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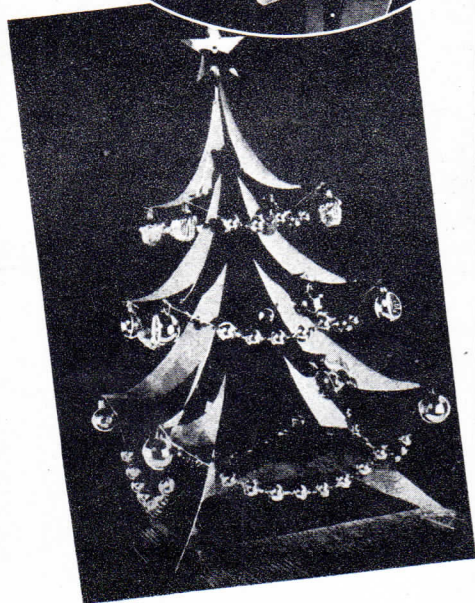
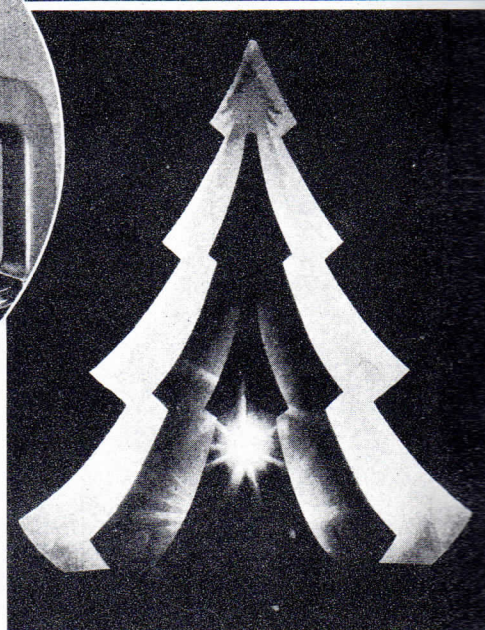
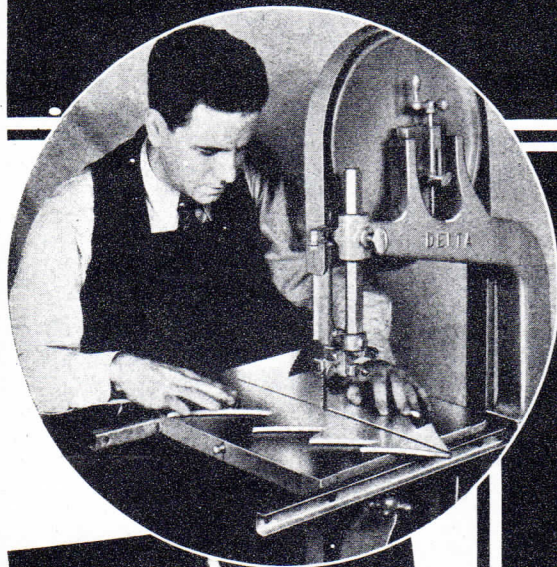
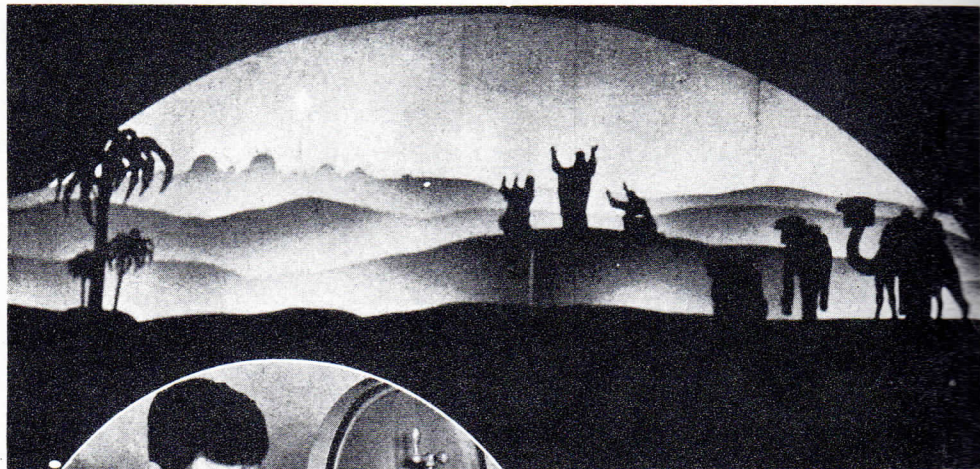
The Deltaagram



December 1934

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Simple Cutouts say "MERRY CHRISTMAS"



With simple cutouts in plywood and a few lights, you can work wonders in dressing up the home for the holiday season. The pictures on this page are but a few of the many novel effects possible and are typical of what can be done with a minimum outlay of time and money. Plane figures in which two or three cutout settings are illuminated with colored lights are particularly attractive, as is readily apparent from even the black and white reproduction shown above. Table trees in plywood covered with silver paper offer another medium whereby your shop can add a bit of Christmas cheer. If you are interested in further details on Yuletide effects, read the excellent stories in current numbers of mechanical and craft magazines.



THE DELTAGRAM

Published for Owners of Delta Shops Everywhere
SAM BROWN—Editor

Vol. 4

DECEMBER, 1934

No. 3

"Without tools man is nothing; with tools he is all."

—CARLYLE



THIS ISSUE

WE have labeled it "Special Christmas Number," and we are hoping you will find something of interest in the wide variety of seasonal projects. All of the construction stories are "light going"—plenty of time to hie yourself to the basement and do them up for the month's red letter day. The spinning wheel lamp on page 49 takes the blueprint, and there's a full-size blueprint available to aid in producing a finished job.

Other than the projects, you will find the lathe story, the cutouts and the craftsheets in their usual places, with an idea or two in each worth saving. Don't overlook the advertising pages, and . . . might we suggest . . . if you like your Deltagrams, why not a nice, shiny blue binder to keep them in their proper order? You'll find the details on page 54.

NEXT ISSUE

BALANCING the ledger a little, the January number will run heavily to shop stories. There will be an interesting feature on cutting circles on the band saw, a story on using the slide rest on the drill press, and a nice batch of kinks on general shop practice. And, of course, some project material and all departments.

ON THE COVER

. . . we have used fifty-four square inches of space in the season's best manner. It means "Merry Christmas," and there's an idea there, too, which you can consult with your own scroll saw. In the same breath, we wish to thank the General Electric company for the background photo and the two Christmas lighting photos shown on the opposite page.

Dear Craftsmen:

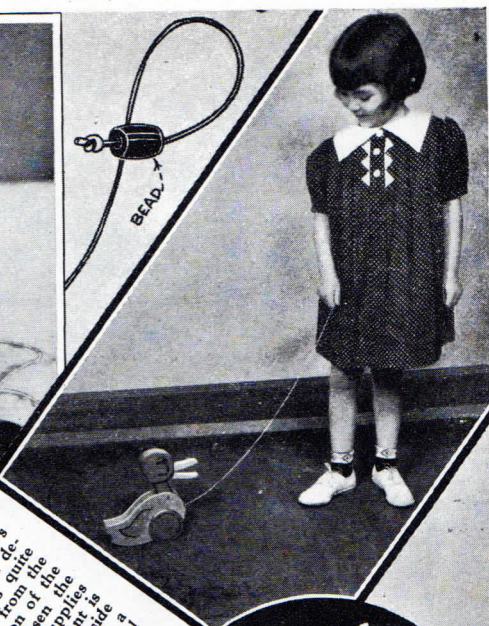
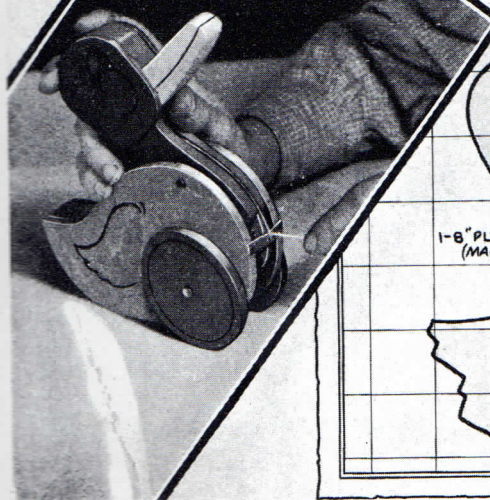
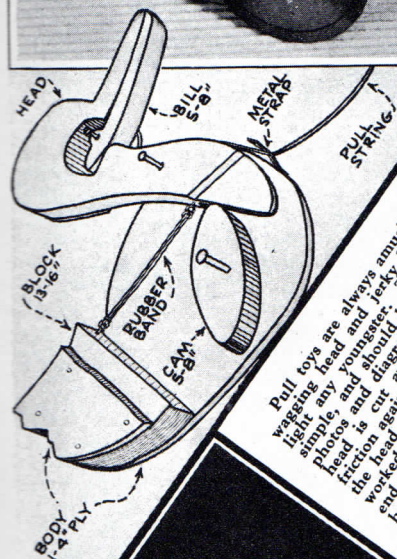
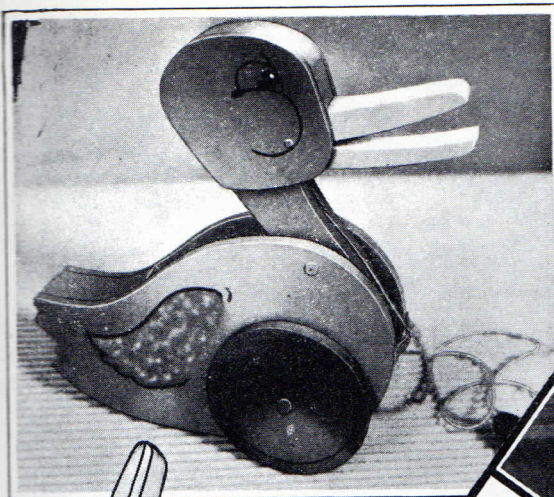
NOT many snowflakes yet, but the calendar says that this is December and the little red signs in the store windows are already telling us it's just so many more days 'til Christmas. Rather nice, too, for although the descriptive "holiday season" is somewhat of a misnomer, there is a certain zip and go to these few weeks before 1934 sings its swan song.

Have you one of the new Deltagram binders? They're right smart looking in blue and silver, and plenty of room for twelve or more issues. Easy to fit the magazines in place, too, with a simple wire snap which slips through the center of the book—and there you are! Lots of requests for the binder all filled up with back numbers, and craftsmen willing to pay good money, but it's a deplorable fact that the previous editions long since been exhausted.

Craftsmen heard lately have given voice to the fact that tool accessories would be their idea of "just right" Christmas presents. It's a good idea . . . and far better one new band saw blade than the rainbow vividly told in socks and ties. Few stockings big enough to hold the new combination unit or the six-inch jointer, but we're all in the know about the big grin that can be occasioned by some small and inexpensive accessory in the toe of a Number Twelve. Here's hoping you find it that way Christmas morning.

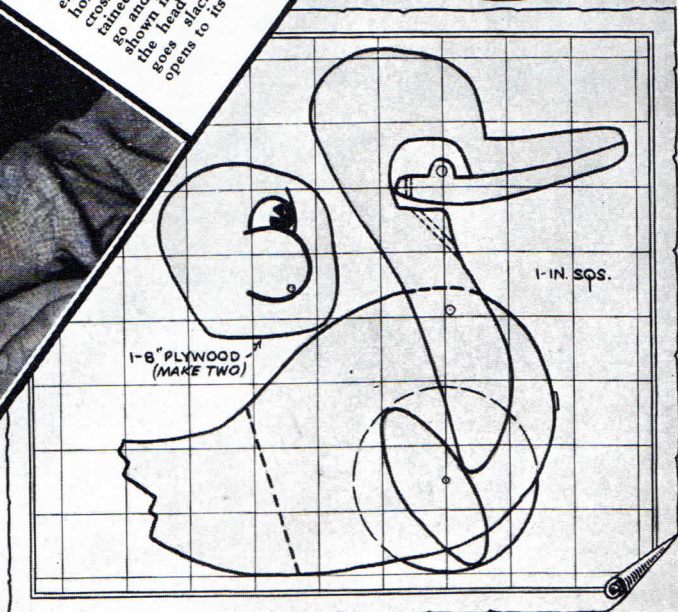
The Editor

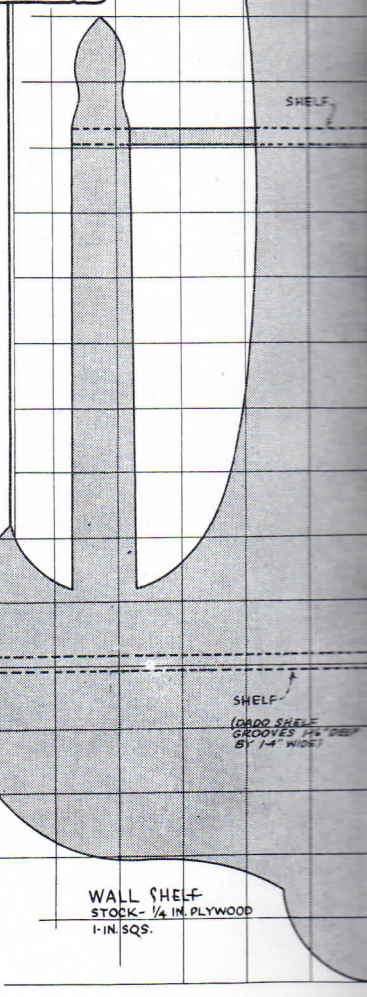
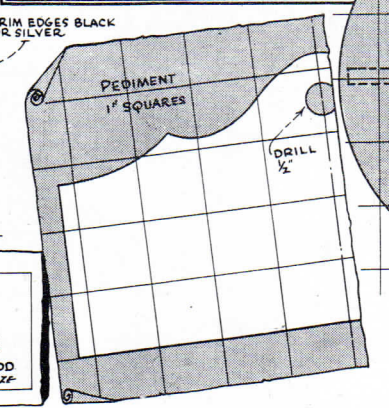
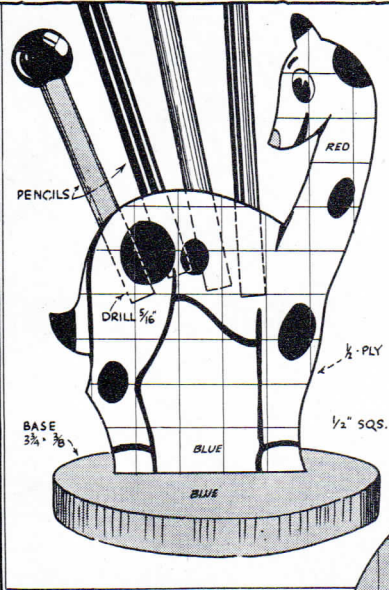
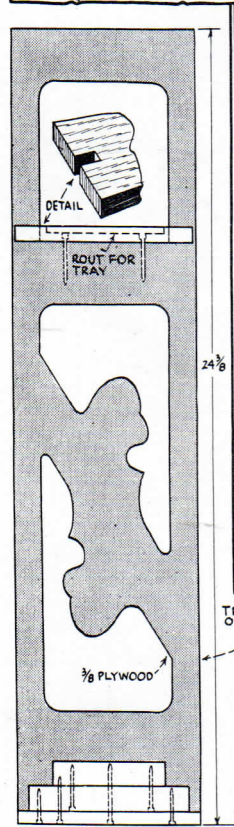
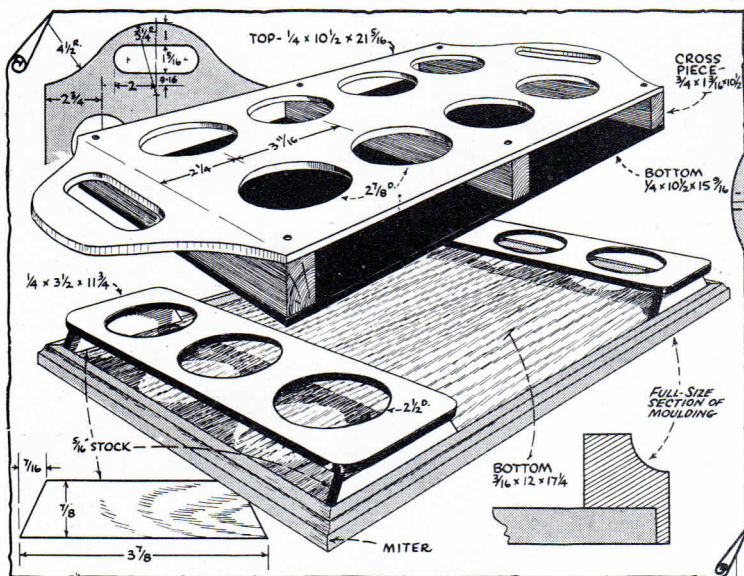
Milwaukee, Wis.,
November 30, 1934.



Pull toys are always amusing, and Mr. Duck's wagging head and jerky bill movement will delight any youngster. The construction is quite simple and should be readily apparent from the photos and diagrams. The lower portion of the friction is cut away on either side to lessen the work of the bill and the cam supplies the end of the bill means of a string tied to the inside hole drilled in the neck to fit onto the inside tinned by pushing the head back as far as it goes and then tying the string as shown in the lower photo. When the head is forward, the string goes slack and the bill opens to its fullest extent.

And this is
**MR.
DUCK**

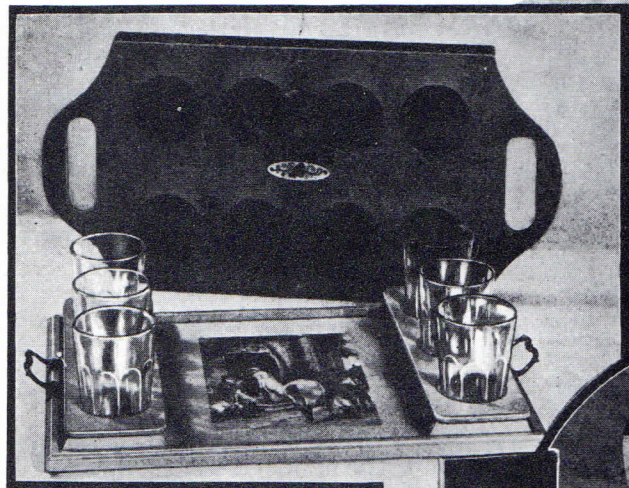




SMOKING STAND
UPRIGHT - $\frac{3}{8} \times 5\frac{3}{4} \times 24$
SHELF - $\frac{1}{2} \times 5\frac{1}{2} \times 5\frac{1}{2}$
BASE - $\frac{3}{8} \times 5\frac{3}{4} \times 6\frac{3}{8}$
BASE SUPPORTS:
2 PCS. $\frac{3}{4} \times 1\frac{1}{8} \times 3\frac{3}{8}$
2 PCS. $\frac{3}{4} \times 2\frac{3}{8} \times 5$
STOCK - SELECT PLYWOOD
ALL DIMENSIONS FINISHED SIZE

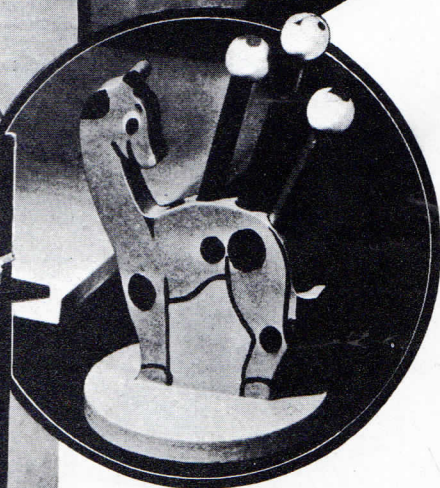
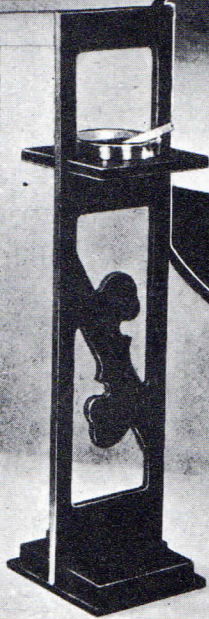
WALL SHELF
STOCK - $\frac{1}{4}$ IN. PLYWOOD
1-IN. SQS.

There's Plenty of Variety in PLYWOOD PROJECTS



PLYWOOD is interesting material to work with, and the ease with which the sheet stock can be shaped makes it ideal for any project demanding curved cutting. The samples shown on this page and diagrammed on the page to the left hardly touch on the possibilities of this versatile material.

The large photo above shows two forms of plywood serving trays which are now very popular. The essential feature is simply a double-deck tray, with the upper tray cut out to accommodate six or more glasses. One of the trays shown is for glasses alone, while the other reserves the center space for sandwiches or the like. Practically all of these trays take a paint or lacquer finish; and transfer designs or old prints add a decorative touch. The better grades of plywood with hardwood facings make up nicely with a varnish finish for projects such as the simple hanging wall shelf shown in the upper corner. The basic idea here is simply a matter of two sides and two or three shelves, and the design has as many variations as pencil can put down on paper. The example shown follows standard practice, with the shelves recessed into grooves cut



in the side pieces—a simple job by routing on the drill press or dadoing on the circular saw.

Another project using the better grade plywood is the simple smoking stand shown in the lower photo. The end grain which is sometimes objectionable is eliminated by touching up the edges with black or aluminum paint. The upright can be left solid, or any other design substituted for the rather simple tree motif shown in the center photo. Plywood is especially suited for cutout figures since the various layers of wood overcome the splitting tendency common to a single thickness of lumber. Novelties, such as the giraffe pencil holder for the bridge table shown in the circle, can be quickly cut on the scroll saw, and with an enamel or lacquer finish are quite durable.

MATERIAL LIST

BASE-1PC. $\frac{3}{4}$ " \times $7\frac{1}{2}$ " \times $9\frac{1}{2}$ "
 TREADLE-1PC. $\frac{1}{4}$ " \times $3\frac{1}{2}$ " \times $4\frac{1}{2}$ "
 SPINDLES-6 FT. $\frac{1}{2}$ " DOWEL
 TOP-1PC. $\frac{1}{2}$ " \times $2\frac{1}{2}$ " \times 6
 WHEEL-1PC. $\frac{1}{2}$ " \times $5\frac{1}{2}$ " \times $5\frac{1}{2}$ "
 SHADE-6" \times 12" \times 7"
 LIGHT:
 $\frac{1}{8}$ " PIPE, 10" LONG
 2" $\frac{1}{8}$ " LOCKNUTS
 SOCKET AND CORD
 MISCELLANEOUS:
 WOOD SCRAPS, WIRE
 BRADS, GLUE, STRING
 WOOD STOCK: MAPLE
 FINISH: STAIN & VARNISH

DOTTED LINE
SHOWS POSITION
OF SHADE

PARTIAL
TOP VIEW

BASE

TO SOCKET

WHEEL

STRING

TOP

WIRE

$\frac{1}{8}$ " PIPE

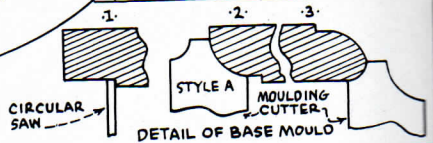
TREADLE

SECTION
THROUGH
WHEEL

FULL-SIZE PLAN

BASE

LEG



PARTIAL
SIDE VIEW

STRING
HERE

PERSPECTIVE
SKETCH
WITHOUT
SHADE

PROJECT: SPINNING WHEEL LAMP

CLASSIFICATION: LIGHTING

№ **DELTA** 58
BLUEPRINT

ISSUE: THE DELTAGRAM-DEC.1934

DRAWING: B. TRACING: B. CHECK: J.T.

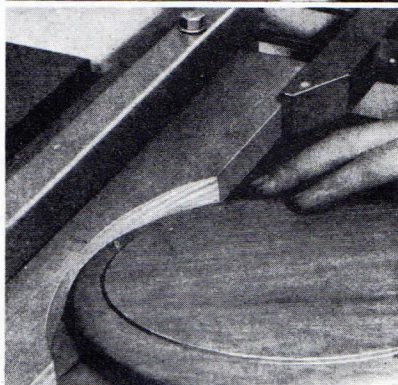
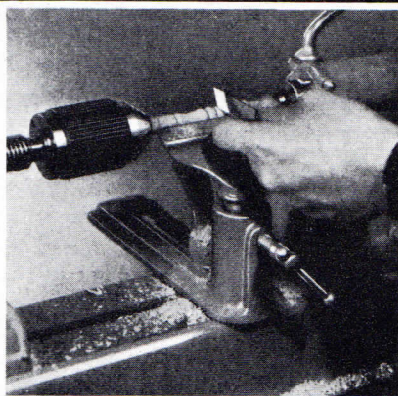
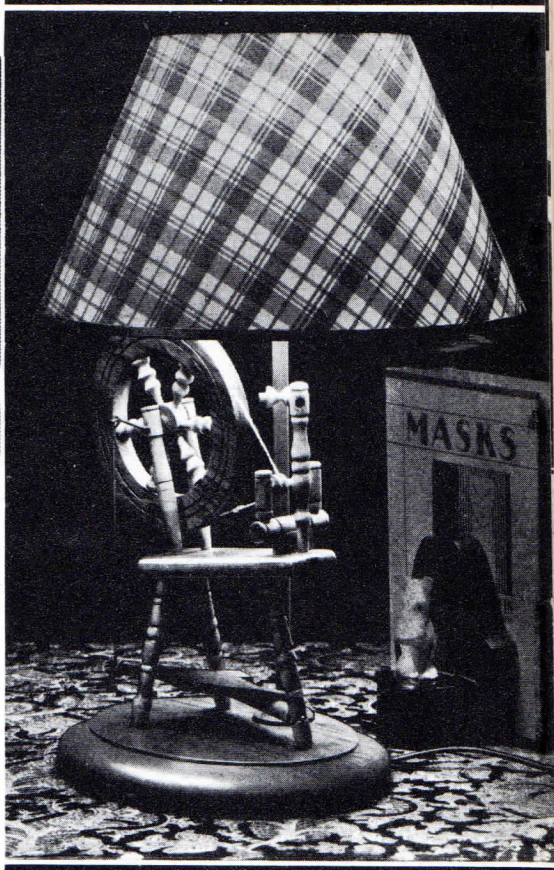
a Colonial SPINNING WHEEL TABLE LAMP

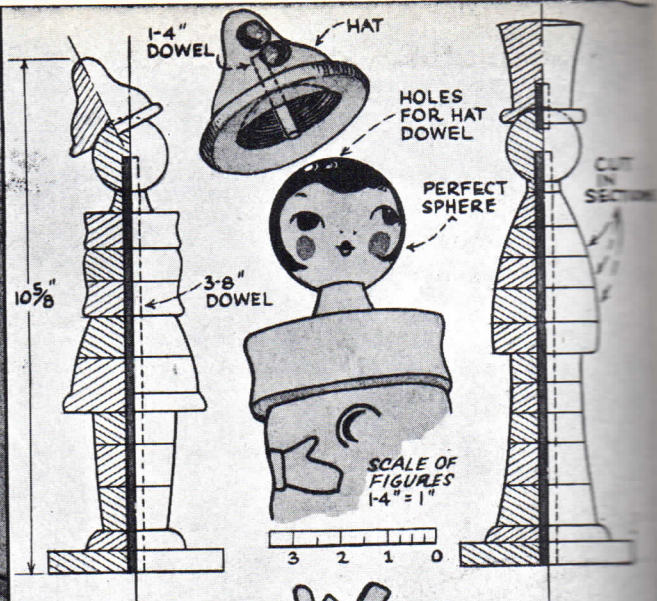
FOR light or for decoration, this spinning wheel table lamp adds a refreshing note to almost any setting. It works, too! Indeed, woe betide the craftsman who dares make one so that the wheel will not go 'round and 'round under the gentle urgings of Mr. Average Person's inquisitive fingers.

The construction can start almost any place, and with the possible exceptions of the base and the wheel, the stock can be salvaged out of the scrap heap. If you work with new materials throughout, it somewhat simplifies matters to use stock dowel rod of the required size for the various spindle turnings. The stock can be gripped in the lathe drill chuck, as shown in the center photo, and the turning thereby made ready quickly and accurately. The final operation in putting the molded edge on the base is shown in the lower photo. This is entirely a product of the circular saw using the molding head, although the work can be done on the drill press with equally good results. The moulding shown, however, is a stock set-up for the circular saw, and requires but three runs to produce the finished edge, as detailed in the blueprint on the opposite page.

Once the various pieces are complete and nicely sanded, the assembly goes forward in a natural manner, working from the base up. In putting the wheel together, you will first glue the spindles to the hub and then brad the assembly inside the rim, as shown. Finishing nails serve nicely as axles, and a length of 12 or 14-gage wire makes the connecting rod. The light, itself, is simply a matter of an ordinary socket mounted in the usual manner on the end of a length of one-eighth inch pipe which is held to the base by means of two lock nuts.

Bearing the original in mind, the wood stock should be maple throughout, and the finish rubbed down to give the piece a well-worn look without marring the general contours. The lamp standard and the exposed axle and connecting rod should be painted a warm brown in order to harmonize with the general coloring of the maple lumber stock. Follow the shade size which is shown in the blueprint, and let it be an imitation calico print or something equally Early American.



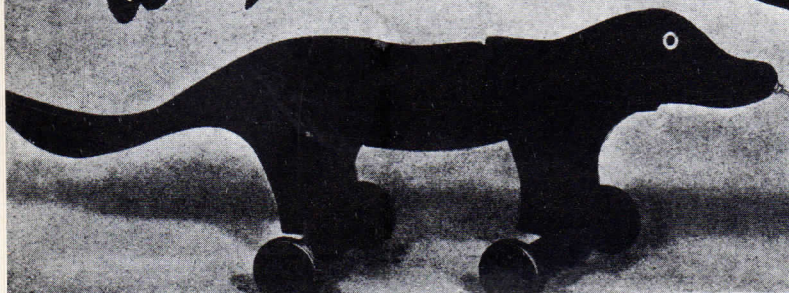


FUNNY DOLLS

The "Funny Dolls" shown above and to the right are really more "fun" than "funny." The idea is to simply turn the doll shape on your lathe, drill a hole down through the center, and then cut the figure in sections on the band saw. Children enjoy putting the dolls together. The heads should be made perfectly spherical and the hats turned out to match so that the hat dowel can be fitted into any of three or four holes drilled in the head. Several hats and dresses or coats can be made up for one figure, or the pieces of two or three different figures can be interchanged. The three-eighths inch center dowel is glue-fastened to the base, while all the other pieces are a free sliding fit. Use a lacquer or enamel finish.



THE Waggle DOG



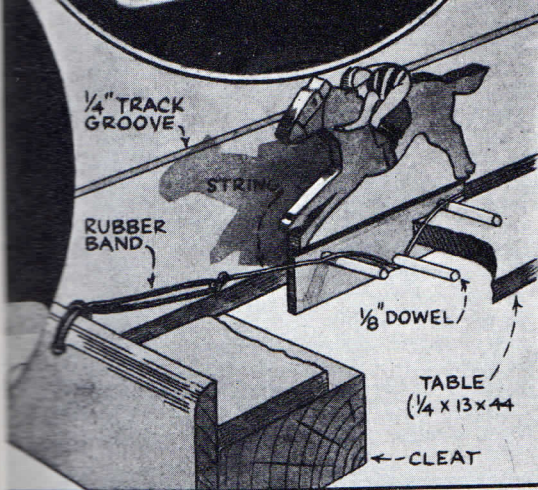
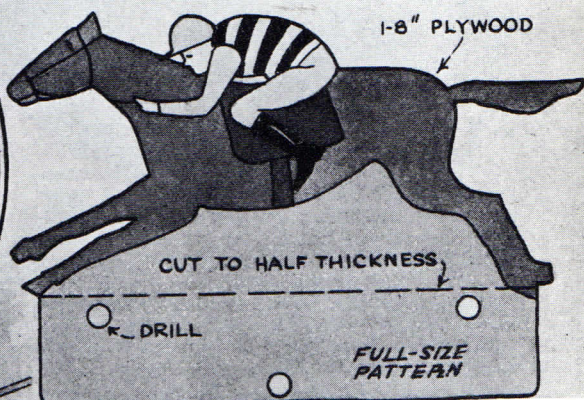
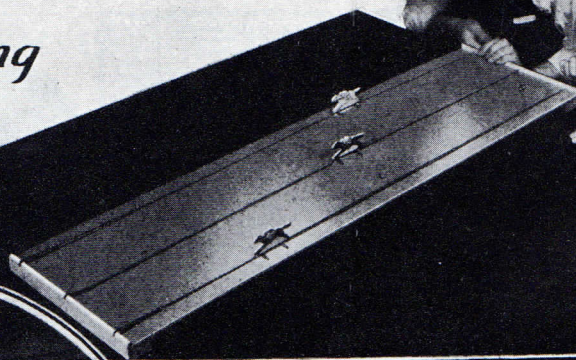
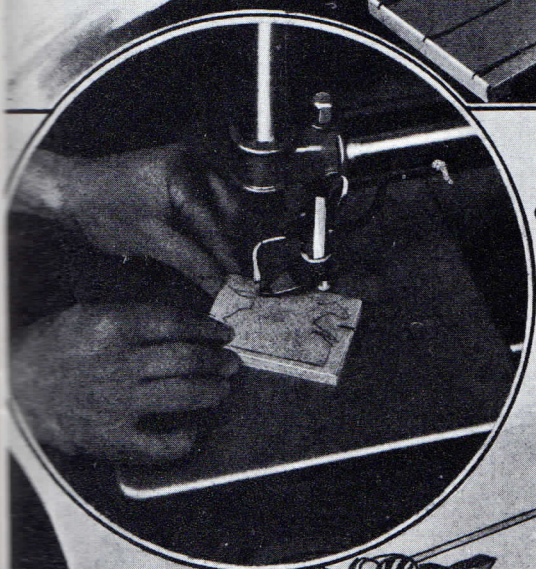
3/4" PLYWOOD

2-IN. SQUARES

SARATOGA

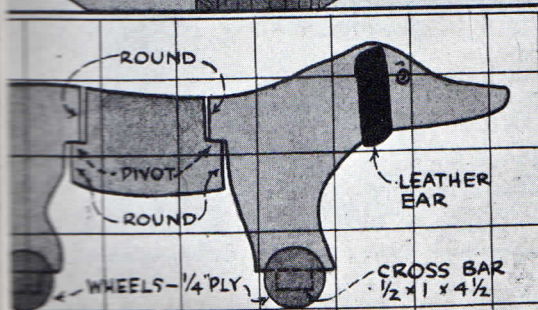
Sweepstakes

*Pull the String
and Watch
Those 'osses
Travel!*

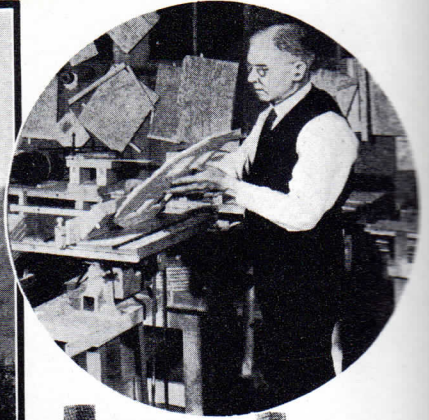
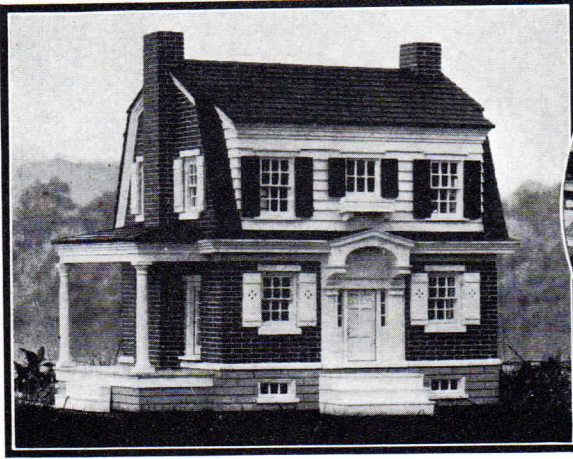


SARATOGA SWEEPSTAKES is a grand racing game which will be enjoyed by both the youngsters and oldsters. Start the construction by cutting the horses on the scroll saw, following the full-size pattern given. Next, make up the track, using strips of plywood and leaving $\frac{1}{4}$ in. "tracks" for the horses to race in. Put a horse in each track, with two $\frac{1}{8}$ in. dowels above the table and one below. The "business" end of the table and the manner of threading the horses is shown in the detail; the opposite end of the table has the same cleat and end piece, with each string threaded through a hole and finished off with a wooden bead. By working the string backwards and forwards, you can send the 'osses scooting along the track to the finish line.

The "Waggle Dog" shown at the left is an old toy, but still very popular. He is easily made up in $\frac{3}{4}$ in. plywood, enlarging the plan to get the full-size figure. Use nails as pivot pins, letting these be a loose fit through the center section, and a driving fit into the end sections. Round off the edges of the joining parts at the points indicated so that the "Waggle Dog" can live up to his name as he is pulled across the floor. Little "Waggle Pups" can be made up about one-quarter the size of the big one . . . and some sight it is to see them all wagging along.



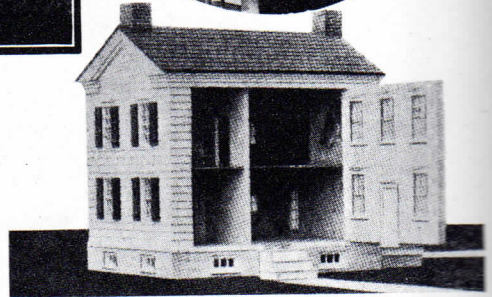
"Who Wants This DOLL HOUSE?"



"**W**HO wants this doll house?" is a question which John E. Wilson, Watsontown, Pennsylvania, asks himself hundreds of times each year as these charming miniature homes are trundled off the end of the production line. And the answer is simple. Lumber dealers use them for display and advertising purposes, real estate men use them for a hundred different reasons, many of the houses make their appearance Christmas morning as play homes for children.

Mr. Wilson produces five different types of miniature homes in his Delta shop. These comprise a frame Dutch Colonial, a combination Dutch Colonial, and three variations of New England architecture. All of the houses are carefully built, and are almost exact duplicates of full-size homes. Each tiny detail is taken into consideration. The windows and casement doors have genuine double strength glass, the doors swing open, the shingles, side boards and bricks are accurately scored to form an excellent imitation surface. As can be seen in the large photo above, these homes are so well-made that they are readily mistaken for the real thing. The smaller picture shows how the houses open up at the back to form a perfect doll house.

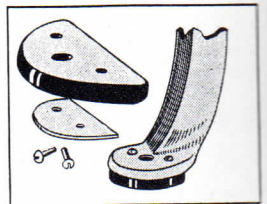
Mr. Wilson modestly lays claim to still



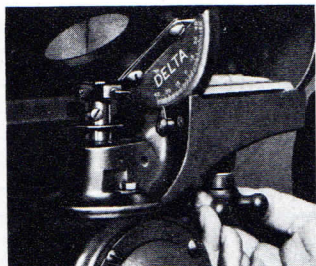
being a "one man concern," and even in the face of heavy production manages to get in most of the joinery. We reproduce his picture in the circle; and the operation is the cutting of the splined-and-mitered joint which is the standard construction used in all of the houses. Notice the clever jig which he uses in running in the spline groove, effecting a considerable saving in time over the standard method of tilting the table to the forty-five degree position. In all other phases of the construction, Mr. Wilson finds his Delta machines ready and capable to turn out the house parts accurately and quickly. Indeed, therein lies a considerable portion of his success, for with modern equipment he has been able to produce a better house and market it cheaper than similar products imported from foreign markets.

RUBBER FEET . . .

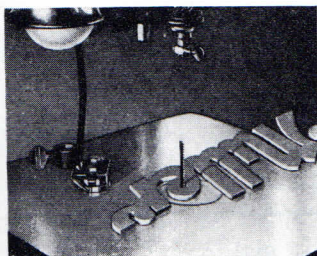
HERE is an item that craftsmen have long been demanding—rubber feet for the various Delta machine stands. These feet are of the correct composition to stand hard usage and at the same time offer enough flexibility to take up slight vibrations. Each foot consists of a rubber "heel" and a metal plate which is fitted within a recess on the underside. The plate is tapped to take two machine screws which are inserted from the upper side of the leg. The complete set of four feet with plates and screws sells for . . . The catalog number is 353. Treat your machine to a set of these "cushions," and then notice how much quieter and smoother it runs.



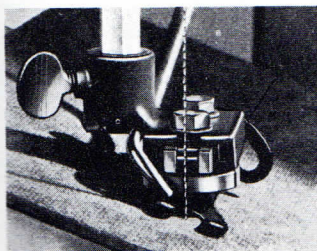
You Will Surely Agree...



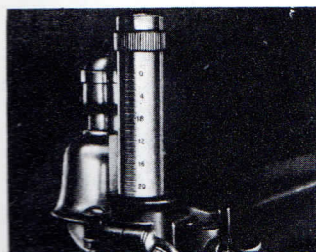
The massive table swings smoothly on double trunnions, and can be locked at any position with the convenient star wheel. The graduated scale shows exact tilt.



The entire upper head can be removed in a moment to permit the ready insertion of pierced work. Heavy and intricate cut-outs can be threaded without bending the blade.



The new hold-down tilts with the work; and, below, the graduated sleeve which shows the exact blade tension at all times.



No Other Saw Offers the Convenience of the **DELTA NO. 1200 SCROLL SAW**

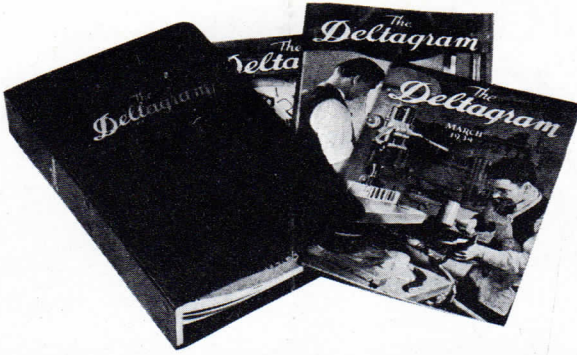
THOUSANDS of No. 700 Scroll Saws pointed the way, and Delta engineers were equal to the task of incorporating in this new unit all of the many refinements demanded by keen-minded craftsmen everywhere. Not one single item has been overlooked. There is a massive, cast table which swings smoothly on double trunnions and "stays put" where you want it. There is a new Delta chuck which takes anything from the finest jewelers' blades to attachments with 1/4-in. shanks. There is a highly efficient universal blade guide, with positive roller blade support. The entire upper head can be removed in a moment to permit the easy insertion of heavy pierced work. The useful spring hold-down is on the job at all times, tilting uniformly with the table to maintain the proper contact with the work. The new self-centering chucks eliminates all the fuss once necessary to center fine puzzle blades. A graduated sleeve checks the exact tension of the blade at all times . . . the new pump sends out an honest-to-goodness breeze at all speeds . . . the reciprocating mechanism and roller bearings are the very finest which can be obtained.

Here—you will surely agree—is a scroll saw worthy of inclusion in the equipment of the most modern production shop, yet its low price brings it within the range of your own basement.

No. 1200 Delta "De-Luxe" Scroll Saw, with 4 blades, cone pulley, wrenches and special puzzle-blade jaw for upper chuck. Without belt, motor or motor pulley.

No. 340 V-belt, 13 in. center to center

No. 718 Four-step motor pulley, 1/2-in. bore



Now Ready DELTAGRAM BINDERS

Delta is now offering an attractive binder in blue fabrikoid with silver lettering for craftsmen who wish to keep their DELTAGRAMS in ship-shape condition. The binder holds twelve or more issues, each number being held in place with a simple and effective spring wire hold-down. Order yours today!

Price

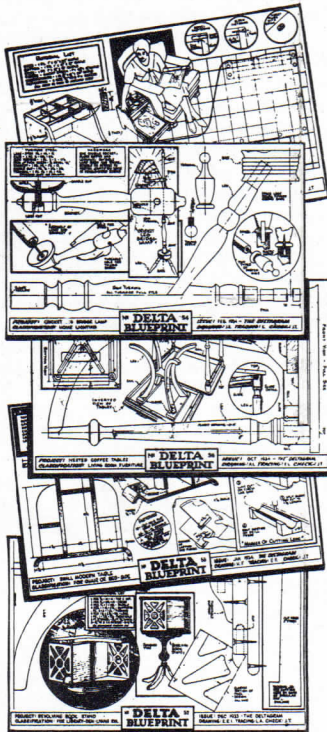
PLUG CUTTERS

In answer to the popular demand for a full line of Plug and Dowel Cutters, Delta is now offering five sizes of this popular tool at a very reasonable price. Each cutter has a standard $\frac{1}{2}$ -inch shank to fit the Delta No. 974 spindle.

Cat. No.	Size	Length of Cut	Price Each	Code Word
814	$\frac{3}{8}$ "	Up to 2"		PLUGA
815	$\frac{1}{2}$ "	Up to 2"		PLUGB
816	$\frac{5}{8}$ "	Up to 2"		PLUGC
817	$\frac{3}{4}$ "	Up to 2"		PLUGD
819	1"	Up to 2"		PLUGF



Sizes from
three-eighths
to one inch



DELTA BLUEPRINTS

A good blueprint is half the battle in building any project, and you will find these Delta prints clear and easy to follow. Many of the pieces are shown full-size, and where this has been impossible, the necessary dimensions have been carefully indicated. All of the prints follow a standard size of 14 by 22-in. Each print carries a material list which gives the lumber sizes required at a glance. Construction kits are available on the starred items, the kits comprising kiln-dried hardwoods surfaced four sides to the exact dimensions. These kits are put out by a reputable manufacturer, and offer an ideal way of constructing these projects.

CURRENT LISTINGS:

- No. 50 COBBLER'S BENCH
- No. 51 DAVENPORT TABLE
- *No. 52 REVOLVING BOOK CASE
- No. 53 MODERN TABLE
- *No. 54 CRICKET LEG BRIDGE LAMP
- No. 55 SMALL TABLE DESIGNS
- *No. 56 NESTED COFFEE TABLES
- No. 57 WINDSOR SMOKING STAND
- No. 58 SPINNING WHEEL TABLE LAMP

*No. 52—

No. 54—

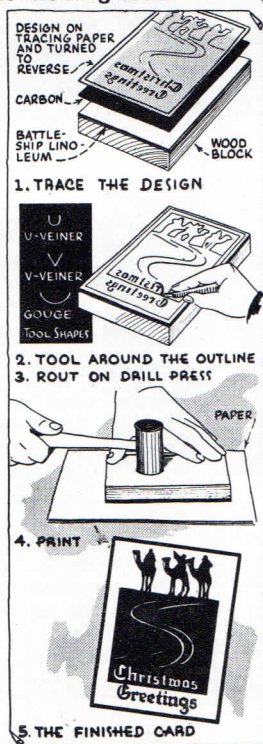
No. 56—

MAKE YOUR OWN Christmas Cards

with LINOLEUM BLOCKS

LINOLEUM block prints make novel and distinctive greeting cards; and it's really fun when you use the drill press for the heavy routing once the outline has been run in with the incising tool. Router bits are also excellent for straight line borders, and in tooling a wide variety of background effects.

Starting out, you will procure a suitable piece of battleship linoleum large enough for the design. The linoleum should be glued to a wooden base block, and the whole thing squared up on the circular saw. The design should be laid out on transparent paper, and then transferred to the linoleum by means of carbon paper. Like any form of printing, the design must be reversed from left to right in order that it will again print in the usual manner. A thin coating of white paint is sometimes applied so that the carbon markings will stand

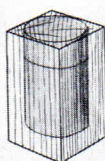
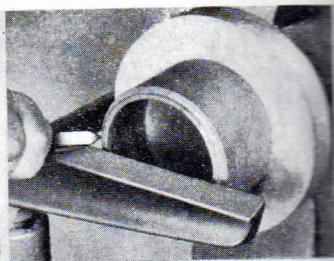
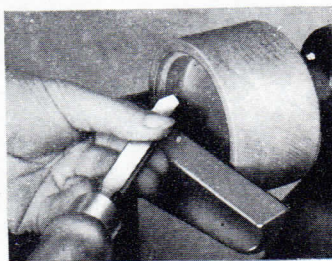
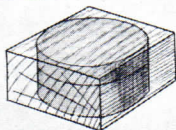


out clearly on the linoleum block. The next step calls for the incising of the design, and the routing away of all parts of the sketch which are not to be printed. A sharp knife will do for the cutting, but you will do better by purchasing an inexpensive set of regular cutting tools. The work must be kept clean, avoiding ragged edges and high spots in routed areas which will later pick up the ink.

When the block is complete, it can be inked for a test proof. This operation is shown in the lower photo. You will use black or colored printer's ink, rolling the necessary amount out smoothly on a glass plate with a rubber roller or brayer. The inked brayer is then applied to the block to evenly coat the untooled surfaces with a thin layer of ink. The inked block is then placed face down on a sheet of clean paper and pressure applied to make the print. The necessary pressure for printing purposes can be obtained with a book press, vise, or by gently hammering the back of the block with a wooden mallet. The test print will show any finishing touches which may be necessary, and the corrected block can then be printed as often as necessary in the same manner. While the mallet and vise methods of printing are alright for a single color, they are not suited for prints in two or more colors.

In all cases, use good linoleum. Battleship Linoleum in thicknesses of one-eighth, three-sixteenths and one-quarter inch is ideal to work with, and is obtainable at most department stores. If the block is being made up for power press printing, it should be mounted 31/32 in. high, including the thickness of the linoleum block.

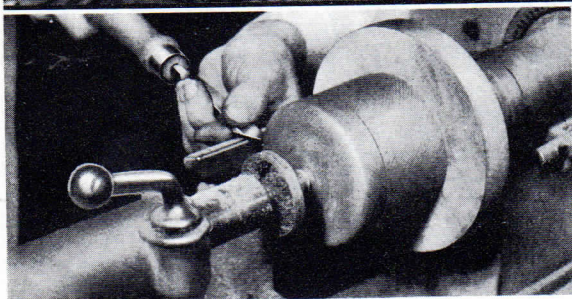


Lessons in WOOD TURNINGTURNED BOX WITH
GRAIN VERTICALTURNED BOX WITH
GRAIN HORIZONTAL

"TURNED BOXES"



COVER VARIATIONS



turning the inside, the lid can be removed from the faceplate, and the main body of the box mounted in place. Here, again, the inside only is turned, the operation being as shown in the right-hand small photo above. The lid should be tested for a fit at various stages of the work in order to finally arrive at a perfect joint. Once the joint has been fitted, the outside of the complete box can be turned down, as shown in the lower photo.

TURNED boxes are generally classified in two main divisions: (1) The grain of the wood is vertical, and, (2) the grain is horizontal, as shown in the sketch above. The classification is again carried to the lid, the usual element taken into consideration being the matter of whether the lid fits the inside or the outside of the box proper. In all cases the actual turning is very much the same.

Boxes are generally faceplate turnings, and follow the same general technique. In most instances of horizontal-grained boxes, the stock must be glued to a soft wood block, with a piece of glazed paper at the joint. This block takes the screw or screws of the faceplate so that the fastenings do not penetrate to the bottom of the box. The lid of the box, being shallow, can sometimes be fastened directly to the faceplate.

The inside of both parts of the box should be turned first. In the left-hand small photo above is shown the lid recess being cut in a typical small box. The outside is not touched beyond smoothing the rough edges which may have been left by the band or circular saw. After

With a well-fitting lid, minor touches on the top of the lid can be done without the support of the dead center. The box can be varnished or otherwise finished while it is yet on the lathe, and then removed from the base by driving a chisel in at the end grain side of the block.

Where the grain of the wood in the box is to run perpendicular to the base, the stock can generally be left sufficiently long to take the faceplate fastenings. The turning proceeds as before. A glue chuck is sometimes used for this type of box. This is made by turning a $\frac{1}{2}$ inch tenon at the end of the box stock, and glueing this tenon into a corresponding hole drilled in a soft wood base block which is fastened to the faceplate.

In all box turnings the most difficult part of the work is turning out the deep recess in the body. A considerable portion of the rough cutting can be eliminated at this point by running in with a wood bit to remove part of the wood, taking care that the bit does not go beyond the required depth.

Here's Your "TURNED BOX" PROJECT

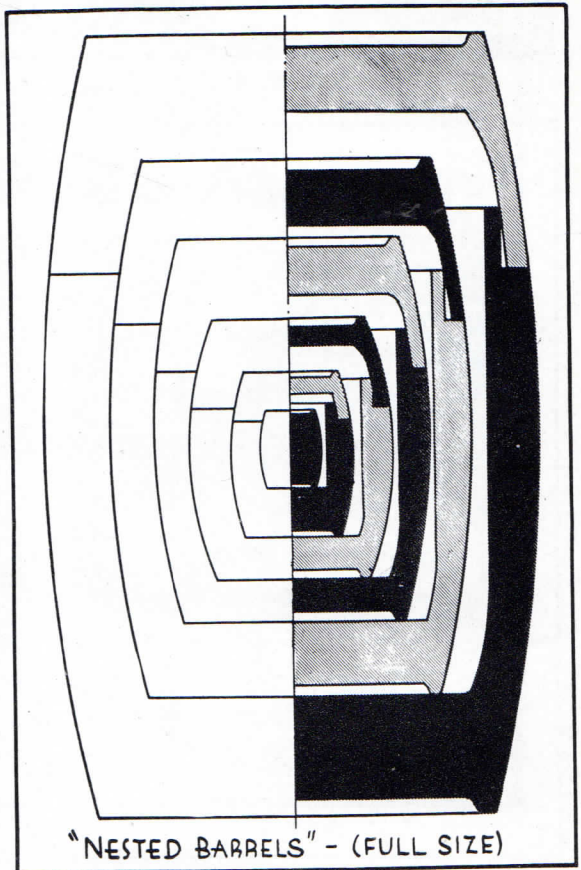


THEY'RE no use at all in the world except as a novelty and something to hand to your friends for inspection, but it's rare fun to watch an unsuspecting person open the first barrel only to find another barrel . . . and then another barrel . . . and still they come!

The turnings are quite simple, and the full-size plan gives all necessary dimensions. Nested sets of this size often have as many as ten different barrels, but the plan of six, as shown, is recommended as an initial project. If you are not already acquainted with the manner of making turned boxes, you will find the lathe story on this subject worth reading. All of the barrels have the grain perpendicular to the base; and the lids fit on the outside. The smallest barrel is solid, and is turned to outside dimensions only. Working from the plan, it makes little difference whether you work from the big barrel down or the little barrel up.

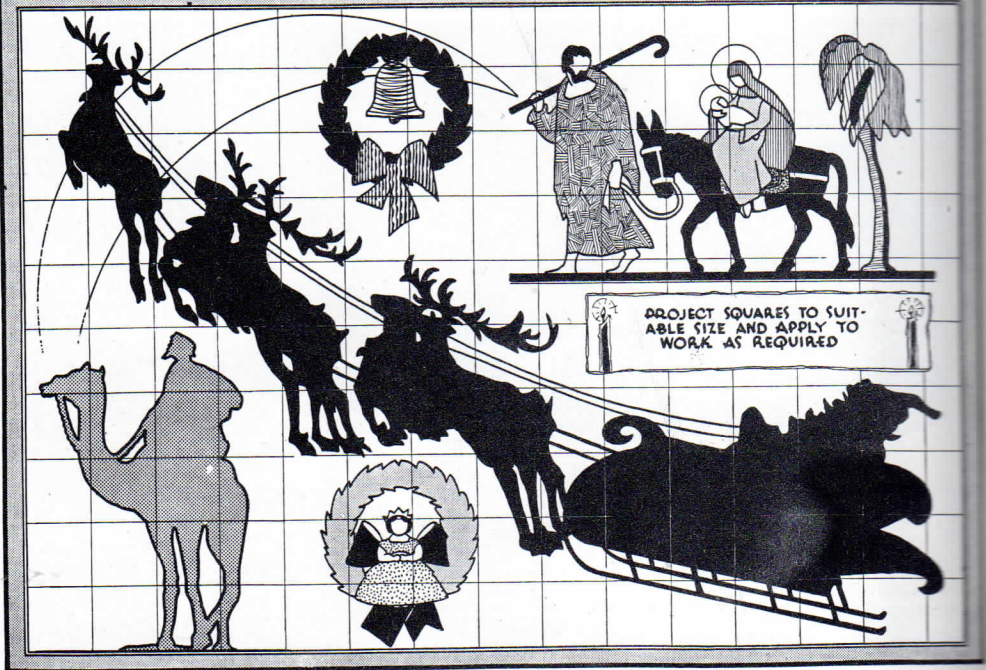
A neat job is essential. Much of the pleasure in possessing a set of nested barrels lies in the perfection of the turnings and the joints. Each barrel should be different from any of the others. This can be effected by using either a decorative paint finish or by utilizing the natural color effects obtainable by using different kinds of wood. Walnut, maple, and mahogany can be used for the three larger barrels, in order, and small pieces of rare cabinet woods or bone, ivory or composition used to complete the set.

A Whole Family of **NESTED BARRELS**



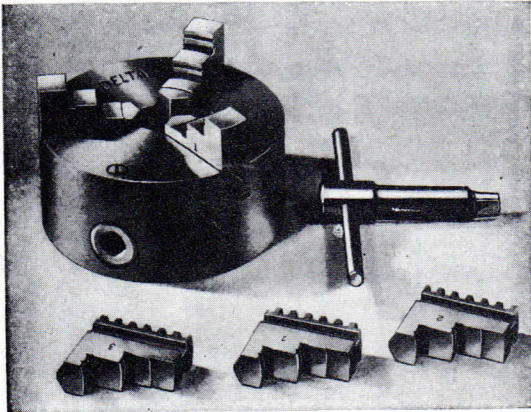
"NESTED BARRELS" - (FULL SIZE)

Christmas Cutouts



Include the Delta Catalog in Your Christmas Shopping Guide

New DELTA UNIVERSAL CHUCK for 11-inch Lathe



- No. 957** Three-Jaw Universal Chuck, with inside and outside hardened-steel jaws, wrench and back plate to fit No. 930 lathe
- No. 963** Universal Chuck, as above, but without back plate
- No. 964** Back Plate, not machined, for No. 963 Chuck

Universal chucks, in which the jaws move in and out simultaneously through the use of one key, and which are self-centering, are a necessary part of every metal-lathe equipment, but they have heretofore been so high-priced as to be beyond the reach of most craftsmen. The Delta No. 957 Universal Chuck is a very high-grade tool, with heavy cast-iron body and two sets of hardened-steel jaws, precision fitted and equal in every way to chucks costing much more.

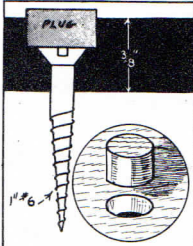
No. 957 is fitted with the back plate to fit No. 930 Delta Lathe only. If wanted for other lathes, order Universal Chuck No. 963, without back plate, and separate back plate No. 964. This back plate must then be machined locally to fit your lathe to insure true running of the chuck.

Delta Craftsheets

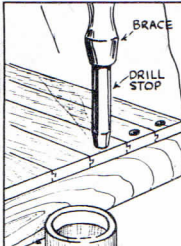
No. DP-1

General Practice Plugs and Dowels

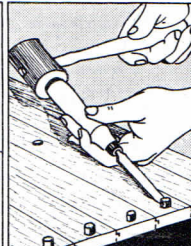
The Delta-gram—Dec., 1934



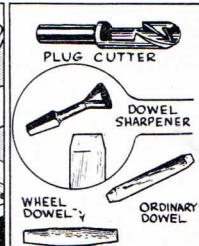
FULL-SIZE DETAIL SHOWS MINIMUM DIMENSIONS FOR PLUGGED WORK. INSERT THE PLUG WITH THE GRAIN.



SOME FORM OF STOP MUST BE USED TO STOP THE DRILL ACCURATELY AT THE REQUIRED DEPTH.

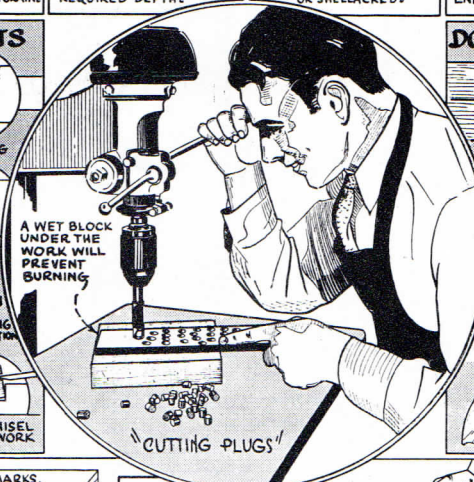
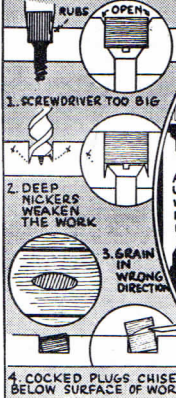


A WOOD CHISEL IS USED TO LEVEL THE PLUGS. PLUGS SHOULD BE GLUED OR SHELLACED.

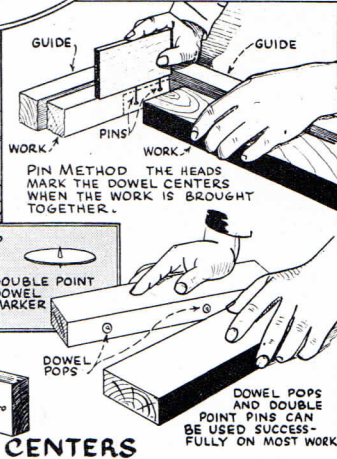
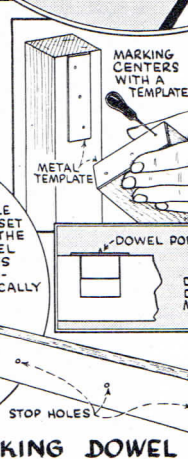
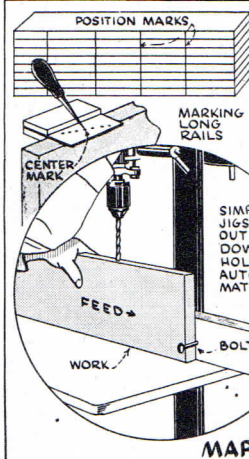
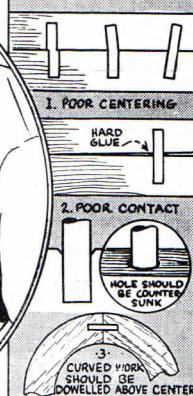


PLUGS AND DOWELS CAN BE PURCHASED OR MADE ON THE DRILL PRESS. A SHARPENER IS SOMETIMES USEFUL.

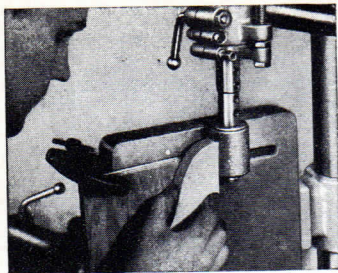
PLUG FAULTS



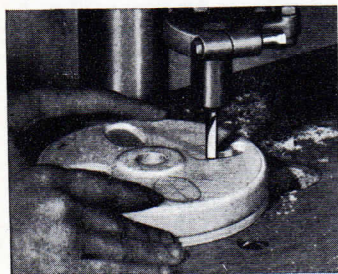
DOWEL FAULTS



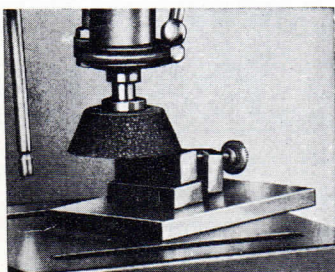
MARKING DOWEL CENTERS



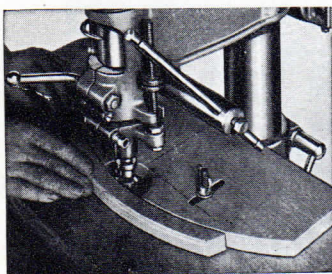
● SANDING



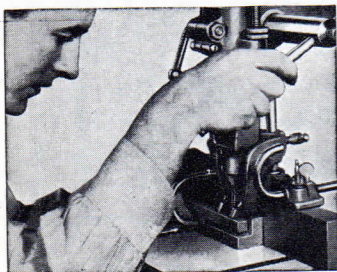
● ROUTING



● GRINDING



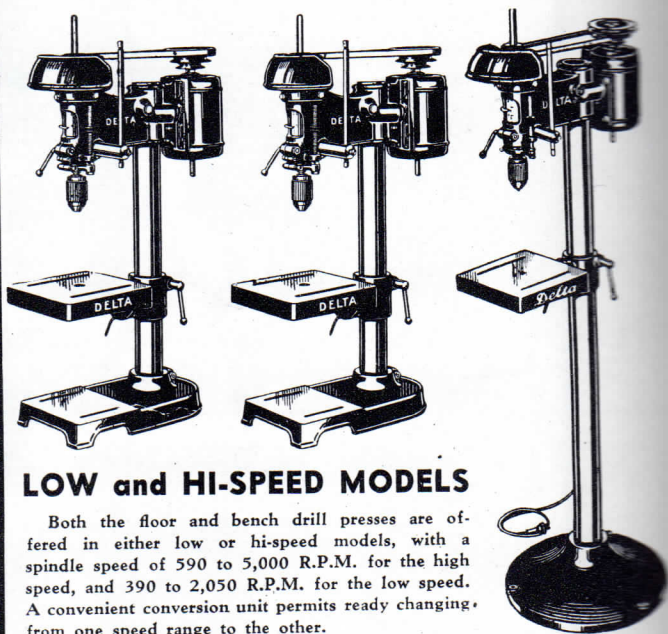
● SHAPING



● MORTISING

For a Hundred Different Jobs DELTA DRILL PRESSES

NOT so long ago, a drill press was a tool for drilling holes only; today, you'll find this versatile machine performing hundreds of different jobs in home and production shops. And the complete line of Delta Drill Presses can take it—ruggedly built to last a lifetime; scientifically built to offer the utmost convenience in rapidly changing from one set-up to another. Six different models cover every requirement of either the home or production shop, and a complete line of shaper cutters, mortising bits and chisels, tapping attachments, spur and router bits, plug cutters, sanding drums and grinding wheels are instantly available to increase the usefulness of your own machine.



LOW and HI-SPEED MODELS

Both the floor and bench drill presses are offered in either low or hi-speed models, with a spindle speed of 590 to 5,000 R.P.M. for the high speed, and 390 to 2,050 R.P.M. for the low speed. A convenient conversion unit permits ready changing from one speed range to the other.

... at New LOW PRICE Levels:

- | | |
|----------|--|
| No. 620 | Delta Double-Duty Bench Drill Press... |
| No. 995 | Hi-Speed Triple Duty Bench Model... |
| No. 1295 | Low-Speed Triple-Duty Bench Model... |
| No. 970 | Hi-Speed Triple Duty Floor Model... |
| No. 1270 | Low Speed Triple-Duty Floor Model...
All drill presses equipped with V-belt and motor pulley, but without motor. |
| No. 1290 | Slow-Speed Conversion Unit for Triple-Duty Drill Presses, consisting of pulley, guard, pinion shaft and No. 430 V-Belt |

DELTA MANUFACTURING CO.

3775 N. Holton Street

Milwaukee, Wis.