TRIPOD LASHING:

Description ---- A shear lashing around 3 poles.

Use ---- To bind three poles together, for the con-
struction of a tripod. ---- To bind three poles
together that contact at the same point in a
structure.

Comments ---- The tripod lashing is a shear lash-
ing that binds three poles together at the same
point. ---- The tripod lashing gets it name from
the fact that its most common use is the con-
struction of a tripod. ----The tripod lashing can
be used just about any where in a structure that
three poles cross each other at the same point
and the same time in the sequence of construc-
tion. ---- Tripod lashing takes two main forms;
with racked wrapping turns (the rope is woven
between the poles) and with plain wrapping
turns (the rope is wrapped around the poles
without weaving the rope between the poles).
When the lashing is made with racking turns
the rope contacts each pole around its entire
circumference ; this contact makes the tripod
lashing with racking turns the most secure form
of tripod lashing: therefore tripod lashing with
racking turns should be used when safety is
important. However, for light structures where
there would be no danger if the lashing slipped,
the faster to tie tripod lashing with plain wrap-
ning turns may be used.

Laying Out The Poles ---- For most tripod lash-
ings, lay the pole side by side with the butt ends
aligned. The alignment of the butts of the pole
insures that the tripod legs are the desired
length.

[NOTE] The practice of laying the center pole in
the opposite direction to the outside poles cre-
ates several problems. When the poles are laid

in opposite directions the wrappings must be
put on loosely so that when the center pole is
rotated to its proper position the lashing is tight-
ened around the poles. If the wrappings are put
on to tight, the rope is stretched causing dam-
age to the rope fibers, therefore weakening the
lashing. On the other hand, if the rope is
wrapped two loosely, the lashing will not
tighten enough when the center pole is rotated
and the lashing will be able to slip along the
length of the pole. Either way, the rope to loose
or the rope to tight, a dangerous situation is
created.

However, if the tripod is to be part of
a structure and the center pole will be at an
angle greater then 90° to the outside poles, lay
the center pole in the opposite direction to the
outside poles so that the rotation of the poles
at the lashing is less then 90°. See gate way
below for an example.
**Setting Up A Tripod** ---- Set up the tripod by crossing the outside poles so that the cross point of the poles is under the center pole. Crossing the outside poles under the center pole causes part of the load that is placed on the tripod to be taken up by the wood to wood contact of the poles.

If the outside poles are crossed above the center pole, the rope of the lashing will be required to support all or most of the load; therefore the tripod will not be as strong as when the outside legs are crossed under the lashing.

**TRIPOD LASHING:**
(With Racking Turns)

**Narration** ---- (For tripod lashing with racking turns knotboard.) (1) Tie a clove hitch around one of the outside poles. (2) Secure the standing part by wrapping it around the running part. [NOTE] Wrapping the standing part around the running part prevents the clove hitch from slipping around the pole. If the clove hitch slips the lashing will loosen up from the inside. (3) Start the racked wrapping turns by weaving the rope between the poles. (4) Take a total of 5 to 7 wrapping turns. Pull each wrapping turn tight as it is made. [NOTE] The stiffness of the tripod lashing depends on the number and tightness of the wrapping turns. As the tightness of the wrapping turns or the number of wrapping turns increases, the stiffness of the tripod will increase. (5) Take the first frapping turn by taking the rope around the pole that the clove hitch...
TRIPOD LASHING
WITH RACKING TURNS

1. clove hitch

2. secure ends

3. wrapping turn

4. 5-7 wrapping turns

5. frapping turn

6. 3 frapping turns

7. start second frapping

8. pull each turn tight

9. 3 frapping turns

10. first half hitch of clove hitch

11. work half hitch tight

12. second half hitch of clove hitch

13. work clove hitch tight
was tied to, then between the outside pole and the center pole. (6) Take 3 frapping turns. Pull each frapping turn tight as it is made. (7) Start the second set of frapping turns by taking the rope across the center pole and reeving it between the second outside pole and the center pole. Take the second set of frapping turns in the opposite direction to the first set of frapping turns. [NOTE] Taking the second set of frapping turns in the opposite direction to the first set of frapping turns prevents the rope from crossing the wrappings at a diagonal. Unnecessary crossing of the rope increases friction between the strands of the rope making it difficult to tighten the lashing properly. (8) Take a total of 3 frapping turns. Pull each turn tight. (9) Take the first half hitch of the ending clove hitch around the second outside pole by taking the rope past the pole and then around the pole. (10) Work the half hitch tight so that it is locked against the lashing. [NOTE] See the narration for square lashing for instructions on working the half hitch tight. (11) Take the second half hitch of the ending clove hitch. (12) Work the half hitch tight to complete the ending clove hitch. [NOTE] If the clove hitch is not worked tight so that it is locked against the lashing the clove hitch will slip around the pole allowing the lashing to loosen. [NOTE] If very smooth rope is being used, a 3rd half hitch should be added to the clove hitch to insure that the lashing will stay in place.

TRIPOD LASHING:
(WITH PLAIN Turner)
6. Change direction of wrapping turns or the number of wrapping turns increases, the stiffness of the tripod will increase. (4) Take the first frapping turn by passing the rope around the pole that the clove hitch was tied to, then between the outside pole and the center pole. (5) Take 2 or 3 frapping turns. Pull each frapping turn tight as it is made. (6) Start the second set of frapping turns by taking the rope around the center pole and reeving it between the second outside pole and the center pole. (7) Take the second set of frapping turns in the opposite direction to the first set of frapping turns. [NOTE] Taking the second set of frapping turns in the opposite direction to the first set of frapping turns prevents the rope from crossing the wrappings at a diagonal. Unnecessary crossing of the rope increases friction between the strands of the rope making it difficult to tighten the lashing properly. (8) Take a total of 2 or 3 frapping turns. Pull each turn tight. (9) Take the first half hitch of the ending clove hitch around the second outside pole by taking the rope past the pole and then around the pole. Work the half hitch tight so that it is locked against the lashing. [NOTE] See the narration for square lashing for instructions on working the half hitch tight. (10) Take the second half hitch of the ending clove hitch. Work the half hitch tight to complete the ending clove hitch. [NOTE] If the clove hitch is not worked tight so that it is locked against the lashing the clove hitch will slip around the pole allowing the lashing to loosen. [NOTE] If very smooth rope is being used, a 3rd half hitch should be added to the clove hitch to insure that the lashing will stay in place.
QUICK TRIPOD LASHING:

Comments ---- The tripod quick lash is one of the fastest ways to construct a tripod. However the tripod quick lash is not as secure as the more conventional methods, therefore the tripod quick lash tripod should not be used for heavy loads.

Directions ----- 

STEP 1] Lay the poles side by side with the butt ends aligned. Wrap 5 to 8 wrappings around all three poles.

STEP 2] Start the frapping turn by taking each end around an outside pole and then between the outside pole and the center pole.

STEP 3] Take 1 or 2 frapping turns with each end. Pull the frapping turns tight; this will also tighten the wrappings.

[NOTE] The frapping turns are taken in opposite directions.

STEP 4] End the lashing by tying the ends of the rope together with a square knot.

[WARNING]

If one end of the square knot is pulled it can be up set into a lark's head knot. When this happens the knot will slip causing the entire lashing to loosen and fail.