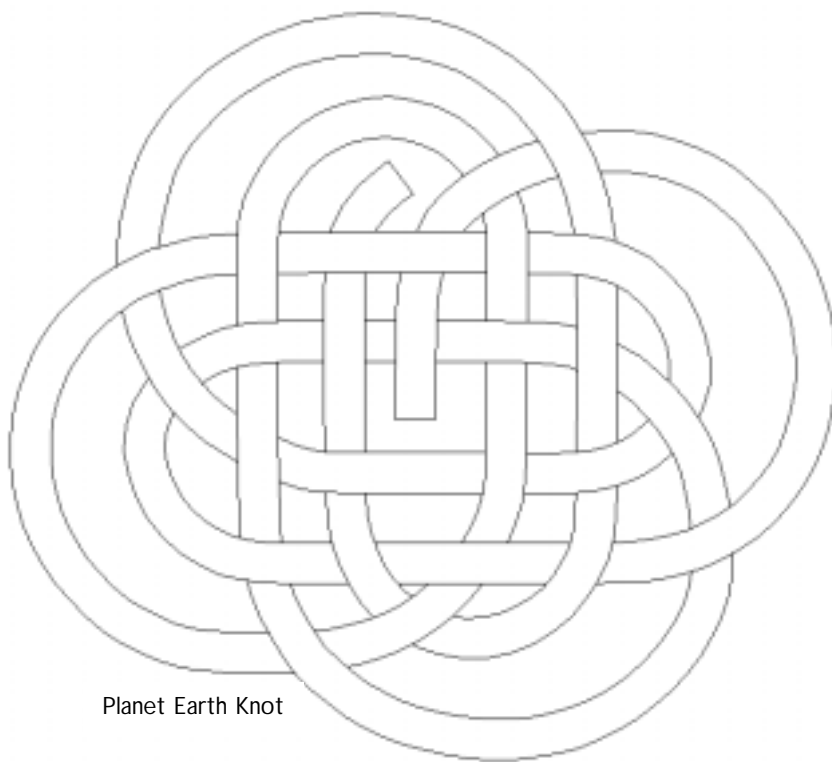




Learning, Teaching and Having Fun with Knots

Course 3-11

National Capital Area Council
Boy Scouts of America
Pow Wow 2001
A Cub Scout Odyssey



Planet Earth Knot

Stone Ridge School
Bethesda, Maryland

Saturday, 27 October 2001

Christopher Conrad
NeosysCConrad@CompuServe.com

Agenda



A Little Knot Magic

Knot Tying Resources

- Books and Pamphlets
- Internet Sites
- International Guild of Knot Tyers

Outdoor Skills

- Knots and Cub Scout Achievements
- Knot Specific Activities

Decorative Knot Awards

How to Teach Knot Tying

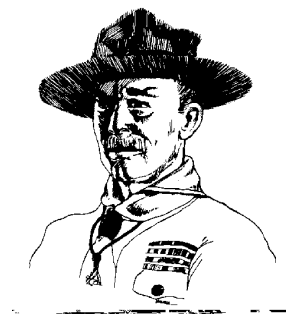
Everybody Grab a Rope!

A Knot Story

Questions and Answers

Evaluation

"Every Scout ought to be able to tie a knot. To tie a knot seems a simple thing, and yet there are right and wrong ways of doing it, and Scouts ought to know the right way. Very often it happens that lives depend on a knot being properly tied." -- Baden-Powell



Recommended Reading

The Ashley Book of Knots, by Clifford W. Ashley
Doubleday, 1944 (reissued 1993)

The Complete Book of Knots, by Geoffrey Budworth
The Lyons Press, 1997

The Complete Book of Decorative Knots, by Geoffrey Budworth
The Lyons Press, 1998

The Handbook of Knots, by Des Pawson
DK Publishing, Inc., 1998

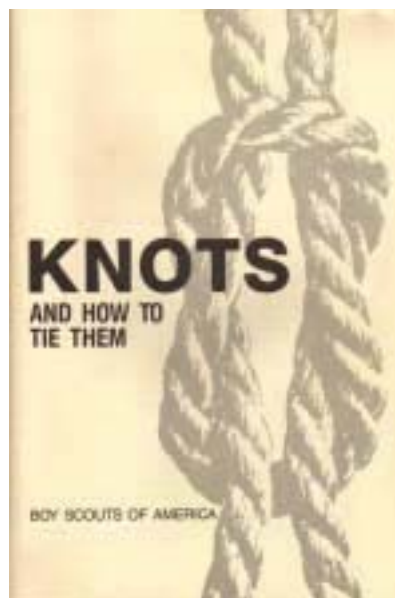
The Knot Handbook, by Maria Costantino
Sterling Publishing Company, Inc., 2001

Simple Knots & Basic Ropework, by Geoffrey Budworth
Southwater, 1999

Tough & Versatile Knots, by Geoffrey Budworth
Southwater, 1999

Chinese Knotting, by Lydia Chen
Echo Publishing Company, Ltd., 2000

Knots and How to Tie Them
Boy Scouts of America, 1978



Resources on the Web

Knot Web Pages	Web Address
Knots on the Web	http://www.earlham.edu/~peters/knotlink.htm
Knot Knowledge	http://www.iland.net/~jbritton/index.html
The A-Z of Knots	http://www.scoutingresources.org.uk/knots_az1.html
42nd BRIGHTON (Saltdean) Scout Group, East Sussex, UK	http://www.mistral.co.uk/42brghtn/knots/
Celtic Knotwork	http://www.entrelacs.net/en.index.html
Rope Maker Homepage	http://www.rope-maker.com
Troop 9 Knots	http://www.troop9.org/knots/index.html
Rope Works	http://www.northnet.org/ropeworks/index.html
Alaska Museum of Fancy Knots	http://www.geocities.com/SoHo/Lofts/5182/
Ropers Knot Page	http://www.realknots.com/
Martin Combs – Knot Info	http://members.tripod.com/~knots/index-2.html
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Cord and Rope Making	
Native American Cordage	http://www.nativetech.org/cordage/
Ropers Knot Page	http://www.realknots.com/knots/index.htm
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Knot Tying Organizations	
The International Guild of Knot Tyers	http://www.webshirt.com/IGKT/
The International Guild of Knot Tyers – North American Branch	http://www.webshirt.com/IGKT/igktna.html
The International Guild of Knot Tyers – Pacific Americas Branch	http://www.igktpab.org/
The International Guild of Knot Tyers – Texas Branch	http://texasknot.tripod.com/
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Rope and Cord Sources	
Bluewater Ropes	http://www.bluewaterropes.com/
English Braids	http://www.englishbraids.com/
Marlow Ropes	http://www.marlowropes.com/
New England Ropes	http://www.neropes.com
Phoenix Rope & Cordage Company	http://www.phoenixrope.com/
Sampson Rope Technologies	http://www.samsonrope.com/

The International Guild of Knot Tyers



The Guild's objectives are:

- To promote the art, craft and science of knotting, its study and practice
- To undertake research into all aspects of knotting
- To establish an authoritative body for consulting purposes

Web Page

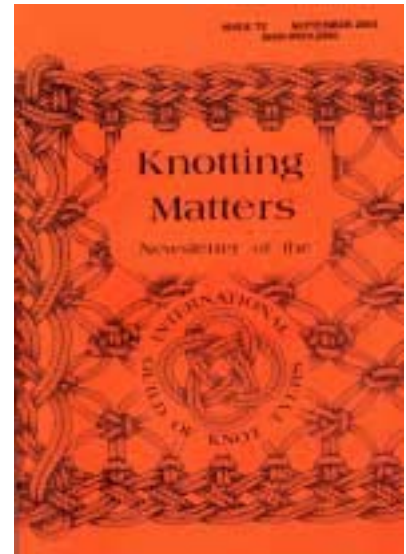
<http://www.webshirt.com/IGKT/>

Quarterly Newsletter
Knotting Matters

Contact

Nigel Harding
16 Egles Drove
Uckfield Sussex
TN22 2BY UK

Telephone: 01449 711121



The International Guild of Knot Tyers – North American Branch

Web Page

<http://www.webshirt.com/IGKT/igktna.html>

Quarterly Newsletter
The InterKnot

Contact

John Burke
IGKT - NAB
4417 Academy
Dearborn Heights, MI 48125-2205

Wolf, Bear and Webelos Achievements and Electives



Wolves

Achievement or Elective	Knots and Ropework
Elective 4c – Make a Ring Toss Game	Splice or Continuous Ring
Elective 17a-g – Tie It Right	Overhand Knot, Square Knot, Bow Knot, Package Wrap, Overhand Joining Knot, Necktie, and Tape Whipping
Elective 19b – Rig a Fishing Pole	Half-Blood Knot



Bears

Achievement or Elective	Knots and Ropework
Achievement 22a-f – Tying It All Up	Whip Rope, Square Knot, Bowline, Sheet Bend, Two Half Hitches, Slip Knot, Coil Rope, Rope Toss, Rope Magic Trick, and Make Rope
Elective 13a - Magic	String and Washers Magic Trick



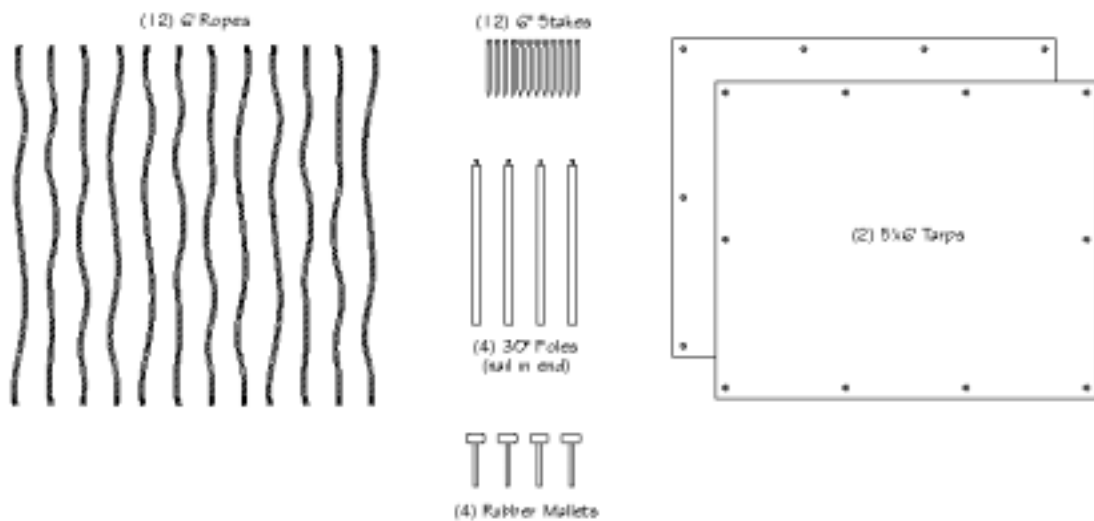
Webelos

Pin	Knots and Ropework
Aquanaut	Coiling Rope
Readyman	Square Knot/Bandages
Engineer	Block and Tackle
Outdoorsman	Whip Rope, Square Knot, Taut-line Hitch, Clove Hitch, Two Half Hitches, Bowline and Sheet Bend

Two-man Shelter

This activity features the Taut-line Hitch, one of the most used knots in camping settings. The key to setting up the Two-man Shelter is locating all the stakes and tying the hitches before putting up the supports and tightening lines.

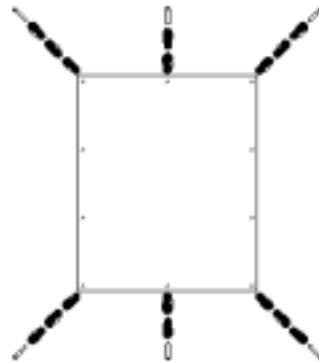
Supply List



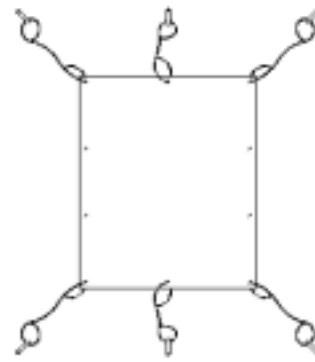
1. Lay Tarp on Ground



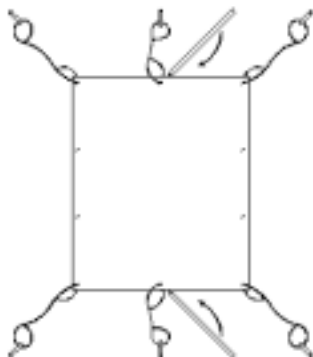
2. Locate and pound stakes (24" to 30" from tarp)



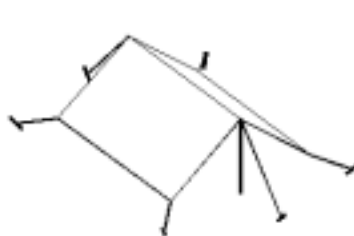
3. Connect lines to stakes and tarp using Taut-line Hitch



4. Carefully place main poles (nail through grommet)



5. Tighten all lines (slide knots towards center of rope).



6. Everyone inside!



Football Goalpost

Summary

The goal of this exercise is to construct a Football Goalpost and to kick field goals. The team will work to raise and secure a prefabricated goalpost (made of two posts and a crosspiece).

Six stakes will be in place before the start of the activity and the location for the goalpost base will be identified. The team will be provided with the following items:

(6) 12' Ropes (1) Football Tee (1) Football

After raising the goalpost team members will use the 12' ropes to anchor it. Two specific knots must be used: Pipe Hitches (fixed knot) will be used to connect the ropes to the goalposts and Taut-Line Hitches (adjustable knot) will be used to connect the other end of the rope to the stakes.

The instructor will demonstrate these knots, but the team members must tie them. After tying these knots make the lines taut by sliding the Taut-line Hitches toward the middle of the line. The goalpost must stand without human support and may not wobble. After constructing the goalpost the team must kick at least three field goals.

Bonus Points

Bonus points may be earned for the following:

Additional field goals kicked (beyond first three)
Every team member kicks at least one field goal
Use of correct knots

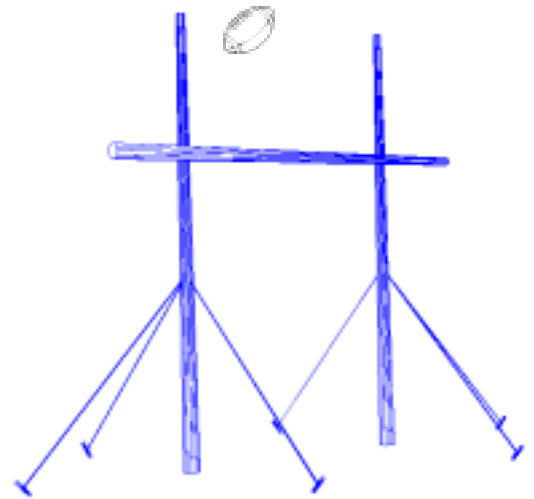
3 pts each
15 pts
3 pts each

Deducted Points

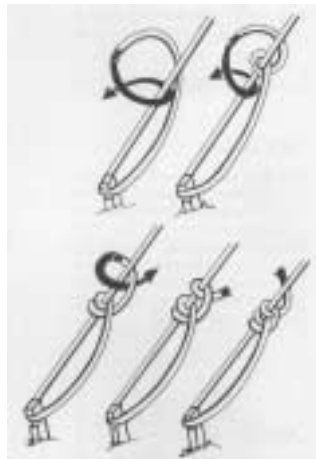
Points will be deducted for the following:

Field goal is wobbly

10 pts



Taut-line Hitch

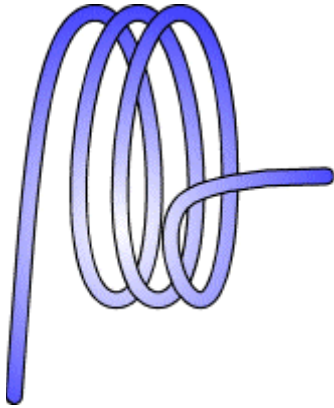


Pipe Hitch

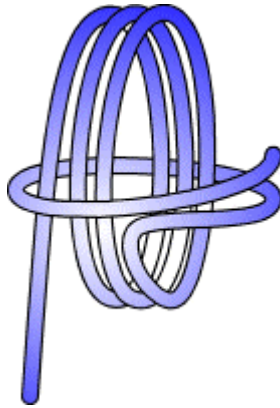


Decorative Knot Awards

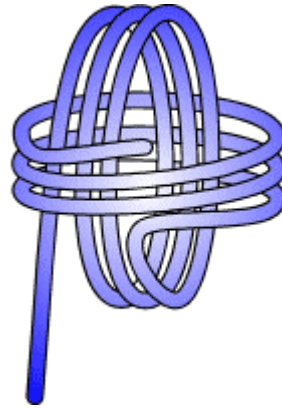
Monkey's Fist



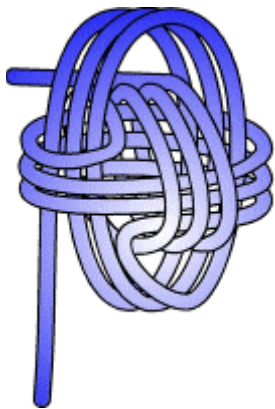
1. Make three turns round the hand.



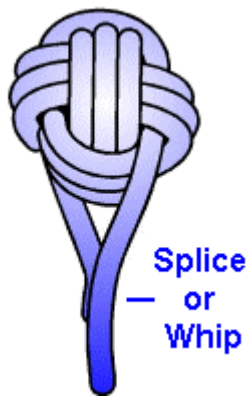
2. Start making turns passing outside the middle of the first three turns.



3. Complete the three second turns.

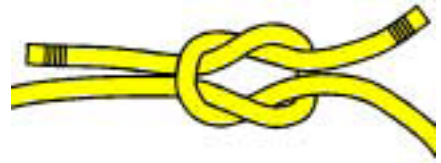


4. Make three more turns passing inside



5. Tighten up the knot round a soft core

A Few Tips on Teaching Knot Tying to Scouts



- Know Your Knots

It may seem obvious but before you teach knots to others make sure you know them yourself, inside and out. If possible, practice them until you can tie them with your eyes closed (not only will this impress Cub Scouts, but it demonstrates real mastery of the knot).

Also, get to know what a knot looks like from the back and upside down. This will aid you as you face a youngster trying to tie a knot and to check that knots have been correctly tied.

- Ropes

Provide a 3/16 to 1/4 inch diameter 6' rope for all participants; this length is long enough to practice most knots, including a bowline around the waist and its not too long to be unwieldy. Whether using natural or synthetic rope make sure it is of moderate stiffness. Provide lightweight gloves if the activity includes any hard pulling.

- Introduce the Knot

Begin the process of teaching a knot by describing its use, including its strengths and weaknesses. Tell the scouts under what circumstances a knot should and should not be used (i.e. a square knot should not be used to join two lines of different diameter, and should never be used in critical situations). Sharing the history of a knot can also be of great interest to Cub Scouts.

- Teach How to Tie the Knot

First, and most important, EVERYONE gets a rope. Ages 5 to 105 – encourage everyone to participate and have fun learning a new knot (ensure you have enough rope for the whole group). Adults and young adults play a key role in the learning process.

First Demonstration

During the first demonstration only the adults and young adults learn and practice the knot. This serves the strategic purpose of allowing adults and young adults some extra time to learn the knot so that they can become your “instant experts”. In addition, this allows the Cub Scouts to see the demonstration twice before making the attempt themselves.

Second Demonstration

Everyone does the knot the second time around and hopefully all the adults and young adults will be able to assist in one-on-one instruction.

One-on-One Instruction

With most kids knot tying comes down to one-on-one instruction. Oh sure, there will be some youngsters with a natural aptitude for tying knots. I find these kids combine above average dexterity with a nimble mind and seem to always grasp the knot (even complex ones) on the first try. It is a joy to watch these kids quickly learn a knot and then immediately begin to teach their peers.

Much more common are the children that need just a little one-on-one time and then they've got it! Guiding a child's hands once or twice through a knot like the Bowline (complete with the hole, tree and rabbit!) is a wonderful experience but the real reward comes when they come up to you, their face beaming, to show you the knot they tied themselves.

Finally, there are those kids that struggle to master knot tying. Some of these children are uninterested, easily frustrated or simply lack the dexterity to get their fingers to do the right thing. The only solution is to combine large measures of patience and praise and work with them until they get it.

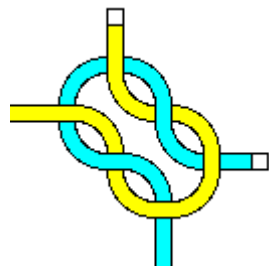
- Use It!
The best way to learn a new knot is to use it; this reinforces earlier practice and links the knot to practical or playful applications. It's easy to incorporate knots into games, races or outdoor activities (physical fitness, camping, fishing and so forth). Be creative and above all, make it FUN!

World Record Knot Tying

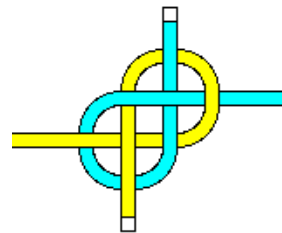
Knot tying. The fastest recorded time for tying the six Boy Scout Handbook knots (square knot, sheet bend, sheepshank, clove hitch, round turn and two half hitches, and bowline) on individual ropes is 8.1 seconds, by Clinton R. Bailey, Sr., of Pacific City, OR on April 13, 1977."

The Guinness Book of World Records, Guinness Publishing Ltd., 1996, p. 459.

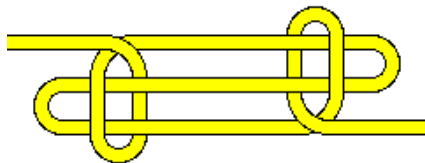
What do these six knots look like?



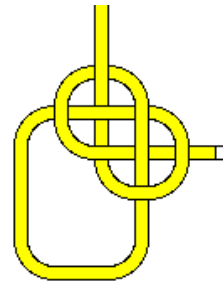
Square Knot



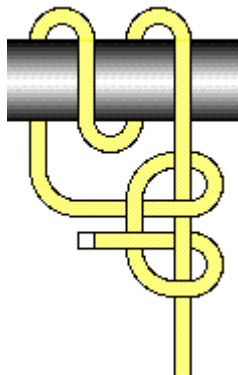
Sheet Bend



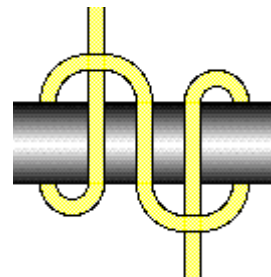
Sheepshank



Bowline



Round Turn and Two Half Hitches



Clove Hitch

Fun with Knot Stories



Nearly all children enjoy a good story. Linking a good story with the act of knot tying is not only entertaining, but the story becomes a reminder of the knot and vice versa. While not entirely true to the origins of a knot, a tall tale is certainly a fun way to introduce knot knowledge to kids.

The following story is a sample of one I've made up over the years and shared in classrooms and at many campfires.

The Pirate Moore

This is a story in which a pirate repents and learns some knot wisdom along the way.

Once upon a time there was a pirate named Captain Moore. Now, as pirates go, Captain Moore wasn't a very good pirate, and in truth, he was thinking about giving it up. You see, Captain Moore had a beautiful wife and three lovely daughters, and he realized that you couldn't be a family man and a pirate too. Captain Moore's ship, the Skookiedoodle, was making its way into its homeport with a load of contraband marshmallows, when Captain Moore made his final decision – he was going to give up being a pirate, for good.

One of the reasons Captain Moore wasn't a very good pirate was because he couldn't tie knots. No matter how we tried, he just couldn't seem to make the lines twist and turn in the right way. This lack of knot tying skill was to prove the poor Captain's downfall. As he tied the ship's last line to the pier, Captain Moore spotted the Sheriff lumbering down to the harbor, obviously intent on capturing the notorious captain and his ill-gotten cargo.

Captain Moore looked at the jumbled knot in front of him and began to sweat. Would he be able to untie it and get his ship away before the Sheriff arrived? He frantically struggled with the first knot, and before he was able to loosen it the Sheriff reached his ship and captured him.

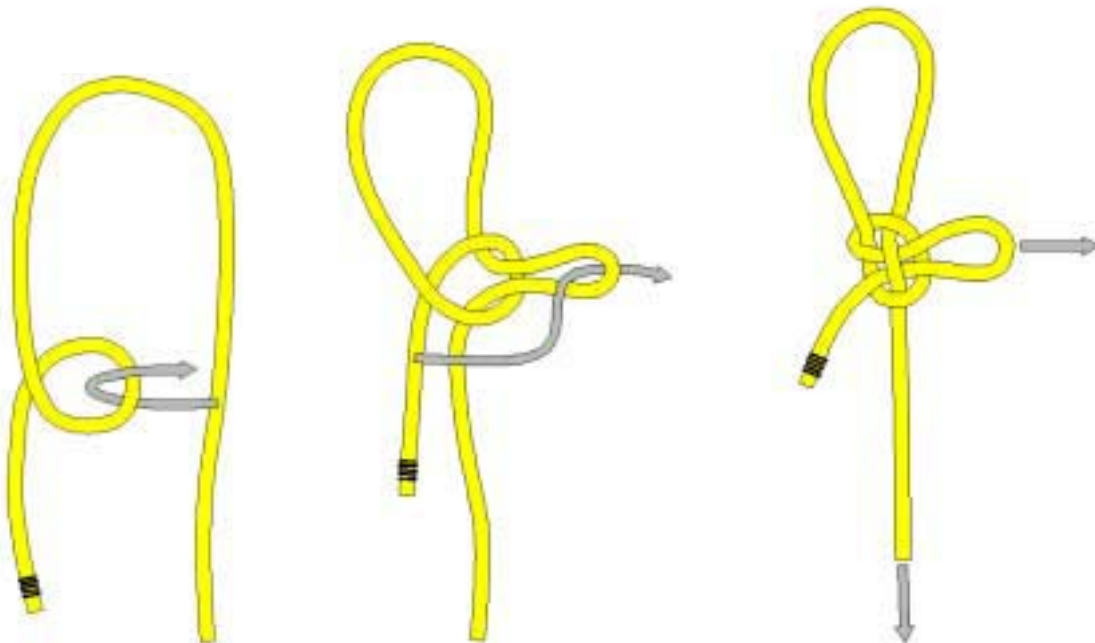
The Judge took pity on the repentant captain and reduced his sentence to just one week in jail. While there, Captain Moore had only his clothes and a small piece of rope. With lots of time on his hands he decided to do something useful, so he practiced tying knots. The more he worked with the cord, the better he became at tying various knots. By the fourth day he had become so good he decided to invent his own knot, and to dedicate the new knot to his three lovely daughters.

(Begin tying the Mooring Hitch)

The first loop (working end) was dedicated to his first daughter. The second loop, which goes through the first loops, was dedicated to his second daughter. The third loop, which goes through the second loop, was dedicated to his third daughter. The resulting knot is quite beautiful, like Captain Moore's wife (display knot), holds well under tension (tug on standing end) and is adjustable (slide knot along working end). Most importantly, when the need arises (ask a youngster to pull on the working end) Captain Moore can make a quick getaway!! (With a wink ☺)

And that's the way the Mooring Hitch was invented!

The Mooring Hitch



Step 1: Make a loop in the working end.

Step 2: Draw a loop from the standing end through the first loop.

Step 3: Draw a loop from the working end through the second loop. Pull that loop and the standing end to tighten the knot.