AFM 64-15

SURVIVAL USES
OF THE
PARACHUTE

DEPARTMENT OF THE AIR FORCE

AIR FORCE MANUAL
NO. 64-15*

DEPARTMENT OF THE AIR FORCE
WASHINGTON, 1 JULY 1956

FOREWORD

This manual has only one purpose—to aid and insure your survival and rescue regardless of geographic location or climatic condition. It tells you how to use your parachute to improvise signals, shelter, clothing, and personal equipment needed in a survival situation.

The procedures shown were developed during World War II by the Arctic, Desert, Tropic Information Center and the AAF Arctic Training School. Since that time the value of these procedures has been proven in numerous survival incidents and in many field tests. This manual cannot show all the survival uses of the parachute. Use your ingenuity to devise what you need if it is not shown here.

Recommendations for the improvement of this manual are invited. Recommendations should be forwarded to Director of Training, Headquarters USAF, Washington 25, D. C.

BY ORDER OF THE SECRETARY OF THE AIR FORCE:

OFFICIAL:
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This manual contains no copyright material.

DISTRIBUTION:
Headquarters USAF 275
Bases 2
(Base commanders will requisition additional copies to provide one copy for each parachute.)

*This manual supersedes AFM 64-15, February 1945, including Change 64-15A, 28 June 1954.

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SIGNALS

GROUND TO AIR EMERGENCY CODE

These signals can be made from strips of parachute cloth, approximately 3 feet by 12 feet, or from branches or other natural materials.

Use material which gives the maximum contrast with the background.

I 1. Require doctor— serious injuries	**II** 2. Require medical supplies	**X** 3. Unable to proceed
↑ 7. Am proceeding in this direction	**▷** 8. Will attempt to take off	**⌐⌐** 9. Aircraft badly damaged
N 13. No— negative	**Y** 14. Yes— affirmative	**JL** 15. Not understood

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SIGNALS

SIGNALS

F

4. Require food and water

⩢

5. Require firearms and ammunition

K

6. Indicate direction & proceed

△

10. Probably safe to land here

LL

11. All well

L

12. Require fuel and oil

W

16. Require engineer

▢

17. Require compass & map

!

18. Require signal lamp

Make signal banners or flags of chute cloth. Fasten to poles and lash poles to tree tops.
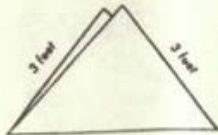
Spread parachute out over low trees or bush tops. Secure ends by tieing down with shroudlines.

Use spread-out parachutes as ground markers in clearings.

Use small pieces of chute cloth to mark or "blaze" trails.

In densely wooded country, stretch parachute across a stream.

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FIRST AID

BANDAGES OF CHUTE CLOTH

4" by 4 yds. for thigh, groin, trunk

3" by 4 yds. for extremities

2" by 4 yds. for hands, toes, head

SOME BANDAGE USES

For jaw injuries

For sprained ankles

TRIANGULAR BANDAGES

Use for dressing of wounds, fractures, and for slings.

TOURNIQUET

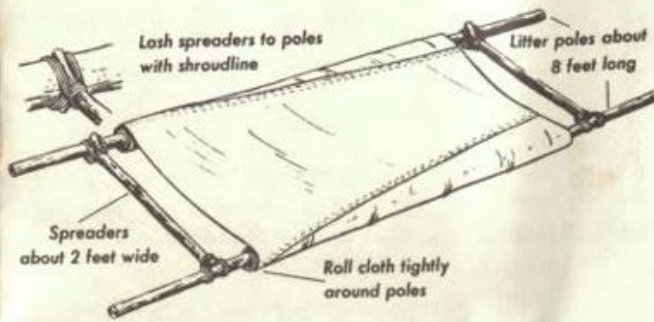Make tourniquet from harness webbing or from triangular bandage

SLING

OTHER USES: Make compresses of triangular bandages, pieces of sponge rubber from seat or back pads, or folded canvas. Use to stop bleeding by pressure method; use for padding splints, etc.

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FIRST AID

IMPROVISED LITTER

Lash spreaders to poles with shroudline

Litter poles about 8 feet long

Spreaders about 2 feet wide

Roll cloth tightly around poles

Improvise simple litter from rectangle of chute cloth, about 3 panels wide and 6 feet long. Roll cloth tightly on stout poles to proper width. Insert and lash spreaders to poles to make a rigid assembly. Parachute harness shoulder straps attached to litter poles will help bearer in carrying the litter.

ARM SPLINT

Use chute cloth to pad and bandage any type of improvised splint. Adapt wire of pack frame to make proper splints.
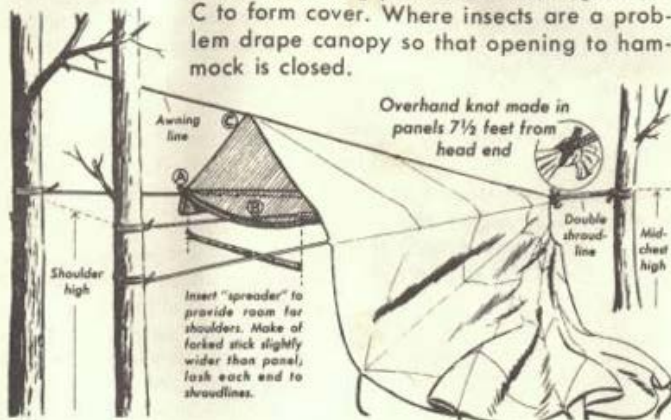
394088 O - 56 - 2

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SHELTER

SINGLE POLE PARATEPEE

This emergency chute shelter can be put up quickly. Use 14 panels (or less) of chute, and tie to 20-foot pole in same manner used for Pole Paratepee Tie Pole. Lay in fork of tree. Stake down skirt to form 12-foot circle. Rope can be substituted for pole; tie around apex of chute, throw rope over tree branch and secure at proper height.
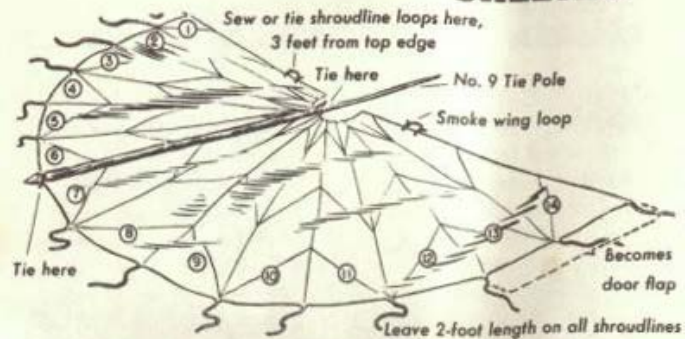
Wind direction

PARAHAMMOCK

Use 4 to 7 panels. Fold first two panels together and tie at A to form bed B. Throw remaining panels over awning line at C to form cover. Where insects are a problem drape canopy so that opening to hammock is closed.

Awning line

Overhand knot made in panels 7½ feet from head end

Double shroudline

Shoulder high

Mid-chest high

Insert "spreader" to provide room for shoulders. Make of forked stick slightly wider than panel, lash each end to shroudlines.

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SHELTER

Sew or tie shroudline loops here, 3 feet from top edge

Tie here

No. 9 Tie Pole

Smoke wing loop

Tie here

Becomes door flap

Leave 2-foot length on all shroudlines

1 ADAPTING THE CANOPY: Cut 14 panel sections from canopy; remove pilot chute and apex. Cut off all apex shroudlines except 16" of lines on panels No. 6 and No. 7—these are tied to Tie Pole (No. 9).
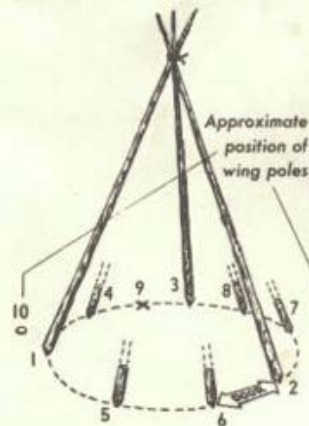
2 ERECTING POLE FRAME: Poles should be about 14 feet long, straight and smooth. Tie poles 1, 2 and 3 together in a tripod—distance from tieing point to base of poles is same as length of chute panel. Place poles 4, 5, 6, 7 and 8 loosely against tripod to form temporary 12-foot circle. Place Tie Pole (No. 9) which is attached to chute at panel No. 6 (see 1) in proper position opposite door. Wing poles are numbered 10 and 11.

Approximate position of wing poles

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SHELTER

POLE PARATEPEE

3 APPLYING CANOPY TO FRAME: Starting from Tie Pole (No. 9) to which canopy is tied, bring each outer edge of chute around framework toward door. Tie shroudline of panel No. 1 temporarily to No. 12 panel line. (Panels 13 and 14 form door overlay.) Push all poles outward until chute covering is tight. Then stake down bottom with pegs. In very cold weather use an inner liner staked to the ground and reaching 4 to 5 feet up the poles. This will keep a direct draft from the occupants but will still give a draft to the fire.

4 COMPLETED PARATEPEE: The Paratepee sleeps 3 men comfortably and will accommodate more. Fire can be built inside for warmth, cooking and drying of clothes. Makes a prominent "marker" signal on the ground; fire inside makes the Paratepee look like a beacon at night.

Smoke wing loop

Move wing poles to change size and direction of opening for smoke control

Door

Overlap should be arranged inside tent if wind is opposite direction shown

WIND DIRECTION

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SHELTER

SHADE SHELTERS FOR HOT AREAS

WING SHADE SHELTER

Leave 1 to 2 foot open space at bottom for maximum air circulation

Use two parachutes with air space between to provide insulation. Attach top chute over top aileron; fasten bottom chute from underside of aileron.

Use airplane tubing, rocks or wood stakes to secure chutes
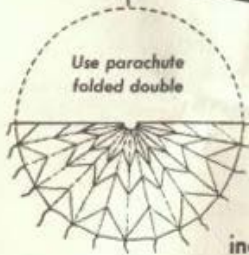
SIMPLE SHADE SHELTER

Make shade shelter of chute cloth as illustrated. Use two layers of cloth separated by an air space of about 12-20 inches. In hot desert areas—scoop down into sand—it will be cooler.

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SHELTER

3-POLE PARATENT

Lash a 13-foot ridgepole to apex of tied frame made of 8-foot long A-poles. Tie chute apex shroudlines around poles at A; lash chute edge to A-poles; punch holes and use shroudlines to tie. Stretch cloth down, tuck in and tie tightly at B.

Tuck chute excess under to form floor.

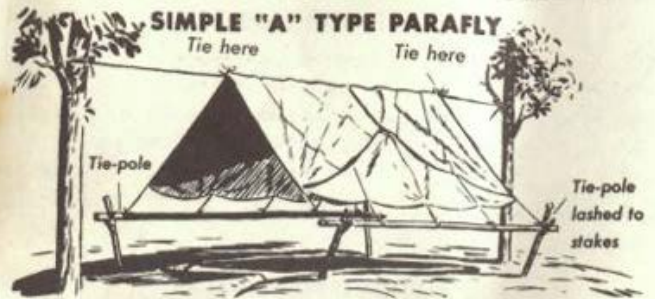*Place log along each inside edge to hold sides of tent down.*

Use parachute folded double

Arrange shelter openings crosswise to wind

3-MAN LEAN-TO

Build pole framework of approximate size shown. Cover with chute and tie as indicated. Apex of chute is lashed at A.

← 10 feet →

7 feet

Guy to tree or peg

8 feet

14
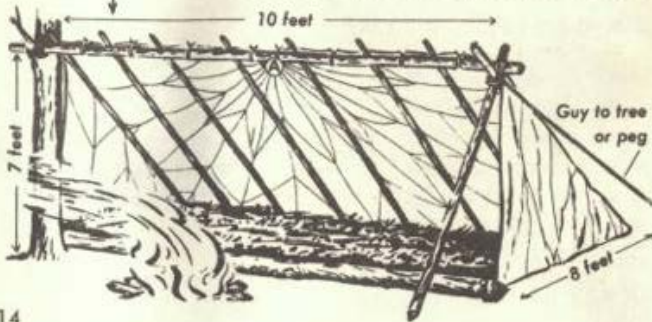
SHELTER

SIMPLE "A" TYPE PARAFLY

Tie here — *Tie here*

Tie-pole

Tie-pole lashed to stakes

Rig shroudline or pole between two trees and throw chute over it. Fold back edges until fly is about 4 panels wide. Lash chute to tie poles with shroudlines. Build parafly high enough so beds can be raised off ground.

IMPROVISED BED ROLL

To make a sleeping bag suitable for cold weather use, take 12 panels of chute fabric and fold in one direction, two panels at a time. After making first fold, place grass, leaves, or other dry material between folds. Tuck open end under and crawl into roll from open end between layers of the first fold.
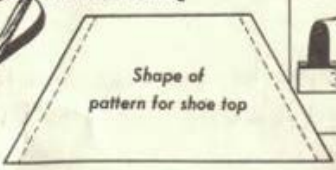
15

CLOTHING

PUTTEES

Make from chute cloth, webbing or pack cloth. Wind strips spirally, overlapping shoe top and pants leg. Puttees help keep sand and snow out of shoes and protect legs against bites and scratches.
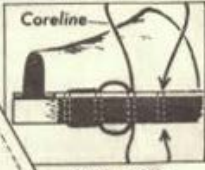
Use 2 - 3 inch wide strips—9 feet long

IMPROVISED SANDALS

Chute cloth or pack cloth

Harness webbing

Coreline

Shape of pattern for shoe top

Bark or rubber sole

Sewing shoe top to sole

MUKLUK BOOTS

CHUTE CLOTH FOOT WRAP
Use 2 - 4 thicknesses, 30" square, folded into triangle

INNER SOLE
CUSHION PAD OR GRASS

OUTER SHOE
Use pack cloth.

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CLOTHING

DESERT HEADDRESS

Use 2 thicknesses of chute cloth

FOLD
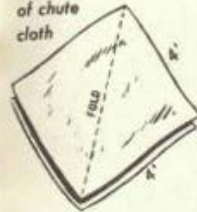
Wadded cloth

Coiled shroudline

Use in dust storms

NECK AND FACE CLOTHS

Neck cloth for protection from sun.

Face cloth for protection from wind, blowing sand or snow.

IMPROVISED EYE SHIELD

For protection against sun glare and snowblindness.

Make the shield of webbing or 2½-inch wide strip of pack cloth.

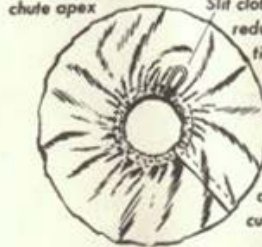Cut or rip ⅛-inch eye slits. Fray the edges to reduce glare.

Blacken cloth with soot to reduce glare.

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CLOTHING

IMPROVISED SHADE HAT
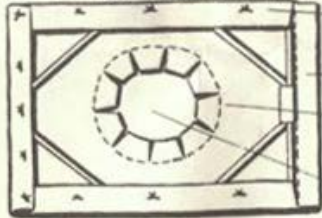
Crown — make from chute apex

Slit cloth, pull out reducer ring and tie with overhand knot to close opening

Cut just inside seam of outer circle, don't cut shroudlines

To promote coolness, stuff wadded grass or cloth inside crown

Brim — from metal frame and pack cloth

Fold cloth over metal frame and sew, pin or tie

cloth before folding over frame

Dotted circle represents size of head; estimate size by measuring around head with string

Cut out; then tie, sew or wire crown to slit flaps on brim

WRISTLETS: For protection against cold or insect bites. Wind strips of chute cloth over wrists, overlapping gloves and sleeves.

HANDKERCHIEFS, SCARFS: Cut or rip sections of chute cloth to make handkerchiefs, scarfs, foot wrappings, improvised loincloths, etc.

CLOAK: A one-piece cloak-like garment and hood improvised of chute fabric will provide considerable protection from cold and wind.

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HUNTING & FISHING

HAND NET

Hand pole, 4-5 feet long

Lash with wire from ripcord
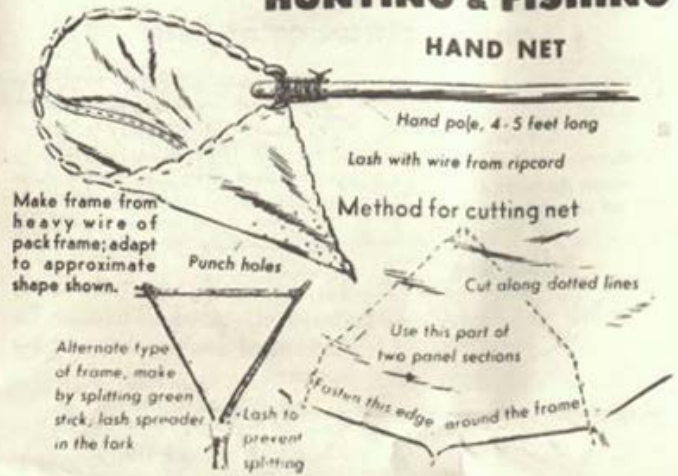
Make frame from heavy wire of pack frame; adapt to approximate shape shown.

Punch holes

Method for cutting net

Cut along dotted lines

Use this part of two panel sections

Fasten this edge around the frame

Alternate type of frame, make by splitting green stick; lash spreader in the fork

Lash to prevent splitting

GILL NET MADE OF CORELINE

The gill net is often the most effective means for catching fish and may be used in trapping driven birds or rabbits. Fish are caught when they head into net. Place net across stream or set in water at any depth. Can be used under ice by cutting two holes in ice about 10 feet apart; pass rope from one hole through the other with long stick; pull net through by rope.
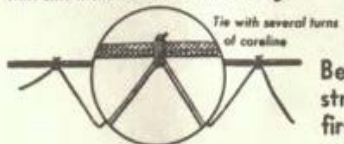
Large wood float

USE OF GILL NET

Wood floats

Make net 10-12 feet long, 3-4 feet deep. Use 2-3 inch mesh

See construction details on following page

Rock anchor

Stone weights

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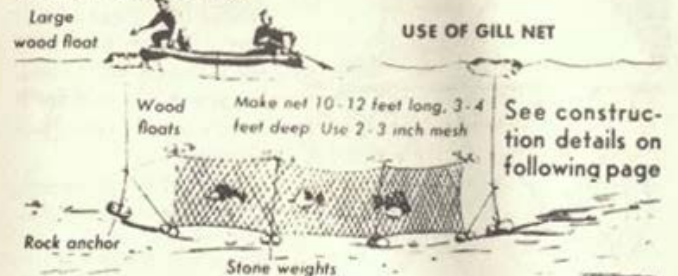
HUNTING & FISHING

CONSTRUCTION OF GILL NET

SPACER
Width controls size of mesh; mesh size will be double the width of spacer. Make of thin stiff material 8-10 inches long.
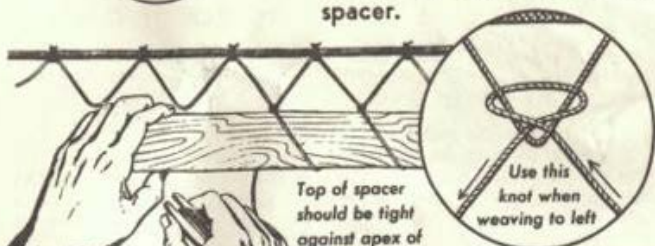
NEEDLE
Make from wood, bone or tin in shape shown. Can be 2-3 inches long, ½ to ¾ inch wide. Wind coreline strand around needle; add strands by tieing.

Tie with several turns of coreline

Begin weaving on stick, tautly stretched shroudline or rope. Tie first line of mesh as shown, using spacer.

Top of spacer should be tight against apex of upper row
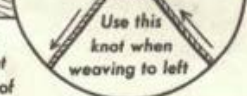
Use this knot when weaving to left

Weave as shown. Pull knots tight. Weave each row, using proper knots for left and right rows. Weave back and forth until desired length is completed.

Discolor net by rubbing with leaves, green grass or dirt.

Finish net edges by binding to shroudline

Use this knot when weaving to right

HUNTING & FISHING

DEADFALL

Parachute buckle

3 pin trigger

Close up of pin & trigger

Bait

Camouflage all shroudlines used in deadfalls by rubbing with dirt or by hiding them with grass or leaves.

WIRE SNARE

Use single wire strand from rip-cord. Arrange in animal trails.

TWITCH UP SNARE

IMPROVISED FISH HOOKS

Make hooks from ripcord pins

Note offset — helps hold hooked fish

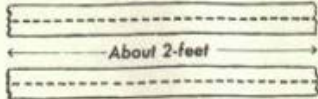Sharpen hooks on rock or whetstone before bending. (For fishline, use chute coreline.)

Shape of finished hook

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TRAVEL PACKS
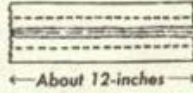
PACK STRAP WITH TUMPLINE

This heavy-duty pack is simple to construct. With proper use of tumpline, loads up to 100 pounds can be carried. Pack strap and tumpline weigh less than 1 pound.

SHOULDER STRAPS

←— About 2-feet —→

Made of single-thickness
of harness webbing

CHEST STRAP

←— About 12-inches —→

depending on width of shoulders. Make of double-thickness harness webbing ripped along one edge and unfolded to form single thickness strap of double width.
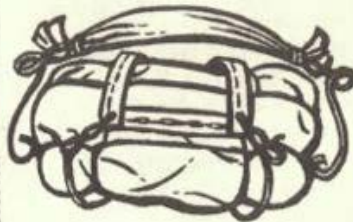
COMPLETED PACK-STRAP

Tie shroud-line to strap as shown or sew tightly

Shroudlines 4-feet long
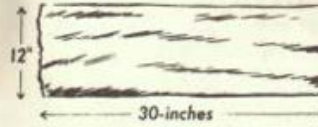
Sew with coreline or wire with ripcord strand

Make loops here of shroudlines

PACK ASSEMBLED

TRAVEL PACKS

MAKING TUMPLINE

12"

←— 30-inches —→

Make tumpline of chute cloth

Tie here and provide shroudline loops for adjusting

Tie with slipknot to allow for easy adjustment of pack to tumpline

Tie with slipknot to allow for securing pack tightly or for removing.

FOR CARRYING

Roll supplies in chute cloth. Camouflage pack with dirt, mud, soot, etc. if necessary. Provide a loop at bottom of each side of pack for attaching and adjusting tumpline.

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MISCELLANEOUS
SEA ANCHOR

Leave end open

Metal frame from seat or back pad

In rough seas, rig sea anchor to bow of raft; keep sea anchor line long so that when raft is at crest of wave, sea anchor stays in trough of wave. If larger sea anchor is needed, wrap chute canopy around oar and tie securely.
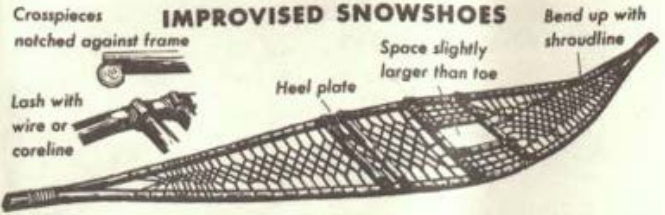
RAFT AWNING

Rig awning to provide warmth in cold areas and to reduce thirst and prevent sunburn in warm areas. Leave ventilation at sides in warm areas; in cold bring edges down to sides.

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MISCELLANEOUS
IMPROVISED SNOWSHOES

Crosspieces notched against frame

Lash with wire or coreline

Heel plate

Space slightly larger than toe

Bend up with shroudline

Toehole 3¼ inches long and 4¼ inches wide. Distance from heelplate to end of toehole approximately 14 inches. Make shoe frame of 1-inch sapling, 5 feet long, spread to 12 inches at widest point. Weave webbing of shroudline; draw taut.

Binding—make as shown; from continuous length of split harness webbing or from braided shroudlines.
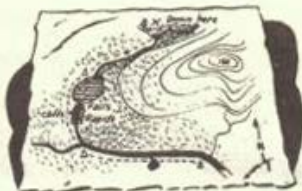
BLACK JACK

Harness fittings

Secure with shroudline

Harness webbing

25
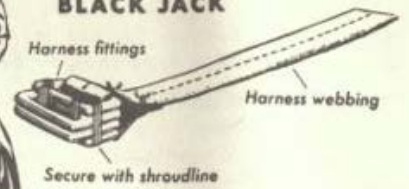
MISCELLANEOUS

USE CHUTE CLOTH FOR PACKAGES

Pack food and small articles in bags made of chute cloth. Wrap bags together in large piece of chute cloth for easier packing.

SKETCH MAPS

Map course of travel on chute cloth. Withstands wear and wetness.

FACTS ABOUT SHROUDLINES

Tensile strength 35 lbs.

Tensile strength 550 lbs.

7 to 9 core lines

Shroudline sheath

Each chute will provide 24 shroudlines, each about 14 feet long (total of 336 feet). There are 7 to 9 corelines in each shroudline; each coreline pulls out separately. Use shroudlines for lashing and tieing, for lifelines, etc. Use corelines also for sewing, weaving, tieing and for fishlines.

ROPE

Make a rope suitable for use in mountain climbing by braiding or knotting three shroudlines together.

CHUTE SILK FOR BARTER: Chute silk is valued by natives in remote areas all over the world. Trade squares of silk for foc and help, but do your trading economically—don't wasl cloth.

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SEWING TIPS

Use coreline for thread. Keep it from unravelling by melting ends in flame or by knotting ends after needle is threaded. Coreline is nylon and does not absorb moisture; therefore, wetting ends will not aid in threading needle. Needle will thread easily if coreline is doubled. Use single strand of coreline for sutures in sewing up wounds. If you do not have a needle, improvise one from piece of wire, sliver of hard wood or bone, or a ration can opener.