

## Knots

Knots have been created so that they may perform a certain job effectively. A good knot is easy to tie and just as easy to untie, does not slip under strain and can be relied upon.

There are only seven basic knots in use. These knots have been tried and trusted by those who use knots constantly in their working and social life, people such as sailors, truckers, soldiers, and dock workers.

These knots are:

- the reef knot,
- the bowline,
- the sheet bend,
- fisherman's knot,
- clove hitch,
- round turn and two half hitches,
- the timber hitch.

If you can tie these knots correctly then certainly you will be on your way to becoming a competent rope worker.

To become proficient at tying knots, constant practice is necessary. This is best done by using a piece of rope rather than string.

While tying the knot, the feel of the knot and how your hands move in its construction is as much a part of the process of learning to tie, as is the watching of the knot tying.

Your ultimate aim should be to be able to tie the knot in the dark, behind your back, half way up a tree, or on a mountain top in a snowstorm.

### Some points on ropes:

- Store all rope in a dry place;
- Dry all ropes before putting them away;
- As far as possible do not drag ropes along the ground or through rivers where the fibres of the rope can be damaged;
- Inspect ropes carefully before and after use for damage, rot, and mildew;
- Whip or spice all your ropes before they are used to prolong their life ;

It is a good idea to label each rope, with its length, size, use and age;

Rope is measured by its circumference, not its thickness; When you tie knots pull them tight, a knot only becomes effective when it is tightened.

## Basic Knots

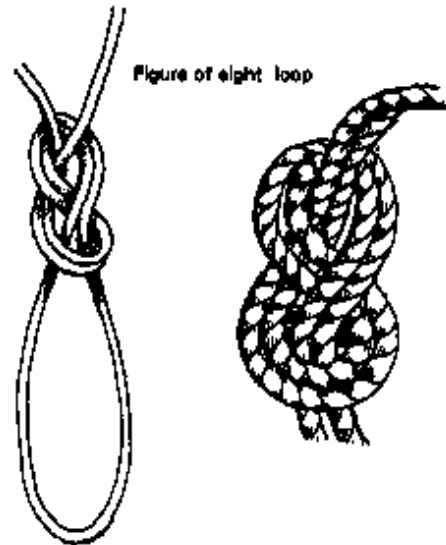
### Overhand, or thumb, knot

This is one of the basic turns in knotting and also the simplest of the end knots used to prevent slipping. They may be tied in the end or standing part of the rope to check it from sliding through a block, hole, or part of another knot.



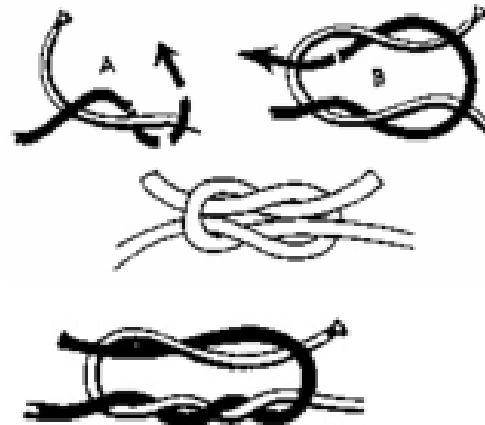
### Figure-of-eight knot

This knot can be used as an end knot as in the overhand knot. When made with a doubled rope it will form a non-slip loop. A knot such as this is used in climbing to secure ropes.



### Reef knot

The reef knot is one of the most popular and useful knots for joining two ends of rope together. Because this is a very neat and flat knot it is very useful for tying the ends of bandages.

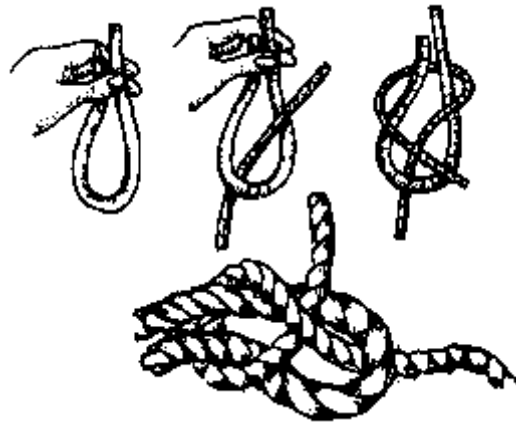


### Surgeon's Knot

The surgeon's knot is like the reef knot except that it has an extra turn as the second crossing is made. This extra turn provides extra friction in the make up of the knot.

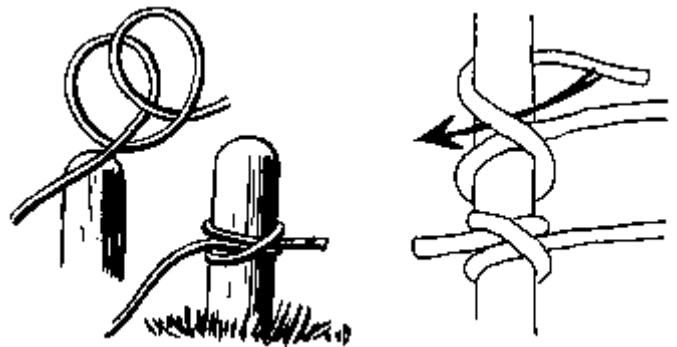
### Sheet bend

The sheet bend is the most commonly used general purpose knot at sea and on land. It does not damage the rope, is easy to tie and untie. It is generally used for joining ropes of unequal thickness together.



### Clove hitch

The clove hitch is used to fix a rope to a post and is also widely used in pioneering. It consists of two half hitches, one placed behind the other. In this way it can be slipped over the end of a spar. This hitch will take an outwards or a downward strain without slipping.



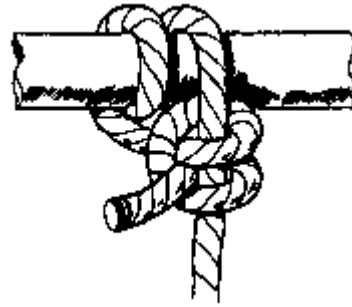
### Bowline

The bowline has been called the king of knots. It will never slip or jam if properly made and consequently, is excellent for tying around a person in a rescue.



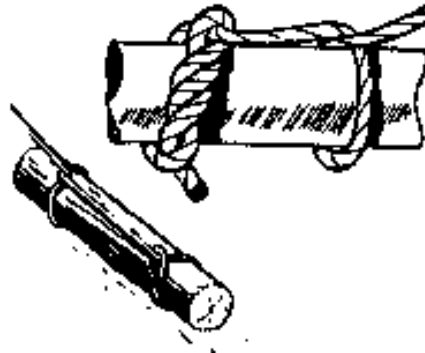
## Round turn and two half hitches

A useful knot for attaching a rope to an upright, spar, or ring. It moors boats safely and will support loads of any description. If this hitch is to remain in place for some time you should stop or seize the ends with sisal to prevent slipping.



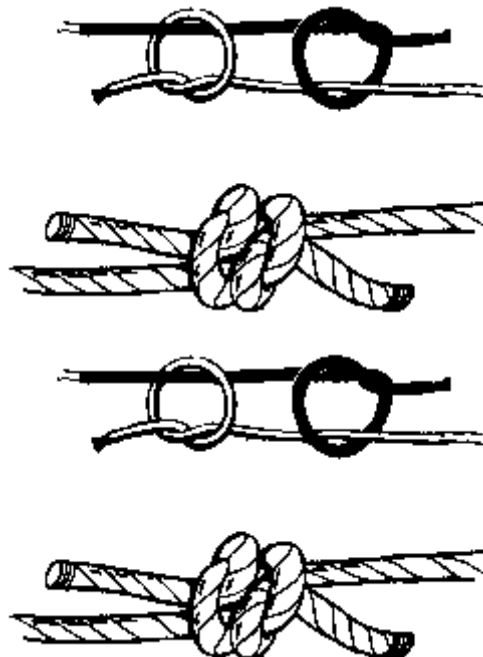
## Timber hitch

This is an important hitch, especially for dragging, lifting, or lowering a heavy object such as a log. It will hold firm 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. (See diagonal lashing). It is useful to tie a simple hitch near the front end of the object being dragged to act as a guide.



## Fisherman's knot

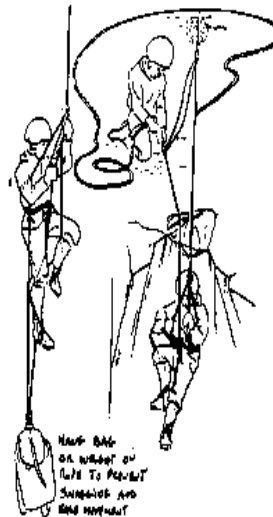
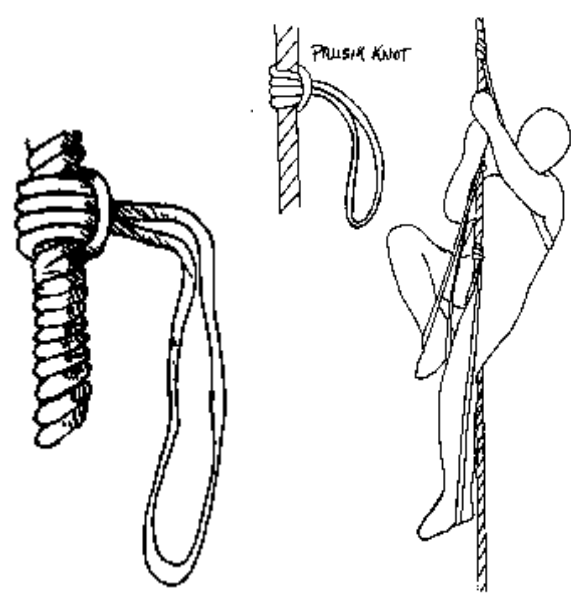
The fisherman's knot is used to join two sections of line or rope together. It is tied using two over hand knots. It is a useful knot for tying fishing line together, but is also used by climbers for joining sections of rope and tape together. It is especially useful for joining wet and nylon ropes.



## Climber's knots

### Prussic knot

The prussic knot is a climber's device for attaching slings to rope in such a way that they slide when the knot is loose, but seize and hold solid under a sideways load. It is used as a safety device when abseiling down rock faces and is also employed with two stirrups for climbing up a rope.



### Italian hitch

This hitch used in conjunction with a carabiner is used as a method of belaying. The rope passes around a carabiner so as to arrest a falling climber by locking up. It can also be used to play out or take up tension as required.



## Figure-of-eight loop

The figure-of-eight loop is a widely used knot in climbing. It is easy to tie and offers a secure loop that can be attached to belay points and karabiners. The knot can also be used to secure a climbing rope to a climber. This is done by making a simple figure-of-eight knot (see basic knots) and following the course of this knot with the end of the rope. The knot is pulled to secure. Because the knot is so distinctive it can be easily checked by team leaders before abseiling etc.

