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Robert Shaler**

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Author: Robert Shaler

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THE BOY SCOUTS OF THE GEOLOGICAL SURVEY

By Scout Master Robert Shaler

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CHAPTER I

THE GOLDEN FEATHER

"This was a pretty fair catch, for a change," thought Ralph Kenyon, as he tied the limp animal to his pack-saddle, and reset the trap, hoping next time to catch the dead mink's larger mate. He ran a quick, appraising eye over the load slung across Keno's broad back. "Pretty good, eh, old boy?" he added aloud, stroking the velvety nose of his dumb companion on many a solitary hunt. "Now, Keno, you hang around, and browse on these young cottonwoods, while I do some figuring. I want to see what I'm likely to get for this next shipment of pelts."

The old horse, nothing loath, obeyed his young master's behest as promptly as though he had fully understood the words. Meanwhile, Ralph found a mossy spot on the shady side of a big gray, lichen-covered boulder, and, seating himself thereon, with his back comfortably adjusted to a depression in the rock, he drew a worn account book from a pocket of his corduroy coat. Moistening his thumb he began to turn the pages rapidly, until he came to the place where he had made the last entry in his accounts. With a stubby pencil, which he had taken from another pocket, he jotted down the new items:

"So far, one mink, six coon, three skunk, a gray fox, and seventeen rabbit skins. All told it ought to bring—let me see." He relapsed into silence, as he estimated the total, and then he sighed deeply. "Not very much," was his inward comment; "not anywhere near enough!"

Ralph felt that it was high time that he brought to a close his season's operations with trap and gun. The spring was unusually early this year, and the fallow truck patches were fairly clamoring for his attention. Yet he was reluctant to abandon his winter pursuit of pelts and to return to the sterner and less thrilling labor of ploughing and planting and peddling vegetables.

Not that he was averse to hard work—far from it! Ralph Kenyon was as industrious, energetic, and sensible a young fellow as one would wish to know; yet, being a very average, normal lad, and at that age when love of freedom and adventure is foremost, he naturally preferred the varied life of a huntsman and trapper—even though his field of activity was not extensive—to the moiling occupation of a market gardener.

On the other hand, there were times when he thoroughly enjoyed the labor of wresting a livelihood from the soil, and he took pride in raising the choicest products that could be offered for sale. Such spells were most frequent in midsummer, when all nature was in a placid mood for growth; but in autumn and spring came livelier hopes and a stronger call to this lad, and in his own way he set about accomplishing the chief aim of his life, the great end to which these winter pursuits were but a means.

After the death of his father, which had occurred less than a month after his graduation from High School, Ralph had taken the responsibility of the small farm upon his eighteen-year-old shoulders, bravely putting aside his cherished plans for a course in the School of Mines until he could save the necessary funds from his individual earnings. That was a year ago. In the interval he had found an opportunity to study the principles of surveying, and for two weeks he had acted as guide to a party of university students doing research work in his native hills. For this service he had been paid twenty-five dollars—which had been promptly banked as a nucleus of his college fund.

How simple and easy it had seemed, earning his way through the School of Mines, while talking with those enthusiastic young collegians and their professor! How well he remembered the things they had said, the advice they had given him! Yet now, after eight months of hard work, constant hunting in the woods, and rigid economy, he seemed no nearer the goal than he had been when the portals of High School closed behind him forever. In fact, just as he was now placed in his prospects he faced a bitter discouragement; he was on the threshold of a new calamity.

His mother, who took in fine sewing, had developed a serious eye trouble that threatened to put an end to her earning power, and to leave her totally blind unless she submitted to a very delicate operation within a few weeks. Of course, his mother's welfare was stronger than any other consideration with Ralph, but he had a vague idea that operations cost a great deal of money. At least, he had been told so by his nearest neighbor, Tom Walsh, a farmer who lived several miles from the town of Oakvale, which was the station from whence he would have to take his mother by train to New York. A day's journey, a week or more in the hospital, and incidental expenses—even with the aid of his precious hoard and the inadequate sum these furs would bring him—how could he ever raise enough to help her, in time?

With another deep sigh, he replaced the worn account book, and rested his head against the mossy

hollow in the stone, gazing disconsolately up through the branches of the trees at the jagged cliffs that towered high above the mountain trail for a while, nothing was heard in ravine or glade save the brawling of the crystal-clear brook that went dashing and tumbling over the stones of its rough bed, in a mad race to its fall of twenty feet or more, or the crunching of succulent twigs and leaves of cottonwood, or the snapping of dead wood, as old Keno moved leisurely about from one spot to another. Side by side, on a jutting crag that leaned far out over the brook, sat a splendid pair of golden eagles, joyously preening their plumage in the spring sunshine. The birds aroused no special interest in Ralph's mind, however, on this particular morning; he had seen them many times before, while rambling over the mountains with his father. But the sight of their glittering napes awakened memories of that loved and admired man.

"Dad used to say—and I guess he believed it, too—that iron in paying quantities lies just beneath the stones of our little farm," mused Ralph. "We might become rich, mother and I, if we could only get money enough to open up our mine."

One of the eagles, rare birds in that part of the Country, evidently alarmed or annoyed at the approach of some intruder on their domain, some animal or human being Unseen by Ralph, thrust out its head, opened its beak, and uttered a harsh shrill cry; at which its mate walked forward to the very edge of the crag, poised there for an instant, and then, spreading wide wings, launched itself into the air and sailed swiftly out of sight. It returned, however, in a few minutes and rejoined its mate on the ledge of rock.

"Old King Eagle," called Ralph, whimsically, knowing well that his voice would not carry above the roar of the brook, "I wish you'd tell me where you get all your gold! I believe I'd go digging with my finger-nails this morning if I only knew where to begin!"

As if in answer to his appeal, one golden feather drifted down and lay glittering iridescently among the pebbles at his feet.

The lad sprang up with a laugh; then, going down on his knees, he began to dig at the exact spot on which the feather fell. Imagination had carried him for the moment to a point of almost superstitious energy. But the spell passed quickly. With a scornful laugh, he straightened his lanky form to its full height.

"Gee!" he exclaimed aloud. "I never supposed I could be such a fool!"

A low laugh sounded behind him, startlingly near, and, turning to glance over his shoulder, he beheld a tall, lean, swarthy young man dressed in a faded and soiled brown suit, with a soft felt hat pulled down over his eyes, and leggings like those often worn by woodsmen.

"Seven kinds of a young fool, eh?" remarked the stranger, shifting a long-handled axe and a heavy wooden mallet which he carried from his shoulder to the ground. "Well, you ain't no fool, boy, an' I know it, an' that's why I follered you up this trail. I want ter have a little confab with you to-day. Know who I am?"

"No, I don't know you," Ralph replied truthfully, "and I can't guess how you knew I was up here in the hills."

"Your ma told me. I stopped at your shack, about two hours ago, an' she told me you was out lookin' after your traps. Any luck?"

"Not much." Ralph did not wish the man to observe either the location of the traps or the valuable mink that dangled from Keno's saddle. "What did you want to see me for?" he queried, after a minute's pause, during which he eyed the woodsman quizzically.

"You're Ralph Kenyon, ain't you?" asked the other, evidently in some doubt.

"Yes. Who are you?"

There was a blunt directness in Ralph's questions that seemed to disconcert the man who had expected to meet a rather shy, immature lad—certainly not one who bore himself with an air of calm self-possession and who wasted no words. He gave another low laugh that ended in a chuckle, and replied briefly:

"My name's Bill—Bill Terrill—perhaps you've heard tell o' me? I'm Old Man Walsh's nevvie, your friend Tom's Cousin."

"I've heard of you," said Ralph, drily.

"Who told you, then?"

"Jack Durham—another cousin of yours."

"Oh! You don't mean the kid that joined that 'ere Boy Scout crowd over at Pi'neer Camp last summer, after—after——"

"After you attacked the old man and him in the woods, one day. Yes, he's the one. He told me."

"You an' him pals?"

"Not exactly; he's much younger than I."

"How old are you?"

"Nineteen next month."

"Old enough ter know better, eh?"

"What do you mean?"

"Better than ter go diggin' fer—well, gold, in these 'ere parts."

A blush overspread Ralph's freckled face, but it faded as quickly as it had come, and he continued to stare at Bill Terrill.

"I wasn't digging for gold," he said quietly.

"Of course not! I was only joshing you, boy! Say, what I wanted ter see you about is this: there's some dispute between the what-d'-you-call-uns?—executors?—of your dad's will and Old Man Perkins, who owns the farm next ter yours, about the boundary lines. Old Man Perkins, he claims——"

"He has no claim whatever!" interrupted Ralph, vehemently. "That old dispute was almost settled before my father's death. Dad had our farm surveyed, charted, and the boundaries marked. I can show you the stone on the northwest corner; it's only a few yards away, over there."

"Well, Perkins is havin' *his* acres surveyed now," said Terrill, "an' I'm one of the crew that's doing the job fer him. I'm axeman. You see, I've reformed consid'r'ble since——since last summer, and I j'ined a surveyin' crew; axeman now, rodman later, if I'm good, an'——"

"But why did you want to see me? Was it about this boundary question?"

"Oh, you admit there is some question about it, after all?"

"Are you trying to pump me, Terrill?" asked Ralph, shrewdly suspicious. "If you are, you won't get any satisfaction until I've seen our lawyer. It seems to me you're playing detective instead of surveyor, and you don't do it very well! You had better stick to your job, and the axe!"

Terrill grinned.

"If it turns out that your pa made some mistake or was—er—too cock-sure about the lay o' this land, what d'you think Old Man Perkins would do about it?" he inquired meaningly.

"Prove his claim, and take part of our present farm away from us, of course," Ralph retorted. "But there is no mistake. The land is ours."

"And if it is, would you be willing to sell——"

"Not a square foot of it—to Perkins."

So saying, Ralph picked up his cap, and carefully brushed off the clay and leaves. As he did so, the shining feather caught his downcast eyes once more, and this time he stooped, picked it up, and deliberately stuck it under the band of the inside of his cap. Then he secured the faithful Kenos, and, without another word to Bill Terrill, who had moved away whistling defiantly, he tramped homeward, in a rather gloomy mood.

CHAPTER II

A TIMELY SUGGESTION

Doctor Kane, the kindly physician from Oakvale, was just coming down the path from the Kenyon farmhouse as Ralph rode into the yard. He paused beside his car, seeing the lad dismount hastily and come forward with an anxious appeal in his brown eyes.

"How—how is she to-day?" Ralph asked, when he had grasped the doctor's outstretched hand. "Her eyes—are they——"

"No better, and no worse," replied his friend; and again the doctor explained the situation in simple terms that Ralph could understand.

"What will the operation cost?" Ralph asked desperately.

Doctor Kane pondered for a moment.

"Well, if she will consent to go before a clinic, I think I can get her off with a hundred and twenty-five dollars, including hospital fees," he replied. "I'll be glad to go with her to the city, Ralph, and pay the car fares."

Ralph knew he meant by "car fares" traveling expenses, for he was familiar with Doctor Kane's habit of belittling his many charitable acts. He knew also that, if necessary, the doctor would gladly lend him the sum of money which stood, a tangible barrier, between his mother and total darkness; but with a sense of indomitable hope and modest pride, he had resolved not to ask for that favor, which, he realized, would be no small one, except as a last resort.

"You're awfully kind, sir," he responded warmly. "I appreciate——"

"Nonsense!" ejaculated Doctor Kane. "It will be a pleasure for me to do anything I can for your mother and you, my boy. Your father was one of the best friends I ever had, and some day I'll tell you how I came to owe him a debt which I shall never be able to repay. Just call on me if I can help out, won't you?"

He closed the gate and went forward to crank up his runabout, but Ralph detained him a few moments longer, to tell him about the encounter with Bill Terrill. When he had finished, the doctor advised him to pay no attention to the vague overtures made by Silas Perkins' hireling, until the doctor himself had referred the matter of the survey to the coexecutor of Mr. Kenyon's will. After that, it would be time to consider a sale, definitely.

"Don't let anyone bunco you, my boy," he added, as he climbed into his car and grasped the steering-wheel. "By the way, Ralph, I saw my friend Professor Whalen in Oakvale, the other day. He told me he sighted a fine pair of golden eagles up here in the mountains, recently, and would willingly give a hundred and fifty dollars for that pair, if they're as good as he thinks they are. He wants them for a gift to his college museum. There's a chance for you!"

"So much—for a pair of eagles!" exclaimed the boy. "Did he really mean it?"

"I'll bet he did! You don't know what a good sport Whalen is when he strikes any thing out of the ordinary in that line. If I were you, Ralph"—here the doctor leaned over the side of his car, and spoke earnestly—"I'd try to locate their eyrie and capture them, dead or alive, Or, it might be worth your while even to lead the professor up to a place where he could get a safe shot at the birds. He talked of coming up here some day this week. I tell you what I'll do; I'll send him here to you, and you can guide him."

"No, no!" protested the lad, eagerly. "Just give me his address, and I'll do my best to get the pair for him and bring them to him in the village."

"You can ride over with me and see him, the next time I come up here," said the doctor. "Good luck, Ralph!"

"Thank you, sir! Good bye!"

When the automobile skidded out of sight, leaving a cloud of dust, Ralph remained standing by the gate, warmed by a new hope which the doctor's suggestion had kindled in his mind. No longer did the hundred and twenty-five dollars seem unattainable, no longer did clouds of gloom and anxiety hide their silver lining! Here was another way of earning money for his mother's desperate need: an uncertain, difficult, even dangerous way, to be sure, but one well worth trying. Yes, he would make the attempt, even though he hated to take the lives of those splendid creatures of the air. He determined to

get those eagles for the professor.

Full of this plan, he led Keno to the stable, unsaddled and fed him, and then, while waiting for his mother to call him in to dinner, skinned the mink he had trapped. His active mind was busy devising the best way of securing the prize.

In the house, he found his mother less dejected than usual; doubtless the doctor's visit had had a cheering effect upon her. However, Ralph said nothing to her of his new hopes, because, after all, they might prove too slender to build upon; they might lead only to disappointment. He plunged at once into a lively account of his morning's hunt, and from that he went on to discuss with her the first steps to take in the early planting.

The next morning Ralph was up before sunrise. Instead of bringing his trapping to an abrupt end, he decided to get up at an earlier hour than before, in order to have time for his daily rounds of visiting the traps. He did not know which day the professor might choose for coming in quest of the golden eagles, and he was determined that no one should get ahead of him.

"After all, he can't come hunting up here on our land without my permission, for that would be trespassing," reflected Ralph. "And if he should turn up, I can tell him that I'm on the job, myself."

Two busy days passed. While attending to his traps, in the early hours, Ralph never once allowed his rifle to lie beyond his reach; yet a third day went by, and he had no chance for a shot at the coveted birds of prey. Several times he caught sight of them hovering above the gray cliffs where he knew they were preparing to build a nest, but each time they were too far away to risk a shot.

And still no sign of the professor, or of anyone else in pursuit of the eagles. Had the professor gone away from Oakvale, or, on a hint from Doctor Kane, was he merely waiting and giving Ralph every chance to earn the money? If the latter were the case, it was quite unlikely that Professor Whalen would share the secret of his discovery with any other possible hunter.

Several miles away from the Kenyon farm, on the shore of Pioneer Lake, which was separated from the farm by the rugged slopes of old Stormberg and the adjacent hills, was a fair-sized camp which bore the same name as the lake. It was occupied every summer by a troop of Boy Scouts under the leadership of an ex-officer of the United States Army. In fact, Pioneer Camp was well known in that section of the country, and Ralph had often heard of it from Tom Walsh and Tom's young cousin, Jack Durham, who had joined the troop. At one time, before his father's death, Ralph had longed to become a member of the troop; but one duty or another had prevented him in the summer, and now it seemed out of the question. Daily work, the necessity of earning a living for his mother and himself, and the management of his farm, demanded all his attention, and gave him no time for play.

On the fourth day of Ralph's new hunt, he was obliged to drive over to Oakvale to bring home groceries and provisions as well as seeds which he had ordered. In the town market he saw Doctor Kane talking to a tall, bronzed, soldierly-looking man who wore a khaki uniform with the Scout Masters' badge embroidered on the coat-sleeve. Accompanying this man was a half-breed Indian, known in that vicinity as Joe Crow-wing, or "Injun Joe," the guide and chief woodsman of Pioneer Camp. The half-breed hung about in the background, conversing with two lads also dressed in scout uniform.

Catching sight of Ralph, the doctor beckoned to him.

"Come here, my boy," he said, in his cordial way, as the young fellow approached, "I want you to meet Scout Master Denmead, who's up here arranging for the opening of camp next month. Denmead, this is Ralph Kenyon, a very particular friend of mine."

"Glad to know you, Kenyon," said the Scout Master, grasping Ralph's hand. After talking with him for a few minutes, he called the two other boys over from the counter on which they were sitting and introduced them to Ralph as Tom Sherwood and Arthur Cameron.

"Aren't you fellows up here earlier than usual?" asked Ralph, presently, finding his habitual reserve wearing away.

"Yes, we are," replied Tom Sherwood. "You see, we graduated from Hilltop last February, and when we found out that the Chief was coming up here, we asked him to take us in tow for a while before camp regularly opened."

"He's going to give us a course in geology," added Arthur Cameron, "and we're going to make a survey around here this summer."

"Geology!" repeated Ralph. "That's my pet subject. Some day, you know, I'm going to study mining engineering."

"That so? Well, come along with us for a 'prelim,'" suggested Arthur, in the true scout spirit of friendliness.

Ralph sighed and shook his head.

"Wish I could!" he admitted. "Haven't time to spare, though."

"Studying?" queried Tom.

"No, working" And Ralph stated briefly and frankly the nature of his work.

"Like it?" again inquired Tom, who was always interested in people and their occupations.

"I don't mind the work itself," said Ralph, "it's not half bad, you know. But selling vegetables in the village market, and haggling with stingy buyers over the price of cabbages and green peas, is what gets my goat!" He laughed ruefully. "I guess I'll have to be jogging on my homeward way," he added. "So long! Come over and see me on the farm, if you're ever along that way. I'll show you my traps and perhaps we can go out on a little hunt—er—that is, if you—"

"Thanks; we will," said Tom. "But we don't hunt animals to kill; it's against scout rules in our troop."

"We hunt 'em with a camera," Arthur explained.

"Oh, I see. Well, so long."

The three lads shook hands.

"So long! Hope we'll meet again soon."

Ralph then took his leave of Denmead and Doctor Kane, and went on his way, with a new idea buzzing in his mind: so they were going to make a survey of that locality! He could invite them to investigate his land, and—what if his father's hopes and beliefs should prove to be founded on bed-rock? Bed-rock, rich in ore? Could it be more than a dream? If they should discover any iron, anything—they were nice fellows—he could trust them. Very decent chaps to know, perhaps to have as friends. And they didn't approve of trapping or shooting! Against scout rules, eh? And was he—oh, well, it was fair play, and he needed whatever extra money he could earn. Those eagles! Yes, he must not lose any more time. The eagles would have to be the prize of his marksmanship, even though he winged them against his will.

* * * * *

At the end of that week he told himself that he would have to get the birds that day, or give up the hunt for them, and devote his entire time to the gardens. He resolved to spend the whole day in the neighborhood of Eagle Cliff, as he called it; for get them he would, then or never, before going back to the presence of his patient, pathetic, brave little mother.

Accordingly, about five o'clock in the morning, he led the faithful Keno from his stall, and rode slowly down the dusty road until he came to a point where the narrow bridlepath branched off the road and wound upward into the silent woods. Following this path until it became indistinguishable on a thick carpet of moss and leaves and coarse fern, he reached the big boulder at last; there he left Keno safely tied and hidden in a clump of alders. Then he went on, several rods down the trail, and took up his position directly across the stream from Eagle Cliff.

CHAPTER III

THE COMBAT ON THE CLIFF

Lying on his back in the narrow trail, with his eyes continually roving over the jagged side of the cliff, Ralph became drowsy, in spite of his desire to catch sight of the eagles when they rose to stretch their wings in the first flight of the day. Along the eastern rim of the hills the sky was paling into a yellow glow without a cloud to mar its perfect clarity.

How long the young hunter dozed he could not tell, but he roused with a start, and sat bolt upright, glancing around him impatiently. Directly over his head, soaring high over the trees, was one of the great birds, evidently in search of prey: perhaps an unwary rabbit, squirrel, or fat woodchuck, for breakfast.

Catching sight of the bird as it hung poised in mid air, Ralph muttered:

"If that's the male, hunting alone, the female must be on the nest—which will make matters twice as difficult for me."

Even as he watched it, the solitary bird made a sudden swoop downward, sailed closer over the tops of the highest trees, and then suddenly dived into their midst, emerging after a few minutes with a small limp form seized in its talons. With this prize the eagle now flew swiftly and silently to a ledge on the side of the cliff, and uttered a curious loud whistle of invitation. In response, the larger bird, the female, appeared on the ledge, and the pair forthwith began their meal.

Very cautiously, so that his slow movements might have the least possible chance of being observed, Ralph reached out for his rifle, and—shifting his position by crawling forward until the feasting eagles were within range—fired. At the report, one big bird toppled over the precipice to a ledge not ten feet above the foaming water, on the other side of the stream. Its mate, with a harsh scream of alarm, darted up into the air, circled once over the spot where Ralph crouched, and flew hastily away. It was so swift in its flight from the place that Ralph was unable to get a second shot.

Nevertheless, even in his vexation at apparently losing it, Ralph could not refrain from giving a shout of triumph. Hurriedly securing his pony, he made a detour of about half a mile in order to cross the mountain stream; for to cross it at the spot which he had chosen for his ambush would have been impossible, owing to the depth and swiftness of the current.

After fording the stream at the further point—under protest from Keno, who picked his way very carefully and grudgingly over the treacherous rocky bed—Ralph dismounted and tied the horse to a tree. Then he walked carefully along the base of the cliff, crawling or jumping from one rock to another, taking advantage of every slight projection, and holding his breath for dread lest he slip and hurl himself into the foaming water. At last he came to the foot of the rock where, but a short time ago, the eagles were devouring their breakfast. There he paused to get his wind and to look for the fallen bird.

Quite out of reach, on the ledge above his head, the female eagle lay stunned and broken-winged, but still alive. To scale the cliff was not possible, for here it sloped sharply out over its base, where it had been worn smooth by the stream at some previous age when the water was swollen higher. There were no trailing vines or overhanging saplings strong enough to bear Ralph's weight; but, foreseeing this very obstacle, he had brought a rope which he now uncoiled from around his waist. He flung it dexterously over the ledge. To his utter surprise, it caught there at the middle, while the other end dangled within his grasp. He seized it, gave a few strong tugs at each end of the rope to make certain it was secure, leaving his coat and rifle on the ground, and then he began to climb up, hand-over-hand.

Gaining the ledge, he at once saw the wounded bird. After a short, sharp struggle, he dispatched her, and was in the act of tying the lifeless body to his hunting belt when he was startled suddenly by a loud whir of wings, and something hit him a stinging blow on the back of his head. The male eagle, attracted by the shrill cries of its mate, had come to the rescue!

A hasty glance over his shoulder showed him an alarming glimpse of the mighty potentate of the air bent on revenge for the death of his mate. Ralph ducked just in time to escape another blow from those powerful wings, and he struck out wildly with his right arm, missing the winged warrior by a mere inch. He saw that he was going to wage battle, then and there, on the face of that precipitous cliff.

As he drew his long hunting knife out of its sheath, the eagle darted at him once more. Ralph threw his arms up to shield his head and face, and as he did so, his foot slipped. He clutched frantically at the rock to save himself from falling, and dropped his knife. He heard it clink on the rocks several feet below his reach.

Before he could fully recover his footing, the bird was upon him, beak and talons, seizing the sleeve of his shirt and making gashes in the boy's arm. By a mighty effort Ralph got his balance again, and turned to meet the onslaught, waving his arms like flails, to beat down the force of those wide threshing wings. Again and again the eagle made a vicious rush, and once managed to get under Ralph's arm and to take an ugly nip in the flesh just above the eye. Maddened by the pain of this wound, and half blinded by the blood which soon began to flow from the cut, Ralph snatched the dead bird from his belt and swung it around his head like a club. Once this improvised club crashed against the attacking bird, and Ralph took advantage of the latter's hasty retreat to slide down the ropes and

land on firmer ground. He tossed the dead bird aside, and lunged forward to recapture his knife. But the king of the clouds was not by any means outdone. Indeed, the sight of his dead mate lying on the rocks, near where Ralph was crouching with his back protected by the sloping rock wall, seemed to put a new idea into the crafty bird's brain. Screaming with rage, he swooped down after Ralph, and alighted on the ground about two yards from the place where the lad crouched in his protecting niche. Then, with wings bowed outward and downward like a belligerent hen, with beak snapping and talons spread wide, rending the air, he charged straight into Ralph's face.

The plucky youth was ready for this, however, and he awaited the attack, knife in hand. He was unwilling to use the knife if he could avoid doing so, for a bad cut might injure the skin and feathers of the coveted trophy. But it seemed likely that such considerations would have to be banished in the face of this horrible danger.

After repeatedly beating back the infuriated eagle, Ralph saw that his best blows were glancing harmlessly from its shining armor of feathers, and that the vengeful creature was gaining courage with every charge. Moreover, in his cramped position he was at a disadvantage, while the blood trickling down from the wound in his forehead made his sight uncertain. In desperation he resolved to turn the knife edge uppermost and to strike with an upward motion as the bird rushed close.

His next blow showed the wisdom of this course. Aided by the bird's reckless attack, the keen blade found its mark under one of those great pounding pinions, and by the diminishing force of the next charge, and the next, Ralph knew that the eagle was weakening.

Another lucky thrust hurled the wounded bird to the ground, where it lay kicking feebly for a few moments; then, with a convulsive jerk, it flopped over and lay still at the edge of the stream.

Ralph slid out from his crevice, and bathed his face in the cold water. Refreshed, he picked up the two splendid birds and gazed at them almost sadly, with no feeling of elation. He was full of admiration for the brave fight they had made.

"I had to do it, I had to do it," he muttered apologetically, as if seeking an excuse for an act which he found difficult to defend. "Better do this than to borrow money and get into debt."

Thus he argued; but, in spite of his gladness at having won the means wherewith his mother might undergo the operation, he felt a reaction after the excitement of the fight. Weary and wounded, and moved to a pitying admiration of the prize within his grasp, it was nothing to the discredit of this simple, manly lad that he shed a few tears over his victory. Have not seasoned hunters been known to weep over the death of a noble stag or a gentle doe? And were these eagles no less noble in their sphere of the animal kingdom?

Almost sadly he tied them to his belt, carefully avoiding further injury to their plumage; and as he did so, the thought crossed his mind:

"Wonder what those fellows and the Scout Master would say about this, if they knew?"

Still wondering, he retraced his steps along the edge of the stream, back to the spot where he had left Keno. Imagine his dismay and consternation when he found the tie-rope broken and the pony—gone!

Keno had disappeared! Had he grown restive and wandered away, or had he been stolen by some lawless prowler among the hills?

The situation, in either case, was bad enough, for the distance home was long, and Ralph was sore and aching in every limb. Knowing a horse's infallible instinct for going homeward, he felt no apprehension that Keno would get lost; yet he realized what a sensation the pony would make when, provided he were not stolen, he ambled into the farmyard, saddled and bridled and riderless!

"Mother'll be scared out of her wits!" thought Ralph. "Gee! I wish this hadn't happened! I wish Keno hadn't bolted like this! My fault, I suppose; I ought to have tied him more firmly, but in my hurry to get the first eagle I neglected to do it!"

Removing his belt, he sat down on a flat stone in the sunlight, and stared at the ground dejectedly.

"I guess this is when little Weary Willie walks home!" he groaned. "Confound the luck!"

Suddenly his gaze became riveted on a peculiar mark on the soft dry loam: the imprint of a large paw like that of a cat rising hastily, he examined the ground all around the place and discovered many similar tracks.

"It's a bobcat!" he exclaimed aloud. "A big bobcat or a lynx! The critter must have frightened old Keno and made him hit the trail home! Hope I don't meet the brute! I've got only two or three cartridges left."

Pausing only to remove his coat and shirt and to bathe the upper part of his body in the stream, he put on his garments again and set forth along the trail. As he walked slowly through the fragrant woods, squirrels and jays chattered derisively at him overhead, and frightened rabbits dashed helter-skelter among the thickets. He gave them not the slightest heed; his chief interest now was to get home as soon as possible and to relieve his mother from anxiety over his absence.

To hasten his arrival he resolved upon taking a short-cut through the thickest part of the forest, which, though it would eventually lead him out upon the boundary of Silas Perkins' farm, and necessitate his crossing that surly neighbor's property, would save at least two miles of the return journey.

Getting his bearings by the sun, in true woodsman's fashion, he left the trail and struck off through the unblazed aisles of the wood, going onward farther and farther at a resolute pace. The sun presently was obscured by the thick canopy of budding trees, as Ralph descended into a little hollow between two hills, and dusky shadows contended with mid-daylight. Still the boy staggered onward, now and then faltering to rest. His wounds gave him little pain now, though one eye was badly swollen around the cut. But it bothered him and distracted his mind; and this was probably the reason why, in his haste and distress, he found himself growing more and more bewildered by his surroundings. Finally he realized that he had lost his way.

"And I can't be more than five miles from home, too!" he reproached himself, in tired disgust.

CHAPTER IV

A NIGHT IN THE WOODS

Although it was not yet noon, Ralph was as hungry as a young wolf, for he had eaten nothing more than a dish of cold oatmeal and milk since five o'clock that morning, and he had taken no provisions with him. Assailed now by the pangs of a youthful, healthy, unsatisfied appetite, he began to wonder what he could manage to "scare up" in the form of edibles.

Near at hand was one of the numerous small springs with which these hills abounded. It rilled up out of the earth and rocks and formed a pool of clear water in which cress grew plentifully, furnishing him with a welcome salad. He gathered a hatful of last autumn's chestnuts—somewhat soggy, to be sure—and, making a small fire of leaves and bark, he proceeded to roast these in the embers: a tedious and unsatisfactory process at best. Having thus taken off the edge of his hunger, he set forth upon his homeward journey again, in a new direction.

"The next time I come up here in this neck of the woods I'll have a pocket compass or a watch, at least," he said to himself. "It was foolish of me to start off without one, but I've learned a lesson today, anyhow. The trouble is, I never dreamed I'd get lost!"

He was headed directly from Pioneer Lake, as he thought, toward the hills beyond it, and presently, as he began to climb, the scenery grew wilder and more unfamiliar, the trees taller and set more thickly together, the undergrowth almost impenetrable. Still he fought on. It seemed he had never been so far in this direction before, and after the first rush of angry despair had passed, he felt doggedly curious to learn whither he was going, and what landmark he would see first.

For almost two hours he plodded on, burdened with his rifle and the pair of eagles, scratching his hands and face, tearing his clothes. It was a miserable, heart-breaking tramp, one which might have caused a less plucky lad to sit down and give way to doleful helplessness. Even Ralph felt an uncanny sense of utter loneliness, and he upbraided his own stupidity, as he chose to call it, in wandering so far afield.

At last he noticed a faint roaring noise at the right, and he turned in that direction, blindly, aimlessly. As he advanced through the undergrowth the sound grew louder and louder, until finally he emerged from the thicket and stood upon the bank of a deep stream which rushed turbulently along and dropped over a ridge, falling sixty or seventy feet into a cup-like hollow in the rock.

Ralph uttered a cry of delight. "Why, it's my own waterfall! I've been wandering in a big circle all this while, and here I am not far from my boulder where—ouch!" The sentence ended in a loud wail of agony, for, taking a step forward, the young wayfarer's foot had slipped on a loose stone. His ankle was severely wrenched.

For a few moments the pain was intense, almost unendurable. Poor Ralph groaned aloud and sank down on the ground, biting his lips in trying to keep tears of agony from welling to his eyes. How could he walk the remaining distance home? Even with an improvised crutch made from a forked branch of some tree, it would be well-nigh impossible to travel up and down the stony grades that stretched between the place where he had met with this unfortunate accident and the farmhouse.

"Oh, if Keno had only not broken away!"

The futile wish was maddening in his present plight. He showered sharp epithets upon the absent pony, until he remembered the probability that Keno's return without him would be the means of sending some one to the rescue. This was some consolation, though it was but cold comfort in view of the fact that, had Keno not bolted, this mishap would not have occurred.

However, there was no help for it now. Meanwhile, the badly sprained ankle was throbbing painfully, and Ralph's next thought was to thrust it, without taking off his shoe, into the cold running water in order to check the swelling. He held his foot there, shivering with relief, then he stretched himself out on the bank of the stream, in the warm sunlight. Whereupon, with anxious mind and weary body soothed by the loud splash of the waterfall, with the pain in his ankle considerably relieved, and with a soft, grassy nook beside a rock offering repose, it was not very strange that, after closing his eyes drowsily, Ralph sank into a troubled slumber.

When he awoke, the sun was only a little way above the tops of the highest trees, and long golden shafts of light were slanting down through the branches, making an intricate tracery of shadows on the ground. The air was beginning to have a decided chill, for the wind had shifted to the west and was blowing the spray of the waterfall into Ralph's face.

Strange that no one had come, in search of him! Of course his mother could not have hitched Keno to the old buggy and driven here, but she might have telephoned to Tom Walsh and asked him to find out what had become of the missing hunter. He made another bold attempt to walk, with the aid of a stout pine branch; but he could not bear to put any weight on that cursed ankle.

"Well, I guess I'm bound to spend the night here," he told himself grimly, after several futile starts. "I hope mother'll not worry; she may not have noticed Keno, after all, if he went straight to the barn. I remember I left the door open. And now what's the first thing to be done? Oh, I know: make a fire—and two smoke fires for a distress signal."

So he set about doing this, hobbling with difficulty over the uneven ground. The signal fires he placed about fifty feet apart, so that the wind should not confuse them; his camp fire he built between three big rocks that formed a natural oven, over which he laid a hastily constructed grill made of green alder withes. On this grill he intended to broil whatever game he could bring down with his rifle, for supper; and, as luck would have it, he did not have to wait long before he "bagged" a large gray squirrel, which he dexterously skinned and prepared for cooking.

While it was still daylight he gathered plenty of good firewood, for he realized that having no blanket or poncho he would need to keep up a brisk fire and to sleep as near it as possible. Fortunately, another rock adjoining the fireplace afforded shelter against the cool night wind.

The next thing to consider was his bed. The ground was damp in places, but if he used leaves for a bed they might take fire and burn him while he slept. So he built another fire in a sort of hollow at the base of the fourth rock, and after about an hour—during which the squirrel was broiling deliciously—he raked away all the hot ashes, and curled up on the dried warm ground. This proved to be a fairly comfortable bed and, after eating his nicely browned supper, and bathing his ankle again, he replenished the fire, taking care that it should not spread, and lay down beside the sheltering rock.

Twilight deepened into darkness, the stars appeared one by one in the vast black dome above him, the forest was deathly still save for the noise of the waterfall which drowned all other sounds. Once, an owl, attracted by the fire, perched on a low overhanging branch and stared into the flames with great blinking yellow eyes; then, startled by an uneasy movement of the sleeper, it flew away with a dismal hoot.

Ralph's dreams were troubled, a medley of combats with feathered foes, of lengthy altercations with Bill Terrill, of frantic digging in the ground for impossible gold. Twice he was wakened by twinges of pain, and he lay there, open-eyed, gazing up through the branches of the stars.

"There's the Pole star and the Pointers," he murmured, to divert his mind from his suffering. "Of course, the Pointers go around the North star once in twenty-four hours, so that makes a kind of clock. I could find my way home by those stars if I had to, but I can't walk, I can't walk!"

His voice trailed off into silence, and he fell asleep once more. Presently he was wakened, for a third time, by a man's voice calling his name. Or was this only another dream? He sat up and listened intently. The call sounded from some point back on the trail, and there could be no mistaking its reality; it was loud, gruff, yet kindly.

"Ralph! Oh-o, Ralph! Where are you, lad?"

Then came a tremendous clatter of loose stones and a crashing in the undergrowth.

The lone camper, benighted and forlorn, peered around him on all sides. At first he could see nothing beyond the glow of his own fire, which intensified the weird shadows of the forest; but he could hear the shouts and the ringing tramp of a horse's hoofs on the stony ground. He raised his voice in answer to the call.

"This way! Ki-i-o! Here I am!" he yelled excitedly. "Is that you, Tom?"

In a minute or two, as his eyes became accustomed to the pitch darkness beyond the firelight, he beheld the flicker of a lantern shining among the tree-trunks. Simultaneously, he heard the snorting of a startled horse. He stood up, leaning against his rock, and gave a peculiar throaty call that ended in the name "Ke-ee-no-o"—and then, to his delight, the intelligent old horse responded with a loud whinny of recognition.

The next moment three shadowy forms, those of a man on horseback and two others on foot, detached themselves from the enveloping darkness and advanced into the light of Ralph's campfire. One of the unmounted searchers carried a lantern.

They were Tom Walsh,—on Keno,—Jack Durham, and Tom Sherwood.

"What in 'tarnation's the trouble, lad?" demanded Tom, as soon as the searching party had exchanged greetings with Ralph, fervently overjoyed to see them. "We've been looking for you ever since three o'clock this afternoon."

Ralph explained the object of his quest.

"I got 'em, too," he added, pointing proudly to the two eagles. "But when I started to go home, without Keno, and tried to take a shortcut through the woods, I got lost somehow; and besides, I sprained my ankle, so I can't walk. I just had to wait for somebody to come after me. I hope mother hasn't been awfully worried."

"Well, she wasn't exactly what you'd call calm!" replied Tom. "But the doc is there at the house now, with her; she might be lots worse. Does your ankle hurt bad? Can you ride home?"

"Sure I can! Let's start right away—unless you fellows want to rest. You must be tired."

"I'm not," asserted Tom Sherwood. "How about you, Jack?"

The youngest boy gave a little sigh. "It's awfully nice up here in the woods by this fire!" he replied evasively. "Let's warm ourselves and—and hear more about Ralph's adventures, and—do you think Mrs. Kenyon will——"

"Yes, I do," interrupted his Cousin Tom. "Come on, youngster; you and Ralph get on the nag; Sherwood and I'll walk. Let's be on our way."

So the matter was settled, to Ralph's satisfaction and relief.

Putting out the three fires and sprinkling even the last embers thoroughly with water from the stream, the four friends started homeward, with Ralph and Jack mounted on Keno in the lead. Jack carried the lantern, while Ralph, with one hand on the bridle, the other holding the two eagles tied and balanced across the saddle, allowed Keno to pick his own way along the trail. The sagacious animal seemed to know every foot of the path; even in the gloom of night he made no misstep. Sherwood and Tom followed close, the latter carrying Ralph's rifle.

CHAPTER V

FRIENDS AT THE FARM

On the way home, Sherwood explained how he chanced to be one of the search party.

"You see, the Chief—that's what we call our Scout Master—was called back to New York on business for a few days, perhaps a week; so he left Arthur and me at Tom's farm, because it's only about five miles from Pioneer Camp. And when your mother telephoned to Tom, saying that you hadn't turned up all day, Ralph, and that she feared something terrible had happened to you, we insisted on going with Tom to look for you. But Tom said——"

"I said she oughtn't to stay in the house all alone to-night," Tom put in readily, "so I told Arthur to stay with her until Doctor Kane showed up. I knowed it was his day to call at your house. See?"

"Yes, yes; I understand," Ralph replied in a shaky voice. "It's mighty good of you all to take so much trouble."

"Tush! 'Taint no trouble, lad! Why, anybody wouldn't refuse to do sech a small favor for your ma. Even Bill Terrill—he dropped in at your place to-day—even that cuss offered to go out and find you \ when he heard the news from her."

"Terrill! What was he doing at the farm to-day?"

"He drove over with ol' Si Perkins and two other wise guys, to get permission from your ma to——"

"Oh, I know! I know what they want!" exclaimed Ralph. "The mean, cowardly sneaks! They shan't bully mother into letting them survey our land, on the faked excuse that the survey dad had made isn't correct."

"What 'ud they want to do that for?" queried Tom.

"Because Perkins wants to annex a piece of our property, sink a shaft in it, and see if the ground promises to yield any iron. He claims that the piece he wants, which is our northeast corner three-acre, really belongs to him."

"Can't the dispute be settled by law?" Tom asked, in surprise.

"It was—once. But now the old grafter has dug up some technicality."

"And you've got to fight him, eh?" said Tom. "Well, go to it, lad! Go to it! I'll stand by you!"

"Why doesn't he experiment on his own land?" was Tom's next question, born of a lively interest he felt in the controversy.

"Because the B.N. and C. Railroad wants to run a branch line from Oakvale over to the main line, in a big loop, and Perkins may have a chance to sell some of his land. That's why he doesn't want to have it dug up, at present; he may strike ore. And that's why he's going to have his whole property surveyed."

"Ralph," said young Sherwood, after listening thoughtfully to his new friend's explanation, "you know the railroad company will have a survey made, on their own hook. Now it seems to me, if you know anything about surveying, that it would be a good chance for you to join the railroad's surveyors and get in a little fine work on *your* side of the fence, so to speak. Don't you think so?"

"I never thought of that!" Ralph eagerly responded. "That's a keen idea! Much obliged to you for it! You can bet I'll try."

Talking thus, the four beguiled much of the long tramp back to the farmhouse; Ralph almost forgot the pain of his injuries. A bond of friendship seemed already to have drawn him and Sherwood together: a bond which was destined to be strengthened not only by the adventure of this night but also by many future adventures which they would share.

"There's a light yonder!" exclaimed Jack, suddenly, waving his lantern as he spoke. "Somebody has seen us 'way off, and is coming to meet us."

He guessed right. As they approached the farmhouse they discerned in the darkness a figure coming

toward them with a stable lantern. The figure swung this light to and fro, up and down, in wig-wag signaling, and Tom replied by whistling shrilly two short blasts, which meant "All right, we're coming." Then the figure hailed them with a whoop of joy, and ran forward.

It was Arthur Cameron. Leaving Mrs. Kenyon in Doctor Kane's charge, he had slipped out of the house by the kitchen door so that his impatience and anxiety might not be observed, and, obtaining the stable lantern, he had gone forth to see if the search party was not yet returning.

When Ralph entered the house, leaning on Sherwood and Arthur, his mother burst into tears of thankfulness for his return and of pride in what he had achieved. She was distressed on learning about his sprained ankle, and, following Doctor Kane's directions, she lost no time in the preparation of hot and cold applications and bandages. Ralph was sent to bed as soon as he had modestly related his adventures, and had drunk a hot milk-punch (which he declared was "nasty") in order to offset any chill which he might have contracted by sleeping out in the open.

"As if I weren't used to sleeping practically in the open, every night of the year!" he complained to Sherwood, as he slid down between the sheets, which his mother had carefully warmed.

"Do as you're told, and don't grumble, old top!" laughingly replied Tom. "Hope your wounds and sprains and bruises and so forth will be much better tomor—I mean, later in the day. It's 2 A.M. now. Good night!"

"Good night! I'll see you later."

It was arranged that Doctor Kane, Tom, and the boys should spend the remainder of the night there; Mrs. Kenyon would not hear of any one of them going over to Tom's house at that hour. So the doctor retired to the spare bedroom, Sherwood and Arthur occupied a broad couch or divan in the little parlor, where Tom Walsh and his young cousin slept even more comfortably on an extra mattress on the floor. Everyone was in good spirits, although tired and very sleepy; and the sun was high in the heavens before any one of that household awoke.

Anyone? No, not quite; for, with characteristic thoughtfulness, Tom Walsh, waking earlier than the others, stole quietly out into the kitchen and began to make the fire and grind the coffee for breakfast. Mrs. Kenyon, hearing him, came downstairs at once. She, alone, had scarcely slept at all that night. Her fears for Ralph's health, as well as the thought of having soon to go all the way to New York with Doctor Kane and undergo an operation, had banished slumber. Seeing Walsh engaged in his kindly efforts, she smiled as she laid a restraining hand on his arm.

"Tom Walsh, you dear man, go right back and get your forty winks!" she said. "What do you mean by this?—and in my house, too!"

"You think I can't cook breakfast, eh? I want you to know I'm a fust-class cook!" said Tom, in genial protest. "Sit down there, now, and let me——"

"I won't! You're a good soul, Tom, and I know you'll make a husband that any sensible woman'll be proud of, because I can see you've been well trained. By the way, Tom, how's Sue Turpin nowadays? And when will she name the happy day?"

Tom colored up to the roots of his thin, sandy, curly hair. So Mrs. Kenyon, too, had heard of his wooing of Susan Turpin, the miller's daughter! Well, why not, since it had become a pleasant topic of gossip in the countryside? But he made no immediate reply, except a grin, and Mrs. Kenyon continued tactfully:

"Yes, an excellent husband, Tom—but never a cook. Your dear old mother told me, the last time she came over to see me, that you can no more cook than you can fly! And she thinks you're an angel, too! So just you hand me that coffee-pot and that frying-pan, and trot out to the poultry house and get me some fresh eggs."

"All right, if you say so," assented Tom. "I'll feed the horse, too. Suppose Ralph won't be up an' around for quite a spell yet?"

"No; I guess not," answered Mrs. Kenyon, relapsing into a more serious mood.

"Say, Mrs. Kenyon, why don't you ask them two Boy Scout friends of his to stay here and help him with the farm work while you're away?" was Tom's suggestion.

"Oh, I simply can't go away and leave the poor boy now!"

"Nonsense!" replied Tom. "You've got to go, if the doc says so. Anyway, Ralph'll be O.K. And them two boys'll be pleased to stay. I know they will. Take my advice and ask 'em."

"I'll—I'll see."

When Doctor Kane was consulted on the subject, he pronounced Tom's suggestion a good one, provided the three boys could manage to get their meals properly. This they vowed they could do; so Kane, considering it best to take Mrs. Kenyon to the hospital for treatment as soon as convenient, urged her to consent to the plan. He left the farmhouse, after a delicious breakfast, taking Tom Walsh and Jack home in his car,—also the golden eagles, which he promised to deliver to Professor Whalen that very day.

Two days later he returned with a check for one hundred and fifty dollars, and a letter expressing the professor's complete satisfaction at having obtained the fine specimens. When he returned to Oakvale again, Mrs. Kenyon went with him, in his care.

The parting of mother and son was a tearful one, though Ralph, choking down the big lump in his throat, tried manfully to cheer his mother with every hope of recovery.

"It won't be very long before you're home again and everything'll seem wonderful and bright and new to you, mother," he said. "And don't you worry about me, for I'm getting along fine. I can hobble around quite spry with this crutch. And Tom and Arthur are on deck, you know. We'll behave ourselves and not get into any mischief, and by the time you're home again we'll have done all the planting. Good-bye, good-bye! I'll write to you every day."

CHAPTER VI

A NOCTURNAL VISITOR

Tom Sherwood threw out his arms and yawned loudly. "I'm sleepy," he mumbled. "Guess I'll turn in, if you fellows are going to sit up much longer."

"Good idea, Tom," commented Ralph, looking up from the letter he was writing. "You've been making a holy show of yourself for the last half hour, and I've been expecting every minute to see you dislocate your jaw."

"It's being out in this air all day and doing such a lot of manual labor," said Tom, as he staggered to his feet.

"Oh, say, I hope you're not doing too much! You know, Tom, you're not used to farm work." Ralph laid down his pen and blotted the letter with much deliberation. His pale face, from which the freckles had faded noticeably during a week of indoor confinement, wore an expression of deep concern. "And it's not easy, I can tell you!"

Arthur Cameron chuckled. Though he said nothing, the expression on his face was one of such utter disbelief that even Tom noticed it and turned on him, frowning.

"Well, what are you looking at me like that for?" he demanded, without being able to hide a grin. "Haven't I been exercising? Haven't I? What have you got to say about it? Didn't I spade up that old melon-patch and plant sixteen rows of carrots in it, this afternoon?"

"I never said you didn't, old scout," said Arthur.

"I know you've been working like a cart-horse, Tom," interposed Ralph, who had hobbled around the fields for the first time that day, directing the labors of his friends. "You and Art have done wonders all week, and I'll never be able to thank you enough for all the help you've given me. It's simply great to have such pals as you two! And mother'll be delighted to know that everything's going so swell. I had a letter from Doctor Kane to-day—guess I told you? He said the operation was very successful and she's doing finely."

"Mighty glad to know it!" Tom declared warmly. "Did he say when she could come home?"

"In a few days. But you fellows can't leave then! No, sir-ee! We're going to have some fun after all this work is over, and mother and I will want you to stay and loaf for a while. I can show you where to get some dandy photos of nesting birds, and I know where a pair of red foxes have a kennel every spring. You can take pictures of the vixen and her cubs, if you go about it carefully at the right time of day."

Arthur's eyes shone with pleasant anticipation. He was delighted with the prospect of getting some good photographs to show the boys in Pioneer Camp. But Tom, though he also looked forward eagerly to the reunion of the troop at camp, shook his head with regret at the thought of leaving the farm. Ralph had told him more about the dispute over the boundary, and about his father's dreams of finding iron ore on the land; Tom was interested, for Ralph's sake, in having the land surveyed and examined.

"Why don't you go to bed now, too?" asked Tom, when they had finished talking about animal photography. "You need the rest, I know, Ralph."

"I'm going, in a few minutes, just as soon as I finish this letter.
Trot along, boys!"

"Well, good night," grunted Arthur, as he disappeared into his room.

"Good night."

"Don't be too long at it, Ralph."

"No, I won't. Good night, old top."

His gaze followed Tom as his sleepy guest slouched out of the room, and when he heard Tom's heavy footsteps on the creaking stairs, he took up his pen once more. Propping his head with his other hand, and shading his eyes from the lamplight, he wrote on. In a few minutes the springs of Tom's bed creaked violently as he dropped down on it, and soon the sound of his heavy breathing in the room above showed that he was dead to the world.

Ralph's eyelids began to droop drowsily. In vain he struggled to keep them open. He put his head down on the table, with a sigh, and before he realized it he was asleep.

The next thing he knew was that he found himself sitting up, wide awake. He had a distinct impression that he had been roused by the sound of a human voice. How long he had slept he could not tell. The lamp had gone out and the room was in inky darkness. As he sat listening, all at once he heard a sound of some one moving about the room.

"Wonder if we forgot to lock the kitchen door?" was his first thought. Then he spoke aloud: "Who's there?"

No answer.

"Who is it?" Ralph demanded, in a louder tone. "What are you doing?
What do you want?"

Still no answer. Only an impressive and uncanny silence.

Reaching out for his walking stick, which lay on the table beside him, Ralph got up from the chair without noise or further ado, and took a few steps forward. As he did so, a burly form crashed against him in the darkness, knocking him down. Unhurt, though considerably startled, Ralph sprawled upon the carpet and stared quickly up at the window, by which the intruder would have to pass in order to reach the doorway leading into the kitchen. At the same moment, he raised his voice and called out:

"Tom! Arthur! Come down here! Oh, Tom!"

"Curse you!" muttered a harsh voice. "Shut up, or I'll——"

"Tom!" yelled Ralph, defiantly. He would have risen at once and grappled with the intruder, only, with a weak ankle, he did not care to run the risk of a nasty blow or a bad fall. He yelled lustily instead, and in a minute he heard Tom spring out of bed and come tearing down the stairs.

But his mysterious assailant lost not a moment in making a getaway; he did not even wait to slip out by the rear door, through which he must have entered. Springing to the window, he smashed it with a kick, and was in the act of crawling through and dropping to the ground outside, when Tom flung himself upon him and dragged him back into the room. Fear of cutting himself on the broken glass evidently made the scoundrel yield more readily than he would otherwise have done. As it was, he put up a game fight, notwithstanding that Ralph, forgetting his ankle, joined in the fray.

The three rolled over and over in a confused heap. Tom felt a stinging blow on the side of his head, which made scores of stars dance before him in the darkness, but he never relaxed his grip on the man's collar. Ralph, too, was pounded and battered and choked by a powerful hand at his throat. Suddenly there was an audible rip, something gave way in Tom's hands, and the man, hurling the two lads from him with a frantic lunge, got to his feet and dashed out through the kitchen. Before Ralph and Tom could recover themselves, they heard him running down the road, just outside the window, at full speed.

"Great Scott! he's gone! he got away from us!" ejaculated Tom, in disgust. "Where are you, Ralph? Where's a light, a match?"

"Here I am!" Ralph answered, scrambling to his feet. "What on earth has Art been doing all this time? Didn't he hear the rumpus?"

"You bet I did!" exclaimed Arthur, coming into the room. "I heard your yells, and I ran downstairs after Tom, but—but I stumbled into the parlor, thinking the fight was in there. Then I heard one of these dining-room chairs being knocked over, and I rushed in——"

"You were just a minute too late!"

Ralph groped for a matchbox on the mantel-shelf, struck a light, and applied it to the wick of the lamp. When the room was again visible, he told his friends what had happened.

"I don't know why he broke into this house; there's no money here," added Ralph, "unless——" He stopped short with a gasp, and, going over to a wall cupboard, opened one of the drawers. "Gone!" he cried. "The money I got for those last pelts! It's gone, before I had time to put it in the bank! The thief has taken it!"

"Who could it be?" asked Arthur, after a brief, sympathetic silence.

"I can't guess. Tim Meadows, the man who helped me with the plowing last fall, was too honest to—— no, it couldn't be Tim! Perhaps— what's that you've got in your hand, Tom?"

With a start, Tom looked down. Clutched in his right hand was a fragment of a man's coat collar and the shreds of a green and yellow striped tie.

"It's a clew!" said he, with the air of a professional sleuth.

CHAPTER VII

BOY SCOUT DETECTIVES

On one of the fine courts back of the big summer hotel at Oakvale an exciting game of tennis was drawing to a close. The players were two patrol leaders of a troop of Boy Scouts who were awaiting the arrival of "Chief" Denmead, their Scout Master, before going over to Pioneer Lake for the opening of camp. Walter Osborne, of the Hawk patrol, and Donald Miller, leader of the Foxes were very evenly matched. The latter was conceded to play the steadiest, surest all-around game, though Walter frequently surpassed him in single shots or astonishing rallies.

That the set had been a hotly contested one was shown by the score in games being 9 to 8 in favor of Miller. If he could make the next game, the set would be his, and with it the championship of the troop. He was counting on the fact that Walter was apt to go to pieces at a critical moment; this helped to keep the playing fairly even.

Perched on a barrel, overlooking the court, George Rawson, the Assistant Scout Master, was scoring; while several other scouts had various points of vantage and were watching the game with eager interest.

In the middle of a rally, Don hit the ball a low, smashing stroke, intending to place it in the far corner of the court. Instead, it grazed the net and dropped dead on the serving line, before Walter could return it.

"Vantage out!" called Rawson.

Walter laughed a trifle "sore-ly" as he returned the balls for his opponent's next serve. He hated to lose, but he was a lad who could take defeat gracefully if he had to, and this last play only served to put him on his mettle.

Don's first ball was a cut, but Walter returned it easily, and a new rally commenced. The captain of the Foxes played a net game, trusting to his height and reach to stop every ball that came over, while Walter preferred to, stand well back on the court where he could place them better.

Back and forth flew the ball with such swiftness that Rawson had all he could do to keep track of it. All at once, Walter lunged forward to return a particularly difficult shot which Don had placed close to the net. Biff! he just caught it and gave it a swift cut which sent it whizzing past Don's extended racket to the base line, where it raised a little spurt of dust.

Amid a murmur of applause from the young spectators, Rawson decided in an instant.

"Out!" he called. "Game and set."

Before the cheers had died away, Walter walked up to the net and shook hands with the victor.

"If you play like that when you're rusty, as you said you were, Don," he said pluckily, "I'd hate to be up against you when you're in practice!"

"Oh, no, you wouldn't, old scout!" was Don's hearty response. "Why, I remember times when you put it all over me! I'm afraid of that famous serve of yours still!"

"Whoop-ee!" yelled Cooper Fennimore, a scout in Don's patrol, springing up and waving his cap around his head. "That's some playing, I tell you! For a chap that hasn't had a racket in his paw for three months, that's going some!"

"Talk about speed!" put in another Fox. "Gee! I'm glad I wasn't in Walter's place!"

The boy to whom these remarks were addressed, Blake Merton, a Hawk and one of young Osborne's staunchest friends, flushed.

"If you had been in Walter's place, you would have lasted about two minutes!" he retorted. His naturally quick temper—usually kept in control—often flared up and led him to say things which he afterward regretted.

"Huh!" exclaimed the Fox, scornfully. "You seem to think Walter Osborne can win all the time! Don did start in rusty, but he soon warmed up—just a little!"

"Let's play a set, Coop, you and I," suggested Blake Merton, turning his back upon Don's elated follower. "Do you feel like it?"

"Sure thing, Blake! But I guess you won't have any trouble in putting me down and out."

"Cut out the modesty!" laughed Blake. "It was all I could do to beat you yesterday, and you know it."

So another court was soon occupied, with Dick Bellamy scoring. Dick belonged to the Otter patrol, and as Alec Sands, who formerly captained the Otters, was not going to be in camp that summer, Dick was Tom Sherwood's only rival for the leadership. Already the Otters had held informal discussions of Dick's and Tom's qualifications, but it was still uncertain which of the two would be elected. Each was popular and had a good record in woodcraft, athletics, and scout games. Another question was: Who would be chosen for leader of the Wolf patrol, in the absence of Hugh Hardin and his chum, Billy Worth, that summer?

"Rough or smooth?" called Blake, tossing his racket in the air.

"Rough," answered Cooper.

"Smooth it is," the other declared, with a grin. "I'll take serve."

Blake had a peculiar and difficult cut on which he prided himself in serving. It was seldom that anyone could touch it until after he had played with Blake for some time, and Cooper was no exception to the rule.

"Fifteen love," announced Dick from the barrel.

They crossed the court, and Blake tried the cut once more. This time Cooper was ready for it and sent it back with a swift underhand drive, and a rally began right at the start. The game promised to be a

good one and it drew many interested watchers, though most of the boys had followed Rawson and the two patrol leaders over to the hotel.

Cooper won the first game, and the second was in progress, when the attention of some of their companions was drawn to a horse and buggy driven by two boys, appearing on the brow of the hill and coming along the road which skirted the tennis courts. The occupants of the buggy were Tom Sherwood and Art Cameron, and as they drew near they were hailed with shouts of delight.

"Oh, you farmer!"

"Hayseed, where've you been planted?"

"Welcome to our city!"

"Come over here and get next to this game."

They did so, after tying Keno to a post and giving him his noonday rations which they had brought with them from the farm. The story of the championship match that had just been played was related to them in full detail; they in turn stated the errand on which they had come.

"You know we've been staying at Ralph Kenyon's farm, having a great time," Tom, explained. "Well, last night, after Art and I had gone to bed, some mean cuss, a thief, got into the house, attacked Ralph—who's one of the best fellows on earth, boys—and stole some money Ralph had been saving. In the tussle we managed to grab a piece of his coat and his tie, and we've come over to put them in the hands of the Oakvale constable, to see if he can identify them."

"Good for you, Tom! Tell us about the fight!"

"Oh, it wasn't much of a fight," Tom evaded. "But first I want to know how many of you fellows would like to make up some surveying parties—four in each crew—and offer your services to the B.N. and C. Railroad to help survey Ralph's land. We can do it, you know, as assistants to the railroad's regular surveyors, and perhaps we can show them that it would be better to buy part of Ralph's property for their loop line than to buy any of his neighbor's, old Silas Perkins. And, if we can do this, why, it'll be the greatest thing ever for Ralph, because he's a good sort, and he wants to go to college, and he'll——"

Tom paused for breath. Enthusiasm for his friend and interest in Ralph's ambition to get an education had carried him beyond the limit of his usual brief remarks. Such a long speech was a surprise to himself as well as to his auditors. They listened attentively, and not a few among them caught the spirit of the plan.

"D'you think the Chief'll let us do it?" asked one. "You know, we're due in camp by the first of next week."

"Oh, I think he will. You know he has already promised to give us a course in geology this summer, and a lesson in surveying this section. Then he's always willing to give us a chance to put what we've learned into practical use."

"We'll ask him when he gets here at two o'clock."

So the matter remained open; and Blake and Cooper, who had stopped playing, resumed their interrupted game. The others watched them, forgetting more serious affairs.—All but Tom, who felt restive and impatient to enlist the services of the constable, and to carry out his other idea. Glancing at his watch, he saw that it was after half-past one. In about half an hour the train would arrive, bringing the Chief and perhaps a few more scouts. He decided to stroll over to the station and meet them and submit his plan for Denmead's approval.

With Tom Sherwood to think was to act. He left his friends at the hotel, and telling Rawson where he was going, set out in the direction of the station. His way took him first along Main Street and thence down one of the narrower side streets or lanes which branched off on each side.

Oakvale was scarcely more than a large village, but it boasted many shops, two drugstores, a public school, a post office, and four saloons. As Tom passed one of these haunts he saw a group of men standing on the corner. They were gathered around a rough-looking specimen of humanity who stood with one leg thrown across the top of a low hydrant haranguing his boon companions.

"An' Perkins says ter me, 'Now, jist yeou hold yer hosses an' keep yer shirt on, Bill,' says he. 'We don't want no foolin' with thet kid.' Waal, I didn't like ther way he spoke, and so I got kind-er huffy, and he says, 'Here! take yer pay, and git aout! Beat it!' And here I am!"

"Fired again, eh, Bill?" said one of the loungers.

There was a loud guffaw, and another man dealt Bill a resounding slap on the back. Whereupon the sidewalk meeting adjourned. As they passed between the swinging doors of the saloon, Tom touched the last man on the arm.

"Can you tell me where the constable's office is, sir?" he inquired politely.

"I'm Constable Thompson," replied the man, displaying his badge, for he realized that a Boy Scout would require some proof of the statement. "What d'you want, sonny?"

Very briefly and to the point, Tom stated his case against the unknown thief who had broken into Ralph's farmhouse during the previous night. Then he showed Thompson the clews. The constable examined them carefully, and seemed to recognize them. While he was doing so, the man called Bill appeared in the doorway and beckoned for him to come inside.

"Ain't you off'n the water wagon, Thomp?" he asked, with a repulsive chortle. "Come on! What's the mat——?" He broke off abruptly as his eyes fell upon the torn remnants in the constable's hands. "What——what you got there?" he mumbled, turning pale. "Got a bargain in——?"

"No," replied Thompson curtly. "Straight goods, Bill Terrill. And it won't be a bargain for—a burglar, unless I'm mistaken. So long! I've got to hustle or I may miss my guess and my man."

So saying, he nodded to Tom to follow him and strode away, leaving Bill Terrill on the threshold of discovery.

CHAPTER VIII

THE SURVEYING SQUAD

Terrill's words about "no foolin' with that kid," coupled with his startled look when he beheld the fragments of clothing, had started a train of reasoning in the constable's mind. All he said to Tom, however, was: "Come with me, boy. I'm not hankering for Bill's company just now, though I may be keen to see him later. Come along."

Turning another corner, he led Tom across a vacant lot to a small, unkempt, dingy old house at the end of the path. In the yard of this dwelling a woman was hanging clothes on a line and a number of mongrel hens were taking dust baths under some lilac bushes. The breeze wafted the fragrance of these blossoms to Tom's nostrils as he and Thompson approached them.

"Hello, Mrs. Terrill!" said Thompson. "Busy day for you, eh? Why don't you make Bill help you with the wash?"

"Bill's got enough to do washin' his innerds—with liquor!" gruffly retorted the woman, who seemed to be greatly vexed, even angry, at the mention of her husband's name. "And just as if I haven't put up with him time and time again about it! I won't do it no more! And him daring to complain about my cookin' and my not mendin' his clothes! Why, this mornin' he come home late, with his coat all torn and his——"

"What?" almost shouted Thompson. "What did you say, there m'am?"

—"I said his coat was all torn," repeated Mrs. Terrill, pleased to find a listener who appeared to be sympathetic. "You know how 'ternal careless he is, Mr. Thompson, and how much trouble he gives me."

"I do, I do indeed." The constable slowly drew out of his pocket the clews Tom had given him. "Could this be a piece out o' Bill's coat?" he asked in an offhand manner calculated to avert suspicion.

"That's it!" exclaimed Bill's long-suffering wife. "What of it?" she added quickly. "Anything wrong? I guess he must've got into a fight, his face was so battered, but I hope——"

"Hold on, Mrs. Terrill! Enough said!" interposed the constable, who felt sorry for the way he had led her into a trap. "I made a bet about these rags, and now I'm going to put it up to Bill. Do you know where I can find him?"

"No, I don't, but I guess *you* know," the woman replied sharply.
"What's your bet?"

"I'll tell you bye and bye, if I win," said Thompson, with a forced laugh, as he and Tom walked away. "Now, boy, you heard what she said," he continued, when they were out of earshot. "You witnessed when she identified these rags. I reckon Bill Terrill's our man."

As quickly as possible they returned to the corner, where Thompson dived into the saloon, only to reappear after a few minutes—alone.

"Friend William has skipped out," he declared grimly. "His pals are in there, but our naughty little bird has flown! Never mind; I'll get him. He's either skulking around town somewhere or he's made tracks to the station, hoping to get the 2.10 to New York. You said you were on your way to the station, didn't you? I'll go there first with you."

Sure enough, when the train pulled in at the station, there was Bill Terrill waiting to board it! He had not counted on such quick work on the constable's part, and was not aware of the assistance his own wife had unwittingly rendered, so he had merely tried to get away before he was "spotted" among the crowd of idle men and boys gathered on the station platform. When he felt Thompson's heavy hand on his shoulder, he started, tried to dodge him and escape, and, failing to do that, broke into a torrent of vile oaths and half-drunken protests as he was escorted away to the village jail.

Meanwhile, having told Thompson where he and Ralph and Art could be found if wanted later, Tom saw the Scout Master and four boys making their way over to the side of the platform, where a bus was waiting to take them to the hotel. He was just in time to join them, and soon he was telling his story to Denmead.

"That's a good idea of yours, Tom," said the Chief, when Tom had finished. "I'll find out how many of the boys know anything about surveying, and then I'll go and see Mr. Brett, one of the railroad officials, and learn what can be done. I'd like to help your friend Ralph Kenyon. I was sorry to hear that he met with an accident lately. It's a shame he killed those splendid eagles! Professor Whalen showed them to me. Why, I'd have been only too glad to pay the lad well for the privilege of studying the birds in their wild state. He ought to have protected them, as a Scout would do, not killed them! But Dr. Kane told me it was his suggestion to Ralph."

"Yes, sir; so I understand," Tom answered. "Ralph isn't a scout, you know, sir; and he needed the reward the professor offered—needed it in a hurry—so he earned it honestly, even though he'd have chosen not to shoot the birds. He said he was mighty sorry afterward."

"I'm glad to know that. I thought he'd regret it. Well, we won't cry over spilled blood now; it's much too late. By the way, how's he getting along?"

"Great, sir; he was able to walk around a little, without his cane, when Arthur and I left him this morning."

"Are you going back to the farmhouse until we start for camp?" inquired Denmead.

"If you've no objections, sir."

"None at all, my boy, as long as you can help your friend. You must ask him to visit us in camp when he has time."

"I will, I will!" exclaimed Tom. "I know he'd enjoy it."

"And if this surveying scheme of yours—or was it Ralph's?"

"Both, sir. At least, we talked it over together."

"If it can be carried out, and if the railroad will buy part of Ralph's farm, he will be able to go to the School of Mines?"

"Yes, sir, that's what he wants to do. You don't think, then, that there's any chance of finding iron ore on the property?"

"How should I know? Stranger things than that have happened, Tom."

Talking thus, they reached the hotel. Denmead was immediately surrounded by his troop of scouts, to whom he introduced the new recruits, and presently they all fell to discussing plans for the summer.

As the afternoon waned, Tom made ready to drive back to the farmhouse, declaring that he knew the

way perfectly, and even if he didn't, old Keno wouldn't make any mistakes. Arthur decided to stay with the others at the hotel, but Tom did not mind this at all, being quite willing to return alone. The Scout Master promised to send word just as soon as he had interviewed Mr. Brett, or his secretary.

"If, for any reason, we should decide to go direct from here to Pioneer Camp, and should not go up around Silver Lake and thence to Ralph's farm, to call for you, Tom," he added, "I will send Joe to the farm, and he will guide you to camp through the backwoods north of Pioneer Lake. That will be an interesting experience for you, and Joe is good company. Take good care of yourself, my boy, until we all meet again at camp."

"Certainly. Good-bye, all!" Tom sprang into the buggy and gathered up the reins. "Good-bye!" he called out again as Keno turned and trotted up the road at a brisk rate.

They watched him until horse and buggy were silhouetted against the sky on the brow of the hill; and, when he vanished down the further side in a hollow, they separated into little groups and went their ways in search of amusement.

Tom made the long drive homeward without further adventures. It was after sundown when he arrived at the farm and found Ralph, who was really an excellent cook, preparing supper. Broiled chicken, sweet potatoes, asparagus and radishes grown under glass, custard pudding—it was a feast for these healthy, famished youths, and they did ample justice to it; so ample, in fact, that each had to let out his belt one notch! And what a good talk they had over the events of the day! Tom was as interested in hearing all about what Ralph had done and seen as Ralph was in Tom's more varied account.

The fact that Bill Terrill was the thief did not greatly surprise Ralph. However, he feared that very little, if any, of his money would be recovered, when he learned that Bill and his cronies had been drinking together. In this, we may add, Ralph was happily disappointed, for a few days later he received from Constable Thompson a crumpled ten-dollar bill,—the remains of the stolen hoard!

The news that Scout Master Denmead would personally take up the matter of the survey was a great satisfaction to Ralph. It was more than that, it was a source of the most rosy-hued hopes and dreams in which he had indulged himself for many a long day. Almost the last thing Tom said to him before dropping off to sleep was:

"The Chief'll persuade 'em to do it, I know he will. He can do anything. He's great!"

And that night Ralph dreamed that his farm, all of it which was not bought by the railroad, was converted into a great mine in which scores of men were at work.

Two days later a party of four men drove into the farmyard, with axes, tape, level and other implements for surveying. They began operations at once and did not cease until close of day, when, declining Ralph's invitation to spend the night, they returned to Oakvale. On the following day they came back, with another squad. Of this squad Blake Merton was lineman and George Rawson rodman. The second squad began working from the eastern boundary of the Kenyon farm, and Tom spent part of the day with them. Ralph could not walk far, as yet, though with every day his ankle was getting stronger.

Each night so long as the work of the survey lasted, Rawson,—who with Blake had accepted Ralph's invitation to stay at the farm,—spent an hour or two with the three boys, going over with them the methods of surveying and explaining the local geological formations.

Meanwhile, at Pioneer Camp, Lieutenant Denmead was giving similar daily instruction to the troop, with frequent brief trips for practical demonstration. He had not thought it best to ask that more of the scouts might assist in the railroad survey, fearing that they would hinder the trained workers. But Rawson and the boys were to give the rest a detailed report of their work on their return to camp.

CHAPTER IX

AWAITING A DECISION

While these important operations were in full swing, Dr. Kane brought Mrs. Kenyon home, completely cured and inexpressibly glad and grateful. Her return, although hailed with rejoicing by Ralph, upset the decidedly masculine housekeeping arrangements which he and his friends had established during her absence.

Mrs. Kenyon could find no fault with the neat and clean condition of the house, nor with the way the dishes were washed and placed in order on the shelves. She was, however, considerably surprised, not to say startled, at the culinary efforts of her son and his guests, and she declared she could not understand "how anyone can sleep in those beds, the rough-and-tumble way they're made!" But after making them properly, she realized that there were now not enough beds to go round. Hence Ralph and Blake for two nights slept in the hayloft in the barn.

The railroad surveyors returned to Oakvale in due time, having fully established the previous survey which Ralph's father had caused to be made. There could be no further dispute now over the boundary lines, and "Old Man Perkins' claim hadn't a leg to stand on," as Tom Walsh expressed it, when the report was read to him. Nothing remained now but to await the decision of the railroad officials as to whose property they would buy.

The three lads, Ralph and Tom and Blake, had gained some valuable experience in their work with the surveying squad. Toward the end, Ralph had been able to go about with the others everywhere except on the stony slopes of the hills, where the walking was difficult. His work on the garden patches completed, he had a brief interval of welcome leisure to spend with his helpful guests.

"Well, boys, I guess we'll start for camp to-morrow, if Joe turns up to guide us," Rawson said the evening after the survey was completed. "Why don't you come with us, Ralph? I'm sure your mother can spare you for a few days, and we'd all be delighted to have you make us a visit at camp."

"Yes, you bet we would!" added Blake. "You'll come, Ralph, won't you?" Tom asked in his quiet, cordial way.

"What do you say, mother?" said Ralph.. "Can you—I mean, won't you be glad to be rid of me for a few days and have Aunt Sarah make you a visit here?"

"Not glad to be rid of you, son," returned Mrs. Kenyon, smiling fondly. "But I wish you would go! It would be real fun for you. Your aunt is coming surely, so. I shan't be lonely at all. Go along, like a good boy."

"All right, I will. Thanks for inviting me, Mr. Rawson."

Thus it was arranged that Ralph should accompany them on a hike through the backwoods that extended for many miles between his farm and Pioneer Lake, southward. Earlier than usual he rose next morning and attended thoroughly to the chores; then, after a hearty breakfast, the four hikers bade Mrs. Kenyon good-bye and set out for a place in the woods where Joe was to meet them. This place was at the lower extremity of a small lake called Placid, which was cupped in the hills about two miles from the farm.

"We'll play we're prospectors and look for signs of iron deposits on your land, as we go along," said Rawson.

They went steadily on for over an hour, pausing only to test inviting rocks with their hammers and to allow Tom to take some photos of birds and plants. Unfortunately the foxes' den appeared to be deserted that spring, and Ralph felt a pang of regret at the thought that perhaps the foxes that usually took up their abode there had fallen victims to his traps. "I hope I won't have to set any more traps for the wild creatures of the woods and streams," he said to himself. "I see now it's much better sport to get snapshots of them."

Presently the glitter of the little lake among the trees attracted them, and they pushed on through the thickets down to the shore.

"Wonder if it's too cold for a swim?" said Tom, eagerly.

"A quick plunge won't do us any harm," assented Rawson. "Shall we try it, boys?"

All were heartily in favor of the idea. In a few minutes they had stripped off their clothes and waded into the water.

"Don't go far out!" cautioned the young Scout Master. "The water's none too warm at this time of year, and anyone of us might get a cramp suddenly without a moment's warning."

While the boys amused themselves by racing close to the shore, he swam ahead of them, but no further out. Rounding a wooded point that jutted out into the lake, he found, to his surprise, that he was facing Loon Island. He had no idea that he had come so far. The boys were not in sight, but their shouts and laughter assured him that they were all right, obeying his instructions; so he struck out toward the little island. A few vigorous strokes brought him to the shore—he could almost have waded across from the point—and he climbed upon a rock and sat in the warm sunshine. How delicious it felt on his body! What fun to stretch his muscles in the exercise which he liked best of all—swimming!

"Nothing to equal the first dip of the season!" said the young man, half aloud. "I feel like a schoolboy in a pond!"

All at once his quick ear caught the faint splash of a paddle close at hand, and he sat motionless on the rock, and waited. The sound grew more distinct, and presently a canoe, manned by a solitary individual, came into sight around the shore of the island. Rawson uttered an exclamation of surprise, for the man was "Injun Joe."

Bareheaded and stripped to the waist, his thick blue-black hair tousled in the breeze, his lean, muscular, lithe torso gleaming like bronze in the sunlight, Joe paddled with a strong, swift stroke which sent the light craft dancing over the water. As he approached the rock on which George was seated he moderated his speed, and swerved toward a strip of beach. For a moment he hesitated, holding the canoe still by extending the paddle flat out on the water; then he headed straight for a safe landing between two boulders.

Five minutes passed—ten. Still George waited, watching a little spiral of smoke curl up into the air. Then the canoe came into sight again, bobbing gently away from the island. Now it was empty.

"Hello! He's not in it!" Rawson exclaimed, shading his eyes with one hand. "The canoe has floated away with his clothes! He'll have to swim for it!"

In another moment he saw Joe scramble up on one of the boulders, fling off his remaining clothes, and dive into the water in pursuit of the flighty craft. Reaching it, the Indian did not climb aboard, but swam back to shore, pushing it in front of him. Then Rawson stepped down from his rock and slipped along the bank until he emerged from the undergrowth just where Joe was landing.

"Mighty careless of you, Joe," he said, laughing.

Startled, Joe looked around to see whence came the familiar voice. His eyes met Rawson's, and he grinned with pleasure, as soon as he had recovered from the surprise of seeing the unexpected apparition of a naked white man in those wilds. Red man and white man, children of the wild, in a state of nature, shook hands in friendly greeting. Then Rawson explained how they had been waiting for Joe to appear on the scene.

"What have you got there, Joe?" he finally asked, pointing to a brisk little fire and a pile of flat stones heating therein.

"Got heap plenty fine fish," answered Joe. "We have dinner here on island, what?"

"All right. Lend me this old canoe, and I'll go and get the boys and bring them over, while you are cooking the fish."

This was done; and when all had dressed and piled into the canoe, a jolly and hungry party gathered on the island. Joe showed them how to broil the fish on the hot stones; they brought out their sandwiches, hard-boiled eggs, and milk, and all "fell to" with a keen appetite. Joe remembered seeing Ralph at the market in Oakvale, and he grunted approvingly when informed that Ralph was to be a visitor at camp.

They paddled across the lake and began the journey through the woods on the southern shore. But they had not gone far when they were overtaken by a thunderstorm, which drove them to the shelter of a cave at the base of a cliff forming one side of a broad ravine. The rain fell in torrents, mingled with hail, the thunder rolled and reverberated among the hills, and the skies were riven by vivid flashes of lightning. Within the cave, however, they were snug and dry.

"We're safe here," said Rawson, "and we'll camp here for the night."

CHAPTER X

CAMP LIFE

After a long march through magnificent forests, along winding streams, up and down the sides of steep hills, the boys and their leader and the guide reached Pioneer Camp late the following afternoon.

A rousing welcome awaited them, and almost the first news they heard was that Tom Sherwood had been elected leader of the Otter patrol, during Alec Sands' absence.

Tired as he was, Tom received this information with due appreciation of the honor. He was glad to hear also that the troop was getting up a baseball game for the morrow, to be played by two teams chosen from all four patrols. In this way he hoped to be able to tell just who were the best players in his patrol and who needed coaching for future games.

As Pioneer Camp was nearer Oakvale than his farm, Ralph knew he could learn the decision of the railroad officials sooner than if he had stayed at home. He had sent word to the village postmaster, asking him to forward all letters to Pioneer Camp until further notice, and meanwhile he waited in feverish suspense. So much depended on the surveyors' report!

The second evening of Ralph's visit to Pioneer Camp was given over to verbal "examinations" on the subject of geological surveying. To create real fun in the competition, Lieutenant Denmead conducted the test like an old-fashioned spelling school. The various patrols were lined up in open opposition, and the boys were increasingly interested as one by one they missed some question and retired from the ranks in laughing confusion.

Finally the light of the campfire revealed only four up-standing contestants: Tom Sherwood and Sam Winter of the Otter patrol, Bud Morgan of the Wolves, and Blake Merton of the Hawks.

"They can't faze Blake," whispered Walter Osborne, hugging himself joyfully, as once again Blake gave a calm and sure rejoinder to the Scout Master's query.

"No wonder!" replied Don Miller. "He has had all this practical work over at Ralph Kenyon's!"

"What's the matter with Bud Morgan?" asked Arthur Cameron. "He makes me proud to be a Wolf! He has always been loony over surveying, you know."

Just at that moment Sam Winter joined the boys who were looking on at the finish.

"Welcome to the company of the honorably defeated, Sammy," called Dick Bellamy softly. "And here comes Tom!" he added. "Now it lies between Bud and Blake.—hush! What is the Chief saying?"

"As a final test, I will ask each of these boys to write a list naming the twenty mineral specimens that Mr. Rawson has collected in the last two days," announced Lieutenant Denmead. "The list that is most nearly correct will give the troop championship for the course of study to its writer."

Profound silence fell upon the eager group around the campfire as Rawson brought out his box of specimens, with paper and pencils for the boys.

At the end of ten minutes the lists were claimed and soon after Rawson handed to the Scout Master the successful paper.

Bud Morgan had won the competition,—and the Wolves howled in glee!

Not to be outdone, the Hawks, led by Walter Osborne and Blake Merton, lifted their voices in a shrill "*Kree-kree-eee*," which rose piercingly above the Wolves' "*How-ooo-ooo!*" Then the Otters and the Foxes added their characteristic cries to the din, and away off in the shadows where the contagion of the noise penetrated, Indian Joe gave vent to a warwhoop of delight.

"Much noise—sound good!" he muttered to himself. "Don't know what all about. Never mind. Boys glad. See 'em go!"

The whole troop, glad indeed to have a legitimate excuse for lusty activity after the mental exercises of the evening, had jumped to their feet *en masse*, and, headed by the howling Wolves, were parading joyously around the campfire.

Bud Morgan was borne on the shoulders of the leaders, and there was nothing to suggest the student of rocks and rivers and undulating hills in his happy abandon to the situation.

In fact, the majority of the boys had already forgotten the contests in the temporary excitement and the uproar.

Lieutenant Denmead, after exchanging a word and a good-humored smile with his assistant, hurried to his cabin, and returned a moment later with a small volume in his hand. Then, at his signal, Mr. Rawson lifted the camp bugle, which he had secured hastily, and blew the assembly call.

At that, the boys, quite ready to quiet down again after their outburst of overflowing spirits, dropped into line with the promptness of long practice and awaited their Scout Master's word.

"Be seated, Scouts of Pioneer Camp," he directed, returning their salute and seating himself on his favorite log. "In the few minutes remaining before 'taps,' I wish to emphasize the meaning of the business and the fun of the evening. I am gratified by the interest you have shown in our field work and in these tests, but I am satisfied that we can add to the introductory knowledge that we have gained a more practical and helpful course.

"This is what I propose: First, I will give you two weeks of 'summer school' training in geology and surveying under the tutelage of a young man who is a thoroughly trained geological surveyor. He was recommended to me by my friend Mr. Brett of the B.N. and C. Railroad. The young man, Ransom Thayer, is willing to come to us on one condition. He has been technically trained, and he insists upon strict attention to the matter in hand and strict school discipline in return for his services. He has arranged a schedule of hours both for camp study and recitation and for practice in surveying, and has left ample time, also, for recreation, such as swimming and ball-playing.

"His proposition appealed to me as being both generous and just, and I had confidence enough in the Scouts of Pioneer Camp to accept it on the spot!"

A spontaneous cheer burst from the boys at this point.

"Well, tell me, do you like the idea?" urged the Scout Master smilingly.

"Now, boys, tell him!" cried Walter Osborne, springing to his feet and facing the troop.

"Let her out! Now!"

"Rah! Rah! Rah!" yelled the scouts, jumping to their feet.

"Rah! Rah! Rah! *Lieutenant Denmead!*"

"*Kree-kree-eee!*" shrilled the Hawks. "*How-ooo-ooo! Yap-yap-yap! Skee-eee-eee!*" barked and squealed the others.

As the Scout Master raised his hand, silence fell upon the company again.

"The plan for the two weeks of study is only preliminary," the lieutenant continued. "Following that, we will organize the patrols into four squads of geological surveyors. Each squad will be given two days to make an accurate geological survey of a section previously selected and surveyed by Mr. Thayer. The scouts will note its dimensions, the quality of its soil, the height of its hills, the extent of its valleys, the growth of its vegetation, its stratified zones, its mineral deposits,—in a word, whatever points Mr. Thayer shall designate to you in his course of study under the head of the 'geological survey,' is to be included in an accurate report, neatly recorded and finally submitted to Mr. Thayer for his marking.

"And last of all a system of 'points' will be established for the course, by which the patrols may be credited for certain accomplishments in the line of this particular training, in addition to the points won by the neatness and accuracy of the reports. The patrol winning the highest final rating will be given the title: Official Geological Surveyors to the Troop!"

As the Scout Master made this elaborate announcement in his most grandiloquent manner, the boys responded laughingly, clapping their hands appreciatively, but uttering no word.

"That is all for to-night, boys," resumed Lieutenant Denmead after a moment, "but it will give you food for thought and a subject for your dreams! Details will be posted soon, and, meanwhile, let your enthusiasm grow.

"This little book in my hand will have to keep its story to itself for to-night, as the hour is late; but to-morrow I will read to you a brief account of a national hero who found a knowledge of surveying a great help to him in his military capacity. Good night, boys."

"Good night, sir!" came the hearty response.

CHAPTER XI

THE NEW PROJECT

"Well, how does it strike you, Spike,—this idea of a summer school?" inquired Cooper Fennimore the next morning as the Foxes came back from their early dip in the lake.

"Um,—well," replied Spike slowly, rubbing his chin as he had seen old men do when in deep thought, "how does it strike you?"

"Ex-actly right, now that I've thought it all over," responded Cooper. "At first I was enthusiastic because the Lieutenant was and because the rest took it up like wild-fire.

"Then, last night after the camp was quiet, I began to think it looked like all work and no play; like a pretty strenuous vacation after months of hard study, you know!" Cooper looked at spike and gravely winked.

"Oh, yes, you old fraud!" jeered spike, poking his chum in the ribs. "We all know that you are almost worn out with mental application!"

"But, finally," continued Cooper, doubling up slightly at the friendly nudge but giving no further attention to the interruption, "finally, I concluded that if my health could stand the strain, I would like nothing better than this nice stiff little course in ground work."

"'Ground work,' eh? Look here, Cooper, it is too early in the day to attempt a pun."

"Pun? Not at all," Cooper retorted. "Don't you know my present ambition? *To-day*—whatever my aspiration may be to-morrow—*to-day* I mean to fit myself for architecture and landscape gardening. And when in the misty future you see the name of Architect Cooper Fennimore, Adviser in Extra-ordinary to the President——"

Cooper darted into the Fox-Otter cabin as Spike dashed at him again, and continued:

"———*then* you will remember when you studied the ground work of his profession with him!"

Their conversation was resumed a little later, when, rubbed down, clothed, and neatly brushed, the two boys responded to the mess call.

"But say, Cooper," said Spike, "were you in earnest about liking the summer school scheme and wanting to be a landscape artist?"

"I surely was, were, and am," replied Cooper, as the boys slipped into their places. "I've been watching my uncle-in-law build a house and lay out his grounds, and if I couldn't hit on a better plan than his, I'd——"

"Dig a hole, crawl in, and pull the hole after you?" prompted Spike as Cooper paused for a comparison.

"Just about," agreed the other; and then both boys found their nearest ambitions fully met by the camp cook's incomparable bacon and eggs.

After breakfast the news was quickly circulated that no further plans were to be divulged until afternoon and that the boys were free to continue their baseball practice.

Soon by twos and three and fours, with balls, bats, and gloves, the scouts drifted over to the diamond.

"I'm mighty glad that you are in for all this study course that's coming, Ralph," said Torn Sherwood as they sauntered along.

"So am I," responded Ralph promptly. "It is more than kind of Lieutenant Denmead to ask me to remain for it. I shan't feel so green when I go to the School of Mines, you know, either, for this Mr. Thayer is a graduate and I can learn a lot from him. Then it means so much to be with you fellows! It has been a lonely place on the farm sometimes!"

"I can believe that," agreed Arthur Cameron, who had joined the boys and overheard their conversation. "Just the few days I was out there showed me what it might be."

"Come on, fellows!" urged Dick Bellamy, swinging two bats in large circles as though they were Indian clubs. "We're going to beat our best records to-day, you know!"

All this interested Ralph Kenyon immensely and for a few weeks his concern for his own personal affairs was merged with the pleasures and the novelty of the life in camp. Often he wished that he had more time to spend with these boys, who welcomed him to their fellowship, although he was not even a tenderfoot, with hearty good will and friendliness. Whatever Ralph did, work or play, he did with all his heart. He entered into the games and recreations "for all he was worth," and won the regard of his companions.

His ability as a ballplayer was no less of a surprise to them than it was to himself, for he had not played ball since his junior year in high school. His pitching proved to be clever and varied, his delivery of the horsehide sphere being as good as Tom Sherwood's—which is no faint praise.

Early that same afternoon the boys learned that the schedule promised by the Scout Master was posted on the wall of his cabin, and that Assistant Rawson had been dispatched to Oakvale for the supplies listed in Ransom Thayer's outline for study and practice.

"The notice says that Mr. Thayer will begin work, with us at nine o'clock sharp next Monday morning," announced Don Miller of the Foxes.

He had already seen the bulletin and made some inquiries of Lieutenant Denmead, in order to coach his patrol more intelligently.

"Are there any 'points' for knowledge of trees and plants?" asked Shorty McNeil.

"I didn't read everything carefully, Shorty," replied Don, "but I do remember the word 'vegetation.' Maybe that will cover your specialty."

"I hope so," was the earnest rejoinder. "I can't do anything with the mathematical end of this stunt, I tell you right now. But leaves, and flowers, and different kinds of bark!—they are as easy to read as print! And I would like to bring in a point or two for our patrol."

At this moment Walter Osborne approached, walking rapidly from the direction of headquarters.

"Hullo, Don," he called. "Have you seen the schedule? Great, isn't it? Brings in about all our scoutcraft up to date!"

Walter hurried on, scarcely waiting to hear Don's reply in his eagerness to overtake Blake Merton.

"I say, Blake," he began enthusiastically on reaching the fellow-hawk, "do you know that this geological survey is going to give us fine training in signaling? I hadn't realized it before, but maybe you have, because of your experience over at Ralph's."

"Yes, I was interested in the simple system the railroad men used," Blake responded. "It is an eye and hand language worth learning."

"Well, I confess that I know nothing about it. And I didn't pick up much from the work we had here while you were away. With all credit to the Lieutenant, he does not know the practical side of geological surveying, and while he interested us all, he did not give us the real stuff that we shall get with Mr. Thayer."

"True for you," responded Blake. "All the fellows felt that way after the tests last night, I guess. Those questions showed them how few facts they had really learned. It was not hard for Bud and me, because we have both had experience before now."

Meanwhile Bud Morgan himself was in the midst of a group of eager Wolves.

"You must coach us, Bud," Arthur Cameron said. "We shall miss Hugh and Billy in this, but you must see that they hear a good report of us when it is over."

"That's right," agreed the other boys.

"Let's make Bud Morgan our patrol leader until Hugh comes back," cried little Jack Durham, the recruit of last season.

"All in favor?" yelled Arthur. "Hands up!"

Hands and voices rose together and a united "*How-ooo-ooo!*" rent the air.

"All right, fellows, I'll do my best," said Bud Morgan as the noise stopped. "I'll try to act in Hugh's place, just as Tom Sherwood is doing for Alec, if you will all stand by!"

"We will," promised the boys.

"Then listen! Mr. Thayer is going to put us through a big course in a little time. We shan't like all the work, perhaps, but we shall each like something,—for it touches so many things. There are the long tramps in the fresh air, the measuring of distances, the analyzing of the soil, the naming of the trees and plants, the locating of mineral deposits, and the working out of problems."

Bud paused for breath, holding one hand poised with fingers outspread, just as he had been counting them off as so many points to note.

"Now, then," he continued, "it's up to us to listen and learn,—and to beat the other fellows to it!"

"*How-ooo-ooo!*" came an approving chorus.

At that moment a distant squealing told that the Otters were waxing enthusiastic, also. Down by the pier at the lakeside, Tom Sherwood had gathered his patrol,—to which Ralph Kenyon had been added for the period of his visit.

Tom had just been explaining some facts that he had learned while with the surveyors on Ralph's farm, and even Buck Winter had shown a responsive interest.

Dick Bellamy, as usual, was keenly alive to the prospects in store, foreseeing plenty of fun as well as work.

"I'll tell you one thing, fellows," he began.

"And that's not two," interrupted Sam Winter impudently.

"Somebody, please put the lid on that youngster a minute," continued Dick, looking at Sam in well-assumed indignation. "As I was saying,—or about to say,—I have often wished that I knew more about the queer formations along the banks of rivers where I have gone on fishing trips. My father has always had a good deal to say about 'erosion,' and 'glacial periods' and 'stratification' and 'natural boundaries,' and I shall feel mighty proud to go back home knowing a few of 'them things,' as Injun Joe would say."

This was an unusually serious speech from the imaginative and sometimes irrepressible Dick, and the boys were correspondingly moved by it.

"Oh, if it is like *that*," acknowledged Sam Winter, in a different tone of voice than he had previously used, "we——"

"We will all want to do our best," finished his brother. "I have often wondered about the same things on my tramps after photographs of animals. I've come across lots of queer formations and odd rocks and natural caves and things."

As Buck ended his remarks a little lamely, Bud Morgan hastened to say, "You fellows have the idea now,—and mark my word: the Otters are going to win out!"

CHAPTER XII

AN ILLUSTRIOUS EXAMPLE

That night the Scout Master was much gratified at the interest manifested by the boys as they assembled around the council fire. It was plain that they had all found "food for thought" in what he had told them on the previous evening. Their questions showed that they were anxious to understand how to make the most of the promised course, and that they realized it was bound to prove intensely interesting.

"Some of the boys asked me to remind you of the book you had last night," said Don Miller, coming up to Lieutenant Denmead as the latter had a moment's freedom.

"Surely! I must not forget my promise," responded the Scout Master. "See that the troop is assembled and ready, Miller, and I will secure the volume."

A few moments later the erect, impressive figure of the lieutenant faced the waiting assembly of silent scouts.

"Scouts of Pioneer Camp," he said, "among the heroes of our nation is one whose name is particularly familiar to you and to whom public honor is frequently given. His character has borne the searchlight of investigation for more than a century, and as a man of fine moral fiber and a military leader of superior judgment, he still stands preeminent. I refer, boys, to General George Washington!"

So impressive and so compelling were these words that instinctively the patrol leaders rose to their feet and stood at salute. In an instant every scout had joined them, and the Scout Master gravely returned the proffered courtesy.

At a gesture the boys sat down again, and the lieutenant, sitting so that the fire light fell steadily on the open book in his hand, began to read:

"George Washington was not more than thirteen or fourteen years of age when he was encouraged to put his skill in mathematics into definite use by learning surveying. He applied himself so thoroughly that before long he surveyed the land about the schoolhouse which he attended. As he was the first pupil who had performed such a practical piece of work, his schoolmates were deeply interested in his exploit."

"A little later, when he had advanced so far in his study as to give him some idea of the proper use and handling of the chain and compass, he began to put his knowledge into practice by taking surveys of the farms lying in the immediate neighborhood of his schoolhouse."

"Assisted by his schoolmates, he would follow up and measure off the boundary lines between the farms, such as fences, roads, and water courses; then those dividing the different parts of the same farm; determining at the same time, with the help of his compass, their various courses, their crooks and windings, and the angles formed at their points of meeting or intersection. This done, he would make a map or drawing on paper of the land surveyed, whereon would be clearly traced the lines dividing the different parts with the name and number of acres of each attached, while on the opposite page he would write down the long and difficult tables of figures by which these results had been reached. All this he would execute with as much neatness and accuracy as if it had been left with him to decide thereby some gravely disputed land claim."

Lieutenant Denmead paused and glanced at the group of faces steadily turned toward him. Then he resumed:

"The habit of mind thus cultivated continued through life; so that, however complicated his tasks and overwhelming his cares, he found time to do everything, and to do it well. He had acquired the magic of method, which of itself works wonders."

"When about sixteen years old, George Washington was asked by his friend, Lord Fairfax, to make a survey of the latter's extensive lands, a vast territory lying between the Potomac and Rappahannock Rivers. He undertook the commission in the early spring, when the mountains were still white with snow and the streams had swollen into torrents. He was clad in a buckskin hunting shirt, with leggings and moccasins of the same material, the simple garb of a backwoodsman, in perfect keeping with the wildness of the scenes he had to encounter. In his broad leathern belt were stuck a long hunting-knife and an Indian tomahawk. As he rode his horse, he frequently carried in his left hand his useful compassstaff."

"The enterprise upon which Washington had entered was one of romance, toil, and peril. It required the exercise of constant vigilance and sagacity. Here and there in the wilds ran narrow trails through dense thickets, over craggy hills, and along the banks of streams; but when they might lead the young surveyor into the camps of squatters or Indians, no one could tell."

As the Scout Master stopped again, he found the boys listening with breathless interest, and he guessed that many of them were following the explorations of Washington in imagination.

"This next paragraph," he said, "reminds me of some of our own experiences on a hike. Listen: 'My companions and I,' wrote Washington in his journal on April eighth of that year, 'camped in the woods; and after we had pitched our tent and made a large fire we pulled out our knapsacks to recruit ourselves. Every one was his own cook. Our spits were forked sticks, our plates were large chips. As for dishes, we had none.'"

"I shall read only two more brief paragraphs:"

"Washington's success as a surveyor for Lord Fairfax called the attention of the Virginia authorities to him and to the unusual accuracy of his surveys. As a consequence, he was appointed public surveyor, deriving a discipline therefrom which was of great service to him in his later career. By making him an able civil engineer, it laid the foundation of his future eminence in a military capacity. And by making him known to the principal landholders of the State, it led to his appointment, at the age of nineteen, to the office of adjutant-general, with the rank of major. This gave him the charge of a district, with the duty of exercising the militia, inspecting their arms, and superintending their discipline."

"That is all, boys," concluded the Scout Master, rising and closing the volume. "But as we take up our course in surveying, with the additional interest of its geological significance, we may like to remember that we are following in the footsteps of no less a man than George Washington!"

CHAPTER XIII

THE RESULT OF THE SURVEYS

Promptly at nine o'clock on the following Monday morning, a clean-cut, well-knit, strong-featured young man stood before an eager-faced group of khaki-clad scouts in Pioneer Camp.

The businesslike attitude of the young instructor, Ransom Thayer, was reflected in the appearance of the boys; and from the first crisp greeting of Mr. Thayer to his curt dismissal an hour and a half later, the interest and attention of his auditors never wavered.

His first lesson emphasized the historical phase of geology; and as he talked and pointed here and there in illustration, it seemed to the boys that every stone and boulder and pebble and overhanging cliff responded with the story of its life. This crevice, that oblique angle, this smooth indentation, that rough mass,—each marking had its significant meaning to the enthusiastic leader.

Walter Osborne said to Blake after "school" was over for the morning, "I have always felt as though the trees of the forest were alive, but now it seems to me that every rock is a breathing, changing, growing thing, too."

That afternoon Mr. Thayer led his troop afield and showed them other volumes of rock history,—how this proved that in ages past water had forced a channel through the hills; how that gave evidences of internal disturbances, of molten masses, of slowly cooling and hardening structure.

Many of the boys had had courses in textbook geology and had gathered "specimens," but this man made all these things new and wonderful and fascinatingly interesting.

Day after day passed and still the enthusiasm grew. "Dry facts" were absorbed unconsciously; angular diagrams of mathematical relations appeared on the big blackboard so clearly and concisely that even Shorty Mcneil ceased to dread the problems; hours were cheerfully spent at the big mess table in making out tabulated reports and drawing neat maps; and many more hours were spent with compasses and levels, telescopes and heliotropes measuring and judging distances and noting results on the hills and by the lake near camp.

"The man is a born leader and a born teacher," said Lieutenant Denmead, commenting on Mr Thayer one day "We shall hear from him yet."

All too soon the two weeks of study were over and the squad competitions were on. Then they, too, were completed and notice of the results was eagerly awaited by the four patrols.

At length the evening came when the announcements were to be made public. Mr. Thayer had accepted an invitation to be present and to make the final report.

Breathlessly the boys waited, the four leaders scarcely able to control their anxious interest, while the Scout Master, his assistant, and Mr. Thayer took their places within the circle near the council fire.

At last!

"To every one, congratulations! To the Fox patrol, points for excellence in botanical knowledge. To

the Wolf patrol, points for excellence in mathematical accuracy. To the Hawk patrol, points for superior general field work. To the Otter patrol and its leader, Tom Sherwood, the title and honor, 'Official Geological Surveyors to the Troop!'

"News! news!" cried Arthur Cameron, bursting in upon Ralph and Tom, who were sitting in the boathouse on the shore of the lake.

They had just come back from a canoe trip up the stream that flowed into Pioneer Lake, a few hours' trip during which the Indian guide who had been sent with them had taught them how to navigate rapids in a canoe. Never had Ralph enjoyed more exciting sport than shooting downstream in the swirling rapids and among the perilous rocks!

"News for me?" he asked, springing up alertly and seizing a letter Arthur handed to him. He broke the seal, tore open the envelope, and unfolded a letter bearing the heading of the B.N. and C. Railroad. "Oh, Tom, listen to this!"

"Mr. Ralph Kenyon,"

"Dear Sir: Owing to the recommendations of our official surveyors, we are prepared to make you a fair offer for the northwest quarter section of your property, to be utilized in laying a branch line of the B.N. and C. Will you kindly authorize your attorney to confer with us upon this matter, at your earliest convenience?"

"Yours very truly, Nelson R. Slater, Atty. B.N. & C. R.R."

Words cannot describe Ralph's rejoicing at this news. Vague as it was, merely suggesting, not stating any terms, he felt that it was the dawn of new hopes, a stepping-stone on the path of his long-cherished ambition.

Requesting Tom and Arthur to say nothing about it at present, he hurried to the Scout Master's cabin or office and confided the whole scheme to Denmead, who straightway drew him into a long, serious, business-like discussion of the prospect, giving him an abundance of good sound advice.

"How can I ever thank you, sir, for all your kindness in bringing me this good luck?" Ralph asked again and again, before he started for home.

"By distinguishing yourself as a student in the School of Mines and by becoming, in due time, an efficient, broad-minded leader in your scientific profession," was Denmead's only answer. "The little I've done for you, my boy, is too slight to merit thanks; but the work you may undertake is vastly important, and I want you to make a great success."

He shook Ralph's hand, laying the other on the lad's broad shoulder.

"Good-bye, for the present, Ralph," he added. "Let me know if there's anything I can do for you hereafter."

"I—I will, sir," stammered Ralph, swallowing hard. "Thanks ever so much!"

He turned to go, for the launch was waiting at the camp's pier to take him down the lake, where Tom Walsh would meet him with his wagon and drive him home.

"I must say good-bye to the boys now," he added in a tone of regret. "I've had the time of my life here, sir, and I think camp is great!"

"One moment, Ralph. I believe Rawson has some even better news for you."

Rawson had entered and was standing in the doorway.

"Yes, I have," he replied, smiling. "I kept it from you until the last minute, because it's so good it won't spoil! Ralph, in our surveys we found abundant signs of iron deposits on your property. These have been further investigated during your visit here. Beyond a doubt there are undeveloped mines on your land, boy!"

"Then—then father's dream—it may come true! He always said that, always believed it! And now—now——"

"Your lawyer will explain to you the terms of your father's will in case a mining company should be

organized," continued Denmead. "Of course, I don't know what they are, but I assume that when you reach your majority you'll be the chief owner of any mine on your land, and a director in the company. Success to the future, Ralph! May health and wealth and happiness be yours!"

With a sudden boyish impulse, Ralph gave both Scout Master Denmead and George Rawson a bear-hug of sheer joy, and then he ran out to bid his other friends good-bye. Presently he was in the launch, gliding swiftly across the lake, his weeks at Pioneer Camp a memory that would linger with him always.

The events already recorded took place in the first half of the summer. Later, the regular routine of camp life was followed. No week was allowed to pass without some contest in strength, skill, or endurance. Now it was the Signalers' Game, in which the troop was split up into three divisions: the enemy, the defenders and the attackers. Again it was a stalking game, which tested the cleverness of the boys in reading signs and following trails. Often, too, there were tests in water polo, in spearing the sturgeon and in swimming diving, and paddling.

More than once Indian Joe was called upon to guide the boys on some long hike, lasting several days. At these times, the scouts had rigid training in scaling cliffs, fording streams locating points of the compass, selecting camp sites, making tents, building bonfires, cooking hasty meals,—in the thousand and one details of the woodsman's life.

All these experiences developed a strong, healthy, happy crowd of boys, each one self-reliant and resourceful; and before the end of the summer, Lieutenant Denmead and his assistant felt that they had every reason to be proud of the scouts of Pioneer Camp. Some of the boys,—like Hugh and Billy and Alec,—who had been prominent in the troop activities in previous seasons, were increasingly missed.

Where they were during the late spring and early summer months is revealed in another story of this series, entitled "The Boy Scouts of the Life Saving Crew."

THE END

*** END OF THE PROJECT GUTENBERG EBOOK THE BOY SCOUTS OF THE GEOLOGICAL SURVEY

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