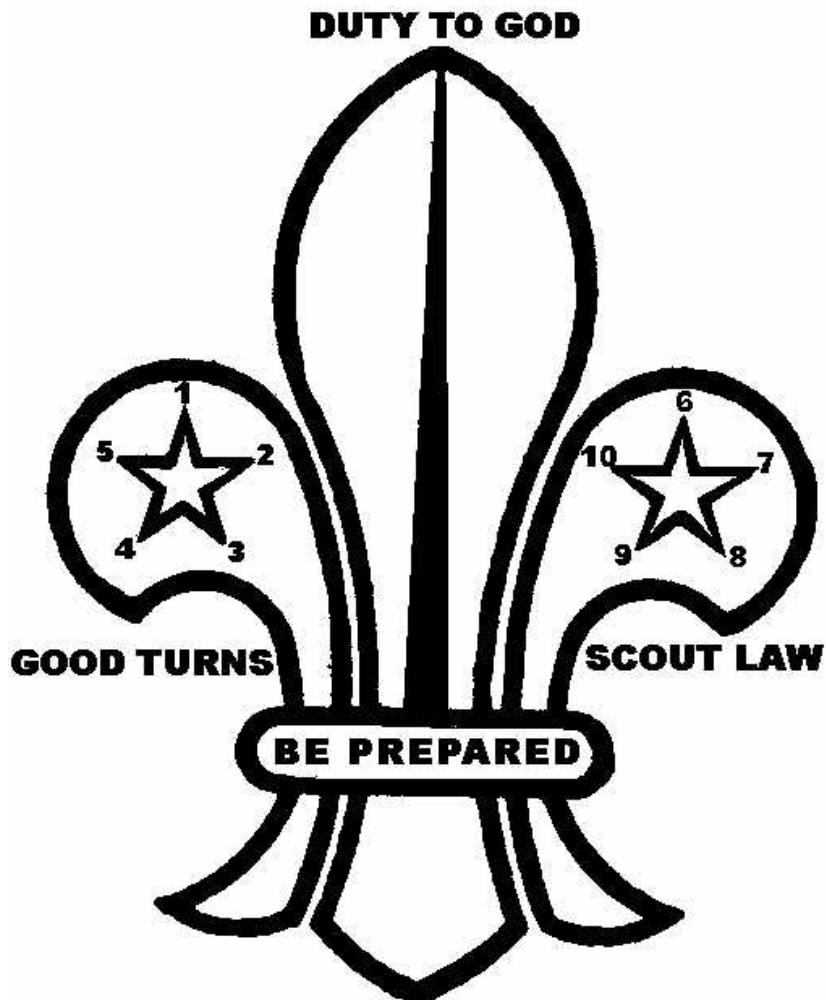


## YOU MAY NOW WEAR THE SCOUT BADGE

Here is the meaning of The Scout Badge. The three fronds represent the three parts of the Promise-Duty to God and the Queen: Help others: Obey the Scout Law.

The two five-pointed stars are sometimes called the “eyes” of the Scout. The ten points on the two stars represent the ten Scout Laws.

The “Be Prepared” band, binding the fronds stands for the bond of Brotherhood between Scouts.



### THE SECOND CLASS TESTS

#### TEST NO. 1

*Have one month's satisfactory service as a Scout and be able to repass the Tenderfoot Tests.*

Having just completed your Tenderfoot tests it is not likely your Scoutmaster will ask you to repass them until you have qualified for the balance of the Second Class Tests.

One month's satisfactory service means just that-you must be satisfactory in your attendance in your co-operation, and in the Scout Spirit, living up to your Promise and Law and trying to do your Good Turn daily.

#### TEST NO. 2

*Know the general rules of health as given in Camp Fire Yarn 18 of "SCOUTING FOR BOYS."*

#### Good Health

Naturally the possession of good health is taken for granted by the average boy; often so much so that little care is given to its preservation. A Scout, however, keeps in mind the fact that good health is one of his most important possessions, also that it will not "just take care of itself," but must be guarded. And the Scout realizes the necessity of forming good health habits when he is young, and that this is sure to "pay big dividends" in later years in the ability to live out a well-rounded, useful and happy life.

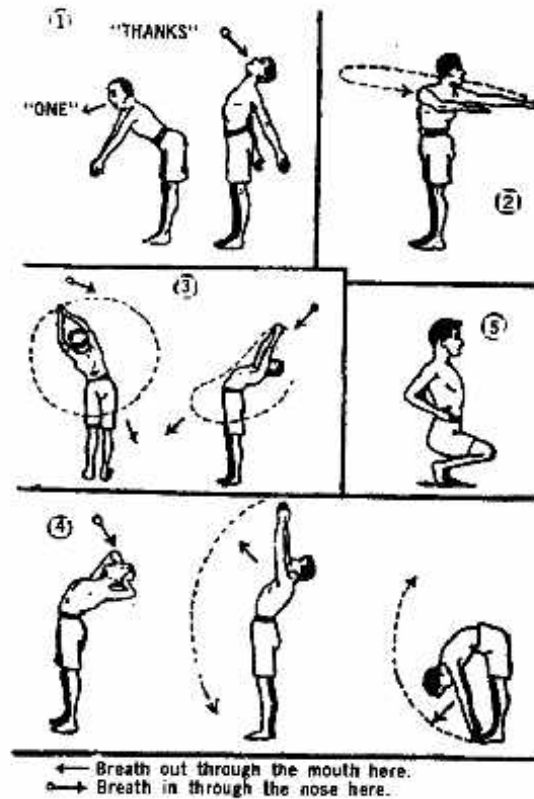
#### TEST NO. 3

*Demonstrate the six exercises described in Camp Fire Yarn 17 of "SCOUTING FOR BOYS."*

The general rules of health set forth in Scouting for Boys have proved their value for several generations of Scouts. One of the first rules is proper exercise. It is possible for any boy, even though he may be small and weak, says B.-P., to make himself into a strong and healthy man, if he takes the trouble to do a few body exercises every day. They only take about ten minutes, and do not require any kind of apparatus such as dumb-bells, parallel bars and so on.

They should be practised every morning, the first thing on getting up, and every evening before going to bed. It is best to do them with little clothing on, and in the open air, or close to an open window. The value of the exercise is much increased if you think of the object of each move while you are doing it, and if you are very particular to breathe the air in through your nose and to breathe out through your mouth since breathing in through the nose prevents you from swallowing all sorts of little seeds of poison or bad health which are always floating about in the air, especially in rooms from which the fresh air is shut out.

Begin the exercises by rubbing the head, face and neck firmly several times with the palms and fingers of both hands. Thumb the muscles of the neck and throat. This will serve to make the neck, usually a weak and tender spot, strong and muscular. Next wash your face in cold water, brush your hair, clean your teeth, wash out your mouth and nose, drink a cup of cold water and- Demonstrate the five other exercises described in Camp Fire Yarn 17 of Scouting for Boys (as illustrated above). Do them slowly.



#### TEST NO. 4

*Be able to deal with simple First Aid problems as follows: Shock, (not electric); Bleeding from the nose; Sprains; Stings and Bites; Burns and Scalds; Avoidance and Treatment of Sunburn. If a Sea Scout, know how to fasten a life jacket on himself and be able to throw a lifeline with reasonable accuracy.*

Scouts are taught elementary First Aid, not with the idea of becoming amateur doctors, but that they may be able to give prompt and intelligent first aid to an accident victim. Ability to do this is universally expected of a Scout, whether in uniform or recognized by his Scout Badge.

Points to Remember.-Keep Cool. Act promptly, but not excitedly. Tell yourself, and your patient, that such things are never as bad as they first

seem,-that “We’ll have you fixed up in no time.” Remember that the patient is the one person to be considered; not persons who may be crowding around. Tell them to stand back. Do not be guided in what you do by the advice of onlookers. As a Scout, you should know what you can do and how to do it. Unless the injury is slight and the treatment simple, send for a doctor, or have arrangements made at once for taking the patient to a doctor or a hospital.

**Shock.**-The condition of shock may result from any serious accident or from burns or scalds, or from severe fright. The sufferer is pale, the skin is cold and clammy, there may be beads of sweat on the forehead; the pulse is faint, and if the patient speaks, the voice is weak.

First, stop bleeding, if any. Then, keep the patient warm, but not too warm. Wrap him in warm coats or blankets if available, and apply hot-water bottles or hot bricks or stones wrapped in cloth to the armpits, the feet and between the thighs. Be sure you test the heat of these appliances on yourself before using them on the victim. In a shocked condition, the victim does not feel the heat as he would normally, and you may quite easily burn him. There is also a danger of overheating and thus actually increasing shock. Always call a doctor.

If the victim is unconscious, give nothing by mouth; if conscious and able to swallow, give hot sweet tea, coffee, milk or a teaspoonful of fresh Aromatic Spirits of Ammonia in a glass of water. Never give alcohol to an injured person.

**Bleeding from the Nose.**-If indoors, place the patient in a chair before an open window, the head thrown slightly back and the hands raised above the head. Undo all tight clothing around the neck and chest and apply cold applications to the nose and back of the neck. Direct the patient to breathe through the mouth. Outdoors, sit patient upright against a tree or fence and follow same treatment.

**Sprains**-A joint is said to be sprained when by a wrench or twist the muscles around it have been stretched or torn. Turning the ankle is a common form of sprain. If on a hike, and lacking time for extended treatment, just bandage tightly over the shoe, if a stream or pond is nearby soak foot, shoe and bandage in the water and provide a cane or improvised crutch and carry on. If in camp, treat with alternate hot and cold water applications, then bind snugly,-a broad adhesive bandage beneath the instep; draw up snugly on either side of the foot; slit both ends and cross the slit lengths upwards before and behind. Over this apply a tight roller or narrow triangular bandage.

**Stings.**-Extract the sting, if present, and dab the part with iodine or diluted ammonia. A paste of baking soda or wet salt, or a solution of washing soda (a teaspoon to a glass of water), will relieve the pain. Don’t stir up hornets’ nests for unnecessary stings.

**Bites.**-A bite from an animal wound may have very serious consequences and may easily become dangerously infected. Wash the wound thoroughly under running city tap water, or other water that has been boiled. Mild bleeding should be encouraged rather than arrested. The surrounding area should be painted with an antiseptic and covered with a sterile gauze dressing and a roller or triangular bandage. Get the patient to a doctor, or a doctor to the patient as soon as possible. Bleeding may be encouraged by gently squeezing around the bite.

**Burns and Scalds.**-Any Scout First Aid Kit contains an excellent emollient with directions. If such a preparation is not at hand, do not break blisters or remove any clothing adhering to the burned area, cut around the cloth that is sticking. Cover the area as soon as possible with sterile gauze and bandage lightly. A little sterile petrolatum may be applied to the dressing to prevent it from sticking. If it is not possible to get medical aid, immerse the burned area in warm water to which has been added baking soda (1 tablespoon to 1 pint of water). Cover the part with strips of gauze soaked in the solution and bandage lightly. Keep moist and warm, and get patient to a doctor.

**Sunburn.**-Most boys regard sunburn as something they must endure each summer in order to acquire a tan. Not only is sunburn (which is the same as fire burn) unnecessary, but frequently results in considerable suffering, sleepless nights, a "sick headache" and general lack of energy. The simple precaution at the summer's first visit to the old swimming hole, the beach or at camp, is to take your tan slowly, -by covering up with a shirt or jersey as soon as the skin reddens and begins to sting, and remain covered until the sting has passed.

For ordinary sunburn use one of the emollients (soothing ointments) or special gauzes contained in the Scout First Aid Kit. If a kit is not at hand use olive oil or vaseline. For more serious burns, with blisters, do NOT prick the blisters. In all cases of extensive burns secure medical attention at the earliest opportunity.

Most serious phase of exposure to the sun is sunstroke, and unconsciousness. For this, loosen the clothing and remove the patient to a shady spot. Place him in a sitting position, head and body up. Fan vigorously and apply cold water or ice to the head, neck and spine. When consciousness has returned, give a drink of water.

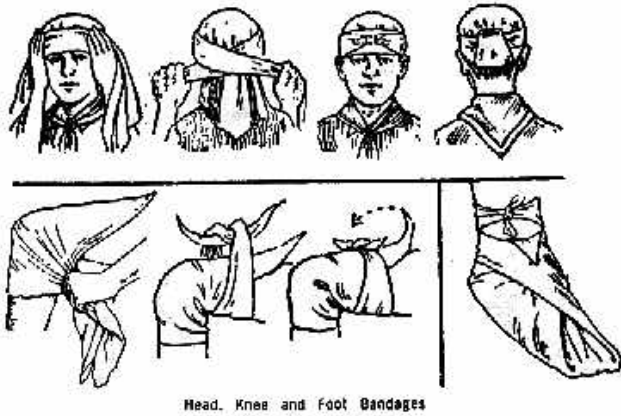
## TEST NO. 5

*Demonstrate the use of the Triangular Bandage as a Large and Small sling, and as applied to the head, knee and foot; and understand the importance of summoning adult help.*

**The Triangular Bandage.**-The triangular bandage is made by cutting a

piece of cotton 40 by 40 inches into two triangles; that is diagonally from corner to corner. Or it may be improvised from a Scout neckerchief or any similar piece of cloth.

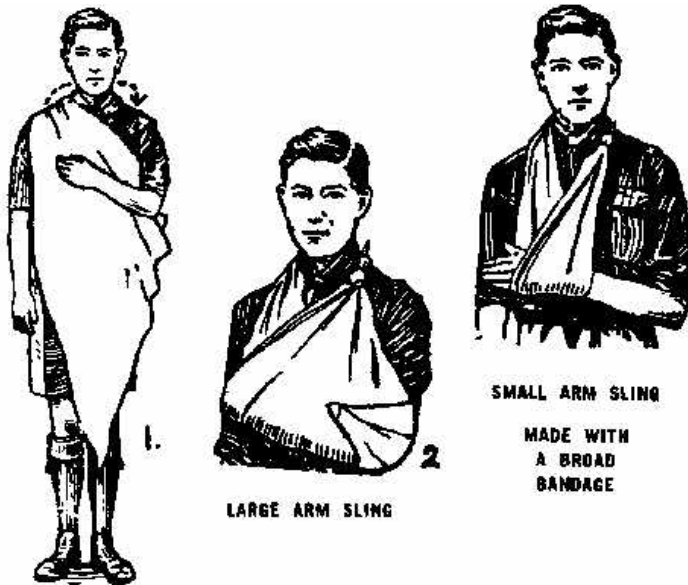
**Large Arm Sling.**-To make a large arm sling spread the bandage down the front of the patient's body (as illustrated). Carry one end over the shoulder on the uninjured side and bring it around behind the neck so that the end



just hangs over in front on the injured side. Carefully place the bandage point behind the elbow, and gently bend the arm across the centre of the bandage. Bring up the second end and tie to the end at the shoulder, making the knot at the side of the neck (not behind the neck). And naturally you use a reef knot.

The sling thus formed (see illustration) should support the arm so that the little finger is slightly above the level of the elbow. Conclude by bringing point forward around the elbow, and fasten with a safety pin.

**Small Arm Sling.**-To make a small arm sling, fold a triangular bandage as a broad bandage. Lay one end across the shoulder on the uninjured side and carry it around the back of the neck to the injured side. Bend the elbow, and, supporting the forearm, wrist and hand with the bandage, bring up the lower end and tie to the upper end; the knot being at the side of the neck (not at the back). The knot, again, is a reef knot.



**Summoning Help.**- A Second Class Scout must not assume the responsibility of treating any serious injuries, and must always call an older, fully qualified first aider or a physician.

## TEST NO. 6

*Follow a trail of half a mile; or in Kim's Game, remember 16 out of 24 well assorted small articles after one minute's observation.*

**Following a Trail.**-This test introduces you to one of the most fascinating of Scouting games,-the following and "reading" of the story told by human and animal tracks. For the first practise the paper trail of the old game of Hare and Hounds may be used (the paper dropped bit by bit, sparingly). Hounds should collect every piece of paper as they go along.

Next you will want to try following the footprints and other trail marks left by another Scout-a stone overturned, a maple leaf beneath an oak tree, scrapes where he climbed an old rail fence, a bit of cloth torn from his shirt by the prong of a wire fence, trampled grass where he rested and ate an apple.

Then you will begin looking along dirt roads and lanes, borders of streams and ponds, and lakes and river shores for the "track stories" of birds and animals. Or in winter you will go out and look for snow tracks.

**Some Tracking Hints.**-An old rule of trackers is to "look into the eye of the sun." That is, face the sun so you will have the full benefit of the sun's shadow across the imprint. Otherwise you may not get the true value of the shadows.

When an animal track has been identified, put your mind, as it were, into that of the animal. Why was it going in this direction? Was it in a hurry, or was it taking its time? Was it watching out for a possible attack from an enemy on the ground or a flying enemy?

When a track is lost, never walk forward over its possible location. Mark the spot where the last impression appears, and if you cannot hit upon a direction clue by imagining yourself the animal, begin studying the ground in advancing half-circles.

The condition of overturned pebbles or stones (damp or dry) may indicate the time since they were disturbed-the weather being allowed for; that is whether cloudy, sunny, windy, and the exposure of the stones to these effects.

The passage of a person or animal across a hay or grain field, or through grass, will show dark shadows when made coming toward you, and light if going from you. The deduction is based on the fact that light is reflected by grass stems bent away from the observer, and shadows made when the grass ends incline toward him.

In winter a light fall of damp snow provides the best tracking. In very light snow the wind will soon erase tracks, so on such a day a start should be made immediately the snow has ceased falling.

You will not get mixed up on rabbit tracks from the fact that bunny places his hind feet in advance of his forefeet. A Tenderfoot has been known to “follow” a rabbit backwards. The rabbit’s foot is so well furred that his snow tracks are seldom sharp.

The tracks of an otter are rather round, and in dry snow may be indistinguishable. He can be identified by the undulating form of the trail and the frequent dragging of his tail.

**Kim’s Game.**-This game was taken by the Founder of Scouting from Rudyard Kipling’s famous boys’ book “Kim”- the story of an orphan son of an Irish soldier in India who grew up among native boys and was later trained for Government Intelligence work by a dealer in old jewels and curiosities, and had numerous exciting adventures. The training was begun by showing Kim (his name was Kimball O’Hara) a tray of precious stones for a minute’s observation, then covering it and asking Kim how many stones and what kind they were. At first Kim could remember only a few, but soon, by practise, he was able not only to say exactly how many, but to describe the stones. Then he practised with other articles, and ultimately was able at a glance to see all sorts of details at things which were of value in tracing and dealing with criminals.

Kim’s Game, while given as an alternative test to following a trail, could well be taken by every Scout; and in any one of its numerous possible variations, indoors and out, it always gives good fun.

In its commonly used test form, 24 articles of different kinds,-say, a key, a pocket knife, a coin, a marble, a comb, a lump of coal, etc.-are placed on a table and covered with a cloth. The Scout steps to the table, the cloth is removed for exactly one minute; the Scout looks, endeavouring to fix as many as possible of the articles in his mind; the cloth is replaced, and the Scout retires by himself to a corner and writes down as complete a list as possible.

As with Kim, the purpose of the test is to develop the faculty for observation and memory. (A surprising number of people can look at things and not see them, or “see” things that aren’t there.) And of course the test will not be regarded as a mere stunt, or “exam” to be passed once-possibly at the first try, by mere good luck. No. It must be proof that you can really see details, and remember them.

Here are some variations of the game:

**Elimination Kim’s.**-One or more articles are removed after the first look, and the game is to name those after a second minute’s observation.

**First Aid Kim’s.**-A collection of first aid items (not necessarily 24) is used, and their use as well as number is required.

**Knot Kim’s.**-Similarly, a selection of knots, bends, splices and lashings is



used.

**Natural History Kim's.**-On the hike or in camp mixed collections of leaves, bark, wild flowers, weeds, fungus, pieces of rock, etc., are shown.

### Solution To Tracking Problem

Here is the solution to the tracking problem on page 19. Pushing a wheelbarrow full of dead leaves, a man wearing wooden shoes meets a friend on his bicycle coming from his right. Both stop. The farmer rests his wheelbarrow, but the cyclist remains on his bicycle, resting his toes on the ground. They talk for about ten minutes, time enough to smoke a cigarette. They leave while their cigarettes are still alight. The cyclist leaves first, as is revealed by the wheelbarrow tracks crossing the bicycle tracks.

### TEST NO. 7

*Be able to recognize and name six common trees and know the value of their woods for fires. (In areas where there are not sufficient trees the examiner may substitute shrubs.) If a Sea Scout know the uses of four types of Canadian lumber used in boat construction.*

This test is self-explanatory. It should not be difficult to find, even in the smallest community, someone who can identify six trees and advise on their value as firewood. In heavily treed areas Scouts will want to go beyond the minimum requirements of this test and be able to recognize ten or twelve common trees.

### TEST NO. 8

*Demonstrate correctly the following: Square Lashing and Sheer Lashing; Guy-line Hitch and Timber Hitch.*

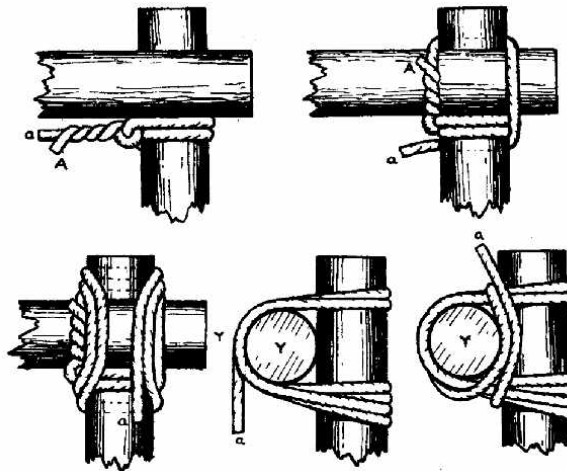
The use of lashings instead of nails enters into practically all forms of outdoor Scouting, the making of over-night bivouac shelters, and at camp all sorts of conveniences, usually called gadgets. In fact, when you are a First Class Scout you can go into the woods with a rucksack of simple necessities and a handaxe, and build a completely equipped camp, spruce shelter, kitchen with numerous gadgets, rustic table and benches; perhaps a stout bridge over a creek (providing a short cut to the farm where you get your milk); a 20 or 30 foot fire ranger's or signalling tower. In a word, a layout to make a Tenderfoot's eyes stick out.

Practising lashing is always good fun, too; and when you've finished a job, all snug and taut, and stronger than if nailed, you feel as if you have done something.

In the trades, lashings are used extensively by builders and construction engineers in erecting "false work" of various kinds, and by carpenters and

painters for running up scaffolding on the outside of buildings. If you are living by the sea or in an inland waterfront community, you can study the use of lashings by sailors, longshoremen and yachtsmen.

**The Square Lashing.**-This lashing is used where spars cross each other, and touch where they cross. Start with a clove hitch round the upright spar immediately below the point where the other spar crosses. Twist the free end and the standing part round each other, after the clove-hitch has been forcibly tightened in order that the hitch may hold firm. Now take the lashing in front of and over the second spar, the clove-hitch being placed at the angle nearest the take-off on to the second spar. Pass the lashing behind the first spar, and down in front of the second spar, and finally round behind the first spar immediately below the original clove-hitch.

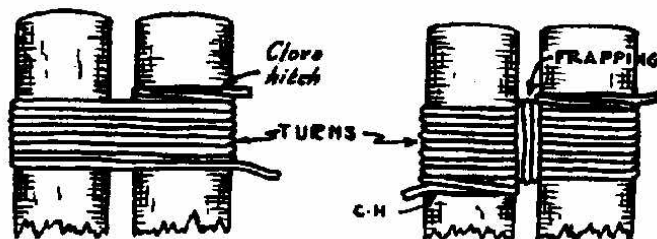


Repeat the process four times, keeping on the inside of the previous turn on the second spar, and outside on the first spar. When lashing on the ground, strain, or tighten each turn by running a half-hitch round a mallet, and pinch, as illustrated on page 51. Now take a couple of frapping turns round the lashing between the spars, strain well, and finish off with a clove-hitch round the most convenient spar.

The test of a lashing is neatness and snugness. The golden rule is, "Never hurry a lashing."

**The Sheer (or Round) Lashing.**-This lashing is used to bind two parallel spars together for increased strength, or end-to-end to make a flagstaff, or two spars to form sheer-legs.

This lashing is usually started with a clove hitch round one of the spars, but sometimes, if the spars are not to be opened out, the clove hitch is placed



around both spars, or a timber hitch round both spars is used. As in other lashings the free end and the standing part are twisted round each other. Seven or eight turns are then taken round both spars. If the spars are to

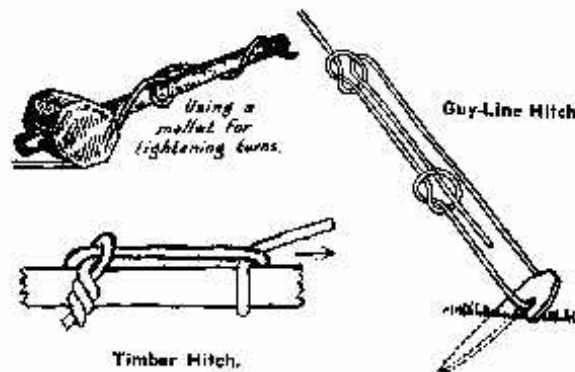
be lashed parallel to each other for strength, or if the spars are to be used as sheer-legs, then a couple of frapping turns are taken, and the lashing finished off with a clove hitch on the opposite spar. In sheer-legs the starting clove hitch will be below the lashing on one leg, and the finishing clove hitch above the lashing on the other leg. If, however, two staves are being lashed together in order to make a flagstaff, not only will two lashings be required, but it is best to omit the frapping turns and tighten up the lashing with wedges, since the closer the staves can be brought together the better. These wedges can be just pointed or sharpened pieces of wood, nothing elaborate is necessary.

The position of sheer-leg lashings depends upon the purpose. If to lift or sustain weight, the lashing is near the top; otherwise, lower down. In any case the legs should not spread farther than a third of the distance from the spar butts to the lashings. A light spar, or ledger, should be lashed (square lashing) a short distance above the butts, and holes dug for the feet to prevent slipping.

Two guy-lines are required for raising and controlling, one "fore" and one "aft" attached to the tips of the sheer.

**The Timber Hitch.**-In addition to its use for starting a diagonal lashing, the Timber Hitch frequently is useful in camp for hauling logs to the council fire, and spars and timbers for such pioneering jobs as bridge and tower building. It is quickly adjusted, holds snugly under strain, and is easily freed.

**The Guy-Line Hitch.**-This hitch (frequently used for securing the main guy-lines of large tents) is started by casting two overhand knots in the rope some distance apart (see illustration). The running end is then passed around the tent peg, carried upward, then down through the two knots. The knots are then pulled taut. The guy-line is lengthened or shortened by loosening the two knots and adjusting the running end.



**Lengths of Lashings.**-It is advisable to know beforehand the length of lashing rope required for the different lashing jobs and different sizes of spars or timbers.

Lengths depend chiefly on the size of the spars or timbers. As a rough working rule the diameter of a spar in inches is the length of the lashing rope in fathoms. That is approximately six feet. In other words if you are lashing two-inch spars together you will need 12 feet of rope for each lashing; three-

inch spars, 18 feet, and so on. For lashing instruction and practise each Patrol should have in its equipment box, various lengths of rope for particular work, ends properly whipped and kept in bags according to length. Length of rope can be made readily recognizable by whipping with coloured sailmaker's yarn or twine.

## TEST NO. 9

*Know the safety rules, care and use of hand-axe and knife. Demonstrate the correct way of chopping firewood.*

**Axemanship.**-Baden-Powell once told of a Canadian guide, with him for salmon fishing, "who with his axe and no other tool could do the finest as well as the biggest work, from cutting down a tree to sharpening a pencil." One day the guide built a small bridge across a creek near the fishing camp. Said B.-P., "The logs were neatly trimmed, and cut to lock, but what made me stare were the floor boards. They were as smooth and straight-cut-as if done with a plane or saw. it was indeed a work of art."

A skilful axeman is a true craftsman, and an axe is not "merely an axe," but a craftsman's tool, and one of man's most useful tools. With it alone the early pioneers of Eastern Canada and the Pacific coast cleared their land, built their cabins, made their furniture and fashioned the sled or cart with which they drew their first grain to the new grist mill- whose water wheel had been made with an axe.

Even today the axe is the first tool concerned in the production of many things, including paper for books. For instance it cut the trees which produced the paper for this Scout book!

A woodsman takes pride in his axe. It is kept bright and clean, free of nicks, and often is actually "as sharp as a razor." Old time Canadian lumbermen were said to have shaved themselves with their axes.

**Kinds of axes**-There are several kinds of axes in common use in Canada today. These are the splitting axe, with a somewhat "fat" blade; the cutting axe, with a thin, sharp blade, and the double-bitted (double bladed) cutting axe. The last is used in "topping" and felling the giant trees of British Columbia.

The most suitable axe for Scout camp use is the medium weight axe, with head weighing about 21/2 pounds. Also useful is the small axe, or Scout hand-axe, for carrying in a holster on the belt when hiking.

**Selecting an Axe.**-When buying an axe, look to see that the grain of the handle is straight throughout. Note whether the head is snugly wedged on, and finally whether it is "well hung." Most axe blades have a little set-off, right or left from a line along the centre of the handle. Some woodsmen prefer a little set-off. To discover this, hold up the axe by the back of the blade,

cutting edge up, and sight along edge toward centre of handle head. If set-off is more than a quarter inch, try another axe. Never buy an axe with a painted handle-the paint may hide flaws in the wood.

**Sharpening.**-Most new axes require some sharpening, and of course all axes call for resharpening from time to time, however, carefully used. If available, a turning grindstone is used. The blade of the axe is held, as illustrated, at a very slight angle, and the stone turned from you. Plenty of water is required (in a trough or dripping steadily from a can hung directly above), to prevent the steel from overheating and losing temper. To remove "wire edge" give the wheel a couple of final turns toward you, and finish off with a carborundum whetstone (see Scout catalogue). If a grindstone is not available, a fine file and the whetstone will do a good job.

**Care with an Axe.**-Always carry an axe, other than your Scout hand-axe, on the shoulder, the blade flat and cutting edge away from the body.

Pass an axe to another person by the handle, hanging, the blade turned to one side, and be sure the other person grasps it before you let go.



When finished with an axe, never go away and leave it on the ground. This has caused many serious accidents. When through, "mask" the axe by driving it lightly into a stump, or log-but never in a live tree. Do not drive it into the ground; it may strike a stone, or if left overnight it will probably show rust along the cutting edge.

Seldom lend your axe, or use another Scout's axe. One reason is that the set-off of the blade may be considerably different, particularly if yours has a right set-off and the other Scout's a left set-off; which will tend to spoil the precision of your accustomed stroke. In other words be wary of using a strange axe.



If an axe head shows signs of coming loose, at once tighten it by whittling and driving in a hardwood wedge. A flying axe blade may travel a considerable distance, and is a most dangerous missile.

Occasionally bad handling in camp results in the breaking of an axe han-

dle close to the head. If unable to pull or pound out the stub you may have to burn it out. To do this, push the axe blade down into solid damp soil, and build a close small fire about the back. (See illustration).

**Axe Practise**-Like any other craftsman's art, axemanship calls for practise to develop skill. A good axeman swings slowly and regularly, with only a little more effort than is necessary to raise the axe.

When cutting a log, learn to "throw chips" with an even, alternate right and left stroke, leaving a smooth, even "kerf" as the cut is called. Practise cutting and splitting until you can hit a hairline. "Keep your eye on the cut."

**Knifecraft**.-A good Scout knife, taken care of and always sharp, is second only to a handaxe in its practical usefulness. It is good fun to whittle something out of a piece of white pine, or other soft wood; and all kinds of things can be made. (See page 35). Note a few DON'TS: don't whittle towards, but always away from you. Beware of nails. Don't hammer on the back of blade. Don't use the handle as a hammer or blade as a screw-driver. Don't stick the blade into the fire. Don't go about notching benches or railings, or cutting initials in trees. Always have your knife under control, and then you'll never have cut fingers. Playing "knifie," as some people call it, is a waste of time, bad for the knife and dangerous. Scouts never play this game. Use an oilstone for sharpening.

**Note**.-Scouts under First Class grade are not permitted to wear or use sheath knives. Tenderfoot and Second Class Scouts should wear and use a good jack-knife.

## TEST NO. 10

*Know the Semaphore or Morse sign for every letter of the alphabet and for the numerals; also the table of Miscellaneous Signals given in Camp Fire Yarn 7 of "SCOUTING FOR BOYS", (See Page 60). Be able to send and receive a simple message accurately out of doors. For a Sea Scout this must be under working conditions ship to ship or ship to shore.*

To pass this test it is not sufficient merely to know the alphabet. The Scout should be able to send and read any letter given, and a few short, easy words and numbers.

Semaphore-Semaphore signalling is used chiefly for short distance communication, and often is handy when en a hike or camping. For distant signalling flags are necessary, but for shorter distances and when practising, the hands alone may be used. When using the hands they should be extended to full reach, and held flat to the front.

## Learning the Alphabet

The simplest method of learning the alphabet is by circles, thus:

1st Circle-A to G.

2nd Circle-H to N (omitting J).

3rd Circle-O to S.

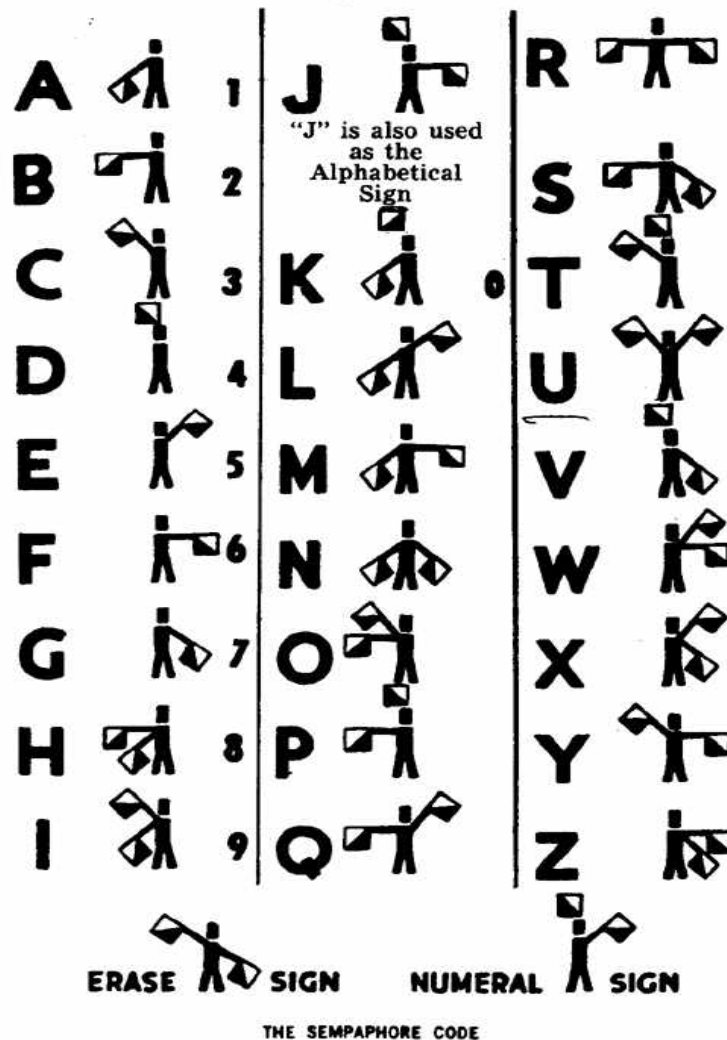
4th Circle-T, U, Y and "Erase -

5th Circle-Numerical Sign; J (which also is used as the Alphabetical Sign), and V.

6th Circle-W and X.

7th Circle-Z.

The letters A to K (omitting J) are read as the numerals 1 to 0 when preceded by the Numerical Sign. When the numbers are finished and letters are resumed the sender again signals J, as the Alphabetical Sign.



When practising letters, the arm movements follow in natural order. When making words the letters are formed in the most convenient manner. Thus in sending WHO, the O may be made from the H either by moving both arms, or by keeping the one at B steady and moving that at A to C position. In making one arm letters the arm is never brought across the body; thus in making C the right arm only is used.

When sending words the arms are not brought back to Ready after each letter, but if an arm is already in position to assist in forming the next letter it is held steady. Thus, to send CAN, the right arm is first placed at C, after a slight pause brought down to A and kept steady, and after a similar slight pause the left arm is placed at G which with the right at A forms the next letter required, viz., N.

### Points to Remember

- (1) Signalling is useful only when it can be read; that is, when the letters are perfectly made and can be clearly seen. So -
- (2) The sender must exactly face the person he is signalling; must stand firmly, the feet eight to ten inches apart.
- (3) Flags must be held at full arm reach, arm and flag making a straight line,-no dropping at the wrist; first finger lying along the pole.
- (4) Arms inexact position for each letter-no slanting forward nor to the rear. This is most important.
- (5) When making T, O, W and the Numerical Sign the flags must not cover one another.
- (6) Turn slightly on the hips when making such letters as I and X, but keep the eyes to the front.
- (7) When making double letters bring the flags in to the body after the first letter.
- (8) Don't try to send fast as soon as you have mastered the letters; and never send faster than the ability of the receiver to read. This only wastes time through the necessity of repeating.

**The International Morse Code.**-In the Morse communication system letters are formed by dots and dashes on a telegraph instrument, by short and long buzzes on a buzzer, by lamp flashes, by whistle notes or short and long waves of a flag.

Because of this adaptability, Morse is much more useful than Semaphore, but requires more practise.



There are several systems of learning the alphabet. The one here given will be found effective. Progress will be most rapid when two or more Scouts work together, using a buzzer. (This can be easily improvised with a door bell, a dry cell, a flat spring and a few lengths of copper wire.)

**Letter Groups.**-Practise the letters in the following successive groups, then words containing only those letters; then words including letters previously learned. And so on. Only regular and continued practise will bring speed in reading. In sending do not attempt to be fast as soon as you know the letters. As with Semaphore, clearness of signals must be your object. Always remember, a message that cannot be read is no good.

**Dot Letters:** E I S H

**Dash Letters:** T M O.

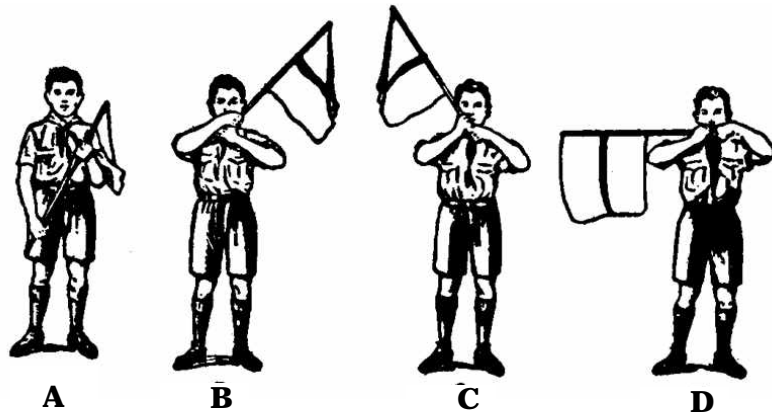
**Remaining Vowels and Two Long Letters:** A U C J

**Short Opposites:** A and N, U and D, G and W, R and K.

**Long Opposites:** V and B, F and L, Q and Y, P and X

**Morse Flag Signalling** - In Morse Flag signalling there are two positions-"Prepared to Signal" and "Ready": and two movements- Dot and Dash.

In "Prepare" (Fig. A), hold the staff in the right hand about six inches from the butt, gather in the folds of the flag with the left hand; at the same time carry the left foot about 12 inches to the left, balancing the weight of the body equally on both feet.



In "Ready" (Fig. B), raise the flag from position A and allow it to fly free, the left hand grasping the butt of the staff; which should be level with the chin and 8 inches from it; right hand in same position as in "Prepare to Signal."

Elbow should be free from the body, and the eyes to the front. For DOT (Fig. C) pivot the staff between the hands and swing it smartly from the "Ready" to a corresponding position on the opposite side of the body and back.

For "DASH" (Fig. D), swing the staff from the "Ready" position smartly to a position just below the horizontal, pause slightly and return to "Ready."

To prevent the flag clinging to the staff, swing it in a flattened “figure-of-eight.”

## MISCELLANEOUS SIGNALS

Miscellaneous signals are signals which are additional to those shown in the regular Semaphore or Morse Codes. They are explained below. Semaphore

<b>Signal</b>	<b>Meaning and Use</b>
WE., WE., WE. . . . .	Calling up signal.
Numerical Sign . . . . .	Numbers will be sent. See Semaphore Chart.
Numerical Check . . . . .	Receiving station repeats each figure.
Alphabetical Sign . . . . .	Letters will be sent. See Semaphore Chart.
Erase . . . . .	To erase wrongly signalled word-See Semaphore Chart.
K . . . . .	Carry on (answer to V.E. if ready to receive message.)
Q . . . . .	Wait. (Answer to V.E. if not ready to receive message.)
A . . . . .	General Answer (used after each word to show that it has been received correctly.)
AR . . . . .	End of Message signal.
R . . . . .	Message received correctly. (answer to AR)
G.B. . . . .	“Good-bye” (used when station is going to close down.)

## MORSE

<b>Signal</b>	<b>Meaning and Use</b>
WE., WE., WE . . . . .	Calling up Signal
K . . . . .	Carry on (Answer to, V.E. if ready to receive message.)
Q . . . . .	Wait (answer to V.E. if not ready to receive message.)
T . . . . .	General Answer (used to answer all signals except numbers.)
AAA . . . . .	Period or Decimal.
AR . . . . .	End of message signal.

- R. ....Message received correctly (answer to A.R.)
- 8 dots .....Erase (to erase anything sent incorrectly.)
- G B .....“Good-bye” (used when station is going to close down.)

When figures are sent by sending station, the receiving station will always “check” them back by the alphabetical check, that is:-

A is check of 1	E is check of 5	H is check of 8
B is check of 2	F is check of 6	I is check of 9
C is check of 3	G is check of 7	K is check of 0
D is check of 4		

instead of using the general answer. Thus 6 would be answered by F. Where there are figures and letters in the same group the figures only are checked back.

<b>A</b>	•••••	<b>N</b>	•••••
<b>B</b>	•••••	<b>O</b>	•••••
<b>C</b>	•••••	<b>P</b>	•••••
<b>D</b>	•••••	<b>Q</b>	•••••
<b>E</b>	•••••	<b>R</b>	•••••
<b>F</b>	•••••	<b>S</b>	•••••
<b>G</b>	•••••	<b>T</b>	•••••
<b>H</b>	•••••	<b>U</b>	•••••
<b>I</b>	•••••	<b>V</b>	•••••
<b>J</b>	•••••	<b>W</b>	•••••
<b>K</b>	•••••	<b>X</b>	•••••
<b>L</b>	•••••	<b>Y</b>	•••••
<b>M</b>	•••••	<b>Z</b>	•••••

**NUMERALS**

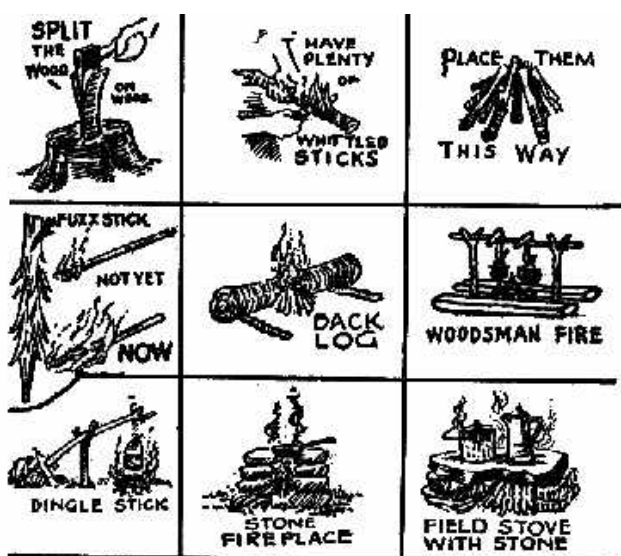
<b>1</b>	•••••	<b>6</b>	•••••
<b>2</b>	•••••	<b>7</b>	•••••
<b>3</b>	•••••	<b>8</b>	•••••
<b>4</b>	•••••	<b>9</b>	•••••
<b>5</b>	•••••	<b>0</b>	•••••

**ERASE SIGN**  
•••••

## TEST NO. 11

*Lay and light a wood fire in the open, using not more than two matches. No paper or birch bark to be used. Cook over this fire a quarter pound of meat and two potatoes.*

One of the most reliable fire starters is the fuzz-stick. This is a piece of pine or other soft dry wood about a foot in length and an inch in thickness, whittled into the likeness of a shaving brush, but with the end extending below the shavings and sharpened. The sharpened end is stuck in the ground, and kindling piled about it tent-wise.



Another good starter is a little bundle of dry twigs broken from the ends of dead branches on live trees, and stood up wigwam-like.

In windy weather a small dry stone placed in the kindling wigwam will solve the problem of striking the match safely.

In dry weather this test will give you little trouble, but in wet weather you will need to know where dry wood can be secured. It is a good thing to remember to “Go to

the living and get the dead”, which means the lower dead branches of living trees.

Making a fire during a rain is a nice test of a Scout’s woodcraft. One method, in continuous downpour, is to find a wide-spreading hardwood tree, climb and shake the moisture from the branches on one side, then build your fire (a small fire) beneath. By the time your fire is going well the rain will not affect it; provided, of course, you keep feeding it, preferably keeping it in wigwam shape.

And being a proper Scout, you will not overlook all the usual forest fire precautions-building on rock or bare ground, and when through “putting the fire out three times,” so there is not the remotest chance of a spark remaining in the soil or beneath a buried root.

**Cooking.**-This means that your cooking must be done in the open, with a fire similar to that built for the fire-making test, and under conditions which usually exist in the woods or on the prairies while camping.

The quarter pound of meat and two potatoes must be properly cooked, and served together as a meal. Preferably the steak is broiled on a forked stick or a "tennis racquet" broiler. The potatoes may be covered with clay and roasted in hot coals. Another method is to dig a small hole, build a hot fire in it, remove the fire and put in the potatoes, cover with hot earth and ashes, and rebuild the fire for 40 or 50 minutes.

Another Scouty method is the Kabob. Cut your meat into squares about 1½ by 1½ inches. Cut your potatoes into slices about one quarter inch thick. Also cut carrots and onions into slices. Obtain a green stick about one half inch thick, spear a slice of meat, potato, onion, carrot, meat, potato, onion and carrot until, your supply is all on the stick, and then slowly cook it over hot coals. This is called a Kabob, and with salt and pepper to your taste makes an appetizing and satisfying meal.

### TEST NO. 12

*Demonstrate that he understands the Highway Code of his Province and any special local rules insofar as these affect pedestrians and cyclists.*

We cannot give you the details of this test, because Highway Codes differ slightly in the various provinces. Get your Scoutmaster to write, or write yourself to the Department of Highways in your Provincial Capital and ask for a copy of the code. It will be gladly sent to you.

Note also that this test provides that you should know and live up to the special rules regarding pedestrians and cyclists in your community. If you live in a built up area, it is altogether likely that one of these rules will be that you must not ride bicycles on the sidewalks. Another rule might be that you must not cross an intersection against a red light. Have your Scoutmaster, or yourself enquire at your Town or City Hall for those rules which are local ordinances relating to pedestrians and cyclists. This test is provided so that you will become safety conscious, and do your bit as a Scout to cut down the terrible loss of life and limb through traffic accidents. Remember this-it is not always the motorist who is to blame.

### TEST NO. 13

*If he has the use of a bicycle, demonstrate that he is keeping it properly maintained and that he is able to effect minor repairs.*

As you will probably have had a bicycle for some time before you became a Scout you will probably know quite a lot about keeping it in good order and making minor repairs. However, boys often overlook important little things, so here are a few reminders for you. They were prepared by an official of Canada's largest manufacturer of bicycles.

1. Keep the front hub bearings properly adjusted so that the wheel will revolve freely. Oil often with machine oil.

2. Oil the pedals frequently.
3. Keep the brake clean, oiled and adjusted so it will function quickly and smoothly. Your local bicycle shop will show you how.



Keep Your Bicycle in Good Running Order

4. Oil and keep adjusted your steering column.
5. Use special chain oil to keep the chain and gears running easily.
6. Oil often the main hanger to which the pedal cranks are attached, as this is the power plant of your bicycle.
7. Always keep your tires inflated hard. Avoid skidding and hitting curbs. Check wheel alignment to save tire wear.

Here are the Ten Commandments for Cyclists which will help you observe Test 12.

1. Keep to the right and near the curb.
2. Meeting traffic, pass on the right; overtaking traffic, pass on the left.
3. Turn right, close to the curb. To turn left, approach intersection as closely as possible to centre line of highway, then make left turn by passing to the right of, and as close to, the intersecting line as possible.
4. Raise one arm when stopping or slowing up to indicate direction when turning.
5. Ride straight. Don't wobble.
6. Watch for STOP signs and traffic officers' signals.

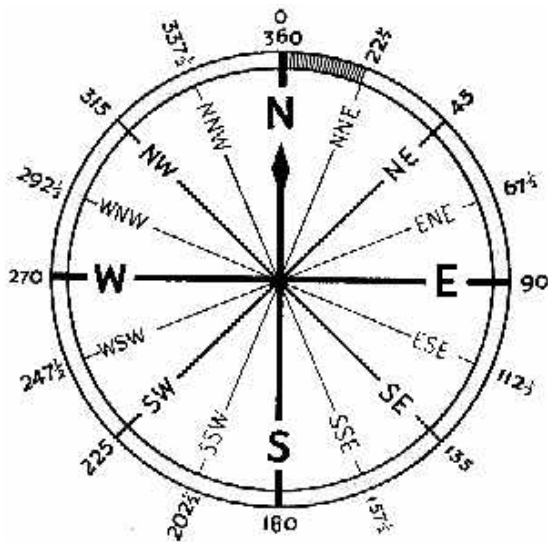
7. Give traffic coming from the right the right of way at intersections.
8. Do not hang on to moving vehicles.
9. Don't "cut in" in front of a moving car.
10. Keep your feet on the pedals-your hands on the handlebars. Always use a light at night, and red light or approved reflector and a ten inch white strip painted on the rear mudguard.

### TEST NO. 14

*Demonstrate the practical use of a compass and know the 16 principal points.*

In addition to its value while hiking or camping in out-of-way places in the woods or mountains or on the plains, the compass can be used to develop another faculty expected of every Scout. This is "a sense of direction," to enable him intelligently to direct strangers visiting his community, for many people lack this sense. Not infrequently motoring tourists lose their direction on winding roads or at inter. sections, and particularly in strange towns and

cities, with the result sometimes that night comes before they reach a planned stopping place.



One way to use the compass to help develop good direction sense is, during hikes, to note and name your changes of direction from time to time as indicated by sun shadows, or the feel of a steady wind on a cloudy day, or the drift of clouds overhead, then check with your compass. After a time this recognition of change of direction will become automatic, and you will rarely find yourself going the wrong way in town or country.

**Learning the Compass Points.**-These are readily learned by repeating the four cardinal points, North, South, East and West, then the midway points starting at North: North-East (NE), South-East (SE), South-West (SW), and North-West (NW). Next, again starting at North: North North-East (NNE), East North-East (ENE), East South-East (ESE), South South-East (SSE), South South-West (SSW), West South-West (WSW), West North-West (WNW), North North-West (NNW). This completes the 16 principal points required for the Second Class Test.

**Ways of Demonstrating Use of the Compass.** Indoors: Seated in the centre of a circle of boys with a compass in your hand, give the compass direction of certain Scouts as they are called by name. . . . With 15 other Scouts you form a 16-point circle. The circle revolves, is halted, and you tell your new compass position. . . - Outdoors: You are asked to direct a "tourist" to a neighbouring town entirely by compass. . . . In town or on the hike you give the direction of buildings or landscape features as asked.... On a hike you travel entirely by written compass directions, such as: "Proceed WSW to intersection of three roads. Take road NNW one mile to old log barn; cross field NE to small stream," etc.

### TEST NO. 15

*Take part in at least three regularly conducted hikes; or two short cruises of from 4 to 8 hours each under authorized leadership, and if a Sea Scout know how time is marked on ship board, and how a crew is divided into watches.*

Hiking is one of most enjoyable experiences of Scouting. It is a healthy practice too-ask your doctor. With so many automobiles, motor cycles and bicycles around these days, most boys do far too little hiking.

In "The Hiker's Handbook" by Douglas Leechman, the author points out:- "We are a little apt to forget that walking is man's normal method of getting from one place to another. Riding, whether on the back of another animal or in some kind of machine propelled by muscular energy, steam, electricity or gas, is an artificial device."

"Walking" Mr. Leechman adds, "is a far more healthful mode of progression than any other. The repeated movements of the muscles stimulate the circulation of the blood, promote the operation of the digestive system, massage the Pymphatic glands, and give the heart and lungs enough work to keep them healthy. A lack of exercise is definitely harmful because the system is deprived of these benefits, and lazy habits, if persisted in, result in a lowering of muscular tone, in 'going soft', as we call it, and in an impairment of the balance essential to good health."

Apart entirely from the health standpoint that Mr. Leechman stresses, hiking is both fun and adventure, and the requirement of three hikes before you become a Second Class Scout is by way of introducing you to this fun and adventure.

Make the hikes serve a double purpose. Perhaps one could be used as a compass hike, travelling only on compass directions. Another could be an observation hike, identifying trees and shrubs or birds. Another could be a tracking hike - following a trail of Scout Trail Signs over an extended area. Or you could have a cooking hike, or a hike just for the fun of hiking.

Keep a log of each hike; it will be good practice and preparation for writ-



ing the log of your First Class Journey.

## NOW FOR PROFICIENCY BADGES

As soon as you are a Second Class Scout, you are permitted to qualify for, and wear any six of the Proficiency Badges. It is suggested that Second Class Scouts tackle first the Queen's Scout Qualifying Badges, which will advance them a step towards that Grade.

The Queen's Scout Qualifying Badges are designed to fit you for service to your community. That is what a Queen's Scout is—a First Class Scout who has specially fitted himself for service.

Proficiency Badges were introduced into Scouting by the Founder to aid you in developing a taste for hobbies and handicrafts, one of which may ultimately give you a career. Many former Scouts can testify that they were first introduced to their life's work by an interest in one of the Proficiency Badges.

The requirements for all Boy Scout Proficiency Badges may be found in the handy pocket size "Wolf Cub and Boy Scout Proficiency Badge Reference Book", or "Policy, Organization and Rules for Canada", available from your Provincial Headquarters, Stores Department Agents or direct from The Stores Department, The Boy Scouts Association, 306 Metcalfe Street, Ottawa 4, Ont.

