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# SHADOW BOX

*White  
Oak*



## MAKING THE SHADOW BOX

First, cut a 1/2" X 3/8" rabbet on the back inside edges of the two sides, into which the piece's back will later be fit. Cut through dovetails at each corner (see chapter twenty-five). After dry-fitting but before gluing the dovetails, cut the dados that will house the ends of the shelves on the inside faces of the two sides. When the shelves have been fit into the dados, glue and assemble the four sides of the case.

While the glue in the dovetail joints is curing, cut the dados in the two upper partitions and fit the partitions into them. Then glue and slide the partitions into place.

Below the half-circle at the top of the back, relieve the sides of the back so that they will fit into the rabbet cut into the back inside edges of the sides. Fasten the back in

place with 3/4" no. 6 wood screws passing through the back, into the rabbet and into the back edges of the box's top and bottom. Then, sand and finish the shadow box.

### MATERIALS LIST

A	Back	1 pc.	1/2 X 6 5/16 X 20 3/16
B	Side	2 pcs.	1/2 X 2 X 17 3/8
C	Top and bottom	2 pcs.	1/2 X 1 1/2 X 6 3/16
D	Shelf	3 pcs.	3/8 X 1 1/2 X 5 1/16
E	Partition	2 pcs.	1/4 X 1 1/2 X 2 1/8
F	Screws	10 pcs.	3/4" no. 6

*\*These are net measurements. Surplus should be added to dovetailed parts to allow them to be sanded flush.*

## INTERPRETING HARDWOOD GRADES

The grading system used to indicate the quality of individual hardwood boards can be a little intimidating. In an effort to clarify that system, I spoke with the National Hardwood Lumber Association.

First, the system *is* complicated. The training course offered by the National Hardwood Lumber Association for people interested in a career in lumber grading consists of fourteen weeks of "intensive" training.

Second, although there are only nine commonly used grades, there are any number of specialized or combination grades used in the woodworking industry. However, the good news is that there are only four grades with which the average cabinetmaker need to be concerned. These are FAS, Selects, #1 Common, and #2A common.

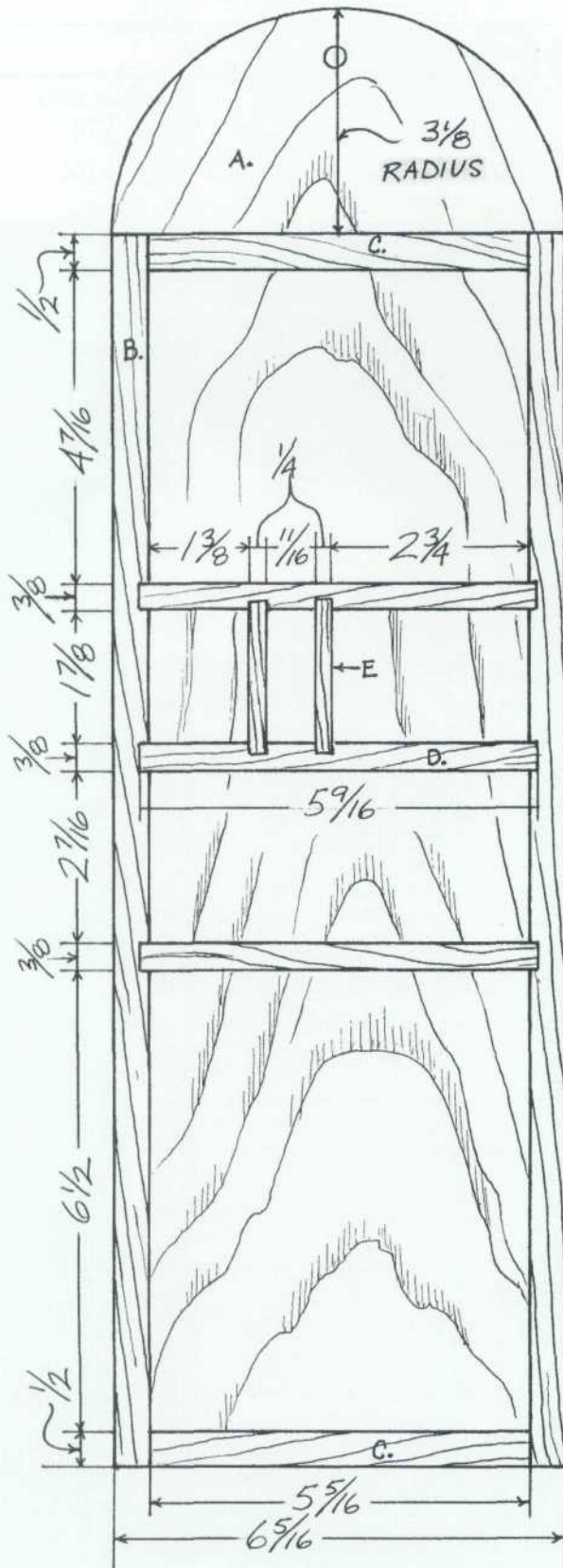
Third, the grades are distinguished by the percentage of clear wood that could be taken from a board in cuttings not smaller than those specified on the chart below. For example, to be graded FAS, a board must be able to yield 83 1/3 percent of its surface as clear wood when taken in cuttings not smaller than 4" X 5' or 3" X 7'. (The odd percentages reflect the convention of measuring lumber in board feet, a unit consisting of the amount of material contained in a cutting 12" X 12" X 1'.)

Fourth, all grades, with the exception of Selects, are determined from the poor face of the board. This means that if a woodworker buys a board graded FAS, its good face is likely to offer a higher percentage of clear surface than is indicated on the chart.

	FAS	SELECT	#1 COM	#2A COM
Minimum Size Board	6" X 8'	4" X 6'	3" X 4'	3" X 4'
Minimum Size Cuttings	4" X 5' 3" X 7'	4" X 5' 3" X 7'	4" X 2' 3" X 3"	3" X 2'
Minimum Clear Yield	83 1/3%	83 1/3%	66 2/3%	50%

*\*Please note that this chart is not intended to be a complete representation of any of the grades shown. It's intended only to offer some general guidelines.*

FRONT VIEW



JOINERY DETAIL

