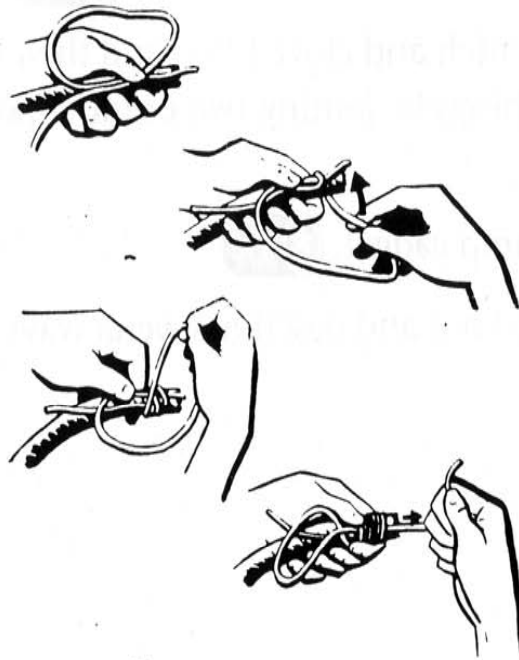


Introduction to Outdoor Leader Skills

ROPES, KNOTS AND LASHING

WHIPPING

The ends of every rope should be whipped to keep them from raveling. There are several methods of doing this. For ropes of polypropylene and



other synthetic fiber ropes, whipping may be done by applying a hot iron or flame to the ends. This fuses the strands. A rule of thumb is that the length of the whipping should be at least as long as the diameter of the rope.

AMERICAN WHIPPING

You can use any twine for American whipping, although waxed sail twine or electrician's twine is best. Begin by laying a loop of the twine on the end of the rope.

Take several turns around the end of the rope, spiraling away from the end and drawing each turn tight.

When the whipping is as wide as the diameter of the rope, pull on the end until the loop has disappeared.

Why Know Knots?

- Rescue
 - Secure items
- Tie down dining fly/tent
 - Camp Clothes Line
 - Lashing

DIFFERENT TYPES OF KNOTS



overhand knot



figure of eight knot



halyard knot



reef knot



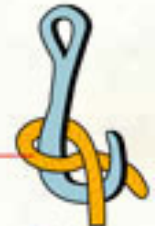
sheet knot



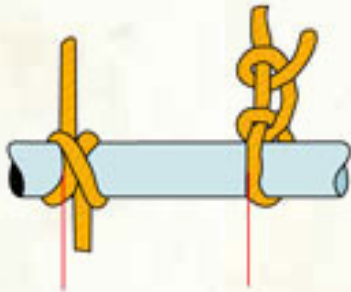
double sheet bend



bowline

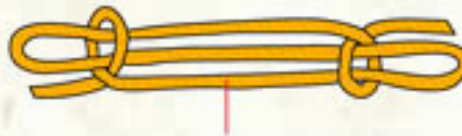


half-hitch

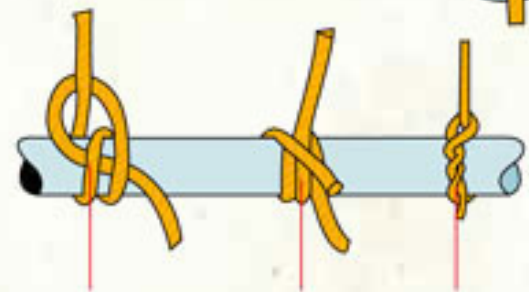


clove hitch

two half-hitches



sheep shank

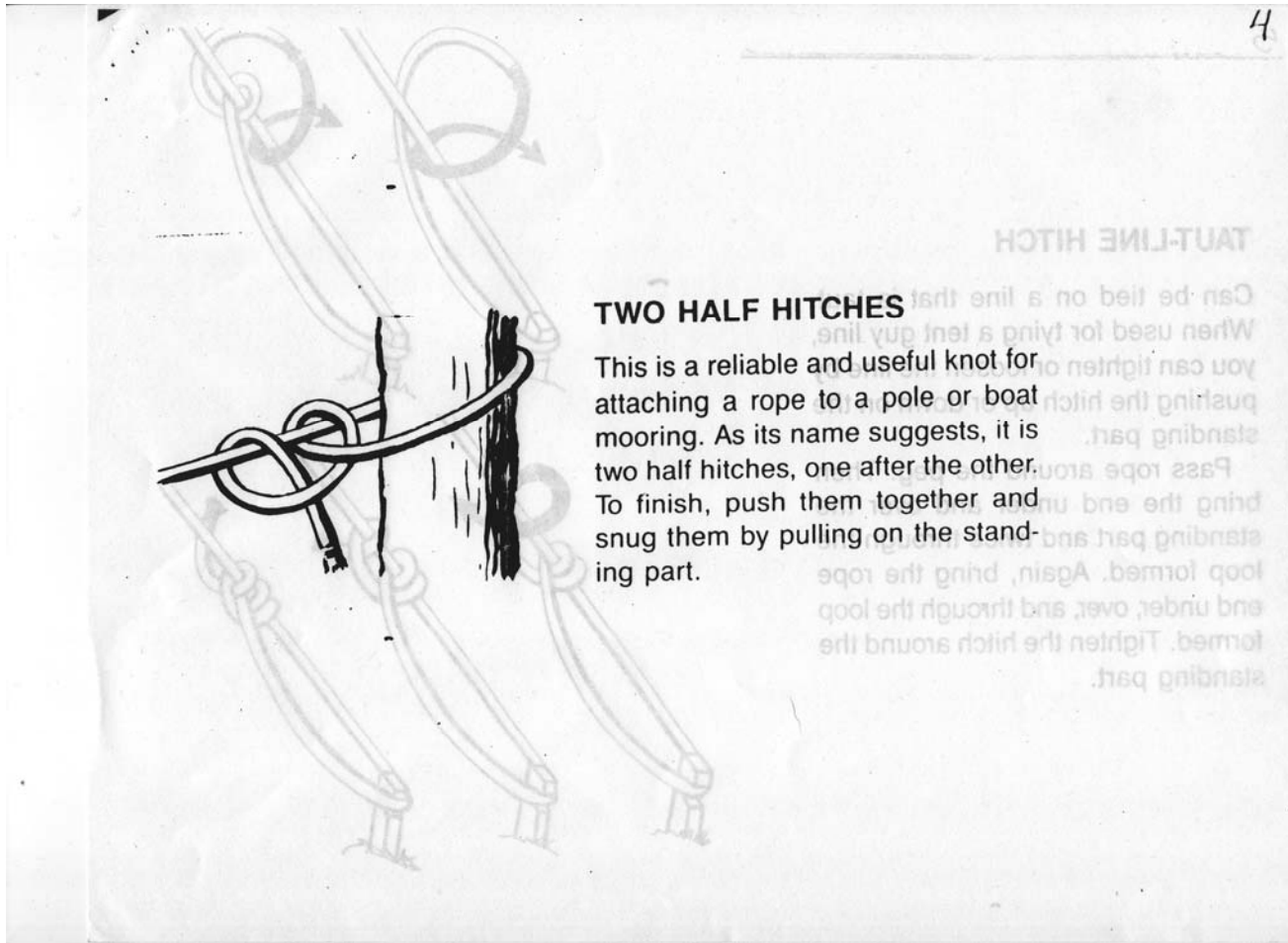


studding sail

two round turns and a half-hitch

timber hitch

Two Half Hitches

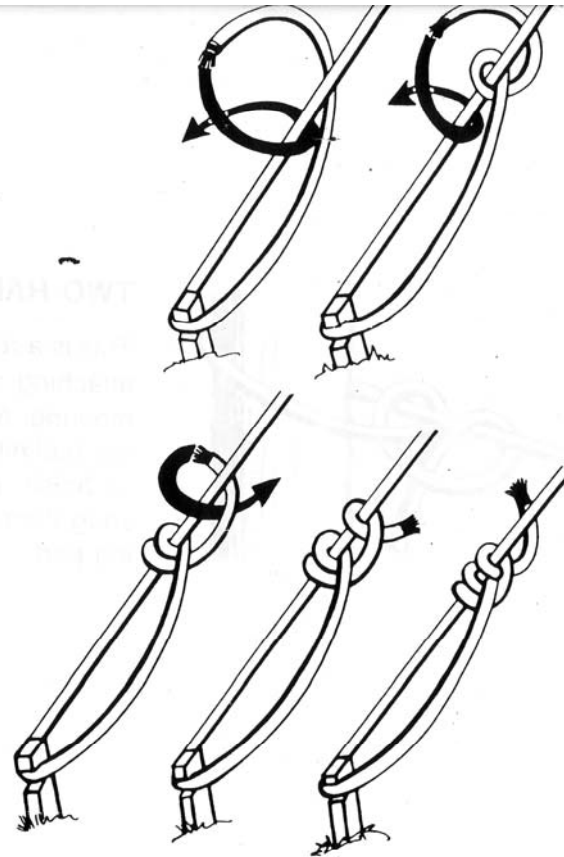


Taut Line Hitch

TAUT-LINE HITCH

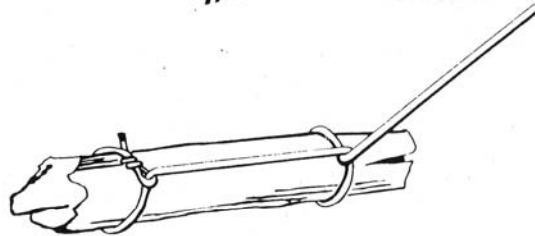
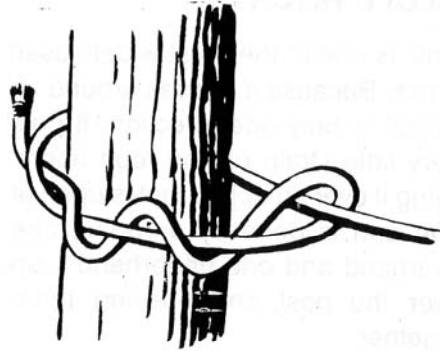
Can be tied on a line that is taut. When used for tying a tent guy line, you can tighten or loosen the line by pushing the hitch up or down on the standing part.

Pass rope around the peg. Then bring the end under and over the standing part and twice through the loop formed. Again, bring the rope end under, over, and through the loop formed. Tighten the hitch around the standing part.



Timber Hitch

6

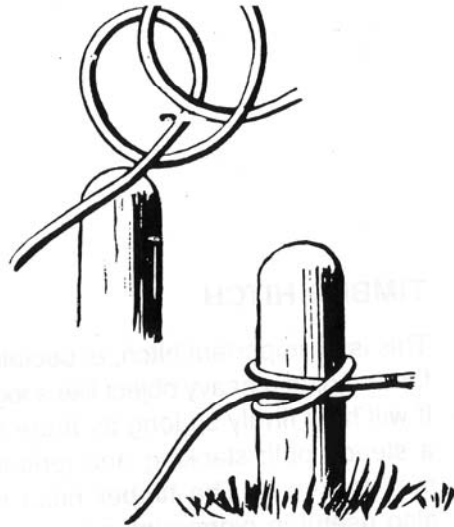


TIMBER HITCH

This is an important hitch, especially for dragging a heavy object like a log. It will hold firmly so long as there is a steady pull; slacking and jerking may loosen it. The timber hitch is also useful in pioneering when two timbers are "sprung" together.

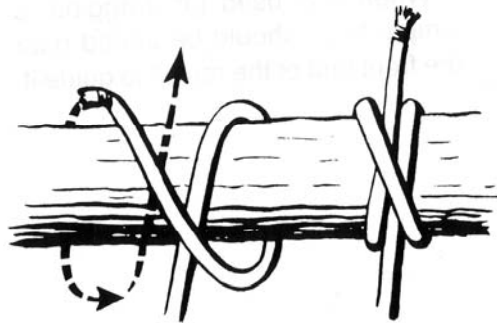
When it is used for dragging, a simple hitch should be added near the front end of the object to guide it.

Clove Hitch



CLOVE HITCH

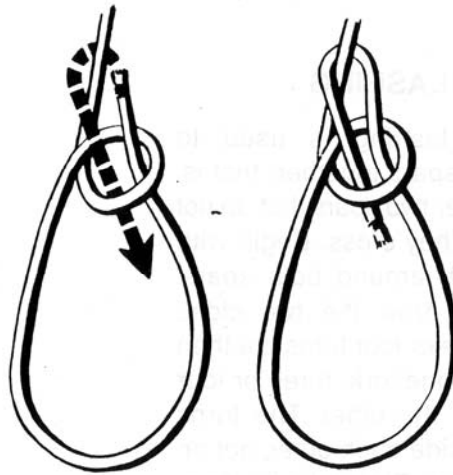
This is one of the most widely used knots. Because it passes around an object in only one direction, it puts very little strain on the rope fibers. Tying it over an object that is open at one end is done by dropping one overhand and one underhand loop over the post and drawing them together.



CLOVE HITCH OVER BAR

This is the same knot as the clove hitch, but this method of tying it must be used if the bar is closed at both ends or it's too high to toss loops over. This hitch is used in starting and finishing most lashings.

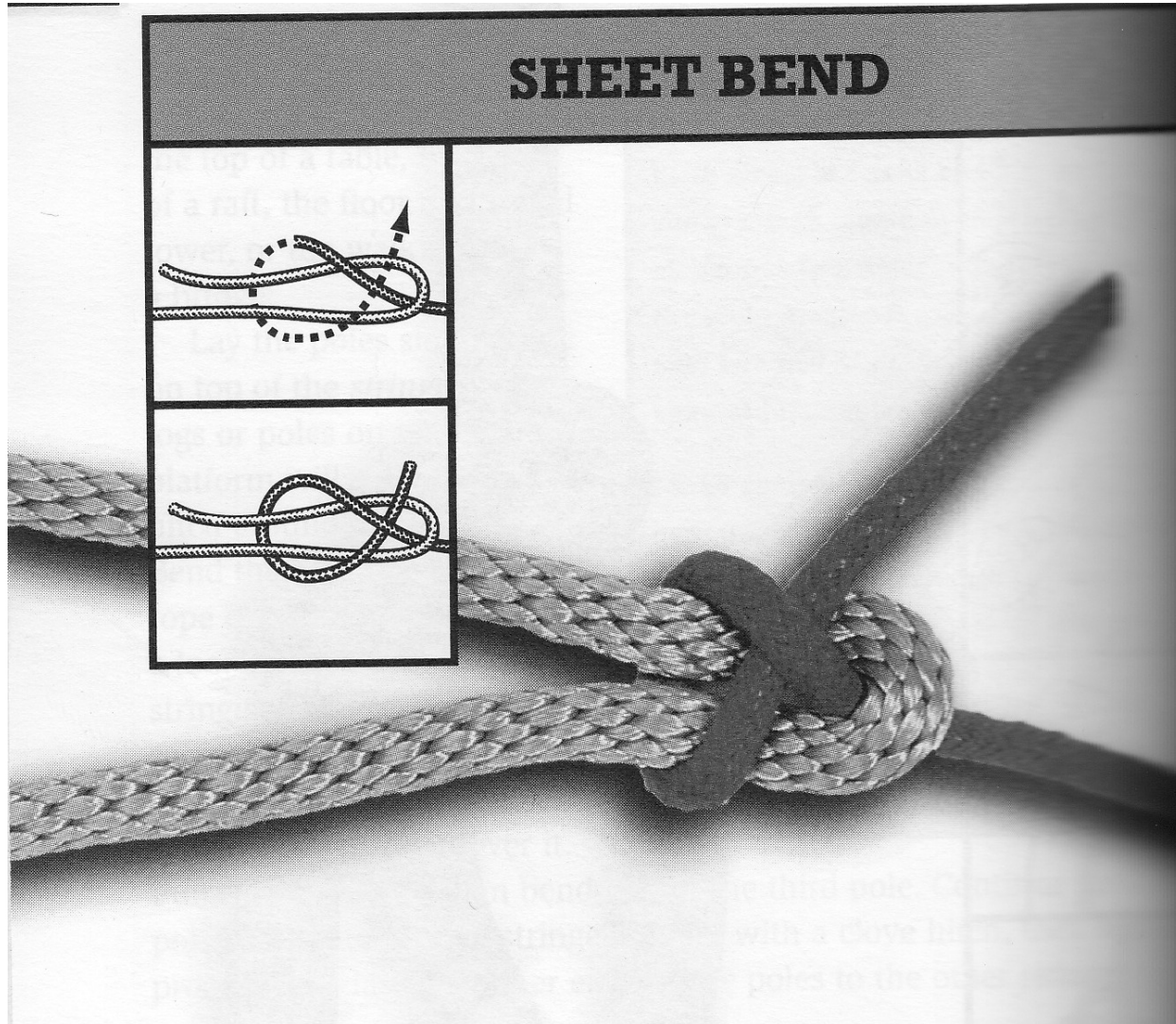
Bowline



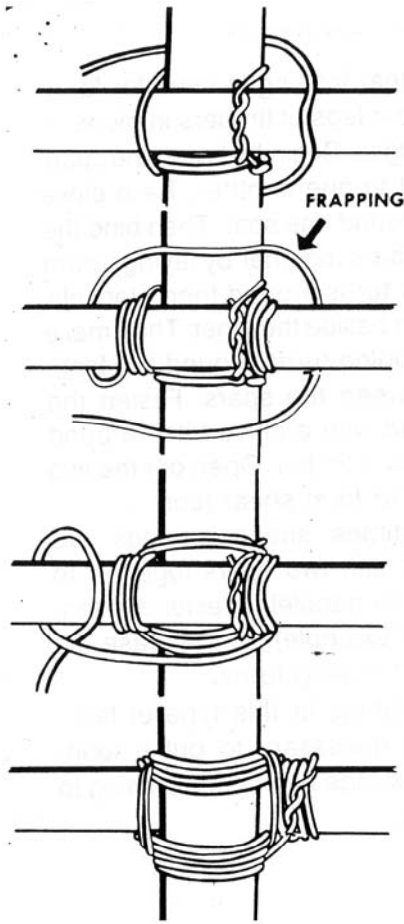
BOWLINE

The bowline has been called the king of knots. It will never slip or jam if properly made and, thus, is excellent for tying around a person in a rescue. Begin by forming an overhand loop in the standing part. Then take the free end up through the eye, around the standing part and back where it came from.

Sheet Bend



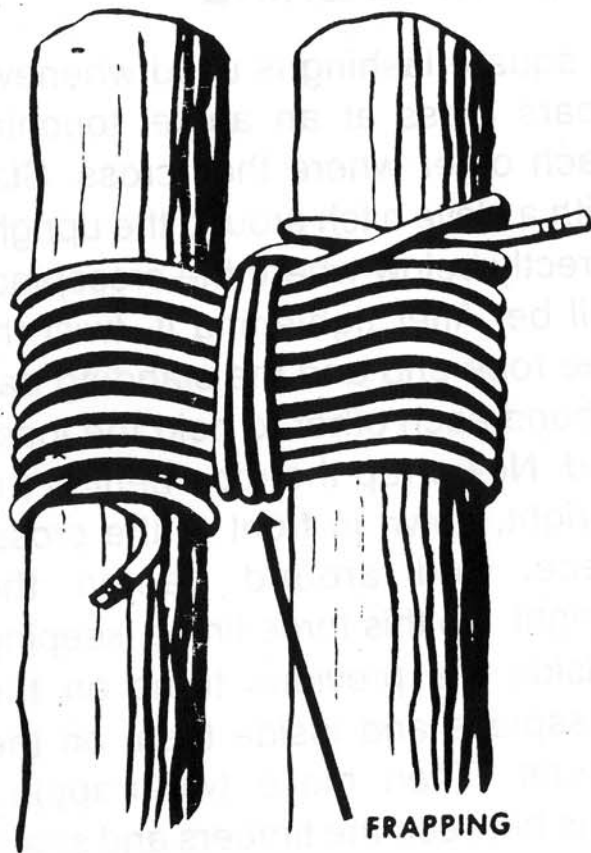
Lashings



SQUARE LASHING

A square lashing is used whenever spars cross at an angle, touching each other where they cross. Start with a clove hitch around the upright, directly below where the crosspiece will be. After tightening it, twist the free rope end and the standing part around each other to hold the loose end. Now wrap the rope behind the upright, down in front of the crosspiece, and around behind the upright. Do this three times, keeping outside the previous turns on the crosspiece and inside them on the upright. Then make two frapping turns between the timbers and strain them tightly. The lashing is then finished with a clove hitch on the crosspiece. Make all turns as tight and secure as possible.

9

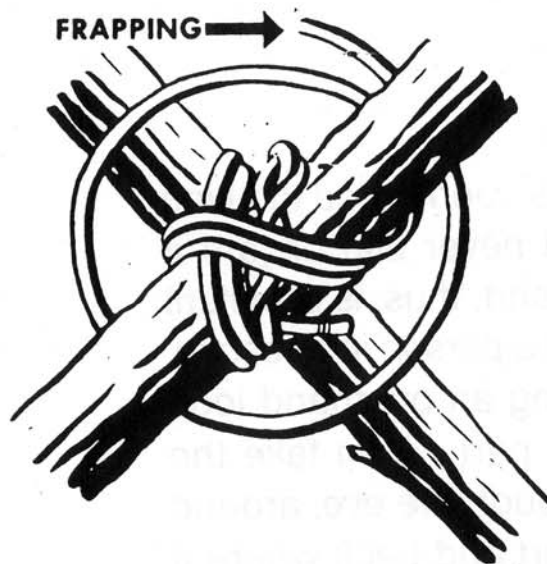


SHEAR LASHING

The shear lashing is used for forming shear legs of timbers in pioneering bridges. Begin by laying the spars parallel to one another. Tie a clove hitch around one spar. Then bind the two timbers together by laying seven or eight turns around them, loosely, one turn beside the other. Then make two frapping turns around the lashing between the spars. Fasten the rope end with a clove hitch around the second timber. Open out the two timbers to form shear legs.

Sometimes shear lashings are used to lash two spars together to keep them parallel (to extend a flagpole, for example). In that case, do not use frapping turns.

Sometimes, in this type of lashing it is necessary to put a long, tapered wedge behind the lashing to tighten it.



DIAGONAL LASHING

A diagonal lashing is used to “spring” two spars together; that is, to lash together two spars that do not touch where they cross. Begin with a timber hitch around both spars. Tighten it to draw the two close together. Three or four turns are then taken around one fork; three or four more, around the other. The turns should be beside each other, not on top of each other. Then take two frapping turns about the lashing at the point where the spars cross. Finish with a clove hitch around either spar.