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THE DELTAGRAM

NOVEMBER
1939

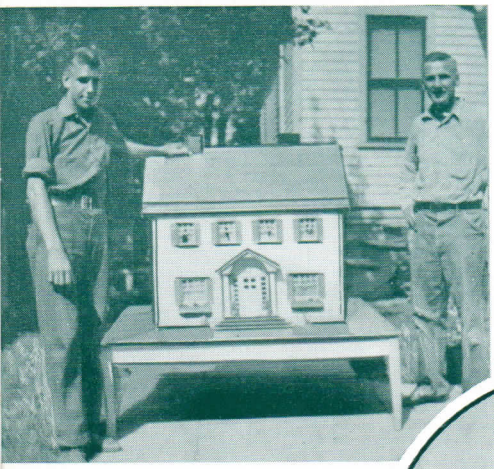
SCREEN YOUR CUTOUTS

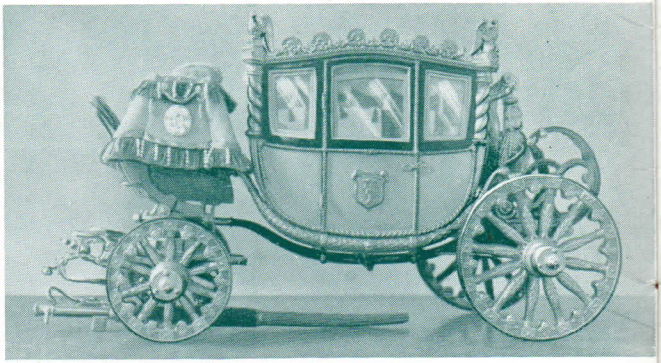
SMOKER ★ TOBOGGAN ★ NOVELTIES

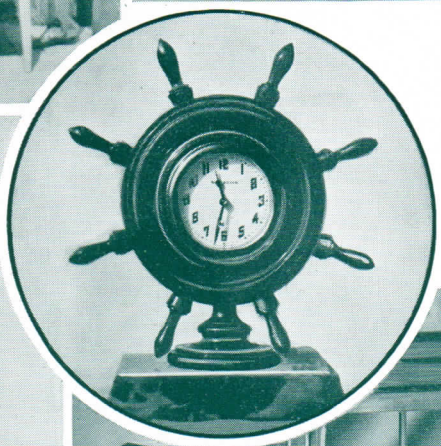
UNIT CABINETS

Cutting the Rule Joint

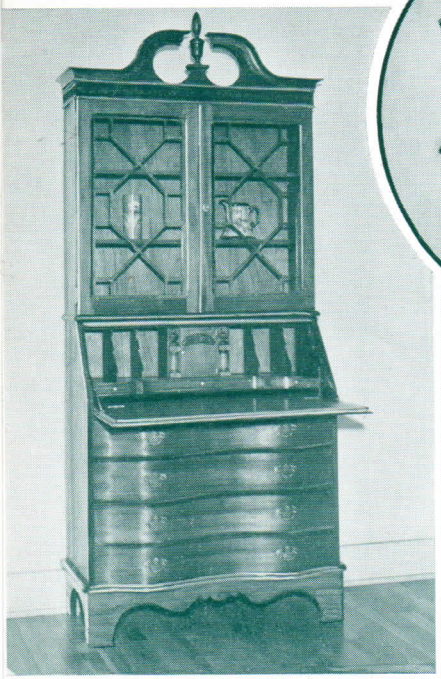
★ With DELTA CRAFTERS ★

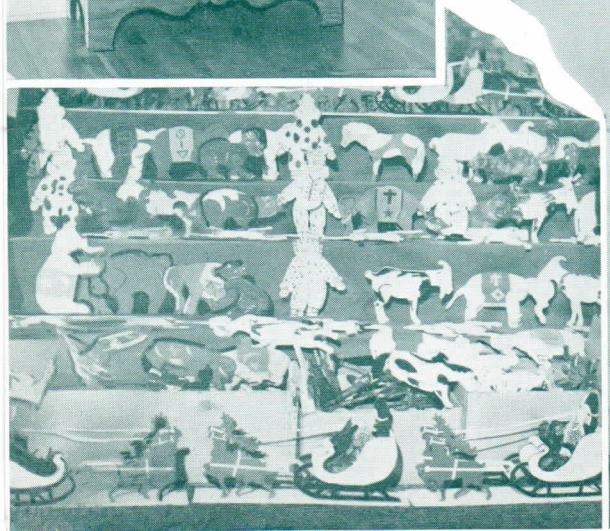


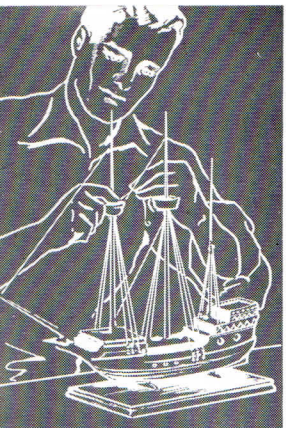




● The attractive *doll house* comes from the shop of Arthur and Frank Wysocki, Milwaukee. ● Armen Bogossian, Brooklyn, N. Y., built the Napoleonic *coach model*. ● Quite "salt" is the mantle *clock* by E. J. Eaton, Ball Ground, Ga. ● Excellent craftmanship is evident in the *secretary* by W. B. Keeton, Jackson, Miss. ● The Denver Workshop Club plays Santa with *cutout toys*. ● Frank G. Frost, New Orleans, contributes the *corner cabinet*.





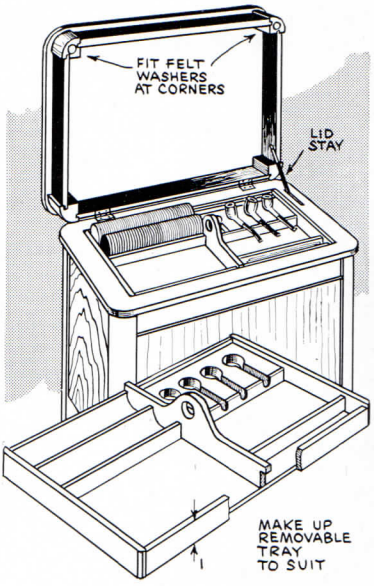


THE DELTAGRAM

A Magazine for
CRAFTSMEN
★
Edited by
SAM BROWN

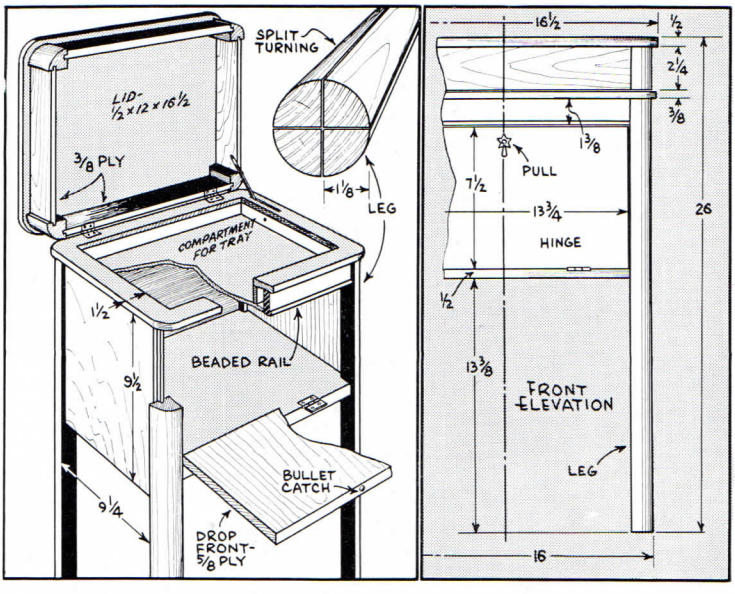
VOL. 9 NOV., 1939 No. 2

● *Published by The Delta Mfg. Co., Milwaukee. Sold only by Subscription—50c the Year.*



SMOKING CABINET

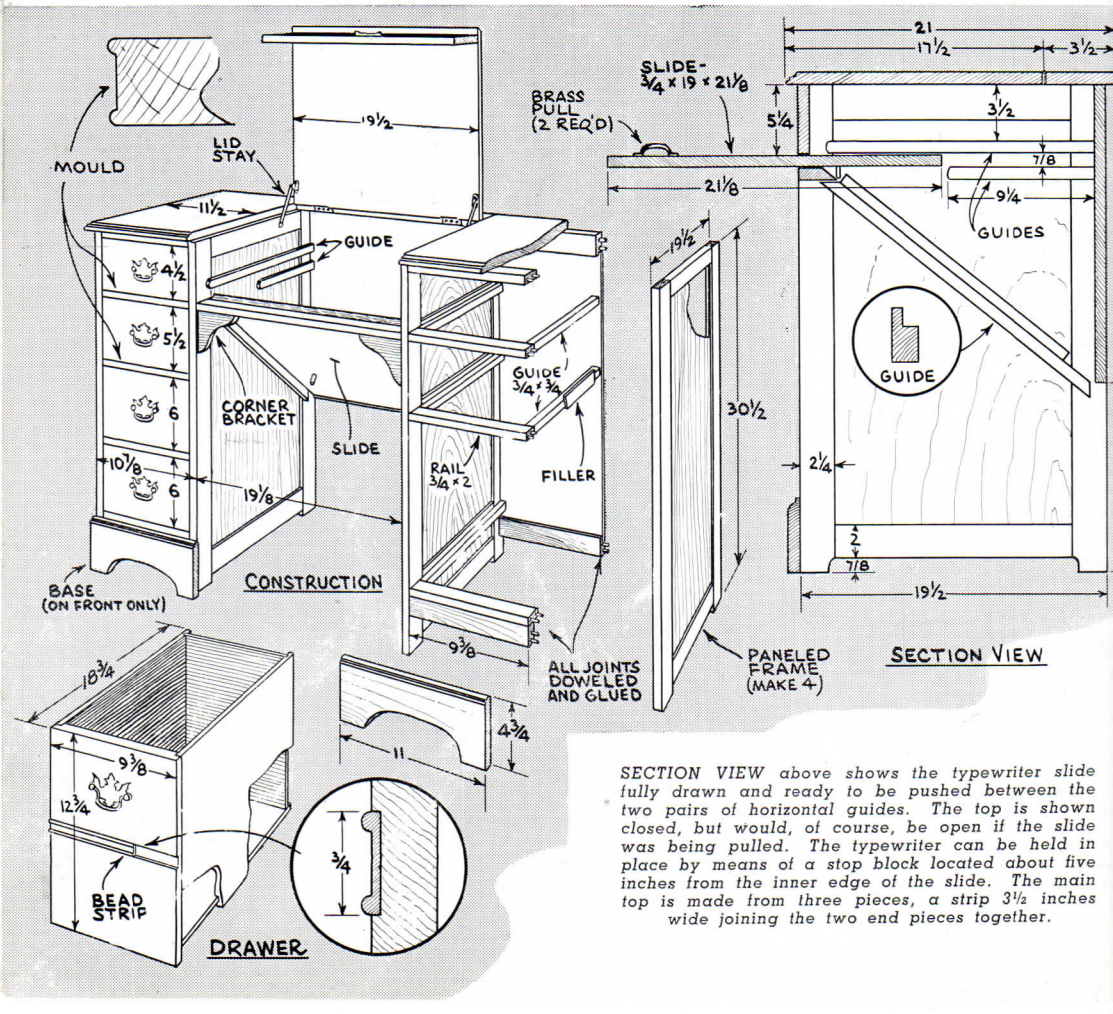
START by making the four legs, working these as a split turning. Rout ¼ inch grooves for the side and back panels, setting the groove ⅜ inches from the edge of the leg. Panels are ⅜ inch and are tenoned to ¼ inch to fit the grooves. Notch the main bottom to fit around the legs. Make the intermediate top from plywood, cutting out the center on the scroll saw. Add filler blocks and a bottom to make a compartment about 1¼ inches deep. The removable tray can be made to suit. The lid is the same construction as the cabinet, and work on it should be done at the same time as similar operations on the main case. Fit the lid with felt disks as protection against marking the rim when the top is closed.



TYPEWRITER DESK

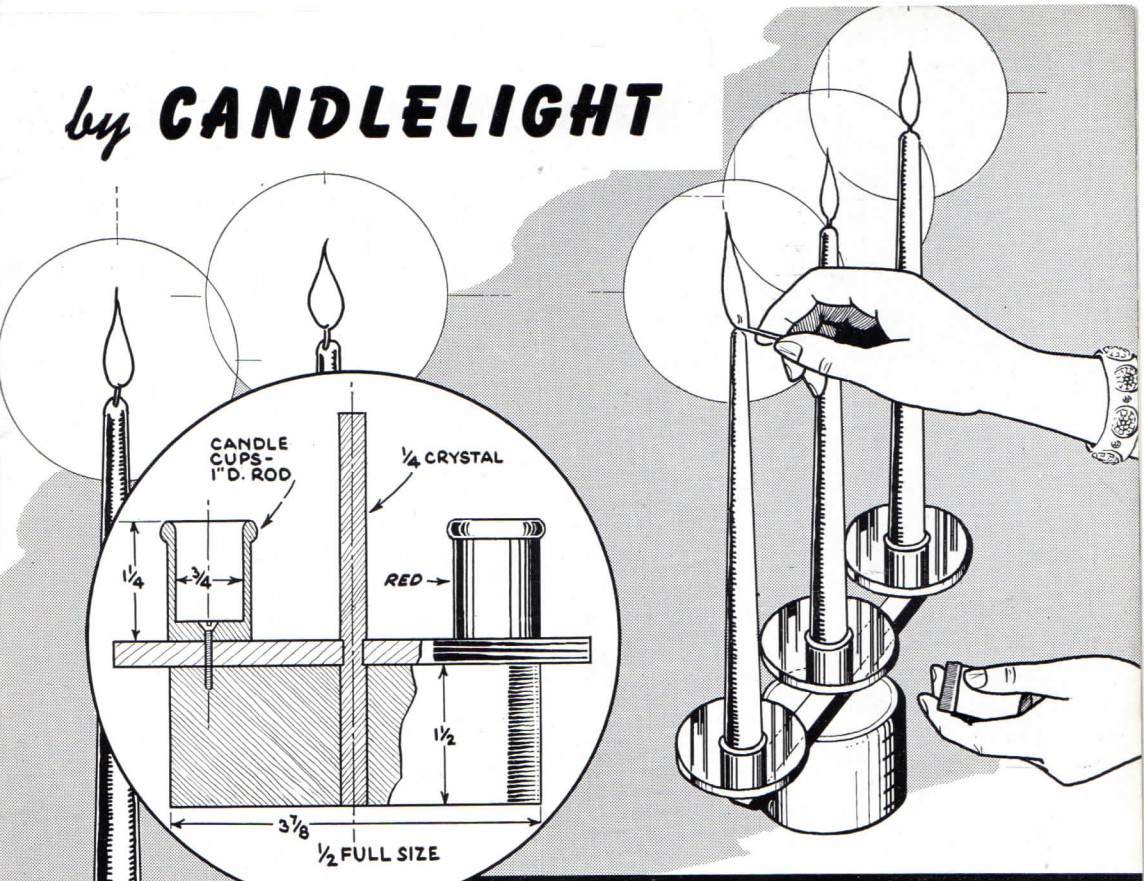
TYPICAL panel frame construction, this project is fairly simple to build despite the difficulty of presenting it clearly by means of drawings. Make the four side panels first, then join them together in pairs and finally add the back piece of the kneehole compartment. The typewriter slide is a piece of ¾ plywood, 19 by 21⅛ inches. Guides for the slide are either built up or rabbeted so that the slide will ride flush with the stiles of the paneled frames. The slide is pulled up by means of two brass pulls until a pair of dowel pins on the underside butt against the front rail. At this position it is leveled off and pushed between the two horizontal guides. The typewriter is fastened to the slide in any convenient manner.

It will be noted that the top stands erect when opened, being supported by two lid stays. An optional method of construction would be to provide guides so that the top could be dropped inside the compartment after being opened. This would require a pivot instead of the hinged joint shown. The lower drawer on each side is double depth, but the cocked bead gives the impression of two single drawers.



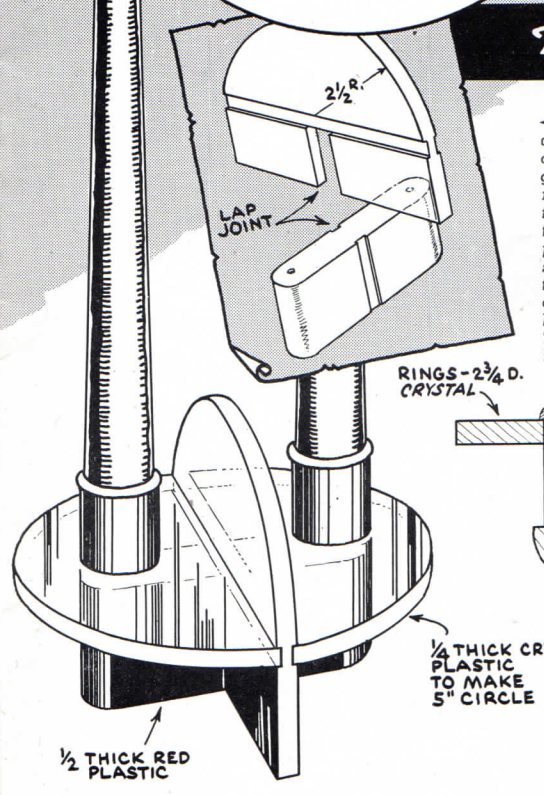
SECTION VIEW above shows the typewriter slide fully drawn and ready to be pushed between the two pairs of horizontal guides. The top is shown closed, but would, of course, be open if the slide was being pulled. The typewriter can be held in place by means of a stop block located about five inches from the inner edge of the slide. The main top is made from three pieces, a strip 3½ inches wide joining the two end pieces together.

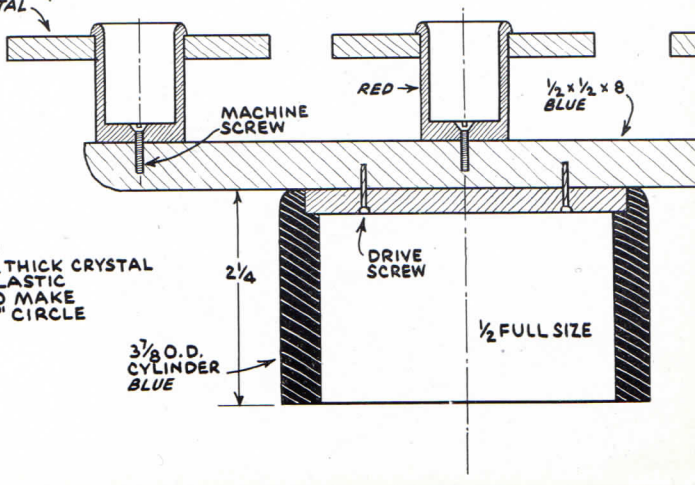
by CANDLELIGHT



Two Smart Designs in Plastic

★ *Dinner by candlelight is always a pleasant novelty, and these smart designs fit to grace any festive board. The construction employs crystal plastic to simulate a plate glass effect. Candle cups are turned from 1 inch diameter red plastic rod, boring the socket holes in the lathe to a trifle over 3/4 inch diameter. The two-candle design features a neat interlocking construction of 1/4 inch crystal plastic circles mounted on a red base. The two machine screws which hold the candle cups also serve to assemble the whole unit. The three-candle design has drip rings of crystal plastic. Each ring should be a snug fit and should be cemented in place under the flange of the candle cup. The cups are fastened to a 1/2 inch square rod, and this in turn is fastened to the top of a 3 7/8 inch blue cylinder.*





SCREEN YOUR CUTOUTS

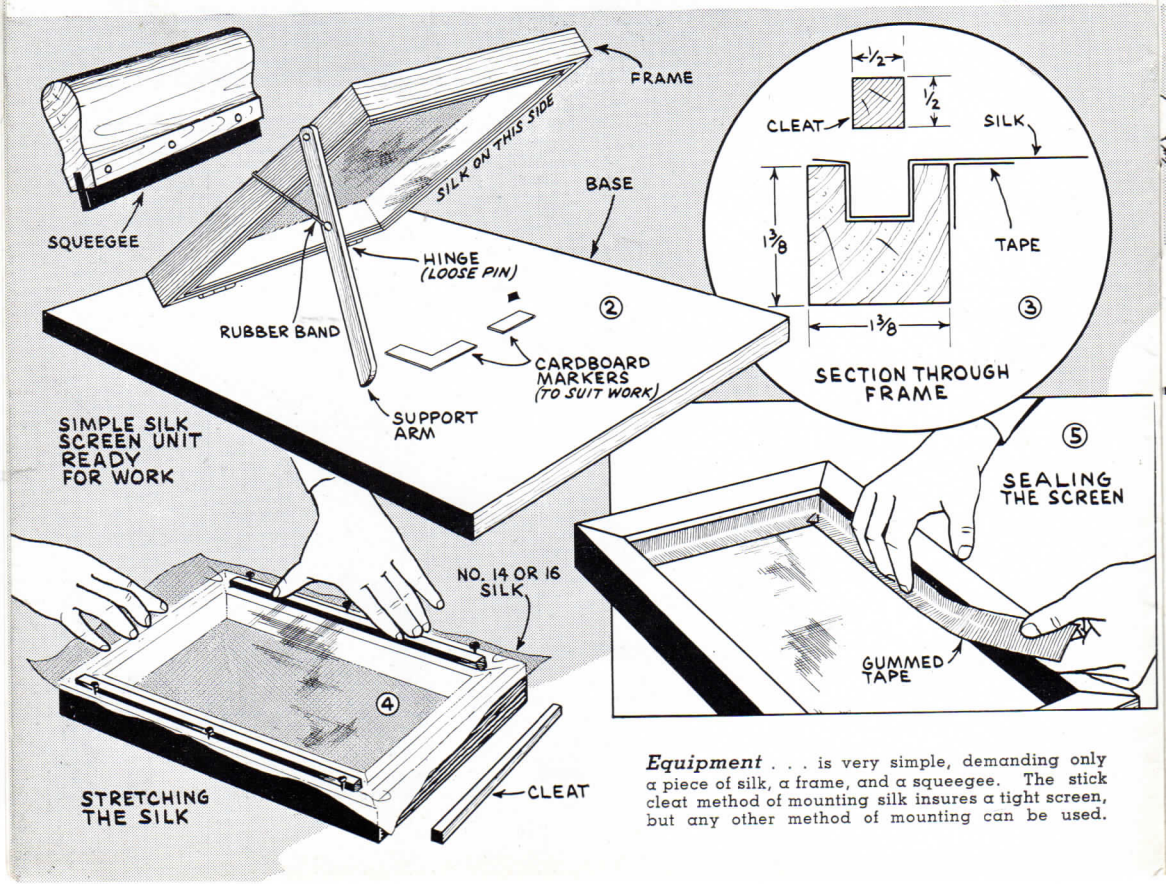
Example . . . Laundry bag top shown above is typical of silk screen work and is used as an example in the illustrations. Photographs are from the editor's story on silk screen stencils originally published in the January, 1939 issue of Popular Mechanics.

SPEED is the outstanding feature of painting cutouts by the silk screen method. Simple two-color designs like the laundry bag top shown in Fig. 1 can be turned out at the rate of 60 to 80 per hour with the very simplest equipment. Screening is profitable for runs as low as ten units, and can be used on any painted design from a garden cutout to a Christmas card.

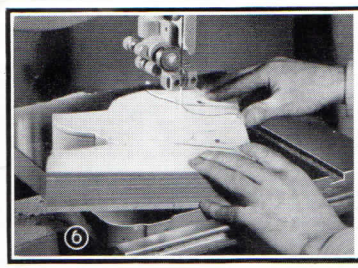
Equipment. — The process of screening is simply the forcing of paint through the open meshes of a fabric screen. Certain parts of the screen are blocked off and do not print, this producing the desired design. Fig. 2 shows the simple equipment needed—a baseboard, a frame with silk stretched on it, and a rubber squeegee. The frame is hinged so that it closes in the same position for all impressions. The support bar holds the frame up while the work is being registered against the cardboard markers in preparation for printing.

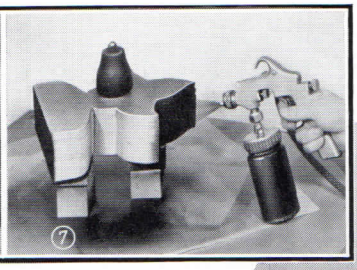
The Screen.—Various materials are used for screens including organdy, wire cloth and silk bolting cloth. All are available in different meshes, 124 to 136 threads per inch being used for good quality work. 124-mesh silk is called a No. 14 silk; 136-mesh is No. 16. The silk must be tightly and smoothly mounted on a wood frame. Fig. 4 shows the cleat method of mounting silk, which works like a drum head. Any method which produces a tight screen can be used. The frame material should be about 1⅜ inches square for the average-size cutout, and can be assembled with mitered joints secured by nails or corrugated fasteners. The frame should be a few inches wider and about six inches longer than the cutout. After the silk has been tacked to the frame, surplus material is trimmed off. Gummed tape is fitted all around the inside of the frame, as shown in Fig. 5, this being done to prevent paint from leaking through at the edges of the silk.

Preparing Blanks. — Cutout blanks are band sawed to shape, as shown in Fig. 6, and are then painted black, as in Fig. 7. Wallboard



Equipment . . . is very simple, demanding only a piece of silk, a frame, and a squeegee. The stick cleat method of mounting silk insures a tight screen, but any other method of mounting can be used.



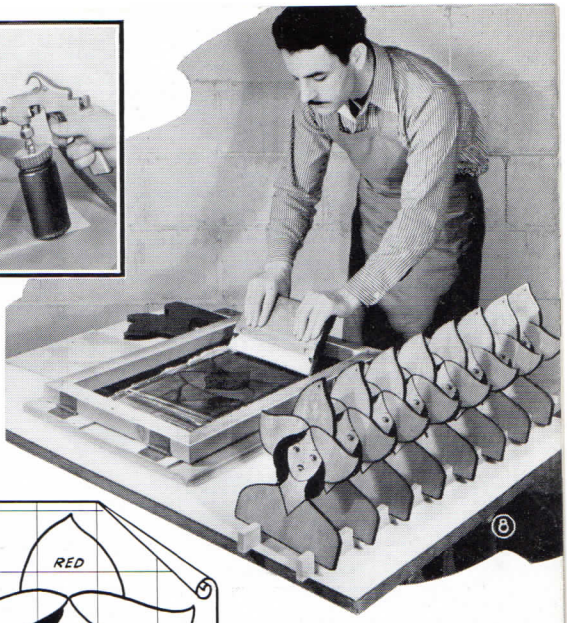


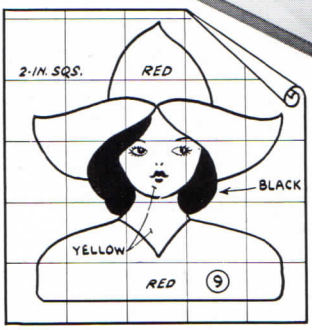
Preparing Blanks . . . Blanks are band sawed to shape and are then given an overall coat of black paint.

with black backing is ideal for cutouts to be screened by this method since the black surface coat is already applied.

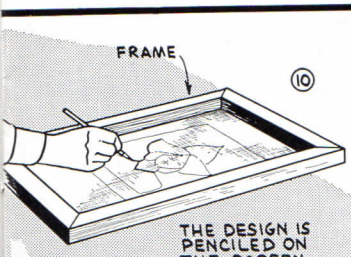
Making the Screen.—Place a full-size drawing of the copy, Fig. 9, under the screen, as shown in Fig. 10, and trace the design onto the silk with a medium hard pencil. The design will be easily visible through the silk. The screen is now ready for blocking out. Since the cutout is already black, it will be unnecessary to print any black. Hence, all of the black in the design is painted with a special lacquer filler. Fig. 11 shows how the screen looks with the black areas blocked off. It will be noted that all of the area outside of the figure is also blocked off since no painting will be done outside

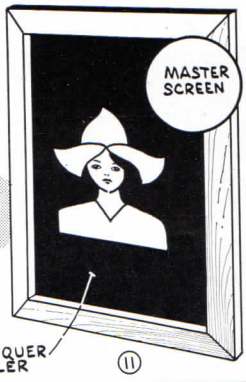
(Continued on Page 34)

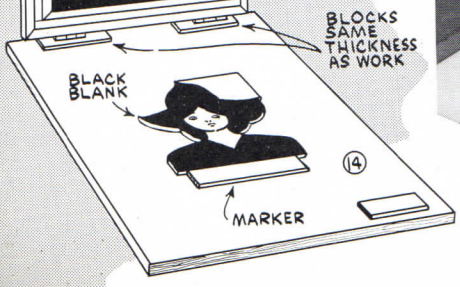




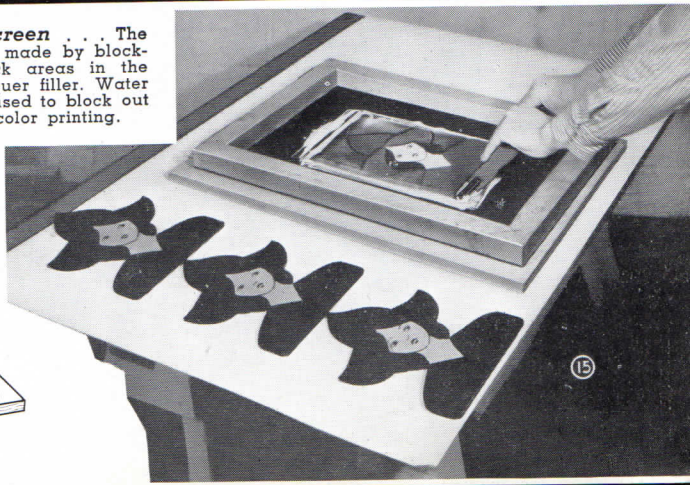
Running . . . Lower photo shows the first run—yellow face — being made, while photo above shows the second run—red hat and dress. Good process paint covers perfectly over the black ground coat. The screen can be washed out and used for other jobs.



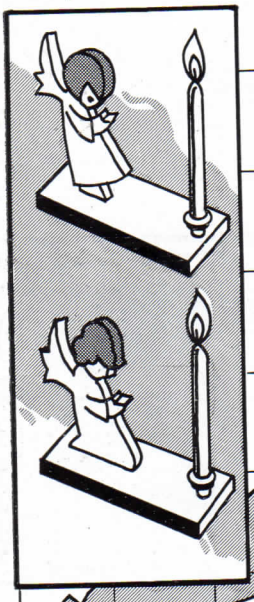


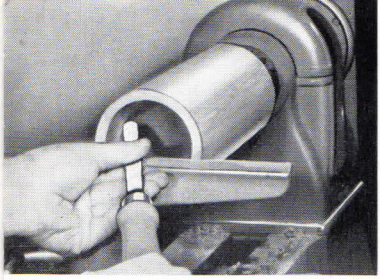


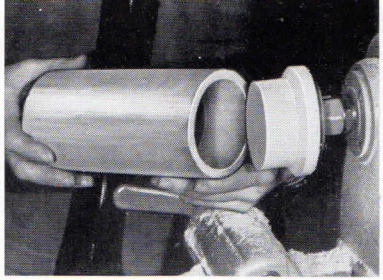
Making the Screen . . . The master screen is made by blocking off all black areas in the design with lacquer filler. Water soluble filler is used to block out other areas for color printing.

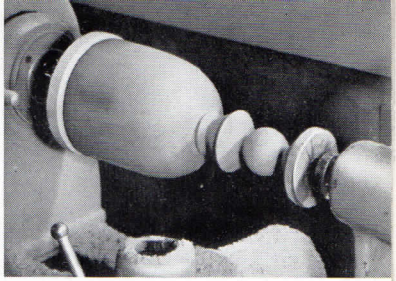


Christmas DECORATIONS



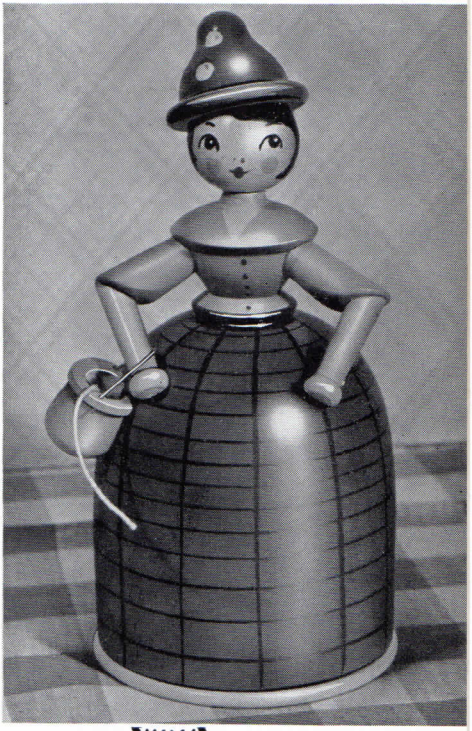




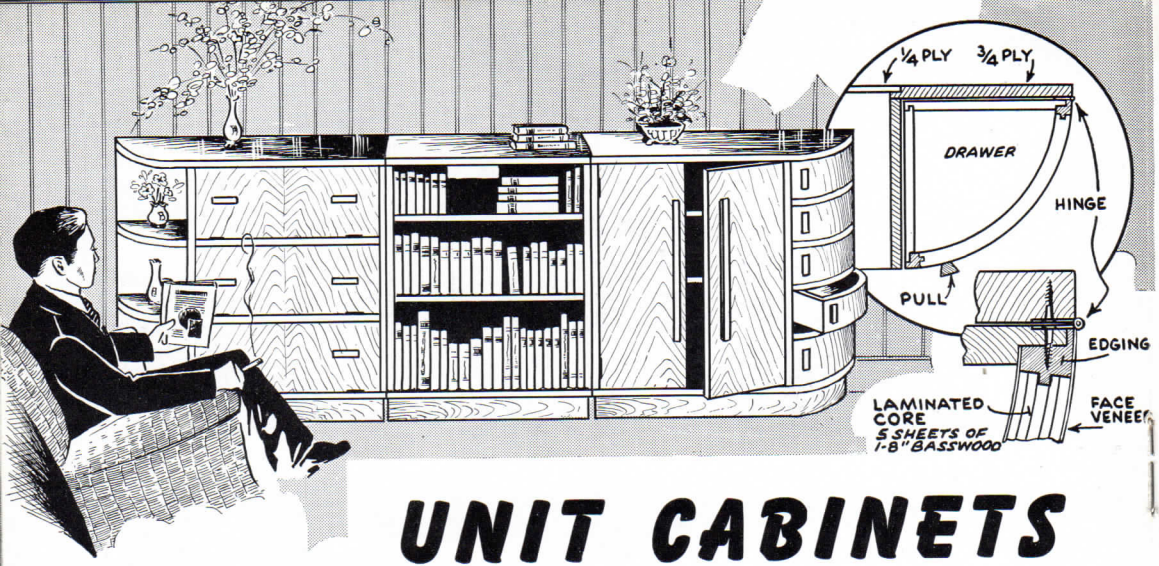


TURN INSIDE FIRST FIT BODY OVER BASE TURN BODY TO SHAPE

Turned STRING HOLDER

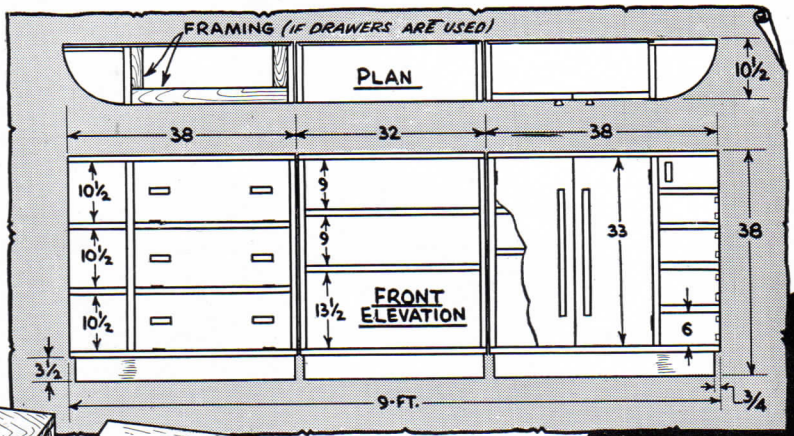


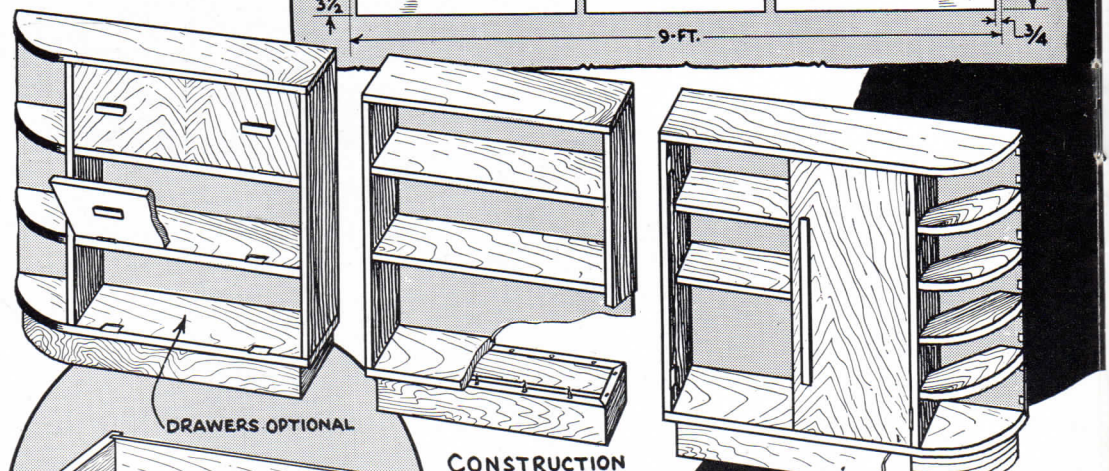
● Pretty Nelly Kelly conceals a ball of string under her skirt, the string working through a hole in the basket which she carries. Turn the figure from white pine, working the recess first and then mounting the body stock on the base to finish the turning. The basket turning is sanded on one side so that it can be glued against the body.

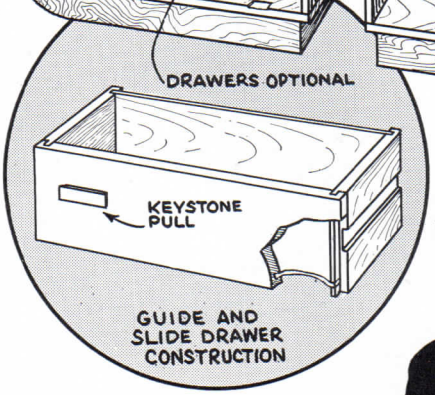


UNIT CABINETS

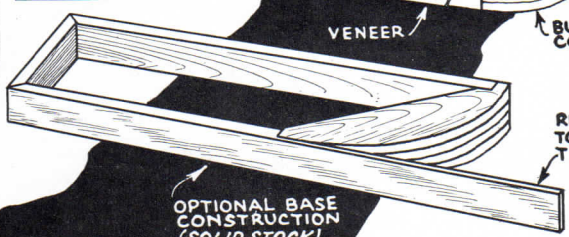
★ You can build one or all three units. Stock used throughout is ¾ plywood, veneered to suit. The curved drawer faces on the end unit are built up from five layers of ⅛ inch single ply basswood, edged, and faced with veneer. Joints throughout the construction can be housed or doweled to suit. Drawers are optional in the left hand unit, using any standard form of drawer construction. The bases are veneered over solid stock, or the optional method of reducing the thickness of the stock to permit bending can be used.

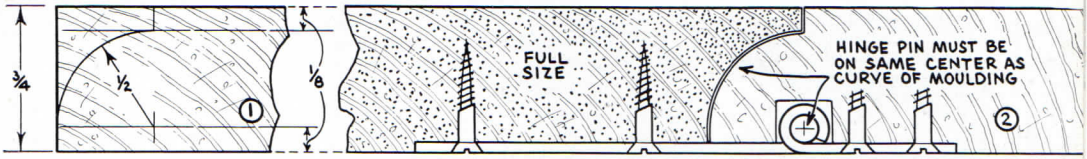






CONSTRUCTION





The RULE JOINT

THE rule joint is usually worked on ¾ inch thick stock, but can be used on wood over or under this dimension if the basic rule of locating the hinge pin on the same center as the curve of the mould is adhered to. Fig. 1 shows the full-size layout. Fig. 3 shows the marks being made on the end of the main top. If the mould is to be run on the shaper, the required cutter is mounted on the spindle and the corner of the knife set to the intersection of the pencil marks, Fig. 4. The second cut requires only that the cutter be changed, the spindle height and fence setting remaining the same. It is a good idea, however, to check on scrap stock before running good lumber.

The joint can be cut on the circular saw using the moulding head, as shown in Fig. 6 and 7. Note, Fig. 7, that the cove cut must be run with the work vertical, this because the style C knife will not cut ⅝ inches deep as is required when the work is flat on the saw table.

Hinges for the rule joint must have one long and one short flap, and the knuckle is recessed into the wood. The drawing shows a few examples of hinging. Fig. 8 shows the impossible fit of an ordinary hinge mounted with knuckle out. If recessed so that the hinge pin comes to the proper center, the hinge gains will be very prominent when the leaf is dropped, Fig. 9. If, however the knuckle is set into the wood, the shallow hinge gains will be hidden except when the leaf swings beyond a right angle position, Fig. 10. The best joint of all uses a slightly bent hinge, Figs. 11 and 12. No hinge gain is required on the leaf, and the gain on main top does not

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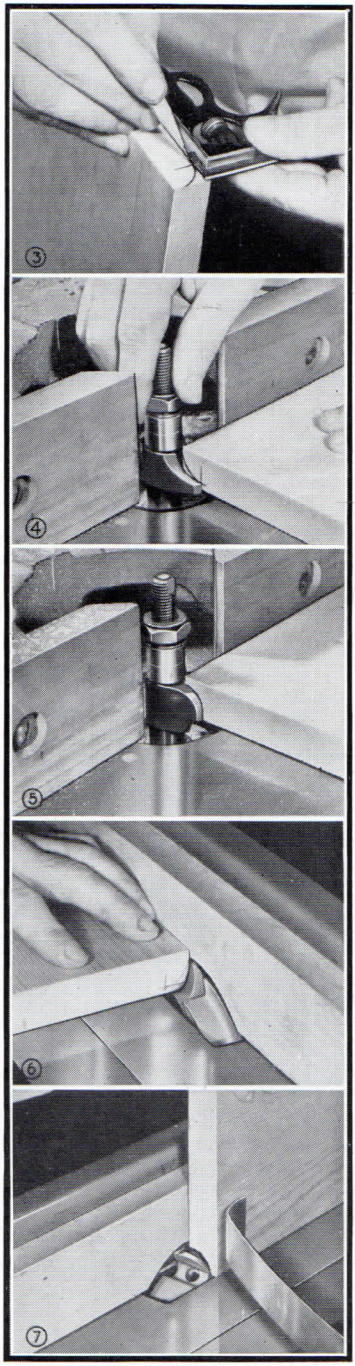
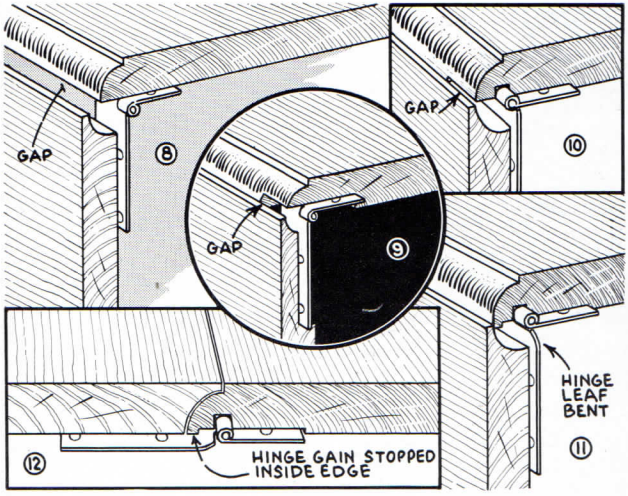
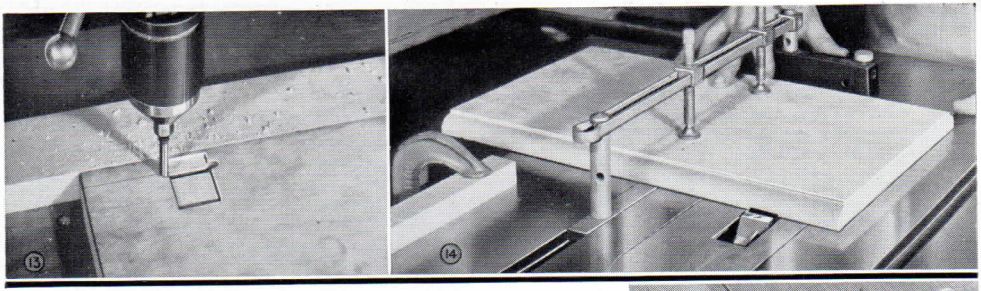




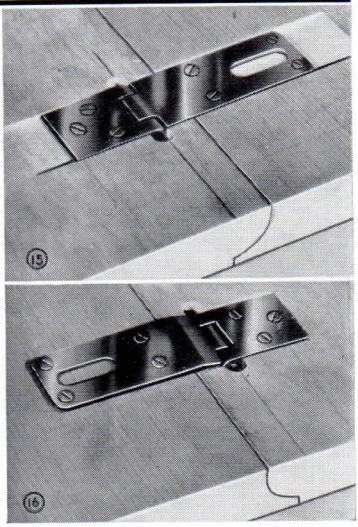
Right, how rule joint is cut on shaper and also on circular saw. Above, examples of correct and incorrect hinging.



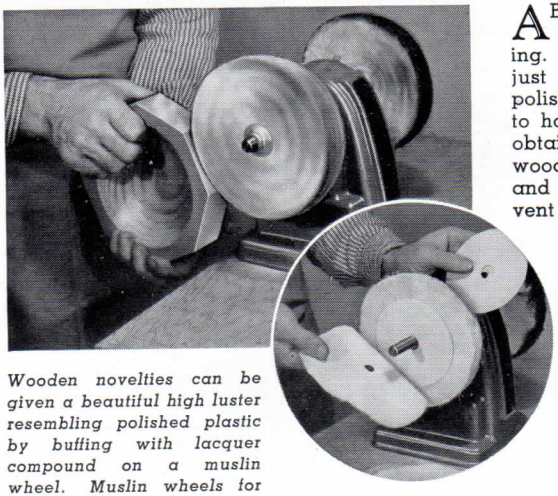
Hinge gains can be cut on either the drill press or circular saw. Right, hinges as viewed from underside.

extend to the edge and hence cannot show. Ordinary ten cent hinge hasps make good hinges and can be bent in a vise if the bent hinge style is used. It will be necessary to countersink the screw holes from the side opposite the regular countersinking.

Hinge gains can be cut on either the circular saw or drill press. Where hinging follows the plan shown in Fig. 10, the gains can be cut with a straight moulding head knife, as shown in Fig. 14. Where the bent hinge is used, the gain can be routed freehand on the drill press. In both cases, the groove for the hinge pin is routed, using a guide fence to insure good tracking, as in Fig. 13. Fig. 15 shows how the straight hinge looks from the underside; Fig. 16 shows the joint with the bent hinge. Paper should be used between the two parts when fitting to avoid getting the joint too tight. The fit should be close without binding. It can be seen that any friction at the joint will tend to wear through the finish.



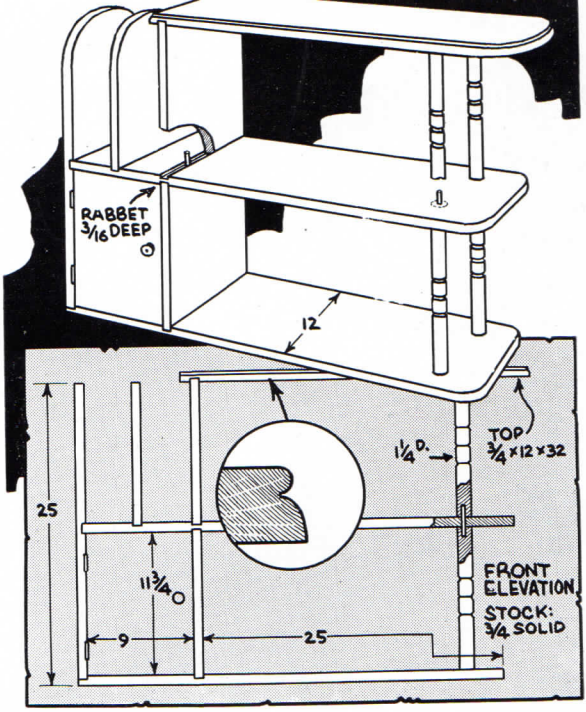
How to BUFF Lacquer



Wooden novelties can be given a beautiful high luster resembling polished plastic by buffing with lacquer compound on a muslin wheel. Muslin wheels for buffing work best after being broken in. This can be done by holding a piece of coarse sandpaper against the revolving buff to cut away any loose threads.

A BEAUTIFUL high finish can be obtained in either clear or colored lacquer by buffing. Most lacquers can be buffed successfully just as most varnishes can be rubbed and polished, although a few lacquers are too soft to hold a permanent gloss. The best finish is obtained on metal or on close-grained hardwoods, maple ranking first. All sharp edges and corners must be slightly rounded to prevent cutting through. A lacquer thickness of about .004 inches is required (at least three coats) and overnight drying should be allowed on the final coat.

A six inch diameter muslin buff is suitable for buffing. It should turn 3500 r.p.m. The disks should be loose and the wheel packed with alternating cloth and cardboard disks, as shown in the circle. For final polishing, three cardboard disks can be used between two cloth disks to produce a softer wheel. The disks should be the same thickness as the cloth, or, smaller cloth disks of the same material can be used. The first buffing is done with any good lacquer buffing composition; final polishing is done with a lime composition. Both of these can be obtained in cake form. If any surface film of the buffing compound adheres to the work it can be removed by sponging with benzine.



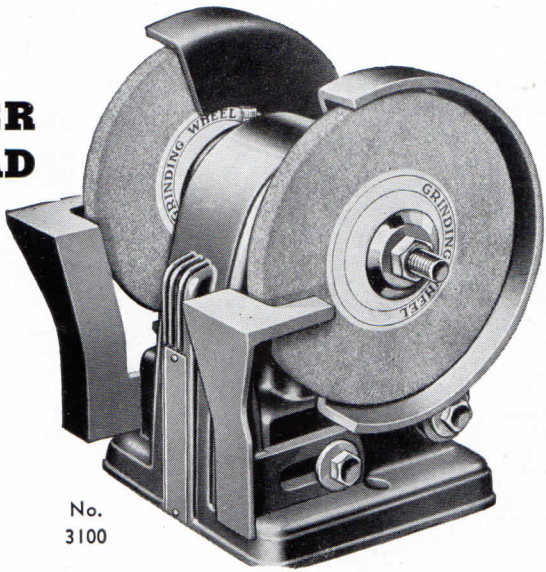
Utility STAND

● *Simple to build, this utility stand is good functional design coupled with attractive appearance. The stock used is ¾ inch walnut, solid, although plywood could be substituted. The compartment is fitted with a door at each side so that the piece can be used either right or left handed.*

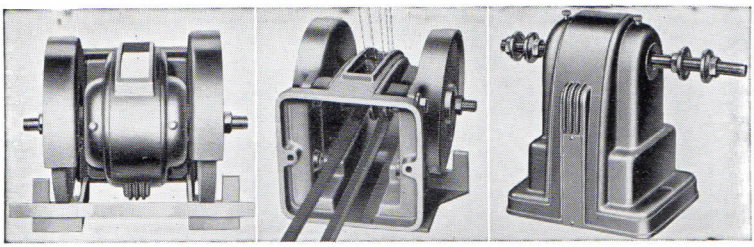
NEW!

Low-Cost GRINDER and BUFFING HEAD

BUILT for home craftsmen, these two new Delta units are sturdy, well-constructed machines good for years of accurate, dependable work. Substantial ⅝-inch diameter shafts are housed in Oilite bronze bearings, with the shaft ends reduced to ½ inch to take 6 inch diameter grinding and buffing wheels. Both units are belt drive, and can be driven from either the bottom or back as desired. The maximum safe speed is 3500 R.P.M., which gives a surface speed of 5500 feet—just right for average buffing and grinding jobs.

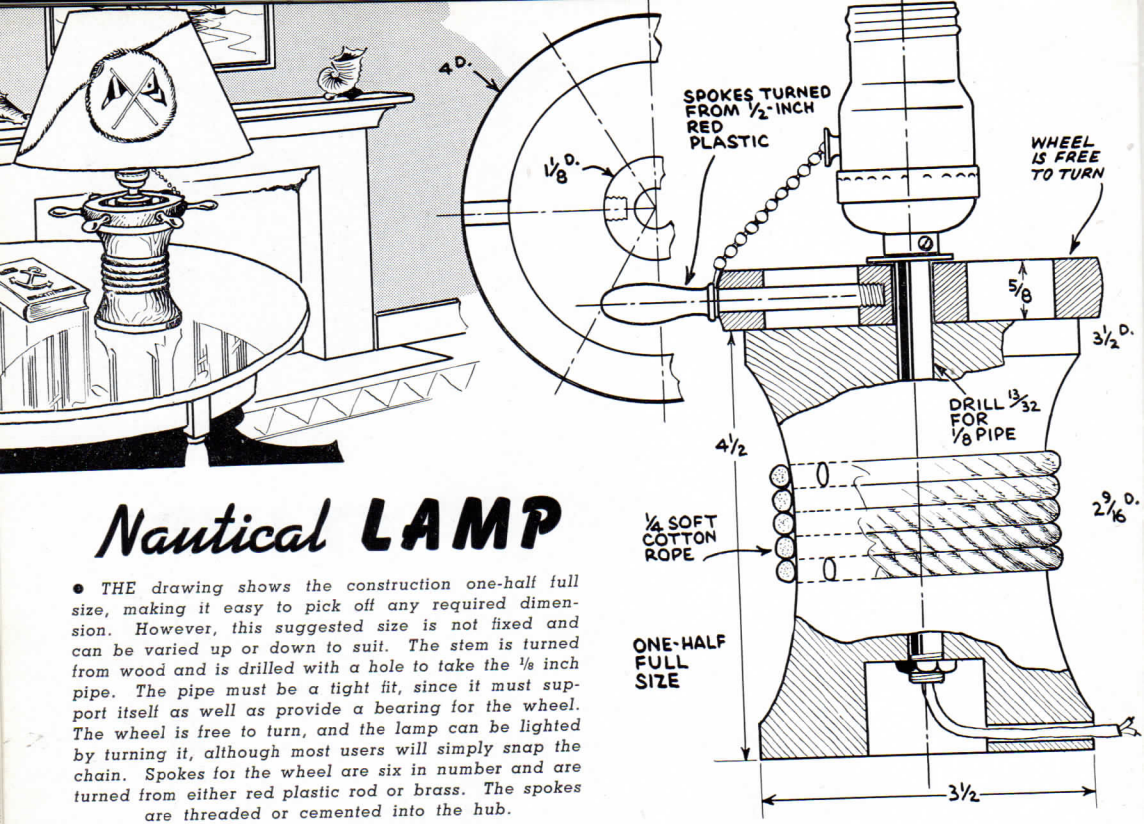


No. 3100



No. 3100 Bench Grinder, with one 50-grit and one 60-grit wheel, tool rests & guards, but without belt **$5.75**

No. 3110 Buffing Head, with collars, but no wheels or belt... **3.25**



Nautical LAMP

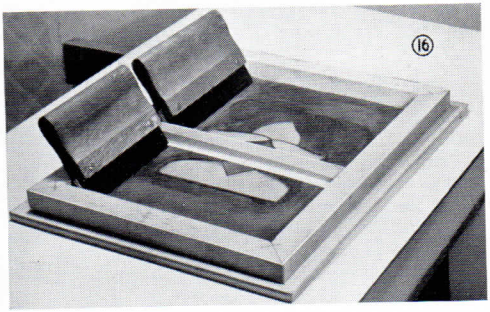
• *THE drawing shows the construction one-half full size, making it easy to pick off any required dimension. However, this suggested size is not fixed and can be varied up or down to suit. The stem is turned from wood and is drilled with a hole to take the ⅛ inch pipe. The pipe must be a tight fit, since it must support itself as well as provide a bearing for the wheel. The wheel is free to turn, and the lamp can be lighted by turning it, although most users will simply snap the chain. Spokes for the wheel are six in number and are turned from either red plastic rod or brass. The spokes are threaded or cemented into the hub.*

SCREEN YOUR CUTOUTS

(Continued from Page 27)

the cutout. The job is to be run in two colors, red and yellow, as shown in Fig. 9. The yellow is printed first, and, in order to keep the yellow from printing in the red areas, the red areas are blocked out. This blocking out is done with a water soluble filler. Fig. 12 shows the screen prepared to run the yellow, the gray areas indicating water filler. Figs. 14 and 15 show the yellow being run. After the yellow has been run, the screen is held under running water to wash out the filler, leaving the original master screen. The yellow face is then blocked with water filler so that the red hat and dress can be run. Fig. 13 shows the screen prepared to run the red. Both lacquer and water filler are applied by brushing.

Running. — To run or screen the design, a quantity of screen process paint is poured onto the screen. A scrap sheet of paper should be placed below the design and one or two impressions taken to get the screen well saturated. Impressions are made by simply wiping the paint from one end of the screen to the other, pressing down evenly but not too hard with the squeegee. The consistency of the paint should be slightly thinner than soft grease. One coat gives perfect coverage if a good grade of process paint is used. To clean the screen, wash out the old paint with gasoline and remove the water filler with cold water. Neither of these operations will harm the original, lacquer-filled master screen.

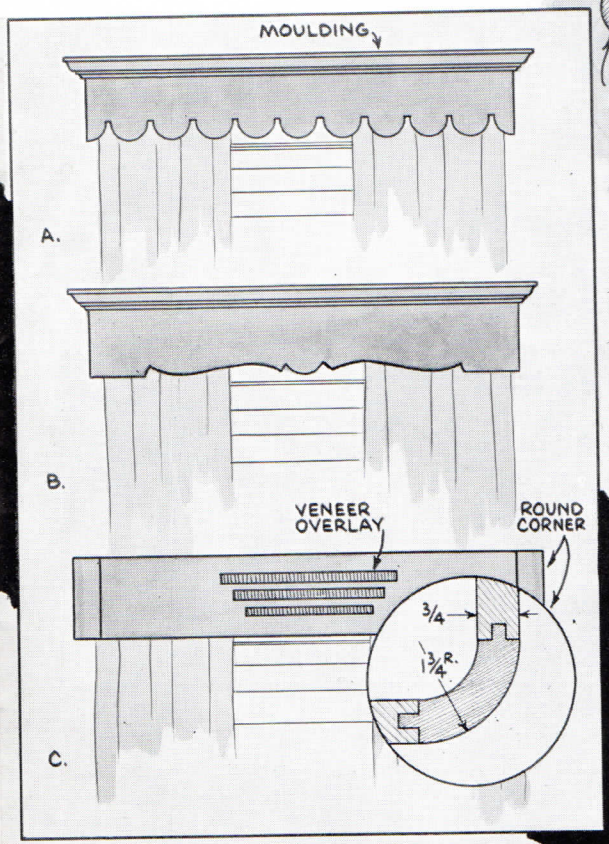


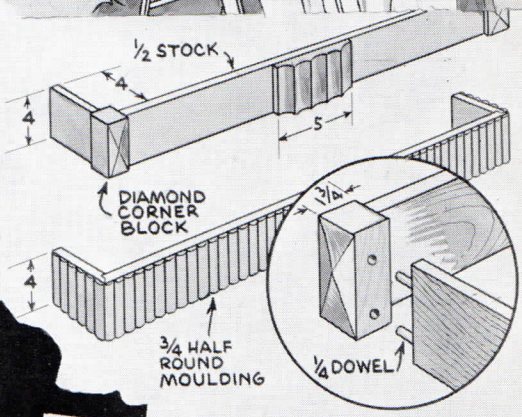
Bridges.—Bridges can often be used on multicolor jobs. In the example, if it were desired to make the hat red and the dress blue, a bridge could be fitted across the screen with the use of gummed tape, as can be seen in Fig. 16. Both colors could then be run at one time by using two short squeeges.

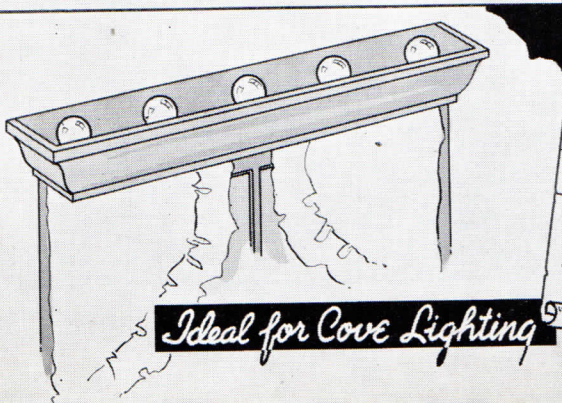
Other Methods. — The method for screen processing described in this article is for brush-filled screens. Screens can also be made from a special stencil film which is knife cut to the design. Other screens, especially intricate patterns, are best made by using a photographic screen. Process supplies for all types of screens can be obtained from Atlas Specialty Mfg. Co., 33rd Street and Shields Avenue, Chicago, Ill., or any other screen supply house.

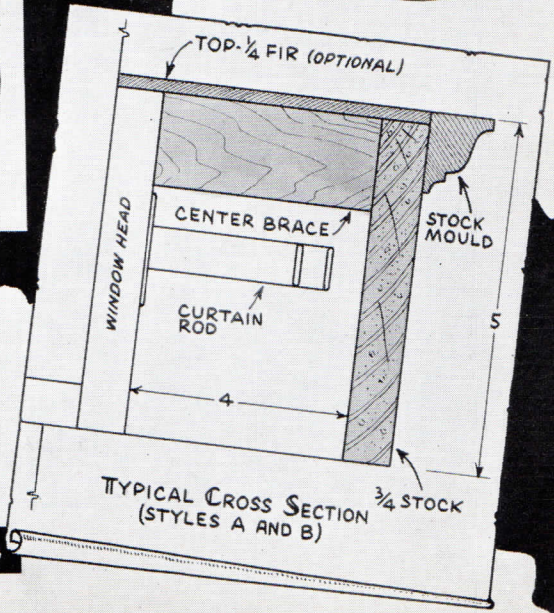
Valance BOARDS

★ Valance or cornice boards continue popular in the interior treatment of windows. There is no doubt but what the smart wood frame covering unsightly curtain rods will always stay in favor. The designs shown here are typical and offer no construction difficulties. The length is determined by the width of the window, the valance board being flush or set slightly in from the edge of the window casing. A depth of 4 or 5 inches is sufficient for all average purposes, while a width of 4 inches, inside measurement, will permit the hanging of the usual double curtain rod. A simple method of fixing the valance board to the window is shown in the cross section view where a fir plyood top both seals the top of the frame and provides for mounting. Other styles without top can be fastened with simple hardware made for this purpose.









Model Train

Norfolk, Va.—I am enclosing snaps of a Norfolk and Western model train. The locomotive carries a steam pressure of 120 pounds, has steam brakes, and can hit it up to 25 miles per hour. The train has two passenger cars and can carry a pay (?) load of twenty children.

M. J. Long

Income from Novelties

Toronto, Canada — Please continue with the light novelty type of project shown in the Deltagram. I am regularly employed as a factory worker, but we have quite a few layoff periods. During these spells I have been able to maintain my income by making and selling novelty projects, many of them from the Deltagram.

W. W. S.

Craft Sheets

Bronx, N. Y. C.—How about printing the Craft Sheets appearing in the Deltagram from time to time on heavy paper with holes along the side for insertion in a loose-leaf binder? It would make a swell, quick, reference manual.

G. H. S.

Nice Mahogany

Pontiac, Mich.—Enclosed you will find a snapshot of one of my many projects. It is made of Honduras mahogany, lacquered. The plank from which this table was made measured 2 x 12 x 42 inches, and all work was done with my Delta tools.

Homer Peterson

Going Colonial

Washington, D. C.—Deltagrams were pretty good last year but you could improve them by including more simple Colonial projects and fewer of the so-called modern pieces and gadgets. Let's have a sprinkling of tables, chests, shelves, etc., etc., which are reasonably true reproductions.

H. L. S.

All for Delta

Portland, Oregon—Enclosing fifty cents to cover cost of Deltagram. Keep up the good work. Like a lot of others, I had to try out other makes of tools first but am now equipping with Delta as fast as possible.

R. B.

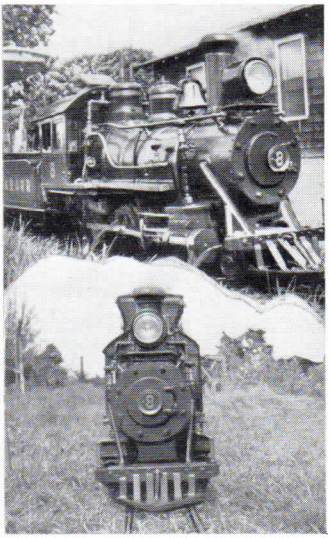
Thanks

Pittsburgh, Pa.—I like your "Wood You Believe It?" sketches. Why not show some old-time lathes in this manner. Pictures of the pole and bow lathes would make interesting topics.

L. L.

M. J. LONG →

↓ HOMER PETERSON



Wet Blanket

Fort Wayne, Ind.—Why don't you give us a story on fixing damp basements. Every time I go to use my tools I find them deeper and deeper in rust—it sure is a wet blanket on my ambitions.

R. K.

Well Seasoned

Buffalo, N. Y. — I have recently completed a drum table made from wood salvaged from a walnut chest over 125 years old. Isn't this a record of some kind. I don't remember ever having read of any other crafter using wood older than this.

A. M. R.

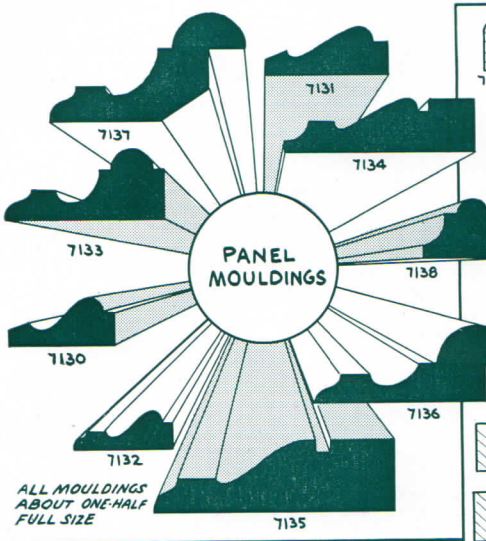
Pat, Pat

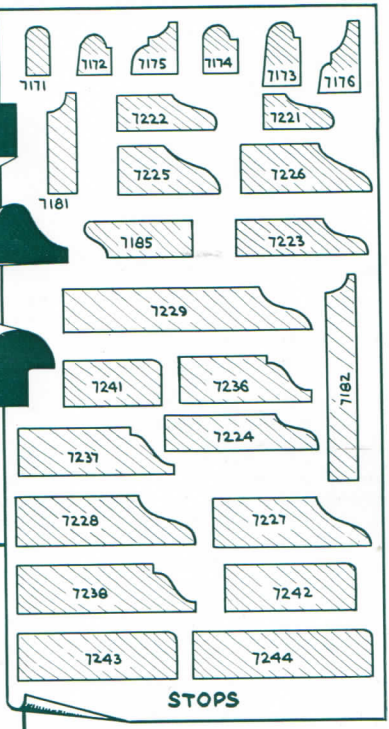
Cleveland, Ohio—I see you are getting a few knocks on the letter page. This, of course, is only natural. Just to keep your perspective right, the Deltagram and Delta books are really fine pieces of work and comparable page for page with other publications having a much higher net income.

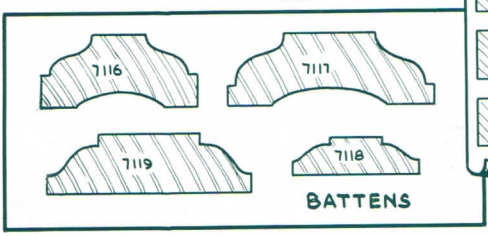
W. M.

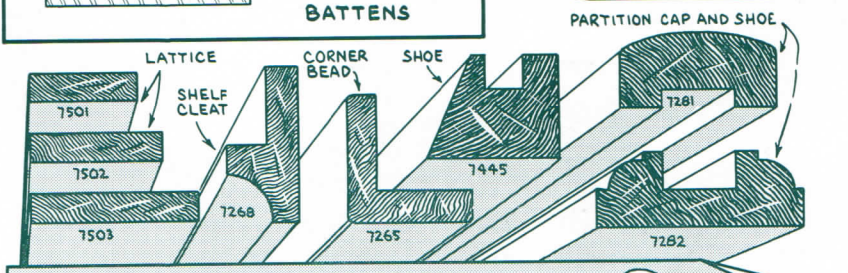
Delta Craftsheet

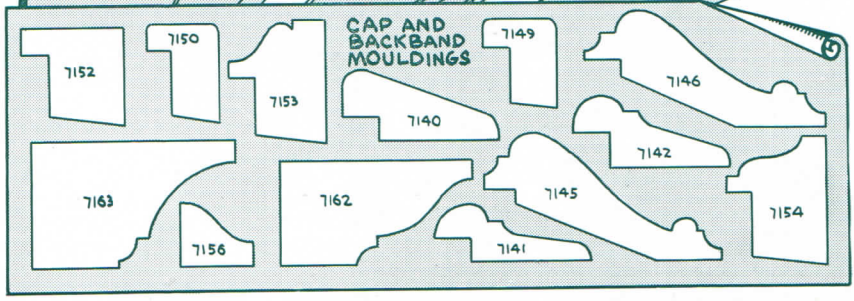
No. S5
STANDARD WOOD MOULDINGS
The Deltagram—November, 1939





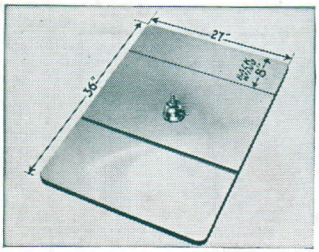




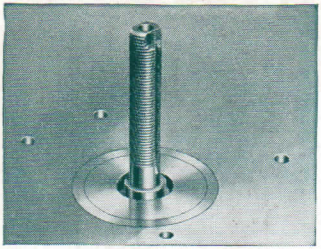


"Heavy Cuts All Day!"

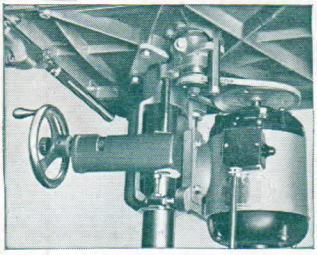
Check These Features:



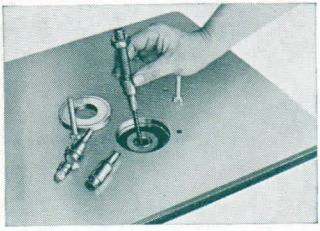
LARGE TABLE—27 x 28. Can be made 27 x 36 by addition of back wing.



¾" SPINDLE, 3" TRAVEL. Fits new two and three-knife cutter heads.



MECHANISM IN ONE UNIT. Bolted to underside of table, insures accurate alignment.



INTERCHANGEABLE SPINDLES permit the use of a wide variety of cutters. Note removable throat disc.

No. 1340

$89.50

WITHOUT MOTOR

This New Delta SHAPER Can Take It!

PRODUCTION shops everywhere made up the specifications for this new shaper in simple words: "A machine that will make heavy cuts—all day if necessary." Delta has done it with 300 pounds of steel that can lick its weight in walnut any hour, any day . . . big table—big spindle . . . big knives . . . big motor. More than mere bigness, Delta has given this new shaper a world of precision and convenience. Singing along at 8500 r.p.m. with two or three-knife safety cutterhead, it will do anything any shaper can do. It doesn't take a lot of trick advertising to sell this unit to smart production shops and advanced craftsman—it really has what it takes. ● See the new No. 1340 shaper today at your nearest dealer—you'll like it!

THE DELTA MFG. CO. 600-634 E. Vienna Ave. MILWAUKEE, WIS.