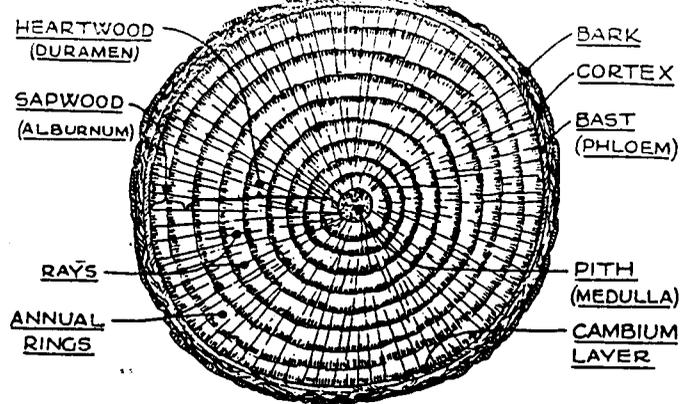
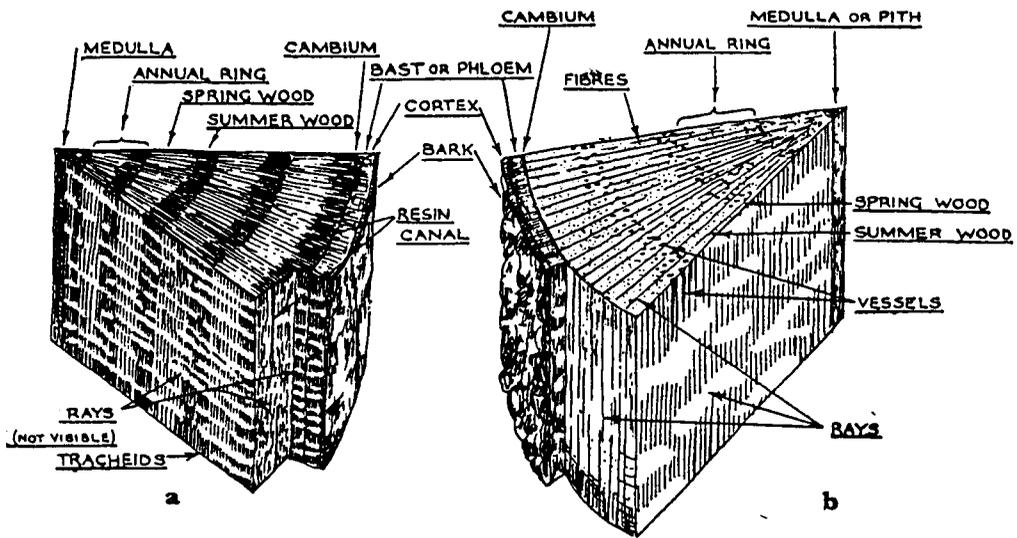


Glossary of General Terms

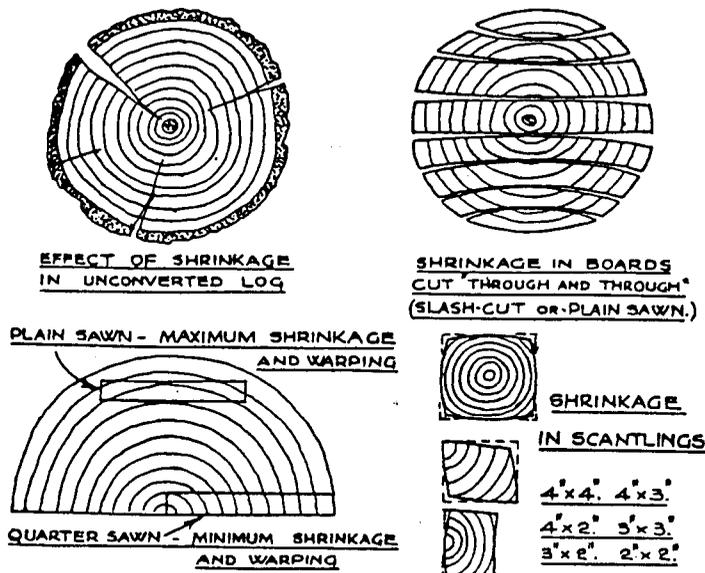
<u>Sapwood</u>	Younger growth of a tree, designed to carry sap up from the tree roots through a network of fine cells. Less durable than heartwood. The starches conducted through the sapwood provide a food reserve for insects and fungii.
<u>Heartwood</u>	Wood that has ceased to carry sap, and which exists to give mechanical support to tree. Often darker than sapwood. Hollow trees occur when the central heartwood has disappeared to leave the outer ring of sapwood.
<u>Annual Ring</u>	The additional growth that a tree makes in one year. Often subdivided into the lighter springwood and darker summerwood. Rings can be counted to indicate age of tree.
<u>Rays</u>	Radiating storage tissues that can carry food inwards or outwards through the trunk. Often are highly decorative.
<u>Knots</u>	Caused by the formation of branches within the growing trunk.
<u>Grain</u>	The direction of the fibres of the tree.
<u>Texture</u>	The size and variation of cells, or "pores", on an exposed timber surface.
<u>Hardwood</u>	Wood from trees that bear broad leaves. Usually harder than
<u>Softwood</u>	Wood of the coniferous or needle-leaved trees.
<u>Conversion</u>	The sawing-up of the round trunk into sections.
<u>Seasoning</u>	The process by which felled, and usually converted timber, has its moisture content reduced to acceptable levels for its eventual purpose.
<u>Durability</u>	Resistance of a timber type to attack from fungii or insects.



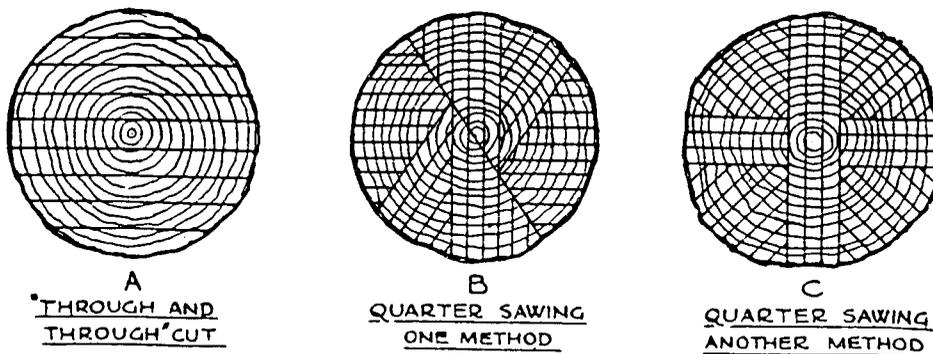
General structure of a tree.



a. Structure of pine. b. Structure of oak.



The effect of shrinkage in timber.



Recognising Eight Popular Timber Types

OAK

Appearance

Wood is hard, coarse-textured and usually straight-grained, with medium length grain. The heartwood matures to a golden-brown colour. When quarter-sawn it shows distinctive silver grain.

Character

Very durable and water resistant. Sapwood can be subject of insect attack but not hardwood. Oak also corrodes metals - especially iron and steel - that come into contact with the wood.

ASH

Appearance

Long, straight grain, coarse texture. Wood is pale, creamy-pinkish when cut but ages to a light/medium brown colour.

Character

Not durable enough for general outside use - prone to decay and insect attack. With long straight grain it combines toughness with elasticity. Turns well.

BEECH

Appearance

Hard timber with short flecks of grain. Can vary from almost white to warm red-brown depending upon type of soil on which tree grows. Straight grain with fine and even silky texture.

Character

Not durable enough for general exterior work. Liable to insect attack. Turns well and can be bent easily.

SYCAMORE

Appearance

Straight-grained, fine-textured timber with a silky lustre. Sometimes found with a wavy grain that gives a ripple effect. Attractive creamy-white to yellowish white colour, which darkens with age to a pale golden brown. Some long, dark grain markings can be present.

Character

A strong timber, but not durable and also liable to insect attack. Prized for kitchen and domestic use as does not taint or stain objects that it touches. Turns and finishes well.

SOFTWOODS

There are at least ten types of softwood. Historically, Yellow Pine (imported from U.S. and Canada) provides a good quality, stable material and so was used for constructional timbers as well as for cabinet making and even for musical instruments. It is now less readily available than the more widely grown Yellow or Red Deal which we will consider here.

Appearance

Colour varies from honey to a red-brown, whilst outer sapwood is lighter and sometimes tinged with blue-grey staining. Often resinous, with pronounced annual growth rings.

Character

Moderately durable, but liable to insect attack. Usually treated before exterior use. Strong for its weight and moderately hard. Works fairly easily but knots sometimes troublesome. Takes a good paint finish.

MAHOGANY

Appearance

Colour may vary from light reddish-brown to a dark red, depending upon the country of origin and region of growth. Grain may be straight or interlocked. Considerable variety of "figure" is possible in the wood.

Character

A strong timber which resists decay well but is seldom used for exterior applications. It finishes well leaving a smooth surface.

WALNUT

Appearance

Greyish background with irregular darker streaks, occasionally of a reddish-brown colour. Fine and uniform in texture. The imported American Black Walnut - a cheaper alternative - is a uniform purplish-brown colour, varying on occasions to light chocolate-brown.

Character

A hard, tough wood that resists splitting + fluctuating temperatures. Finishes well.

ELM

Appearance

Dull or reddish-brown in colour. Coarse textured, with a wild grain pattern that meanders over the timber.

Character

Very durable when submerged or buried, (and used for bridge piles and drainage pipes as a result.) Liable to insect attack - Dutch Elm disease has decimated numbers of living trees, but elm wood still usable and elm objects will always be present in museum collections. Difficult to split and not easily worked.

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