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VOL. XXIV.

MAY 11, 1907.

No. 604.

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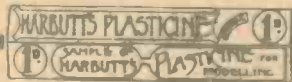
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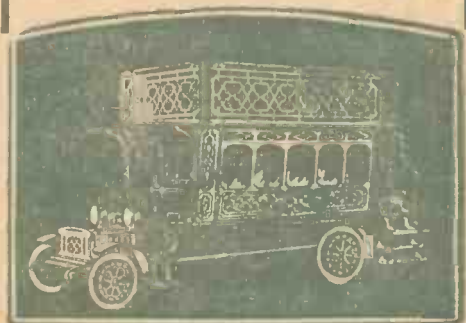
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VOL. XXIV. No. 604.

MAY 11, 1907.

Weekly Presentation Design.

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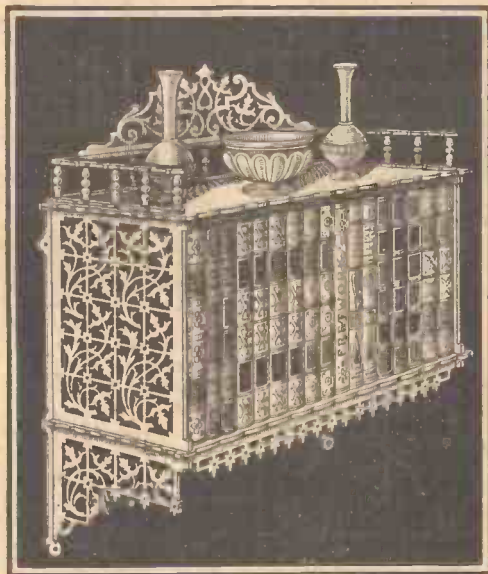
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FEATURES OF THIS YEAR'S CRICKET SEASON.

BY ALBERT TROTT.

THE chief event of the Cricket Season this year will of course be the South African visit, but in addition to that, an eleven from the University of Pennsylvania is visiting us, while Yorkshire visit Ireland, and Dublin University go to Cambridge. The South Africans will journey to Glasgow, Edinburgh, Cardiff, Dublin and Bray, so that every part of the United Kingdom will, for the first time in one season, have an opportunity of watching first-class cricket. The season at Lord's will be an unusually busy one. The best fixtures of a long programme are, on the first of July, England and South Africa, on the 8th Gentlemen v. Players, four days later Eton and Harrow, while on the 4th of the same month will be the great contest between Oxford and Cambridge. In addition to the test matches, the South Africans will be seen at headquarters on several occasions. On the 27th of May they play the M.C.C. and Ground, on the 10th of June Middlesex, and on the 2nd of September the return match with the M.C.C. takes place. Most of the Counties will be met and on May Day, Notts are to be encountered, and then in rapid succession, Yorkshire, Kent, Derbyshire, and Leicestershire during May, Oxford and Cambridge Universities in June, while the programme of minor matches is longer than ever. The Counties will also be busy, and the Surrey programme seems to be longer than hitherto. Opening with their match against the Gentlemen of England, the programme will be continuous until the middle of September. Besides the Counties, there is the Jubilee of the Gentlemen and Players' match at the Oval on July 15th, while both the Universities go there, and on the 18th of August, the test match will take place, and the Champion County will play England there on September 12th, and if necessary four days will be allowed to the fixture. Robert Abel has succeeded the late W. W. Reed as coach, and speaks in high terms of Alan Marshall, the young Queenslander, nearly 6½ feet high, who is qualified for the county; of Ducat, the Woolwich Arsenal footballer, and H. E. Vigar, all young batsmen, while A. W. Spring, W. Davis and G. F. Gamble are all promising professionals, and J. H. Gordon, of Oxford, R. H. Baily and P. R. May, of Cambridge, will all be to hand at the end of the University season. E. C. Kirk is a useful bowler, and E. F. Chinnery a good batsman and a member of a family which has done good work for the county. These, with C. F. Reiner and H. Teesdale, are also among likely amateurs. A most conspicuous absentee will be J. E. Raphael, who used to share the captaincy with Lord Dalmeny, M.P., who will again lead

the side. Great interest will attach to the doings of Tom Hayward, J. N. Crawford and N. A. Knox. Altogether Londoners will have plenty of variety at the Oval.

MIDDLESEX

have a good programme, but it is very doubtful whether B. J. T. Bosanquet will be able to play very often, although P. F. Warner has promised to assist whenever his literary work permits. As usual, there will be a strong August and July programme, and M. W. Payne, the Cambridge captain, L. G. Colbeck, G. G. Napier, the Light Blue bowler will all be available, but W. S. Bird, the late Oxford captain, will not appear. C. H. Eyre, last year's Cambridge leader, has a qualification through his mastership at Harrow, and C. A. L. Payne, of Oxford, is also at their service. Hendren, who was tried a few times last year, has gone, but Mignon, Tarrant, J. T. Hearne, and the writer are all left so far as the bowling is concerned. There is yet another, Douglas, of whom much may be heard. The first match is against Hampshire; the last, a very attractive feature indeed, the return with Kent at Lord's, on the 26th of August.

Every one will be glad to know that

ESSEX

are starting with much brighter prospects than usual, though they have still a need of a left-hand bowler. Perhaps their most important fixture will be that with the South Africans commencing on the 23rd of May, and this will be their first appearance on the London ground, and a return fixture is arranged for August. Mr. C. E. Green, the late Cambridge cricketer, is paying for three weeks' special coaching for the young players who are coming on.

WARWICKSHIRE

are struggling against adversity, and the chief departure will be a match at Coventry where Leicestershire will be met. With a view to encouraging the game in Birmingham, several city clubs are to be allowed to play on the County ground, but it cannot be denied the outlook is none too bright. The result of last season's matches was a loss of £877, whilst subscriptions fell off to the amount of £300. Their list of matches is as usual, but A. A. Lilley and W. G. Quaife must be near the end of their career.

NOTTS

have good news, inasmuch as George Gunn, who was taken ill last year, and who has wintered in New Zealand, is reported much better. Wass, their great fast bowler, who was taken ill, is also

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strong. Mr. A. O. Jones, the leading Rugby referee, will again lead the side, and special attention is paid to the training of the Colts. The chief of the fixtures will be Bank Holiday matches with Surrey—on Whit Monday at Trent Bridge, and August Bank Holiday at the Oval.

LEICESTERSHIRE

have Sir Arthur Hazelrigg as captain in succession to Mr. C. E. De Trafford, and the ground staff at the County Ground includes Knight, Whitehead, Coe, Jayes, Palmer, Curtis, Payne, Holland, Benskin, Astill, Skelding, Bott and Bradshaw. The programme is a long one, starting against Lancashire on May 9th. Whit Monday finds the South Africans at Leicester, and on August Bank Holiday, Northampton will be met. Dr. Macdonald will be in England again this year, and will appear in the County ranks. J. H. King is engaged on the staff at Lord's.

KENT

will again be led by Mr. C. H. B. Marsham, and the Champions are in a prosperous condition, as witness the profit of £1,260 on the year's working. The danger is a superabundance of capable players. Mr. T. Pawley, the general manager, has plenty of young talent at Tonbridge, and A. P. Day, S. H. Day (now a master at Westminster), R. N. Blaker, C. J. Burnup, K. L. Hutchings are all ready to take the field, and J. R. Mason, Fielder, Blythe, Woolley, Seymour, and Humpreys will play frequently. Londoners can see the champions at Lord's on May 9th, and at Catford Bridge where they open their long county campaign against Northamptonshire, when they meet with the South Africans on June 24th.

LANCASHIRE

seem to be in difficulties. A. C. Maclaren has gone to India, and will not be back till well on in June. W. Pindlay, the wicket keeper, is the new secretary at the Oval; Cuttell is the cricket coach at Rugby, and R. H. Spooner will not often be able to play. Tyldesley, Sharp, L. O. S. Poidevin, and W. Brearley have finished. Huddleston and Harry, the right-handed medium pace bowler, will be able to play, but Barnes will not help.

SUSSEX

will again have as captain C. B. Fry, and this in itself is very good news. Speaking to him a week or so ago, he declared his foot was as strong and as well as ever, while he hopes to have the assistance of K. O. Goldie, and an amateur named Chaplain. All the old players are available, including Albert Relf, who has been coaching in New Zealand during the winter, and is in capital form, and it is hoped that Ranji will take a farewell on the *venue* at Hove, the place of his many triumphs. The club has been completely re-organised during the winter, and the programme is somewhat more lengthy than usual. The first game was to start at Birmingham on May 9th against Warwickshire, and the final one is at Hastings against Gloucester. An attempt will be made to make cricket more popular in the county.

SOMERSET

will be led by L. C. H. Palaret, who thus returns to active service after a couple of years' absence, and all who know the value of this brilliant gentleman player will rejoice that S. M. J. Woods has such a worthy successor, but the latter has promised to lend a hand whenever he can.

NORTHAMPTONSHIRE

have already started their long programme, with their match with Hants. They play the South Africans on June 6th.

WORCESTERSHIRE

are to be again captained by H. K. Foster, and there is said to be some hope that the other members of the celebrated brotherhood, G. N., R. E., W. L., and B. S. will also help. Some twenty matches will be played, but I cannot hear of any young players coming forward. Ainley, the stumper, is doubtful, and Hutchings is uncertain. A start will be made against Yorkshire on May 16th at Worcester, and the last fixture is against Surrey also at home.

HAMPSHIRE

have E. M. Sprot as captain, but there is no news of fresh talent. Capt. Greig and Major Poore are away, and the new men, P. Mead, J. R. Badcock, and Langford, will have plenty of opportunities of distinguishing themselves.

GLOUCESTER

will be captained by G. L. Jessop, and will have to rely very much upon Dennett, the most deadly slow bowler in England. R. T. Godsell will play in a few matches, and P. H. Ford, F. H. B. Champain, and F. B. Roberts hope to help. On May 13th they meet Yorkshire at Bristol, and there is to be a week at Gloucester in June with Northampton and Worcester as the opposition. The Cheltenham week will take place in August, and the attractions are Kent and Hampshire.

DERBYSHIRE

hope, through the good offices of Mr. S. H. Wood, the great cotton spinner of Glossop, to tempt Mr. A. E. Lawton back to the captaincy. They have also engaged R. G. Barlow, the famous Lancashire cricketer, to coach for a month at Derby. He speaks well of L. Oliver, a promising left-hand batsman of Glossop. Barker, a fast bowler of Stanton; Bracey, a left-hand bowler; Maskrey, a good fast bowler, and Fletcher, of Clay Cross. The matches are to be played at Chesterfield, Derby and Glossop. Most of the counties are to be met.

YORKSHIRE

will have Lord Hawke as "skipper" for the 25th year, and he is home ready for the fray. Ever ready to oblige, he took a team to Ireland to Bray the first week in May. It is stated that T. L. Taylor will not often be able to help, and there is some uncertainty about the Hon. F. S. Jackson. Hirst, Haigh, and Rhodes are all fit and well, and Rudston, Dolphin, Deyes, F. Gill, B. B. Wilson, H. Sedgwick, C. H. Hardisty, Farrar and Parkin will have a further trial. On Thursday, May 9th, Somerset are met at Taunton. The South Africans play at Bradford on July 15th.

On Whit Monday the present writer's benefit takes place at Lords in Middlesex v. Somerset. On July 1st the proceeds of Northampton v. Surrey will be given to W. East; and on August 5th at Leeds, David Denton will have the "gate" of the Yorkshire v. Lancashire match. On August 15th F. C. Holland has his benefit at the Oval. He has chosen Yorkshire v. Surrey. It will be seen that the prospects of the present season are brighter than ever, and the interest is likely to be well maintained throughout the summer.

Next week a special article on the South African Cricketers will appear in "Hobbies."



PREPARATIONS FOR THE SHORTER RACES.

THE racing season commences this month and the birds intended to win the earlier and shorter races should by this time be thoroughly prepared for their work.

The majority of these earlier races are won by yearlings, and birds of this age, if thoroughly fit and properly trained, are undoubtedly the fastest performers over distances up to 200 miles. If the training tosses have been satisfactory and the birds have not been knocked about at all through meeting heavy weather, they will not require much special preparation for these events. Should you have had the bad luck to have met with one or two bad days, it is better by far to give the birds a week's rest and then a jump than to send them on to an intermediate stage before they have had the chance to pull round. Should you by any chance have a bird that is feeding a youngster over seven days old, return from a toss knocked up, either kill the youngster or place it under another pair to be fed, replacing it in its own nest after it has been filled up. By doing so you will save the old bird a considerable strain. The birds selected for those races should not be allowed to rear more than one youngster in the nest and they should have had plenty of training tosses and as many of these as possible should be single up. A fly of 50 or 60 miles twice or three times the week previous to the first race is excellent preparation. For instance, 50 miles Tuesday, 60 miles Friday, and 70 miles the following Monday; the race taking place on the Saturday after. We are, of course, relying on fine weather and the birds returning in good time. Should the birds continually be taking longer time than they ought to perform the journey, it is a sign that they have got off the correct or straight line and are working in a semi-circle. The best way to counteract this is to bring them back a stage or two and give them an intermediate stage as well. It has been reported by well-known fanciers that birds will not cross high hills, forests or water if it is possible for them to work their way round, and therefore the ground the birds have to fly over should be studied and allowances made for any obstacles they may have to surmount. Never send away hens that are in egg, as although they are quite likely to return safely and even rapidly, the damage done through overstrain may be irreparable. It is also not considered advisable to send cocks that are driving their hens to nest, but if these birds can be kept fit and have been thoroughly trained over the course they are to fly, we rather like them in this condition for races up to 150 miles, pro-

viding the weather is settled and there is every prospect of the birds being liberated at the proper time. If held over for a day or two driving cocks are likely to get lost through not feeding in the basket and it is always a good plan, if you have to send away driving cocks, to send them thoroughly hungry. Some cocks will work themselves and their hens very hard when driving to nest and with birds of this description we slip an egg under the hen one evening while she is standing on the nest and the cock will take to it next morning in quite the orthodox style. This should be done one or two days before the race and the egg taken away after the hen has laid her own. Birds that are sitting on newly hatched youngsters are also likely to be well to the fore in races of this description, but care must be taken to study the weather, as should they be held over in the baskets for any length of time, the soft food in their crops will turn sour and thoroughly upset them for some days at least. Do not forget that many of these shorter races are won at the home end, as the birds will often travel nearly all the way in a cluster to split up on arriving within a mile or so of home, and then the smarter the birds trap, the higher up the prize-list will the owner be. Birds cannot be taught to trap smartly in a day or two, but by careful attention to their rations, all difficulties in this direction are easily overcome. There is no secret in quick trapping, it is the feeding that does the trick. In fact, the only way to thoroughly get on confidential terms with the inmates of your loft is to feed them in the loft and make them take the food out of your hands. The young birds should now be nicely on the wing and one or two single tosses of a mile or two each way is decidedly advisable, as otherwise youngsters are apt to fly wild and stray rather further afield than is necessary and getting picked up by another bunch, will perhaps be carried away miles from their own quarters. Confidence in their owner cannot be too early instilled in a pigeon's mind, and a point to be remembered is that birds who know and trust their master are far easier to manage and win races with than frightened, nervous pigeons which scramble about all over the loft immediately their owner comes anywhere near. Careful handling is an absolute necessity, and birds returning from races should be caught with the greatest care. We would sooner lose a race than catch a bird roughly and make it a bad trapper for life, and remember that your last bird home this week may be the first next, so do not be in a hurry to run away and see how Tom, Dick and Harry has got on, but stop

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and trap your last arrival with as much care as you did your first, only it will not be necessary to handle this bird at once. Do not forget the bath on the morning after a race, nor the grit box, and a small quantity of green stuff. Constant attention to their wants and fancies, plus a great deal of patience on the part of the owner, are the principal aids to the success of a racing loft.

How to Make a Cigarette Roller.

The well-known quotation from "The Virginians." "Make your own cigarette, Sir, 'tis twice as good," has often been adopted by advertisers of tobaccos and cigarette-papers; but when it comes to the point, it is doubtful whether 75 per cent. of cigarette-smokers are capable of making one.

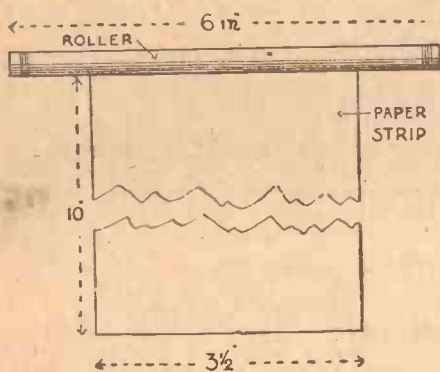


FIG. 1.

Of those who do not make their own cigarettes the greater part use a maker of more or less complicated design, that is able only to turn out a "smoke" of uniform size; sometimes one comes across an individual, who, from practice acquired through years of living abroad, can roll a cigarette entirely by hand in the deft manner employed by the Spaniards, Italians, Greeks, and Turks.

The object of this article is to show how, at a cost of practically nil, a cigarette-maker can be made that is capable of turning out a cigarette

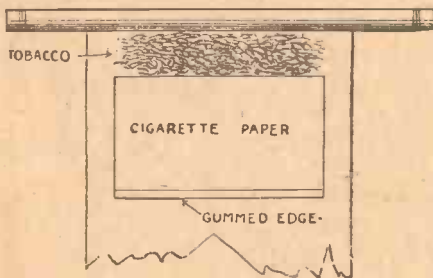


FIG. 2.

from any kind of tobacco, fine or coarse, and of any size.

First procure a wooden cylinder, some six inches in length and of the thickness of a pencil, or slightly more so. The cylinder is then split

in halves. Then cut a rectangle of paper or linen, ten inches in length and three and a half in width. Glue one of the shorter ends of the paper to the flat side of one of the split cylinders, so that the ends of the wood beyond the paper are even in length. Then fix the other half of the cylinder to its counter-part, and bind the ends lightly with fine twine (Fig. 1). The cigarette maker is now complete.

The making of the cigarette with this simple machine is an equally simple matter. The paper is unfolded and laid flat on a table, book, or any flat surface. A small quantity of tobacco, experience soon showing how much is required, is placed on the paper close to the roller, and a cigarette-paper is placed so that its gummed edge is uppermost and away from the tobacco, its opposite side being close to the tobacco (Fig. 2). The gummed edge should be slightly moistened, then the roller is grasped lightly and firmly with both hands and looped over the tobacco. (Fig. 3.).

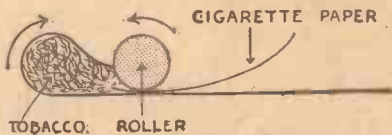


FIG. 3.

Then turn the roller in the direction shown in the sketch, so that the paper revolves on the roller and at the same time the cigarette-paper is drawn underneath very similarly to the action of a wringing-machine. If too much tension be employed the cigarette will be too tight and consequently unsmokable, but it must be borne in mind that the coarser the tobacco the greater should be the tension.

Five turns of the cylinder should suffice, and a perfect cigarette is invariably the result. The projecting ends of the tobacco should be cut off by a pair of scissors, or, if none are available, "nipped" by the fingers.

In an emergency a "maker" can be constructed by means of a lead pencil and an envelope with its edges cut.

A great advantage in this style of "machine," is that by judicious use of the tobacco one can obtain a maximum of tobacco to a minimum of paper—a strong point for those who look askance at the much debated cigarette-paper.

GERMANY carries on a large trade in the export of canaries. Every year she sends no fewer than 130,000 of these birds to America, 3,000 to England, and about 2,000 to Russia. The great nursery for the breeding of canaries is the Hartz Mountains. Many of the peasants are engaged in the work of rearing the birds, and receive wages of from £10 to £25 a year for their trouble—an important addition to their earnings. Many canaries come also from the Black Forest, but they do not fetch such high prices as the Hartz birds, not being considered such good songsters.

WHERE true fortitude dwells, loyalty, bounty, friendship, and fidelity may be found. A man may confide in persons constituted for noble ends, who dare do and suffer, and who have a hand to burn for their country and their friend. Small and creeping things are the product of petty souls.—*Sir Thomas Browne.*

POPULAR MECHANICS.



HOW TO MAKE AN ELECTRIC DRILL.

AS the operator will find considerable assistance if he reads over carefully the articles already inserted in **HOBBIES** respecting electro-motors and electric gravers in our issues Nos. 524, 538, 591, we recommend him to look up the said articles before setting to work on the drill itself. In the following instructions, we describe an instrument that will carry a bit of sufficient size to drill a $\frac{1}{8}$ in. hole in cast iron or soft steel; and which can be conveniently worked either from a 4-volt accumulator, such as is usually employed for the coils of automobilists, or by means of two-pint bichromate cells coupled in series. If lesser power be required, the entire instrument may be made of about half the size; it being borne in mind that by doubling the size in both directions the power generated and also the current required to actuate it will be quadrupled. We recommend here that the case of the motor that carries the drill stem should take the form of a brass tube, as it is more convenient to handle, and affords a greater protection to the working parts than a holder of any other shape. Beginning by the motor proper, we procure a piece of hoop iron, about $\frac{1}{8}$ in. thick, 1 in. wide, and 6 in. long; having made this nearly red hot, we bend it into the shape of a rather flat U, as shown at Fig. 1, each limb being 2 in. long, and the bent portion about $1\frac{1}{2}$ in. from side to side. Care must be taken that the two limbs be perfectly square and parallel to one another, and when they have been thus fashioned, the upper ends of the limbs must be filed perfectly level, so that the U can stand upright and level whether lying on the bent portion, or on the filed extremities.

The next operation is to find, by measurement, the exact centre of the bent portion, and here we drill and tap a $\frac{3}{8}$ in. hole, into which we screw a piece of round brass rod which will serve as a bearing for the spindle itself. The length of this bearing should be about $\frac{3}{8}$ in., of which $\frac{1}{8}$ in. will project beyond the hole in the bend, on either side, and $\frac{1}{8}$ in. will be screwed into the iron itself. Through the centre of this brass bearing or collar will be drilled a $\frac{1}{8}$ in. hole, through which the spindle actuated by the motor will have to pass. The U-shaped piece of iron will constitute the field magnet of our motor. We now have to construct the armature thereof; and this we fashion from a strip of soft hoop iron 1.16 in. thick, $\frac{3}{8}$ in. wide, and 8 $\frac{1}{2}$ in. in length, which we bend round a circular ruler or similar round body, in two laps, so as to produce a ring of two turns, $\frac{1}{2}$ in. in width, $1\frac{1}{2}$ in. in external diameter, and $\frac{1}{8}$ in. in total thickness. These dimensions should be carefully adhered to; and, in order to prevent the

spiral thus produced from uncoiling, it will be well to bind the two layers of hoop iron together by winding round them, in and out the ring, in a spiral fashion, sufficient narrow tape to reach right round the ring from end to end. The tape itself may be fastened firmly to the iron ring by brushing over its inner surface, before applying it, with some good shellac varnish. Any excess of tape above that required to reach spirally round the ring should be cut off; and both the starting and finishing ends thereof smoothly fastened down by means of the said shellac varnish. This ring, or armature, can now be set aside to dry and harden thoroughly.

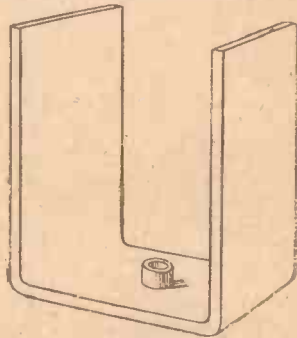


FIG. 1.

While this is drying, a piece of hard steel rod, perfectly cylindrical, $\frac{1}{8}$ in. in diameter, and about 8 in. in length, is now selected. It should run freely, but without any shake in the hole of the brass bearing already described. A little wooden block $\frac{3}{8}$ in. in thickness is now prepared by turning up in the lathe, of a slightly conical shape, the diameter at the larger portion being about $1\frac{1}{8}$ in., and at the smaller $1\frac{1}{4}$ in. A central hole must be put through this block or "hub," that shall fit tightly on the spindle, as it will be necessary to cement this hub to the spindle, and also on its outer surface to the ring constituting the armature when this latter is wound. We may now proceed to wind the armature. For this purpose, we measure carefully the outer circumference of the said armature by means of a strip of paper passed round it, and we divide this circumference into six equal parts, which we can mark on the armature with a penoil. Taking a sufficiency of No. 24 silk-covered copper wire, we wind each of the six divisions with a length of this wire, winding perfectly evenly round the ring, as shown in our

Fig. 2, and, having reached the line indicating the first division, we return, still winding in the same direction, to the starting end, and then back again until we have wound on five layers, and, consequently, terminated at the division mark, opposite to that at which we started. In order to prevent the layers from uncoiling, care must be taken to tie down both the starting and the finishing ends of the wires with a piece of strong silk twist. It is, perhaps, needless to remark that, in winding on the wire, the greatest care must be taken that each strand and each layer that is wound on must lie close to its neighbour, perfectly flat, and be as even as cotton wound on a reel.



FIG. 2.

In precisely similar manner, the remaining five sections of the armature are filled in with wire each section being started to the left and finished to the right, and a piece of wire, of about 3in. in

length being left free for future connection. When all six sections have thus been wound in, it will be well to give the coils a coating of good shellac varnish, which will not only help to keep them in their place, but will greatly assist in maintaining good insulation.

We now pass to the construction of the commutator, which is an arrangement for allowing the current supplied by the battery or the accumulator to enter both into the coils which are to be laid round the field magnets, and into the different sections of the armature winding, in their proper order. For this purpose we require a piece of hard red vulcanised fibre, $1\frac{1}{2}$ in. in diameter, 3-16in. to $\frac{1}{2}$ in. thick, with a central hole to fit friction tight on our steel spindle. On this we fit a circular brass plate, 1-16in. thick, of the same diameter as the vulcanised fibre, viz., $1\frac{1}{2}$ in., with a $\frac{1}{2}$ in. central hole. Before fastening this on the vulcanised fibre disc, we mark it with six equal divisions, and, having placed this centrally on the fibre disc, we drill with a fine drill, between the divisions we have marked on its surface, six holes near the edge of each section, and other six holes half-way between the edge and the central $\frac{1}{2}$ in. aperture. These latter holes must be countersunk, because we shall have to insert in them some very small flat-headed screws, the heads of which must lie flush with the surface of the brass. Those screws which enter into the holes nearer the edge need not be countersunk, but may be round-headed; as it is under these heads that we propose clinching the projecting wires proceeding from the armature. Care must be taken in selecting these screws that they do not project beyond the vulcanised fibre below; in other words, they must not be more than $\frac{1}{2}$ in. long in the shank. When they have been inserted, the brass disc is carefully divided along the six lines previously scribed upon its surface (and which lie between the six lines of screws) by means of a fine hack saw, care being taken to thoroughly part the brass segments but not to cut deeply into the fibre below; since, if any of the segments are left connected, the electricity will pass from segment to segment, and the motor will not "mote"; while, on the other hand, if the fibre be cut to any extent, the commutator will be weakened, and may possibly break.

(To be continued.)

Correspondence.

BOOKS AND ENGRAVINGS.

- A. W. PARTRIDGE.—The "Breeches" Bible is the popular version of the Bible known as the "Geneva" Bible from the fact that it was translated and published by English exiles at Geneva. During the latter half of the 16th century and the first half of the 17th century it was the "people's" Bible in England and was reprinted again and again even after the publication of the authorised version in 1611. It is not a scarce book and the value of a particular copy depends, to a great extent, upon the edition and the state of preservation. In the condition you describe it would not be worth more than from 18s. to 20s.
- W. A. BRACE (Millwall).—There were a number of editions of Goldsmith's "Citizen of the World." The only valuable one is the first, issued in 1760. The one you have is not worth more than a few shillings.
- E. WOODCOCK (S. Ashford).—Littleton's History is of little, if any, commercial value at the present time.
- W. P. (Stockport).—Jean Baptiste de Champagne was a Flemish painter of portraits, genre studies and historical subjects, who flourished in the 17th century. Your colour prints are probably early 19th century, but as you do not give many particulars we are unable to say definitely. Bettanier does not appear to have been an engraver of note.
- J. MOP. (Middlesbrough).—Ropin de Thozras' "History of England is now of little historical or commercial value. As your copy is not a complete one it is of no value. The other two books you mention are of no particular value.

STAMPS.

- J. H. B. (Abingdon).—The Orange Free State and Zanzibar stamps you describe are common. Worth not more than a penny each in first-class condition.
- J. F. (Barrow-in-Furness).—The 1d. black English stamp is worth, unused, from 1s. upwards; used, it is worth from 3d. upwards—in each case the "condition" of the stamp is an all important factor.
- NEWSAGENT (Salford).—Stamps of the Cameroons ("Kamerun") are mostly common. If of low values a penny each would be the utmost value. We could not value your Southern Nigerias without seeing them or having details of values and colours.
- R. D. (Earlsfield).—It would be impossible to give you an exact valuation without seeing the stamps. Why not get the "Universal Standard Catalogue," price 1s. 6d. post free from Messrs. Whitfield King and Co., Ipswich, and value them yourself? Most of the stamps on your list are damaged in some way or "cut to shape," and of course this destroys the value of all but the very rarest stamps.

MISCELLANEOUS.

- W. K. TORENBURY (Liskeard).—Messrs. Thomas Wallis and Co., Ltd., of Holborn, London, W.C., will supply you with sword-bayonets at ninepence-halfpenny each, Blucher swords (used at Waterloo) at two and elevenpence-halfpenny each, and Japanese swords at five and elevenpence-halfpenny each, you, of course, paying carriage.

Motor Omnibus Models.

As many fretworkers are, during the season, exhibiting Fretwork models of the HOBBIES Motor Omnibus, we offer:—

A special award of ONE YEAR'S FREE SUBSCRIPTION TO "HOBBIES" to all fretworkers who, before October 5th, 1907, obtain a prize at any Industrial Exhibition with a Fretwork Model of the Motor Omnibus, cut from the design presented with HOBBIES 1907 Catalogue.

The only conditions we impose are (1) that the Model is made according to the published Design, (2) that the value of the prize gained shall be not less than Five Shillings, and (3) that in the Fretwork section, in which the prize has been awarded, there shall have been not less than Five entries.

THE United States have over 1,800 public libraries, containing more than fifteen millions of volumes.



VI.—DEVELOPING THE EXPOSED PLATE.

THE dry-plate having been exposed in the manner described in the last article the image has now to be brought out by development. The question arises, What is the developer to be ?

Now the number of different kinds of developer is enormous, there are enough to suit all tastes, and one can only mention a few of those likely to produce good results. One thing may be said, viz., choose a developer by trying various kinds, and selecting the one that gives the best results ; and having found one that will give good results under varying circumstances—stick to it. Photographers who are continually trying some new developer in hopes that they may get better results with it, are hardly ever really successful with any of them—the important point being to know the developer thoroughly, so as to be able to rely upon it under all circumstances, and modify it in any way required to suit any special case that may arise. Probably the vast majority of both amateur and professional photographers use pyrogallic acid in some form or another as a developer, the only difference in their formula being the kind and amount of other ingredients mixed with it. The author considers the mixture of Pyro with metol to be an especially excellent one, and he has for some years past used the following formula :—

- A.—Pyrogallic acid 55 grains.
- Metol 45 grains.
- Meta bisulphite of potash .. 120 grains.
- Bromide of potassium .. 20 grains.
- Water to make 20 fluid ounces.

- B.—Ordinary washing soda .. 4 ounces.
- Water to make 20 fluid ounces.

The water in each case is preferably boiled or distilled.

This developer is given in the "Imperial Handbook" and called the "Imperial Standard" formula. It practically suits all plates.

The two solutions are made up in two separate bottles, and the reader will save himself much trouble if he procures two bottles which exactly hold 20 fluid ounces, so that they merely have to be filled up to the neck with water. The bottles should be kept tightly stoppered or corked, the one containing the pyro solution should be a stoppered one.

Supposing the time has now arrived for the development to be accomplished the proceedings are as follows, and to avoid mistakes as to the solution contained in the dishes, it is better to proceed always in the same way.

On the dark-room table are placed three dishes

—the size of the plate to be developed or slightly larger—in a row in front of the operator. The one on the right holds the developer, the one on the left holds the fixing solution, the centre one holds perfectly clean water. The room is now entirely darkened (if that has not already been done) the only light being deep red. The exposed plate is taken out of the dark-slide, and carefully brushed with a soft camel's hair brush (about an inch broad). It may surprise the operator to find that the surface of the plate is in no way changed ; there is no more sign of a picture on it now than when it was put into the slide. The plate is taken carefully between the fingers, so as not to touch the film anywhere, and placed at the bottom of the dish on the right (film side upwards, of course). The developer is mixed (preferably before taking the plate out of the slide) by measuring out an ounce of the solution labelled A, and another* of the solution labelled B. Both should be poured into a common china mug, which can be bought anywhere for a penny, and is invaluable. The mixture having been made, it is poured over the surface of the plate in one sweep, taking especial care that the whole of it is covered instantly. If any part remains uncovered there will be a mark on the negative at that point. Directly the developer is on, the plate is slowly rocked, and in a few seconds the image will be seen coming out. This is a moment of the greatest interest to the photographer, and it is *always* a moment of great interest—no matter how advanced a worker may be. It is always fascinating to watch the first appearance of the image and to note the effect of light and shade in a landscape, or the excellence or otherwise of a portrait, which one soon learns to estimate correctly, although the whites are black, and *vice versa*. The image begins faintly and gradually grows in strength, and before long there comes an important question to be considered—viz., when to stop development. This is a matter which can only be properly judged by practical experience. The best way to make a correct estimate of the moment at which to take the plate out of the developer is to lift it up by means of the lifter, and look *through* it at the ruby lamp. At first the flame of the lamp will be seen clearly, but as the development proceeds the film will become darker and darker, until hardly anything can be seen of the light when the negative is held up before it, especially through the darker portions. When this is the case the negative can be removed and placed in the dish of water, or washed by turning the tap of the cistern on over it, in which case the dish of water will not be required. After a slight washing it is placed in the dish on the left hand, in which has been previously poured a

solution of hyposulphite of soda—four ounces to the pint of water. The best way to make this solution is to keep a large bottle with a wide mouth, holding about a quart, in which a solution of hypo can be constantly kept. The substance is one that dissolves readily, but its solution is so much heavier than water that it sinks to the bottom of the bottle; consequently, unless the bottle is frequently shaken, all the strong solution will sink to the bottom, and the rest of the mixture will be extremely weak. The bottle should, therefore, be frequently shaken and inverted, to make a solution equally strong throughout.

After the plate has been in this solution for a few minutes it will be seen that the white appearance at the back is coming off. This is the silver chloride in the film which has been unacted upon by light, and subsequently by the developer. Its solution in hypo continues until none is left, and the negative will then look quite clear in the lightest portions. It can now be exposed to ordinary daylight without fear of damage. It should be left in the fixing bath for at least five minutes after all the white appearance has gone from the back, and it is then placed in a washer, and washed for at least twenty minutes in running water—i.e., with the tap turned on above it, or in frequent changes of water for about an hour, if no running water is available. It is then removed from the water, and placed in a drying rack till it is perfectly dry and the film quite hard.

Now, supposing that the exposure of the plate was correct, the development will be a perfectly easy matter; the different parts of the scene will all come up on the plate in their proper relation to each other, and the detail will not fail to appear in any portion of the plate. But sometimes, when the exposure has not been correct, the development of the plate "hangs fire"; time passes, and nothing will come out except a few patches in different parts of the plate. This is the result of under-exposure of the plate. To assist in overcoming the retarding effect caused by it, more of solution B can be added to the developer in (about half an ounce, and it must be added to the developer in the cup, and afterwards poured back again over the plate). This will make the development proceed more quickly, but a bad case of under-exposure will result in a negative that cannot be brought out by any adjustment of the developer. The opposite defect to this is that of over-exposure. In this case the picture begins to come out almost at the moment the developer touches the plate. There is hardly time for the operator to see any picture before the whole is buried in a general darkening of the plate. There is a remedy for this, provided it can be applied quickly enough. A bottle containing a ten per cent. solution of bromide of potassium is kept ready (it is made by dissolving an ounce of bromide in ten fluid ounces of water) and the moment the picture commences to rush out the developer is poured off, and the plate flooded with water. To the developer in the cup is added five or six drops of this ten per cent. solution (it may need more, but the right amount can only be judged by experience), and the developer is then poured back again. This time development may proceed more quietly, and in the end a good picture may be obtained. Supposing that in spite of all attempts to stop it, the plate develops too quickly the result will be a negative full of

detail, but very thin—probably the light of the lamp will be visible through it even in the darkest parts, and with no proper gradation of light and shade, &c.

Remedies for under and over exposed negatives when printing (as far as this is possible) will be given in subsequent articles.

Camera Notes.

WASHING NEGATIVES.

Most amateur photographers like to store their good negatives, and so make a permanent collection of them. One often finds, however, on looking at old negatives, that they have either faded, or become discoloured or patchy, and sometimes they will be ruined through such defects. The keeping qualities of a negative depend entirely upon the way it is washed, and the thorough removal from the film of all traces of hypo. One certain way of thoroughly washing a plate is to soak it in twelve or fifteen changes of water for five minutes, taking care to quite empty the dish each time the water is changed. An hour's washing in running water is usually said to be sufficient also, but it will never suffice to leave a grooved trough filled with several negatives under a tap; the trough must be completely emptied at least three or four times.

HYPO ELIMINATORS.

There are several chemicals which will destroy the last traces of hypo, and so prevent any of the common troubles one meets with if a negative be intensified; these substances are known as "hypo eliminators," and are very useful when a negative is wanted in a hurry, as by their use washing can be thoroughly carried out in a few minutes. For the purpose of ensuring the removal of the last traces of hypo, after a negative has been already fully washed, a very weak solution of potassium permanganate may be used—a few grains to a pint of water; the negative is soaked in this for five minutes, and then thoroughly rinsed; it will then be quite freed from hypo, and should last for ever without deterioration.

DRYING NEGATIVES QUICKLY.

A wet negative may be dried quickly by placing it for ten minutes in methylated spirits, which removes all moisture from the film. It is then placed in a warm room, and will soon dry. To further hasten matters, it may be held three feet from a fire, the *glass side* towards the fire. If too much heat be applied just at first, the film may partially melt, so care must be taken. A word of caution must also be given respecting the appearance of the film; it looks quite dry some time before this is actually the case, and negatives may easily be spoilt by putting them in a printing frame with a piece of paper and finding that the films have stuck.

PRINTING FROM WET NEGATIVES.

A bromide or gaslight print can easily be made from a negative while wet in the following way. When the negative has been washed, place a piece of bromide (or gaslight) paper in water to thoroughly moisten, then bring it in contact with the negative, film to film, and well squeeze the two together, place them in the printing frame and expose for rather longer than would ordinarily be given. After exposure the paper is peeled off the negative and developed in the usual way and will yield an excellent print. This method cannot be used with P.O.P.

FRETWORK

VI.—LARGE WORK AND PLURAL CUTTING.

IN a previous chapter the sizes of hand frames were considered, and a few suggestions may now be given as to how a piece of wood which is longer than the frame may be conveniently cut.

LARGE WORK.

To take the simplest example—if Fig. 1 is a piece of wood about fifteen inches long, and the worker uses only a twelve-inch hand frame, it is obvious that he cannot in one circuit cut out the two end openings without the back end of the saw frame coming against the far end of the wood, and thus barring further progress. If he begins at A, he can saw round to B, and then to C without any difficulty, but when he is half way round to D the frame knocks against the wood, and he is stopped. What he has to do on arriving at C is to withdraw the blade to the starting point (A), and from there go round to C the other way—that is, *via* D.

A more elaborate example is given in Fig. 2.

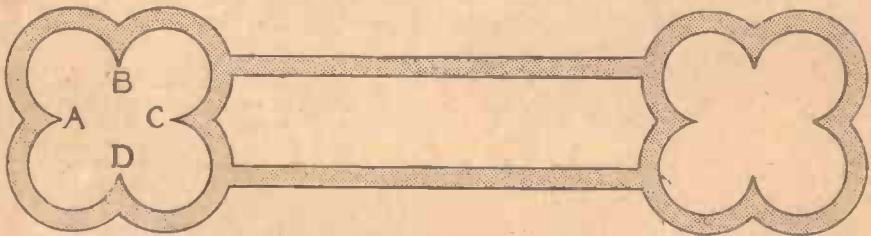


FIG. 1.

This is a reduced miniature of HOBBIES "No Place Like Home" Motto design, No. 267, the full-sized diagram of which is about nineteen inches long. Now, it need not be supposed that a twenty-inch frame is required for this. Indeed, this beautiful pattern may be cut with a twelve or fourteen-inch frame, although naturally the work is more quickly accomplished with a longer tool.

A single illustration in this case will suffice. The hexagonal mirror opening marked X is shown on a larger scale in Fig. 3. If a start is made at the corner A, the saw may travel right round to F without the frame meeting with any impediment. When it is here turned to face A, however, the frame comes in contact with the upper end of the wood. The saw has thus to be drawn back to A, and the last line, A F, cut. Of course the best way to cut out this hexagon is to begin at the lower corner B, and saw to E: then take the blade back to B, and go round to E by way of A and F.

The other openings at the top and bottom of

this motto may be cut out in like manner. Some are more troublesome than others, but in all cases the principle is the same. The necessity for withdrawing the blade in the way described only arises with the end openings, for when the main body of the diagram is being sawn the wood can easily turn within the frame's length.

Treadle machines, as remarked before, have usually a swing of not less than eighteen inches, and it is only when the largest patterns are being sawn that withdrawal is necessary. The method to be adopted is the same as in hand cutting.

With elaborate openings, where there are numerous corners and intermediate curves, it is often advisable to cut out the general outline from point to point, and deal with the subsidiary nooks and crannies afterwards. It is sometimes easier, too, to release the saw and re-thread it, as in being drawn back past many corners it is apt to get broken.

PLURAL CUTTING.

Plural cutting, as the term indirectly implies,

means the sawing of two or more boards at once. In numerous cases this is of the greatest advantage. For example, both sides of a corner bracket are usually alike, and if each is cut separately it means double labour throughout—double pasting down or transferring, double drilling, double cutting, and double removal of the pattern. If, on the other hand, two pieces of wood are screwed together, and both taken at one cutting, it may involve slower sawing on account of the extra thickness, but it means a great saving of trouble and time.

In plural cutting the first thing the worker must consider is the total thickness of wood he can conveniently saw. With a treadle machine he has greater facilities, but with a hand-frame he must limit himself to about three-eighths inch or perhaps half-an-inch if the wood is soft. Everything depends on the wood. Satin walnut is easily taken in double or treble thicknesses, while hard varieties of the rosewood type are frequently difficult to saw even in three-sixteenths

inch boards. A solid piece of half-inch wood is often harder to cut than two quarter-inch or four eighth-inch pieces of the same sort; but, on the other side, the mere fact that the woods are



FIG. 2.

separate causes a certain amount of play which gives occasional trouble.

The average and most generally useful thickness of fretwood is three-sixteenths inch, and every

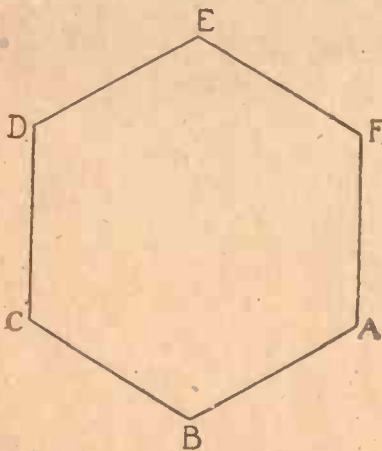


FIG. 3.

fretcutter should be prepared to saw two boards of this gauge. In many fretwork patterns it is assumed that plural cutting can be done, and where two similar pieces have to be sawn it is

customary to show only one diagram. When there is room on the sheet for duplicate diagrams these are usually given, as they are useful when any worker intends to make up the article in some very hard wood, or in metal or xylonite.

Before the boards are fixed together, the pattern is transferred or pasted to the one that is to be uppermost. They are then firmly fixed together by means of wire nails or screws. The worker should make a liberal use of these, as the more securely the boards are fastened together the more easily are they cut. Sometimes it is better to cut the outline first, and sometimes wiser to leave this till the end. The present writer's plan is to drive several wire nails round the outside, and use screws for the larger interior openings. After drilling, he then begins to cut out the smaller interior parts, leaving alone those which hold the screws. Having done this he proceeds with the outline. The cutting is now complete except for the four or five parts through which screws have been driven, and these he next tackles, leaving the largest central opening (which ought to have two screws or nails) for the final cut. This last stage must be taken carefully, as the boards are almost apart, and consequently require gentle handling. The nails used for binding the wood need not be discarded, but may be withdrawn for future use.

In plural cutting the most important thing to watch, whether in hand or treadle cutting, is that the stroke is vertical. The thicker the wood the more noticeable will a fault be. If in treadle sawing the tilting table is not at right angles to the blade, or if in hand cutting the frame is allowed to lean over to one side, then no matter how accurately the pattern line has been followed the undermost surface will bear no resemblance to the upper one. Each opening, after it is cut, should be examined, and if any fault is noticed greater care should afterwards be observed.

If the boards have been firmly fixed together, the two inside surfaces will not require much sandpapering, as the friction ought not to leave very ragged edges. The under surface of the lower board, however, will call for a good deal of attention. If only one surface of each piece is to be visible, as in the case of a corner bracket, it is usual to select the two inner sides for the finished ones.

Plural cutting is almost invariably necessary when overlays are being sawn. Their thinness and delicacy make them unsuitable for separate treatment, and when a single overlay of importance is required it is wise to saw it between two thin pieces of waste wood.

(To be continued.)

Borecole or Kale.

If it was not for this hardy vegetable many people would have to go without green Vegetables during the winter. It may lay claim to be the hardiest of our culinary plants for even a severe winter in the North does not seem to trouble it in the least. For those who have very exposed gardens, this is just the vegetable to rely on for a good winter and Spring supply, as it will continue to produce crops even in the depth of winter when most of the vegetable world is at rest. The seed should be sown in beds during April and May, and should be transplanted into nursery beds as soon as fit to handle.



Notes of the Week.

OUR illustration here is the reproduction of an interesting photograph we have just received from a reader in Lucknow, whose accompanying letter fully explains the method of fretcutting which may eventually become popular in India:—"You will probably be interested to know that your A1 Treadle Fretwork Machine that I bought from you before I left home has arrived out here quite safely and is greatly admired by the natives. When I arrived, the weather was very nice and not too warm, but now it is getting very hot, and as I felt hotter still working a fretwork machine

longer pitman on the wheel, so that he could work it without fear of injury to his fingers." The suggestion may fail to appeal to workers in this country, who rarely experienced the inconveniences of extreme heat, but it is interesting to know that "power movements" may be attached to treadle machines even although steam or electricity are out of reach.



We referred in our issue of April 27th last to the great Irish International Exhibition which opens in Dublin this month, but there is



TREADLE FRETSAW "POWER ATTACHMENT" IN INDIA.

I invented the 'Power Attachment' as per enclosed photographs. I had just completed your Chinese Calendar Design, No. 532-533, with the Power Attachment, before I took the photos. I enclose two copies of each, and give you full permission to reprint them if you wish, as I should think they would interest your readers. I hope, however, they will not cause younger brothers to be sorrowful! The native who works the machine usually falls asleep, or nearly so, but can keep running it for a long time until he hits his knuckles on the driving wheel; then he wakes up quicker than he likes. This was the reason why I put a

another Irish Exhibition of particular interest to readers to be held during the coming summer. This is the Irish Art Industries Exhibition at Ball's Bridge, Dublin, on the 27th, 28th, 29th, and 30th of August, when upwards of £250 will be offered in prizes in following classes:—Lace, embroidery, tapestry, wood-carving, photography, stained woodwork, metal work, artistic enamelling, leather work, book-binding, illuminating, stained glass work, modelling for ornamental plaster work, mosaic work and designs. As this is an exhibition of Irish Art Industries all competitors must be resident in Ireland.



Trimmings for Linen Gowns.

THERE are very few women who can withstand a feeling of pride when they have successfully completed some piece of embroidery for their own wear.

This usually becomes them far better than anything bought ready-made, and has a touch of individuality about it that is particularly welcome in these days when trimmings and most other things are "turned out, like buttons, by the gross." The summer dresses made of coloured, or of a natural-tinted linen have evidently come to stay, and they vary little year by year except in a few small items of style and in the fact that the embroideries upon them grow more and more rich-looking. Indeed, so handsome are some of these designs that even when the costume is a little out of date as to cut and style it would be a real extravagance to cast it on one side.

But it is not with these larger pieces of embroidery that we are thinking of dealing to-day, handsome and attractive though they undoubtedly be. Our purpose is to show amateur workers a few of those dainty little pieces of trimming that may be acquired traced for embroidery at a very moderate cost and which, used on a linen dress of the same make, produce all the difference between the commonplace and the *distingué*. It is the well-known firm of Harris and Sons, of 25, Old Bond Street, London, that has done so much to improve the aspect of our linen gowns and they have kindly given us the



FIG. 2.—LINEN BELT.

opportunity of sketching a few of their garnitures to show our readers what they may do with only a slight knowledge of the art of stitchery.

One of the fashionable plastrons for a morning shirt is sketched in Fig. 1. It may be had traced upon linen of any colour either to match, or to



FIG. 1.—PLASTRON FOR A MORNING SKIRT.

form a contrast with the rest of the costume. It will be seen from the sketch that the design is one which may produce as simple or as elaborate a trimming as its owner desires. The edges are finished with buttonholed scallops which should be raised over a padding to give them their full effect. Sometimes a line of thicker thread is carried along the edge of such buttonholing and is looped round at intervals to form a picot. When three of these are made in each scallop the effect is extremely pretty.

Some handsome belts have been brought out for wearing with linen gowns. That shown in Fig. 2 is prepared upon several colours of linen, the model being green, upon which the white marguerites showed very effectively. Strictly speaking, such a belt should match the dress, but with a white costume any colour may be utilised.

Then there are the strips for making up on blouses made of any kind of washing material. An exceedingly effective design is that shown in Fig. 3. Upon a cream-coloured fabric it looks very well if the leaves are carried out with dull green and the berries with red. Workers will see how easy it is to outline the leaves with the usual long-and-short stitch which, while emphasising the form of the leaf, gives a certain amount of lightness by leaving the centre free except for the vein. The stems are lightly traced and the berries are put in with raised satin stitch in the usual way, padding being used to bring them well into relief.

The turn-over collars made of linen and prettily embroidered with coloured threads are likely to meet with a grand success. They

are just the pieces of work that are easily carried about and can be taken out and good results obtained with perhaps only half-an-hour of spare time. Any odds and ends of coloured or white thread may be turned to account for them and they can be executed in any variety of stitches that the worker chances to have at her fingers' ends. The example

in Fig. 4 is a particularly handsome design, and affords opportunity for a pleasing mixture of open and close work. The outer edge should always be traced with buttonhole stitch so that the linen may be safely cut away beyond it. The portions of the design that we show worked with overcast stitch may quite as well be executed with outline stitch if this is preferred.



FIG. 3. BLOUSE STRIP.



FIG. 4.—PART OF A TURN-OVER COLLAR.

POKER WORK



VI.—POKER WORK ON VELVET, LEATHER, CARDBOARD AND GLASS.



FIG. 1.

WE now come to the consideration of the pyrographer's art on other materials than wood, such as velvet, leather, cardboard, and even glass. The last mentioned is not a branch of the art to be strongly recommended, but as a novelty it naturally possesses some attractions to the amateur worker. The results obtainable are, however, very limited, only bold designs only being practicable. A very strong platinum point should be used, as it

has to stand an intense white heat. The design is fastened to the back of the glass, so that it can be seen through, and followed by the platinum point, which when drawn over the glass melts out the lines. As when working on glass (which, by the way, must not be too thin) the background must generally be left plain, the design itself should be well, but carefully, shaded with the "shading-point." The "knife" and the "bent-knife" points are most suitable for executing the outlines, being both extra strong. Fig. 1 gives a good idea of a simple design for a glass-panel of a cabinet door; and Fig. 2 shows a design for a



FIG. 2.

water-jug and glasses. All kinds of plain glass articles may be treated, but the designs must be bold and simple to obtain good results.

"SIL-VEL" WORK.

Pyrography on velvet is of two kinds, "burning" and "ironing." The method specially suitable for ladies to undertake is known as "Sil-vel" work, and has lately become extremely popular. Although so effective it is (strangely enough) by far the easiest kind of poker-work for the amateur to undertake, the designs actually being only *ironed* on to the velvet by means of an inexpensive attachment fitting on to the ordinary "flat" platinum point. Fig. 3 shows the nature of this sheath-attachment, at a glance. It consists of two parts, the base-piece being a nut or cap with a milled-edge which is first passed over the screw of the platinum point, and which is then screwed into the cork handle in the regular way. The sheath is then screwed tightly on to the nut or cap. To use the appliance heat



FIG. 3.

it gently in the flame of the spirit lamp until the inner platinum point attains a red heat. Extinguish the lamp and keep the bellows gently and regularly going, so that the inside point remains at a dull red heat. This will give just the right degree of heat to the outer sheath to *iron* down the pile of the velvet. Where the sheath-attachment touches the velvet it *irons* down the pile, leaving a permanent incised glossy silvery mark. One charm of the work is the entire absence of smoke or smell. To illustrate the work itself in this article is impracticable, as the methods of reproduction fail to convey any true idea of the really marvellous effect of the silvery-ironed designs. Made up silk-velvet articles, such as photo-frames, blotters, glove and handkerchief boxes, cushions, &c., in addition to loose pieces of velvet are all suitable for "Sil-vel" decoration. Pieces for table-centres, sideboard and piano tops, cushion squares, and sofa covers can be obtained with designs, ready outlined on them for "Sil-vel" work. "Sil-vel" may also be used for decorating trimmings, cuffs, collars and belts of ladies' dresses. The velvet must be stretched on thick cardboard, or on a large drawing-board, and fastened tight all round with drawing pins, and before commencing the worker should always apply the sheath to a waste piece of velvet to see that it is neither too hot nor too cold. Considerable attention must be given to the operation of the bellows, or before aware of it the worker may find his sheath has become too hot and has blemished the work. All the application of the sheathed-point should

do is to leave a deep silvery impression on the pile, and the point must be worked in one direction only—downwards, or a patchy appearance will result. All outlines are first filled in with the tip of the sheath pointing downwards before the shading is commenced, and all stalks, border lines and geometrical patterns are ironed down flat. Veins in leaves and similar work are dealt with as in Relief Burning (described in a previous article)—that is to say, the veins are allowed to stand up in relief while the intervening spaces are made to slope away. In shading the work care must be taken that it is not allowed to terminate abruptly in a distinct line. It must be allowed to slope or fade away in a natural and artistic manner. “Sil-vel” work is the most effective and most interesting of all the novelty-branches of Poker Work, and thanks to our American cousins it is fast becoming a popular hobby in this country.

Before leaving the subject of “Sil-vel” work a word may be said about the introduction of colour, some people being fond of spoiling the work by introducing oil-paints. We say spoiling advisedly, because when a better and more natural method is available the adoption of a crude method may fairly be said to spoil the work. With work on very dark velvets colour decoration is seldom, if ever, required, and most “Sil-vel” work is on pale velvets—white, cream, pale greens, greys, gold, pinks and blues. To introduce colours in this work with a soft and artistic effect the stains referred to in our last article should be used. These stains in this particular work are applied to the *back* of the velvet, and enough is used to allow a soft colour tone to suffuse the front wherever the colouring is required. A pearl grey velvet, with a design in “Sil-vel” ironing of Virginia creeper, leaves and berries is most effective when the leaves are given tones of red and orange in stain applied from the back and the berries are coloured deep purple-black.

BURNING ON VELVET.

This is the other and older method of introducing pyrography into the decoration of velvet, and for it only velvets with a thick pile should be used, or the process of burning will be found to destroy the threads forming the warp and woof of the material. This work also is easy, the “claw” shaped platinum point (which is the one which must be used for this work) gliding smoothly and quickly over the surface without any of the uncertainties which often occur when operating on a piece of hard-grained wood. The “claw” point, with its fine curved point, answers equally well for thick as for thin lines. Unlike working on leather the point must be kept at full red heat, and used very lightly. The shading is effected with same point with the heat considerably lowered. Of colours old gold velvet is certainly the best for this branch of the work as it shows up the delicate burnt tone of the work to great advantage. Light fawn, salmon pink, olive green and pale grey are also suitable colours. The articles which may be decorated are similar to those mentioned for “Sil-vel” work.

BURNING ON LEATHER.

Any of the numerous articles sold for decoration by leather-workers and toolers will be found suitable for treatment by the pyrographer. In burning on leather the chief thing to remember

is that the point must be kept comparatively cool, and all strokes put in quickly with a gentle and light sweeping movement. A heavy stroke or the slightest hesitation while the point is close to the work will probably burn a hole in the leather. Leather has the advantage of showing up a very rich brown where burned, and with the assistance of the “shading” point some remarkable “tone” effects may be obtained. In this work, again, the stains previously mentioned may be used on light toned leather to produce coloured effects.

BURNING ON CARDBOARD.

Finally we come to cardboard, which is another material which serves the purposes of the pyrographer, it being cheap and readily obtainable in various shades between white and dark brown. The burning itself is smoother in working than when burning wood, owing to the absence of a grain; but, unfortunately, it is more harmful to the platinum points, on which, as also in the case of velvet burning, particles of the charred parts have a knack of adhering to the points, and unless regularly cleared away quickly injure the instruments. It is well, in all poker-working, to have a little piece of wash leather handy, on which a little knife powder has been rubbed. Wiped with this the points can be kept free of all resinous or foreign matter. The cardboard for this work should be stout, and of good quality, but no very striking effects will be obtainable in this branch of the subject without the liberal introduction of water, or oil colour painting. To the pyrographer, therefore, cardboard burning is hardly likely to ever become prominently popular.

Poison in Paint.

PERSONS who are sensitive to the vapours of paint, or, what is the same thing, to the turpentine and oils contained in the paint, are well advised (says the “Lancet”) to resign their homes until the drying influence of the air has dissipated the volatile oils. Turpentine, even in the form of vapour diluted with air, undoubtedly affects the health of some persons, the disturbance manifesting itself in the shape of giddiness, headache, deficient appetite, and anæmia.

Turpentine is a poison, and cats and rabbits are so susceptible to its action that if kept exposed to its vapour for some minutes they exhibit marked toxic symptoms, ending in death, if they are not removed from the sphere of action of the vapour. A very sensible precaution during the painting season for those to take who are compelled to endure the nuisance is to leave bowls of water in the freshly-painted rooms. Some, at any rate, of the paint emanations are thus absorbed, as will be seen by the oily film on the surface of the water so exposed. An even more powerful absorbent is fresh milk, which reduces the smell of paint in a room in a remarkable way.

THERE is as much difference between the counsel that a friend giveth, and that a man giveth himself, as there is between the counsel of a friend and of a flatterer; for there is no such flatterer as is a man's self, and there is no such remedy against flattery of a man's self as the liberty of a friend.—*Baron*.



Wichuraiana Roses.

KLESS than ten years ago Wichuraiana Roses were little known. Probably the new title of Evergreen Roses has made them become so immensely popular during the last few years. This happy appellation was perhaps not thought of until the extra vigorous growers, such as "Dorothy Perkins," and other equally famous varieties were introduced, and it is in this very latest introduction that the Evergreen habit is more pronounced. There are, at this moment, at least 25 distinct varieties which have been introduced during the last 5 years, and all of which are of vigorous growth, and produce flowers varying in colour from pure white to the deepest crimson. The last named colour was not obtained until last year when the advent of "Hiawatha" made the section even more popular. This last named kind was awarded the Royal Horticultural Society's Award of Merit at the last Temple Show, and the fortunate obtainers of this Award are the Horticultural Department of Hobbies Limited. This variety produce immense clusters of single flowers, the petals being deep crimson in colour on the outer edges, whilst at the base of each petal there is a golden portion, and as each has this latter characteristic the whole produce the effect of a zone at the base. In young blooms the stamens are pure yellow, and it is whilst they are in this colour that the most pleasing effect is obtained. By age the stamens go black. Probably the next best variety is "Alberic Barbier," for it produces flowers more Tea-like in formation and fragrance than any other variety. When young they are admirably adapted for cut flower purposes, making excellent button holes, &c. When they become more developed they open more, and the colour is not then so deep, being but cream. Probably the variety "Lady Gay," which is somewhat akin to "Dorothy Perkins" did not create so great a stir as did the last-named because of its nearness to that kind. However when the two are seen side by side the foliage of the two is noticed to be quite distinct, the one being a shade darker than the other, the darker being "Lady Gay." It is thought that this deeper colour of the foliage is due to a thicker mass of chlorophyll in the leaves. Of course this substance in greater thickness in its leaves at once pronounce it to be a variety of greater endurance. This leaf substance elaborates the cell sap, and if a large quantity of cell sap is made then extra root action at once takes place. Greater root action, and more developed leaves naturally results in stronger growths, and larger trusses of flowers. Moreover, the flowers

when examined by experts with the variety "Dorothy Perkins" are observed to be slightly double in form, and a shade darker in colour. Under these circumstances our readers will at once be aware that we do not advise that the two kinds should be grown in the same collection unless the Roses grown are in immense variety; they border on the too-much-alike varieties. Of course one could elaborate on this point a great deal more by instancing the very much alike varieties by deep red in the Hybrid Perpetual section, and several of the copper and yellow shaded varieties in the Tea and Hybrid Tea section. This work, however, is excellently carried out by the Committee of the National Rose Society in the Catalogue of Roses published by that Society. It is noticed that particular attention is devoted to the bracketting together of varieties which might be classed as those too much alike to be likely to be wanted in the same collection.

At the next Temple Show the Horticultural Department of Hobbies Limited, will make a great speciality of the variety "Minnehaha," for it is regarded by the principals in that Department to be a variety of greater merit than any other light pink coloured Wichuraiana variety. The first year that it was grown in the Hobbies Norfolk Nurseries it was not thought so much of, but after seeing it in its true form last season the Department intends to make a great feature of it at the forthcoming Exhibition. The trusses are immense, and perhaps it is this feature alone which makes it rank as one of the famous in this fastly becoming popular section. Not only are the trusses larger than any other variety of its section, but the individual flowers are also much larger, and more double, the individual blooms being at least half as large again as are those of the well-known Crimson Rambler, whilst the number of florets is even greater than in the improved "Philadelphia Rambler."

Tea Roses.

TEA ROSES at one time were not so hardy as they might be, but this was owing to working them on unsuitable stocks. When worked on stocks which did not suit them, they were, of course, prone to disease, and were easily injured by severe weather. For these reasons they were rarely used except in very warm situations under glass. So many were killed during severe weather, or lived but a short time even when given the best positions, that it was only natural for those whose means were small to look unfavourably on them.

Though all this has been changed, the idea is still prevalent that Tea Roses are not hardy. As a matter of fact, with few exceptions they will come through our severest winters, and bloom profusely in the following summer. Often they are killed almost down to the level of the soil, but if the dead wood is cleared away, they will throw up again in a very short time, and by June one would not be able to recognise them as the same plants as those cut by frost during the previous winter.

Tea Roses have the unfortunate habit of continuing to grow until checked by frost, and consequently the young and miniature wood is sure to suffer. It is only during very sharp frost that the wood is killed back very far. Too often the amateur digs up his old trees and throws them away when they are blackened down to the ground level. Before resorting to such extreme measures, first make sure that the tree is really dead, as if a bit of old wood is left alive it will start into growth with amazing vigour, for the roots will concentrate their whole energy on the development of the new growth.

Tea Roses as standards are not so successful. In order to protect the old wood, bracken is often placed between the plants, but unless this is removed when the weather is mild, it does more harm than good, as it makes the old wood tender. If the ground above the roots is well mulched with good manure every winter, there are few Tea Roses that will not survive, even though the thermometer may drop almost to zero.

Delphiniums.

DELPHINIUMS do not seem to be in the least fastidious, as they will grow well in almost any garden, but of course, if a little special preparation is made, they show their appreciation of the attention by developing finer spikes. As they are deep rooters they do best in a deeply worked soil. Having a large amount of foliage to support they are also grateful for a good supply of water and a fair amount of old dung in the soil. When they are throwing up their spikes, if an occasional appliance of manure and water is given, both the size and colour of the flowers are improved.

There is one thing that they resent, and that is a poor soil. This should be borne in mind when preparing the ground for them. If the soil is inclined to be too tenacious, a dressing of grit, sand, or small crocks should be given to allow the water to pass off quickly.

In the spring, slugs and kindred vermin seem to evince a liking for the tender young shoots, and it therefore follows that in most gardens it is necessary to protect them in some way during this period. Some place a circle of soot round the crowns, and others prefer to rely on coal ashes. When coal ashes are used they are generally applied early in the autumn, as, by placing a layer completely over the crowns, they not only protect the crowns from the attacks of slugs, &c., but also ward off much of the severe weather during the winter.

One of the best of the newer introductions is True Blue, a bright Gentian Blue, with ebony eye. Primrose is quite distinct, as it is pure white with a primrose eye. Two of the best of the earlier introductions are formosum and Bella Donna—the former deep blue, and the latter pure azure blue. A collection of unnamed seedlings usually contains many special features, and is a good way for the amateur to buy in.

Seasonable Hints.

MANY herbaceous plants that flower late in the summer and in the autumn have a difficulty in many gardens in obtaining sufficient nourishment to build up good plants. This is especially the case with Asters or Michaelmas Daisies. To get the very best results from these, the roots must be liberally supplied with water, and if the soil is poor, liquid manure should be given.

The Michaelmas Daisy or Starwort, as it is called by many people, is a plant that plainly shows its appreciation of generous treatment, as when well cared for the blooms are always finer and brighter in colour than when allowed to look entirely after themselves.

Most people grow these and similar plants in the flower border. They always make a good display there, but they do not harmonise so well with their surroundings as when grown in rough grass or in the shrubbery border.

Those who have a piece of rough grass by the side of a lawn should utilise it for growing that splendid Single Rose Una. The effect of this Rose when rambling on the ground is very striking.

Unightly tree stumps may be covered very effectively with Rambling Roses, if the grower cares to take the trouble to make up good soil for them. Ramblers always like fairly rich soil, as they have so much growth to support.

For covering the dead branches of trees, such as the lower branches of Conifers, Polygonum baldschuanicum is one of the most effective plants known. The effect produced cannot be well described, as it covers itself entirely for many weeks with such a mass of pinkish white flowers as to remind one of a mist or cloud hanging over the branches. The plant is quite hardy, and may be seen growing with very good effect at Kew and other large gardens.

Our Weekly Special Bargain.

Our Horticultural Department will offer each week in this space an exceptional bargain to the Gardening readers of HOBBIES. The object of the bargain is to convince Amateur Gardeners of the high quality of the goods supplied from our Nurseries and Seed Establishment.

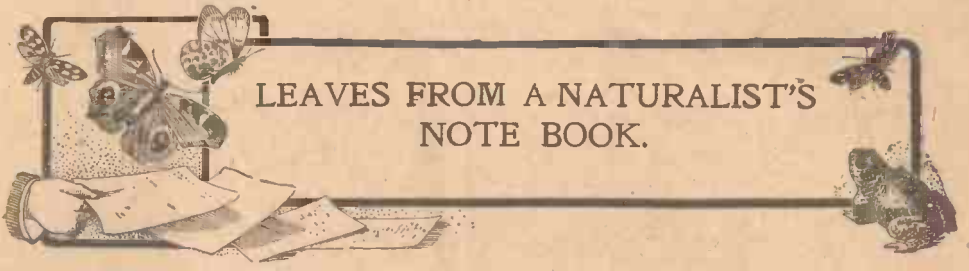
Special Offer for This Week.

100 Dwarf Mixed Asters, ready for planting in the open borders. Sturdy plants. Our Catalogue price for these is 2/6, but for one week only we are offering them for 1/9 post free.

This offer will be closed May 18th.

HOBBIES HORTICULTURAL DEPARTMENT, DEREHAM. (London Depot:—17, Broad Street Place, E.C.).

NOTES ON SPECIAL OFFER.—The Asters we are offering this week are splendid plants, well hardened, and ready for immediate bedding. Asters like abundance of moisture, so if planted in a damp situation they thrive much more luxuriantly. Plant them at distances of nine inches apart.



LEAVES FROM A NATURALIST'S NOTE BOOK.

BIRDS' VORACIOUS APPETITES.

BY THE REV. THEODORE WOOD, F.E.S.

WITH the exception, perhaps, of such insects as the dragon-fly, whose voracity is almost beyond the bounds of belief, there are no creatures with appetites so enormous, in proportion to their size, as birds. I have lately pointed this out with reference to the robin. Since doing so, however, I have come across an authentic record of the contents of the crops of three wood-pigeons, which were shot just after they had been feeding. The first of these birds had contrived to swallow eleven acorns and 151 ivy berries. The second had disposed of nineteen acorns (of which, however, the majority were small), and 148 ivy berries. And the third had done even better, for it had stuffed itself out with three large acorns and no less than 467 ivy berries! It is not surprising that the crop of this last bird burst when it fell to the ground. Now, I suppose that a wood-pigeon's body bears about the same proportion to the body of a man as an ivy-berry bears to a ribstone pippin. Imagine a man of average stature dining upon 467 ribstone pippins and, say, three good-sized cocoa-nuts! Truly; the digestion of a wood-pigeon must be a most wonderful thing, and one can well understand that not even the much-abused sparrow is a greater foe to the farmer.

Personally, I used at one time to be a staunch champion of the sparrow; and though I am not quite so enthusiastic in supporting him as I was, I still think that there is a good deal to be said in his favour. At any rate, the fact that he brings up three broods of little ones at least in the course of each year, and feeds them entirely with insects and grubs, a large proportion of which are highly injurious, must be accounted to him for righteousness. And a good deal of the mischief which has been attributed to him is no mischief at all, but just the very reverse. I have seen him accused, for instance, of damaging seedling peas, by chipping out pieces of the young leaves. Now this damage is done, not by the sparrow, but by the little greyish-brown *Sitones* weevils, which nibble the edges of the leaves in a manner highly suggestive of the work of a bird's beak. Light a bull's eye lantern, and examine a row of young peas on any warm evening in May or early June, and you will see these weevils at work—half-a-dozen of them, sometimes, to a single leaf. They will often strip every leaf of every plant in the entire row to the very mid-rib. And the sparrow gets the credit of the mischief. Yet when I killed six sparrows which had been at work among my growing peas, and opened their crops, I found that in five cases out of the six they were stuffed, not with bits of pea-leaf, but

with *Sitones* weevils. They had been destroying the real destroyers, which that year were unusually plentiful. More than that, in the little village in which I then lived, my garden was the only one in which sparrows were encouraged; and it was also the only one which could boast of a decent crop of peas.

I admit, however, that I am not so warm a supporter of the sparrow as I was. But that is, because the sparrow has deteriorated in character. He has succumbed to the temptation which besets all classes—even in far higher ranks of being—which find themselves in an overwhelming majority, and has taken to bullying birds weaker and less numerous than himself. The rights of the minority, to him, are absolutely non-existent. And he has also taken to indulging in mischief pure and simple. You may see a sparrow working down a row of crocuses, picking off blossom about blossom, and laying them upon the ground. He is not looking for insects, which do not inhabit crocuses. He is not satisfying a taste for saffron. He is simply rioting in destruction purely for the love of destruction. This kind of thing sets gardeners against him. Yet he never used to do it. And although there are sparrow clubs in various parts of the country which have almost exterminated sparrows throughout the districts in which they work, it must be admitted, I think, that the results which were freely prophesied do not seem to have followed.

Whether rooks are as mischievous as they are supposed to be is a different question altogether. It is true, no doubt, that they steal growing potatoes, and also that they uproot a good deal of growing corn. And, sometimes, they do a certain amount of damage to stacks, not only by devouring the grain, but also by making holes in the tops, and so letting in the rain. But then it is also true that a very large proportion of the corn which rooks destroy is pulled out of the ground for the sole purpose of unearthing grubs which were feeding on the roots, and which, if allowed to remain, would have killed, not only those particular plants which the birds pulled up, but a great many other plants as well. A cockchafer grub, for example, will work its way underground along a whole row of lettuces, or turnips, and destroy every plant in the row. And wireworms will do exactly the same thing in a corn-field. So the recently-published results of Dr. Hollrung's researches in Germany are especially interesting. During eleven consecutive years—1895-1905—he examined the contents of the crops of no fewer than 4,030 rooks; and while he debits the birds with the destruction of 39,824 grains of sprouted

corn and 645 of sprouted, together with the consumption, in whole or in part, of 587 potatoes, he places on the credit side of the account the slaughter of 2,222 cockchafers, 2,264 cockchafer grubs, 1,589 wire-worms, and 2,307 of the "skipjack" beetles which give birth to them, 14,710 weevils, 3,411 "leather-jackets," or grubs of the daddy-long-legs, and 1,717 of the smaller chafers. Now, cockchafer grubs and wire-worms live, on an average, three years underground, and during almost the whole of that time they are doing constant mischief. "Leather-jackets" are sometimes so troublesome that they will absolutely destroy almost the whole of the pasture in a meadow. And though the farmer does see the damage which is done by the rooks themselves, he does not see the damage which they have prevented the insects from doing. So he persecutes the rooks. But if a man saves me from spending five pounds, he is practically putting five pounds into my pocket. Even if he involves me in the expenditure of thirty shillings in saving it, he is still enriching me to the extent of £3 10s. And it is scarcely good policy to deprive myself of his services because I object to laying out the thirty shillings.

So it is, too, with the birds which inhabit our gardens. Titmice peck holes in the stems of pears; but then they busy themselves for about fifty out of the fifty-two weeks in the year in devouring insects, many of them, such as aphides, of the most mischievous character. Thrushes steal strawberries, and raspberries, and gooseberries; but then they destroy snails literally in myriads. Blackbirds help themselves liberally to pretty well any ripe fruit that they can get at; and starlings will sometimes strip every cherry off a tree; but then blackbirds feed their young something like one hundred and fifty times a day with the grubs of insects, and starlings alone preserve our lawns from destruction by "leather-jackets" and wire-worms.

Before we destroy a bird the balance between the good and the harm which it does ought to be most carefully struck, lest, in the endeavour to save the expenditure of the thirty shillings, we lose the profit of the £3 10s.

Photography.

SUBJECT FOR MAY :—*Portraiture, Groups and Figure Studies.*

CLASS I.—Open to holders of **HOBBIES** Certificates of Merit of the **SECOND** Grade.

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Past Prize Winners and Holders of **HOBBIES** First Grade Certificates are not eligible.

Three Prizes will be awarded in each Class :—**FIRST**, 10s. 6d.; **SECOND**, 7s. 6d.; **THIRD**, Five Shillings. Certificates may also be awarded.

Three Prints are to be sent in. These must be mounted on card mounts, and the title of the photograph and name and address of sender must be legibly written on the back. In **CLASS I.** the number of **HOBBIES** in which the award was published must also be given. (This appears at the foot of the Certificate). No print will be eligible that has been entered in other **HOBBIES** competitions. Photographs cannot be returned, and the Editor reserves the right to reproduce any of those received in **HOBBIES**.

Photographs must be received not later than May 31st, addressed :—Photographic Competition: Editor **HOBBIES**, 12, Paternoster Square, London, E.C.

The County of London covers 75,442 acres; but the London police area is 443,421 acres.

To Keep Furs Free from Moths.

THERE are some seasons in which moths are more troublesome than in others, but in this matter it is well never to relax vigilance; but to take the same precautions regularly every spring when furs and woollen garments are to be laid aside. Those housekeepers with whom expense is no object invest in a cedar-wood chest as a store for their winter clothes, but where this is unobtainable, an excellent substitute may be made of an ordinary wooden packing case. This must be thoroughly lined with tar-paper which is sold at a small cost in conveniently-sized sheets. Every care must be taken to gum the paper over all the cracks and crannies in the wood, indeed it is a good plan to use strips of the material for this purpose quite apart from the lining itself.

The lining should not only cover the sides and the bottom, but should be arranged to form four flaps which may fold well over the top and so act as a further protection. Any light-coloured article of clothing or delicate furs should never be allowed to come into direct contact with the tar-paper. Before being stowed away the clothes should be well shaken, or beaten out-of-doors on a dry day, then folded carefully and wrapped up separately in a sheet of unbleached calico, or an old bed-sheet, or even of pale-coloured sateen or cretonne. The parcel should be made of a size that will fit conveniently into the wooden case. It is as well to label the packets if several are made so that when any particular garment is wanted it can be found without the trouble of undoing several parcels. It is said that moths have an invincible hatred of newspaper. Nothing is easier than to pack winter clothes first in thin wrappers to protect them from the black of the printers' ink and then to encase them in two or three old newspapers with care not to leave any cracks through which the enemies may creep.

Life of Wooden Poles.

THE German Postal and Telegraph Department has recently published statistics collected during the period of 52 years on the life of wooden posts impregnated with different preservative substances. The number of posts under observation amounts to nearly 3,000,000 and the following are the average results obtained :

Poles Impregnated with—	Length of Life.
Sulphate of copper	11·7 years
Corrosive sublimate	13·7 years
Creosote	20·6 years
Unimpregnated	7·7 years

The manner of preparing the poles has been improved from time to time, and this is clearly shown in a further table giving the average length of life of the poles under different methods of treatment with each preservative at different periods. For example, in 1883, with sulphate of copper the average life was 9·4 years, while in 1903 the method of treatment had been improved so that an average life of 13·3 years could be obtained.

Of our population, the working classes form sixty-nine per cent., the middle classes twenty-eight per cent., and the upper classes three per cent.



Varieties of the Virgin Islands.

THE Virgin Islands, forming part of the important West Indian group known as the Leeward Islands, are not entirely British, several of the smaller islands being dependencies of Denmark. Of the British islands the largest are Tortola, Anegada, and Virgin Gorda; but the total area of the whole is a mere 58 square miles, while the population is less than 6,000 souls. Quite an insignificant corner of the world, you see; yet in our catalogues and albums the postal issues of the Virgin Islands make a brave and an interesting show.

Those of the islands which owe allegiance to the British flag came into our possession in 1666, and exactly two hundred years later the first Virgin Islands postage stamps made their appearance. These quaint old stamps of 1866, with their crude design depicting the virgin and eleven lamps, were roughly produced by lithographic process, the printing being on white wove paper and the perforation 12.

The 1d. stamp is to be found in a number of shades of green; it has been found with compound perforation 12 by 15, and also imperforate, and there is a variety of each stamp showing a distinct yellowish paper, which is described in some of the handbooks as a toned paper.

The 6d. stamp varies a little in shade. There is an interesting variety showing a larger sized "V" in the word "Virgin."

In 1867 a shilling stamp appeared. Of this three very pronounced varieties are to be looked for.

Variety I. shows the outer framing of the stamp made up of two thin lines. Size of the stamp, 21 by 27½ millimetres.

Variety II. shows these two outer lines joined, forming one thick line. Size as in Variety I.

Variety III. has the outer border of the stamp printed in red. Size of the stamp, 24 by 30 millimetres.

Now these varieties have to be considered in relation to a number of varieties of paper. All the stamps are perforated 15. On the white wove paper all three varieties are to be found; on the very scarce bluish wove paper only Varieties I. and II. are believed to exist, and on the yellowish paper, now frequently described as "toned" paper, it is possible to find Varieties II. and III. We should add here that later supplies of the 1d. and 6d. stamps of 1866 are to be found perforated 15.

Perhaps the most curious variety yet discovered is the specimen of this stamp without the central figure, reported from America some years

ago. One finds no mention of this error in the leading catalogues, but it is one which may easily have occurred, the stamp being bi-coloured and therefore necessitating two distinct operations in printing.

Most interesting of these early Virgin Islands for its varieties of paper is the 4d. red, or red-brown, stamp. This is found, firstly, on a pale rose paper, and, secondly, on a flesh-coloured paper; and it is by no means an easy matter to distinguish between the two varieties. If one's own specimen of the stamp is in question one is very apt to pronounce it the pale rose variety of paper, since that is rather rarer than the flesh-coloured shade, and in such cases the wish is too often the father of the thought.

Up to the year 1879 the stamps of the Virgin Islands were lithographed and manufactured by Messrs. Nissen and Park, of London, but in the year named the contract was transferred to Messrs. De La Rue and Co. Having no new design ready the latter firm printed off a further supply of the 1d. stamp in the existing style; but their printing may be readily distinguished from the work of their predecessors by the presence of the "crown and 'C.C.'" watermark, all the stamps supplied by Messrs. Nissen and Park having been unwatermarked.

In 1880 began the issue of stamps of the usual De La Rue "stock design," with the usual head of Queen Victoria to left; the usual name of colony at top and value at foot, and the usual "perforation 14." Stamps of 1d. and 2½d. were followed (in 1883) by a halfpenny value, all with the "C.C." watermark. Then during 1883-84 came the same set of three with "crown and 'C.A.'" watermark.

This, in the case of many another colony, would have the end of the story from the standpoint of philatelic interest, but in the years 1887-89 there was a recrudescence of the quaint old stamps of 1866-67, but printed on paper with the "C.A." watermark and perforated 14. Quite a number of shades of colour exist and as these are the only varieties to look for it may be well to list the principal colour varieties so far recorded:—

- 1d., rose, rose-red, carmine.
- 4d., orange-red, brown-red, pale brown-red.
- 6d., lilac, deep lilac.
- 1s., brown, pale brown, black brown.



The fourpence value with the "C.A." watermark has been found imperforate.

In 1888 there was a provisional stamp—the only one to be laid to the charge of the Virgin Islands Government. The ls. carmine and black (Variety III.) was overprinted with a very bold violet surcharge, "4d." There is a variety showing a double impression of the overprint.

Much to the disgust of the people of the Leeward Islands the separate issues for Antigua, Dominica, Montserrat, Nevis, St. Christopher and the Virgins, were "called in" in 1889, and the order went forth that there should be one common issue for the whole of the Leeward group. Consequently 1890 brought us a De La Rue issue of ½d. to 5s. lettered "Leeward Islands."

Against this utter sinking of their identity and individuality the little Virgin Islands were the first to rebel.

In 1899—years in advance of the other members of the Leeward Archipelago—the Virgin Islands again issued stamps of their own, the design being a newer and more artistic representation of the Virgin. The values are from ½d. to 5s., and in several instances there are varieties of colour to be looked for:—

- ½d., yellow green; pale yellow green.
- 1d., brick red; red.
- 2½d., ultramarine, "light" to "deep."
- 4d., red-brown; chocolate.
- 6d., dark violet.
- 7d., dark green.
- 1s., yellow ochre.
- 5s., slate blue; Prussian blue.

We must glance at a few varieties here—trivial, perhaps, but still interesting—before closing this short paper on the Virgin Islands.

In the ½d. stamp one may find two varieties (both due to broken lettering) in the words denoting value. In the one case the word "Penny" is spelt "PFNNY," with "F" instead of "E," and in the other case the "F" of "HALF" is minus its middle stroke, looking like the letter "L" turned upside down.

Another error of lettering occurs in the 4d. stamp, where the word "Pence" is spelt "PENCf," with "f" as the final letter.

To-day the stamps current in the Virgin Islands are of the ordinary King's Head pattern.

PHILATELIC NOTES OF THE WEEK.

Anent our references to Colonial stamps franking letters from one place to another in the United Kingdom, a reader at Gillingham, Kent, tells us that he has in his possession a ½ anna Indian post card (1871 issue) which passed through the post from Dawlish, Devonshire, to London on May 10th, 1903.

Another reader, Mr. C. E. Masters, who recently undertook to compile a list of "Nondescript Stamps," now informs us that he is "pushing on with the work." We wish him all success. It would be better for our hobby, and, indeed, for all hobbies if there were more collectors like Mr. Masters—willing to bestir themselves for the general good. After all there is something that every private philatelist could tell us—and he would!

We have several more "promises to join" the Stamp Collectors' League, the latest names being E.S.K. (Burton-on-Trent), W.P. (Liverpool), and H.J.C. (Diss). It is understood in all cases that a promise to join the new League, if and when

formed, carries no absolute liability, as the rules, &c., will be submitted to every intending member before he definitely "signs on." Furthermore these promises to support the movement are in each case given on the strict understanding that the subscription to the projected Society shall not exceed the sum of two shillings per annum, or roughly, one halfpenny per week.

"What is your 'Stamp Collectors' League' going to do?" ask several correspondents, who have evidently missed our earlier articles on the subject. The League, if formed, will fight strenuously for good Philately and for the advancement of Stamp Collecting throughout the English-speaking world. It will facilitate intercourse, and provide opportunities for the exchange and sale of duplicate stamps. It will have a library of good philatelic literature. It will circulate prompt warnings as to forgeries and other fraudulent schemes. Wherever and whenever possible it will hold meetings with a view to pleasant intercourse and the interchange of knowledge and ideas. How all this is to be done on a subscription not exceeding two shillings a year is a big problem to solve, but we are fairly confident of our ability to solve it. Our great need at present is the support of our stamp-loving readers expressed in the form of a tentative and conditional promise to join the projected League.

On Hanging Curtains.

THE good appearance of a house depends in a large measure on the way in which the curtains are hung. No room looks well in which the draperies hang from rings and hooks set several inches apart and forming loose packets for collecting the dust between them. If the rod is slender, it may be passed through a hem made of the right width to hold it. There is then no fear that the curtains will sag and look untidy. This is for ornamental draperies only. If the curtains have to be drawn across the window rings must perforce be used and they must be of a size that will slip easily along the pole. They must be sewn on close together with never a wider space than two inches left between them. The same remark applies equally well to the hooks that sometimes are employed in connection with the rings that hang on a rod instead of being sewn to the curtain itself.

When it is necessary to take the rings off when the material goes to the wash, it is a good plan to make up the curtains with a heading in the usual way. A flat band of tape is generally stitched along the base of this upstanding part. Before mounting the tape a series of buttonholes should be made in it about an inch and a-half, or two inches, apart. After this is stitched along both edges to the curtain, a bodkin threaded with tape is run in at one end as far as the first buttonhole. The tape is brought out at the hole, passed through a ring, then into the casing to the next hole, out again, through another ring, and so on to the end. At both ends it is securely fixed, and, if pulled taut into position, it will hold the rings closely and firmly against the curtain.

Law terms in England and Ireland are Hilary, Easter, Trinity and Michaelmas; in Scotland they are Candlemas, Whitsun, Lammas, and Martinmas.

HOBBIES.

Chess.

MAY 11, 1907.

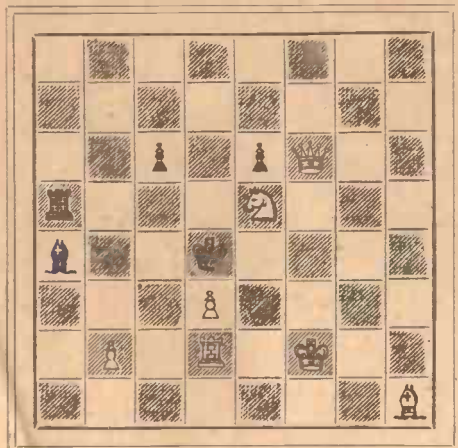
TO CORRESPONDENTS.

All communications will be answered in HOBBIES. Readers desiring replies through the post should enclose stamped envelopes.

G. W. CHANDLER.—Thanks for letter and problems.

PROBLEM.

No. 265.—By G. W. CHANDLER, Southsea.
Black.—Five pieces.



White.—Seven pieces.

White mates in two moves.

Solutions should be received by Wednesday following issue.

SOLUTIONS.

No. 259.—By HOWARD LAWTON.

1 K—Q1.

1 P—Kt6, 2 Kt×P P queens, 3 Kt—K2 ch
K—R7, 4 Kt—Kt4 mate.

Three points.

Solvers' comments: "Very puzzling; a model mate." "Little fish are sweet, but a large number go to make a meal." "A smart problem." "Not quite so sweet as it looks."

No. 260.—By E. EGINTON.

1 Q—R3.

If 1 K—B4 or 5 2 Kt(Kt5)K4 mate.
If 1 K—B3 2 Kt(B5)K4 mate.
If 1 K—B3 2 Kt—R6 mate.
If 1 K—Q4 2 Kt—Kt3 mate.
If 1 K—Q5 2 Kt—B3 mate.

One points.

Comments: "An exceptionally good twoer." "Very neat, but lacking in variation." "Well repays the trouble of solving." "Easy key; Black would have resigned long ago" (the composer).

Mr. Lawton, without questioning Mr. Eginton's originality, draws attention to the similarity of the latter's composition to one by Mr. J. Paul Taylor in the "Chess Bouquet." Position as follows: 8/1 Q 1 B 3 K / 2 P 1 P 2 B / R 1 Kt 1 k 1 Kt R / 2 p 5 / 7 P / 6 P 1 / 8/. —Mate in two.

Solvers' list:—H. Ayre 8, G. C. Baxter 58, C. Blackwell 42, L. C. Brown 55, A. Bernstein 71, H. W. Bick 69, Horace Brown 7, L. Costello 1, G. W. Chandler 71, Harry Driver 61, W. H. Dawson 61, E. Eginton 72, H. Elvin 2, S. D. Fresco 72, J. Goode 43*, H. Goodwin 61, Fred. Holmes 25, J. Howell 36, H. Horsley 24, R. Hurst 21, F. Ibbs 15, "K" 37, H. Lawton 68, G. Moore 30, E. Perrin 62, G. Pinder 3, J. Pettit 3, E. Roome 57, Jos. Rust 61, A. Sanders 70, R. G. Thompson 71, J. D. Tucker 55, E. Wasserman 26, S. Wiseman 3, H. Zaak 63.

RUY LOPEZ.

The appended game has a neat termination:—

White.	Black.	White.	Black.
1 P—K4	P—K4	14 B×P	Q—Q4 (D)
2 Kt—KB3	Kt—QB3	15 R—B2	P×Kt
3 B—Kt5	Kt—B3	16 P×Kt	B×P
4 Castles	P—QR3	17 P—QKt4 ? (E)	Q×QP
5 B—R4	P—QKt3 (A)	18 Q—K5	Q—R5 (F)
6 P—B3	B—Kt2	19 Q—K2	Kt—K1
7 B—Kt3 ? (B)	B—K2	20 Q—Q3	R—K8 ch
8 Kt—Kt5	Castles	21 R—B1	B—Q5 ch
9 P—Q4	P—Q3	22 K—R1	B×P ch
10 P—KB4	Kt—QR4 (C)	23 K×B	Q—Kt5 ch
11 B—B2	P×QP	24 K—R1 (e)	Q—Kt8 ch
12 P×P	P—K3	25 B×Q	R×R mate
13 P—K5	P×P		

NOTES.

(A) The Fianchetto introduced here is not usual, and not to be commended; B—K2 is safer.

(B) Loss of time. H. threatens of course Kt—Kt5, but the developing move P—Q4 at once is correct.

(C) Unmasking the B at K12, which becomes very useful, and delaying the opening of White's Bishop's file.

(D) Black has now a good game. White should now retreat the Kt in preference to the text move.

(E) In the nature of a trap.

(F) For now if Black tries the KR to save the mate, White might play B—K2, and if Q×B, B—R6 ch, winning the Q. These manoeuvres are, however, unsound, and Black has a winning attack.

(G) If Q—Kt3, R—K7 ch. K—R1, Q×Q, P×Q, B×R, etc.

Words of Wisdom.

It is not so much the being exempt from faults as of having overcome them, that is an advantage to us.—Alexander Pope.

Genius is inconsiderate, self-relying, and, like unconscious beauty, without any intention to please.—Isaac Mayer Wise.

A friend that you have to buy won't be worth what you pay for him, no matter what that may be.—George D. Prentice.

Friendship is a calm and sedate affection, conducted by reason and cemented by habit; springing from long acquaintance and mutual obligations, without jealousies or fears, and without those feverish fits of heat and cold, which cause such an agreeable torment in the amorous passion.—Hume.

HOBBIES.

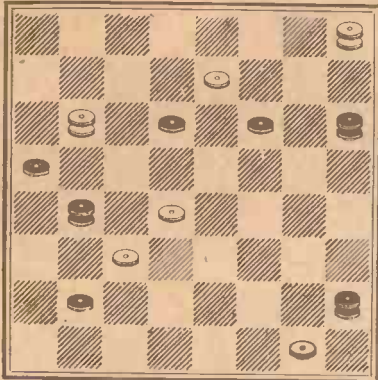
Draughts.

Contributions, &c., must be addressed:—"Draughts Editor, HOBBIES, 12, Paternoster Square, London, E.C." Replies cannot appear under three weeks.—May 11th, 1907.

PROBLEMS.

No. 914.—By P. O'DONOGHUE, Cork.

BLACK.

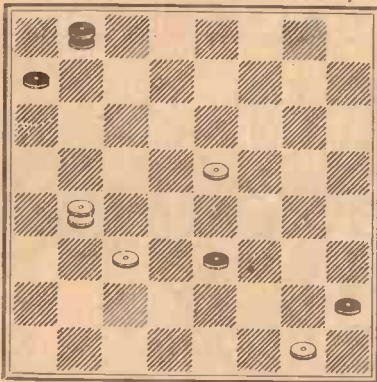


WHITE.

White to play and win.

No. 915.—By S. E. COUSINS, Northampton.

BLACK.



WHITE.

White to play and win.

SOLUTIONS.

No. 912.—By J. GEORGE.

Black: 1, 3, 5, 12, 25. Kings: 26, 27, 29.
White: 7, 10, 11, 14, 16, 19, 23. King: 9.

7	2	10	6	2	6	10	15	19	24
27-18		1-17		25-22		9-13		17-22	
19	15	9	14	6	10	15	19	24	28
12-19		3-10		22-26		26-31		22-25	
11	7	14	14	14	18	18	23	23	27
18-11		29-25		5-9		13-17		W. wins	

No. 913.—By FRED. HIGGINSON.

Black: 14, 21, 23. Kings: 7, 18, 24, 29.
White: 16, 22, 32. Kings: 8, 15, 30.

15	19	16	11	17	26	30	26	31	24
24-15		7-16		29-25		A-22-18		21-25	
8	12	12	17	26	31	26	23	24	19
18-25		25-22		25-22		18-27		W. wins	

A.-22-25, 31-27, 25-29, 27-23, 29-25, 23-18, &c., White wins.

GAMES.

Mr. J. George, Cardiff, contributes the two games following, played recently at Cardiff between himself and Mr. Brighton, of Glasgow:—

OPENING.—"KELSO" (10-15, 22-18).

Black: GEORGE.

White: BRIGHTON.

10-15	23	18	10-15	26	23	11-15	
A-22	18	8-11.	19	10	10-14	12	8
15-22	27	23	6-15	22	18	16-18	
25	18	5-9	23	19	18-17	8	8
B-9-13	(1)-32	27	1-6	C-31	26	18-27	
29	25	6-10	19	10	9-13	3	7
11-15	24	19	7-23	18	9	14-18	
18	11	15-24	26	19	5-14	21	14
8-15	28	19	3-7	24	20	27-31	
25	22	2-6	30	26	12-16	Drawn	
4-8	27	24	7-10	19	12		

A.—A favourable line for White.

B.—11-15 is also good.

C.—Mr. George remarks that 24-20, followed by 9-13, &c., only draws. We think that White should have won at this stage (c) by the following variation:—

19	15	24	19	7	2	18	9	6	9
11-16	20-24	28-32	5-14	W. wins					
15	10	10	7	2	6	D-19	15		
16-20	24-23	9-13	17-22						

D.—If 6-9, Black replies 32-28, 9-18, 28-24, and comes off best.

VARIAION! (1).

In the next game Mr. George (White) varied at this point, as follows:—

24	19	13-22	24	20	7-11	7	3
15-24	26	17	18-27	6	2	27-24	
28	19	2-6	32	23	22-26	17	14
6-10	18	14	E-6-9	21	17	24-15	
22	17	1-5	23	18	26-31	3	8
13-22	31	27	9-13	2	7	12-16	
26	17	11-15	18	15	8-10	14	10
9-13	27	24	13-22	14	7	Drawn	
30	26	15-18	15	6	31-27		

E.—If 3-8, 23-18, 8-11, 17-13, 10-17, 21-14, 6-10, 13-9, 10-17, 9-6, 7-10, 6-2, &c., drawn.

TO CORRESPONDENTS.

J. K. BONDIER.—Your "stroke" of April 8th is scarcely of sufficient difficulty.

J. EDEK.—Try again. The position submitted is too improvable; also permits of a win by 9-5, 15-22, 24-6.

A. BEEASDALE.—The position you forward has been previously published, and is well-known.

J. LONDON.—Your problem is spoiled by having two "keys," viz., 12-8 or 26-23. Try and alter this.

B. M. HARKNESS.—Your solution to 906-7 are correct.

J. GEORGE.—Thank for the interesting games. Problems entered in competition for the monthly prizes.

MESSRS. BROOKS have recently issued an Art Saddle Manual, a choice little book of paramount interest to all cyclists. All those in search of saddle-comfort, or having under consideration the purchase of a new mount, cannot do better than write at once to Messrs. J. B. Brooks and Co., of Birmingham, for a free post-paid copy of this little book of saddle-wisdom.

Puzzles.

174.—BURIED QUOTATION PUZZLE.

L	L	T	A	L	I	Y
U	O	U	H	O	D	A
C	N	U	O	D	A	E
W	O	O	Y	D	N	B
N	O	N	A	Y	O	I
Y	T	D	D	O	U	T
O	U	P	W	O	N	T
U	R	B	E	S	T	A

Starting from one of the two letters in the central square, and moving one square at a time, but not diagonally, trace out a quotation from Shakespeare.

175.—DOUBLE ACROSTIC.

My initial letters, read downwards, and my finals, read upwards, spell the names of two English counties.

CROSS WORDS.

1. The construction of sentences.
2. An imperial order having the force of law.
3. To set right.
4. To put down.
5. A large Australian bird.
6. A disease of the Antilles.

176.—CURTAILMENT.

I am a word of seven letters meaning one of the churches at Rome with a palace annexed to it.

Curtail me and I become sides.

Cut off my tail again and I am now not so early as.

Again curtail me and I become behind time.

Once more cut off my tail and I am now an Indian pillar with inscriptions.

Curtail me yet again and I become an interjection.

Finally cut off my tail for the last time and I am now a consonant.

What am I?

Answers to Last Week's Puzzles.

170.—CHARADE.

HOME. AGE.
HOMAGE.

171.—LITERARY PUZZLE.

Rider Haggard.

* "KING SOLOMON'S MINE."

172.—DATE PUZZLE.

1 2 4 8.

173.—WORD SQUARE.

D U P E
U P O N
P O N D
E N D S

Home Pets Monthly Competition.

WE offer a monthly prize of 5s. to the reader of **HOBBIES** who sends us the most interesting and practical paragraph during May upon his favourite domestic animals or birds.

The paragraph sent in each month which, in the opinion of the Editor, is most useful to the majority of his readers, will be awarded the prize. Address all communications to the Secretary, Home Pets Monthly Competition, c/o The Editor of **HOBBIES**, 12, Paternoster Square, London, E.C.

RABBITS should be kept dry and warm. Their best food is celery, parsley, and carrots; but they will eat almost any kind of vegetable, especially dandelion and milk-thistle. In spring give them some tares. A little bran, or any kind of grain occasionally is beneficial, as too much green food is very hurtful. Care must be taken not to overfeed them. When fed upon dry food a little skim milk is good for them.—(E.H.P.)

FANCY RATS.—Fresh bread and milk and oats should form the staple food of these pets, with occasionally a little bit of cheese or meat for a tit-bit. Never leave sour food in the dishes, but remove what remains over after their meals. Cover the floor of the cage with clean pine saw-dust and clean out daily, using Condy's fluid, or good soap about once a month. Fancy rats breed freely, and if a good strain is started a litter of, say, 10 or 11, selling at 6d. and 1s. each, should be obtained. Do not look at the youngsters for 3 days, and take special care about the cleanliness of feeding at this time. Old newspapers torn into small pieces and also rags and hay make the best nests, and if put in the lower part of the cage, it is amusing to see the doe take this material "upstairs" and make her nest with as much precision and care as any human builder.—(J. C. B.)

ONE of the greatest drug stores in the world exists in Moscow, and is 203 years old. Its title is the Old Nikolska Pharmacy, and since 1833 it has been in the family of the present proprietors. It is a building of imposing dimensions, with many departments, including one of professional education for the staff, which numbers 700 persons. They make up about 2,000 prescriptions a day, and so perfect is the organisation that an error is seldom recorded.

Notices.

Addresses.—All communications should be addressed—**Hobbies Limited**, 12, Paternoster Square, London, E.C.

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Contributions.—While every effort will be made to return unsuitable contributions if stamps for that purpose are sent with them, the Editor does not accept any responsibility for their loss. MSS. and drawings should be sent **FLAT**, not rolled.

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GAMAGES

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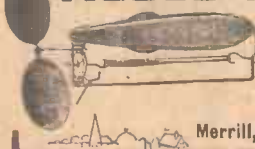
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NOTE.—Advertisements offering Fretwork Designs cannot be accepted for this page.

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