KNOTS

Knots are an inevitable part of sailing. They are required for most parts of rigging. There are thousands of knots, generally divided into 2 categories, practical knots and decorative knots (often called "fancywork").

If you don't want your knots to be called a "granny knot" or a "false knot", you need to learn the proper way to tie them. It means that they need to be:

- Mechanically suited to the task
- Easy to untie.

It might be useful to learn some terminology before you try trying the knots, so...

- *The BITTER END (FREE END)* - is the short end of the line: this will be used for actually tying the knot.
- *STANDING PART* - this is the long end of the line: this will be under load.

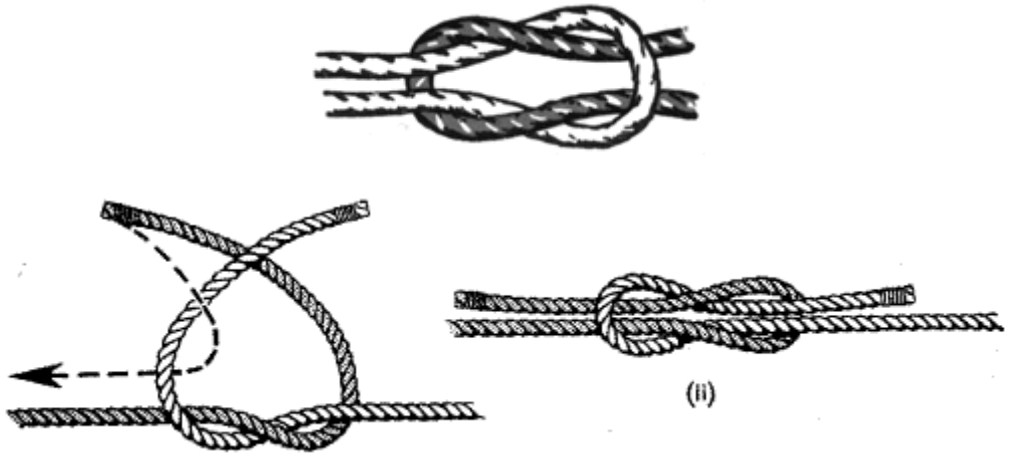
Between these two parts you will have a knot….

- *BIGHT* - is an open curve in a line.
- *LOOP (sometimes called an EYE)* - when a bight is closed (that is, when it crosses the line).
- *OVERHAND LOOP* - a loop passing *over* the standing part.
- *UNDERHAND LOOP* - a loop passing *under* the standing part.
- *TWIST* - sort of self explanatory: the line is twisted around another.

Figure Eight Knot

Often referred to as "stopper knot", or "stop knot", because it is used to stop the end of the line from pulling out of a block or a cleat. The name "figure 8" is derived from the fact that the knot looks like an 8. Pass the line through a block, or a cleat. Make an *overhand loop* with the *bitter end*. Twist the line around the *standing part*, making a second *loop*. Pass the bitter *end down* through the original *loop*. Tighten it.

Square Knot

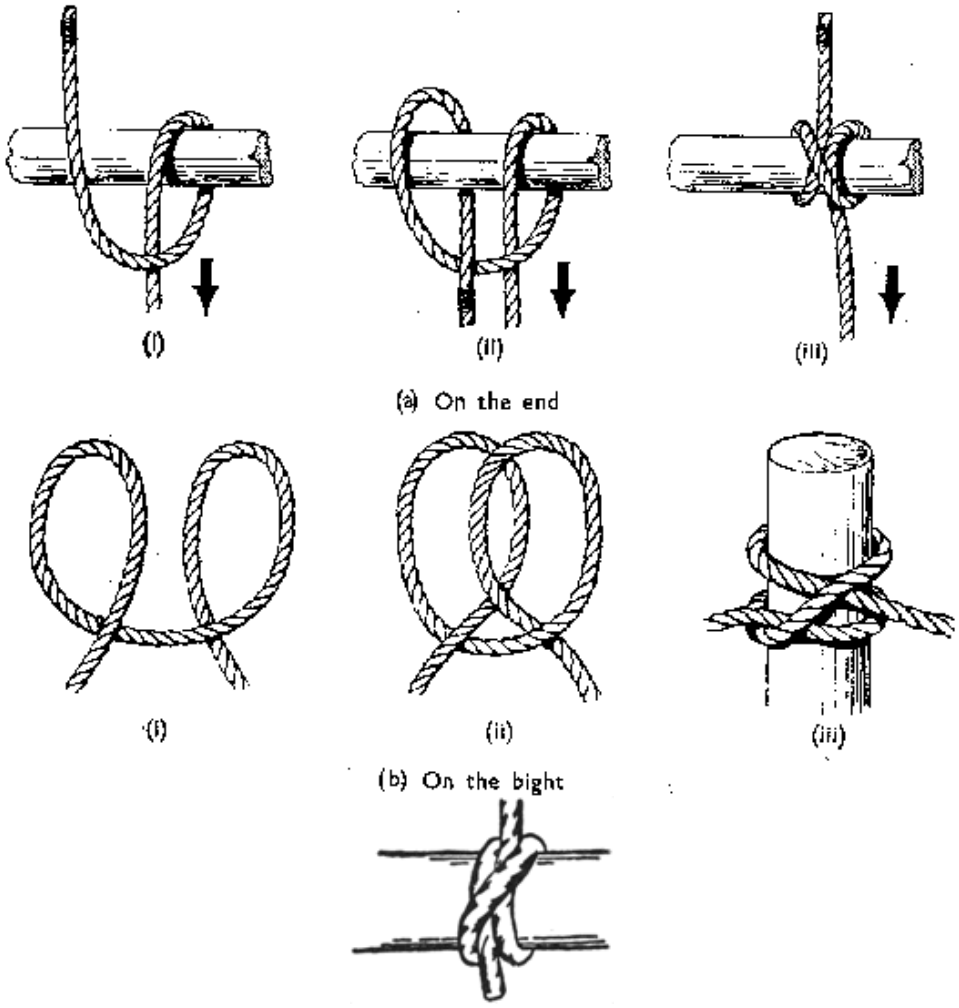


This knot is often used to tie two lines of similar thickness and materials together, for example, when lengthening dock lines, or an anchor line. Often referred to as the *reef knot*, because it was originally used to tie reefing lines. **Y**ou can loosen the square knot easily by either pushing the ends toward the knot or by "upsetting" the knot by pulling back on one end and pulling the other through the loops. Take one line in your right hand, and the other in left. Bring the left-hand line over the right. Used for joining ropes of equal thickness. This knot is also known as a *Reef Knot.* The knot should look symmetrical, and it shouldn't slip.

Sheet Bend

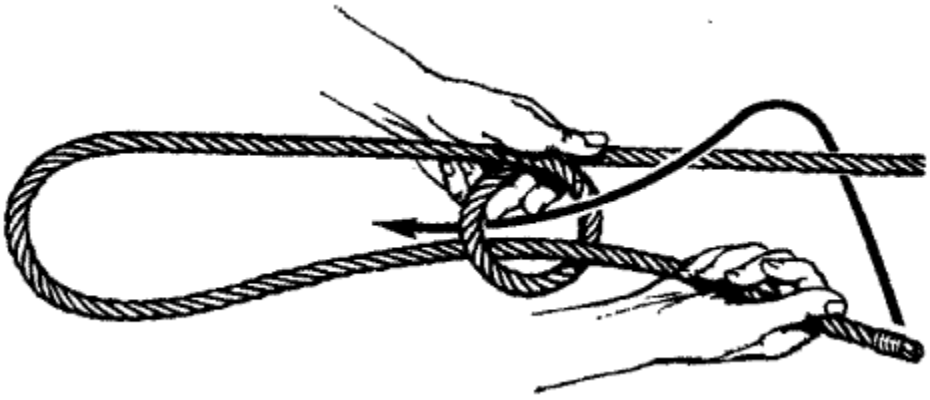
The *sheet bend* is the most important knot for joining two rope ends, especially if the ropes are of different sizes. Sailors named it in the days of sailing ships when they would "bend" (tie) the "sheets& quot' (ropes in the rigging of a ship). This knot is a variation of the *square knot*; it is used for tying lines of different thickness. Bring the *bitter end* of the thin line down, behind the thick line. Take the thin line up, over the thick line, forming an *underhand loop* with itself. Pull both lines tight. Use a double loop for stronger hold.

Clove Hitch



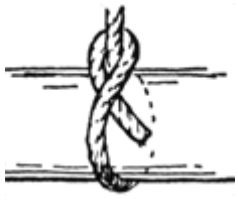
This is one of the most widely used knots. Because it passes around an object in only one direction, it puts very little strain on the rope fibers. Tying it over an object that is open at one end is done by dropping two *overhand loops* over the post and drawing them together. The other method of tying it is used if the object is closed at both ends or is too high to toss loops over. The *clove hitch* is used in starting and finishing most lashings. Pass the line once around the post. Pass the line around again, this time going over the original line. Tuck the line under the crossing. Tighten it.

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 formatting an *overhand loop* in the *standing part*. Then take the *bitter end* up through the eye, around the *standing part* and back where it came from.

Half Hitch



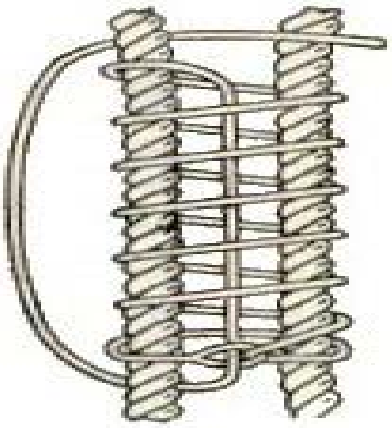
The half hitch is the start of a number of other hitches and is useful all by itself as a temporary attaching knot. It will hold against a steady pull on the *standing part*, especially if a stopper knot like the *figure eight knot* is tied in the *bitter end.*

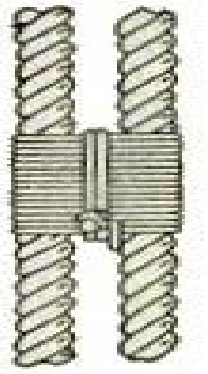
Two Half Hitches

This is a reliable and useful knot for attaching a rope to a pole or boat mooring. As its name suggests, it is *two half hitches*, one after the other. To finish, push them together and snug them by pulling on the *standing part*.

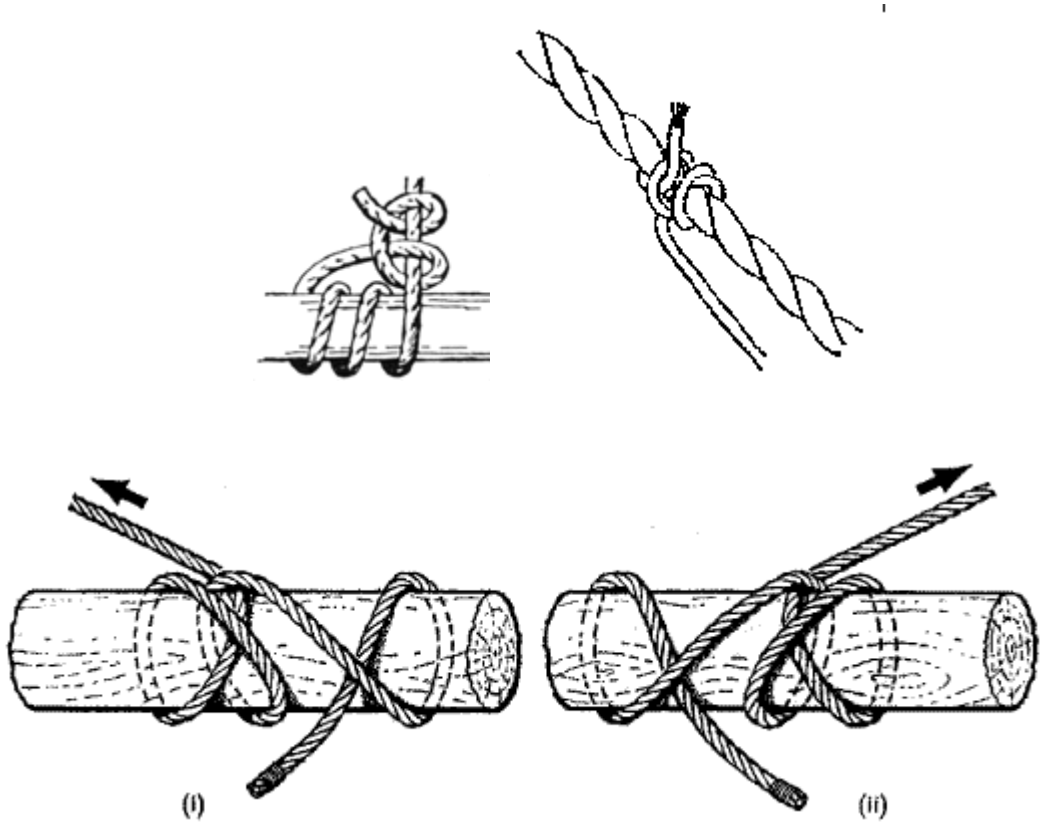
SEIZING

Binding two lines together or a rope to a spar using light line.





Rolling Hitch



The Rolling Hitch is used to tie a line to another line which is under a strain. This knot can also be used to tie fenders to railing. It has also been used to tie a second line to a tow line, making a towing bridle, but is not the optimum knot for that purpose.

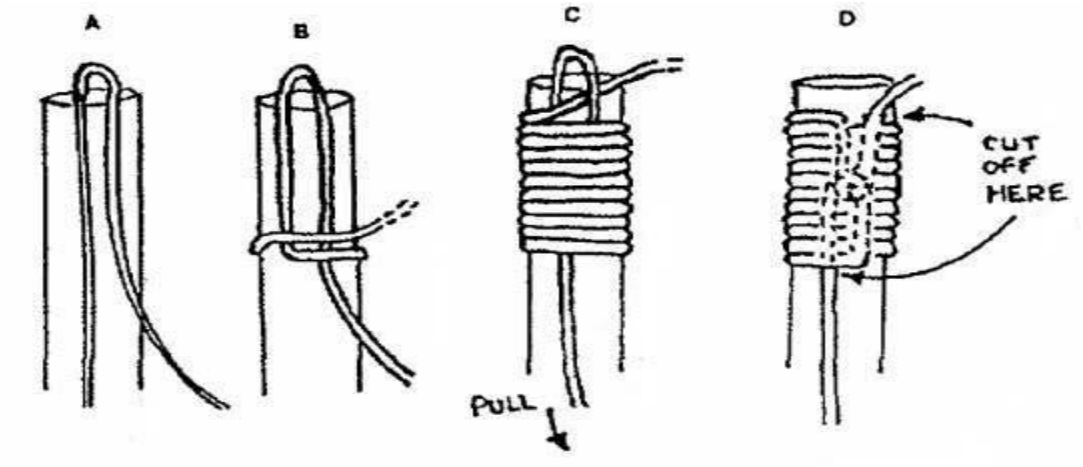
Sailors often will use this knot to take the strain off of a jammed line, such as a jib sheet which is jammed by a winch overrun. A rolling hitch is tied to the jammed line and then run to a secondary winch. The strain can be taken off of the jammed line so it can be freed. One of the most underrated knots in Boating, the Rolling hitch is used to attach one rope to a second, in such a manner that the first rope can be easily slid along the second. The knot can be considered a Clove hitch with an additional turn.

When tension is applied and the ropes form a straight line, the rolling hitch will lock onto the first rope. When the tension is released, the hitch can be loosened and slid along the first rope to a new location. The tension must be applied on the side of the knot with the extra turn.

Tie a clove hitch, then bring the rope an extra turn around the post between the other two turns, and tuck under the diagonal section. The rolling hitch holds well as long as there is strain on the rope.

WHIPPING

Ropes are made up of a number of strands twisted together. If the cut end is left un-whipped, the rope will fray or untwist, and loose strength. 'Whipping or binding the ends of ropes prevents fraying and prolongs the life of the rope.



Lay whipping twine on rope to form a loop (Diagram A). Bind twine around to trap loop (Diagram B). Continue with neat, tight bindings until the length of whipping is equal (about) 3 times the diameter of the rope (Diagram C). Working end of twine should then pass through the end of loop (C). **Pull hard on the other end of the twine so that the working end is drawn and trapped under the binding, (Diagram D).** Cut off loose ends, roll whipping under foot.

You should have a tight; neat whipping that will stop the end of the rope fraying.