

# WOOD NEWS

Number 1

DEVOTED TO THE WOODWORKER AND HIS CRAFT

Dec. 1977

## WOODWORKING

by Chris Bagby

For some of us the word casts a magic spell which manifests in endless hours spent in the basement workshop sawing, sanding, drilling, gluing, and staining till our masterpieces are complete.

Being amateur wood craftsmen ourselves, we at King Hardware, share with you a fascination and love for making useful and beautiful objects from pieces of wood.

We believe many people today whose living is earned in routine clerical, production, or management jobs possess innate woodworking skills whose origin can be traced back through generations to the time when craftsmanship was highly regarded among professions.

To these people, we are dedicating this first issue of WOOD NEWS, in hopes that we may inspire a few individuals to return to woodworking as a hobby and pastime.

The more one learns about wood and its craft, the more one discovers how much there is yet to learn. We are grateful to Leon Colwell for his introductory article on WOOD in this issue, the first of a series which will continue in future issues.

Our aim is to promote woodworking among individuals by providing access to the tools, materials, and ideas which combined with patience and desire, lead to skill in making things from wood.

Entering the hardwood lumber business has been an exciting and challenging experience. Walnut, cherry, oak, ash, maple, chestnut, and other hardwoods are seldom seen in local lumberyards, and making them available to you at reasonable prices is a responsibility we consider extremely important. Large furniture factories and cabinet shops seem to buy much of the nation's hardwood lumber before it is even cut from the tree, and the individual seeking quality hardwood for his own use most often pays premium prices if and when he manages to find what he wants.

By buying hardwood direct from saw mills in North Georgia and North Carolina, and air-drying much of the lumber ourselves in a ventilated solar-heated shed close to our store, we offer a wide variety of hardwoods at down to earth prices.



We have been blessed with a 20" thickness planer whose half century of previous service in the workshop of a caring individual craftsman seems to have primed it for its present use. Weighing close to a ton, this machine of cast iron and steel is the heart of our operation, smoothing rough cut lumber to beautifully dressed boards of any desired thickness. Managing the operation of the planer and the sale of hardwood is Bob Kelley, whose sensitivity to fine adjustments and detail makes possible efficient use of the planer and the confidence of our hardwood customers.

In offering a wide range of tools for the workshop, we are particularly fortunate to be SHOPSMITH Sales and Service Center for the Southeast. Acknowledged by many as the ultimate tool for the home workshop, the Shopsmith's reputation for accuracy, capacity, and utility has earned for it also a place in many professional cabinet shops. Judging the multipurpose tool as practical for your own workshop should be done only after seeing it demonstrated, and we invite you to visit our showroom and do so at your earliest convenience.

Realizing that our success or failure as a woodworking headquarters depends entirely upon your response and support, we seek your advice and comment on our services offered, and invite your suggestions for ways to make woodworking more accessible to individuals. We hope that WOODNEWS may become an active forum for the exchange of ideas and information about woodworking, and urge you to send us your thoughts on paper or drop by and share them in person.

As an immediate opportunity to allow us to get to know you better as a woodworker, we invite you to fill out the enclosed questionnaire, adding your comments, and mail it or bring it with you to our store.





## SOME GENERAL INFORMATION ABOUT WOOD

by Leon Colwell

Before one considers spending any considerable amount of time working with wood he should familiarize himself with some of the terms used to describe and identify woods and with some of the properties of the wood itself.

Woody plants which are seed-bearing are called Spermatophytes and these are divided into two subdivisions: Gymnosperms and Angiosperms. Gymnosperms contain naked seeds. We are most familiar with these as Conifers, or cone-bearing trees such as pine, fir, spruce and cedar. These are also referred to as evergreen or assiduous (leaf retaining) trees, although this is not always the case. Evergreens are generally referred to as softwoods but this is not always true because some so called softwoods are physically harder than the so called hardwoods. Angiosperms generally have enclosed seeds. We know these as oak, cherry, walnut, hickory, etc. These plants generally have broad leaves which they shed in the fall and from this we get the term Deciduous. Broad leaf plants are usually referred to as hardwoods.

One of the features of wood is that it is not of uniform structure. It is a tissue with very different kinds of cells. Even two boards from the same tree do not have exactly the same grain pattern.

A tree is commonly considered to have three parts: the crown, the stem, and the roots. In this and future issues we will deal with the stem from which comes the lumber for our workshops. If you look at a cross-section of a log (part of the stem) under magnification, you can see many parts. Here we consider only three: the bark, the sapwood, and the heartwood. In constructing furniture we will use mainly the heartwood, although with the price of cabinet-grade lumber continually increasing, more and more woodworkers are using the sapwood. Sapwood is between the bark and the heartwood and is lighter in color than the heartwood. Part of the tissue in sapwood is at least partially alive and functions in sap conduction and storage of food for the tree. As the tree grows in size and becomes older, the inside tissue dies. This core of dead wood in the center is called heartwood. Depending upon age, size, and kind, the ratio of heartwood to sapwood in a stem or log will vary. Growth rings of sapwood vary from a few to as many as 200 rings.

Most woodworkers buy their wood after it has been cut, sawn, air or kiln-dried and planed. For furniture construction, most trees are cut into eight and ten foot logs. It is sometimes re-cut into shorter lengths. Most logs are tangentially or plain-sawn to expose an interesting grain pattern. Some logs are quarter-sawn to result in an edge-grain pattern. Later issues of this newsletter will discuss this in more detail.

When a green log is cut into planks the wood contains a large amount of water. The water in the cell cavities is called "free water" and the water in the cell walls is called "bound water". Before wood can be used successfully to construct furniture, most of the water must be removed. Generally, this is done by stacking the green planks as follows: lay planks side by side across pieces of dry two by fours placed approximately twenty-four inches apart. The width of the first layer of planks can vary. Lay dry one inch square strips across the first layer of planks and approximately twenty-four inches apart (eighteen inches apart is not too close) making sure strips are close to the edge of each end of the layer. Continue to stack and strip as many layers as is practical to handle. The strips are sometimes called "stickers" and allow air passage between layers to accelerate drying and prevent enzyme action from discoloring planks or the growth of fungi which will cause the wood to rot. Stacked lumber should be under cover in an open area to allow air passage. It may be left in this stacked condition long enough to completely air dry or it may be left stacked for 90 or more days, depending upon thickness and then placed in a kiln to accelerate the drying process. There is a common misconception among some individuals about air dried lumber not being suitable for furniture construction. Air dried lumber is much preferred by those who have used it. Later we will give you additional information on air-dried and kiln-dried lumber.

(contd. next page)



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(Colwell continued.)

In the drying process, when the "free water" in the cell cavities is removed, it does not affect the structure of the wood to any appreciable extent. However, as the "bound water" within the cell walls is removed, the cells shrink and the wood, therefore, changes dimensions. Denser woods shrink more than lighter woods of the same species. Hardwoods shrink more than softwoods, but always remember, there are exceptions to these patterns. The longitudinal shrinkage of wood is negligible (.1% to .3%). The radial (across the plank) or tangential shrinkage is much greater.

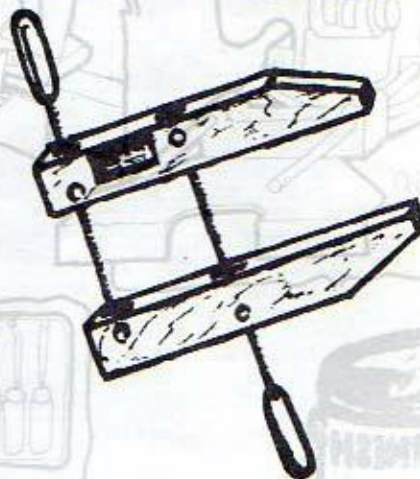
When the wood is sufficiently dry it is planed to dimension and is now ready for the woodworker to begin. Remember, this information is general. Some woodworkers do their own planing with a thickness planer or a jointer planer, while some purists cut, split, dry, and hand-plane their lumber.

In future issues we will discuss wood joinery, final finishing, staining, sealing, types of adhesives and other details of woodworking.

You must learn to work *with* wood. The more you know about its properties, the more successful you will be in turning out professional quality items. We hope we can help you accomplish this.

## CHRISTMAS SPECIAL

### Handscrew Clamps



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## TURNING TIPS

Bob Marshall's shop, The Timid Dragon, is located in a grand old house at twenty-seven, Eleventh Street. Though experienced in all areas of wood working his shop is particularly crowded with his specialty, carvings and turnings. In a recent visit Bob gave us some simple hints that the beginning wood turner might keep in mind.

1. Begin with a soft hardwood like basswood. Avoid anything that has knots, particularly pine or poplar.
2. Take particular care in marking centers and fixing the stock firmly in the lathe.
3. Always wear goggles and a long sleeved shirt to avoid distraction or injury from flying shavings.
4. Train yourself to watch the top of the turning where the chisels have been, not the cutting edge and where you are about to go. This takes practice.
5. Most lathe chisels come flat ground and scrape the wood off. Hollow ground chisels cut off long shavings and leave a smooth surface requiring less sanding — being sharper though they require a little more careful handling. To hollow grind your set simply use the round, rather than the flat, of your grinding wheel.
6. Sharp chisels cut cleaner and are less likely to dig in and become dangerous flying missiles. Check them regularly and don't be in too much of a hurry to give them a touch up when needed.

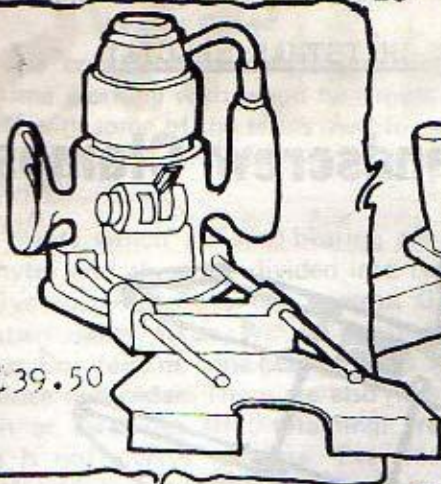


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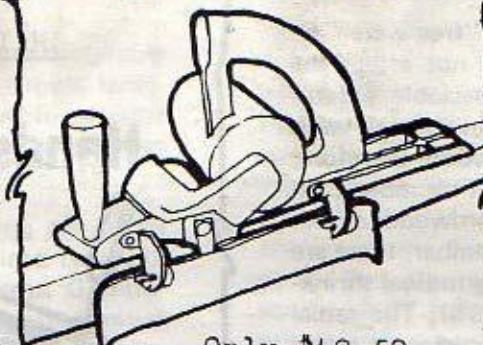


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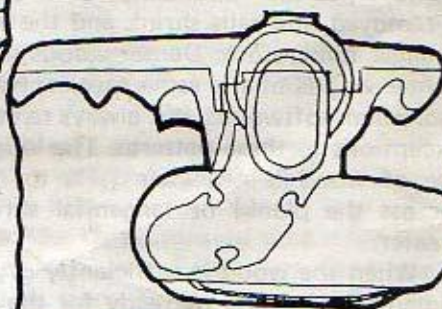
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