

## DIAGONAL LASHING:

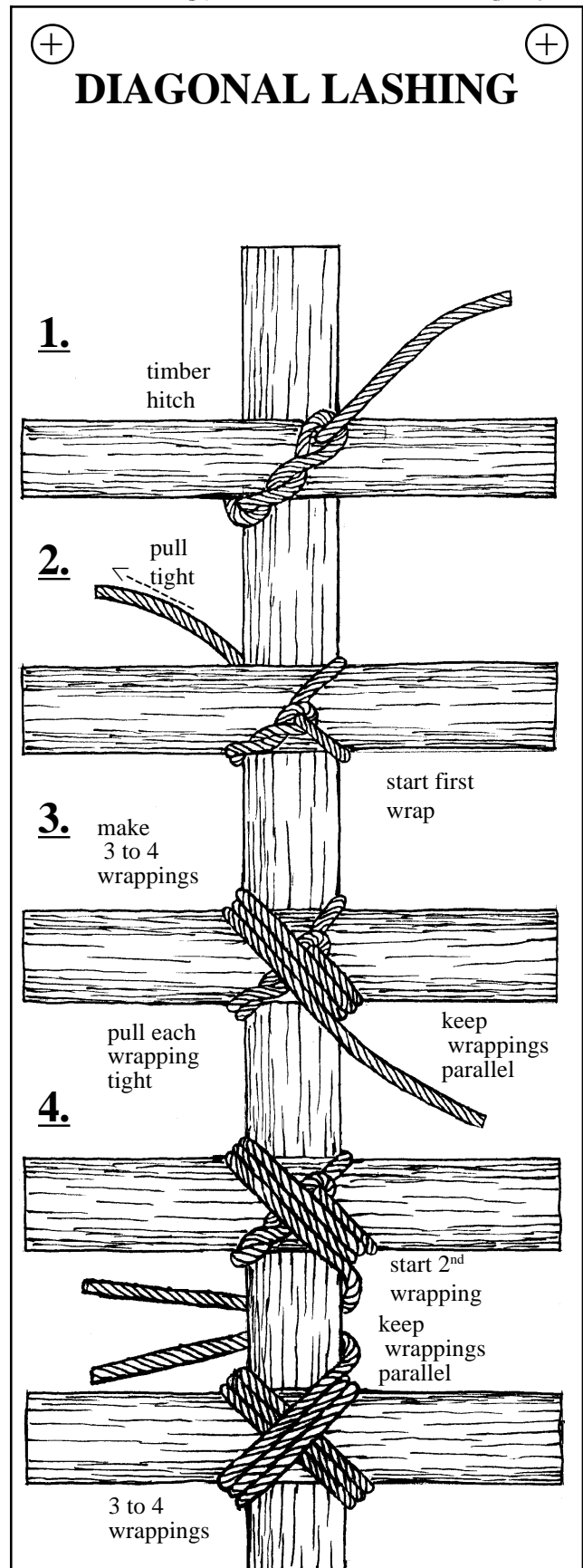
**Use** ---- Diagonal lashing is used to bind poles together that cross each other but do not touch when their ends are lashed in place in a structure.

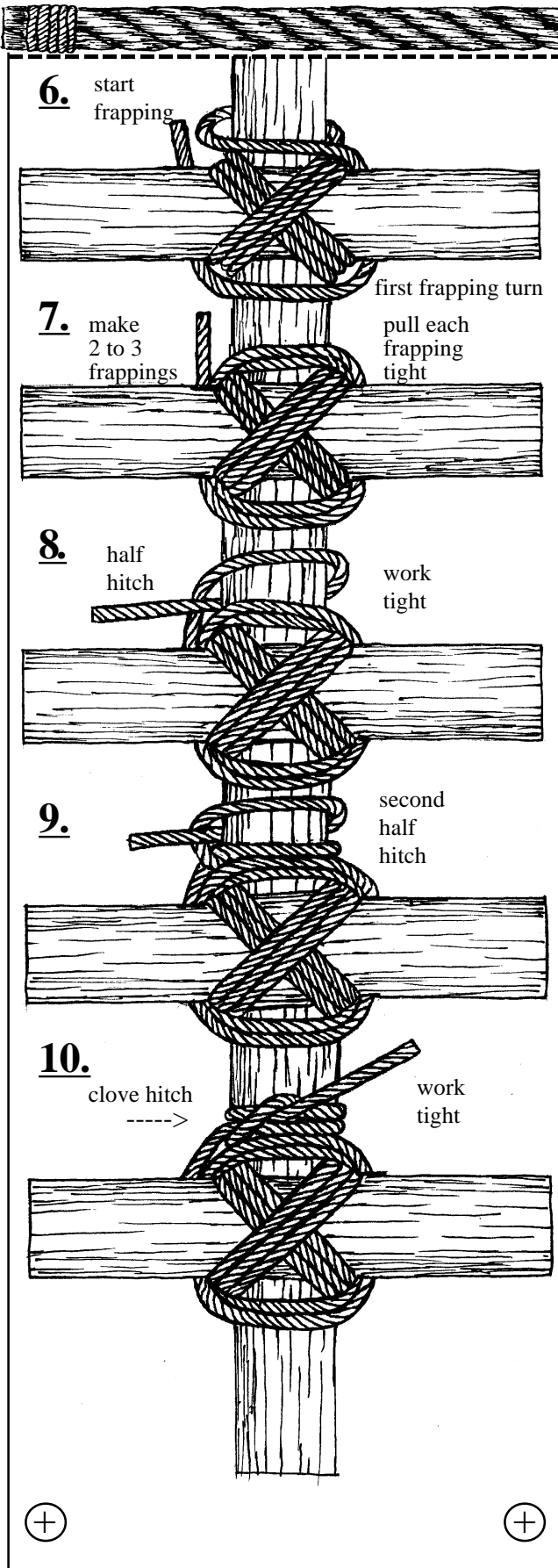
**Comments** ---- The diagonal lashing gets its name from the fact that the wrapping turns cross the poles diagonally.

The diagonal lashing can be used to bind poles that cross each other from 90° to 45°. If the angle between the poles is less than 45° a shear lashing should be used.

The diagonal lashing makes use of the timber hitch to pull poles together that are not touching each other. The timber hitch allows the poles to be drawn together without changing the relative positions of the poles. [NOTE] If a square lashing were used to bind poles that do not touch, the beginning clove hitch would pull the cross pole toward the clove hitch causing unnecessary bowing of the cross pole and could also produce a force that would act along the length of the pole to which the clove hitch is tied. These additional force, if strong enough, can place unnecessary strain on other lashing within the structure causing the structure to twist and fail.

**Narration** ---- (For **diagonal lash** knotboard. ) (1) Tie a timber hitch diagonally around both poles. (2) Start the wrapping turns on the opposite diagonal to the timber hitch, by pulling the rope tight so that the poles contact each other. (3) Take 3 to 4 wrapping turns; keep the wrapping turns parallel; pull each wrapping turn tight. [NOTE] If the wrapping turns are allowed to cross, the increased friction between the strands of the rope will make it difficult to tighten the wrapping turns. (4) Start the second set of wrapping turns by going past and around the vertical pole. [NOTE] Going





around the pole the rope allows the direction of the rope to be changed without crossing the first set of wrapping diagonally. (5) Take 3 to 4 wrapping turns; be sure to keep the wrapping turns parallel; pull each wrapping turn tight. (6) Start the frapping turns by going past and around one of the poles. [NOTE] Going around the pole with the rope allows the direction of the rope to be changed without crossing the wrapping turns diagonally. (7) Take 2 to 3 frapping turns; keep the frapping turns parallel. Be sure to pull each turn tight. (8) End the lashing with a clove hitch. Take the first half hitch of the clove hitch by going past and then around one of the poles. Lock the half hitch tight against the lashing by working it tight. (9) Take a second half hitch around the pole. (10) Work the second half hitch tight against the first half hitch so that the clove hitch is locked against the lashing.

[NOTE] See the directions for square lashing for instructions on working the half hitches tight.

[NOTE] If very smooth rope is used, the lashing can be made more secure by adding a third or fourth half hitch to the clove hitch.