

# Scout Skills

## Lashings

**info**

Scout  
Information  
Centre

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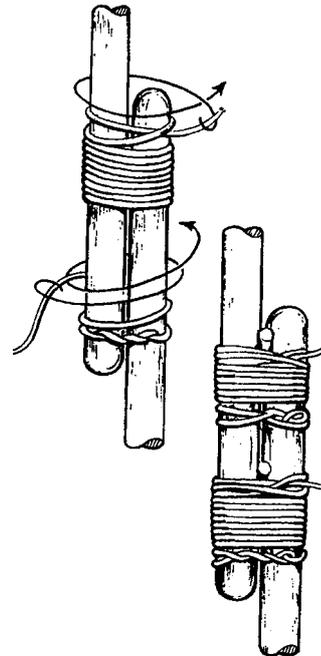
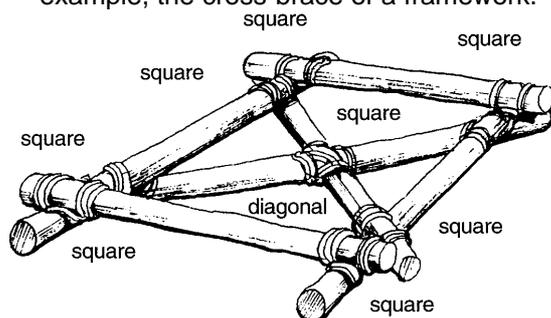
### INFORMATION SHEET

Lashings are used to join together poles (or 'spars' as they are often called), most commonly for making up frameworks in pioneering projects such as gateways, bridges and aerial runways to name but a few! On a smaller scale, you can make camp gadgets, for example, wash stands, tables, place racks or even a camp shower.

In order to have a go at lashing it is essential to have some background knowledge of knots and knotting (see 'Simple Knots' in this series or other Scouting publications). There are many lashings, each of which has been developed to do a particular task depending upon the strain that it will be put under.

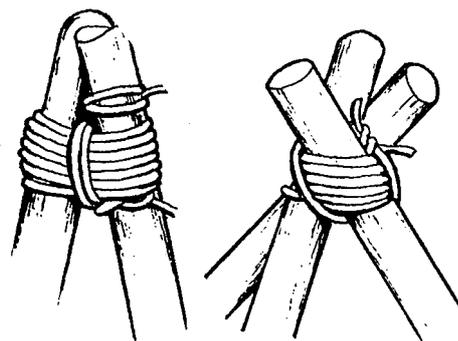
Here we look at the most commonly used ones:

- A Square Lashing is the most commonly used for pioneering and is used where the spars will try to slide over each other regardless of the angle at which the spars cross
- A Diagonal Lashing is used where the spars have to be pulled together or when they tend to spring apart from each other. For example, the cross-brace of a framework.



- There are two types of lashing Sheer Lashing which are also used. The first of which is used to join together two spars to make a longer length, for example, when making a flagpole.

- The second use for a sheer lashing is for 'Sheer Legs' where the spars are opened to form an inverted 'V'. Here the spars might either lift or support weights.



- The final lashing is the Figure of Eight Lashing sometimes known as the 'round' or 'tripod' lashing. It is used to bring together three spars to form a tripod, also called a 'gyn'.

It is very easy to do lashings - it is even easier to do them badly! The secret is to make them as tidy as possible and as tight as possible.

### Time

30-60 minutes will be required initially, but like most practical skills, they need to be followed up on several occasions, and indeed, worked with on a regular basis to become competent at the skill.

### Equipment

For 'full scale' pioneering: Several lengths of natural and synthetic rope, each about four to six metres long and spars of various lengths and diameters.

For 'mini pioneering': A selection of garden and/or bamboo canes and string or cord.

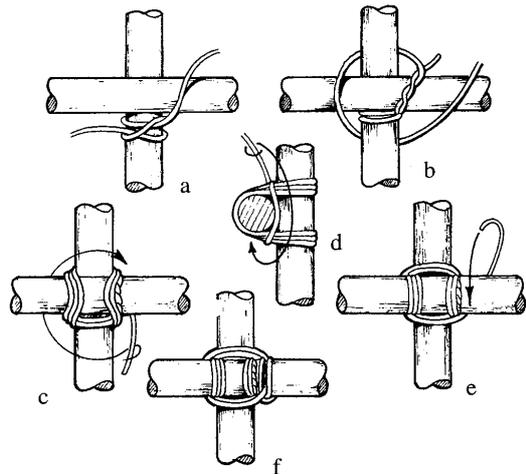
In order to practise different sorts of lashings and the way in which the spars are supported or join together, it might be helpful to try with garden canes and string - but as soon as you have mastered lashings on this scale, try with the real thing!

The only knots which are required to make the lashings described here are the timber hitch, clove hitch and reef knot. All of these are relatively easy to learn.

## LEARNING ALL ABOUT IT

### Square Lashing:

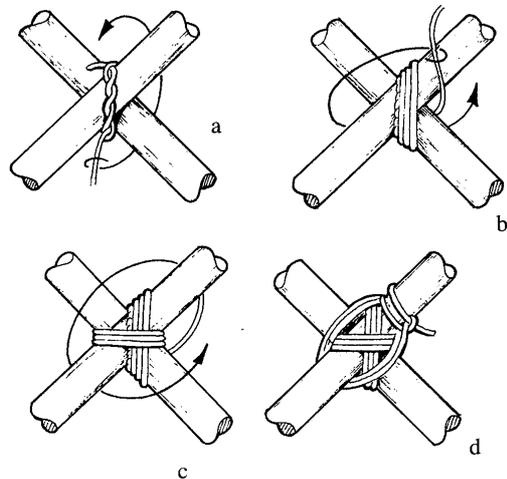
- Begin with a clove hitch underneath the spar to be supported. (a)
- Wrap the rope first over one spar, then under the other, pulling tight all the time. (b)
- On the second time round, go inside the previous turn of rope on top, but outside underneath the spars. (c)
- After three turns, apply two frapping turns, which pull on the rope turns already made, making them even tighter. (d)
- Finish off with a clove hitch. (e)



One way of remembering it is: 'wrap thrice and frap twice'.

### Diagonal Lashing:

- Begin with a timber hitch to draw the spars together.
- Pull the knot at right angles and wrap the rope three times around the spars, keeping the rope tight all the time.
- Wrap three more turns, this time over the timber hitch.



- Apply two frapping turns to pull tight the rope turns.
- Finish off with a clove hitch.

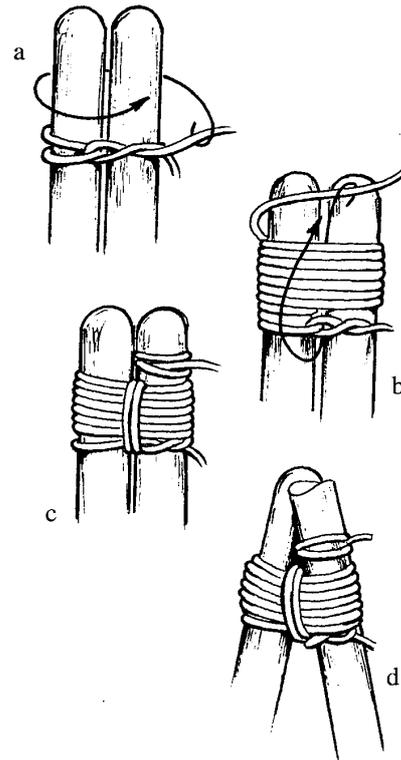
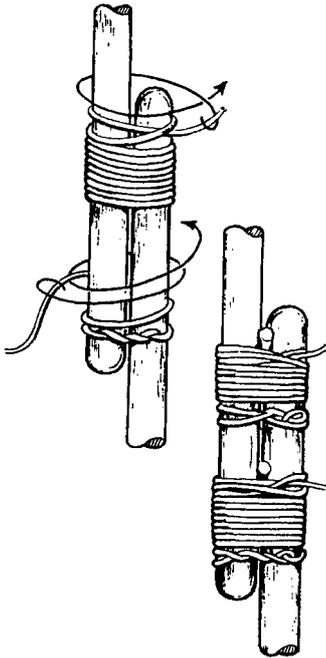
### Sheer Lashings

1. For joining two spars to increase the overall length:

It is important to have a good overlap of spars which should be at least a quarter of the length, but better still is an overlap of one third.

- Start with a clove or timber hitch around both spars near the end of the overlap.
- Continue with eight to ten turns round both spars (or for about 10-15cm).
- Finish with a clove hitch around the second spar.
- To tighten, insert small wedges inside the turns

Adding a second lashing will strengthen the overlap as, then no movement is possible in any direction.



2. For 'Sheer Legs':
  - Line up the two ends or 'butts' of the spars.
  - Start with a timber hitch around one spar.
  - Continue with eight to ten turns which are made firmly but not too tight.
  - Make a couple of frapping turns between the two spars to tighten the lashings.
  - Finish the clove hitch.

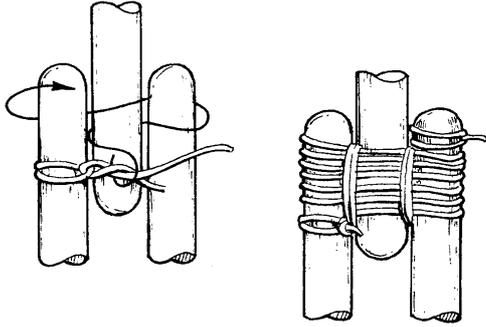
The sheer legs are opened out to tighten up the lashing. It is possible to make the turns too tight on this form of sheer lashing so it may help to put a small wedge between the spars before you start the lashing turns to enable sufficient room for the frapping turns.

3. Figure-of-eight lashing (also known as 'round', 'tripod' or 'gyn' lashing):
 

Three spars are laid so that the centre spar goes in the opposite direction to the two outer ones. It is the lashing that shouldn't be done too tight otherwise the spars cannot move to form the tripod

  - Start with a timber hitch on one of the outside spars.
  - Continue with six or seven turns which are taken loosely over and under the spars.
  - Finish with loose frapping turns and clove hitch.

Again, wedges can be used to enable even spacing before doing the lashing and frapping turns. The tripod is formed by turning the centre spar through 180 degrees and opening out the two outer spars.



### **Can you do it?**

When you feel confident about lashings, check how you are doing and see which of the following you can do and tick off:

Square lashing

Diagonal lashing

Sheer lashing for joining two spars together

Sheer lashing for 'sheer legs'

Figure-of-eight lashing

Explain what each of the above lashings are used for

### **So you want to know more**

Once you have mastered these lashings, have a go at some alternatives. For example, Japanese, Filipino, and Tourniquet lashings.

Using either full size spars and rope, or canes and string, have a go at a pioneering project. Start with something relatively small, and unless you are working with other people, don't try something so big that it requires more than one pair of hands!

### **Your notes on this session**

# HOW TO TEACH OTHERS

This section is designed to give some practical ideas about how you can help other people to understand and have a go at lashings. This might be Leaders or Scouts - either in an informal way on a Troop night or more formally on a skills workshop, training course or something similar.

## Objectives

By the end of this session, participants will be able to:

- I. Demonstrate the following lashings;
  - Square lashing
  - Diagonal lashing
  - Sheer lashing for joining two spars together
  - Sheer lashing for 'sheer legs'
  - Figure-of-eight lashing
- II. State the use of each of the above lashings.

## Time

This can take from 30 minutes to several hours depending upon the level of competence that the participants wish to reach. For the purposes of learning in several short sessions, 30 - 45 minutes will probably be sufficient.

## Equipment

Several lengths of natural and synthetic rope, each about four to six metres long. Spars of various lengths and diameters. A selection of garden and/or bamboo canes, Scout staves and string or cord.

The exact quantity will depend upon the number of participants you have and the activities that you select.

## Training method

Lashings, like teaching people to tie knots, should be taken slowly over a period of time to avoid confusion. They can be taught in several short sessions with opportunities to practice them at a later date and also 'in the proper context'. Learning half a dozen or so lashings is all very

well, however, they will be more effective and better remembered if they are done with the participants understanding when they are used and for what. Therefore, putting them into practice during a pioneering project of some sort will help with learning... and the remembering!

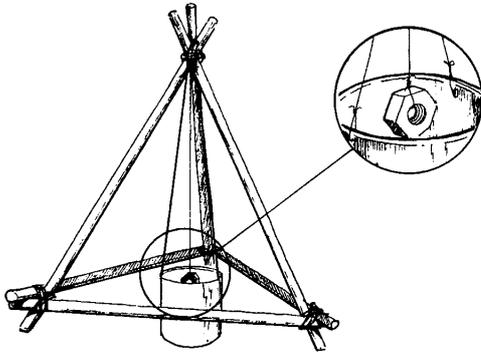
Small groups of participants are probably best to allow people to feel relaxed about having a go, as well as the 'instructor' being able to help everyone.

Start with small scale or 'mini' pioneering. That is, using garden/bamboo canes or Scout staves and string or thin rope, which is easier to handle and will help participants see what they are trying to do without having to move large spars.

## Training games

1. *Travois racing* - In small groups or teams, participants are asked to make a simple triangular framework using three square lashings. The object of the game is to move one member of the team from one point to another as quickly and safely as possible. Make certain the structure is safe before allowing the team to start along the course. The game can be completed by dismantling the 'travois' and making the equipment ready for storage.
2. *'Get out of that'* - Again, in small groups or teams, the participants are given an imaginary scenario, such as needing to cross a six metre wide river (otherwise known as two parallel pieces of rope six metres apart), using only the equipment that you have provided them with (such as a selection of spars and ropes and anything else you feel is appropriate). You can have time limits, rules such as not allowing anyone to go into the 'river', or blindfolded or 'disabled' team members. It's up to you!
3. *Raft racing* - Using 'mini-pioneering' techniques, get each group or team (or individuals) to make a raft which will float for a given distance or amount of time in a large bowl, or other suitable container, of water.
4. *Reactor transporter* - Each small group or team is given six staves or lightweight poles, 4 x 2 metre lengths of cord/sisal, 6 metres of twine, one large tin can and a nut or other suitable metal object. When the game begins, each team has to construct a triangular frame and a tripod which are lashed together and then the tin can and nut

are hung from the top of the tripod (the nut hanging inside the can). When complete, the teams then have to carry the 'transporters' to a finishing line without the nut hitting the side of the can. If it does, they have to return to the starting point. The distance could be a straight run, or if you are feeling more devious, perhaps an obstacle course!



### Useful hints and tips

1. Lashings can easily be demonstrated outside by lashing two spars across trees. The spars should be at a convenient working height. This prevents people from having to scabble around on the ground when either demonstrating or practising lashings.
2. Wherever possible, demonstrate lashings on a one to one basis. Lashings, like many practical skills, are less effectively taught in large groups.
3. Another easier way of initially learning to tie a lashing is to use a thick cardboard tube instead of wooden spars. Cardboard tubes have the advantage of being smooth, of a constant diameter and easy to handle.
4. If you are right-handed, whenever possible, try to show only another right-handed person how to tie lashings and vice versa for left-handed people.
5. Always sit beside the person you are training, not face on. It allows the person to follow the movements of the rope and your hands with less confusion.
6. If, and when you have 'untidy' ends of rope after lashing, finish them off neatly with half hitches.
7. Before attempting full scale projects, get participants to make indoor 'scale' models to get an idea of the overall shape and lashings required.
8. If using pioneering projects such as bridges and aerial runways, it is the responsibility of

the Leader or trainer to check that the equipment is safe to use.

### Checking their progress

Ask participants whether they feel happy with their ability to tie a:

Square lashing

Diagonal lashing

Sheer lashing for joining two spars together

Sheer lashing for 'sheer legs'

Figure-of-eight lashing

Explain what each of the above lashings are used for