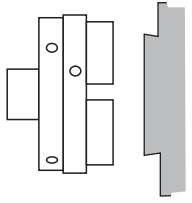
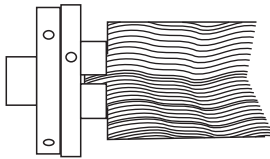


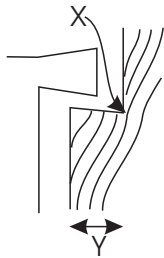
Strength of the Spigot and Dovetail



The intention is to hold a large lump of wood by a small part of one side or end.



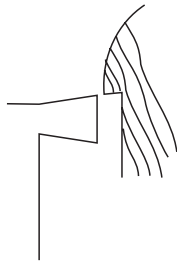
If the wood is held for end-grain turning there is huge strength within the wood when it is gripped by the chuck.



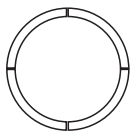
When wood is mounted cross-grain, as for a bowl, it is easy for all or part of the foot to split off. It is important for the chuck to meet the wood on a clean surface at point X. It is important to have adequate length (Y) to the spigot.



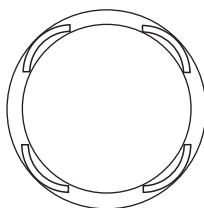
If the spigot length is short and the grain angle is acute, it is very easy for part of the spigot to split off. Angled grain outside a shallow dovetail may also allow the wood to split off.



When a dovetail is used on a bowl there may be only a narrow band of wood outside the jaws. The expansion pressure of the jaws can split this off, or split the whole bowl.



Chuck jaws are made as a circle and thus grip a round piece of wood, in either spigot or dovetail mode, perfectly only when returned to being a circle.



When the jaws are expanded they grip a spigot at 8 points and a dovetail at just 4 points.