

The Patrol Books . . . . No. 9

# TRAINING IN <br> OBSERVATION 

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First Published 1951
Reprinted 1953
Reprinted 1957
Reprinted 1961

Printed by C. Tinling \& Co. Ltd., Liverpool. London


Thanks to Dennis Trimble for providing this booklet.


Editor's Note:
The reader is reminded that these texts have been written a long time ago. Consequently, they may use some terms or express sentiments which were current at the time, regardless of what we may think of them at the beginning of the $21^{\text {st }}$ century. For reasons of historical accuracy they have been preserved in their original form.
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How many articles in this picture begin with the letter " $S$ "

## CHAPTER ONE

## KIM

IN the early days of Scouting, Scouts used to sing a song (and perhaps in some Troops they still sing it) which has a chorus which went something like this: -

When a-marching ${ }^{\text {m }}$ marching) marching,
Keep your eye on ev'ry thing!
You must note each sound
Ev'ry track upon the ground ....
And that song, you know, told the boys of those days exactly what Scouts were - the trackers who saw the tracks that ordinary people missed and knew what the tracks meant; like secret service agents, their ears and eyes were ever alert to every sound and sight. They took to heart what B.-P. had said to them: "Remember that it is a disgrace to a Scout if, when he is with other people, they see anything big or little, near or far, high or low, that he has not already seen for himself".

But B.-P. also knew that most of us aren't naturally very observant and that we have to train ourselves to become so, and to drive home his point that training if you stick at it will make you an expert, he took a story of Rudyard Kipling's called Kim. Now you'll read Kim yourself when you get older (you can read a little about Kimball O’Hara - to give him his full name - on pages 3 and 4 of Scouting for Boys); it's enough for you to know at present that Kim was a boy in
the India of some years ago who underwent special training for the secret service in India. When he wasn't much more than your age he was sent to find The Shop of the Healer of Sick Pearls and there he was tested by Lurgan Sahib to see if he were courageous enough for the service and there his training began. And in the way his training began there is a lesson for all of us, for it was doing a small thing and doing it perfectly. (As B.-P. said, "noticing small things and remembering them is the most important thing in the training of a Scout".) It was called in the book the "Play of the Jewels", or it could have been called Lurgan Sahib’s Game, but we know it as Kim's Game. The first time it was played Kim played it against a Hindu boy who had played it till he was wonderful at it. A half-handful of trifles was thrown on to a tray. The Hindu boy said, "One look is enough for me", and turned his back on the tray, but Kim was allowed to examine and handle the articles on it. Actually there were fifteen jewels on the tray. When he was ready and the tray had been covered, Kim had to say what was on it: -
"‘There are under that paper five blue stones - one big, one smaller, and three small,' said Kim, all in haste. 'There are four green stones, and one with a hole in it; there is one yellow stone that I can see through, and one like a pipe-stem. There are two red stones, and - and - I made the count fifteen, but two I have forgotten. No! Give me time. One was of ivory, little and brownish; and - and - give me time . . .'
"'One - two’ - Lurgan Sahib counted him out up to ten.
"Kim shook his head.
"'Hear my count!’ the child burst in, trilling with laughter. 'First, are two flawed sapphires - one of two ruttees and one of four as I should judge. The four-ruttee sapphire is chipped at the edge. There is one Turkestan turquoise, plain with black veins, and there are two inscribed - one with a Name of God in gilt, and the other being cracked across, for it came out of an old ring, I cannot read. We have now all five blue stones. Four flawed emeralds there are, but one is drilled in two places, and one is a little carven - '
"‘'Their weights?’ said Lurgan Sahib impassively,
"'Three - five - five - and four ruttees as I judge it. There is one piece of old greenish pipe amber, and a cut topaz from Europe, There is one ruby of Burma, of two ruttees, without a flaw, and there is a balas-ruby, flawed, of two ruttees. There is a carved ivory from China representing a rat sucking an egg; and there is at least - ah ha! - a ball of crystal as big as a bean set in a gold leaf.'
"He clapped his hands at the close.
"'He is thy master,' said Lurgan Sahib, smiling.
"'Huh! He knew the names of the stones,' said Kim, flushing. 'Try again! With common things such as he and I both know.'
"They heaped the tray again with odds and ends gathered from the shop, and even the kitchen, and every time die child won, till Kim marvelled.
"'Bind my eyes - let me feel once with my fingers, and even then I will leave thee open-eyed behind,’ he challenged.
"Kim stamped with vexation When the lad made his boast good.
"'If it were men - or horses,' he said, 'I could do better. This playing with tweezers and knives and scissors is too little.'
"'Learn first - teach later,' said Lurgan Sahib. 'Is he thy master?’
"'Truly. But how is it done?’
"'By doing it many times over till it is done perfectly - for it is worth doing.'"
Every morning they played the Jewel Play and in the afternoon they were placed behind a screen where they could watch all the customers who came in - watch and observe.

And at the end of the day, Kim and the Hindu boy, as Mr. Kipling tells us, "were expected to give a detailed account of all they had seen and heard - their view of each man's character as shown in his face, talk and manners, and their notions of his real errand" - for all Mr. Lurgan's customers were not what they seemed. Then in the evening Kim was taught the art of disguise and acting a part and pretending to be someone else - and all this is Scout training just as it was Kim's.

## CHAPTER TWO <br> TRAINING YOURSELF

Now if you are determined to become a really efficient Scout - as I hope you are - you will have to be trained. Some of your training will take place at your Troop meetings and your camps but most of your training can be done by yourself, alone or with a pal, or with your Patrol. And training yourself to be observant and quick-witted is the most important part of all Scout training. This little book will give you a few hints on how to do this. But first of all let us play a game just as Kim did. We'll play the Quiz game so that you can see how good you are. Get a paper and pencil and write down the answers to these questions - if you can!

1. What words are there on a $l^{112}$ d. stamp?
2. If a traffic light is amber what light will come next?
3. If you look at a box of Swan Vestas matches is the swan looking towards your right hand or your left?
4. Where would you see this?

5. You go up and down your stairs every day? Well how many steps are there?
6. What flowers are there on what British coins?
7. What are these outlines of?

8. Where is the nearest pillar-box to your house?
9. Which way does Queen Elizabeth face on a penny?
10. Where is the nearest weathervane from where you live and what form does it take?
Now you'll find the answers for yourself: see how many you get! Not many? - never mind. From now on determine to use your eyes and ears all the time and become as good a Scout as Kim became a first-rate secret service agent.

Now here's another test for you! Suppose suddenly your father or your mother (or your elder brothers perhaps - anyway some one in your household who isn't at the moment with you) can't be found. You are asked to write a description of them - height, colouring, features and how they were dressed when you last saw them. See if you can do it - and then find the "missing person" and see how successful you were.

Or again: see if you can make a complete list of furniture in the lounge or dining-room of your home - so long as you're not in it now. Then check your list.

Or: try and remember the street nearest to where you live that has shops in it and list the shops in correct order, their names and the sort of shop they are (and, of course, check your list).

Here are some ideas for training when you're alone: -

1. Practise getting to know the "feel" of things so that you'd know what they were in the dark. I mean such materials as silk, velvet, wood, iron, stone, bricks, a blanket, glass, etc.
2. It was the famous detective Mr. Sherlock Holmes (whose adventures you should read some time) who told his friend Dr. Watson: "You see but you don't observe". Get into the habit of observing people so that you could describe them accurately. After a while you'll find you'll do it without thinking. Especially note the way people walk and the shape
of then- ears - both very difficult things to alter. And also we all have little mannerisms which betray us however we are disguised.

In the Bulldog Drummond books - a famous series of stories by Sapper in which Hugh (Bulldog) Drummond is up against a criminal gang, his chief enemy, a master of disguise, always gives himself away by his habit during a meal of rolling the crumbs from his bread into little balls. A little time ago I read a very good detective story by Mr. Max Murray (called The Voice of the Corpse!). In it there's a conversation between a Scotland Yard Inspector and two small boys who might well have been Wolf Cubs: -
"'What do you mean by that?’
"'Well, we knew everybody else by the noise they make.'
"'How do you mean by the noise they make?’
"'Oh, that’s easy, we do it for fun.'
"The Inspector looked at them in some doubt. 'Would you know me by the noise I make?’
"Alfie Spiers giggled. 'Oh, you're easy.'
"‘How?’
"Jackie Day said apologetically: 'We been practising on you. You take big long strides and your feet go flap, flap on the ground.' And he added with a grin: 'Now an' then you click your tongue.'
"'I do nothing of the kind,' the inspector said. But he suddenly realised that he did. The whole thing made him feel quite shaken. He, Inspector Fowler of Scotland Yard, advertised his peculiarities in such a way that he could be recognised by small boys in the dark. He said: 'Nonsense.' But he meant it more to reassure himself than to rebuke the small boys 'Rubbish.'
"The little boys were not impressed. They knew."
So you see we all have our mannerisms, even C.I.D. men, and these the observant Scout should know. So study the voices and pronunciation and intonation of people you know, so that if you heard just their voices in the dark you would know who they were. Study, too, their ways of walking and their " back view "so that you could recognise them by either of those alone.
3. Don't walk about in a dream but keep your eyes "skinned" as you go about, and all your senses alert. A few days ago I read in the newspaper of a boy who, happening to come round a corner (I think) as some men were getting into a car in great haste and (as the boy thought) in very suspicious circumstances, noted the number of the car and not having a pencil on him marked the number on a nearby wall with a piece of chocolate! His action enabled a number of thieves to be arrested. I've no idea whether he was actually a Scout but he was a Scout in spirit.
4. Here are two games you can play by yourself to help train your memory: -
(i) Get a pack of playing cards and deal three or four cards face upwards with your eyes closed; open your eyes for a minute and look at the cards. Then close your eyes again and try to recall what cards you saw. Keep on increasing the number of cards until you are able to remember more and more after just a glance.
(ii) Draw from memory: - the new moon, the shape of your own nose, the shape of your house, a Cub cap, a telephone "dial". (Then check off how accurately you have observed and remembered.)
5. Finally, cultivate your senses by doing things in the dark. Things sound differently in the dark, for example, but you can train your ears to listen and recognise sounds when they haven't eyes to help them. And train yourself to dress and undress in the dark, to move about
your room without knocking into things, so that you can put your hand on any object at once without a light, and to tie knots in the dark. All this is true Scout training and training which only you can give yourself.

## CHAPTER THREE TRAINING WITH A PAL

But it's much more fun to train with a pal and help each other and challenge and test each other. Here are some ideas for two of you.

1. If you're in a room together, get hold of some picture in a book and look at it for a few minutes. Then each of you write down, say, five questions about it which the other must try to answer after the picture has been covered over. On the next page as an example is a picture for you to look at. Now, without seeing it try and answer these questions: -
2. What was the name of the town?
3. What time of day was it?
4. What day of the week?
5. On what street was the bank?
6. How many criminals were there?
7. How many took part in the actual robbery?
8. Were they armed?
9. What were the initials on the bag?
10. Was it an open car?
11. What was the licence number?
12. How would the car be easily recognisable?
13. What direction was it going?
14. On what street was the Post Office?
15. Who was the owner of the Pie Shop?
16. Was the man leaving or entering the Post Office?
17. Was the girl bareheaded?
18. Was she wearing a neck band?
19. Did she see the Scout tackle the bandit?
20. How many people in the picture?
21. How many males?
22. How many in uniform?
23. On what street was the Pie Shop?
24. Was there a pillar-box on the corner?
25. Were there Roman numerals on the clock?
26. Whose name was on the Poster?
27. If you're out for a walk together play Alphabet I Spy. See which of you can first spy something beginning with $A$, then $B$, then $C$ and so on as far as you can through the alphabet.
28. Practise estimating the passage of time correctly. One of you has a watch (or can see a clock) while the other hasn't (or can't) and says "Estimate a minute (or half a minute or two minutes, etc.) from - now!" When you think time's up say "Right!" and see how near you are. Then change about and let another have a turn. Practice makes perfect!
29. Each of you draws up on a largish piece of paper a large square sub-divided into 10 x 10 smaller squares. Along the top you write the letters A to J and down the side the numbers 1 to 10 .

Thus any small square can be referred to by a letter and a number, e.g. G9, B6, etc. You each build a screen of books (or something similar) around your plan. About 16 small articles are placed by each of you as he wishes on his squares. Each Scout then spends a minute or so studying the other's arrangement. At the end of this time you return to your own plans and toss for first shot. For example, the first Scout may call "On A5 you've got a compass." If he's correct the second Scout has to take the compass off and the first Scout has another go, "On H3 you have a pin." Again if he's correct the pin has to be taken off and he has another turn until he makes a mistake when the second Scout can begin "shooting". The first Scout to clear the enemy's board wins.

5. Take an envelope that has been through the post (get your dad to get a few unusual ones for you from the office or some friend he's sure to know): one of you examines it for a moment and then sits with his back to the other who asks him questions about it and gives him a point every time his answer is correct. Then you get another envelope and change places and roles. To make it a competition between you, you could limit yourselves to five questions and answers, such questions as: Where was the envelope posted? When? What is the width of the envelope? How was the stamp franked? And so on.
6. Here is a game you might try with your friend (not, of course, during the rush hour but perhaps going home from school or one morning in the holidays) if you're both used to travelling on a particular bus route. One Scout closes his eyes and keeps them closed, and the idea is that the "blind" Scout should be able to judge where he is at any time and answer his companion's query "Where are we now?" (Of course, if he is wrong his friend will start him off again by putting him right.) Or he can try and give a commentary as he goes along: "Now we're turning out of Station Road into Horn Lane. We're passing the Methodist Chapel on the left. Now on the right is the post office. We're turning round the corner past the County

School . . ." Try it some time! Its value is that it trains the sense of locality: it could be of great service at night or in a fog or if ever the "blackout" came back.
7. Have a dozen matches each. One of you makes a pattern with his matches using all of them or as many of them as he wishes. The other observes them for a minute or so and then with his back to them tries to arrange his matches in exactly the same pattern. (And exactly includes the match heads in the right direction, too.) Then, of course, the other Scout makes a pattern in his turn.

## CHAPTER FOUR

## TRAINING AS A PATROL

Now here are some ideas for your Patrol programme, for there is nothing better than a good Patrol training altogether: -

1. Try to identify noises. You can take turns in producing the noises either from behind a screen or a door - you'll have to have all your "props" ready - or after the others have been blindfold. If you have just three or four the listeners can write them down in the correct order and then have them checked. Or you can have a pair of you making the noises, and two others blindfold doing the listening and two others doing the writing down, one for each listener. And, of course, change about so that everyone gets a turn. The sort of "noises off" you can easily prepare are: - sharpening a pencil, spinning a coin, bouncing a tennis ball, bursting a paper bag, pouring water from a bottle, jingling keys, filing a piece of wood, using a hammer, twanging an elastic band, tearing paper or rag, striking a match, using a bicycle pump, scratching your head, breaking a twig, using a brush on your shoes or clothes, using an india rubber, taking a cork out of a bottle, gargling - and a lot more you can think of for yourselves.
2. You can train your sense of smell in the same way. Let each member of the Patrol bring something in a small jar or tin from home. Each sniffs what the others have brought and writes down what he thinks it is on a card or piece of paper, which might look something like this (one of them, of course, you'd know for certain as it would be your own!):

| Pete | coffee |
| :--- | :--- |
| George | tobacco |
| Bob | ginger |
| Alec | iodine |
| Tony | vinegar |
| Graham | sawdust |

You could play this again and again with different substances. Here are a few suggestions (I'm sure your Mum or Dad would help you with supplies if you explained the training-game you were playing): - lavender, eucalyptus, cocoa, rubber, coal, onion, paraffin, petrol, cloves, camphor, orange peel, an apple, cake, ink, a lemon, raw potato, etc.
3. You can play a similar game to develop your sense of touch. The best way to play this is for all your Patrol except two to be blindfold and sit in a row. (Make it a different two each time so that all can have a share both in the preparation and the training.) Have about four or five objects. One of the "testers" is at one end of the line with the objects. He calls "one" and gives the first object to the first Scout who holds it for a second or two and then says "one" and passes it on to the next blindfold Scout - and so it goes down the line. The second tester not only collects the objects as they reach the end of the line, but sees that they keep moving. Meanwhile the first "tester" says "No. 2" and passes the second object, and so on until the four or five objects have been handled by all the blindfold Scouts. They then take off their
bandages (scarves probably) and write down in the correct order what they have decided the objects were.

This game again can be played many times. Suggestions for objects are: - a small piece of coke, a deflated balloon, a piece of velvet, a cork, a pebble, a curtain ring, a woggle, a sausage, a potato, an ivy leaf, a piece of bark, a screw, a new pencil, a reef knot, a threepenny bit, a clean handkerchief, a conker, a Scout badge, a Scout garter tab, a safety match, a marble, the inside part of a matchbox, a pipe cleaner, a lump of sugar - but you can think of some more yourselves.

A similar game if you can get hold of a little rag bag each (perhaps Mum or your sister will make them for you), is for each Scout to put an object in the bag and tie up the neck of the bag with a tape. Then every Scout handles each bag and by sense of touch tries to identify (and write down) the object in each bag. Your card might be like this: -

| Pete | .. |  | bicycle clips |
| :--- | :---: | :--- | :--- |
| George | .. |  | a button |
| Bob............ |  | a yalekey |  |
| Alec | $\ldots$ | $\ldots$ | some strands of wool |
| Tony | $\ldots$ | $\ldots$ | sand or soil |
| Graham | $\ldots$ | $\ldots$ | a bus ticket |

4. Two of your Patrol act a small scene in dumb show: the others have to say exactly what they did, e.g. a man taking out a big dog meets an old friend who offers him a cigarette: they chat awhile and then depart. Or a man steals up to a window, opens it and is just climbing inside when up comes a policeman who collars him and takes him off to the Police Station.

You can quite easily think out little plays like this - or re-enact scenes you've actually noticed in the street. All good acting depends on observation, and mimicry is excellent training. B.-P. was a fine actor and mimic. Dr. Haig Brown, B.-P.'s Headmaster, at his school, Charterhouse, once told this story: -
"On one occasion when a school entertainment was in progress, a performer scratched at the last moment. The boys were beginning to get somewhat impatient at the long pause, so I said to Baden-Powell, who was sitting next to me, 'We must do something. Cannot you fill the gap?' He immediately consented, and, rushing on to the platform, gave them a bit of his school experiences. Fortunately the French master was not present, for he described a lesson in French with perfect mimicry. It was inimitable. It kept the boys in perfect roars of laughter."

Another variation of this game, which I expect you will know, is for each Scout in turn to act a trade or profession of some son (carpenter, schoolmaster, sailor, fisherman, tailor, etc.) until the others recognise it.
5. Study the writing of every member of the Patrol so that you could recognise it without any signature.
6. There's a story of a young London Scout who after having listened to a story of how a native African Scout could find his way about in the jungle, was heard to say "Yes, but he wouldn't be so hot if you put him down in Piccadilly and told him to get to King's Cross!" Which only goes to prove that every Scout should be able to find his way - by night or day around his own locality. And finding your way is a matter of exploring and observing. So Patrols should go out together until they know thoroughly all the streets, lanes, avenues, alleys, hi their home town and which buses go where and where the Police Station is and the Hospital and where the doctors live, and so on. This is all part of the training which makes good Scouts (and also helps you towards wearing a badge or two!).
7. Any Patrol that's worth its salt goes off sometimes for a day's hike with a map and a compass and some food and drink in haversacks. On such a day you can play the alphabet game I've already suggested for your pal and yourself or you can play "Treasure". That is: each Scout has a list of a dozen objects, say, on a postcard, e.g. a feather, a hollyleaf, fivebarred gate, a grey horse, a Frisian cow, a wild rose, a ocker spaniel, the name of a house beginning with R, an ash tree, a blackbird, a milestone, a used match, and so on. Then the first member of the Patrol to spot any of the things on the card scores 3 points. If he spots something which turns out to be an error he loses 2 points. Winner at end of day is the Scout with the most points. Of course you don't do such training crossing a busy main road but along country lanes and over downs, which is where you should be hiking.
8. Give each member of the Patrol, a week (or a fortnight or a month) to find and cut out from papers and magazines four or five pictures of well-known people. If they can be pasted on cards, all the better. Then each set is passed to the other members of the Patrol to write down who they are. A better way, perhaps, is for each Scout in turn to hold up a picture and call out $1,2,3$, etc., so that the rest of the Patrol can write down their answers opposite the proper number.
9. Take one another's finger-prints with an ink pad and examine the differences. Then after an interval of a few minutes, shuffle th; papers or cards bearing the prints and see if you can recognise which print is whose.
10. You can play an observation game with an Ordnance Survey map (Skipper will lend you one if you haven't one) which will at the same time help you with your mapping. Spread out a 1 in . O.S. map on a small table where all the Patrol can see it. Then one of you calls out something that can probably be found on the map and the first Scout to find one calls out the next "object" and so on. Suggestions: - a church with a spire; a telegraph office; a railway line running due E. and W.; a hill three hundred feet high; a footpath through a wood, etc.

On the next page are some of the "conventional signs" as we call them - the signs, that is, that represent things on a map. Look them up and find out what they mean for yourself.
11. Let half of your Patrol lay a trail which the other half must follow. The whole point of the Scout trail is that there must be signs which should be visible to the Scout looking for them but wouldn't be noticed by anyone else. You will already know the simple signs that all Scouts use everywhere. These can be made with twigs or little stones or by scratching in the soil or on a rock; you should use "what comes naturally", i.e. the material at hand: -


Another way of indicating a trail is by the unusual - a spray of oak lying on an ash branch, a little strand of wool knotted round a twig, a bunch of grass tied pointing in a certain direction, a dandelion apparently growing in a gorse bush, and so on. An excellent trail can be laid by sawdust or sand or even cotton threads. But don't begin with these. Of course paper (as in a paper chase) or chalk can be used but they are not really Scouty methods of leaving a track to be followed. Then your Skipper may have some "tracking irons" in the Troop "stores" which he will lend you. These are fastened to the shoes of one of you who can thus leave a distinct mark to be followed - but not, of course, in sunbaked ground! Natural signs, or a trail of sand or saw-dust, is most fun for both the layers of the trail and the followers - and all the Patrol, of course, must have plenty of practice at both laying and following.

12. You can learn a great deal by studying tracks on sand or snow. Do you know this story? -

A Dervish was journeying alone in the desert, when two merchants suddenly met him. "You have lost a camel?" said he to the merchants. "Indeed we have," they replied.
"Was he not blind in his right eye, and lame in his left leg?" said the Dervish.
"He was," replied the merchants.
"And was he not loaded with honey on one side, and wheat on the other?"
"Most certainly he was," they replied; "and as you have seen him so lately, and remarked him so particularly, you can, probably conduct us to him."
"My friends," said the Dervish, "I have never seen your camel, nor ever heard of him but from you."
"A pretty story, truly," said the merchants, "but where are the jewels which formed part of his burden?"
"I have seen neither your camel nor your jewels," repeated the Dervish.
On this they seized his person, and forthwith hurried him before the cadi, but, on the strictest search, nothing could be found upon him, nor could any evidence whatever be brought to convict him either of falsehood or of theft.

They were about to proceed against him as a sorcerer, when the Dervish with great calmness thus addressed the court: "I have been much amused with your surprise, and own
that there has been some ground for your suspicions, but I have lived long and alone, and I can find ample scope for observation even in a desert. I knew that I had crossed the track of a camel that had strayed from its owner, because I saw no mark of any human footstep on the same route. I knew that the animal was blind in one eye, because it had cropped the herbage only on one side of its path, and that it was lame in one leg, from the faint impression which that particular foot had produced upon the sand. As to that which formed the burden of the beast, the busy ant informed me that it was corn on the one side, and the clustering flies that it was honey on the other."

You may not have a desert available but there may be a long-jump sand pit in a nearby athletic ground or school playing field that you might get permission to use for studying footprints.

Detectives are trained to examine and "read" footprints, and from them are able to deduce whether the footprint is of a man or woman and often a good many facts about him or her.

You should note the difference in your tracks when, for example, you are (a) walking, (b) running, (c) carrying a load, (d) walking blindfold. You will be interested in the tracks of different shoes - plimsoles, sandals, rubber-soled, etc. You can examine bicycle-tyre tracks, the effect of brakes being suddenly used. Reading the story of tracks, whether animal, human or mechanical, are a matter of experience gained by careful observation.

## CHAPTER FIVE

## THE WAY TO PLAY KIM'S GAME

It isn't much use just staring at a tray of articles and hoping that you'll be able to remember some. You are training yourself to observe and to memorise; so you must have a plan. You may have to try one or two, because different people have different types of memory.

First of all count the number of objects. Then you can try one of the following methods which will help you as a beginner and which will help you, too, when you become expert and can give as full and accurate a description of each article as the Indian boy did of the jewels.

1. Classify the articles by colour, i.e. of 20 articles 4 may be more or less white, 3 blue, 4 green and so on.
2. Divide into tiny objects, medium objects, large objects.
3. Link some of the objects together in "classes". Suppose, for example (and I'll write these articles down just as they come into my mind) you have; - a comb, a pencil, a bunch of keys, a carrot, a jam jar, a piece of rope, a matchbox, an ivy leaf, a silk handkerchief, a bootlace, a bottle of ink - and so on. You could classify them as so many articles that you can carry in your pockets, so many that belong to outside the house, so many normally found in a kitchen, etc. The whole idea of dividing the articles into classes like this is that one article in a class suggests the others in the same class.
4. I have known people who make up a story bringing each object in in turn and then retell themselves the story when they want to recall the objects.
5. Or can you classify the articles by shape (round, square, flat, oval, etc.), or by their material (metal, wood, glass, cloth, etc.).

Of course, when training or testing yourself or your pal you need not have jewels on a tray as Kim and the Hindu boy did at first: you remember Kipling tells us he played it
"sometimes with piles of swords and daggers, sometimes with photographs of natives." Try the following variations: -

1. Each member of the Patrol brings a small unusual object. Each holds it in his hand for about a minute and then puts it in his pocket. He then has to write down against the name of the five other members of the Patrol (I'm imagining a Patrol of six) what object they brought and as full a description as he can. Later when the Patrol gets very good at this they might bring two objects each and display one in each hand.
2. Taking it in turn, each member of the Patrol draws half a dozen matchstick figures and after a minute's observation the rest of the Patrol have to draw the figures exactly from memory. Such figures as these: -






3. Try having just one object to look at and then writing down all you can about it after seeing it for a minute or so. For example, the Tenderfoot might just write down: a black shoe. But the trained Scout (such as you, like Kim, propose to become) might write down: - a black left foot shoe, one eyelet missing, knot in shoe lace, cut in the leather above the heel, made by Barratts of Northampton, worn rubber sole still showing circular pattern - three rings distinctly near arch of foot, heel resoled with Phillips’ Express, showing eight nail holes - and so on. It's wonderful what the eye trained to observe will see in a simple screw, or a pen-knife, or a hat. (Of course, I needn't tell you this because you probably can glance at a car or a railway engine and tell me everything about it at once, whereas I'd just see an engine (black) and a car (grey)! But get into the habit of observing all objects as you do engines and cars.)
4. Write a description of some person you all know - and then check it against the person.
5. Try a Kim's game where the objects are all the same class but different types; for example, a dozen:
different shaped and coloured buttons
different coins
different used envelopes
different keys
different pencils, etc.
6. Picture Kim's Game. Look at the picture on the next page for a minute and then see how many articles you can write down from memory describing each one as fully as possible.


## CHAPTER SIX <br> ESTIMATION

Estimation is half-way between measurement and a guess. The untrained person's estimation is not much more than a guess and if lucky may be fairly accurate: but more probably it will be nowhere near right. But by using certain simple methods Scouts can quite easily become very reliable "guessers." A great deal of your life is spent estimating - height, lengths, distances, numbers, weights. .

We are not concerned in this little book with methods that need equipment: you can read about those in Scouting for Boys and other books and go out with your Scout staves and practise such methods. But this book is on observation and this note is merely to help you arrive at reasonable estimation by observing. Of course, it's also a matter of experience and practice will help you to become reasonably good.

But that doesn't mean you don't need any equipment. You do. You need yourself! If someone asks you the width of a tiny box and you know (for example) the width of your thumb nail you'll be able, by comparing the box and your nail, to give a reasonably accurate estimate. Here are some "personal measurements", as we call them, that you can measure out for yourself, or better, you and your pal work out each other's with the help of a measuring tape or a ruler: width of thumb nail
length of middle finger
span of thumb and first finger
span of thumb and little finger
height of clenched fist
tip of forefinger to elbow
arms outstretched
height
middle of kneecap to ground
length of foot.
All these you will find useful in estimating heights, lengths and widths. (And remember they alter as you grow!)

There is no reason either why you should not use anything such as a pencil that you normally carry in your pocket. The "artist's method" uses a pencil. Set up some known height (a pal, or a staff!) in front of the unknown height. Hold your pencil in front of your eye and see where the "known" height comes on it: then see how many times that goes into your unknown height - of a tree for example.

Also it is useful to know the width of a penny, a half-penny, a sixpence.
A game you can play with another Scout is called Estimation Golf: -
You each need a card and you can "play nine holes". You toss who begins and then the winner makes a suggestion, e.g. "the height of that door." Each of you estimates it and writes down your idea on the card. Then it is the second Scout's turn and he might suggest "the length of this room" or "the width of that picture" or "the distance between those lamp posts".

Afterwards you measure carefully all the things you've introduced into the game (so don't bring in church steeples, for example!) and score two points if correct., one point if within 10 per cent. (A) each way. This is a good game.

Naturally the more you practise, the better you get. You get used to knowing what " 10 ft . high" looks like. And the same is true of distances and areas. I used to run in 100 yds . races when I was your age: perhaps you do. So if someone asked me the length of a long road, I used to think how far down the road I'd expect to "breast the tape" at the finish - and it's extraordinary how true such a method can be. And I played cricket too so that I had a very good idea what 22 yards looked like. You'll all have your hobbies and games: use the knowledge you acquire in them to help you with your estimation. You play soccer, do you? You know what the goal mouth looks like then on your favourite pitch but do you know its width? Of course, football pitches vary greatly in size, so they aren't much help but a tennis court is. It is 36 ft . wide and 78 ft . long (i.e. from one serving base to the other). And a tennis net should be 3 ft . high at the centre, so that if you're a tennis player and you're estimating height, think of the tennis net and compare it in your imagination with the door or the wall or the lamp post whose height you're trying to decide.

And tennis courts and football pitches help to estimate "area". Perhaps you're walking in the country and come to a large field. You wonder what area it is? Well, how many full-size football pitches do you think you could get into it? Twelve? Well, a full-size football pitch should be 130 yds. by 100 yds. Now there are 4,840 square yards in an acre so the area of a League football pitch will be about 21 acres. So you can estimate your field as so many acres. And it will be a nearer-to-accurate answer than that of the person who makes a wild guess because he (or she) hasn't thought about it in a trained Scoutlike way and is just as likely to say 2 acres or 3,000 !

The most difficult thing to estimate (I think) is distance. The only tip I can give you is to divide the distance roughly into halves, then the half nearer you into halves again, and that
half (a "quarter" of the original) into halves once more. You can now make a guess at this piece and if you multiply by 8 you'll get nearer than you would otherwise have done.

These hints will help: -
At fifty yards, the mouth and eyes of a man can be clearly seen.
At 100 yards, eyes appear as dots; 200 yards, buttons and details of clothes can still be seen; at 300 yards, the face can be seen; at 400 yards, the movement of the legs can be seen; at 500 yards, the colour of clothes can be seen.


How many errors can you spot?
Objects appear nearer than they really are: when the light is bright and shining on the object; and when looking across water or snow, or looking uphill or down. Objects appear farther off when in the shade; across a valley; when the background is of the same colour; when the observer is lying down or kneeling; when there is a heat haze over the ground.

And then there are numbers! It's odd how difficult people find it to estimate numbers. I was at a football match once and I heard one man say: "I suppose there must be at least 5,000 people here!" "Don't be ridiculous," said his friend, "there are more than thirty thousand!"

How good are you? How many words are there on this page?
The best way of estimating crowds again is by "splitting up". See what space is taken by (say) 100 people. Put a ring round that group in your mind’s eye and then decide how many similar rings you could draw! Sometimes people at a meeting in a hall or a service in a church like to know how many are present. Guesses are no good. But if you know roughly how many
people are in a row and how many rows there are, you can soon get near enough to a correct answer. But get into the habit of observing groups of people (or sheep or cows!) and you'll come to knew what a group of ten or twenty or thirty or more people look like.

Here's a game you can play at Patrol meetings: -
Get every fellow to bring a picture showing a number of people or pigs, a photograph of a Troop, soldiers marching, arrows in a target, etc., or they can prepare postcards with a number of crosses on, or rings, or figures, etc. Then each Scout in turn holds up his card or picture and asks "How many cows?" or "How many crosses?" and the others by a quick glance estimate the number. Any answer within 10 per cent, (1/10) of the correct answer scores a point.

Weights I think only come by practice although again it helps if you already know what certain things weigh, or know what it feels like to lift a hundredweight of coal or carry a pound of apples or a stone of potatoes.

An obvious game for your Patrol is for each to bring two articles weighed at home and for others to lift and hold them and then to write down what they estimate each article weighs. Or perhaps the Patrol Leader can get someone at home to weigh up a dozen objects and then invite his Patrol home for "weight estimation".

You should know the weight of every member of the Patrol again as a means of comparison - a "yardstick" as we say.

## CHAPTER SEVEN TREES

A young Scout I knew turned one morning and said to his Scoutmaster: "You know, Skip, I am a fool. I've been going down our road ever since I could walk and it was only this morning that I realised that there are twelve different kinds of trees in it!" We're all apt to walk about with our eyes seeing but not observing. Now, think a minute. What's the nearest street or road to you with trees in it? What sorts of trees are there in it? If you know that then you're on the way to becoming a good Scout. If you don't - oh, well, now's the time to turn over a new leaf! (Joke!)

A Scout needs to recognise trees because some woods are good burning woods and some are not: some are good for starting a fire - for kindling, as we say - some give a hot quick fire, others burn slowly but surely. It's no good knowing which trees give you which kinds of burning timbers if you can't recognise the trees. There are plenty of quite good and not too expensive tree books, e.g. Trees of the Countryside in The Young Naturalist Series (Brockhampton Press, 3s. 6d.); Trees in Britain (Puffin Books, 9d.); Observer's Book of Trees (Warne, 5s.); A Pocket Book of British Trees (A. \& C. Black, 7s. 6d.); A Book of Common Trees (O.U.P., 3s.).

In summer you can recognise trees by their leaves: in winter by their outline and bark and buds if they are deciduous trees (that is, trees that lose their leaves in autumn).

An excellent Patrol game to play is for the Patrol to go out on a leaf-collecting hike and then on their return identify every leaf from a tree book. Or you can make plaster casts of leaves as you do of tracks, as follows; - get some clay or plasticine and roll your leaf into it use your staff or a rolling pin or a cylindrical tin or something like that so that it goes in levelly and firmly. Remove the leaf and pour in your plaster and give it plenty of time to set - rather more time than you give to tracks. The essential difference in taking leaf plaster casts is that you take the plasticine or clay off the mould rather than try to dig the mould out of the clay (as
you do with natural tracks). Then you can tint your leaf the correct shade of green and you have the beginning of an excellent collection.

Or you can make a collection of carbon impressions as follows: - place the leaf vein side downwards on the dull side of a piece of carbon paper ("Zanetic" is far the best obtainable). Older leaves, with firm veins, are better than young ones. Cover the leaf with a piece of newspaper and rub firmly, especially round the outline. Remove the newspaper and place the leaf vein-side down on a sheet of paper. Place a clean piece of paper over this and rub as before. (This reads like a doctor's prescription!) Instead of carbon paper you can hold a sheet of brown paper over a lighted candle until it is well covered with soot.

Then there is "Splatter Work." Fasten down a leaf (or spray of leaves) with drawing pins to a clean sheet of paper. Mix some paint in a tin lid or use Indian ink. Dip an old tooth brush in the paint (or Indian ink) but don't take up too much paint or there will be blobs. With a knife, draw back the bristles, causing the paint to splatter on to the page and leaf. When the page is sufficiently covered, allow it to dry. Remove the leaf!

All these make interesting material for your Patrol meetings.

* There is a note on how to make ordinary plaster casts in The Patrol Goes to Camp (Number 5 in this series).


## CHAPTER EIGHT

## GOOD LUCK TO YOU!

Nearly all Scout training consists of keeping your senses alert - and using your senses to the full. Which way is the wind blowing today? Oh, yes! a good Scout ought to know. How many star constellations can you pick out on a starry night? How many wild flowers or birds can you name? How many animal tracks would you recognise? A person's ears are the hardest to disguise: if you could just see only the ears of each member of your Patrol would you know which ears belonged to whom - or haven't you ever realised people's ears are different?

If you're doing first-aid you have to observe the patient carefully before you can treat him. If you're listening to morse or watching semaphore flags you're observing. If you're hiking you're observing the way and the map.

Scout training can be thought of as a four-storey building - Tenderfoot, Second Class, First Class, King's Scout. But the foundation of them all is that training in observation - by yourself, with a pal, with your Patrol - which B.-P. said matttered most of all.

So, get on with it - and good luck to you!

