Lashing & Badgets

Art of Lashing - *by Bill Chisamore*

Almost since its invention, rope has been used in the building or construction field. It's not hard to imagine the Egyptians using ropes to build sleds and scaffolding to create the pyramids. For thousands of years, many cultures have used ropes to build boats and ships. Of course, I'm talking about the art of lashing.

Lashing is the technique of binding two or more materials together in order to build a structure. It can be something as simple as extending a pole to raise a flag, a tripod for cooking, or as complex as a tower or bridge.

How Much Rope is Needed?

When teaching lashing to new Scouts, I will inevitably get the response, "My rope is too short". This often comes from the belief that the important part of lashing is the turns that wrap around the spars and how many times it occurs. After all, if wrapping the cordage around the spars four times is good, then seven times is better, right? Not necessarily. You really only need three or four turns around the spars, since it is the "frapping" that binds and tightens the lashing together. (Confused about frapping? See Square Lashing, #3.)

What is the correct length of cordage? A general rule is that the cordage should be able to wrap around the spar 17 or 18 times. If the two spars to be lashed are of different diameters, use the larger of the two for measuring. If the two poles are the same diameter, use either one for measuring. In most cases, this is all the cordage you need.

Duplicate this length for every point of lashing.

Square Lashing

This lashing is done when the two spars are at, or close to, 90 degrees to one another. This is used to tie a shaft between two trees, to make the back of a chair or pioneer kitchen or any other times you need a 90 degree bar.

1. Secure the cordage at the desired spot, where they cross, on one of the two spars with a clove hitch or a snug hitch.
2. Work the cordage over one spar and under the other one. Pull the cordage tight on each turn. Do this three times.
3. Now do the frapping. Frapping consists of working the cordage between the two spars, wrapping around the lashing itself. Pull extremely tight on each turn. Do this three or four times.
4. Tie off the end with another clove or snug hitch onto one of the spars.

Diagonal Lashing

Diagonal lashing is used when two spars cross at odd angles and have a tendency to spring apart. This can sometimes be found when creating pioneering structures.

1. Tie the cordage around both spars where they cross, using a timber hitch. (See diagram.)
2. Wrap the cordage around the spars three or four times, pulling tight each turn.
3. Change direction by coming around just one of the two poles. Then wrap the cordage around both spars three or four times in this direction.
4. Do the frapping, by bringing the cordage between the two spars then wrapping the cordage around the lashing three or four times, pulling as tightly as possible.
5. Secure the end of the cordage, with a clove or snug hitch onto one of the spars.

Sheer or Round Lashing

This technique can be used two ways. To bind spars together to extend their overall length as when creating a flag pole or to create an A frame.

1. Lay two spars side by side, overlapping the ends a good distance. The longer ultimate length you wish to achieve, the more you overlap the spars.
2. Secure the cordage with a clove or snug hitch, near one of the overlapping ends.
3. Wrap the cordage eight to ten times around both spars. Since there will be no gap between the two spars, frapping becomes almost impossible. So pull the wrapping as tightly as possible.
4. Secure the other end with a clove or snug hitch around both spars.
5. Repeat steps one

A-Frame Style

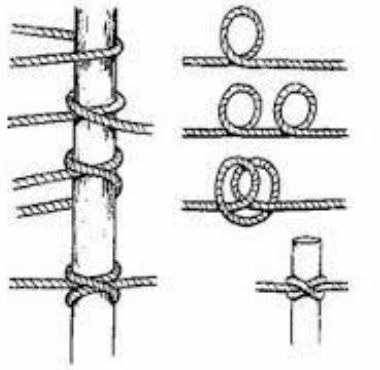
This is the most common type of lashing to use when building a support over a fire when the ends of the spars can be secured either in the ground or by rocks.

1. Lay two spars next to one another. At the pivot point, secure the cordage with a clove or snug hitch.
2. Wrap the cordage six to eight times around both spars. Do not pull the turns too tight.
3. Put one or two frapping rounds between the two spars. Again do not make these turns too tight.
4. Secure the end of your cordage with a clove or snug hitch to the spars.
5. Gently slide the two bottom ends of the spars apart, to form an A or an X, depending on where the pivot point is. Separating the spars will tighten up the lashing and hold the spars together. With practice, the right amount of tension in the lashing to be able to open the spars yet still hold them together can be achieved on the first try.

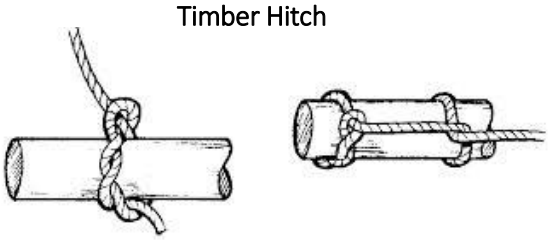
NOTE: A tripod is made in the same manner, except you use three spars and work the frapping between them. Gently pull the three spars apart to create a tripod.

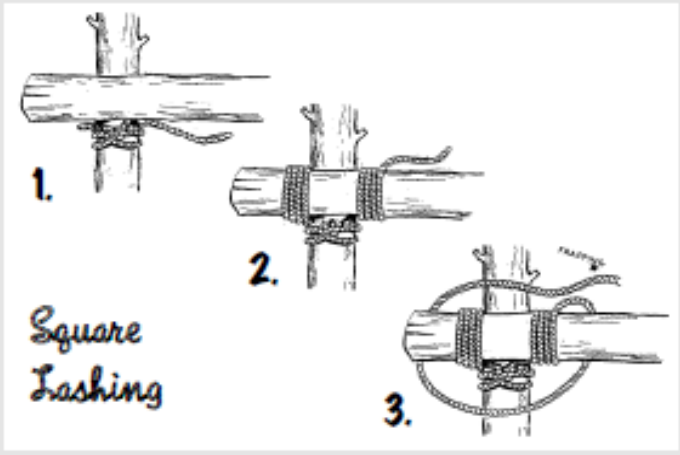
Knots used to start and finish lashings:

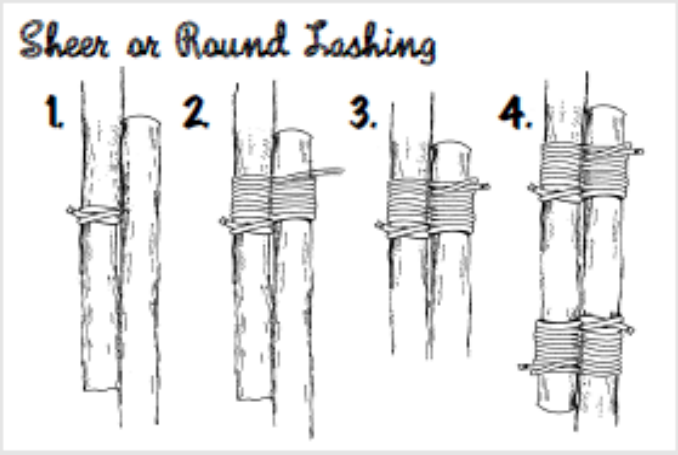
Clove Hitch

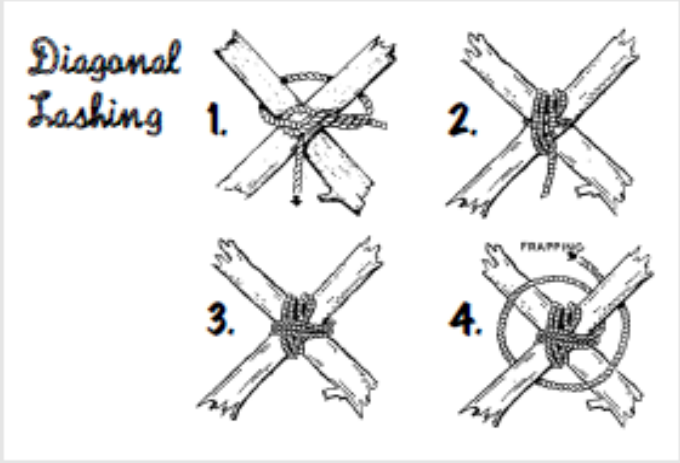


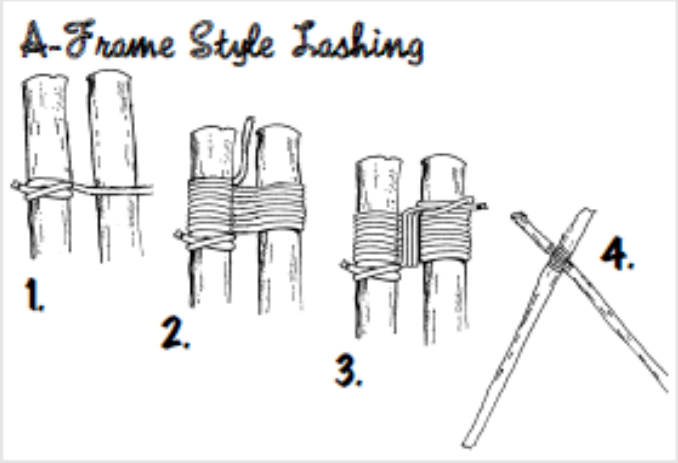
Timber Hitch





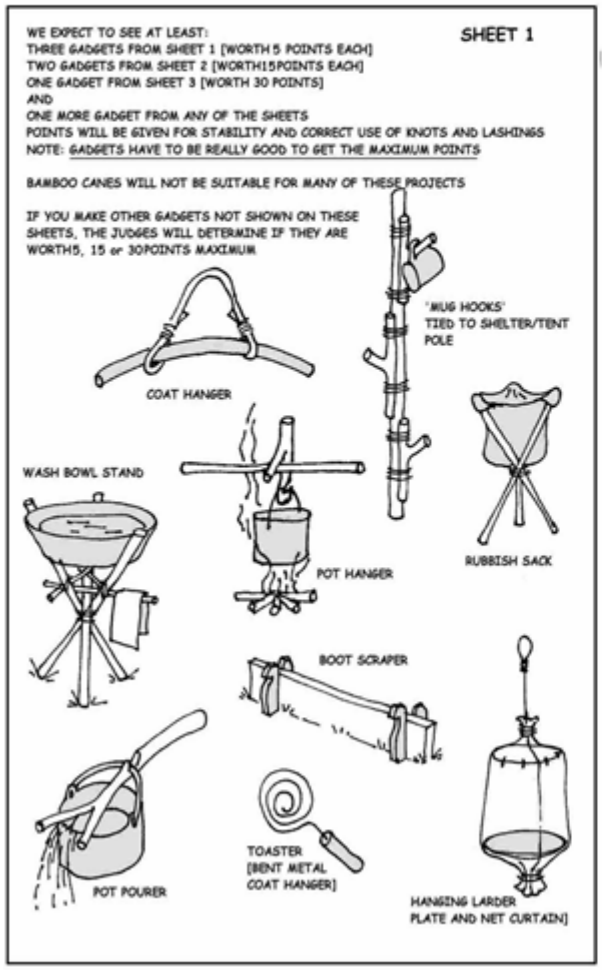


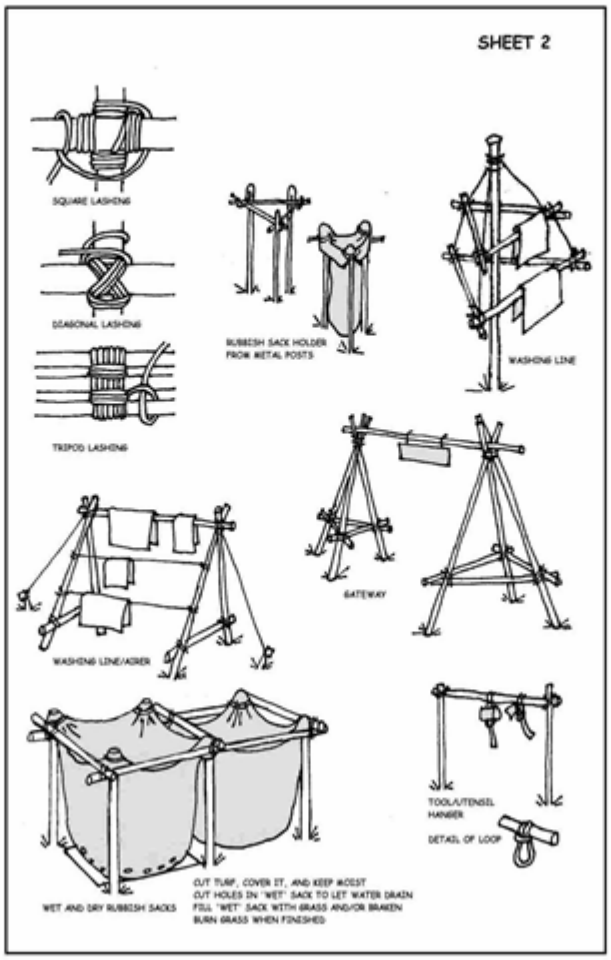


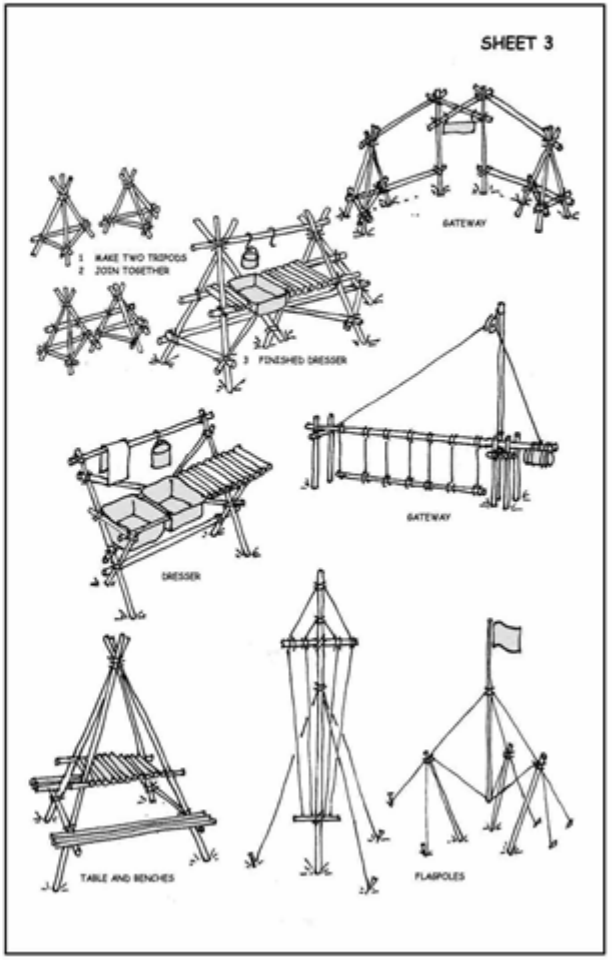


Simple Gadgets

GADGETS - REMEMBER THESE ARE JUST SOME OF THE GADGETS YOU COULD MAKE
PRACTICE MAKING THEM AT TROOP NIGHT BEFORE THE EVENT







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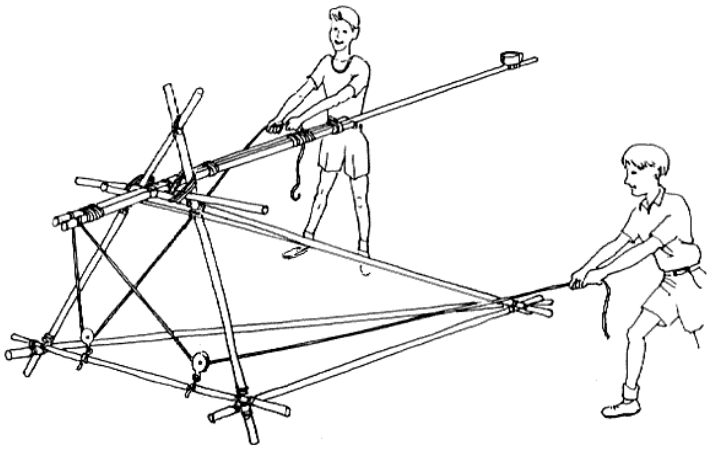
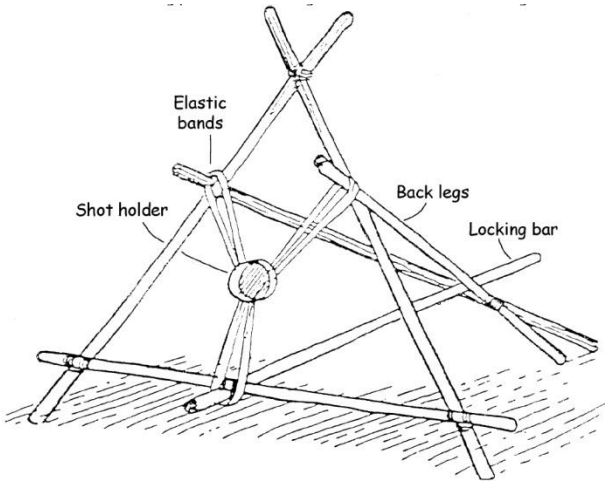
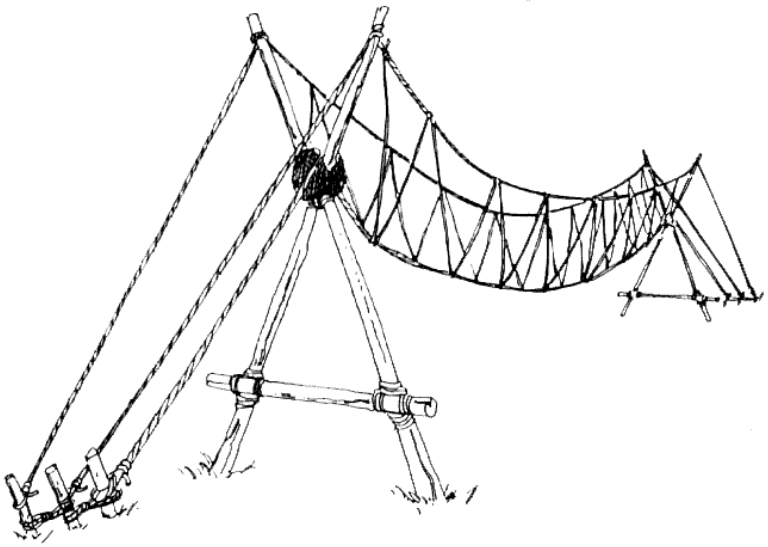
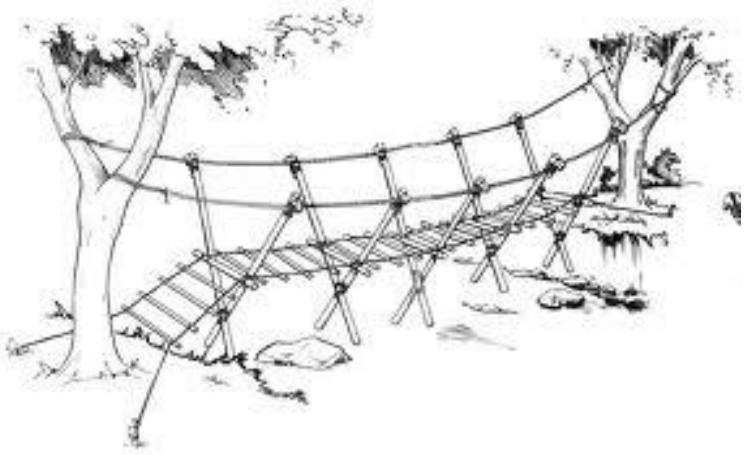


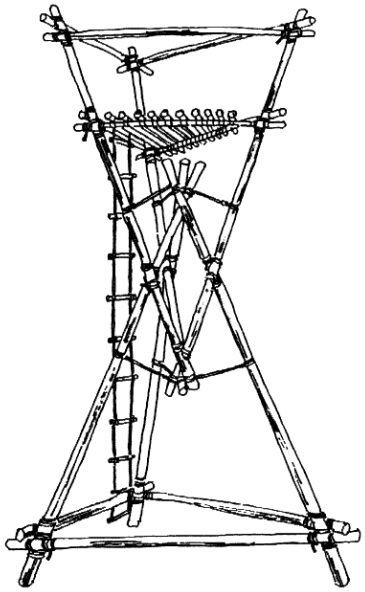


Bridges





Tower



Shower