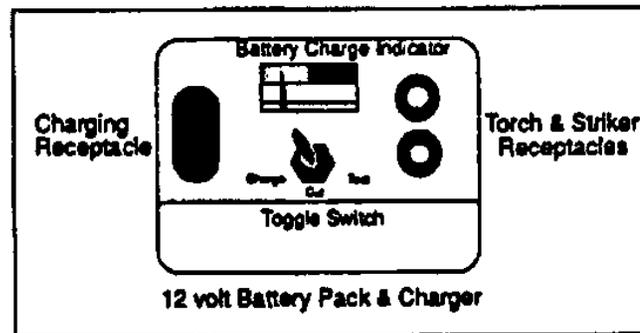
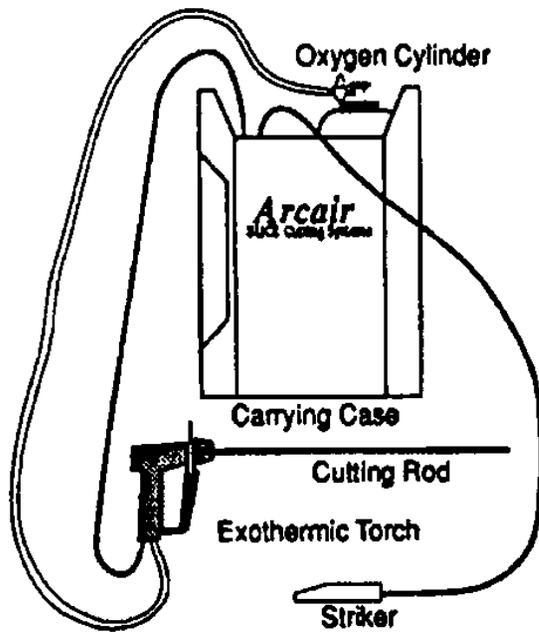
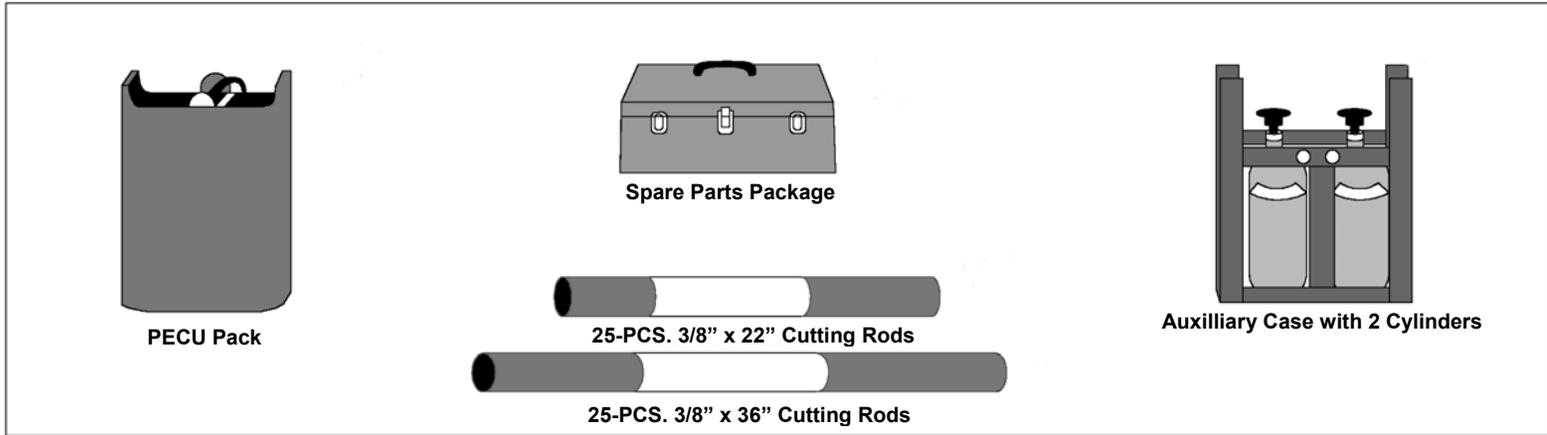


DAMAGE CONTROL LAYOUT SKETCHES
SECTION 1 - ACCESS EVOLUTION

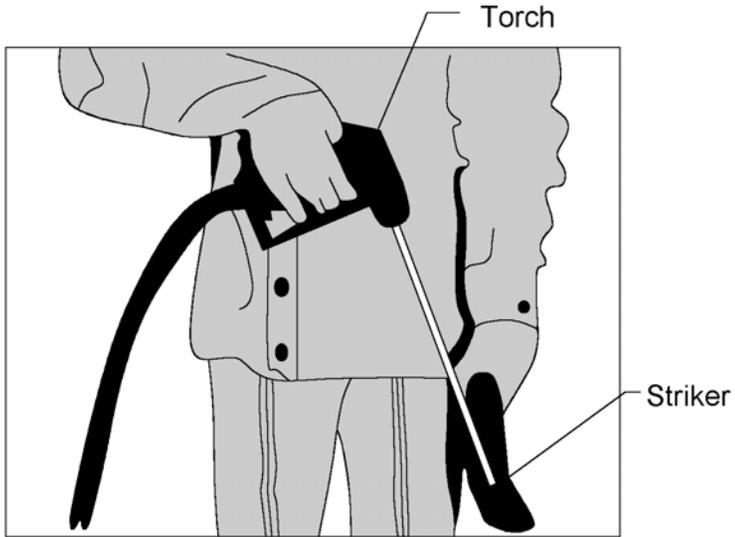
SKETCH NO.	TITLE OF SKETCH	SHEET NO.
001	Portable Exothermic Cutting Unit (PECU) Equipment	1-2
002	Portable Exothermic Cutting Unit (PECU) - Gaining Access to Damaged Compartments Using PECU	1-3
003	Portable Hydraulic Access and Rescue System (PHARS) Equipment	1-4
004	Portable Hydraulic Access and Rescue Equipment (PHARS)	1-5
005	Portable Hydraulic Access and Rescue System (PHARS) - Gaining Access Through Watertight Door with Hydraulic Spreader	1-6
006	Portable Hydraulic Access and Rescue System (PHARS)	1-7
007	Rescue and Patient Transportation Devices	1-8
008	One Man Moving a Casualty	1-9
009	Two-Man Carries	1-10
010	Cardiopulmonary Resuscitation	1-11
011	Preparing a Victim for Helicopter Evacuation	1-12
012	Example of Hoisting Equipment Using a Bowline and a Clove Hitch	1-13
013	Bowline Knot - A Good Knot for Forming a Loop that will not Slip Under Strain and May be Easily Untied	1-14
014	Clove Hitch Knot - Used for Attaching a Rope to an Object Such as a Pole, Post or Hose	1-15
015	Clove Hitch Knot - Tying the Clove Hitch Around an Object	1-16
016	Becket or Sheet Bend Knot - Used for Joining Two Ropes (Well-Suited for Joining Ropes of Unequal Diameters)	1-17
017	Water Knot - Used for Joining Two Strips of Canvas or Rope	1-18
018	Mariners Knot - a Knot System that can be Released Under Load	1-19
019	Terminology Used in Working with Life Lines (Bight, Loop and Round Turn)	1-20
020	Some Basic Knots (Square, Overhand, Half Hitch and Bowline with a Safety)	1-21
021	Figure Eight Stopper Knot - a Single Figure Eight Knot	1-22
022	Figure Eight on a Bight Knot	1-23
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024	Figure Eight Bend Knot	1-25
025	Double Fisherman's Bend Knot	1-26
026	Munter Hitch Knot	1-27
027	Butterfly Knot	1-28
028	Prusic Hitch Knot with Double and Triple Wrap	1-29



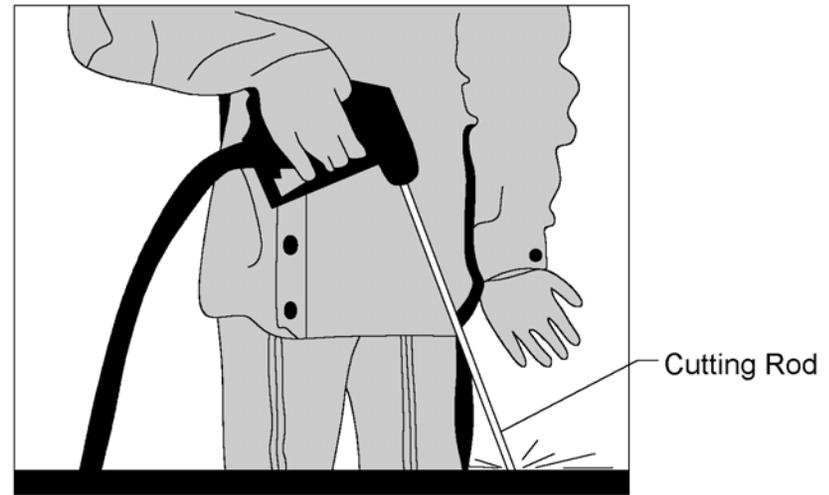
ACCESS EVOLUTION - SKETCH #001
 Portable Exothermic Cutting Unit (PECU) Equipment



PECU ASSEMBLY

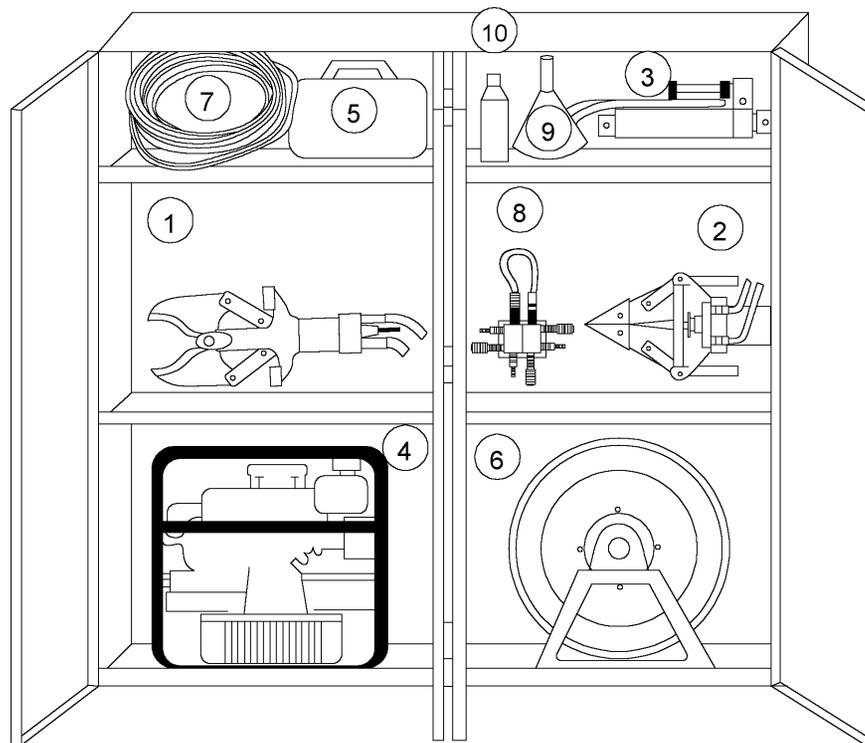


IGNITING PECU ROD



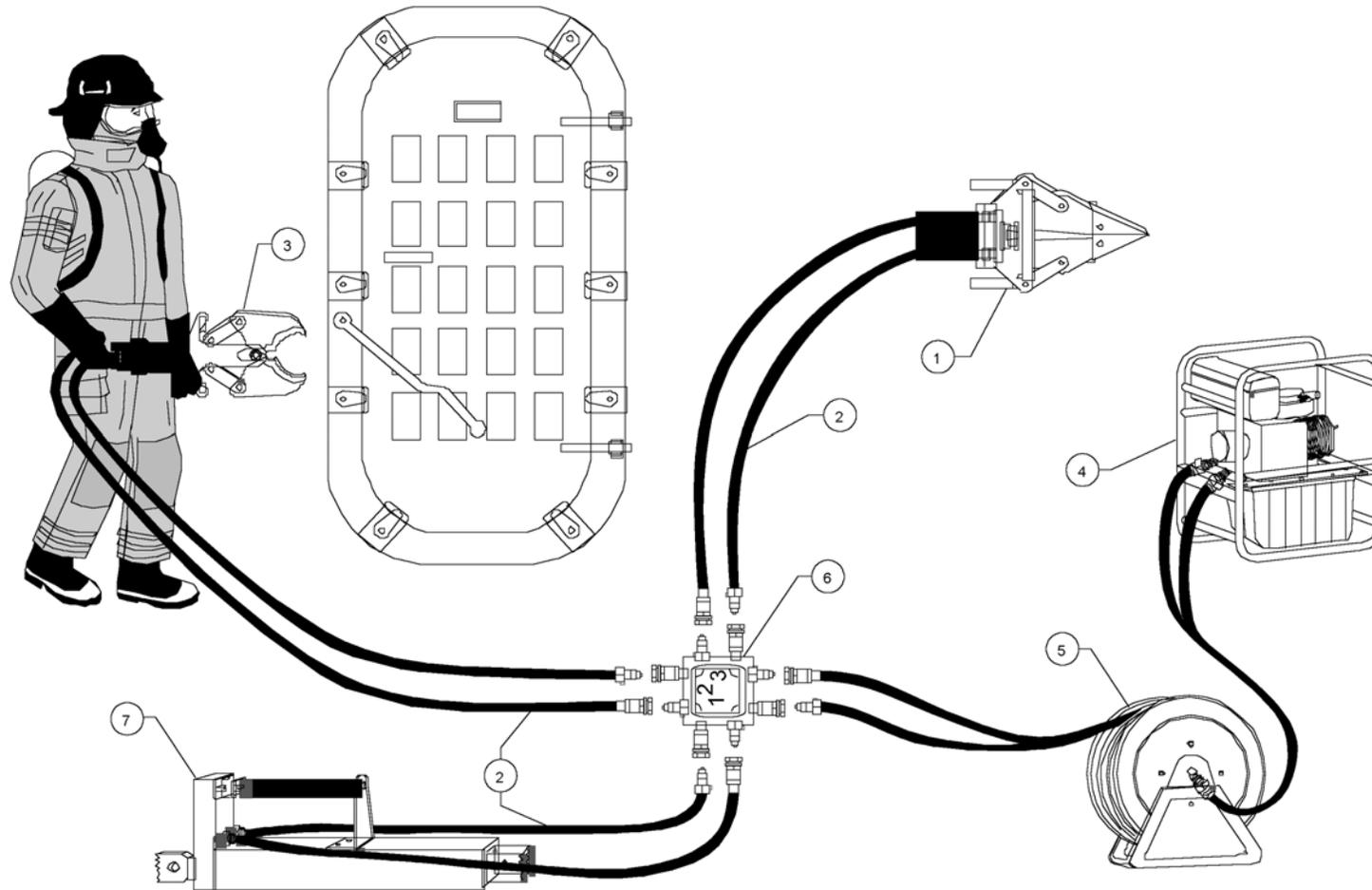
PIERCING THROUGH SURFACE

ACCESS EVOLUTION - SKETCH #002
Portable Exothermic Cutting Unit (PECU) - Gaining Access to Damaged Compartments Using PECU



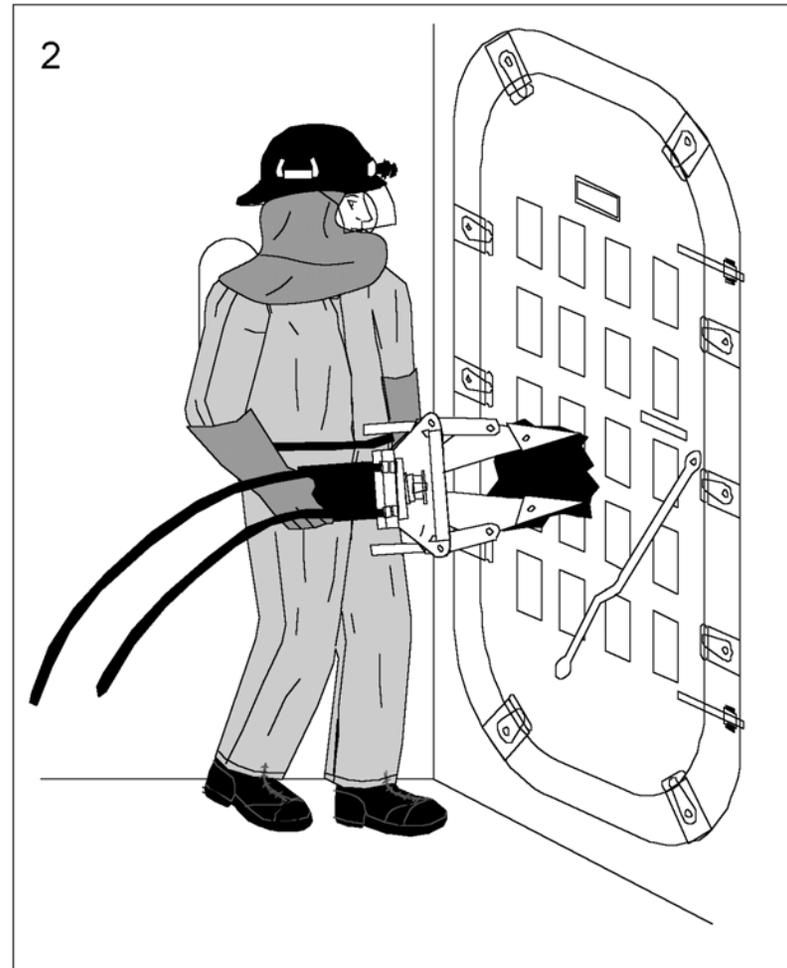
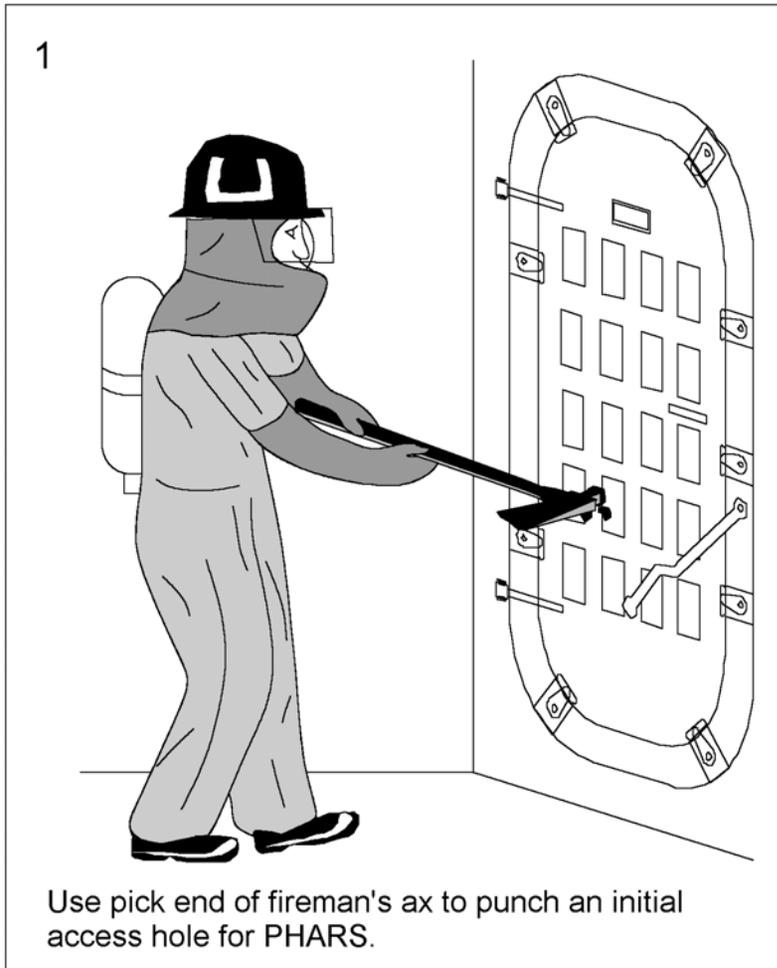
ITEM	EQUIPMENT
1	CUTTER, HYDRAULIC
2	SPREADER, HYDRAULIC
3	EXTENSION RAM, HYDRAULIC
4	DIESEL ENGINE
5	ATTACHMENT CASE
6	HOSE REEL - 100 FOOT WITH MANIFOLD ATTACHED TO HOSE
7	EXTENSION HOSE, 1" X 16'
8	MULTIPLE CONNECTION MANIFOLD
9	FUNNEL
10	OIL, CASE - 7 QUARTS (1 QT ILLUSTRATED)

ACCESS EVOLUTION - SKETCH #003
Portable Hydraulic Access and Rescue System (PHARS) Equipment

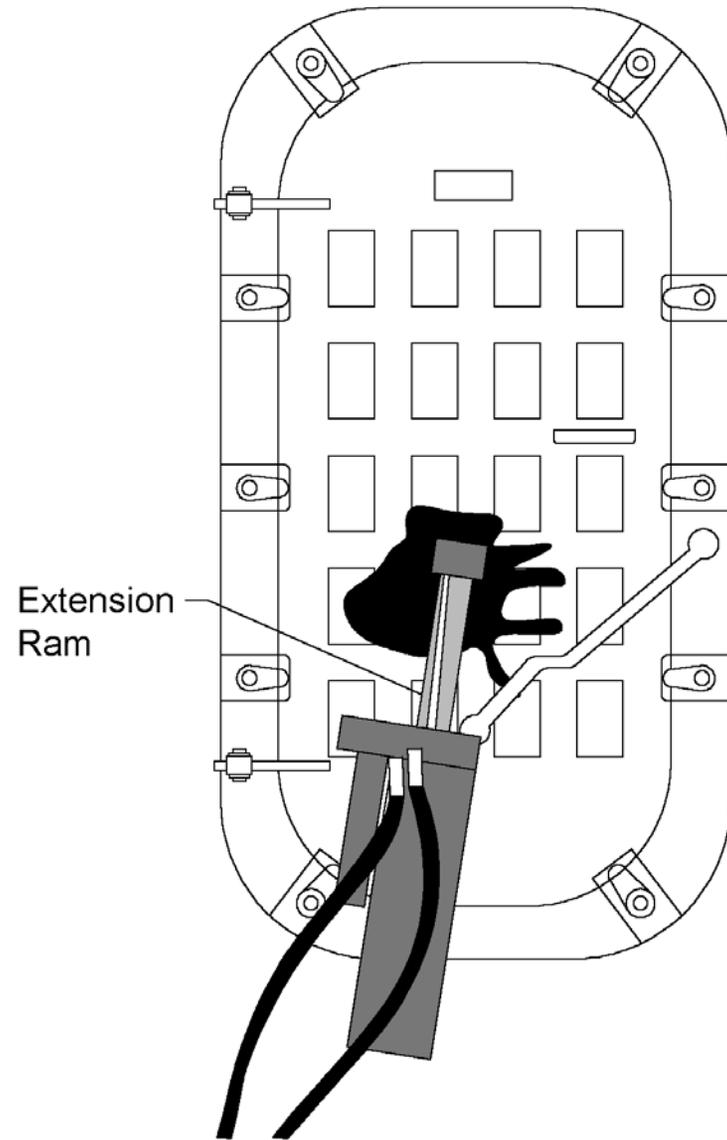
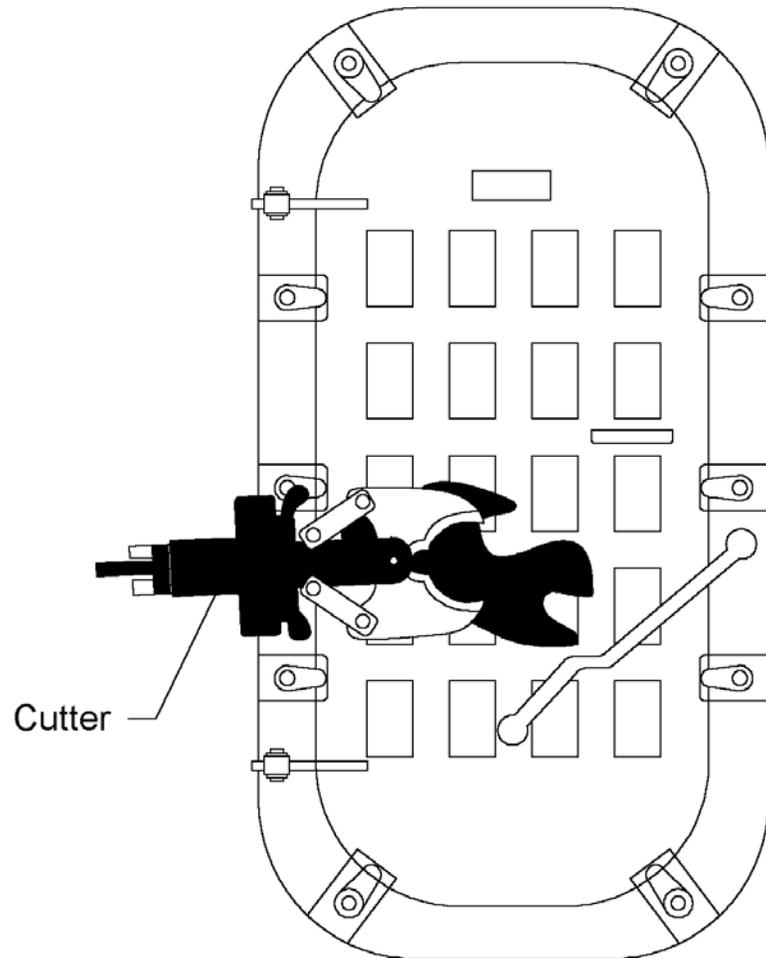


ITEM	QTY	EQUIPMENT
1	1	HYDRAULIC SPREADER
2	AR	HOSE, 30 FOOT, HYDRAULIC EXTENSION
3	1	HYDRAULIC CUTTER
4	1	ENGINE, DIESEL
5	1	HYDRAULIC 100' HOSE REEL (TO ENGINE)
6	1	MULTIPLE CONNECTION MANIFOLD (2 OR 3 TOOLS)
7	1	HYDRAULIC EXTENSION RAM

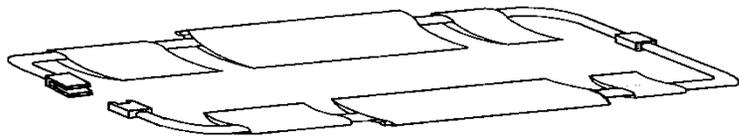
ACCESS EVOLUTION - SKETCH #004
Portable Hydraulic Access and Rescue Equipment (PHARS)



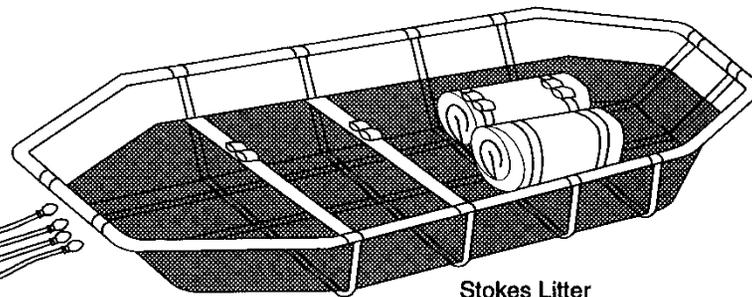
ACCESS EVOLUTION - SKETCH #005
Portable Hydraulic Access and Rescue System (PHARS) - Gaining Access Through Watertight Door with Hydraulic Spreader



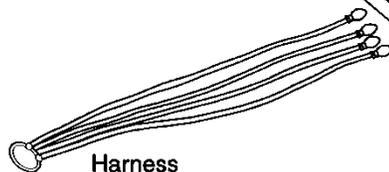
ACCESS EVOLUTION - SKETCH #006
Portable Hydraulic Access and Rescue System (PHARS)



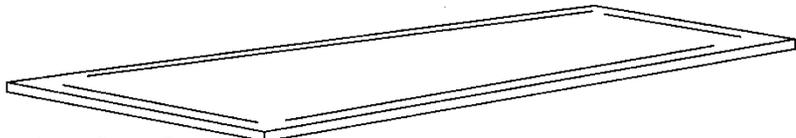
Scoop Stretcher



Stokes Litter



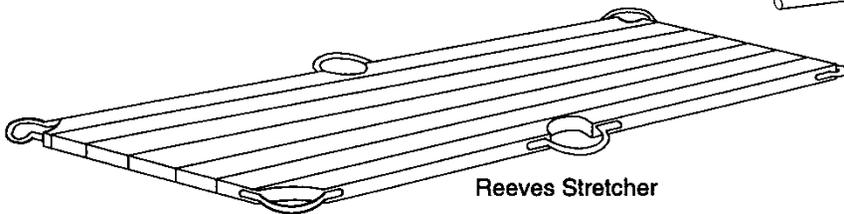
Harness



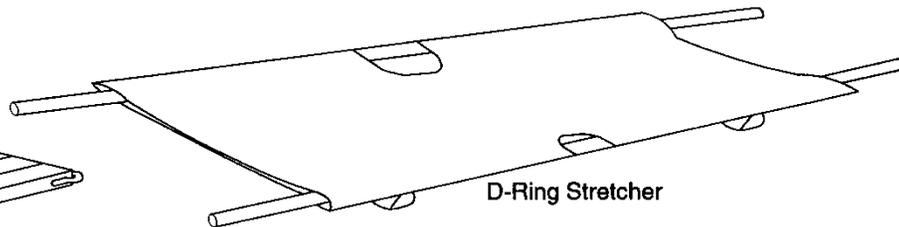
Long Spine Board



Short Spine Board

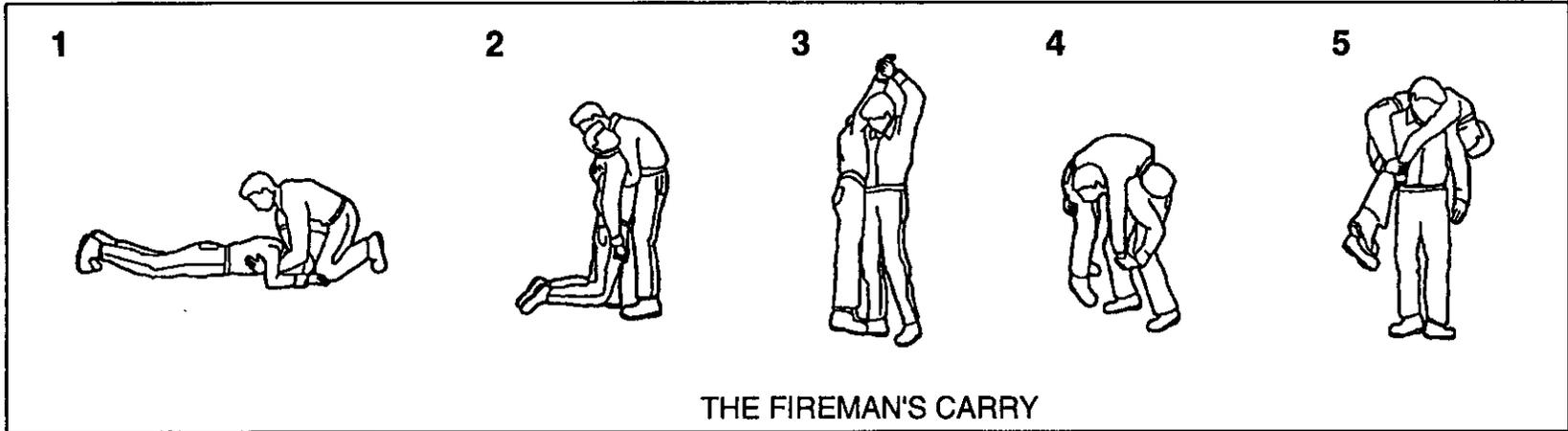


Reeves Stretcher

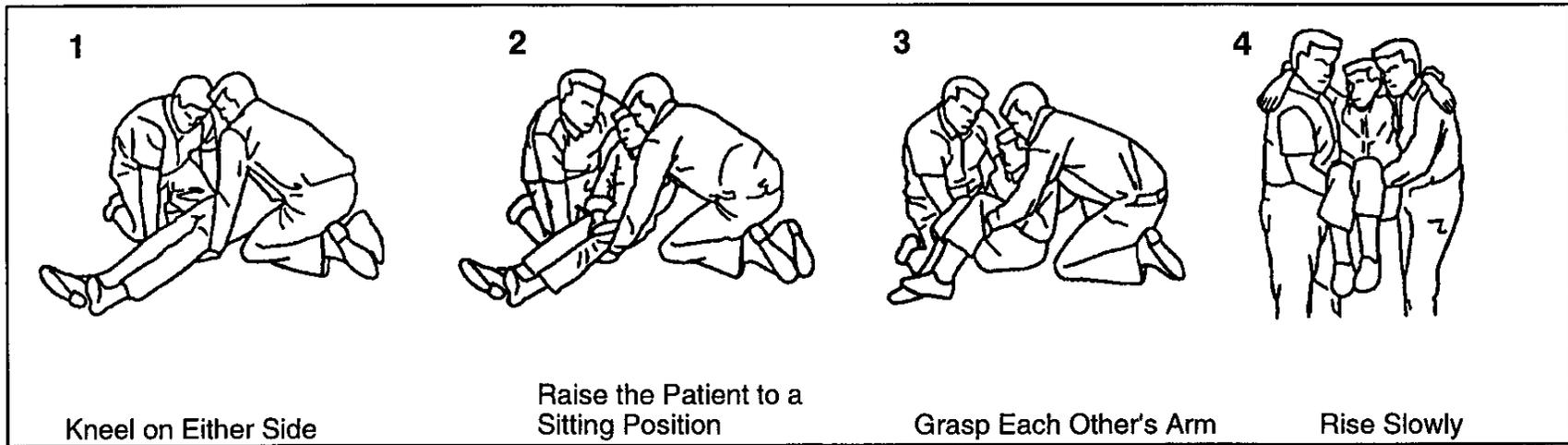
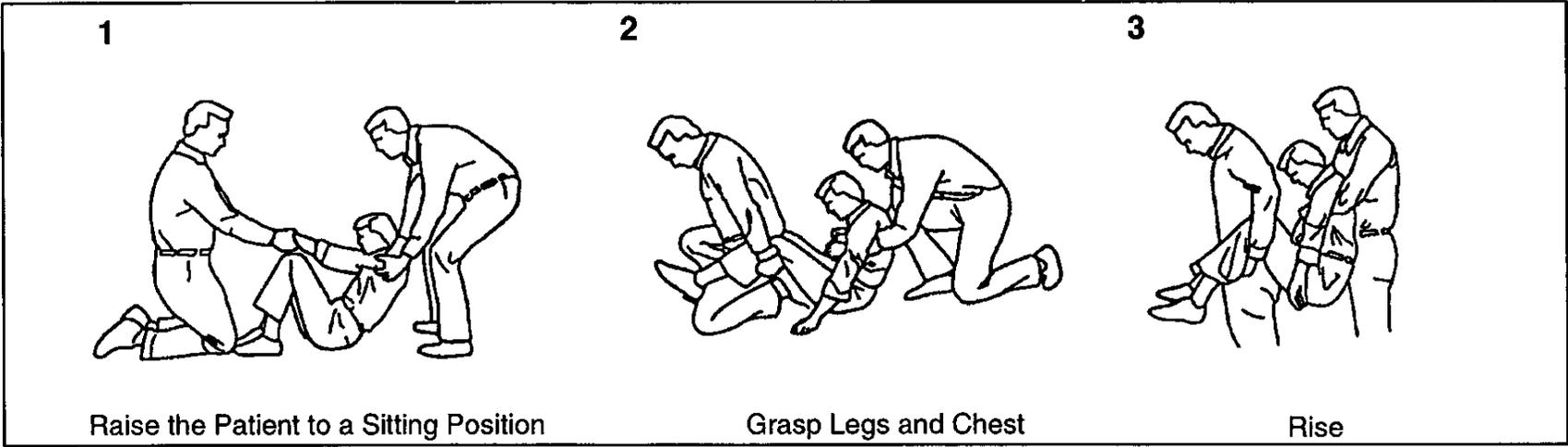


D-Ring Stretcher

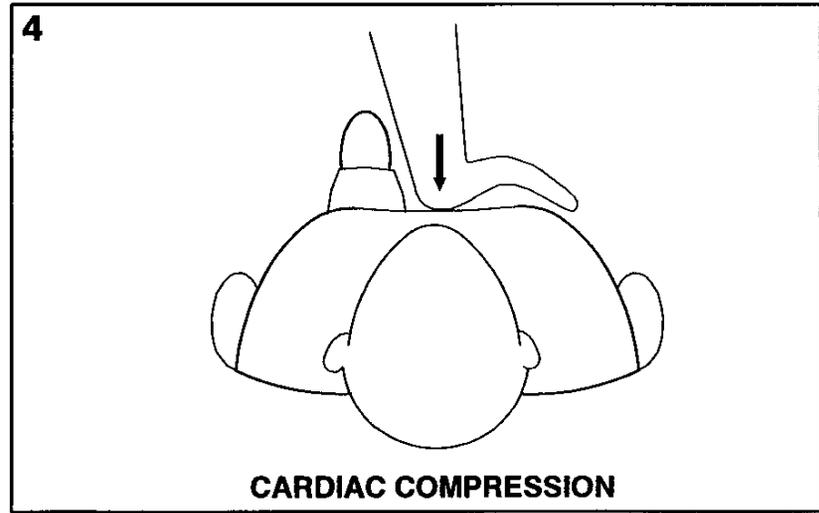
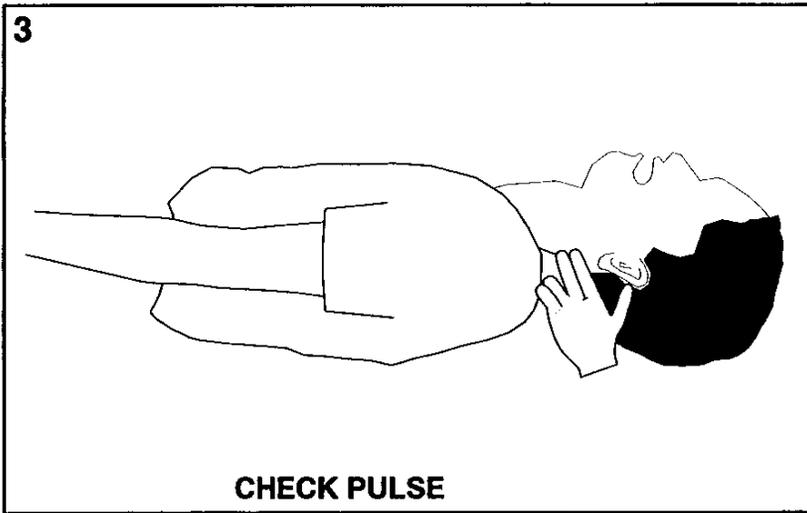
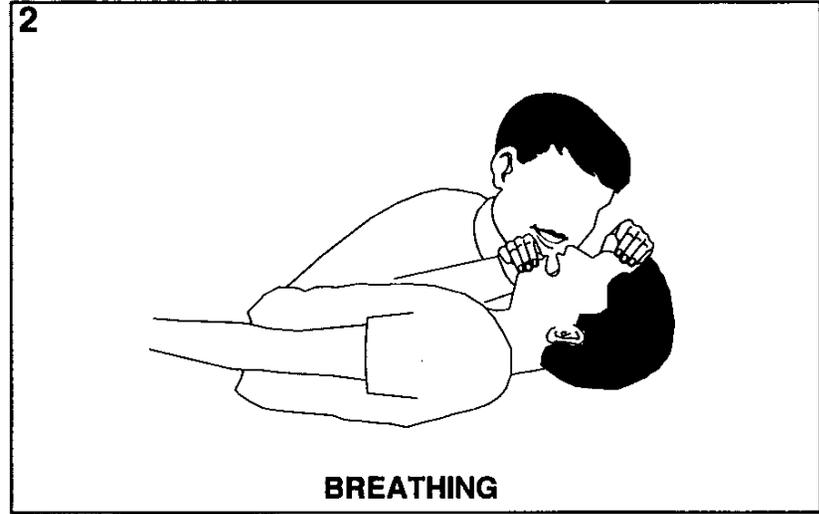
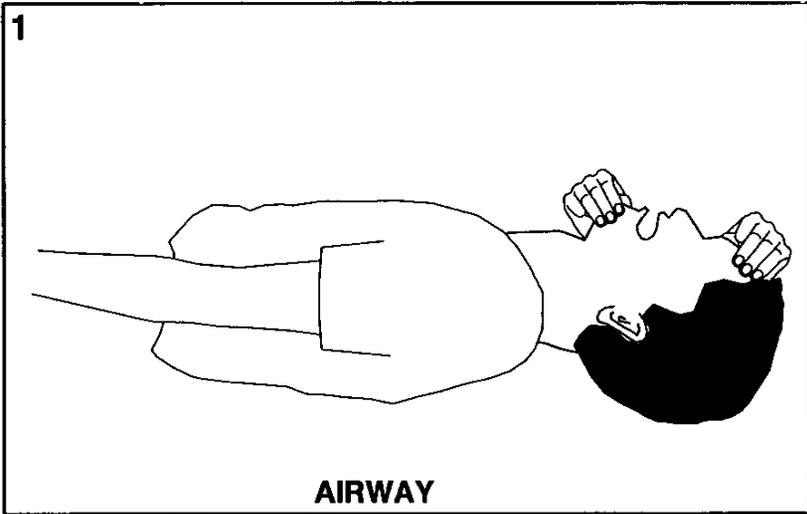
ACCESS EVOLUTION - SKETCH #007
Rescue and Patient Transportation Devices



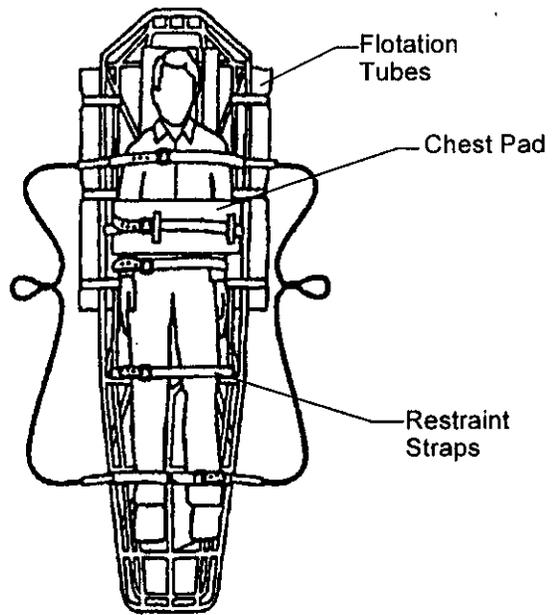
ACCESS EVOLUTION - SKETCH #008
One Man Moving a Casualty



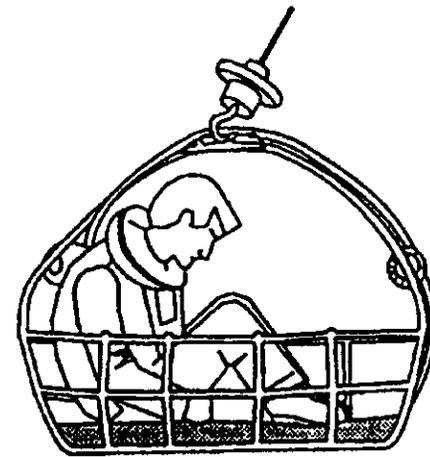
ACCESS EVOLUTION - SKETCH #009
Two-Man Carries



ACCESS EVOLUTION - SKETCH #010
Cardiopulmonary Resuscitation

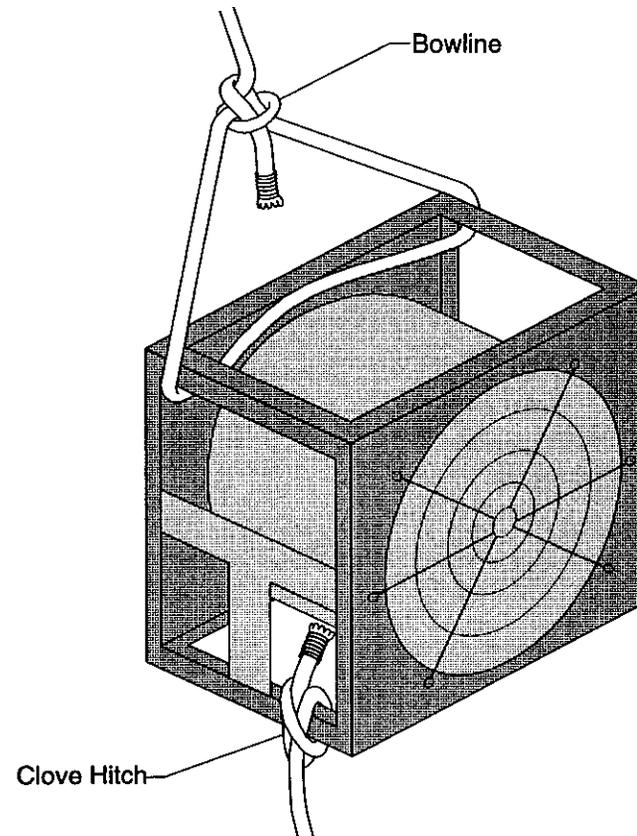
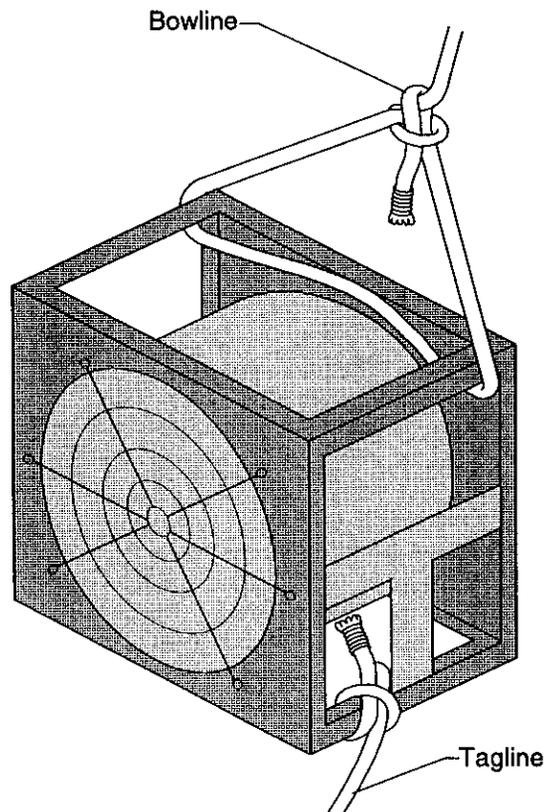


Stokes Litter



Rescue Basket

ACCESS EVOLUTION - SKETCH #011
Preparing a Victim for Helicopter Evacuation



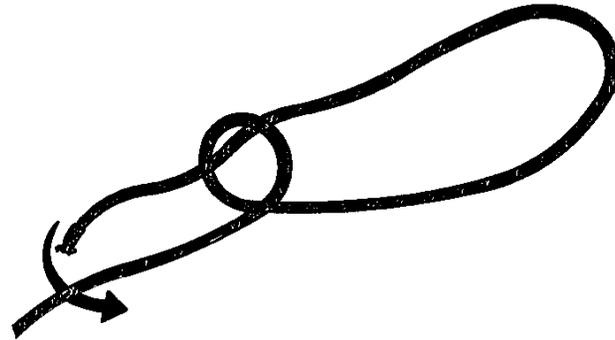
ACCESS EVOLUTION - SKETCH #012
Example of Hoisting Equipment Using a Bowline and a Clove Hitch

1



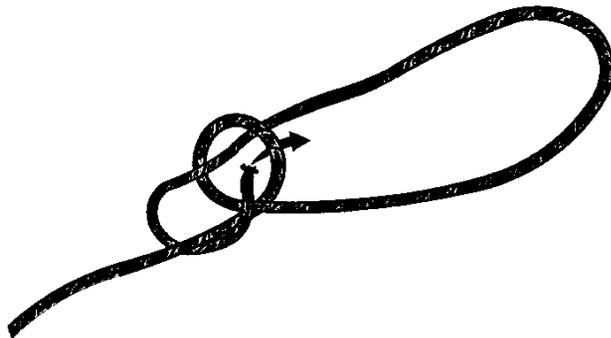
Measure off sufficient rope to form the size of the knot desired and form a loop in the standing part.

2



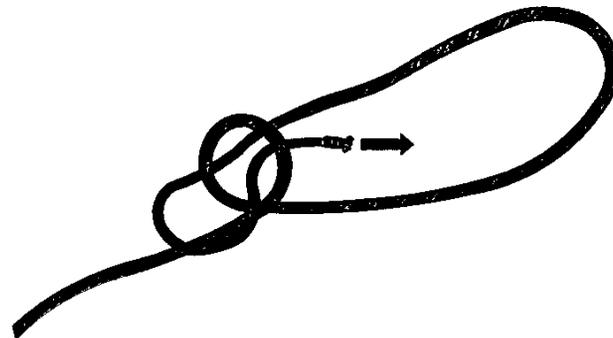
Pass the running part upward through the loop.

3



Pass the running part over the top of the loop under the standing part and bring the end of the running part completely around the standing part and down through the loop.

4

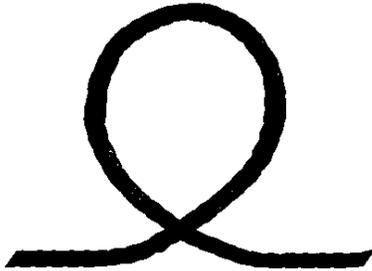


Pull the knot snugly into place, forming an "inside" bowline with the running part of the inside of the loop.

ACCESS EVOLUTION - SKETCH #013

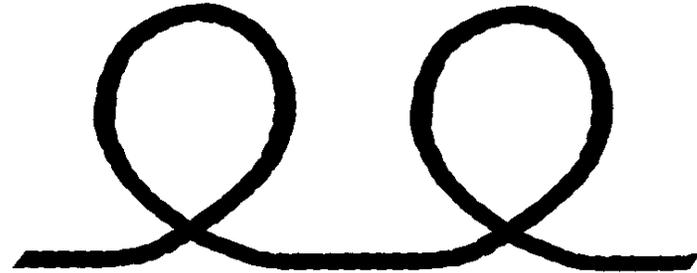
Bowline Knot - A Good Knot for Forming a Loop that will not Slip Under Strain and May be Easily Untied

1



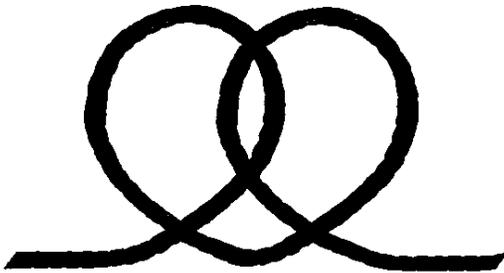
Form a loop in the left hand with the running part to the right crossing under the standing part.

2



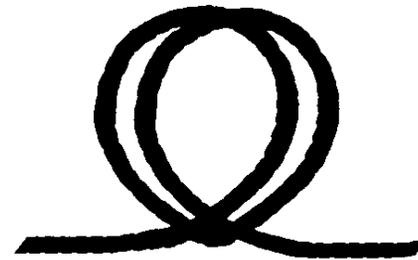
Slide another loop in the right hand again with the running part crossing under the standing part.

3



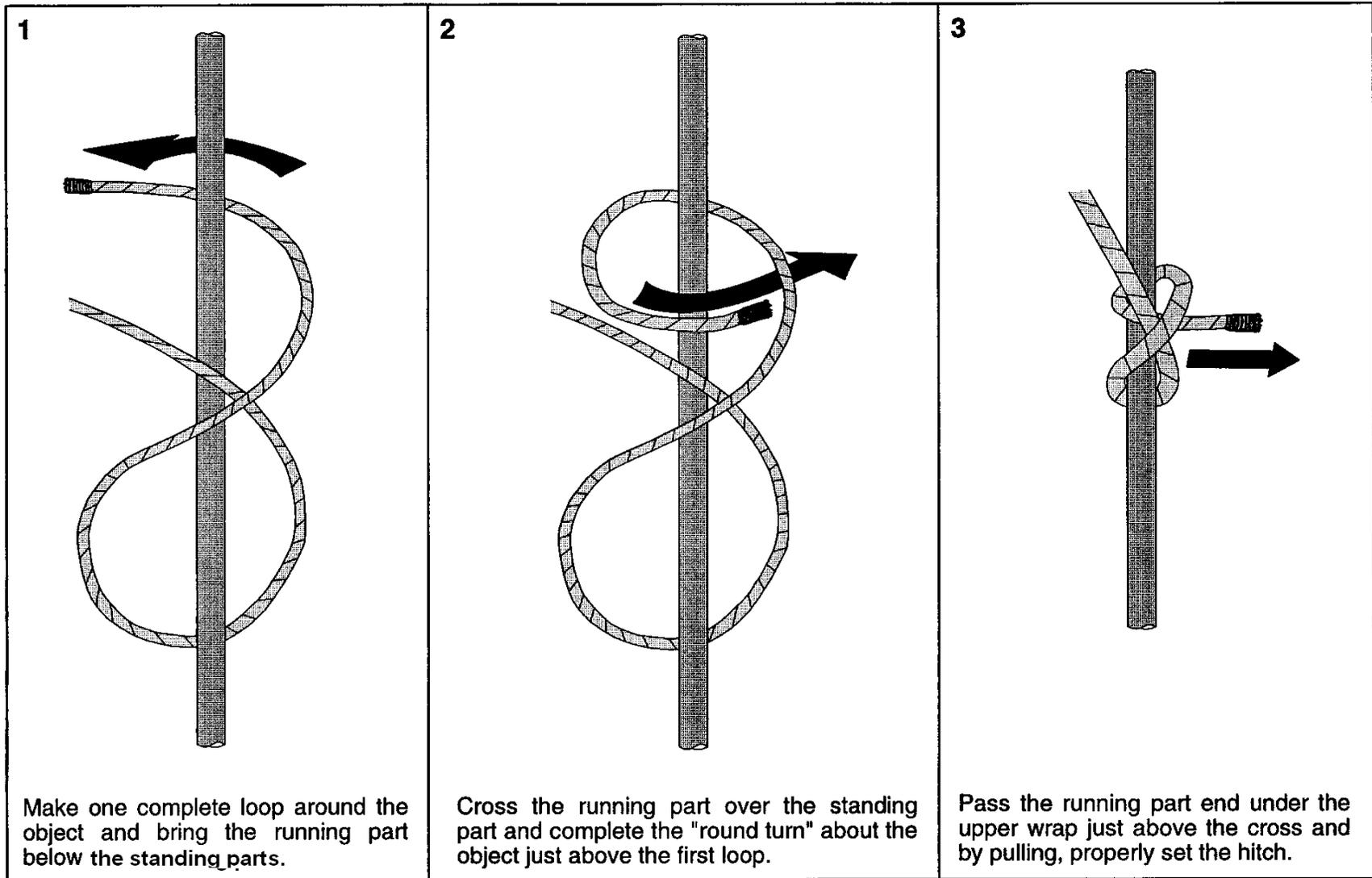
Slide the right hand loop on top of the left hand loop.

4



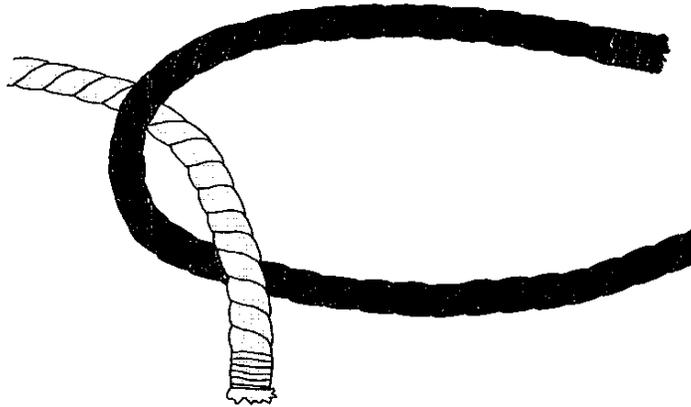
Hold the two loops together at the rope and thus form the clove hitch. Slip these loops over the object that the knot is to be tied around. Pull the ends in opposite directions to tighten.

ACCESS EVOLUTION - SKETCH #014
Clove Hitch Knot - Used for Attaching a Rope to an Object Such as a Pole, Post or Hose



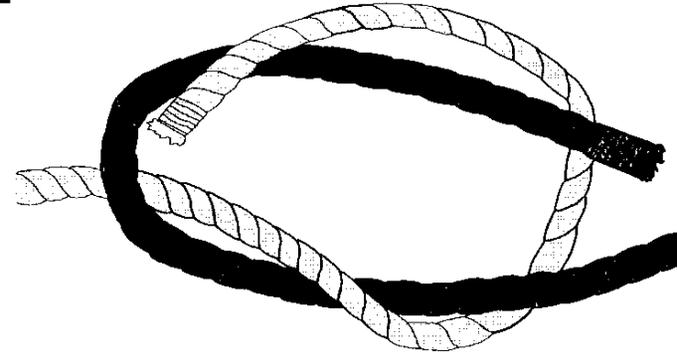
ACCESS EVOLUTION - SKETCH #015
Clove Hitch Knot - Tying the Clove Hitch Around an Object

1



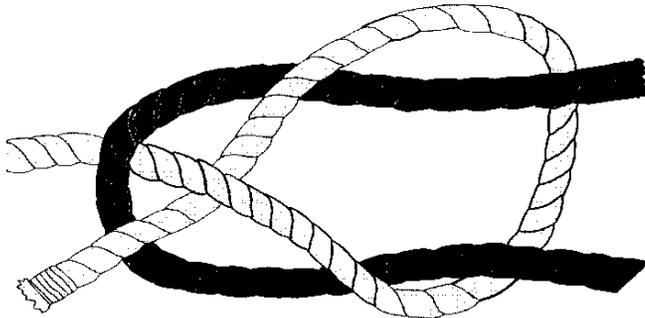
Form a bight in one of the ends to be tied (if two ropes of unequal diameter are being tied, the bight always goes in the larger of the two) and pass the other end through the bight.

2



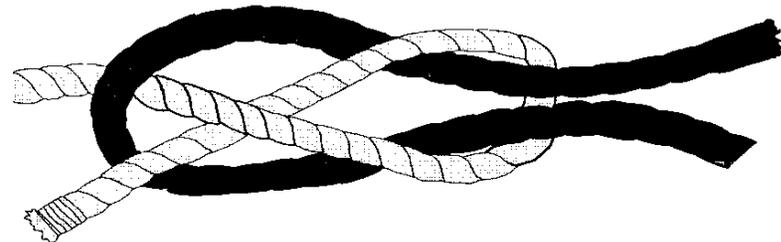
Bring the loose end around both parts of the bight.

3



Tuck this end under its own standing part and over the bight standing part.

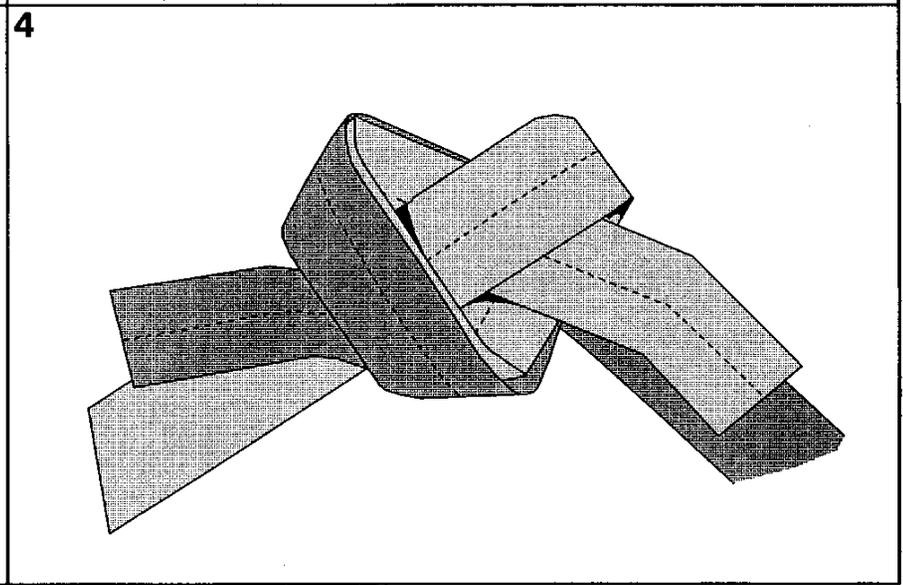
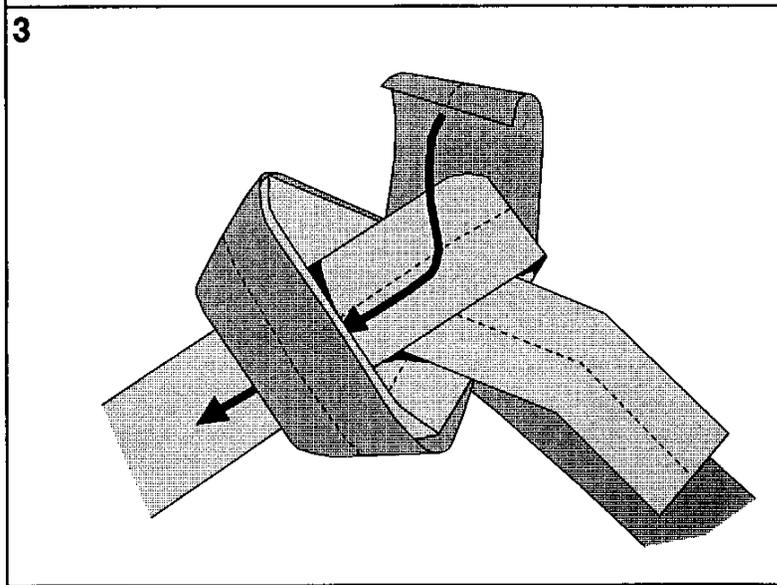
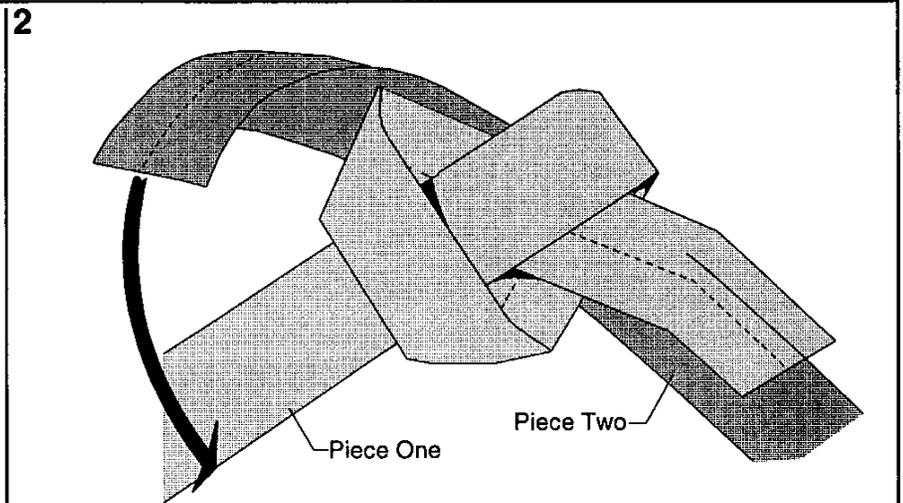
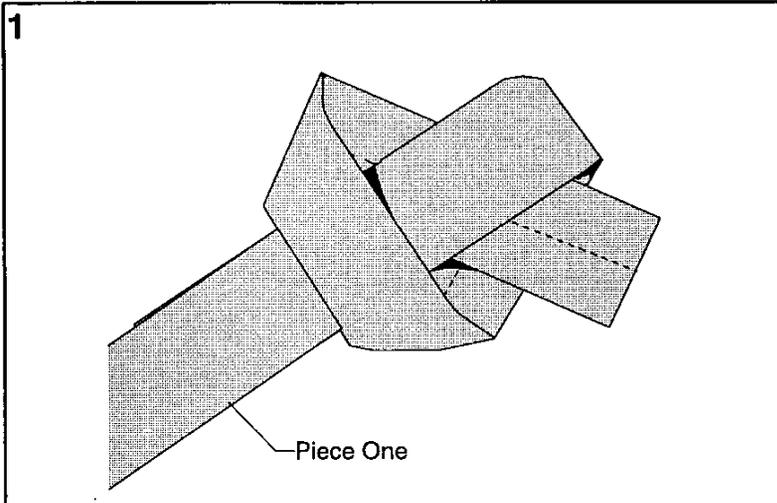
4



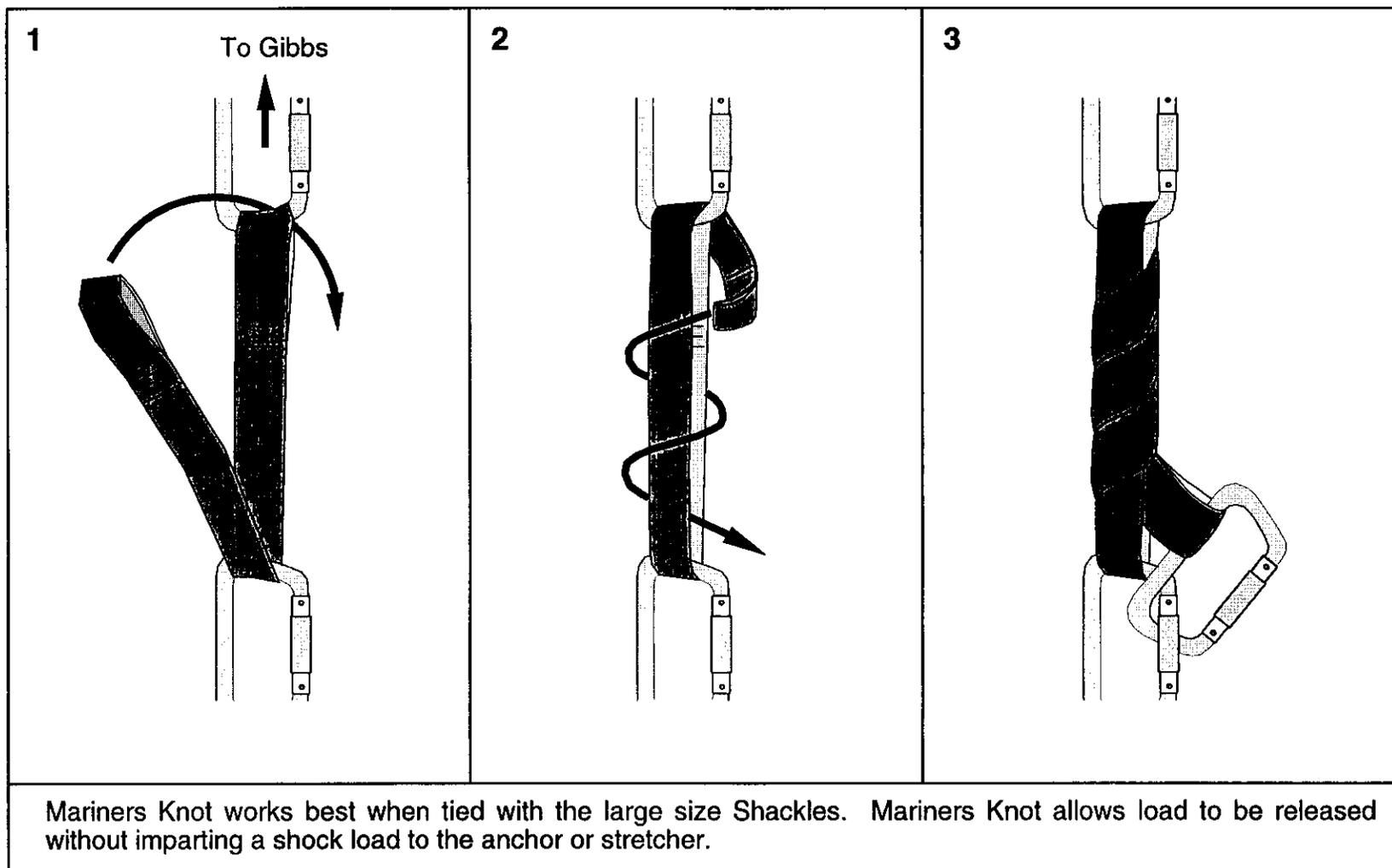
Draw the knot down snug.

ACCESS EVOLUTION - SKETCH #016

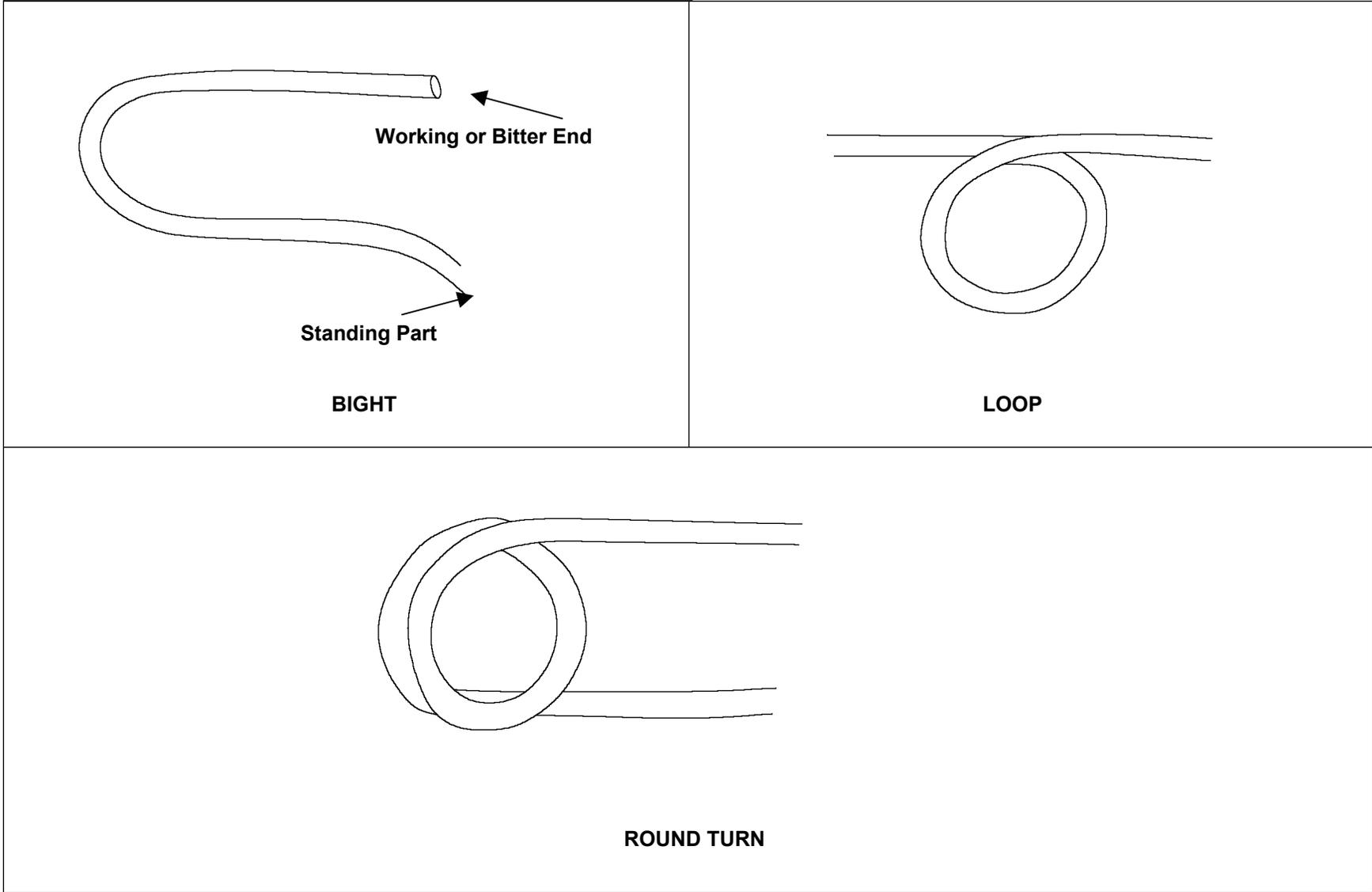
Becket or Sheet Bend Knot - Used for Joining Two Ropes (Well-Suited for Joining Ropes of Unequal Diameters)



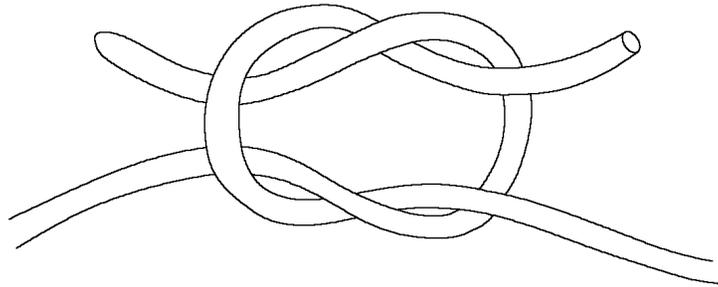
ACCESS EVOLUTION - SKETCH #017
Water Knot - Used for Joining Two Strips of Canvas or Rope



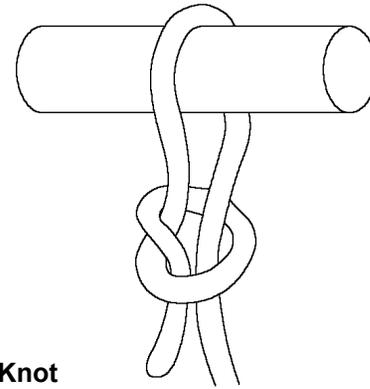
ACCESS EVOLUTION - SKETCH #018
Mariners Knot - a Knot System that can be Released Under Load



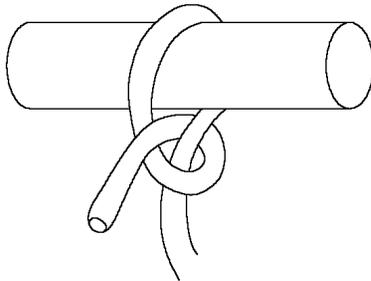
ACCESS EVOLUTION - SKETCH #019
Terminology Used in Working with Life Lines (Bight, Loop and Round Turn)



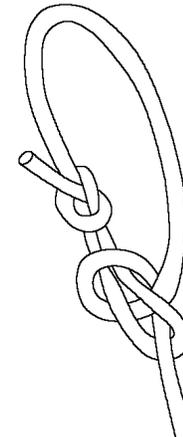
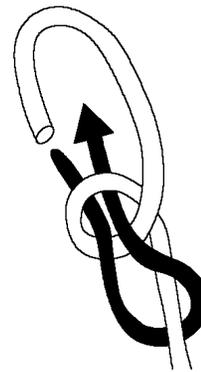
Square Knot



Overhand Knot

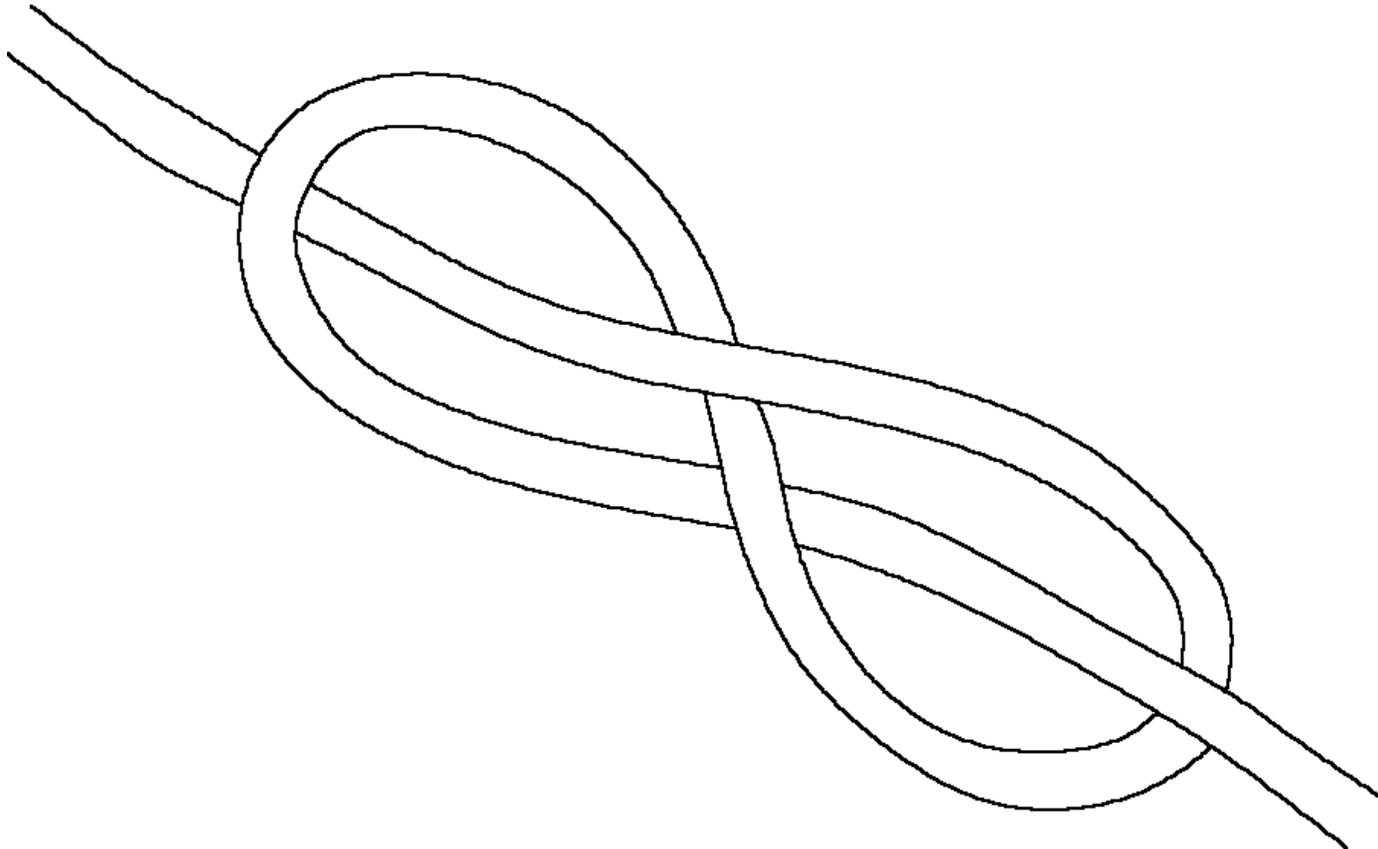


Half Hitch

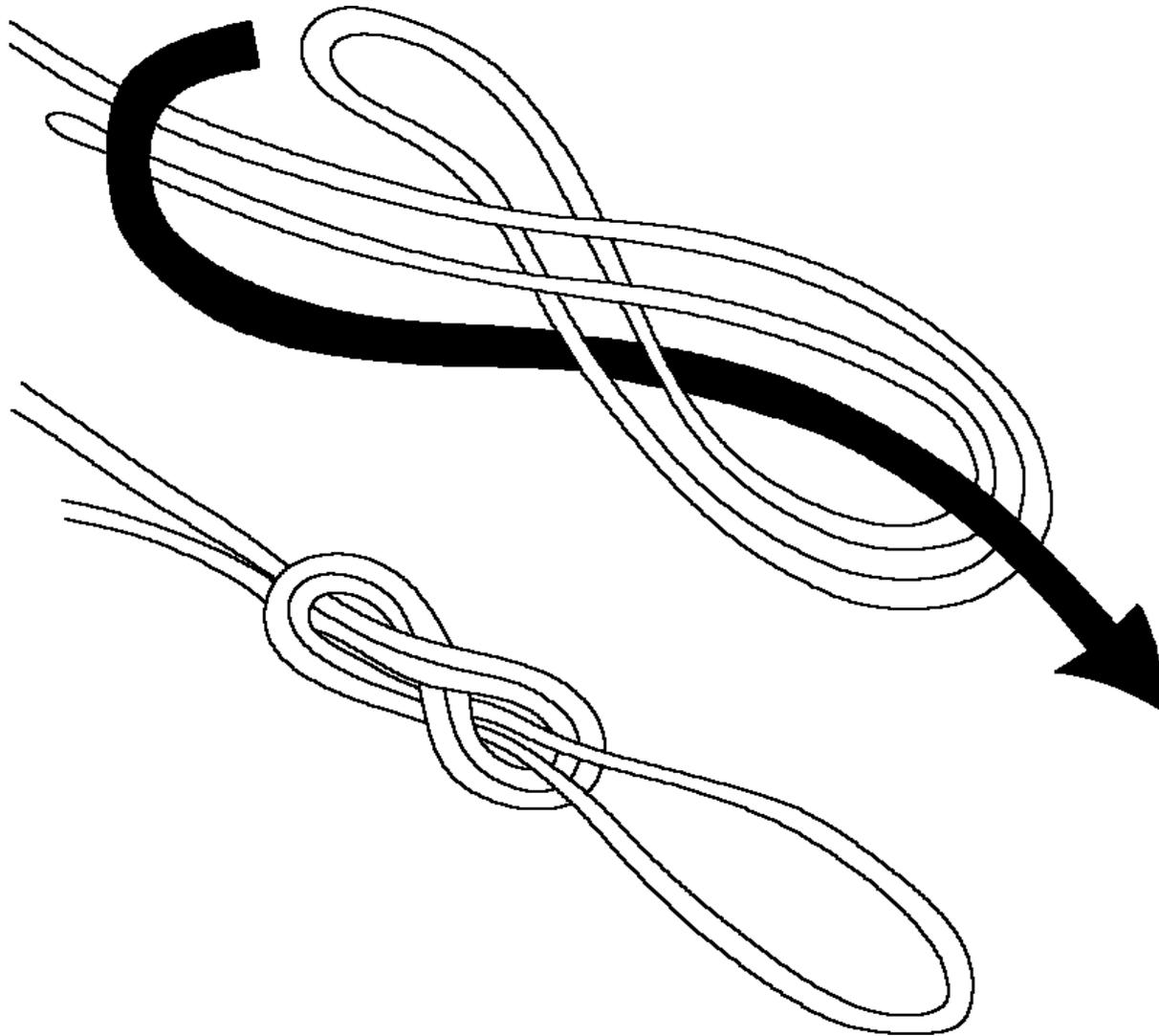


Bowline with a Safety

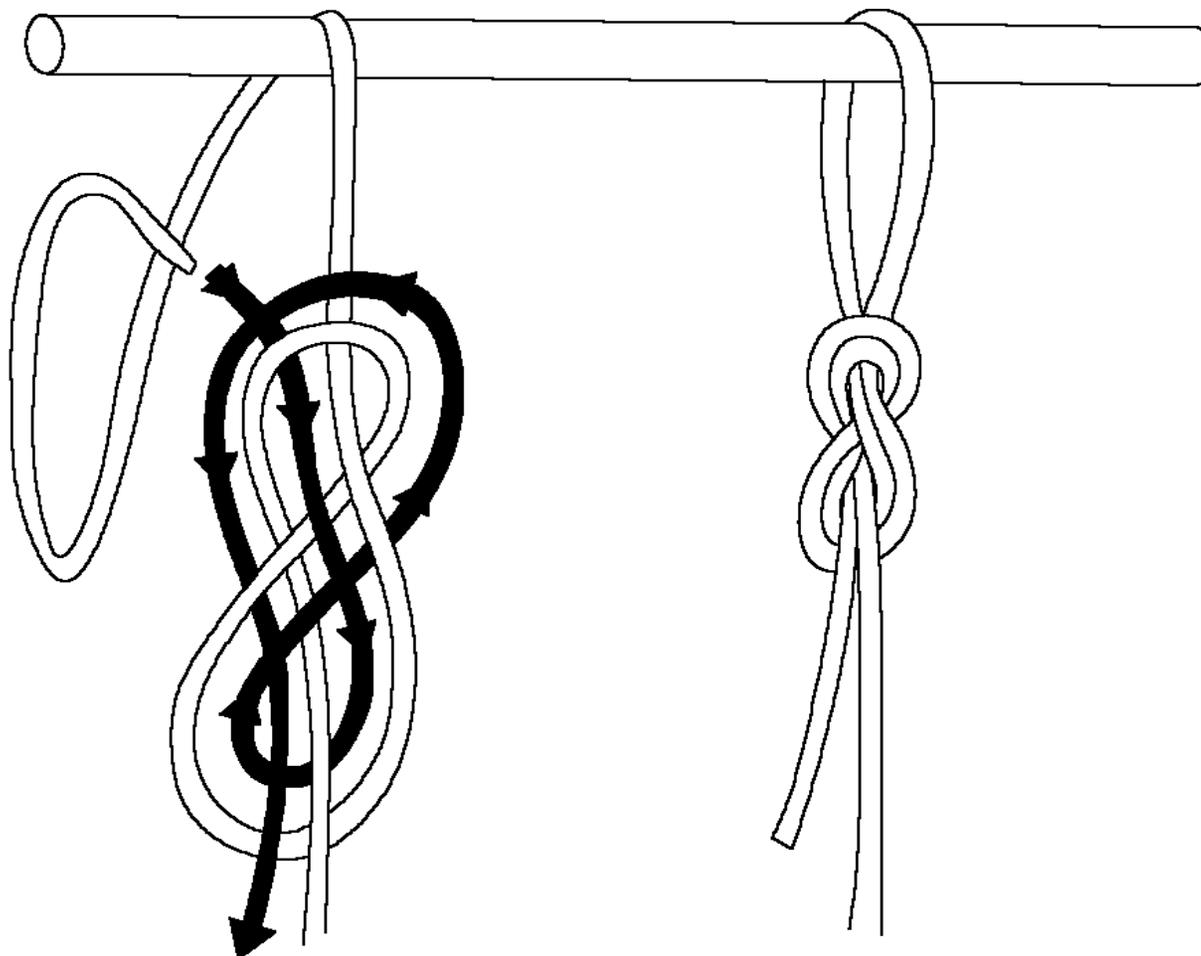
ACCESS EVOLUTION - SKETCH #020
Some Basic Knots (Square, Overhand, Half Hitch and Bowline with a Safety)



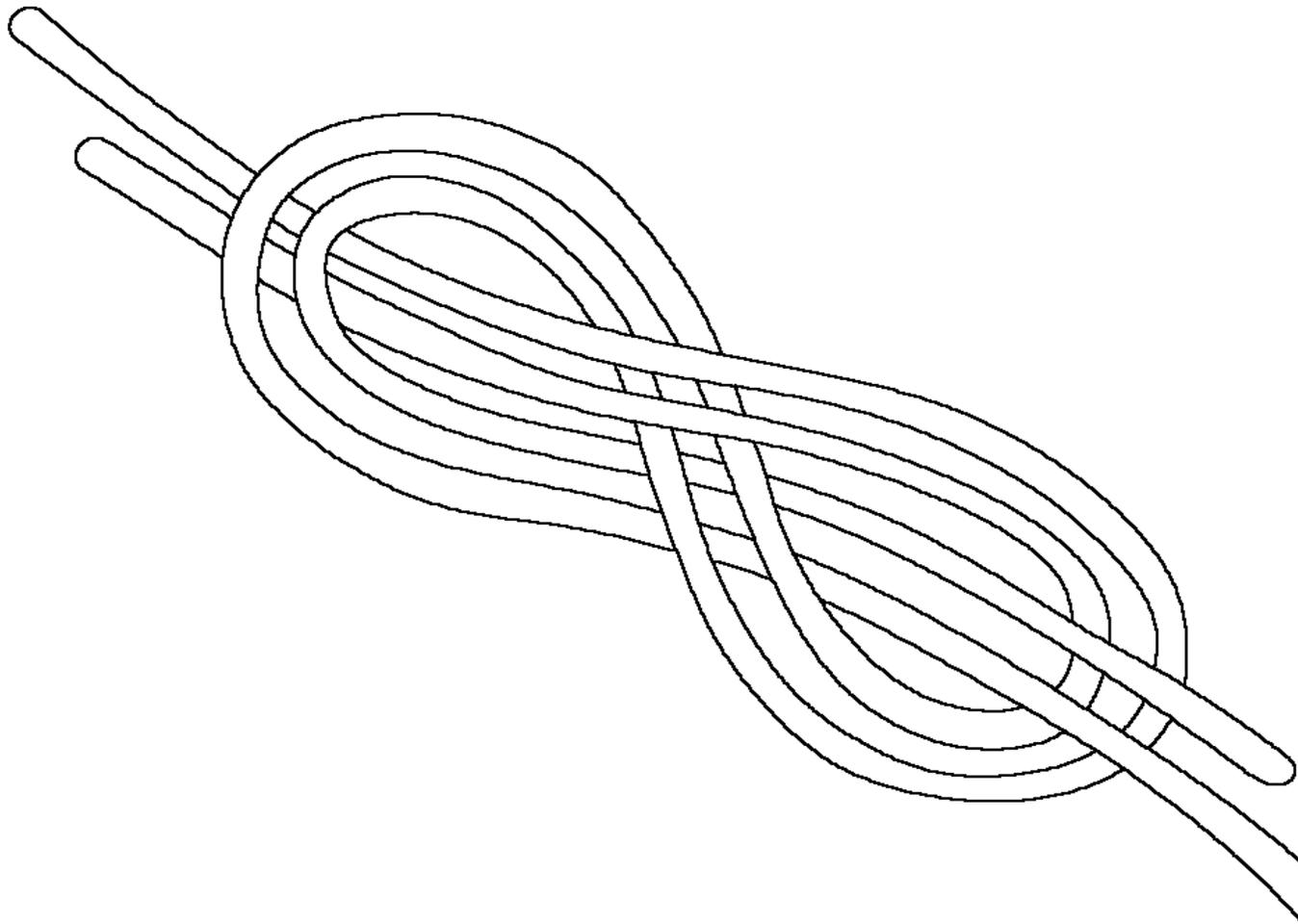
ACCESS EVOLUTION - SKETCH #021
Figure Eight Stopper Knot - A Single Figure Eight Knot



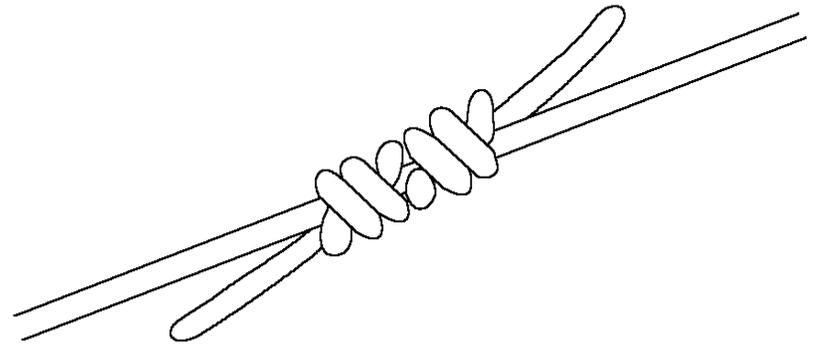
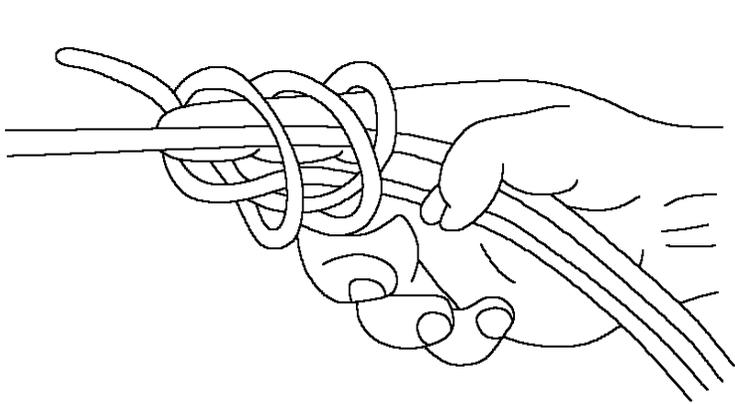
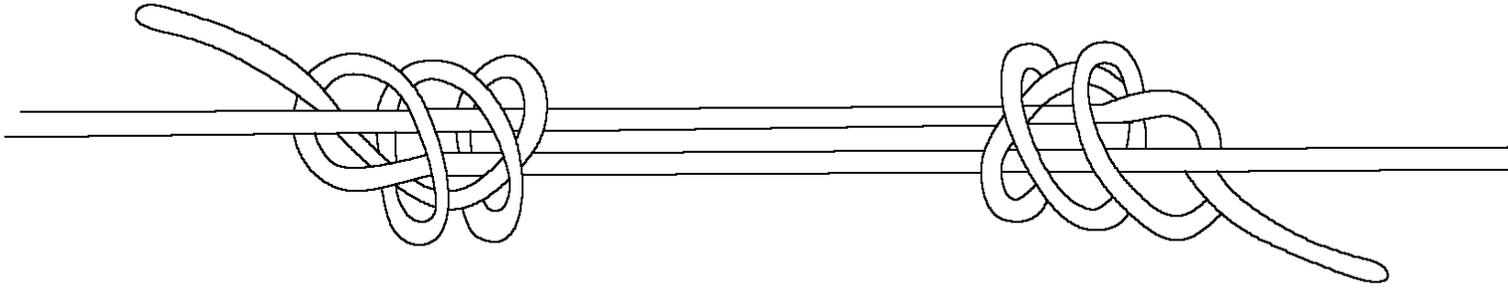
ACCESS EVOLUTION - SKETCH #022
Figure Eight on a Bight Knot



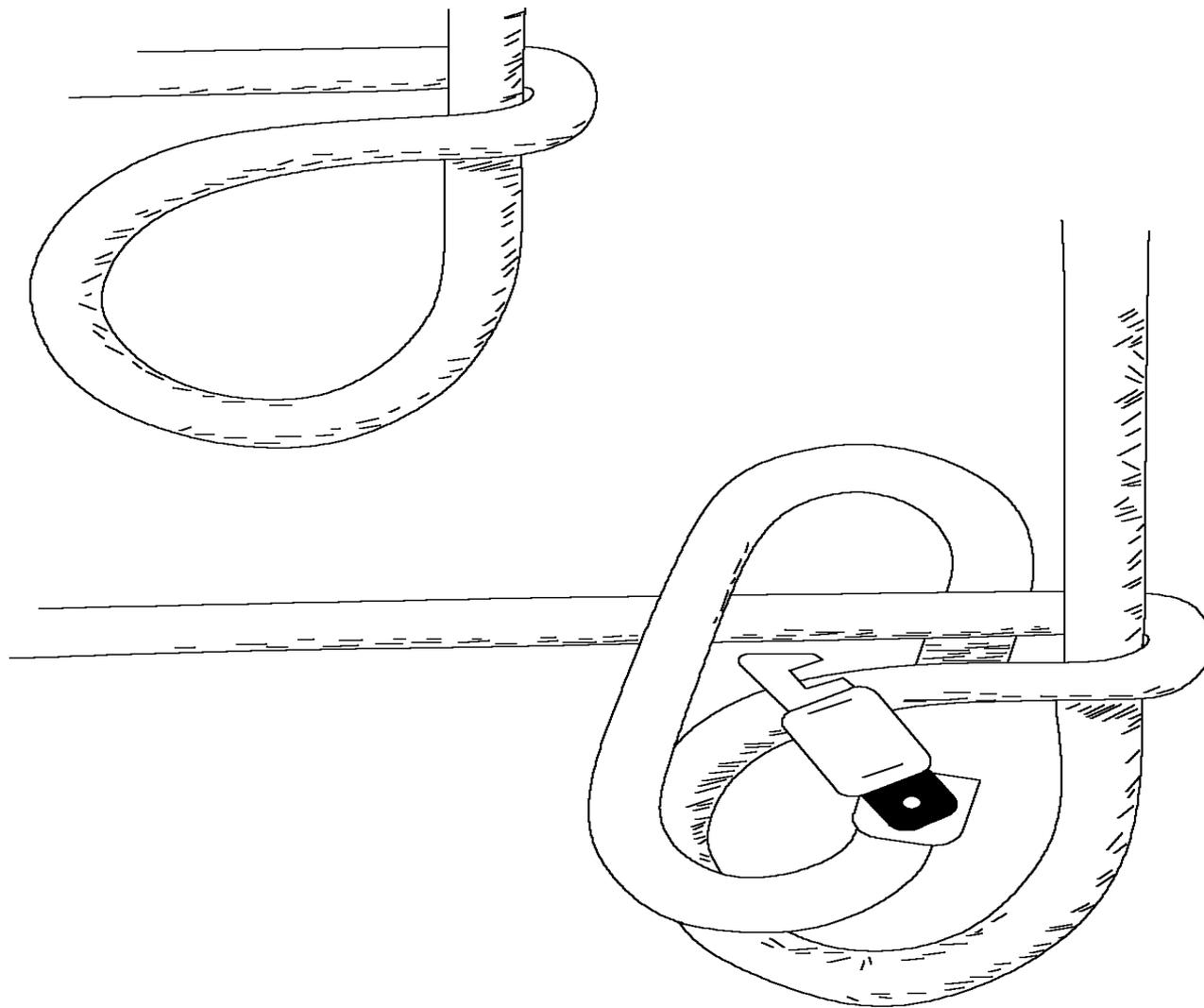
ACCESS EVOLUTION - SKETCH #023
Figure Eight Follow-Through Knot



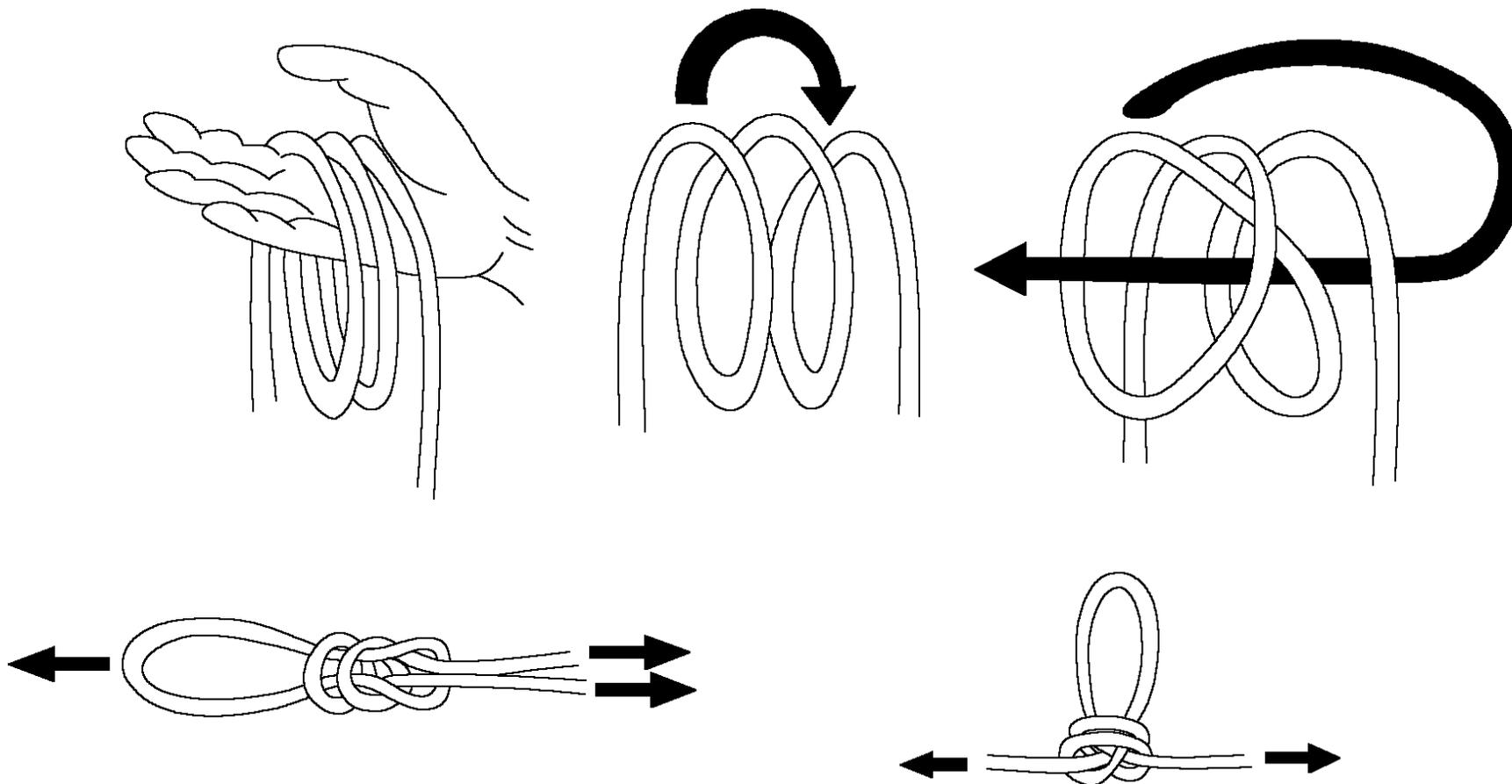
ACCESS EVOLUTION - SKETCH #024
Figure Eight Bend Knot



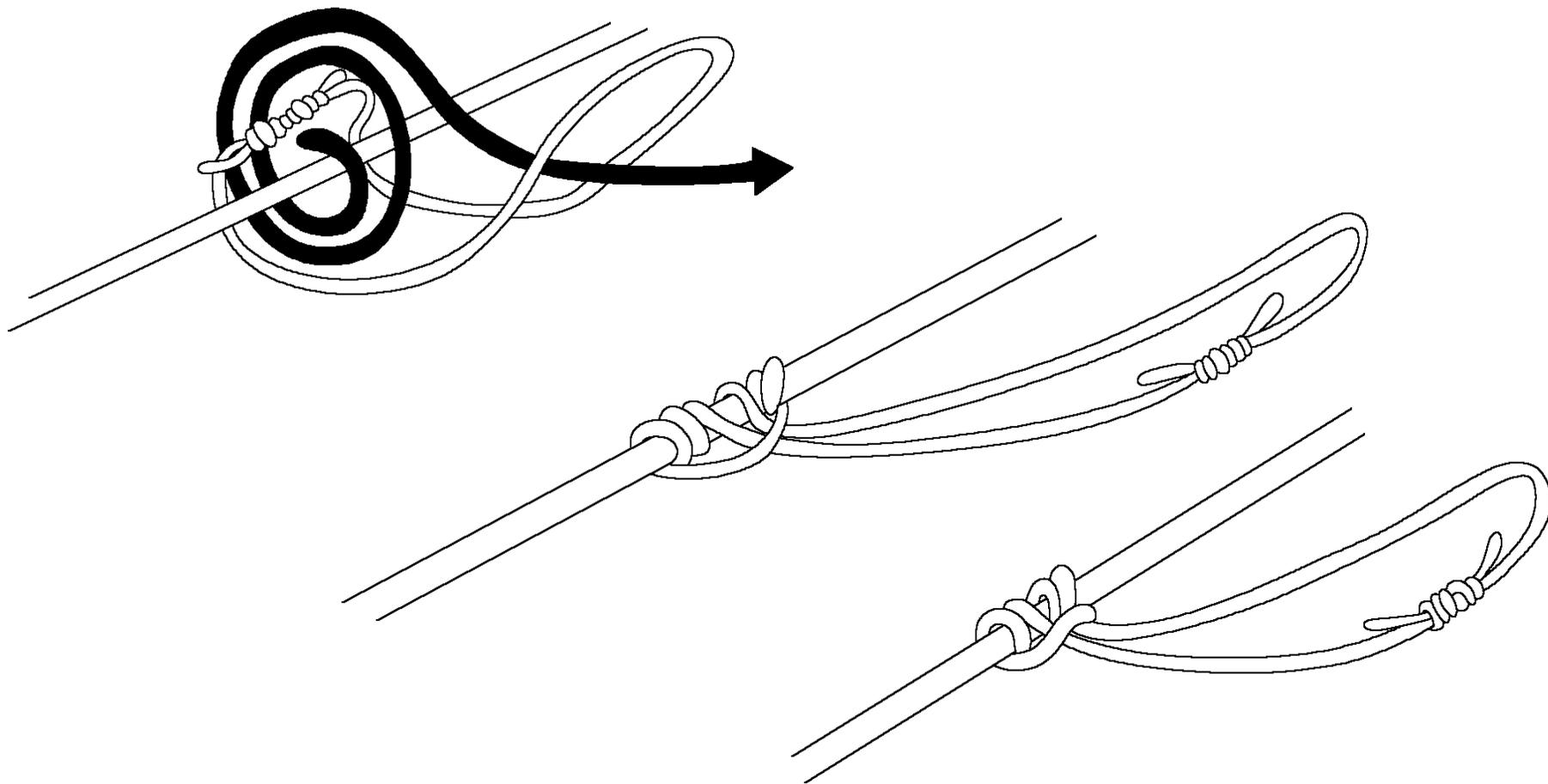
ACCESS EVOLUTION - SKETCH #025
Double Fisherman's Bend Knot



ACCESS EVOLUTION - SKETCH #026
Munter Hitch Knot



ACCESS EVOLUTION - SKETCH #027
Butterfly Knot



ACCESS EVOLUTION - SKETCH #028
Prusic Hitch Knot with Double and Triple Wrap