

HIKING SKILLS

No. 26-076

REPRINTED FROM BOYS' LIFE MAGAZINE





REQUIREMENTS FOR THE HIKING SKILL AWARD

1. Tell what to do to take a safe hike.
2. Take a hike in the field.
 - a. Before leaving, have your plan approved by your leader (including purpose, route and clothing).
 - b. Take a 5-mile hike in the field with the troop, patrol or two or more other Scouts. Use proper methods and courtesies.
 - c. After you get back, tell what you did and learned.
3. Take a hike in your town.
 - a. Before leaving, have your plan approved by your leader (including purpose, route and clothing).
 - b. Take a hike to a place of interest outside your neighborhood with an adult or at least two other Scouts. Use proper methods and courtesies.
 - c. After you get back, tell what you did and learned.
4. Using a compass, follow a prescribed course with three different degree readings and three different distances. Finish with a 2 percent or less error.
5. Using a map and compass, follow a route you marked on the map far enough to prove you know how.

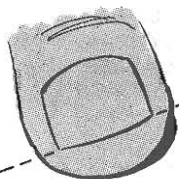
SCOUTCRAFT

BE KIND TO YOUR FEET

YOU CAN'T HIKE WITH SORE FEET.
SO KEEP YOUR FEET STRONG,
HEALTHY AND CLEAN.

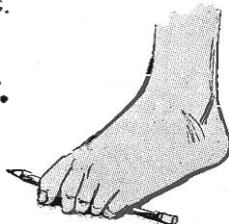
PRE-HIKE CARE OF YOUR FEET.

KEEP YOUR TOENAILS TRIMMED **STRAIGHT ACROSS**, AS SHOWN. LONG TOENAILS CAN CUT INTO YOUR SKIN OR TEAR YOUR SOCKS.

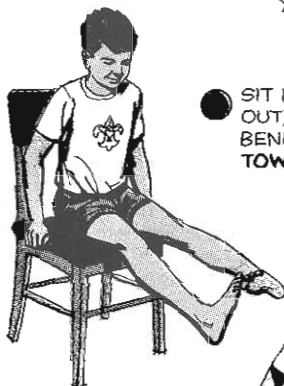


EXERCISE YOUR FEET.

● PRACTICE PICKING UP A PENCIL, A MARBLE OR A STONE WITH YOUR TOES. TRY IT 20 TIMES WITH EACH FOOT.



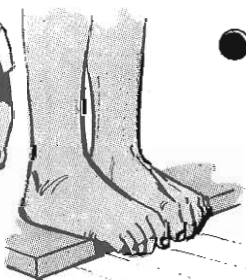
● SIT IN A CHAIR, LEGS STRAIGHT OUT, SQUEEZE TOES UNDER TIGHTLY. BEND ANKLES SO THAT FEET POINT **TOWARD** BODY AS FAR AS YOU CAN. THEN BEND FEET **AWAY** FROM BODY STILL KEEPING TOES TIGHTLY CURLED. REPEAT TEN TIMES.



● STAND UP. TWIST FEET SO THAT HEELS ARE TURNED **OUT**. PRESS DOWN TOES AS HARD AS YOU CAN.



● TO STRENGTHEN YOUR ARCHES: STAND WITH TOES EXTENDED OVER THE EDGE OF A STEP OR THICK BOOK. BEND TOES DOWN AS FAR AS POSSIBLE.

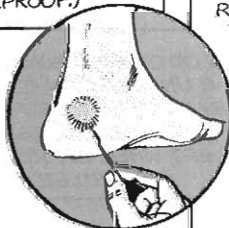


● PRACTICE WALKING WITH TOES STRAIGHT AHEAD AND PUSH THEM DOWN ON THE FLOOR WITH EACH STEP. RISE SLOWLY ON TIPTOE, PUSHING YOUR WEIGHT ONTO YOUR TOES.

FOOTGEAR CARE

SNEAKERS CAN BE CLEANED IN A WASHING MACHINE. LEATHER SHOES AND BOOTS SHOULD BE BRUSHED CLEAN OF DIRT AND KEPT SUPPLE WITH A SPECIAL SILICONE OR GOOD WAX POLISH.

RUBBING IN NEAT'S-FOOT OIL KEEPS LEATHER PLIABLE AND WATER-RESISTANT. (SHOES AREN'T SUPPOSED TO BE WATERPROOF.)



CARE OF YOUR FEET ON A HIKE.

KEEP THEM DRY. CARRY AN EXTRA PAIR OF CLEAN SOCKS ON EVERY HIKE. STOP NOW AND THEN ON A HIKE TO REST YOUR FEET. IF FEET GET WET, DRY THEM. PUT ON DRY SOCKS. ON A DAYLONG HIKE CHANGE SOCKS AT THE HALFWAY POINT. IT'LL MAKE YOU FEEL LIKE A NEW MAN.

BLISTER ON HEEL: IF YOU FEEL YOUR SHOE RUBBING A BLISTER ON YOUR HEEL, **STOP**. WASH YOUR FOOT WITH SOAP AND WATER. PUT AN ADHESIVE BANDAGE OVER A SMALL BLISTER. IF IT'S A LARGE BLISTER, COVER WITH A STERILE GAUZE PAD. RATHER THAN LET A BLISTER OPEN ACCIDENTALLY, OPEN IT YOURSELF. WASH AREA AROUND BLISTER WITH SOAP AND WATER. STERILIZE A PIN IN A MATCH FLAME. USE PIN TO PUNCTURE BLISTER NEAR ITS EDGE. COVER WITH STERILE DRESSING.

YOUR FOOTGEAR

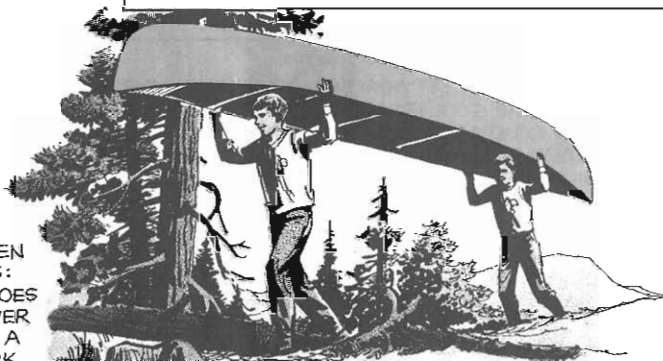
ANKLE-HIGH SNEAKERS WITH HEAVY SOLES AND ARCH SUPPORTS ARE COMFORTABLE AND INEXPENSIVE.



BOOTS WITH LEATHER TOPS AND RUBBER, SYNTHETIC, OR CORD SOLES ALSO MAKE FOR COMFORTABLE WALKING. LEATHER SOLES ARE SLIPPERY ON ROCKS AND WHERE THE GOING IS WET.



ARMY-SURPLUS JUNGLE BOOTS ARE EXCELLENT FOR HIKEING AND CANOE PORTAGING. AFTER GETTING WET SUCH CANVAS BOOTS DRY FASTER THAN LEATHER.



THE IMPORTANT THING IS TO MAKE **SURE** YOUR FOOTGEAR FITS COMFORTABLY OVER **TWO** PAIRS OF SOCKS—ONE THIN, COTTON PAIR, ONE THICK, WOOLEN PAIR.



YOUR SNEAKERS OR BOOTS SHOULD PROTECT YOUR ANKLES, SUPPORT YOUR FEET AND STAND UP OVER MANY MILES OF ROUGH GOING.

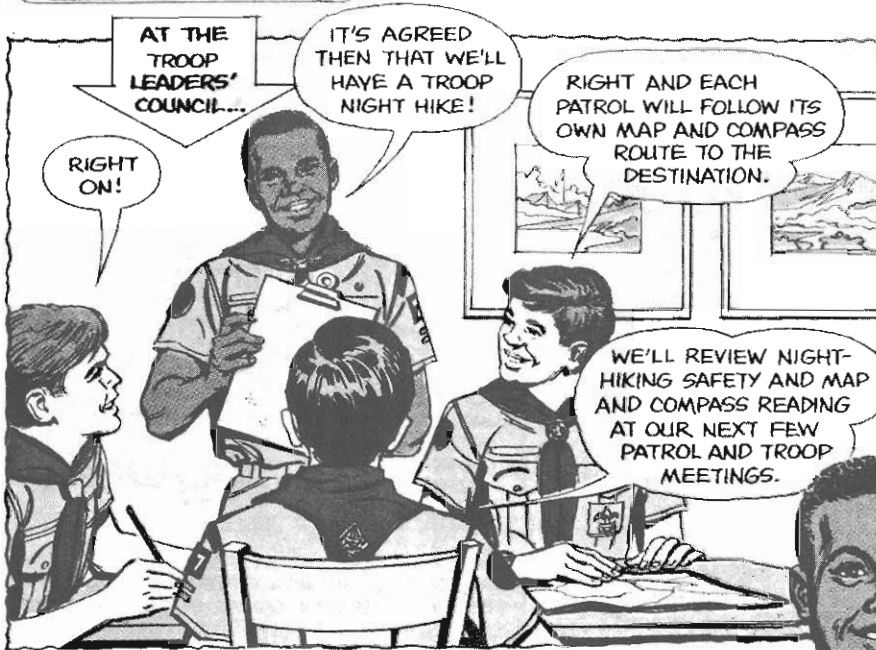
BREAK IN YOUR FOOTGEAR BEFORE A HIKE.

BLIT AVOID SNEAKERS OR BOOTS THAT ARE **TOO** WORN—THEY MIGHT GIVE OUT DURING THE HIKE. FOOTGEAR WITH EYELETS AND LACING IS BEST FOR HIKEING. DON'T FORGET AN EXTRA PAIR OF LACES.



THE PEDRO PATROL

GOES NIGHT HIKING



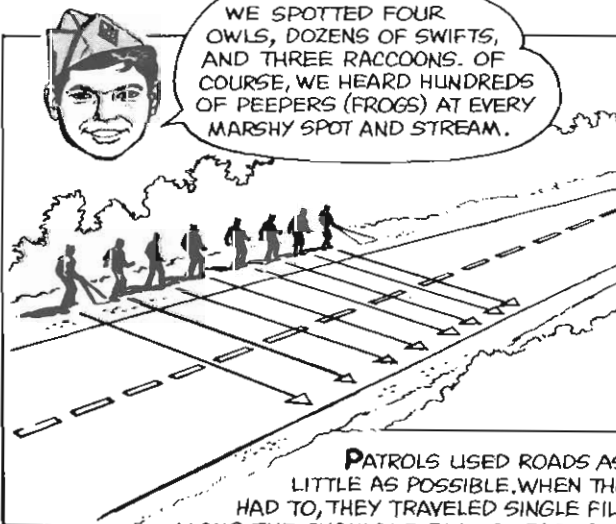
FIRST THING OUR PATROL DID AFTERWARD WAS TO MAKE TWO SETS OF REFLECTING DANGLE TAGS FOR EACH MEMBER. ON THE NIGHT HIKE WE'D WEAR A SET ON OUR CHESTS AND BACKS SO A CAR'S HEADLIGHTS WOULD BE REFLECTED AND WARN THE DRIVER OF HIKERS AHEAD.

THE OBJECT OF THIS TWO-HOUR HIKE WAS TO TEST THE SCOUTS' ABILITY TO FOLLOW A MAP AND COMPASS COURSE AT NIGHT. THEY'D ALSO LEARN TO OBSERVE AND IDENTIFY NOCTURNAL WILDLIFE BY SIGHT AND SOUND (BY SMELL, TOO, AS PEDRO PATROL DISCOVERED WHEN THEY LUCKILY AVOIDED A SKUNK).

WE MADE AS LITTLE NOISE AS POSSIBLE ALONG THE TRAIL SO WE WOULDN'T SCARE ANY ANIMALS.



WE SPOTTED FOUR OWLS, DOZENS OF SWIFTS, AND THREE RACCOONS. OF COURSE, WE HEARD HUNDREDS OF PEEPERS (FROGS) AT EVERY MARSHY SPOT AND STREAM.

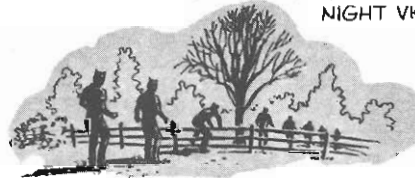


PATROLS USED ROADS AS LITTLE AS POSSIBLE. WHEN THEY HAD TO, THEY TRAVELED SINGLE FILE ALONG THE SHOULDER FACING TRAFFIC. WHEN THEY HAD TO CROSS A ROAD THEY MADE A FLANKING MOVEMENT AT THE PL'S COMMAND AND ALL CROSSED QUICKLY. THE LEADING SCOUT AND THE LAST SCOUT WORE LIGHT-COLORED JACKETS AND KEPT THEIR FLASHLIGHTS LIT.



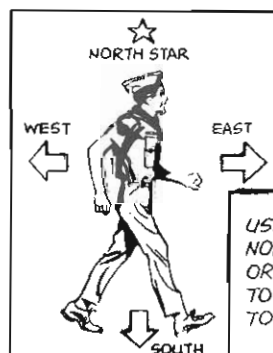
ONE PAIR OF 2"x4" MASONITE TAGS COVERED ON BOTH SIDES WITH REFLECTIVE TAPE HANGING ON 12" LONG CORD TIED TO SAFETY PIN.

EACH SCOUT CARRIED A WORKING FLASHLIGHT. EACH PATROL CARRIED A MAP OF ITS ROUTE TO THE RENDEZVOUS, A COMPASS, AND A FLASHLIGHT WITH A RED PLASTIC DISK COVERING THE LENS. THIS WAS USED TO READ THE MAP WITHOUT SPOILING THE SCOUTS' NIGHT VISION.



ABOUT 200 YARDS OF THE HIKE WERE DONE IN A BEELINE USING ONE COMPASS DIRECTION.

ANOTHER LEG OF THE HIKE WAS TRAVELED USING THE NORTH STAR FOR DIRECTION.



USE TREES OR OTHER LANDMARKS TO KEEP NORTH STAR LINED UP. TRAVEL DUE N, S, E, OR WEST BY USING NORTH STAR. IT WILL BE TO YOUR RIGHT WHEN YOU'RE GOING WEST... TO YOUR LEFT WHEN YOU'RE HIKING EASTWARD, ETC.

AT THE HIKE'S END, TROOP LEADERS HAD HOT DRINKS, CHEESE AND CRACKERS WAITING.

THE PEDRO PATROL

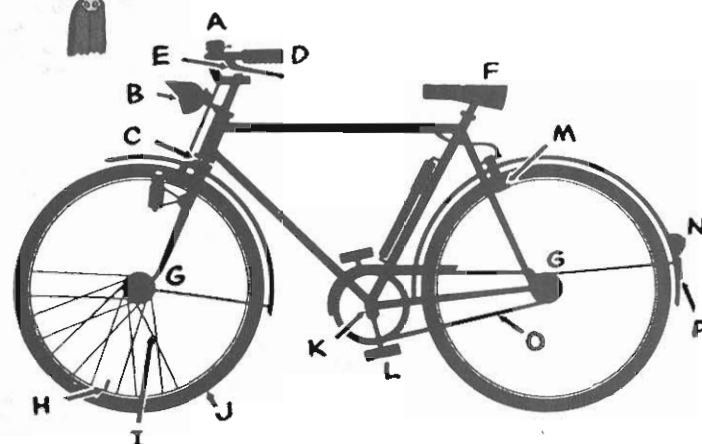
GOES BIKE HIKING



THE PATROL VOTED TO GO ON A WEEKEND BIKE HIKE. THOSE GUYS WITHOUT BIKES WOULD BORROW ONE FROM A FRIEND OR RELATIVE OR EVEN RENT A BIKE.



DAYS BEFORE LEAVING EVERYONE CAREFULLY CHECKED HIS BIKE MAKING WHATEVER REPAIRS OR REPLACEMENTS WERE NECESSARY. AT PREVIOUS MEETINGS WE HAD STRESSED THE IMPORTANCE OF RIDING A MECHANICALLY SAFE AND LEGALLY EQUIPPED BIKE.



- A- WARNING BELL OR HORN SHOULD BE HEARD WITHIN 100 FEET.
- B- LIGHT MUST BE VISIBLE FROM A DISTANCE OF UP TO 500 FEET. ENSURE BATTERY IS FRESH.
- C- FORK BEARINGS: LUBRICATE AND ADJUST FOR EASY STEERING.
- D- HANDLE BARS: SET FOR COMFORTABLE HEIGHT, TIGHTEN. HANDLEBAR GRIPS SHOULD BE AT RIGHT ANGLES TO HANDLEBAR STEM AND ABOUT THE SAME HEIGHT AS SEAT. BE SURE GRIPS ARE TIGHTLY FASTENED.
- E- CALIPER BRAKES: LUBRICATE PIVOT POINTS AND ADJUST.
- F- ADJUST SEAT SO YOUR LOWER LEG, THIGH, AND HEEL FORM A STRAIGHT LINE WHEN YOUR HEEL IS ON LOWER PEDAL, THEN TIGHTEN.
- G- OIL AND TIGHTEN WHEEL BEARINGS AND LOCKNUT.
- H- INSPECT TIRE VALVES FOR LEAKS. (KEEP CAP ON VALVE)
- I- TIGHTEN LOOSE SPOKES. REPLACE ANY THAT ARE BROKEN.
- J- KEEP TIRES INFLATED TO PRESSURE INDICATED ON SIDEWALLS. CHECK FOR IMBEDDED PEBBLES, CINDERS, TACKS, ETC.
- K- CRANK HANGER: CLEAN AND LUBRICATE. ADJUST BEARINGS IF NEEDED.
- L- PEDALS: BEARINGS OFTEN NEED OILING AND TIGHTENING. CHECK PEDAL TREADS FOR POSSIBLE REPLACEMENT.
- M- IF YOUR BIKE HAS BRAKE PADS BE SURE THEY MAKE FULL CONTACT WITH RIMS. REPLACE WHEN WORN.
- N- REFLECTOR SHOULD BE KEPT CLEAN SO IT IS VISIBLE FOR 300 FEET.
- O- CLEAN, OIL, AND ADJUST CHAIN SO THERE IS 1/2-INCH SLACK IN LOWER PART. MAKE SURE GUARD IS FIRMLY IN PLACE. CHECK CHAIN FOR WORN LINKS.
- P- BE SURE BIKE LICENSE IS CURRENT AND SECURELY ATTACHED.



FIRST, WE CONDITIONED OURSELVES WITH A FEW EASY ONE-DAY TRIPS. WE GRADUALLY INCREASED THE DISTANCES UNTIL WE COULD DO UP TO 40 MILES A DAY.

WHEN WE FELT READY, WE PACKED OUR CAMPING GEAR AND FOOD.

AT LEAST TWO OF OUR PATROL CARRIED BIKE REPAIR KITS WHICH INCLUDED GEAR TO FIX FLATS.



TO GET MOST OUT OF BIKE HIKE DON'T PUSH YOURSELVES. AT A SPEED OF 10 MILES AN HOUR YOU'LL COVER A LOT OF GROUND AND ENJOY THE SCENERY. OBEY ALL TRAFFIC LAWS. KEEP ALERT. HAVE FUN!



ROADSIDE REPAIRS CAN TAKE ALL THE JOY OUT OF BIKING PARTICULARLY WHEN THE TROUBLE COULD EASILY HAVE BEEN CORRECTED BEFOREHAND!



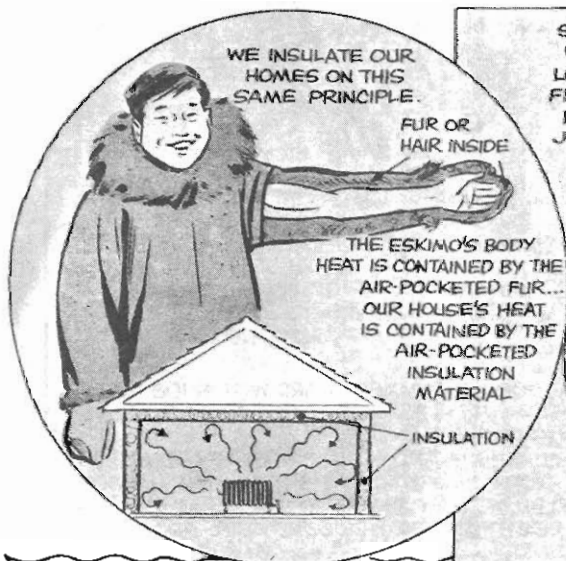
KEEPING WARM ON A SNOW HIKE



SOME PEOPLE CAN WITHSTAND MORE COLD THAN OTHERS.

FOR EXAMPLE, ESKIMOS LIVE COMFORTABLY IN THE COLDEST PART OF THE WORLD—PARTLY BECAUSE THEY ARE USED TO THAT CLIMATE BUT MOSTLY BECAUSE THEY KNOW HOW TO DRESS FOR SUB-ZERO TEMPERATURES.

THEIR METHOD IS SIMPLE—AND WE SHOULD FOLLOW IT: ALLOW AN AIR SPACE BETWEEN OUR BODY AND OUR CLOTHES. ESKIMOS WEAR LOOSE-FITTING HIDE JACKETS OR PARKAS, AND LOOSE-FITTING HIDE BOOTS—BOTH WITH THE FUR SIDE IN WHICH ACTS AS AN INSULATION—KEEPING HEAT IN AND COLD OUT.



START WITH LOOSE-FITTING LONG JOHNS

NEXT—A WOOL FLANNEL SHIRT—WOOL TROUSERS AND SOCKS, STURDY SHOES

OVER THAT A WOOL TURTLE-NECK SWEATER, EAR MUFFS AND GLOVES

FOR COLDER WEATHER AND LESS ACTIVITY ADD A WOOL "LUMBERJACK" COAT, WOOLEN CAP AND GLOVES, EXTRA PAIR OF WOOL SOCKS AND HEAVY BOOTS. IN FOUL WEATHER ADD WATER-REPELLENT OUTER "SHELL" OVER CLOTHING, GLOVES AND SHOES.



THE PICTURES ON THE RIGHT SHOW THE PROPER CLOTHING TO WEAR IN WINTER. IF YOU RUN AROUND AND EXERCISE MUCH IN TEMPERATURES DOWN TO ABOUT 30° YOU'LL PROBABLY NEED TO WEAR ONLY AS MUCH AS SHOWN IN NUMBER 3. FOR LESS ACTIVITY AND LOWER TEMPERATURES YOU'LL NEED THE COMPLETE OUTFIT.

WOOL CLOTHING IS BEST BECAUSE THE LOOSE WOOL FIBERS FORM AIR SPACES—THE INSULATION PRINCIPLE AGAIN. LOOSE-FITTING CLOTHING, TOO, IS BEST BECAUSE IT ALLOWS AIR SPACE BETWEEN YOU AND YOUR CLOTHING.

IN VERY COLD OR WET WEATHER, YOU NEED A WATER-REPELLENT OUTER "SHELL"—THE SAME IS TRUE OF YOUR GLOVES... WOOLEN ONES FIRST WITH LEATHER ONES OVER THEM ARE BEST.



REMEMBER THESE RULES:

1. IF TOO WARM, TAKE OFF SOMETHING.
2. IF TOO COLD, PUT ON SOMETHING MORE.
3. IF YOU'VE GOT EVERYTHING ON AND YOU'RE STILL COLD—START EXERCISING—OR GET INDOORS!



THERE'S NOTHING MORE UNCOMFORTABLE THAN COLD FEET. WEAR TWO PAIRS OF WOOL SOCKS WITH GOOD, STURDY BOOTS. IN SLOPPY WEATHER WEAR WATER-REPELLENT OVERSHOES OVER BEDROOM SLIPPERS OR LOW SHOES! KEEP YOUR FEET DRY!

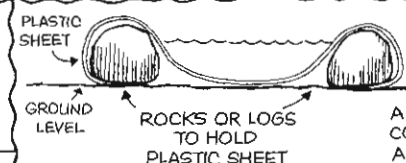
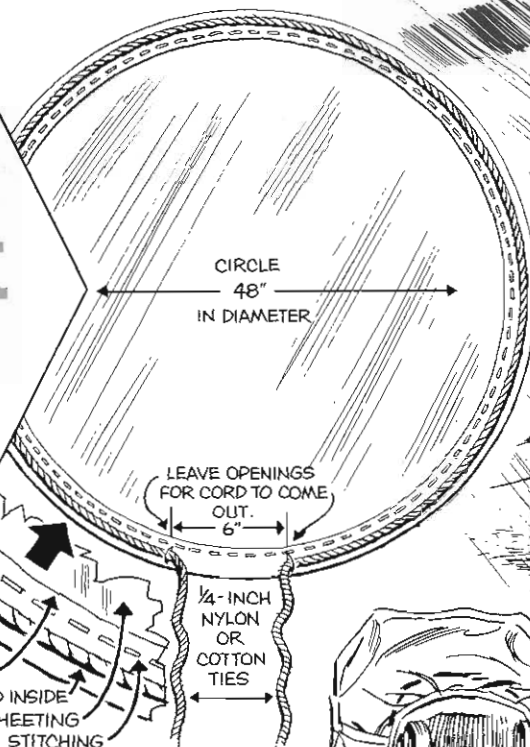
SCOUTCRAFT

KEEP YOUR PACK AND GEAR DRY WITH THIS BACKPACK COVER

IT'S MADE OF CLEAR OR COLORED POLYETHYLENE PLASTIC SHEETING FOUR TO SIX MILS THICK.

CUT MATERIAL IN A CIRCULAR SHAPE ABOUT 48 INCHES IN DIAMETER. LAY CORD AROUND EDGE. FOLD A ONE-INCH OR TWO-INCH HEM OVER CORD AND STITCH TO SHEETING, ALLOWING CORD TO RUN THROUGH HEM FREELY.

THE CORD IS PULLED FAIRLY TIGHT AFTER PACK IS COVERED. ENDS ARE TIED TOGETHER TO HOLD COVER.



MAKES A GOOD WASH BASIN

AND A QUICKIE PONCHO

ALSO A FIREWOOD COVER—A TABLECLOTH AND OTHER HANDY USES.



TIE CORD TOGETHER AFTER COVERING PACK

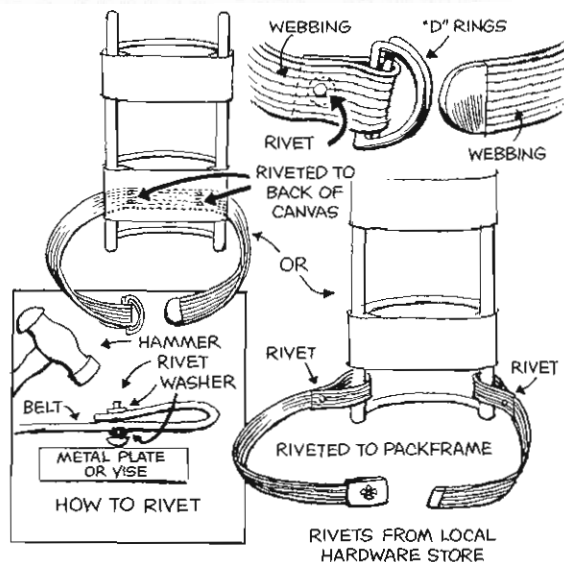
PACK AND PACKFRAME LOADS RIDE EASIER WITH HIP-STRAP

LETS YOUR HIPS TAKE SOME OF THE WEIGHT OFF YOUR SHOULDERS.

HOLDS PACK OR PACKFRAME STEADIER OVER ROUGH TERRAIN.

USE A SCOUT WEB BELT (OR NYLON WEBBING) ABOUT ONE FOOT LONGER THAN YOUR WAIST MEASUREMENT.

RIVET TO LOWER SIDES OF PACKFRAME. LEAVE ON SCOUT BELT BUCKLE. WITH WEBBING USE A SET OF D-RINGS OR AIRPLANE-TYPE QUICK-RELEASE BUCKLE. (KIDDIES' SEAT BELTS HAVE THESE.)

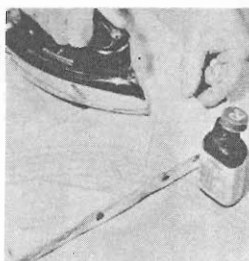


HOW TO MAKE A BACK-PACK

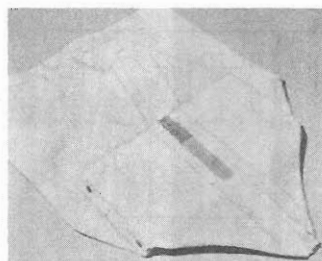
By GLENN WAGNER

Put yourself in this picture: Your backpack is ready to go. Slip your arms under the shoulder pads, adjust the shoulder straps so the pack is comfortable on your back, tie the waist-band to steady it, and you're ready to take off for an exciting day's adventure. Lightweight, yet strong, and with a reinforced bottom, this easy-to-make day pack will hold all you need for a day's outing, whether it's up a mountain trail in summer or skiing on the slopes in winter.

To make this backpack, you need a piece of lightweight canvas, heavy unbleached muslin, or nylon 21½" x 33" for the pack, a scrap piece of three-quarter-inch pine 5" x 11" for the bottom-fold form; some heavy button or carpet thread to match the color of the cloth and a darning needle. Four pieces of ¼-inch braided Venetian-blind cord: One 36-inch length for the drawstring, one 60-inch length make the shoulder straps, and two 36-inch lengths, the bottom section of the shoulder straps and waist-band. For shoulder pads you need two eight-inch lengths of one-inch-wide leather cut from an old leather belt. Punch 3/16-inch holes one-half inch from the ends of each shoulder pad so the cord will slip through easily. Sewing can be done on a heavy-duty sewing machine, or the bag can be stitched entirely by hand. We made this one by hand.



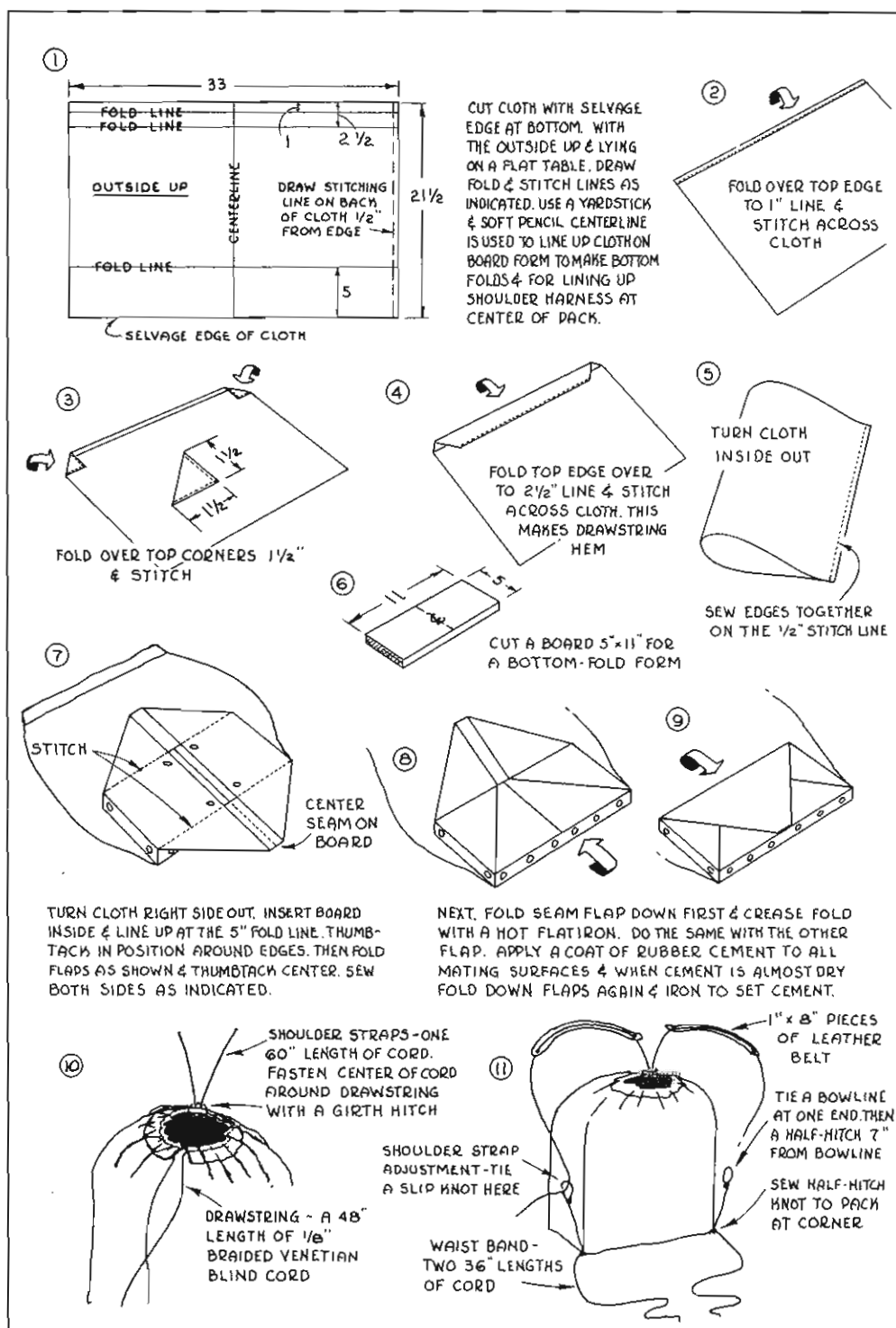
Fold bottom surfaces together and apply rubber cement. Iron when almost dry.



Board in bottom is secured with thumbtacks around the edges and at the center of the bottom fold.



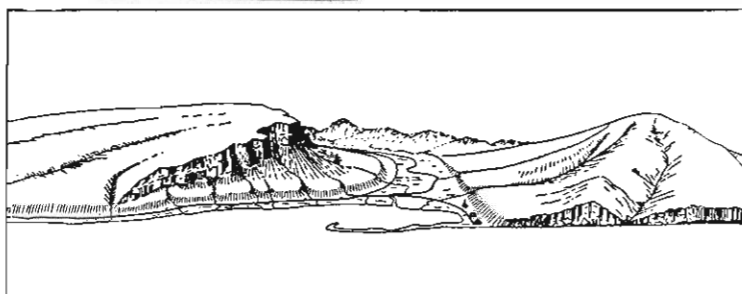
Slip arms under shoulder pads. Tie band around waist to steady the pack.



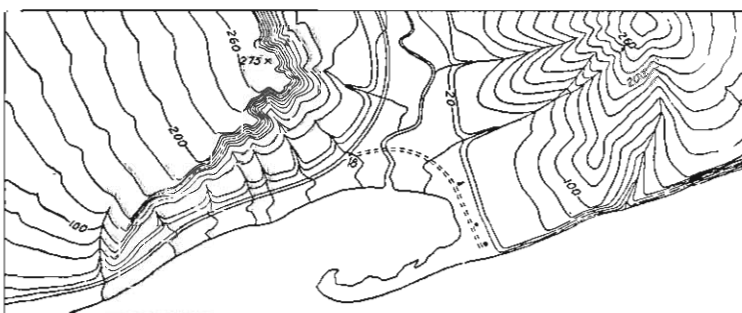
MAP SYMBOLS

LEARN THESE MAP SYMBOLS. THEY SPELL OUT THE LAY OF THE LAND. ALL TOPOGRAPHIC MAPS USE THESE SAME STANDARD SYMBOLS. FOR MORE SYMBOLS, SEE THE ORIENTEERING MANUAL, "BE EXPERT WITH MAP AND COMPASS" BY BJORN KJELLSTROM.

HARD SURFACE HIGHWAY, HEAVY DUTY...	RED	
HARD SURFACE HIGHWAY, MEDIUM DUTY...	RED	
	IMPROVED DIRT ROAD	
	UNIMPROVED DIRT ROAD	
	TRAIL	
	BRIDGE, ROAD	
	FOOTBRIDGE	
	FORD, ROAD	
	SINGLE TRACK RAILROAD	
	MULTIPLE MAIN LINE TRACK RAILROAD	
BUILDINGS (DWELLING, PLACE OF EMPLOYMENT)		
BUILDING (BARN, WAREHOUSE, ETC.)		
	SCHOOL	
	CHURCH	
	CEMETERY	
POWER TRANSMISSION LINE		
TELEPHONE, TELEGRAPH, PIPELINE, ETC.		
	OPEN PIT OR QUARRY	
	LAKE OR POND	
	PERENNIAL STREAMS	
	SPRING	
	WATER WELL	
	MARSH OR SWAMP	
	WOODS, BRUSHWOOD	
	ORCHARD	
	VINEYARD	
	SCRUB	
	INDEX CONTOUR	
	INTERMEDIATE CONTOUR	
	DEPRESSION CONTOURS	
	CUT	
	FILL	
	LARGE EARTH DAM OR LEVEE	
	SAND AREA, SAND DUNES	
TRIANGULATION OR TRANSIT TRAVERSE STATION		
MONUMENTED WITH SPIRIT LEVEL ONLY	BM Δ 1062	
MONUMENTED BENCH MARK, SPIRIT LEVEL ELEVATION	BM X 958	



ABOVE IS A LANDSCAPE IN PERSPECTIVE. BELOW IS THE SAME LANDSCAPE IN CONTOUR LINES. NOTE THAT THE LINES ARE FAR APART FOR LEVEL LAND AND ALMOST TOUCH FOR CLIFFS. CONTOUR INTERVALS VARY ON DIFFERENT MAPS. WHERE THE LAND IS FAIRLY LEVEL, THE CONTOUR INTERVAL MAY BE AS LITTLE AS 5 FEET, WHEREAS ON MAPS OF MOUNTAINOUS COUNTRY, THE CONTOUR INTERVAL MAY BE AS MUCH AS 50 FEET, OR MORE. YOU WILL FIND THE CONTOUR INTERVAL NOTED IN THE BOTTOM MARGIN OF YOUR MAP.



A MAP is simply a picture of a piece of land as it would appear from the air. Looking down, you would see roads and rivers, fields and forests, villages and towns. On a map the most important of these details are shown by special signs called map symbols.

You are already familiar with many kinds of maps—the maps of the United States and of the world, the automobile road maps your father uses when driving. But none of these is of much use for hiking because they cover too great distances and show too few details.

The kind of map that can be most useful to you is the type produced by the U.S. Geological Survey. It's called a topographic map. The word comes from the Greek—*topos*, meaning place, and *graphein*, to write or draw.

Topographic maps come in many different scales. The scale is the relation between a measurement from one point to another on the map and the actual measurement between those same two points on the ground. A convenient scale for a hike map is the scale of one inch to 24,000 inches—or, as it shows up on a map, 1:24000. A distance of one inch on this kind of map (shown on the opposite page) means a distance of 2,000 feet in the field.

If you'll take a look at the topographic map on the opposite page you'll notice brown lines in the shape of whorls or closed curved lines. These are called contour lines and show the various elevations above sea level. Every point along one of these lines is the same number of feet above sea level. Contour lines on this map are at height intervals of 20 feet.

You'll also notice that everything printed in black is the work of man—roads, cities, houses and such. Blue indicates water, green, woodland.

For the map quiz that follows you'll have to know one more thing: how to align your Pathfinder compass with the map on the next page. Here's how you do it:

Place your compass on the colored map on the opposite page. Now turn the map until the magnetic needle on your compass points in the same direction as the magnetic north shown on the bottom of the map. (For your convenience you can then draw a series of magnetic N-S lines on the colored map.)

Then place your compass, as shown on the picture on this page, so that the left-hand edge of its baseplate touches both your starting point, Mount Kimble (A) and destination (B), with the baseplate direction-of-travel arrow pointing in the direction you want to go.

Next, turn the compass housing until the magnetic needle covers the north arrow on the bottom of the compass housing. Now—look at your direction-of-travel arrow: It will show your direction is 226°.



bearings are in magnetic degrees. All distances, unless otherwise noted, are in feet.)

From A (Mount Kimble crest) to B (top of Tea Hill) is 226°. Point C is a bench mark (BM) at the intersection of Tempe Wick Road and Mount Kimble Avenue. What is the bearing from B to C? (1) How many feet away is C? (2)

Hike west on Tempe Wick Road. How many miles is it from C to D, the intersection of Tempe Wick and Jockey Hollow roads? (3) About how high is the southern tip of Blachleys Hill? (4)

What symbols are the solid green circles next to the Wick House? (5)

Continue hiking westward. How many feet is it from D to Ledells Pond? (6) What is the elevation of the road near the house at the south end of the pond? (7) What is holding in the water at the south end of the pond? (8) What is the main source of the water in the pond? (9)

Your patrol hikes on to Washington Corner. You have permission from the property owner to hike cross-country. From crossroad E walk 339° for 4,000 feet. Could you hike farther without getting your feet wet? (10) What does F bear in degrees from you now? (11) How far away is F? (12)

Travel to F and stop for lunch. Looking through binoculars at a bearing of 356°, you see a tall building about 3,000 feet away. What is the building? (13) In what town is it? (14)

Proceed eastward on Mendham Avenue (State Route 24). At G you see that there are no "Private Property" signs to the south of the road. The gang decides to hike up the mountain. You strike out at 193°. Is the climb steep or gradual? (15) At the top of the hill about how high are you? (16)

You return to the highway and move on. How far away is Sunrise Lake from G? (17) How many buildings are close to the lake? (18)

You hike a bit farther, to H. It's early afternoon and it's getting hotter. Take a break. What is the building that bears 182°, 1,800 feet away? (19)

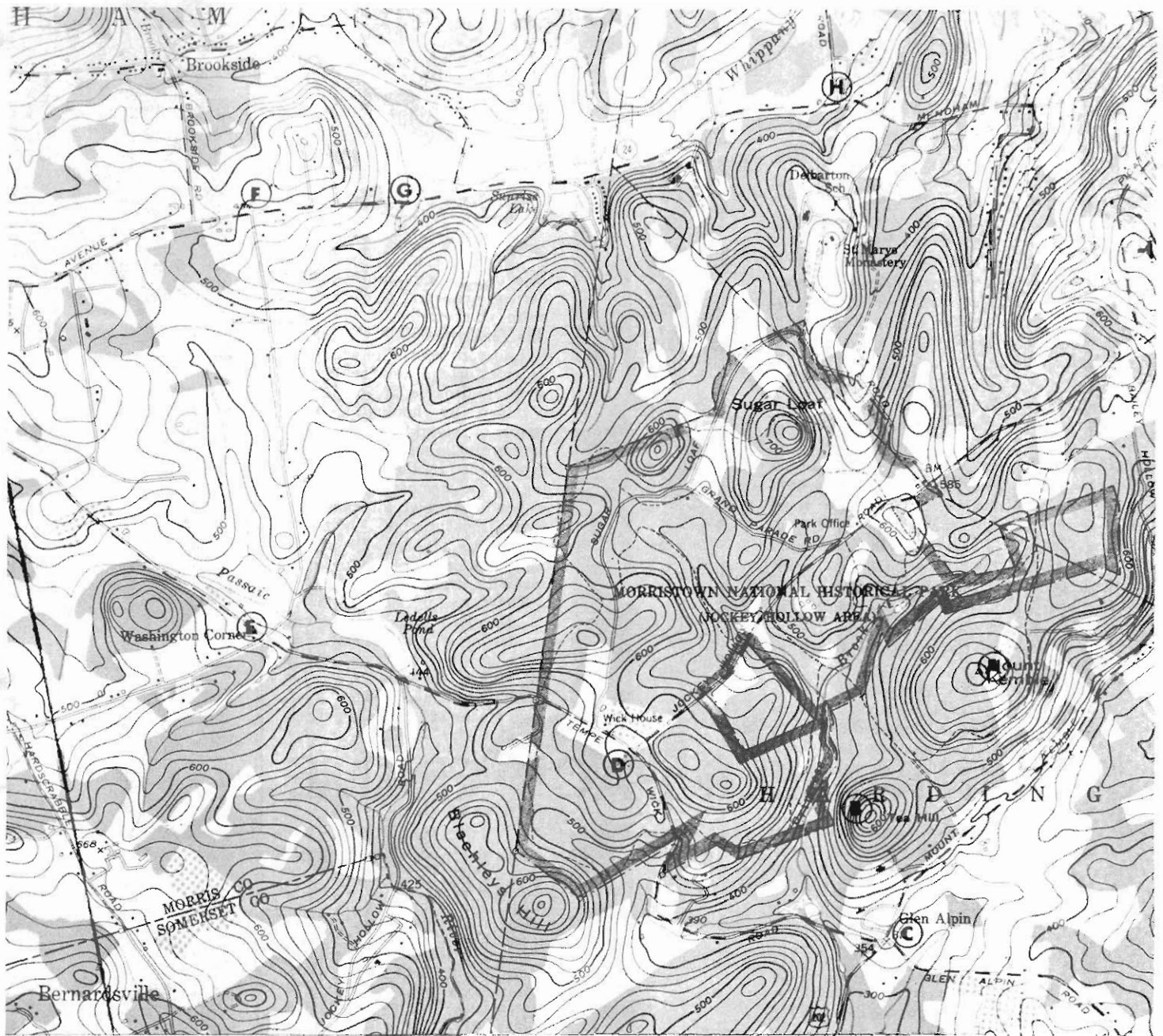
Rested, you continue on Route 24 until you come to the first road south. Hike on this road until you come to the second left-hand fork in the road. Turn left—and left again at the next fork. St. Mary's Monastery should be on your right. Is the road surface the same as the road you just took from the highway? (20) Go on until you meet Sugar Loaf Road. What is the name of the big hill to the southwest? (21) If you saw signs describing the area to the west of Sugar Loaf Road, what would the signs probably say? (22)

Walk until you reach Jockey Hollow Road. What is the elevation of the bench mark at the intersection of the two roads? (23) Where would you go to get a map and literature of the park? (24) You start to tour the park when a ranger stops you. Tough luck! It's 5:03 P.M. and the park's closed.

Map and Compass Quiz

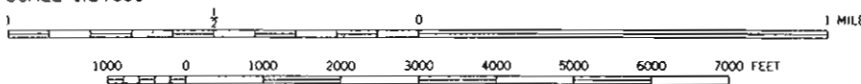
To test your skill with map and compass try this quiz. Answers opposite. (Directions and

Maps



CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

SCALE 1:24000



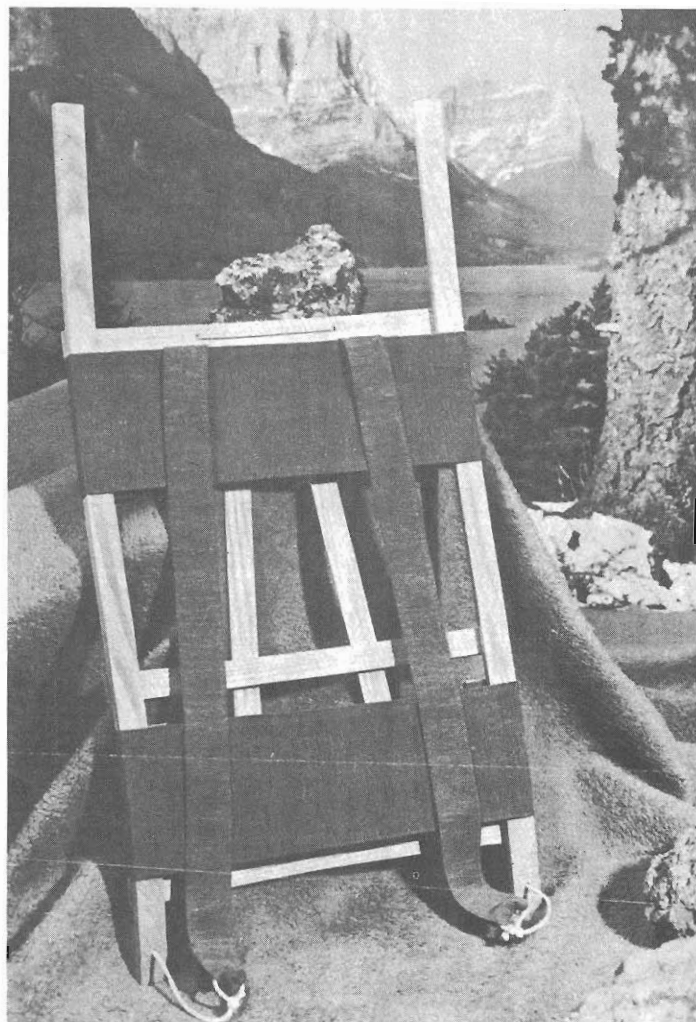
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1954

ANSWERS: (1) 184° mag. (2) 2,000 feet. (3) 1.2 miles. (4) 680+ feet. (5) Trees in an orchard. (6) 4,000 feet. (7) 444 feet. (8) A small dam. (9) The Passaic River. (10) Yes. (11)

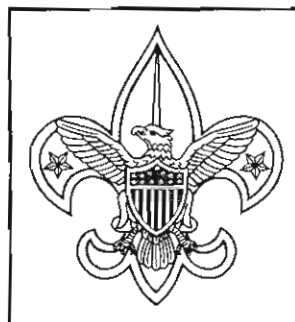
038° mag. (12) 4,000 feet. (13) A church. (14) Brookside. (15) Steep. The contour lines are close together. (16) About 640+ feet. (17) 2,500 feet. (18) 26 buildings. (19) Delbarton

School. (20) No. This is an unimproved dirt road. (21) Sugar Loaf Mountain. (22) "Morris-town National Historical Park." (23) 585 feet. (24) Park office.

& How to Use Them



SCOUT



Overnight hiking or back-packing in mountain wilderness areas will be easier and more comfortable if you use this featherweight pack frame to tote your gear. The secret of its comfort is the contoured shape built-in to fit your back, obtained by laminating thin strips of wood together with waterproof glue. Construction is simplified by the use of a gluing jig. No steaming is required to bend the wood. Finished, the frame measures 30" high by 14½" wide. It weighs 25 ounces. The design and construction make it extremely rugged.

The frame is made of ⅛" x 1" ash strips, which can be cut to size on a circular saw. For the sides you need eight pieces 31" long; the crossbows require nine strips about 20" long. Two pieces 21" long are needed

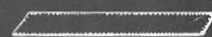
HOW TO MAKE THE SHOULDER STRAPS

① FOLD CLOTH LENGTHWISE, THEN STITCH

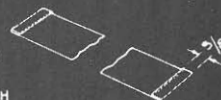


CUT CLOTH 4" x 30"

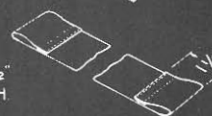
② TURN TUBE INSIDE OUT, IRON FLAT, & STITCH



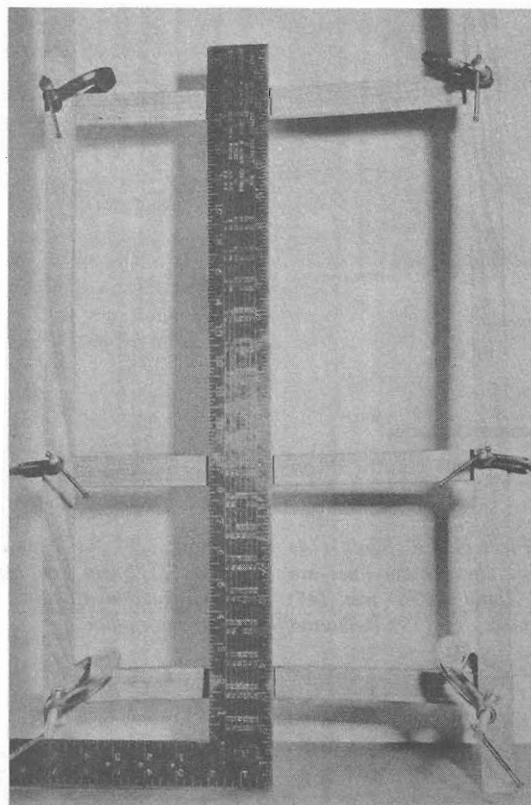
③ FOLD ENDS OVER 5/8" IRON, THEN STITCH



④ FOLD AGAIN 1½" IRON & STITCH

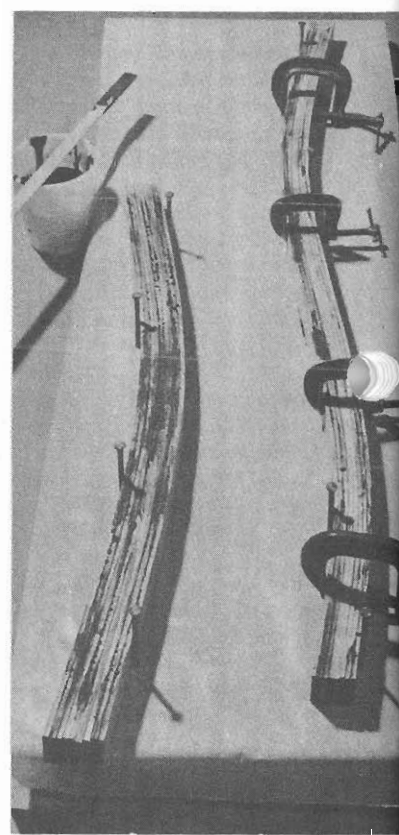


MOUNTAINEER PACK FRAME

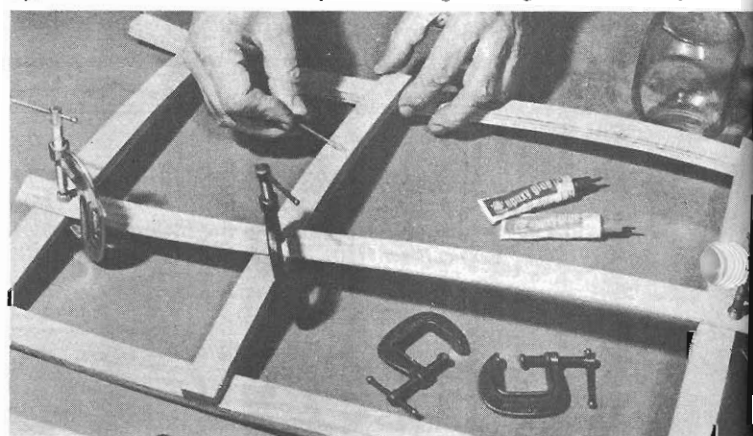


By GLENN WAGNER

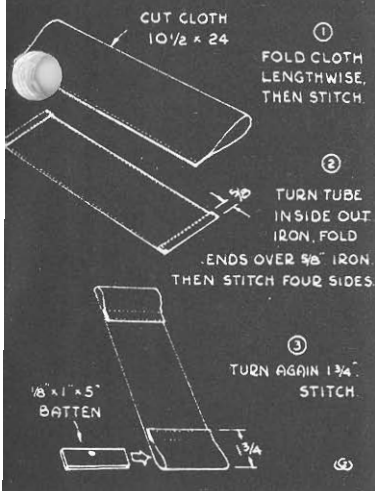
RIGHT: Make a gluing jig of 3" spikes and plank. Left side shows 9 crossbow strips glued up into 3 units of 3 strips, then hand-bent to fit the jig. Right side shows 8 side strips glued as 2 units of 4 pieces each. Wax paper on plank helps keep glue from sticking. Use small C-clamps to press strips.



LEFT AND BELOW: Clamp sides, matching contours, so you can saw pieces to length. Use Epoxy glue at joints, clamp, and check for squareness all around. Then position diagonals, glue, and clamp.



HOW TO MAKE THE BACK STRAPS



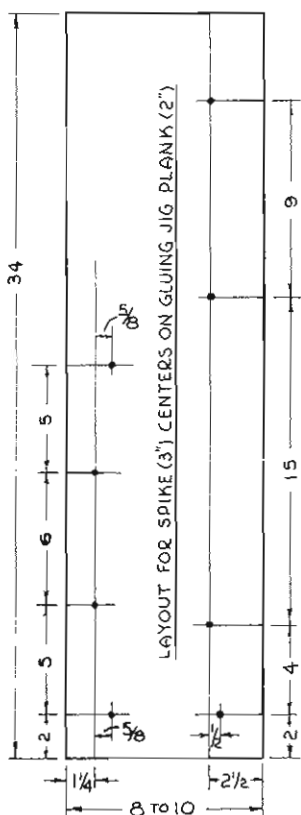
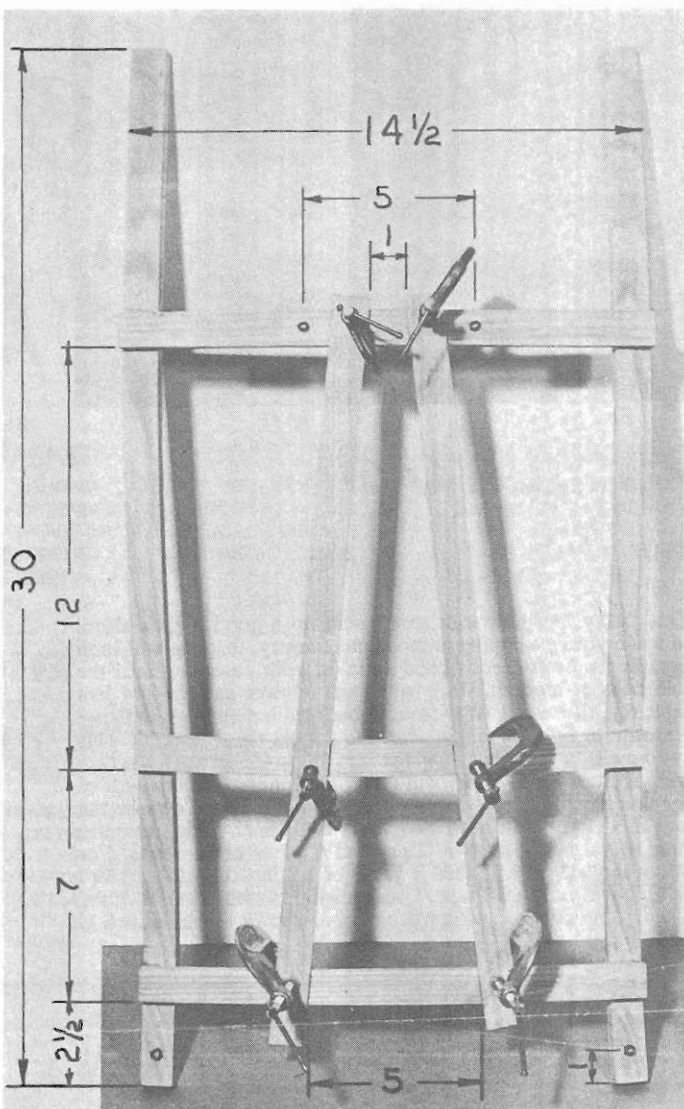
RIGHT: Basic frame dimensions. Sides are 4-strip units, crossbows 3-strip units, diagonals are single strips. Drill 3/16" holes for cords. All pieces have been sawed off to correct length, edges are planed and sanded smooth. The excess end length shown here on the diagonal upright strips is trimmed off when glue has dried. Glue should be allowed to set overnight. Use carpenter's square or large cardboard to check frame for squareness before glue sets, leaving clamps in place.

for the diagonal braces. Allowance is made in these dimensions for trimming to size lengthwise after gluing. The four back-strap battens are 5" long (finished size).

Denim or heavy nylon can be used for the straps. We used denim. You need two pieces 10 1/2" x 24" for the back straps, two pieces 4" x 30" for the shoulder straps. Sewing can be done on any sewing machine.

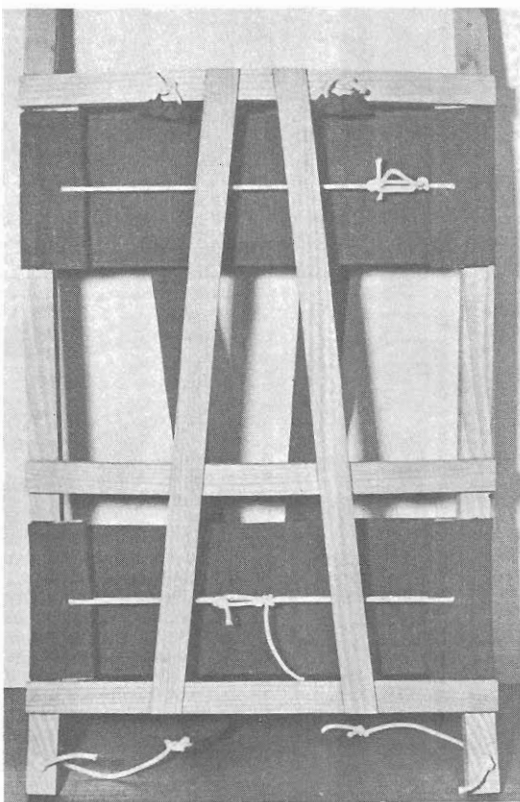
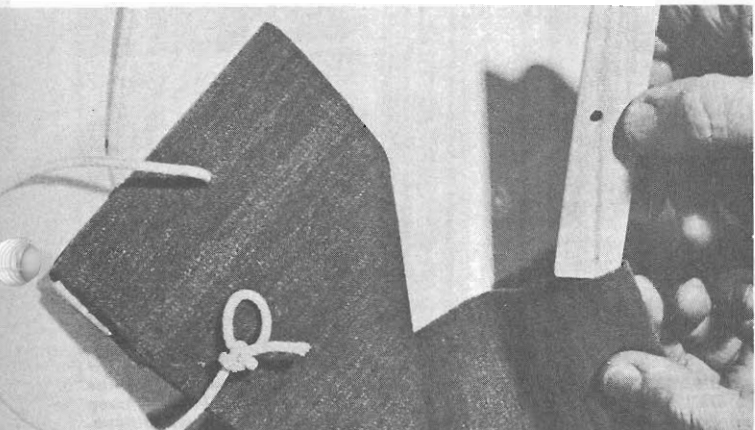
One tip for making the cloth parts: Use a steam iron to set the folds and seams before sewing, so the material lies flat and is easier to sew. All tie strings are 3/16" braided Venetian-blind cord.

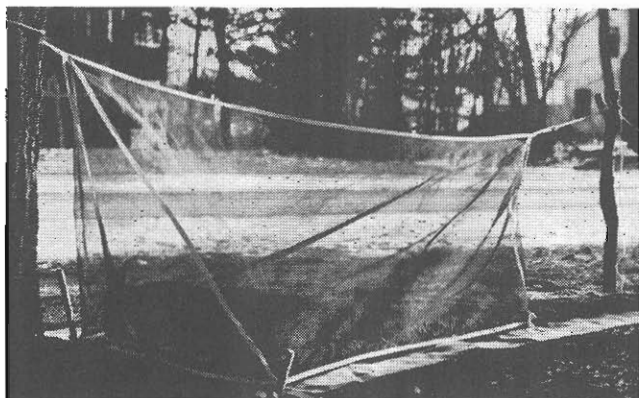
For the strip gluing we used Weldwood waterproof resorcinol glue; for the joints, Epoxy glue was used. Both glues require mixing before using.



BELOW AND RIGHT: Drill 3/16" holes in the battens off-center about 3/8" from one edge, insert into loops formed in the back straps, punch matching holes in cloth with pointed scissors, insert cords, install straps on frame. Details of the back show how back-strap tie strings are anchored. A small bowline knot is used to form a loop in one end of each cord, the other ends are threaded through battens and cloth (draw tight), secured with another knot. Tension is adjustable. Anchor shoulder straps at top by single cord that has two

small bowlines threaded through strap loops, holding straps close to top crossbow. Anchor strap bottoms to frame with small bowlines tied through strap loops; make half-hitches to secure the free ends.

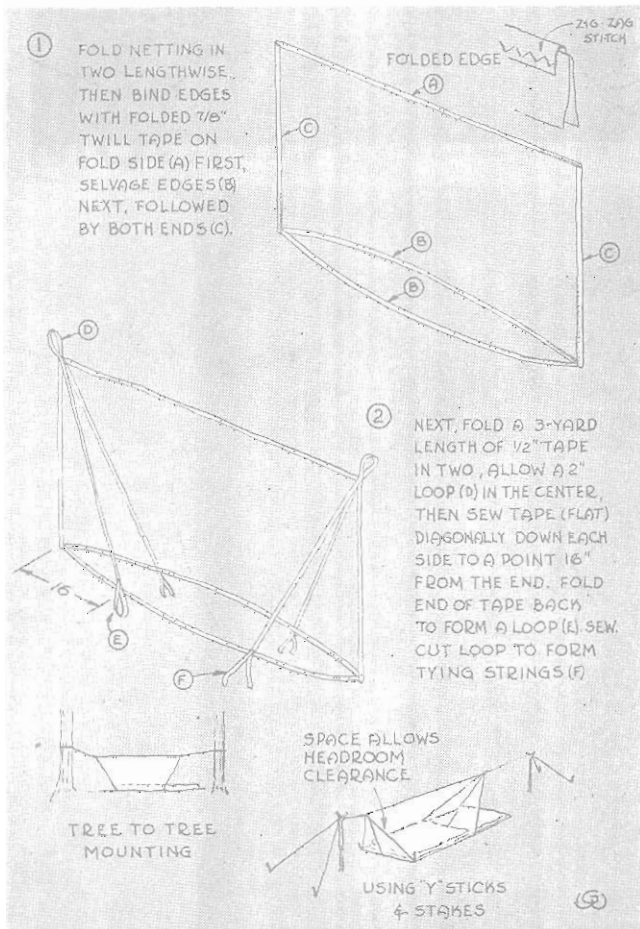




MOSQUITO BAR

By GLENN WAGNER

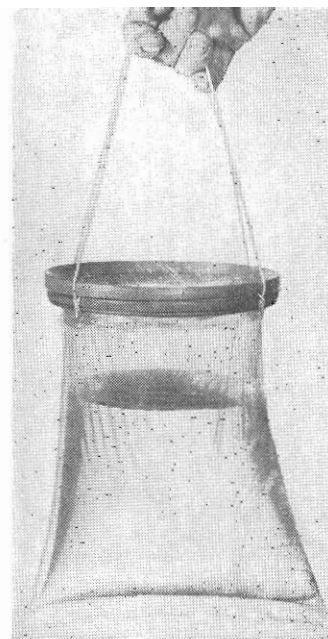
One pesky mosquito can sure break up a good night's sleep. And when you're camping in mosquito country, this one will soon telegraph the news there's good eatin' at your campsite until the whole tribe is alerted! Since you can't always exterminate 'em completely, the next best is to fight back with a suitable defense; the mosquito bar can be an effective means of protection. This easy-to-make and serviceable net can be made in two lengths: 6 feet, as illustrated, which will cover two thirds of the length of a sleeping bag, or 9 feet long to cover the whole bag. To make the 6-foot model you will need two yards of 58-inch wide mosquito netting, 8 yards of $\frac{3}{8}$ " twill tape, and 6 yards of $\frac{1}{2}$ " tape. For a 9-foot model you will need 3 yards of netting, 11 yards of $\frac{3}{8}$ " tape and 6 yards of $\frac{1}{2}$ " tape. Use a sewing machine for stitching, following the sequence of construction as shown on the drawing.



Two 6" hoops and one bag used flat make a shallow basin for liquids.



Propped up on 3 notched branches, you can make a 3" deep basin.



Two 10" x 14" bags used with the 7" hoops make a three-quart pail.

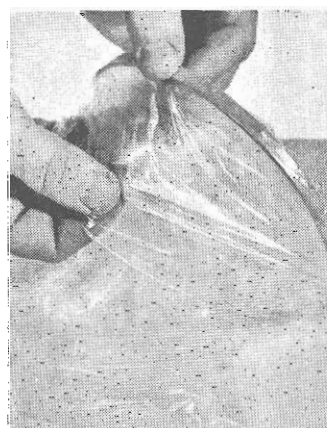
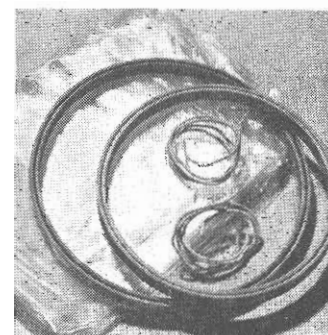
LIGHTEN YOUR HIKING GEAR WITH A

Featherweight Pail & Basin

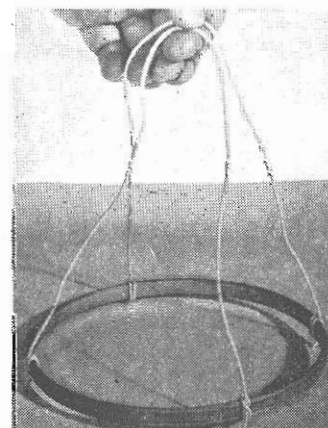
By DICK BURGESS

When you start counting ounces for the gear you carry in your knapsack, plastic bags and embroidery hoops come to the rescue for they become the building materials to make featherweight pails and basins that pack flat in a small space.

MATERIALS: One set 6" and one set 7" diameter embroidery hoops, four to six 10" x 14" plastic bags, and two 24" lengths of heavy twine or "builder's cord." Bags are type used for storing food in the refrigerator. Although only a few thousandths of an inch thick, the bags have tremendous strength, and will stretch over the hoops easily if handled carefully. Two bags used together give added strength to the pail. Waterproof hoops with wax. Kit can be carried in one extra plastic bag.



For the pail, stretch two bags over the OUTSIDE 7" hoop. Allow the material to hang 3" over the edge.



Make a set of handles by tying the pieces of twine to the INSIDE hoop at four points; use clove hitches.



THE SKI PACK,
OR NORWEGIAN-STYLE
PACK IS MADE FOR
ROUGH HIKING AND
CLIMBING. RIDES
PERFECTLY ON
YOUR BACK.



**THE GREEN BAR BILL
PACK-**
YOU CAN MAKE THIS
PACK YOURSELF. WRITE
TO GREEN BAR BILL
%BOYS' LIFE FOR
PATTERN.



**THE
PACK BASKET-**
THIS WAS THE KIND
MADE BY THE NORTHWOODS
INDIANS. IT'S MADE OF
ASH STRIPS PEELED
OFF A GREEN
LOG.



**THE
YUCCA PACK,**
A VERY POPULAR
OVERNIGHT PACK. SEE
PICTURES BELOW FOR
INSTRUCTIONS
HOW TO
PACK IT.

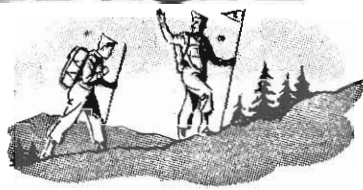


**THE
PACK FRAME-**
THIS IS AN IMPROVEMENT
ON THE EARLY TRAPPERS'
PACKBOARD. IT'S
VERY POPULAR
TODAY IN THE
WEST.

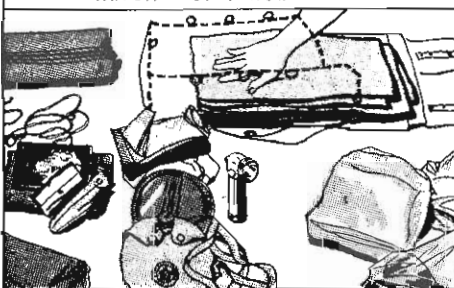
THE PACK ON YOUR BACK



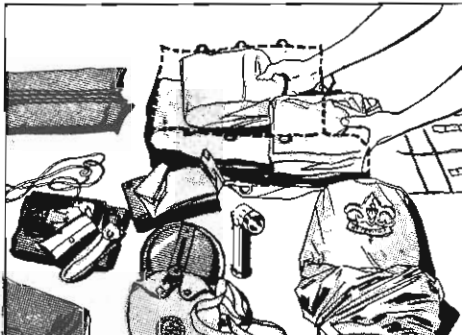
EVER HIKE WITH A PACK THAT WASN'T WELL BALANCED OR SOMETHING YOU'D PUT IN WAS DIGGING INTO YOU... OR THE STRAPS WERE CUTTING INTO YOUR SHOULDERS? TAKES ALL THE FUN OUT OF HIKING, DOESN'T IT? WITH A LITTLE FORETHOUGHT, YOU CAN AVOID ALL THAT. PROPERLY PACKED WITH GOOD, WIDE SHOULDER STRAPS, YOUR PACK CAN BE SO COMFORTABLE YOU'LL HARDLY KNOW YOU'RE TOTING IT. HERE'S HOW TO PACK IT RIGHT...



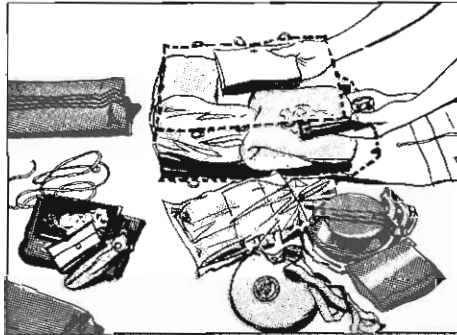
LAY PACK ON BED, TABLE OR OTHER FLAT SURFACE, THE SHOULDER STRAPS DOWN.



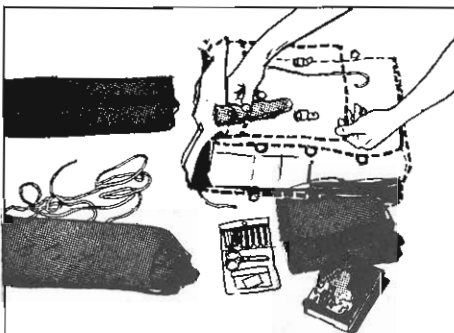
THE FIRST ITEM TO PACK IS EITHER A BLANKET, TENT, OR OTHER UNIFORMLY SOFT ITEM, WHICH IS FOLDED TO COVER THE ENTIRE BACK OF THE PACK. (THIS IS TO HAVE SOMETHING SOFT AGAINST YOUR SHOULDERS).



THE NEXT LAYER WOULD CONTAIN PLASTIC OR OTHER TYPE OF BAGS WITH VARIOUS SPARE UNIFORM PARTS—UNDERWEAR, EXTRA SOCKS, AND SHOES. ALSO SWEAT SHIRT AND/OR PAJAMAS.



THE TOP LAYER WOULD CONTAIN TOILET KIT, CANTEEN, COOK KIT, WASH BASIN. ON EACH SIDE OF THE PACK, DEPENDING ON TYPE OF TRIP TAKEN, A FLASHLIGHT NEAR THE TOP ON ONE SIDE AND A PACK AXE ON THE OTHER SIDE.



IN THE POCKET ON THE FLAP PLACE READY-TO-USE ITEMS SUCH AS SEWING OR REPAIRING KIT, EATING SET, INDIVIDUAL FIRST AID KIT, BOY SCOUT HANDBOOK, AND PONCHO. THESE ARE IN THIS POSITION FOR QUICK AND EASY ACCESS.



SECURE TOP
FLAP TO HOLD
"HORSESHOE"
AND CLOSE PACK

GENERALLY SPEAKING, PACKS OF A SIZE NORMALLY USED BY SCOUTS ARE NOT LARGE ENOUGH TO HOLD A SLEEPING BAG ALONG WITH ALL OTHER REQUIRED EQUIPMENT. SLEEPING BAGS OR BLANKETS CAN BE ROLLED LENGTHWISE FORMING A LONG SAUSAGE-TYPE CYLINDER APPROXIMATELY 6 INCHES IN DIAMETER AND 5 FOOT LONG. THIS CAN BE FOLDED HORSESHOE SHAPE ACROSS THE TOP OF THE PACK AND SECURED TO SIDES BY TYING TO THE "D" RINGS. THIS SHOULD GO UNDER THE TOP FLAP.



AND YOU'RE ALL SET
FOR A COMFORTABLE
HIKE WITH A PACK THAT
RIDES WELL.



The one-pack patrol has it easy when the time comes to stop for eats on the hike.

GO HIKING THE EASY WAY

THERE must be a more difficult way of doing it! There always is! But why do it the difficult way when there is an easy way of doing it? I am thinking particularly, this time, of getting the gang fed on all those hikes you'll be taking this fall and winter.

The difficult way is for each fellow to think of himself alone and cart along his own private foodstuff in his own private pack. The simple way is for the whole gang to decide on the same kind of hike meal and to take it along in a single pack, carried in turn by all the fellows.

What'll it be? Well, here are three suggestions:

Eat-on-the-Road-Snack—For each boy a small handful of nuts, of chocolate bits, of raisins, and of breakfast cereal chunks. Mix the ingredients together, put portions into small plastic bags and throw them into the common patrol pack.

Sit-Down-Sandwich-Picnic—Each fellow makes up in advance two or three sandwiches with his favorite spread, wrapped in plastic or aluminum foil. In addition, an apple per boy and a box of cookies for the whole patrol. When you arrive at your luncheon spot, you spread out a plastic sheet, open the packages, lay out the sandwiches and go to it, family style.

Quick-Hot-Lunch-Deal—The night before the hike, each boy wraps, in double-thickness aluminum foil, a ¼-lb. hamburger patty, a potato cut French-fried style, onion slices, carrot sticks and a pat of butter—all of it dusted with salt and and pepper. On the luncheon spot, you make one fire for the whole gang, let it burn down to coals, then cook your packages on the glowing embers and sit down together for a hot meal.

The clean-up job after eating takes only a moment—and you are on your way again, swinging along, singing along, everyone in high spirits.

Now don't always pick the same destination when you go on a patrol hike. Explore and investigate, that should be your big idea. So why not, this month, take off for some place you've never been before? Here are two different ways of adding a bit of excitement and mystery to your patrol hike program:

What'll-We-Find?-Hike—Check the map in your patrol den, the map on which you have indicated the hike stops you have already used and the camp sites on which you have already camped. Pick out a place where you haven't been, lay out a route to it, then hike to it, using map and compass. If it seems suitable for patrol camping some time in the near future, investigate it thoroughly for the three important features of a good camp site: shelter, water, wood. Then locate the owner and get his permission to use the spot.

Where'll-We-Wind-Up?-Hike—Lead the gang into the countryside. When you come to a place where the road branches off, pull out a coin. "Heads to the right, tails to the left." You flip the coin and let it tell you in which direction to go. Each time you come to a crossroad, a sideroad or a fork in the road, out comes the coin and each fellow in turn gets a chance to flip it. After an hour or so of hiking, you halt. Each boy tries to make a map of your route from memory. Now to get back home again! That may be where the mystery comes in.

The tiny flags on the map in your patrol den tell where your gang has been. Now take off for places where you haven't been.



"Whether the weather be cold or whether the weather be hot—we shall have weather, whether or not."

One of the tests of a real Scout patrol is its determination never to let the weather interfere with the program it has decided on. If a hike or an overnight is coming up, the good patrol carries on whatever the weather. The rougher it is, the more determined the gang is to brave it.

With a windbreaker and warm under-clothing, with poncho and proper footgear, you are ready for any kind of weather

EMERGENCY HIKE

By BRUCE MILLER



The next time that "lost child" may be real—not just a dummy.

Your telephone rings, and it's your patrol leader. "A little boy is lost somewhere in the woods north of town," he says. "Our troop is helping look for him. Grab your emergency pack, and get to the intersection of Routes 1 and 372 as soon as you can!"

You won't know it until you get there, but this is actually a practice emergency hike—staged by your patrol leader to find out just how long it takes the patrol to swing into action, using its mobilization plan. Will you be ready?

Of course you will—if you have taken steps beforehand to be prepared for coping with an emergency. Actually, you can't afford not to be ready, for disaster strikes without warning, and you have no time to try out your abilities when a real emergency pops up. So you'd better give yourselves a tryout now.

First, you'll need a mobilization plan by which your patrol can reach all its members in the shortest possible time. It may be a telephone tree, in which each person calls two others, or it may be some other method. But make sure you have a plan—and it works.

Now, how about your emergency pack? It's simply a small pack, or even a paper bag that slips into your regular camping pack. You keep it ready to go at a moment's notice. Inside are all items you'd need for a day hike in any weather, plus other things that can help you carry out your emergency mission. It's easy to put together, and it can save many valuable minutes when you get your mobilization call.

Here's a basic list for the pack, to which you can add other items you feel may be absolutely necessary: First aid kit, flashlight, 50 feet of rope, canteen, extra socks, one meal requiring little or no cooking, emergency rations for a second meal, spoon, can opener, matches, emergency dime (for phone call), small notebook and pencil.

To these items, you can add a Scout knife in your pocket and a small ax or

hatchet in a sheath, either on your belt or in your pack.

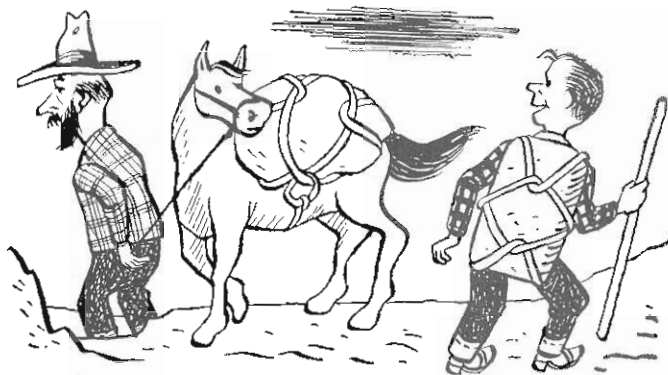
For the food supply, combine your taste and your ingenuity to come up with whatever you think may be most enticing. As an example of a basic meal, you may choose a one-can dish such as franks and beans, chili, or beef and macaroni, followed by a small can of fruit for dessert. It's not very creative for your cooking talents, but it gives you a filling meal with practically no preparation time—just long enough to build a small fire and warm up the can (after you've opened it, of course). Because food on this hike is supposed to put you back into action, rather than challenge your cooking arts, canned food is a good choice for the basic meal. Or, if you really want to eat on the run, you can choose emergency rations.

Here are ideas for high-energy rations: sealed packs of graham crackers (to keep fresh during long storage), small jar of peanut butter, small box of raisins, vacuum can of nuts, packs of hard candy. Better avoid chocolate or other candy that melts, for it can't survive storage in hot weather or even a day hike in summer sun. When you're planning quantities, remember to include enough for a second meal. You may be the guy who finds that lost boy.

Speaking of the boy, this time he's a life-size dummy made of pillows, child's clothing and a white ball for a head. But next time, he may be flesh and blood—so this search for practice is just as important as if it were the real thing.

To make your child hunt complete, your patrol leader should give you instructions on where and when to meet at the end of the search. Otherwise, your patrol may have several "for-real" lost-boy hunts, trying to account for other patrol members.

Now, all that's left is for your patrol to try an emergency hike. So you'd better get your pack ready. Never can tell when the call will come. Isn't that the phone ringing now?



Throw a DIAMOND HITCH

By Jeff Cameron

✓ THE DIAMOND HITCH is a "must" on the packs of trail-wise prospectors, traders, and trappers. The packs of these outdoorsmen have to stay put. Their living depends on it. A guy can lose his outfit—and maybe his pack animal—if he uses a hitch that gets fouled up in a tight spot.

These professional woodsmen know from experience that the diamond hitch will do the best job. And you can bet that the same set-up on your gear—whether on a pack frame or a pack animal—will do a top-notch job.

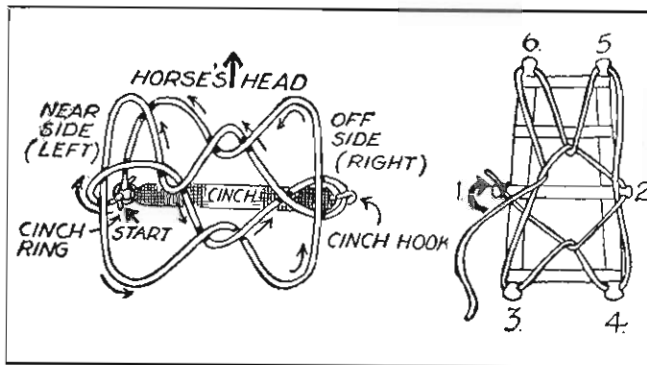
The first few times you throw a diamond hitch, you may find it a little tricky. But once you've got the knack, it'll be a valuable addition to your camping know-how.

In addition to being about the safest fastening you can devise, the diamond hitch has many other advantages. You can tie it in a hurry because you don't have to pass the end of your rope through a loop or ring. And when your pack settles a little on the trail and needs tightening, you simply untie the knot on the end of your rope, haul on it, and re-tie. The beauty of the diamond hitch is that added strain applied at this single spot tightens all parts of the hitch.

Let's say you've got a six-point pack frame something like the one shown below. You start off by tying a clove hitch around point number 1. Then pass the line loosely around number 2. From here you drop a bight over point number 3. After coming up from number 3, you go down to number 4 with another bight, being sure this one goes under the line that crosses from point 1 to point 2. After going around point 4, you go up and drop a bight over point 5. Then you come down from point 5, and push a bight over and under the line that runs from point 2 to point 3. Now you take this bight and loop it over point 6. Finally haul it on the end of the line and with a clove hitch, tie it to point 1 over the starting clove hitch. The diamond shape shows you you've done the job right.

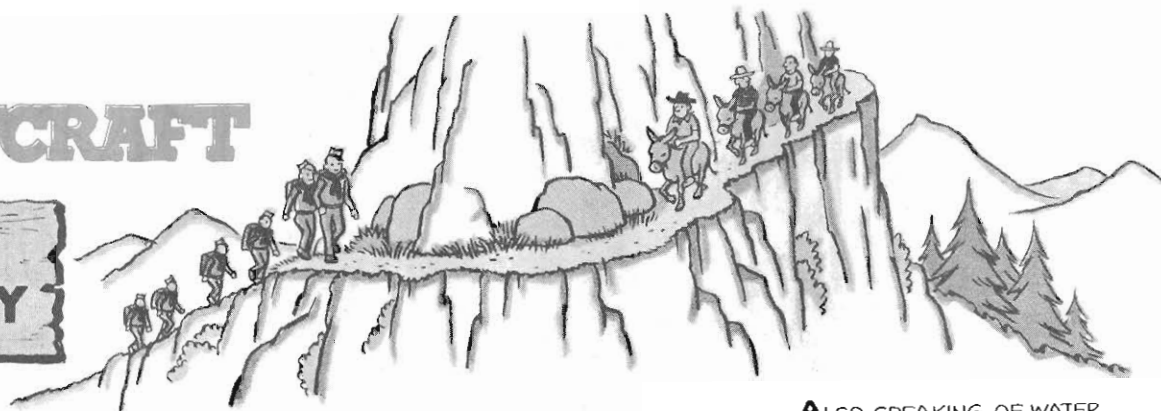
If your diamond hitching a pack to an animal, point 1 will be the ring on the girth, and point 2 will be a hook. And points 3, 4, 5, and 6 will be corners of the pack that you sling the rope around. Throwing the diamond hitch over the pack on an animal is just about the same as the way you'd do it on your own pack frame. Follow the diagram below till you get the routine down pat.

Now, whether you're back-packing your gear into rough country or taking off with a burro or pack horse, you'll know that your gear will still be with you when it's time to pitch camp at day's end.



SCOUTCRAFT

TRAIL COURTESY

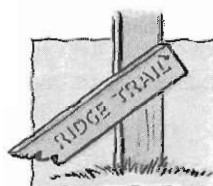


ON NARROW TRAILS, GIVE THOSE LEADING OR RIDING ANIMALS THE RIGHT OF WAY.



STAY ON THE TRAIL, ESPECIALLY TRAILS THAT ZIGZAG UP AND DOWN STEEP GRADES. SAVING A FEW STEPS BY SLIDING DOWN FROM THE UPPER TO THE LOWER TRAIL, OR BY SCRAMBLING UP FROM ONE TO THE OTHER, RUINS THE TRAIL.

OF COURSE, NO SENSIBLE GUY THROWS ROCKS OR STICKS WHILE ON THE TRAIL. FOR ONE THING SOMEONE MIGHT BE HIT. FOR ANOTHER, A LANDSLIDE COULD RESULT. IT DOESN'T TAKE MUCH TO START A SLIDE—SO BE CAREFUL WHEN CLIMBING. NOT TO DISLodge ROCKS. LOOSE SHALE IS PARTICULARLY DANGEROUS.



REFASTEN ANY LOOSE OR FALLEN TRAIL SIGNS YOU COME ACROSS.



WHEN YOU COME TO A STREAM AND WANT TO COOL YOUR FEET, DIP A CUP OR A POT INTO THE STREAM AND POUR THE WATER OVER YOUR FEET. SOAKING YOUR FEET IN THE STREAM IS NOW TABOO.



ALSO, SPEAKING OF WATER... DRINK ONLY WHAT YOU CARRY FROM HOME OR CAMP, UNLESS YOU COME TO A SPRING THAT IS POSTED WITH A "SAFE DRINKING WATER" SIGN.

AND LAY OFF CARVING ON TRAIL SIGNS OR TREES. NOBODY ELSE CARES THAT YOU PASSED THAT WAY. BESIDES, IT RUINS SIGNS AND HURTS TREES.

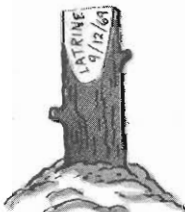


WHEN YOU COME ACROSS TRASH ON THE TRAIL, PICK IT UP AND STUFF IT INTO A SPARE PLASTIC BAG THAT YOU EMPTY OUT AT HOME OR CAMP.



IF YOU'RE STOPPING AT A CAMPSITE TO COOK, CARRY AWAY ALL UNBURNABLE TRASH IN A LITTER BAG WHEN YOU LEAVE. LAY YOUR FIRE ON A BURNED-ON SPOT RATHER THAN A FRESH PLACE. FOLLOW ALL FIRE-MAKING RULES. WHEN FINISHED, STACK WOOD FOR THE NEXT GROUP TO USE. PUT LEFTOVER TINDER IN A PLASTIC BAG UNDER THE WOOD PILE.

CUT FOR DATING



ALONG THE TRAIL, IF YOU'VE "GOTTA GO," SCOOP OUT A SMALL "CAT HOLE." AT A CAMPSITE MARK THE COVERED-OVER LATRINE WITH AN UPRIGHT STICK WITH THE DATE USED WRITTEN ON IT SO NEXT GROUP WON'T DIG IN SAME PLACE.

OBEY ALL "KEEP OFF," "PRIVATE" AND "NO TRESPASSING" SIGNS. CROSS PRIVATE PROPERTY ONLY WITH THE OWNER'S PERMISSION. LEAVE GATES THE WAY YOU FOUND THEM AND DON'T CLIMB FENCES. (BARBED WIRE FENCES CAN EASILY RIP YOUR CLOTHES AND ELECTRICALLY CHARGED CATTLE FENCES CAN GIVE YOU A PAINFUL JOLT.) WHEN YOU STICK TO BLAZED TRAILS OR SIDE ROADS YOU AVOID ALL TROUBLE. HIKE ALONG HIGHWAYS ONLY WHEN IT'S ABSOLUTELY NECESSARY.





Hiking

*Building up stamina is the key
to becoming a good hiker.*



Every troop has an expert walker. Quite often he is a tall, skinny guy whose long stride eats up mile after mile. Carrying a full pack doesn't bother him. He never has foot trouble. Fellow Scouts even may be a little envious of this walking machine.

A born hiker—is there really such an animal? If you can walk, you can hike. You don't have to be skinny or have long legs to be a good hiker. Nearly everyone can hike, though all too often the average person avoids walking if there is a car around to climb into. Those guys who seem to be born hikers usually walk a lot—to school, to the library, to the movies.

The key to successful hiking is not strength—or a certain physical build. The key is stamina. The top hiker can be big or small, weigh 100 pounds or 150. Wiry, skinny types seem to be better equipped for hiking, but anyone in reasonably good health can clip off mile after mile on a hike if he is willing to start slowly and work up.

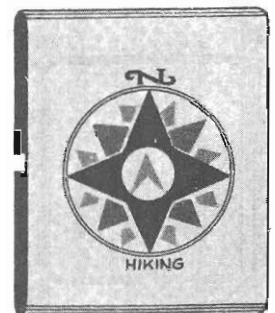
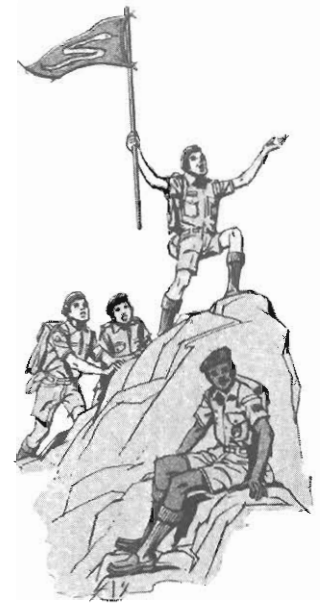
To be a good hiker, what does a guy need to learn? First, he must know how to dress for the weather. And this dressing right includes the right kind of shoes and socks. Good foot hygiene—taking care of feet—is a must. And he must walk correctly. That means pointing toes straight ahead, leaning forward from the hips.

In no time at all, the average Scout can walk three miles an hour—with a full pack. Scout hikers nearly always carry some kind of a pack, for a hiker's ultimate aim is to become a back-packer.

How much should a back-packer carry? Let's say the hiker has already been in for a physical examination and has his family doctor's clearance. If he's healthy, he can carry one-fifth of his own weight. Which means that a 70-pound Tenderfoot can take 14 pounds, or a 150-pound Life Scout can tote a 30-pound pack. Keep in mind that the

one-fifth figure is general. That doesn't mean everyone can comfortably carry a pack that equals exactly one-fifth of his weight. The skinny, wiry kid—that born hiker—may be able to carry a heavier pack than the chubby type.

Hiking, by the way, is perhaps one of the most important activities in Scouting, because so many of the other activities depend on it. Take a look at the *Hiking* merit badge pamphlet, and you'll see what I mean. Sure, *Hiking* includes a great deal of information on walking and backpacking. But much of the space in this pamphlet is also devoted to cooking, camping and—would you believe it—writing. That's correct: to earn the Hiking merit badge the hiker must also submit short reports of each of six required hikes.

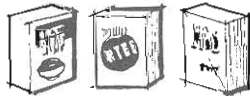


CAMP CRAFT



HIKER'S SNACK "BIRD SEED"

3 BOXES INDIVIDUAL PACK
SUGARED BREAKFAST CEREALS.



2 SMALL (10¢) BAGS OF
SUGAR-COATED CANDIES.



1 HANDFUL DRIED RAISINS

1/2 HANDFUL SHELLD, DRY
ROASTED PEANUTS.

MIX ALL TOGETHER IN A SMALL PLASTIC
BAG, CLOSE WITH CELLO TAPE.

CARRY IN YOUR POCKET FOR NIBBLING
ON THE TRAIL BETWEEN MEALS.

QUICKY DESSERT



TAKE
POP-TARTS
OR
TOAST'EMS

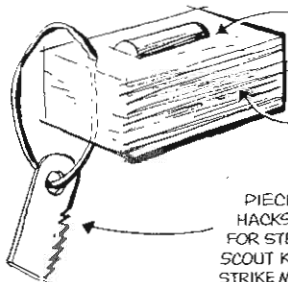
LAY THEM (IN THEIR FOIL
ENVELOPES JUST AS YOU
TAKE THEM FROM CARTON)
ON HOT COALS FOR ABOUT
ONE MINUTE ON EACH SIDE.

MAY BE EATEN COLD ALSO.
AND THEY COME IN A
VARIETY OF FLAVORS.

FIRE LIGHTERS

MATCHES ARE
FINE BUT CAN
GET WET AND
YOU CAN USE 'EM
ALL UP.

HERE IS A FIRELIGHTER
USING FLINT-AND-STEEL
PRINCIPLE.



CIGARETTE
FLINT
IMBEDDED
AND GLUED
IN BLOCK
OF WOOD.

PIECE OF OLD
HACKSAW BLADE
FOR STEEL—OR USE
SCOUT KNIFE BLADE.
STRIKE METAL AGAINST
FLINT FOR SPARKS.

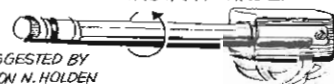
FIRE STARTERS

YOU CAN HOLD A WAD OF "OOOO"
STEEL WOOL IN YOUR HAND TO CATCH
SPARKS—BETTER THAN CHARRED CLOTH,
AND NOT A BIT DANGEROUS.
WHEN STEEL WOOL BEGINS TO GLOW,
DROP INTO TINDER—BLOW TINDER INTO
FLAMES—SHOVE IT INTO PREPARED
FIRE LAY.



INSTANT TINDER

CARRY A COUPLE OF ORDINARY WOODEN
PENCILS AND A COMMON POCKET PENCIL
SHARPENER. SIMPLY SHARPEN PENCIL,
AND USE THE SHAVING FOR YOUR
INSTANT TINDER.



SUGGESTED BY
MILTON N. HOLDEN

A BUDDY BANQUET ...FOR A BUDDY HIKE!

HERE'S A COMPLETE MEAL THAT YOU AND YOUR BUDDY CAN CARRY IN ONE LIGHT PACK, OR IN YOUR POCKETS. PREPARE THE INGREDIENTS AT HOME BEFORE YOU LEAVE... THEN, ALL YOU DO, IS ADD WATER WHERE NECESSARY, HEAT IT, AND HAVE A REAL FEAST!

DINNER FOR ONE...EACH BUDDY PREPARES HIS OWN

COCOA:

NESTLE'S COCOA, HAS THE SUGAR AND CREAM IN IT. PACK ENOUGH FOR TWO OR MORE CUPS IN FOIL ENVELOPES, ADD WATER AND HEAT. DRINK IT RIGHT OUT OF THE FOIL CUP AFTER IT COOLS A BIT.

DESSERT:

CORE AN APPLE, ADD CINNAMON AND SUGAR, WRAP IN FOIL. PLACE THE FOIL-WRAPPED APPLE ON THE COALS...BY THE TIME YOU'RE READY FOR DESSERT IT WILL BE BAKED AND READY TO EAT.

SOUP:

DEHYDRATED (LIKE CHICKEN NOODLE SOUP...OR WHATEVER YOU PREFER) PACKAGED IN A PIECE OF FOIL WHICH CAN BE MOLDED INTO A SOUP BOWL WHEN READY TO ADD WATER, HEAT, AND EAT.

BISCUITS:

CARRY JUST ENOUGH INSTANT BISCUIT MIX FOR TWO BISCUITS, EACH WRAPPED IN ITS OWN FOIL. WHEN READY TO EAT, MIX NECESSARY AMOUNT OF WATER TO EACH RIGHT IN ITS FOIL...FORM FOIL INTO A SMALL OVEN, PLACE DOUGH IN IT, CLOSE IT UP, PUNCTURE A HOLE WITH YOUR KNIFE TO LET STEAM ESCAPE...PLACE NEXT TO FIRE AND LET BAKE.

MAIN DISH:

PREPARE BEFORE LEAVING. TAKE A QUARTER POUND OF STEAK, CUT ONE POTATO, ONE ONION AND ONE CARROT INTO SLICES...AND PLACE MEAT AND VEGETABLES ON FOIL. ADD SEASONING AND A PAT OF BUTTER. WRAP FOIL AROUND IT CAREFULLY, WHEN READY TO EAT PLACE FOIL-WRAPPED PACKAGE ON COALS, COOK FOR ABOUT 10 MINUTES, DEPENDING ON SIZE OF MEAT. OPEN AND YOU'RE SET FOR A FEAST.

EVERYTHING CAN BE COOKED, SERVED AND EATEN RIGHT FROM THE FOIL YOU WRAPPED IT IN.

BE SURE TO USE HEAVY DUTY FOIL
AND CARRY SOME EXTRA ALONG!



BIKE HIKE

By OZZIE SWEET



Troop 96, Miami, Fla., sets out on one of its many bike hikes. They think nothing of cycling to a site 50 miles away.

SIXTY-FOUR million Americans are cyclists, according to the Athletic Institute. A whopping majority of cyclists are youngsters—many of them Scout-age boys.

Perhaps you have never thought, as you saw your Scouts wheel up to the troop meeting place, that cycling is a sport. It may seem to be just a way for boys to get around. And it is that, of course.

But it's also recreation for boys, girls, and adults—and an opportunity around which to plan a Scout activity. It has the attraction of a pleasurable and healthy day or two of recreation in the open and a way for your troop to go (under their own power) to a historic site or another place your Scouts want to visit that is within riding distance.

Under the leadership of Senior Patrol Leader Doug Strong, Troop 96 of Miami, Fla., planned and conducted a typical (though fairly strenuous) troop bike hike, riding from Miami into the Everglades National Park, a distance of 50 miles. "We have lots of bicycle enthusiasts in our troop," says Scoutmaster Clarence E. Strong. That may be high on the list of understatements of the year, since most of the troop's Scouts made the trip, backpacking and camping out enroute. Some of the Scouts are working for the Cycling merit badge, but many went along just because it's a troop activity.

In recent years, bicycling has grown faster than any other summertime activity—up 105 percent since 1960. One of the reasons is the surge in growth of marked bicycle routes, or bikeways, and bike

paths and trails. The first bikeway in the United States was opened in 1962 in Homestead, Fla. Now hundreds of cities and towns have marked secondary streets and roads as bikeways. Distinctive signs show motorists that the road is heavily traveled by bikes as well as cars.

Some bikeways lead to scenic or historic sites in or near towns. Wisconsin is among the leaders in bikeway development, with a statewide route of more than 300 miles which takes riders through many cities and towns along back roads. The state's Department of Resource Development issues a tour brochure for a self-guided route that leads to cheese factories, geological sites, over abandoned railroad beds, and through tunnels. The Wisconsin bikeway attracts thousands of riders each summer for a bicycle holiday

Get wheels under you and see the countryside.



These boys from Miami are off to a good start on their bike hike. They maintain their gear and have fun along the way.

during which they may take a 1-day ride over the segment of the bikeway or take a week or more to cover the route.

Cities, too, have adopted the bikeway idea. Following the lead of New York City, many others have created "instant" bikeways by closing large parks to car traffic on weekends or weeknights and giving cyclists the run of the roads.

Said New York Mayor John V. Lindsay, "Riding a bicycle a few minutes or miles from home, on a clearly-marked trail, unhindered by the fumes and clamor of automobiles, is an experience many city dwellers certainly enjoy."

That goes for city Scouts, obviously—and also for Scouts in suburbia and small towns. And if all your Scouts own bikes,

or have access to them, it's not much trouble for the troop leaders' council to plan and conduct a bike hike of, say, 5 or 10 miles along a regular bikeway or a lightly traveled secondary road outside your community. About all that's needed is a destination, a route plan, a tool kit for bike repairs, and a sack lunch for each Scout.

For a longer trip, more planning and preparations are necessary. Unless all your Scouts have earned the Cycling merit badge, or are known to be expert cyclists, don't plan to do it all in 1 day. It takes a well-conditioned Scout (and a well-conditioned bike) to go 50 miles in a day.

So if your troop is planning a 50-mile bike hike, spread the riding over 2 or 3 days. Camp in state or national parks.

Backpacks are okay for short trips, but for real expeditions, Scouts ought to have their gear in saddlebags or saddle baskets (see page 68 for "Cycling Tips" and instructions for making saddlebags).

On a long trip, weight makes a lot of difference to a rider. Try to plan for a maximum weight of 25 pounds of gear per cyclist. You won't have to carry much food—perhaps none at all—because you'll be traveling through towns where you can stop to buy rations for supper and the next day's breakfast and lunch before you make camp.

You will find full details on planning a bike expedition in the *Cycling* merit badge pamphlet.

BUILD A REPRINT LIBRARY

*Over 30 reprint booklets filled with
ideas on things to do and make!*

ORDER A COMPLETE SET

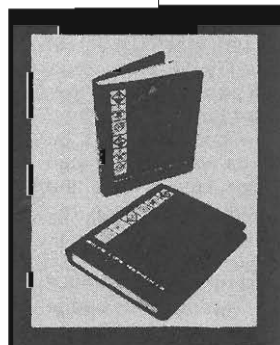


PUBLISHED BY THE BOY SCOUTS OF AMERICA • NORTH BRUNSWICK, N.J. 08902



- No. 26-023 Webelos Scout Helps
- No. 26-024 Stamp Collecting
- No. 26-025 Fun With Tools
- No. 26-026 Stunts & Skits
- No. 26-030 Model Railroading
- No. 26-033 Be a Second Class Scout
- No. 26-034 Be First Class
- No. 26-036 First Aid Skills
- No. 26-037 Swimming and Waterfront Activities
- No. 26-038 Boats and Canoes
- No. 26-041 Cooking Skills and Menus
- No. 26-042 Hiking and Camping Equipment
- No. 26-043 Handicraft
- No. 26-044 Pioneering
- No. 26-045 Fishing
- No. 26-046 Toughen Up
- No. 26-047 Showman Activity Badge Helps
- No. 26-048 Outdoorsman Activity Badge Helps
- No. 26-049 Sports Tips
- No. 26-051 Patrol Activities
- No. 26-053 Forester Activity Badge Helps
- No. 26-054 Naturalist Activity Badge Helps
- No. 26-057 Craftsman Activity Badge Helps
- No. 26-058 Scoutcraft Skills
- No. 26-074 Litepac Camping Equipment
- No. 26-081 Slides of the Month
- No. 26-084 Indian Lore
- No. 26-091 Short-Wave Listening
- No. 26-092 Winter Activities
- No. 26-094 Nature Hobbies and Activities
- No. 26-095 Bill of Rights
- No. 26-097 Our Heritage of Freedom
- No. 26-099 Law and Justice

REPRINT BINDER		\$1.25
QUANTITY	STOCK	TITLE
	26-080	Handsome binder. Holds all Reprint Booklets. Index sheet included.



LARGE 22"x34" REPRINT PACKETS — 60¢ ea.		
QUANTITY	STOCK	TITLE
	26-060	6 Charts — Knots, Firebuilding, Scout Law, Knife and Ax, Map Symbols, Your Neckerchief
	26-061	6 Charts — Boat Safety, Fitness, Firebuilding, Outdoor Code, Knots, Outdoor Hazards