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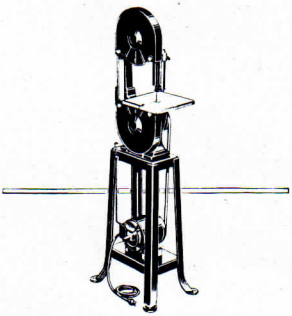
# The Deltagram

January 1932

# INVITATION

"THE DELTAGRAM," as the editor explains on the opposite page, is the culmination of an idea long held in mind; one that we have always wanted to put into effect. We want you to consider this as your own special journal, and to make the fullest possible use of it. We have ideas of our own as to what should appear in its pages, but we would appreciate having your ideas also, since they will help us make the little journal just that much more useful. So don't be backward in telling us what you want to see in it . . . and send us along anything that you have which you believe others would like to see.

Herbert E. Fautz



# The Deltagram

*Published for Owners of Delta Shops Everywhere*

JAMES TATE—Editor

Vol. I JANUARY, 1932 No. 1

*"Without tools man is nothing; with tools he is all."*—CARLYLE

## Why the "Deltagram"

WE ARE not going to start out by telling you that now, at last, the craftsman is to have a magazine of his own. You would know, just as well as we, that this would be just so many words. "*The Deltagram*" cannot pretend in the least to take the place of any of the splendid magazines which have been catering to the wants of the home mechanic and the craftsman. Nor has it any such pretension.

The purpose of this little journal is simply to be of help to Delta craftsmen; owners of Delta machines. We, at the factory, receive many suggestions from our craftsmen friends, some of whom tell us about their ways of doing things, about the furniture, toys and hundreds of other things they make, about their ideas on workshop layouts, original ways of using Delta equipment and hundreds of other things.

Many of these suggestions and ideas would be of vast benefit to other Delta owners, but heretofore we have had no practicable means of passing them on, except when an owner wrote to us for a solution of some problem that had put him up a tree. We have had the idea of "*The Deltagram*" in mind for a long time, and now, at last, we are able to realize it. We want to make "*The Deltagram*" just as useful and as serviceable as any of the rest of your Delta tools, for that is just what it is: another tool to enable you to get the very utmost in pleasure out of your hobby, if woodworking is your avocation, or in service out of your machine if it is your vocation. And whether this tool is to be a keen or a dull one depends to a great extent upon yourselves, for the editor needs your assistance in making and keeping it "sharp."

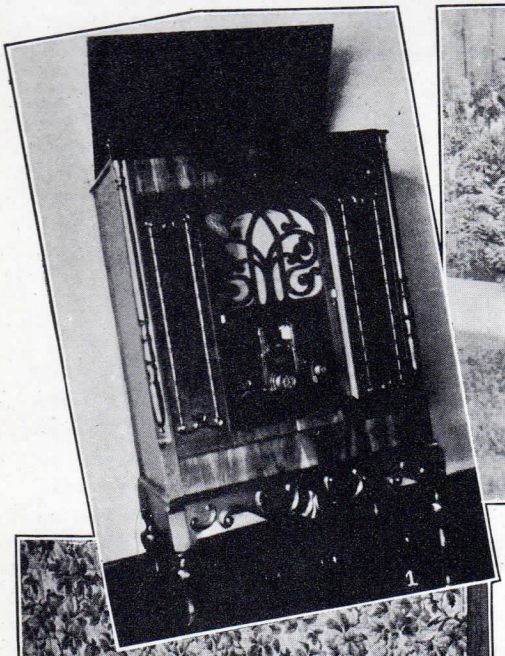
## Passing It On

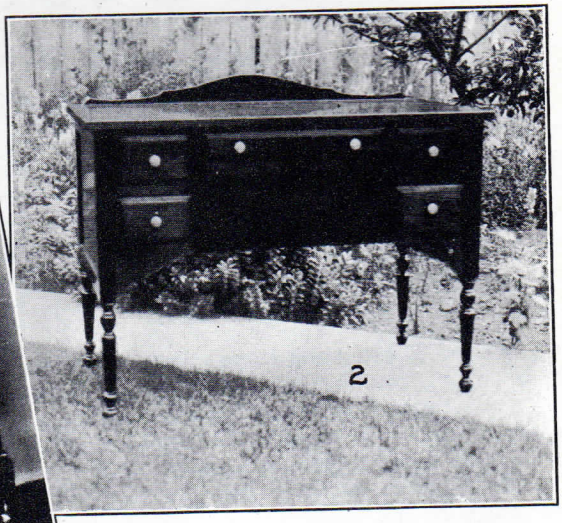
NO CRAFTSMAN tinkers around his workshop for any length of time without developing some "kinks" of his own. These may be simpler or better ways of doing common operations; they may be little gadgets attached to his bench or machines that make his work more convenient; they may be ways of storing his stock, of connecting his machines, of planning his work, of laying out his shop.

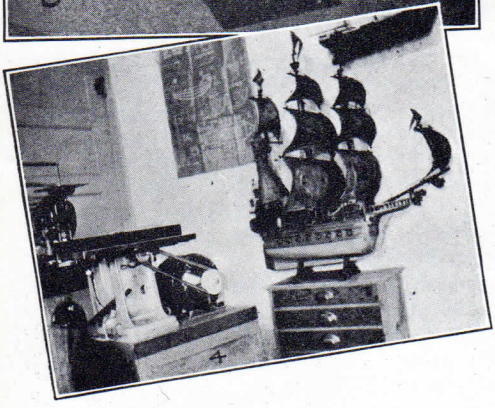
He may have developed something that commands a ready sale amongst his friends or that makes suitable presents.

All of these kinks and ideas are useful to others; especially useful to those who have exactly the same sort of equipment as he has himself. But the craftsman is apt to minimize his ideas, he thinks them too trivial to pass on, and thus they are lost. Here is the opportunity to put your ideas to work for the benefit of other woodworkers. Send them to us, and we will pass them on. We do not care if you cannot draw, or if you think you "are not an author." Send us along the idea in your own words, and illustrate it as best you can. We'll do the rest.

# What Delta Crafts-







THE beautiful radio cabinet shown in photo 1 is the work of Mr. Orville M. Harris of Loveland, Colo. It is of solid walnut throughout, the wood being obtained from old furniture and other sources, the total cost being under With the exception of one moulding, every operation was done and every piece produced on the Delta Handi-Shop. It is a beautiful piece of work, and one that any craftsman might well be proud to have made.

The interesting desk-table shown in photo 2 is but one of the several pieces of furniture produced by Mr. Ernest D. Olund in his Oakland, California, workshop. This, also, is made of walnut. The legs were fluted on the shaper, after turning, and the raised drawer fronts were produced on the tilting table saw. All grooving was done with the dado set, and the back piece and rails were cut on the bandsaw.

A name that is familiar to most readers of the popular mechanical and scientific magazines is that of Walter Burton of Akron, Ohio. Mr. Burton is an enthusiastic home craftsman, as his articles testify, and . . . naturally . . . he uses Delta machines. The quaint bowl table shown in photo 3, and which savors so much of the Colonial, was produced in his Delta workshop for one of the magazines. It affords an ex-

# men Are Doing


cellent piece for the enthusiastic turner, and forms an exceedingly useful article of furniture when finished, since it will serve as a table, a nut bowl, a Gargantuan ash-tray, or almost anything else you want to call it.

As photos 4 and 7 indicate, the ruling hobby of R. L. Cass of Los Angeles, Calif., is ship models. Not that he confines himself to these by any means; he is also a first-class cabinetmaker, if the photos he sent mean anything, but it was apparent, as we went through his photos, that ship models were very dear to his heart. Notice the beautiful model of "Flying Cloud" partly completed, photo 7, and the Galleon, photo 4, as well as the half-model on the wall, and the blueprint of the early round ship. A real ship-model enthusiast is Mr. Cass.

Photos 5 and 6 bring us to a hobby that is, perhaps, more practical than ship modeling, and which, to many Delta craftsmen, is just as fascinating . . . the making of built-in conveniences for the home. The very attractive Colonial design corner cabinet in photo 5 was made by Mr. Carl A. Mahl of Hartford, Conn., who is connected with one of Connecticut's largest banks, and who finds in his Delta machines a keen source of pleasure and relaxation after the strain and tedium of banking. The kitchen cabinets shown in photo 6, which

What are you doing in your shop this winter? Send us along a photo of any work you have done recently, or that you are working on now. We are all interested in what other craftsmen are d o i n g, and your work will prove of inspiration to many others. Just a photo and a short description is all we need. Send 'em along.—The Editor.

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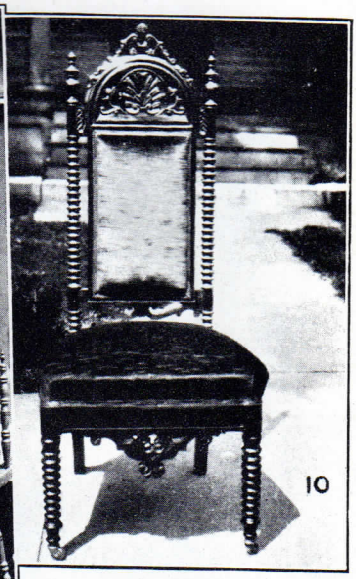
10

Mr. M. E. Ringrose of Des Moines, Ia., is the constructor of the useful and ornamental piece shown in photo 8. This is a combination magazine rack and smoking stand, and forms an ideal chairside companion, says Mr. Ringrose.

The vocation of Mr. H. C. Wendt of Altamont, Ill., is concerned with diamonds, watches and clocks, but what his avocation is may easily be seen by a glance at photo 9. The fret-sawed clock cases are monuments of patience and ingenuity, and a tribute to the old Delta scroll saw.

And note the carved chair in photo 10. You'd never think that the producer of this piece, with its careful hand carving, was a musician by profession. But that is just what Mr. Lloyd R. Schroeder of Maywood, Ill., does for a living. The two charming tables shown in photo 11 were produced in the shop of Henry G. Landry, who is a professional carpet designer of Thompsonville, Conn., and the Colonial mantel clock in photo 12 is a sample of the work of R. O. Buck, another master craftsman whose work is well known to readers of the magazines, and who is also an enthusiastic user of Delta machines.


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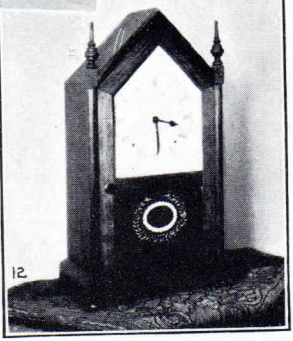
would delight the heart of any housewife, were built by Elmer E. Auer of Lincoln, Ill., and we'll say they are a real job! Mr. Auer says that the planing mill in his town, with its large and expensive machinery, can't turn out as nice work as he can with his Delta machines in his own workshop . . . and we believe him, for we make Delta machines with that very end in view.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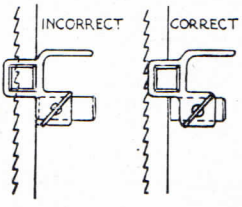
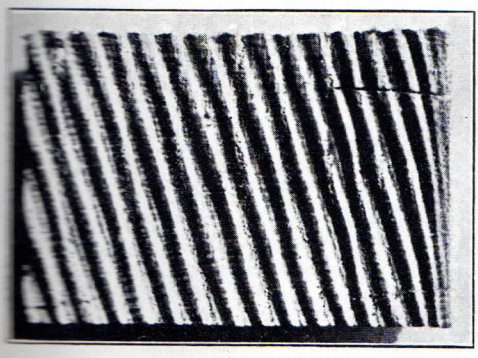
## BAND-SAW BLADES MUST BE SHARP FOR GOOD WORK

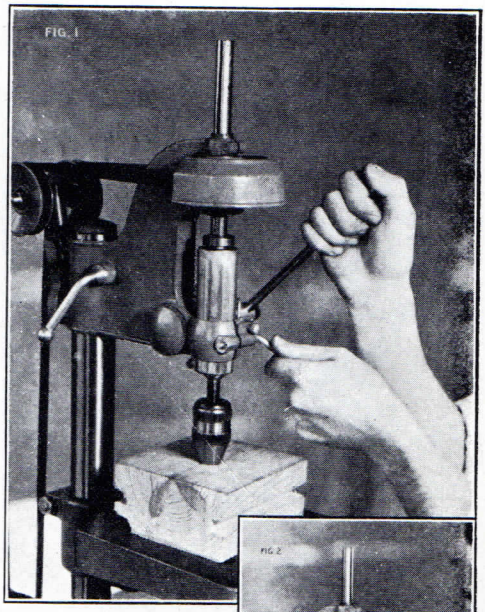
A BAND-SAW blade should never be used after it becomes dull. This would seem to be an obvious precaution for the user to adopt, but it is surprising how many workers will keep on using a blade long after it should have been resharpened or replaced.

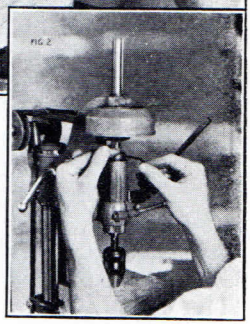
One of the consequences of using a blade after it has become too dull is shown by the photo below. This is not a section of a washboard, but is the end of a small piece of wood that has been cut with a dull blade. This "snaking" invariably accompanies the use of a blade that is too dull.

Another contributing cause of snaky cuts is the incorrect adjustment of the blade guides. The saw should always be adjusted so that it runs as deeply into the guides as possible, without the guides touching the teeth. In one drawing below, the blade is too deep into the guide, and the teeth will be dulled by rubbing on the guide pins. One will often find, in examining a band saw that is producing a snaky cut, that the blade is not deep enough between the guides; in other words, that it is not properly supported sidewise. The pins should hug the blade closely, without pinching it, and the roller guide should not touch the back of the blade until the latter starts to cut.





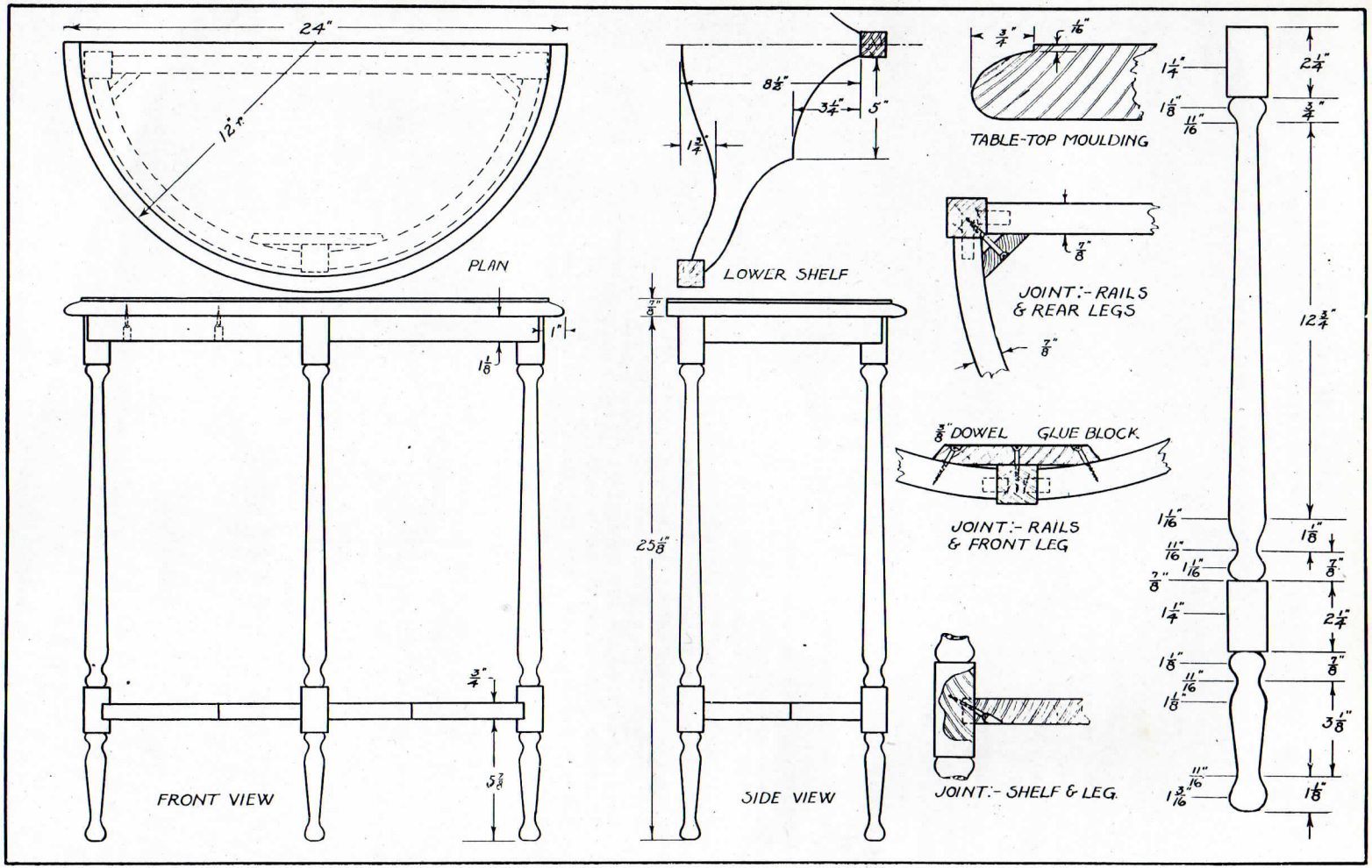

Above — Pulling down on the feed lever to force the spindle up into its seat; the left hand locks the quill in position as soon as this is done. Below—Tightening the upper cone collar on the spindle, which leaves the spindle ready to run.

## CHANGING DRILL-PRESS SPINDLE IS EASY JOB

CHANGING of the spindles on the Delta drill press is a matter of a few minutes only if the procedure shown in the above photos is followed. First remove the stop collar, then slacken the Allen screw on the cone collar above the quill. Swing the table out of the way, and pull the spindle clear out.

Slip the other spindle up into the quill and through the cone collar, turning it in the fingers until the key in the spindle pulley engages the keyway in the spindle. Swing the table back under the spindle, and run it up until the chuck rests on a wood block, with the quill at the top of its stroke, as shown in Fig. 1.

Pull down the feed lever so as to force the chuck against the block, then lock the quill in this position by tightening the quill lock. Now press down the cone collar with the fingers, as in Fig. 2, and tighten the Allen screw.


24"
12"
PLAN
1"
1⅛
¾"
5⅞
FRONT VIEW
8½"
3¼"
5"
1¾"
LOWER SHELF
7"
25⅛"
SIDE VIEW
¾"
1/16"
1¼"
1⅛"
11/16"
TABLE-TOP MOULDING
⅞"
JOINT:- RAILS & REAR LEGS
⅜"DOWEL
GLUE BLOCK
JOINT:- RAILS & FRONT LEG
JOINT:- SHELF & LEG.
2¼"
¾"
12¾"
1/16"
⅛"
⅞"
1¼"
3⅛"
1 3/16"

# Making a Small Console Table

HERE is a job that will not only prove enjoyable to make and finish, but that will be found exceedingly useful after it has been made (something that cannot be said of all "projects"), for no one ever has too many small tables.

The material may be selected to suit the furnishings of the room in which the table is to be used; maple, walnut, mahogany and cherry are all suitable, or, if the table is to have a painted finish, one of the easily worked soft woods may be used instead. The top may either be a solid board, or, if this cannot be obtained in the proper width, of five-ply construction, with the surface veneer of the same kind of wood as the remainder of the table.

The first job is the legs, and for these a template should be made, from which to mark off the stock and to insure uniformity in turning. This is a straightforward job of turning, and no difficulty should be encountered.

The two curved top rails are cut out on the band saw, taking care to lay out the pieces so that the grain will run along with the length of the rails. They are 7/8 in. thick and 1 1/8 in. wide. The straight rear rail is of the same size.

No Home Ever Has Too Many Small Tables, and This One, Which Is Easy to Make, Will Fit Into Practically Any Decorative Scheme

The top is now laid out and cut to shape on the band saw, then the thumb mould on the front edge may be cut on the circular saw, using the moulding cutter. This done, mark off the rails for the screws that hold the top in place, drill the holes and counterbore for the heads of the screws.

Cut the shelf to the shape given, on the band saw or scroll saw, leaving the edges square. It is not necessary to stick to the exact shape shown, but the curves should not be made too elaborate. Notch the two side ears of the shelf to fit neatly on the square portions of the legs, then drill holes slanting from the underside of the shelf, as shown in the section.

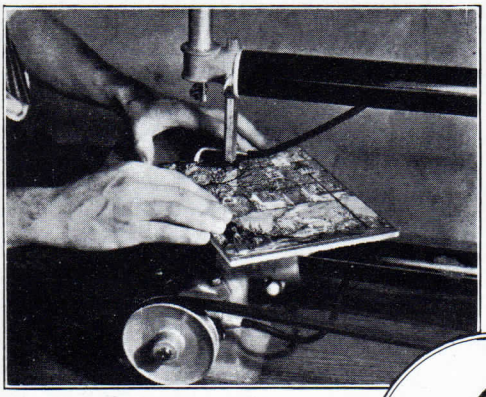
The method of fastening the upper rails to the legs is by means of screws and glue blocks. Cut the blocks to the shapes shown, fitting them carefully to the rails and legs, and drill them for the screws. The glue block may be omitted at the front and dowels used as indicated by the dotted lines, if preferred, but the glue block makes the stronger construction. Assemble the rear rail and legs first, dowelling the rail into the legs. Next dowel the curved rails to the rear legs, apply the glue blocks, and drive in the screws. Now screw one side of the front glue block to one rail, glue and draw the rail up close to the leg, and insert the screw that fastens the glue block to the leg. Glue and draw up the other curved rail, and drive in its screw. Glue and screw the shelf to the legs. Screw the top in place and the assembly is finished.

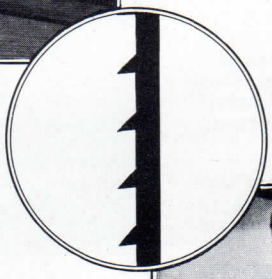
The finish is a matter of taste, or of expediency, depending on the capability of the craftsman. The excellent directions for wood finishing given in the third volume of "The Modern Motor-Driven Woodworking Shop" will enable anyone to finish this table.

For those who desire a larger working drawing of this small table, we have prepared a blueprint, 12" by 18" in size. This may be obtained by sending in coin or stamps, to the Blueprint Department of *The DELTAGRAM*, 3775 N. Holton St., Milwaukee, Wis.

# New Blades and Guides Make Easy Work of Cutting Jigsaw Puzzles

## Specially Designed for Fast and Clean Cutting, These New Blades Will Prove to Be a Revelation for Jigsaw and Inlay Work, and for All Fine Cutting





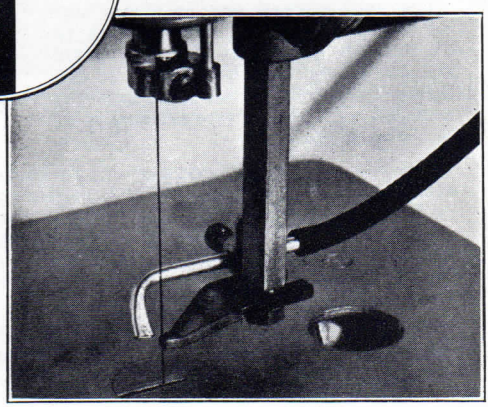
Above, Cutting Out a Jigsaw Puzzle with the New Blade and Guide. Center, a Closeup of the Teeth of the Blade. Below, the New Guide and Hold-down, Which Permits an Unobstructed View of the Work

ONE of the troubles encountered in the past by the maker of jigsaw puzzles and others interested in fine cutting has been to obtain saw blades that would not only be fine enough for the work, but that would stand up without breakage, and produce a fast, clean cut.

These requirements have been met in a blade now available. This blade is cut with what is known as the "American Style" tooth, an enlarged section of which is shown at the right. As may be seen, the teeth are spaced much wider apart than is customary with ordinary blades, and this enables the tooth to clear itself easily, even at the fast speeds employed in the Delta scroll saw. The tooth has no set, which means a cut that is beautifully smooth and clean at the edges; in fact on short turns and curves the blade actually leaves the wood looking as though it had been polished on the edges with the finest sandpaper. The blades stand up well at speeds of around 1,000 r.p.m., and breakage is no more a problem than with ordinary blades.

The blades can be supplied in three sizes, designated as 8B, 13B and 14B. The first blade is .010″ by .070″ in size, and is suitable for inlay and jigsaw-puzzle work where quick, sharp turns are not required. The 13B blade is .010″ thick by .035″ wide, and the 14B blade is .010″ by .025″, for very fine jigsaw-puzzle work. It is surprising what short and sharp turns can be made with this blade, and even those who insist on jigsaw puzzles being cut with the very finest of blades, on slow-speed machines. will find the blade to be excellent for their purpose. The 8B and 13B blades may be had at per half dozen. The 14B blade may be had at per half dozen.

In order to facilitate the following of the pattern in very fine inlay and marquetry work, and to aid in the observation of the cut in jigsaw cutting, the new guides



shown in the lower photo on this page have been developed. They are very simple to attach and adjust, and permit a practically unobstructed view of the work and the cut. The guides are made in sets of six, five being slotted for the blades and one being cut with a V-notch so as to accommodate blades of any thickness. Full details of prices, etc., will be found on another page.

With the new blades and guides fast, clean work is easily done.

# Scroll Saw and Drill Press Make Practical Combination

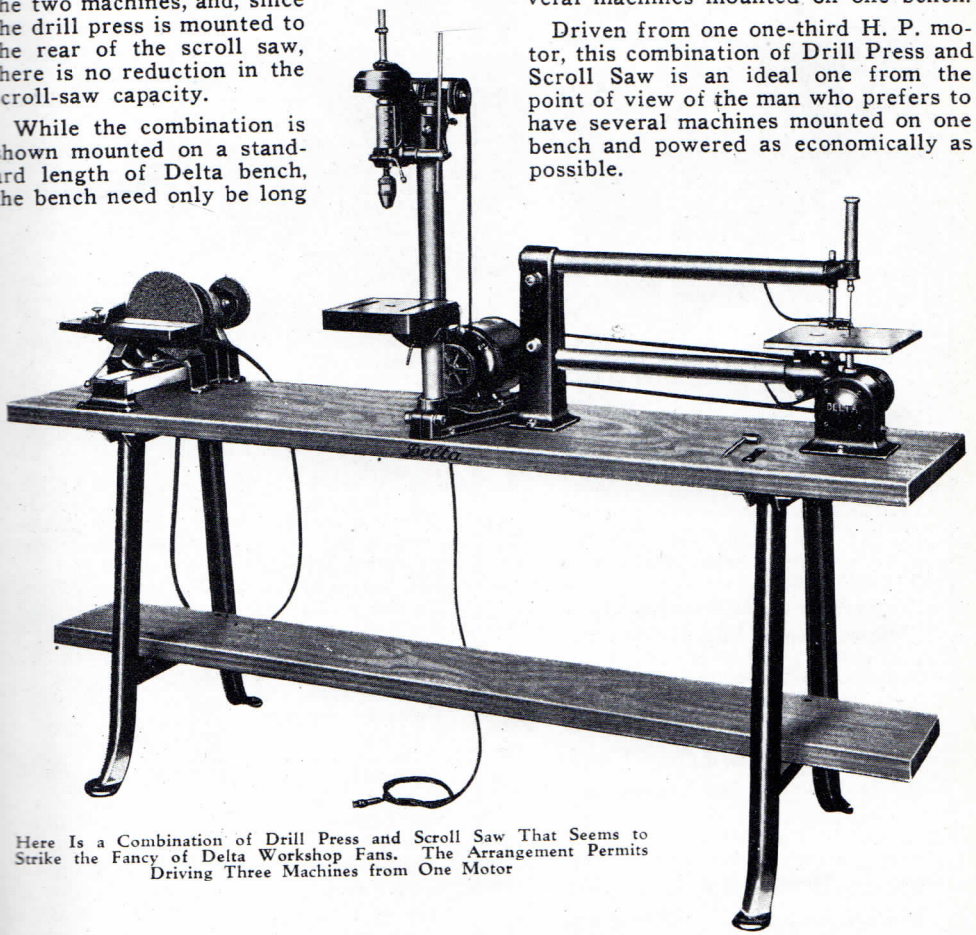
THE combination of drill press and scroll saw shown in the photo at the bottom of the page is one that has struck the instant fancy of visitors to the display room in the Delta plant. It is so handy and practical that its advantages are apparent immediately.

The drill-press motor drives both tools, either at the same time, or, as will be more usual, separately. The front shaft of the motor carries the cone pulley for the drill press as usual, while the rear shaft carries a 4" pulley to drive the scroll saw. There is not the slightest interference between the two machines, and, since the drill press is mounted to the rear of the scroll saw, there is no reduction in the scroll-saw capacity.

While the combination is shown mounted on a standard length of Delta bench, the bench need only be long enough to accommodate the two machines, if the user desires. By mounting a four-speed lathe headstock on the other end of the bench, however, with a short section of lathe bed and a sanding table, a very practical sanding and grinding rig is obtained. From motor to scroll saw a No. 575 belt is used, and from motor to lathe headstock a similar belt. Either belt is instantly attached or removed.

There are a number of ways of mounting the scroll saw to advantage in the shop, but this is one of the handiest for the home craftsman who prefers to have several machines mounted on one bench.

Driven from one one-third H. P. motor, this combination of Drill Press and Scroll Saw is an ideal one from the point of view of the man who prefers to have several machines mounted on one bench and powered as economically as possible.

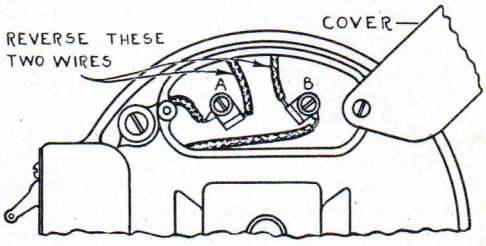



Here Is a Combination of Drill Press and Scroll Saw That Seems to Strike the Fancy of Delta Workshop Fans. The Arrangement Permits Driving Three Machines from One Motor

## HOW TO REVERSE THE NEW DELTA ONE-THIRD H. P. MOTOR

OFTEN it is necessary to reverse the direction of rotation of a motor, in order to suit a particular arrangement of machines. In the new Delta ⅓-H. P. motor this reversal is very easily accomplished.

On the same end plate of the motor that carries the switch will be seen a segmental

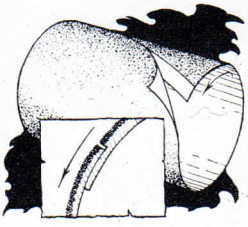



sheet-metal cover plate, held with two screws. Remove one of these screws, slacken the other, and swing the plate to the position shown in the drawing.

Inside the connection box will be noticed two terminals, A and B, to which four wires are run. Two of these wires are fitted with metal terminal lugs. Remove the terminal screws, and exchange the positions of the wires with the lugs, moving A to terminal B, and vice versa. Replace the terminal screws and the job is done. Remember that only two of the wires must be changed, the ones with the metal lugs.

## PUT YOUR SANDING SLEEVES ON PROPERLY

THERE is a right and a wrong of putting on the sleeves of sanding drums, if the user is to get the utmost in service out of them. Examine a sanding sleeve closely, and you will find that one edge of the sandpaper or garnet paper is lapped over the joining edge, the abrasive material being removed from a portion of the under edge to make a thinner and better joint. This is clearly shown in the drawing.



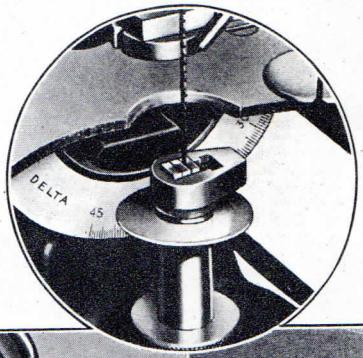
The way to run the sleeve, therefore, is as shown by the arrow in the drawing, so that the pressure of the work tends to smooth down the joint.

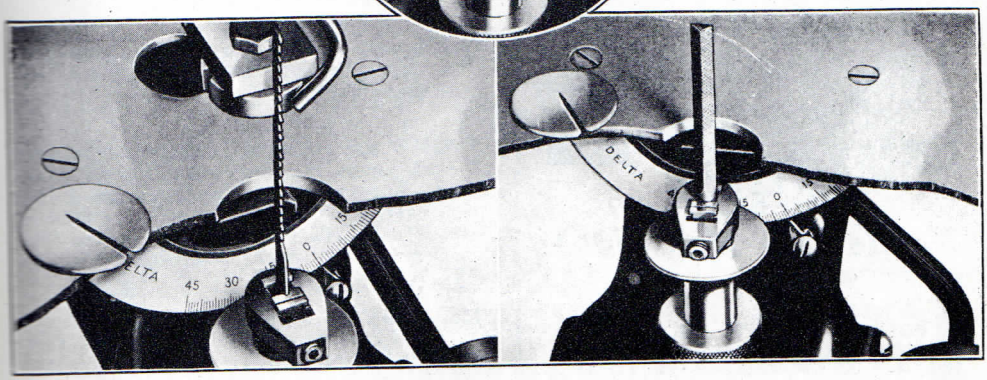
# Getting the Most Out of Your Scroll Saw

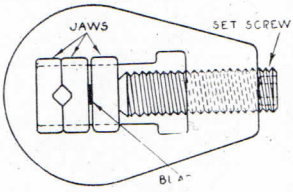
## THE CHUCK

SIMPLE and efficient as the universal chucks of the new Delta scroll saw are, there are a few points that should be known about their use if the user is to get the utmost in service out of his machine.

If pin blades are to be used in the machine, the simplest and easiest way to use them is to break off the ends just below the pins, and then use the blades just as you would a regular jewelers' blade. If you want to retain the pins, however, the chucks are made so that you can do so. Loosen the tightening screw on the chuck so that the two *front* jaws (the plain ones) are as wide part as necessary to permit the pin on the end of the blade to pass between them. Slip the pin end down through the jaws, then pull up on the blade until you feel the pin enter the V-notches on the under ends of the jaws. Still holding the blade up, tighten the clamp screw.




And *don't* tighten the clamp screw too tight. The chucks are made of a very high-grade alloy, with a tensile strength of 45,000 lbs. per square inch, but when you consider that a 1-inch cube of cast iron, with a tapped hole drilled half-way through it, can be burst in two with a little Allen screw, you can see that that abuse of your wrench will soon ruin a perfectly good chuck.

Jewelers' blades are really best for all-around work, as most of them cut wood and metal with equal ease, and they are inserted and removed from the chucks with greater facility. These blades also are held between the *front* jaws. Don't make the mistake one man did, when he inserted his jewelers' blade between the rear jaws of the lower chuck, right in the V-grooves, and then wondered why he couldn't tighten the blade. Remember, pin and jewelers' blades are held by their flat sides, between the plain front jaws of the lower chuck. Since there are but two jaws in the upper chuck it is impossible to make a mistake there. The upper photo, and the line drawing, show how.

Sabre blades, on the other hand, and such tools as files and the sanding attachment, are held between the two rear jaws of the lower chuck, the V-grooves centering and holding one-quarter inch round shanks perfectly. With saber blades the upper chuck is not used.


NEVER use a worn bit for drilling dowel holes. As soon as a bit becomes badly worn it should be relegated to a separate rack and used for the roughest work only. Dowels should not be a tight fit in their holes, but an easy fit, to allow escape of air and excess glue, otherwise they may crack or split the work. Hence the importance of using a full-sized bit.

KEEP your hollow-chisel bits sharp, and see that they are set the proper distance ahead of the cutting edge of the hollow chisel. Neglecting these precautions may cause a broken chisel.

A RECENT survey shows that over 80% of the large circular saws used in industry have tilting tables. Ask the man in the shop—he knows.

THE only fellow who ever got anywhere by knocking another's product is a hammer manufacturer.

DON'T use oil on ball-bearings where the oil may become mixed with wood dust—like on ball-bearing band-saw guides, for example. The oily wood cakes up around the ball bearings and chokes them so they are no longer effective.

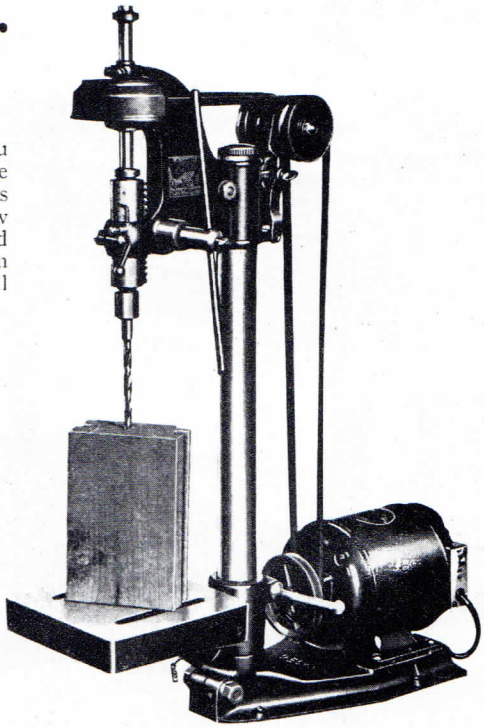
DO NOT fit switches for two different machines too close together. Install them far enough apart so that you cannot possibly make a mistake and throw on the wrong machine. Or, better yet, be up to date and use a motor with a built-in switch and a handy switch rod to operate it.

PILE your shop lumber neatly and carefully, with 1-inch strips between layers. Remember that long pieces allowed to "belly" in the middle or sag over a support at the ends will stay that way, to your later discomfort when trying to use the pieces. Many a good piece of lumber is found to be useless whenever it is needed, simply because it was carelessly stowed away.

HENRY FORD said: "If I were bringing up a boy today, I would see to it that he had a shop in which he could work with tools."

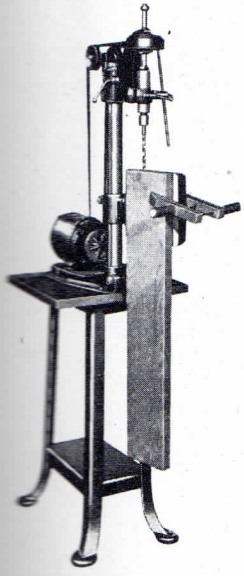
# CAPACITY! That's What You Want in Your Drill Press

When you buy a drill press for your shop you want to know that you are not going to be stumped the first time a job comes up that is a little larger than usual. You want to know that even the unusual job can easily be handled on your table, under your spindle, or between drill and column. What you need is a drill press of real capacity, as well as accuracy.



## And the New Delta Double-Duty Drill Press is Built for that Need

Study the husky construction of this sturdy, oversize machine. Note the thoroughly practical design as compared to other drill presses intended for home-workshop use. And consider the many conveniences built into it — the refinements of design that make your work so much easier and so much more accurate. No other machine can offer you so many advantages!



## Drills to Center of 11" Circle
## Distance, Table to Chuck - 11½"
## Distance, Floor to Chuck - 4'-1¾"

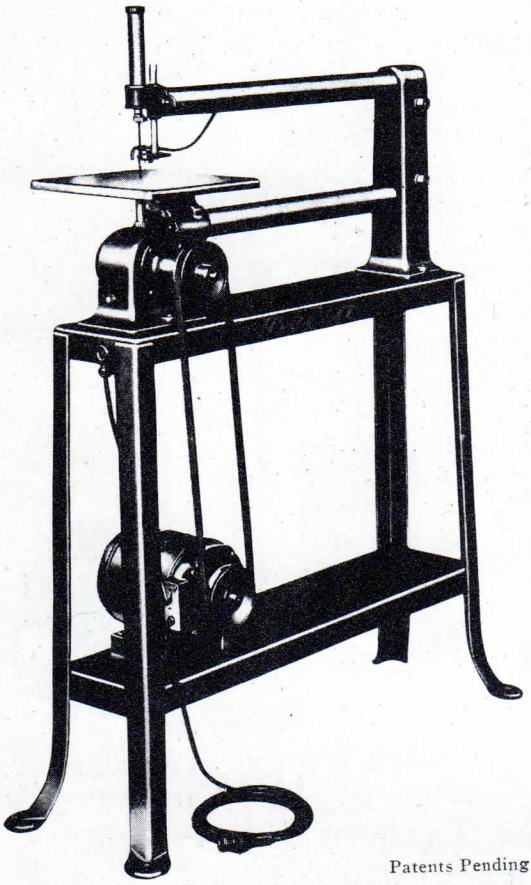
Even with long machine spur bits in your chuck there is still ample clearance between table and drill for very large work. Work nearly four feet long can be drilled on end merely by swinging the table to one side. And consider the convenience of the Delta table, which can instantly be aligned in a perfectly vertical position by means of the locating pin. This is invaluable for work that must be clamped to the table to be drilled on end, and returning the table to the horizontal position is equally quick and precise. No "fooling around" to get your table level, just push home the pin and you know it's right.

**No. 620** Delta Double-Duty Drill Press, with special belt and special 3-step pulley for motor (1½" bore). Motor and stand not included

AT A PRICE LIKE THIS NO HOME WORKSHOP CAN AFFORD TO BE WITHOUT THIS HUSKY TOOL: WHY NOT ORDER YOURS NOW?

**Delta Specialty Company** (DEPT. D)
**3775 N. Holton St.** **Milwaukee, Wis.**

# *New!* Delta 24-inch Scroll-Saw Unit



Patents Pending

## A Real Machine Tool—Built for Hard Work

Here, at last, is the machine that completely satisfies every desire you have ever had for a competent, full-size, dependable scroll saw, built like a regular machine tool and operating with the same precision and reliability. A machine that is years ahead of anything you have ever seen, not only in design and construction, but also in convenience, in capacity and adaptability.

### As Convenient and as Quiet as a Sewing Machine

It is hard to realize just how quiet and smooth-running this machine is, as compared to old-fashioned jig saws, until you have actually seen and listened to it. And the remarkable freedom from vibration is another point that astonishes every craftsman; there is actually less noise and vibration in this scroll saw than in many sewing machines.

## COMPACT — PORTABLE UNIQUE

And now, with the addition of the new No. 716 Steel Stand, this remarkable machine is complete. Strong, self-contained, easily portable, your scroll saw can now be moved wherever you want it, or wherever it will be most convenient, like the rest of the unique Delta portable units. And the addition of the No. 800 ball-bearing Delta motor with built-in switch, together with the handy No. 848 switch rod, gives you finger-tip control no matter where you use the machine. No clumsy wiring to do, and the switch is always within finger reach.

## No Other Scroll Saw Can Offer You So Many Advantages—

Saw runs at motor speed, 3,450 up and down strokes a minute. Speed easily changed at any time. Almost perfect freedom from vibration. Tremendous capacity—24 inches from blade to rear column. Unique universal chuck—holds all types of blades. Files and sanding attachments held as easily as blades. Blades faced sidewise in a few seconds. Sabre blades used as efficiently as other blades. Combination blade guide and hold down supports all blades at cutting point. Ball-bearing crankshaft. Fully enclosed mechanism. Automatic, automobile-type lubrication—means long life. Steel stand makes machine completely portable.

**No. 714: SCROLL SAW UNIT consisting of:**

No. 700—24″ Scroll Saw ..
No. 716—Steel Stand ....
No. 510—V-Belt .....
No. 5400—4″ V-Pulley ....

Total .....

(without motor or switch rod)

**STAND READY FOR DELIVERY, MARCH 1, 1932**

## Delta Specialty Company

**3775 N. Holton St.** DEPT. D **Milwaukee, Wis.**