

#1

Once upon a time, in the not too distant past, Scouts in Canada were looked on as real craftsmen of outdoor skills. Back then, Scouts looked up to Rovers because they were able to demonstrate the highest level of excellence in all the outdoor crafts. One area in which their expertise really excelled was knotwork. Lately it's become obvious that knowledge of this skill has fallen off. This column of basic, and not so basic knotting know-how is intended to help you all get back to that earlier level of excellence.

Working with rope, like working with any 'tools of the trade' (rope should be considered a camper's/boater's tool when used in Scouting) has to begin somewhere, and it helps to understand the nomenclature. You don't really have to memorize any of this, but if you find knotwork interesting, all the books and manuals use the same basic language. To get you started, here's a brief description of the terms used to describe ropes and knots.

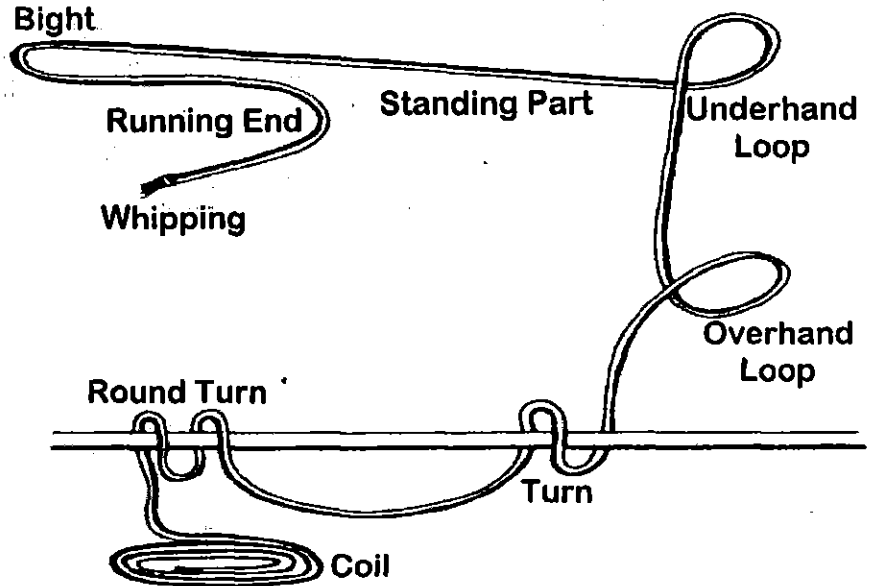
Knots are formed by using the bight-loop-turn-tuck. Even the most complex knot can be figured out if you remember these terms.

The **bight** is formed by laying the end of the rope against the standing part or long end.

Loops, overhand or underhand, are just what their names say.

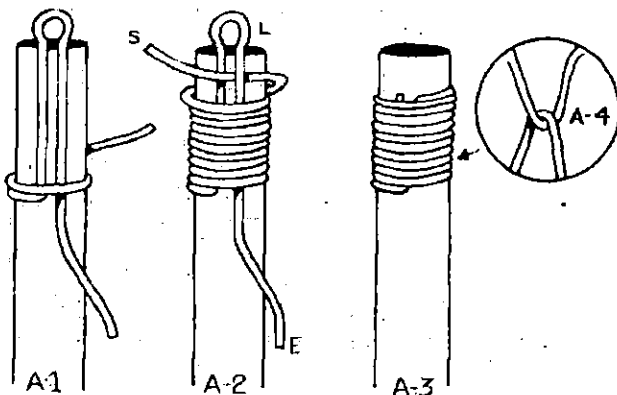
With these three turns you can make any sort of knot.

A **turn** is wrapping the rope around something and a **tuck** is to insert the running end or a bight into a loop.



A COMMON WHIPPING

The simplest of the whippings, the Common Whipping is suitable for both three-strand and braided rope. It can be used to stop the end of a rope from fraying, or to make a mark at any point.



WHIPPING

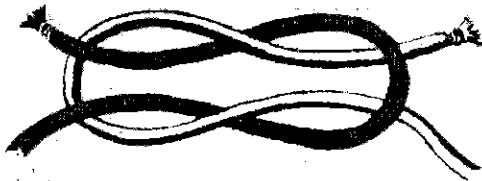
One important preparation is the protection of the rope ends against wear. Unless protected, the twisted strands will loosen and fray. A figure-of-eight knot at each end will serve as a temporary stop but should not be left permanently. As soon as possible the ends should be treated in any of the various methods.

Take two feet of twine, double back about 3 inches, lay along the rope, near the end to be whipped, as you see in A 1. With the long end of the twine, wind round the rope a dozen times pulling each turn tight and making sure that it lies close to the previous turn. Pass the end S through the loop L as in A 2, do not let the turn slip.

Knots come in many sizes and shapes and serve as a handy tool for many purposes. Depending on how they're tied, they can even be put into categories: stopper; loops; binding; hitches; bends; plaits; sennits; splices and lashings. They can also be categorized by how they're used: joining; tying ropes to objects; loops; decoration and specialty. In this article, we're going to cover the basic joining knots.

KNOTS FOR JOINING

These knots are used for tying two rope ends together: sometimes the ends of the same rope: sometimes the ends of different ropes.



REEF KNOT/SQUARE KNOT

You 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. The reef knot is used in all first aid work, or for joining two pieces of string or cord of equal thickness. Because it can be easily "upset", it is not recommended for joining rope in critical situations.



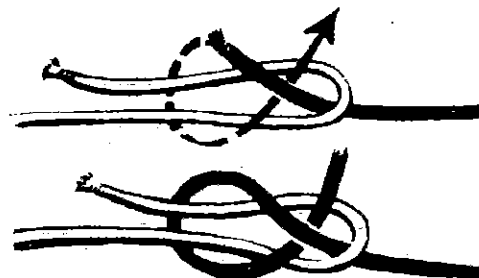
SURGEON'S KNOT

The surgeon's knot is a square knot with an extra twist. The purpose of the extra twist is to give added friction to hold until the second crossing is made.



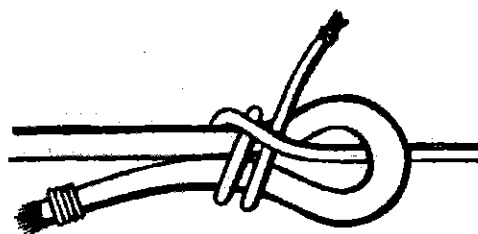
FISHERMAN'S KNOT

The fisherman's knot is used for joining two fine lines such as fishing leaders. It is simply two overhand knots, one holding the right-hand line and the other the left-hand line. Pull each of the two overhand knots taut separately. Then make the whole knot taut so that the two overhand knots come together by pulling on the standing parts of each line.



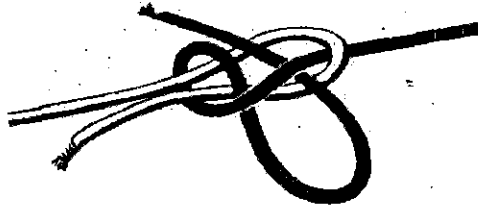
SHEET BEND

The sheet bend is an 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" (ropes in the rigging of a ship). Begin with a bight in the larger rope. Then weave the end of the smaller rope up through the eye, around the bight, and back under itself. Snug it carefully before applying any strain to the knot.



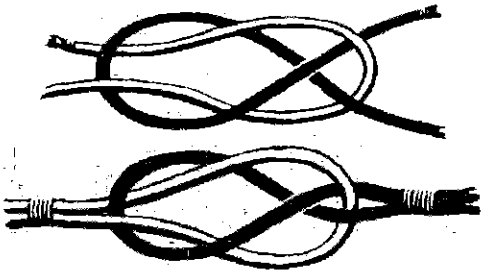
DOUBLE SHEET BEND

When the two ropes being tied together vary widely in diameter the double sheet bend should be used. The two loops help to hold the bight in the larger rope. Consider using this also when the rope is wet or when using some of the slicker synthetic fiber ropes.



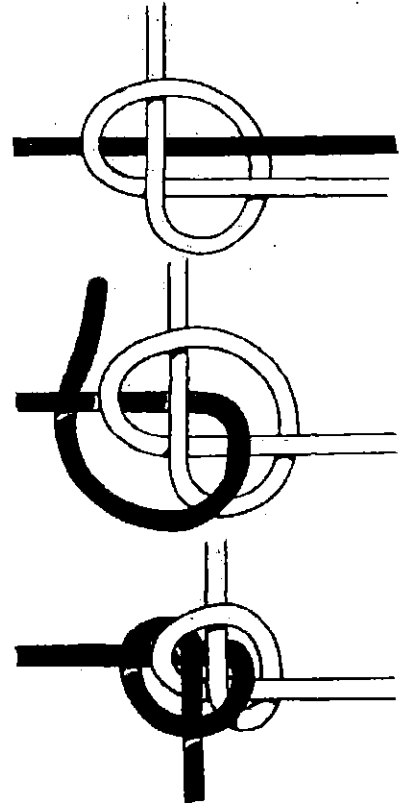
SLIPPERY SHEET BEND

The slippery sheet bend is simply an ordinary sheet bend with a bight left in the smaller rope. This bight makes it "slippery" because it can be untied quickly, merely by a tug on the free end of the rope. It is a valuable knot for use when you expect to tie and untie it often.



SINGLE CARRICK BEND

The carrick bond is among the strongest of knots, but requires that both ends be seized onto the standing parts. To make the carrick bend, begin by making a bight in the lefthand rope, then weave the right-hand rope through it as shown. Finish by seizing the ends of both ropes.

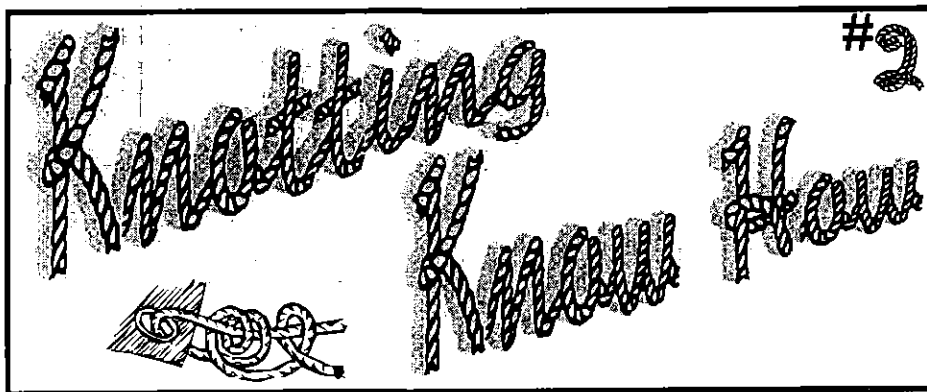


THE HUNTER'S BEND

Only three new knots have been discovered during this century: the Constrictor knot many years ago, the Tarbuck knot discovered by Kenneth Tarbuck in 1958, and now Hunter's bend discovered by Dr. Edward Hunter. Hunter's bend is used to join two ropes. It has a distinct shape, does not distort, and is very easily untied. **It is an excellent knot for nylon rope.** Nylon ropes need something extra in knots for safety, and the double lock of Hunter's bend makes it ideal for this.

Material for this column has been researched from the following books/pamphlets:

- *Knots and How to Tie Them; Boy Scouts of America; first printing 1978*
- ♦ *The Handbook of Knots by Des Pawson; Cavaendish Books; Vancouver, BC*
- *The Basic Essentials of Knots for the Outdoors by Cliff Jacobson; ICS Books, Inc.; Merryville, Indiana, USA*
- ♦ *Scouts Canada, Fun With Knots*
- ♦ *Knots, A Pocket Companion; Strathearn Books LTD; Toronto, ON*
- ♦ *The Knot Handbook by Maria Constantino; Strathearn Books LTD; Toronto, ON*
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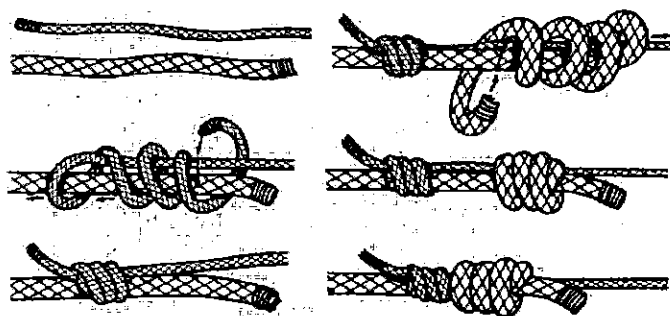


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Material for this column has been researched from the following books: Scouts Canada, Fun With Knots Knots, A Pocket Companion; Strathearn Books LTD; Toronto, ON

Knots can be categorized by how they're used: joining; tying ropes to objects; loops; decoration and specialty. We'll start this article by covering a few more joining knots.

"S" KNOT

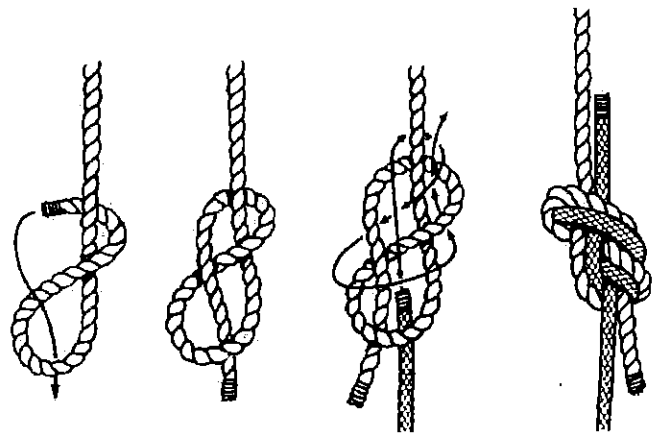


Start by placing the ends of the two ropes parallel to each other. (See diagram.) Using one free end, make four round turns over both ropes before passing the end down the center of the knot. (See diagram.) Take the second end, make four similar turns over both standing parts and the two knots will slide together to form a secure "S" knot. (See diagram.)

WOVEN FIGURE-8 BEND

This knot can substitute for the "S" knot when the highest security and strength are not required.

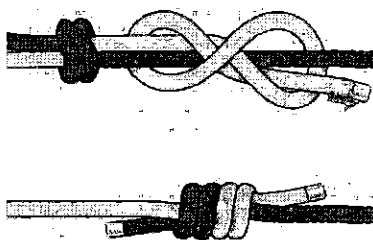
- 1] Make a figure-8 in the top rope as shown in drawing 1.
- 2] Thread the end of the other rope exactly as shown in drawing 2.
- 3] Partially tighten, making sure that the lines, remain parallel, without twists. (This makes the knot compact and excellent in appearance.)



- 4] Thoroughly tighten by repeatedly pulling each end and standing part. Note that the standing parts emerge on diagonally opposite sides of the knot. (See diagram.)

WARNING: DO NOT tie a figure-8 bend the "easy" way by simply twisting a figure-8 in the doubled ends of a pair of ropes. If you do, the standing parts will emerge together and you'll have one of the weakest knots known!

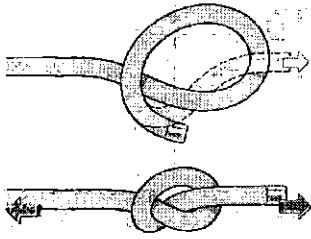
DOUBLE FISHERMAN' S KNOT/ GRAPEVINE KNOT



This is one of the strongest knots for joining ropes or for forming slings, and it is used not only, as its name suggests, by anglers to secure their lines but also by climbers on small stuff. It is relatively bulky and is not suitable for anything more substantial than thin line or string. The ends can be taped or seized to the working parts to minimize the risk of the knot working loose.

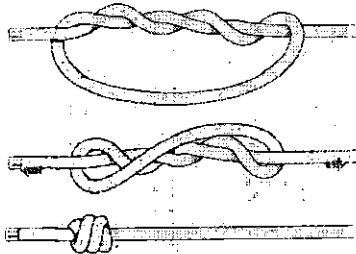
STOPPER KNOTS

This group of knots is most often used to prevent the end of a length of rope or string slipping through an eye or a hole. Stopper knots can also be used to bind the end of a line so that it will not unravel. They are frequently used at sea and also used by climbers, campers and fishermen.



OVERHAND KNOT/THUMB KNOT

This is the knot that forms the basis of most other knots. In its own right it is used as a simple stopper knot in the end of a line. It is not, however, widely used by sailors as it is difficult to untie when the rope is wet.



MULTIPLE OVERHAND KNOT/ BLOOD KNOT

This knot's alternative name comes from its use as the knot used to tie in the end of the lashes of a cat o'nine tails, the whip used for flogging in both the British Army and Navy until the punishment's official abolition in 1948. Capuchin monks use this knot to tie their habits. Sailors use the knot as a stopper or weighting knot on small stuff, although it is difficult to untie when wet.

When you tie the knot, keep the loop open and slack, and then pull gently on both ends of the line simultaneously, twisting the two ends in opposite directions as you do so.

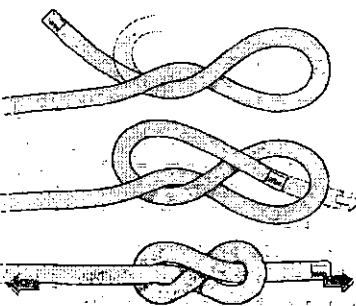
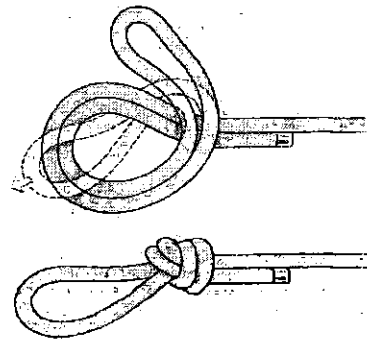


FIGURE EIGHT KNOT/FLEMISH KNOT/SAVOY KNOT

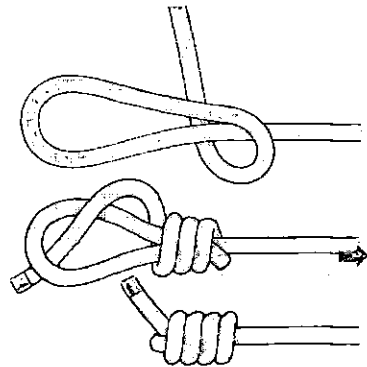
This interlacing knot has for long been regarded as an emblem of interwoven affection, appearing in heraldry as the symbol of faithful love. It also appears in the arms of the House of Savoy.

The knot, which is made in the end of a line, with the upper loop around the standing part and the lower loop around the working end, is widely used by sailors on the running rigging.



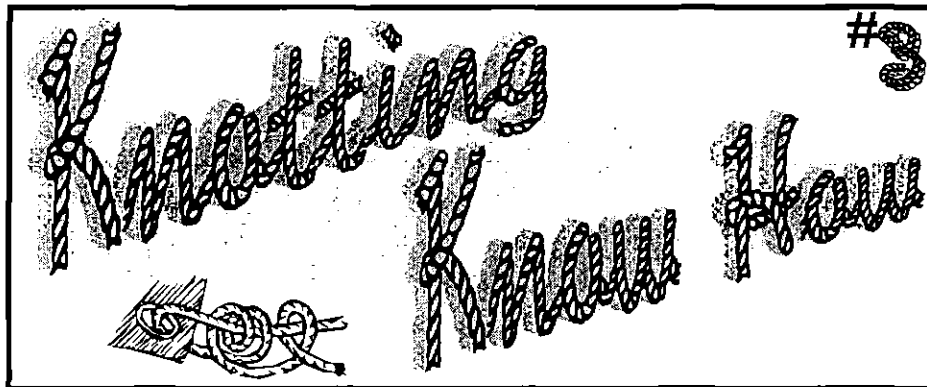
OVERHAND LOOP

This is a rather ungainly knot, but it is extremely useful in circumstances where a bulky stopper is required. It is, in fact, the loop that most people would tie without thinking if they needed to fasten a knot in the other end of a length of string. The drawback is that the line is difficult to untie.



HEAVING LINE KNOT/FRANCISCAN KNOT/MONK'S KNOT

This knot is principally used for sailing when a heavy line is to be thrown ashore or aboard another boat. It is attached to a heaving line - that is, a light line - which can be thrown ahead so that the heavier line can be pulled across the gap. The knot is tied to the end of the lighter line to add additional weight. Heaving lines are up to $\frac{3}{4}$ in. in diameter and up to 80 ft. long. They should float and be flexible, and able to bear a man's weight.



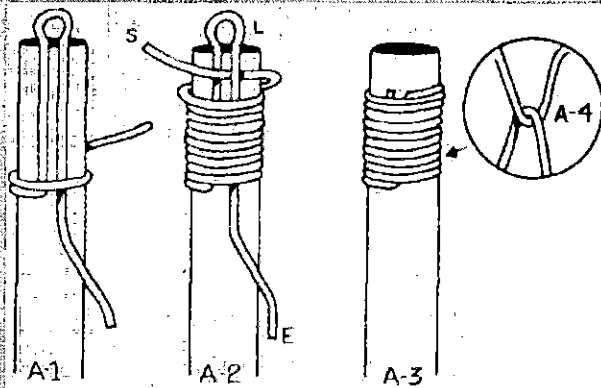
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OOPS!!!

In the initial article for this column, (June/July '02 issue) I made an error which clipped the last two sentences in explaining this whipping, creating some confusion in describing how it should be finished. My apologies. Ye Olde Editor

A COMMON WHIPPING

The simplest of the whippings, the Common Whipping is suitable for both three-strand and braided rope. It can be used to stop the end of a rope from fraying, or to make a mark at any point on a rope.



WHIPPING

One important preparation is the protection of the rope ends against wear. Unless protected, the twisted strands will loosen and fray. A figure-of-eight knot at each end will serve as a temporary stop but should not be left permanently. As soon as possible the ends should be treated in any of the various methods.

Take two feet of twine, double back about 3 inches, lay along the rope, near the end to be whipped, as you see in A 1. With the long end of the twine, wind round the rope a dozen times pulling each turn tight and making sure that it lies close to the previous turn. Pass the end S through the loop L, as in A 2, do not let the turn slip.

Now pull the end E gently until the loop is about half way through the turns of the whipping, this will lock the ends as shown in the sketch A 4.

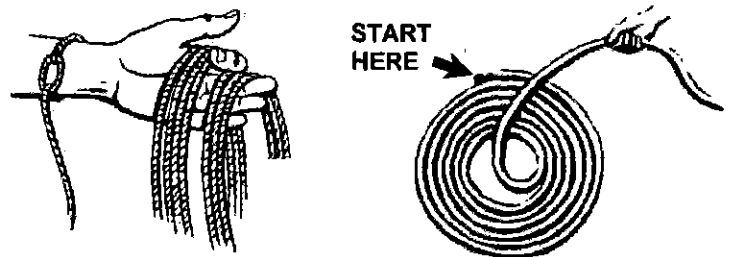
Finally cut off the twine close to the turns of the whipping, taking care not to cut the rope. Try your hand with various sizes of rope so that you become proficient with whippings of all kinds.

CARING FOR ROPE

A good rope is expensive and should not be handled carelessly. Abrasion is the kiss-of-death, so keep it clean and free of mud or grease. Washing once a year in a sudsy tub of liquid detergent, then coiling and air-drying your ropes and storing them in a cool, dry place is a good idea. If it is damp, do not coil or store it until it is thoroughly dried out.

Always keep it in a dry place. It should never be thrown into a corner to tangle and kink. When a job is finished, the rope should be placed where it will be available instantly, if necessary, and should be coiled so that it will pay out smoothly when needed.

Tip: To remove the "memory" of store-bought coils, slightly stretch a new rope (tie it off tight between two trees) for an hour or two. An old snagged rope may forget its windings if you soak it briefly in water then administer the stretch treatment. All ropes — natural and synthetic — are injured to some extent by ultraviolet light. So keep your ropes out of the sun as much as possible.



COILING ROPE

To coil rope, first shake it out in a straight line so there will be no kinks. Hold the end with one hand. With your other hand pull in enough rope to make a loop about 18 inches long. As you place the loop in your hand, roll the rope a half-turn with your thumb and forefinger. This will counteract the twist you put in the rope as you made the loop and will help to eliminate kinks.

To make a flat coil (as shown in the drawing), lay the outer circle first and coil in toward the center in a clockwise direction. Give a half-turn to each coil to eliminate kinks. If your coil is too loose, you can tighten it by twisting the center with the palm of your hand.

Coiling Your Rope For Proper Storage

On a canoe trip some years ago, one canoe swamped in a heavy rapid. There was a bouldery falls just downstream so a throwing line had to be tossed to the men in the water immediately. Two 50 foot nylon ropes, which were properly coiled for throwing, were heaved to the pair who were hanging on to the gunnels of the water-filled canoe. The men caught the ropes and were rescued just 50 feet above the falls!

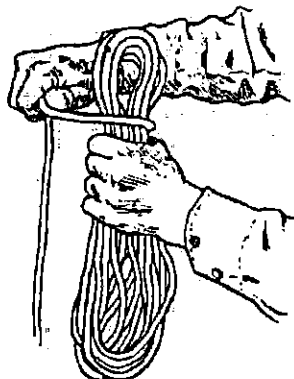
Here's how to keep your ropes coiled and ready for use:

Old Navy Method

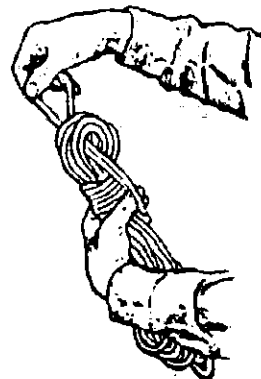
- 1) Coil the rope: take care to lay each coil carefully into place, twisting it a half turn so it will lay without twisting. Then, grasp the main body of the rope with one hand and place your thumb through the eye of the coils to hold them in place as shown in step 1.
- 2) Remove the last two coils of rope; take this long free end, and wind it around the main body of the rope several times (step 2). Wind the free end downward, toward the hand holding the rope body. Wind evenly and snugly. Don't make the coils too tight.
- 3) Form a loop with the free end of the rope as shown in step 3, and push it through the eye of the rope body.
- 4) Grasp the wound coils with one hand and the rope body with the other hand and slide the coils upward tightly against the loop. The rope is now coiled and secured (step 4). Pulling the free end of the rope will release the line, which can quickly be made ready for throwing.



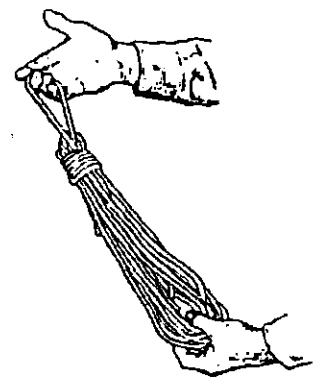
Step 1



Step 2



Step 3

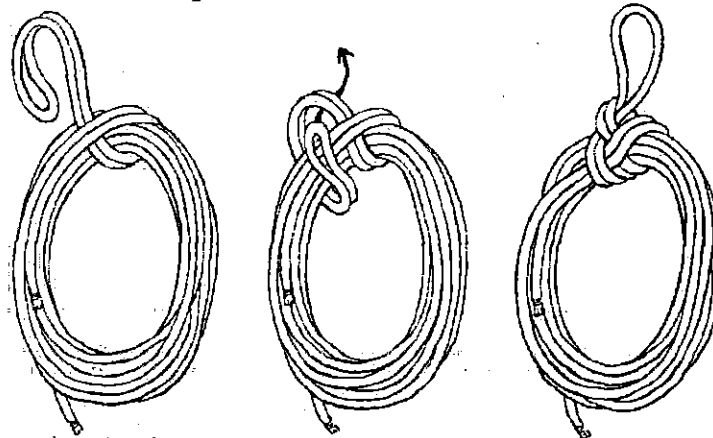


Step 4

Sailors' Stowing Coil

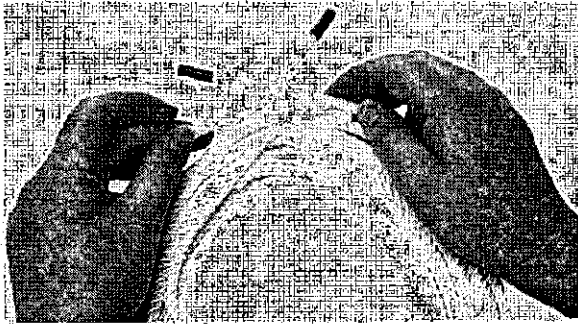
This method doesn't look as neat, but it better preserves the integrity of the coils (they're less likely to snag when the rope is tossed out).

Procedure: Coil the rope and double the last few feet to form a long loop. Wind the loop around the coil and secure with a pair of half hitches as illustrated. Hang your rope from the loop at top.



Alpine Coil

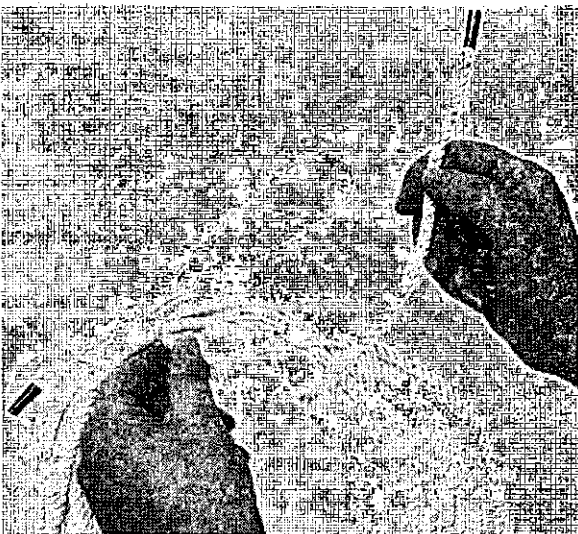
This is a method of coiling and securing rope that is preferred by climbers and cavers. It's simple and effective and the coil can be easily transported over the shoulder or suspended safely in storage.



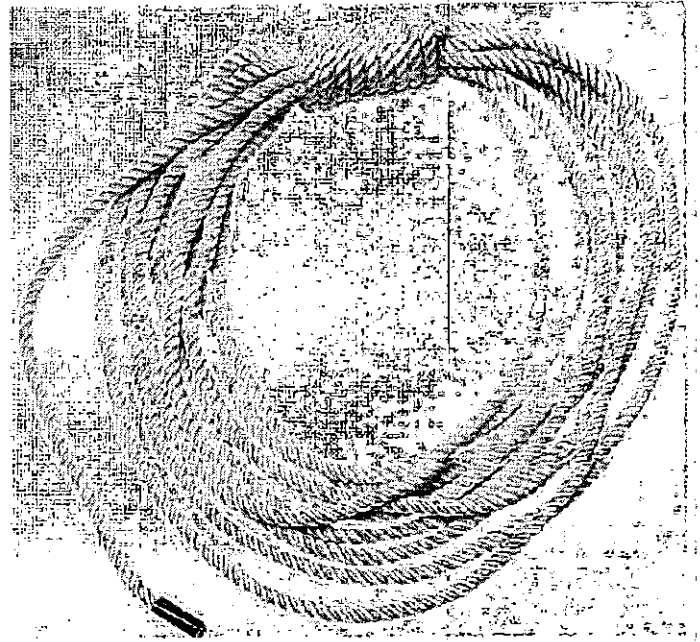
① Bring the two ends of the coil rope together



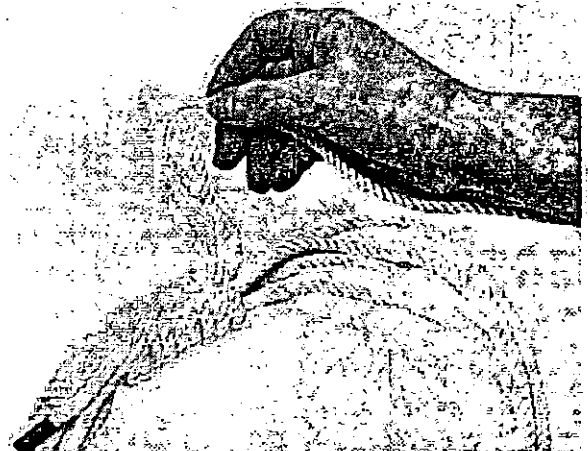
② Bend one end of the rope back to make a bight about 20 cm (8 in.) long.



③ Wrap the other end of the rope around the bight and the coiled rope.



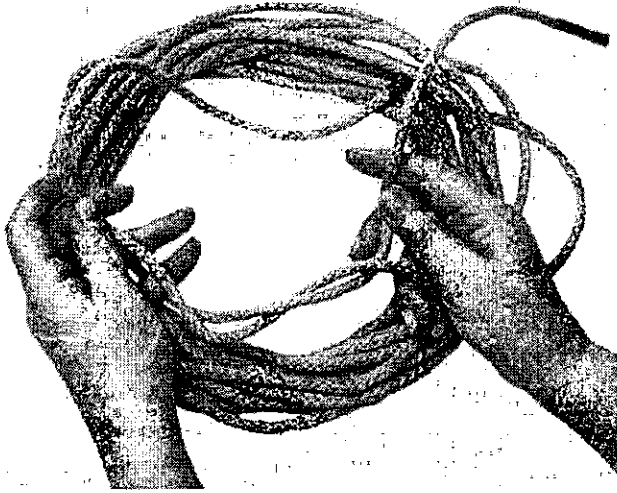
④ Make a second turn around the coil and the bight, trapping the first turn.



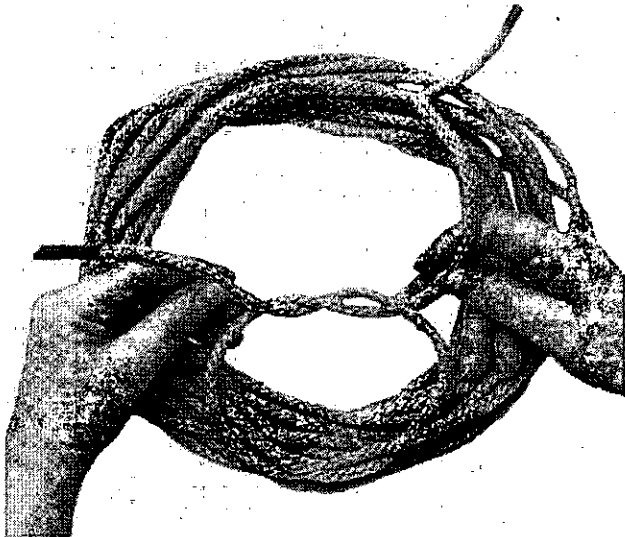
⑤ Make a succession of turns, wrapping each tightly against the previous turn. Complete at least six wrapping turns and then tuck the working end through the bight and pull the other end to secure it.

WRAPPED AND REEF KNOTTED COIL

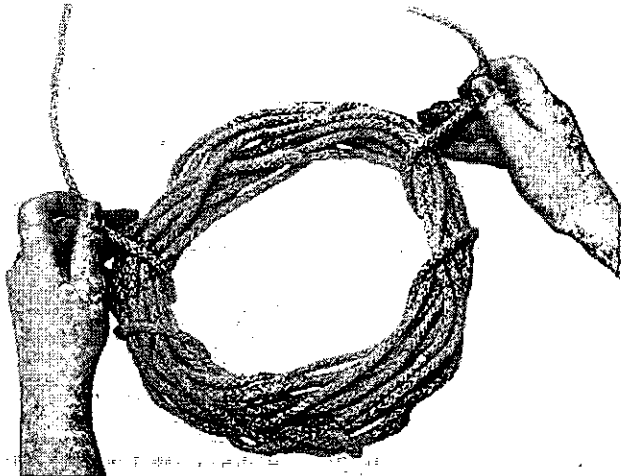
This is a useful way of coiling and securing rope. The series of reef knots helps to ensure that the coil remains tangle-free when moved around. Use this method for storing rope in the boot of your car.



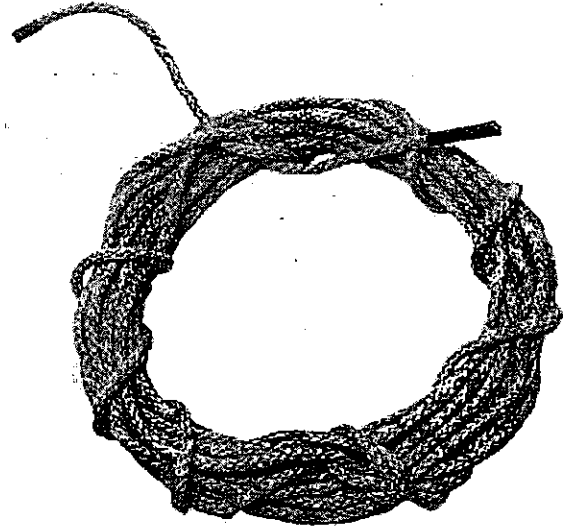
❶ Bring the two fairly long ends of the coiled rope together and tie a half-knot — left over right and under.



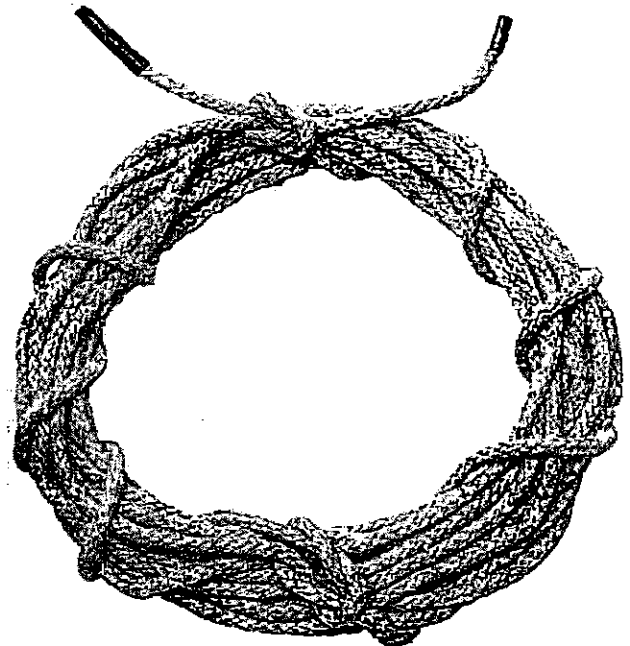
❷ Tie a second half-knot, this time going right over left and under.



❸ Take the two ends away from the reef knot and wrap them around the coil with identical diagonal turns.



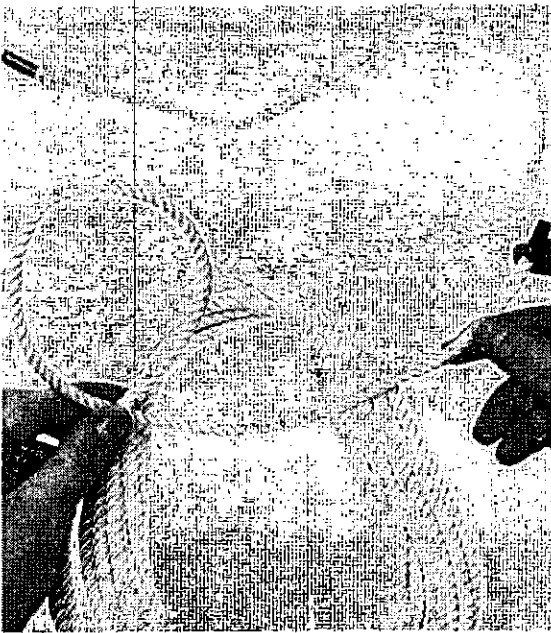
❹ When the two ends meet at the opposite side of the coil to the reef knot, tie a half-knot — left over right and under.



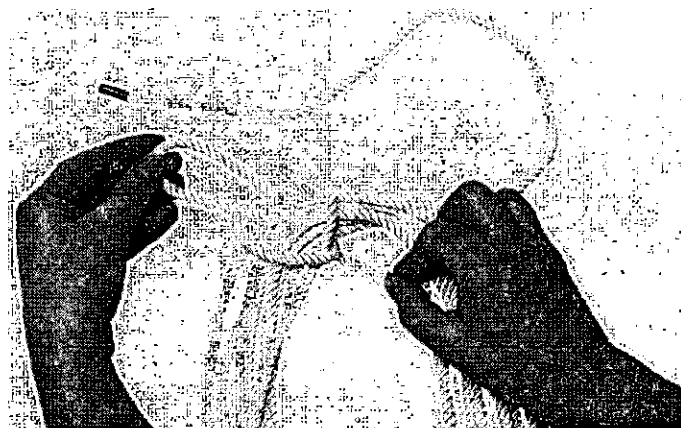
❺ Add a second half-knot, this time right over left and under, to make a second reef knot.

Fireman's Coil

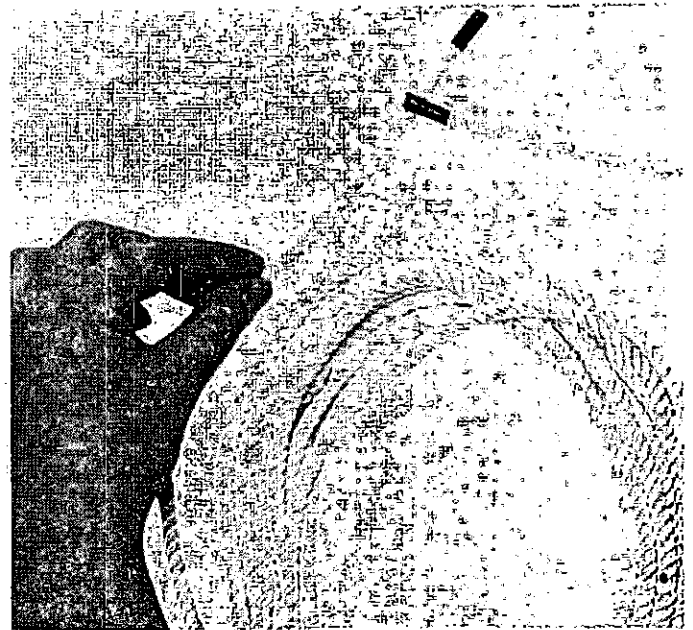
This method of securing a coil uses a hanging loop.



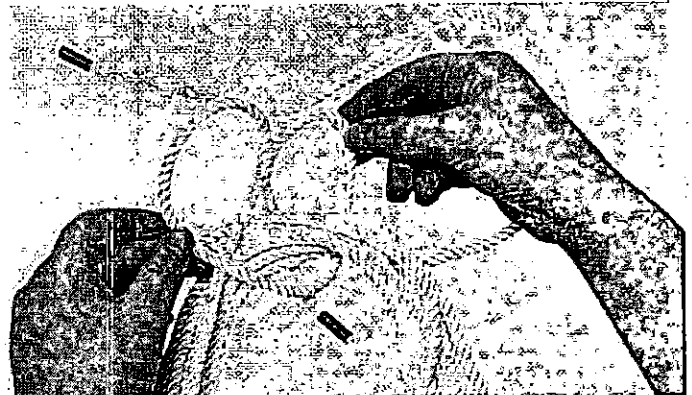
② With one of the ends, make a small overhand loop.



③ Tuck the bight through the loop from back to front and pull it tight.



① Bring the two ends of the coiled rope together.



④ Pass the working end through the coil of rope and make a bight.

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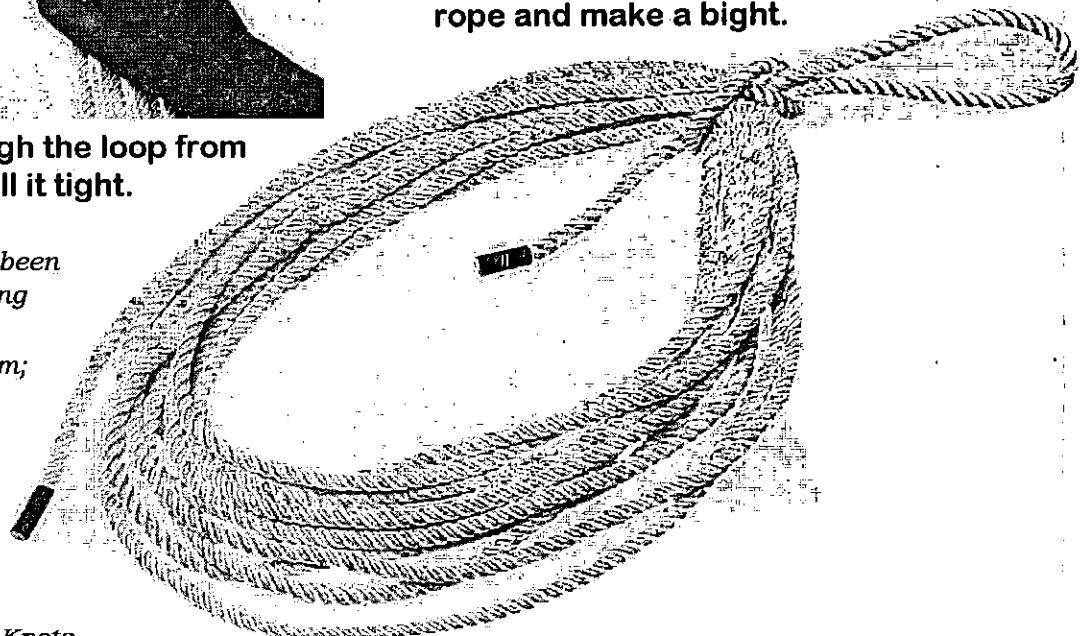
- *Knots and How to Tie Them;*
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first printing 1978

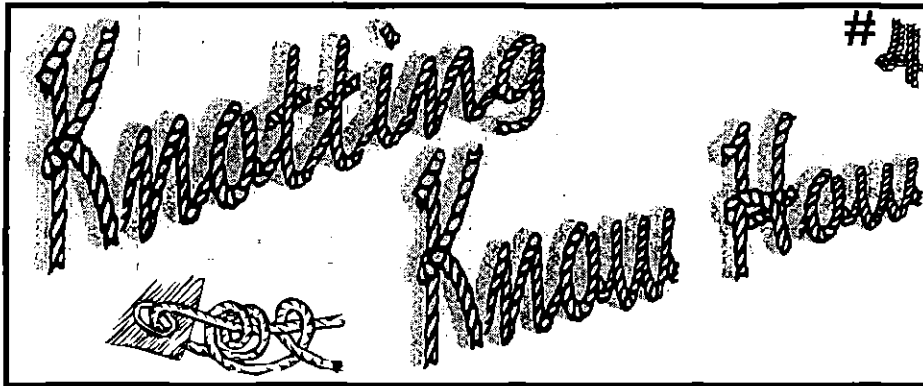
- *The Basic Essentials of Knots for the Outdoors* by
Cliff Jacobson;
ICS Books, Inc.;
Merryville, Indiana, USA

- ♦ *Scouts Canada, Fun With Knots*

- ♦ *The Knot Handbook* by *Maria Constantino;* *Strathearn Books LTD; Toronto, ON*

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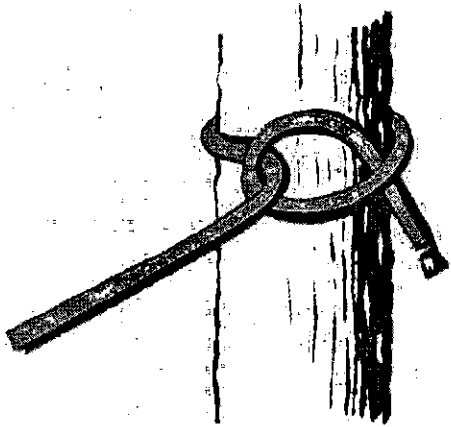


#4

Once upon a time, in the not too distant past, Scouts in Canada were looked on as real craftsmen of outdoor skills. Back then, Scouts looked up to Rovers because they were able to demonstrate the highest level of excellence in all the outdoor crafts. One area in which their expertise really excelled was knotwork. Lately it's become obvious that knowledge of this skill has fallen off. This column of basic, and not so basic knotting know-how is intended to help you all get back to that earlier level of excellence.

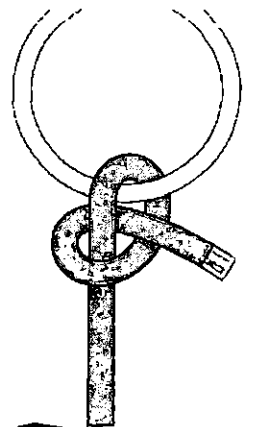
TYING ROPES TO OBJECTS

Knots that are used for attaching ropes to things like poles or rings are called hitches. They are important in camping and all types of pioneering work. These knots are used to secure a rope to a post, hook, ring, spar or rail or to another rope that plays no part in the actual tying. Because they are often used by sailors for mooring and fastening, they must be able to withstand parallel strain.



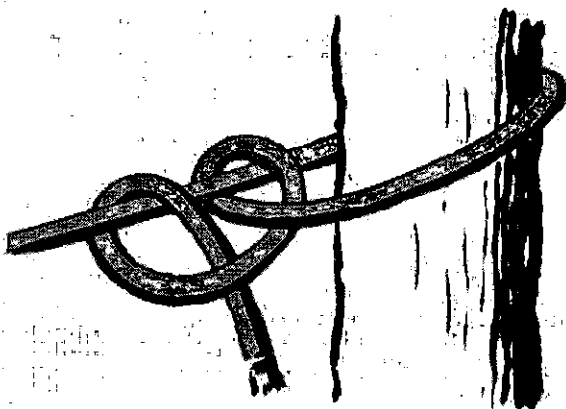
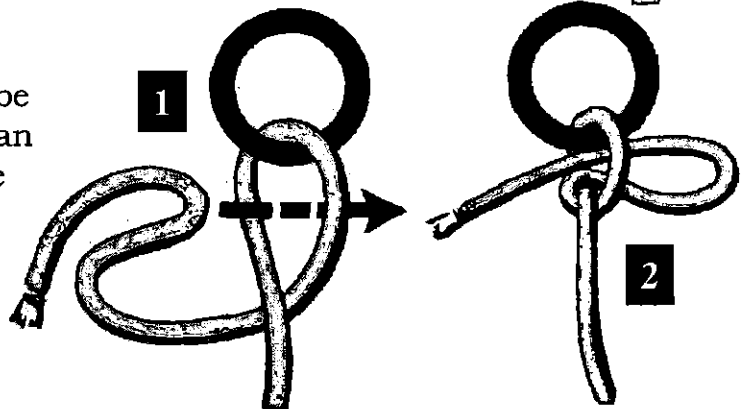
HALF HITCH

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 stevedore's knot or figure eight is put in the end.



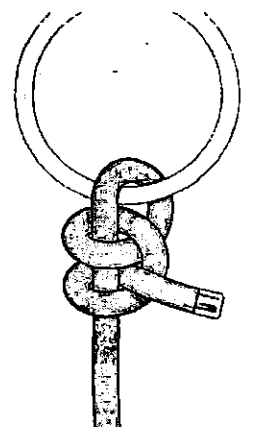
SLIPPERY HALF HITCH

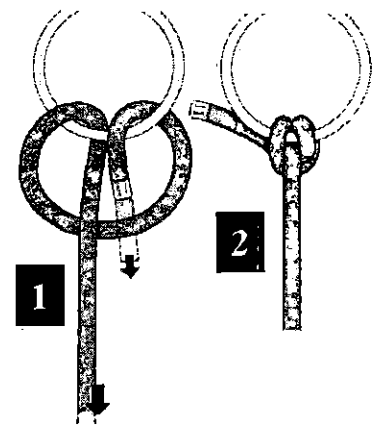
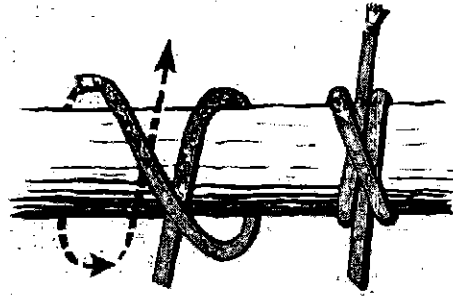
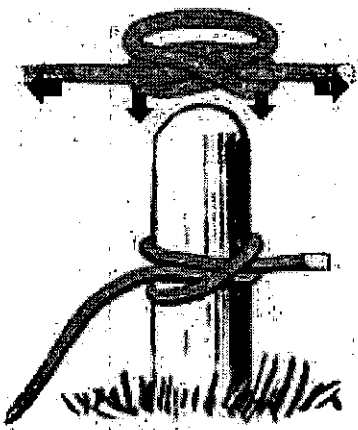
This is occasionally useful but should be considered temporary. It is actually only an overhand knot around the object with the end run back through the knot and left "slippery." It can be quickly untied by pulling on the free end. The slippery half hitch can be locked by passing the end back through the eye and pulling tight.



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.





CLOVE HITCH/PEG KNOT/BOATMAN'S KNOT

The name clove hitch first appeared in Falconer's Dictionary of the Marine in the 18th century, but the knot was probably known for centuries before then.

Given practice, the clove hitch can be tied around a post with one hand. It is not totally secure if the strain is intermittent and at an inconsistent angle. Adding a stopper knot or making one or two half hitches around the standing part will make the knot more secure.

Campers often use this knot to secure tent poles, hence the alternative name peg knot.

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.

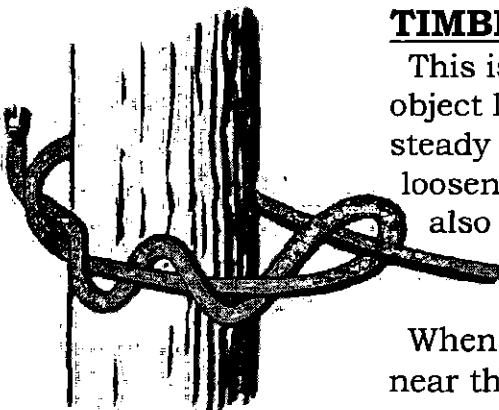
Tying it over an object that is open at one end is done by dropping one overhand and one underhand loop over the post and drawing them together. Widely used in sailing for mooring to bollards on docksides, it is also useful in camping for tightening guy ropes.

Clove Hitch Over a Bar

This method of tying 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.

Clove Hitch Made On a Ring

This version of the clove hitch is more commonly used in mountaineering than in sailing, for in sailing the ring is usually narrower than the rope, which can become badly chafed and therefore dangerous. Climbers use it to regulate the length of rope between the climber and the piton (the peg or spike driven into a rock or a crack to hold the rope).



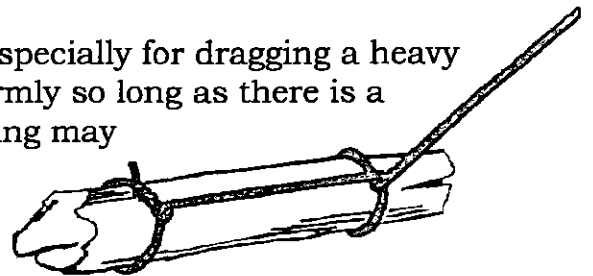
TIMBER HITCH

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

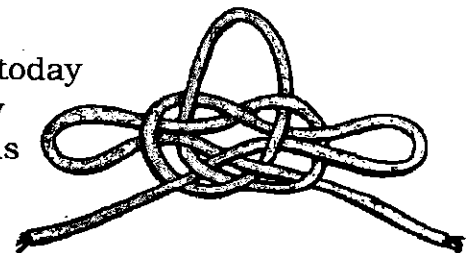
also useful in pioneering when two timbers are "sprung" together.

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



MASTHEAD KNOT

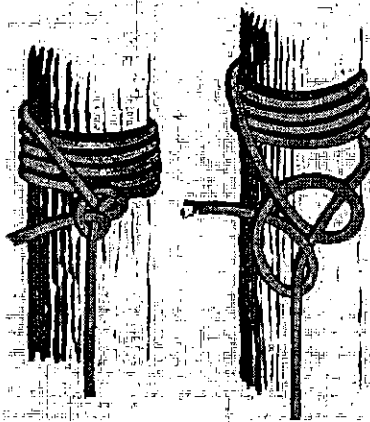
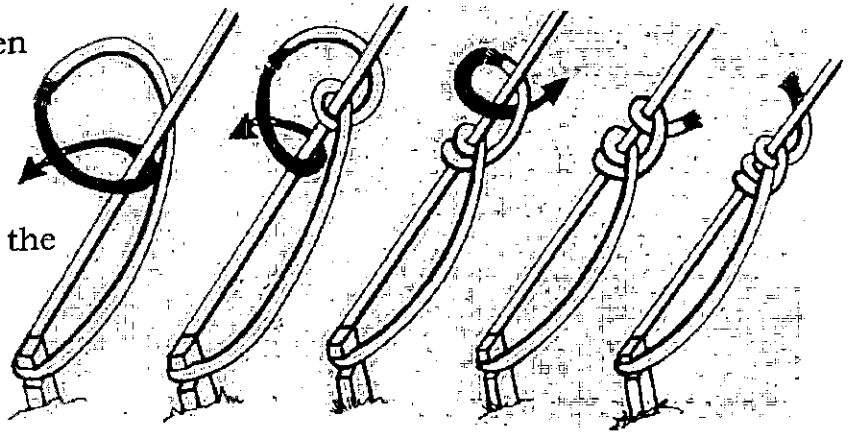
The masthead knot is used principally for decorative purposes today. Originally, its purpose was to place a strap around a temporary masthead to which other straps could be made fast. This knot is started with three overlapping hitches. The inner bights of the two outer hitches are led in regular sequence over and under to the opposite sides of the knot, while the upper bight of the center hitch is merely extended.



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.



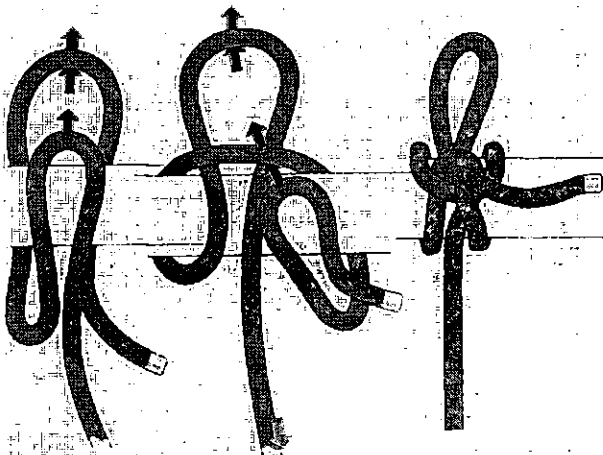
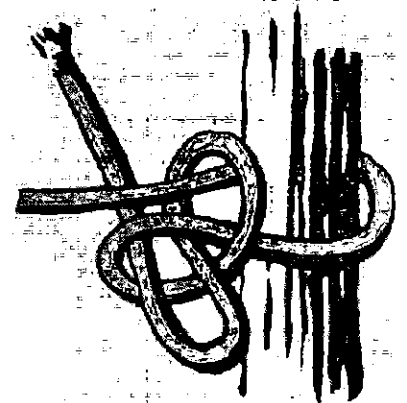
PIPE HITCH

The pipe hitch is useful for lifting a bar or post straight up, as in pulling it out of the ground. To tie it, take four or five turns around the post. Cross the end over and finish with two half hitches around the standing part. An added hitch is usually taken higher on the post with the standing part to keep the post vertical.

HITCHING TIE

This is a common method of hitching animals. It's a type of slipped hitch.

Notice the similarity to the highwayman's hitch.

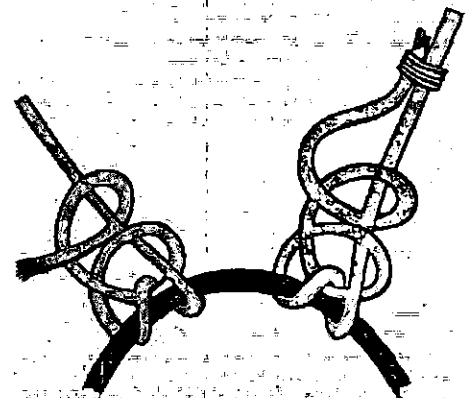


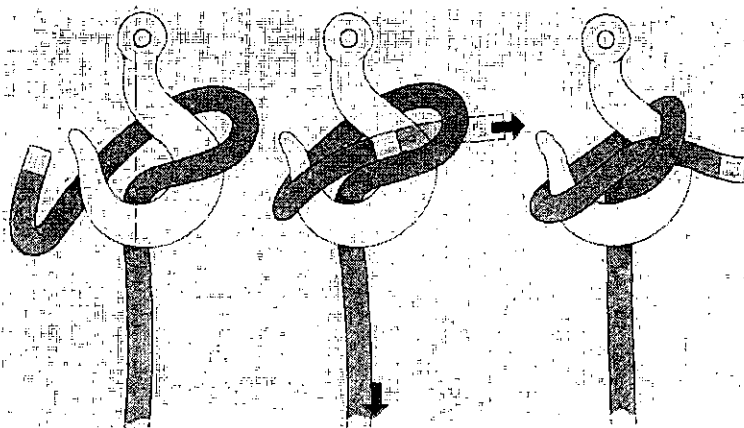
HIGHWAYMAN'S HITCH

The name highwayman's hitch comes from the fact the knot was supposedly used by robbers to insure a swift release for their horse's reins and thus a rapid get-away. A single pull on the working end unties the knot, but the standing part can safely be put under tension.

FISHERMAN'S BEND/ANCHOR BEND

If the cow hitch is the least secure of the hitches, the fisherman's bend is the most stable. Simply formed by making two turns around the post or through the ring and then tucking the working end through both turns, the knot is widely used by sailors to moor their boats at the quayside. Extra security can be achieved by adding a half hitch or seizing the ends of the rope.



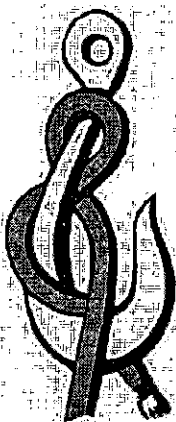


BILL HITCH

This knot can be made and untied easily, and it is suitable for use with large diameter ropes. It is not, however, used for sailing purposes very much and tends to be associated with camping activities. It is good for hoisting light objects aloft.

SINGLE BLACKWALL

This is a simple half hitch over a hook. It will hold only when subjected to a constant strain. A stopper knot in the end will make it a little more secure, but human life should never be entrusted to it.



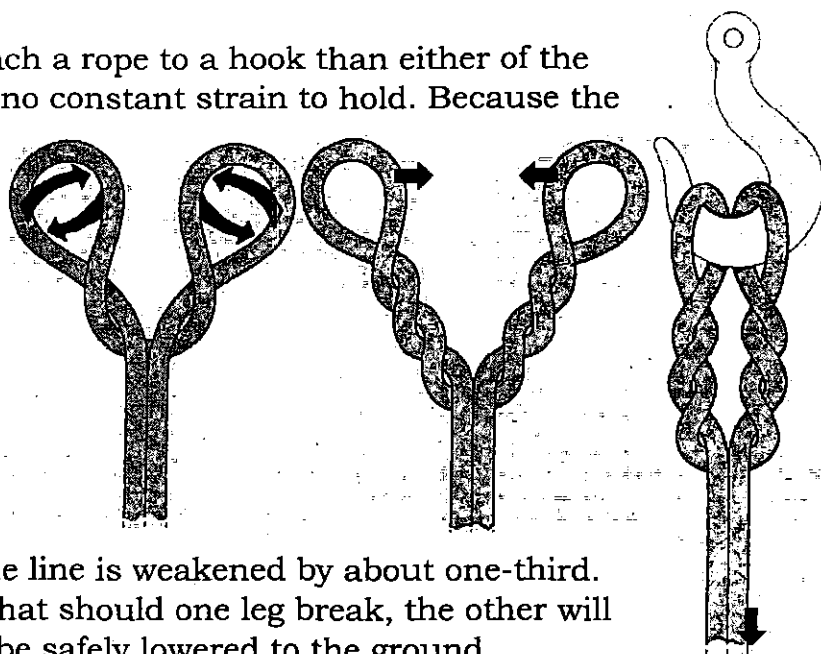
DOUBLE BLACKWALL

This hitch is somewhat safer than the single blackwall, but it, too, should be considered temporary. For a stronger, more permanent tie over a hook, use the bowline.

CAT'S-PAW

The cat's-paw is a better way to attach a rope to a hook than either of the blackwalls. It will not slip and needs no constant strain to hold. Because the strain is equal on both sides, this is the best hook knot for rope of medium diameter. It has long been used by dock workers and sailors to sling heavy loads, and the name cat's paw has been used since the 18th century.

Form two loops and turn them inward one or two complete turns. Hang these "eyes" over the hook or other subject. When a single part of a loaded rope is hung over a hook, the line is weakened by about one-third. This knot gives the extra assurance that should one leg break, the other will last long enough to allow the load to be safely lowered to the ground.

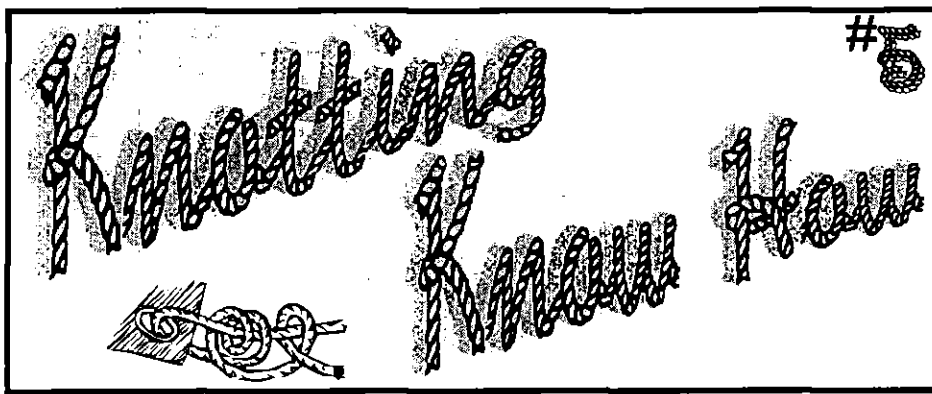


Material for this article has been researched from the following books/pamphlets:

• *Knots and How to Tie Them; Boy Scouts of America; first printing 1978*

♦ *Knots, A Pocket Companion; Strathearn Books LTD; Toronto, Ontario*

Available through some Scout Shops ♦ Scouts Canada • Boy Scouts of America



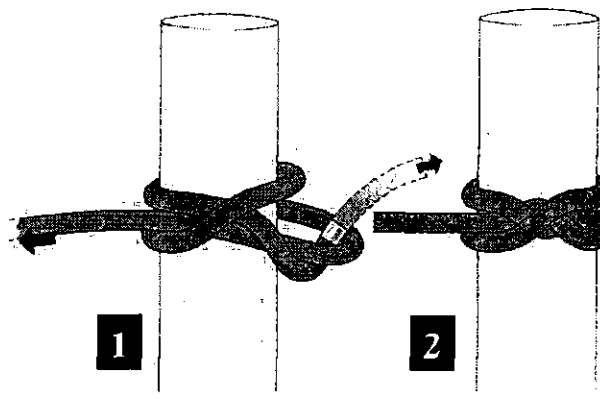
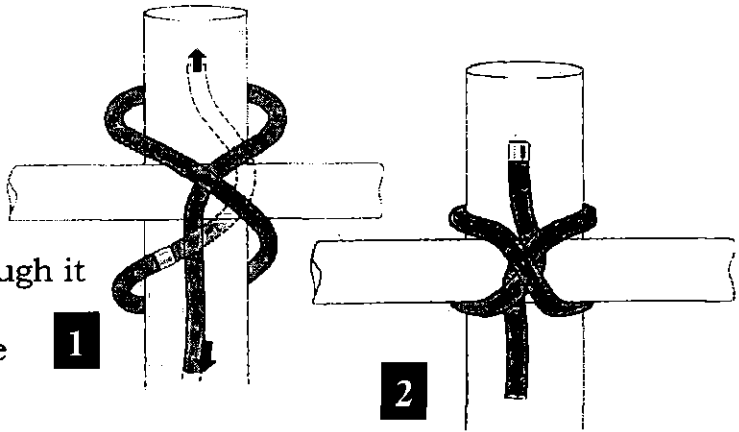
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TYING ROPES TO OBJECTS—PART II

Knots that are used for attaching ropes to things like poles or rings are called hitches. They are important in camping and all types of pioneering work. These knots are used to secure a rope to a post, hook, ring, spar or rail or to another rope that plays no part in the actual tying. Because they are often used by sailors for mooring and fastening, they must be able to withstand parallel strain. Continuing on from the last issue, here are some more hitches.

TRANSOM KNOT

Gardeners will find the transom knot particularly useful for making trellises or tying up bean poles. It is similar to the constrictor knot and, as with that knot, the ends may be trimmed off for neatness. Although it can be prised undone, it is probably easier simply to cut through the diagonal, when the two halves will fall apart.



CONSTRUCTOR KNOT

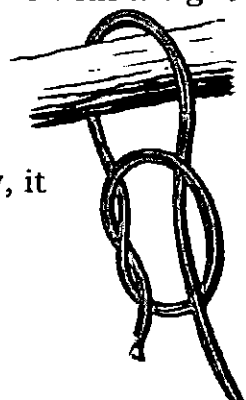
This knot has dozens of uses. It can be used on the ends of ropes as permanent or temporary whipping, it can be used to secure fabric bags; it can be used in woodworking to hold two pieces in position while the glue dries.

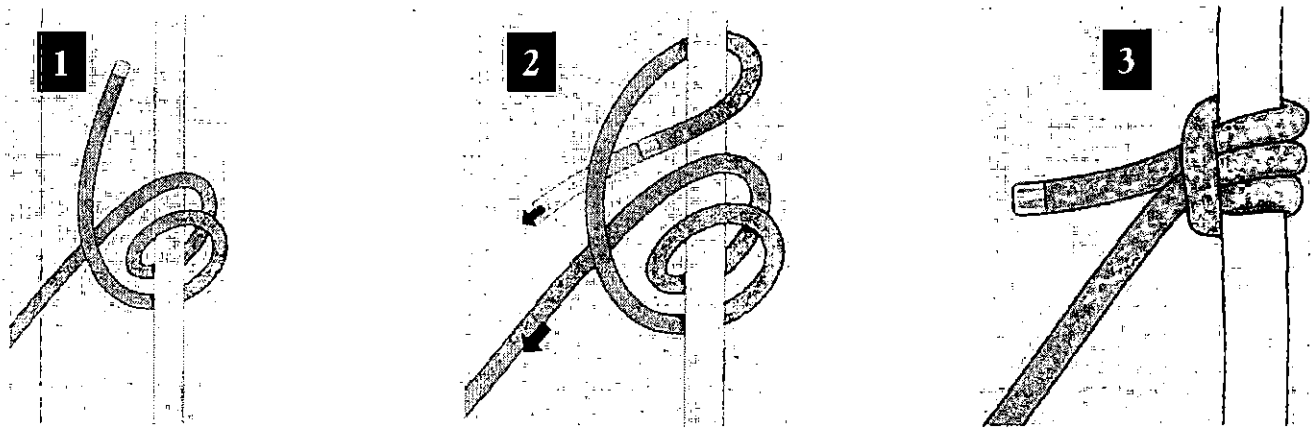
The knot is formed from an overhand knot, trapped beneath a crosswise round turn, which holds it firmly in place. The constrictor knot will stay tied and grip firmly in place. The rope may have to be cut free unless the last tuck is made with a bight to produce a slipped knot.

SLIP KNOT

This knot is not as satisfactory as two half hitches because, unless strain is put on it, it may slide, especially on a vertical object like a post. Basically, it is an overhand knot around the standing part.

It will be more secure if a stopper knot, like a simple overhand or figure eight, is tied in the end of the rope.



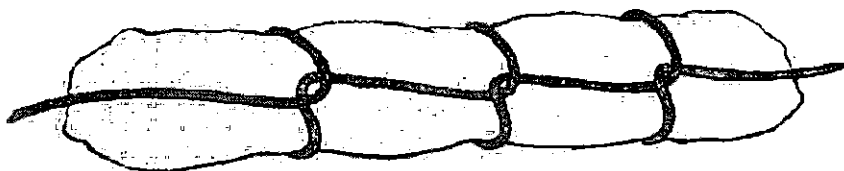
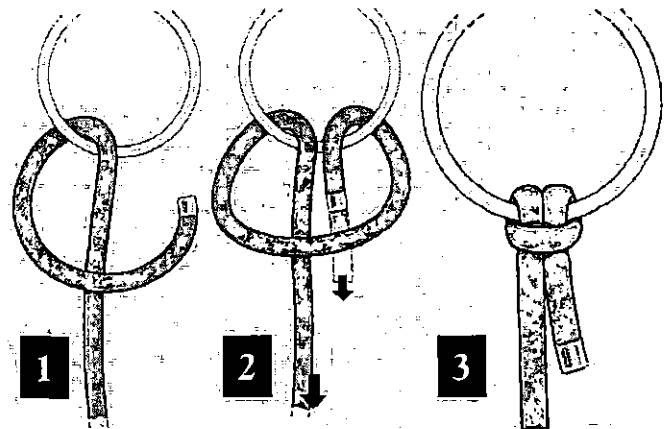


ROLLING HITCH/MAGNER'S HITCH/MAGNUS HITCH

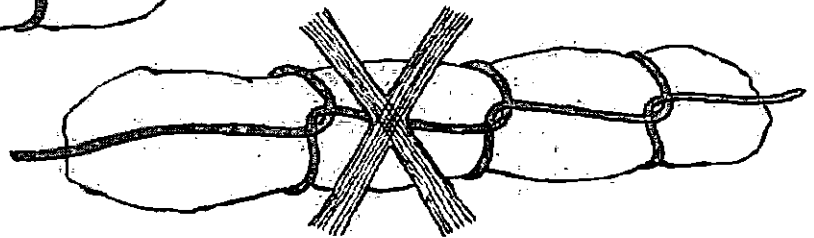
This is basically a clove hitch with the first turn repeated. It is employed by both mariners and mountaineers and is the most effective way of securing a small rope to a larger line that is under strain. As long as the smaller rope is perpendicular to the larger, the knot will slide easily along, - once tension is exerted on the standing part and working end of the smaller rope, the knot locks into position. If you place your hand over the knot and slide it along the thicker line it will slide off the end and uncoil into a straight length of rope.

COW HITCH/LANYARD HITCH

This hitch, composed of two single hitches, is generally made around a ring and is probably the least secure of all the hitches, and it should be regarded as only a temporary fastening. Its name suggests its most common use — as a means of tethering livestock.



1 *Right Way*



Wrong Way **2**

MARLINE (HAMMOCK) HITCH

Used by sailors for centuries to secure their hammock rolls, this easy hitch is handy for tying a long bedroll, package, or roll of carpeting. Be sure the marling end goes under each wrapping cord as illustrated. The hitch won't hold tension if you make it backwards!

Look carefully. There **IS** a difference in the two illustrations.

POWER-CINCH (TRUCKER'S KNOT)

Scenario: The rutted, muddy road worsens with each yard you travel. "Gotta keep up speed, or we'll never make it," you mutter. Then, it happens – suddenly, you're axle deep in coal black ooze, and despite the determined whining of the front drive wheels, you realize you are going nowhere.

You take stock of the situation. On hand, is a shovel, 50 feet of three-eighths inch diameter nylon rope, and four sets of willing arms. With these, you'll have to free the car.

First, you shovel the "stopper" mud from under the belly of the car. Then you attach your long rope to the auto frame and rig a power-cinch around a smooth-barked birch nearby. Just six inches ahead is firmer ground. If you can just move the car that far.

The four man-power winch line tightens: seconds later, the car pops free, like a cookie from a mold!

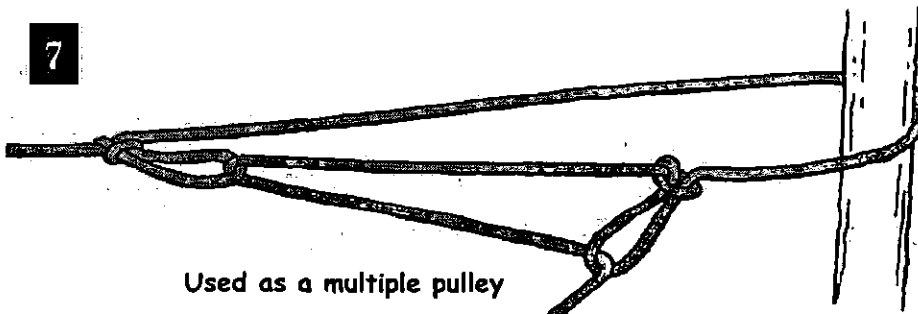
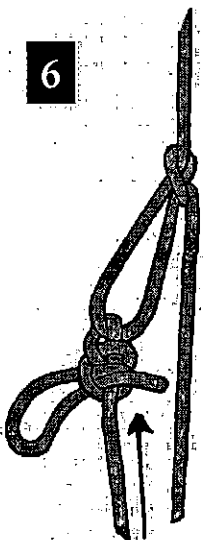
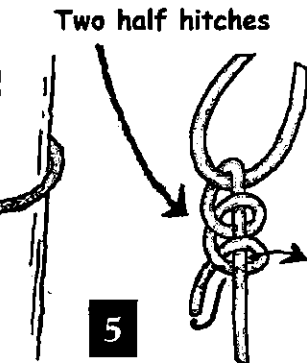
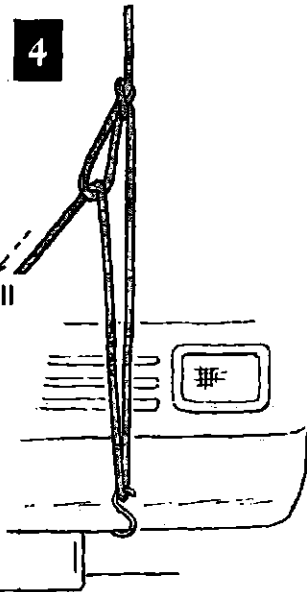
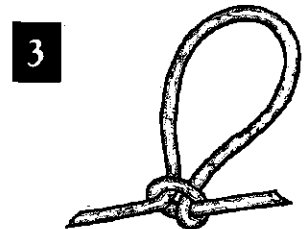
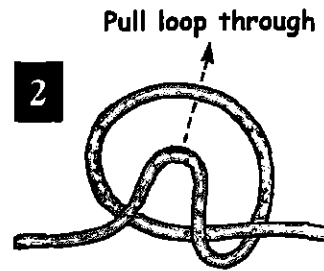
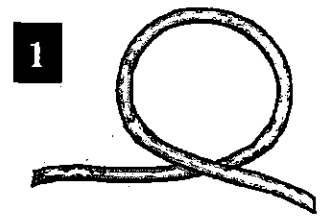
The power-cinch is the most ingenious hitch to come along in recent years. It effectively replaces the tautline hitch and functions as a powerful pulley. Skilled canoeists use this pulley knot almost exclusively for tying canoes on cars, and it remains popular with truckers for securing heavy loads in place. Use it any time you need to tie an object tightly onto a cartop or truck bed.

Begin the hitch by forming the overhand loop shown in step 1. Pull the loop through as in step 2. It is important that you make the loop exactly as shown. It will look okay if you make it backwards, but it won't work!

If you're tying something onto a car top, run the bitter (free) end of the hitch through an S-hook attached to the bumper. (Step 4.) Snug the hitch and secure it with a pair of half-hitches around the bight, as illustrated in step 5. Or, for case of removal, end the power-cinch with a quick-release half-hitch, as in step 6.

The power-cinch as a multiple pulley: For additional power, as in the above scenario, form a second loop in the free end of the rope as shown in step 7. This will double the mechanical advantage, albeit increase friction. This rescue technique - commonly set up with aluminum carabiners instead of rope loops - was popularized by the Nantahala Outdoor Center (a whitewater canoe and kayak school) as the "Z-drag," because the rope pattern forms a lazy Z when viewed from overhead.

The basic power-cinch however, is probably all you'll ever need. It's one of the most useful hitches there is.



Secure half hitches around one or both lines

Used as a multiple pulley

5

Two half hitches

Tighten loop

Pull loop through

3

2

1

4

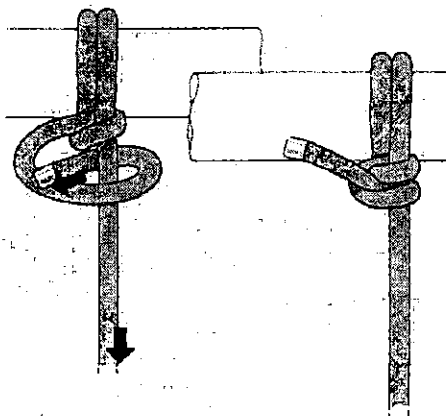
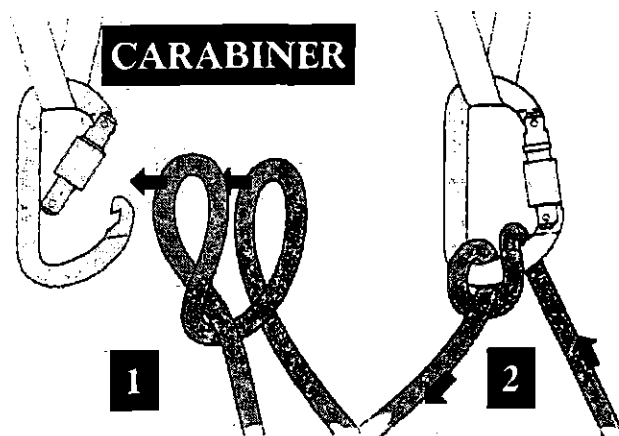
6

7

Pull

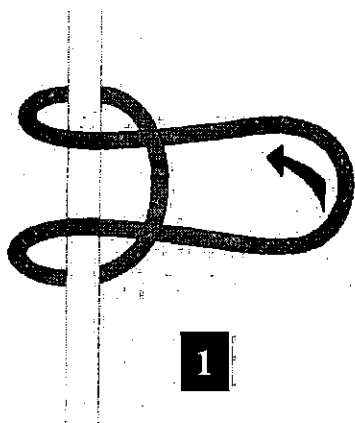
ITALIAN HITCH/MUNTER FRICTION HITCH

This knot was introduced in 1974, and is the official means of belaying (fixing a running rope around a rock or cleat) of the Union Internationale des Associations d'Alpinisme. The rope is passed around and through a carabiner and will check a climber's fall by locking up. The rope can also be pulled in to provide slack or tension as needed. Care must be taken to tie this knot correctly.

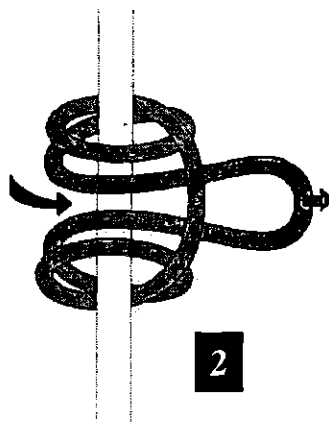


ROUND TURN & TWO HALF HITCHES

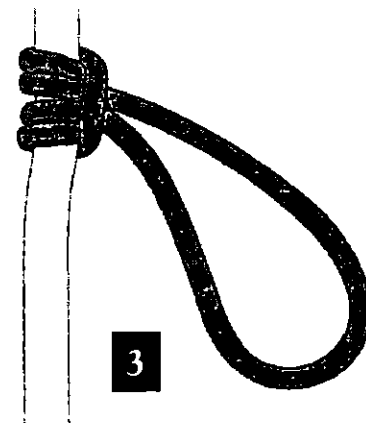
Use this versatile knot to fasten a line to a ring, hook, handle, pole, rail or beam. It is a strong, dependable knot, which never jams. It has the additional advantage that once one end has been secured with a round turn and two half hitches, the other end can be tied with a second knot.



1



2



3

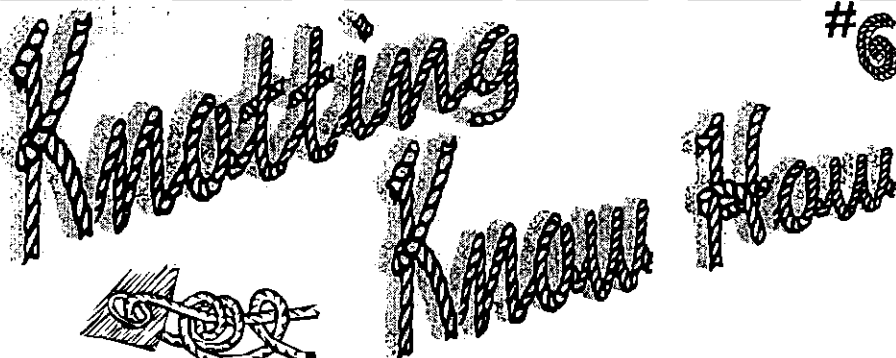
PRUSIK KNOT

This knot is named after Dr. Carl Prusik, who devised it in 1931. Relatively simple to tie, this knot is used by climbers to attach slings to rope so that they slide smoothly when the knot is loose but hold firm when a sideways load is imposed. This is a useful knot for anyone who must scale awkward heights, such as tree surgeons, and cavers.

The knot must be tied to a rope that is considerably thinner than the line around which it is tied, and it is important to note that it may slip if the rope is wet or icy.

Material for this article has been researched from the following books/pamphlets:

- *Knots and How to Tie Them; Boy Scouts of America; first printing 1978*
 - *The Basic Essentials of Knots for the Outdoors by Cliff Jacobson; ICS Books, Inc.; Merryville, Indiana, USA*
 - ◆ *Knots, A Pocket Companion; Strathearn Books LTD; Toronto, Ontario*
- Available through some Scout Shops ◆ Scouts Canada • Boy Scouts of America**



#6

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LASHINGS

For lashing, or binding together timbers with rope, it's important to use ropes of correct thickness and length. For staves or spars up to 1¹/₄ inches in diameter, use tough twisted or braided line. For spars up to 3 inches in diameter, you need 1/4-inch rope. For spars over 3 inches in diameter, use 3/8-inch rope. As to length, figure 1 yard of rope for each inch of the combined diameter of the spars. For example, when you are lashing 3-inch and 4-inch timbers together, you will need 7 yards of rope.

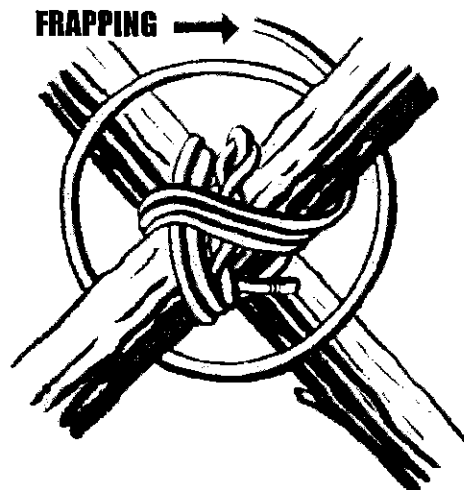
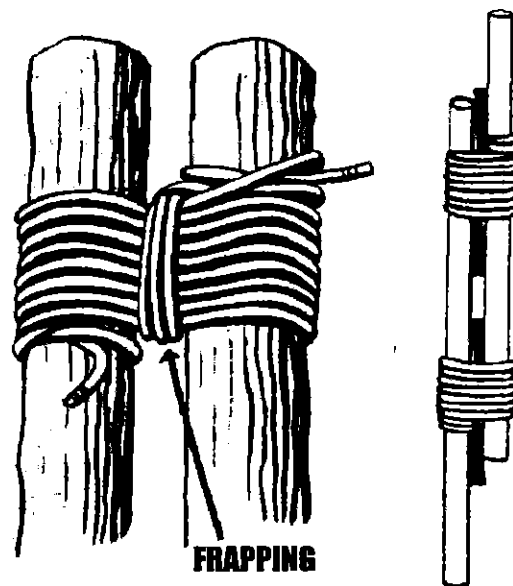
Frapping turns are used to draw the lashing tight.

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.

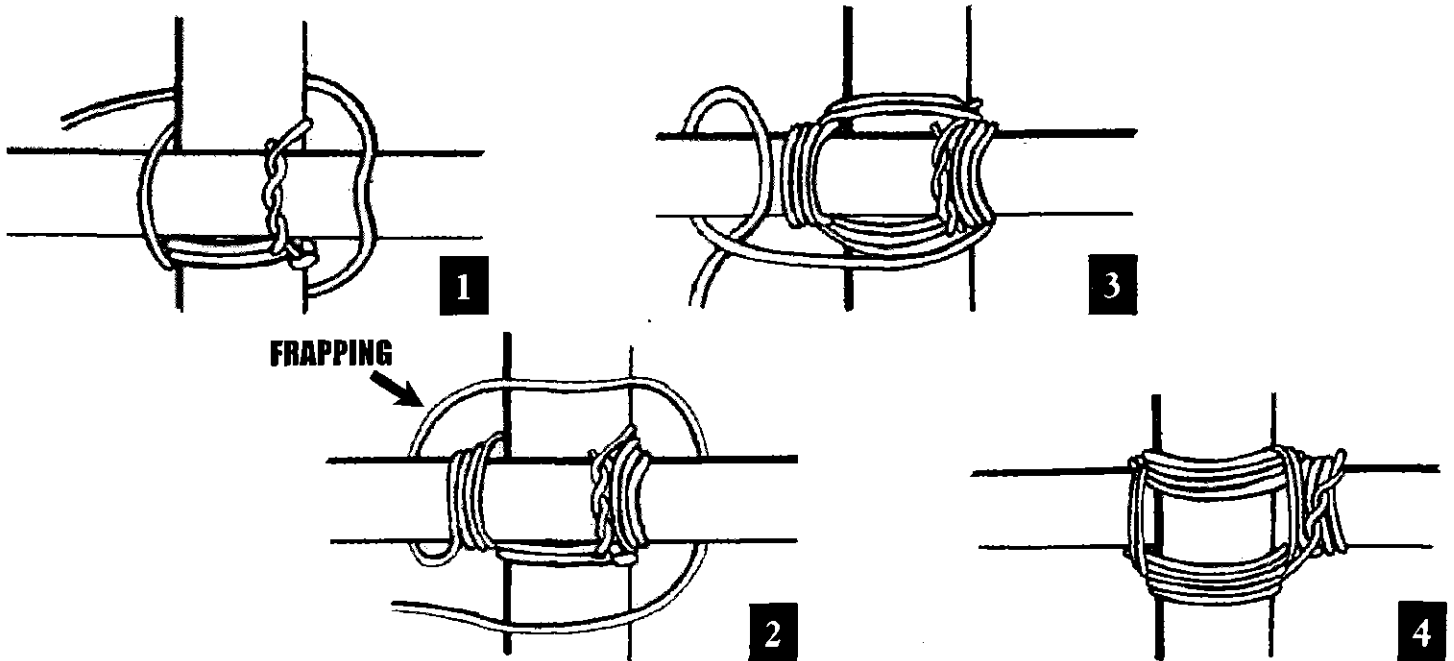
Sometimes shear lashings are used to lash two spars together to keep them parallel (to extend a flagpole, for example). In that case, do not use frapping turns.

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.

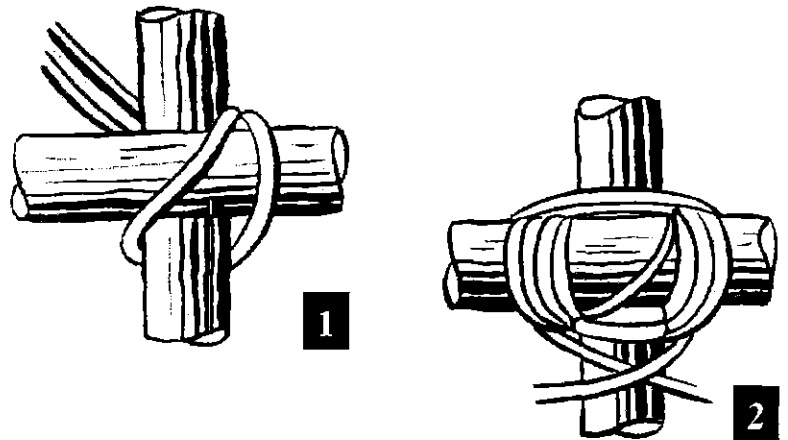


SQUARE LASHING

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.

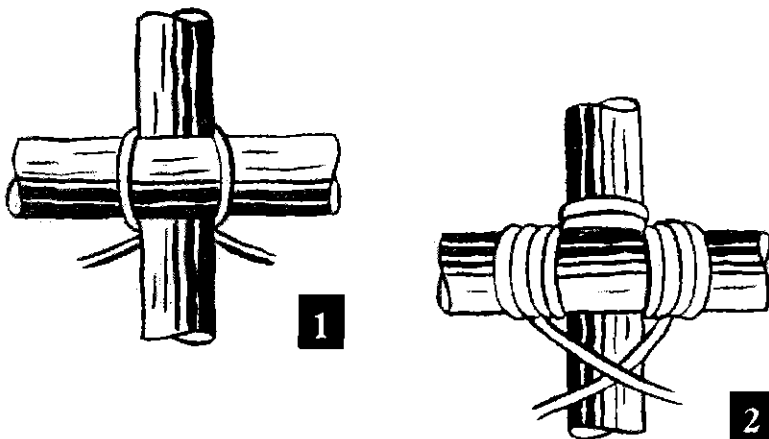
JAPANESE SQUARE LASHING

Begin by using the rope doubled. Loop the bight around one spar and wrap just like the regular square lash with rope doubled. When frapping, split the ropes apart and frap in opposite direction with each. Finish with square knot.



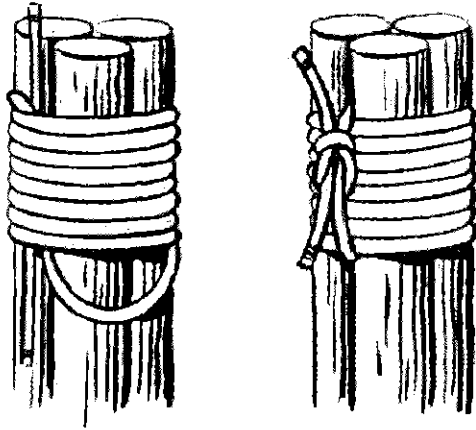
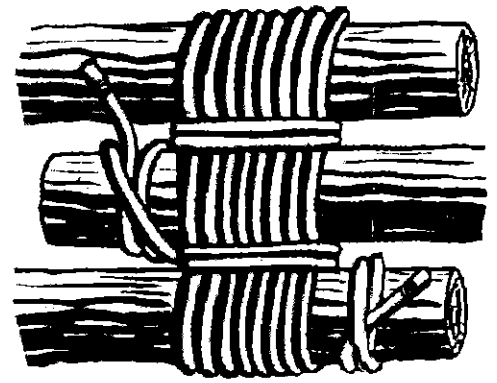
JAPANESE SQUARE LASHING MARK II

Begin as with the Japanese lashing, but instead of using two ropes together, use each one separately and wrap in opposite directions, Frap using ropes in opposite directions and finish with a square knot.



TRIPOD LASHING

The method for forming a tripod is similar to shear lashing. Begin by laying the three spars on the ground pointing in alternate directions. Make a clove hitch or timber hitch around one of the outside spars. Now take seven or eight **loose** lashing turns around all three spars and two **loose** frapping turns in the spaces between. Finish with a clove hitch on the center spar and hoist the tripod into place.



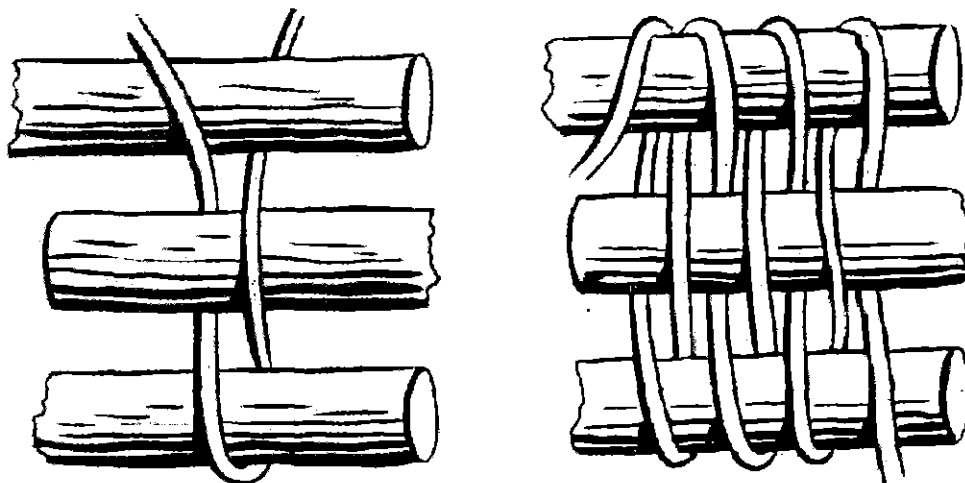
TRIPOD LASHING FOR LIGHT STRUCTURES

Hold spars as in drawing. Place rope end in groove between spars. Wrap lightly a few times around spars and bring rope end up in groove. Finish with square knot and open tripod.

TRIPOD LASHING FOR LARGE STRUCTURES

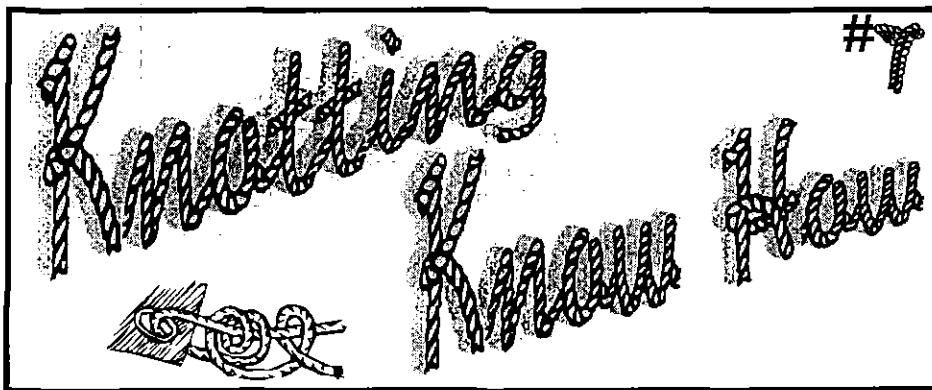
Lay the three spars on the ground pointing in alternate directions. Starting at the middle of the rope, weave around the spars a few times with each rope end. Tighten with two frapping turns in the spaces between spars. Finish with square knot and swing middle spar over.

It may take a little practice to judge how tight the wraps should be made and still allow for the tripod to set up.



Material for this column has been researched from the following book/pamphlet:

- *Knots and How to Tie Them; Boy Scouts of America; 2001 printing of the 1978 edition.*
Available through some Scout Shops ♦ Scouts Canada • Boy Scouts of America



Once upon a time, in the not too distant past, Scouts in Canada were looked on as real craftsmen of outdoor skills. Back then, Scouts looked up to Rovers because they were able to demonstrate the highest level of excellence in all the outdoor crafts. One area in which their expertise really excelled was knotwork. Lately it's become obvious that knowledge of this skill has fallen off. This column of basic, and not so basic knotting know-how is intended to help you all get back to that earlier level of excellence.

A picture is worth a thousand words. When trying to explain splicing, that's especially true, because some of the steps can be a little confusing until you actually see how they're done. As a young Scout, I was able to master most of the splices with no problem, since I was lucky enough to have some really good instructors.

However, mastering the eye splice was difficult and I didn't really learn the "trick of the trade" until I took a Scoutmaster's Gilwell course. It was there that the trick of flipping the splice over to start the last strand from the back was shown so clearly that I couldn't understand why I ever thought this splice was hard to do. (See Figs. 4 and 5 in the section on the eye splice in this article.) Splicing is really easy when the light goes on in your mind.

Since the history of rope work is literally tied to sailing, it shouldn't have been any surprise to find that the best diagrams I found on splicing came from books aimed at people who go sailing for pleasure today. What did surprise me was the fact that the two best books I found were written by the same author: "The Arts of the Sailor, Knotting, Splicing and Ropework" and "The Marlinspike Sailor", both by Hervey Garrett Smith.

The only splice these books didn't cover was the back splice. That information came from the pamphlet "Knots and How To Tie Them" from the Boy Scouts of America. I might add that there are two editions of this pamphlet that I know of - 1942 and 1978 - and I used material from both.

Ye Olde Editor

THE ART OF SPLICING

Splicing, like matrimony, should not be undertaken lightly, nor can it be done hurriedly. It requires patient, careful study to attain proficiency, and even then speed is neither necessary nor desirable. It is the sort of work one does when there is plenty of time.

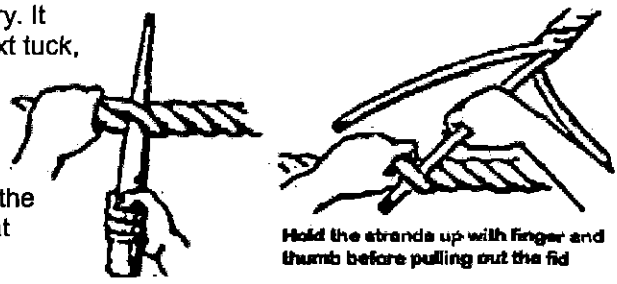
There are four useful splices every camper should know: the *Eye Splice*, the *Short Splice*, the *Long Splice* and the *Back Splice*. Yachtsmen also use the *Grommet*, which is actually a form of *Long Splice*, in which but a single rope strand is used. In sailing, *Eye Splices* are needed almost continually, *Short Splices* only infrequently, and *Long Splices* much less. *Grommets* are very useful in working with canvas, making rope-stropped blocks and various articles of ship's gear.

Although the methods used in splicing are pretty much alike the world over, the techniques employed vary with the individual. There are some who will not use a marlinspike or fid unless forced to. There are others who can't put a splice in 1/4 inch line unless they have a large kit of assorted tools at hand.

If you can put in a professional splice neatly and efficiently it is of small matter whether you use your fingers, fid or bobby-pins - it's the end result that's important.

For the beginner, however, a marlinspike or fid is usually necessary. It enables you to lift a strand and keep it opened while you study the next tuck, and with less distortion of the lay of the rope than might occur with untrained fingers.

The correct way to enter the marlinspike into the rope is to go under the strand with the lay and then rotate clockwise a quarter of a turn to open up the rope. Extreme care must be taken when entering the spike to be certain that you do not pick up any fibers from the adjacent strands - it should go exactly between the strands.



Hold the strands up with finger and thumb before pulling out the fid

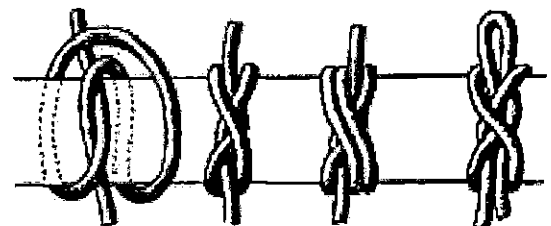
THE CONSTRICTOR KNOT

This knot was invented or contrived by the late Clifford Ashley, the foremost authority on knots, to take the place of the common seizing or stopping. It is nothing more than a half-knot with a round turn over it, and should be tied only in "small stuff," never in rope.

In many respects the Constrictor Knot is superior to a common seizing. It is quicker, neater, and can be drawn up much more tightly. The harder you pull the two ends the tighter it grips, and it will not slacken when you let go . . . you can hold all you gain.

For a temporary seizing or stopping it can be tied as a slipped knot, as illustrated, which makes it easier to untie. just tuck a bight instead of the single working end.

The Constrictor Knot is not very well known, but its superior construction and usefulness should ultimately lead it to achieve the popularity it rightly deserves.



Constrictor Knot - Doubled - Slippary

EYE SPLICE

Let us assume you have a length of $\frac{3}{8}$ inch rope, which is the size recommended for practice. About six or eight inches from the end put on a tight seizing, using the Constrictor Knot (shown at the beginning of this article). Now unlay the rope to the seizing and put a similar seizing or whipping on the end of each strand. Remember that you must preserve the natural lay of the strands at all times.

Referring to Fig. 1, bring the working end up to the right to form a loop or eye. Now grasp the standing part firmly and untwist the rope at the point where you wish to start the splice. Here is where the beginner invariably goes haywire – right at the start where the first tucks are made – so let's stop right here and study the diagram until the sequence of tucks is firmly fixed in your mind.

Reading from left to right, you will notice that the working strands are labeled A, B, and C, and the strands of the standing part, under which they are to be tucked, a, b, and c. This is done merely to co-ordinate the diagrams with these instructions, but the strands of the rope in your hands are not numbered or labeled, and when putting in a splice you would look rather silly trying to remember which strand is A and which is c. Therefore you should always think of the three strands as the left-hand, the center, and the right-hand strands.

All tucks are made against the lay, from the right to the left. Now, again referring to Fig. 1, left-hand strand A of the working end is tucked under a of the standing part, center strand B is tucked under b, and the right-hand strand C is tucked under the right-hand strand c. Fix that sequence firmly in your mind – left under left, center under center and right under right.

Always tuck the center strand first, the left-hand next and the right-hand last. Fig. 2 shows the first tuck, center strand B tucked under center strand b to the left side.

Fig. 3 shows the second tuck, with strand A going over b and under a. Now, in order to tuck the last strand, C, it is necessary to flop the whole works over to get at it from the back. Fig. 4 shows how it will appear in this position. Notice that **strand C is now on the left side** and strand c is in a more accessible position.

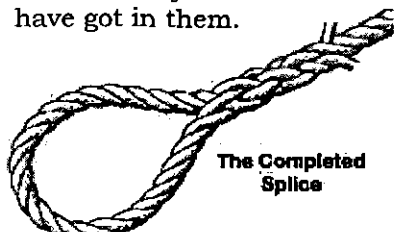
In Fig. 5 strand C has been tucked under c, **from the right to left**. All three strands having now been tucked once, they should be drawn up snugly, with the seizing lying as close up to the standing part as it comfortably can. See that each strand lies fairly and emerges from the rope opposite the other two.

You are now ready to start the second round of tucks, each strand in turn being passed over the strand next to it on the left and then tucked under the next or second strand to the left. It makes no difference which strand you start with – in Fig. 6 it happens to be strand B, with which the splice was originally started. Notice that it passes over a and is tucked under the next strand to the left.

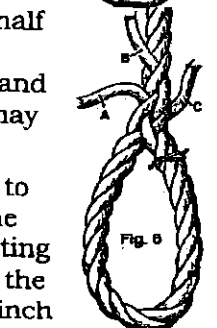
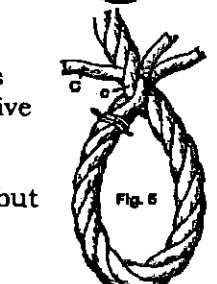
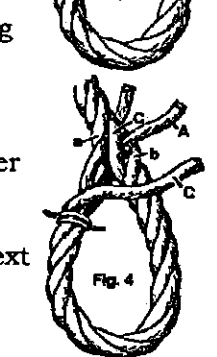
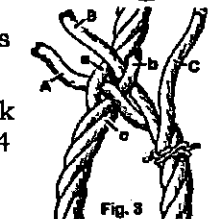
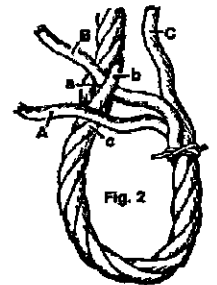
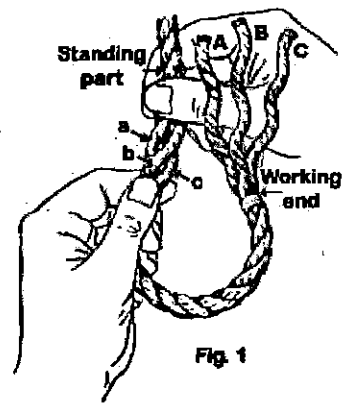
Continue by tucking the other two strands over one and under one to the left. All three strands have now been tucked twice. Tuck each strand once more, in turn, and the splice is completed.

Now that we have completed the sequence of tucks, let us look into some of the finer points which determine whether the splice is good or bad. First and foremost it is absolutely imperative that each of the tucked strands be drawn up with equal tension, no one being looser than the others, or the splice will be weak. Each strand should bear an equal share of the load. Furthermore, in drawing up a strand after tucking do not pull it back toward the eye or loop, but rather in a direction nearly parallel with the standing part. This is a common mistake with beginners, and only results in a lumpy splice with the strands unnaturally distorted.

Before starting your first tucks hold the working end at the seizing and untwist the rope a half a turn, otherwise you'll get a twisted loop which will never stay open. After completing all the tucks, and before cutting off the strand ends, lay the splice down on the deck and roll it back and forth under your foot. This tends to fair up the strands and correct any unequal tension you may have got in them.



Under no circumstance should you cut the strands off close to the rope. When a splice is put to work and strain is put on it the strands gradually work back into the rope, so a safe rule in cutting them off is to have the length of the ends equal the diameter of the rope – with $\frac{1}{2}$ inch rope the ends should be left at least half an inch long.



Short Splice

Whenever it is necessary to bend two ropes together permanently the *Short Splice* is used, except, of course, where the rope must run through a block. It doubles the diameter of the rope at the splice and therefore is impractical for running rigging, for which the *Long Splice* is used exclusively.

In the *Short Splice* all tucks are made over one and under one against the lay, from right to left, just as you did with the *Eye Splice*. Here, too, it is vitally important that every strand be tucked alike, with equal tension in every part. Just one slack strand can cause the splice to fail under stress. A splice can't be hurried – every strand must be carefully worked into position and adjusted for fairness after every tuck.

You start as usual, putting a temporary whipping on every strand. Put a seizing on each rope about six inches from the end and unlay each rope to the seizing. Assuming you are practicing with $\frac{3}{8}$ or $\frac{1}{2}$ inch rope the larger the rope the farther it must be unlaidd.

Now clutch the two ropes together as in Fig. 1. You will note that each strand of one rope lies between two strands of the other rope.

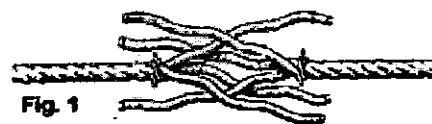


Fig. 1

Bring them up close together and clap on a narrow, tight seizing

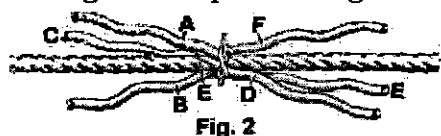


Fig. 2

where they join, as in Fig. 2. As stated before, the Constrictor Knot makes an excellent seizing in splicing. The first two seizings can now be removed and you are ready to tuck the strands.

The first tuck is made as in Fig. 3, with strand A laid over strand D and tucked under strand E.

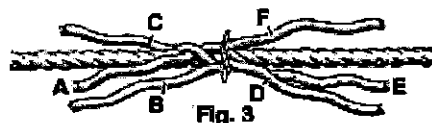


Fig. 3

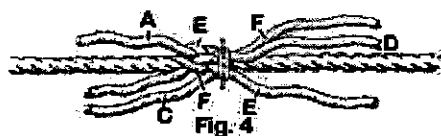


Fig. 4

To make the second tuck rotate the splice away from you and lay strand B over E and tuck it under F, as in Fig. 4.

Rotate the splice away from you another third of a turn and tuck strand C over F and under D as in Fig. 5. This completes the first set of tucks in the left-hand half of the splice. Continue by tucking the three strands a second and then a third time in a like manner.

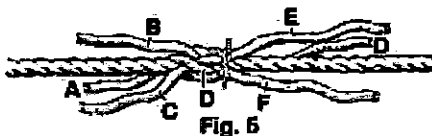


Fig. 5



Fig. 6

Now turn the rope and the half-completed splice around on your lap, thus bringing strands D, E and F on the left side. Make three rounds of tucks with these strands exactly as you did with strands A, B, and C, and the splice is completed. Cut off the strand ends,

first rolling the splice back and forth under your foot to fair up the strands, and remove the seizing at the center. The finished splice should now look like Diagram 6.

Although the splice is amply strong and secure when made as described, its appearance is a little crude. The rather abrupt "shoulders" of the splice, with the strand ends protruding are continually fetching up against various obstructions and in time the splice takes on a bedraggled, frowsy look. This can be avoided by making a tapered splice, which is much handsomer and gives better service.

A *tapered splice* is made by cutting out some of the yarns in each strand, thus progressively reducing its diameter towards the end. The first tuck is always made with the full strand – some splicers make two full tucks before tapering. After the first or second tuck, lift up the strand and cut out a third of the yarns, on the **under side** so the cut ends will be hidden. Now tuck the reduced strand and again lift it up and cut out half of the yarns underneath. Tuck once more and trim off the end. Thus you have made four tucks – twice full, once two-thirds and once one-third.

Eye Splices should also be tapered. Make a practice of tapering every splice, not only for appearance but to prevent the strand ends from coming loose. Make six tucks, cutting out but a little from each strand, and by the time the end is reached the strand is so small it is difficult to determine where the splice really starts.

LONG SPLICE

Occasionally a sheet or halyard is damaged at one point from unobserved chafe or misuse. If the rope is in otherwise good condition it would be foolish to discard it when it is so easy to repair it with a *Long Splice*. While it shortens the rope about three feet, it's seldom that running rigging is cut so close to the minimum requirement that it will not permit the splice if needed.

Cut out the damaged part and put a temporary whipping on each strand. Now very carefully unlay the strands of both ropes for a distance of about 15 or 18 inches and clutch them together just as you did for the *Short Splice*, and as shown in

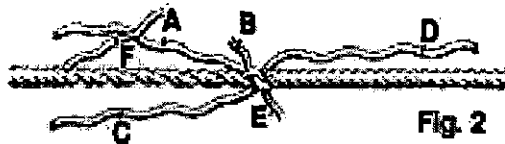
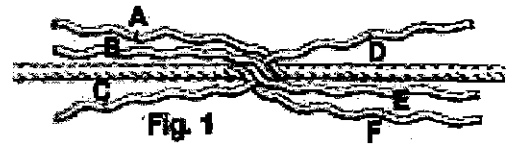


Fig. 1. Take the two opposing center strands, B and E, and tie a left-hand half-knot, as shown in Fig. 2. Do not cut the strands off, and do not draw the half-knot up tightly. In the illustration the strands are lopped off for the sake of clarity.

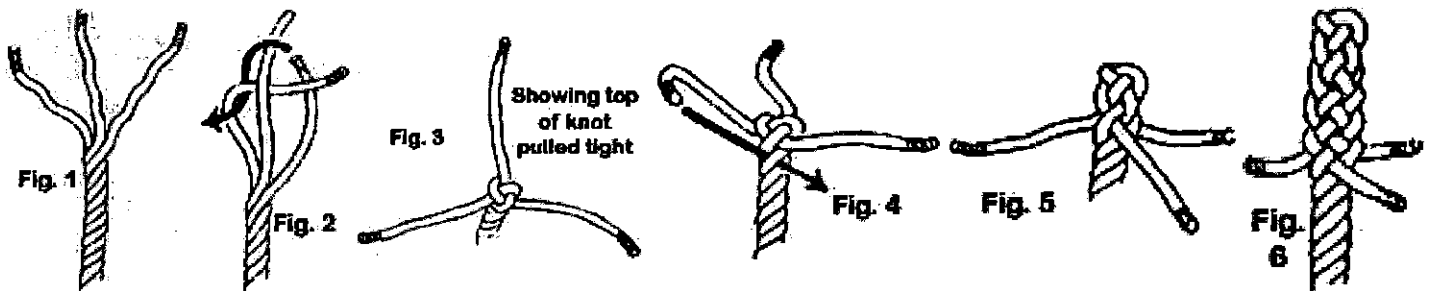
Next unlay strand F, and, as you do so, lay in strand C, following as closely to F as possible. When you reach a point about 12 inches to the left, tie a half-knot, just as you did with strands B and E, and tuck the strands as shown in Fig. 3.



In like manner unlay strand A 12 inches to the right, laying strand D in its place and half-knotting them together. You now have a single span of rope, with three half-knots 12 inches apart. Here is the critical point where the beginner often goes wrong. You must go over every inch of the splice and examine every strand for tightness or looseness. Each strand must have the same lay and tension throughout or the splice will be worthless.

If you find one strand that is looser than the rest it must be unlayed and repositioned. The half-knots should be drawn up snugly without undue tension. I neglected to mention that in tying the knots the strands should be untwisted a half a turn to flatten them a bit and make the knots less bulky. Each strand is tucked once, then half of the yarns are cut out underneath and the remaining half are tucked once more. Now roll the splice under your foot to flatten the knots, cut off the strands and the job is done.

Don't expect the splice to be invisible, although it is possible with a more elaborate technique. It is enough that it be uniformly smooth and even, and with a moderate degree of success it will fly through the blocks with the greatest of ease.

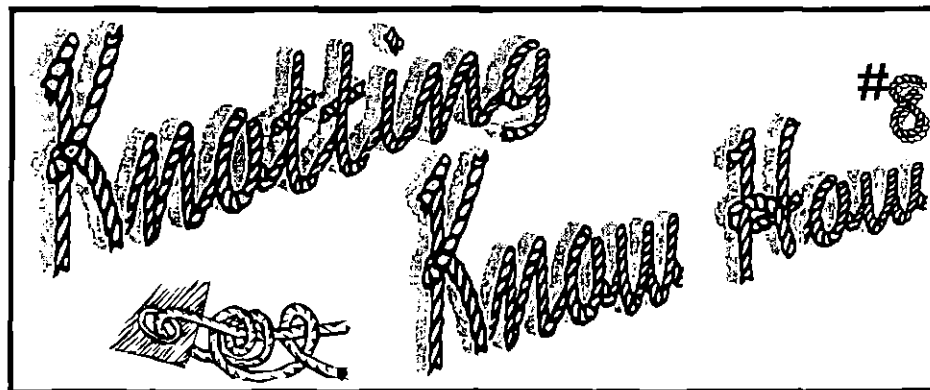


BACKSPLICE

The backsplice is a method of preventing fraying or raveling in the end of a rope. It is more durable and permanent than whipping, although it is not suitable to some use of rope.

Begin by unlaying the rope and making a crown knot as shown in drawings 1, 2, 3. The ends are then tucked with the over-and-under movement. See drawings 4, 5, 6.

Finish by trimming the ends and smoothing the splice by rolling it on the floor with your foot.



Once upon a time, in the not too distant past, Scouts in Canada were looked on as real craftsmen of outdoor skills. Back then, Scouts looked up to Rovers because they were able to demonstrate the highest level of excellence in all the outdoor crafts. One area in which their expertise really excelled was knotwork. Lately it's become obvious that knowledge of this skill has fallen off. This column of basic, and not so basic knotting know-how is intended to help you all get back to that earlier level of excellence.

GLOSSARY

If I had followed normal procedures, I would have put this glossary early in this series of articles, but I felt that it would benefit you, our readers, more, if I covered more of the basics of ropework first. The terminology used when working with rope is essentially the same no matter who the author is, with some occasional differences, usually due to background, ie. sailing, camping, caving, climbing, etc. This particular list was taken from the book "The Knot Handbook" by Maria Constantino (Strathearn Books LTD; Toronto, Ontario). There are many more words used in knotting which are not included here, but this covers most of the basic material.

ARAMIDES

Synthetic (man-made) fibres. These fibres do not melt when heated and their cost limits them to special usage

BEND

The name given to knots that bind (bend) two separate ropes together

BIGHT

The slack part of a rope between the two ends that is folded back on itself to form a narrow loop

BLOOD KNOT

A type of knot secured by numerous wrapping turns

BODY

The bulky, tied part of a knot

BOLLARD

A small post of wood or metal on a boat or quay used for securing a mooring rope

BRAID

Strands of rope plaited braided together in a regular pattern. Generally a braid is flat or two-dimensional

BREAKING STRENGTH

The amount of load a new rope will bear before it breaks. Breaking strength is reduced by wear and tear, shock loading and by knots

CABLE

A large rope made by twisting together three lengths of three strand rope

CAPSIZE

What happens when a knot layout is distorted due to overloading or overtightening. It may also be done deliberately as a quick release mechanism

COIL

Rope wound into neat circles or loops for storage

CORD

Small stuff under $\frac{5}{12}$ in. (10 mm) in diameter

CORDAGE

The collective term for ropes of all sizes and types

CORE

The inner part of a rope made from parallel, twisted or braided fibres

CROSSING TURN

A circle made by crossing the rope over itself

DOUBLE

Used as a verb: to double a knot. To follow the lead of a knot around again

ELBOW

Two crossing points made by an extra twist in a loop

EYE

- 1) a hole in a knot.
- 2) the hole inside a circle of rope.

FIBRE

The smallest element in rope and cordage

FID

A pointed, wooden tool used for separating strands of rope

FRAPPING TURNS

Additional turns made across lashing or whipping turns, used to tighten the previous layers of turns

FRAY

The deliberate or accidental unlaying of a rope's end to its components strands, yarns, and fibres

HALF HITCH

A circle of rope made around an object. The circle is kept in place by taking, one end of the rope across and at right angles to the other end

HARD LAID

Stiff cordage

HAWSER

Three strand rope

HEAVING LINE

The line attached to a mooring rope. It is thrown from a boat and used to haul the mooring rope to shore

HITCH

A knot used to make a line fast to an anchor point such as a rail, post, ring or other rope

KARIBINER

A metal snap-ring, often D-Shaped with a pivoting gate that can be closed securely. They are used by climbers and cavers

KERNMANTLE

Climbing rope constructed from a core (kern) of parallel bunches of fibers contained within a tightly woven protective sheath (mantel)

KNOT

1) the term for stoppers, loops, and self-sufficient bindings (thereby excluding hitches and bends)
2) the generic term for the tucks and tics made in cordage

LAIID ROPE

Rope formed by twisting strands of yarn together

LASH/LASHING

To secure two or more adjacent or crossed poles with a binding of rope

LASHING TURN

The turn used to bind poles together

LANYARD

A short length of cord that is used to lash, secure or suspend an object

LAY

The direction in which rope strands spiral as they go away from the viewer, either clockwise (right-handed or Z laid) or anticlockwise (left-handed or S laid)

LEAD (*pronounced 'lead'*)

The direction taken by the working end as it goes around or through an object or knot.

LINE

Any rope with a specific function, eg. washing line, tow line

LOCKING TUCK

The finishing lead of a working end that secures the knot in its finished form and

without which the knot would unravel

LOOP

A circle of rope formed by bringing two parts of rope together but without them crossing over each other

MARLINSPIKE

A slim, pointed, metal cone used to separate strands of rope, usually when untying a knot

MESSENGER

The name given to a heaving or throwing line when it is used to haul or pull a thicker rope across an intervening space

MIDDLE

To middle: to find the centre of a length of rope by bringing the two ends together

NATURAL FIBRES

Plant products used to make ropes and other cordage

NOOSE

A loop which passes around its own standing part and draws tight when pulled

OVERHAND LOOP

A loop in which the working end is laid on top of the standing part

PALM

A glove-like leather strap with a metal plate (iron) in the palm used to protect the hand when pushing a sailmaker's needle through rope

PRUSIKING

To climb a rope using knots that jamb when downwards pressure is applied but can slide up the rope when the weight is removed

RACKING TURNS

Seizing and lashing turns made in a figure-of-eight fashion

ROPE

Cordage over $\frac{5}{12}$ in. (10 mm) diameter

ROUND TURN

A complete circle followed by a half-circle with part of a rope around an object

S-LAID

Left-handed or anticlockwise laid rope

SHOCK CORD

Rope with a very high degree of elasticity. (Also called elasticated cord)

SIZING

Joining two ropes or parts of ropes together by binding with twine

SLING

An endless rope or webbing 'strop' (*pronounced 'strap'*)

SMALL STUFF

A general, albeit imprecise term for small diameter 'stuff', like string, which is not rope!

SOFT LAID

Flexible rope or cordage (as opposed to hard laid)

STANDING END

The inactive end of rope or cord

STANDING PART

The length of rope or cord between the working and standing ends

STRAND

The largest element of a rope, made from twisted yarns

STROP (*pronounced 'strap'*)

A sling

TAPE

Flat woven webbing, used by climbers to make slings/strops

THREE STRAND ROPE

Rope made of three strands twisted together

TUCK

Passing one part of a rope underneath another part

TURN

Passing the rope around an object

UNDERHAND LOOP

A loop in which the working end is laid beneath the standing part

UNLAID ROPE

Rope that has been separated into its component strands

WHIPPING

A binding used to prevent the ends of rope from fraying

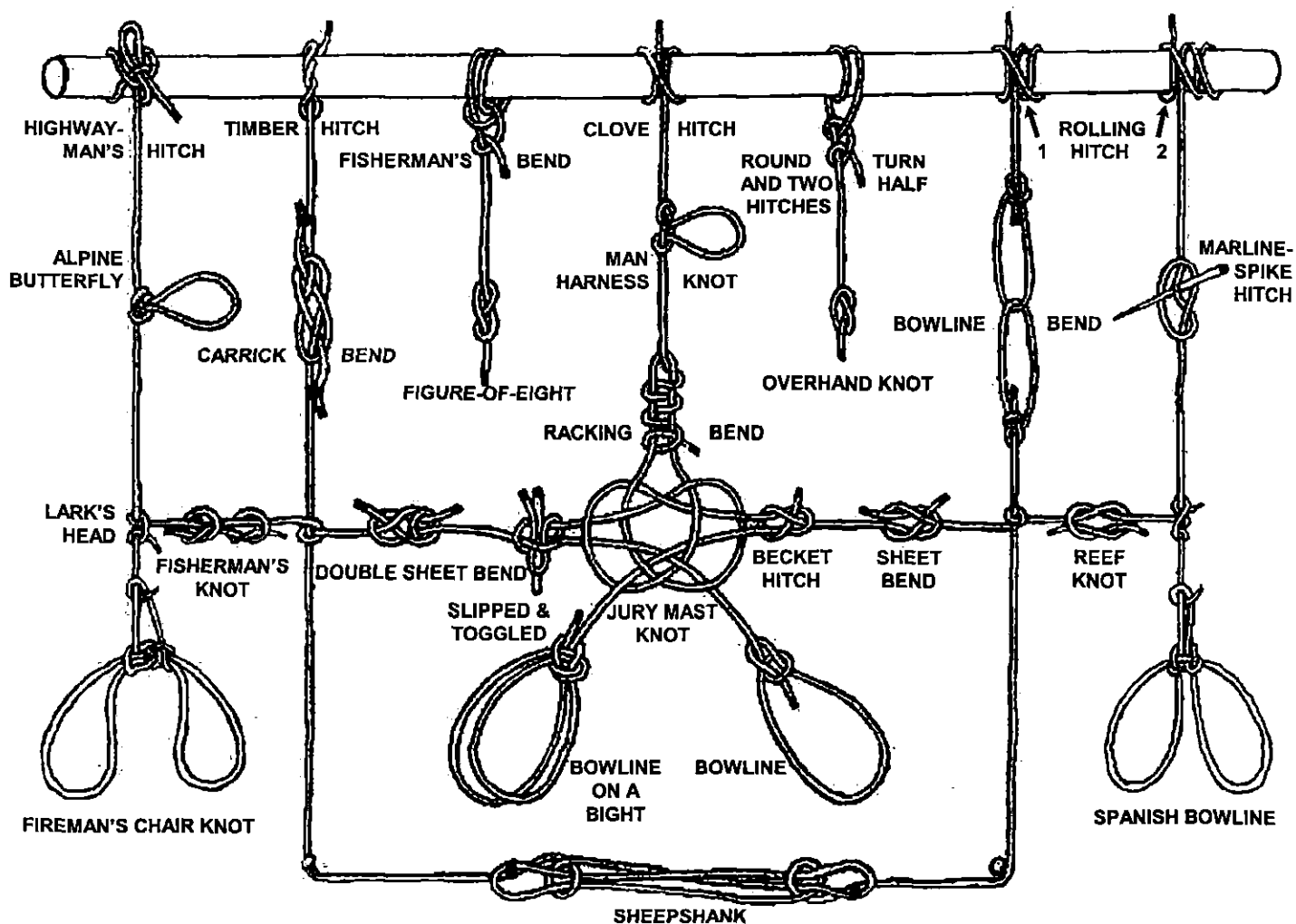
WORKING END

Knitting Know How

#9

Once upon a time, in the not too distant past, Scouts in Canada were looked on as real craftsmen of outdoor skills. Back then, Scouts looked up to Rovers because they were able to demonstrate the highest level of excellence in all the outdoor crafts. One area in which their expertise really excelled was knotwork. Lately it's become obvious that knowledge of this skill has fallen off. This column of basic, and not so basic knotting know-how is intended to help you all get back to that earlier level of excellence.

Editor's Note: Most readers of this magazine are part of a Scouting Group, or came from a Scouting Group (that is..a sponsor with several sections of Scouting), where they've probably seen a knotboard on display. I recently came across an interesting knotboard design provided by the unofficial website for the Ontario Gilwell Reunion held at Blue Springs. I thought I'd share it with you as a challenge to design a knotboard for YOUR Crew den or Troop Scoutroom. This design can be found at: www.gilwellreunion.homestead.com/knotboard-ns4.html



Rover Challenge

How many Crews out there have knotboards in their Dens, or have access to knotboards in their Troop's Scoutrooms? Let's get some pictures of these displays sent in to show off the expertise of your Scout Group. If you currently don't have a knotboard, CREATE ONE.

Send your images to: roverldr@adelphia.net