Disclaimer

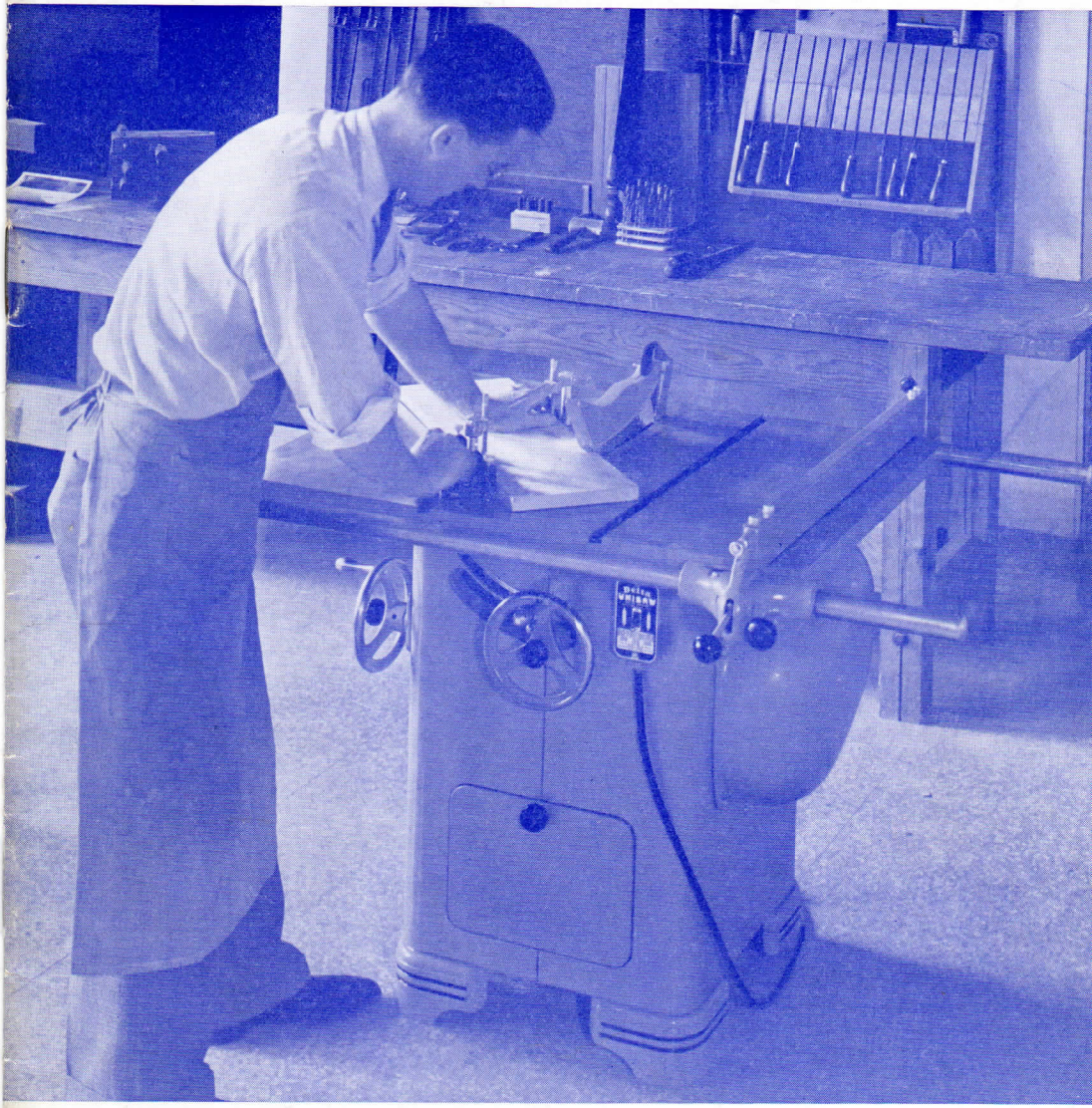
This Old Workshop, in cooperation with Delta Power Equipment Corporation ("Delta"), is delighted to provide this digital reissuing of the historic *Deltagrams* produced from the 1930s through the 1970s. Each issue is presented by permission of Delta, and distributed and archived by This Old Workshop. The *Deltagram* publications are copyrighted materials. Delta is the sole owner of these publications. Reproduction of any articles, images or instructions contained in them requires the express written permission of Delta or its legal representative.

These Deltagram publications are presented solely as historic archival materials and are not intended to be used as instructional information. Techniques and practices described or depicted in these publications may no longer be consistent with accepted practice, and, in some cases, may be considered hazardous with a potential to result in serious personal injury or property damage. For the safety of you and those around you, we encourage you to comply with all warnings and instructions provided in connection with your products, including but not limited to any warning labels and operator manuals.

By using or possessing these *Deltagram* publications, you agree to hold Delta and This Old Workshop harmless against any liability based upon their content. Any advertisements or offers contained within these issues are discontinued and will not be honored.

THE DELTAGRAM

VOL. 10, No. 3 DECEMBER, 1940 TEN CE

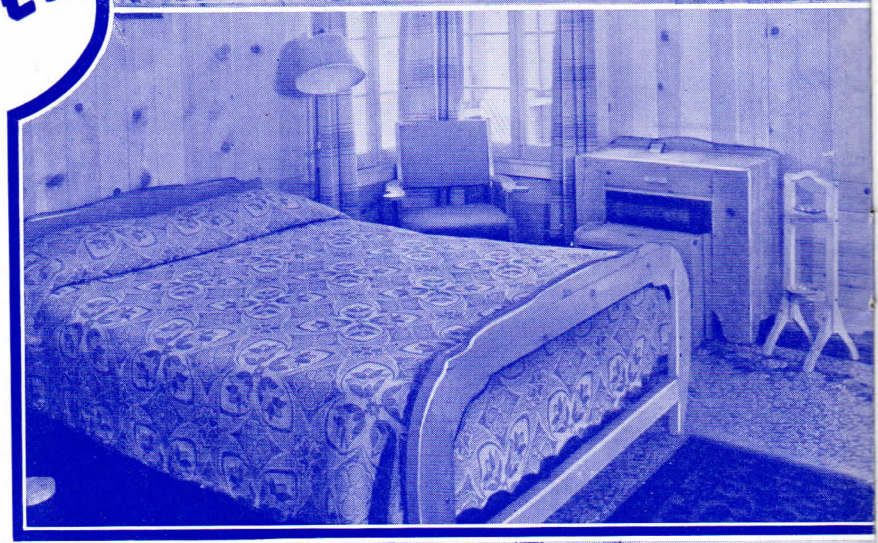


GUN CABINETS and GUN RACKS

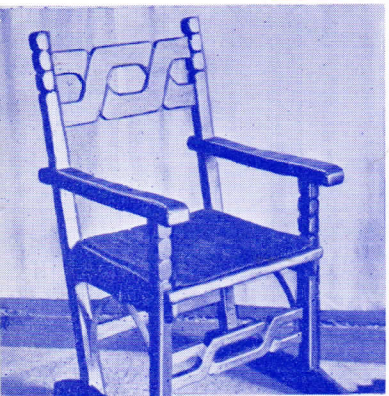
★ SEWING CABINET ★ PICTURE FRAMES
DOUBLE DECK TABLE ★ BOOK CASE ★

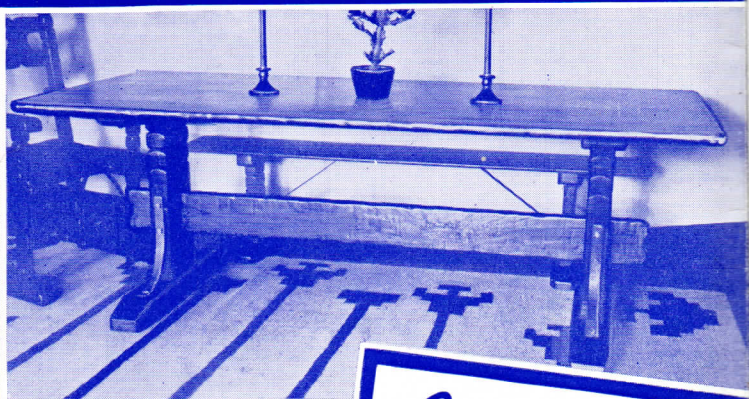
SHIP'S WHEEL—A Full-Size Pattern

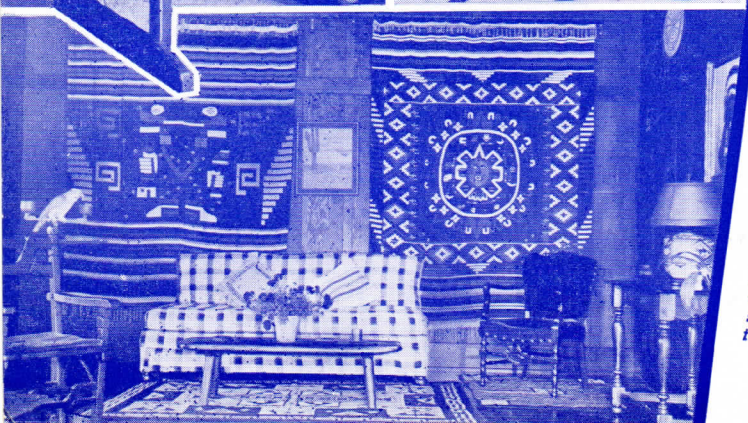
Resort • BUILDER



Fred J. Smith . . . went to the mountains because of poor health and stayed to build three summer cottages, complete with a host of built-in features and charming furniture in knotty pine. Mrs. Smith chipped in with the upholstering and drapes. She says, "My husband adds a new machine or tool each year and expects to soon have a fully equipped workshop." They call their place Plumas Pines. If you're out Alamanor, Calif., way, drop in for some good fishing.







Army • MAN

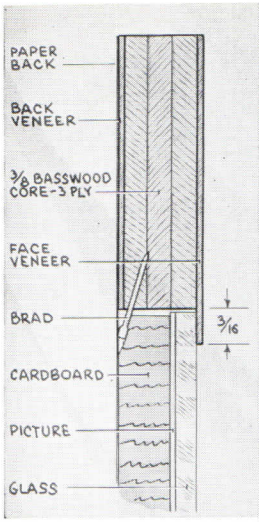
Major L. R. Smith . . . has recently equipped six different companies with complete Delta shops. His personal shop looks like the Delta catalog brought to life; his basement is piled deep with imported woods; his home is almost entirely furnished with pieces which he has made. You should feel right at home if the draft takes you to Fort Sam Houston, Texas.

THE DELTAGRAM

A Magazine for
CRAFTSMEN
★
Edited by
SAM BROWN

VOL. 10 DEC., 1940 No. 3

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

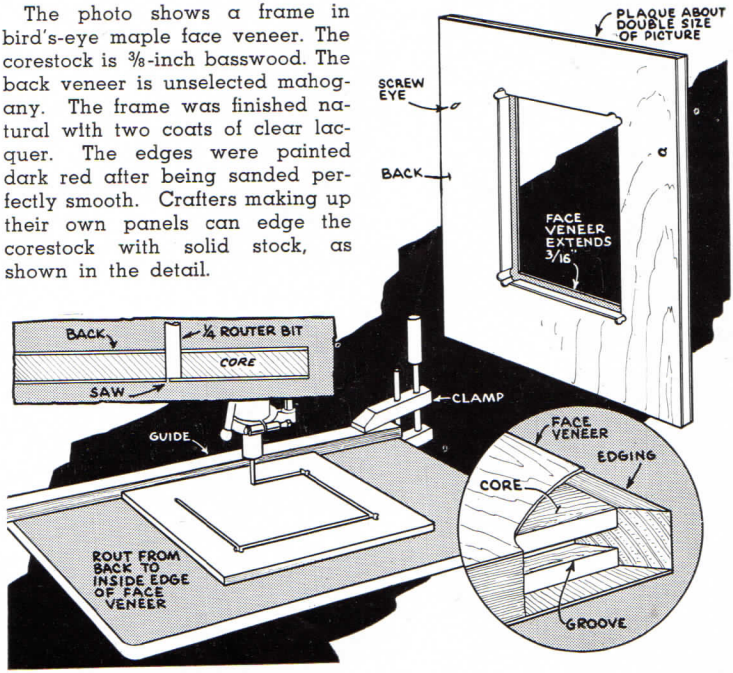


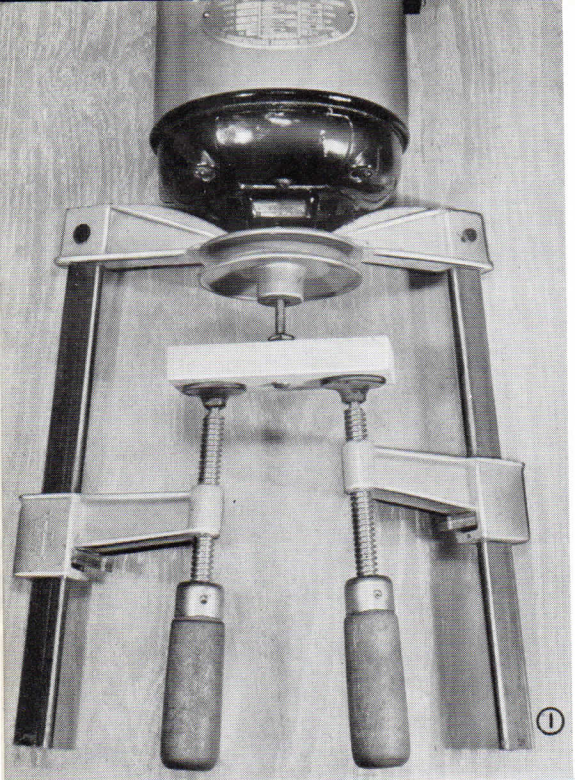
● *A NOVEL IDEA IN PICTURE FRAMING By Burnell Walker*

Veneer PLAQUES

EASY to make, veneer plaques are smart and modern. The idea is quite simple. You take a choice piece of 3/8 inch veneer plywood about twice as big as the picture you intend to frame. The opening for the picture and glass is routed in the center of the panel, as shown in the drawing, cutting to but not through the face veneer. Following the inside edge of the router bit cut, the center panel is cut out on the scroll saw using a very fine-tooth blade to prevent tearing the wood. You now have a frame with an overhanging veneer lip. The assembly of picture, glass and cardboard backing is the same as in conventional picture framing.

The photo shows a frame in bird's-eye maple face veneer. The corestock is 3/8-inch basswood. The back veneer is unselected mahogany. The frame was finished natural with two coats of clear lacquer. The edges were painted dark red after being sanded perfectly smooth. Crafters making up their own panels can edge the corestock with solid stock, as shown in the detail.





Here's an IDEA!

Wheel Puller . . . made from a block of wood with a bolt through the center is used with two clamps to remove stubborn pulleys from motor shafts. Use this idea whenever a pulley sticks. Never try to hammer a pulley off—you'll only succeed in damaging the motor.

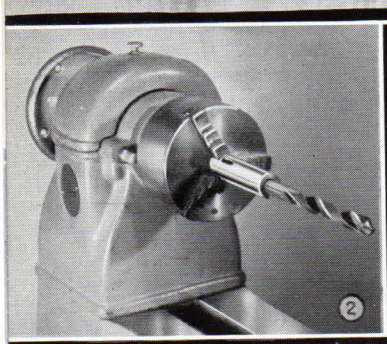
Drill Spindles . . . for the 14-inch drill press are a neat slide fit inside the lathe headstock and can be used in the lathe whenever their use is required. Fig. 2 shows the No. 1 Morse taper spindle in place.

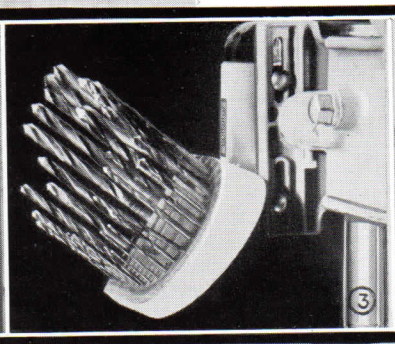
A Drill Rack . . . made from a heavy block of hardwood and drilled for drills is a handy gadget when bolted direct to the side of the drill press motor bracket.

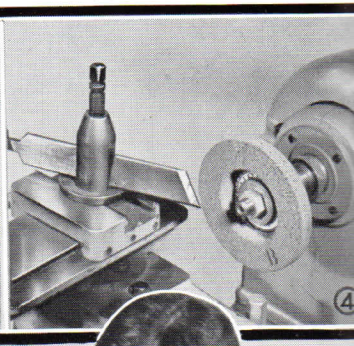
Chisel Grinding . . . done with the use of the slide rest on the lathe, as shown in Fig. 4, gives a precision edge. The compound or tool post can be swung to any angle to suit different bevels.

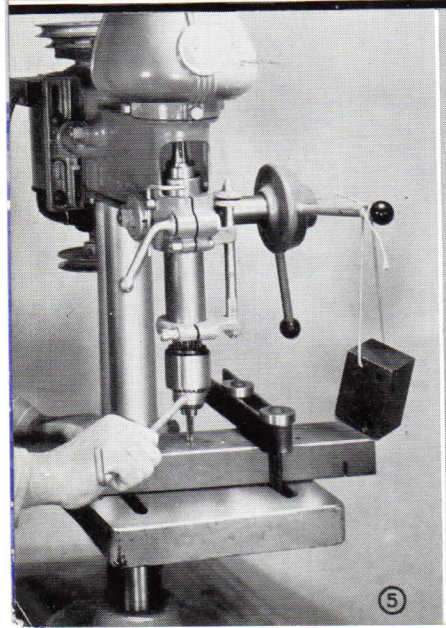
Tapping . . . on the drill press, Fig. 5, is one of the best methods to secure accurate work. A 3 or 4-lb. weight hung on the feed lever provides the necessary tension while the tap is turned by inserting the circular saw stop rod in the holes in the chuck. In the drilling operation before tapping, sufficient clearance should be left below the drill to permit its removal without disturbing the position of the drill table or work.

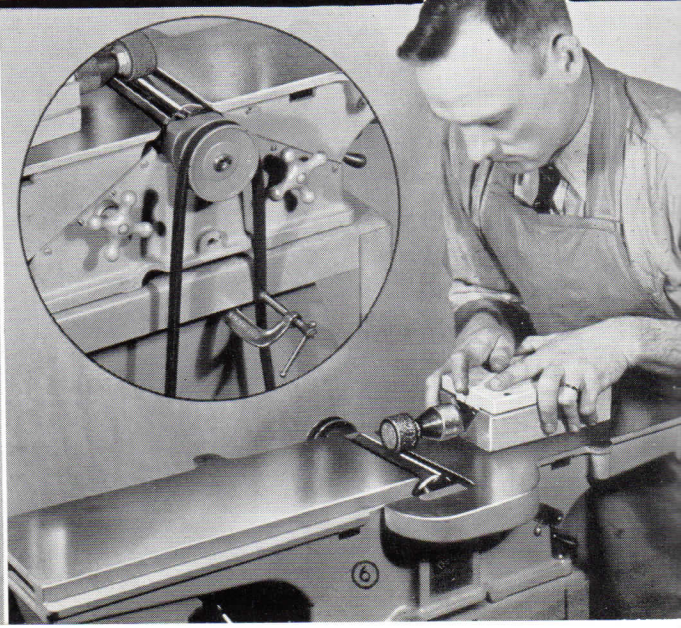
Grinding Jointer Knives. . can be done without removing the head by using the simple set-up shown in Fig. 6. The head is held in position for grinding each knife by clamping the belt to the side of the machine stand. The grinding wheel shaft must be rigid—it is useless to attempt this job if there is any lost motion in the shaft.

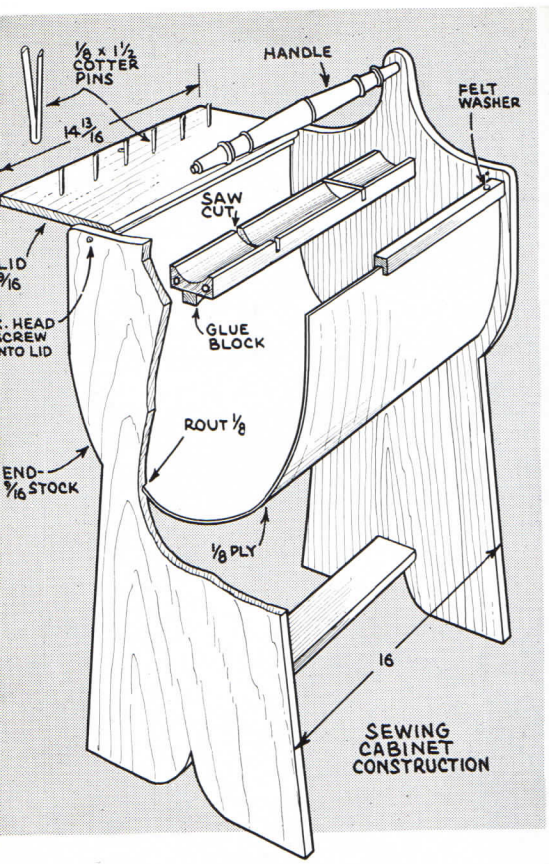










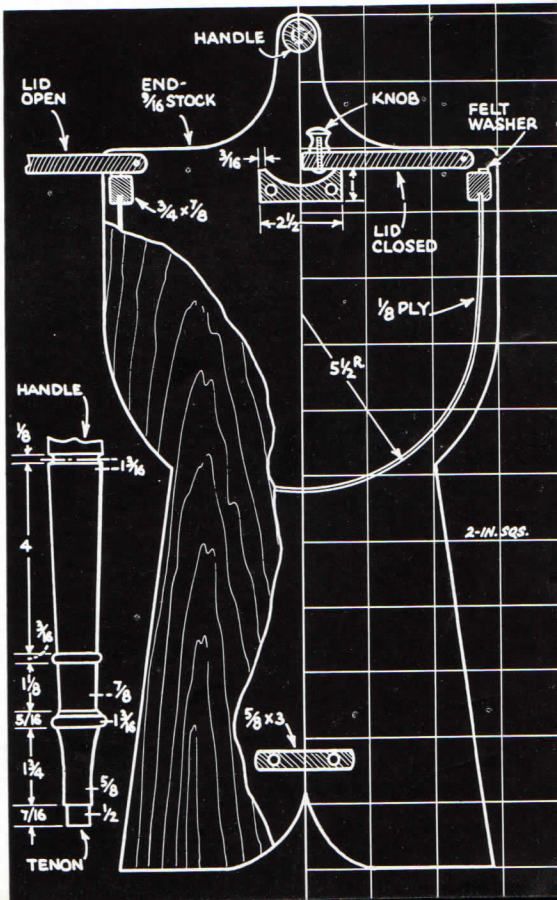


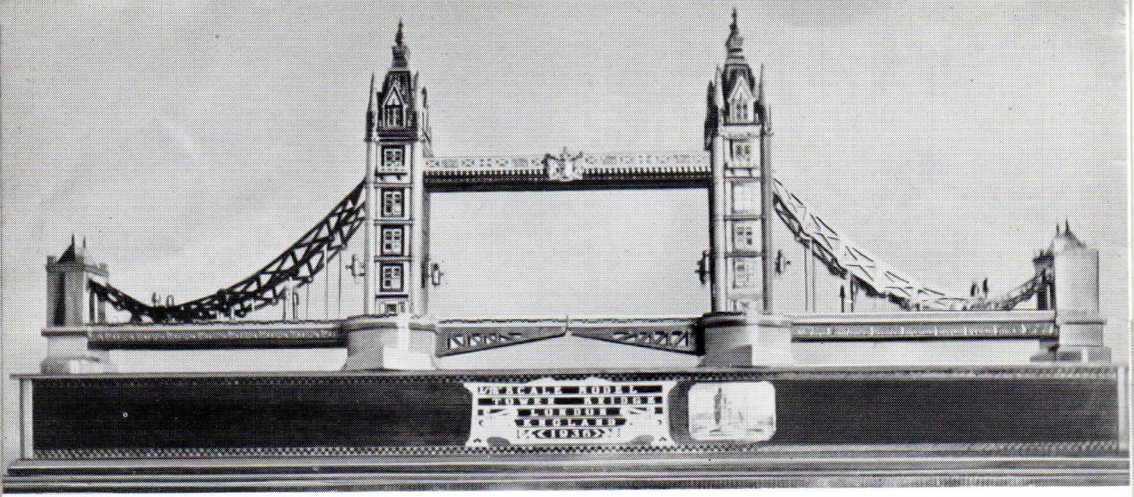
Sewing • CABINET

START by cutting the 1/8 birch plywood bottom to net width and then bend it to the approximate shape by crimping it between two blocks nailed to the workbench. Waterproof plywood is best since the wood can then be steamed slightly to facilitate easy bending. However, ordinary plywood will bend cold to this radius, especially if given a little start by wrapping around a hot furnace pipe. While the bottom is setting-up, make the two end pieces. The grooves for the plywood are run in with a 1/8 inch router bit, using a pattern nailed to the work as a guide. The small tray is a simple job of cove cutting.

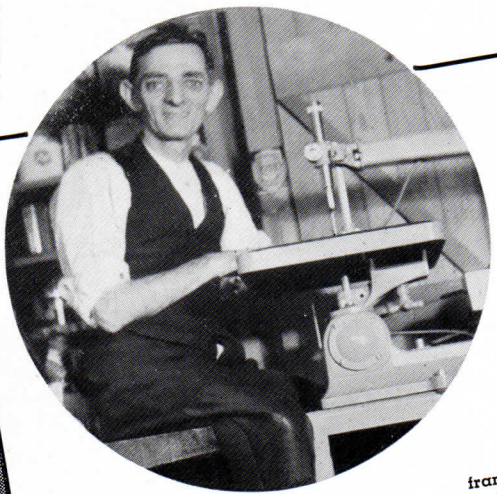
Brass or steel cotter pins about 1/8 by 1 1/2 are used as spool holders, mounting six on each lid. The position should be far enough from the edge to permit the lid to close with the spools in position. The heads of the pins are hammered flat and then roughly pointed to permit driving into holes drilled in the lid. The prongs of the pins are bent apart so that sufficient tension is provided to hold the spools in an upside down position with the lid closed.

This unit is also quite attractive in a shorter form, using the same top construction but cutting the ends about 3 inches below the underside of the bottom.





● *Tower Bridge of London which won E. A. Gill a grand award at the Vancouver Exhibition, 1940.*



"I Had the Blades . . . but no Saw!"

●

The Interesting Story of E. A. Gill who Waited 10 Years for a Dream to Come True

Editor—The Deltagram:

It was around 1930 that I first wrote your concern. I had written about the first 24 inch scroll saw you made. I should have got a machine then had I not become out of work during the time of my writing and the reply. I had, however, ordered some saber blades. When these arrived I put them away with the idea that some day I might get the machine for them.

Well, this year the Vancouver Exhibition put on a hobby show. I entered my model of the Tower Bridge which I had built during 1936 and 1937, using a 16 inch handframe for the fretwork. I am glad to say that my model won a grand award with first prize in model engineering and second prize for fretwork.

At this Exhibition a lady made inquiry about my Bridge Model to the manager. She came out to my home with one of the officials and we had a very long talk. I told her how I had started as a boy, that I could not read or write until the age of 23 when I got married and my wife taught me to read and write. This lady wanted to know if I had any training in woodworking so I told her that I had taught myself, which is true. Then she asked where I did my work, for she could see that I had only two rooms to live in. I told her I did my work in the woodshed and she asked to see it. When we went out to the shop, she was surprised. When she asked where were the tools I did my work with I showed her my 16 inch handframe. She asked, "Is that all you have to do your sawing with?" I said, "yes." She said that she could not believe it if she had not seen it for herself.

After they said goodbye to myself and Mrs. Gill I thought the visit was all over. But on the following Sunday they came out again and told me they had a big surprise for me. They asked me if I would open my workshop which I did. Then they brought in a Delta 24-inch Scroll Saw, all complete on a steel stand. The lady told me that this was a present so I could build my next model.

I cannot tell you how I felt for the shock was too much for me. They could see that at once. After a time I pulled myself together and tried my best to thank this lady for her kindness. She told me that she was glad to be able to help someone who was in need of something. I felt that I was the luckiest man in Canada. Before they left I showed them the 12 saber blades which I had stored away and told them the story behind these blades.

I was like a man who had a car key and was waiting for a car to go with the key. I had been waiting all these years for a machine to go with my saw blades. I could hardly believe that the machine was finally mine and from someone whom I had never seen in all my life before.

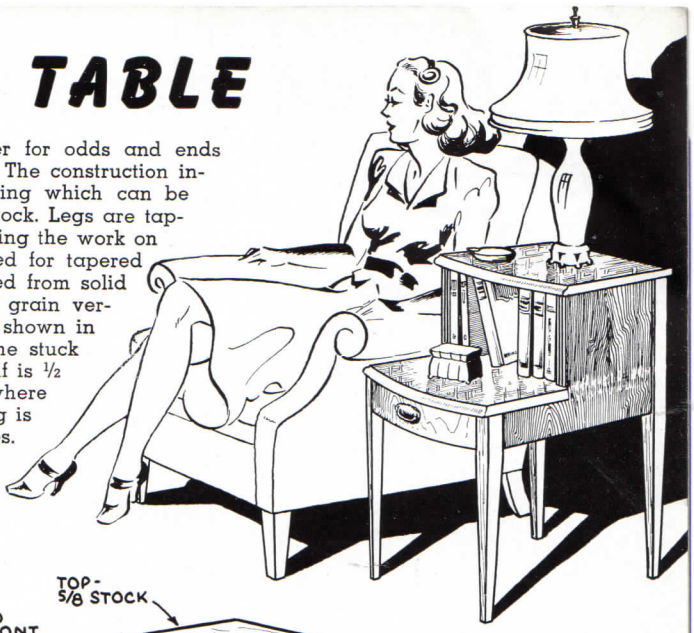
Now I am all set to go ahead with my next model. It is to be a 1/8 inch scale model of a Ferris Wheel with electric lights. I am proud and thankful that this model will be made on my Delta machine.

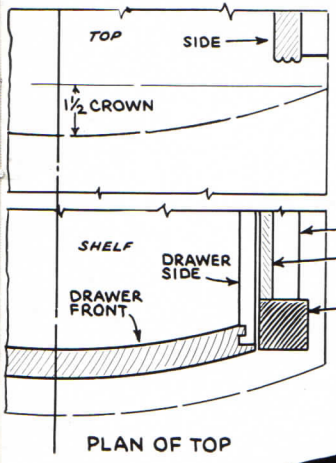
Yours truly,

(signed) E. A. Gill,
New Westminster, B. C.
Oct. 7, 1940.

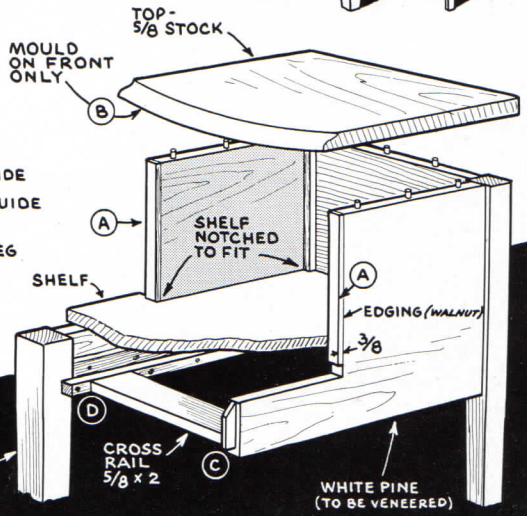
Double-Deck TABLE

A SHELF for books and a drawer for odds and ends makes this table quite useful. The construction involves a bit of simple veneering which can be eliminated if desired by using solid stock. Legs are tapered to the dimensions given by running the work on the circular saw or jointer as required for tapered cuts. The drawer front is band sawed from solid stock and is then veneered with the grain vertical. The side pieces are edged as shown in order to provide finished wood for the stuck edges. The overhang of top and shelf is ½ inch all around except at the front where the overhang is 1 inch. The moulding is run only on the curved front edges. Leg joints can be either mortise-tenon or dowel as desired.

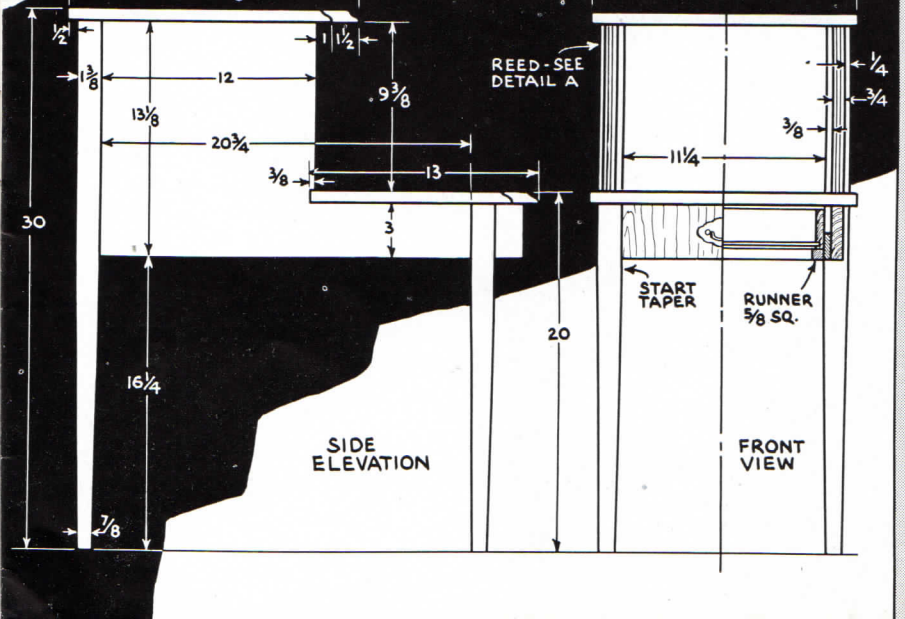


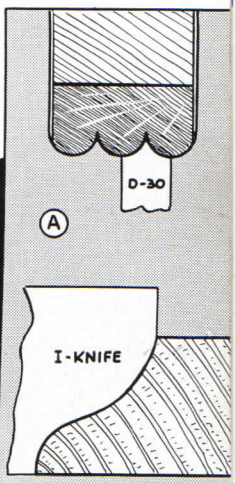


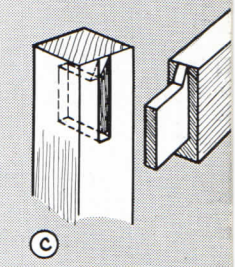
PLAN OF TOP

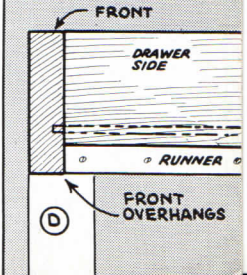


CONSTRUCTION







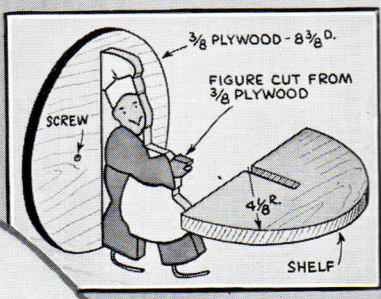


The Jolly BAKER

A Little Shelf for the KITCHEN

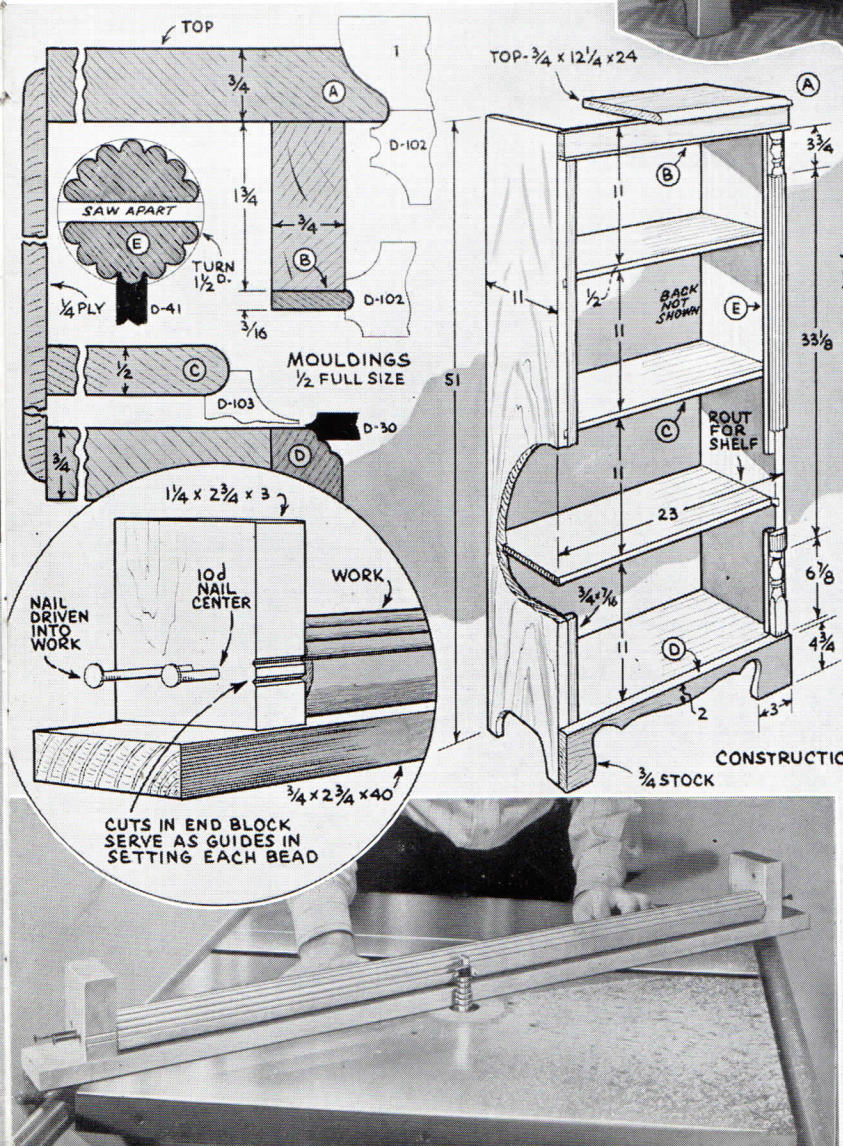
FULL SIZE PATTERN

● *Make this from 1/4 or 3/8 inch plywood, tracing the figure direct from the full-size pattern. 10-penny nails serve as feet and provide hangers for pan lifters. The color scheme is white hat and apron, red shirt, blue trousers and flesh face and hand.*



BOOKCASE

SHOWING the use of split turnings as decorations, this bookcase has plenty of room for the average library. The shelves are ½-inch stock, let into the sides. The grooves can run right through since the facing edge is covered by the split turnings. Three separate turnings are required. Two of these are conventional split turnings while the third is a reeded column. All can be glued up with paper at the joints to split apart after turning, or, the turning can be made from solid wood and sawed in two pieces. The reeded column is rough turned about 1½-inch diameter and is then reeded with D-41 cutter on the shaper, the work being mounted in a simple jig. Each cut after the first is set by aligning the previous cut with the cutter marks on the end piece, as shown in the drawing. A nail through the end block anchors the work for the shaping operation. The back of the cabinet is ¼ ply and is butted in place, the edges being rounded by sanding or shaping.



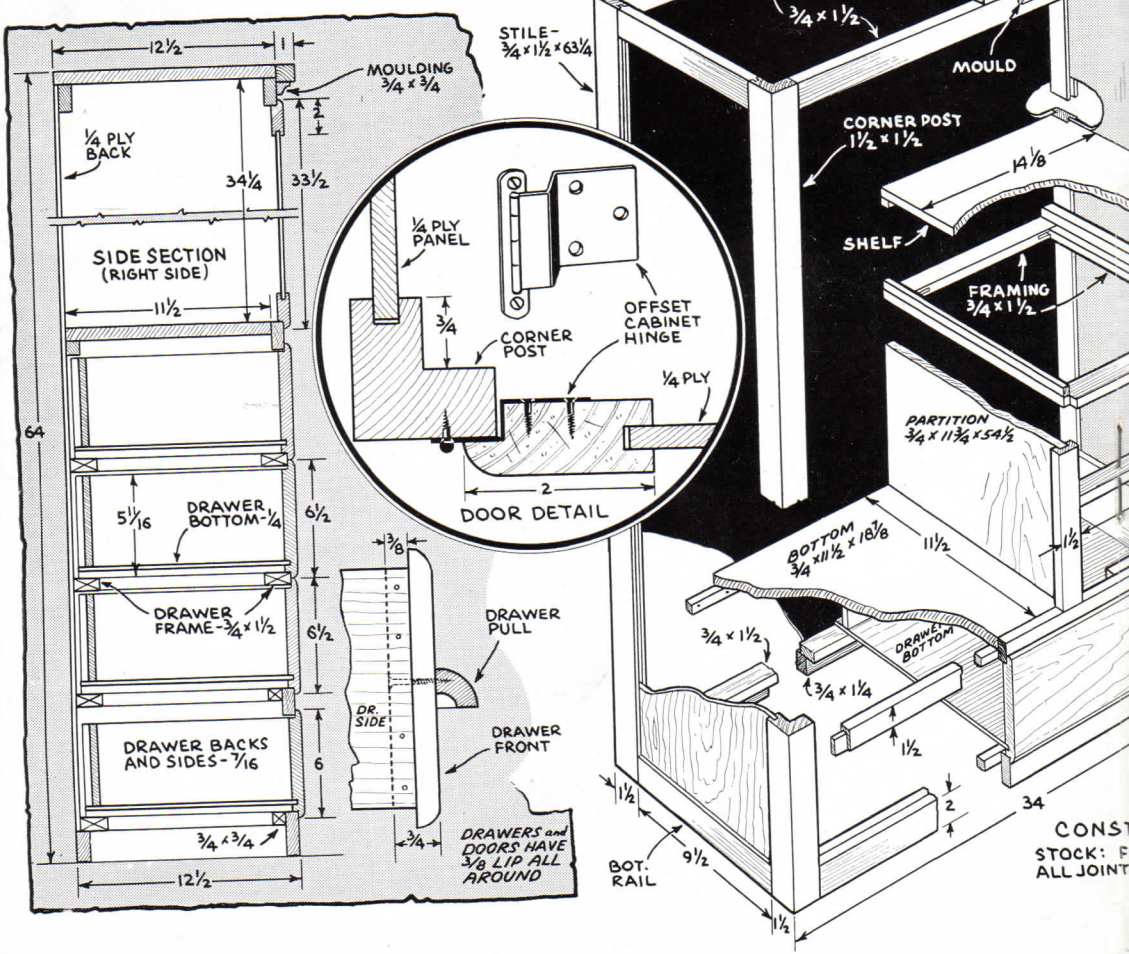
GUN CABINETS

THE average man's gun cabinet is usually a corner in a clothes closet where the shootin' irons are forced to hobnob with feminine wearing apparel and the winter blankets. Well, you can put a stop to all this if you care to buzz a few boards to the right length and fit them together. Two typical cabinet designs are shown on these pages—one a paneled frame job which is very neat looking in figured gumwood; the other a simpler cabinet in knotty pine. And, if even this looks like work, you can do it up in one evening with the gun racks shown on following page.

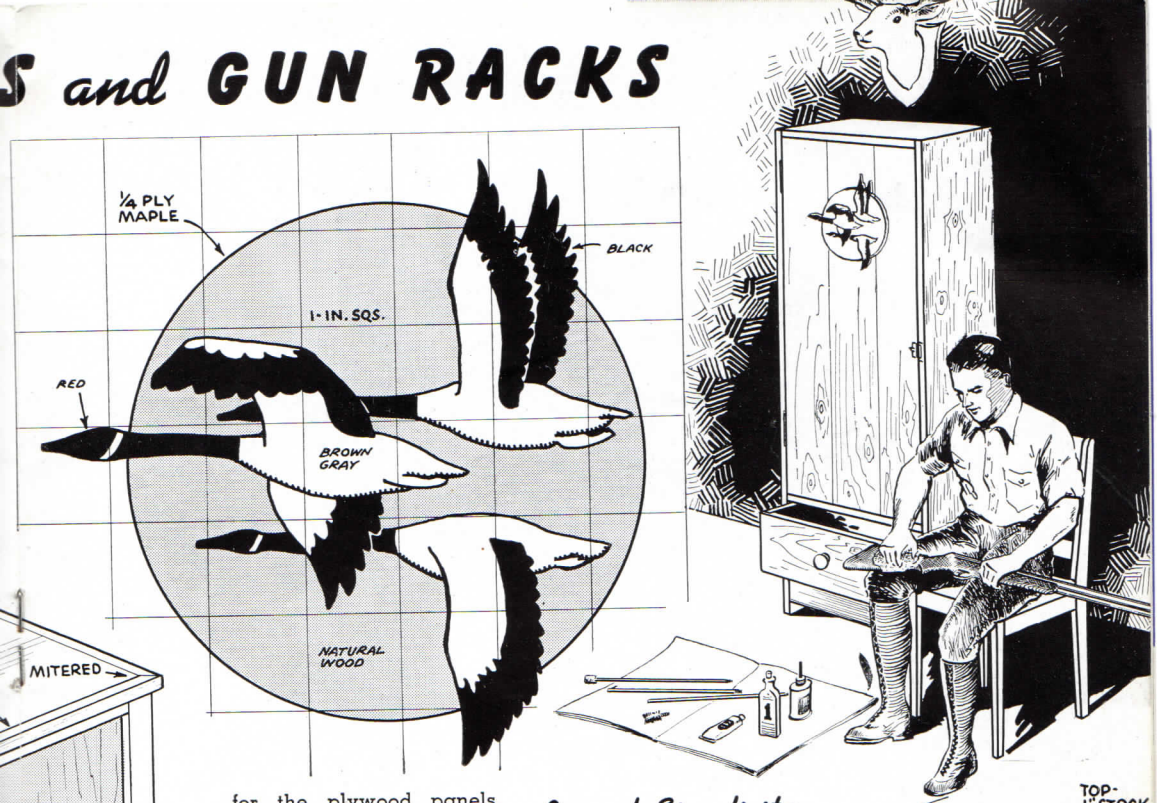
The paneled cabinet is a plain job in simple casework. Designs of this nature are always rather confusing to show in a drawing because of the numerous pieces used in the construction, but the actual work of making such a cabinet is plain sailing. Get out the corner posts first, using 1½ inch solid stock and rabbeting the corners on the saw. The top and bottom rails and stiles are then cut to size and grooved

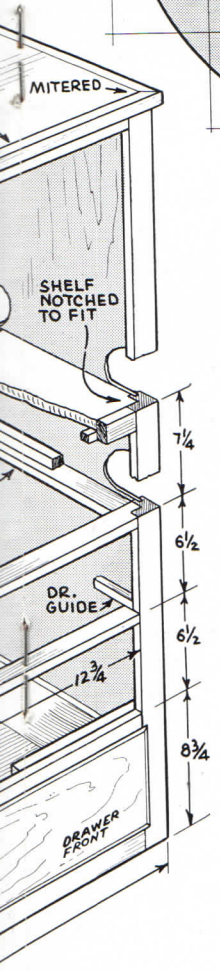
DESIGN BY T. A. SIPE

Panel Frame Construction



S and GUN RACKS

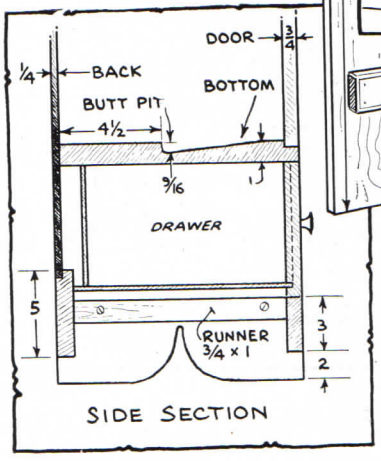




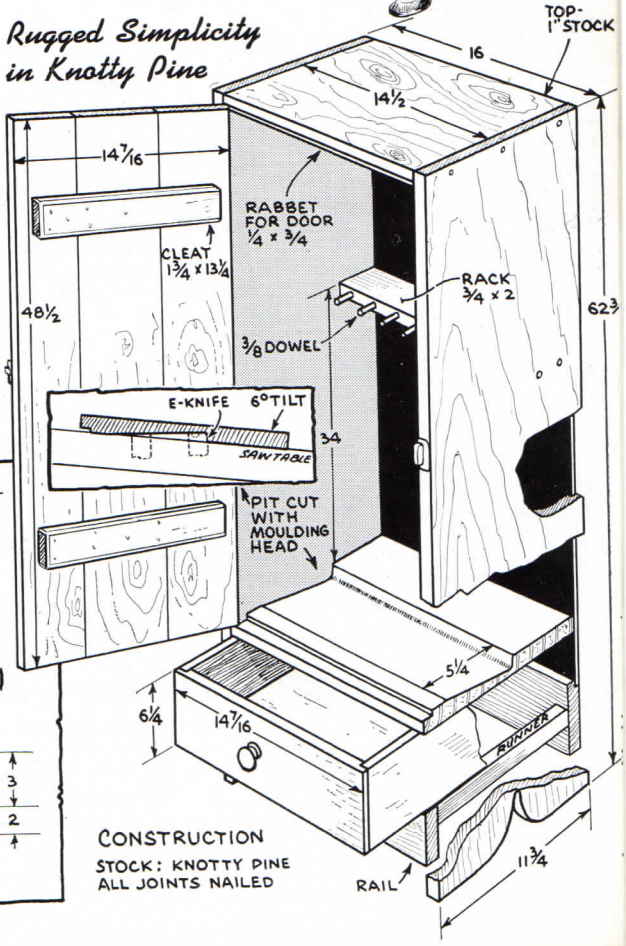
for the plywood panels. Mortises are cut for the cross rails, after which the assembly of the framework can be made. All drawers and doors are lipped, as shown in the drawing. The doors are fitted with offset cabinet hinges, a common variety which can be purchased in chromium from most hardware stores. Drawers pulls can be made or purchased. The gun rack is not shown in the drawing. This is simply a length of wood which spans the upper portion of the cabinet. It is

(Continued on next page)

Rugged Simplicity in Knotty Pine



SIDE SECTION

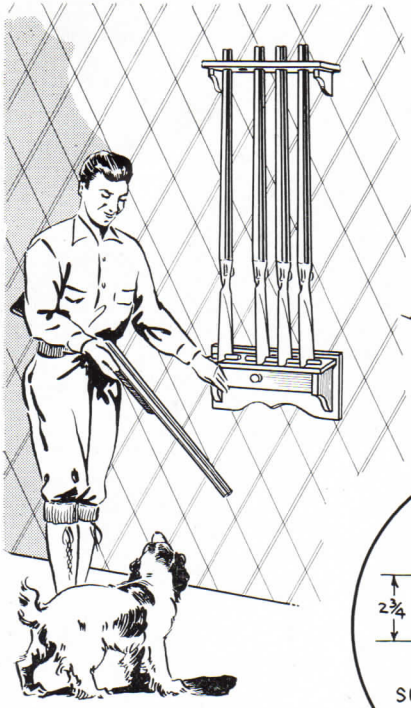


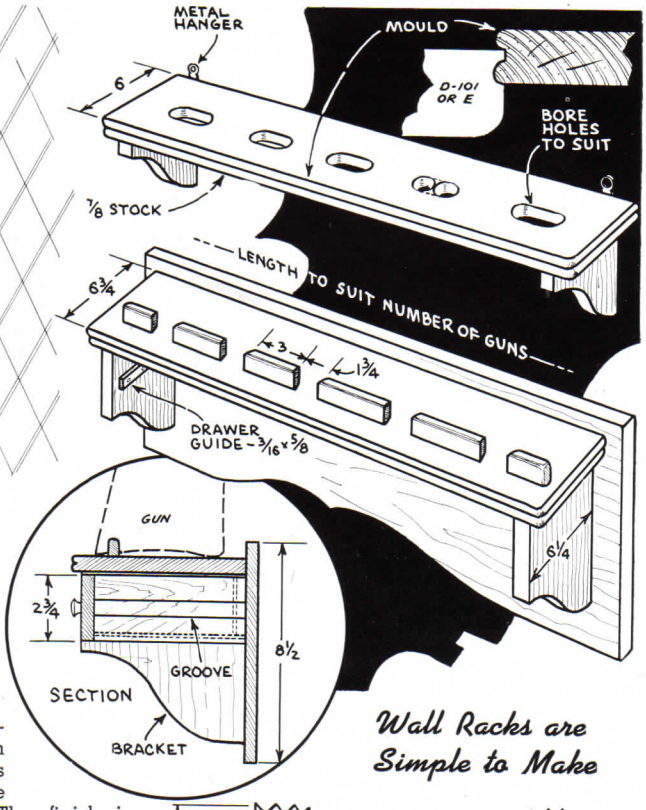
CONSTRUCTION

STOCK: KNOTTY PINE
ALL JOINTS NAILED

NSTRUCTION

: FIGURED GUMWOOD
OINTS MORTISE-TENON



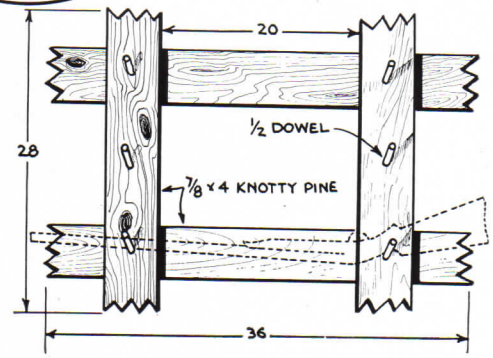


notched as required to accommodate the gun barrels and can be faced with felt if desired. Pegs for revolvers can be added to the side or back of the cabinet. The finish is natural wood with three or four coats of clear lacquer or varnish, hand rubbed to a satin gloss with pumice and water.

The knotty pine cabinet is a hammer-and-nail job, with the door housed between the sides and stopped by rabbeted ledges on the top and bottom. The drawing shows a moulded butt pit which can be cut by using moulding head knives with the saw table tilted 6 degrees. Successive cuts are made, resetting the depth each time to cut the required taper. The gun rack has dowel pegs on its facing edge to retain the barrels. A suitable ornament for the upper part of the door is the flying formation of redheaded ducks, cut from 1/4 inch maple plywood and painted as marked. The cabinet itself is attractive in warm brown stain with a shellac and wax finish.

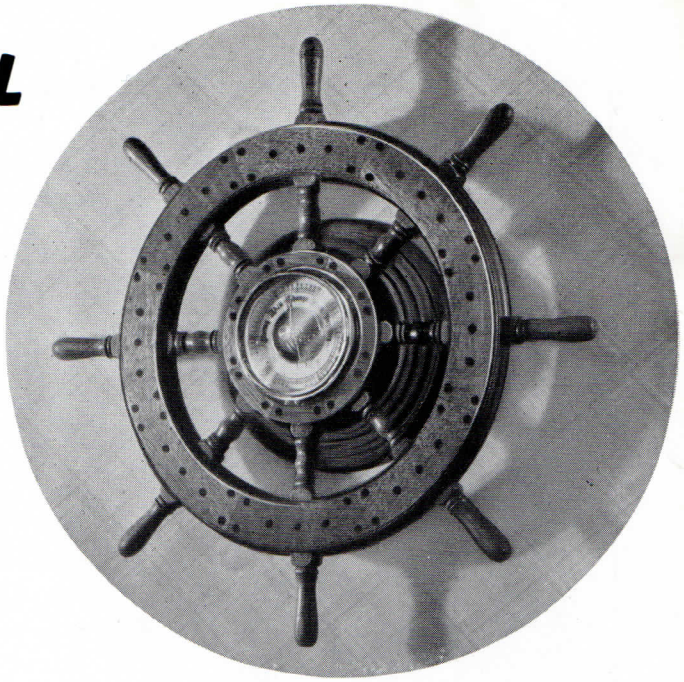
Wall racks are simple to make and keep the guns out of the way, yet readily accessible for use. The rustic panel with guns hung on pegs is an effective mounting for antique guns and

Wall Racks are Simple to Make

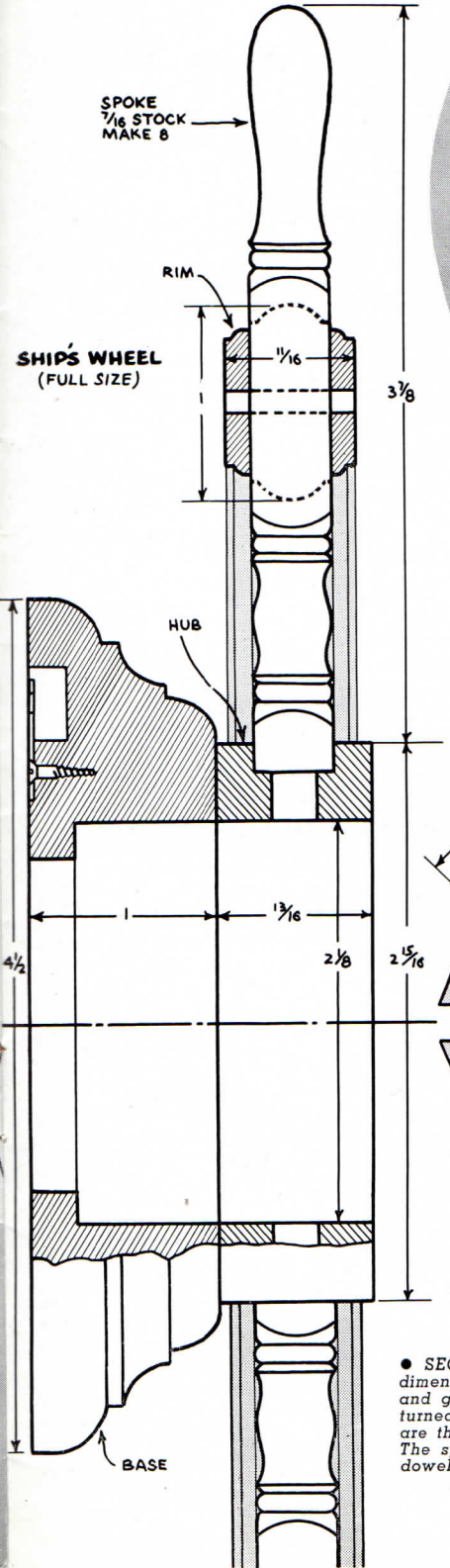


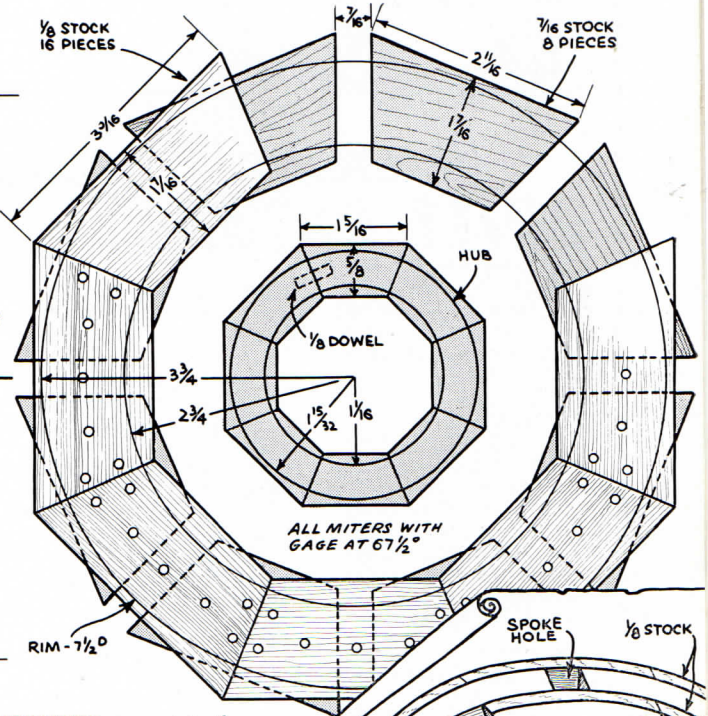
is equally practical for field guns in daily use. The shelf type gun rack can be made up in any length to suit the number of guns which are to be accommodated. 1 3/4 inch should be allowed for each gun butt, with about 3 inches between. The guns can be stacked comb in or comb out, depending on the pitch.

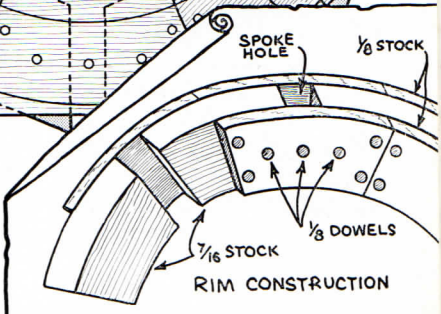
Ship's WHEEL



ATTRACTIVE DESIGN WITH SEGMENT RIM AND HUB CAN BE USED WITH SMALL BAROMETER OR ELECTRIC CLOCK

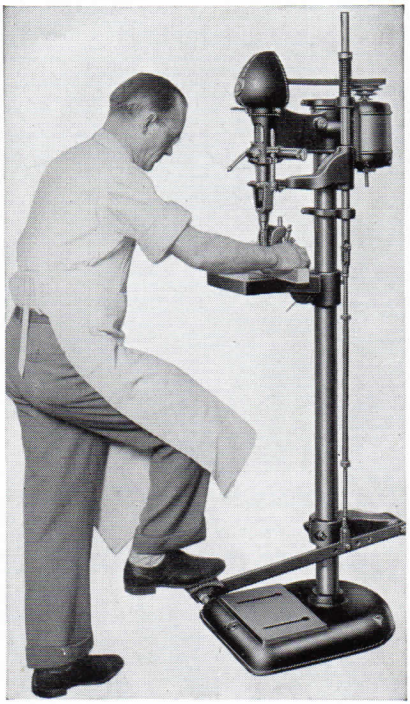






● *SEGMENTS are cut to the dimensions given, bradded and glued together, and then turned on lathe. 1/8 inch pegs are then fitted in brad holes. The spokes are mortised and doweled into the hub. Wood stock, mahogany.*

FOOT FEED



for 14-inch DRILL PRESS

• ROUTING, mortising, and drilling operations frequently demand the use of both hands to hold or manipulate the work, making a foot feed of indispensable value on jobs of this kind. The new foot feed for the Delta 14-inch drill press has every feature to insure satisfactory work. It is efficient in action, easily adjusted over a wide range of feeds, and can be disconnected instantly when hand feeding is preferable. Production shops will find that a foot feed attachment pays for itself in increased speed of operation; home shops will find it a great convenience in freeing both hands for supporting or handling long stock.

No. 1007 Foot Feed for 14-inch drill press, consisting of foot lever and bracket, connecting rods and tube, two column brackets, shifter bracket, shifter shaft, two springs and adjusting collar... **$15.75**

SAW DUST

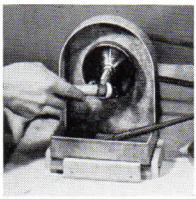
A MODERATELY warm electric iron pressed against the face of a sanding disk fastened with Distic will adhere portions of the disk which have become loosened through disuse.

USE the miter gage in a closed position, that is, turned in toward the blade, when working short pieces. Better support is obtained in this way, since the long edge of the work is against the gage for both cuts.

ALWAYS keep a spindle in place on the shaper. Leaving the main spindle open invites a coating of rust or grime which may spoil the accuracy of the machine.

A TAPERED pin is used to fasten the groove bar to the miter gage. Give this pin a twist with a screwdriver at regular intervals to take up any play which may have developed through wear.

HALF round cakes of white or blue chalk placed on shelves containing drills or other polished tools will retard rusting by absorbing excess moisture in the air.



A GOOD cement for fastening small pieces of plastic to sticks for polishing can be made by melting together, sealing wax, 3 parts; flake shellac, 1 part. The mixture will keep indefinitely. The cement is made fluid by heating and can be picked up with the moistened thumb and fingers. It sets hard in two or three minutes.

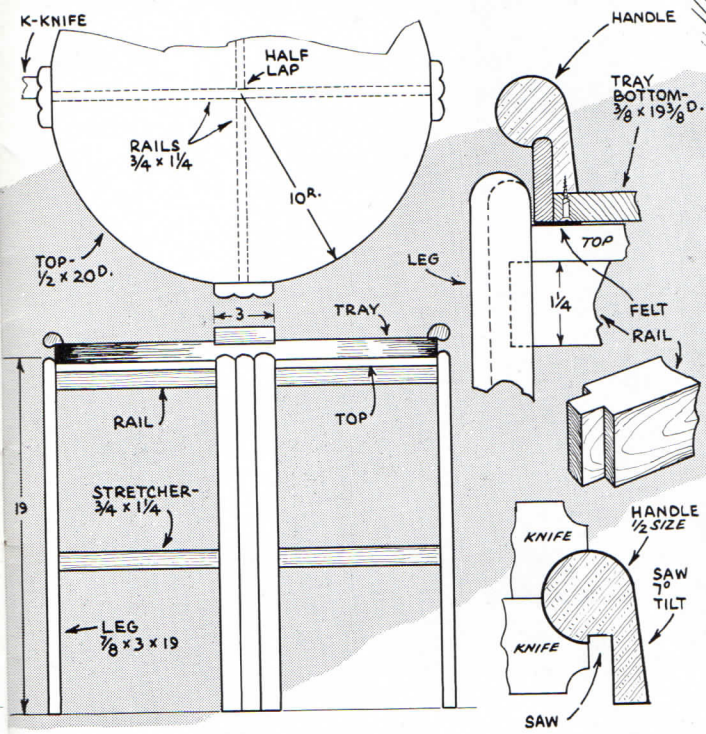
ABRASIVE belts and disks should be kept in a dry place. Belts exposed to moisture have a tendency to glaze quickly, with an appreciable shortening of cutting life.

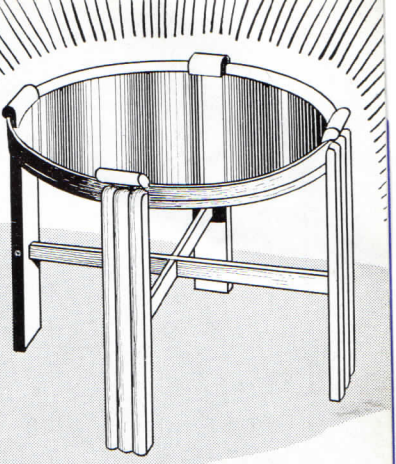
WHEN making up special shaper knives, saw the knife stock to the approximate shape with an abrasive cut-off wheel. This method of working often saves a lot of tedious grinding.

KEEP turning band saw guide pins around or reverse them end for end to equalize wear. If the pins shows decided wear, grind the ends perfectly smooth and square.

WHEN making large turned projects from solid wood, allow the work to season several days after rough turning to the approximate shape. The wood will be more likely to retain its original shape without warping if finish turning is done after this seasoning.

COFFEE TABLE



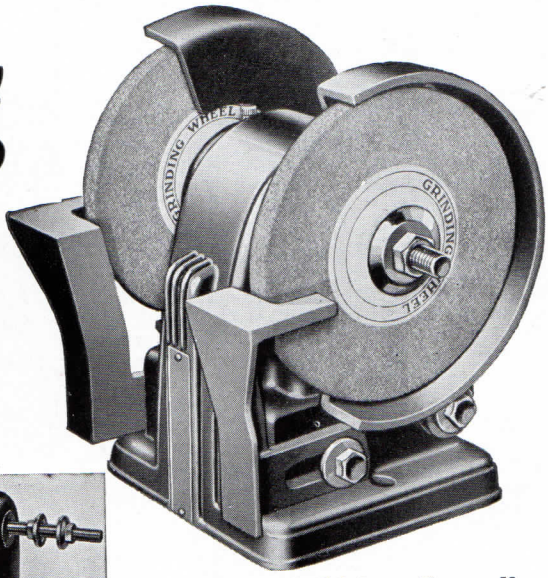


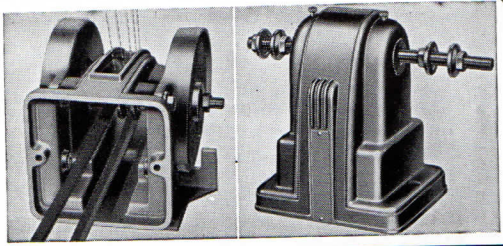
● *Legs for this smart little table are reeded with style K knife on the shaper. The job can also be done with the same knife on the circular saw but the return of the moulding around the end would be quite a bit more difficult. The table has a removable tray built on a 3/8 inch plywood bottom. The rim of the tray is steam bent from 1/4 by 1 1/8 inch stock. Bending can be simplified by using two, 1/8 inch pieces. Fastenings can be round-head nickeled screws. The tray handles are shaped according to the diagram at left and are half notched over the rim. The general construction permits considerable variation, such as using a segment turned rim for the tray, using a glass top, etc. The preferable wood is walnut.*

Low-Cost

GRINDER and BUFFING HEAD

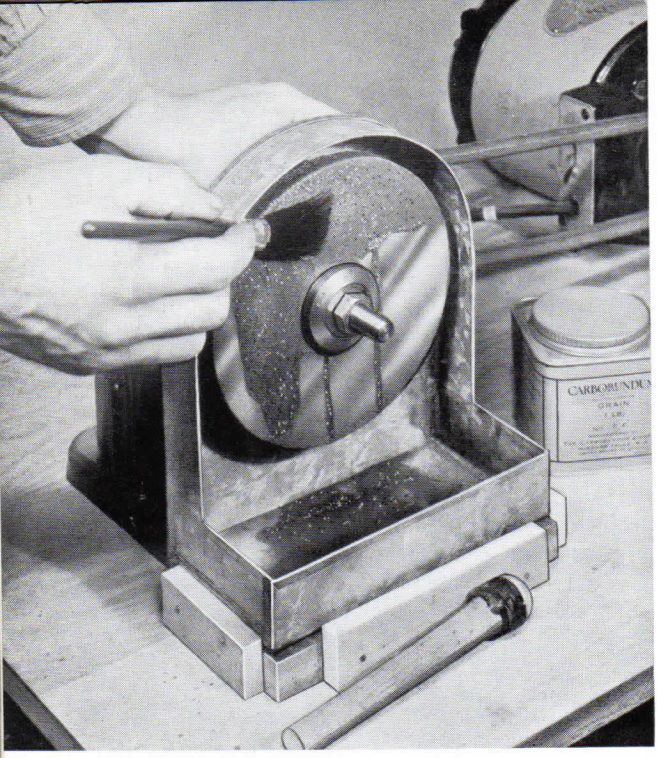
BUILT for home craftsmen, these two useful Delta units are sturdy, well-constructed machines good for years of accurate, dependable work. Substantial 5/8-inch diameter shafts are housed in Oilite bronze bearings, with the shaft ends reduced to 1/2 inch to take 6 inch diameter grinding and buffing wheels. Both units are belt drive, and can be driven from either the bottom or back as desired.

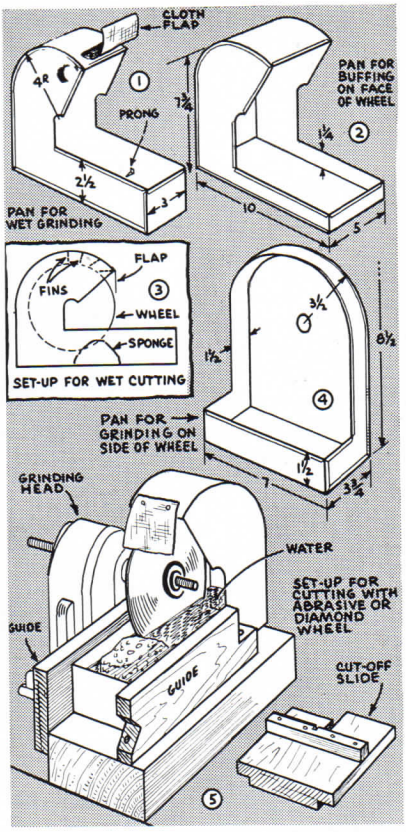




No. 3100 Bench Grinder, with one 50-grit and one 60-grit wheel, tool rests and guards but without belt **$5.75**

No. 3110 Buffing Head, with collars, but without belt..... **$3.25**



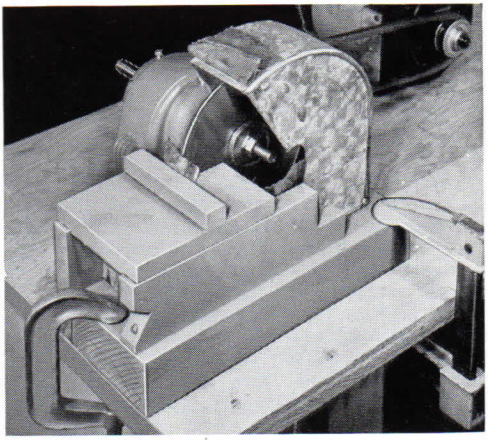


SPLASH PANS for WET Grinding

THESE units are designed to fit Delta 3100 and 3110 Buffing and Grinding Heads carrying six inch wheels or buffs. The shaft centerline of these units is about 5¾ inches above the bench. The pan should be blocked up to fit. Pans should not be made deeper than shown since the bottom of the pan must be fairly close to the bottom of the wheel to be efficient.

The pan shown in Fig. 1 is a deep type intended for wet cutting-off or grinding on the face or edge of the wheel. Fins should be soldered in place as shown in Fig. 3 to trap the water or other lubricant being used. A cloth flap catches any final spray carried around by the wheel. Metal prongs inside the pan are used to hold a sponge in place. For some jobs the wheel itself need not run in the lubricant since enough water can be pulled up by the sponge. A typical set-up of this pan for cutting rock quartz with a diamond or silicon carbide cut-off wheel is shown in Fig. 5 and in the lower photo.

Pan Fig. 2 is the same as Fig. 1 except that it is wider and shallower. This is a good type of pan for buffing. The pan shown in Fig. 4 is for wet grinding on the side of the wheel. It is a good type of pan for cast iron laps used with a paste abrasive, as shown in the upper photo. The abrasive is mixed and placed in the pan and is picked up with a brush and brushed on the lap as required. If more than one grade of abrasive is being used, a separate pan should be provided for each grade.



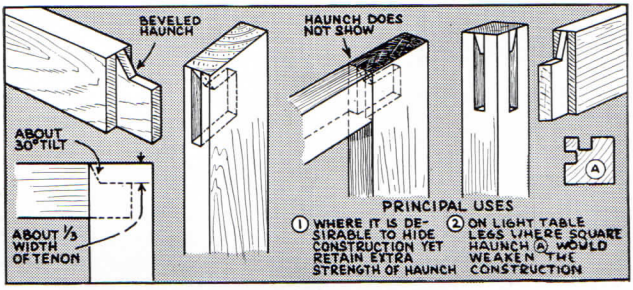
All of the pans shown are quite practical when made from tinner's galvanized iron sheet and any tin shop will make these units at a nominal cost. Further details regarding the use of these pans in cutting and polishing gem stones can be obtained from the November issue of Popular Mechanics from which this article is, in part, taken.

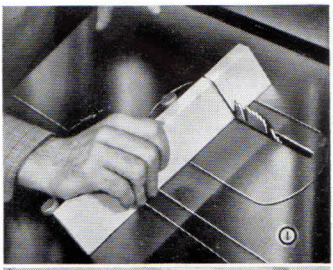
Fitting Bevel-Haunched TENONS

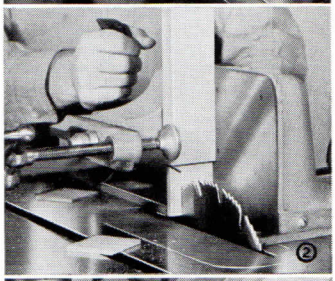
THE principal uses of the beveled or concealed haunch tenon are shown at 1 and 2 in the drawing below. It can be seen that the haunch adds strength to the tenon without weakening the mortise. At the same time, the construction is invisible—often a desirable feature. The average size of the haunch is one-third of the tenon on a 30 degree angle, although short tenons, as in example 2, require a lesser angle.

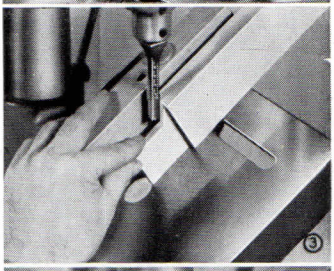
The tenon portion of the joint is cut first, running the side shoulder cuts in the usual manner. The saw is then adjusted to the required depth of the haunch, which is about one-third the width of the tenon. The saw table or blade is tilted about 30 degrees. The shoulder of the haunch is then cut, as in Fig. 1. The position of the work should be checked carefully so that the wood removed does not extend into the solid portion of the work. The work is then mounted in the tenoning jig to make the cheek cuts, after which the jig and saw blade are readjusted to complete the haunch, as in Fig. 2.

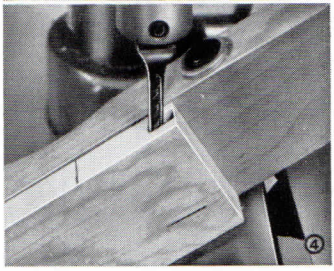
In cutting the mortise, the fence is adjusted at the proper distance behind the chisel. The table is then tilted so that the chisel lines up with the haunch, as can be seen in Fig. 3. Any error in setting should be toward a lesser tilt of the drill table rather than a greater one. Two or three mortise cuts are made in this position, starting with the cut at the extreme end of the work and working in, as shown in Fig. 4. It is good practice to leave extra stock beyond the mortise since this will eliminate any chance of the chisel breaking out into the end grain. The work can be cut to length after the mortise is made. After making the few cuts in the tilted position, the drill table is returned to level position and the mortise for the straight portion of the tenon is cut. The joint is then ready for testing and final assembly.











All Set for Winter

Muskegon, Mich.—Enclosed find picture of myself cutting storm sash for my home, also a photo of a sewing cabinet which I finished recently. The storm sash job was run almost entirely on the circular saw. The cabinet is of knotty white pine, shellac finish, and is a glued assembly without screws or nails.

Jim DeYoung

No Blueprints

Buffalo, N. Y.—Looking through my Deltagram I notice a novel windmill made by H. M. Harris of South Portland, Maine. Now I wonder if it is possible to get a blueprint of that windmill and if so could you let me know how much it costs. F. S.

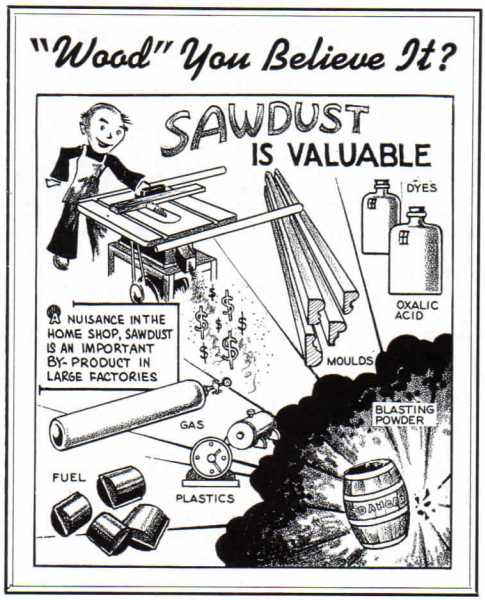
Delta does not have blueprints of customer's projects. We are always glad, however, to refer to similar material from other sources.

Built-up Turnings

Newman, Calif.—Please show more built-up turnings in the Deltagram. I am now making the lamp which you showed in a recent issue. E. N.

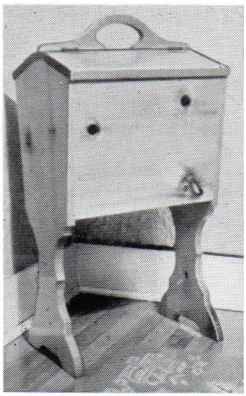
Plastics

Sandusky, Ohio.— It may sound strange to you but I have only recently become acquainted with plastics, that is, actually working with them. Believe me, this material is beautiful. I have completed the "Blue moon" cigarette box which you showed in Project Book No. 5 and it certainly is a knock-out. T. T. M.



Silk Screen

Novelty, Ohio—I have received your booklet, "Practical Finishing Methods." The chapter on silk screen stencils is well worth the price of the book. It seems to me that this art has considerable possibilities and I have today ordered the materials to try out the photographic method. O. S. G.



Shut-In

Houston, Texas—I am a shut-in but have a shop and make a little money from what-nots, musical boxes and tables, etc. I have received your Deltagram for four years and have every copy. Whenever I get an order for something, I can usually find the plans and pictures in the Deltagram.

C. M. G.

Toners

Greer, Idaho—I am doing all my finishing with lacquer using a spray gun. Would like to see more stories on this subject like the one you had in the February 1939 issue. Right now I am interested in toners. I understand that these are made by adding a small amount of colored pigment to clear lacquer, but would like to have more information on finishes using a toner instead of stain as a first coat. M. L. R.

Half a Century

Fort Wayne, Ind.—In the October issue you ask how many readers have all the numbers of the Deltagram. I am pleased to say that I have all of these useful little books, all filed in three Deltagram binders. Some of the older copies are pretty dog-eared since I did not have binders until a few years ago, but they're all here—I will have exactly fifty copies come December.

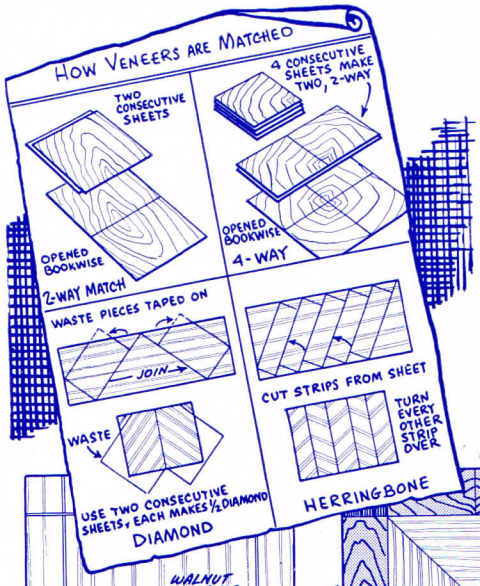
R. C.

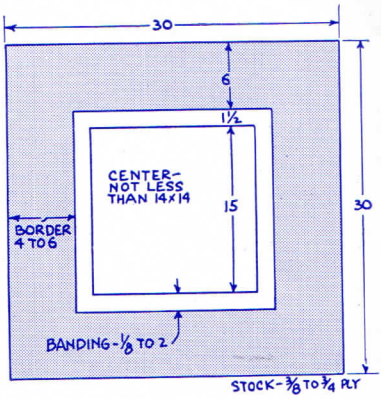
Sticker Sticker

Terre Haute, Ind.—I have started to make the Queen Anne coffee table illustrated in the March 1937 Deltagram. I am getting along nicely with the legs but have run into a real sticker in cutting the moulding on the shaper. I have the part using the 102 knife done but when it comes to a special shaped knife for the rest, well, you've got me. I do not know how to grind a knife and know of no one who does. D. D. W.

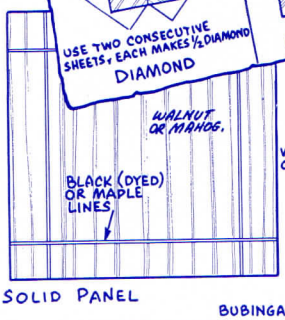
Knife grinding is covered in the shaper and abrasive books. In this particular case, it is quite practical to substitute a simple beaded moulding.

VENEERED Card Table TOPS

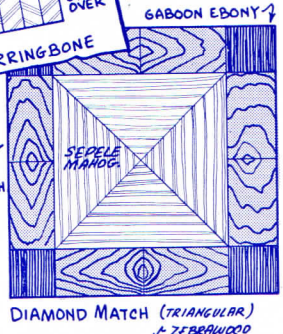




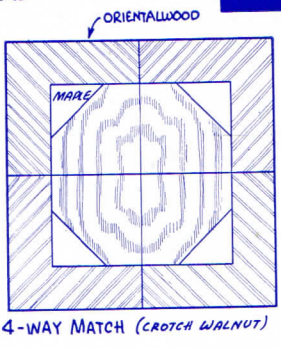
AVERAGE DIMENSIONS



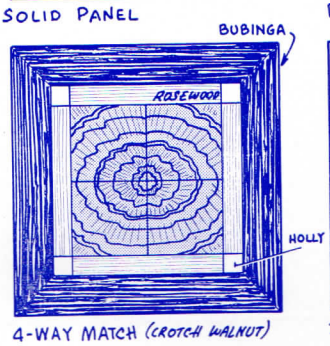
SOLID PANEL



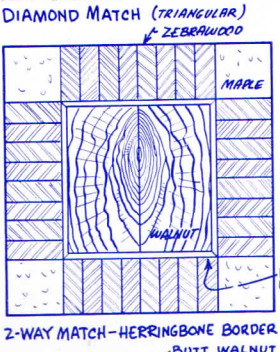
DIAMOND MATCH (TRIANGULAR)



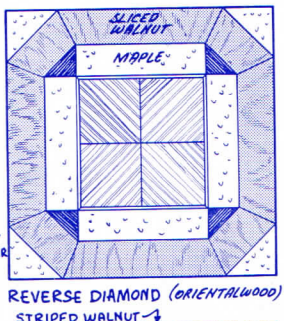
4-WAY MATCH (CROTCH WALNUT)



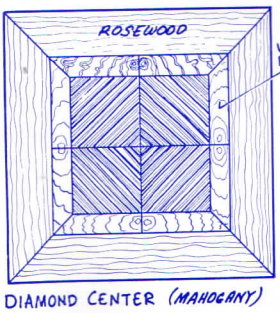
4-WAY MATCH (CROTCH WALNUT)



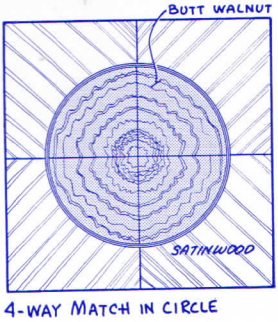
2-WAY MATCH-HERRINGBONE BORDER



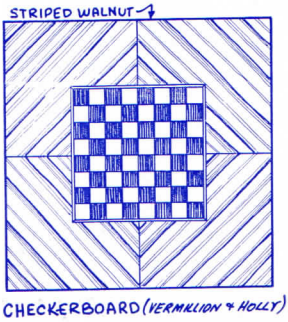
REVERSE DIAMOND (ORIENTALWOOD)



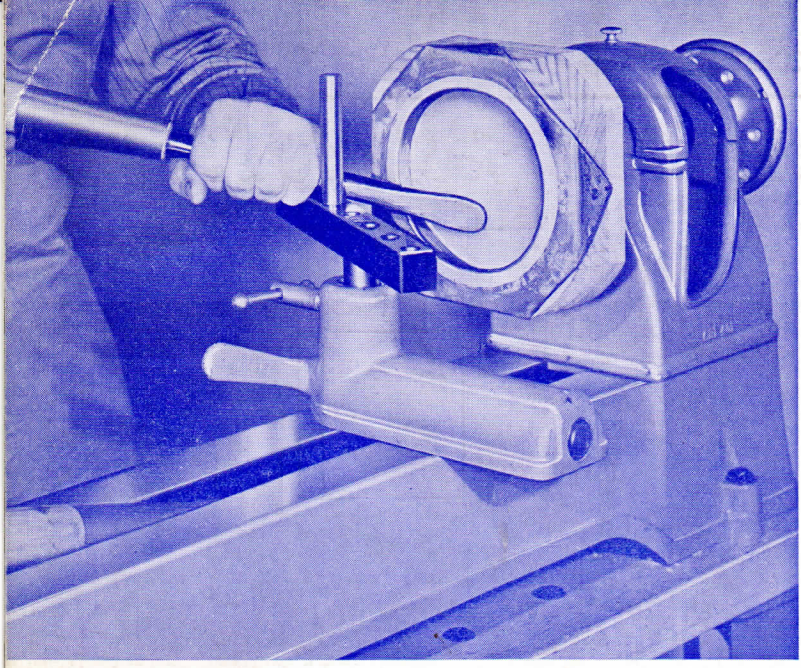
DIAMOND CENTER (MAHOGANY)

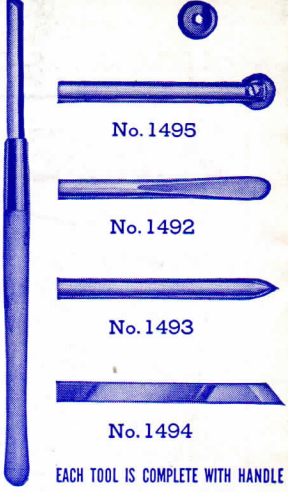


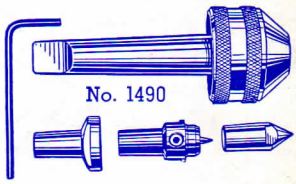
4-WAY MATCH IN CIRCLE

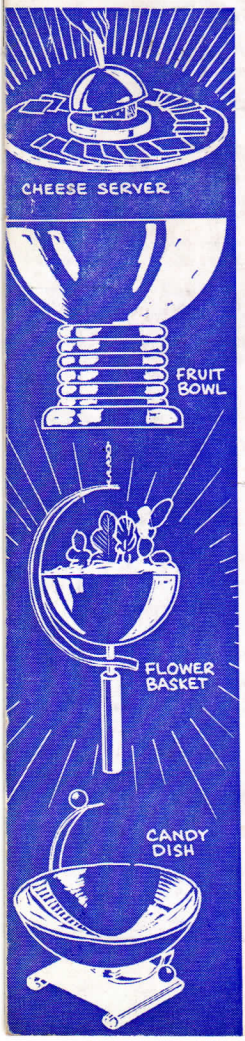


CHECKERBOARD (VERMILION + HOLLY)









Why Not Try SPINNING?

YOU'LL really enjoy it . . . and you don't have to spend a whole lot of money either on your original purchase. Spinning on internal chucks, as shown in the photo, requires only two tools and a tool rest. This simplified style of spinning is excellent for making ash trays, candy dishes and similar shallow shapes. Deeper spinning requires that the metal disk be spun over a form rather than into it, requiring the addition of a spinning back center to your equipment. The back center is really only a partial investment in spinning . . . you can use it every day for both wood and metal turning and it's miles ahead of the conventional stationary center for this kind of work. As your skill in spinning improves, you can add the beading and point tools shown above. ● Buy either of the two outfits listed below . . . get yourself two or three disks of 18-gauge pewter . . . and start spinning. You will find the spinning of simple ash trays and candy dishes quite simple and you'll get a great deal of pleasure out of this fascinating art as you acquire the skill to tackle more advanced projects.

Outfit No. 1

● *This simple outfit of three pieces will start you off and contains everything necessary for spinning ash trays, plates, candy dishes, etc., on internal chucks.*

No. 1492—Flat Tool	$2.65
No. 1494—Cut-off Tool	2.65
No. 1491—Metal Spinning Tool Rest	2.25
TOTAL	$7.55

Outfit No. 2

● *Spinning of all kinds except beading at the rim can be done with this set. The spinning center can also be used for regular wood or metal turning.*

No. 1492—Flat Tool	$2.65
No. 1494—Cut-off Tool	2.65
No. 1491—Metal Spinning Tool Rest	2.25
No. 1490—Ball-Bearing Spinning Center	5.35
TOTAL	$12.90

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