

December 16th, 1942

Price Twopence

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A Novel PISTOL CIGARETTE HOLDER in wood

"O need to be alarmed old scout," you will say, as you pull out the novel cigarette case illustrated. "It is only a wooden model!"

"Gosh, I thought—" and your pal will stop speaking to gaze in wonder as you pull the trigger and open the lid, thus displaying the eight cigarettes the realistic model automatic can hold. It is a real novelry—one you will be proud to own.

If not required as a cigarette case it makes a splendid toy and

could be handed over to a kiddy as such. As you can see the trigger acts as a catch for the lid. There is nothing difficult in the construction or finish. Most automatic pistols are blue-metal finished, so the most natural

and sensible finish for the model is jet black, this being easily obtained by polishing with Hobbies ebony black polish.

Patterns Provided

Full size patterns of the parts are printed on Cover iv of this issue. This will save you much marking out and keep you accurate. Not all pat-





terns are shown, by the way. You will have to take a tracing of one part,

namely, the cover piece as shown by the dotted lines on the pattern of the centre piece. The shape of the cover piece is shown at Fig. 2. You need two covering pieces

You need two covering pieces and two side plates, the former being cut from 3/16in. thick wood and the latter from kin. wood. The centre piece must be cut from kin. wood, including the trigger which, of course, can be cut from scrap pieces.

cut from scrap pieces. As the model is polished ebony black, almost any sort of wood can be used, whether mahogany, walnut, chestnut, whitewood, etc. Even thin boards of deal (removed from an old sweet box and planed smooth) can be used.

We should state at this point that there is no need to "fret" the side plates in the manner shown. The markings could be "fluted" with a carving tool or knife or the parts simply left plain. The actual cutting of the slots necessitates lining the inside of the cigarette chamber and lid portion with thin card.

The card lining protects the

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93

cigarettes and keeps shreds of loose tobacco from gathering in the coat pocket. You will doubtless be wondering why space for eight cigarettes only has been provided. Well, ten means a wider and uglier handle piece, so eight was the limit as space for ordinary size cigaretres. although it may hold ten smaller ones.

The Assembly

When cutting out the centre and cover pieces note where the lid pieces are separated. Keep the lid parts



Fig. 2 -Outline shape of the covering Diece

together as these are assembled independently.

Having cut out the centre part, attach a cover piece to it. A spring is then fitted to the centre part (see side view at Fig. 3), bending it to fit into its saw cut or kerf. The spring is shown actual size on the pattern page ; it is bent from thin springy

brass or from a piece of watch spring or flat-type hair clip.

When fitted, attach the other cover piece and pivot the trigger in position. The spring must push the head of the trigger outwards with sufficient force, otherwise its catch will not engage properly with the lid pin.

Glue the side plates to the work after you have filed and glasspapered the cigarette chamber neat and smooth. Meanwhile glue the lid pieces together in correct formation, i.e., the fin. thick piece being between the two 3 loin. covering pieces, then finally the side plate shapes. The lid is affixed to the "knuckle" of the work with two small roundhead brass screws, based with suitable metal washers.

The lid is attached temporary by the screws so the pin in the lid may be tried, following which the lid screws are withdrawn and the work neatly glasspapered. The "nose" of the pistol is rounded over as shown at Fig. 1, then the " tip " glued on.

A Comfortable Hold

Remove-by filing and glasspapering -the sharp edges from the top of the model and the handle parts. It will be seen that a good kin. angle or bevel is made. This adds to the appearance of the model and gives a more comfortable grip.

The model looks rather thick and heavy in the rough state. The polishing, however, reduces this deceptive appearance. You will understand this better if you compare the view at Fig. 1 with that above it of the finished pistol painted jer black.

Card Lining

If you have slotted the side plate parts, cut thin pieces of card to fit inside the lid and handle sides and then glue in place. It you have fluted the work, it is a good idea to paint the flutes with silver p int after



Fig. 3-Side view showing interior

the work has been ebony polished.

Normally we should have preterred the side plates cut from 1 16in. plywood. This would make the model less thick, but by bevelling and glasspapering the wood neat and smooth, as instructed, much of the thickness is reduced.

When polishing the parts do not apply any polish to the inside of the work. If the wood is of different colours, a coat of thin black polish or spirit stain could be applied.

A Big Ben Model 5ft. 6ins. High !

HERE are some special features about the model shown in the photograph which will be of interest to other readers. It is. of course, a picture of Big Ben made from our Design No. 209 Special, which is, incidentally, still obtainable for 1/7 post free. The model illustrated was made by Mr. H. Bashford of Lynwood Rd., Redhill, Surrey.

Its relative size can be seen in the picture by the comparative illustration of the postcard stood at its base. The Design Sheet, of course, is not for a model of this size, but Mr. Bashford increased all parts so that his clock now stands 5ft, 6ins, high.

Every drawing from the pattern sheet was enlarged by means of pantograph, using ceiling paper for the large outlines needed. At first the one drawn out by Mr. Bashford stood 10ft, high, but this was too much of a good thing, and he reduced it to 5ft. Bins.

The actual fretted portions are

mingled with carved work, but all of it has been done with Hobbies tools-including a 14in. and dials 16in. handframe. The are cut from ivorine and gold decoration has been added ex-actly as in Westminster.

With Chiming Clock

A real clock is also incorporated with the Westminster chimes, which give a realistic finish. Naturally, there was a good deal of work involved in the drawings alone, and these took about three months with the collection of necessary material. The model was the work of the odd times over a period of three years, but the finished result is magnificient and has to be seen to be properly appreciated.

A Book of Viewers

An interesting point is that the clock is left hollow right through and has a 41in, hole in the table below it so as to give an echo to the gong by increasing the vibration caused by the longer passage of air exactly as in an organ pipe.

Bashford Mr. naturally proud of his work, and keeps a book in which all who see it sign their names. It includes that of Mr. G. Touche, the Member of Parliament for the constituency in which he lives.

The worker has been interested in Hobbies ever since he was five vears old, and is still using many of the same tools. Incidentally he made a small model of Big Ben published in 1969.

Mr. Bashford also tells us he is organist at the Northern Hospital, Coulsdon, in which a therapy ward makes use of a large number of Hobbies tools, machines, etc. for the convalescents.



Begin work now to brighten things with these PAPER XMAS LANTERNS

THESE lanterns can be made up quite cheaply from some odd pieces of cardboard and thin coloured paper, the latter still obtainable in some of the stationers' shops and bazaars. We intend in this article to describe the making of simple and artistic lanterns which will be interesting and give pleasure afterwards.

The three lanterns are shown in the combined sketch and the instructions may be taken as applicable to all three.

Draw out the given pattern full size on the card, or if several are to be made, it is advantageous to make a working drawing on paper and trace or prick them off on the card as required. All laps should be made tin. wide. The dotted lines show where the card must be lightly scored with the tip of a sharp penknite to enable it to be bent evenly and neatly for angles, etc.

A Simple Type

The lantern shown as A is the simplest in form, and will rely upon its finish and the kind of coloured paper used for its general appearance. On a piece of card measuring 20ins. long and 6½ ins. wide, set out the four sides and a top and bottom as shown in Fig. 1. Note the dotted lines for bending and the manner of cutting the ends of the turn-up margins ready for gluing to the top and bottom.

Use a sharp knife for clean cutting. The top and the bottom of the lantern are simply plain squares of card, the bottom having an opening cut 3ins. square as shown. The top piece will have a round hole made in



the centre to fit the electric bulb holder.

Glue all the marginal edges firmly to the top and bottom squares and then stick the coloured tissue paper round inside. If desired this tissue paper could be in four pieces measuring about $5\frac{1}{2}$ ins. by $4\frac{1}{2}$ ins. Paste paper also to the underside of the top and bottom squares.

A decorative touch could be given by pasting down shaped corners of different coloured papers as in the illustrations.

Stiffen Corners

If it is found that the finished lantern is at all filmsy (due, perhaps to the card in the first place not being stout enough), then the angles inside could be reinforced either by glued wood angle fillet or by additional strips of card angled-up and glued in.

Wooden beads and paper pom poms give an additional effect to the lanterns. The lanterns may be suspended from the electric flex by means of silk or cord hangers. Or thin wire may be threaded through holes in the top of the lantern and brought up and finished in a ring to be later connected to the flex.

Our second lantern (B) has a shaped semi-pyramid top which adds greatly to the finished lighting effect. The body of this lantern is made exactly like the previous one but it is longer and has two cut-out panels instead of one in each side.

Odd Card

In Fig. 3 we show a good method of using up the odd pieces of card to make stiffeners for the body of the lantern. At C is a plan of an angle piece with two marginal strips for gluing to the sides of the lantern inside. See the details above this plan for method of gluing up.

The dotted lines in C are, of course, to be lightly scored and bent up. In Fig. 4 is given the plan of the card to form the flat top of the lantern. To this piece will later be glued the shaped top shown flat in Fig. 5. Mark out the top A, Fig. 4 as shown, and the interior square B.

This little panel B when cut out will be used again to form the extreme top to the pyramid top. The









Fig. 4 A flat top

95

dotted lines on Fig. 4 show where the body of the lantern comes underneath. The four marginal strips at the top of the body part will be bent inwards and glued to the piece A, then to the edges of this piece the margins



Fig. 6-Cutting the sides E of the shaped top will be glued just as seen in the detail in Fig. 5. The small 3in. square of card cut

from A will be finally glued to the marginal strips D of the shaped top.

The third lantern is shown at C. large sheet of card would be wanted if all four sides were to be cut from one piece. We, therefore, suggest that two pairs of sides be drawn out and cut and afterwards glued up to make the complete body.

In Fig. 6 an outline of the two sides is given, one showing how interior pieces are to be set out, while the other side gives the necessary measurements for drawing the outline.

When one section has been drawn, use this again as the template for pricking off or marking round for the others. A solid bottom 3ins. square will be glued to the strips F after these have been bent inwards.

The top of the lantern is shown in plan in Fig. 7, and it will be noted that a piece of card 10ins. by 93ins. is required for this. Again draw one of the sides to the sizes given and repeat



Fig. 7-The top of the lantern

them as before. Bend the edge strips inwards and glue them to the top strips of the body.

Tinted paper must be stuck over cut-out panels before gluing up.

A fretsaw and a few pieces of wood make a good



ITH abundance of flowers, and limited flower vases, an extra holder or two is welcome. The common glass jam jar makes a convenient receptable, but by no stretch of imagination can it be called artistic.

Here a flower holder to contain, and partially hide, the jam jar will be an asset, and one of simple design is illustrated. Fig. 2 shows the top and bottom of the holder.

It will be seen that no waste of wood occurs as the circle cut out of the top is used as the bottom of the holder. Draw out direct on to the wood. Just strike the circles shown, divide into four and mark out the slots, 3/16in. wide, or whatever the thickness of the fretwood used may be.

Saw out the inner circle on the line, this will cut half-way across the slots, making them \$in. long.

Four side pieces to pattern, Fig. 1, are then cut out. It is a time-saver to cut these out in pairs. Perhaps the best method is to fold a piece of thin white paper double, interleaf with carbon, and then to draw the pattern on

This will give two copies, which can be pasted on the wood. Nail two pieces of wood together, with the pattern on top, and saw out both together.

It is necessary to ensure a tight fit, so cut the slots inside the lines, they can then be eased a little by filing if necessary.

Copying the Design

No difficulty should be experienced in copying the design. First draw a rectangle, 12 ins. wide and 37 ins. long, run a line down the centre and mark out the right-hand piece at the bottom.

The left side piece will be §in. wide, divide this again by a centre line. Strike a half circle, §ins. radius, at the bottom and a quarter circle at the

top, and on a line across the centre between them strike the curve.

Fitting together is a simple 3 % matter, and detail, Fig. 3, shows how to do As before it. mentioned, the

to be glued) should be a close one, then no nailing will be re-quired. If, however, the joints are not particularly good, then a fine fretwork nail in each will be really necessary.

Readers having to buy fretwood panels for making the holders can get a 9ins. by 4ins. panel of 3/16in. thickness which contains enough wood for one holder.

Cut from Panels

A little amendment in the dimensions given will be necessary, and here it is. The outer circle of top, Fig. 2 will be 4ins., not 4§ins. as given, so the extreme tips of the quarter circles on the sides should be neatly rounded off to come level.

Also, as the slots, owing to the reduced width of the ring, will be a trifle too long, make them 1 in. instead of 3 in. This will necessitate cutting the top of each side, which enters the slot, to lin. instead of lin. to suit. This is fairly obvious but might be forgotten.

It will be seen that the sides can be cut from the remainder of the panel with careful planning.

The holder can be left plain, or be varnished, but the finish suggested is enamelling in some pleasing attractive colour.



96

World Radio History



THINGS yo SHOULD KN



At the moment, acting on the advice of the Minister of Fuel and Power given in a speech during the opening of a fuel-saving exhibition at Guildford, Surrey, housewives have put away one 60-watt electric lamp in a drawer so it will never be used during the winter months.

This saves hundreds of units of electricity and many thousands of tons of coal by this simple act alone. That, however, is not enough, and as you might have wondered, much more can be done.

Apart from refraining to use electric light in certain rooms and places, one can easily heat an electric smoothing iron by setting it up on its end in front (and close to) the bars of the kitchen fire-grate, all smoothing being put off until the fire is lit.

No need, either, to use the electric carpet-sweeper on the smaller carpets and mats, which can be easily shaken, Electricalbeaten or brushed. driven fretmachines, moreover, need not be used on small, tedious work while a handframe is handy.

One can save electrical power in every possible way without going to extremes, as the above instances show. But, there is not much benefit if one uses 75-watt and 100-watt electric lamps in all rooms and places, for it is in the reduced wattage of these that there is the greatest saving throughout the winter. Think of the blackout-the dimmer and safer light, by using low wattage lamps ?

There must be hundreds of 75-watt and 100-watt lamps that, because of their brilliance, are encased in bakelite A.R.P. shades !

That is sheer waste of good light and money-and more due to ignorance than anything else, for many people (housewives in particular) do not know what "watts" are; they simply know that some lamps seem to burn brighter than others, and naturally, they prefer the better light, at the same time wondering why the electric light bill is so heavy.

When it is understood that one unit of electricity is the equivalent of 1,000-watt hours (a kilowatt-hour), it is easy to calculate how much consumption (and expense) can be saved.

For example, a 100-watt lamp will use one unit in 10 hours, whilst a 50-watt lamp will consume one unit in 20 hours. A 75-watt lamp consumes one unit in 15 hours.

Assuming that a workshop burns ten 100-watt lamps, one unit will be used per hour. Similarly, a 1,000-watt device or appliance will work 1 hour on a unit. Thus, by reducing the wattage of lamps, using 50-watt and 60-watt ones in the odd, bleak, out-of-the-way spots of the house, workshop or factory, with 75-watt and 100-watt lamps where abso-lutely essential and vital, there is a considerable saving in electrical power and, of course, expenditure which is a good incentive, apart from helping the war effort and preventing fuel rationing.

There is another side to this saving of electric power. Never use cheap, foreign-made lamps. The wattage stated on some of these is often, under test, not true.

A 50-watt lamp may be, in reality, approximately a 60-watt one or the other way about. The element wire, too, may be inferior stuff and easily fused. British-made, gas-filled lamps always give the best illumination and last longest.

OUSEHOLD utensils, such as buckets, baths and basins, are too scarce (and expensive) for discarding once they spring a leak. If you cannot mend the articles by means of solder or the usual repair outfits, owing to lack of one or the other, try using odds and ends.

For example, if the hole in the bottom of the bucket or bath or basin is quite small, simply drill an in. hole in it. Now, cut two lin. diam. discs from a piece of tin, such as a boot polish tin lid, and drill kin. holes in the centres. Cut an lin. disc from a piece of lino material and drill or pierce an lin. hole in it.

Find a small bolt and nut, possibly a Meccano bolt and nut, the length of the former being about §in. Insert one tin disc over the bolt up to the head then the lino disc, face side downwards. Push the bolt through the hole in the leaking article, from the inside, then slip on the other tin disc and screw the nut on tightly. If the bolt projects, file it flush with the nut.

It is really surprising what a lot of odd jobs like this can usually be undertaken merely with odds and ends of bits and pieces.

Solutions to Last Week's Puzzles

Magic Poser

There are just 30 ways as shown :	
4 ways across	4
4 ,, down	4
2 ,, diagonally	2
7 sub squares of 4 numbers	
like 14, 8, 9, 3	7
6 sets of pairs of 17 like	
8, 9, 15, 2	6
7 zig-zag sets as shown below	7
5 5	
	30
3, 15, 12, 4 8, 16, 6, 4 3, 5, 16,	10
5, 13, 10, 6 2, 12, 4, 16	
15, 9, 4,6 9, 5,13, 7	
, , , , , ,	

Riddles

- (a) Because it is NERO (near O).
- (b) One is a conundrum—the other a bun under'em.
- (c) EPIGRAM.

A Gress Hunt

Progress, egress, ogress, aggress, tigress, negress, ironmongress, digress. transgress, ingress, congress, retrogress, regress. Just 13.

More Dissection

Put a semicircle on the side A B as shown and put a chord

A $C = \frac{A \vec{B}}{2}$ in this circle.

Through the middle points of the



sides of the square draw parallels to the sides of this triangle. Then the five pieces fulfil the conditions.

Eating By Alphabet

A past— $y = A PAST\Upsilon$.

Arranging Hurdles

Here is the method. Quite simple when you know how.



Here are some practical hints and tips on **MODERN WOOD FINISHES**

OOD finishing is a stumbling block to most woodworkers-Unless experienced, the finish—usually done with french polish—is rather amateurish. Quite often the colouring is too dark, thus hiding the natural beauty and grain of the wood.

The wise woodworker is the fellow who after a lot of painstaking work in selecting the right kind of wood, getting the grains nicely matched, with all joints and mitres neatly executed and everything planed, scraped and smoothed down to a gloss with glasspaper, hands the job of finishing over to a professional french polisher who by dent of long experience knows exactly how to bring out the attractive grain and colour of the wood.

Why always polish an article, however ? There are very simple modern methods worth trying, each designed to bring out the character of the wood. They do not tend to spoil or disguise the natural beauties of the timber.

Mahogany

When finally glasspapering this wood, omit to use the fine No. 2 grade. Obtain sixpence worth of bichromate of potash, mix it thoroughly in half a pint of boiling water, then apply with a soft brush.

When dry, mix raw linseed oil and turpentine together in equal parts. Apply this, then wipe off. Leave the work in a warm room for a few days to dry out properly.

Meanwhile prepare some "wet" wax. Buy one shillings worth of real beeswax and half a pint of turpentine. Cut the wax into small pieces and set in a tin, then add the turpentine, plus a small piece of resin. Melt the lot slowly over a gas-ring, stirring it, then allow it to get cold.

allow it to get cold. The wet wax is applied to the mahogany by rubbing it on lightly. Leave on for an hour or thereabouts, then polish with a piece of coarse canvas. All this results in a delightful Chippendale tone, minus the common, reddish mahogany colour.

Red Deal

When planed smooth, rub this wood with medium No. 2 glasspaper, then with grades of fine No. $1\frac{1}{2}$, 1 and 0. To prevent the grain rising later on, wipe the wood with a rag dipped in hot water, allow to dry, then rub down with No. 0 glasspaper again.

Now obtain threepence-worth of vandyke brown powder (in the dry state) and sixpence-worth of .880 spirits of ammonia. A little of each is mixed into the form of a paste and thinned out to the desired colour with water.

Apply the stain with a brush, sweeping it with the grain, then wipe off and allow to dry. To take down the grain, rub hard with a soft piece of calico. Apply the wet wax and polish as previously described.

White Deal

Plane and glasspaper and prepare this wood in the same way as red deal. To obtain a beautiful purplegrey (the finish is now known as purple wood), purchase a reliable grey dye and stir it into a half-pint of boiling water with a stick.

Apply the dye while hot on the wood with a brush and allow to dry. The application will have raised the grain of the wood again slightly, so rub it down with a piece of hessian (sacking cloth), pressing fairly hard and working with the grain. Apply the wet wax and polish as already described, using a piece of silk for the polishing.

American Whitewoon and Basswood

Both these timbers can be treated in the same way as red deal and white deal. Should you require an attractive purple-brown finish, however, just mix the hot grey dye with the vandyke brown mixture until you get the required shade of colour.

Sycamore

This wood is a white evenlygrained hardwood. It takes stain easily and the grain does not tend to rise. To obtain a nice silver-grey finish, glasspaper the surface with fine grades of glasspaper, seeing that all marks (pencil marks, greasy finger marks, etc.) are removed in the process, then apply hot grey dye with a clean brush, such as a new (or thoroughly washed) painter's sash brush.

Wash off the application immediately with clean warm water and leave the work aside to dry. When dry, rub the surface with canvas and polish with dry beeswax, simply by rubbing a nail brush on a lump of beeswax and then rubbing the wood with the brush. A "soft" boot polish brush is ideal for bringing up a good gloss, but it must be clean and not stained with black or brown boot polish.

Holly

This wood is treated the same as sycamore to make it silver-grey. The holly is, of course, only obtainable in small pieces. It is, consequently, generally used in making small articles like jewel trinkets, cigarette boxes, clock cases and so forth. Like sycamore, holly is tough and takes the dye splendidly. The silver-grey finish in both cases does not fade or show dirt when obtained by the method outlined.

Weathered Oak

Clean and glasspaper oak in the usual way, then wipe the surface with warm water and castile soap. When dry, rub down with No. 0 grade glasspaper and coarse canvas.

To obtain the white flecks in the grain, obtain a tin of light oak polish, this being in the form of a white paste. Rub the paste well into the grain, rubbing across the grain, not with it.

Use a soft rag in applying the paste. As you go along, polish the wood with a piece of clean calico or linen.

Bleached Oak

To bleach oak, wash over it with hot water containing oxalic acid (poisonous). The correct mixture is one half ounce of the acid to one pint of hot water. When dry, rub briskly with canvas, then burnish the surface.

Burnishing is done with a chain burnisher, this resembling a piece of bright chain armour. In fact, an ancient cavalry epaulette would serve, including any piece of smooth bright steel such as a flat-iron, a bar of steel, the face of a hanımer, the steel comb used in guitar playing, etc., etc. Burnishing takes considerable time to do properly and much pressure is necessary, but the result is always worth the extra trouble entailed.

Fumed Oak

To fume any article made in oak, it must be placed in an air-tight box. Consequently only very small articles should be attempted. Assuming it to be a clock case, a suitable packing case will serve, any knot holes, cracks or openings being pasted with paper to make it airtight.

The box should have a lid, preferably a hinged lid, so that a saucer half-filled with .880 spirits of ammonia can be instantly placed in the box beside (or under) the work to be fumigated.

After you have fumed the oak, burnish it as explained. If a deeper colour is required, oil and wax the surface; do not burnish. Fumigating and dry-wax polishing renders another different shade of brown.

Incidentally it should be explained that Austrian wainscot oak and English oak respond more effectively to the methods described



This wood being

Now lads, where's the burst," exclaimed EE "Come on, shine a light, I can't see, We'll need FLUXITE.

y'know . . . What's that noise down below ?

A wee spot of bother, strikes me / "

See that FLUXITE is always by youin the house—garage—workshop wherever speedy soldering is needed. Used for 30 years in Government works and by leading engineers and manufacturers. Of Ironmongers-in tins, 8d., 1/4 and 2/8.

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Satin Walnut

a nice light-brown colour and rather close-grained, can be merely rubbed with coarse canvas and burnished (after thoroughly glasspapering, of course). A deeper brown shade is obtained by giving it a dry-wax finish. If wet-wax polished, a much darker tone will result.

If an ebony finish is desired, apply black stain. When dry, rub down with coarse canvas, then rub in ordinary black shoe polish with a cloth. Allow to drv for a few minutes, then rub briskly with a shoe polishing brush.

Further Hints

lt vou want a clear wet wax, ordinary lino wax polish will serve. When you wish to bring out the medullary rays in oak, burnish it, as this takes down the soft fibres in the grain.

It should also be remembered that oil intensifies colour in timber, making it deeper in tone, the same as wet wax. Before attempting to finish any work, experiment on а scrap piece of the wood used.

Best Results

In all these processes remember to have care and patience in undertaking the work. You are much more likely to spoil a job by rushing it. If you are not satisfied with the first result, have another try and watch every step. You are bound to improve by experience and experiments.

Facial Casts

PLEASE send me instructions for making a plaster of paris cast of my own face. (P.D.-Neath).

YOU cannot make a plaster cast of your own face-you will need an assistant. Proceed as follows. Assume a recumbent, comfortable position. Have everything prepared in advance. Coat the face thoroughly with white vaseline, close the eyes (cover eyes and eyebrows VERY thickly), plug the ears with cotton wool. Grease the hair heavily if to be cast in. Place drinking straws in each nostril and two in the mouth, then plug the nostrils. Heavily coat lips with vaseline (straws are necessary for breathing purposes).

Mix superfine dental plaster of paris (not common builder's plaster) to a thick creamy-like paste, stirring into clean cold water-not vice versa. The assistant should apply this immediately to the face to a thickness of about §in.

Then press on to it some butter muslin which has had dry plaster of paris rubbed into it. This prepared muslin should be lightly rolled up and dipped into water immediately beforehand. Apply several lavers then add another laver of plaster.

Leave in position for a few minutes until the plaster sets, then carefully lift it from the face. If the back of the ears or any undercut parts of the face are to be included, they will have to be separately cast, otherwise the plaster would be very distorted when being removed.

Leave this mould for a day to set hard and to prevent it distorting it should be placed on a board, supported where necessary with lumps of moist plaster. The "cast" is made by first well greasing the inside of the mould and then filling it with similar plaster to that already described.

Duplicate Copies

ER hobby club are desirous Oof starting a small magazine amongst the members, and would like to know if you could help us by letting us know the formula to make a hectograph copying apparatus? (W.S. J.S.-Penzance).

'T is impossible to obtain the Inecessary materials to make a hectograph copying machine at the present time. We suggest as an alternative that you should get someone with a typewriter to type the matter on a stencil sheet, then lav this sheet flat on a pad of paper, hold it firmly and pass an inked roller over it. Any number of copies can be made in this manner if the stencil is kept clean.



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