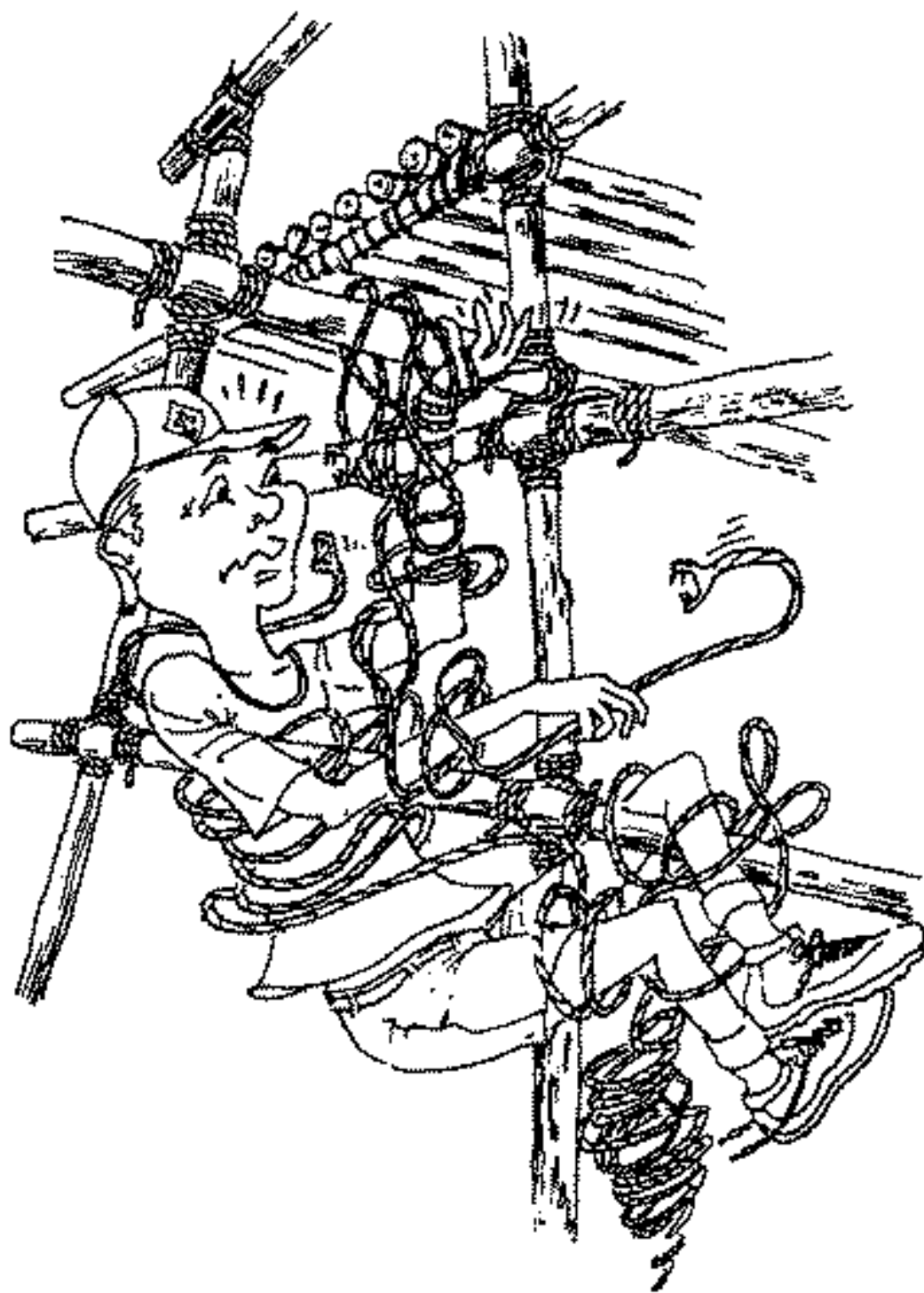


PIONEERING PROJECTS BIG & SMALL



All images used in this booklet, including the one on the cover, have been obtained from the Internet, a majority being obtained from <http://www.hurricanedistrict.org/pioneering.htm>. This is a wonderful resource, and I encourage you to check it out. I also would like to express my gratitude to the Hurricane District for putting such a fantastic resource onto the Internet. Others did the hard work; I simply collected the fruits of their labors and put them into a central resource. I am indebted to all of them, for this is really their work and not mine.

I compiled these drawings into this booklet because it seems that there is less of an emphasis on pioneering now than there was before. The Pioneering Merit Badge Pamphlet, while it contains some information on projects, mostly concerns itself with the basics, and therefore does not provide much project information, in terms of plans. It's almost impossible to obtain a copy of Sweet's *Scout Pioneering* in the United States (though the Canadian Scout Association publishes the book – I got my copy from them), and the *Fieldbook* and *Handbook* are also lacking when it comes to Pioneering. The only real resource is the *Boy Scout Roundtable Guide*, which has some illustrations in them. But besides utilizing these few resources, those who are interested are left to fend for themselves, so it seems. Those who wish to do pioneering projects are often left to their own imaginations for designs, a problem for those who, like me, have small amounts of creativity that must be used judiciously.

The immediate reason for my compiling this work is that, when I was named Scoutcraft Director of the Bert Adams Scout Reservation in Covington, Ga., I was informed that there would be a pioneering competition, with prizes. Not wanting to have the troops only construct monkey bridges, I searched for other possible projects, which culminated in the creation of this booklet.

As far as I can ascertain, all of the images in this book are in the public domain. If this is not the case, please let me know and I will remove the copyrighted, non-public domain material from this collection. It is certainly not my intention to infringe upon anyone's copyright.

I hope you find this collection useful. I welcome any comments, criticisms, suggestions, and, most especially, new pioneering projects, for this is always a work in progress.

Yours in Scouting,
Andrew J. Miller
mcs@bigfoot.com

Note: This collection may not be used for commercial gain. You are free to copy and distribute it (indeed, I encourage you to do so), but no profit is to be made from the distribution of this collection. Think of it as your daily good turn.

Table of Contents

TABLE OF CONTENTS	3
ALPHABETICAL TABLE OF CONTENTS	4
BRIDGES	7
MONKEY BRIDGE	8
SINGLE LOCK BRIDGE	8
SINGLE TRESTLE BRIDGE	9
Detail for Single Trestle Bridge	10
DRAW BRIDGE	12
SUSPENSION BRIDGE	12
FRICION BRIDGE	13
TROOP 185 DRAW BRIDGE	13
CATAPULTS / BALLISTAS	15
TWO PERSON CATAPULT	16
TROOP 10 CATAPULT	17
BALLISTA	18
TOWERS AND GATEWAYS	19
PFOX TOWER	20
SIGNAL TOWER	21
BRYNBACH TOWER	22
HOURLASS SIGNAL TOWER	23
TRIANGULAR SIGNAL TOWER	24
TEN MINUTE TOWER	25
STILT TOWER	26
TROOP 850 GATEWAY	27
COVERED GATEWAY	28
SIMPLE GATEWAY	29
TROOP 16 GATEWAY	30
Troop 16 Gateway Roof Detail	31
LIFTING GATEWAY	32
SWINGING GATE	33
GATEWAY WITH DOORBELL	34
ROTATING GATE / TURNSTILE GATE	35
BASIC 'FREE STANDING' GATEWAY	36
COVERED GATEWAY WITH SWINGING GATE	37
TWO DOOR GATEWAY	38
"WEIRD LOOKING" GATEWAY	39
EASY 'FREE STANDING' GATEWAY	40
'IN GROUND' GATEWAY WITH SWINGING GATE	41
SIMPLE 'IN GROUND' GATEWAY	42
SERIOUSLY LARGE COVERED GATEWAY	43
CAMP TOOLS / GADGETS	45
FIRE BUCKET HOLDERS	46
CLOTHESLINE	47
BULLETIN BOARD	48
LANTERN HOLDER	49
TOOL RACK	50
BEAR BAG	51
VARIOUS CAMP TOOLS	52
KITCHEN WORK TABLE	54
GARBAGE BAG HOLDER	55
WASH BASIN	56

WASH BASIN WITH SHELF _____	57
CAMP TABLE _____	58
CAMP TABLE WITH SEATS _____	59
CHIPPEWA COOKING FIRE STAND _____	60
CAMP TABLE WITH BENCH AND SEAT _____	61
SHOWER _____	62
LATRINE _____	63
MISCELLANEOUS PROJECTS _____	65
CLIMBING WALL _____	66
Climbing Wall Components _____	67
TEAM PULLEY GAME _____	68
SWINGING DERRICK/CRANE _____	68
SCAFFOLD HITCH _____	69
PIONEERING ANCHORS _____	70
LADDER HITCH _____	71
WASH BASIN _____	73
KIM'S GYM _____	74
DUCKING STOOL _____	74
TROOP DISCIPLINE? _____	75
CAMBRIDGE MERRY-GO-ROUND _____	76

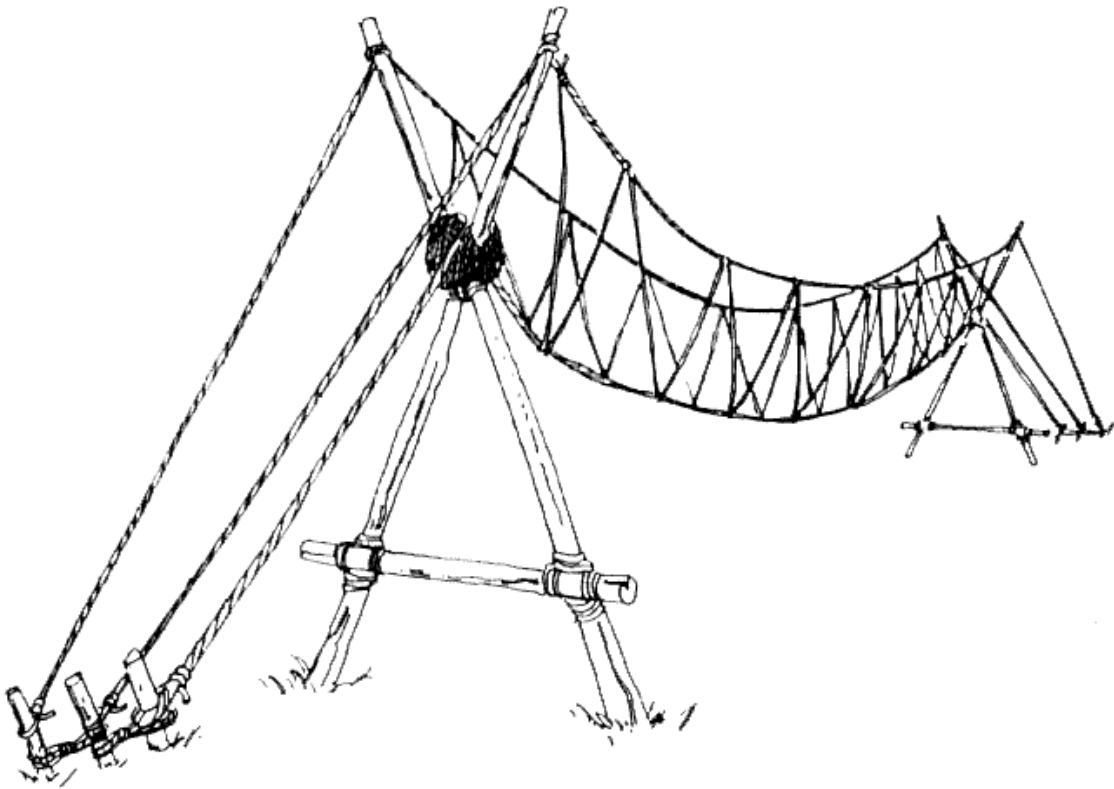
Alphabetical Table of Contents

ALPHABETICAL TABLE OF CONTENTS _____	4
BALLISTA _____	18
BASIC 'FREE STANDING' GATEWAY _____	36
BEAR BAG _____	51
BRYNBACH TOWER _____	22
BULLETIN BOARD _____	48
CAMBRIDGE MERRY-GO-ROUND _____	76
CAMP TABLE _____	58
CAMP TABLE WITH BENCH AND SEAT _____	61
CAMP TABLE WITH SEATS _____	59
CHIPPEWA COOKING FIRE STAND _____	60
CLIMBING WALL _____	66
CLIMBING WALL COMPONENTS _____	67
CLOTHESLINE _____	47
COVERED GATEWAY _____	28
COVERED GATEWAY WITH SWINGING GATE _____	37
DETAIL FOR SINGLE TRESTLE BRIDGE _____	10
DRAW BRIDGE _____	12
DUCKING STOOL _____	74
EASY 'FREE STANDING' GATEWAY _____	40
FIRE BUCKET HOLDERS _____	46
FRICTION BRIDGE _____	13
GARBAGE BAG HOLDER _____	55
GATEWAY WITH DOORBELL _____	34
HOURLASS SIGNAL TOWER _____	23
IN GROUND GATEWAY WITH SWINGING GATE _____	41
KIM'S GYM _____	74
KITCHEN WORK TABLE _____	54
LADDER HITCH _____	71
LANTERN HOLDER _____	49
LATRINE _____	63
LIFTING GATEWAY _____	32

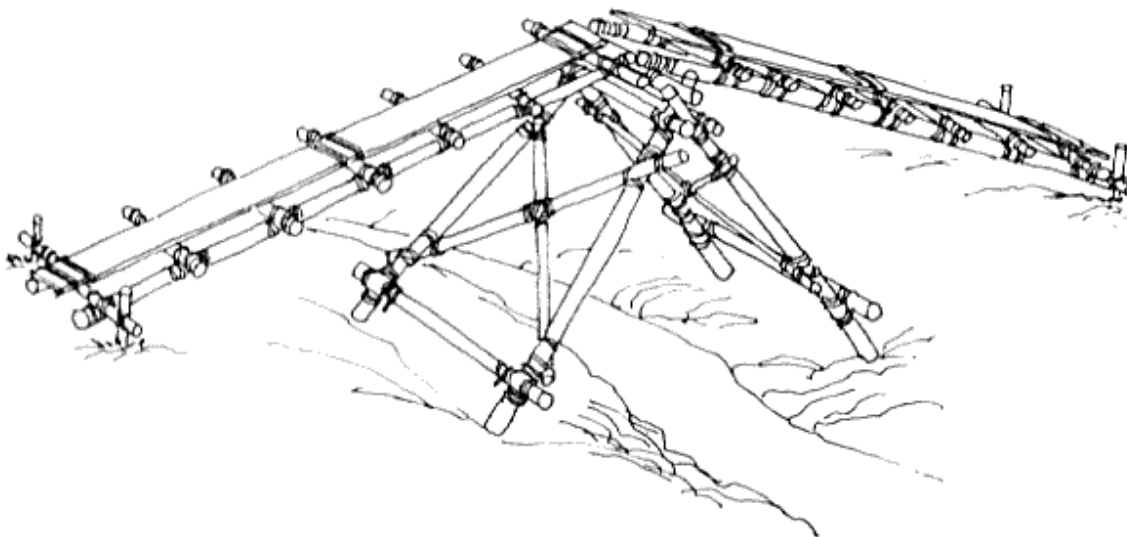
MONKEY BRIDGE _____	8
PFOX TOWER _____	20
PIONEERING ANCHORS _____	70
ROTATING GATE / TURNSTILE GATE _____	35
SCAFFOLD HITCH _____	69
SERIOUSLY LARGE COVERED GATEWAY _____	43
SHOWER _____	62
SIGNAL TOWER _____	21
SIMPLE 'IN GROUND' GATEWAY _____	42
SIMPLE GATEWAY _____	29
SINGLE LOCK BRIDGE _____	8
SINGLE TRESTLE BRIDGE _____	9
STILT TOWER _____	26
SUSPENSION BRIDGE _____	12
SWINGING DERRICK/CRANE _____	68
SWINGING GATE _____	33
TABLE OF CONTENTS _____	3
TEAM PULLEY GAME _____	68
TEN MINUTE TOWER _____	25
TOOL RACK _____	50
TRIANGULAR SIGNAL TOWER _____	24
TROOP 10 CATAPULT _____	17
TROOP 16 GATEWAY _____	30
TROOP 16 GATEWAY ROOF DETAIL _____	31
TROOP 185 DRAW BRIDGE _____	13
TROOP 850 GATEWAY _____	27
TROOP DISCIPLINE? _____	75
TWO DOOR GATEWAY _____	38
TWO PERSON CATAPULT _____	16
VARIOUS CAMP TOOLS _____	52
WASH BASIN _____	56
WASH BASIN _____	73
WASH BASIN WITH SHELF _____	57
WEIRD LOOKING GATEWAY _____	39

Bridges

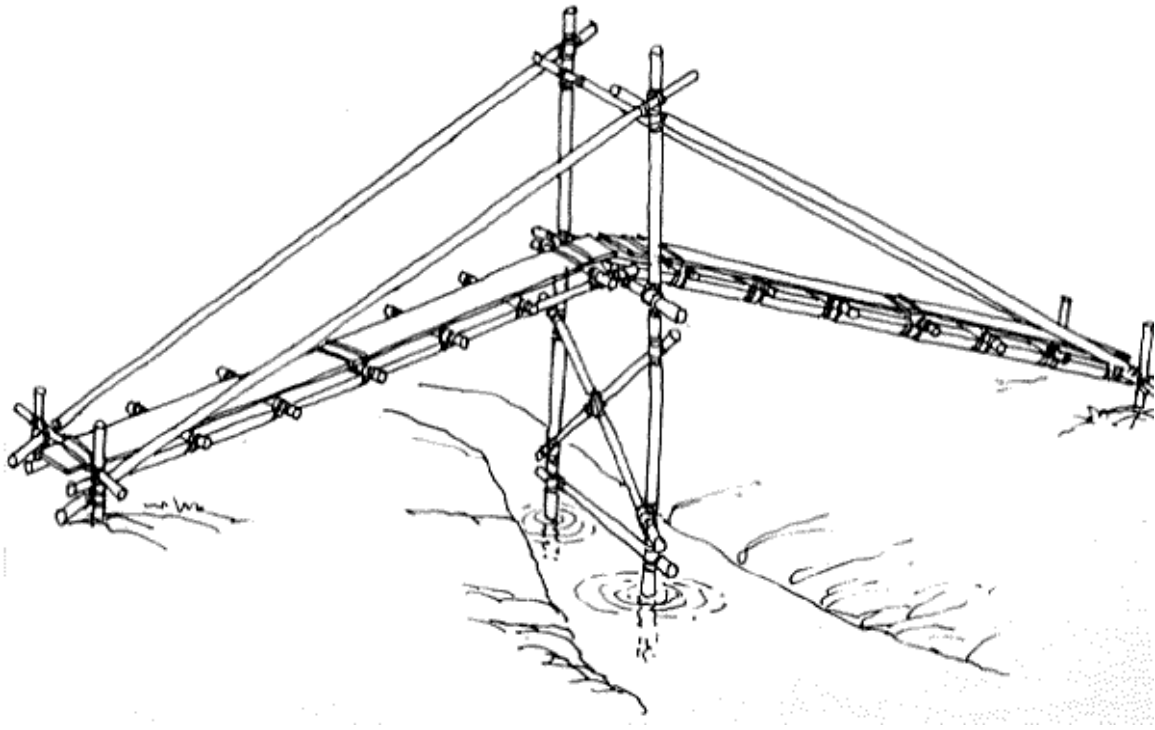
Monkey Bridge



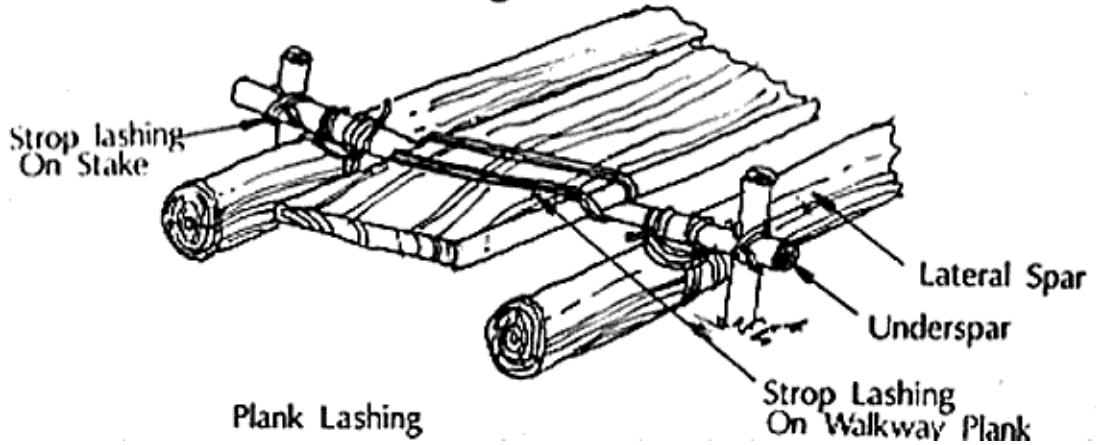
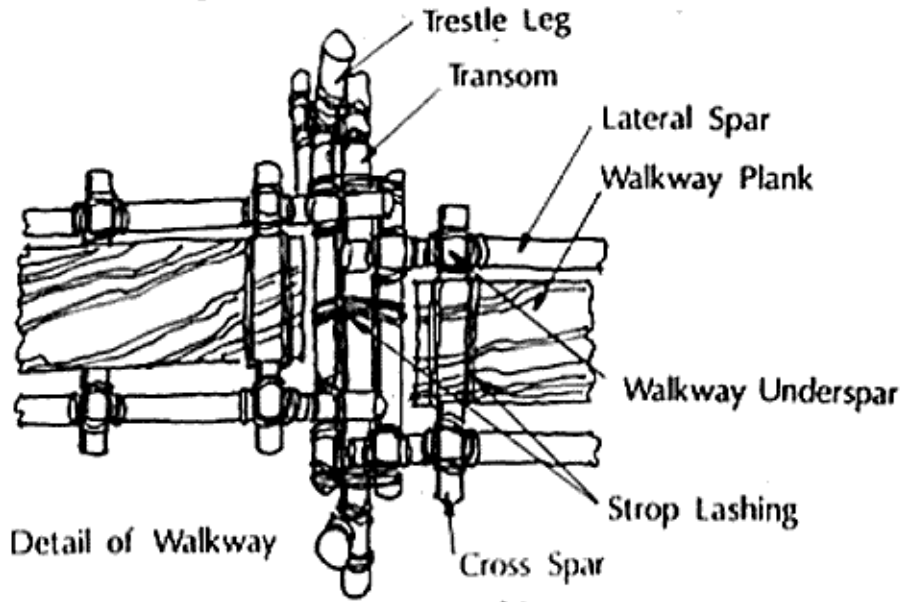
Single Lock Bridge

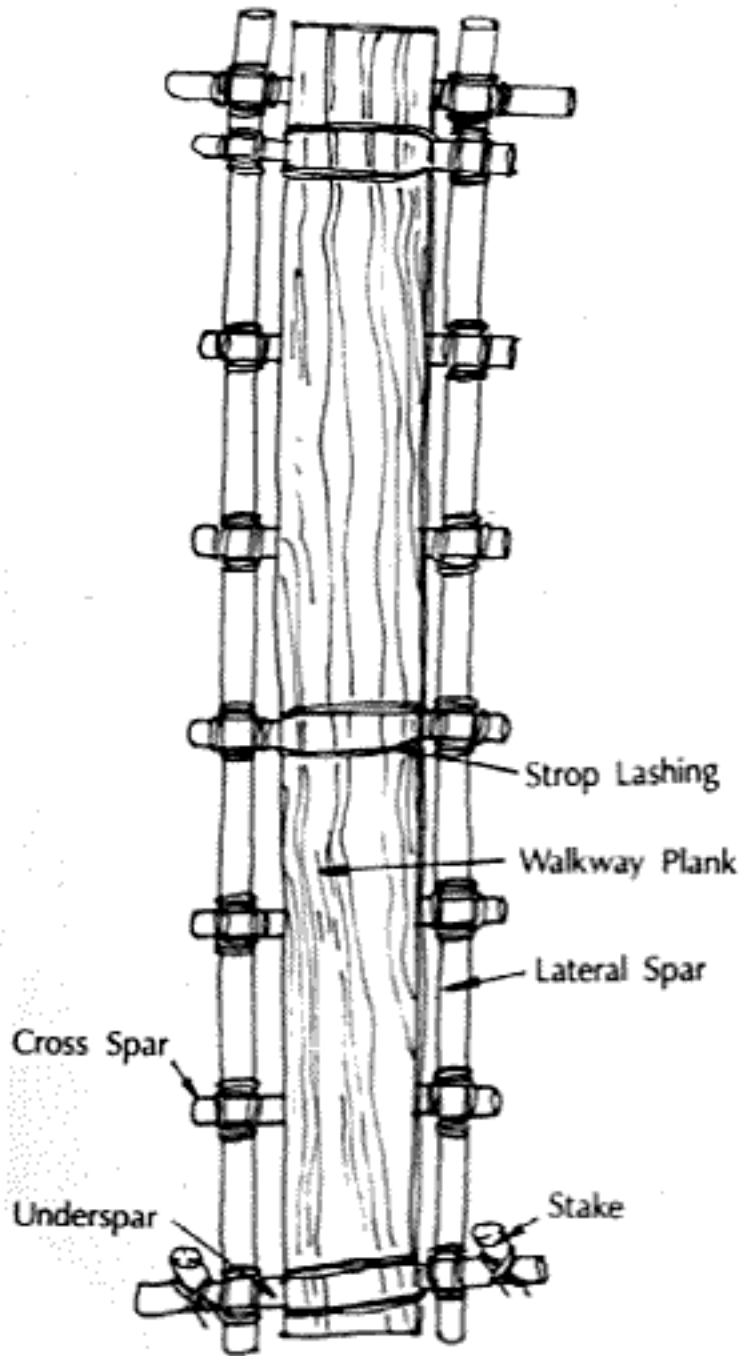


Single Trestle Bridge

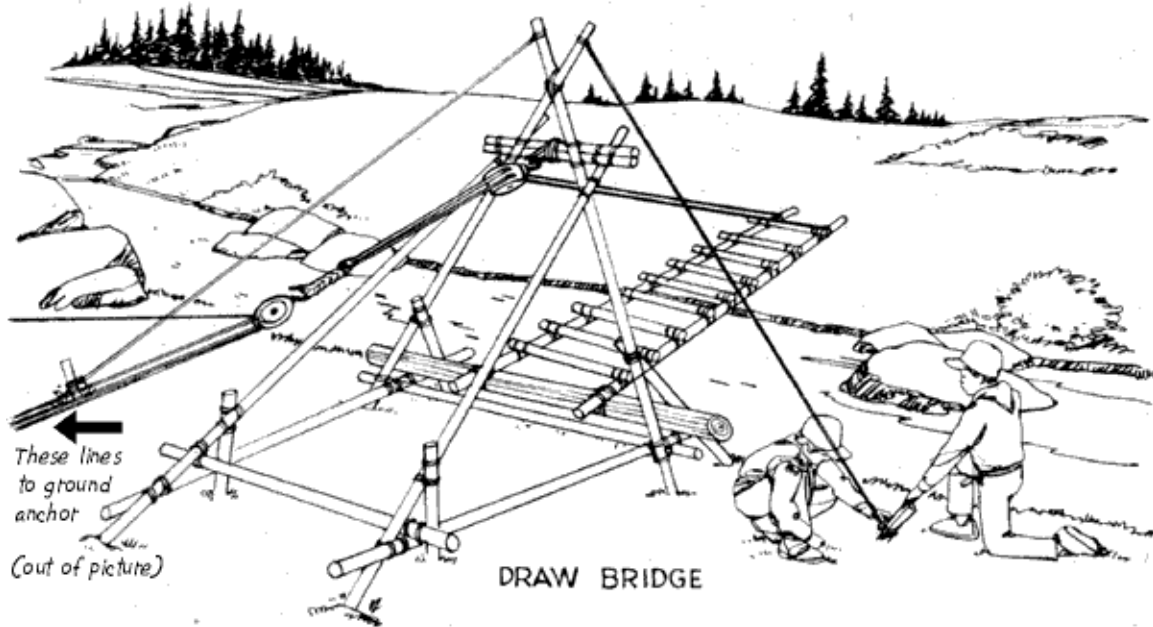


Detail for Single Trestle Bridge

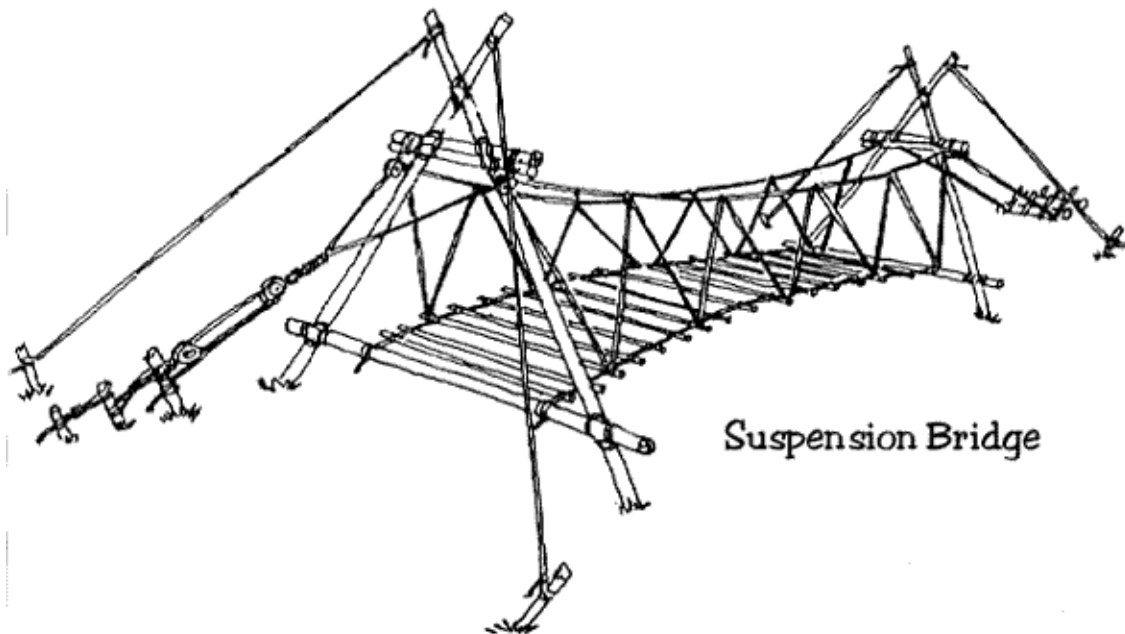




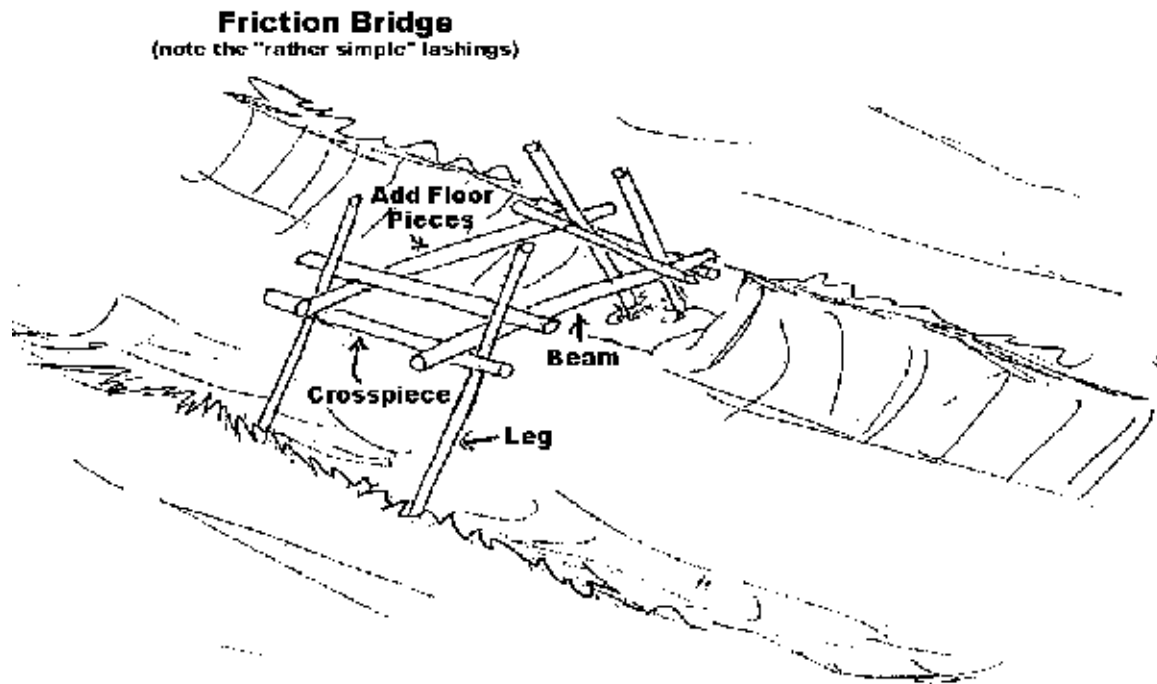
Draw Bridge



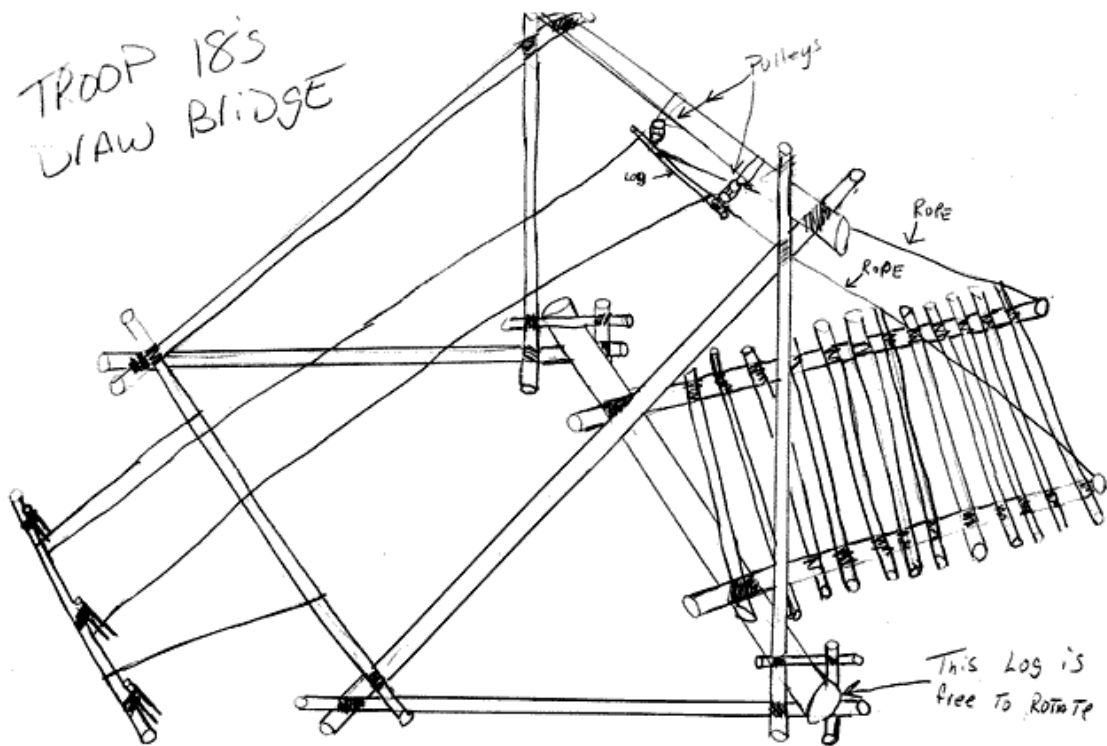
Suspension Bridge



Friction Bridge

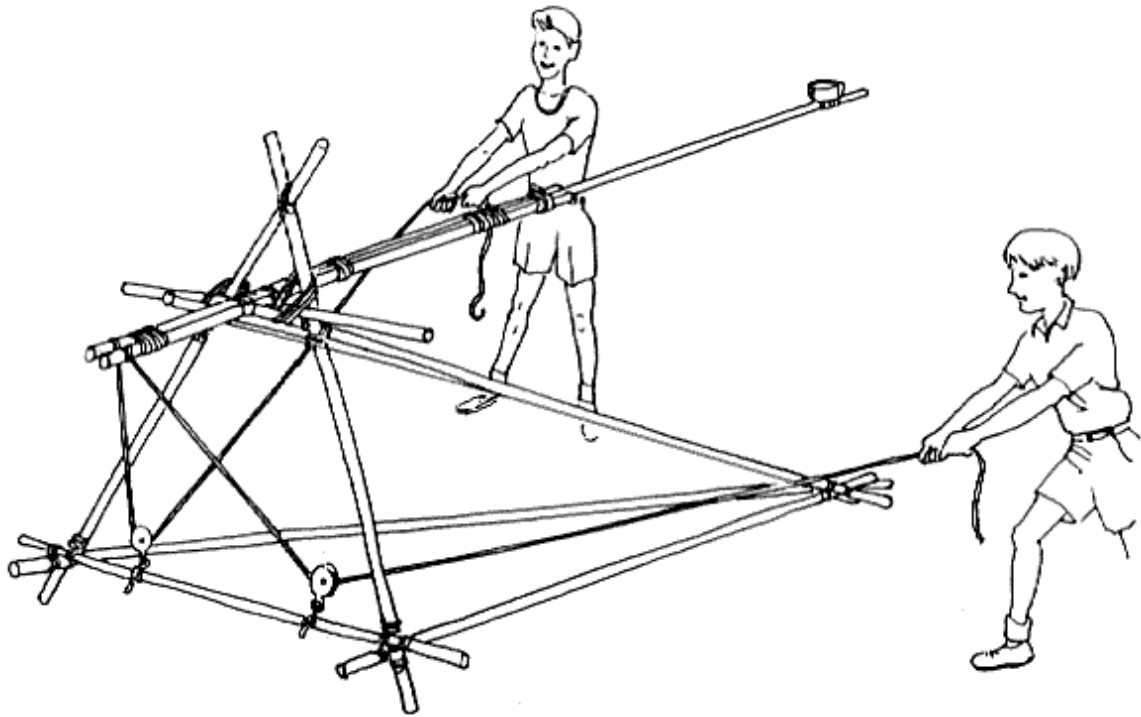


Troop 185 Draw Bridge

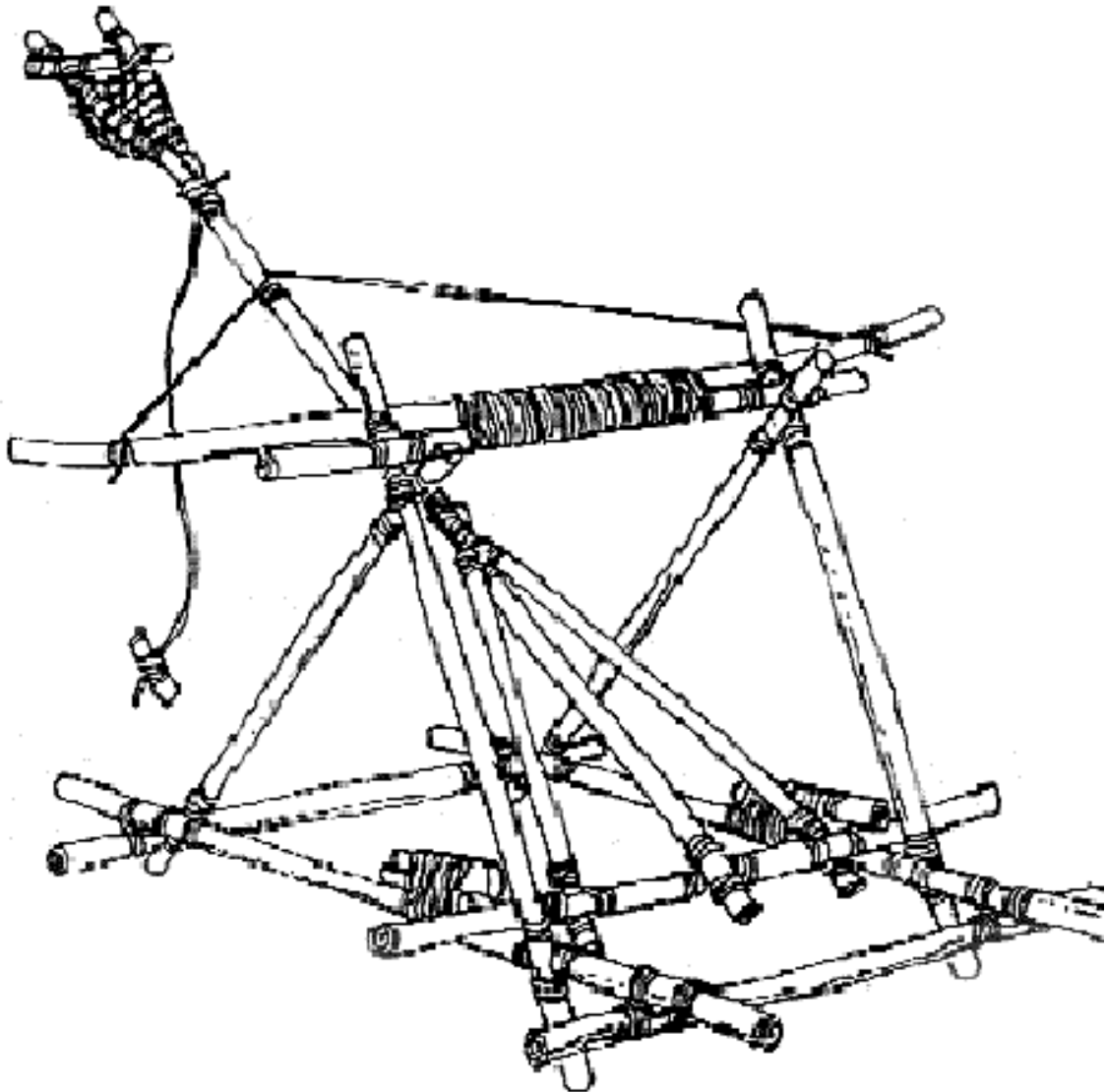


Catapults / Ballistas

Two Person Catapult

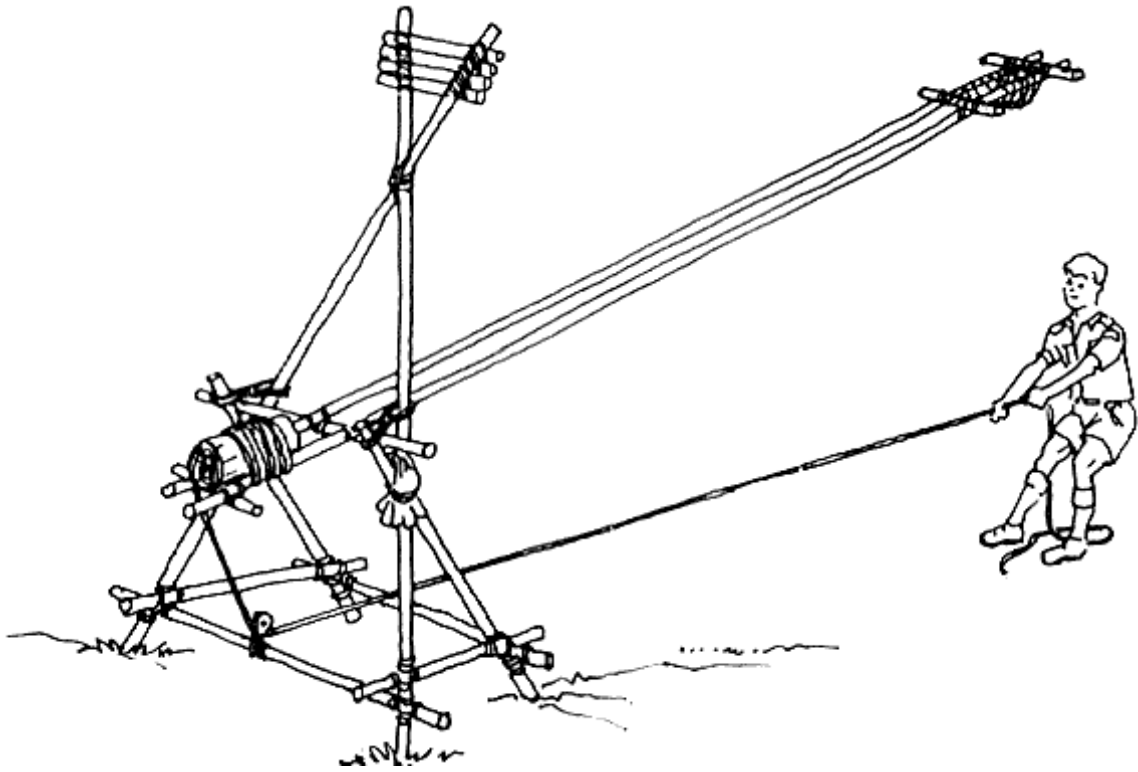


Troop 10 Catapult



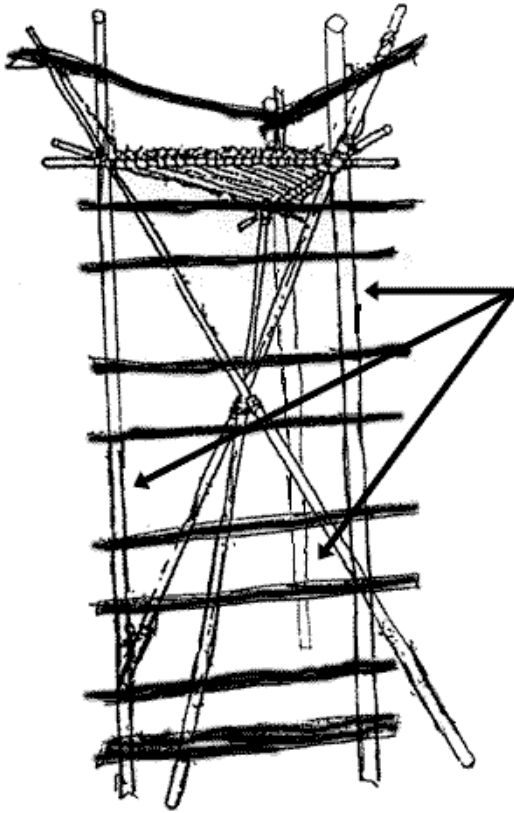
Troop 10 catapult

Ballista



Towers and Gateways

Pfox Tower

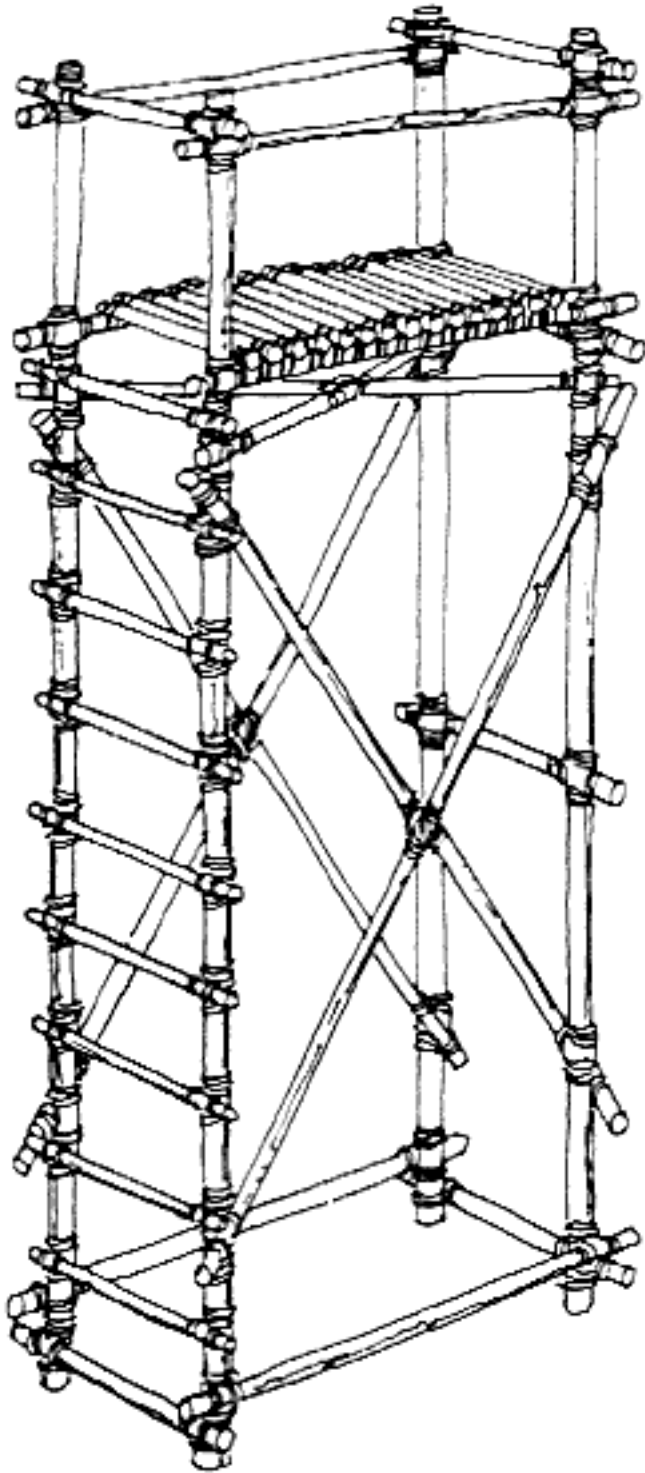


Wood Badge SC455

"Pfox Tower"

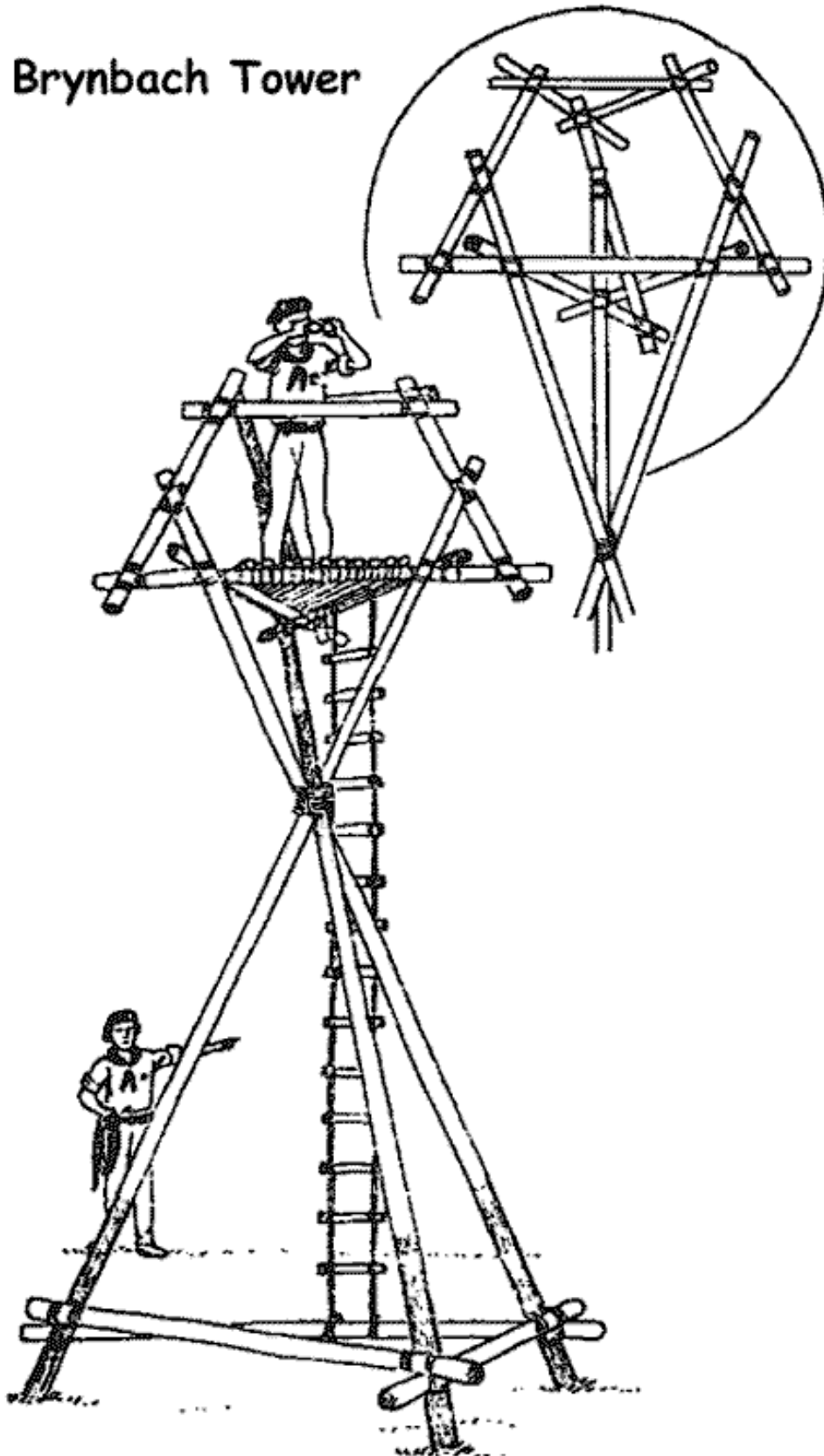
Includes 3 straight supports that hold the ladder and provide extra bracing. You may or may not need these. AS BUILT, this tower held 4 200lb. adults at one time!

Signal Tower

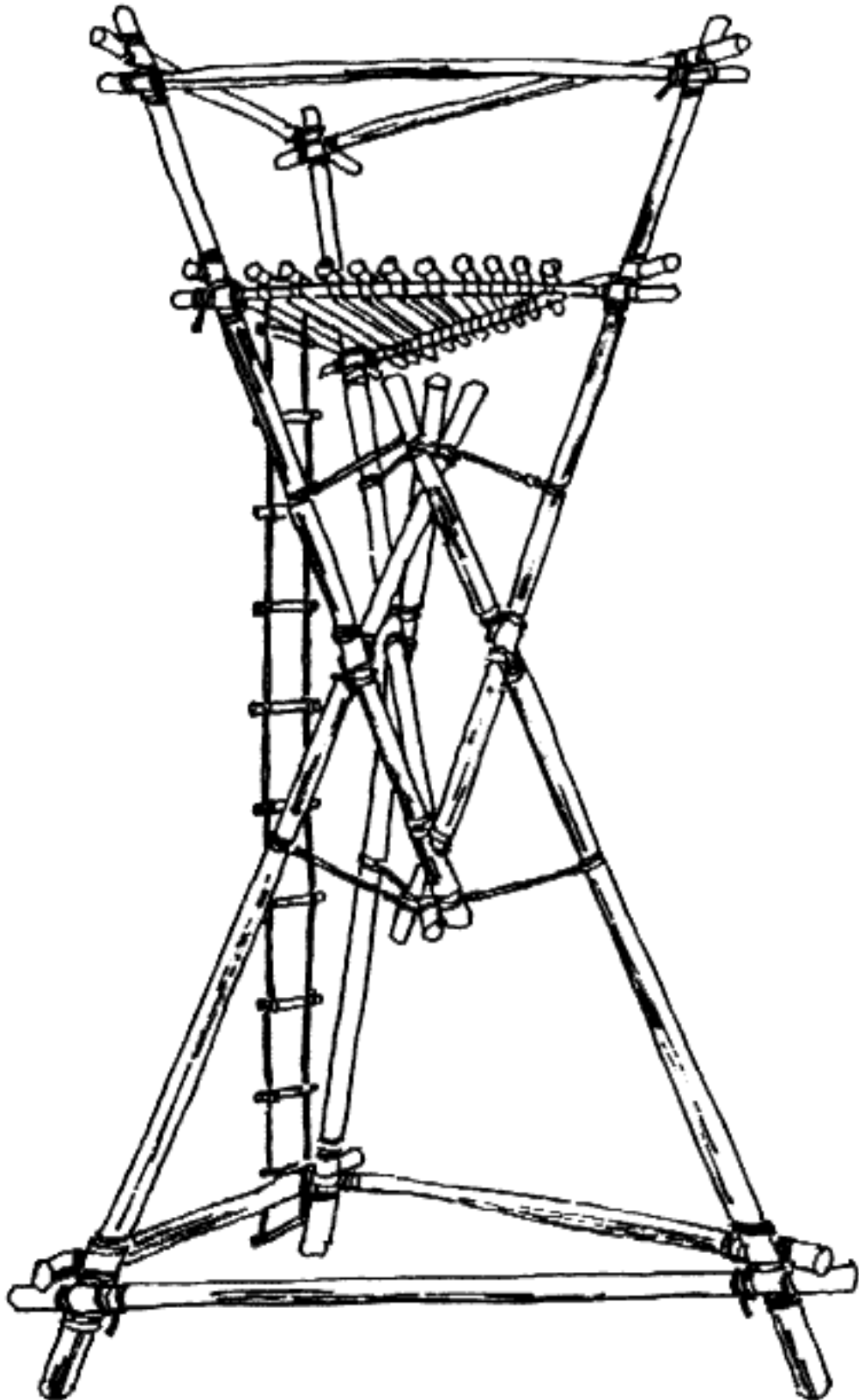


Brynbach Tower

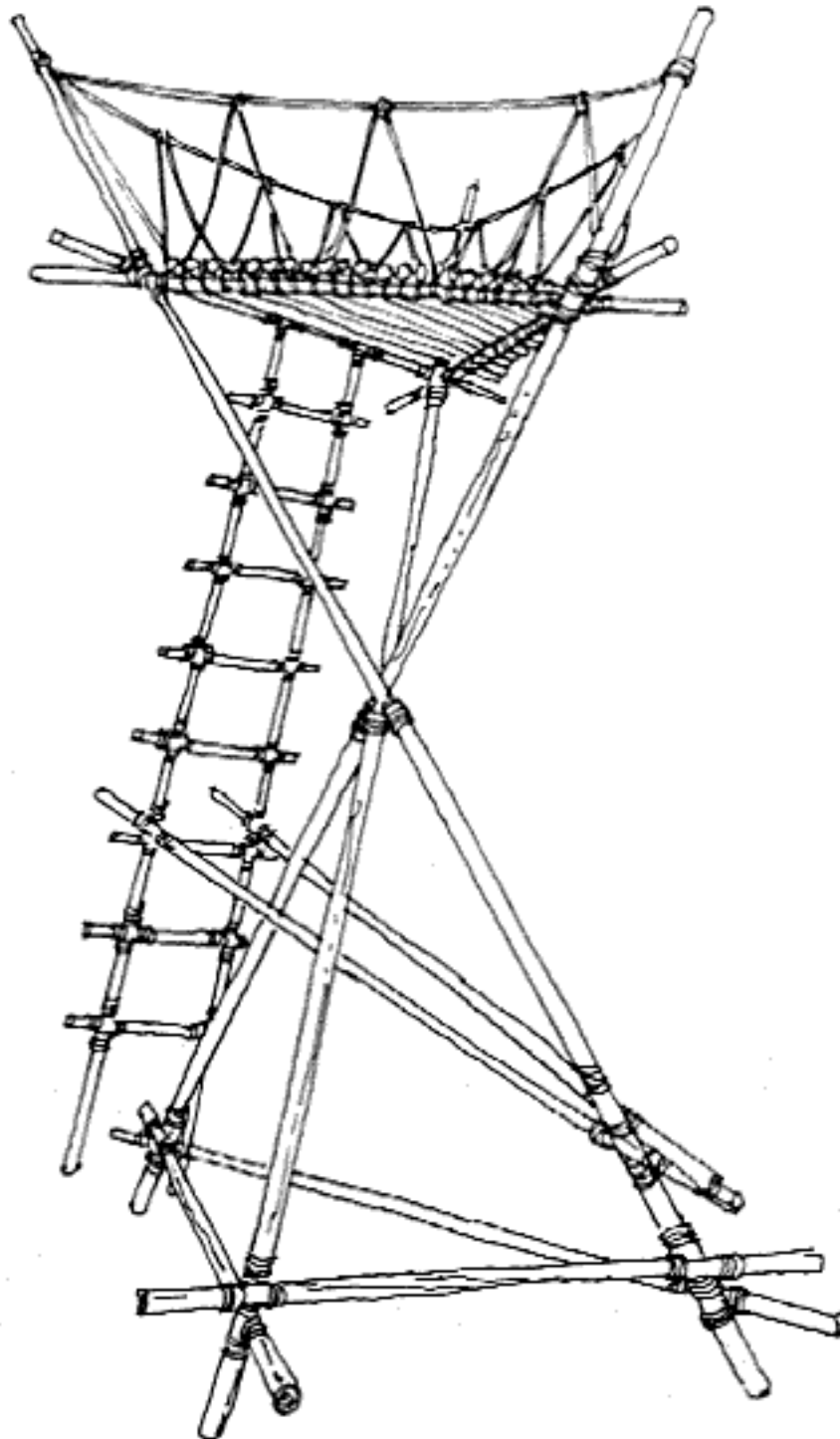
Brynbach Tower



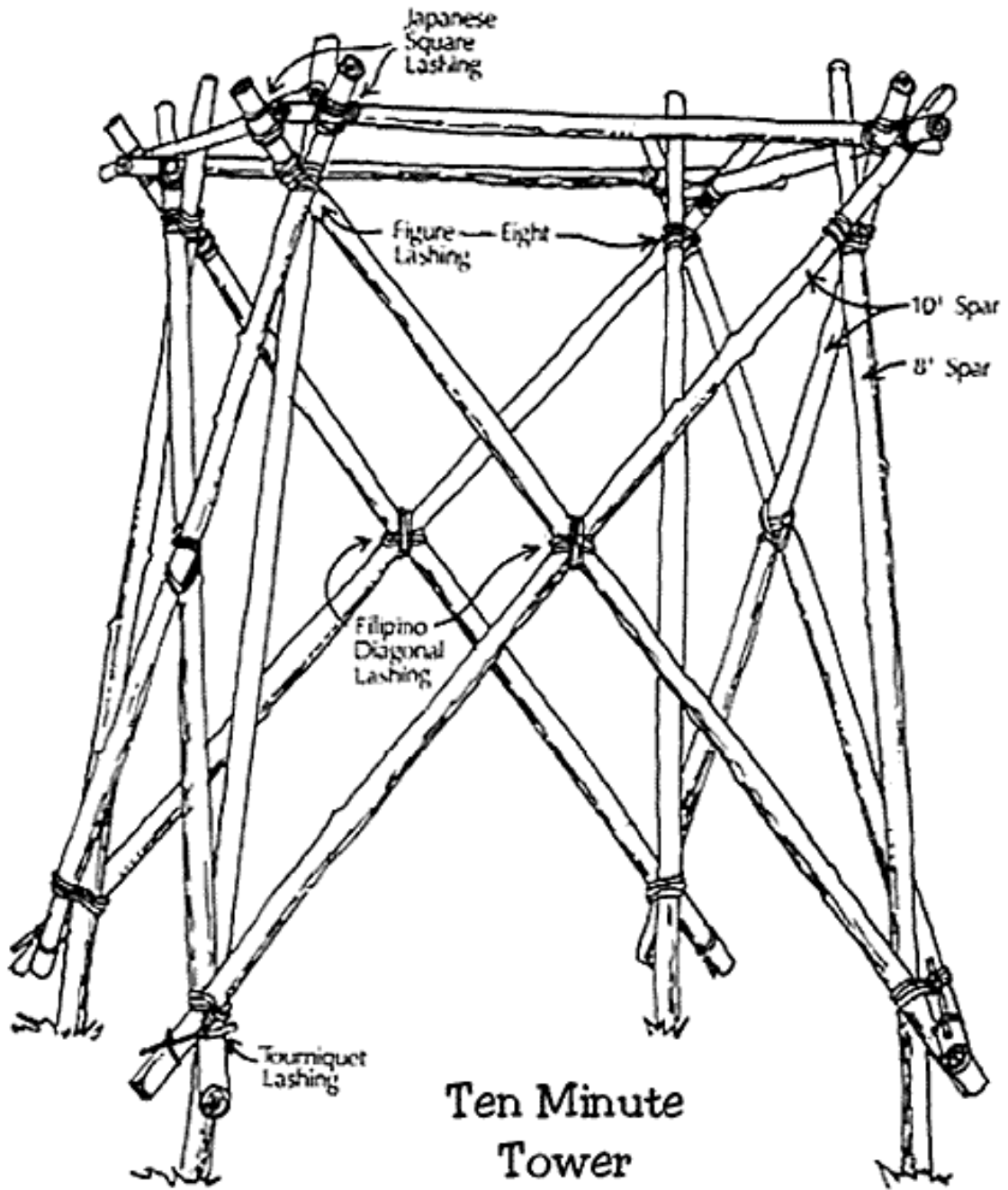
Hourglass Signal Tower



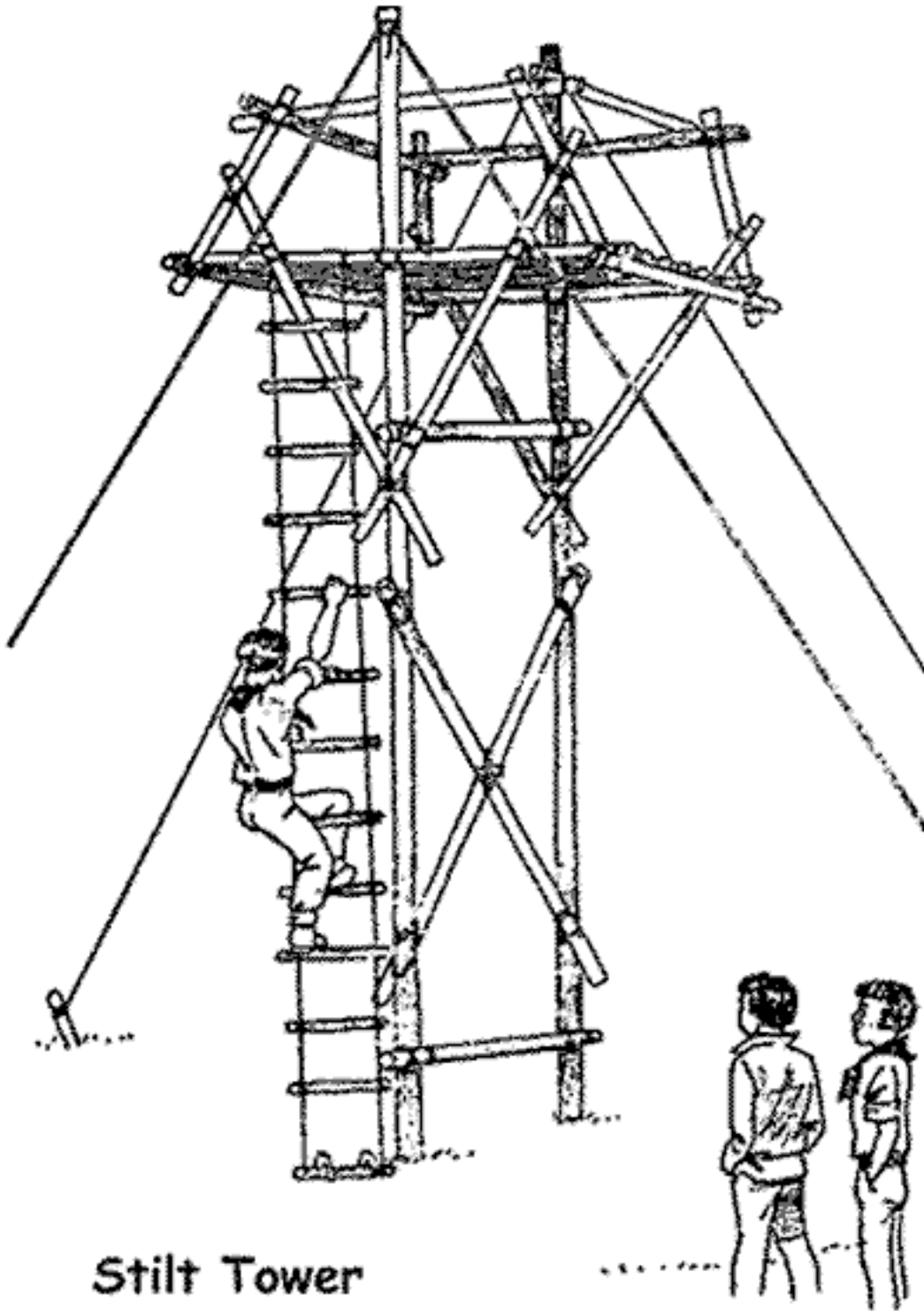
Triangular Signal Tower



Ten Minute Tower

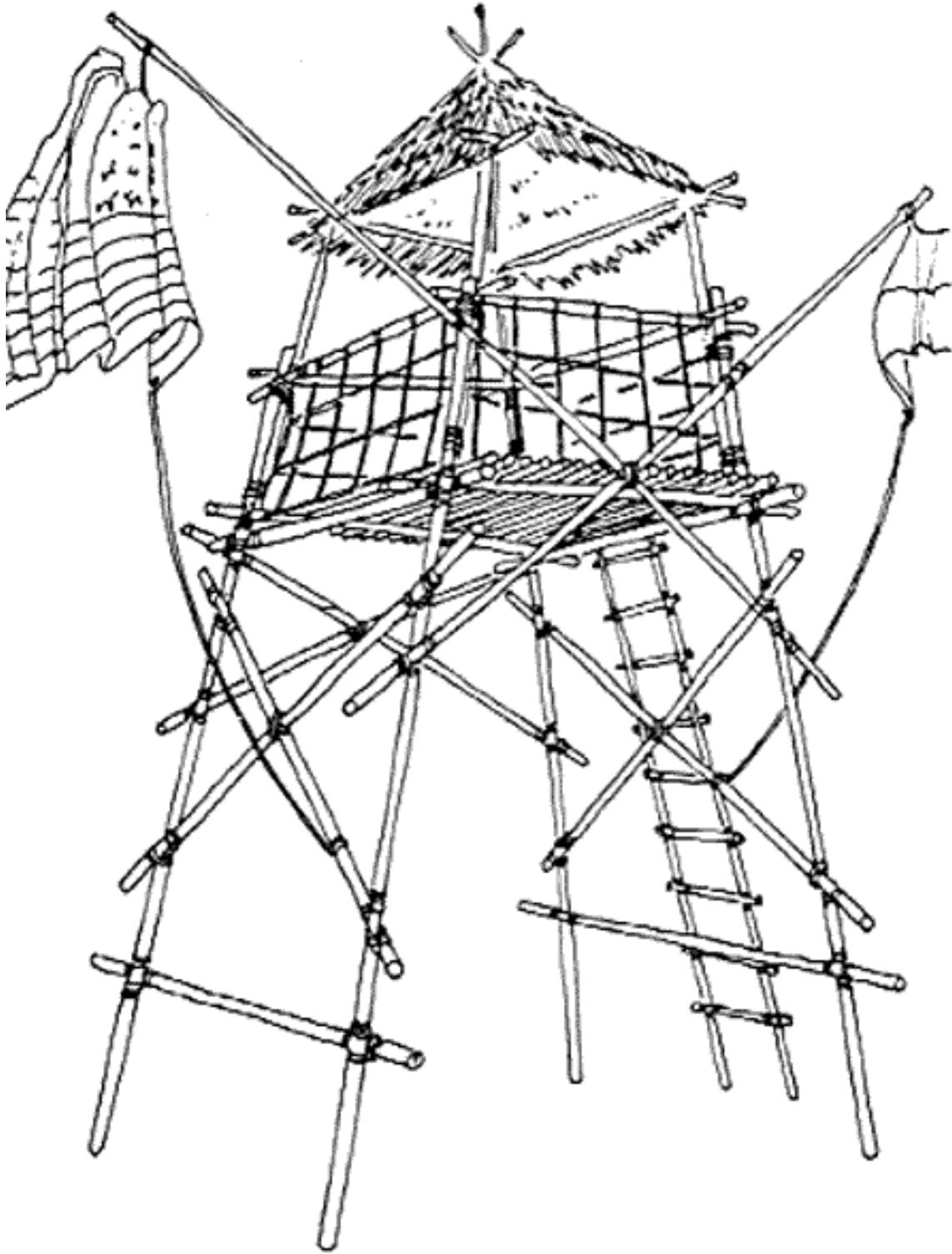


Stilt Tower



Stilt Tower

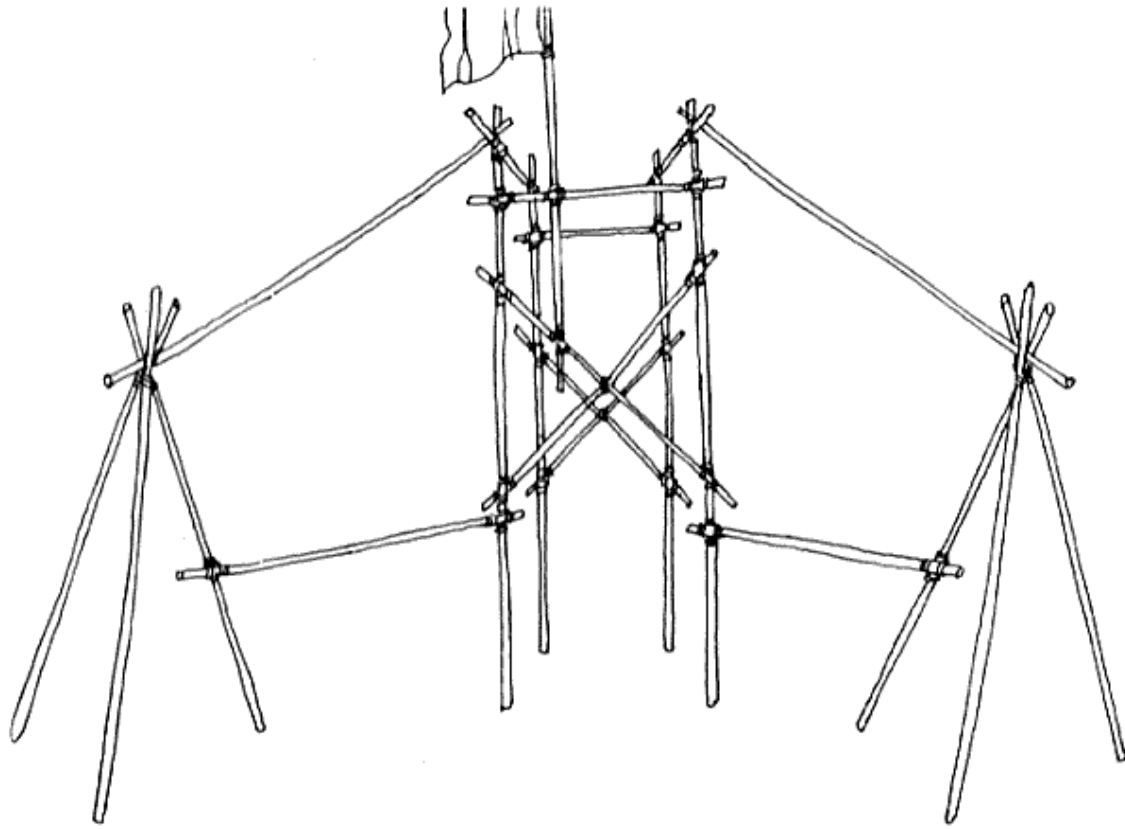
Troop 850 Gateway



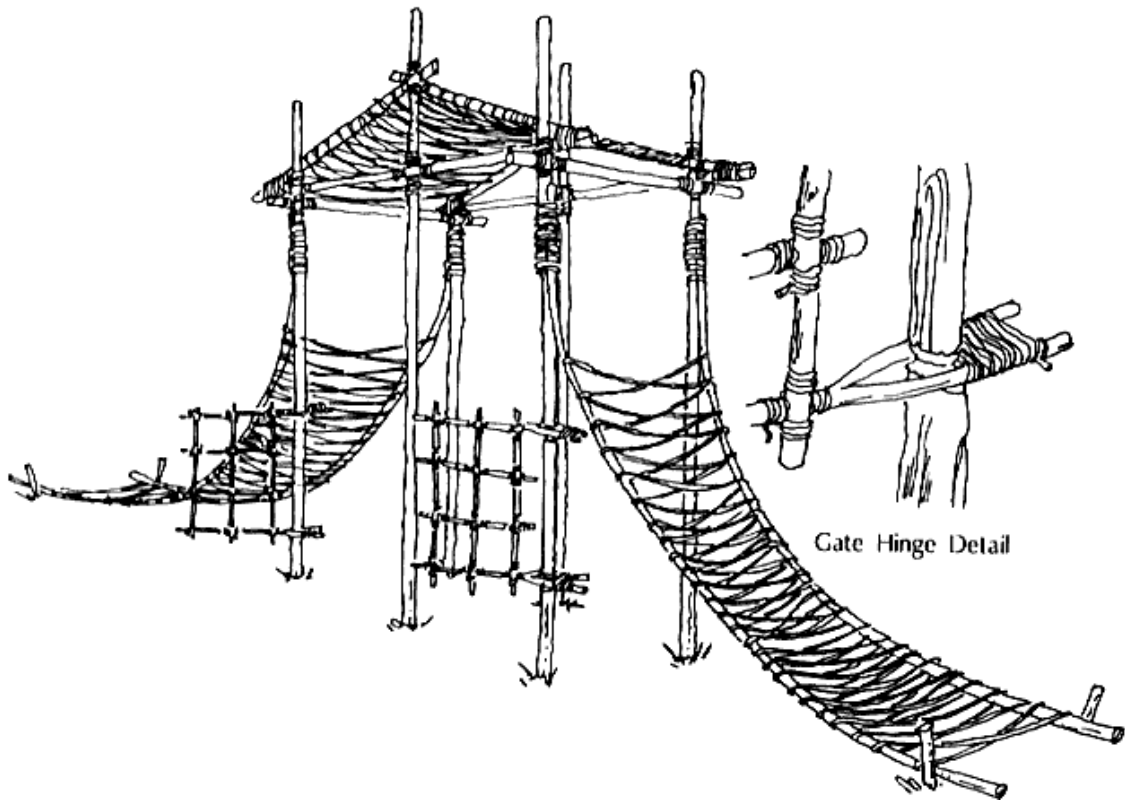
Covered Gateway



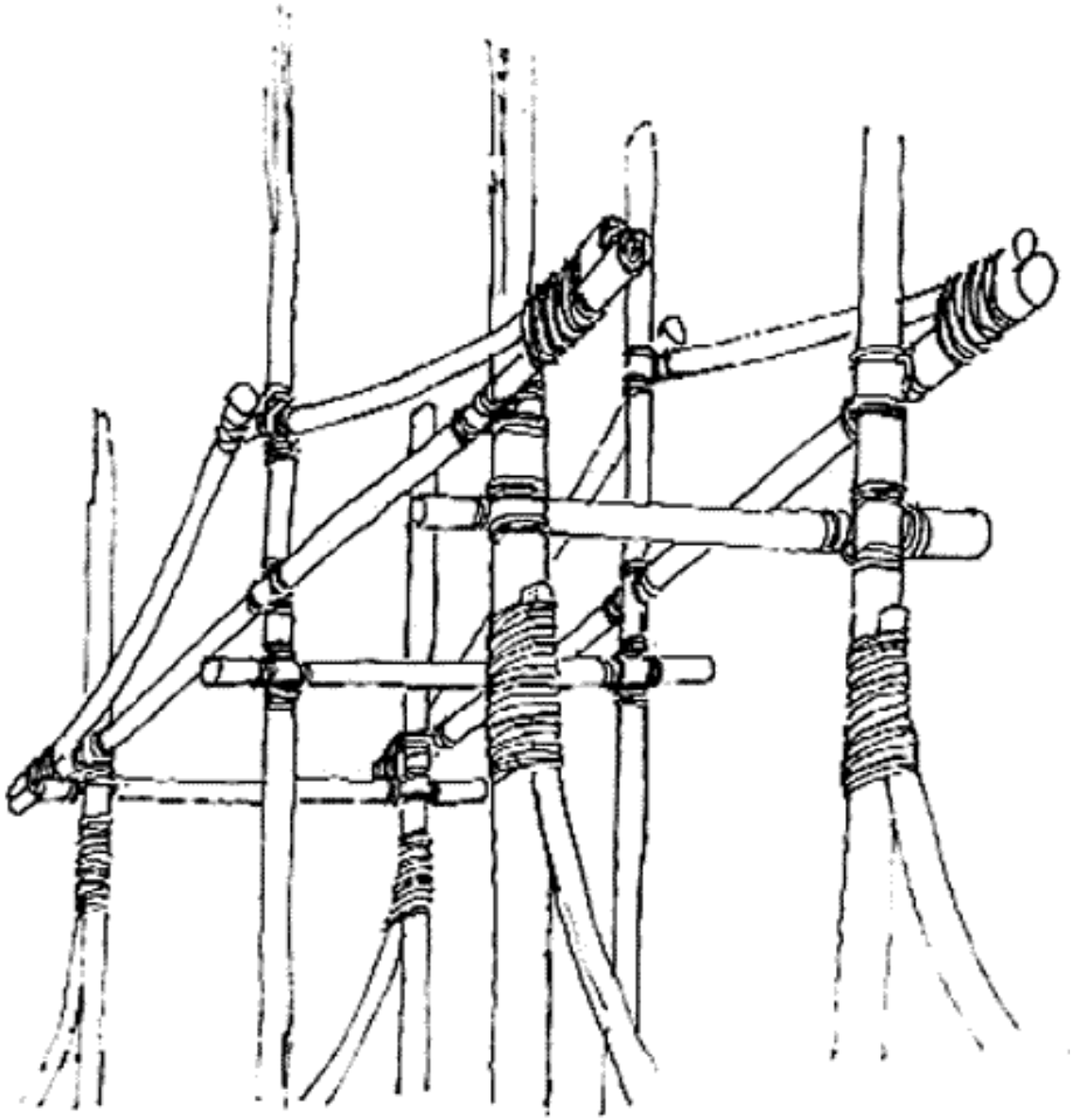
Simple Gateway



Troop 16 Gateway

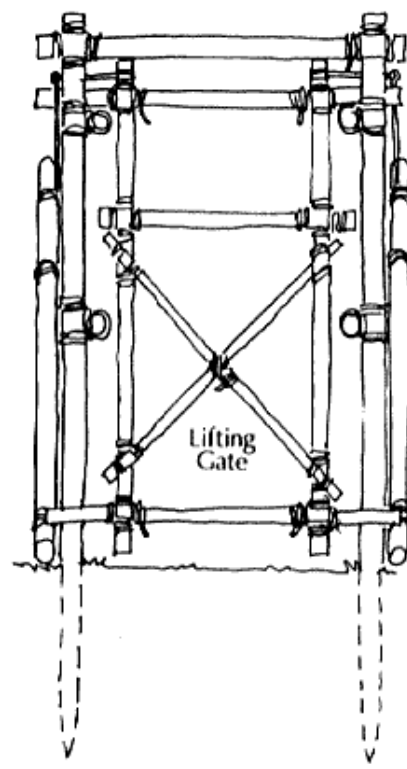
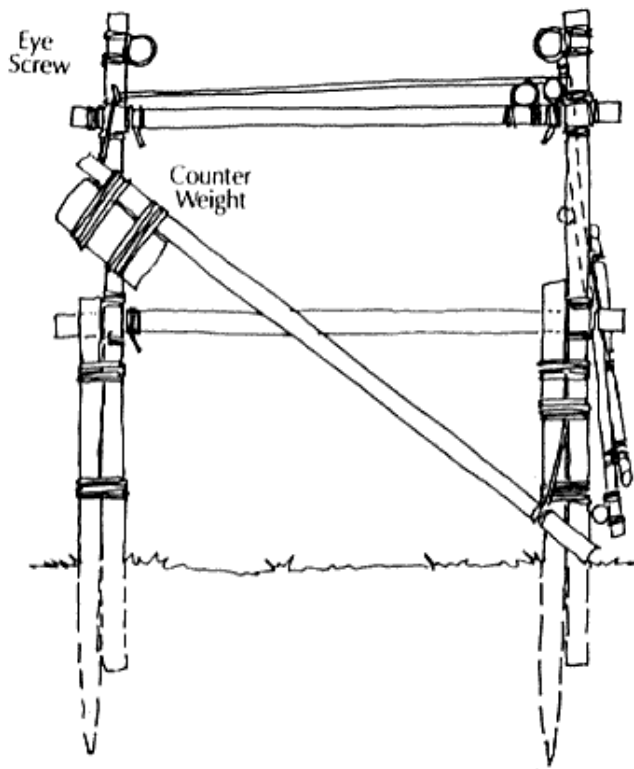
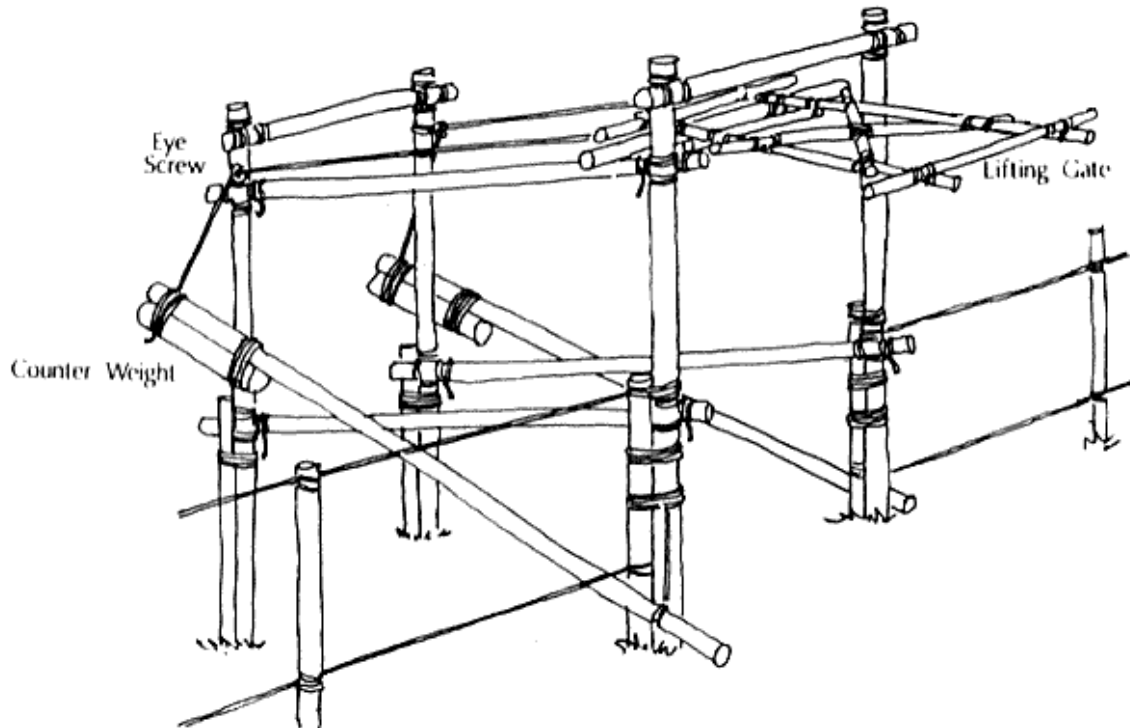


Troop 16 Gateway Roof Detail

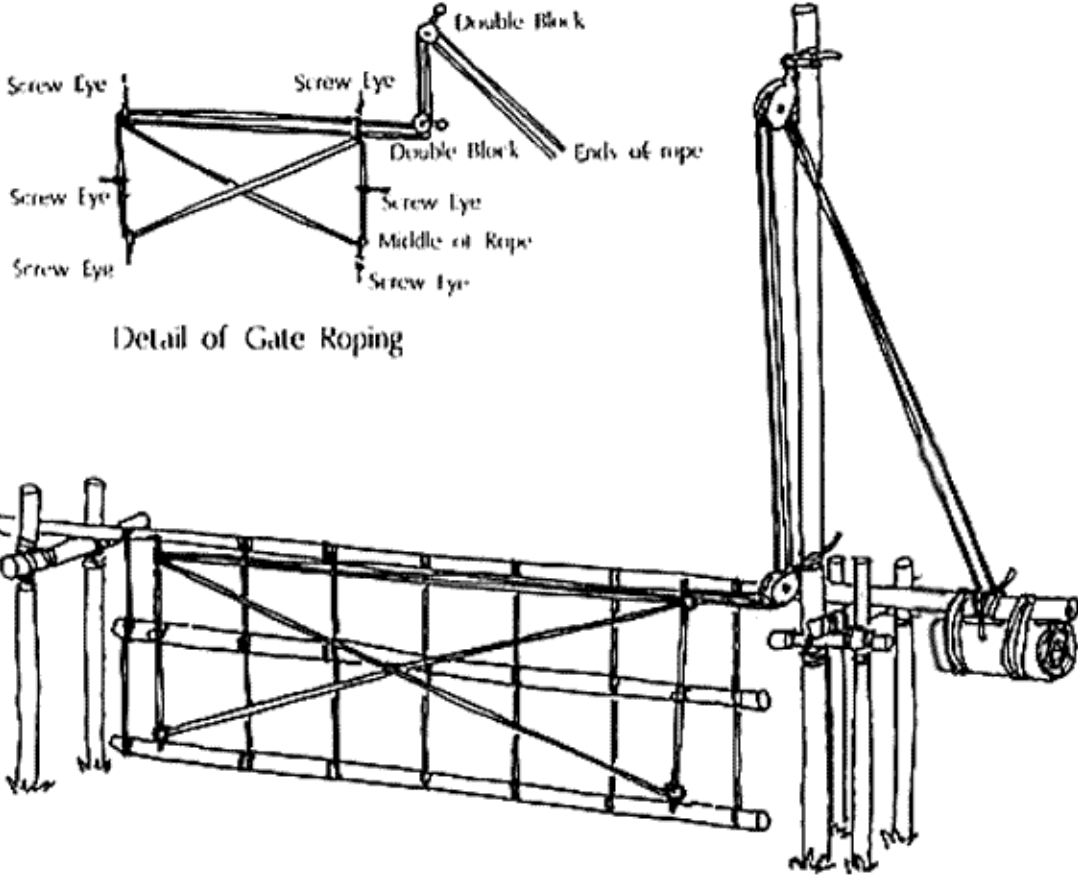


Gateway Roof Detail

Lifting Gateway

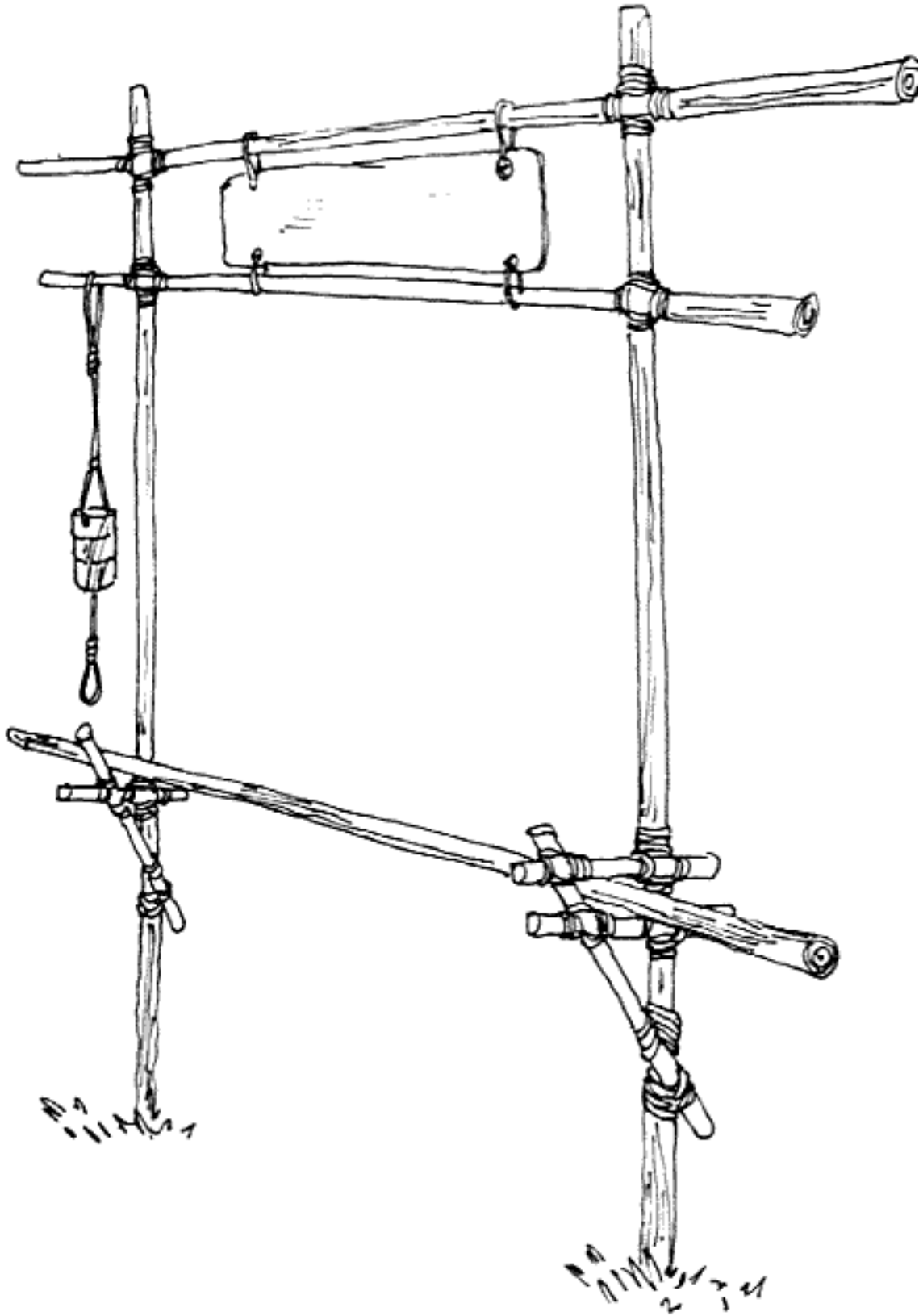


Swinging Gate

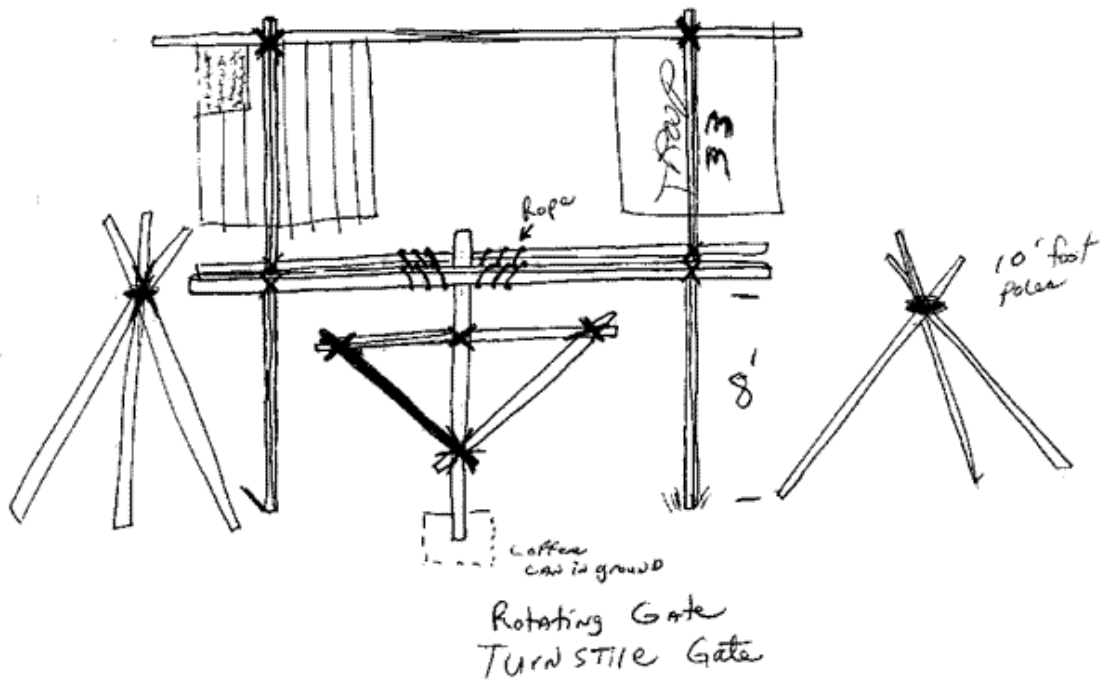


Detail of Gate Roping

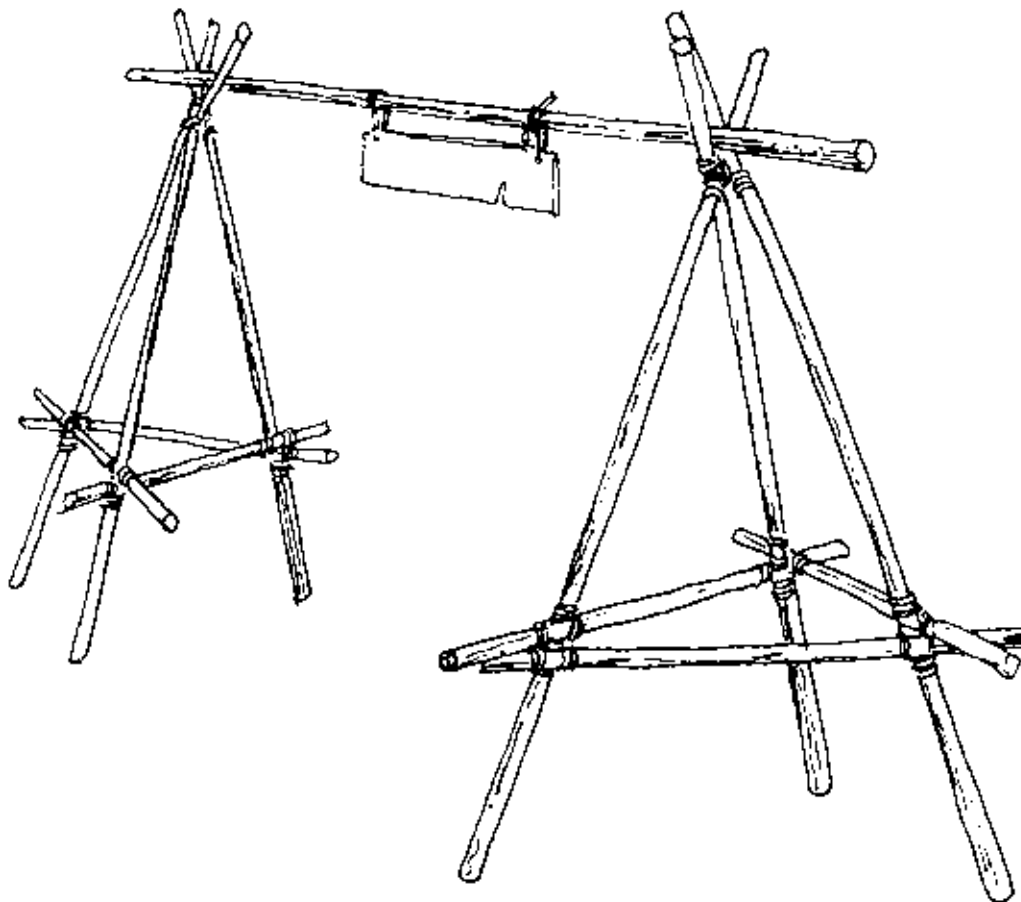
Gateway with Doorbell



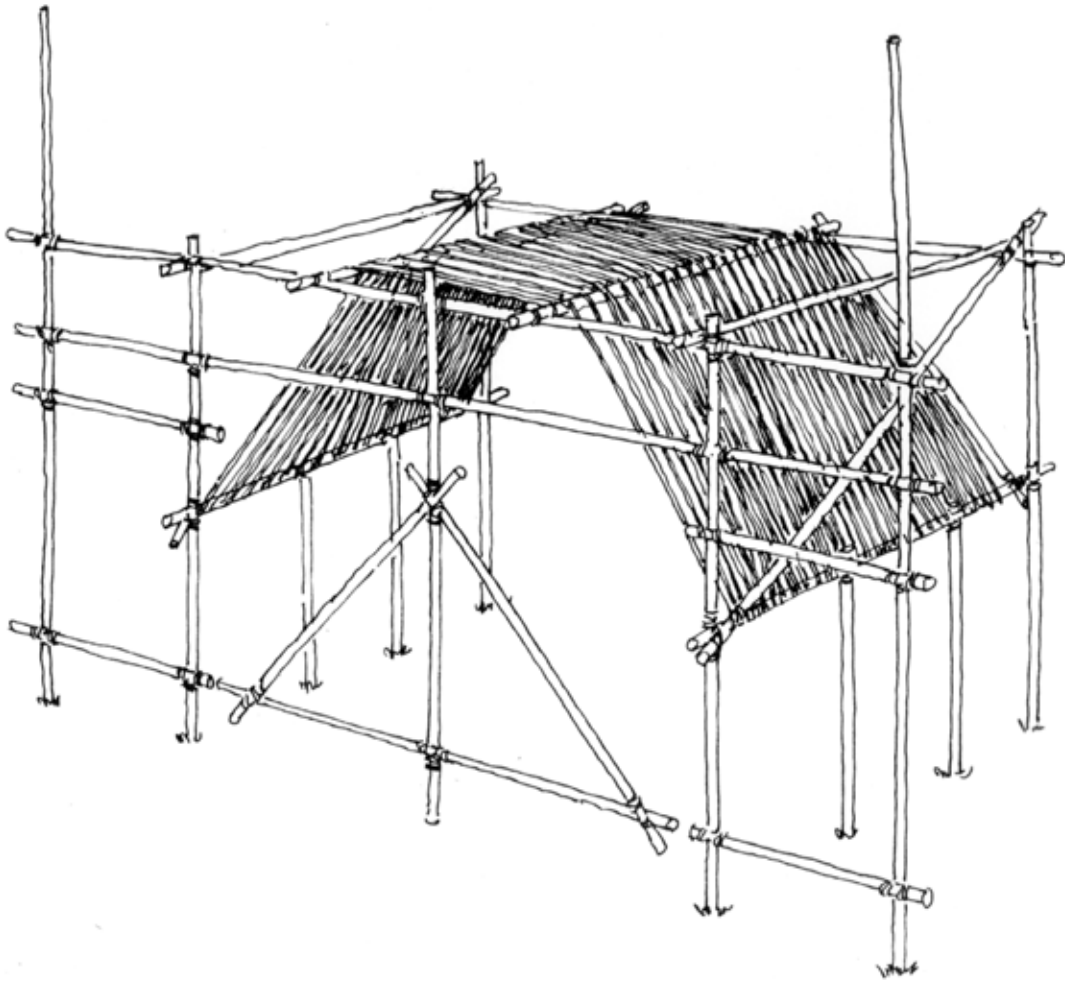
Rotating Gate / Turnstile Gate



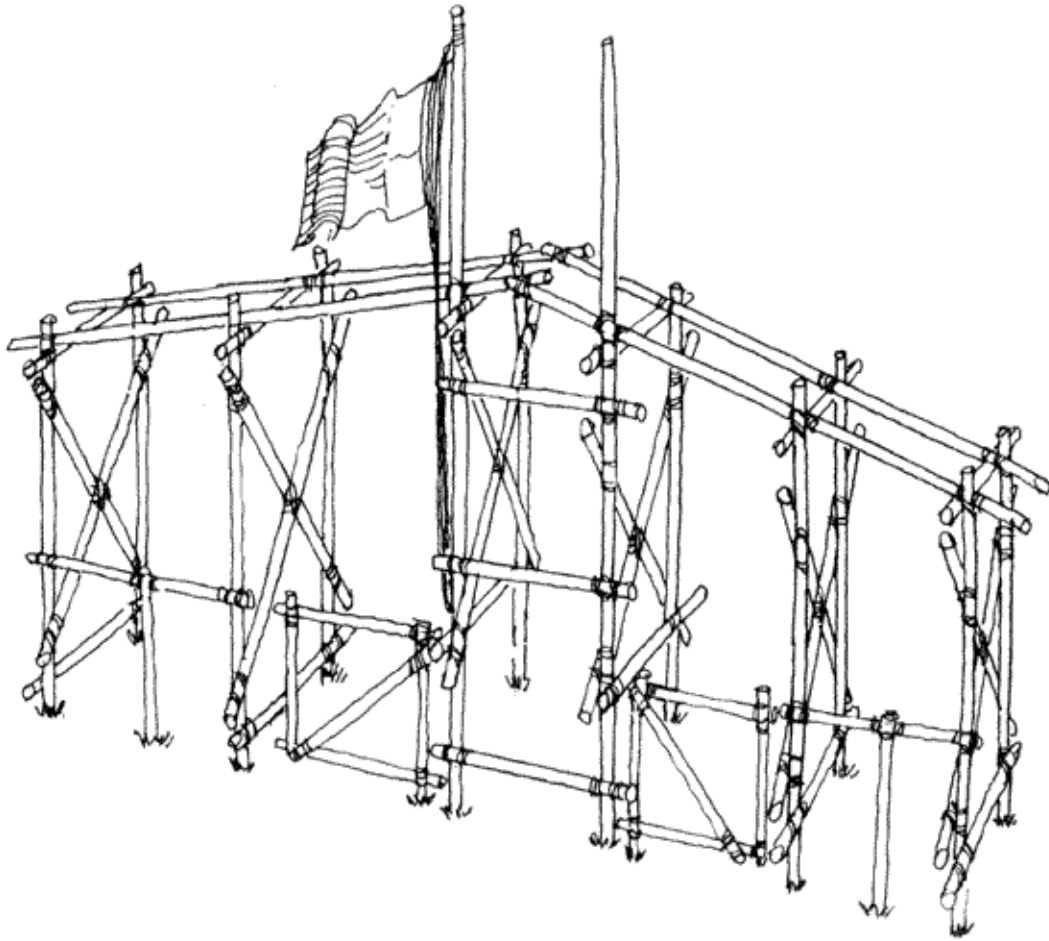
Basic 'Free Standing' gateway



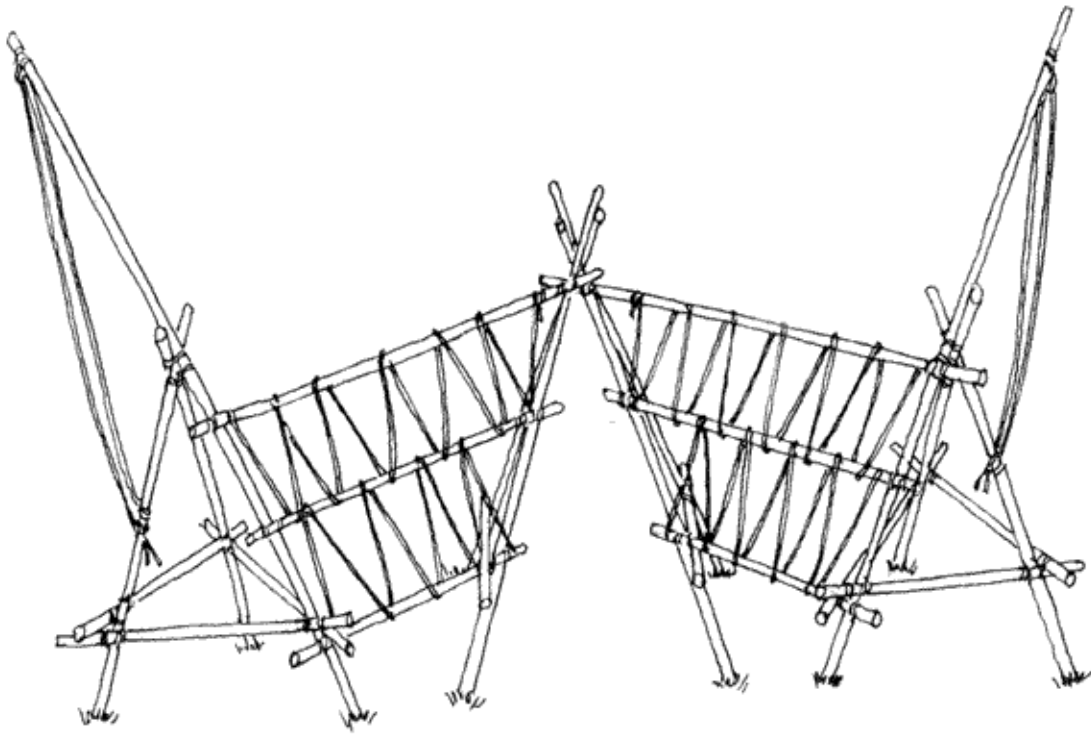
Covered Gateway with Swinging Gate



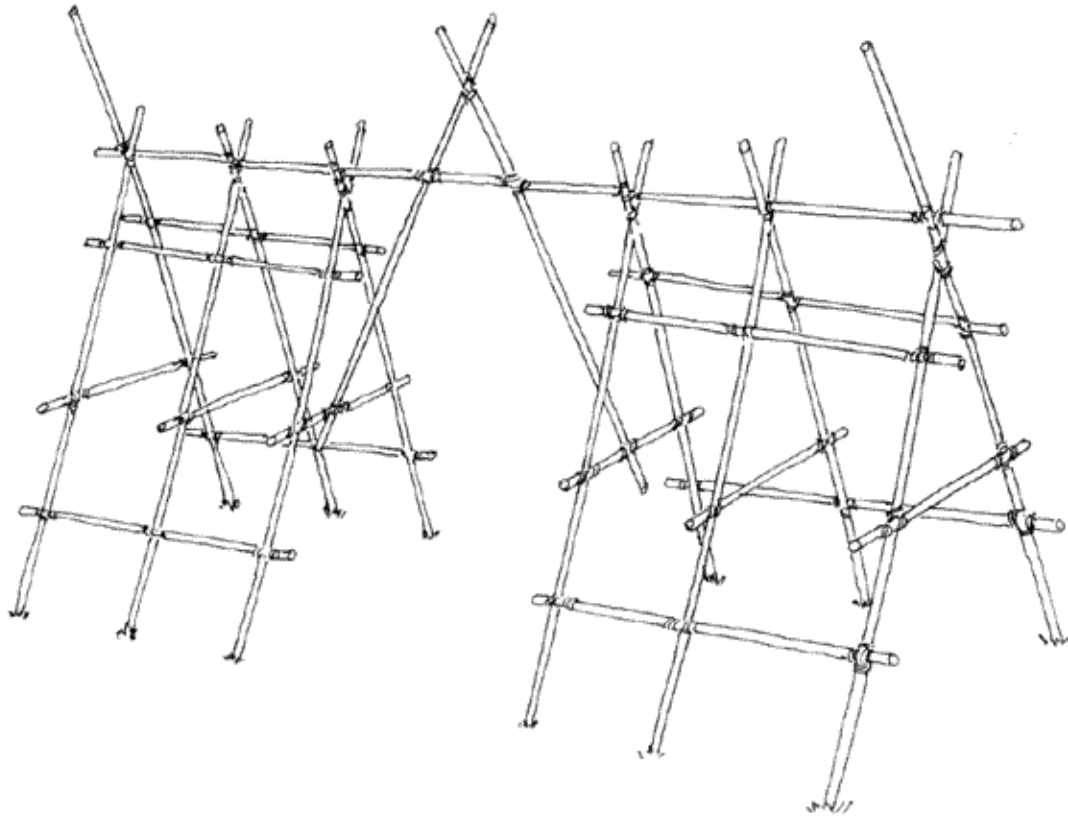
Two Door Gateway



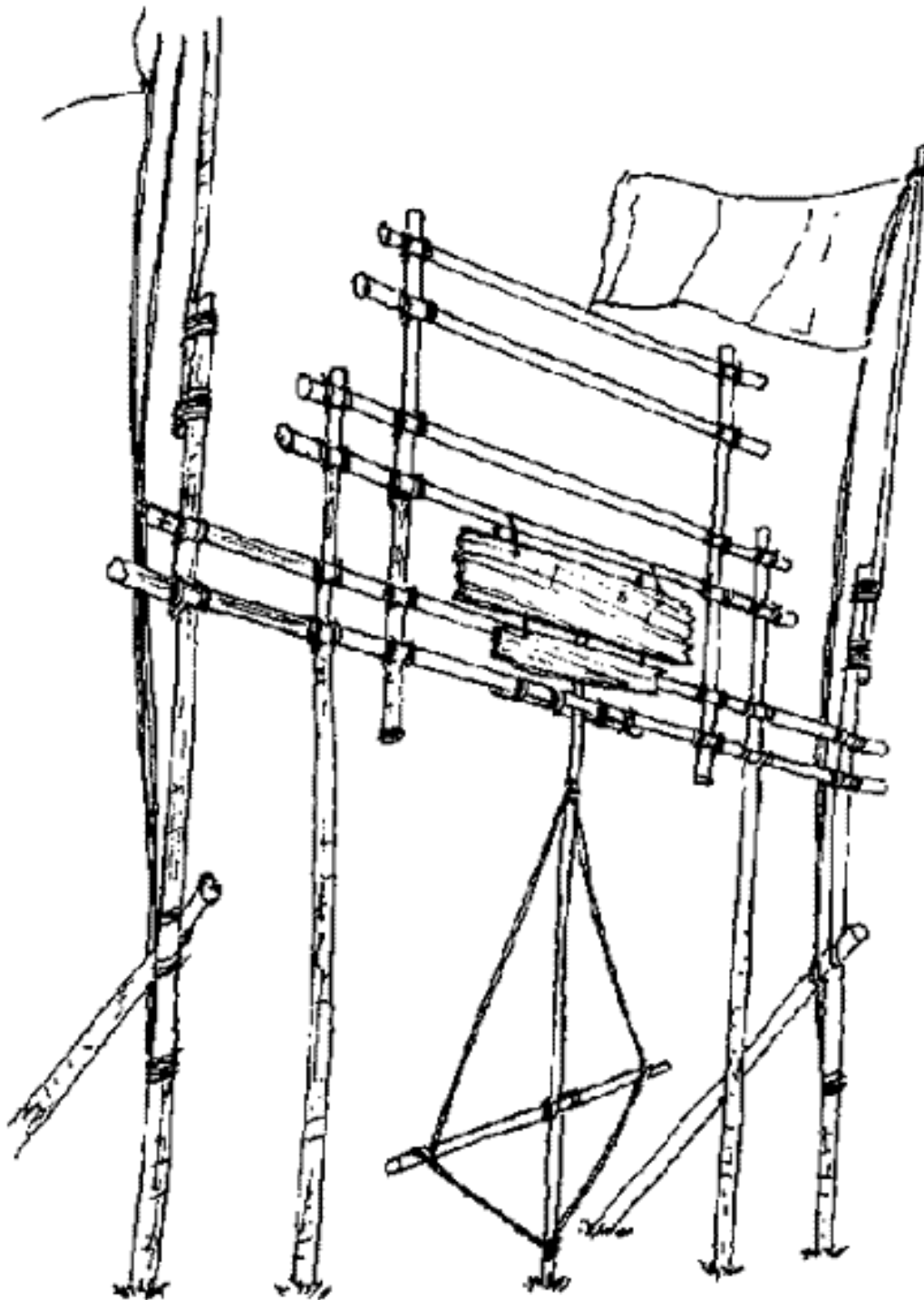
“Weird Looking” Gateway



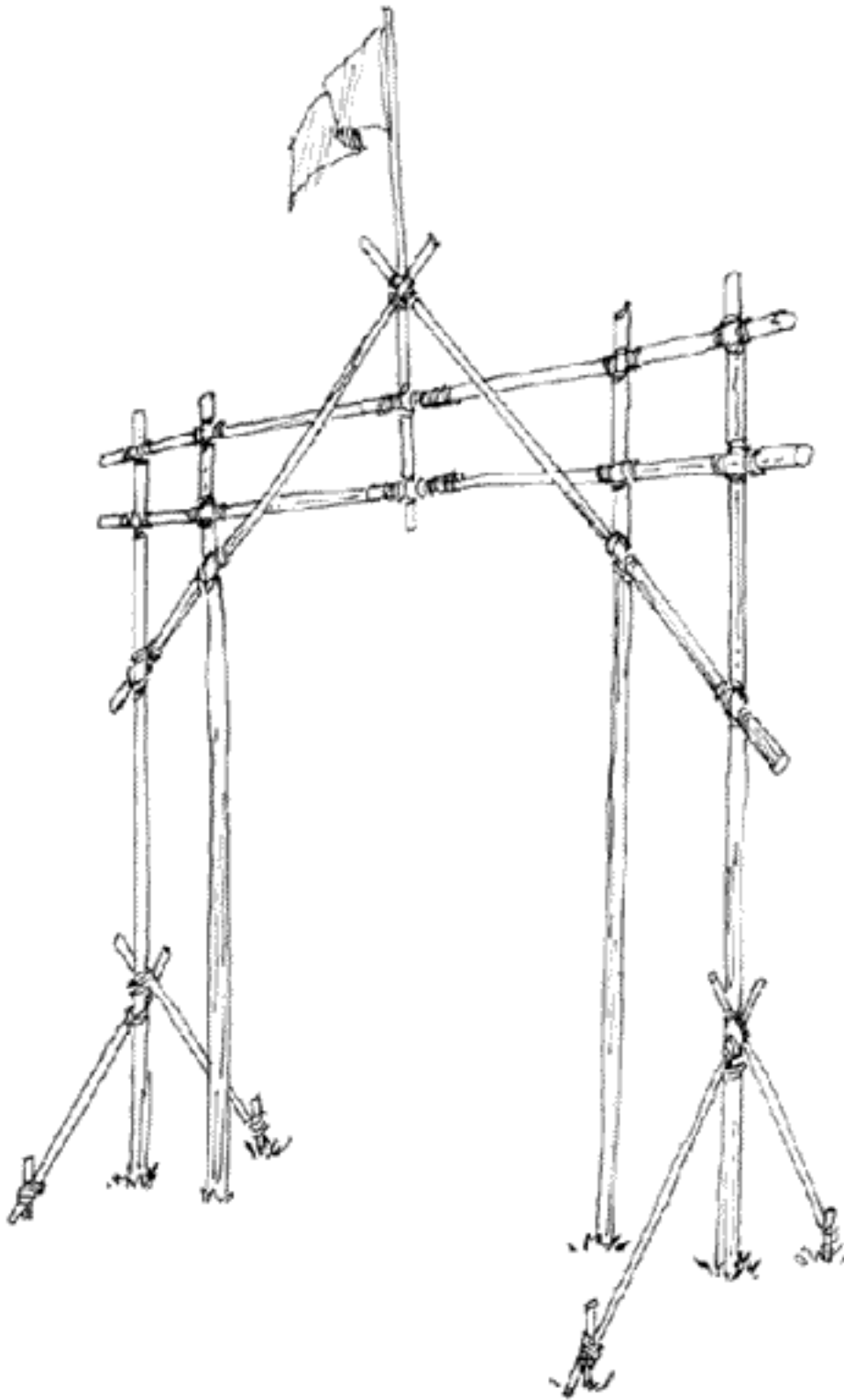
Easy 'Free Standing' Gateway



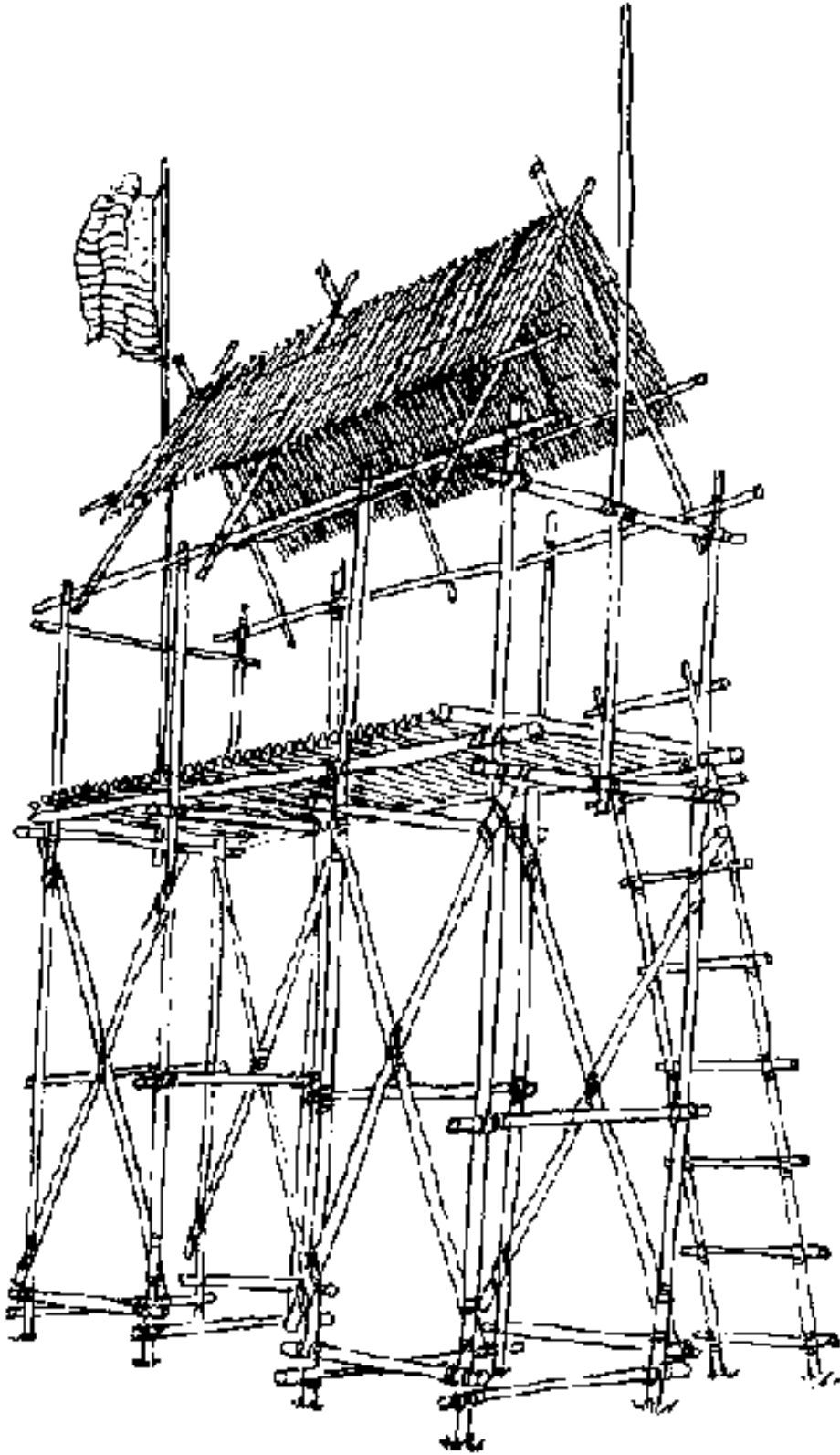
'In Ground' Gateway with Swinging Gate



Simple 'In Ground' Gateway

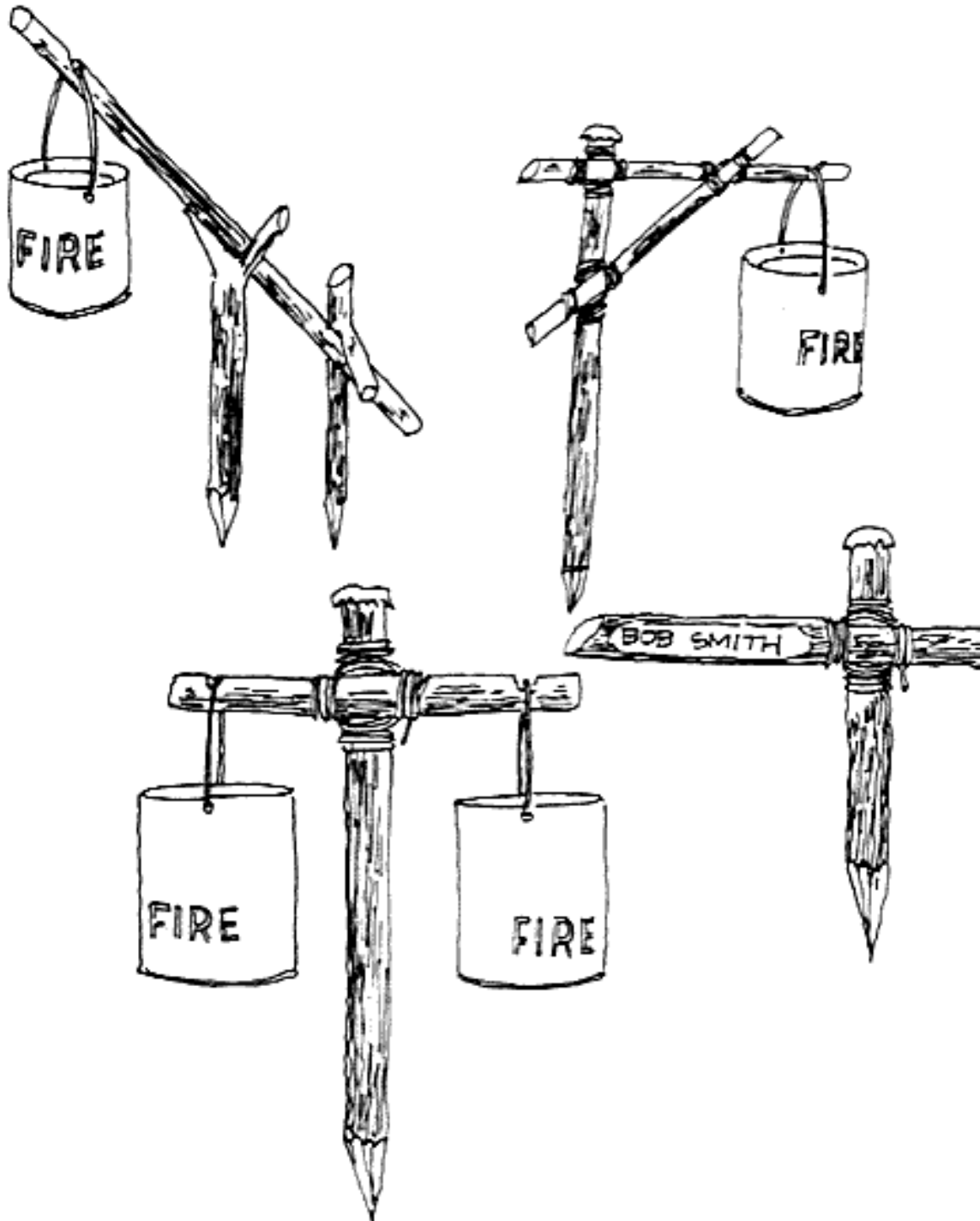


Seriously Large Covered Gateway



Camp Tools / Gadgets

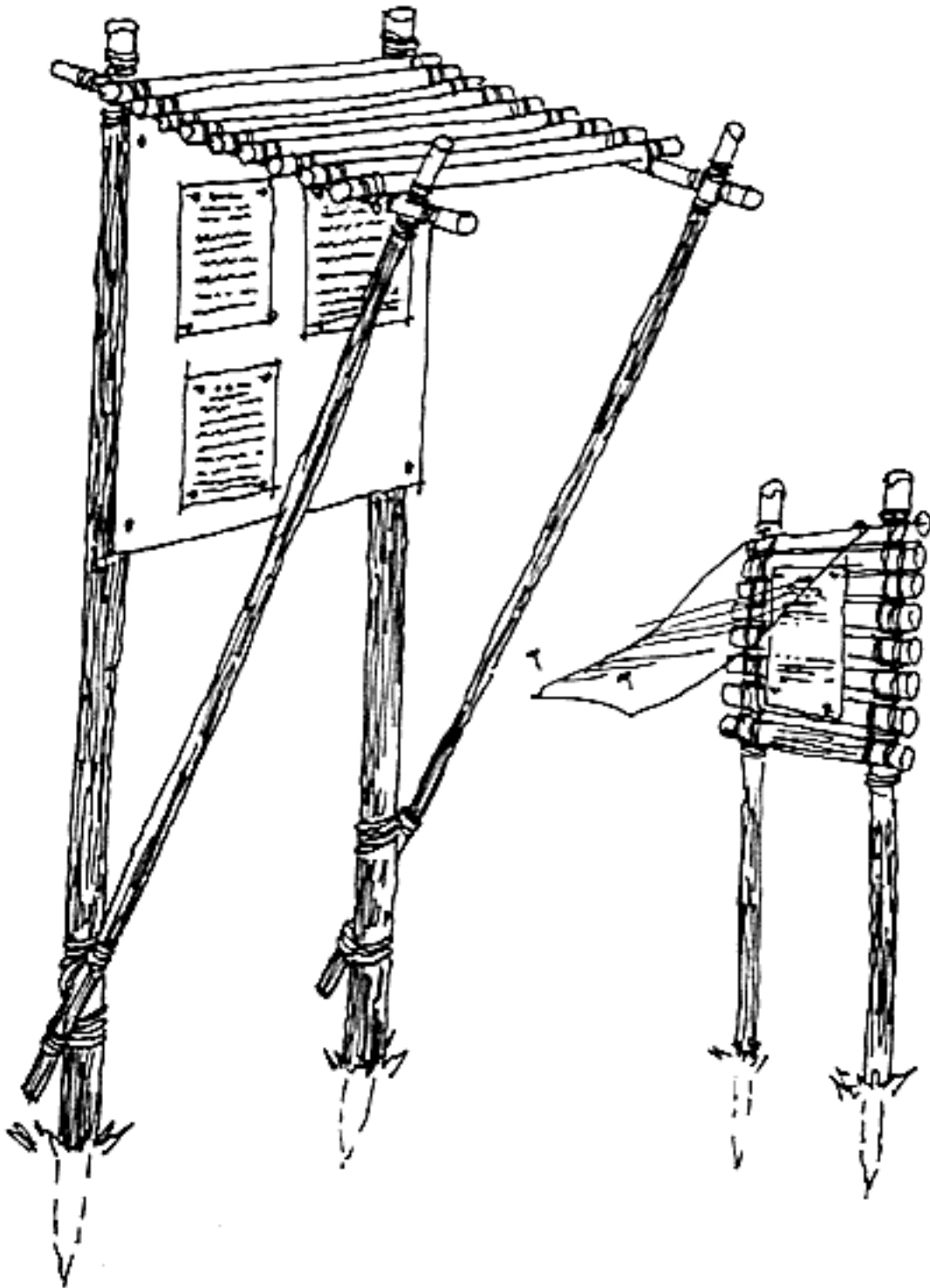
Fire Bucket Holders



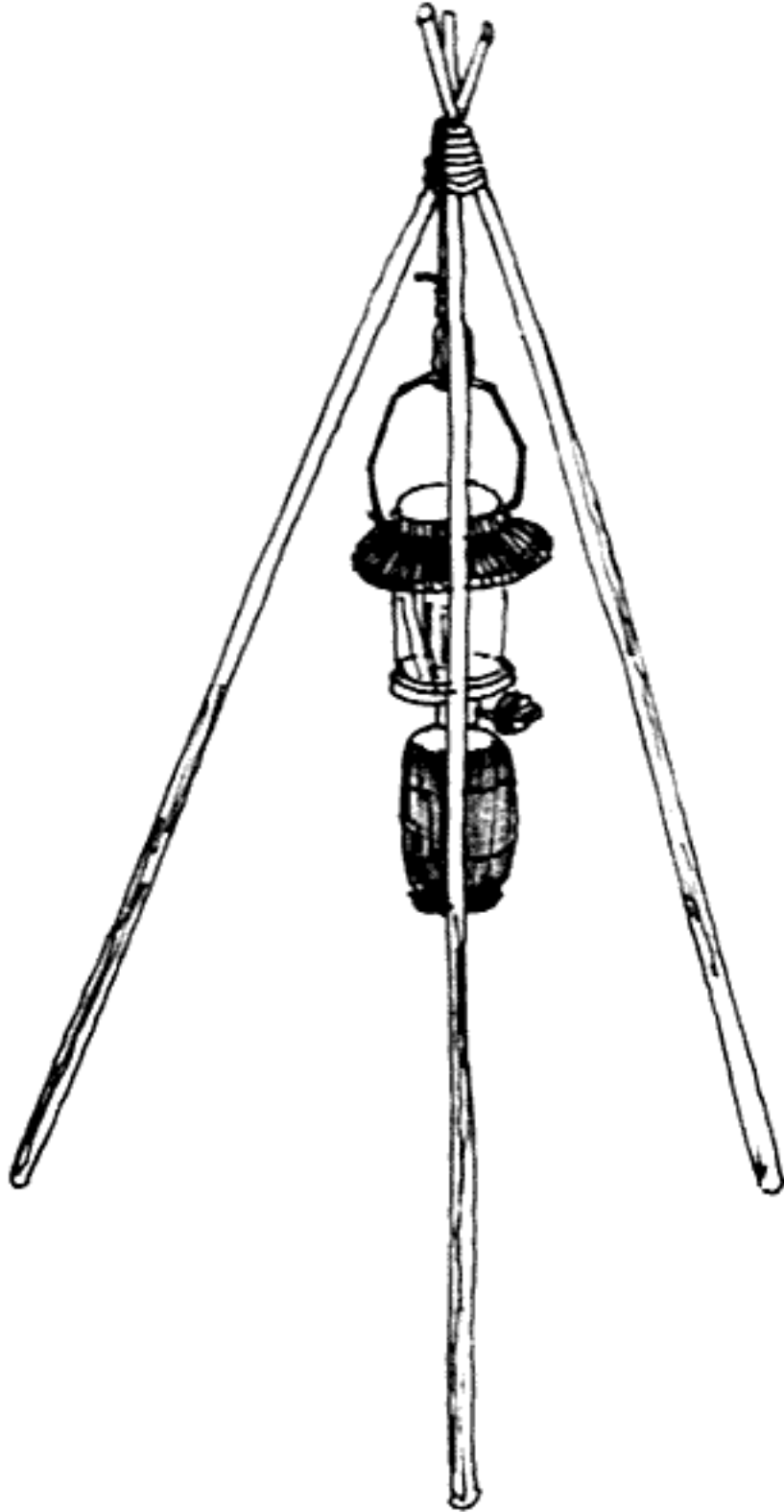
Clothesline



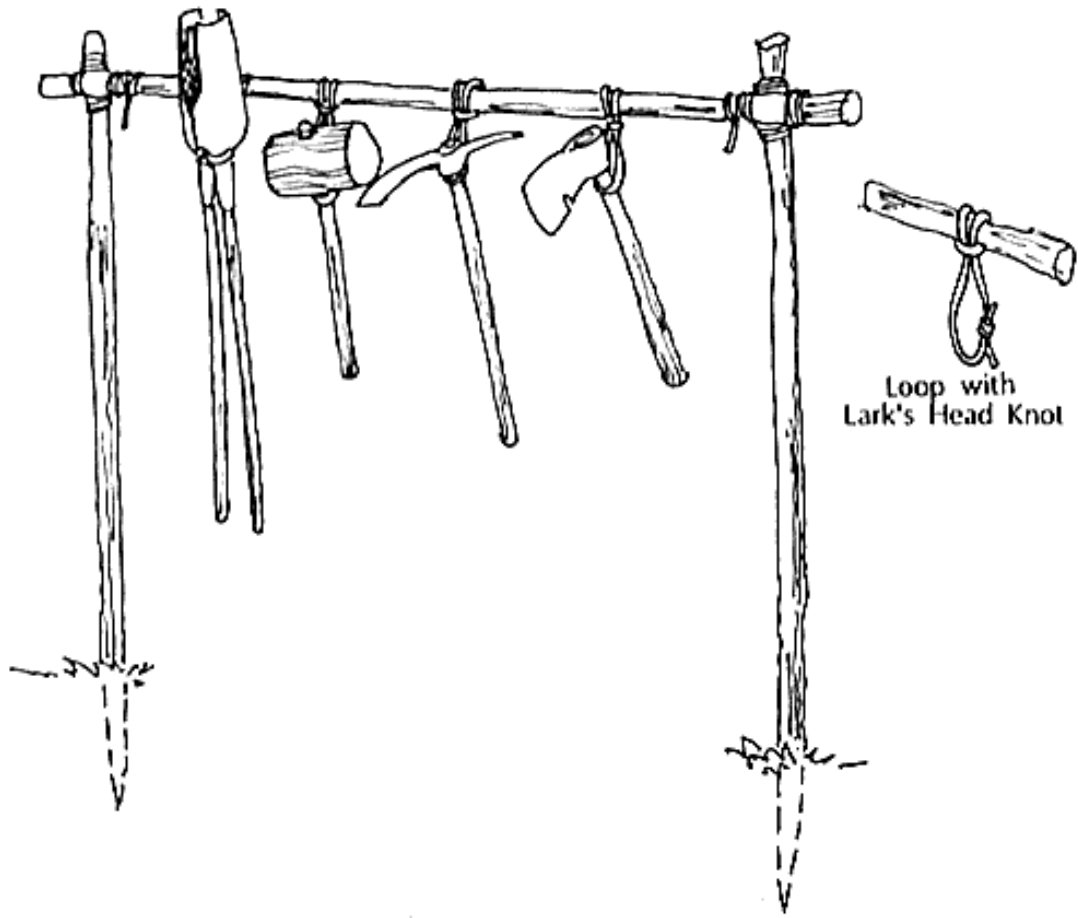
Bulletin Board



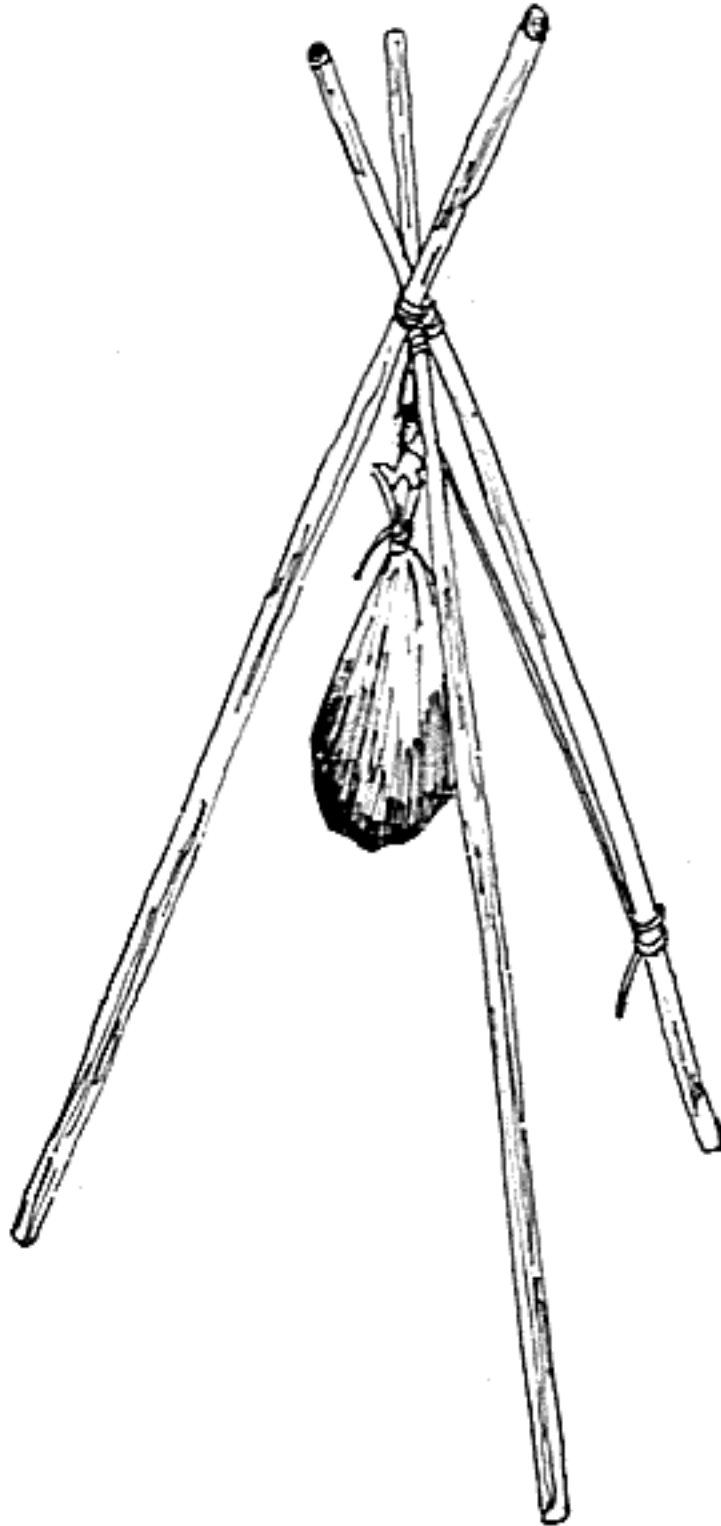
Lantern Holder



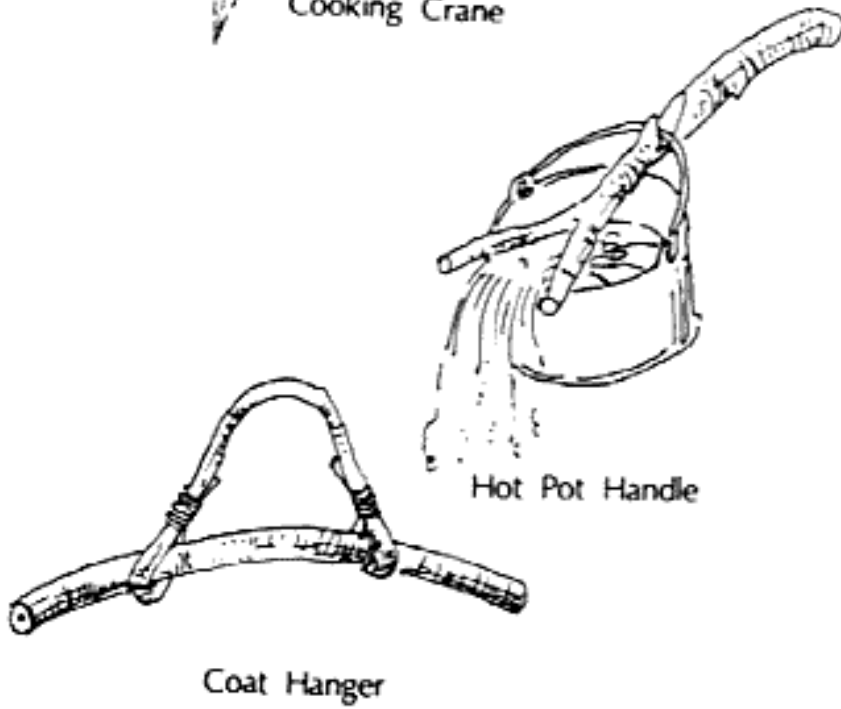
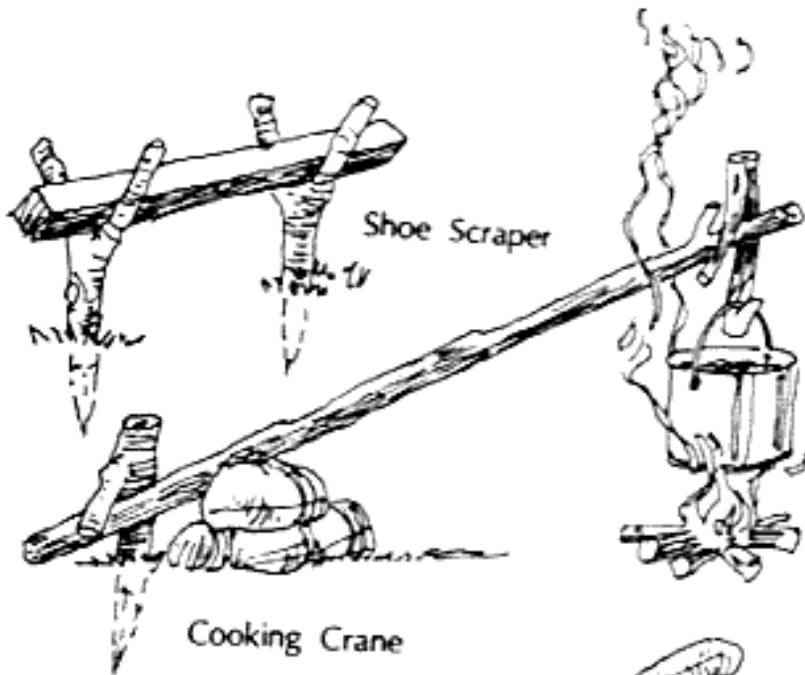
Tool Rack



Bear Bag

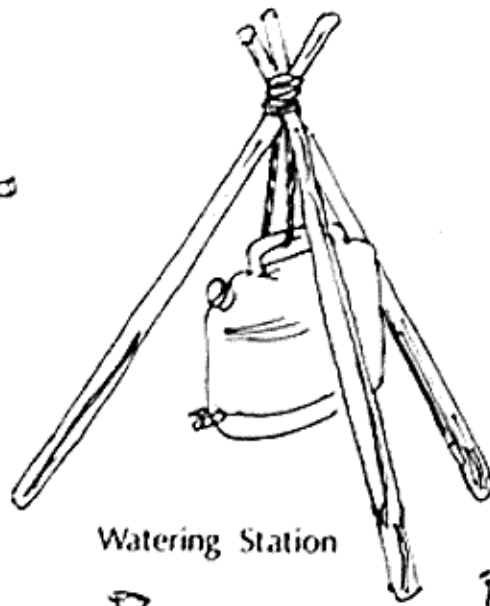


Various Camp Tools

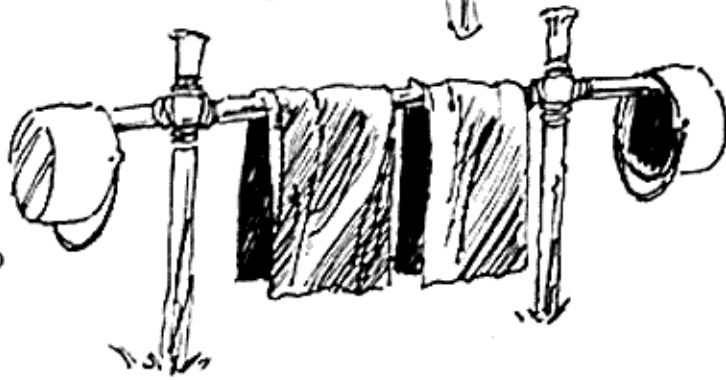




Wash Basin

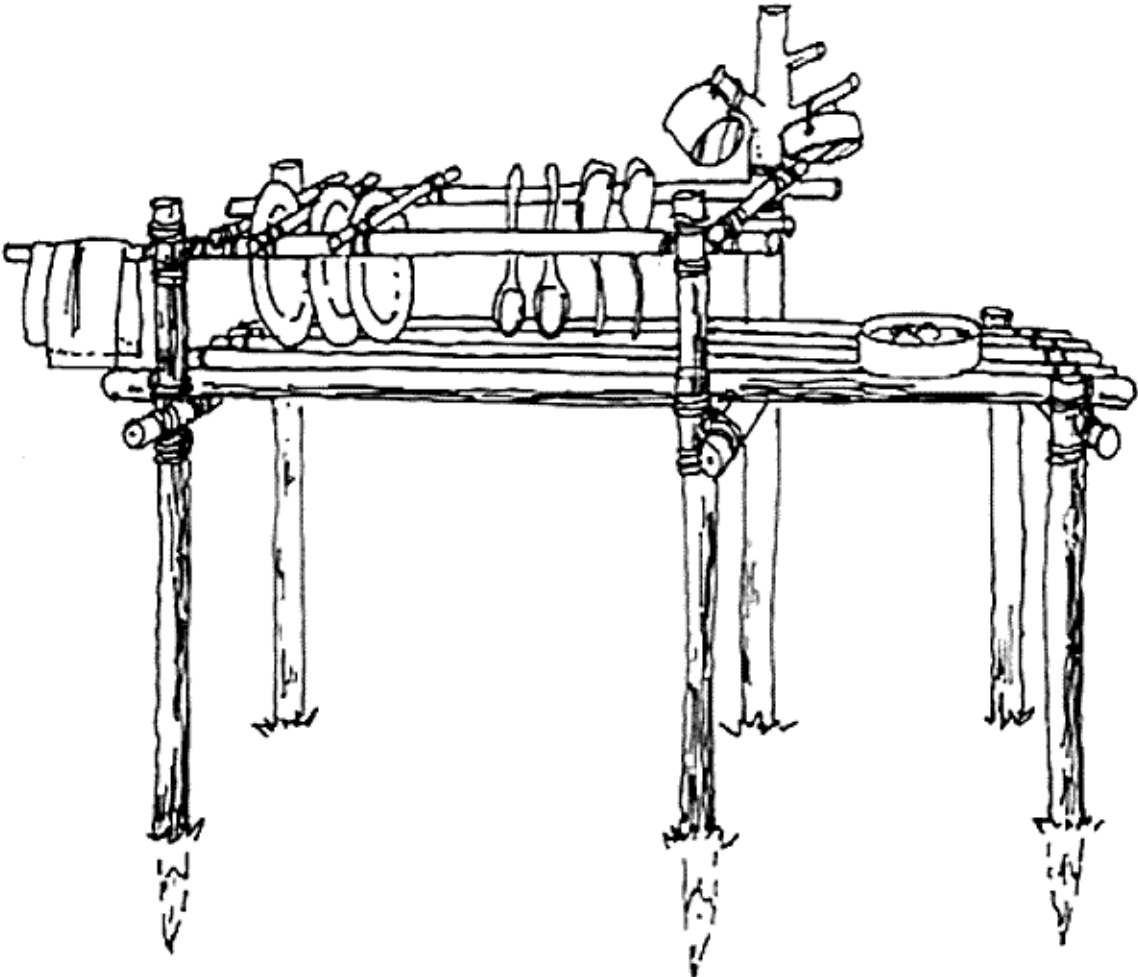


Watering Station

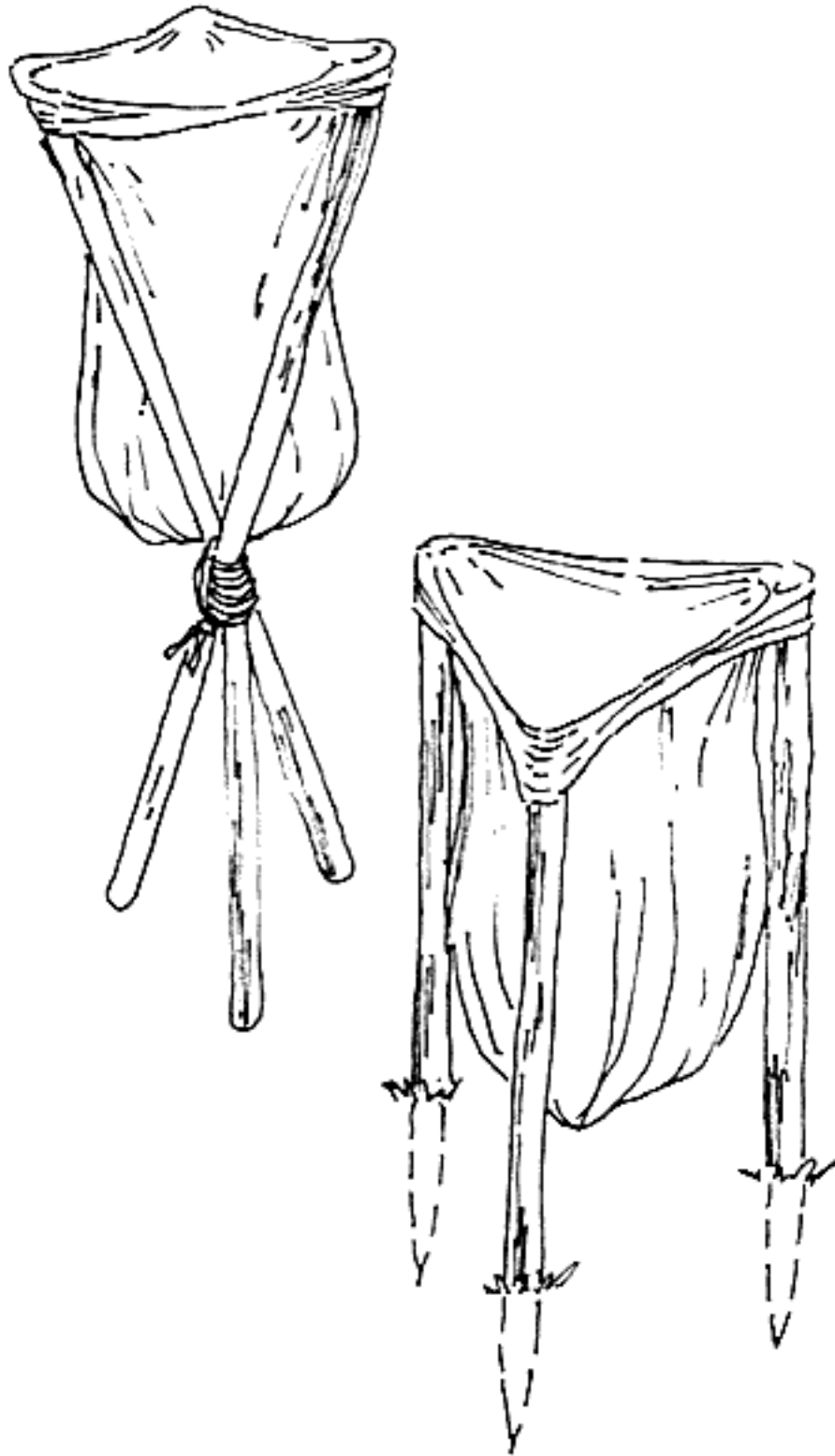


Towel Rack

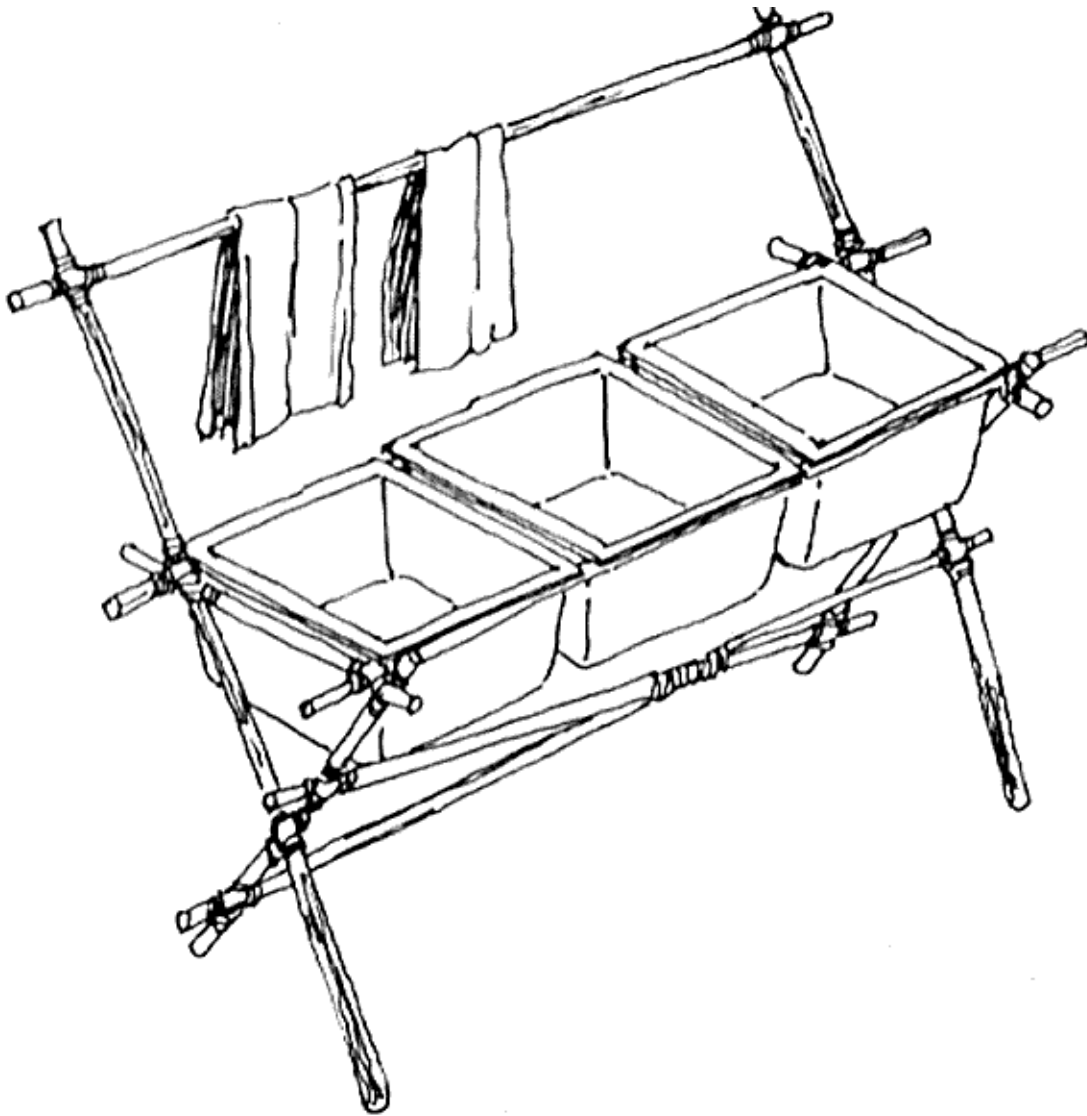
Kitchen Work Table



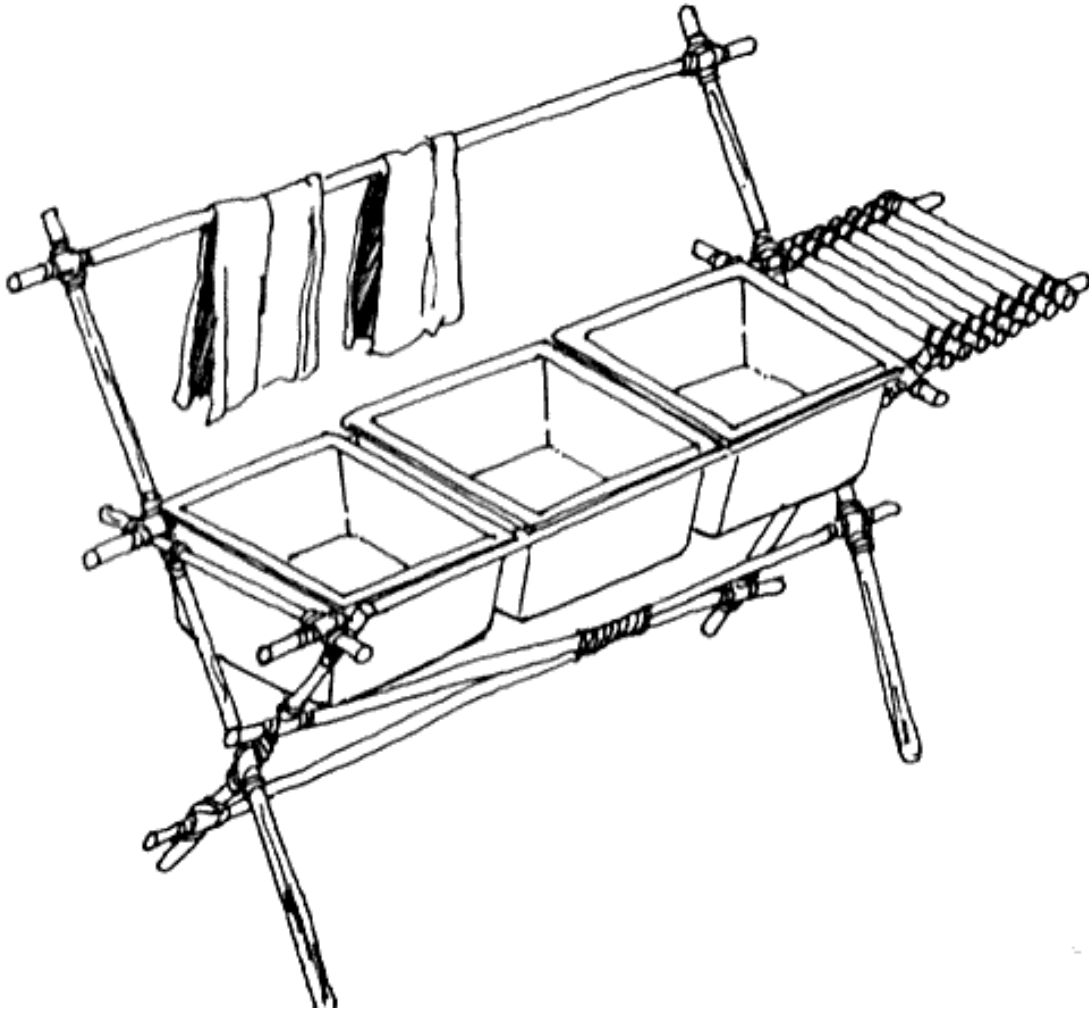
Garbage Bag Holder



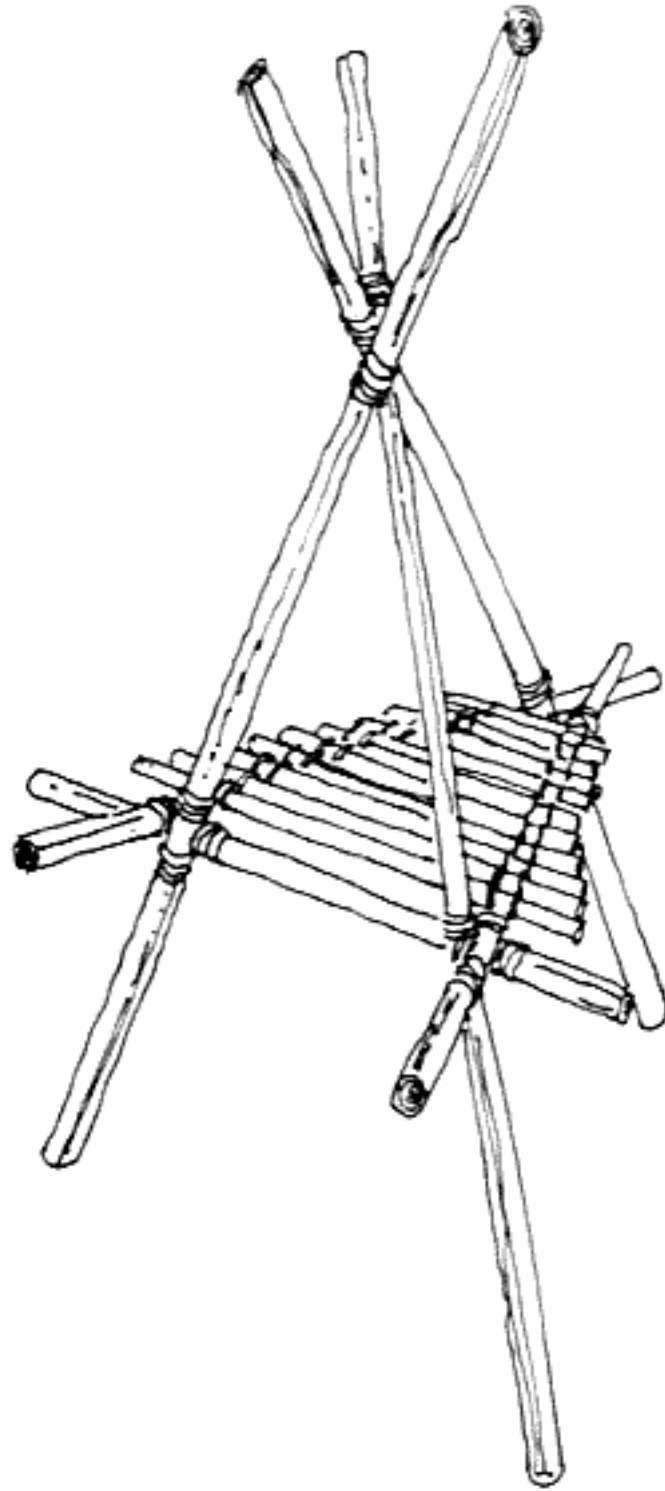
Wash Basin



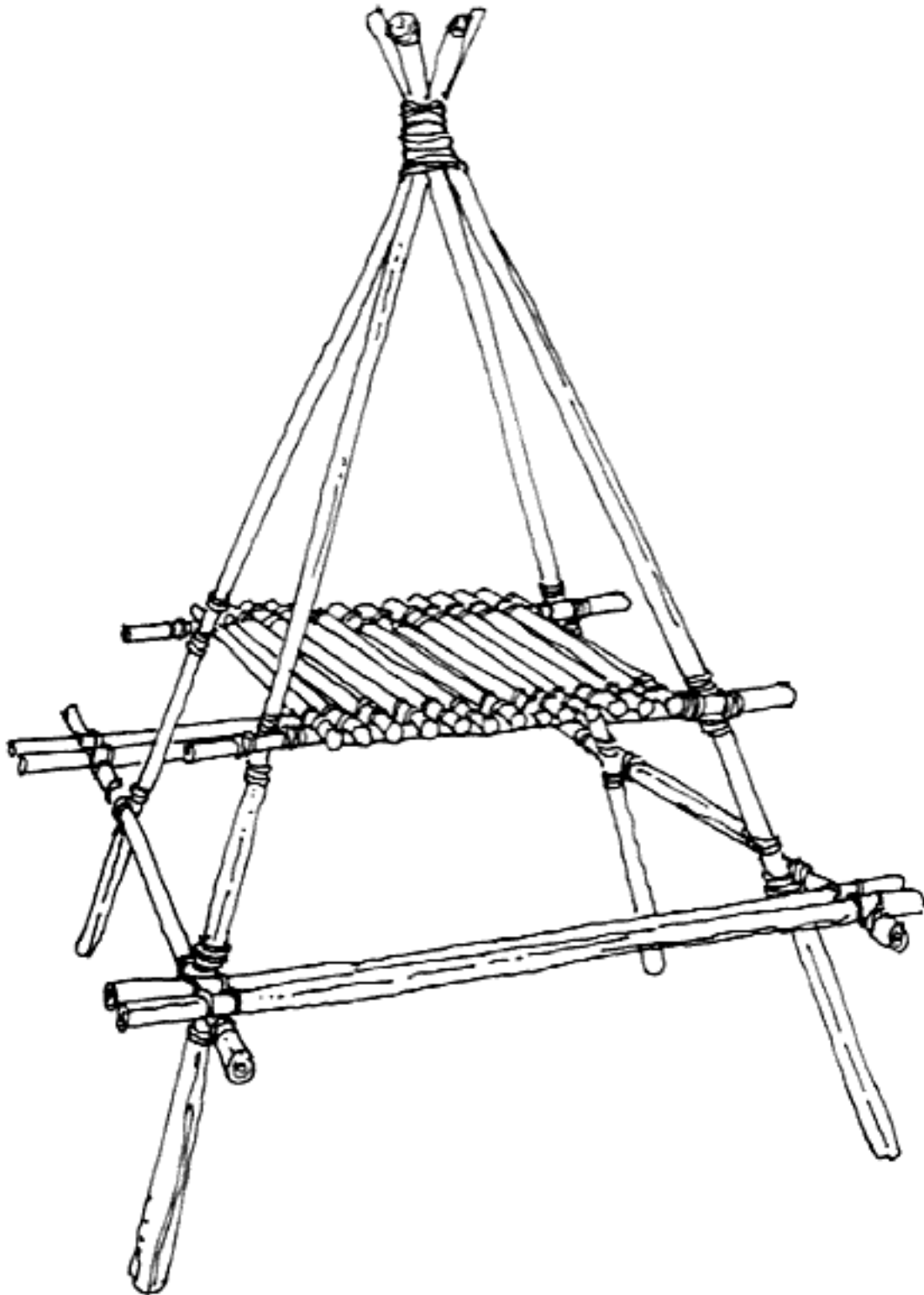
Wash Basin with Shelf



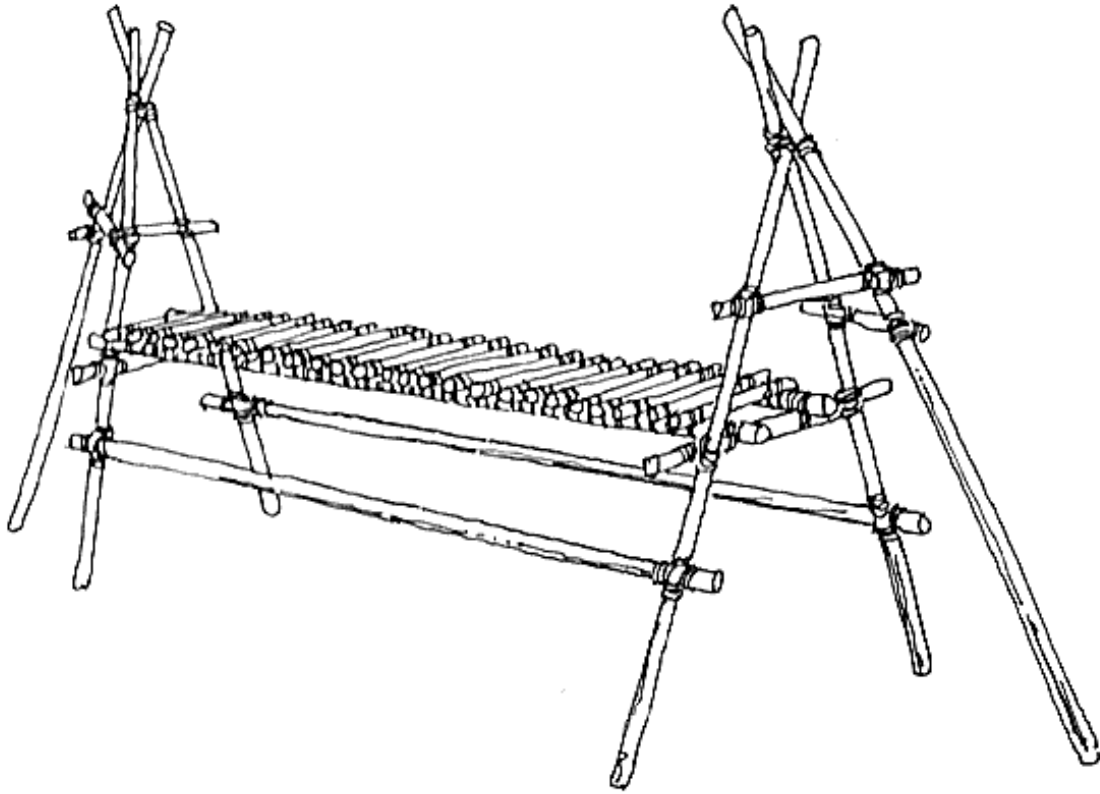
Camp Table



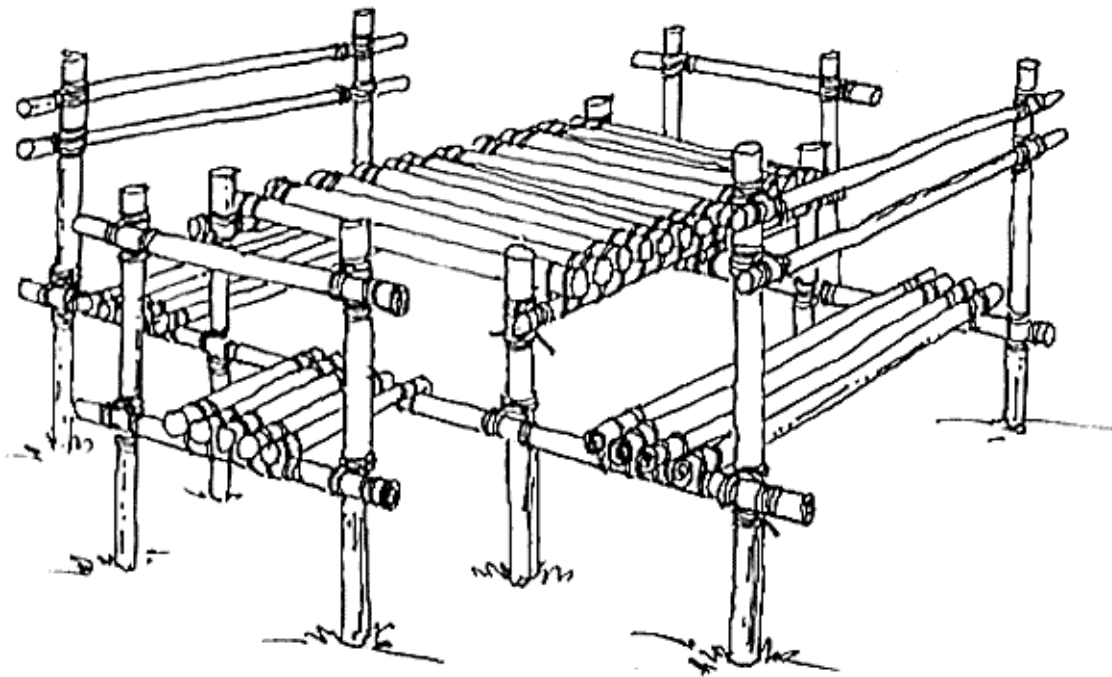
Camp Table with Seats



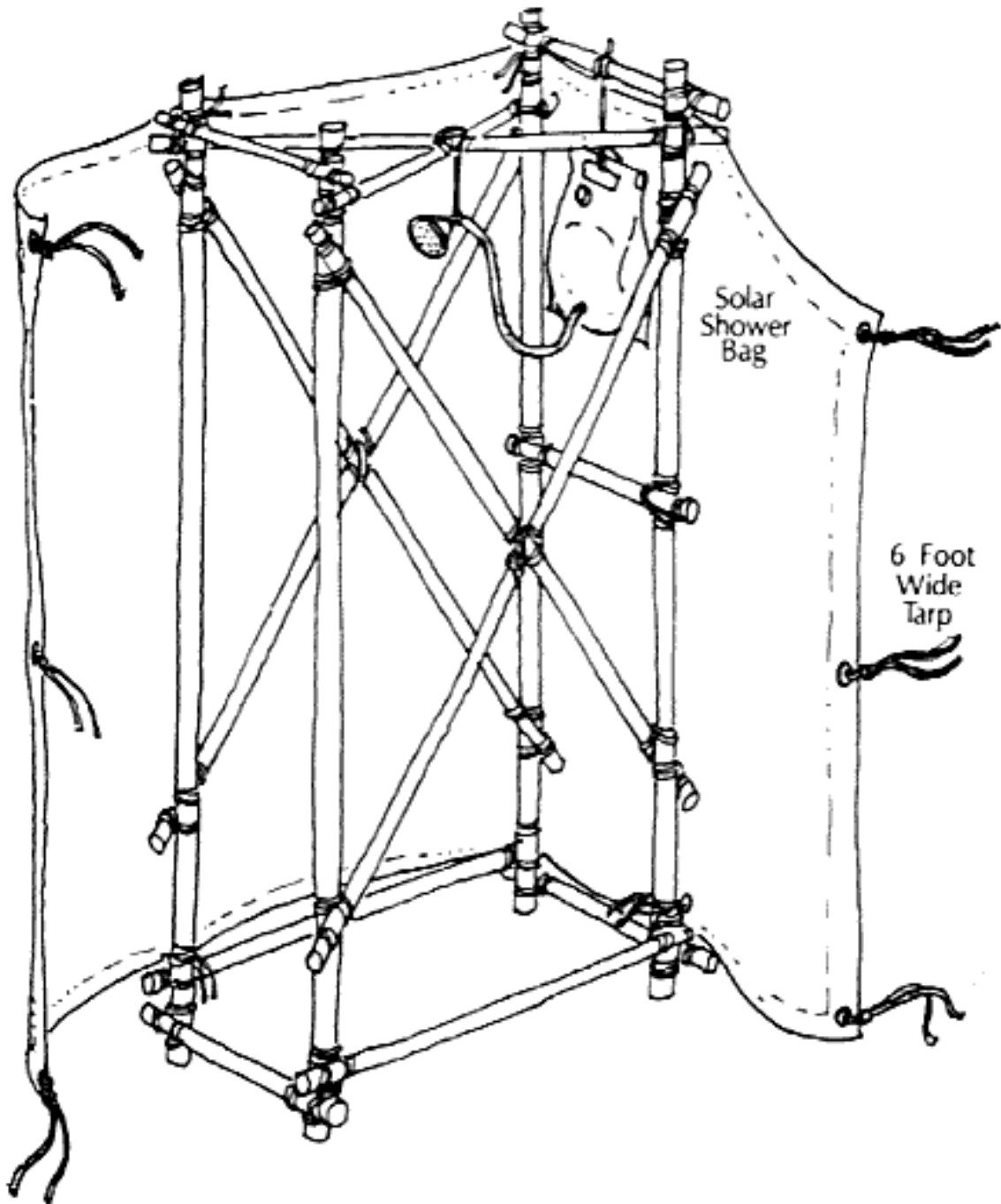
Chippewa Cooking Fire Stand



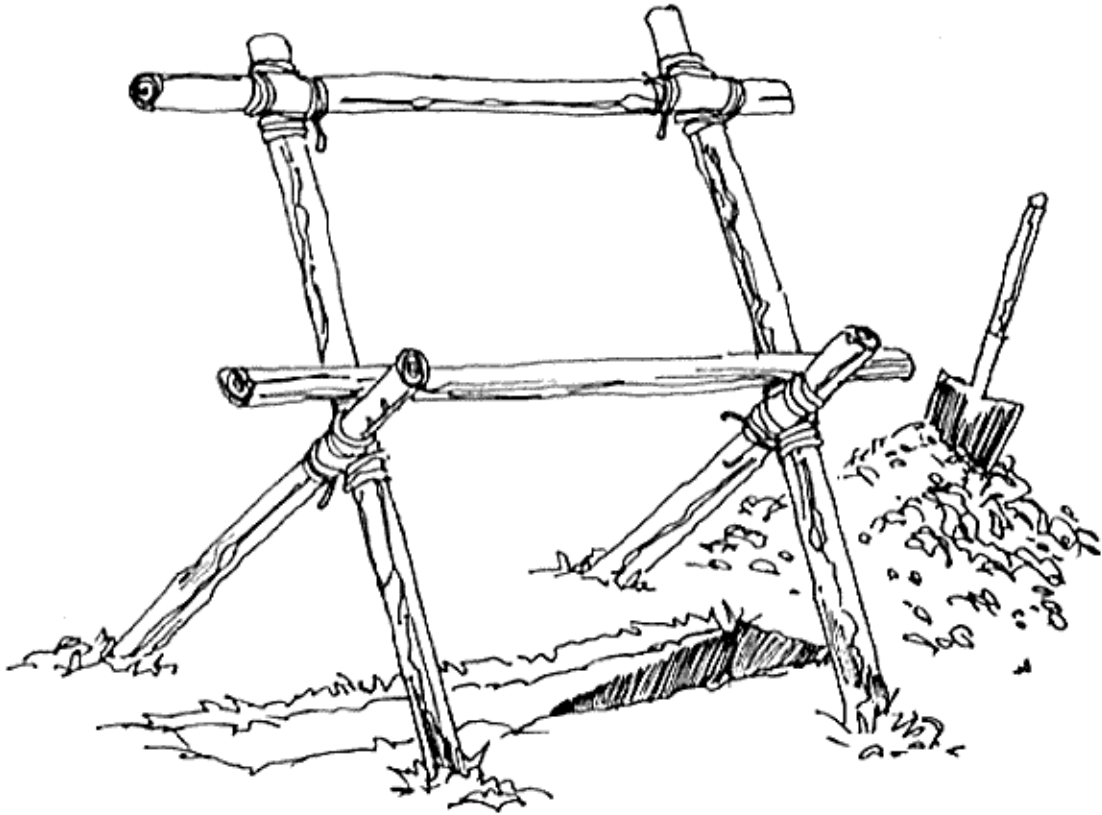
Camp Table with Bench and Seat



Shower

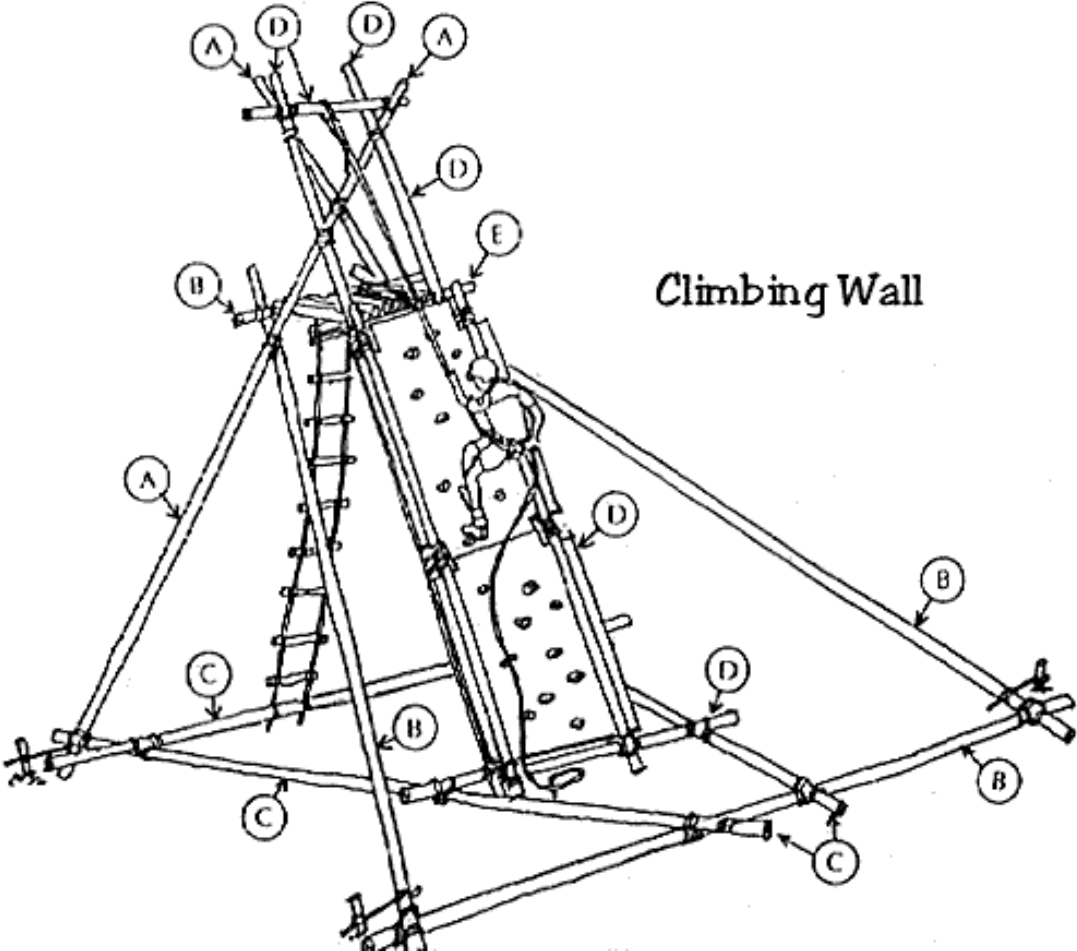


Latrine

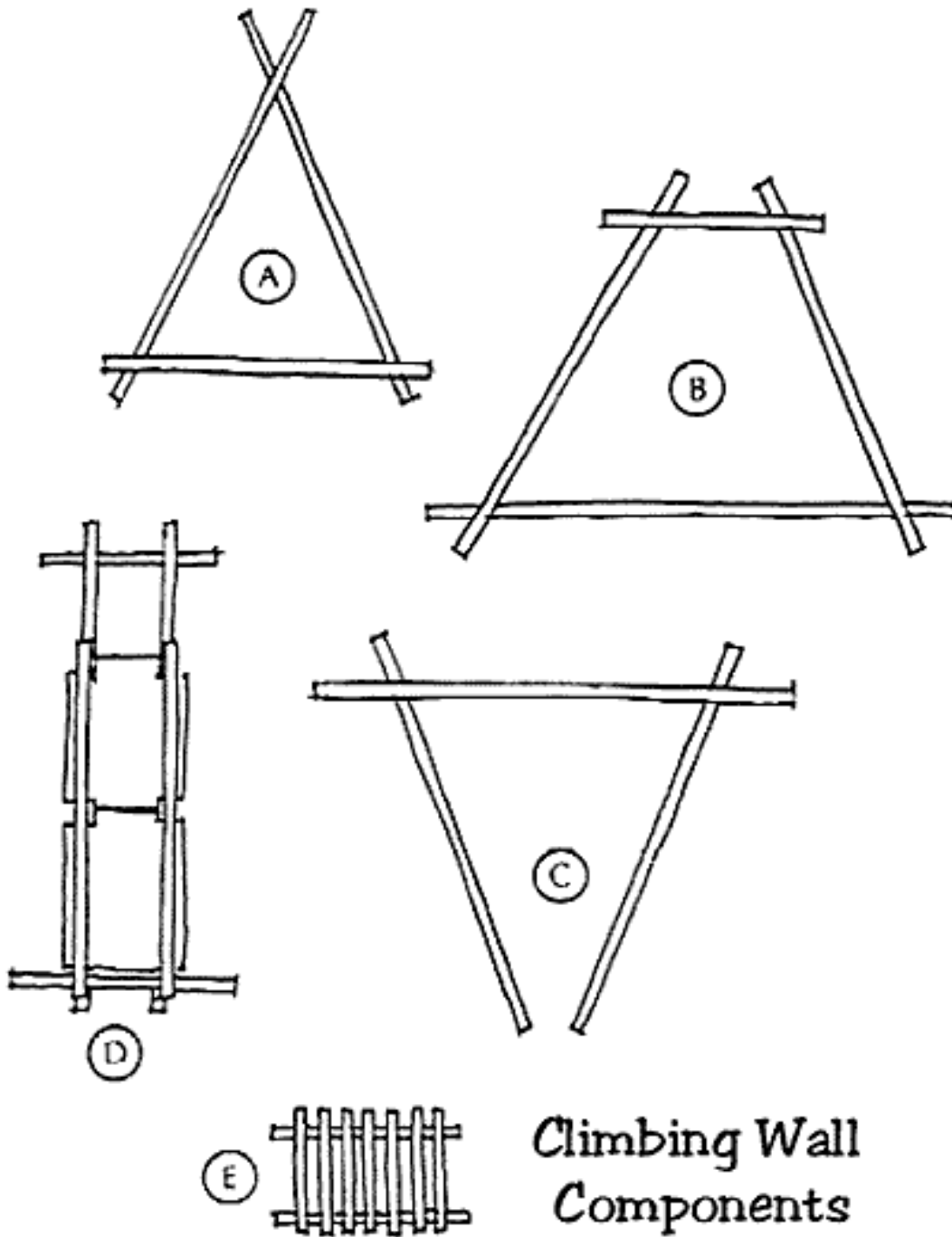


Miscellaneous Projects

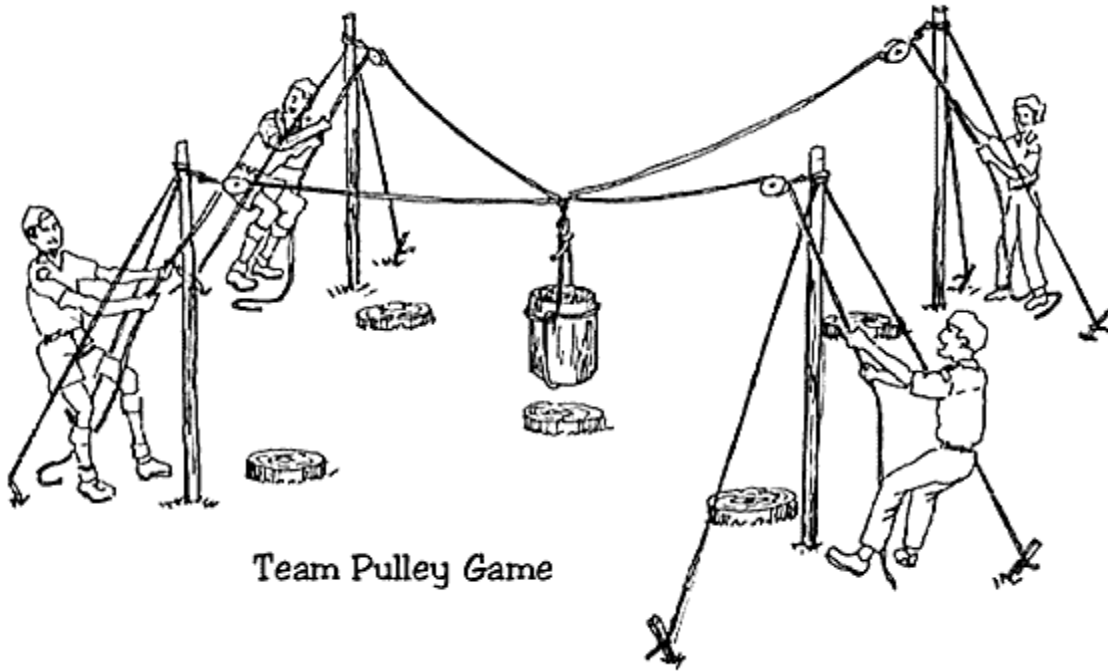
Climbing Wall



Climbing Wall Components

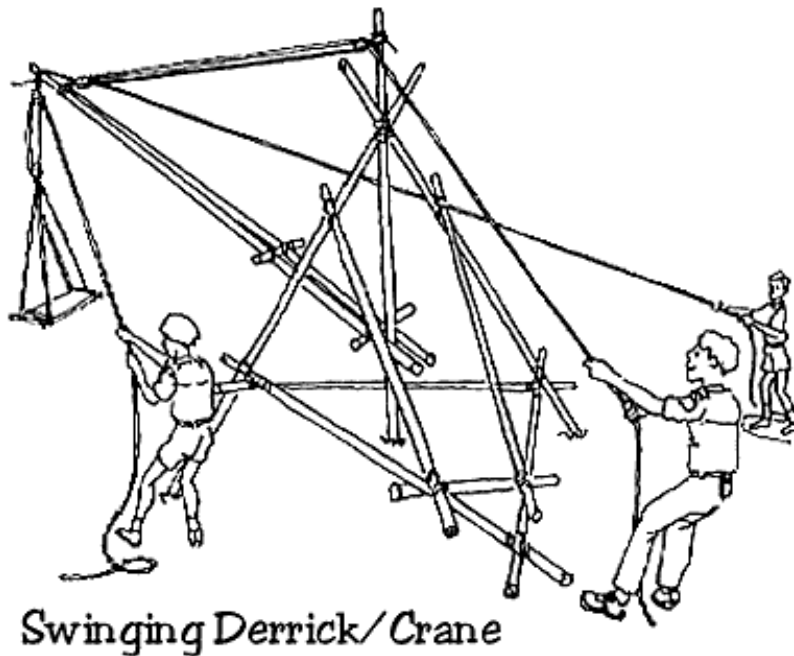


Team Pulley Game



Team Pulley Game

Swinging Derrick/Crane



Swinging Derrick/ Crane

Scaffold Hitch

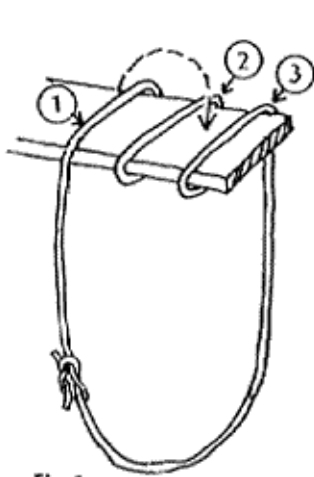


Fig. 1

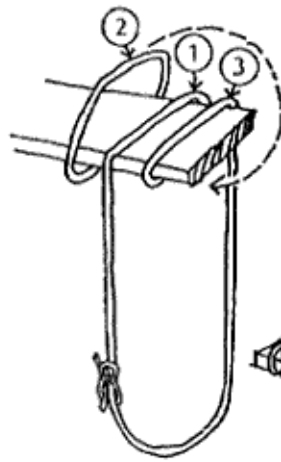


Fig. 2

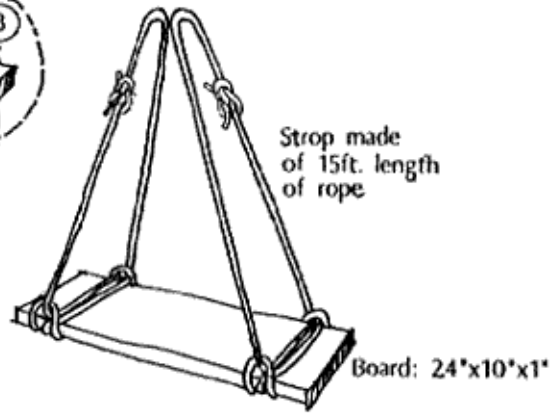
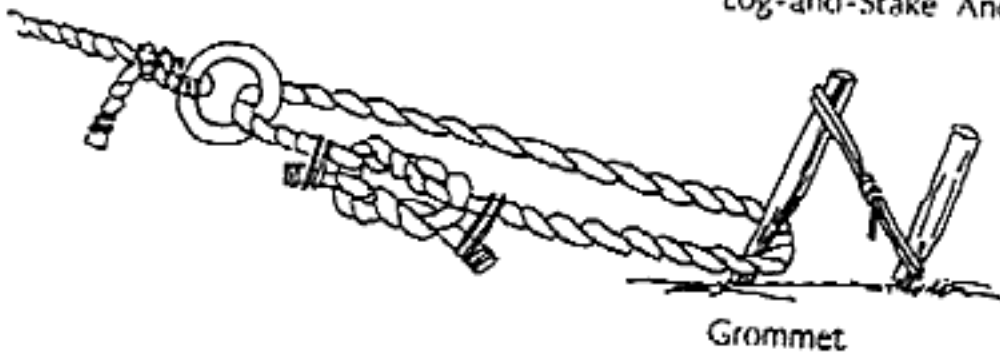
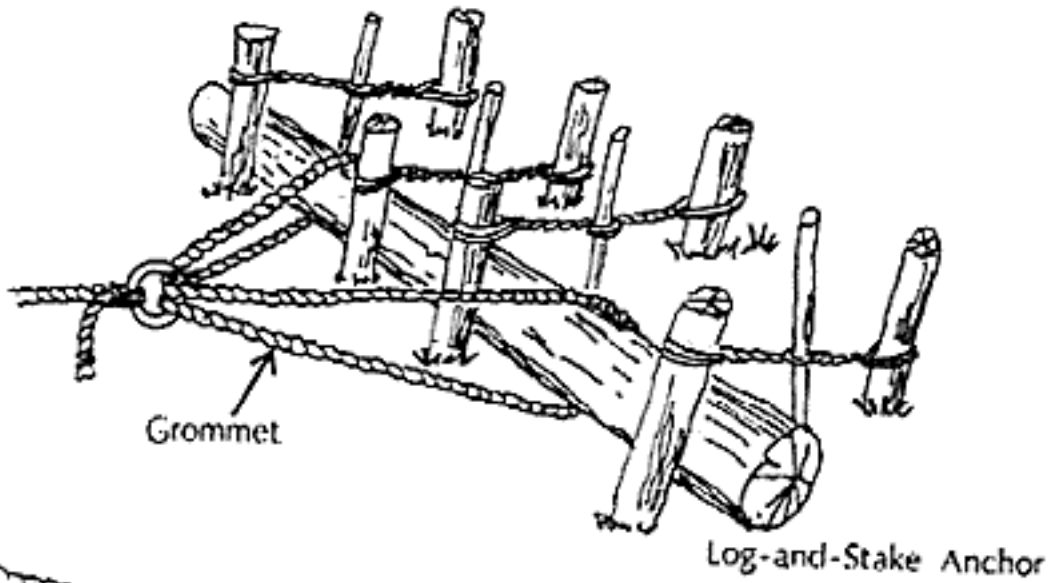
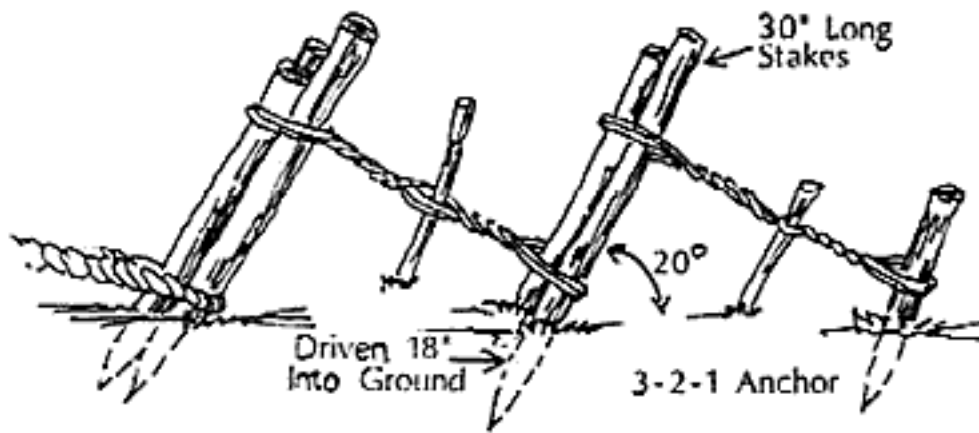


Fig. 3

Scaffold Hitch

Pioneering Anchors



Ladder Hitch

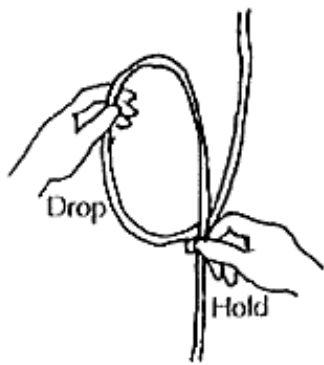


Fig.1



Fig.2

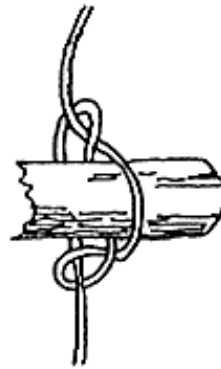


Fig.3

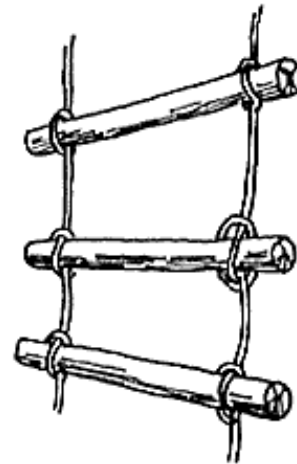
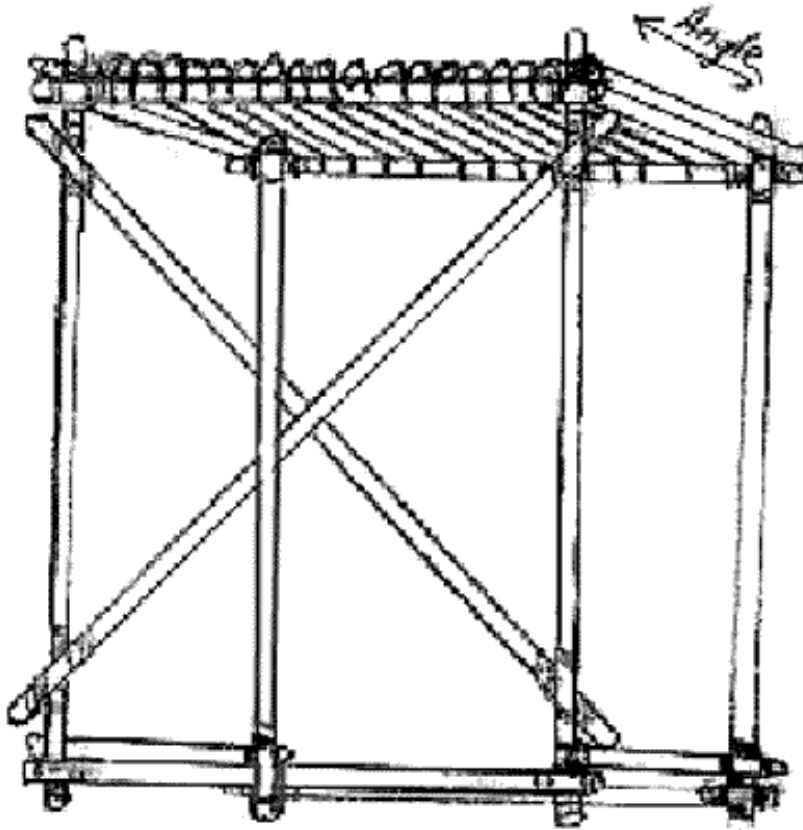


Fig.4

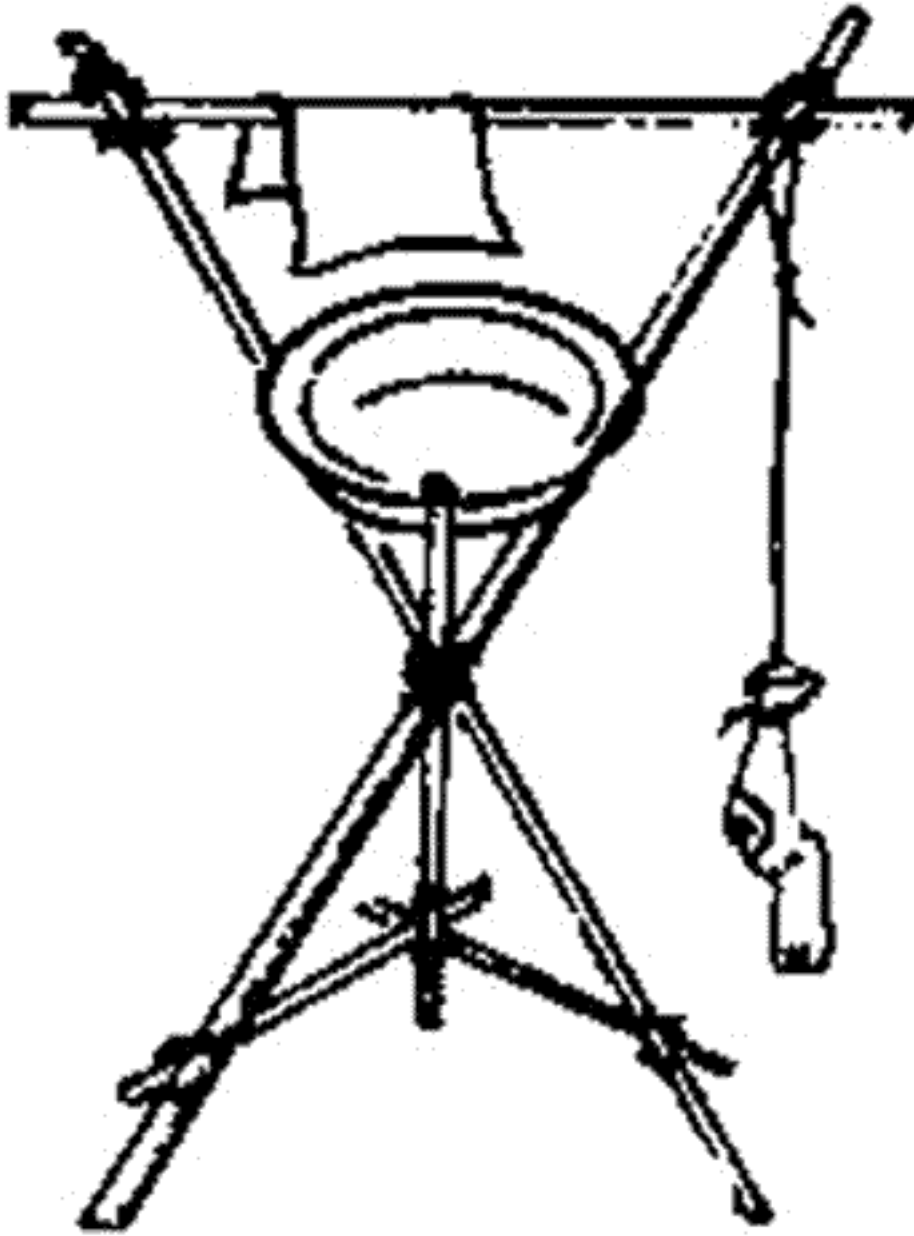
Ladder Hitch

Camp Podium

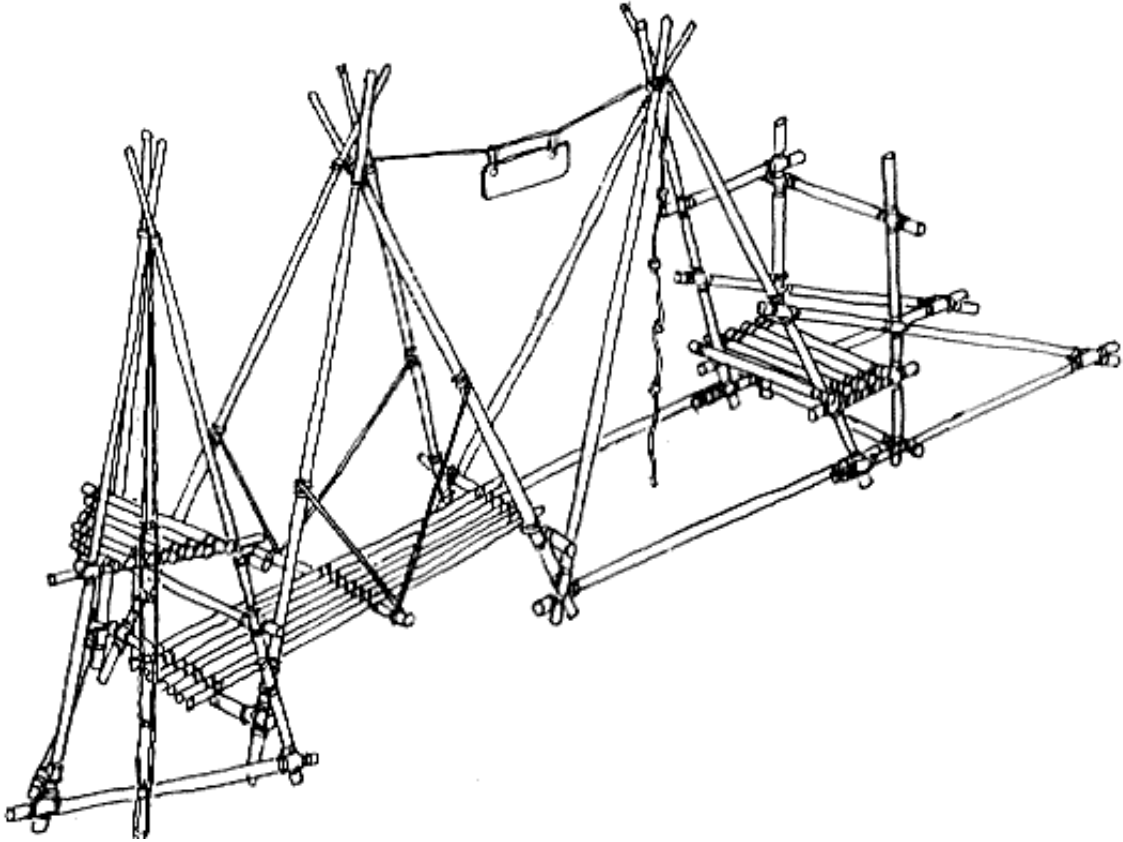
Camp Podium



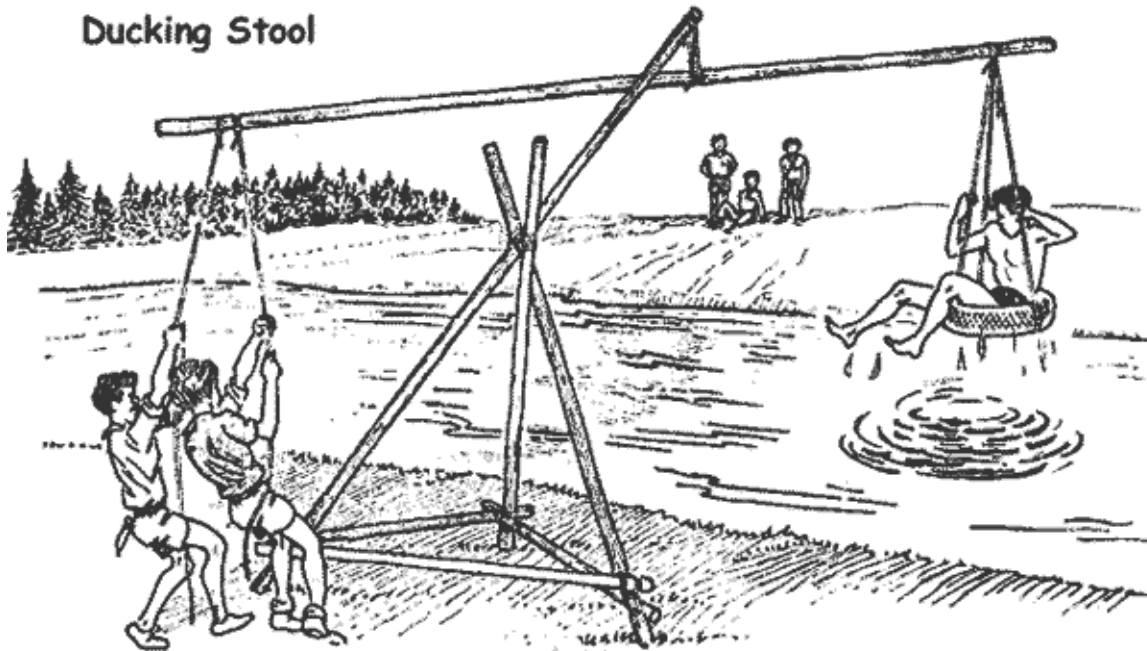
Wash Basin



Kim's Gym

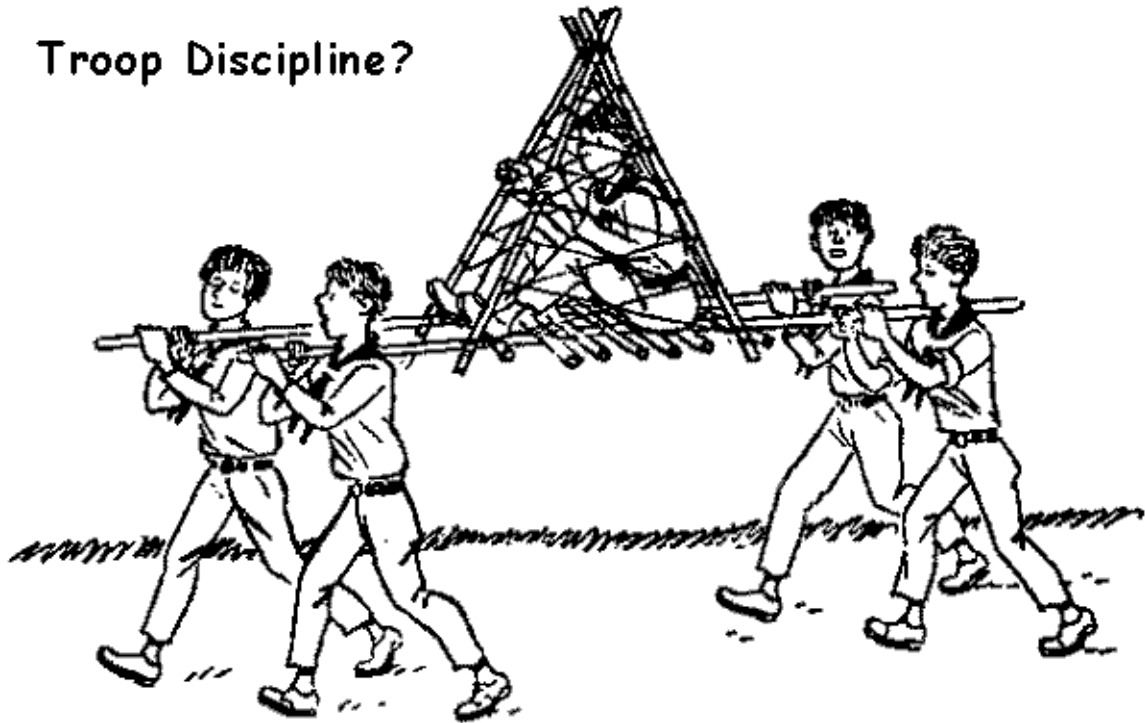


Ducking Stool

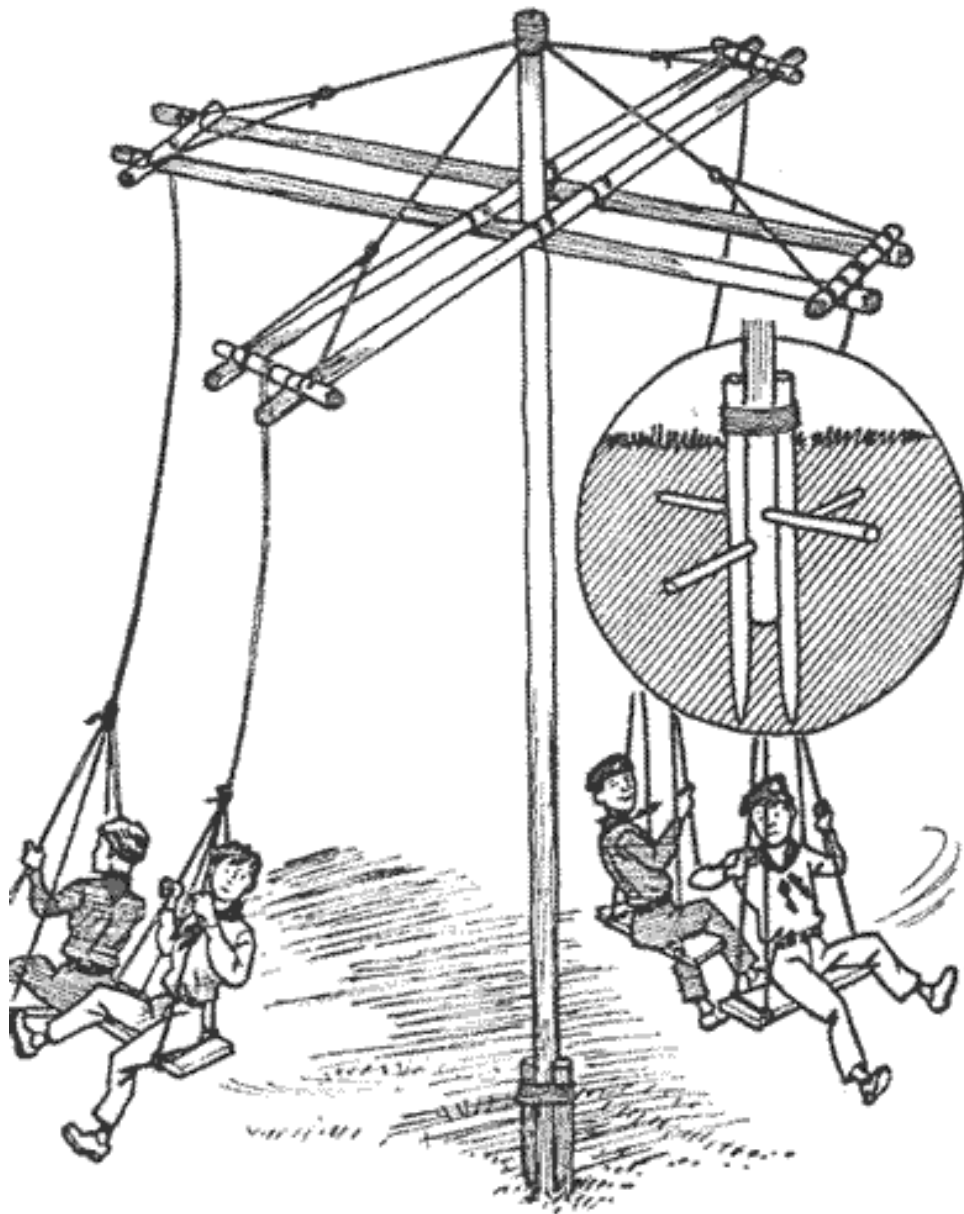


Troop Discipline?

Troop Discipline?



Cambridge Merry-Go-Round



Cambridge Merry-Go-Round