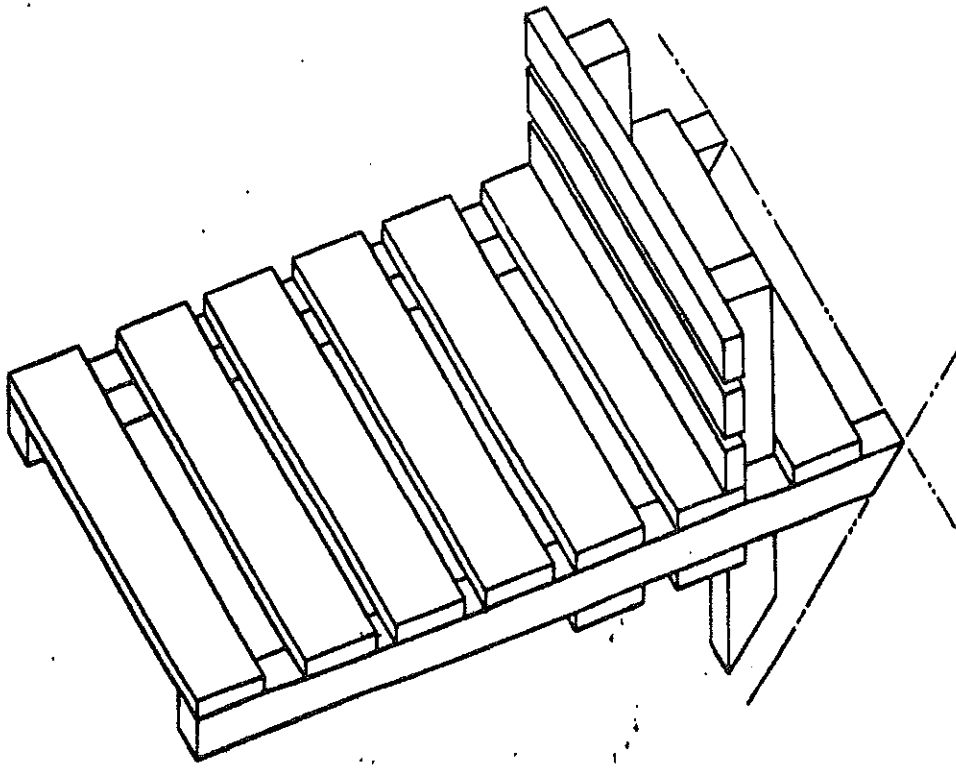


CAMP CHAIR



LIST OF MATERIAL

ITEM	QTY	DESCRIPTION	SIZE
(A)	12	Slat	3/4" x 2 1/2" x 15 7/8" long (1 x 3's)
(B)	** 2	Back Rail	1 1/2" x 1 5/8" x 25 3/4" long
(C)	** 2	Seat Rail	1 1/2" x 1 1/2" x 20 1/4" long
(D)	36	Screw	1 1/2" long - drywall or wood screw with countersunk head (Phillips drive recommended)
<p>* One 8 foot long 1 x 3 should yield six(6) slats of finished length while allowing for a saw kerf of 1/8" or less</p> <p>** Can be ripped from one 2 x 6 x 6 feet long</p>			

ASSEMBLY SEQUENCE

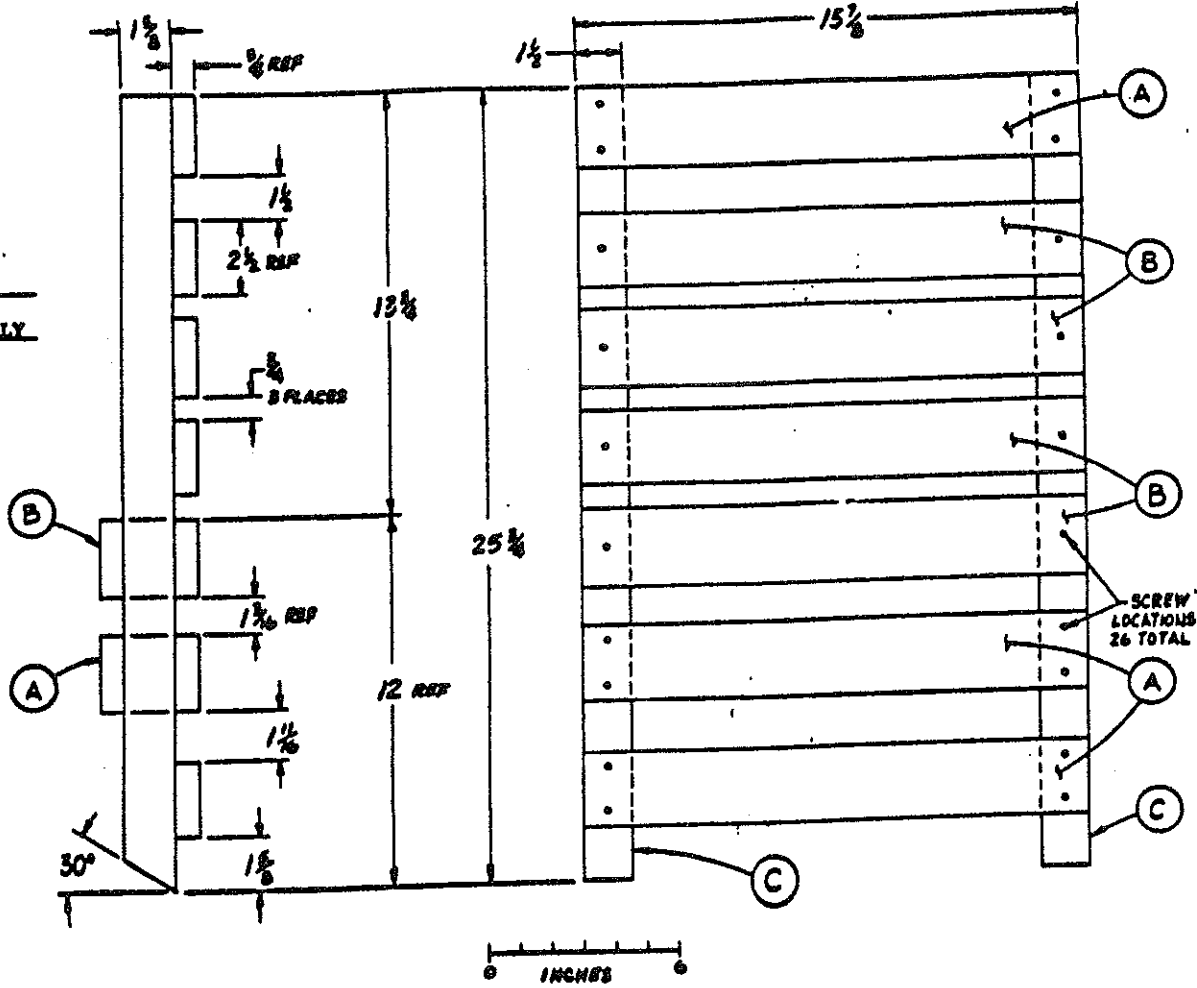
- 1) PRE-DRILL CLEARANCE HOLES IN SLATS TO EASE ASSEMBLY AND MINIMIZE SPLITTING. NOTE LOCATION AND QUANTITY OF SCREWS IN SLATS (A), (B), (C), (D), & (E).
- 2) ON BACK RAILS (C) ASSEMBLE TWO(2) SLATS (A) (TOP AND BOTTOM POSITIONS) WITH ONE(1) SCREW PER LOCATION. SQUARE ASSEMBLY AND PUT IN SECOND SCREW PER LOCATION, MAINTAINING SQUARENESS.
- 3) ASSEMBLE THIRD SLAT (A), MAINTAINING REQUIRED SPACING. THE SEAT RAILS MUST FIT IN THIS OPENING.
- 4) ASSEMBLE FOUR(4) SLATS (E) AS SHOWN TO COMPLETE THIS SIDE OF THE BACK. TURN ASSEMBLY OVER.
- 5) ASSEMBLE ONE(1) SLAT (A) & ONE(1) SLAT (B) MAKING SURE THAT SLAT (A) IS IN LINE WITH SLAT (A) ON THE OPPOSITE SIDE.
- 6) PLACE THE SEAT RAILS (F) INSIDE BACK ASSEMBLY WITH SQUARE ENDS EVEN WITH TOPS OF BACK RAIL ENDS.
- 7) USE SPACERS BETWEEN THE SEAT RAILS AND THE BACK RAILS TO ESTABLISH A GAP OF 3/64" - 1/16" BETWEEN RAILS (C) & (F) ON EACH SIDE. NICKELS OR COINERS WORK OK.
- 8) ASSEMBLE TWO(2) SLATS (D) ON SEAT RAILS (F) AS SHOWN KEEPING ENDS EVEN WITH SLATS ON THE BACK ASSEMBLY. CHECK FOR SQUARENESS, ADJUST IF NECESSARY THEN ASSEMBLE SLAT (E).
- 9) CHECK FOR EASE OF SET UP AND STOWING OF SEAT INSIDE THE BACK.
- 10) FINISH AS DESIRED. TOMPORES WATER SEAL WORKS WELL.

prepared by

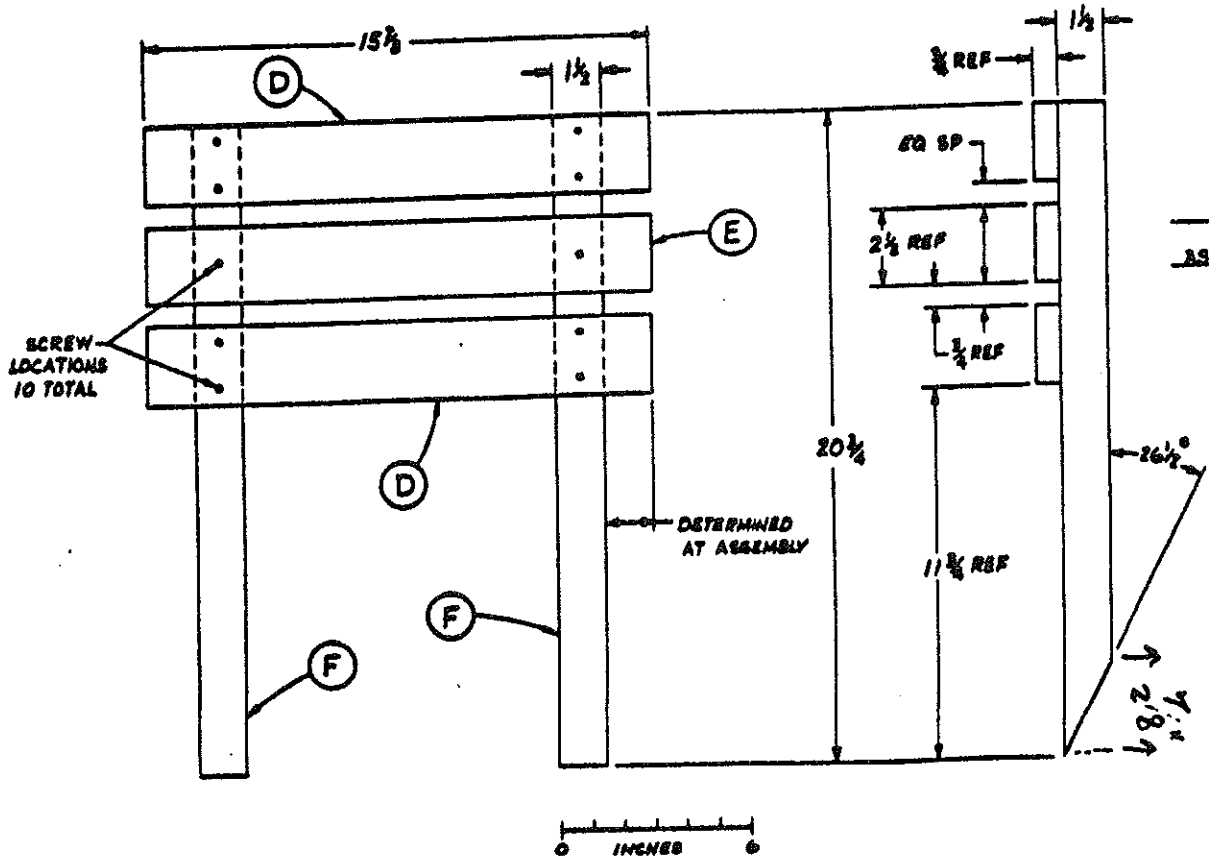
TROOP
FLORENCE, K

77

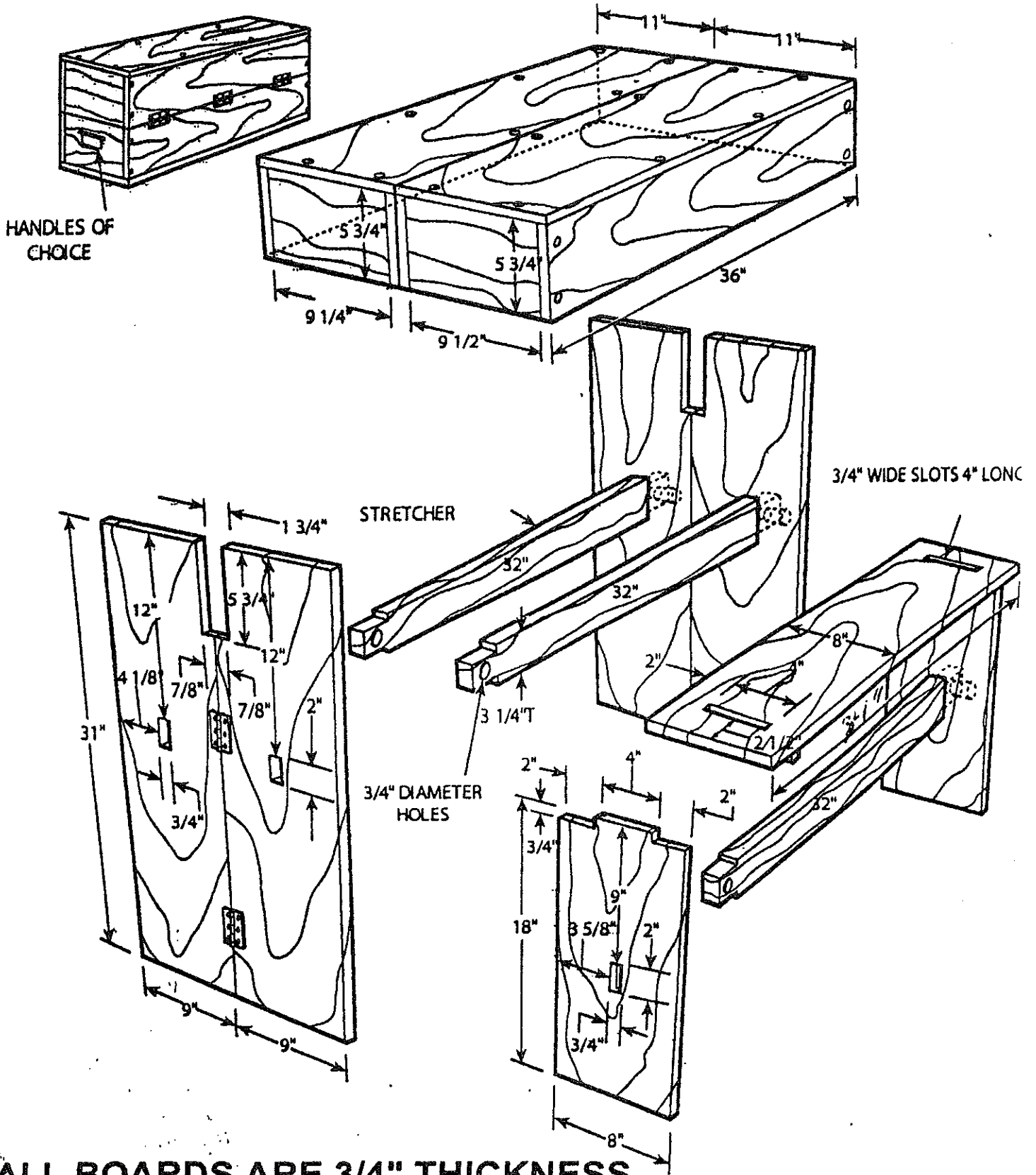
BACK
ASSEMBLY



SEAT
ASSEMBLY

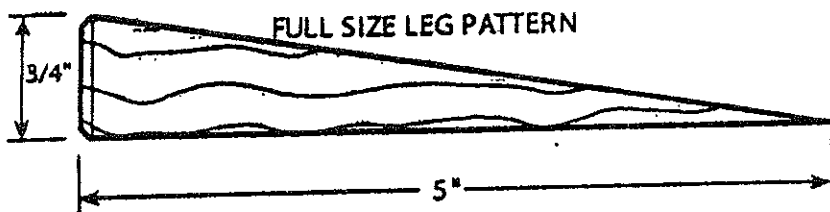


PIONEER TABLE/DESK



ALL BOARDS ARE 3/4" THICKNESS

© 2002, Sylvan Tool Works, Inc.; Home of The American Woodshop®



This plan is designed to help you make the Kitchen Cabinet. Enjoy your work! Read understand and follow all product use instructions. Follow all tool and product guidelines and safety directions. Work safely!

Recommended Tools and Materials

Standard shop tools:

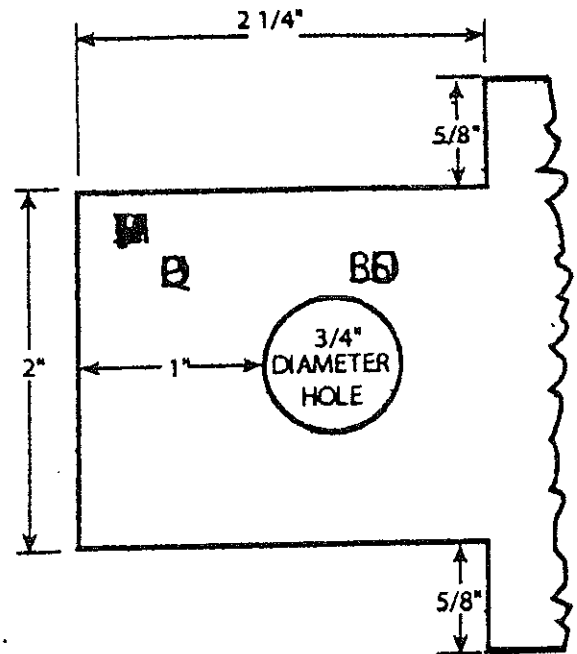
- * Safety glasses & all safety gear, as required by the instruction manuals for the tools and materials you use.
- * Face shield
- * Dust collector
- * Layout & measuring tools & dial calipers
- * Table saw with carbide-tipped combination blade
- * Jointer
- * Band saw with 1/2" wide, four teeth per inch blade
- * Drill press or hand held electric drill
- * Standard drill bits with counter sinking collars
- * Radial arm saw with 60 tooth carbide crosscut blade
- * Sanding center (6" belt, 12" disc)
- * 12" portable planer
- * General purpose clamps
- * Hand scrapers, hand planes (block, #4, #7)
- * Chrome vanadium hand chisels (beveled edge and mortise)
- * Portable power tools :random orbital sanders with dust collection, finishing sanders, standard electric and cordless drills, and bayonet (jig) saw, 1 1/2 h.p. router.

Special Purpose Tools

- * Pocket cutter
- * Biscuit joiner
- * 3/4" spindle shaper with two speed (1 1/2 h.p.)
- * Shaper stile and rail cutters (matched)
- * Table saw stack dado saw blades (carbide)

Materials:

- * #10 x 1 1/4" and 1 1/2" brass wood screws
- * 3/8" wood screw plugs
- * Eight fully threaded pocket joint screws
- * Four 2 1/2" x 1" brass plated steel hinges with screws
- * Finish of choice.
- * Two magnetic door catches
- * Eight shelf brackets
- * Two door pulls of choice



Board list:

Black cherry: The heartwood is rich red to rusty brown and will darken in color over time. This "darkening" is caused by the wood's reaction to light. A very beautiful, dense and durable wood.

All boards planed to 1" thickness

3/4" cherry veneered plywood is used to build the carcass

1/4" cherry veneered plywood (30 1/2" x 33 1/16") for the back of the cabinet

Carcass (all high grade 3/4" cherry plywood)

- * Two sides 10" wide x 34 1/4" long
- * One top 10" x 29 13/16"
- * One bottom 10" x 29 5/16"
- * Two shelves 9 7/8" x 28 5/8"

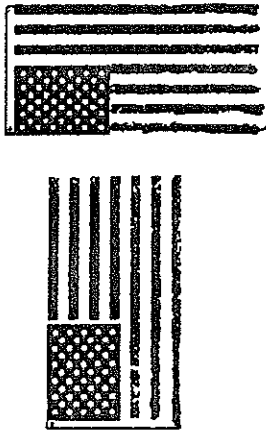
Face Frame (solid cherry planed to 1" thickness)

- * Two rails 3" x 24 7/16"
- * Two stiles 3" x 34 1/4"

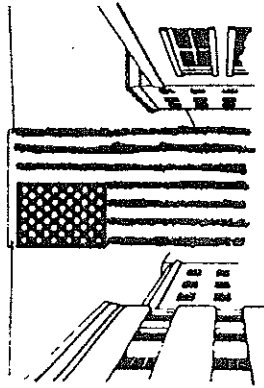
Doors (frame and raised panel)

- * Two door panels 6 3/4" x 23"
- * Four stiles 3" x 28 5/16"
- * Four rails 3" x 6 7/8"

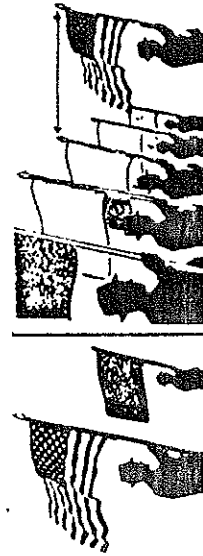
How to display the Flag



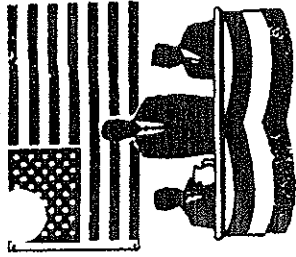
When the flag of the United States is displayed in a manner other than by being flown from a staff it should be displayed flat, whether indoors or outdoors. When displayed either horizontally or vertically against a wall the union should be uppermost and to the flag's own right, i.e., the observer's left. When displayed in a window it should be the same way. The flag should never be draped or used as a decoration to replace bunting.



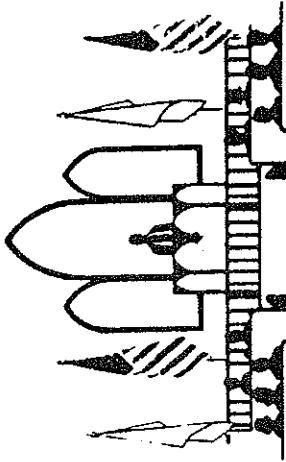
When displayed over the middle of the street, as between buildings, the flag of the United States should be suspended vertically with the union to the north on an east and west street and to the east on a north and south street.



When carried in a procession with another flag or flags, the flag of the United States should be either on the marching right, i.e., the flag's own right, or when there is a line of other flags the flag of the United States may be in

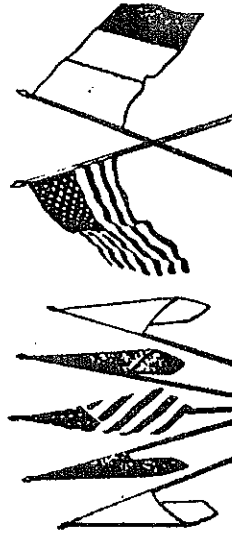


When used on a speaker's platform the flag should be displayed above and behind the speaker. It should never be used to cover the speaker's table nor to drape over the front of the platform. If flown from a staff it should be on the speaker's right.



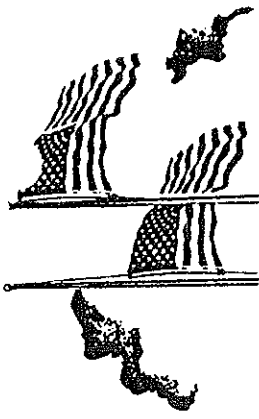
When it is displayed on the pulpit or chancel in a church, the flag of the United States should be flown from a staff placed on the clergyman's right as he faces the congregation. All other flags on the pulpit or chancel should be on his left.

However, when it is displayed on the floor of the church, on a level with the congregation, the position of the flag is reversed from that above. It is placed on the right of the congregation, as one faces the pulpit or chancel.

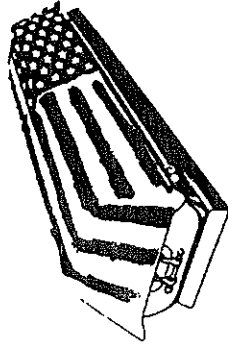


When a number of flags are grouped and displayed from staffs, the flag of the United States should be in the center or at the highest point of the group, as illustrated.

When it is displayed with any other flag against a wall or in the open, from crossed staffs, the flag of the United States should be on the right, the flag's own right, and its staff should be in front of the staff of the other



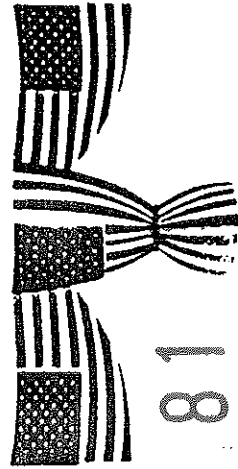
When flown at half-staff, the flag is first hoisted to the peak of the staff and then lowered to half-staff. Before lowering the flag for the day it is again raised to the peak and then lowered. On Memorial Day, the flag is displayed at half-staff from sunrise until noon and at full-staff from noon until sunset.



When used to cover a casket, the flag should be placed so that the union is at the head and over the left shoulder. The flag should not be lowered into the grave. It should not be carried foot-first from the hearse to the grave.



To fold the flag ceremoniously, first fold it lengthwise, bringing the striped half up over the blue field. Then repeat, with the blue field on the outside. Beginning at the lower right, make a series of triangular folds until the flag resembles a cocked hat with only the blue field visible.



81

Improper use of flags. Never use them for decorations. Red-white-blue striped bunting is

Flag Poles, Flag Size (U.S.A.)

Sizes, Dimensions

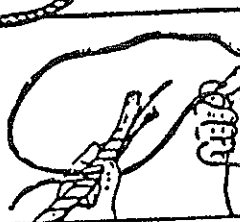
Exposed Height (feet)	Diameter (inches)		Wall Thickness (inches)	Maximum Recommend Flag Size (feet)	Flagged Windspeed (mph)
	Base	Top			
15	3	2	0.125	3x5	120
20	3	2	0.125	4x6	85
20	4	2	0.125	4x6	110
20	5	3	0.125	4x6	120+
20	5	3	0.188	4x6	120+
25	3	2	0.125	5x8	50
25	4	2	0.125	5x8	85
25	5	3	0.125	5x8	105
25	5	3	0.156	5x8	120
25	5.5	3.5	0.188	5x8	120+
25	6	3.5	0.156	5x8	120+
25	6	3.5	0.188	5x8	120+
30	4	2	0.125	6x10	50
30	5	3	0.125	6x10	85
30	5	3	0.156	6x10	95
30	6	3.5	0.156	6x10	120
30	6	3.5	0.188	6x10	120+
35	5	3	0.125	6x10	75
35	5	3	0.156	6x10	80
35	6	3.5	0.156	6x10	95
35	7	3.5	0.156	6x10	120
35	7	3.5	0.188	6x10	120
40	7	3.5	0.156	8x12	95
40	8	3.5	0.188	8x12	120
45	8	3.5	0.188	8x12	110
50	8	3.5	0.188	10x15	95
50	10	4	0.188	10x15	115
60	10	4	0.188	12x18	95
60	10	4	0.25	12x18	110
60	12	4.4	0.25	12x18	120
70	10	4	0.312	15x25	95
70	12	3.6	0.25	15x25	115
80	12	4	0.375	20x30	115

KNOW YOUR KNOTS AND HOW TO USE THEM

YOU CAN TELL AN OUTDOORSMAN BY HIS ABILITY TO TIE THE RIGHT KNOT AT THE RIGHT TIME. A SCOUT KNOWS SEVERAL KNOTS AND THE PURPOSE OF EACH. HE CAN TIE THEM IN THE DARK OR IN THE DAYLIGHT...HERE ARE THE TESTS OF A GOOD KNOT! 1. SERVES ITS PURPOSE. 2. HOLDS UNTIL UNTIED. 3. EASILY TIED. 4. EASILY UNTIED...TIPS ON KNOT-TYING! USE A SIX-FOOT PIECE OF 1/4 OR 1/2 INCH ROPE -- NOT TWINE OR STRING! PRACTICE TYING EACH KNOT IN THE SITUATION IN WHICH IT WILL BE USED.



BEFORE TYING KNOTS LEARN HOW TO WHIP A ROPE TO KEEP IT FROM UNRAVELING



MAKE A LOOP OF TWINE AND PLACE AT END OF ROPE.



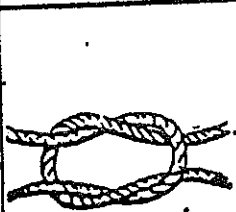
WRAP TWINE TIGHTLY AROUND ROPE STARTING 1/4 INCH FROM ROPE'S END.



WHEN WHIPPING IS AS WIDE AS ROPE IS THICK, PULL OUT ENDS HARD, TRIM OFF TWINE CLOSE TO WHIPPING.



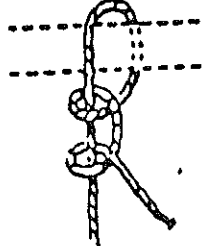
THESE ARE SOME USEFUL KNOTS FOR OTHERS, SEE THE SCOUT FIELD BOOK AND HANDBOOK FOR BOYS



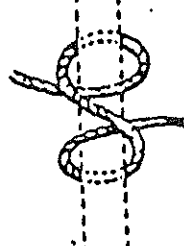
SQUARE KNOT
FOR TYING ROPES OF EQUAL THICKNESS. VERY USEFUL IN FIRST AID.



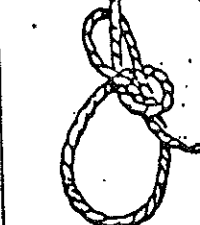
SHEET BEND
FOR JOINING TWO ROPES TOGETHER OF DIFFERENT THICKNESS.



TWO HALF HITCHES
FOR TYING A ROPE TO A POLE OR RING.



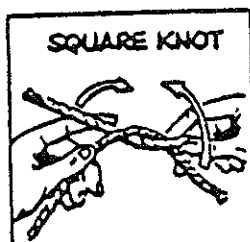
CLOVE HITCH
FOR SECURING BOATS - FOR LASHINGS.



BOWLINE
FOR FORMING A LOOP THAT WON'T SLIP UNDER STRAIN. EASILY UNTIED.

TAUTLINE HITCH
FORMS A LOOP WHICH WILL NOT SLIP WHEN ROPE IS TIGHT.

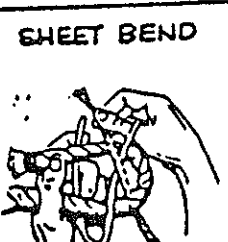
HERE'S HOW TO TIE THEM



SQUARE KNOT
TWIST LEFTHAND ROPE END OVER, BEHIND, UNDER RIGHT HAND ROPE.



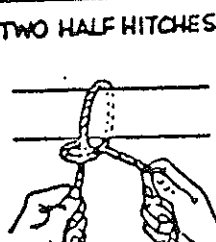
AGAIN TWIST SAME END AS BEFORE... OVER, BEHIND, UNDER. LEFT OVER RIGHT - RIGHT OVER LEFT!



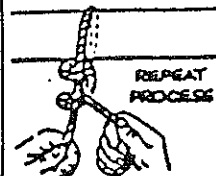
SHEET BEND
FORM A BIGHT (LOOP) ON THE HEAVIER ROPE. BRING OTHER LINE END THROUGH LOOP, TWIST IT OVER AND UNDER LOOP.



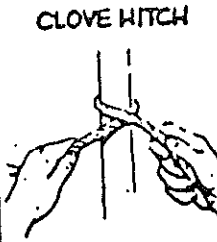
THEN BRING SMALL LINE IN UNDER ITSELF.



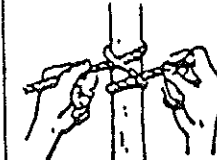
TWO HALF HITCHES
PLACE ROPE AROUND POLE. CARRY ROPE END OVER AND UNDER AND THROUGH LOOP THUS FORMED.



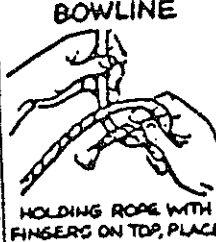
REPEAT PROCESS



CLOVE HITCH
BRING ROPE END AROUND POLE, LAY IT OVER THE ROPE ITSELF.



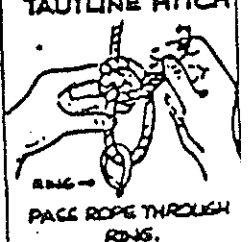
BRING END ONCE MORE AROUND POLE. CARRY END UNDER THE ROPE ITSELF.



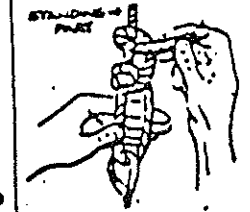
BOWLINE
HOLDING ROPE WITH FINGERS ON TOP, PLACE END ON STANDING PART. TWIST YOUR HAND, CARRYING END AROUND TO FORM LOOP.



BRING END AROUND ROPE DOWN THROUGH LOOP.



TAUTLINE HITCH
PLACE ROPE THROUGH RING. CARRY ROPE END AROUND STANDING PART TWICE AND THROUGH LOOP THUS FORMED.



REPEAT PROCESS ONCE AND PULL TIGHT.

KNOTS

WLOT
'91
Kaye Clark

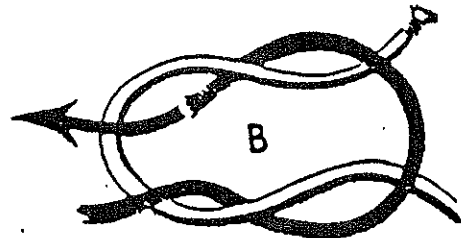
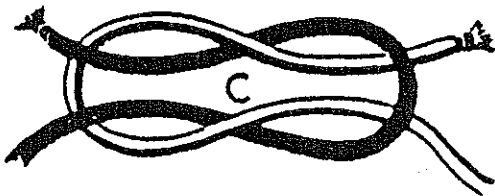
SQUARE KNOT

This knot is used for tying two rope ends together; sometimes the ends of the same rope; sometimes the ends of different ropes.

A. Put the two rope ends together, left over right, and twist the left one behind and around in front of the right end of the rope.

B. Now put the end in your right hand over the other and twist it behind and down through the bight.

C. Pull both ends to tighten. 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.

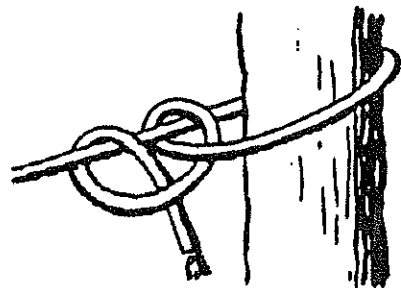
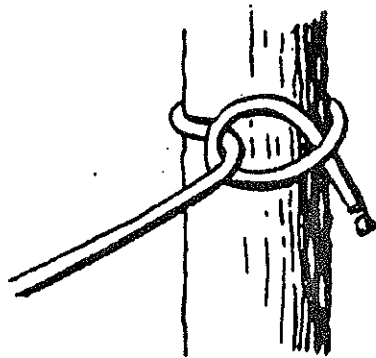


TWO HALF HITCHES

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.

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.

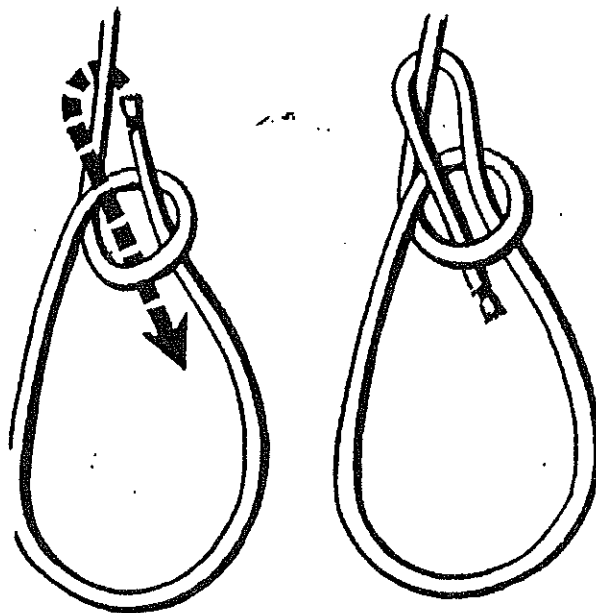


BOWLINE

This knot is used to hold loops - either permanent or "running" like a cowboy's lariat. The bowline and its variations are important for rescue work and on board ship where they have scores of uses.

The bowline has been called the king of knots. It will never slip or jam if properly made and, thus, is excellent for tying around a person in a rescue.

Begin by forming an overhand loop in the standing part. Then take the free end up through the eye, around the standing part, and back where it came from.

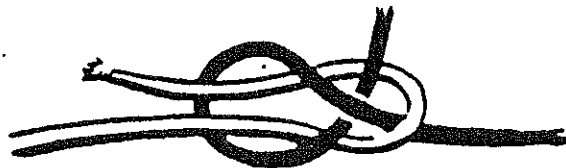


SHEET BEND

This knot is used to tie two rope ends together; sometimes the ends of the same rope; sometimes the ends of different ropes.

The sheet bend is the most important knot for joining two rope ends, especially if the ropes are of different sizes. Sailors maned 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.

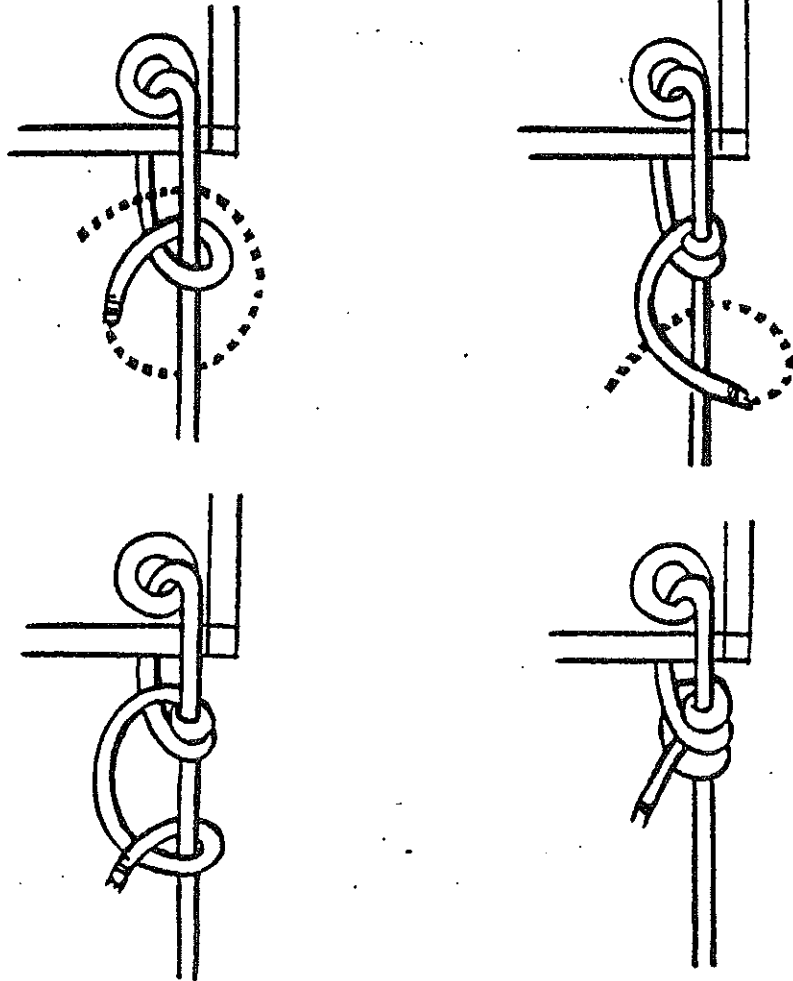


TAUT-LINE HITCH

This knot is really a clove hitch with an extra turn in the direction of the strain on the standing part. The taut-line is particularly useful because it will not slip downward even on glass-smooth surfaces.

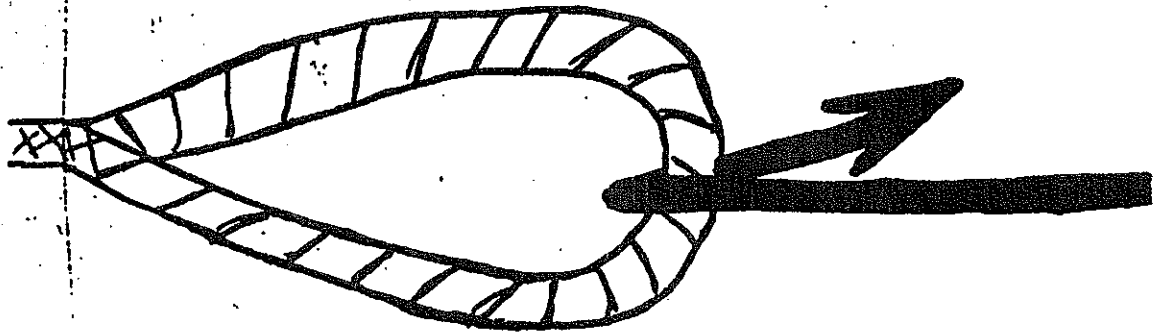
This knot is valuable in emergencies since it can be tied with one hand on a taut rope. With it a person can tie the free end of a rescue rope around his body or fasten a second rope to one about to break under strain.

Since it will slide only one way, the taut-line hitch is often used on tent ropes.

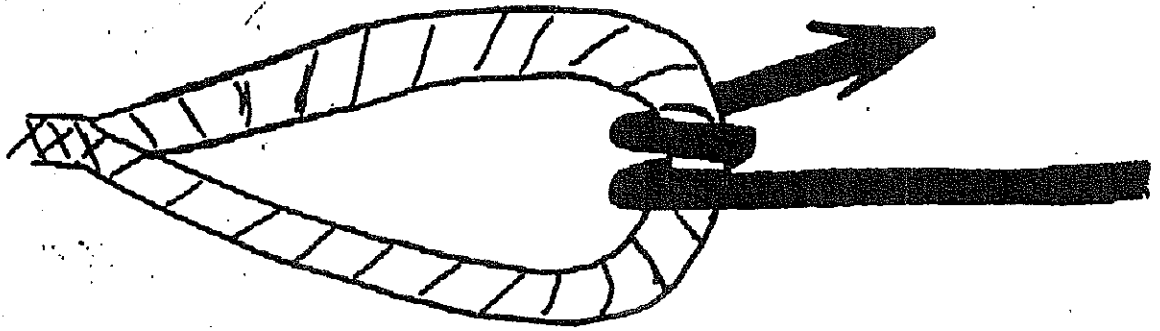


FISHERMAN'S BEND

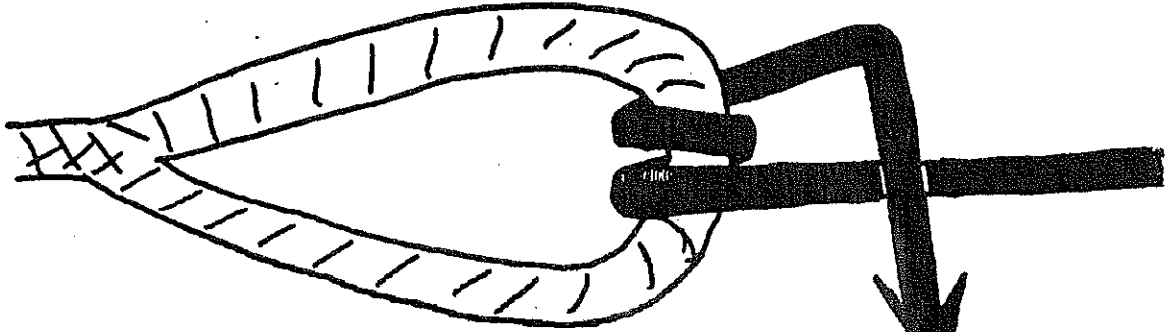
1



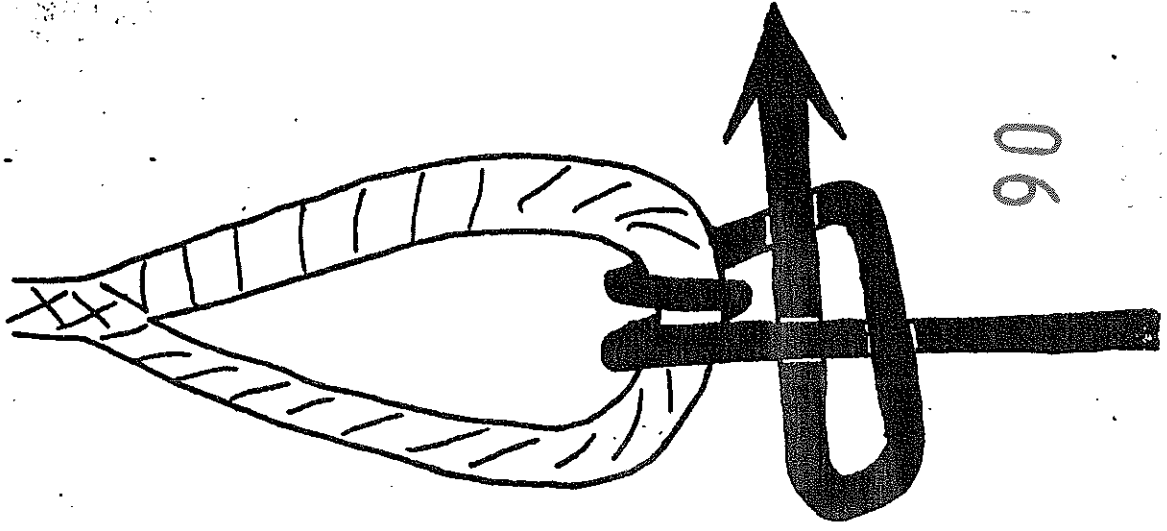
2



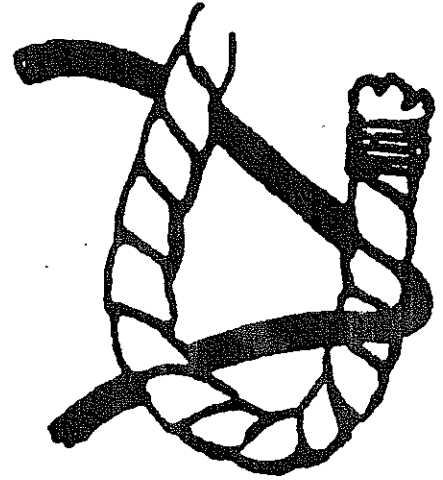
3



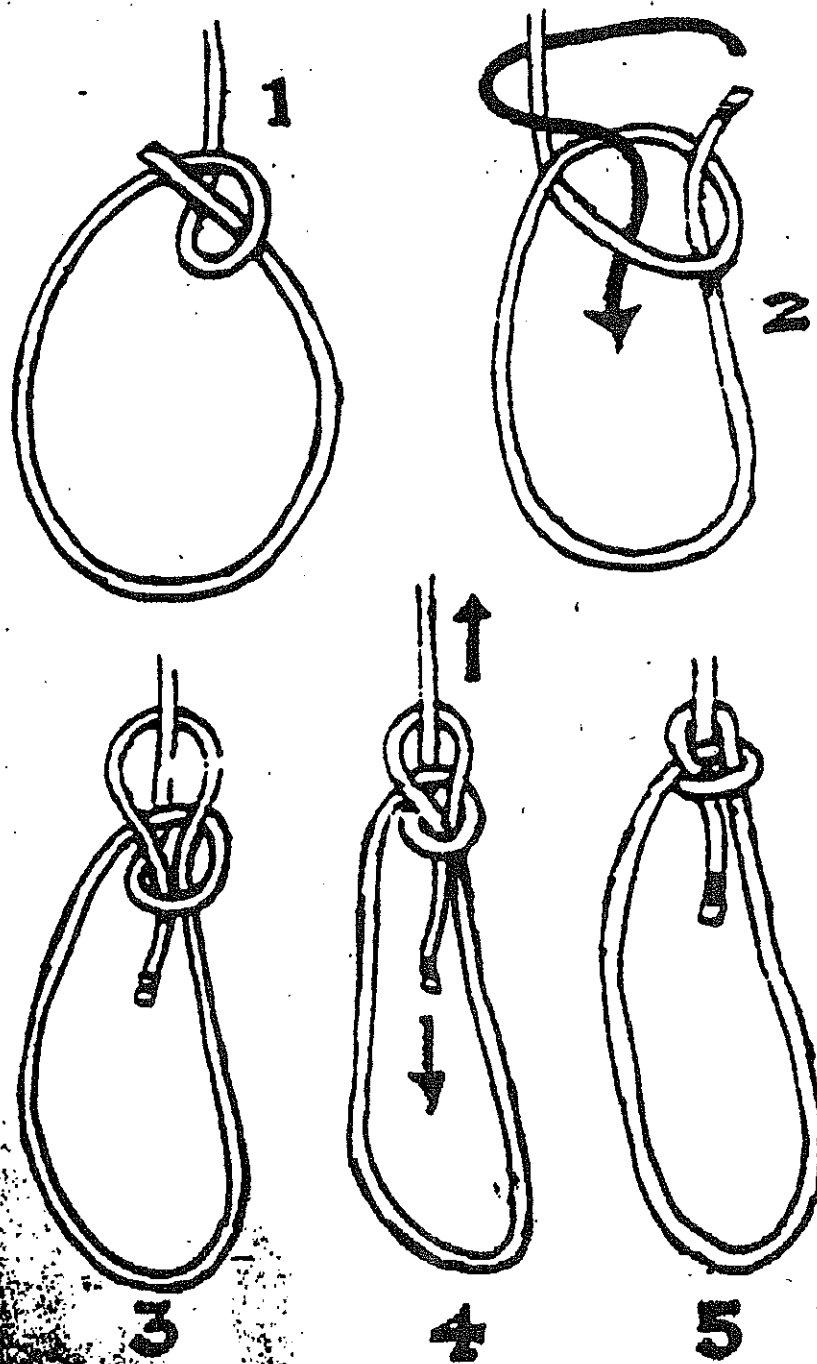
4



90

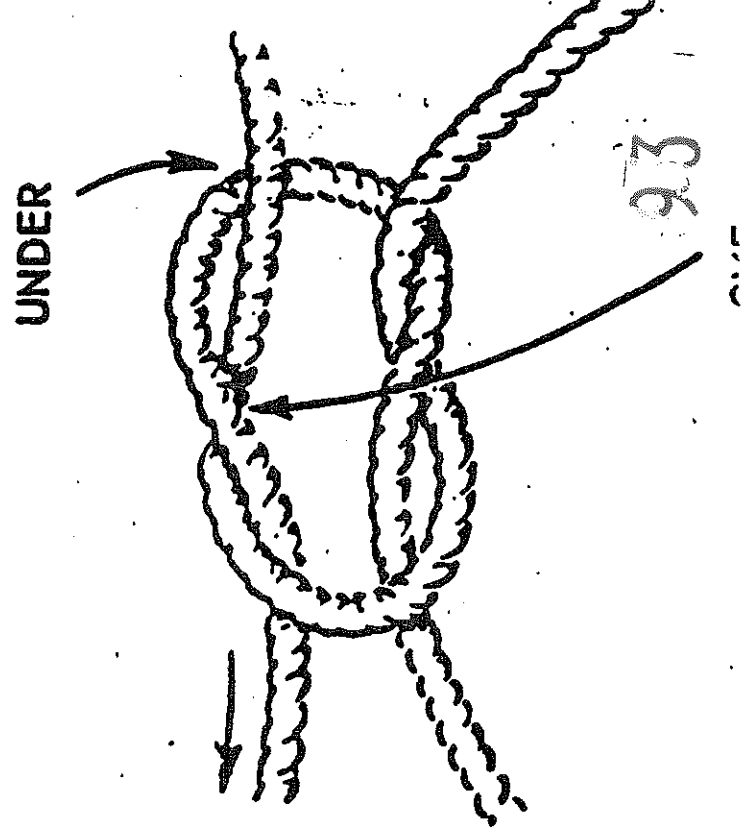
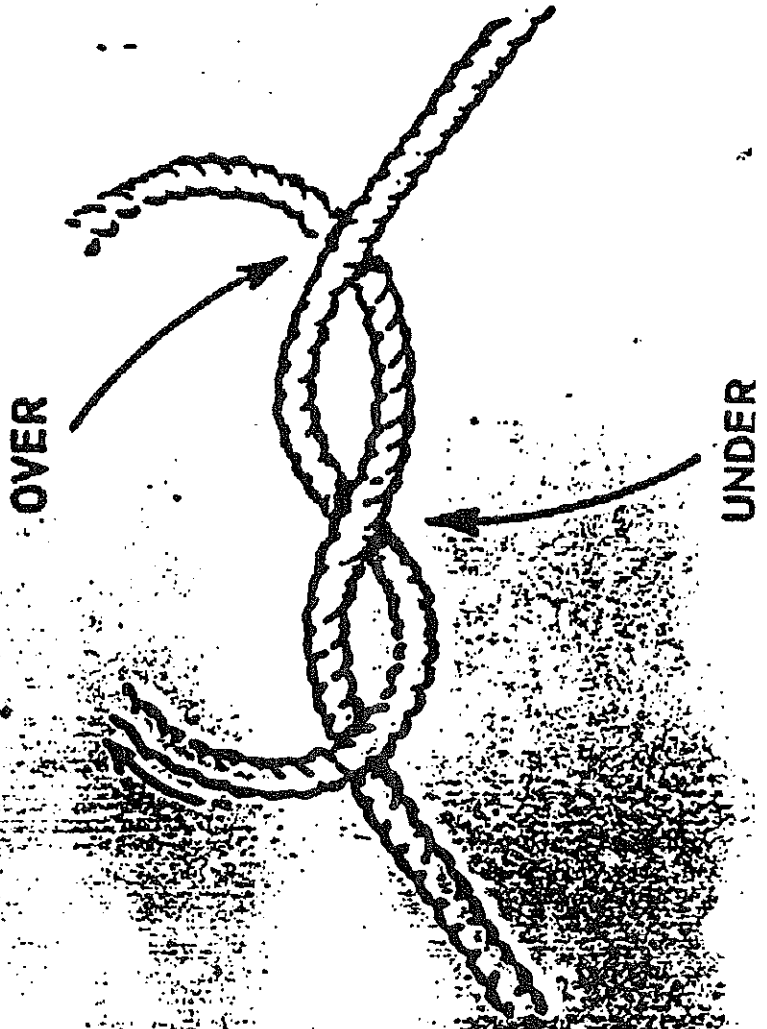


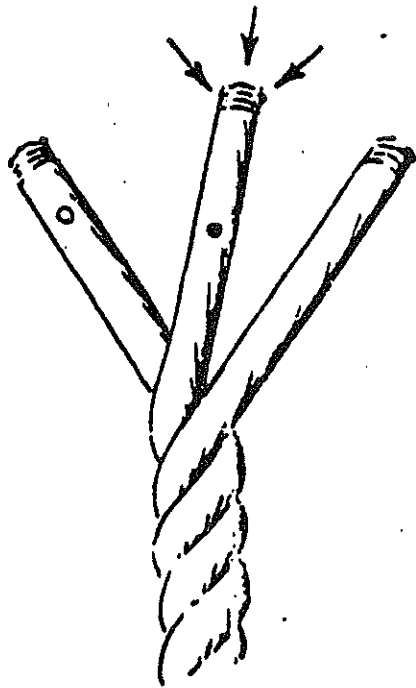
SHEET BEND: For tying two ropes together, especially when one is thicker than the other.



BOWLINE: Used when you want a loop that will not slip or close up. It is often used in rescue work.

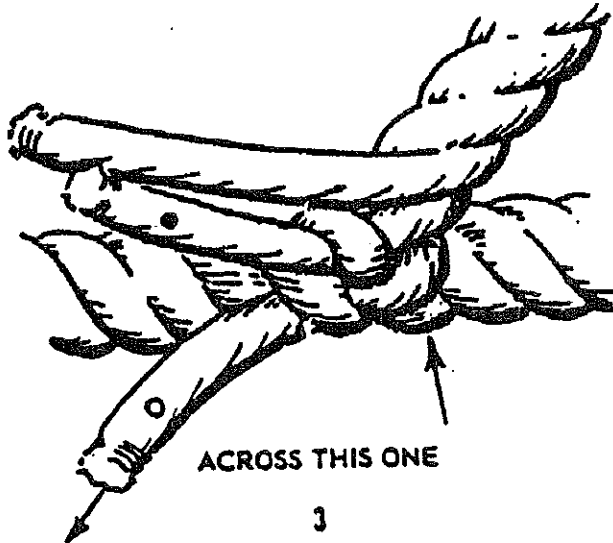
**SQUARE KNOT: For
tying two ropes together
and for tying bandages
in first aid.**



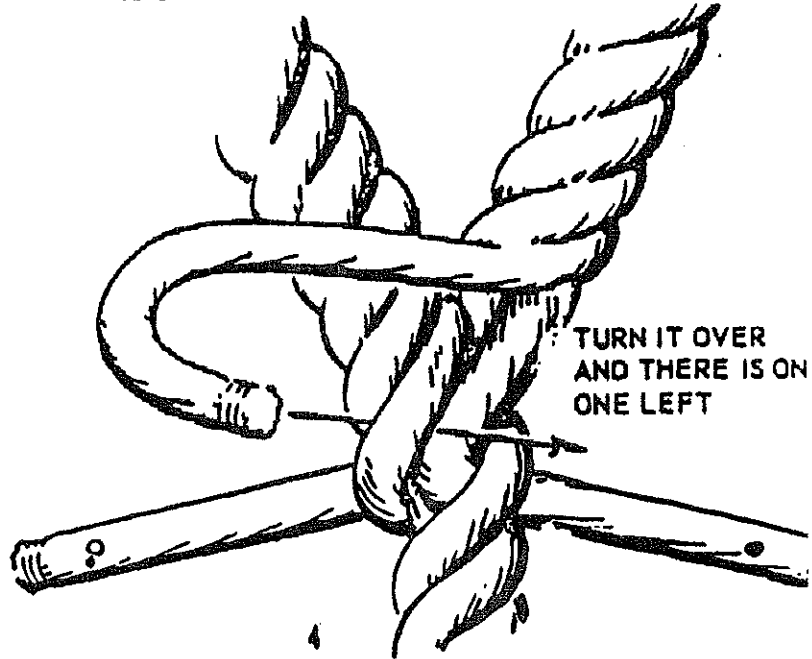


1 THE MIDDLE STRAND FACING YOU ALWAYS TUCKS FIRST

... LIKE THIS

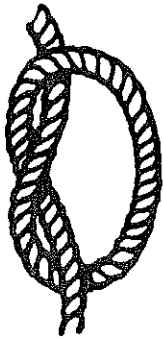


3

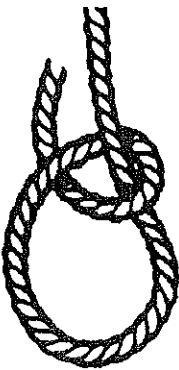


TURN IT OVER AND THERE IS ON ONE LEFT

KNOTS THAT ARE USED ON THE RIVER



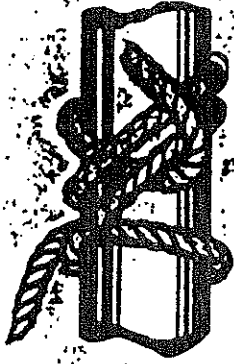
Overhand



One half Hitch



Two Half Hitches



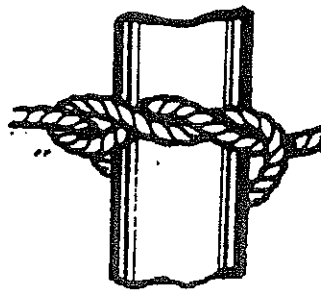
Rolling Hitch



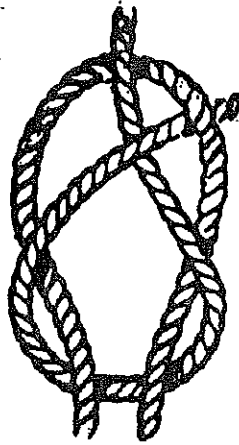
Single Blackwall Hitch



Reef or Square Knot



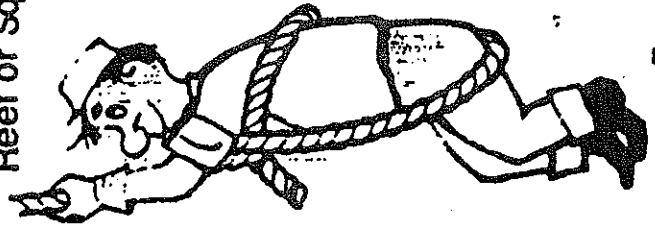
Timber Hitch



Sheet or Becket Bend



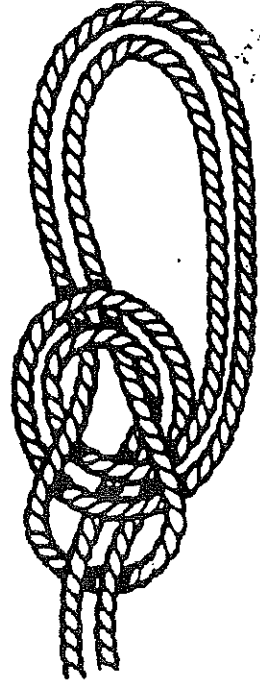
Double or Carrick Bend



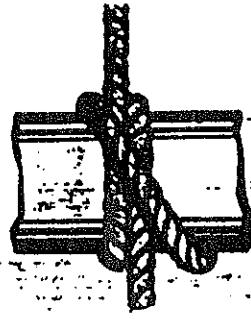
French Bowline



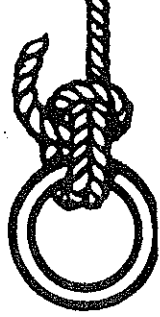
Bowline



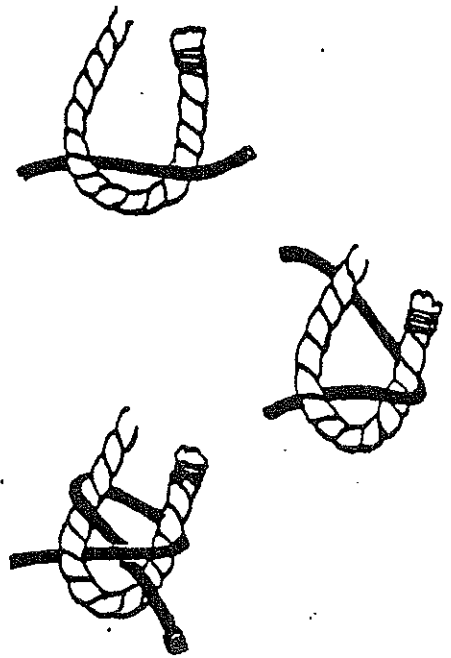
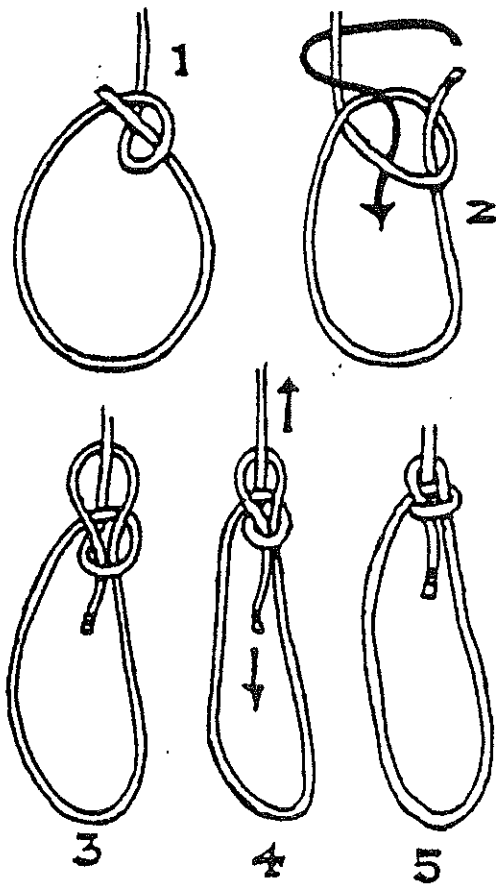
Bowline on a Bight



Clover Hitch

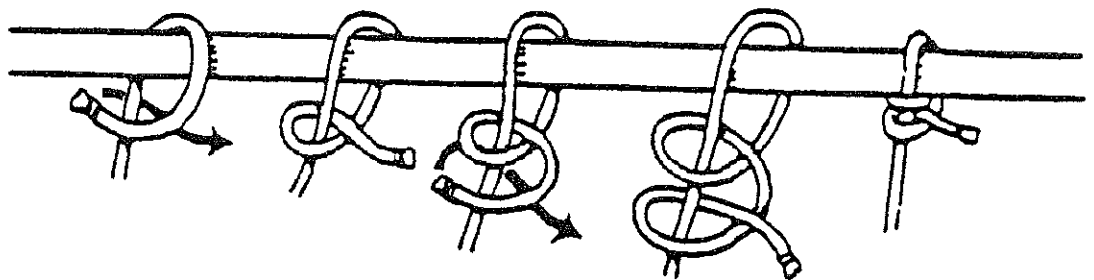


Fisherman's Bend



SHEET BEND: For tying two ropes together, especially when one is thicker than the other.

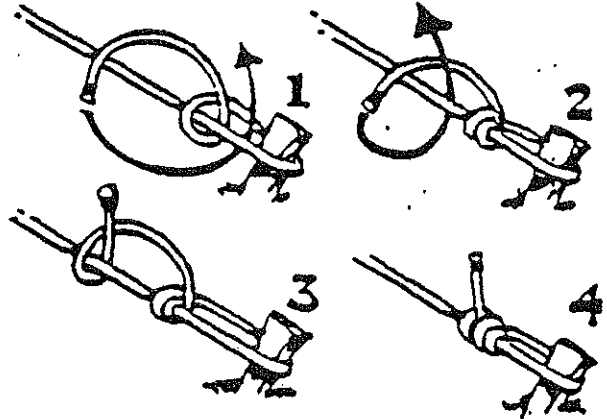
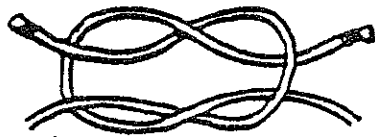
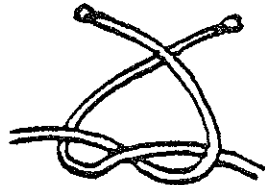
BOWLINE: Used when you want a loop that will not slip or close up. It is often used in rescue work.



TWO HALF HITCHES: For tying a rope to a post or ring. It is strong but is easy to loosen.

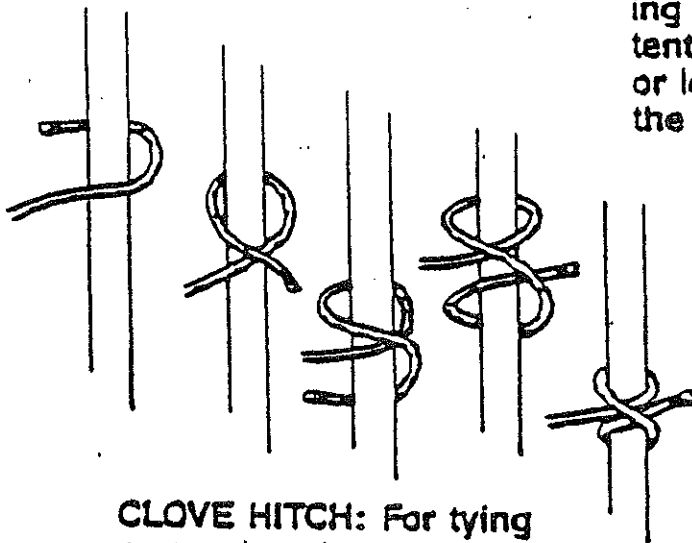
CAMP KNOTS

You will use rope for many purposes when you go camping as a Boy Scout. Now is the time to learn the most useful knots around camp.



SQUARE KNOT: For tying two ropes together and for tying bandages in first aid.

TAUT-LINE HITCH: For tightening and loosening a rope easily and on tent guy lines. Tighten or loosen it by pushing the hitch up or down.



CLOVE HITCH: For tying a rope to a tree or post.



OUTDOOR CODE

BOY SCOUTS OF AMERICA

AS AN AMERICAN, I WILL DO MY BEST TO:



BE CLEAN IN MY OUTDOOR MANNERS

I WILL TREAT THE OUTDOORS AS A HERITAGE TO BE IMPROVED FOR OUR GREATER ENJOYMENT. I WILL KEEP MY TRASH AND GARBAGE OUT OF AMERICA'S WATERS, FIELDS, WOODS AND ROADWAYS.

BE CAREFUL WITH FIRE

I WILL PREVENT WILD FIRE. I WILL BUILD MY FIRE IN A SAFE PLACE, AND BE SURE IT IS DEAD OUT BEFORE I LEAVE.




BE CONSIDERATE IN THE OUTDOORS

I WILL TREAT PUBLIC AND PRIVATE PROPERTY WITH RESPECT. I WILL REMEMBER THAT USE OF THE OUTDOORS IS A PRIVILEGE I CAN LOSE BY ABUSE.

BE CONSERVATION-MINDED

I WILL LEARN HOW TO PRACTICE GOOD CONSERVATION OF SOIL, WATERS, FORESTS, MINERALS, GRASSLANDS, AND WILD LIFE; AND I WILL URGE OTHERS TO DO THE SAME. I WILL USE SPORTSMAN-LIKE METHODS IN ALL MY OUTDOOR ACTIVITIES.





KNIFE

Knives are tools not toys! You need to impress this upon all campers.

GENERAL CARE

It is most important to keep a knife dry. Whenever it has reason to become damp or wet, dry it as soon as possible.

A sharp knife is easier to control and less dangerous than a dull one. Keep the blade clean, sharp and oiled.

To sharpen a knife, hold the blade at a slight angle, stroking into the cutting edge. Use either a circular or a straight motion, from the point to the base of the blade. Keep fingers below the stone's sharpening surface.

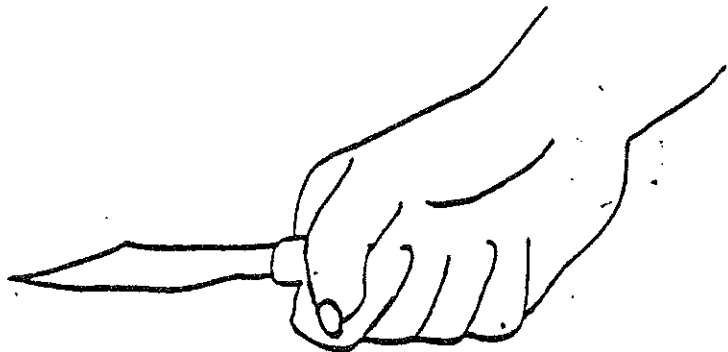
Most rust and dirt can be removed from the blade with oil and a rag. Occasionally you may need to rub your knife blade lightly with fine steel wool.

If in doubt as to your ability to sharpen or clean a knife, take it to be professionally done. Better professional than sorry!

USE OF THE KNIFE

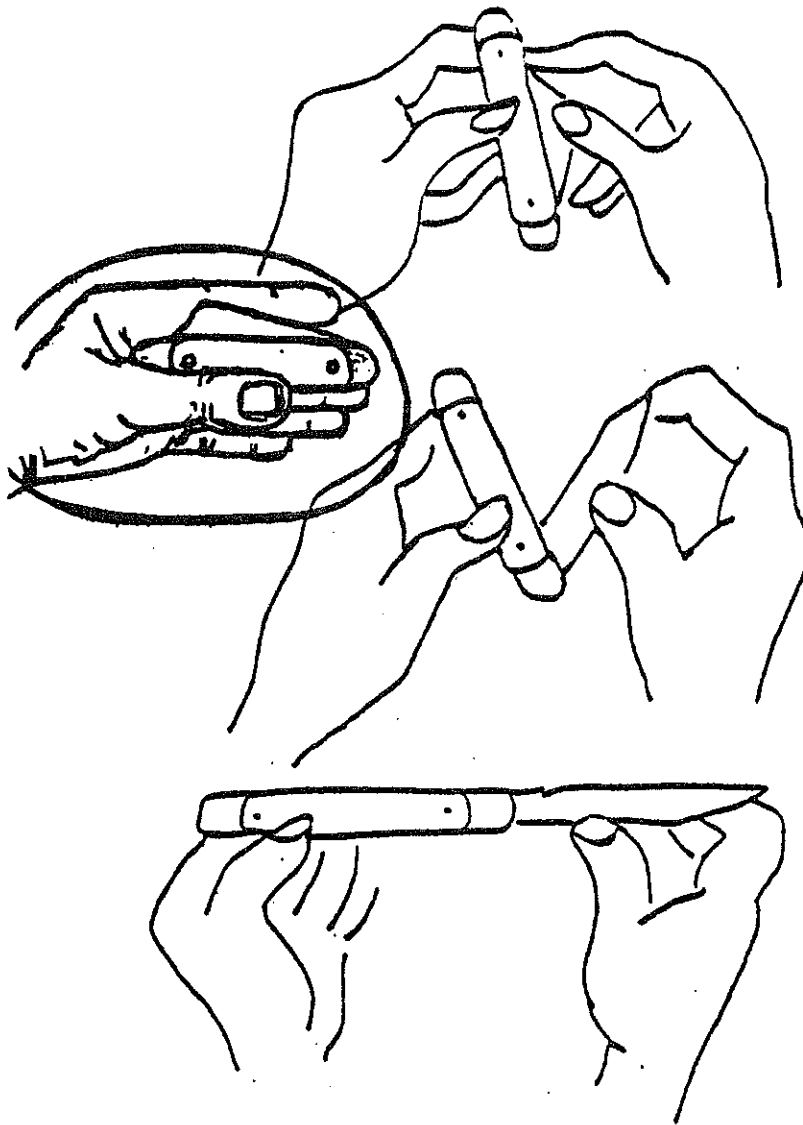
Keep all fingers wrapped around the handle. Never put a thumb on the blade.

Always cut away from the body.



TEACHING KNIFE USE AND SAFETY

1. Have group sitting down.
2. divide group into small units (4-5); one adult per unit.
3. Demonstrate how to open, close, pass the knife.
4. Make sure that each unit has one, and only one, knife to practice with.
5. Repeat the demonstration with the first boy in each group following the steps.
6. Pass knife to second boy and repeat.
7. Demonstrate the use of the knife, emphasizing safety.
8. Using one knife per group, have each group whittle on a stick, passing knife and stick along the line. Correct dangerous habits as they occur.
9. Demonstrate care of the knife: How to oil, how to sharpen.
10. The B.S.A. does not allow sheath knives to be used or carried at any time. Only knives that fold and lock when opened should be used. Cub Scouts should never use knives unless there is an adult supervising.



OPENING AND CLOSING

To open a knife, hold the handle so that all fingers are on the sides of the knife.

For safety sake, open the blade first 90° , pause, then open to 180° .

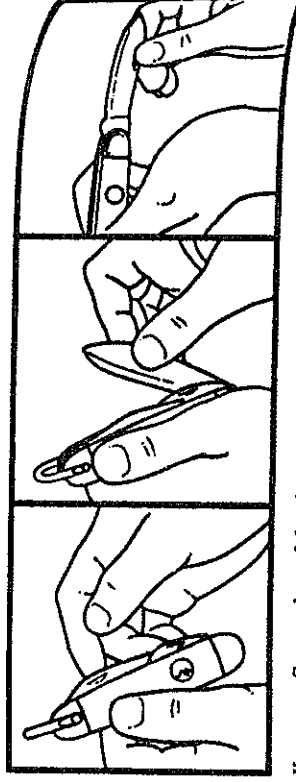
Keep fingers out of the way until the blade is all the way open.

To close, reverse the process; close the blade to 90° , pause, then close 180° down.

The insert represents an acceptable small hands method of holding a knife.

HANDLING

A knife should be closed before passing it to another person. If open, the knife should be passed with the cutting edge up, fingers on the sides of the blade, giving the receiver the handle. By giving the recipient the handle, you have control of the sharp edge of the knife. The recipient should say, "thank you." You should say, "you're welcome," before letting go. This confirms for both persons that it's safe to let go of the knife blade.



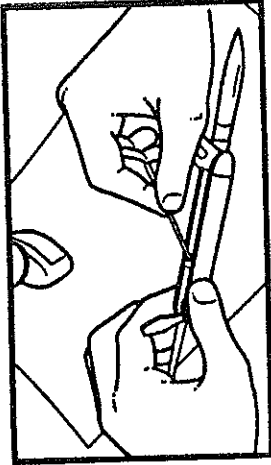
Keep your fingers clear of the sharp edge as you open and close the blade of your pocketknife.

SAFE KNIFE USE

- Do** keep the blades closed except when you are using them.
 - Do** cut away from yourself.
 - Do** close the blades before you pass a knife to someone else.
 - Do** keep your knife sharp and clean. A sharp blade requires less control than a dull one.
 - Do** obey any school regulations that prohibit carrying knives on school property.
 - Don't** carry a knife with the blade open.
 - Don't** throw a knife.
 - Don't** cut toward yourself. If the blade slips, you could be injured.
 - Don't** strike a knife with another tool or pry with the point of a cutting blade. The knife could bend or break.
- Note:** The Boy Scouts of America does not encourage the use of large sheath knives. They are heavy, awkward to carry, and unnecessary for most camp chores.

Caring Care of a Pocketknife

Most modern pocketknives are made of a metal that won't rust. However, dirt and lint can collect inside, and normal use will dull the blades.



Cleaning

Open all of the blades. Twirl a small bit of cloth onto the end of a toothpick, moisten the cloth with light oil, and wipe the inside of the knife. If you have used your pocketknife to cut food or to spread peanut butter and jelly, get rid of bacteria by washing the blade in hot, soapy water along with the rest of your dishes.

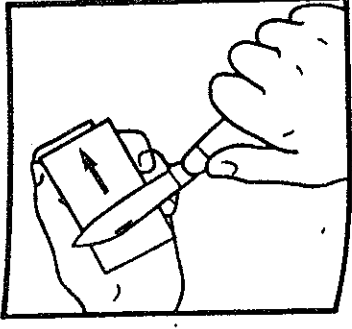
Sharpening

Sharpen your knife with a whetstone. Most whetstones are made of granite or other materials harder than knife metal. Some experts put water on the stone while they are sharpening, some use light oil, and others keep the stone dry. The choice depends upon the kind of stone as well as individual preference.

For general-use knives, hold the blade against the stone at an angle of about 30 degrees. That means the back of the blade will be tilted off the stone one-third of the way to vertical. The blades of special-use knives, such as those used by whittlers, may be sharpened at angles as small as 10 degrees to produce a keener, though less durable, edge.

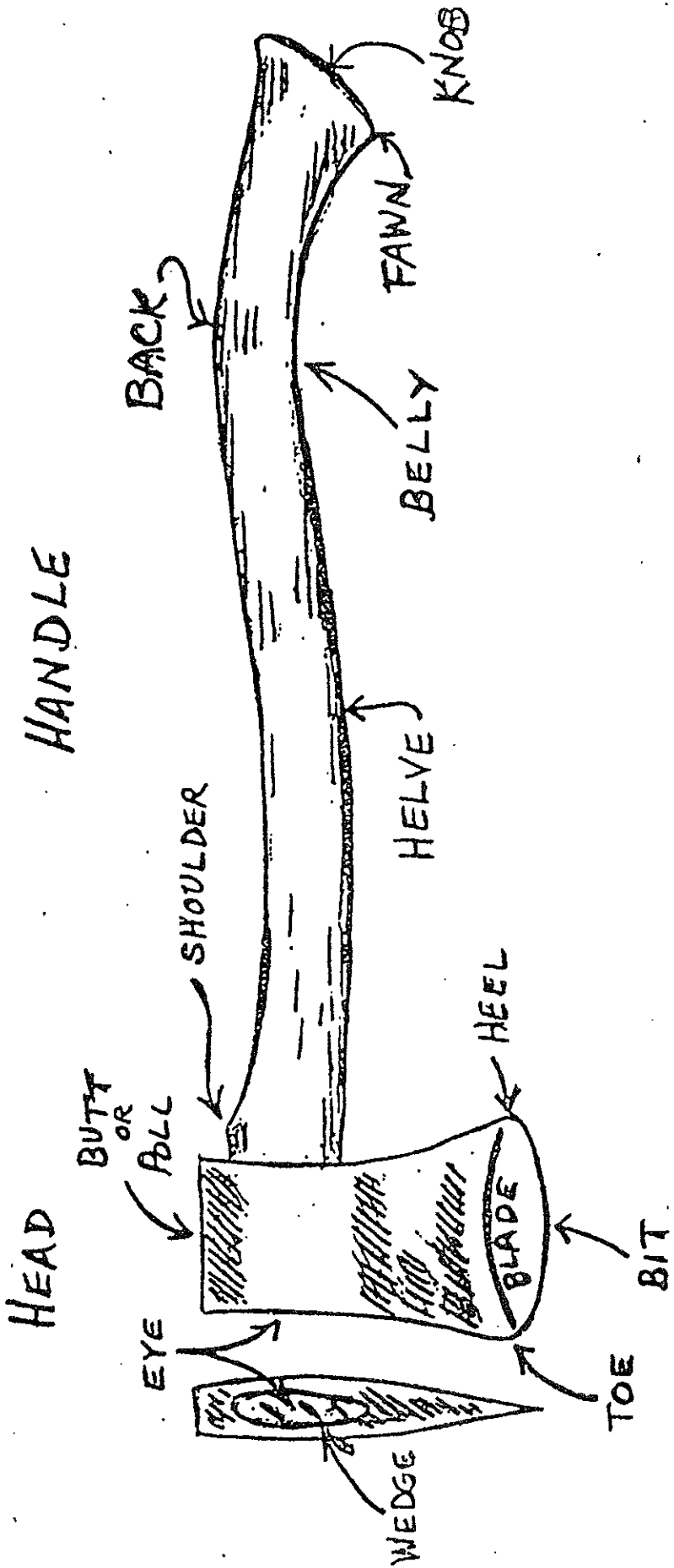
Push the blade along the stone as though you were slicing a layer off the top, or move the blade against the stone in a circular motion. Sharpen the other side of the blade in the same manner.

Wipe the knife with a clean cloth and examine the edge of the blade in the sun or under a bright light. A dull cutting edge reflects light and looks shiny. A sharp edge is so thin that it has no shine at all.



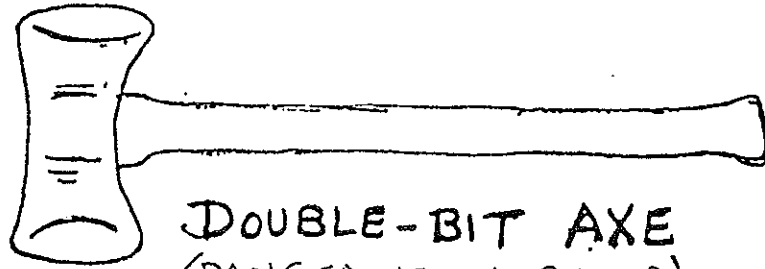
M.A. W. L.

1101

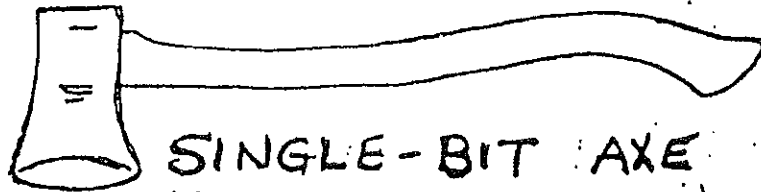


PARTS OF A TYPICAL SINGLE-BITTED
CAMP AXE

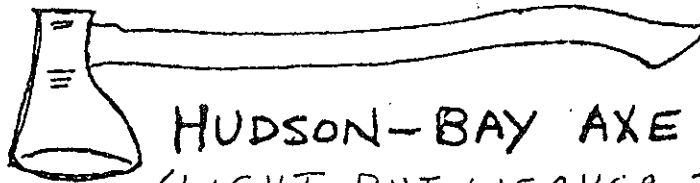
CUTTING TOOLS



DOUBLE-BIT AXE
(DANGEROUS IN CAMP)



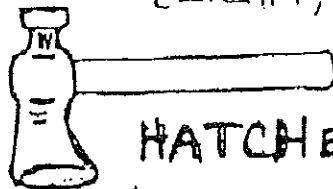
SINGLE-BIT AXE
(PREFERRED CAMP AXE)



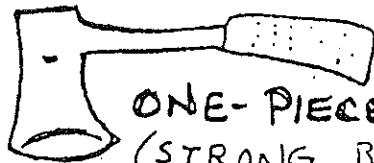
HUDSON-BAY AXE
(LIGHT, BUT WEAKER THAN SINGLE-BIT)



HAND AXE
(GENERALLY CARRIED BY BACK-PACKERS)
(LIGHT, BUT INADEQUATE FOR CUTTING
HEAVY WOOD)

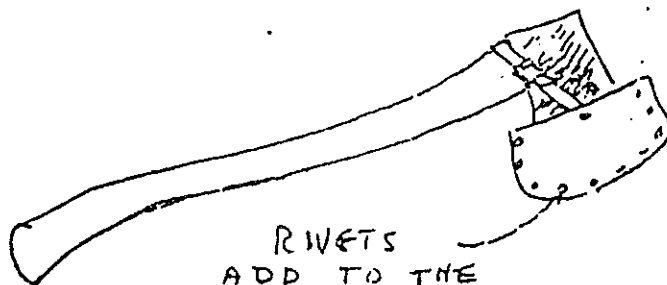
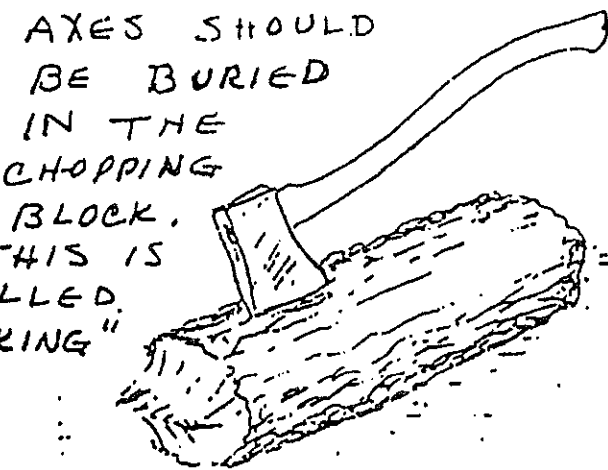


HATCHET
(USEFUL TO CARPENTERS, BUT MAKES
A POOR CAMP AXE)



ONE-PIECE HANDAXE
(STRONG, BUT SOMETIMES HEAVIER
THAN WOODEN HANDLED AXES.)

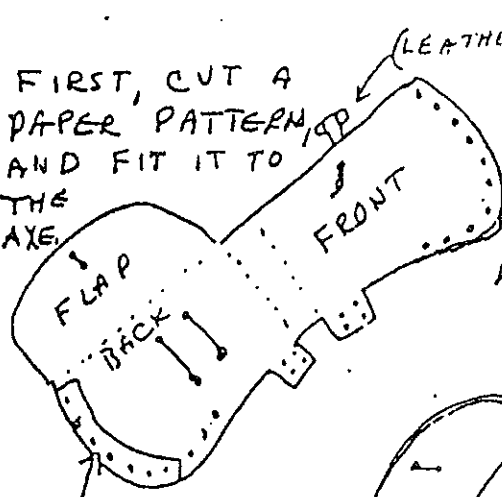
WHEN NOT IN USE,
 AXES SHOULD
 BE BURIED
 IN THE
 CHOPPING
 BLOCK.
 THIS IS
 CALLED
 "MASKING"



SHEATHS MAY BE
 PURCHASED, OR
 EASILY MADE
 FROM LEATHER.

RIVETS
 ADD TO THE
 SAFETY OF
 THE SHEATH

FIRST, CUT A
 PAPER PATTERN,
 AND FIT IT TO
 THE
 AXE.

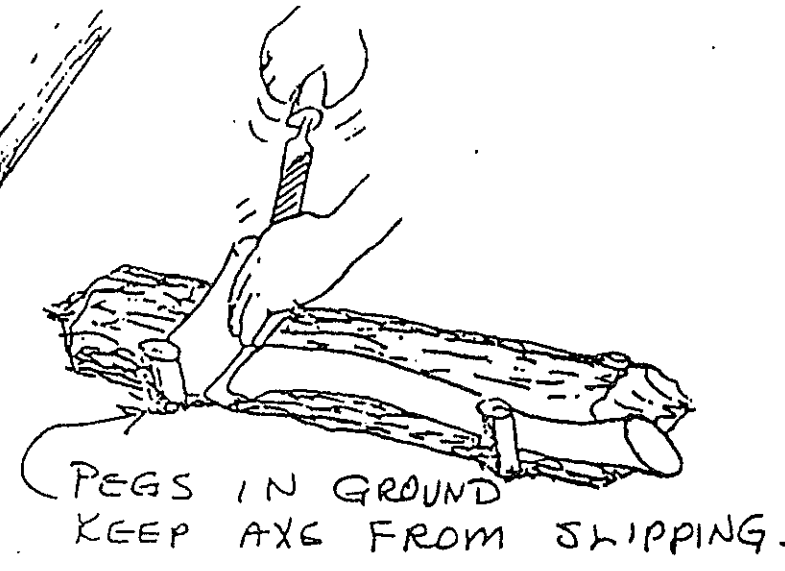
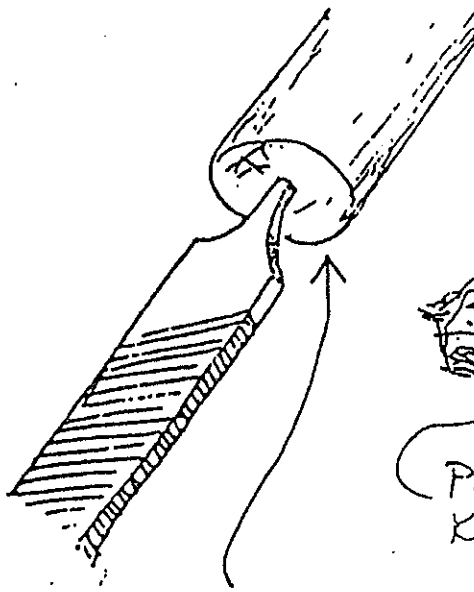


USE PAPER
 PATTERN TO
 CUT THE
 SHEATH FROM
 MEDIUM WEIGHT
 LEATHER.



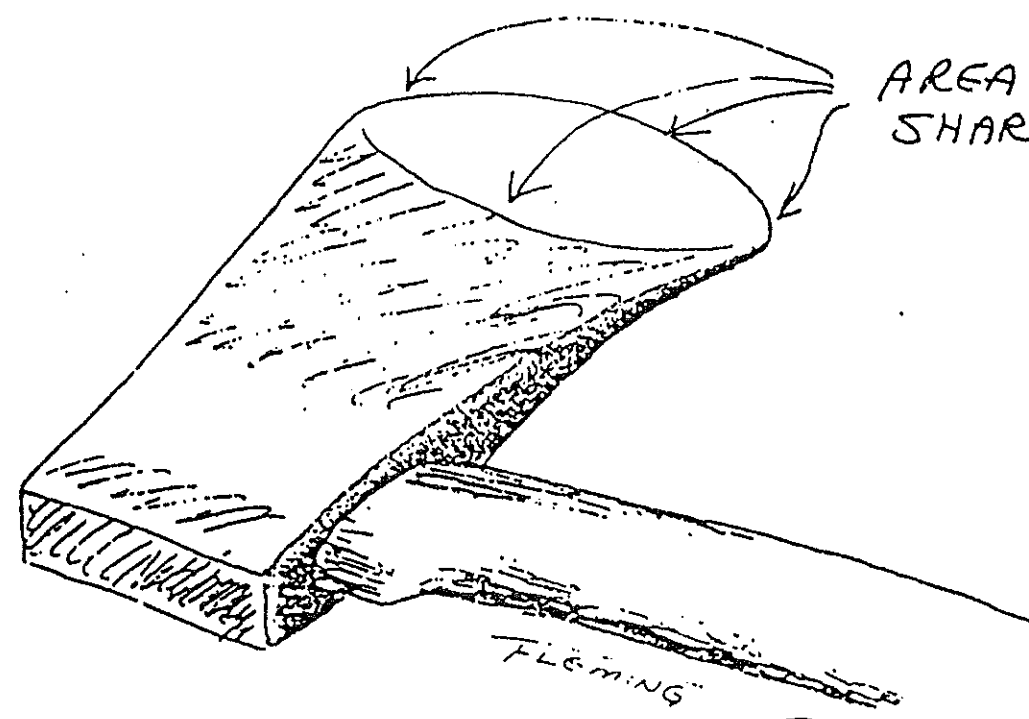
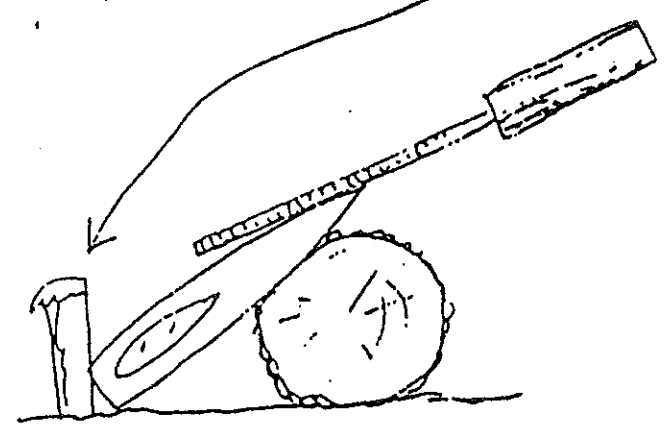
EXTRA STRIP OF
 LEATHER HELPS
 PREVENT AXE
 FROM CUTTING
 LACE LEATHER





PEGS IN GROUND
KEEP AXE FROM SHIPPING

ALWAYS FIT
A WOODEN HANDLE
OVER THE FILE TANG.
THIS IS A PROTECTIVE
DEVICE TO PREVENT
CUTTING YOUR HAND
ON THE AXE BLADE.

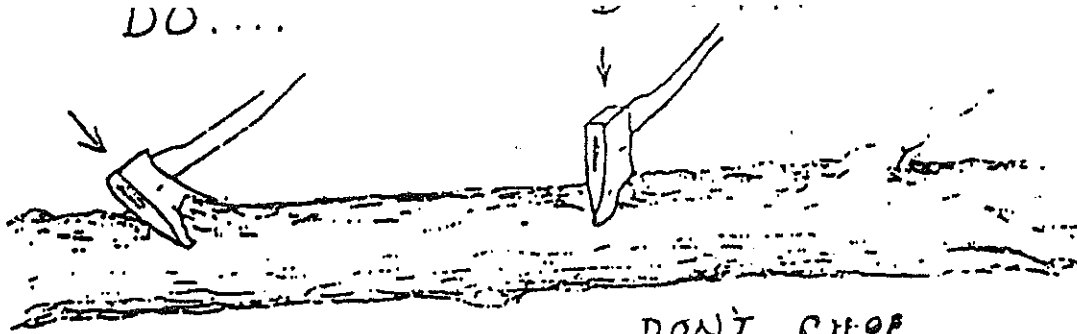


AREA TO BE
SHARPENED

FLEMING

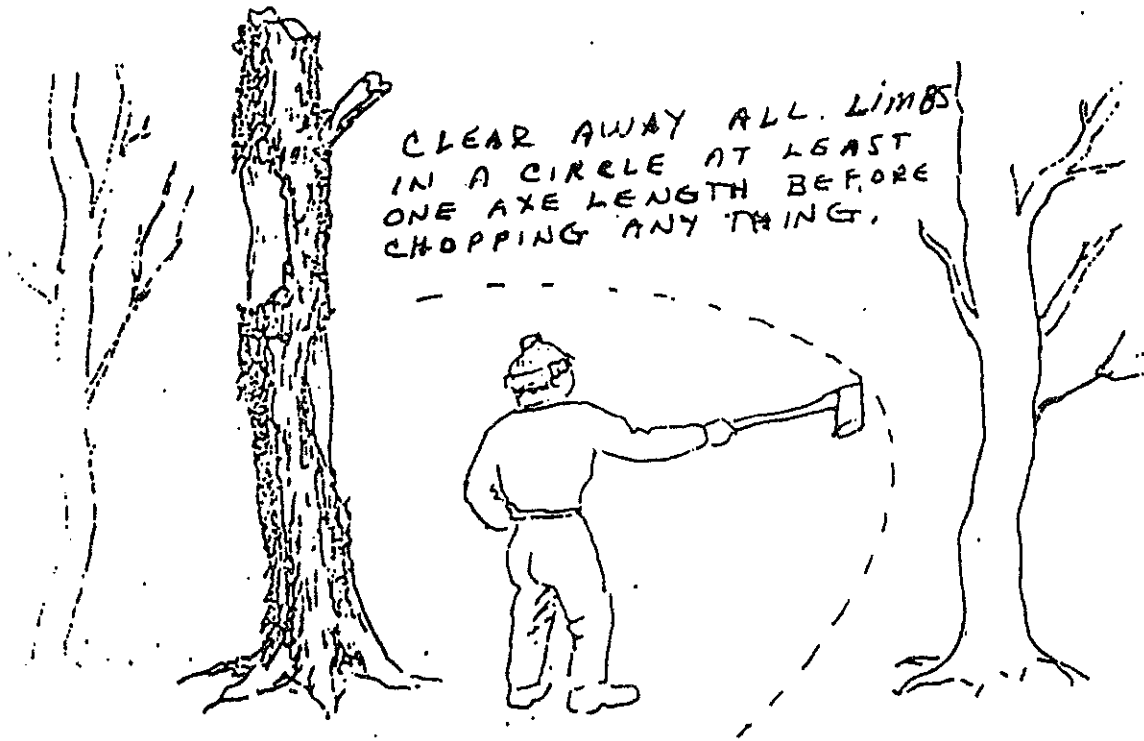
© BEN R. FLEMING 197

DO....



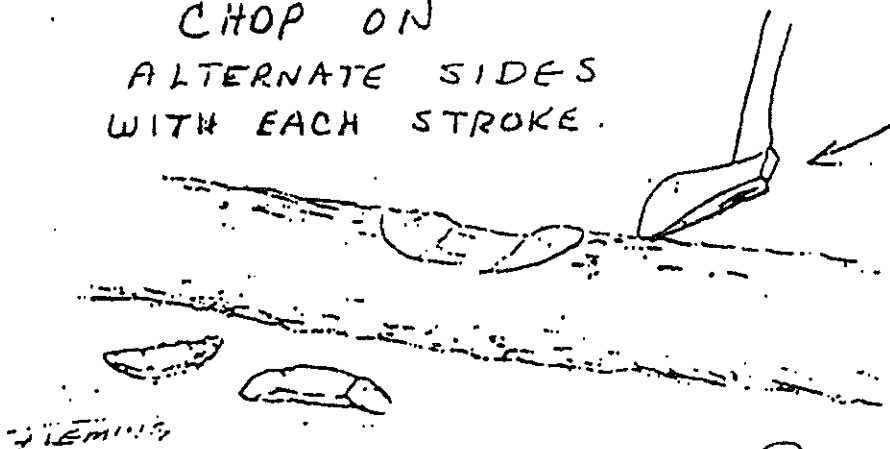
... DO CHOP AT AN ANGLE.

... DON'T CHOP STRAIGHT INTO THE LOG.



CLEAR AWAY ALL LIMBS IN A CIRCLE AT LEAST ONE AXE LENGTH BEFORE CHOPPING ANY THING.

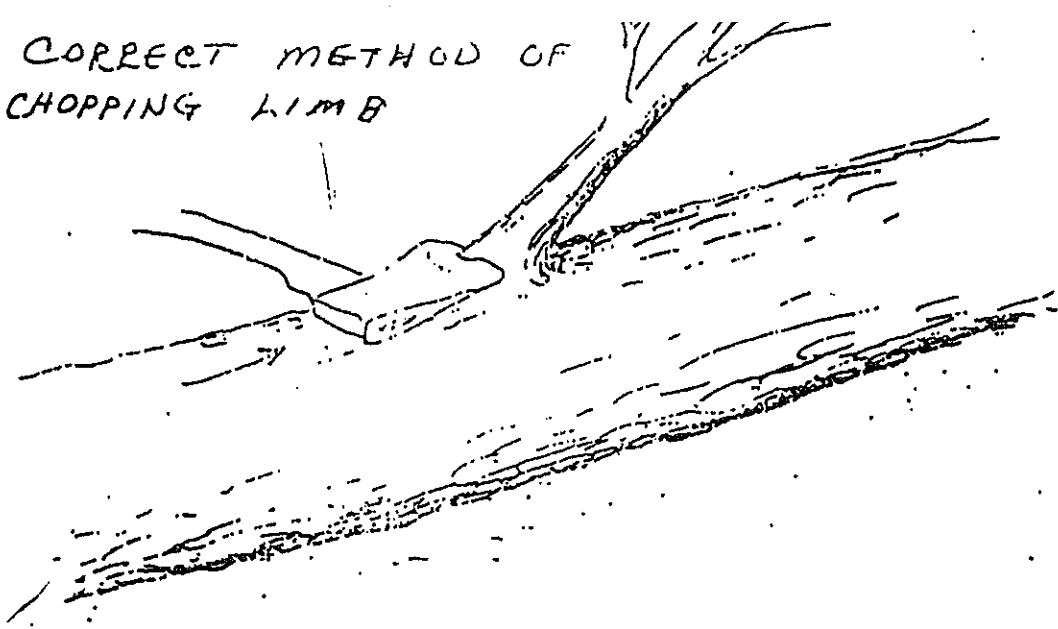
CHOP ON ALTERNATE SIDES WITH EACH STROKE.



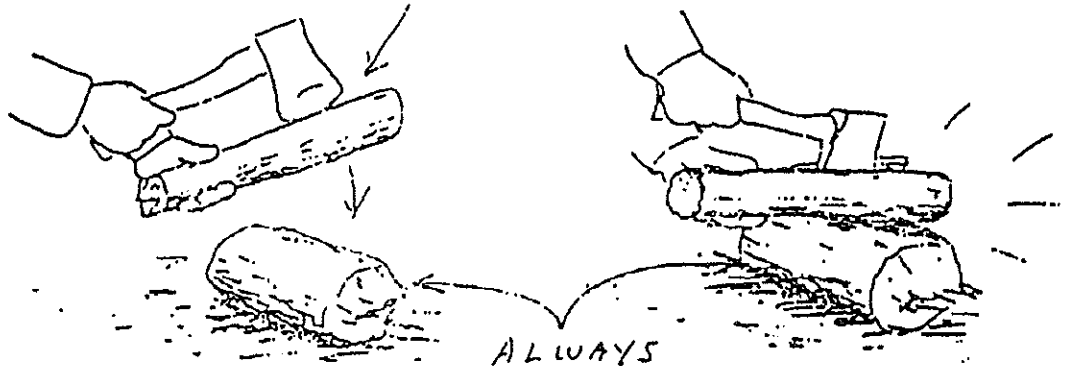
FLEMING

© BEN FLEMING, 1975

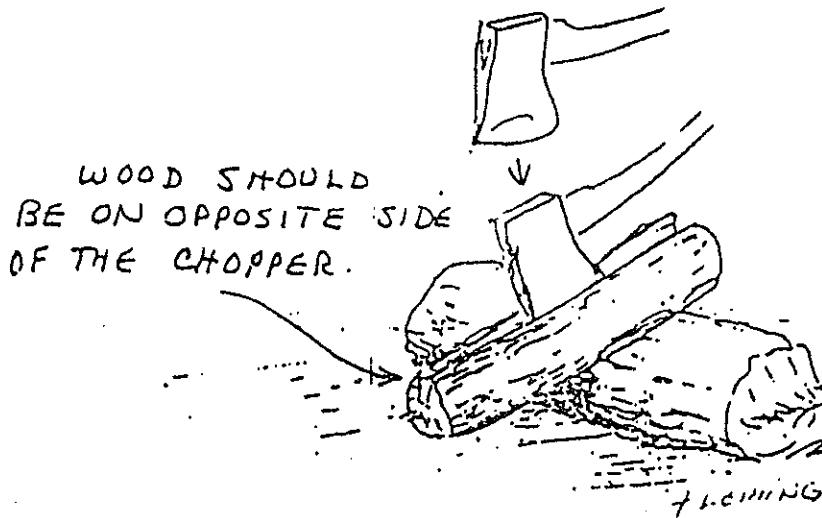
CORRECT METHOD OF
CHOPPING LIMB



IN SPLITTING WOOD
MAINTAIN CONTACT
BETWEEN THE AXE
AND THE WOOD



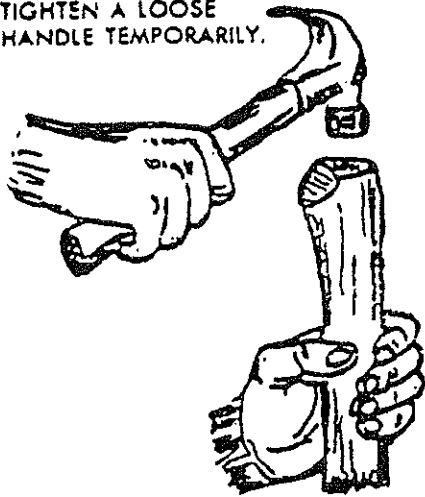
ALWAYS
USE A CHOPPING BLOCK.



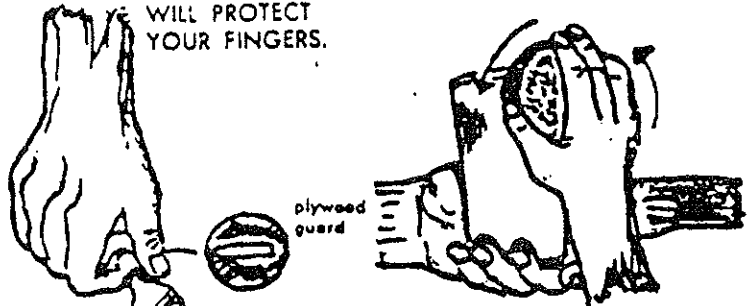
WOOD SHOULD
BE ON OPPOSITE SIDE
OF THE CHOPPER.

IN SPLITTING WOOD
WITH A FULL-SIZED
AXE, BE SURE THE
AXE HITS THE WOOD
TO BE SPLIT IN THE
FASHION SHOWN.

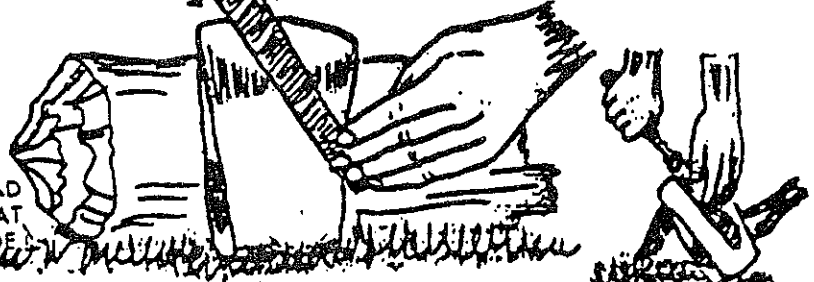
A QUICK WHACK ON THE KNOB WILL TIGHTEN A LOOSE HANDLE TEMPORARILY.



A PLYWOOD GUARD WILL PROTECT YOUR FINGERS.



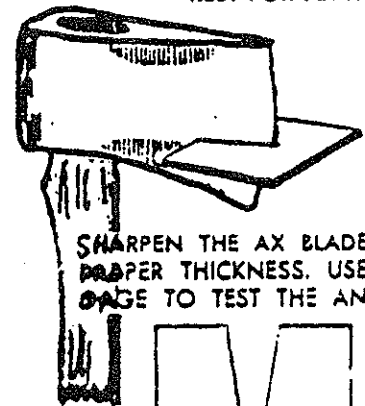
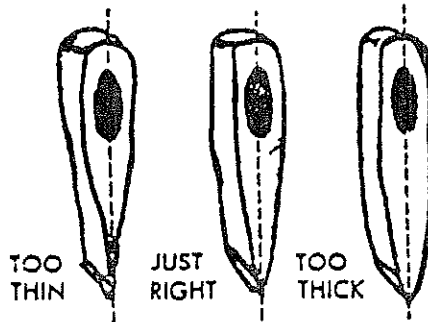
TO KEEP THE BIT KEEN, HONE IT OFTEN WITH A SHARPENING STONE.



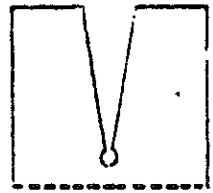
SHARPEN A DULL AX BY RESTING ITS HEAD AGAINST A LOG AND DRAWING A 10" FLAT MILL FILE FIRMLY DOWN OVER THE BLADE.



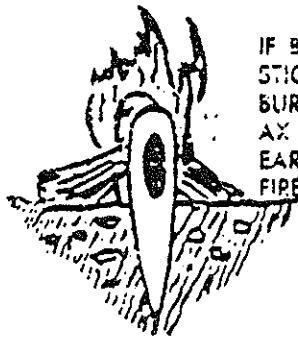
SOME AXES STILL COME WITH "FAWN FOOT" KNOBS. CUT OFF TIP WITH SAW TO PREVENT SPLITTING.



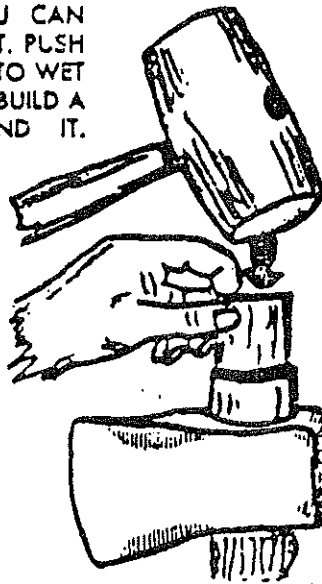
SHARPEN THE AX BLADE TO PROPER THICKNESS. USE AX GAGE TO TEST THE ANGLE.



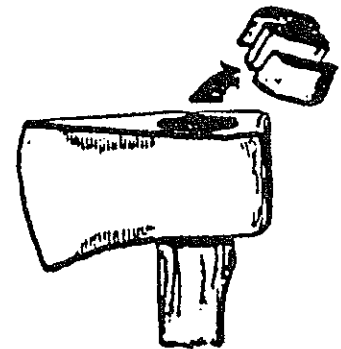
USE THIS PATTERN TO CUT AN AX GAGE FROM A STRIP OFF A TIN CAN.



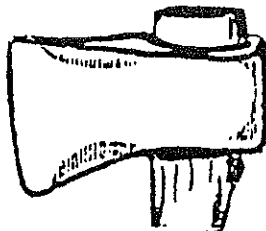
IF BROKEN HANDLE STICKS, YOU CAN BURN IT OUT. PUSH AX HEAD INTO WET EARTH AND BUILD A FIRE AROUND IT.



BUY A HARDWOOD WEDGE, OR MAKE YOUR OWN. HAMMER IT SECURELY INTO THE HANDLE.



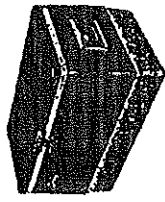
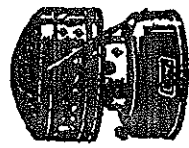
CUT OFF PROTRUDING PARTS OF HANDLE AND WEDGE CLOSE TO AX HEAD WITH A HACKSAW.



BUY A NEW HANDLE IN A HARDWARE STORE. IF NOT ALREADY SPLIT, CUT A SLIT IN IT WITH A SAW, OR SPLIT WITH OLD KNIFE.

OTHER PRODUCTS

COLEMAN CATALYTIC HEATER
 Here's the safe way to provide comfortable heat in tents, trailers, campers, duck blinds, ice fishing huts and hundreds of other areas where heat is needed. Four different models ranging from 1,000 to 2,000 BTU's. List you increase or decrease heat as needed.



WORLD'S FINEST SNOW-LITE® COOLERS
 Modern design demands modern refrigeration. Used exactly right by thousands of discriminating campers, hikers, and vacationers, Snow-Lite coolers are big new recessed chrome-plated aluminum. One-type latch with protective shield locks with a twist of the wrist, can't be jammed open—can't be forced accidentally. Rugged Snow-Lite used in a stainless interior and rust-proof finish.



WORLD-FAMOUS COLEMAN CAMP STOVES
 Pick the best select your favorite model and enjoy delicious food and camp. Stoves are the best value you can get. Coleman Camp Stoves are made of stainless steel. No rust, no warping, no cracking. They are built to last. Available in two sizes of 1,000 and 2,000 BTU's. Also available in aluminum. Coleman Camp Stoves are the most reliable, most popular, and most popular stoves for stove-top cooking.

**HOW TO USE and ENJOY YOUR NEW...
 Coleman 237A
 KEROSENE LANTERN**

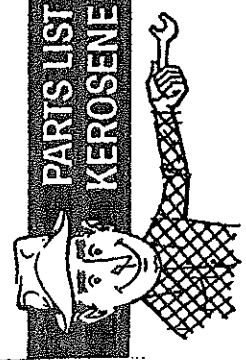
YOUR COLEMAN GUARANTEE
 All new models of Coleman Duting Products are guaranteed against faulty materials or workmanship.
 Any part found defective because of imperfect material or workmanship will be replaced without charge when returned with transportation charges prepaid to the Coleman factory, or to the nearest Coleman authorized in-warranty service station.
 This guarantee does not, of course, apply to generators or stoves and lanterns, nor to any product where it is evident that damage has developed from improper handling or operation.

NOTICE: The use of any attachment or device that is not expressly approved by the Coleman Company, Inc. to alter or affect the operation of any Coleman product is prohibited. All accessories, attachments or devices must be used in accordance with the instructions for use contained in the instruction book for the product. The Coleman Company, Inc. is not responsible for any damage or injury resulting from the use of any attachment or device not expressly approved by the Coleman Company, Inc.

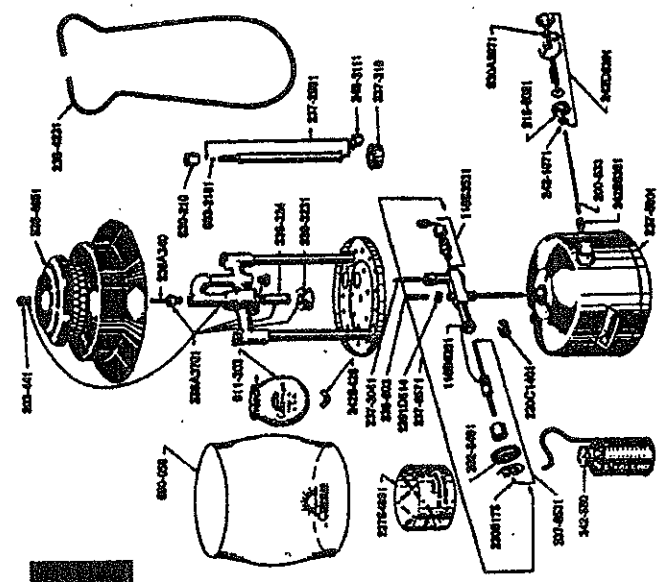
Coleman's warranty on repair parts is made and void by their use on other than Coleman manufactured appliances. Coleman's warranty on Coleman appliances is made and void by use of other than genuine Coleman repair parts. Always look for the Coleman logo.

Made in United States of America
THE COLEMAN COMPANY, INC.
 General Office and Factory: Wichita, Kansas, U.S.A. 67201
 Canadian Office and Factory: Toronto, Canada
 1960C001 10-70 P.L. LITHO IN U.S.A.

PARTS LIST FOR COLEMAN KEROSENE LANTERN 237A



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
011-303	Mantle	237-2991	Generator
11883531	Tip Cleaner Stem	237-3041	Eccentric Rock
11886201	Valve Stem Packing	237-310	Preheater Cup
200-533	Air Stem	237-5601	Fuel
203-441	Valve Wheel	237-8531	Stem Assy
216-5092	Pump Cup	237-84691	Valve Assy Generator
22061175	Self-Lapping Screw (#4-40 x 5/16 Rd. Slid. Hd.)	242-350	Essie Riest
220C1401	Filter Cap	242-1071	Push On Nut
236-3231	Burner Cap and Screen	242B428	Wing Nut
236-324	Burner Tube	242B5381	Pump Plunger Assy
236-4231	Ball	249-3111	Check Valve
236-4851	Ventilator	530-210	Strap Cap
236-503	Connecting Rod	530A5071	Jump Nut
236A340	Ventilation Rod	603-2161	Pump Cap Cap
236A3701	Burner Assy (Complete)	690-058	Gas Tip (Marined T)
		12010514	660 Clear Globe
			Nut (#4-20 x 7/16)



GENERATOR
 The Generator is the heart of your Coleman Lantern. Here should fuel be changed into the gas that burns in the mantle. Factory-built Coleman Generators — precision-built from best-grade materials — are made to fit and function perfectly with other parts.

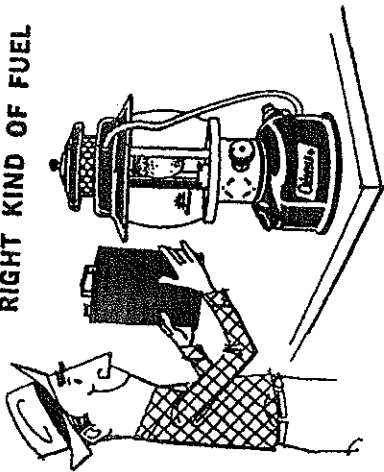
TO INSTALL
 Be sure Fuel Valve is closed. Remove Ball, Vent-Ester, and Prex Globe. Remove Nut which holds Burner and Generator to lantern. Carefully lift frame up over Generator to avoid damage to Mantle.
 Turn Gas Tip Cleaning Lever on. Remove Nut at lower end of Generator. Lift Generator up and unhook Cleaning Handle.
 Pull each of Cleaning Handle out of each Generator. Put each of hook into hole in Eccentric Rock. After hooking handle in Eccentric Rock turn Cleaning Handle lever down, slide fuel over Generator and tighten firmly with wrench to prevent a leak. Reassemble. Be careful when placing frame down over Generator to avoid breaking Mantle.

GLOBE
 The Genuine Prex Globe on your Coleman Lantern is made of the best quality heat-resisting glass obtainable. It is made of superior transparency and light-refracting qualities. However, even the best glass can be broken. When this happens, you can purchase a new one from your Coleman dealer.

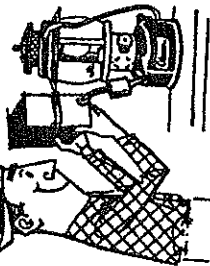
NO. 630-058

MODEL 237A SHOWN

ALWAYS USE THE RIGHT KIND OF FUEL



The length of service you get from your lantern and generator depends greatly upon the cleanliness of the fuel you use. Always use clean, fresh white kerosene. Store your kerosene in a clean closed metal can that is airtight and leak-proof.



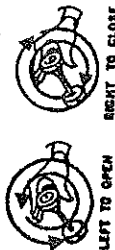
TO FILL TANK

Close fuel valve tightly to the right. Remove Filter Cap and fill lantern with two pints of fresh, clean fuel. Lantern should sit level all during filling. Fuel for the lantern may be strained through several thicknesses of finely woven cloth or, more convenient, a No. 100B Coleman Fueling Funnel. After filling, replace Filter cap and tighten firmly with finger.

Never remove filter cap while lantern is lighted, nor Air Open Valve or Accessory Valve.

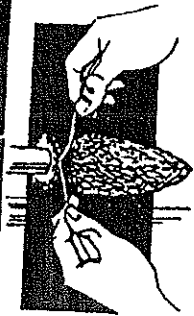
TO PUMP

Fuel Valve and Filter Cap must be closed firmly. Turn Pump Plunger two turns to the left. Place thumb over small hole in end of Pump Plunger and pump 20 to 30 full strokes of air into lantern. Good pressure is important. Now turn Pump Plunger clear to right until tight and push it clear down. Oil Pump leather occasionally to keep it soft and pliable.



LEFT TO OPEN

RIGHT TO CLOSE



TO TIE ON COLEMAN MANTLE

Remove Ball Nut at very top of lantern, remove Ball, lift off the ventilator and take out the Pyrex Glass Globe. Tie mantle around groove in burner cap (see drawing). Flat side of mantle should face generator. Distribute folds of mantle evenly at top, and cut off surplus string. Burn mantle according to instructions on mantle envelope.

ALWAYS USE GENUINE COLEMAN MANTLES

These are the perfect functional counterpart of the Generator, Air Intake and Fueling Chamber of Coleman Lanterns. Saturated with top-quality, light-producing chemicals, they are scientifically designed in shape, size, and weave to glow with maximum brilliance. A type of fibrous glass approximating natural day-light. Patented bottom and absence of side seams give them longer life. Moisture-proofed and de-aerated against deterioration. To make sure you get stamped on genuine Coleman Mantles.



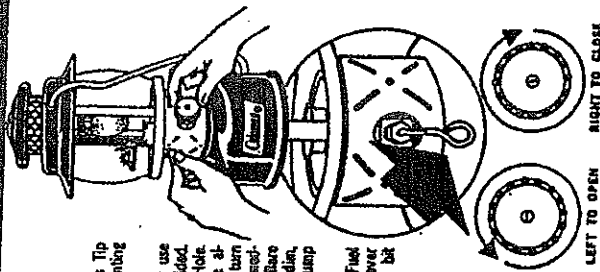
Let cool after burning it off before lighting lantern. Good air pressure in the lantern will help to shape it and 30 minutes burning on first lighting will help its strength.

TO LIGHT

Be sure Fuel Valve is closed and Gas Tip Cleaning Lever at base of frame is pointing down.

Fill Preheating Cup with alcohol (do not use gasoline or kerosene), using can provided. Light with match through Lighter Hole. Move flame to consume nearly all the alcohol, then open Fuel Valve one fourth turn to Light Mantle. When Mantle lights, immediately close Fuel Valve to eliminate flare up and smoke. When Mantle begins to dim, open Fuel Valve one fourth turn. Then pump in additional air for maximum light.

If lantern does not burn brightly with Fuel Valve open, rotate Gas Tip Cleaning Lever several times. Lantern may flicker a bit but will immediately burn brightly.



LEFT TO OPEN

RIGHT TO CLOSE

TO TURN OFF

Close Fuel Valve firmly. Light will dim and go out in a few seconds.

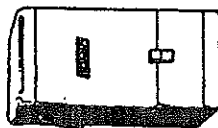
COLEMAN LANTERN CARRYING CASE

TO PACK, CARRY & STORE

• Durable all-metal case with ball handle... The easy way to store and transport your Coleman Lantern. • Protects lantern against dirt, dust, fumes, broken glasses. • Special plastic base insures steel fit. Use with emergency lanterns without case. • Lantern can be stored ball nut make sure valve is completely closed and flame is off.

Filtering Funnel, 100B1111
Aluminum with strainer
and filtering fabric. Re-
moves water, dirt, im-
purities from fuel.
Replacement Filter
100-1081.

Accessory Case
Includes Generator
wrench, two spare man-
tles and a generator.
Screws tightly onto base
of lantern.
-22027101 for Coleman
220 and 228 Lanterns.



MODEL 220-567 FOR COLEMAN MODEL 220 LANTERNS
MODEL 228-567 FOR COLEMAN MODEL 228 LANTERNS
AND COLEMAN MODEL 237 LANTERNS

GENERAL SUGGESTIONS

IF LANTERN BUZZES AND SHAKES more than a few seconds when lit, then close valve and relight lantern following instructions.

IF LANTERN DOES NOT LIGHT, check air pressure and fuel content. Rotate generator and unscrew Gas Tip to make sure pointer needle has not been bent or cracked. Open valve slightly to make sure air flow will come through valve.

IF MANTLE TURNS BLACK, make sure screens in Burner Caps are clean and open. Check Air Intake Tube for possible obstruction, such as spider's web.

IF LIGHT DIMS, check Fuel Valve to be certain it is open. Rotate generator to remove carbon any.

IF LIGHT FLICKERS after installation of a new generator, pump in additional air pressure until light is steady.

IF LANTERN IS ON EMERGENCY STANDBY in case of storm or power failure, empty air passages from point occasionally, call with clean, fresh fuel. Store in a cool place as possible.

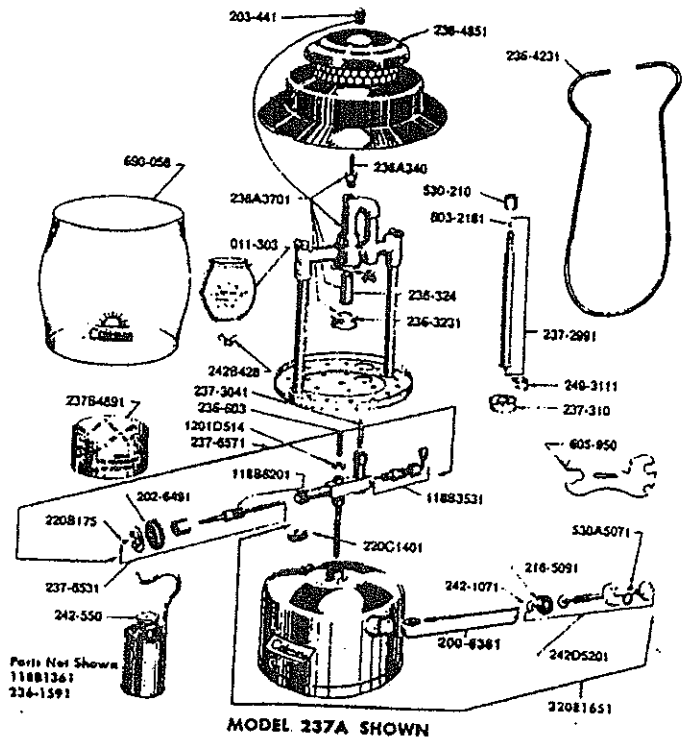
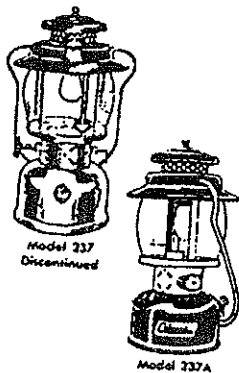
IF YOU HAVE OCCASION TO WRITE the dealer or the factory, mention that your lantern is a Model No. 237A Lantern. If you mail this Lantern, send it less Globe and Ventilator to avoid breakage.

ART #	DESCRIPTION	PRICE	PART #	DESCRIPTION	PRICE
1361	MANTLES	2.00	236A3701	BURNER ASSEMBY	N/A
	GASKET R/B		118B6201	PACKING R/B	
	220C1401			118D6201	
57-2991	GENERATOR	9.13	237-310	PREHEATER CUP	N/A
18B3531	TIP CLEANER STEM	N/A	237-3041	ECCENTRIC BLOCK	N/A
18D6201	PACKING	.55	237-6531	STEM ASSEMBLY	N/A
30-6381	CHECK VALVE & STEM	2.20	237-6571	VALVE ASSEMBLY	N/A
37-5601	FOUNT R/B 290-6151		201-5511	ALCOHOL BOTTLE	3.52
32-6491	VALVE WHEEL R/B		237A4891	BASE REST R/B	
	407-6491			237B4891	
20-4411	BALL NUT	1.75	237B4891	BASE REST	N/A
16-5091	PUMP LEATHER	1.65	216A5091	PUMP CUP PKG	3.00
20-6381	GASKET R/B 220C1401		242-550	FILLING CAN R/B	
				201-5511	
12-1071	PUSH ON NUT	1.76	242B428	WING NUT	N/A
20B175	SCREW R/B 220E175		242D5201	PUMP PLUNGER ASSY	5.50
20C1401	FILLER CAP	2.75	249-3111	SPRING CLIP	N/A
20E175	SCREW	.22	290-6151	FOUNT	20.50
20E1651	FOUNT R/B 290-6151		407-6491	VALVE WHEEL	.88
36-1591	FOUNT R/B 290-6151		530-210	JAMB NUT	N/A
36-3231	BRNR CAP & SCREEN	N/A	530A5071	PUMP CAP CLIP	.55
36-324	BURNER TUBE	1.38	605-950	WRENCH	N/A
36-4231	BAIL	N/A	690A048	GLOBE	6.50
36-4851	VENTILATOR	N/A	690-058 1	GLOBE R/B 690A048	
36-603	CONNECTING STUD	N/A	1201D514	HEX NUT	N/A
36-740	VENTILATOR ROD	N/A			

URO 023 1150

PRICES SUBJECT TO CHANGE WITHOUT NOTICE N/A = NOT AVAILABLE R/B = REPLACED BY

237, 237A
ALCOHOL GENERATING
KEROSENE
SINGLE MANTLE



Jel	FINISH		LANTERN HEIGHT	FUEL CAPACITY
	Faunt	Ventilator (Paraclete)		
237	Nickel	Green (7W)	14 1/2"	2 Pint
237A	Green	Green (7W)	14 1/2"	2 Pint

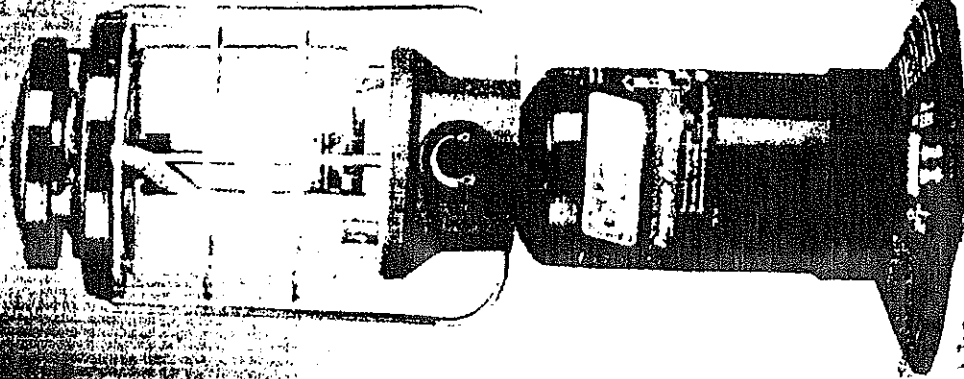


NorthStar[®] Model 2500A

Instructions for use

U.S. Patents: 4,870,314; 5,639,231

© 2003 The Coleman Company, Inc.
www.coleman.com



Propane Lantern



ANSI Z21.73a - CSA 11.1a (2001) Camp Light

IMPORTANT

Read this manual carefully before assembling, using or servicing these lanterns. Keep this manual for future reference. If you have questions about assembly, operation, servicing or repair of these lanterns, please call Coleman at 1-800-835-3278 or TDD: 316-832-8707. In Canada call 1-800-387-6161.

Contents

General Safety Information
To Set Up
To Tie On Mantles
To Light
To Turn Off
To Store
Things You Should Know
Parts List
Warranty

General Safety Information

FOR YOUR SAFETY

If you smell gas:

1. Do not attempt to light appliance.
2. Extinguish any open flame.
3. Disconnect from fuel supply.

FOR YOUR SAFETY

Do not store or use gasoline or other liquids with flammable vapors in the vicinity of this or any other appliance.

▲ DANGER



- **CARBON MONOXIDE HAZARD**
- This appliance can produce carbon monoxide which has no odor.
- Using it in an enclosed space can kill you.
- Never use this appliance in an enclosed space such as a camper, tent, car or home.

This manual contains important information about the assembly, operation and maintenance of these propane lanterns. General safety information is presented in these first few pages and is also located throughout the manual. Particular attention should be paid to information accompanied by the safety alert symbol "▲ DANGER", "▲ WARNING", "▲ CAUTION".

Keep this manual for future reference and to educate new users of this product. This manual should be read in conjunction with the labeling on the product.

Safety precautions are essential when any mechanical or propane fueled equipment is involved. These precautions are necessary when using, storing, and servicing. Using this equipment with the respect and caution demanded will reduce the possibilities of personal injury or property damage.

The following symbols shown below are used extensively throughout this manual. Always heed these precautions, as they are essential when using any mechanical or propane fueled equipment.

General Safety Information cont

! DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

! WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

! CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate personal injury, or property damage.

! DANGER

Failure to comply with the precautions and instructions provided with these lanterns can result in death, serious bodily injury and property loss or damage from hazards of fire, explosion, burn, asphyxiation, and/or carbon monoxide poisoning.

Only persons who can understand and follow the instructions should use or service these lanterns. If you need assistance or information such as an instruction manual or labels, contact the Coleman Co., Inc.

! DANGER



• EXPLOSION - FIRE HAZARD

- Never store propane near high heat, open flames, pilot lights, direct sunlight, other ignition sources or where temperatures exceed 120 degrees F (49°C).
- Propane is heavier than air and can accumulate in low places. If you smell gas, leave the area immediately.
- Never install or remove propane tank while lantern is lighted, near flame, pilot lights, other ignition sources or while lantern is hot to touch.
- During operation, this product can be a source of ignition. Never use the lantern in spaces that contain or may contain volatile or airborne combustibles, or products such as gasoline, solvents, paint thinner, dust particles or unknown chemicals. Minimum clearances from combustible materials: 12 inches from the sides and 48 inches from the top.
- Provide adequate clearances around air openings into the combustion chamber.

! WARNING

Not for home or recreational vehicle use.

We cannot foresee every use which may be made of our products. **Check with your local fire safety authority if you have questions about use.**

- Other standards govern the use of fuel gases and heat producing products for specific uses. Your local authorities can advise you about these.
- Never refill disposable cylinders.
 - Use the preset regulator that came with the lantern. Do not attempt to adjust.
 - If using refillable propane cylinder, the LP-gas cylinder(s) must be constructed and marked in accordance with the specifications for LP-gas cylinders of the U.S. Department of Transportation or *Transport Canada, CAN/CSA B339*. Use only Coleman® accessories or parts. During lantern set-up, check all hoses and fittings for leaks using soapy water. Never use a flame. Always keep refillable cylinders outdoors, never inside house, camper or tent.

⚠ DANGER



• CARBON MONOXIDE HAZARD

- This lantern is a combustion appliance. All combustion appliances produce carbon monoxide (CO) during the combustion process. This product is designed to produce extremely minute, non-hazardous amounts of CO if used and maintained in accordance with all warnings and instructions. Do not block air flow into or out of the lantern.
- Carbon Monoxide (CO) poisoning produces flu-like symptoms, watery eyes, headaches, dizziness, fatigue and possibly death. You can't see it and you can't smell it. It's an invisible killer. If these symptoms are present during operation of this product **get fresh air immediately!**
- **For outdoor use only.**
- **Never use inside house, camper, tent, vehicle or other unventilated or enclosed areas. This lantern consumes air (oxygen). Do not use in unventilated or enclosed areas to avoid endangering your life.**

⚠ WARNING

- This product is fueled by propane gas. Propane gas is invisible, odorless, and flammable. An odorant is normally added to help detect leaks and can be described as a "rotten egg" smell. The odorant can fade over time so leaking gas is not always detectable by smell alone.
- Propane gas is heavier than air and leaking propane will sink to the lowest level possible. It can ignite by ignition sources including matches, lighters, sparks or open flames of any kind many feet away from the original leak. Use only propane gas set up for vapor withdrawal.
- Propane gas should be stored or used in compliance with local ordinances and codes or with ANSI/NFPA 58. Turn off propane when not in use.

CALIFORNIA PROPOSITION 65:

WARNING: This fuel, and byproducts of combustion of this fuel, contain chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

⚠ WARNING



• BURN HAZARD

- Never leave lantern unattended when hot or in use.
- Keep out of reach of children.

⚠ CAUTION

• SERVICE SAFETY

- Keep all connections and fittings clean. Inspect propane cylinder and lantern propane connections for damage before attaching.
- During set up, **CHECK FOR LEAKS** in one or more ways: Apply soapy water to connections. **Look** for bubbles. **Listen** for hiss of escaping gas. **Feel** for extreme cold. **Smell** for rotten egg odor. Never use a flame. **Do not use if leaking.**
- Use as a lighting appliance only. Never alter in any way or use with any device or part not expressly approved by Coleman.
- Never use as a space heater.
- Always use in upright position. Protect cylinder from excess heat.