

This book may seem a little unnecessary to many people. With all of the great books about knots already on the shelves, why would anyone want to make their own? There are three reasons. First, there is a lot of incorrect and vague information out there, some of which is even found in official Boy Scout publications. Since a knot is, to coin a phrase, either exactly right or hopelessly wrong, there is no room for ambiguity. At times human life may literally hang in the balance, relying only on the strength of a rope and the precision of some basic knots as a safeguard against arriving at the bottom of a cliff too quickly and in a pulpy red heap. Second, these graphics were developed as teaching aids for Cub Scouts, boys with small hands and fleeting attention. It seemed reasonable that the task would be easier with drawings that were very clear and very large. In fact the guiding principle behind this book was that the pictures be large enough to lay on a table with the knot tied right on top; sort of like tracing a drawing. In practice that has dubious value. It works well for some boys, not at all for others. When one ties on top of a picture, one cannot see the picture, at least not very well. The lines in the graphics are 3/8" wide and we used 1/4" rope, so it wasn't as bad as it may seem. Still it was easier for some boys to tie "in the hand" anyway. And the last reason? We're Boy Scouts. We make our own stuff. That's just the way it is.

Terms in knotting are sundry and quite old. Hitches, knobs, sinnets, lashings, there is certainly no lack of cryptic vernacular that requires definition, enough to fill a book of its own, and too much to present here. We'll stick to a few of the basics, starting with, "What is a knot?" The author Clifford Ashley defines knots as "all complications in cordage, except accidental ones." It is doubtful that a better explanation could be made, but such a broad statement requires further categorization. Many categories could be named, but this book uses only eight:

- **BENDS:** Used to tie a rope to another rope.
- **HITCHES:** Used to tie a rope to an object other than another rope.
- **STOPPERS:** A termination made in the end of a rope to stop it from unreeving (fraying) or to prevent it from passing through an opening, like a pulley or another knot.
- **LOOPS:** Tied to form loops.
- **BINDINGS:** General tying and bundling. Used to close things or hold things together. Examples are closing the neck of a bag or wrapping gifts. Tying your shoes uses a binding knot.

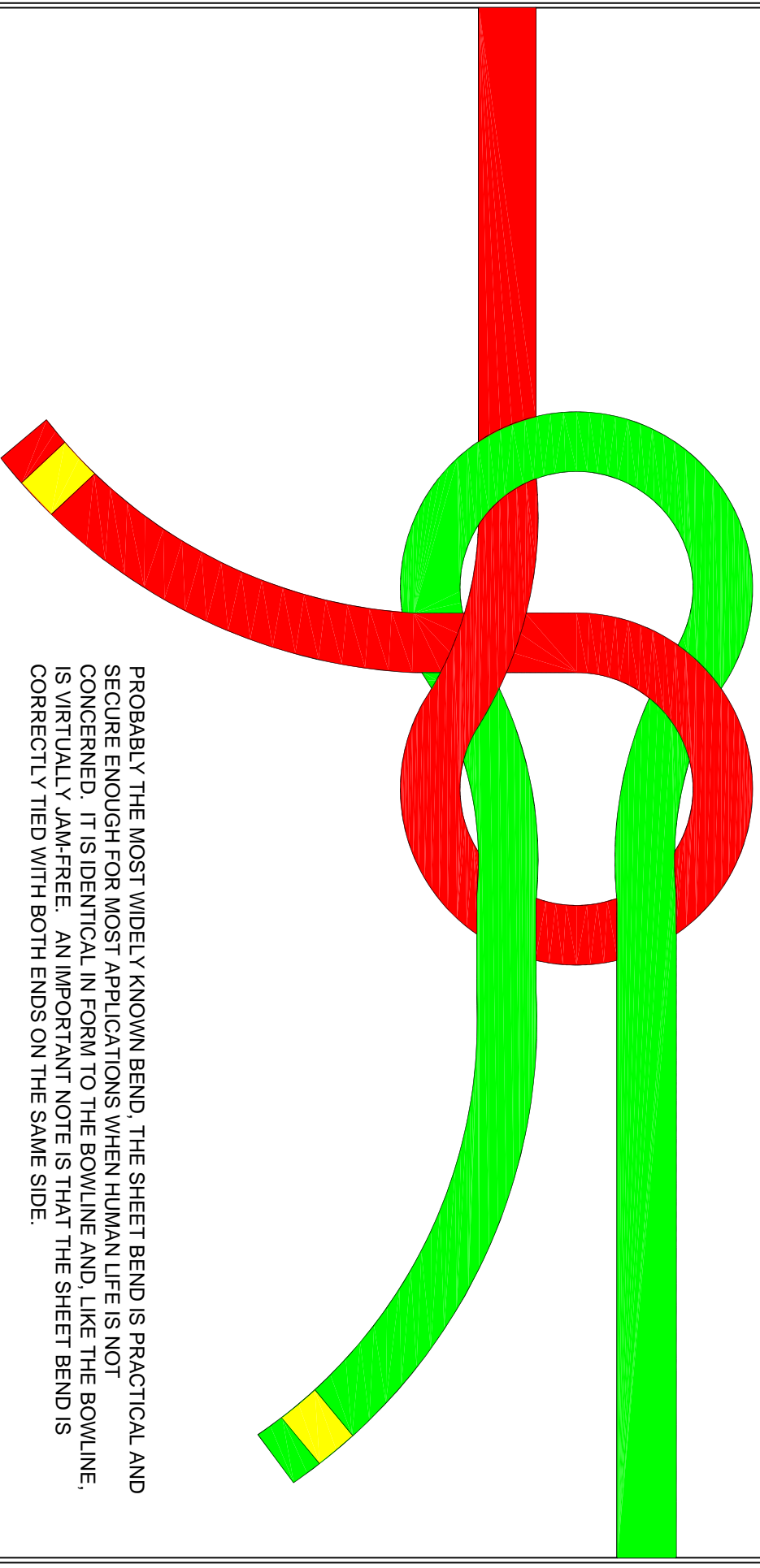
- **SPLICES:** Rope is unlaid and woven back into its own strands or the strands of another rope. Splices are a heck of a lot stronger than knots.
- **LASHINGS:** Bind things together with multiple turns. If you made a ladder by tying sticks together you would use lashings at the places where the sticks cross. Categorically these are much like binding knots, except there are more turns.
- **DECORATIVE KNOTS:** Mostly they look good, like macramé, buttons, and sinnets. Usually they are not structural.

In addition to those categories, a sub-category often seen here is “running knot.” These are normally, but not necessarily, loops or hitches. Running knots have the distinction of sliding along part of the rope after being tied. In other words the knot can be moved.

To understand knots it is necessary also to understand a bit about rope. Knowing these terms will make it easier to interpret the narratives on the plates.

- **END:** Either end of a rope.
- **STANDING PART:** The inactive portion. Typically that which one would describe as being above the knot.
- **BIGHT:** An untied loop or open loop. “Taking a bite” means folding a portion of a rope back on itself. One coils a rope by taking bites and laying them beside each other in the opposite hand. The term is also used to describe the middle of the rope.

Knots were being developed all over the world for thousands of years before anyone thought about writing down names for them or making up rules, so there is a great deal of contradiction. There are even knots that have different names depending on how they are tied or what type of material is used, the fact that they look exactly alike notwithstanding. Because this is such a confusing and undisciplined science, it’s just a matter of time until some veteran knot tier finds something on these pages with which he disagrees. We defer judgment herein to Clifford W. Ashley, who authored the Ashley Book of Knots, which was published in 1944. The book has more than 600 pages and literally thousands of illustrations. It is widely accepted as the most thorough work on the subject and was well thumbbed to produce the following plates. Anyone who wishes to contest a point without an “Ashley” reference will have to make an exceedingly strong case. After all, there have to be standards. Without them there are only opinions.



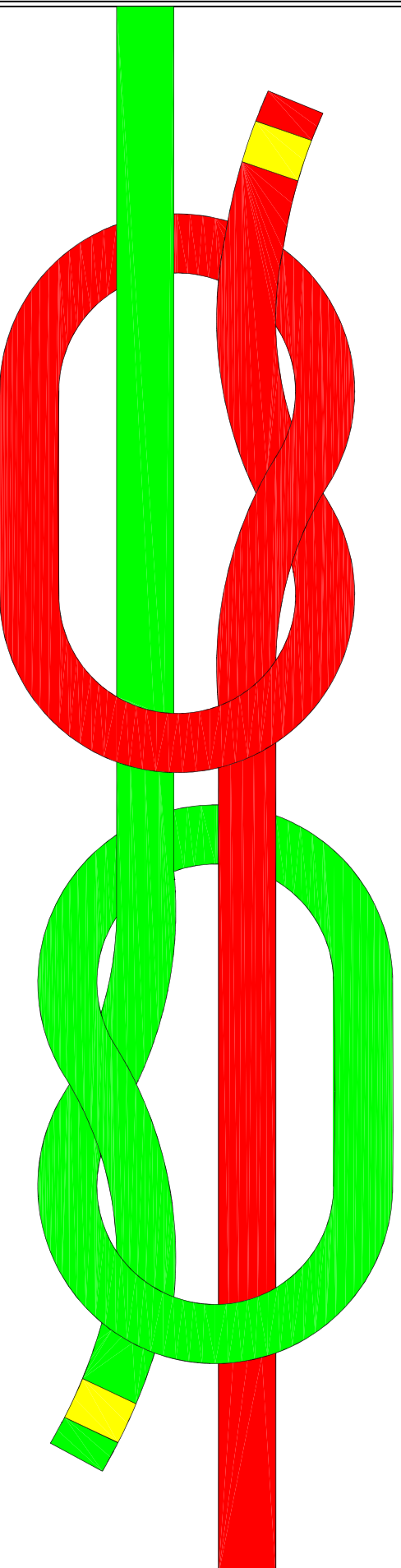
Sheet Bend

Type: Bend

PROBABLY THE MOST WIDELY KNOWN BEND, THE SHEET BEND IS PRACTICAL AND SECURE ENOUGH FOR MOST APPLICATIONS WHEN HUMAN LIFE IS NOT CONCERNED. IT IS IDENTICAL IN FORM TO THE BOWLINE AND, LIKE THE BOWLINE, IS VIRTUALLY JAM-FREE. AN IMPORTANT NOTE IS THAT THE SHEET BEND IS CORRECTLY TIED WITH BOTH ENDS ON THE SAME SIDE.

THE SHEET BEND IS OFTEN TIED INCORRECTLY WITH THE ENDS ON OPPOSITE SIDES. THIS FORMS ANOTHER KNOT KNOWN AS A "LEFT HAND SHEET BEND" WHICH IS WEAKER THAN A PROPERLY TIED SHEET BEND BECAUSE THE NIP (POINT OF GREATEST CONSTRICTION) IS AROUND THE STANDING PART OF THE LOOP RATHER THAN THE END.

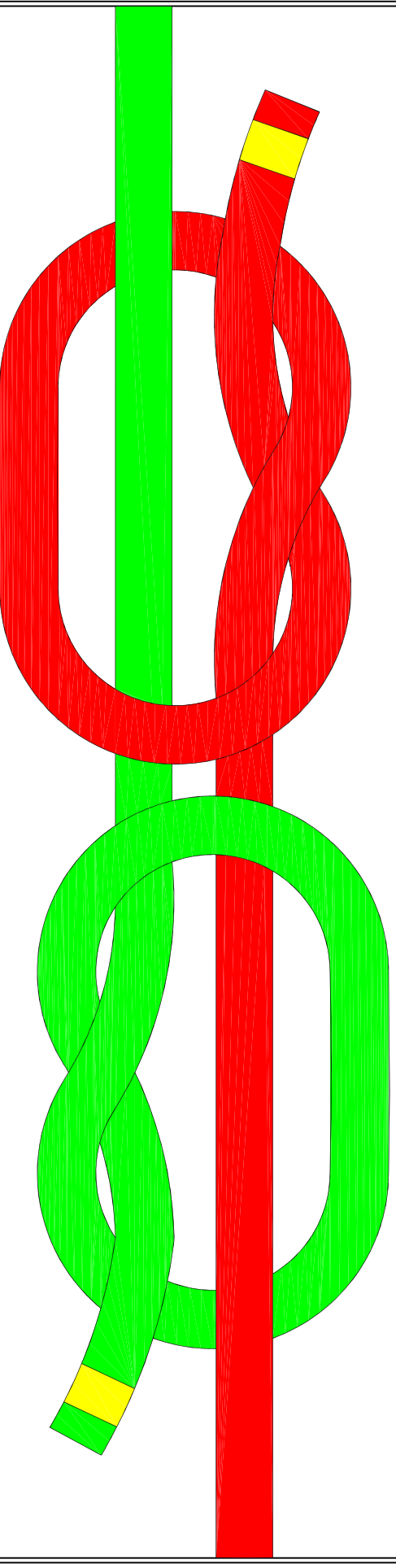
THE KNOT MUST BE WORKED CLOSED CAREFULLY. IT SHOULD NOT BE USED WHERE SAFETY OR SECURITY ARE CONCERNS.



ALSO WELL KNOWN AS THE WATER KNOT, THIS MAY BE THE SIMPLEST WAY TO JOIN TWO ROPES. ALTHOUGH BULKY, THE FISHERMAN'S KNOT, BECAUSE IT IS SO EASY TO TIE, IS A WIDELY USED BEND FOR STRING AND SMALL CORD. IT IS ESPECIALLY POPULAR WITH FISHERMEN BECAUSE IT CAN BE MADE WITH WET OR NUMB HANDS, OR EVEN WHILE WEARING GLOVES. THE KNOT IS SIMPLY MADE, WITH TWO SYMMETRICAL OVERHAND KNOTS. WHEN TIED CORRECTLY THE ENDS FALL ON OPPOSITE SIDES. NORMALLY THE FISHERMAN'S KNOT IS USED FOR "TIE ONCE" APPLICATIONS BECAUSE IT JAMS BADLY.

Fisherman's Knot

Type: Bend



ORIGINALLY THIS KNOT WAS BILLED HERE AS THE "TRUE LOVERS." ON DEEPER INVESTIGATION IT WAS FOUND THAT THERE ARE A NUMBER OF KNOTS WITH THAT NAME AND THIS ISN'T ANY OF THEM. IN FACT IT DOESN'T SEEM TO APPEAR IN ANY OF THE BOOKS AT HAND.

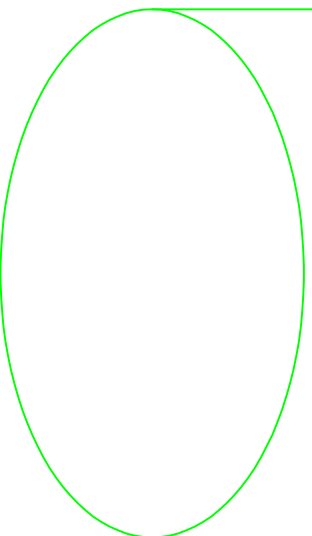
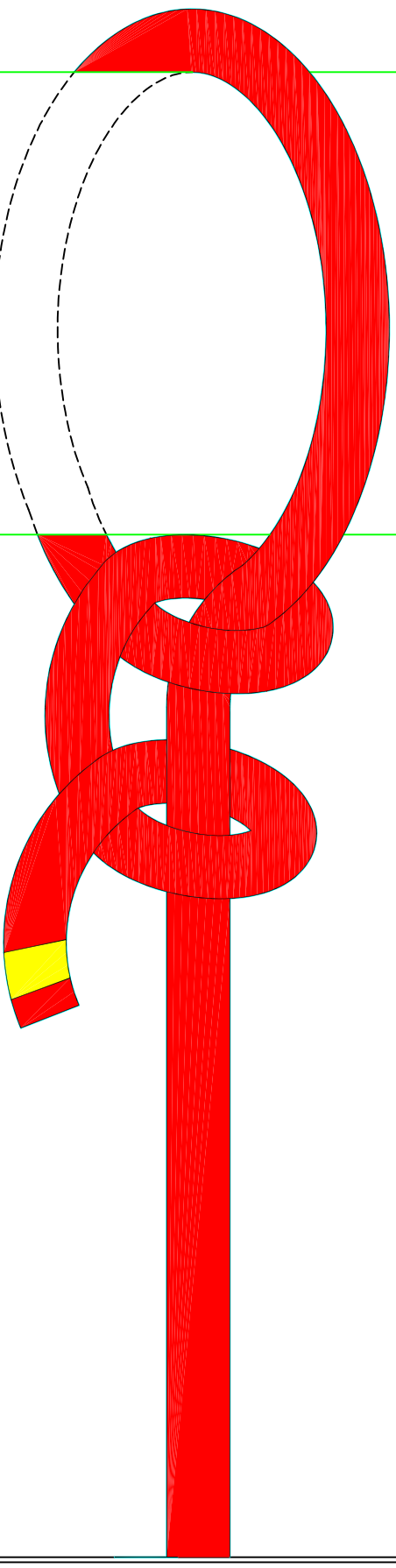
THE KNOT PICTURED ABOVE IS VERY SIMILAR TO THE FISHERMAN'S KNOT IN THAT IT IS MADE WITH TWO OVERHAND KNOTS, BUT AS THIS ONE IS WORKED CLOSED THE KNOTS TWIST AROUND, THE CROSSED PARTS NEST AGAINST EACH OTHER (LIKE LOVERS, HENCE THE MISTAKE) AND THE ENDS FALL ON THE SAME SIDE.

OH WELL, IT'S STILL AN EASY TIE IN FISHING LINE AND SMALL CORD. ALSO IT LOOKS COOL, EVEN IF IT DOESN'T HAVE A NAME, SO WE'RE LEAVING IT IN. MAYBE WE SHOULD CALL IT THE AMBIGUOUS BEND, OR THE OBSCURITY KNOT.

IF YOU KNOW THE REAL NAME, MAYBE YOU'LL LET US KNOW.

Unnamed Bend

Type: Bend

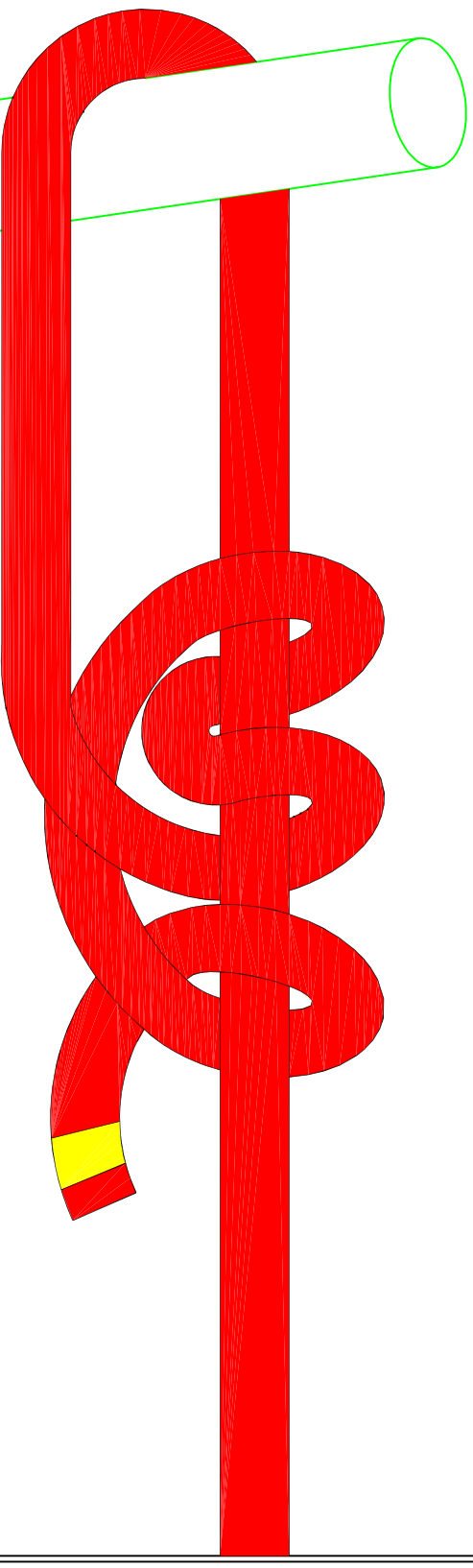


Two Half Hitches

Type: Hitch (Running Knot)

STRONG, EASY TO TIE, AND RELIABLE, THE TWO HALF HITCHES WILL NOT SPILL AND DOES NOT NORMALLY JAM EXCEPT IN VERY SMALL DIAMETER ROPE. IT IS PROBABLY THE MOST WIDELY USED HITCH AND THE FIRST TAUGHT IN THE BOY SCOUT HANDBOOK TO MAKE GUY LINES FOR THE POLES OF TENTS AND DINING FLYS (THE OTHER END BEING TIED IN A TAUTLINE HITCH). THE MOST COMMON ERROR IN TYING TWO HALF HITCHES IS TO MAKE THE SECOND HALF HITCH BACKWARD, WHICH RESULTS IN A DIFFERENT KNOT, "REVERSE HALF HITCHES." CLOSE ATTENTION SHOULD BE PAID TO ENSURE THAT BOTH HALF HITCHES LOOK THE SAME. THEY SHOULD NOT BE SYMMETRICAL, THEY SHOULD BE IDENTICAL. ALSO NOTE THAT THE TWO HALF HITCHES IS A RUNNING KNOT, MEANING IT CAN BE MADE IN THE HAND AND SLIPPED CLOSED OVER AN OBJECT.

THE ONLY DIFFERENCE BETWEEN TWO HALF HITCHES AND THE CLOVE HITCH IS THAT THE FORMER IS TIED ROUND ITS OWN STANDING PART, WHILE THE LATTER IS TIED ROUND AN OBJECT. AN INTERESTING WAY TO TIE THIS KNOT IS TO FORM A LOOP BY TYING A GRANNY KNOT AROUND THE STANDING PART OF A ROPE. A STRONG PULL ON THE STANDING PART WILL CAUSE THE GRANNY KNOT TO CAPSIZE INTO TWO HALF HITCHES.



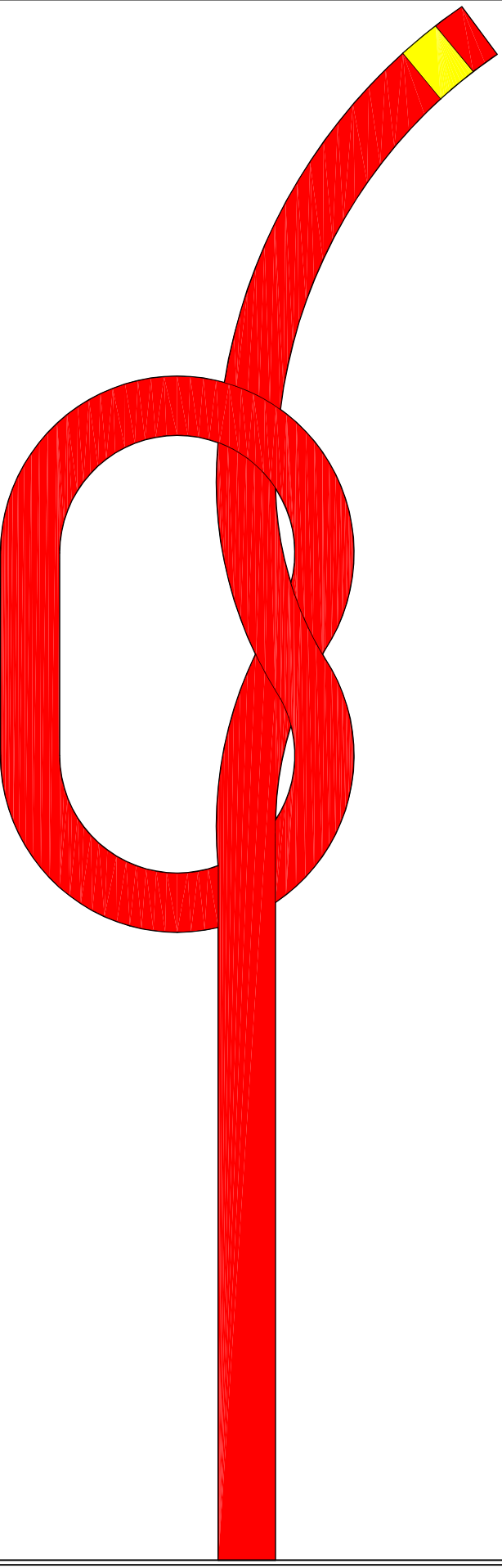
Tautline Hitch

Type: Hitch (Running Knot)

THE TAUTLINE HITCH IS AN ABSOLUTE NEED-TO-KNOW KNOT. IT IS FOUND IN USE AROUND ALMOST ANY CAMP, TYPICALLY TO TIGHTEN POLE GUY LINES. THE LOOP GOES AROUND A STAKE AND, WHEN PROPERLY WORKED CLOSED, THE KNOT CAN BE MOVED TO ANY POINT ALONG THE STANDING PART. THIS ALLOWS THE GUY LINE TO BE EASED OR TAKEN UP SIMPLY BY SLIDING THE HITCH. WHEN YOU LET GO IT STAYS PUT, BUT IT WON'T WORK UNLESS THE KNOT IS CLOSED CAREFULLY AND THOROUGHLY. IT MUST BE TIGHT.

THE TAUTLINE HITCH DOES NOT SPILL OR CAPSIZE BUT WILL OCCASIONALLY SLIP IN SOME APPLICATIONS AND SOME MATERIALS. IN THOSE INSTANCES, AND WHERE EASY ADJUSTMENT IS STILL NEEDED, THE GUY LINE HITCH WOULD BE A GOOD ALTERNATE.

ALSO KNOWN AS THE ADJUSTABLE HITCH, THE TAUTLINE IS A TYPE OF "RUNNING" KNOT, MEANING IT CAN BE MADE IN THE HAND AND SLIPPED CLOSED AROUND AN OBJECT. THE KNOT IS IDENTICAL IN FORM TO THE ROLLING HITCH. THE DIFFERENCE BEING THAT THE TAUTLINE IS TIED AROUND ITS OWN STANDING PART, WHERE THE ROLLING HITCH IS TIED AROUND AN OBJECT.

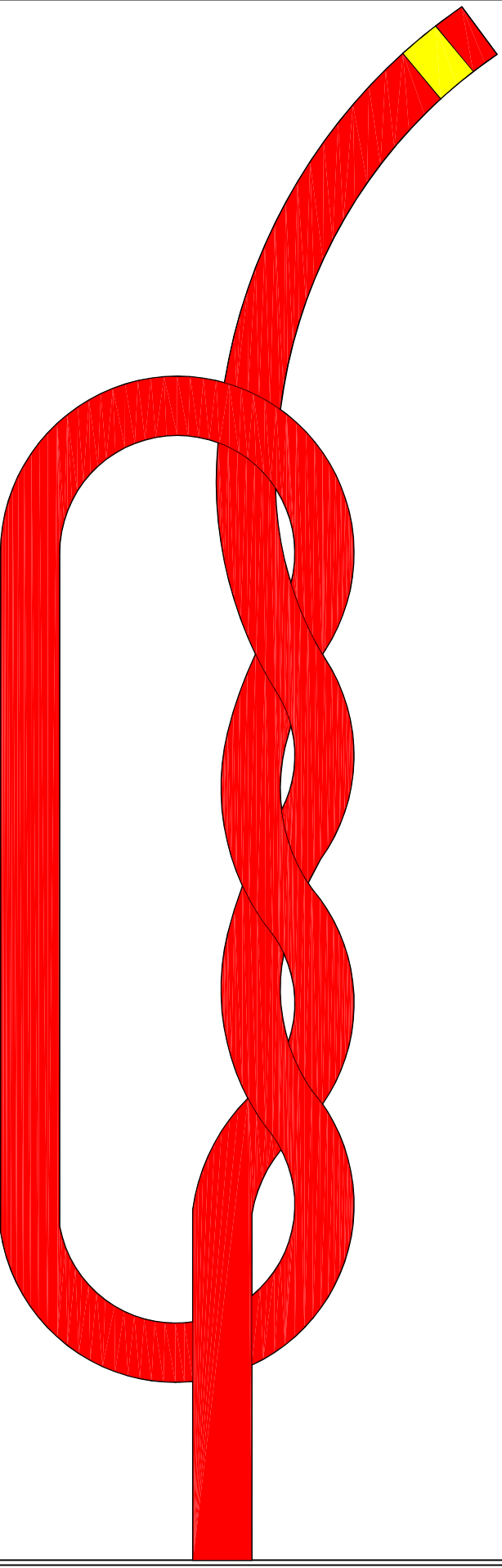


THE SIMPLEST OF ALL KNOTS, THE OVERHAND WILL NOT SPILL AND IN THE UNLIKELY EVENT THAT IT CAPSIZES IT COULD ONLY FORM ANOTHER OVERHAND KNOT. IT DOES, HOWEVER, JAM SEVERELY. THIS KNOT IS COMMONLY EMPLOYED TO FINISH THE END OF OTHER KNOTS TO GIVE AN EXTRA MARGIN OF SAFETY AGAINST SPILLING.

ANOTHER NAME OFTEN USED FOR THIS STOPPER IS THE "THUMB KNOT," ALTHOUGH TECHNICALLY THAT NAME IMPLIES THE KNOT WAS TIED WITH ONE HAND.

Overhand Knot

Type: Stopper

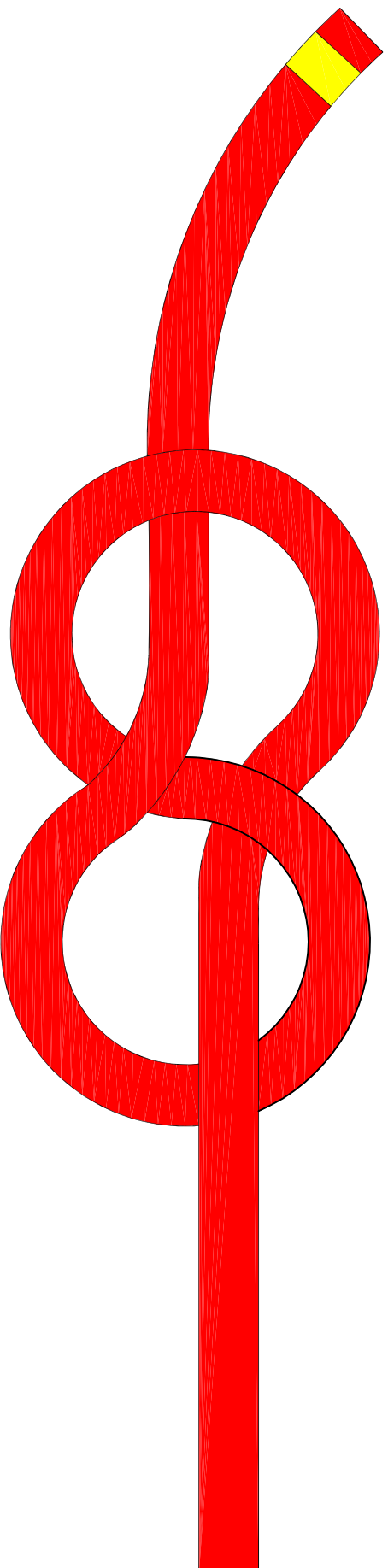


ALSO KNOWN AS THE BLOOD KNOT BECAUSE IT WAS TRADITIONALLY USED TO STOP THE END OF A WHIP FROM FRAYING, THE DOUBLE OVERHAND KNOT IS A VERY STRONG, FAIRLY COMPACT STOPPER. IT WILL NOT SPILL OR CAPSIZE, BUT IT JAMS BADLY. SO BADLY, IN FACT, THAT WHEN WORKED CLOSED DIFFERENTLY (CALLED A STRANGLE KNOT) IT CAN BE USED TO SEIZE ODD SHAPED OBJECTS SUCH AS STONES. STILL ITS A GOOD ONE TO KNOW BECAUSE ITS FORM IS USED IN SOME VERY RELIABLE BENDS AND LOOPS. IT IS ALSO AN ATTRACTIVE KNOT.

THIS DRAWING SHOWS THE KNOT AS IT IS BEING TIED, NOT WORKED CLOSED. IT WILL NORMALLY CLOSE PROPERLY BY PULLING SLOWLY ON THE STANDING PART AND THE END.

Double Overhand

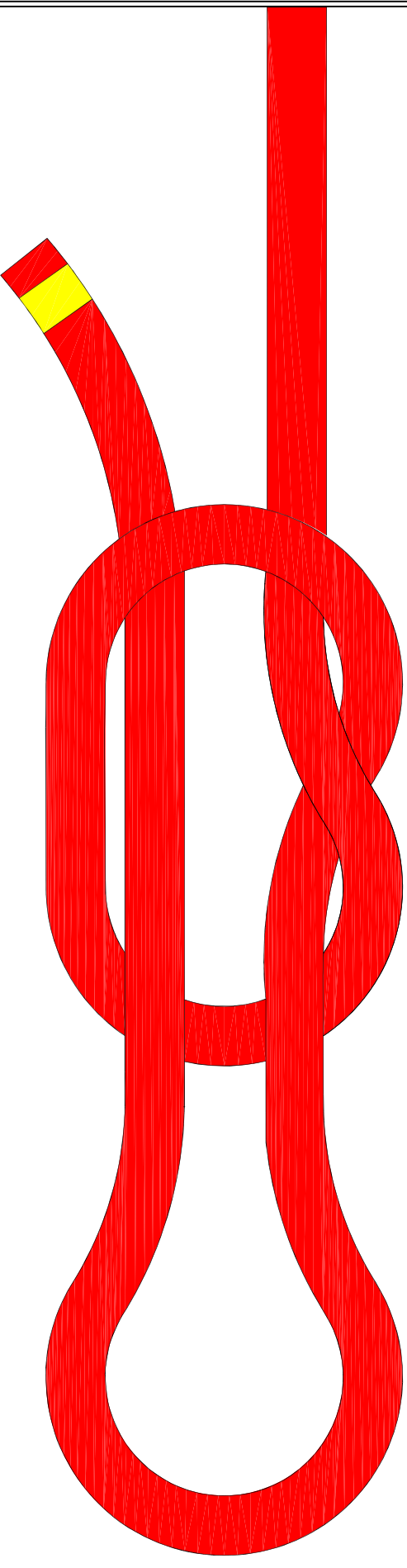
Type: Stopper



PROBABLY THE BEST OF THE SMALL STOPPERS THE FIGURE EIGHT WILL NOT SPILL OR CAPSIZE AND IT USUALLY WILL NOT JAM UNLESS PLACED UNDER VERY HEAVY LOAD. THIS IS A GOOD KNOT TO LEARN BECAUSE WHEN TIED IN OTHER FORMS IT IS USED TO MAKE VERY TRUSTWORTHY LOOP KNOTS AND BENDS THAT ARE OFTEN USED IN CRITICAL APPLICATIONS SUCH AS MOUNTAINEERING.

Figure Eight

Type: Stopper



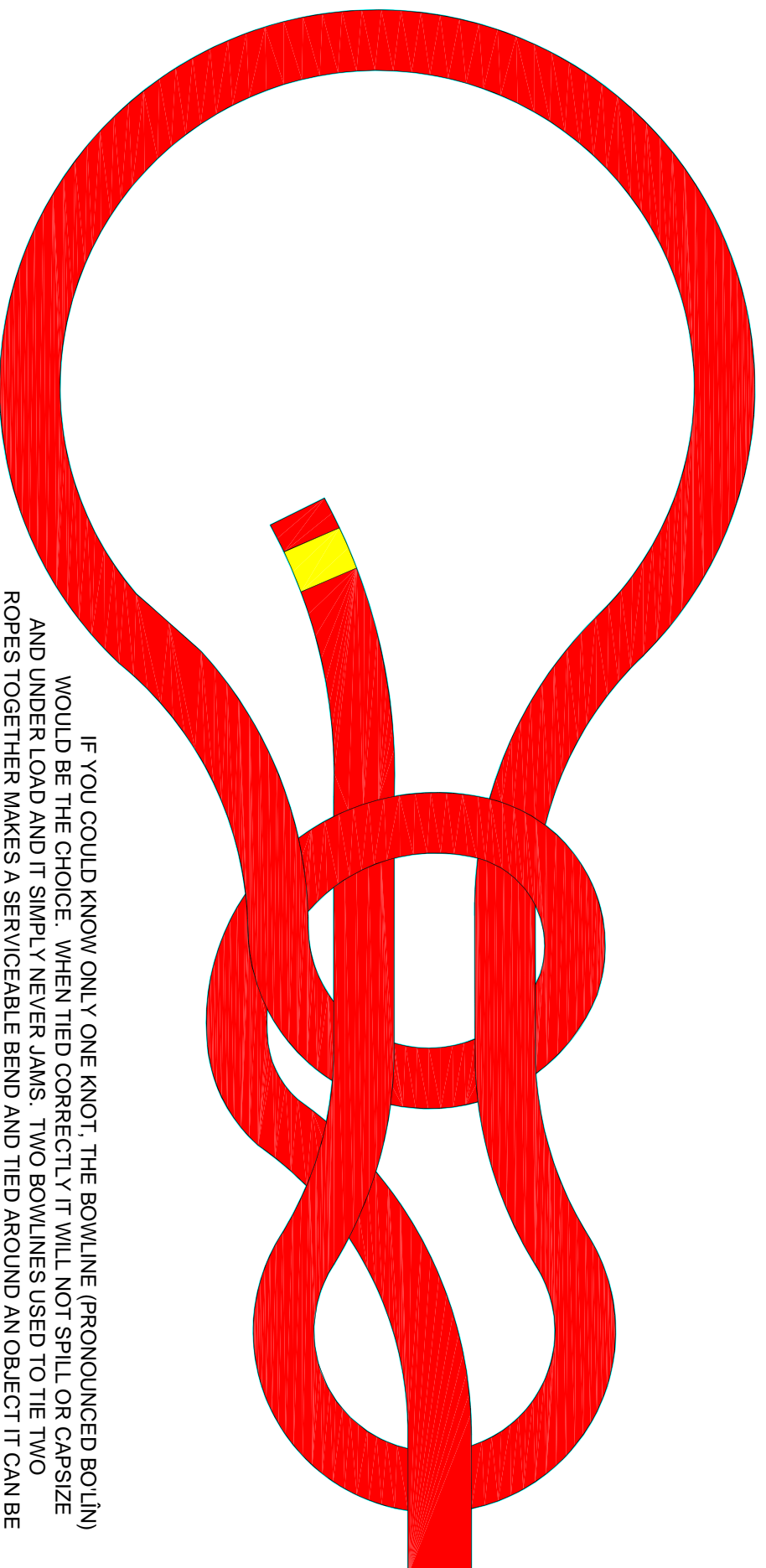
SIMPLY PUT, THIS AND THE NOOSE ARE OVERHAND KNOTS WITH ONE PART DOUBLED. AT FIRST GLANCE IT MAY APPEAR TO BE THE SAME KNOT AS THE NOOSE, BUT WITH THE SLIPKNOT THE END IS SLIPPED, RATHER THAN THE STANDING PART. THAT'S AN IMPORTANT DISTINCTION AND WORTH A MOMENT'S CONSIDERATION WHEN TYING. IF YOU GET IT WRONG THE KNOT WILL SPILL AS SOON AS IT'S PLACED UNDER LOAD.

THE BEAUTY OF THIS KNOT IS THAT IT CAN BE UNTIED WITH A HARD PULL ON THE END, WHICH MAKES IT A USEFUL STOPPER WHEREVER THE LINE MAY HAVE TO BE CAST OFF IN A HURRY. IT CAN ALSO BE TIED IN THE MIDDLE (THE BIGHT) OF A ROPE AS EASILY AS THE END, BUT BE CERTAIN THAT THE LOAD IS ON THE STANDING PART.

THE TERM "SLIPKNOT" IS OFTEN USED IN ERROR TO DESCRIBE MANY KNOTS THAT ARE REALLY JUST "SLIPPED" KNOTS. THIS IS THE ONLY ONE TO WHICH THE NAME TRULY APPLIES.

Slip Knot

Type: Stopper



IF YOU COULD KNOW ONLY ONE KNOT, THE BOWLINE (PRONOUNCED BO'LIN) WOULD BE THE CHOICE. WHEN TIED CORRECTLY IT WILL NOT SPILL OR CAPSIZE AND UNDER LOAD AND IT SIMPLY NEVER JAMS. TWO BOWLINES USED TO TIE TWO ROPES TOGETHER MAKES A SERVICEABLE BEND AND TIED AROUND AN OBJECT IT CAN BE USED A HITCH.

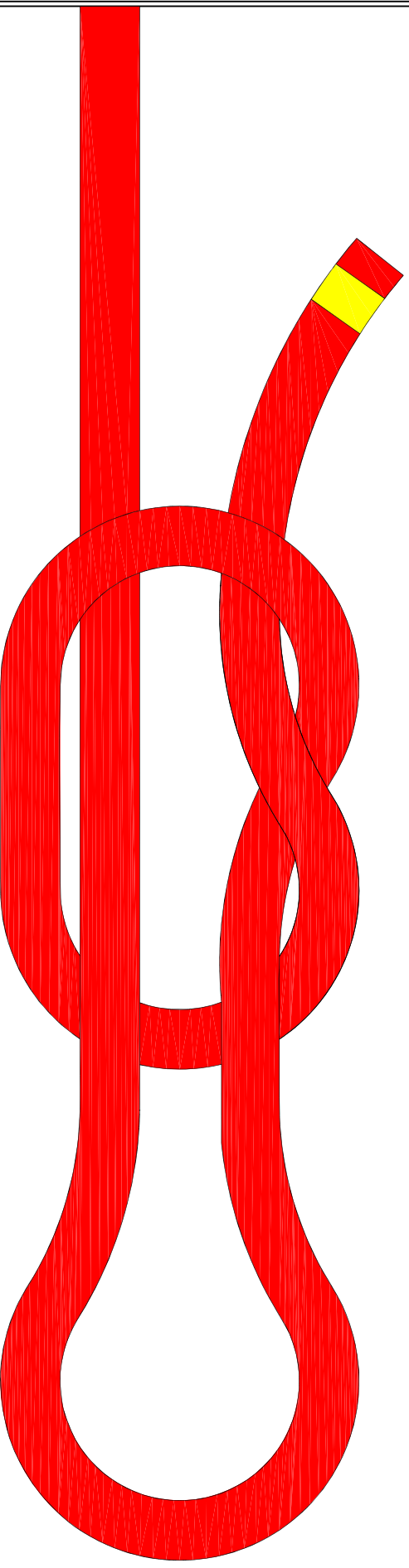
REALLY, THE BOWLINE SHOULD BE CALLED THE BOWLINE KNOT. IN THE DAYS OF TALL SHIPS THE "BOW LINE" WAS A ROPE THAT KEPT THE WEATHER LEECH OF A SQUARE SAIL FROM BLOWING BACK. THIS LINE WAS UNDER A TREMENDOUS, DYNAMIC LOAD. MANY KNOTS WOULD FAIL OR BECOME HOPELESSLY JAMMED UNDER SUCH STRAIN. BECAUSE IT IS SO STRONG AND SO EASY TO UNTIE AFTER BEING LOADED, THE BOWLINE KNOT WAS EMPLOYED TO CONNECT THE BOW LINE TO THE SAIL.

A PROPER BOWLINE HAS THE END INSIDE THE LOOP. WHEN TIED WITH THE END OUTSIDE THE LOOP IT PRODUCES AN INFERIOR KNOT CALLED THE LEFT-HAND BOWLINE (AKA COWBOY BOWLINE, DUTCH NAVY BOWLINE). THIS IS NOT AS STRONG AND HAVING THE END ON THE OUTSIDE FORMS A V-NOTCH THAT CAN INTERFERE WITH THE RUNNING OF THE ROPE IN SITUATIONS SUCH AS HAULING A HEADSAIL SHEET ROUND DURING A TACK OR JIBE. THE KNOT SNAGS ON THE RIGGING.

AT SEA THEY SAY THE MEASURE OF A MAN IS THE ABILITY TO TIE A BOWLINE WHILE LOOKING ALOFT . . . KIND OF LIKE DOING IT WITH YOUR EYES CLOSED.

Bowline Knot

Type: Loop



THE TERM "NOOSE" MAY BE USED TO DESCRIBE A CATEGORY OF KNOTS AS WELL, GENERALLY THOSE WITH ANY RUNNING LOOP MADE FROM THE STANDING PART. WHEN USED TO DESCRIBE A SPECIFIC KNOT IT IS THE ONE PICTURED ABOVE.

THE NOOSE IS OFTEN MISLABELED "SLIPKNOT." THE DIFFERENCE BETWEEN THEM IS THAT THE NOOSE HAS A LOOP FROM THE STANDING PART REEVED THROUGH THE KNOT WHILE THE LOOP OF THE SLIP KNOT (A STOPPER) IS REEVED FROM THE THE END.

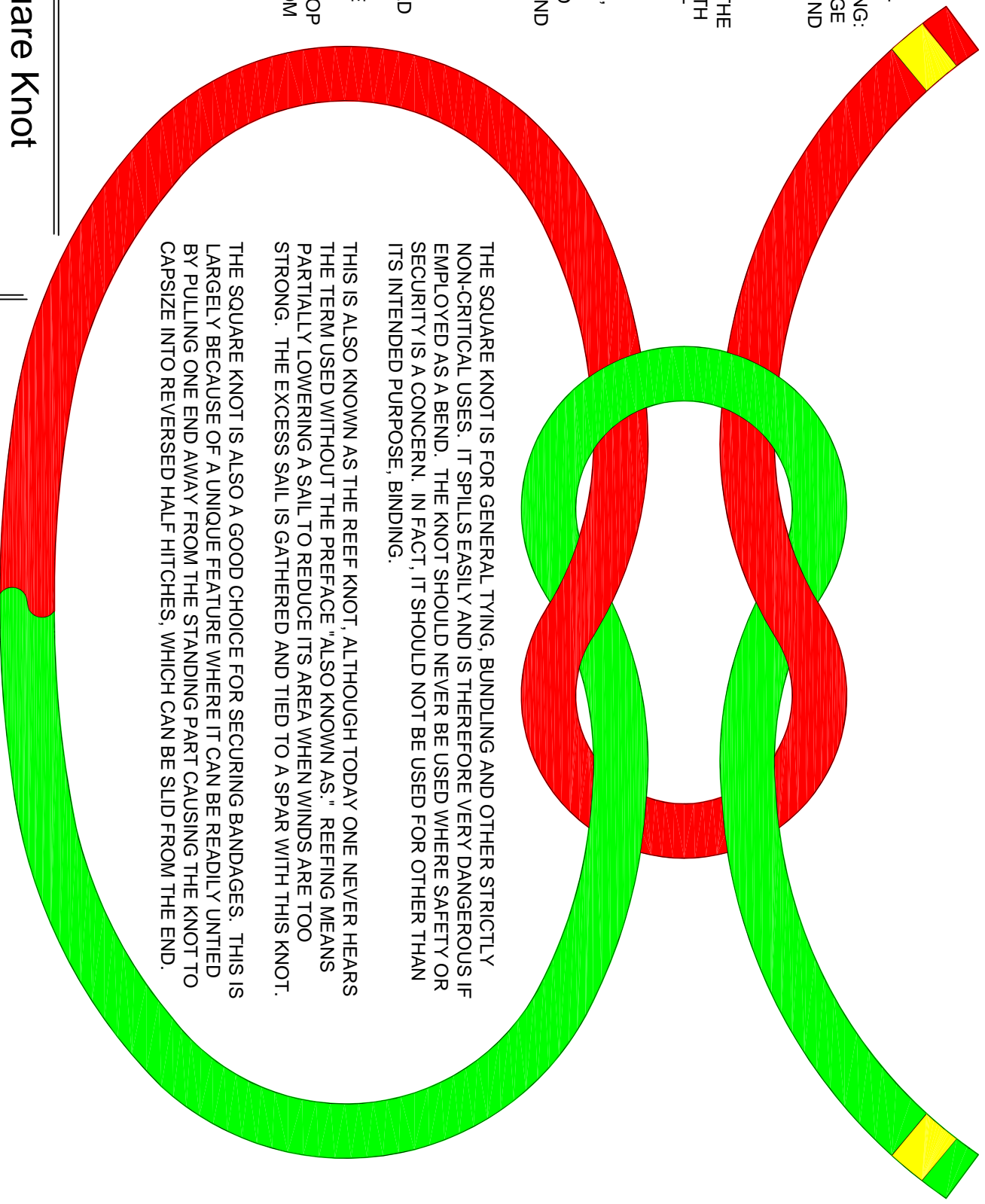
WIDELY USED FOR SNARING BIRDS AND SMALL ANIMALS, THE NOOSE IS ALSO REGULARLY USED TO BEGIN PARCEL LASHINGS. IT IS SIMPLE TO TIE AND TAKES UP EASILY. NORMALLY THE NOOSE CAN BE UNTIED WITH A HARD PULL ON THE STANDING PART.

THIS IS A TYPE OF RUNNING KNOT. IT CAN BE MADE IN THE HAND, SLIPPED OVER AN OBJECT, THEN WORKED CLOSED IN PLACE.

Noose

Type: Loop (Running Knot)

THE SQUARE KNOT
FOR BANDAGE TYING:
AFTER THE BANDAGE
IS WRAPPED THE END
IS SPLIT
LENGTHWISE,
FORMING TWO
PARALLEL ENDS. THE
ENDS ARE TIED WITH
ONE SQUARE KNOT
TO STOP THE
BANDAGE FROM
TEARING FURTHER,
THEN THEY ARE
WRAPPED AROUND
THE APPENDAGE AND
TIED IN ANOTHER
SQUARE KNOT TO
SECURE. IN THE
ILLUSTRATION AT
RIGHT THE
APPENDAGE WOULD
BE THROUGH THE
THE BIG LOOP, THE
SQUARE KNOT
SHOWN WOULD STOP
THE BANDAGE FROM
TEARING, AND THE
ENDS WOULD BE
BROUGHT DOWN
AROUND THE
APPENDAGE AND
SECURED WITH
ANOTHER SQUARE
KNOT.



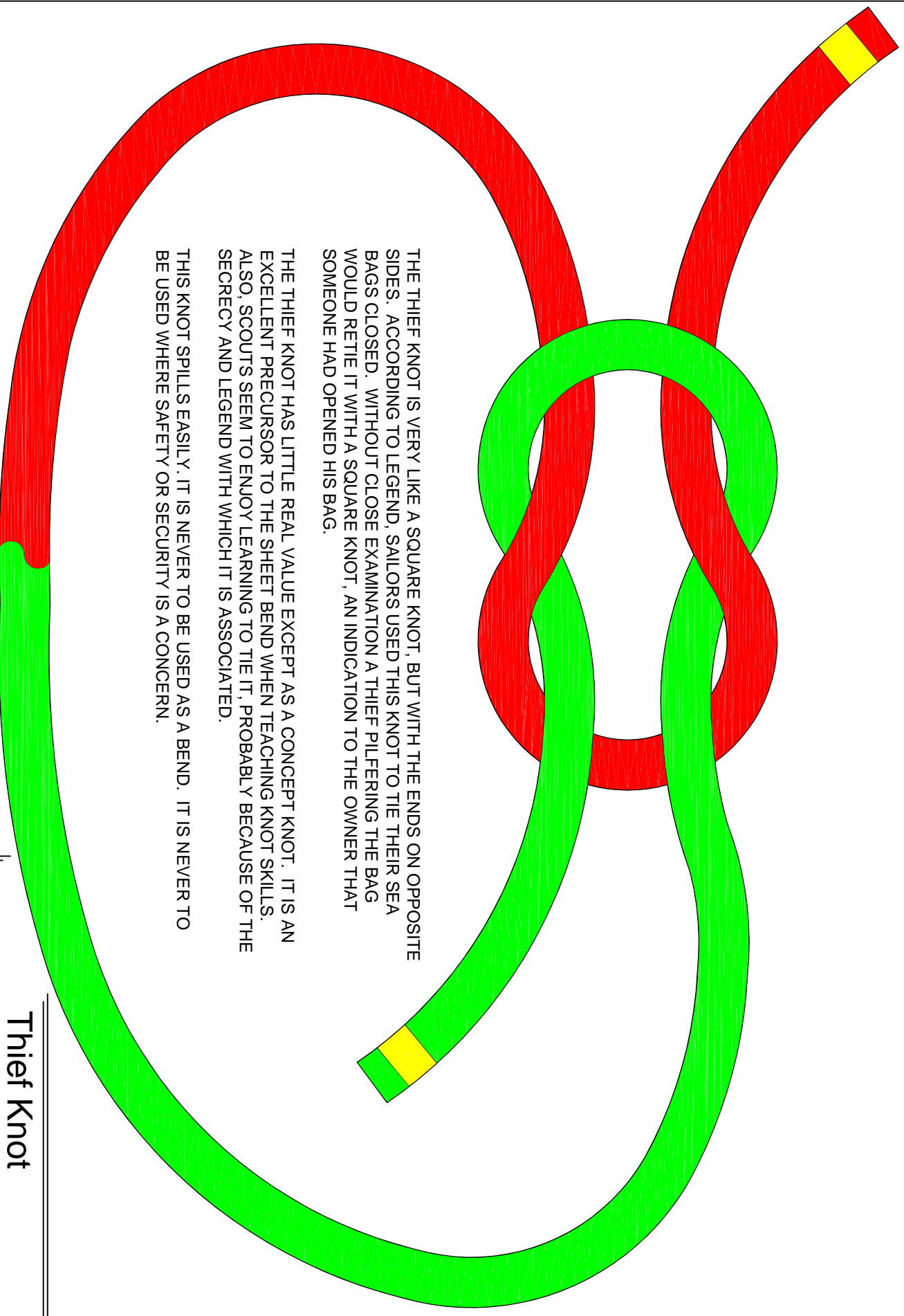
THE SQUARE KNOT IS FOR GENERAL TYING, BUNDLING AND OTHER STRICTLY NON-CRITICAL USES. IT SPILLS EASILY AND IS THEREFORE VERY DANGEROUS IF EMPLOYED AS A BEND. THE KNOT SHOULD NEVER BE USED WHERE SAFETY OR SECURITY IS A CONCERN. IN FACT, IT SHOULD NOT BE USED FOR OTHER THAN ITS INTENDED PURPOSE, BINDING.

THIS IS ALSO KNOWN AS THE REEF KNOT, ALTHOUGH TODAY ONE NEVER HEARS THE TERM USED WITHOUT THE PREFACE "ALSO KNOWN AS." REEFING MEANS PARTIALLY LOWERING A SAIL TO REDUCE ITS AREA WHEN WINDS ARE TOO STRONG. THE EXCESS SAIL IS GATHERED AND TIED TO A SPAR WITH THIS KNOT.

THE SQUARE KNOT IS ALSO A GOOD CHOICE FOR SECURING BANDAGES. THIS IS LARGELY BECAUSE OF A UNIQUE FEATURE WHERE IT CAN BE READILY UNTIED BY PULLING ONE END AWAY FROM THE STANDING PART CAUSING THE KNOT TO CAPSIZE INTO REVERSED HALF HITCHES, WHICH CAN BE SLID FROM THE END.

Square Knot

Type: Binding Knot



THE THIEF KNOT IS VERY LIKE A SQUARE KNOT, BUT WITH THE ENDS ON OPPOSITE SIDES. ACCORDING TO LEGEND, SAILORS USED THIS KNOT TO TIE THEIR SEA BAGS CLOSED. WITHOUT CLOSE EXAMINATION A THIEF PILFERING THE BAG WOULD RETIE IT WITH A SQUARE KNOT, AN INDICATION TO THE OWNER THAT SOMEONE HAD OPENED HIS BAG.

THE THIEF KNOT HAS LITTLE REAL VALUE EXCEPT AS A CONCEPT KNOT. IT IS AN EXCELLENT PRECURSOR TO THE SHEET BEND WHEN TEACHING KNOT SKILLS. ALSO, SCOUTS SEEM TO ENJOY LEARNING TO TIE IT, PROBABLY BECAUSE OF THE SECRECY AND LEGEND WITH WHICH IT IS ASSOCIATED.

THIS KNOT SPILLS EASILY. IT IS NEVER TO BE USED AS A BEND. IT IS NEVER TO BE USED WHERE SAFETY OR SECURITY IS A CONCERN.

Thief Knot

Type: Binding Knot