be inserted.

—A. J. GOODMAN.

Pulling up Stumps.

If one has ever tried pulling up stumps when they are firmly fixed, it will be known how obstinately they resist the most strenuous attempts at removal. This shows a simple,



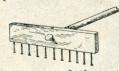
This shows a simple, but effective method of removing them. Over the stumps drop a stout loop of rope, R, and through it pass a strong bar of wood, F, allowing about three-quarters of its entire length to re-

main on one side. Rest the short end on a brick or some other hard piece of material at B, then by applying an upward pull at P, an immensely powerful leverage is obtained and the most reluctant stump will be effectually removed.—J. E. Gash, Boston.

A Cheap Garden Rake.

*

All that is required for this simple rake is a piece of wood, 12in. by 3in. by ½in., a few



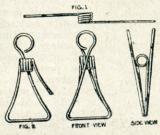
nails, 1½in. in length, and a broom handle. First take the piece of wood and bore a hole in the centre large enough for the handle

to enter and then at intervals of about lindrive the nails into the edge of the wood, so that lin is left protruding. After this the next thing to be done is to fix the handle into its position. This can be done by driving a nail each side of the piece of wood, so as to keep the handle in position.—E. FAUX.

Handy Spring Clip.

I ENCLOSE a drawing of a very handy clip,

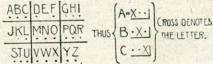
made out of lft. of steel wire. Note the spring is made first by twisting the wire firmly around a wire nail, and each end to be dealt with separately.



J. MOORE, Delabole.

A Secret Code.

Boy Scouts and others who are in need of a good code which does not necessitate constant reference to some elaborately written table of characters may find the following simple, but nevertheless effective, code helpful:—



Each dot indicates the position of a letter. So if the word HOBBIES were to be written it would be as follows:—

·X· ·X· ·X· ·X· ·X· ·X· X· = HOBBIES

With a very little practice a letter written with the above code can be done in a remarkably short time, and to anyone unacquainted with the key the reacting is impossible.—Thomas O. Boyd, Walton, Liverpool.

A Dustless Sifter.

Buy two wooden lard buckets take the bottom out of one, buy a square foot of wire gauze, cut it out round so as to fit over the

bottom of the bucket, nail it on with lin. nails. Then to keep the bucket from slipping put two blocks of wood A, about half the way down the bucket. Fit the bucket into the other bucket; it will turn round quite easily. Then, in order to sift the cinders, they are put into bucket C, and the bucket is turned one way then they other; the



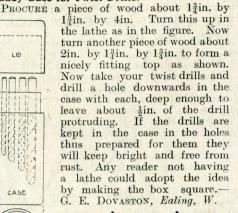
way then the other; the dust falls into bucket D. This saves all the mess. A lid



CASE

may be added if desired .- H. SHAPCOTT, Plymouth.

Handy Case for Twist Drills.



A Tyre Kink.
Now that the winter is over PLAN cyclists will be cleaning up their

of CASE cycles, and looking over the tyres may find that a rusted or soft piece of the beading has slipped out from under the rim and are, of course, puzzled to know what they are to do. Well, this is what I did: I cut the rusted part off, not across the whole tyre, but only the beading, and cut also the beading opposite, and having an old tyre I cut a piece from it, enough to cover the part without beading. I then put new piece on, and I find that it has kept all right. This is useful if tyre is a good one with that exception.

—B. MOTLEY, Plymouth.



A Cheap Filter.

A LARGE flower-pot, a piece of sponge, some sand, gravel and charcoal, are the requisites for this filter. Squeeze the sponge into the hole at the bottom of the pot, letting it protrude a little downward; over this place a layer of the cleaned coarse gravel, then a layer of charcoal



(pea-sized bits), another of sand, and on the sand one of gravel (all the layers filling half the pot). A piece of strong linen may be tied round the mouth, and the whole can be slung to a hook in the ceiling. A small aperture covered by a flap should be made in the cloth for the convenience of pouring fresh water in from time to time. A jug or other vessel is placed

to catch the filtered liquid. The diagram will make the preceding explanation understandable.—LIONEL GOODERIDGE, Leeds.

Making Glue Set Hard Quickly.

THE best plan to make glue set hard quickly is to use less water. Agar-agar boiled with water gives a stiff jelly on cooling when only three parts of material are present in 100 parts of water, it is quite stiff as a 20% solution of glue. A little agar-agar added to glue will make it set hard more quickly. The price of agar-agar is, however, rather high, about 3s. 6d. per pound.

Whist Marker and Card Case Combined.

This handy whist marker and card case combined is made as follows:-First procure an old cigar box (one of those wide ones) and having cut out the back, partition it off a 4 of the length of the box as in Fig. 3, and fasten door on small hinges. For the whist

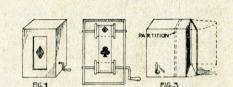


FIG.Z

marker procure 2 cotton reels and fasten a piece of wire through each, then fix to the wall as in Fig. 2, but where the handle is fixed, fix one end of wire to the side and drive a hole in the other side and pass wire through and bend it into a handle. For the belt a stripof white paper is suitable and having drawn a heart, club, etc., fasten it round the 2 cotton reels and gum the 2 ends together.—LEON BERTRAND, Wimbledon.

A Novel Mousetrap for the Greenhouse.

TAKE a large flower pot and plug the drainagehole with a cork. To this fasten a piece of string sufficiently long enough to reach half way up the pot. To the other end attach a small disc of wood. Fill the pot with water until the wood floats at the full length of the

string. On the wood put a lump of toasted cheese. The mouse attracted by the perfume makes a sporting jump for the cheese, and although he may be able to swim, he will be unable to get out and will be "found drowned."— H. A. TINDALL, Skipton, Yorks.





THE following kink will prove useful for removing the cork of a bottle. Make a loop of string and place the cork in it, then place the cork in the bottle. When you want to take it out, insert the finger in the loop and pull.-W. FITZSIMMONS, Dublin.



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THE TEXAS HATCHER AND

REARER IS A MARVEL

(IMP. PAR., Nov. 20, '09.) Read: --W. Lawson, Newcastleon-Tryne, says: "Little Texas Hatcher worked splendidly. This season (1910) I have hatched 76 chicks with it, though I was only a novice: Complete, full instruction, 15-egg size, segs. 10-66 other Insert of Children Lawson, with the control of the contr

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HOW DRESS **AFFECTS** PORTRAITS.

VISIT to a photographer's studio has often been dreaded as much as a visit to a dentist's would be, due in all probability to the fact that comic writers too frequently refer to the photographer's posing chair as being like a dentist's chair. In bygone days when long exposures were necessary, and a head rest was used to keep the head still, there was certainly some similarity between the two chairs, but to-day when photography has been brought to such a high state of perfection, and plates to such remarkable rapidity, there is no need for inordinately long exposures, and the dentistlike fitting known as a head and body rest is rarely to be seen. The banishment of the head rest which held the sitters' head in a kind of clamp has done much towards making the visit to a photographer one of pleasure rather than of pain, although the latter was always more imaginary than real.

The Follies of Fashion.

The matter of dress bothers man but little, if at all, when about to visit the photographer, and we may dismiss him at once. Dress, however, to the feminine mind is most important, and at times not a little worrying to the photographer who has no wish, like the sitter sometimes has, of making the dress more prominent than the likeness. Thanks, however, to the vagaries of fashion, much grist comes to the photographer's mill, as a fashionable beauty would never consent to one of her last year's portraits being published in a society paper, because of the dress having gone out of fashion, for as Colley Cibber, two centuries ago wrote "As good be out of the world as out of the fashion." One may, however, from a photographic point of view pay too much attention to the follies of fashion, as a prevailing fashion may not suit every type of beauty.

Woman in every age has, one writer tells us, lived for the admiration of men. On this admiration her whole existence has always turned, and probably always will turn so long as there is a man left in the world to admire her, but that man need not of necessity be a photographer. The more simple the dress the better chance the photographer has of making a pleasing likeness, and what has been termed "fluffy simplicity" has much to recommend it if such fluffy simplicity is not over done, as it is unfortunately in many of the photographs of some of our so-called professional beauties. There is no more difficult creature to clothe fitly than the maiden of indefinite age who has left her loose-flowing yoke dresses, her smocks, and her low-belted

tunies behind, but has not yet attained to the dignity of tight fitting garments. It is at this age that one well-known writer advocates the adoption of "fluffy simplicity," as any tendency to severity of outline being extremely unbecoming to the unformed figure. Few photographers can equal Mr. S. Elwin Neame in the rendering of fluffy simplicity, and his pictures of artistically-draped and beautiful young girls are known to all readers of the illustrated magazines and collectors of picture postcards. Such style, however, does not suit every type of face and pose, though it is more lasting and unchangeable than modern fashions. Tastes, however, differ widely, and it is doubtful if ever the fashionable "fluffy" portrait will ever find a place in the homes of country folk. The stiff and often very inartistic pose, with perhaps book, column and balustrade included, is too firmly established in the hearts of the country folk to be ousted by the highest examples of photographic art in portraiture, such as those of the Hollyer and Furley Lewis type for instance.

Colour Rendering.

The problem of colour rendering has now been almost if not completely solved, and although colour photography itself is not vet widely in use among photographers, the art of reproducing the monochromatic values of colours is now almost universal even in third rate studio. The studio-worker, although well knowing the serious drawbacks of the "ordinary" plate and the advantage of the "isochromatic" variety when colour is concerned, was a long time before he would adopt the latter, the average professional being very light filters along with colour sensitive plates, the colour value may be correctly rendered in monochrome. The modern photographer can ring the changes to almost any extent, even to the making of a red dress appear as a white one and light blue as black should he desire to do so. The question of colour may therefore be dismissed if a visit is paid to an up-to-date photographer who knows his business.

Three years ago a paragraph went the rounds of the papers telling us of a "photoconservative in his methods. He, as well as his customers, got quite accustomed to yellow dresses coming out black, and blue dresses white, and he was loth to change his system of working. Nowadays it is no more trouble, and no more expense, to represent in the photograph, a blue dress darker than a yellow one, and other colours in their proper tone values, therefore, the question of what colour a certain garment will come out it is not such a difficult one, as by the use of certain screens or

THE AMATEUR PHOTOGRAPHER.

chemise" a new departure in lingerie specially made for photographers who draped their sitters, but apparently the article did not catch on, for since then nothing has been heard of it. The leading workers of to-day are content to use several yards of white or coloured chiffon, tarlatan or muslin as drapery

for the shoulders and head, while a few use a mantilla for the latter. At the time of the marriage of the King of Spain an effort was made to adapt the Spanish mantilla not only in photographic drapery, but for general use, but the attempt like that made to revive the Greek dress in the autumn of 1905 proved a failure, much to the dis-

jolly and good-tempered, while a fancy hat assists in making the wearer look in a coquettish mood. Flat hats erring on the side of smallness give the sitter a somewhat depressed look as a rule, while a hat which apparently rolls away from the face gives one a brighter look. Heavy hats tend to make the

wearer look low-spirited in a picture, and the photographer knows as well as anybody how the mood changes with the hat.

As for dress material the following are the most suited to photography, and the materials they combine best with are given. It is



appointment of many who are somewhat tired of "fluffy simplicity" and the stiffness of modern fashions. The graceful mantilla is so characteristic in Spain as to be protected by law, for no mantilla may be seized for debt. This graceful article of apparel might be used more than it is for photo-

graphic purposes; it is far more effective than the "fascinator" so beloved by the suburbar, housewife when visiting the theatre.

The question of head dress is indeed an important one, and what style suits one face will not make a pleasing picture of another. The popular "Merry Widow" hat did not suit fifty per cent. of the ladies who ventured to wear it. A broad hat makes one look more

however, largely a matter of individual taste chacun a son gout. The materials are ranged in the order of preterence, and according to the consensus of opinion. Cloth: combines best with linen, crape, fur and lace. Serge: combines best with silk and linen. Velvet: combinen.

linen. Velvet: combines well with linen, lace, crape and fur. Silk: combines with crape, velvet, and fur. Calico goods: combine best with linen and cloth. Woollen goods: combine well with linen and silk. Fur: combines best with fringes, silk and lace. As a rule, long dresses make the best pictures when a full length picture is taken; both because the length of the drapery gives height and dignity, and because graceful

and flowing lines are then more easily obtained. A stout woman can make herself look much thinner by wearing patterns and trimmings that run up and down her dress instead of round and round. She should never wear satin, for it has too much reflection in its depths and appears to increase the size of the wearer.

Though photography may be made to pervert the truth, the camera, as Gladstone said. cannot lie, when properly used. It tells the truth on principle, as Ingles Rogers once stated, no matter how distorted or unpleasant the presentment may be. Once the visitor to a photographer's studio have grasped this fact, they have taken the first step toward the knowledge that will enable them to play their part at the photographer's with the confidence that begets success.

The science of photography should be the

photographer's exclusive acquisition; the sitter has nothing to do with this. His interest is naturally confined to the artistic side in the matter of pose and arrangement, and much depends upon willing co-operation in this matter, but it is not only advisable but imperative to diffuse among those who require them a few hints by the observance of which, in conjunction with the legitimate knowledge of the photographer, it will be possible to get a most effective and pleasing result.

That the style of head-dress and dress proper has some influence upon the face is proved, I think, by the four photographs of one model on the previous page; one illustrates flimsy simplicity, i.e., draped with chiffon, another illustrates the effect of a black Spanish mantilla, another the "at home" portrait, and the fourth the one-time fashionable "Merry Widow" hat.

SKIN POISONING WITH DEVELOPERS.

HOTOGRAPHERS with very sensitive skins often suffer very much after using metol and amidol developers, particularly the former, which appears to affect more than amidol. The malady appears in elightly different forms, owing to the different character of skins. With some people a day or two after using metol the skin on the fingers begins to peel off and the fingers feel stiff; with others, small painful ulcers appear. Metol and amidol developers, however, do not affect all who use them. Those suffer most who use hard water, common soap, and who indulge in alcohol.

Photographers may work for years without metol affecting them, and then at last feel the effects. When this happens, the worker will never be really safe to use metol again, because when once metol poisoning has appeared and been cured, it will appear again all the more quickly if metol is used, and become worse each time. The only real remedy is to use rubber gloves when developing, or not to use metol again, but metol-especially with hydroquinone-is such a good developer that many who like it would willingly suffer a little inconvenience than give it up.

The disease first takes the form of itching,

and when any irritation between the fingers is first felt, the hands should be well washed in warm water, with or without carbolic soap; no common soap strong in soda should be After washing, the hands should be dabbed-not wiped-dry with a soft towel, and rubbed with vaseline, cold cream or other soothing ointment from a chemist's. A special soothing ointment, which has been recommended by a specialist, is the following, which any chemist will make up :- Carbolic acid, 1 drachm; Wright's coal tar solution, ¿oz.; glycerine, 3 drachms; water 12ozs.

Some workers use vaseline before and after using metol, while others recommend rubbing the hands with lemon before using the developer and washing in warm water afterwards.

We have no wish to condemn metol or frighten amateurs, but there is no denying the fact that a few suffer little or much, and it is as well to know what to do when itching is first felt, because it should not be allowed to continue. The hands should never be placed in an amidol or metol solution any more than is necessary, and the hands should always be washed in warm water afterwards, with carbolic soap if possible; the beginner will then stand little chance of skin poisoning.

HOBBIES PHOTOGRAPHIC COMPETITIONS.

THE subjects for each month follows:

MAY.—LANDSCAPE. (Any process).

JUNE.—SNAPSHOT OF ANY EVENT BEAR-ING ON THE CORONATION.

JULY.—ANY SUBJECT (on Hobbies Plates

AUGUST.—PORTRAITURE AT HOME. SEPTEMBER.—LANDSCAPE WITH WATER. OCTOBER.—THE BEST MOUNTED PRINTS.

PRIZES.

The Monthly Prizes will consist of :- FIRST. -CASH, £1 1s. SECOND.—Cash, 10s. 6d. THIRD.—CASH, 5s. Certificates will also be awarded.

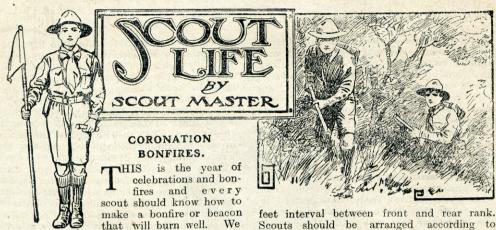
CONDITIONS OF THE CONTESTS.

RULES.—Two prints of different subjects, or different aspects of one subject, to constitute an "entry." The prints must be accompanied by a front cover of Hobbies of the latest date possible. Fach of the photographs must be mounted upon card, and the title of the photograph with the name and address of sender must be legibly written on the back. No print will be eligible that has already taken a prize in other Hobbies' competition.

The 1st, 2nd and 3rd Prizes will be awarded to the senders of the best three entries.

No photographs can be returned, and the Editor reserves the right to reproduce any of the prints in HOBBIES. Prints must be received not later than the 1st of each month following the month of competition addressed:—Photo Competition, Editor, HOBBIES, Dereham, Norfolk.

A H loful criticism of each Competitor's work will be sent if stamped and addressed envelope is sent with prints.



are indebted to the Scout Commissioner, for Linlithgow, Col. H. M. Cadell, V.D., for giving us instruction in how to make a success of bonfire, or beacon making. He has issued a little booklet containing six pages of verse entitled—a "Bonfire Ballad for Boy Scouts"-and the following has been taken from those verses as being the vital points of his instructions.

> Well creosoted sleepers old By railway companies are sold, At fifteen shillings to the ton For bonfires-builders they're Al. Old boxes, oil or spirit casks Should be given free to him who asks By public-minded gasworks boards Or manufacturers, from their hoards.

If weather should the process mar, A keg of paraffin or tar Thin sprinkled o'er the dampest part Will help the blaze to make a start.

Get three spars of sufficient strength Twenty or thirty feet in length, The smallest ends together tie, Then stand them up, the tips on high, And feet apart, ten feet or more, This tripod forms the hollow core.

Now take the heaviest of the wood, Lay it round like cart-wheel rude, With spokes that run from nave to rim, And slits between like portholes grim To let the air draw in below, The next course round the sides should

The heaviest sticks should form the skin, And hold the brushwood packed within. Like sugar-loaf the shape should be If you a bonfire sweet would see.

REGULATION DRILL.

Although our organisation is a non-military one some districts find it difficult to get along without some form of drill.

The following drill will be found very useful and is the form adopted by the Birmingham and District Association of Boy Scouts.

Form double rank, on the left of two senior patrol leaders, in open order, viz., about four Scouts should be arranged according to size.

Dressing.

In dressing, each one will look towards the flank indicated with smart turn of the head. He must carry his body backward or forward with the feet, moving to his dressing with short, quick steps, without bending the body backward or forward, shoulders to be perfectly square to the front. Each should be able to see the lower portion of his next but one comrade's face.

Eyes Front.

When the instructor is satisfied that both ranks are in true line, the command may be given "Eyes front."

Numbering.

The numbering will be commenced from the right; the front rank boys only will call out in succession, the rear rank keeping silent, but taking their numbers from the boys immediately in front of them.

Formation of Fours.
On the command "Form Fours," the even numbers only of both ranks will take one pace to the rear with the left foot and one pace to the right with the right foot, the odd numbers of both ranks standing firm and steady.

Formation of fours when the ranks are changed, viz., when troops are turned about. In this case the even numbers take one pace to the rear with the right foot and a side pace with the left foot. Troops should practice well in this movement. Care should be taken that a complete four be at the end of each troop.

By Your Right (or Left) Quick March.

Dressing on march, in any formation, after the command "Quick march," the additional of, by the right, or by the left must be given This means that scout must keep in line with the extreme right or left-hand boy as ordered.

Sealed Orders.

A very interesting and useful exercise which teaches map-reading, path-finding and observation, is to give the leaders of each patrol a sealed envelope, containing a map of roads and streets, prominent buildings, trees or hills, from which he and his patrol are to find their way to a certain place, where the Scoutmaster will be waiting for them.

Hobbies

The leaders will receive the sealed orders at their club-room or headquarters, and will then proceed to a place indicated on the envelope each leader being instructed to go to a separate place, when the sealed orders are opened,

and the maps examined. The patrols will then proceed as quickly as possible along their route to find the soutmaster. The patrol first home wins.

If the scoutmaster will conceal himself, much amuse ment, as well as keen scouting, may be had by all before he is found.

STAR MAP.

AT the beginning of every month we will give a map of the evening sky for the month, showing the bright stars that every scout

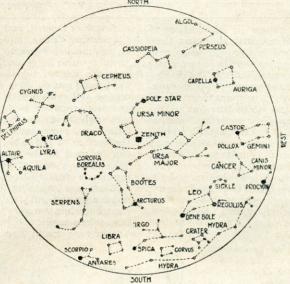
should know. The stars which are of greater magnitude than the others are shown in diamond shape on our diagram, the lesser stars being shown as round spots. This will give you a guide in picking out the various groups.

The bright star Spica, which forms part of the group Virgo, is to be seen almost on the meridian about 10.30 p.m. Another star which will attract your attention is Antares, which forms part of the group Scorpio, to be seen close on the southern horizon.

On looking at the north you will see Cassiopeia, just under the Pole Star, and the bright

star in the east is Vega (in group Lyra), with Altair (bright star of group Aquila) almost under it.

The map shown in our diagram represents the overhead. view hence the reason for reversing the positions of East The and West. stars in centre of the map will be directly almost above where you are standing.



THE EVENING SKY DURING MAY.

Finnish Scouts in Difficulties.

THE Boy Scout movement which has been making good headway in Finland has received a nasty

shock. The authorities have discovered that the movement is going ahead faster than they think it should. The Governor-General has ordered the scouts to send in a daily report of the doings to the local police, and if the Governor's demands are ratified at St. Petersburg it will prove the death-blow of the scouting movement in Finland.



MAKING SIMPLE FIREWORKS FOR THE CORONATION.

BOVE all things it is necessary to have good materials, and that these be prepared in a proper manner, in order to execute any task combining so many ingenious contrivances as the making of fireworks undoubtedly require. The manufacture of your own gunpowder is not desirable—you should buy the best; but as the admixture of charcoal is necessary, and as much of your success depends upon having it good, observe that the less of sap there may be in the wood before it is made into charcoal, the better will be the powder. The wood is to be dried in an oven, with a slow fire, and the charcoal kept in close boxes from the influence of air until the moment it has to be used.

There have been many methods used to grind these ingredients to a powder for fireworks, but no method has proved so effectual

as the simple apparatus known as the mealing table. It is made of elm, with a rim round its edge, 4 or 5in. high, and one end is a slider.

How to Make the Mealing Table.

Get two pieces of elm, or any other hard wood; cut perfectly circular about eight or twelve inches in diameter, and threequarters of an inch in thickness. One

side of each piece should be planed up perfectly true with each other. To one of the pieces a handle should be fixed about four inches from the centre (see Fig. 1). Attention should be next turned to the other piece. This must have a rim tacked round (see Fig. 2), either of wood or tin—tin will answer the purpose if a suitable piece of wood cannot be obtained. This rim should stand about four

inches high. A hole must be cut in the rim near the bottom of the table, and a sliding door fixed. This being done, the powder may be extracted during the process of grinding. Strips

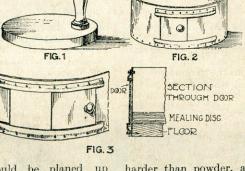
of tin can be used for the slides. Cut two pieces an inch wide, and long enough to allow the door to slide back clear of the hole. They should be bent to shape, and if a tin rim is used, soldered on. Fig. 3 shows how the sliding door is fixed, and Fig. 4 gives a view of the mealing table complete. A mealing table is recommended where large quantities of powder are to be ground. If small quantities only are wanted together, two pieces of flat hard wood can be used, the powder being put on one and rubbed with the others. A pestle and mortar may be used for grinding brimstone and saltpetre separately, and is an advantage. Brimstone, being hard, is inclined to stick to the surface of the table. Flowers of sulphur can be used in the manufacture of powder. This saves a deal of grinding, but the best results are obtained from brimstone.

When you are going to meal a quantity of powder do not put too much on the table at once, but when you have put in a good proportion, take a muller and rub it till the grains are broken very small; then sift it in a sieve that

has a receiver and top to it; and that which does not pass through the sieve return again to the grinder, and grind it all until you have brought it fine enough to go through the sieve.

Brimstone and charcoal are ground in the same manner as gunpowder; only the muller should be made of harder material, for these ingredients are rather

harder than powder, and would stick to the grain of the elm, and be very difficult to grind; as the brimstone is apt to stick and clog to the table, it would be best to keep one for that purpose only, by which means you will have your brimstone clean and well ground.



To Make Touch-paper.

Dissolve in some spirits of wine or vinegar a little saltpetre; then take some purple or blue paper, wet it with the above liquor, and when dry it will be fit for use. When you paste this paper on any of your works, take care that the paste does not touch that part which is to burn. The method of using this paper is by cutting it into slips long enough to go once round the mouth of the serpent, cracker, &c. When you paste on these slips leave a little above the mouth of the case not pasted; then prime the mouth of the case with meal powder, and twist the paper to a point.

Next week we shall explain how to make Roman Candles, Squibs, Crackers, &c.



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WHY STARVED PERSONS ARE ILL-TEMPERED.

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The good-humoured man is the man with wellfed nerves.

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Doubling his meals won't make him any better. It isn't the amount of food, but the kind of food that needs changing. A most delicious foodbeverage—the very taste and smell of it make a person feed kindly—is Dr. Tibbles' Vi-Cocoa, which helps the stomach to digest other foods and banishes dyspepsia—the chronic indigestion which is so liable to make people, especially brain workers, cross and morose. Sixpence will buy a packet of Dr. Tibbles' Vi-Cocoa; but when you spend that sixpence it is not merely a food-drink that you are buying, but sixpence worth—nay, a pound's worth—of good humour and sunny happiness.

Do not ask your grocer for Cocoa. Ask for



-It makes all the difference.

Every grocer sells Vi-Cocoa in 6d. packets and 9d. and 1/6 tins.



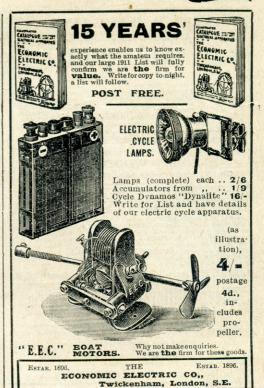
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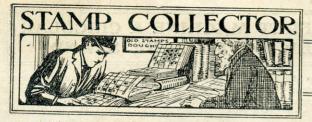
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vi



"A-B-C" OF STAMP COLLECTING.

XIII. BECHUANA-LAND & BERMUDA.

Bechuanaland.

HIS large tract of country north of Cape Colony near the Transvaal was early brought into touch with civilisation by the missionary efforts of and Livingstone. This important

BRITISH
BECHUANALAND
POSTAGE & REVENUE

FIG. 1.

country now under the control of Great Britain is as large as the whole of the Spanish Peninsula. The stamps of the Cape of Good Hope, overprinted "British Bechuanaland," were first used, the earliest post marks being February, 1886. The stamps thus overprinted were ½d. slate, 1d. pale rose red, 2d. bistre, and 1s. bright

green. In 1887 the stamps printed "British Bechuanaland Postage and Revenue" in the panel, on what are known as unappropriated dies were put into circulation. These stamps as will be noted from the example given in Fig. 1 were adapted to the insertion of the name of any country in the label. Those used in Bechuanaland were 1d., 2d., 3d., 4d., and 6d., all lilac and black, and 1s., 2s., 2s. 6d., 5s. and 10s. green, and £1 and £5 lilac. Some of these are met with, with surcharges of



FIG. 2.

met with, with surcharges of value in black, others in red. The contemporary stamps of Great Britain were also from time to time used overprinted "British Bechuanaland" and "Bechuanaland" and "Protectorates." These are very varied and of different values. In 1904-8 contemporary stamps of Great Britain (king's head) were overprinted Protectorate." in vertical

"Bechuanaland Protectorate," in vertical lines in black (see Fig. 2); there was also a provisional issue of fiscal stamps used occasionally. Collectors should note that although some of these surcharged stamps are of quite small value, other varieties are rare, and difficult to obtain, so that all surcharges of this country should be carefully examined.

Bernuda.

Bermuda, or, as the islands were at one time called, Summers Islands, became the seat of a British Colony under charter from James I. in 1619, and have never since passed out of our hands. The first stamp issued was a postmaster's stamp, prepared by the postmaster of Hamilton, in 1848, and it was not until 1865 that official stamps bearing the name of Bermuda, and the portrait bust of Queen Victoria, were prepared. These were issued

in the values of 1d. red (see Fig. 3), 2d. blue, 3d. yellow, 6d. purple, and 1s. green, there being several different shades in each of the colours; the watermark was crown

C.C., perforation 14. In 1875 there were some surcharges, ONE PENNY being surcharged on 2d. bright blue, 3d. yellow-buff, and 1s. green. In 1880 two new types appeared for ½d. stone, and 4d. orange-red; these were watermarked Crown C.C., perforation 14. In 1884 a 2½d. ultramarine was issued, and in 1901 a sur-



FIG. 3.

charge, One Farthing, is met with black on 1s. slate-grey. The first pictorial stamp for use in Bermuda was issued in 1902, on it is a view of the floating dock, the value ½d. black

and green, 1d. brown and carmine, 3d. magenta and sage-green, the watermark on these stamps is Crown C.A. perforation 14 (see Fig. 4). The issue of 1906 was more extensive, the values being \(\frac{1}{2} \)d. brown and violet, \(\frac{1}{2} \)d. black and green, 1d. brown and carmine, 2d. grey and orange, \(2\frac{1}{2} \)d. brown and ultra-marine, 4d. blue and



FIG. 4.

chocolate, the watermark multiple Crown C.A., perforation 14. A slight change was made in 1908, when universal colours were issued for the ½d. green, 1d. carmine, and 2½d. ultramarine. In 1910 a new design was used

for the ½d green and ld carmine. This is, of course, the type chiefly in use at the present time.

Recent Issue.—South

A very handsome commemorative stamp has recently been issued by the Colonial Government to commemorate the Union of



RIG. 5

South Africa. Its face value is 2½d. (Fig. 5), the legend "Union of South Africa" being inscribed in English and Dutch, a very well-executed three-quarter face portrait of H.M. King George V. occupies the central oval, surmounted by the imperial crown, the date (Continued on page 165.)

HOW TO FIT A FRET MACHINE & CIRCULAR SAW TO A SEWING MACHINE STAND.

HE fretwork machine adapts itself to the table of a sewing machine with very little alteration or work. hand wheel is removed and two holes are cut in the table, for the clamping arms to pass through in such a position that the small driving pulley is exactly over the main treadle wheel. Two small holes must also be bored for the belt to pass through to drive from one wheel to the other.

The machine recommended is a Hobbies

hand fret machine, price 10s.

For a Circular Saw.

The circular saw requires more work, and the method of construction will be entered into more fully.

The saw is 6 in. in diameter, and is supplied by Hobbies Ltd., Dereham, with spindle for 9s. 6d. I shall, however, omit many dimensions, so that the instructions will be suitable for all saws and spindles.

The saw is mounted on its spindle and secured firmly by means of the nut; a small pulley (supplied by Hobbies Limited, at 3d. for a single pulley and 1s. for a double one) is then

fitted to the spindle.

Two wood arms are now made out of 11 in. by 1 in. section wood; the lengths of these pieces are determined by the height of the table above the centre of the treadle wheel. One end of each is drilled to fit the treadle erankshaft; a slot is made in the middle of that end through the hole and a 1/4 in. bolt fitted. This will enable a good fit to be made and maintained on this spindle.

The upper ends of these pieces of wood are drilled 1 in. larger than the respective ends of the saw spindle, and are then bushed with a brass bush to fit the spindle nicely. Care must be taken to ensure these holes being exactly the same distance away from the lower

holes, or the saw will not run true.

The left hand piece must be just long enough to swing upwards on the crankshaft without touching the table; while the other arm may be made long enough to pass through the table and have a handle formed on its upper end. Alternatively, both arms may be made the same length and a handle made to stand

Assuming that the saw is 6 in. in diameter (a smaller size is not recommended) a slot should be cut in the table for the saw to run in, the position is found by putting the small driving pulley exactly over the treadle wheel and marking the position of the saw. The slot should be 4 in. wide by 11 in. long.

A larger hole must be now cut 5½ in. long by $2\frac{3}{8}$ in. wide. The right hand edge of this hole must be marked from the right hand edge of the hand lever when the saw is in its

correct position.

If the alternative design of lever is used the hole need only be, say, 2 in. wide to allow the driving pulley not to foul the table. The portion occupied by the pulley may be covered by an iron plate (or brass). This is cut out of 1/8 in. sheet and the central projection then bent up at right angles along the dotted line. The hole is for a pin to fix the saw in its central position for executing plain work.

The plate is let into the table so that its top edge is flush and its right hand edge straight parallel, and 11 in. away from the right hand edge of the hole. A small piece of 1 in. plate, say, 11 in. by 11 in., is screwed to the left hand face of the lever and the pin hole marked off when in position, and then drilled.

A slot for the guide is cut in the table; it is

3 in. long by 5-16th in. wide.

The guide block is made of wood, its edges being planed quite true; it should be 4 in. long, by 1½ in. wide, and ¾ in. deep, with a 1 in. hole in the centre. A 1 in. bolt with square shank is passed up through the slot into the guide, which is then secured by nut and washer.

For Parallel and Angle Cutting.

For parallel cutting, the guide is placed parallel to the saw so that the distance between its inner face and the saw is the

required width to be cut.

For angle cutting, the guide is set to the required angle, the pin is removed from the lever, which is held back to its furthest extent, and then brought forward gently when the work is in position and the saw is running. In this way all forms of geometric design may be easily constructed.

SALE AND EXCHANGE.—Continued.

INTERESTING hobby. Silkworms Eggs for sale. Hatch during May. 3d. for 30, with instructions. Penny postage.—Frank Frost, The Lindens, Station Road, Wylde Green. Silkworms

O^N SALE, a Half-Plate Camera and Outfit, complete, R.R. Lens, 1 D.D. Slide; particulars.— Apply, Bentham, 258, Ormskirk Road, Upholland, near Wigan.

"REMINGTON" Rifle for sale, good condition, 21s., or offers.

E. McElvaine, Scarva, Co. Down.

SALE, Dynamo and Medical Coil; cost 26s.; take 10s.—Gerdenits, Albert Drive, Conway.

SELL, fourivolumes Cassell's Popular Gardening; complete; accept 30s.—G. Wardle, Bournheath, Broms-

SILKWORMS; Healthy; 1s. dozen 3d. postage; instructions.—H. Lancelott, 15, Soho Avenue, Handsworth, Birmingham.

SILKSWORMS Eggs, 250, 4d 1,000, 1s.; soon hatching. O 1,000, 1s.; soon hatching.— Clifton, Bridge View, Boundary Road, Woking.

YACHT, 1ft. 8in. long, 3s.; also 2 model railway bridges, 1s. 6d. —S. Wheeler, Alfred House, Wantage.

6 WHITE fantail pigeons for sale, 3s. 6d.—9d. each.—Stott, Wrekenton, Gateshead.

1 PLATE Coronation Camera, 2 D. Slides, Tripod, cost £5 4s., take 50s. Cash offers.—Roberts, Thorne, Ninfield, Battle,

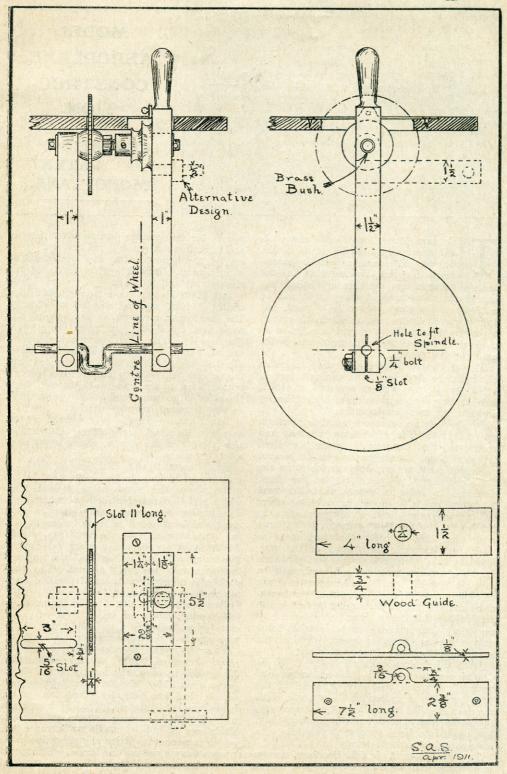
STAMPS:

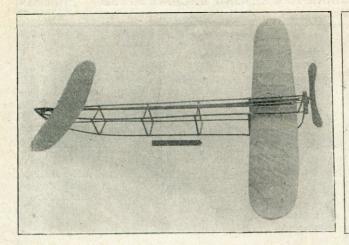
APPROVALS. — 6,000 different stamps, \(\frac{1}{4}\)d. — 3d. each.—Brian Stafford, Godalming.

BREAKING up Collection 10,000 Varieties. Approval collection

Varieties. Approval selections sent to advanced collectors.—"Philatelist," Ferndale, Madeira Avenue, Worthing.







MODEL AEROPLANE CONSTRUCTION.

CLARKE'S
PATENT
MONOPLANE.

HE monoplane illustrated above is a large built-up model, made to Mr. T. W. K. Clarke's patent monoplane design. The machine has not been entered in any public competition, but has flown considerable distances. It will be noticed that a single propellor is used, but this is driven by two skeins of elastic geared together with small brass gear wheels, so as to eliminate any twist on the frame due to the action of the elastic.

The particular design of flying machine about to be described was the outcome of attempts by the writer, previous to 1908, to obtain an aeroplane model of high efficiency

and of very strong construction.

In view of the enormous number of cases, up to that time, in which experimenters had spent months, sometimes years of hard labour evolving a machine, a veritable marvel of model construction, only to see it at the first trial dashed to pieces, or, at the best, damaged to such an extent that the time taken to put the model in working order again was entirely out of all proportion to the useful information gained, Mr. Clarke recognised that in order that any machine shall pass through the ordeal of the preliminary trials for getting the best positions for the surfaces, weights, &c., and shall be capable of being used for a consecutive series of experiments, it must be practically unbreakable, and the various parts must be simple and renewable. Lightness was considered of secondary importance, extra weight being only a matter of higher speed, while at the same time it ensures greater stability.

With this main idea in view, Mr. T. W. K. Clarke conducted his experiments, and gradually evolved the wooden model of the type recently described in Hobbies. With the data supplied by models of the above type, the monoplane now described was made and has proved to be a successful outcome of a

long period of experimenting.

THE FRAMEWORK is 5ft. 6in. long, square in section, and tapering to the end, which forms a sharp prow. The frame is 5in.

square for the greater portion of its length, and is built up of \$\frac{1}{2}\$ in. by \$\frac{1}{2}\$ in. hickory. It is stayed throughout with fine plated piano wire, running through eyelets let in at the cross struts and uprights.

The Main Plane has a span of 5ft with a width of 10in. and is built up of hickory. The front spar, or boom, is ¼in. by ¼in., the back ¼in. by 3-32in. and the inner spar ¼in. by ¼in. The ribs, fourteen in number, are of 3-16in. by 1-16in. There is a small dihedral angle. Both sides are covered with fabric and the plane is stayed to a central tripod, fixed to the framework, as well as to the sides of the frame, and is easily adjustable, so that the angle may be altered.

THE FABRIC.—This is of rubbered cotton, carefully stretched, and securely attached to the framing of the planes, giving a perfectly

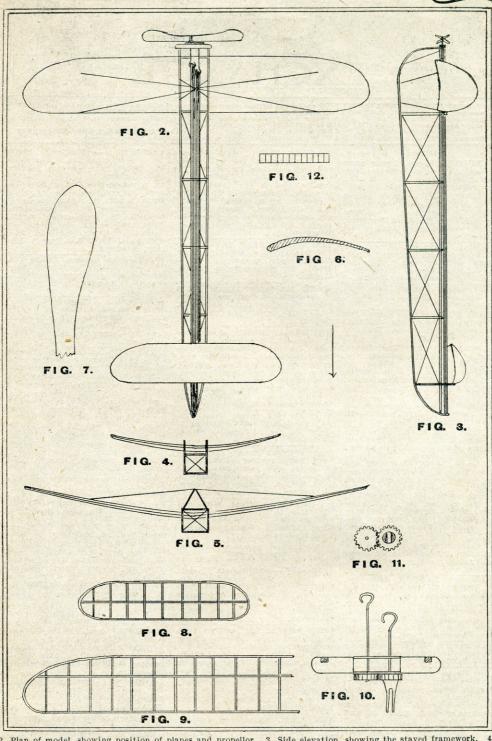
smooth surface.

The Front Plane, 2ft. 6in. by 7½in., is built up of hickory in the same way as the main plane, the wood being of the same width and thickness for each particular part. The surface is covered with fabric on both sides, and is attached in front to the tops of the projecting ends of the two front struts. At the back are adjusting wires, fastened to the frame with rubber, so that the angle of incidence may be easily altered. The front surface is normally at a small positive angle to the main surface.

THE PROPELLOR, 1ft. 5in. in diameter, is left-handed, made of cedar, and fits in a metal clip which is attached to one of the

gear wheels of the rubber motor.

The Rubber Motor.—There are two equal skeins of 1-16in. square elastic, with 32 strands in each, the length of the skeins being about 5ft. The two small brass gear wheels used are carefully fitted on a sheet brass bracket, screwed to end of framework to run with the least amount of friction. Their use is not so much to increase the power necessary to drive the propellor as to prevent any twist in the frame, which could hardly be avoided if the rubber were attached directly to the propellor shaft.



2. Plan of model, showing position of planes and propellor. 3. Side elevation, showing the stayed framework. 4. Section showing front plane. 5. Section showing dihedral angle of main plane. 6. Section through main plane. 7. Shape of one half of propellor. 8. Plan of front plane, showing framework. 9. Position of framework of main plane. 10. Plan of geared wheels. 11. Elevation of geared wheels. 12. Scale of inches. The arrow shows direction of flight.



PRIVATE ADVERTISEMENTS are inserted in these columns at the rate of 8d, for the first 12 words or less, and 1d, for 2 words after.—For TRADE ADVERTISEMENTS, and Advertisements of FOREIGN STAMPS, the rate is 1d, per word.—Every word, including the name and address, is counted. Initials and numbers, or groups, such as E.P.S. and 2l 11s.6d., are counted as ons word. Advertisements offering FRETWORK DESIGNS for sale cannot be accepted.

Copy for advertisements in SALE AND EXCHANGE column must be sent to "HOBBIES," 166, Aldersgate Street, E.C., not later than MONDAY MORNING for insertion in the paper published the following week.

TRADE.

A BUBBER Stamp of your name and address, ready for use, 4td. post free.—Ernest Wood & Co., Chorlton-cum-Harly, Manchester.

A VERY interesting hobby. Collect beautiful TROPICAL BUTTER-FLIES, from 3d. each. Catalogue FLIES, from 3d. each. Catalogue and particulars free.—Swinhoe, Dept. C., 6, Gunterstone Road, West Kensington.

BOOTS.—Save nearly 50 per cent. buying from factory direct. Agents wanted; send postage 2d. for list, particulars.—British Boot Co. (484) Portland Square, Bristol.

BRITISH and Tropical Butterflies. Lists. — Ford, Naturalist, Bournemouth.

CINEMATOGRAPH Films sale; send for lists.—Pollard's Pictures, Western Avenue, Burnley. CORONATION. Make Hobbies pay OBONATION. Mark Hobbles pay by using Repoussé Copper Panels, King and Queen, 7in. by 54in., 9d. each. Sell splendid Shilling Gilt Medal to friends, 8d. each.—Mallin, 53, Northampton Street, Birmingham. 5lin., 9d.

CYCLE TYRES guaranteed, 3s. 6d. Don't send cash. Send post card for greatest money-saving Cycle List ever published. 112 pages.—H. Fitzpatrick, Dept. 7, Burnley.

CYCLISTS can save money by writing a P.C. for a copy of our catalogue of Juno cycles (from £3 18s., catalogue of Juno cycles (from £3 18s., or 7s. 6d. month; Two-Speed, £4 14s. 6d., or 9s. 1d. month) and accessories, over 150 pages, 1,000 illustrations, cut prices. Bowden brakes, 2s. 6d.; Acetylene lamps, 2s. 6d.; Luggage carriers, 4d.; Front Brakes, 1s.; Inner tubes, 2s. 2d.; Cyclometers, 2s. 2d.—H. Dept. Metropolitan Machinists' Co., Ltd., 248, Bishopsgate, London. 'Phone 12857 Central. FREE .- Pocket Rubber Stamp of your name and address, also particulars of splendid paying spare time Agency, easily worked. — N. Richford, Snow Hill, London.

M ADISON MOTORS, Littleover, Derby, Makers high-class gas engines, oil engines, petrol engines, for road, water; air castings supplied. Magnificent miniature petrol motor castings, part machined, 9s, 9d.; bollers, water motors, dynamos, repairs, propellors. List, 4d.

MAGICIAN'S BOX, 12 surprising Novelties, 7d., including Cata-logue.—Vandys, 108. Strand, London.

OAK Picture Mouldings, 1-in., 8d., 11-in., 10dd., per 12-ft. lengths; all kinds fancy mouldings. Speciality: mouldings mitred ready for joining. Complete catalogue of mouldings, pictures, etc., 4d. stamps, booklet "How to Frame Pictures" free.—Watts, Dept. H. H., Eccles New Road, Salford.

PATENTS.—How Obtained; 70-page book; post free.—W. H. Taylor, Dept. H3, Brown Street, Manchester.

PLAYER PIANO, sixty-five note
Music Rolls for sale, latest
and best selections, including "The
Chocolate Soldier," "Dollar Princess," "Girl in the Train," 1812
Overture, "QuakerGirl," "Dorothy,"
"Pinafore," "Maritana," "Faust,"
"A Waltz Dream," Rienzi Overture,
etc., etc.—Apply at once to "Espreno," 210, Old Christchurch Road,
Bournemouth.

PRINTING PRESS, Printing Surface, 5 by 9 in., Metal Type, Ink, Roller, and Accessories, 10s.—Jordan, 39, Dagnan Road, Balham, London.

SEND six penny stamps for a preparation for making one gallon of excellent pop.—Macdonald, 73, Albert Street, Ardwick, Manchester

TECHNICAL BOOKS, at great reductions. New books at 25 per cent. discount. Books on Woodwork, Metalwork, Industrial Arts, on Scientific, Commercial, and all other subjects sent on approval. Send for Catalogue No. 287 (post tree), and state wants. Books purchased.—W. and G. Foyle, 135, Charing Cross Road, London, W.C.

YOU can earn 1s. per hour.—Full particulars of employment. apply W., 89, Aldersgate Street, London.

7/6 Fountain Pen for 6d., just to introduce our goods. Send 6d. to-day and participate in this unprecedented offer.—A. G. Rainbird (Dept. H), 149, Roding Road, Clapton, London.

64-PAGE Book about Herbs and How to Use Them, post free. Send for one.—Trimnell, The Herbalist, Richmond Boad, Cardiff. Established 1879.

PRIVATE.

BARGAIN.—Sandringham 1-plate Camera, stand, splendid slides, accessories; just new; double extension, rapid achromatic lens, iris diaphragm, time, instantaneous. Approval, 25s.—Gillingham, Dairy, Porchester. BARGAIN.—Sandringham Porchester.

B^{IG} Bargain, new, not perished, 20-foot best rubber tubing, quantity splendid French, &c., books, cost 10s., and 100 good handy, articles, brushes, rings, compass, chain, &c., 3s. 6d., whole lot.— Jackson, Brady Street, Whitechapel.

BRITON Fretsaw, cost 14s. 6d., accept 7s. 6d.—86, Hasland Road, Chesterfield.

BROWNIE, Canvas Case, developing box, new, 6s. 6d.—Richardson, 33, Granton Road, Liverpool.

CIGARETTE Cards—100, 7d., post free; complete series, 5d. each.—Gifford, 8, Batley Road, Stoke Newington.

CRICKET. — First-class Club's
Tackle, a bargain:—Four men's
15s. Match Bats, all cane handles,
grand drivers, Ayre's, etc., for 8s.
each; new Guinea Bag, solid cowhide
ends, 12s. 6d.; pair 10s. 6d. white
buckskin pads, 6s.; gauntlets, 5s. 6d.
batting gloves, 3s. 6d.; and three
best 6s. 6d. treble-seamed match,
balls are for 18s. balls, new, for 12s.; lot, in new and perfect condition, for 67s. 6d.; approval.—Box 378, Gilyard's Library, Bradford.

EXCHANGE 3-piece fishing rod, and "Mashee" golf club (new) for good set "chessmen," or offers.—Godwin, Broadway, Bury St. Edmunds.

EXCHANGE Medical Coil, EXCHANGE Medical Coil, Motor, 45 Cabinet Lantern Slides, 2ft. 6in, yacht for "Ideal" Hand Camera, Hobbies Al Treadle Machine, or Canaries.—Almond, Oaklands, Flixton, Lanes.

EXCHANGE No. 15 Pony Premier 5 by 4 Camera for a Post-card Camera, R.R. Lens, Victor Shutter. G. Hodson, Wilson Street, Lincoln.

L. Modson, wison Street, Lincom.

XCHANGE Edison Gem Phonograph and 20 Records, in good
condition for Treadle Fretsaw and
Fretwork Tools. Approval, Bird,
Dersingham, Norfolk.

FOR Sale, \(\frac{1}{2}\)-Plate Camera and all accessories, including \(\frac{1}{2}\) irsme, 50 gaslight postcards, and paper, 3 dishes, chemical, plates, squeegee, ferrotype, measure, tripod, and toning outfit, cheap, \(\frac{1}{2}\)1 is.—Joln Goldthorpe, 13, Field End, Honley, Hudd.

FRETWORK Machine, 12s. The Twork Machine, 128. 6d., 7 16 dozen assorted saws, 38.6d.; stain, cost 4s., for 2s.; 14in. handframe, 1s. 4d.; 5s. fretwood, 2s. 1d. First P.O. get them.—A. Bogie, Y.M.C.A., Kirkcaldy.

RETWORK Machine (Treadle), with drilling attachment, good condition; accept 16s. 6d., or nearest offer.—64, Mayer Street, Hanley,

CUITAR Zither, in case, soiled; 9s.
—Pier, 41, Lancaster Road,
New Barnet.

10BIES Hand Camera, takes
12 4-plates; exposure indicator;
good lens; 10s.—Pentelow, Sleaford
Road, Boston.

HOBBIES Royal Fretsaw Machine, perfect condition, 12s. 6d.— Brookes, 86, Bishop Street, Moss Side, Manchester.

HOBBIES At Fretwork Machine, nearly new, 14s.—Beal, 110, East Rad, London.

Lawn Bowls.—Splendid £2 2s.
Set, consisting of four pairs fullsize selected polish Lignum Bowls;
medium bias, never used; complete,
in strong case, with two jacks, for
27s. 6d.; approval.—Box 379, 1;
Gilyard's Library, Bradford.

(Continued on page 160.)



QUESTIONS should be sen' to Editor, "Hobbies," Derehum, Norjole, and marked "Helpiny Hand." When reply by post is required, a stamped envelope must be enclosed.

REPLIES SENT BY POST.

REPLIES SENT BY POST.

F. E. N., London (Sl.); H. A., Ponders End (W.); R. M., Otterburn (Sl.); D. D., Wealdstone; C. P. C., Dublin; F. W., Deptford; A. T., Birmingham; G. M., Couper Angus; G. H. S., Harlesden; W. R. A. L., Birmingham; C. G., Plumstead; S. F., Manchester; A. H. R., Rotherhithe; W. H. L., Skibbereen (B.); P. B., Plymouth (B.); B. P., Buckingham (B.); W. N. H., Risca (N.); J. S. Wandsworth (N.); A. B. C., Belvedere; J. O'S., Newcastle (S.); W. H., Gloucester; P. C., Tara; H. E. H., Stratford; D. E. D., Aberdare; T. H., Whitstable (N.); E. G. F., Bath; H. C. M., Peckham; J. W., Rochdale; F. P., Newark; W. L., Pitsmoor (J.); R. J., Willington (J.); D. C., Wallington; R. C. G., Hemel Hempstead; C. P. W., Weston-super-Mare; S. B. P., West Kirby.

To find speed of Instantaneous Shutter.—A. B. (Greenwich).—Shutters are best tested by firms making a speciality of the work as, for example, Staley and Co., of Thavies Inn, and Beck, of Cornhill, London. The usual charge is sixpence. A rough and ready method suitable for an amateur is as follows: Tie a pice of white paper on the rim of a bicycle wheel (bicycle turned upside down) and with the hand on the treadle turn so as to make the paper on the wheel (and of course the wheel) make one revelution per second. Expose a plate on the moving wheel and the speed of the shutter can be estimated by the amount of movement shown by the white paper. If, for example, the paper takes up one-fifth of the circle the speed is one-fifth of a second.—Sl.

Camera.—F. Gear (Greenhithe).—1. The covering of your hand camera, if of leather, may be revived by using any black leather reviver. Most phetographic dealers sell proper mixtures fer about a shilling. We could give you a formula, but it would be very trouble-some to make up, and expensive, too, if you have only one camera to repair. 2. Magnifiers are for photographing near objects, they are used in front of the lens If one is marked "six feet" it means that when used on the lens the camera may be placed six feet from the object. We hope to deal with the matter in a special article later on. 3. The time and instantaneous knob is for regulating the shutter and the numbers 25, 50, etc., are the speeds at which the shutter works when the knob is placed against "instantaneous." A few this before will do.—Sl.

Miscellaneous.—UNKNOWN (Jarvis Brook).—1. Hobbits do not supply counter inking drills to fit Simplex

will do.—Sl.

Miscellaneous.—UNKNOWN (Jarvis Brook).—1. Hobbics do not supply counter inking drills to fit Simplex drill. 2. Cost of clamp to fit cutting table No. 1 is 5d., pf. 6d. 3. Full particulars in regard to the "Lord's Prayer Tablet" appear in Hobbies, No. 129, which may be obtained direct from Hobbies, Ltd., Dereham, 2d. post free. 4. The approximate cost of carliage for a fretwork machine to Crowborough is 2s. 6d. 5. The cost of a lever frame 12in. long is 2s. 4d. post free.

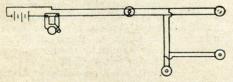
Books on British Birds and their Eggs.—A READER.—Birds' Eggs and Nests," 1s., from Watkins and Doncaster, Strand, W.C.

Lenses for Hand Camera.—C. T. H. (Marlow).—Hobbies Limited, Dereham, can supply you with lenses, if you

Limited, Dereham, can supply you with lenses, if you give the size and about the price you wish to pay.

Electric Bell.—A. E. COPESTAKE (Marlow).—Q.—
How could I connect up an electric bell so that it would ring from two or more places?

A.—The bell and battery should be connected in



series as usual, and two lines, one connected to one side of the bell and the other to one side of the battery, should be carried round to all the points where the pushes will be fixed. The two sides of each push should then be connected to the two lines.—J.

Weekly Papers on Photography.—W. J. AGGETT (Chagford).—"Amateur Photography," 2d.; "British Journal of Photography," 2d; "Photography and Foeus," 1d. Locomotive.—W. WHITEHEAD (S. Tottenham).—The

Decomptive.—W. WHITEHEAD (S. Tottenham).—The price of 16 wheels for Hobbies' Fretwork Locomotive is 3s. 7d., post free.

Water Plants.—G. T. Bradford (Manchester).—You can obtain the eichhornea and water lilies from Hebbies Horticultural Department, Dereham. Send your address and enquiry to them, and they will write you fully in the metter.

Model Sailing Yacht.—C. BENNETT (Portsmouth.)—We hope to be able to insert an article shortly, giving particulars of the construction of a model sailing yacht.

To protect water colour drawing.—SWEEPSTAKE (Carluke.)—We can only suggest that you frame the drawing, pacing a sheet of glass in front to protect it. To remove

placing a sheet of glass in front to protect it. To remove enamel from your cycle, use a scraper and emery paper.

Silver-plating small articles, and hardening and tempering tools.—E. Baker (Tividale).—1. You require the book entitled "Fractical Electro-Plating," Is. net, from Percival Marshall and Co., Poppin's Court, Fleet Street, E.C. 2. The tool must first be hardened. This is done by heating it in the fire to a blood red, and plunging it swiftly into cold water. It will next need to be tempered. This is done by heating another piece of metal to a red heat and after cleaning the tool, making it bright, lay it upon the red hot metal and watch for a change of colour. It will first turn straw colour, and gradually shade off to blue. The degrees of temperature can only be ascertained with a knowledge of what the tool is required for, but immediately the required degree tool is required for, but immediately the required degree as shown by the colour is arrived at, again plunge the tool into cold water, and the process is complete. For metal work the tool should be tempered to straw colour only, but if the tool is to be used for woodwork it may

be tempered to a blue shade.

How to make a Rowing Boat.—J. RUET (London, W.)—
We should advise you to write to Lynwood and Co., 12,
Paternoster Row, London, E.C., for a book on the

Re Hobbies Design No. 760b.—A. E. Cotton (S. Tct-nham.)—We should recommend French polish as the tenham.) best finish.

best finish.

Cycling route from Walthamstow to Rayne, nr. Braintree.—Cyclist (Walthamstow).—The best cycling rout, from Walthamstow to Rayne is as follows: Walthamstow, Leyton, Ilford, Romford, Brentwood, Chelmsford, Litt.e Waltham, Braintree. The distance is 40 miles.

Cycling route from Huddersfield to Blackpool.—L. S. D. (Huddersfield).—The best cycling route from Huddersfield to Blackpool is as follows: Huddersfield, Elland, Tedmorden, Bacup, Rawtenstall, Haslingden, Blackbun, Preston, Ashton, Kirkham, Weeton, Blackpool. The distance is 62 miles.

neld to Blackpool is as follows: Huddershell, Linally, Tedmorden, Bacup, Rawtenstall, Haslingden, Blackbun, Preston, Ashton, Kirkham, Weeton, Blackpool. The distance is 62 miles.

Coins.—S. G. (Carlisle).—The coin of which you send a rubbing is a comparatively medern piece in circulction in the Ottoman Empire: It is of quite small value.—B, Stamps, etc.—J. B. Bell (Transvaal).—The stamp you send for our inspection is of the common id. red type, watermark large crown, and is of quite small value. such stamps being very common indeed, and frequently met with in old correspondence. If, however, you have any considerable number of the 2d. blue there might be among them some of the rarer plate numbers and varieties, but unless those of the earlier date, imperforate, they are not of much importance. Indeed, the 2d. blue are only listed at 1d. to 1s. each, according to variety. Reduced prints of the map of London to which you refer have no special commercial value, and are frequently met with in miscellaneous parcels of prints. We fear they would not be of sufficient importance to submit to a dealer.—B. a dealer.-B.

THE STAMP COLLECTOR .- Continued.

1910 being placed in a panel below. At the four corners of the stamp, the colouring of which is blue, are the shields of the countries of the Union, the two upper shields being the arms of the Cape of Good Hope and Natal; the lower shields the Orange Free State, and the Transvaal. The stamp may be obtained from any London dealer at a trifle above face value.



THE FLOWER GARDEN.

OSES.—Thin the weakly shoots of Roses where too many buds are Concentration of the growbroken. ing force, when one has time to carry it out, is the right course to adopt.

Take advantage of every fine day to stir the surface among growing plants, and to kill weeds

when small.

At this season special attention must be given to newly planted evergreens; damping the foliage in the evening is very beneficial. A light mulch over the roots of short grass

from the cuttings of the lawn

will be useful.

Continue to move bedding plants from heated structures to cold frames or temporary sheltering places.

in sheltered Calceolarias gardens. These may now be

planted out.

Sow Wallflowers to obtain fine plants for blooming early next season. It is best to sow thinly in shallow drills.

Where beds of Roses are not mulched the surface should be frequently stirred with the

Syringe wall Roses on fine afternoons with a weak solution of soft soap and water. This will be found an excellent and cheap prevention to insect attacks.

Chrysanthemums, for blooming under glass, ought to be in 5 or 6in. pots by this. Use good

sound loamy soil, and pot them fairly firm. When a little established they should be stood on a bed of ashes in a sunny place in the open air. If dwarf plants are required, they must be cut down to 6in. from the soil the first or second week in June.

Dahlias should be all potted off from the cutting pots immediately. Grow them on for a

time in genial temperature.

The greenhouse ought to be very gay now with a variety of subjects; more water will now be required, with an occasional dose of liquid manure to such as are in or advancing into Ventilate rather freely whenever safe, and shade from strong sun, to preserve the flowers as long as possible.

Seed of Chinese Primulas may be sown at once.

Lovers of Rambling Roses will find in the new "Excelsa" a grand acquisition. Its

SUMMARY OF WORK.

Thin weakly shoots of Roses.
Take advantage of fine weather to stir the soil.

Syringe overhead fresh planted Evergreens. Sow Wallflowers. Springe Wall Roses.

Remove Bedding Plants from heated structures. Repot Chrysanthemums Pot on Dahlias. Destroy Insects on Peach Trees. Plant Cucumbers Plant Cucu and Melons.

colour is equal to that of the Crimson Rambler; its flowers are produced in immense clusters, after the style of Minnehaha, although the individual flowers of Excelsa are larger.

THE FRUIT GARDEN.

A mulching of manure will prove beneficial to Raspberries.

Plant out Cucumbers and Melons in pits, from which bedding plants have been removed.

TOMATOES.—Fertilise the blooms to induce a good set. A camel's hair brush, drawn over the anthers to shift the pollen when they are

fully expanded about noon, will suffice; a free ventilation is necessary, and a little air at night is beneficial.

SPECIAL OFFER FOR THIS WEEK.

12 Strong Well Hardened TOMATO PLANTS. POWLEY'S UP-TO-DATE.

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THE VEGETABLE GARDEN.

Beet may be sown for an autumn crop.

A dressing of soot should prove of material benefit to Turnips. Sprinkle in a dry state and water in; or, better still, scatter the soot during a shower of rain.

Sow Runner Beans.

A few rows of Cabbage may be planted to produce tender young hearts for autumn use. Cabbages are never altogether out of season.

Plant Walcheren and Veitch's Autumn Giant Cauliflowers. The latter is invaluable for dry soils. Sow a few seeds of the former for late autumn use.

No time should now be lost in getting out Cucumbers and Vegetable Marrows.

Tomatoes for open-air cultivation should be planted out now. Select plants in an advanced stage of development, for over young plants will not have time to mature their fruits before the summer wanes. Plant against a south or south-west wall. If the wall be not of sufficient height for vertical training, train slanting wise; do not mulch with animal manure, although a good rich rooting medium should be provided. Artificial manure, administered when the plants are in bearing, is the best plan to adopt. Pinch out all lateral growths as they appear.

Keep the Potato plot weeded.

Sow Endive in small quantities. and other salad plants must have good culture now, a mulch of manure, especially on hot soils.



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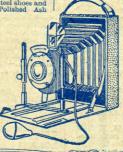
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