

## Knots & Lashing

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*"Better to know a knot and not need it, than need a knot and not know it."*

A good knot must pass three tests:

1. It is easy to tie
2. It stays tied, and
3. It is easy to untie.

To make a rope or piece of rope do what YOU want it to do, like staying put, forming a loop or joining to another rope, you use three ways of arranging it. All knots, bends, hitches and lashings are combinations of bight, loop and overhand knot.

## Knots

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### Square Knot

The Square Knot is used to join two equal sized ropes.



- Take an end of the rope in each hand and lay the left end over the right end.
- Then using your right hand, take the end from the left down behind the other rope and up to the front again.
- Point the end inwards again, this time the right hand one over the other one, then take it down behind it and up to the front through the loop which has now been formed

### Bowline

A Bowline makes a secure loop in the end of a rope. It does not slip or bind.



- Form a loop a short distance from the end-allow for the size of the loop the loop and the knot itself.
- Pass the end of the rope through the loop as though making a simple knot.
- Pull the end through, then round the standing end, and then back through the loop to finish the bowline.

## Taut Line

A taut line, also known as two half-hitches with an extra turn, is used to tighten a line, and is ideal for clothes lines, tents and the like. This would have to rank up there as one of the most useful knots to learn!

Taut Line



- Wrap your rope around a pole, cross the shorter end underneath the long running length of the rope, and drop it down through the hole between where the rope crosses and the pole, as if you are going to tie a [half hitch](#).
- Bring the rope around and drop it through again
- Bring the end of the rope to the front of the two loops you just made, and tie another half-hitch (just like the first one in step one). Pull to tighten.

## Clove Hitch

The Clove Hitch is used to tie a line to a piling or post. This knot can be used to tie fenders to a railing. It is terrific to use when a temporary situation arises. It is not a knot with staying power.



- Pass the working end over and under a rail
- Run it across the standing part at the front
- Continue around the rail again and bring the working end back to trap it under the diagonal.

## Sheepshank

The Sheepshank is a knot which can be used to shorten a length of rope.

Sheepshank



- Pull a section of rope back and lay it alongside the rope, so that the rope forms a Z approximately 20 cm long.
- Grasp the U-bend in one hand, with the other hand form a small loop in the remaining section and draw it over the U-bend so that the loop forms a half hitch and stays there if the free end of the rope is pulled taut.
- Repeat at the other U-bend.

## **Carrick Bend**

The Carrick Bend is a knot used for joining two lines. It is particularly appropriate for very heavy rope or cable that is too large and stiff to easily be formed into other common bends.



- Form a loop in one end with the working end passing through the standing end.
- Pass the other end under the working end.
- Tuck the standing end under the working end.
- Thread the working end under itself and pull the standing ends to obtain the appearance under load

## **Useful Resources:**

### Websites

[www.animatedknots.com](http://www.animatedknots.com)

[www.tollesburysc.co.uk/Knots/Knots\\_gallery.htm](http://www.tollesburysc.co.uk/Knots/Knots_gallery.htm)

[www.realknots.com/knots/index.htm](http://www.realknots.com/knots/index.htm)

### Books

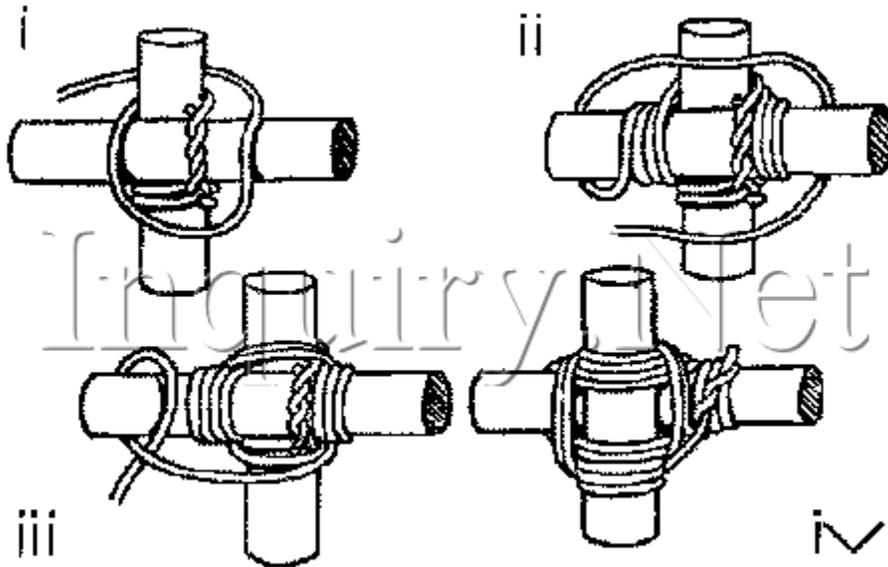
A Handbook of Knots and Knot Tying by [Geoffrey Budworth](#)

Knots: Step-by-Step Instructions for Tying More Than 50 knots By Peter Owen

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## Lashing

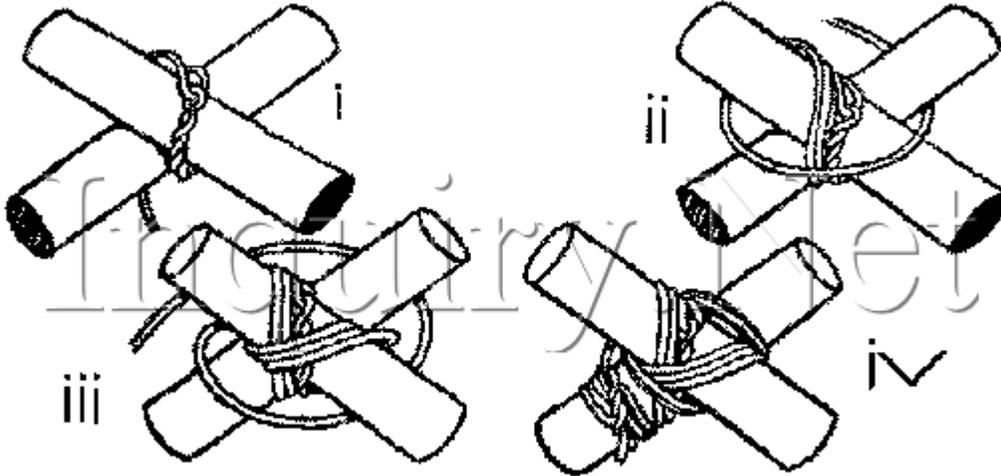
### Square Lashing



Square lashings are used to bind together two spars that are at right angles with one another.

- i) Place the poles on the ground in the shape of a cross. Tie a clove hitch around the bottom pole near the crosspiece. Twist the free end of the rope around its standing part and tuck it out of the way.
- ii) Make three or four wraps around the spars, keeping the rope very tight. As you form the wraps, lay the rope on the outside of each previous turn around the crosspiece, and on the inside of each previous turn around the bottom pole.
- iii) Then wind three or four frapping turns around the wrapping to tighten the lashing as much as you can.
- iv) Finish it off with another clove hitch.

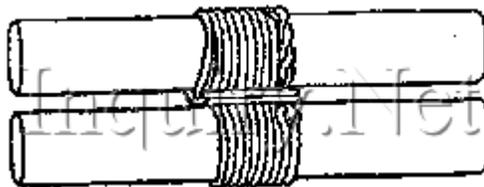
*Diagonal Lashing*



Diagonal lashings are used to lash to spars together other than at a right angle.

- i) Start by tying a timber hitch around both poles and pulling it snug.
- ii) Make four tight wraps around the spars, laying each wrap neatly alongside the timber hitch.
- iii) Make four more tight wraps across the first three.
- iv) Wrap it three or four times and finish it off with a [clove hitch](#).

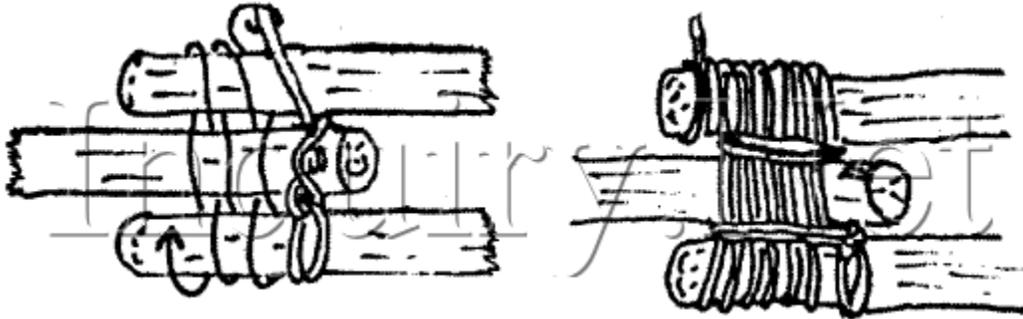
*Sheer (or Shear) Lashing*



Sheer lashing is used to lash two spars together.

- i) Lay two spars side by side.
- ii) Tie a clove hitch to one spar.
- iii) Make four loose wraps around the spars and four frapping turns between them.
- iv) Finish with a clove hitch.

*Tripod Lashing*



A Tripod lashing is made by laying three spars alongside each other, with the center spar pointing in the opposite direction to that of the outside spars.

- i) Tie a clove hitch around one outside pole.
- ii) Loosely wrap the spars five or six times, then make the frapping on either side of the center spar.
- iii) Finish the lashing with a clove hitch around the outside spar.

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