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*The*  
YOUNG  
PROSPECTOR

Edwin J. Houston



My Xmas to Floyd  
from  
Wick Washburn

Dec 25/08

NAS

Houst

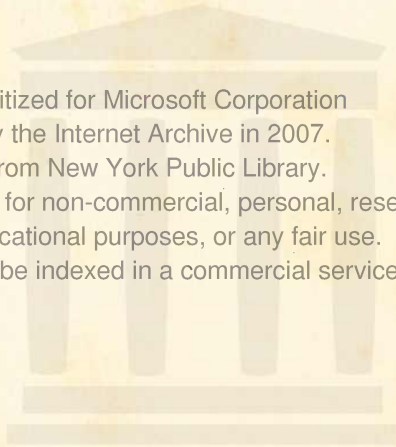


# THE YOUNG PROSPECTOR

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“HOW DO, JIM. HOW DO, BILL”



*Allen*

# The Young Prospector

or

## The Search for the Lost Gold Mine

BY  
EDWIN J. HOUSTON

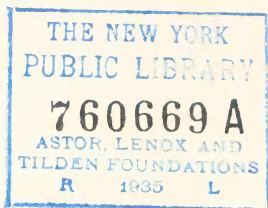
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*L.C.*

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THE YOUNG PROSPECTOR

WILDE  
WILDE  
WILDE

## PREFACE

IN presenting "The Young Prospector," the author recognizes that he is entering a different field of literature from that to which he has so long been accustomed.

He takes this step, however, because he is interested in young people, trusting that an experience of over a quarter of a century in the schoolroom with boys, as well as in various kinds of work on a large scale for boys may have given him an insight into their peculiarities, their likings, and their needs that may prove of value in his new field.

While the characters in the story may seem to be strong and wonderful types of boys, yet the reader is asked to bear in mind the fact that none of the actions which he has ascribed to them can be regarded as improbable in healthy and intelligent boys who have had the advantages of proper development of both body and mind.

That the volume may prove helpful and interesting, is the hope of its author.

E. J. H.



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# The Young Prospector

## CHAPTER I

### THE CAMP IN DEAD MAN'S GULCH

ONE of the beautiful days, so common in Arizona, was rapidly drawing to its close. The setting sun had just disappeared behind a bank of clouds which it was beginning to paint with its gorgeous crimson and golden colors. The distant hills, and the lower slopes of the mountains, still bathed in a dreamy purple light, were here and there taking on the sunset tints, as their elevations caught the different colored rays. Only the summits of the distant mountains were sufficiently high to be still illumined by the direct rays of the sun.

But these crimson and golden rays that so gloriously painted the landscape, readily transforming the distant objects into things of beauty, utterly failed to transfigure two men on whom they fell, or to materially alter the poverty-stricken appearance of a rude tent in front of

which the men were standing. Had these objects been further off, distance might have lent an enchantment to their appearance, but the nearer eye disclosed too plainly both the poverty of the men and the used-up condition of their tent. The clothing of the men was ragged; their tent had been mended and patched so often that it was no longer capable of being pitched in the ordinary manner. Its owners had therefore ingeniously so placed it against the nearly precipitous wall of a gulch or canyon as to make the rock serve as the back of the tent, thus permitting the canvas to be employed for the top and the remaining sides. A slight projection of the cliff formed a short cave-like portion for the back of the tent, while the canvas, stretched over suitably supported ridge-poles, covered a space sufficient for their bunks, built from logs.

The gulch, or canyon, on one side of which the tent was pitched, had been gradually cut through the solid rock by a small tributary stream that emptied, at no great distance, into the Dragon Fork of the Verde River. Both these streams drained a broad plateau that formed a portion of a higher mountain system that could be seen toward the north. The depth of the gulch or gully worn out by the

smaller stream was only a few hundred feet, while the larger stream, owing to the greater volume of its water, flowed between the nearly precipitous walls of a canyon, at a depth of at least one thousand feet below the general level of the plateau.

The two men were mining prospectors who had formed a partnership, agreeing to share their gains and losses equally. By clubbing together they had reached Arizona, about a year and a half ago, with a fairly good outfit. They had been unsuccessful, and were now so down on their luck, that unless something turned up soon, they would be obliged to stop prospecting and get work in some of the many mines in the territory until sufficient cash was accumulated to resume.

The partners were James Gleeson, a Connecticut man, with only a common school education, while his knowledge of mining was only such as he had been able to pick up from a few books and therefore very limited. His partner, however, William O'Reilly, was a practical Colorado miner and prospector, thoroughly honest, but generally unlucky. They were engaged in earnest conversation; O'Reilly was talking.

"We're down on our luck, Jim. We've been

hard at work for more than a year, and what have we struck : plenty of rattlers, and mean ones at that ; tarnation side-winders, chock full of pisen, that don't ask more than a single strike at a man to make him forget he is hungry, tired and dead broke. And if a rattler don't do him, there are the scorpions and the Gila monsters, and all other kinds of piserous things. And say he misses these, then he has a fair chance of getting a ball from a thieving greaser or from an Indian half full of fire-water."

"Oh! stop it, Bill. What's the matter with you?" said his companion. "I know Bill O'Reilly too well to believe that all the reptiles, greasers, Indians and poisonous things in the territory can queer him, or make him show the white feather. It ain't those things that worry you. It is because we have not yet struck gold. But don't you lose heart, pard. We will strike it yet. Don't let yourself get down in the mouth. People don't often stumble across good things. If they did, good things would be so plenty that one could never get a red cent for them. So perk up, Bill; get a good grip on your grit. I know you have got grit, and plenty of it."

O'Reilly, or Bill, as his partner called him,

although well pleased with this testimony to what means so much to a Western man; *i. e.*, his grit or pluck, by no means gave up his point, but replied:

“Right you are, Jim, I have got grit enough, but that ain't to the point. I say we are down on our luck. Now honest, ain't we? Here we've been at it all this time, and struck nothing of any account. Have we now, Jim, I ask you as a man, have we?”

“I won't pretend to speak for you, Bill, but for myself; I can't honestly say that I have struck nothing; I have struck something that goes a great ways toward repaying me for all my trouble, work, exposure and danger.”

“What's that, I would like to know. If you have struck anything out here worth talking about, you must have done it on the sly.”

“Well, I'll tell you true: I've found a man who has never given his partner a cuss word, and has always been ready to take his part of the work, no matter how hard it might be. You don't call that nothing, do you?”

As soon as Bill caught the drift of his partner's remarks, he began to blush like a big girl.

“O quit,” he said. “A man who could not

get along with you would be hard to suit. As to my being all you say, I would like to know when you ever gave me a chance to do half of what you say I do. It is you who are doing the biggest part of the work. But let us go back to what I was talking about, and, since we are both tired, suppose we climb up to the seat where we can sit down and talk the matter over quietly."

"All right, that's not a bad idea."

The tent stood on a wide, nearly level edge of rock a few hundred feet above the bottom of the smaller gulch. The portion of the wall against which the tent had been pitched, was only about sixty feet below the top of the plateau. A path, at a less precipitous part of the ledge, led to the plateau at the top of the smaller canyon. Here they had constructed a rude seat, formed of a log, on which they could rest after the day's work. From this seat they could look toward the south over the broad mesa land, and see in the far distance, the level tracts of the great plains. Here and there were patches covered with alfalfa, a clover-like plant highly esteemed in the arid districts in the western part of the United States as fodder for cattle. Wherever the land had been irrigated, patches of vegetation were spread out like a huge natural bouquet in

various shades of green, the irrigating waters making the desert blossom like a garden. Toward the north were the higher slopes of the mountains, where places covered with patches of snow were clearly visible.

After reaching the seat, they silently looked at the view before them. The western sky was now bathed in rich crimson and gold. After some moments, Gleeson broke the silence, and, pointing to the golden sky, said :

“Plenty of gold there, Bill.”

“Yes, and that is the only kind we have struck so far. But let us go back to what I was talking about. I say we've found nothing in the way of minerals or prospects since we've been working so hard here. We came here for gold—the stuff that makes the world go—and have found—none.”

“Well, you can't fairly say we have found no gold. You are forgetting the float ore we found a little distance up in the big gulch last winter. That's the kind of stuff we are looking for. How would a vein with plenty of that kind of ore suit you? You remember it assayed way up in the hundreds of dollars, rich in gold and silver.”

“Yes, I remember. But don't call it float ore. A piece of float ore is always worn down round

at the edges, as if it had been tossed about in a stream of water and had rubbed against other pieces. Now this ore was rough and sharp at the edges, as if it had just been chipped away from a vein."

"That's so, I know you always said it was regularly mined ore; but it was splendid ore, wasn't it?"

"It was. You remember how hard we tried to find the vein, or mother lode, from which it came? The vein should be somewhere around here, but goodness knows where it is, or how far from where we are now. If we could only find that vein we would strike it rich, sure. But, as you know, we unsuccessfully looked for it for five or six weeks."

"That's true, but we did find something. We found the ore, did we not?"

"Yes, if you call that something. But until you can show me the place where this lode is, or one like it, I say, we are still down on our luck. As for me, I am sick of the mother lode, and do not wish to hear another word about it."

"Bill, I might have agreed with you yesterday, but I can't to-day. Now I am going to surprise you. While I cannot lead you to that mother lode, yet I am sure that it exists, and be-



lieve it is not very far from where we are sitting."

At this remark his partner sprang to his feet, and, looking excitedly into his face exclaimed :

"Strike me dead, Jim Gleeson, are you trying to queer me? If you have anything up your sleeve, out with it. I think you have by the queer look in your eyes. Why this is the first time you have said a word to me about that confounded mother lode for the last two months."

"Bill, listen to me : I know now that the stuff we found is ore that has been regularly mined."

"If you know anything, out with it ; don't drive me crazy, man. What have you found ?"

His partner did not directly answer the question, but said :

"Do you know why this place is called Dead Man's Gulch ?"

"Sure ; because they found a dead man in it ; but, don't let that worry you. There are plenty of other gulches in different parts of the territory where they have found dead men galore. And, if we don't strike it richer than we have done, there may soon be two other reasons for calling the place Dead Man's Gulch."

"All right ; but do you know how this particular place got its name ?"

"Never cared to ask ; so I don't know."

"Neither did I until yesterday, when, while out on the mountains prospecting, I met the Indian, See-in-the-Dark, who told me all about it. It appears that he is the one who found the dying man after whom the gulch was named."

"See here, Jim," said his partner, almost angrily. "What has all this folderol to do with the mother lode?"

"All in good time, but tell me, what do you think of this?"

With that Jim took a lump of ore from his pocket and handed it to his partner, who eagerly examined the ore, turning it over and over, and almost instantly exclaimed :

"Another specimen of your so-called float ore ; and by far the best we have found. But float ore be hanged. See here, Jim," he said, pointing to one part of the lump ore he had been examining with a pocket lens ; "look at this mark ; do you know what made that mark ? A pick-axe ; this ore has been mined, just as sure as you live, and, as I said long ago, all this stuff you called float ore was mined."

"But, do you think it is the same kind of ore, and that it came from the same lode?"

"Sure ; don't you see it is the same ; same

gangue; same minerals; same heft; of course it's from the same lode."

Jim took the lens from his partner, and closely examining the spot that had been pointed out to him on the ore, said:

"You're a cute one, Bill. Now that you point it out, I see the mark as plain as the nose on your face. This ore has been regularly mined, and I know who mined it. Unfortunately, I don't know where it was mined. But I know that we will now do all in our power to find out where, if possible."

"Jim Gleeson, where did you get this piece of ore?"

"Bill, I'll tell you true. It was taken from the dead man of Dead Man's Gulch."

"Great Scott! What did the Indian tell you? Let me hear all about it."

"I thought it would interest you, so I asked the Indian to come and tell you the story himself. Do I think he will come? Why man, I promised him a drink of fire-water."

"Then," said Bill, "there's no doubt about his coming. Let us go down to the hut."

"Listen, I think I hear him coming." The two men listened and distinctly heard approaching footsteps.

## CHAPTER II

### THE DEAD MAN OF DEAD MAN'S GULCH

THE footsteps drew nearer, until at last a full-blooded Apache stood before them. There were the remnants of a splendid physique in the man, but over-indulgence in drink had played so sad a havoc with him that he stood before them a physical wreck.

"How do, Jim. How do, Bill. Jim ask me to come talk about Dead Man, and take drink fire-water. Where is fire-water? See-in-the-Dark ready for fire-water."

"You don't need to tell us that, See-in-the-Dark, you ought to be ashamed of yourself for drinking so much fire-water. Why don't you stop?"

"O me stop some time soon, but not now."

"Nonsense, See-in-the-Dark, I don't believe you can stop," said Bill.

"O me stop any time, but no stop now."

"Well," said Gleeson aside to his partner, "I don't like to do this. 'Tain't right, but we must find out all he knows." So he poured out a mod-

erate drink of whiskey in a tin dipper, and offered it to the Indian, with another dipper full of water. The Indian refused the water, saying: "Me no mix whiskey and water; me take whiskey straight."

"Yes, See-in-the-Dark. But this whiskey is very strong; you had better mix some water with it."

The Indian said nothing, but drank the pure whiskey, and afterward took a drink of water.

"Now, See-in-the-Dark," said Jim, "I want you to tell Bill all you told me yesterday about the dead man of Dead Man's Gulch."

"All right," said the Indian. "One day about nine winters ago, when snow was deep, and still falling, I was out not far from here for bear. I see no bear, but bear tracks. Bear not so many now white man come hunt gold. But still some bear. So I out for bear. At last I see something. Tracks in snow. No bear tracks, but tracks of white man. Tracks crooked, now this way, now that way, and I see blood on snow. So I say, 'Man hurt. Can't go much further; I go quick and catch him.' Tracks soon show man getting much weaker. Show where man fell down, and get up again, and again fall down and get up. Blood marks get

bigger and bigger. Pretty soon I come up to man lying on side in snow. So I go up to man and say: 'Why lie here in snow; get up. You will freeze. Too much cold. How you get hurt; gun, knife or what?' Dying man, he say: 'Help me; I hurt in leg three days ago by explosion in mine. Tied up my hurt leg all right and started to the smelter up the gulch to get a doctor. But the bandages fell off. I lost blood and am too weak to walk; help me.' Put man on pony. Took him to wigwam and made squaw bind up leg, and give him something to eat. But man hurt too bad; die next day."

"Where did you get the ore you gave Jim yesterday?" asked Bill.

"Dying man gave me ore."

"Have you any more of this ore?" asked both partners excitedly.

"Yes, little, not much. Have this piece," said the Indian, handing them a larger and richer specimen than any they had yet seen.

The partners excitedly examined the specimen, saying:

"Where did the man get this ore? Where was he mining?"

"Man no tell me," said the Indian. "I try

find out; think the place not far from where I find man."

"Where did you find the man?" asked Jim.

"About mile from here," said the Indian. "Come to my wigwam to-morrow, and I show you. Now more fire-water."

"All right," said Jim, pouring out another drink which the Indian eagerly took.

"Did you find anything on the man?" asked Jim.

"Yes, letter; but me no read. Too much stupid to learn read. Me say nothing about letter to anybody."

"Have you this letter still?" asked Jim.

"Maybe," said the Indian. "Put in corner of wigwam; maybe there still, but maybe squaw light pipe with letter."

"Bring me this letter to-morrow," said Jim excitedly, "and I will give you this bottle full of fire-water."

The promise of so large a quantity of fire-water greatly excited the Indian, although he undertook to hide the fact. He therefore contented himself with shrugging his shoulders, merely saying,

"Me try get letter."

"Had the man much ore?" enquired Gleeson.

“Not much; too much hurt to carry much.”

“Do you know what the man intended to do with this ore?” asked the partners.

“Man say he take ore to smelter up gulch; sell ore, so get money to pay medicine man and buy food.”

“Are you quite sure you don’t know where the man got the ore?”

“No, me no know. Ask man ten, twenty times, maybe; he no tell me. He laugh and say, ‘That my secret.’”

During the conversation the Indian kept his eye on the whiskey bottle, wishing again to drink; so he said:

“Heap talk. See-in-the-Dark dry; want more fire-water.”

“No,” said Jim, “no more fire-water to-night.”

“All right,” said the Indian, leaving.

Both men were silent for a little while; they were carefully examining the two specimens of gold ore and were doing considerable thinking. It began to seem that their bad luck was turning. The rich gold ore, traces of which had so puzzled them, seemed with certainty to have come from a mine in their neighborhood. They must then endeavor to locate the lost



gold mine. No matter if they have heretofore been unsuccessful in the search, they must try again, and with what aid they can get from See-in-the-Dark, and possibly from the letter found on the dead man, they must succeed.

The silence did not continue long; Gleeson said to his partner:

"Well, do you still say that we have struck nothing? Aren't you now satisfied that there is a splendid deposit of ore in the neighborhood?"

"Jim, I take back all I said. There certainly is a rich deposit somewhere here, and we must try to find it."

"I say, Jim, if we find this mine, we must go halves with the dead man's people. What do you say?"

"Sure," answered Jim.

"Well, I guess we have talked this matter out. Let's turn in."

It was many hours before either of the men was able to sleep, and even then their sleep was light. It was not at all wonderful, therefore, that next morning not long after daybreak, they were at the entrance of the Indian's wigwam. See-in-the-Dark, who was standing near the door smoking, immediately asked for a drink of fire-water,

but the partners refused to give him any until they got what they came for. Gleeson asked for the letter, but the Indian obstinately insisted on first showing them where he had found the dying man. Not wishing to cross him, they permitted him to lead them to a place about a mile and a half from their camp up the large canyon. After noting the place carefully so as to be able to find it again, and having obtained a few additional particulars concerning the condition of the dying man and what he said, they returned with the Indian to his wigwam.

“Now, See-in-the-Dark,” said Jim, “this whiskey flask is yours as soon as you bring me the letter you took from the dead man, but no letter, no fire-water; understand?”

The Indian entered the wigwam and soon returned, handing Jim a crumpled, soiled letter, written in a good, clear hand. It was dated nine and a half years back.

“The Indian was right as to the time,” said Jim, reading the date. “This letter is over nine years old.” Unrolling the paper, however, they were disappointed to find that the lower part of the writing had been destroyed by fire.

“How is this, See-in-the-Dark?” they asked. “Where is the rest of the letter?”

The Indian carelessly examined the writing and said :

“Squaw lit pipe with that part, but most of letter here, only little piece gone.”

“Jim,” said Bill, “you read the letter, I am too excited.”

Jim read the following :

“MY DEAR WIFE :

“I am sending much love to you and Harry. Am glad to say that after two years of hard work here in Arizona, I have discovered a wonderfully rich mine of high grade gold ore. The ore is associated with copper, and contains, as usual with such ores in this section of the country, large quantities of silver. You will rejoice to learn that when I once get this mine worked we will be rich people, and I shall be able to give to my dear ones what they deserve, and that is the best that the world is capable of furnishing. You will probably have received by this time, or if not you will receive them soon, remittances from the Verde Smelting Company in this country, not very far from the mine, with whom I have left as much of the carefully selected high grade ore as I could transport from time to time on my horse from the mine to the smelting works. Since, until I obtain the proper papers from the government and stake out my claim, it is necessary to keep the location of the mine a secret, I have had no little trouble to put the men at the smelter and at the mines in this neighborhood off the scent.

“I am now going to do what might be thought a foolish thing, that is, to send you an exact statement as to the location of the mine. I know that this is risky, but I am very sorry to say that yesterday I met with a severe acci-

dent to my right leg, from a premature blast. You know I am working all alone, since I dare not let any one share my secret with me, as the mine is an unusually rich one. You need not worry about the accident, as I have bound my leg up and stopped all the bleeding. I am leaving to-morrow for the smelting works, where I can get a good doctor to give the leg the proper attention, but since no one knows what might happen in such a wild country as this, I am sending you directions as to how the mine can be located. I have also prepared a map of the districts on which I marked the claims, but have decided that it is best not to send this with the letter; I have therefore left it where I am sure no one will be able to find it.

“The mine is situated in \_\_\_\_\_ county, Arizona about fifty miles southwest \_\_\_\_\_ near \_\_\_\_\_ you will find the entrance \_\_\_\_\_ not far

Although both the men questioned the Indian, they were unable to obtain any further information. He declared that what they had was all the writing which existed. That the part which was missing had been destroyed by his squaw while lighting her pipe. On insisting that the squaw be sent for, they questioned her, but could get no information other than that given by See-in-the-Dark.

The next day both the partners visited the \_\_\_\_\_ Smelting Works, and, after some difficulty, persuaded the men at the works to tell them all they remembered about the dead man. As is well known, at all properly managed cus-

tom smelters careful records are kept of all ore received, the names of party leaving the ore, time of delivery, and of the returns that have been made when such ore had been smelted. According to the books, it appeared, that about ten years ago, small samples of an exceedingly rich gold ore had been brought to the works by a John Maxwell, who had left instructions to have remittances of values made to Mrs. Mary Maxwell, whose address was in the East. That in accordance with these instructions, some \$5,000 in drafts had been sent to this woman.

Efforts had been made by many to ascertain the location of the Maxwell mine, but Maxwell had always been successful in preventing its location from being discovered, although on many occasions he was tracked by other prospectors on leaving the smelting works. He appeared, however, to be thoroughly alive to the danger, and succeeded in guarding his precious secret; for, in such cases, he would lead these people very great distances from his mine, giving them the slip in the dark. On inquiring what disposition had been made of the body, the partners learned that on the instructions of the widow, to whom the information of his death had been sent, the body had been sent to Massachusetts.

On inquiry as to the extent of the effort that had been made to locate Maxwell's mine they were informed that nearly all the prospectors in that part of Arizona had repeatedly scoured the territory for forty or fifty miles around. None of them, however, had succeeded in locating it. So unfruitful, indeed, had these efforts been, that during the past five or six years Maxwell's mine had apparently been forgotten.

Thanking the people of the Smelting Company for the information, the partners returned to their camp. They determined to keep up a careful search for the lost mine in a quiet way, although naturally they were considerably disappointed by the lack of success of so many other prospectors. Fortunately, about this time, Gleeson received a small remittance from the East, which enabled them to continue their search.

## CHAPTER III

HARRY MAXWELL

ABOUT a year after the events related in the preceding chapters, the boys' high school in Lyme, Massachusetts, was just dismissing for the day. It was early in June, and the air was balmy, though somewhat warm.

On reaching the outside of the school building, the boys lost no time in making up for the long enforced physical inactivity to which they had been subjected by the necessities of the schoolroom. During the many hours they had been shut up, Dame Nature had been storing up in their bodies various forms of physical energy, until it seemed to many a poor lad that he would have, in some way, to let himself loose or burst. It was natural, therefore, that the boys should begin to unbottle their stored-up energy as soon as they reached the outside of the school building; this was especially the case with the younger boys, who were the least accustomed to enforced quiet and inactivity.

It was interesting to note the ways in which the different boys blew off their superfluous

energy. They ran, laughed, shouted, yelled and jumped with the overflow of their animal spirits; or, where a piece of soft grass offered itself, they good-naturedly wrestled with one another in a manner that showed no little strength and endurance.

A group consisting of some thirty of the boys collected under a large elm-tree, that stood on the corner of the square lot, in the middle of which the school building was situated. Here they were soon engaged in various competitive trials in the running high-jump, the standing broad-jump, high kicking, etc. After a while some one suggested a run, so a starter was elected, and the course around the block which was just half a mile was chosen.

“Are no more of you going to enter?” asked the starter, noticing that only eight of the boys were toeing their marks.

“I am not in it,” said one. “Mighty little chance to beat Maxie.”

“Who is Maxie?” said a spectator who had stopped near the tree to enjoy seeing the boys compete.

“That’s Maxie,” said one of the boys, pointing out a well-built fellow who had easily distanced his playmates in the other games. “That’s



Henry Maxwell, the best runner in the school. He holds the school record for the hundred yard dash, the quarter and the half mile run."

As the boys took their places, Maxie, or Harry as he was known at home, was placed on the scratch, that is, all the other boys were placed ahead of him, being given handicaps varying from five to twenty-five yards.

This seemed a big handicap, but, as events showed, not too great, for Harry, starting off on a quiet jog, soon increased his pace, and when within less than two hundred yards of the line crept up to the leaders and slowly began to forge ahead.

"We will have to increase his handicap, won't we, boys?" suggested the starter.

"That's right," shouted the boys, who stood eagerly watching the race. "Don't he run splendidly; takes it so easy. He can certainly run faster than he is going now, and don't you forget it."

As Harry crossed the line a strange boy, who had joined the crowd of onlookers, cried out to him as he came in:

"Well, Harry, old boy, still at it? Afraid they will increase the handicap too much?"

"Hello, Ned," said Harry, running up and

shaking his hand eagerly. "I am delighted to see you. Where did you come from? When did you leave home? How long are you going to stay here?"

"Came to-day with father on the morning train from New York. Reached here about an hour ago."

"Well, Ned," said Harry, turning to his friend, "it is lucky for me that you were not here, for I would not then have had such a walk-over."

"Boys," continued Harry, turning to the group of his schoolmates, who were closely scanning the newcomer and listening to the conversation, "this is my friend Ned Cartwright, from New York. It was only last year that I saw him at work on the track, and he then could easily beat me at any of the things we are trying to-day."

Harry's statement caused no little surprise to his schoolmates. They had heretofore been under the impression that Harry stood at the head of everything possible in the way of athletics. When, therefore, they heard Harry declare that the strange boy could readily beat him, they thought that he was chaffing them.

"What are you giving us? You don't mean

that your friend can beat you? If so, let's see him try some of these things with you."

"What do you say, Ned? Won't you throw off your coat and vest and show us what you can do?"

"All right," said Ned. "I am willing." So saying, he took off his coat, vest, necktie, collar and cuffs.

"What shall we try first?" he asked. "But boys, don't expect too much from me, for Harry has been blowing my trumpet much louder than he has any right to do. He means well," turning to the boys and winking, "but then you know he can't help it."

"Now, Ned," said Harry, "you will have to do your best, for I intend to do you up if possible, although I don't expect to. Of course I am in better condition than I was last year, but I imagine you have been improving just as much."

The crowd of spectators had increased considerably and it did not take a long time for them to see that the New York boy was even farther ahead of Harry than Harry had shown himself to be ahead of his schoolmates. No matter how far Harry jumped, or how high he kicked, the New York boy was ready to jump a little further, or kick a little higher.

"Isn't he a wonder?" said one of the boys. "I believe he could easily do better," and calling Harry aside, he whispered to him.

On hearing the request, Harry smiled, and turning to his friend said :

"Ned, the boys are on to your curves. Do you know what they have asked me just now? They want you to show them just how much better you can do."

"Why, Harry, what do you mean? Haven't I been showing them what I can do?"

"Oh, come, Ned, you know what I mean. Let them see how much better you can do."

Ned was apparently unwilling to do this, but finally, at Harry's earnest request, backed by those of the other boys, he tried the long jump, and at a single trial easily covered a distance five feet greater than any of his previous attempts.

"Try again, Ned," urged Harry. "I am sure that is not your best."

Ned tried again, and this time covered an additional distance of two feet, and that without apparently any great effort. This was so clearly not his limit that the boys insisted on his trying again. But neither Harry nor they could persuade him to do so.

Though now convinced that the strange boy was a wonder, still many of Harry's schoolmates were unwilling to admit his ability to beat their champion in the half mile run.

"Run a race with him, Harry. Try him on the half mile run."

"All right," said Harry. "Shall we run, Ned?"

"Just as you say," was the reply. "Do you want a handicap?"

"Yes, indeed, Ned," said Harry. "What do you say to fifteen yards?"

"All right," answered Ned, "although it's a pretty big one."

The boys, hearing this remarkable proposition, were at once greatly excited.

"Give Harry Maxwell fifteen yards!" said one of them. "Well I should smile. Why, Maxie can beat any one we have in the school, and any one who has ever come to run against us."

Ned was placed on the starting line or on scratch and Harry at a distance of fifteen yards ahead of him.

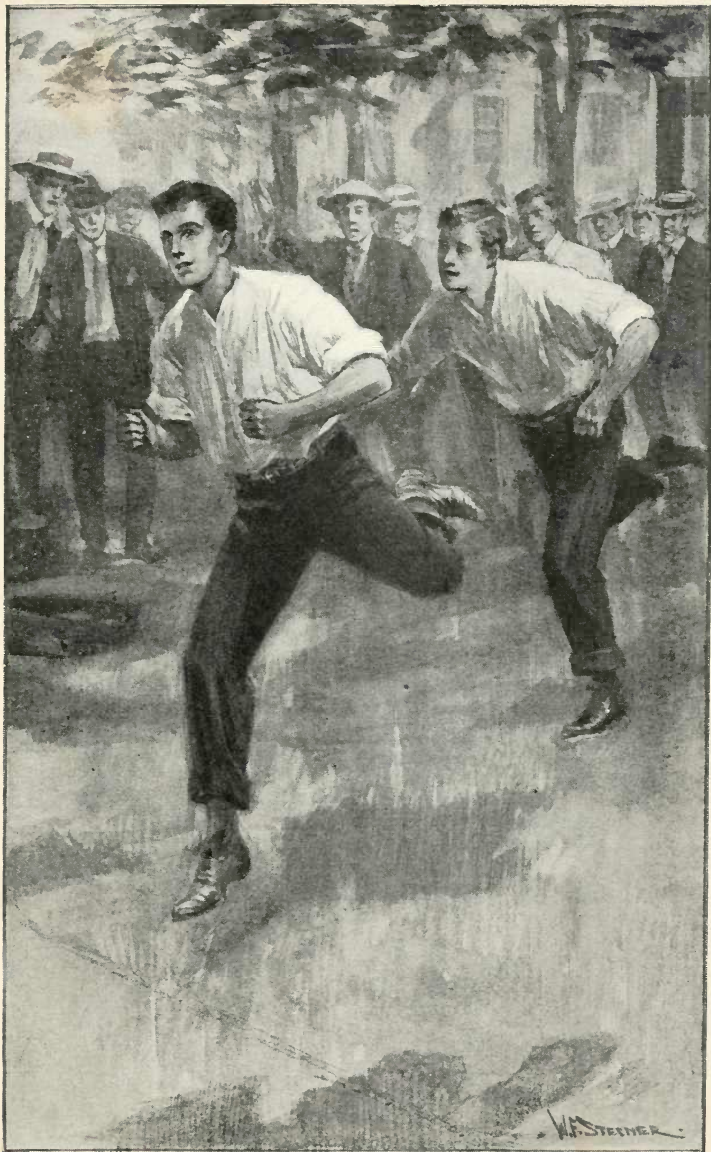
The boys crowded eagerly around the starting point. As the runners were off, Harry began at his usual steady pace, but this time he increased it much more rapidly than in his race with his

schoolmates. He now felt that he had his work cut out for him, and was evidently going to do his best to give his New York friend all the work he was capable of doing. He therefore increased the distance between himself and Ned and got so far ahead, that it hardly seemed possible for Ned to catch up to him, and much less to pass him, before the half mile distance was covered. But the high school boys had never seen such magnificent training as that of the stranger. He began at a much slower pace than Harry, but increased it more rapidly, so that before Harry had reached the quarter mile Ned was nearly even with him, while at the three-eighths mile he was easily running ahead. Towards the last, both boys made a grand spurt, but Ned's speed was too much for Harry, and he crossed the line ten feet to the good.

At this magnificent exhibition of training, speed and bottom, the enthusiastic schoolboys ran to Ned as he crossed the line, and lifting him on their shoulders, carried him in a triumphal march around the tree.

"There, boys, that will do," said Ned laughing. "No more please; that is enough for one day."

It seemed a great event for Harry's schoolmates. It is difficult for one not well acquainted



. . . " HE CROSSED THE LINE TEN FEET TO THE GOOD "

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with any of our great schools to understand how highly the boys hold the honor of their school as regards its ability to take the first place in athletic contests. An intense, though generous rivalry existed between the Lyme High School and the High School at Sebright not many miles distant. Here was a new boy, Maxwell's friend, who was probably intending to enter their school. With such an athlete on their team, their victories would be assured. What were the chances of his coming? They must know as soon as possible.

"Who is he, Harry? Does he intend to stay here long? Is he going to join our school? Wouldn't it be great to get him on our teams?" were the questions uppermost in their minds.

Harry laughed. "No, boys, no such luck for us. He is only here on a visit. Let me whisper it in your ears. This fellow holds the record of the Eastern Inter-Academic Schools for most of the events we have tried to-day, and let me tell you he is an all round good fellow, as strong in his school work as he is on the track—a fellow one likes to know."

"Three cheers for Ned Cartwright," cried one of the boys, and they were given with a will.

With a modest "thank you," Ned turned to

his friend, saying: "Come, Harry, let's get off; father will be wondering what has happened to me. I told him I was going to walk around to the school, for I knew you would be getting out about this time. He asked me to bring you around with me to see him at the hotel before he leaves to-night for Boston."

"But you will come afterward, Ned, won't you, and stay with me while you are here? Mother will expect to see you, and I know she will be glad to have you stay with us."

The boys were soon ready, Ned getting into his clothes with the same speed with which he got over the track.

As the two boys started off together toward the hotel, one could see that they were both in splendid physical condition and were well matched as to height, weight, and age, although Ned was over sixteen, and a half a year older than Harry.

Although the two boys were alike in many respects, yet there was a striking contrast between them. Harry was a blonde with light curly hair, blue eyes and a fair complexion, while Ned had black hair, dark brown eyes and a swarthy complexion.

Harry Maxwell was the only son of Mrs. Max-

well, the widow of the miner who had met an untimely death in Dead Man's Gulch. It was over nine years since his father's body, which had been sent on from the West, was buried in the family lot in Lyme. Harry, who was between six and seven years old when his father died, could not remember him very well, since he was only about four years old when his father had gone West.

Like Harry, Ned was an only child, but both of his parents were living. His father was H. A. Cartwright, the senior member of the firm of Cartwright & Herrocks, of New York City. If Mr. Cartwright had worked hard in his business and amassed wealth, it was largely that he might have the better opportunity of giving his son a good chance in the business world as soon as he was old enough to enter it.

The acquaintance between the two boys had sprung up about a year previously, while Harry was on a short visit to a summer resort near New York City. A warm friendship had sprung up between the two boys, not only by reason of the fondness of each for athletics, but perhaps especially, by reason of that strange attraction of opposites. While the two lads possessed many similar traits of character, yet in each

were strongly developed many desirable traits that were absent in the other. It thus happened that each supplemented the other; each by admiring in the other the particular traits of character that he himself lacked.

The boys had not gone far before they met Mr. Cartwright, who had left the hotel to take a walk down the street.

Ned at once introduced his friend to his father who plainly showed that he was interested in young men, and took kindly to his son's acquaintances.

"Well, Ned," said his father, "I thought I would walk down and meet you. But what have you been doing? You look as if you had been having sort of a rough and tumble fight."

Mr. Cartwright had always taken keen interest in his son's pleasures, and was much interested in Harry's and Ned's description of their afternoon games. "But," he added to his son, "be careful. I am sometimes afraid that you may overdo the matter."

On the way back to the hotel, Harry put to Mr. Cartwright his request that Ned should stay with him during his father's visit to Boston, adding that he knew that his mother would be glad to look after him.

“To-morrow will be Saturday,” said Harry, “so that we can have that day all to ourselves. Then there is Sunday, and on Monday our school has a half holiday so that you can see we will be able to have a real good time together.”

And so it was agreed among themselves that they should all go up and see Mrs. Maxwell, and, if she made no objection, it was “a go.”

## CHAPTER IV

### HARRY MAXWELL'S HOME

TO the city bred boy that Ned was, the Maxwell home was peculiarly attractive. Surrounded as it was on all sides by plenty of fresh air and light, it offered a great contrast to the ordinary city house.

Its interior had such a comfortable, home-like appearance that he felt upon entering, that a hearty welcome awaited him, the furniture, though very plain and simple assuring both safety and comfort for its occupant.

But let us leave the inanimate things with their silent promise of comfort to the stranger and turn to Harry's mother who stood smiling at the door to welcome them.

Harry ran up affectionately to his mother, saying,

"Mother, Mr. Cartwright and Ned, both of whom you met last summer, are with me. Look how Ned has grown since you last saw him."

Mr. Cartwright was delighted with Mrs. Max-

well's cordial welcome. The comfortable, home-like air of the house, and especially the kindly appearance of Harry's mother, assured him that his son would be well cared for. He was a shrewd observer of boys, and during the brief walk, he had been quietly drawing Harry out for the purpose of getting a better insight into his character. The result was, that the favorable opinion he had already formed of him was strengthened. He was satisfied that he was a boy, whom he would be pleased to have his son take as a friend.

"You are very kind," said Mr. Cartwright, as Mrs. Maxwell asked him to permit Ned to be her guest, "and I gladly accept your hospitality for my son."

Mrs. Maxwell invited Mr. Cartwright to take supper with them offering to hurry its preparation so he might catch his train. Mr. Cartwright, however, was obliged to decline the invitation owing to the limited time he had at his disposal.

"Harry," said Mrs. Maxwell, "you and Edwin will, I am sure, like to see Mr. Cartwright off on the train. The depot is near, so that there will be plenty of time for you to get back for supper."

The boys walked with Mr. Cartwright to the depot where they bade him good-bye. They watched the train until it steamed out of the station, and then went back to the house.

As they reached the house, an express wagon was driving up with Ned's trunk. Mrs. Maxwell was standing at the door to receive it.

"Where shall I have it sent, Edwin?" she asked. "To a separate room, or to Harry's room?"

"What do you say, Ned? Will you bunk with me, or would you rather room alone?" asked Harry.

"Oh, with you, by all means, Harry," answered Ned.

"Now boys," said Mrs. Maxwell, "you have ten minutes to get ready for supper. Is that enough?"

The boys laughed. "More than enough," they said.

As soon as they were alone, Ned asked Harry in a matter-of-fact tone: "Full dress, or just as we are?"

"As we are," said Harry, wondering what he meant by full dress, but concealing his surprise. "Just wash up and put on clean linen."

The boys took but little time in getting



ready, and in less than ten minutes were comfortably seated in the dining-room. After a good supper, enjoyed as only healthy boys can after plenty of exercise, they returned to the hall sitting-room.

"I am going to sit on that jolly sofa over there in the corner," said Ned. "I had my eye on it when I first came in the door. That's the kind of sofa I like, big and soft." So Ned took one corner and Harry the other, while Mrs. Maxwell took a seat near them.

"What has Harry been doing with you all the afternoon, Edwin?" asked Mrs. Maxwell.

"Oh, we have had no end of a good time, running, jumping, and all such things. But please call me Ned, Mrs. Maxwell, just as Harry does."

"Certainly. Do you like athletics, Ned?"

"Very much indeed."

"You ought to have seen him this afternoon, mother," said Harry. "Beats all our boys easily."

"And you too, Harry?" said his mother. "Why I thought you led all the boys."

"I am all right for the boys here, mother, but I can't touch Ned."

"Oh, come, Harry," said Ned, blushing, "let's talk about something else."

"Look at him, blushing like a big girl."

It surprised Ned to find out how much Harry's mother seemed to know about the boys who were Harry's friends, and how interested she appeared to be in all things that boys like.

"Well, mother," said Harry at last, "I guess I had better now say good-night and take Ned up to bed. If he is but half as ready for sleep as I am, he will need no rocking to-night."

"Harry," said Ned, when they were alone in the room, "I never saw any lady who was so well up as your mother is on the things that boys like."

"Yes, Ned, mother always takes an interest in whatever interests me. She and I are real chums. You know I have no father, so mother takes both his place and her own. Why she knows the names of all my particular school friends, how they stand in the school, and what their good and bad points are. For this reason, she lets me ask them to supper as often as I feel like it."

"And, I warrant they like to come. Your mother has such a splendid way of making a fellow feel at home."

Harry's room was in the front of the house on the third floor. It took in two of the three windows on the front, the other window being that of a connecting bath-room. A large double bed occupied one corner.

"Lots of room for both of us," said Ned. And then, looking into the bath-room, he said: "I guess we had better take a cold bath after our exercise. We will feel cleaner and sleep better."

"All right."

After a bath, the boys were soon ready for bed.

"Choose your side of the bed, Ned," said Harry.

"It don't make any difference. But since you give me the choice, I will take the side next the wall, then you can't roll me out if you get the nightmare."

"Are you afraid of plenty of air?" asked Harry.

"No, you can't get too much for me," was the reply. "Our doctor wants me to sleep in the open air as nearly as I can. Of course I have plenty of bedclothes in winter, but we won't want too much here in the month of June."

“Don’t be too sure ; it often grows chilly here in the early morning.”

Harry opened both windows of the room, as well as that in the bath-room, the door of which he left open, and placed a screen so as to keep the air from blowing directly on them.

“What are you going to be when you grow up, Ned?” asked Harry, when the two boys were in bed.

“I don’t know ; I guess I’ll be a banker and broker, like father though I would rather be an electrician. What are you going to be, Harry?”

“I have got it all cut and dried. When I get through my high school studies, I expect to go to Harvard University and then take a course in mining engineering.”

“How long will that take?”

“Seven or eight years, but that will only make me twenty-three or twenty-four. You must know, Ned, my father was a miner. He was killed in an accident in Arizona. I will tell you all about it to-morrow, if you would like to hear it.”

“Indeed I would.”

But healthy boys like Ned and Harry, who

have properly blown off their store of superfluous energy, do not go to bed to talk, but to sleep, and it was not long before they were in deep, restful slumber.

## CHAPTER V

### A JOLLY SATURDAY

HARRY was wakened early next morning by Ned sitting on his chest good naturedly pounding and shaking him.

“What’s the matter, Ned?”

“Come, get up. ‘He that rises late must trot all day, and shall scarce overtake his business at night.’”

“Well, that isn’t bad. Where did you get it?”

“Oh, that’s from Poor Richard’s Almanac. Would you like to hear some more of it?”

“Yes.”

“Well, then listen to this. ‘But dost thou love life; then do not squander time, for that is the stuff life is made of. There will be sleeping enough in the grave.’”

“If the rest of the things you know from Poor Richard are as good as that, Ned, I would like to hear them occasionally.”

“Don’t be afraid. I am full of Poor Richard. But I have been trying to wake you for the

last five minutes, when I heard a bell in the house ringing. I hope it is not the breakfast bell, for we would not have time to dress, and I should very much dislike to keep your mother waiting."

Harry jumped up and looked at a clock on the wall that had been hidden by the screen.

"Well, you are a fine specimen, Ned. Why it's only half-past five, and we don't breakfast till seven. I must do you up for robbing me of an hour's sleep. That wasn't our bell; you must have been dreaming. Prepare to take your medicine." So saying, Harry threw himself on Ned, and catching him unawares, had him on his back, when, sitting on his chest, he commenced beating a tattoo, occasionally varying it by endeavoring to accurately locate the position of his different ribs.

"Oh, don't do that," said Ned, laughing. "I am awfully ticklish."

It, however, only encouraged Harry to continue when he ascertained his friend's weakness in this respect.

"Come, let up. You won't?" And then suddenly catching Harry unawares, the positions of the boys were reversed, Harry now being the under boy and Ned sitting on him, not only

pummeling, but beginning a much more elaborate investigation of the position of Harry's ribs than Harry had done. Harry, he was delighted to find, was even more ticklish than himself.

"Do you know the half Nelson grip, Harry?" enquired Ned. "Come out here on the floor, and I will show it to you."

"All right. We will spread the bed coverings on the floor so as not to make too much noise, for mother's room is immediately below."

The boys spent some time in good-natured wrestling, in which Harry to his great delight, found that he was stronger than Ned.

"There is no use going to bed now," said Ned. "Let's dress. It's past six."

"Let me show you my collection of minerals, Ned," said Harry. "I keep them there," he said, referring to a cabinet containing many shallow drawers that were neatly labeled "Native Elements," "Micas, Quartzes and Feldspars," "Ores of Copper," "Ores of Silver and Gold," "Building Stones, Limestone and Marbles," etc., etc., etc.

"Hello," said Ned. "Quite scientific, aren't we?" reading the names on the drawers.

"Yes, a little; I have been at this collection



for about three years; began it when I was thirteen."

"Indeed, quite a Methusaleh now, aren't you, old boy?"

"Oh, stop your chaffing and look at the collection. Let's start with the micas and feldspars," pulling out the top drawer.

The open drawer disclosed a neat arrangement by means of which each mineral specimen was placed inside a shallow pasteboard box without any cover, with a neat card label inside the box.

"You see, Ned, mineral specimens would be spoiled if they were piled on top of one another. This arrangement permits each specimen to be kept separate from its neighbor. When I wish to examine any specimen, I take out its box and all that is in it. I used to paste on each specimen a slip of paper containing the name of the mineral, where I got it, etc. But I soon gave this plan up, since the label generally occupied too much of the surface. I also used to keep my specimens piled in the drawer on top of one another."

"Hello," said Ned, looking at the open drawer, "I know this mineral, and can tell you its name. It is called mica."

"Look at the label."

Ned did so, and read "Muscovite, Quincy Quarries, Mass."

"I thought it was mica; isn't it?"

"Yes, it belongs to the family of micas. Now look at these specimens," and Harry showed him a number of other micas of different colors and for the greater part with hard, strange names.

"Where do you get the names of the minerals, Harry?"

"Some of them I get from one of the professors in the High School; the rest I get from a dealer in minerals in the city. Both these gentlemen are very kind and clever, and have taught me no little of mineralogy. As I told you, I intend to be a mining engineer, and one of the most important things in this profession is to be able to recognize common minerals on sight.

"Look at this," said Harry, pulling out the drawer marked "Limestones and Marbles," from which he selected one of the specimens, and, removing it with the pasteboard box, placed it alongside of a specimen from the drawer first opened.

"Now look at these two minerals, Ned,

and tell me whether they resemble each other."

"Yes, the color is nearly the same, and they both appear to possess the same kind of surface."

"Now, look at their names."

Ned did so, and read Feldspar in the box of one, and Calcite in that of the other.

Harry then placed a specimen marked quartz alongside the other two.

"This fellow more closely resembles feldspar," remarked Ned. "It does not look entirely unlike what you call calcite."

"That's right, but there is another way of distinguishing them from each other, which is very easy after you have once learned it." And opening his penknife, Harry handed the specimen of quartz to Ned, and asked him to cut or scratch it with the blade of the knife. Ned tried, but was unable to make the slightest impression on the hard surface.

"Give it up," he said. "It is as hard as glass."

"Harder than most glass," said Harry, taking the specimen to the window and scratching a small spot on the pane of glass with it, then handing Ned the specimen of calcite, he said: "Try to scratch it here at this part."

"No use. Can't do it; it looks just as hard as the other."

"Try it, Ned, try it, but take this side, where it won't show."

Ned tried, and had no difficulty in making a deep mark on the surface of the mineral.

"Hello, can this kind of stuff always be scratched as easily as this?"

"Always. It's just as natural for calcite to be readily cut or scratched as it is for butter to be cut with a knife. But now try to scratch the piece of feldspar with the knife."

Ned tried but was unable to do so.

"I don't see how this will help to distinguish quartz from feldspar, since neither can be scratched by the knife blade."

"The class in mineralogy will please pay attention, and not jump to conclusions too quickly; or, as a friend of mine used to say, 'Don't be so everlastingly sure you are everlastingly right.' Try to scratch the quartz with the feldspar."

"Can't do it, try as hard as I will."

"Now try to scratch the feldspar with the quartz."

"Easy enough this time."

"Then what would you infer?"

“Why of course, that the quartz is harder than the feldspar.”

“Correct; you may go up to the head of the class.”

“Can’t, I am there already.”

“Not at all. A moment ago you were at the tail of the class, and now you are at the head. When you answer like that, this class is all head.”

“I like this. I think I will commence to study mineralogy myself. Tell me some more.”

“Not now. There is the breakfast bell. We will talk about this matter some other time.”

When the breakfast was over, Mrs. Maxwell, turning to Harry, enquired, “What are you and Ned going to do to-day?”

“Well, mother,” he said, “it is a beautiful day, so I thought I would like to make an excursion to the lake and quarries to do some fishing and rowing, and make a day of it, and return in time for supper at our usual hour.”

“That is a good plan,” said his mother. “I will put up a good lunch for you.”

“All right, mother. You need not be afraid of the bundle being too large to carry. I guess we can manage it.”

“Very well,” said his mother, laughing. “Besides there will be no trouble in carrying it home.”

It will be much better packed at that time of the day."

Mrs. Maxwell returned in about fifteen minutes with two good sized packages wrapped in stout paper.

"I thought it would be best not to put it in a basket," she said, "since it would only bother bringing it back home. Of course you can throw the paper away."

"Are there lots of good things inside, mother?" said Harry, feeling the weight of the packages.

"I think so, but you will see when you open the packages."

As they started off, Ned asked Harry how far away the lake was.

"Oh, about eight miles; the trolley cars take us within two miles of the lake; we will have to walk the rest of the way."

"Can we get fishing tackle and bait at the lake?"

"Yes; one of the quarrymen hires boats and lines and sells bait."

The boys boarded the trolley car, and were soon speeding over the line at a good pace. The car was so crowded, that they had to take a place on the front platform near the motorman.

"Do you understand the operation of this thing, Harry?" asked Ned, pointing to the upright cylindrical iron box marked "controller."

"Not very well; except that I see the car is started by the man turning the handle, and that it goes faster and faster as the handle is turned further from the position it had when the car is at rest; but I don't understand how it operates."

"Well, Harry, I will try to give you a short lesson on car controllers, so as to make up for the lesson you gave me this morning on mineralogy."

"I wish you would."

"How many motors are there on this car?" said Ned, turning to the motorman.

"Four," was the reply.

"Then, Harry," he continued, "as the handle of the controller is turned, these motors are gradually put into or removed from the circuit of the car in different ways, either alone or along with the coils of insulated wire. In this way the speed with which the car is moving, is increased, the arrangement being such that as the handle of the switch is moved further and further away from the starting position, the driving power is gradually increased, until, when the handle reaches the notch furthest

from the starting point, the pulling power, and, consequently, the speed of the car, are greatest. Of course, as you see, the movement of the handle in the opposite direction gradually decreases its power, and, consequently, its speed."

A pleasant looking gentleman, who was standing alongside the boys, turned to Ned and said :

"That is a very good description, my boy, of a car controller. I see you are well up on such things. Do you like electricity?"

"Very much, sir," said Ned, enthusiastically. "I think it is a splendid study."

"I suppose, boys," said the gentleman, "being Saturday, you are out for the day. Where are you going, if I may ask?"

"We are going to the lake to look at the quarries, do some fishing and rowing, and may be some swimming."

"Are you interested in minerals?" asked the man of the boys.

"I don't know much about minerals," said Ned, "but Harry is well up on them. You should have heard the lecture he gave me this morning before breakfast—all about micas and quartz and calcite."

The gentleman looked surprised, saying :



“I know something about such things myself. I would like very much to have heard the famous lecture.”

“I am glad you did not, sir,” said Harry, blushing, “for there is so much about minerals I can’t understand. However, I am going to learn.”

“That’s right,” said the gentleman. “It is a splendid study, so keep at it, and I think you will never regret it. But I must say good-morning now. I am on the way to the quarries myself, but I must first get off at the next stopping place. When at the principal quarry, ask any of the men to tell you where to find Mr. Harrington, and come to see me some time near noon; I may be able to find some mineral specimens for you.”

When the gentleman had left the car, the motorman, turning to Harry said :

“Do you know who that gentleman is?”

“No,” said Harry. “Who is he?”

“That is Mr. Harrington, a mining engineer. He has been here for several weeks, and I understand, is making a report for some Eastern capitalists. They say he is one of the best mining engineers in the country. He is generally in the West, but was brought here at

great expense to prepare a report on the value of these quarries. I suppose you know they are being consolidated under one management."

"Yes," said Harry, "I have heard something about it." Then, turning to Ned, he said: "Say, this is great luck. Isn't he a pleasant man?"

"I have heard of him before," said Ned, laughing. "Let me whisper in your ear. My father is in the syndicate the motorman alluded to. Of course I am not certain, but I think father came here to see about this very matter, and will look over the properties before he leaves on Tuesday for New York. I should not be surprised if he was going to Boston partly for this reason, but of course I am only guessing. Father seldom talks about business matters to me."

## CHAPTER VI

H. E. HARRINGTON, MINING ENGINEER

ON reaching the lake Harry hired a boat and fishing tackle from the quarryman, and got the necessary bait. The boat was a well built, flat bottomed boat provided with row locks for two pairs of oars. They took both pairs of oars, since, as Ned suggested, should the fishing prove poor, they could have lots of fun rowing.

Just before leaving the boat-house Ned stole a march on Harry in the following manner. Under the plea of asking the quarryman, from whom the boat had been hired, to loan him a chart of the lake, he went back to the boat-house and paid for the hire of the boat and fishing tackle, as well as for the bait. Harry remonstrated at this saying that since Ned was his guest he expected to pay, but Ned only laughed, and insisted on matters being left as they were.

Before starting, the boys spread the map out on one of the seats of the boat, and began study-

ing it, getting the general directions by the use of a small compass needle Ned wore on his watch charm.

“The lake is long and narrow,” said Ned. “I should say about four or five miles in length, and three-quarters of a mile across its widest part; and see here, I can count eight, nine, ten, eleven different quarries marked on the map. What’s the stone, Harry?”

“Granite,” was the answer.

At the suggestion of Ned they first rowed to the far end of the lake, carefully noting the different points of interest.

“And now let’s fish,” said Harry. “I am afraid we will find the fishing poor; for, since the quarrying has been going on, the fish have become scarce. Still, some good sized ones are caught every now and then.”

They fished for about a half an hour without any luck, when, growing tired, they determined to row up and down the lake until near noon, and then go to the principal quarry and call on Mr. Harrington. So they rowed about until near twelve o’clock, when, fastening their boat at the wharf, they inquired of one of the quarrymen where they could find Mr. Harrington.

“Over at the office,” said the man, pointing to a small frame building.

“Mr. Harrington is busy just now,” said the man at the office, as they asked for him, “but sit down, please, and I will take your names in to him. Who shall I say wish to see him?”

“Tell him that the boys with whom he was talking on the trolley car this morning, and who he invited to call on him about this time, would like to see him when he is at leisure.”

In short time, the engineer came out from the inner office and said pleasantly :

“I am glad to see you, boys. I named twelve o'clock because I then generally have a little time to myself. We will have to introduce ourselves. My name is H. E. Harrington, Mining Engineer. Let me have your names. Suppose we begin with the electrician,” he said, as he turned to Ned.

“My name is Edwin H. Cartwright,” said Ned. “I live in New York City, and am here on a short visit.”

“Cartwright, of New York? What are your father's initials?” asked the engineer.

“H. A., sir,” answered Ned. “He is a member of the firm of Cartwright & Herrocks, Bankers and Brokers.”

“What a strange coincidence,” was the reply. “I am glad to make your acquaintance, Ned. Your father is one of the gentlemen for whom I am preparing a report on these quarries. Now for the mineralogist,” he said, turning to Harry. “What is your name?”

“Henry J. Maxwell, sir.”

“What is your father’s first name?” asked the engineer.

“John, sir, but my father has been dead now for about ten years.”

“Was it in Arizona that he died?” said the engineer excitedly.

“Yes, sir,” said Harry in surprise. “Did you know my father, sir? Did you see him when he was in Arizona?”

“Never in Arizona. I met him about thirteen years ago in a mining camp in Colorado. How strange it is that I should, after all these years, meet in Massachusetts, the son of the man to whom I was once so warmly attached. The world is indeed very small.”

“But tell me, sir, if you please,” asked Harry eagerly, “all you know about my father. I was not much more than three years old when he left home for the West.”

“I became quite intimate with your father,”

said Mr. Harrington, "while I was in Colorado making a survey and report on some mining properties. Your father was an excellent miner. Although not a regular mining engineer, yet he was as well if, indeed, not better posted on mining, than many engineers I have known. A warm friendship sprang up between us. Your father afterward went to Arizona, where he discovered a wonderful deposit of a copper ore containing unusually large quantities of gold and silver. He wanted me to join him in Arizona to make an examination of the deposit, but I was in California at the time and was unable to go. This was just before he met with a fatal accident from the premature explosion of a blast. I gathered, from what your father wrote me, that there were some puzzling characteristics about the vein or lode so that he was desirous of consulting me as regards the best manner of staking out his claims. As the son of my old companion, I trust, Harry, that you and I shall become good friends, as I trust you and I shall also be good friends," he remarked, turning and addressing Ned.

"I judge," continued Mr. Harrington, turning to Harry, "from what your friend said in the car this morning about the lecture you gave

him on mineralogy, that you are interested in minerals. Is that true?"

"Yes, sir. The exact location of father's mine has never yet been rediscovered. When I become a mining engineer, as I hope to do some of these days, I shall try to find this lost mine. When I graduate at the High School here, I expect to enter Harvard University, and afterward to take a full course in Mining Engineering."

"That's right, my boy," said Mr. Harrington. "It pays a man well to be thoroughly posted in his life work. Have you made a collection of minerals too?" he said, turning to Ned.

"Not yet, sir, but this morning, after seeing Harry's I made up my mind I would begin one."

"Then I must see if I can't find you a few specimens here to start with. Here," he said, turning to Harry, "is something to add to your collection of micas."

"If I am not mistaken, this is biotite, is it not?" asked Harry.

"That's right. Why you are quite well up in minerals. Now if you can tell me the name of these," showing him several pieces of another mineral, "you may pick out one specimen for Ned and another for yourself."

"These, sir, I think are tourmalines."



“Capital, Harry. You are right again. Now boys,” he said, “I must say good-bye for the time. If you stop at the office again later on in the day, say shortly before you go home, I will show you around a little and possibly we can return to the city together.”

“That will be splendid,” said the boys. “You may expect us.”

“Of course,” said the engineer, “I may not be able to return with you as I sometimes have to spend the night here.”

“Should we not see you again,” said Harry, “I hope you will call at our house. I need not tell you how glad mother would be to meet any one who was acquainted with father while he was in the west, especially to meet one of his old friends.” The engineer promised to call, so Harry gave him the address, which he entered in a note-book.

“And don’t forget,” continued Mr. Harrington, “when I come, you must show me that wonderful collection of minerals that Ned was telling me about.”

He then turned to Ned and gave him some advice as to the kind of mineral specimens he should endeavor to obtain for his collection. He suggested that such a collection should consist

of specimens of the common minerals, in the forms in which they most frequently occur in quarries and mines, rather than of the strange and unusual specimens, and should by all means include common building stones and ores. As regards their size he recommended specimens three, by two, by one and a half inches. He also urged that care should be taken in getting the correct name and location of each specimen.

By this time both boys were hungry, so that when Harry suggested rowing over to the other side of the lake and eating their lunch on the top of a cliff, Ned was only too glad to agree.

The other side of the lake was soon reached, and, after a rather hard climb, they were soon seated comfortably on the top of the high land near the lake. From this point, a magnificent view could be obtained, both of the entire lake, and of much of the surrounding country.

“See, Harry,” said Ned, “how the lake bends here and there. It looks like the bed of an old river that has been suddenly stopped off. Let’s locate the different points of the lake on the chart.”

Spreading the chart out before them, they were able to obtain from this elevation a much

better idea of the position of the different quarries, and other points of interest, than they had obtained while rowing.

“ You say, Ned, that the lake looks like an old river channel. Well, that’s just what it probably is.”

“ What do you mean? That can’t be. I can see no water either above or below the ends of the lake, except that little stream emptying over there,” pointing to the north, “ into the upper part of the lake. I do not see how this lake could ever have been an old river channel.”

“ As I understand the matter,” replied Harry, “ this is a glacial lake, the bed of which was formed many hundreds of thousands of years ago, during a geological period called the glacial period. During this time a great sheet of ice covered nearly all the northern half of North America, reaching down a considerable distance below the state of Massachusetts, where we are now sitting. This ice sheet had a thickness of probably two miles at the north and was thinnest toward the south. You know what a glacier is, Ned?”

“ Yes,” said Ned, “ I have seen glaciers in Switzerland when I was there two years ago with father and mother. They are immense

masses of ice and snow that move down the side of a mountain, not like avalanches, but very slowly, only a few inches each day."

"Well, Ned, that's just like the ice mass which covered North America during the glacial period, only that ice mass was much thicker than any of the earth's present glaciers. That ancient glacier moved slowly from the north to the south. During this motion the heavy ice mass cut off and carried away large portions of the earth's surface. In some parts of Massachusetts and other New England states, entire hills and even low mountains have been thus removed.

"After a long time the earth's climate grew warmer, and the surface was uncovered on the melting of the ice mass. In many places only the hard bed rock remained, covered with numerous shallow depressions, which, when filled with surface water, formed lakes. I believe that the lake we are now looking at was formed in this manner."

It puzzled Ned no little to understand how so great an accumulation of ice could have taken place in Massachusetts, where, as he knew, even during the coldest winters, the thickness of the snow and ice seldom exceeded a depth of a few

feet. He therefore asked Harry if it were known what had been the cause of so great a change in the climate.

“I don’t think the cause is very well known. But whatever it was, the change of climate appears to have taken place very quickly. Would you like to hear a story about an elephant on ice?”

“An elephant on ice,” laughed Ned. “Sounds something like quail on toast. Yes, I would like to hear it, but don’t make it too long, for an elephant on ice suggests something to eat, and I am very hungry.”

“I am very hungry myself, so I propose that, instead of making the lunch wait for the story, we make the story wait for the lunch.”

Harry’s proposal met with Ned’s hearty approval, so the boys began opening the packages of lunch Mrs. Maxwell had prepared for them. On looking at his package, Ned’s already expressed belief that Harry’s mother thoroughly understood boys was strongly confirmed, for the package contained roast chicken, rolls, boiled eggs, slices of gingerbread, cookies, a little package of salt in a paper, and in the middle of one of the rolls, a little pat of butter, while

in still another package a tumbler of preserved strawberries!

"A splendid lunch," Ned remarked.

"But I say, Harry," he continued, "we never shall be able to eat it all."

The lunch was so enjoyed by the boys that by the time their appetites were thoroughly satisfied, they discovered that Harry's mother had a far more accurate idea of the extent of a boy's appetite than Ned had; for they apparently stopped eating not because they could eat no more, but because there was no more to eat.

"How about there being too much to eat, Ned?" said Harry, laughing.

"I acknowledge my error," and then he laid down on his back and looked up at the clear blue sky with the white clouds floating overhead.

"Now, Harry," he added, "trot out your story about the elephant on ice. I defy him to make me feel hungry now, no matter how large he may be."

"Well," said Harry, "to begin with, this elephant was much larger than any elephant that lives now. Listen; for this is a true story and will bear investigation:

"In the great low plains in the northern

parts of Asia, in what is known as the tundra district, there lived an ignorant fisherman, who found it very difficult to get enough food to keep him alive. In this part of the world the land is so flat that the rivers empty sluggishly into the Arctic Ocean. Many of these rivers are very long, rising in the warmer districts on the south, and discharging their waters into the ocean, far beyond the Arctic Circle. In the beginning of the warm season, the ice and snow melt in the upper courses of the rivers while their mouths are shut hard and fast by thick ice. The waters thus produced, being unable to escape through the frozen river mouths, of course overflow the neighboring level land, in this manner turning the country into a great swampy district, covered here and there by huge shallow lakes.

“One morning the fisherman, accompanied by his dog, left his hut and started out to search for his breakfast, say a fish that he might be able to catch in the river by breaking holes in the ice. He was not successful, and returned both tired and hungry. When near his hut he noticed that his dog was no longer with him. Being fond of the animal, he endeavored to find it by following its tracks, but before he had gone very

far, the animal returned to him. Now the dog was licking his chops, and that meant it had been eating something. Being very hungry, he eagerly traced the footsteps of the dog and reached the spot at which he had obtained his meal. Now what do you think he saw, Ned?"

"Go on, Harry. What did he see, a ghost? Oh, I know, it was an elephant on toast."

"A good guess, Ned," said Harry. "An elephant, not exactly on toast, but on ice. It was not the ice that astonished him, for that, goodness knows, was common enough, but an elephant on ice was something out of the ordinary. However, being hungry, he did not trouble himself to ask how the elephant got there, but finding its flesh in fairly good condition, and not being over-particular in his tastes, he commenced making a good meal off the carcass; for the flesh had been kept in nature's great cold storage house in such a condition as to permit it to remain fairly good food.

"The fisherman was too ignorant to be surprised at the sight of an elephant on ice. The folk lore of his people taught him that in the lower regions of the earth there lived great monsters, of which the one before him was evidently a specimen; that these monsters would die al-



most immediately if they came to the surface of the earth where they were exposed to the great cold. After he had finished his meal, noting the excellent condition of the polished ivory tusks, and feeling sure that he could sell them, he cut them off and carried them one by one to his hut. These tusks were sold to an Englishman, who could scarcely credit the statement of the fisherman that he had obtained them from an ice-covered animal on the shore of the ocean near a river's mouth. A careful examination, however, led to an extended exploration of this part of the country, when it was found that large parts of the northern plains of Asia were veritable cemeteries, containing, as they did, the remains of vast herds of fossil elephants, and that the ivory of their tusks was in such an excellent state of preservation as to make these districts regular ivory quarries, from which large quantities of marketable ivory were obtained. Since these elephants were of a species that could only live in a warm region, it is evident that the climate of this part of Asia must formerly have been much warmer than now. Moreover, as the elephant's flesh was sufficiently fresh to be eaten by both man and the dog, it is evident that the change in the climate came suddenly,

since the animals, in many cases, had been frozen and covered with snow, before the flesh had time to rot. This change probably came at the beginning of the period called the Glacial Period."

When Harry finished his story, Ned exclaimed:

"What a boy you are, Harry. How do you get to know such interesting things?"

"I don't know as much as you think, Ned, but I am much interested about such things and read all the books I can find that contain accounts of them. Of course, I don't mean that I read every book that I meet with, but only such books as will aid me in becoming a mining engineer, just as I don't doubt that you read all the books that you can find on electricity."

"Well, not all," said Ned, laughing, "but a great many.

"What a comfortable place this is," said Ned, still lying on his back and looking up at the sky. "I say Harry, if you don't mind talking about it, please tell me something about your father, and how he was killed."

"Gladly, Ned. As I think I have already told you, I was about three years old when father left for the West. We were not very well off as regards money matters, and father was anxious to

go West in order to make his fortune. As you heard Mr. Harrington say, father spent several years in Colorado, where he had an interest in a mining or claim prospect that afterward became one of the richest mines in the district. He was cheated out of this interest, however, and afterward went to Arizona, where he discovered the rich deposit of copper, gold and silver I was speaking about. Mother has a letter from the smelting company, stating that the ore left by father for smelting was the richest ever received at their works. Father must have taken considerable ore there, for at his direction, the company sent mother the proceeds amounting to something like \$5,000. This, with some \$10,000 that mother afterward inherited from a relative, has enabled us to live comfortably, though, as you see, very plainly.

“Father had written to mother several times, about his great find. If you will remind me when we are at the house to-night, I will show you a specimen of the ore he sent from this mine. Unfortunately, father never told mother either the location of the claims, or the exact character of the deposit, whether a vein or a blanket deposit. I understand that for several years after father's death many attempts were

made to locate the property, but that all of them failed. Now, Ned," added Harry, earnestly, "I intend to do my best to relocate this property. For this reason I am studying mineralogy, geology and such things as hard as I can, and if I can only arrange it to become a mining engineer like Mr. Harrington, I shall go to Arizona, and do my best to find father's property."

"So would I, Harry, if I were you," said Ned.

They remained where they were for nearly an hour longer, talking about various things until a swim in the lake was suggested, when both started on the run for the boat.

## CHAPTER VII

### HARRY AND NED SAVE MR. HARRINGTON'S LIFE

AS they pushed off from the shore, Harry suggested that they take a little exercise, so as to warm up before going into the water.

After a good pull up and down the lake, the boys stopped at the wharf of the quarry at which they had met Mr. Harrington at noon. They were soon undressed, and thoroughly enjoying themselves as both were good swimmers. The splendid physical condition of the boys could easily be seen now they were stripped. No superfluous fat, and muscles well outlined, but not over-developed; muscles which, though soft and flaccid when not in use, readily became hard and rigid when called into action.

"Can you touch bottom here, Ned?" asked Harry.

"How deep is it?"

"I don't know exactly, but I think about fifteen or sixteen feet."

The boys made several attempts to touch by diving into the water from the top of the wharf. At last each succeeded in reaching the bottom,

proof of which they gave by some stones they brought up.

Some of the quarrymen, attracted by the boys' sports, came down to the wharf and looked on.

"Pretty good swimmers," said one of the men.

"Yes, they dive beautifully," said another.

"I have never seen bottom touched before at this wharf, though I have seen many try it."

When they got tired diving, Harry proposed that they get in the boat and take a row undressed as they were, adding that no other boat was in sight on the lake, and that a sun bath would prove beneficial. So they rowed up and down in the neighborhood of the wharf, thoroughly enjoying both the sun bath and the exercise. When about a quarter of a mile from the wharf, they were startled by hearing cries:

"Help! Help! hurry over here, boys."

Turning around, they saw that something had gone wrong at the wharf. A number of the men were running about excitedly, and several of them had jumped into the water.

Fearing that some accident had occurred, the boys took both pairs of oars, and quickly reaching the wharf, were told that Mr. Harrington had fallen in the water from one end of the

wharf; that they had made several unsuccessful attempts to find his body, but had been unable to do so, by reason of the depth of the water. They urged the boys to do what they could without any further loss of time, since the body had already been in the water for several minutes.

The boys required no urging to attempt the rescue. They would have unhesitatingly done this even for a stranger. But as for Mr. Harrington, toward whom both boys felt strongly attracted, they were ready to do all they could to save him, even at the risk of their lives.

They made a beautiful, but unsuccessful dive. As they climbed to the top of the wharf, Harry told Ned that while under the water he saw the body lying on the bottom close up against the wharf, as if it had been caught between two timbers. He suggested that they try to loosen the body, cautioning Ned not to get caught in the timbers, which were so slimy that one could easily slip in between them.

They then dove in again. This time they were so long under water that one of the men said to the others:

“This is awful. Two other valuable lives sacrificed.”

But he had spoken too quickly; for the two boys soon appeared at the surface of the water, bearing Mr. Harrington's body between them, when willing hands carefully lifted it to the wharf.

One of the men placing his hand over Mr. Harrington's heart, said:

"It's too late, boys, the man is dead. He has been in the water for nearly five minutes."

"Don't let's give up too soon," said Harry.

Fortunately, Harry was thoroughly familiar with the different methods employed for the resuscitation of those apparently drowned. He knew that sometimes people had been restored to consciousness after having been in the water a much longer time than the engineer. He determined, therefore, to do all that was possible to save his friend's life and made up his mind that he would continue these efforts for several hours without giving up.

"Ned," said Harry, "we must do all we can to resuscitate him."

The quarrymen offered to do all they could to aid them in his efforts, adding, however, that they believed it was too late to expect success, but requested him to tell them what they should do. Harry asked them not to crowd



around the body but to give it plenty of air, adding that if there was a doctor in the neighborhood, he would like some one to go and bring him as quickly as he could.

"There will be a doctor at the next quarry, about a mile and a half from here. I think this is one of his regular visiting days," suggested one of the men.

"Then go and bring him here as quickly as you can. While you are gone, we will do what we can."

The first thing Harry did was to loosen the man's clothes, especially at the collar. Then, in order to remove the water from the lungs, he had Ned help him place the man on his stomach, raising the body at the middle so as to permit any water that might have collected in the lungs to run out at the mouth. Placing the body on its back, he then tied a handkerchief around the engineer's tongue and asked Ned to pull the tongue forward, and then let it move back, repeating this at regular intervals, while he imitated the motion of breathing by alternately pressing and expanding the lower ribs about twenty times a minute. He also occasionally stimulated the actions of the lungs in breathing, by alternately raising and lower-

ing the arms from the sides of the body up above the head. These efforts were kept up for more than three quarters of an hour, without, however, producing any satisfactory results. One of the men now proposed to roll the body over a barrel, asserting that this method was generally successful, but the boys shook their heads.

“Such treatment,” said Harry, “would I fear, be apt to extinguish the little life that may remain.”

While Harry was thus working, every now and then Ned briskly rubbed the engineer's legs and feet, the boots and some of the clothing having been removed shortly after the body was taken from the water. Warmth was kept up by the occasional application of hot water or a hot stone.

But with all these efforts, the engineer still appeared lifeless. Although greatly discouraged, Harry did not discontinue his efforts for resuscitation, but tried another well known plan. Drawing out the engineer's tongue with the handkerchief, closing the nostrils with one hand, and pressing against his Adam's apple with the other, so as to close the entrance to the stomach, he took a full breath of air into his own lungs, and leaning down, placed his mouth

against that of the engineer, breathed forcibly into it, thus filling his lungs, when he expelled or drove the air out of them by pressure with his hand. He continued this some twenty or thirty times every minute until at last, after having been at work for fully two hours from the time the body was removed from the water, he was rewarded by observing a faint breathing, and placing his hand over the heart, he could feel it feebly beating.

“Now,” said Harry, “let’s get off the rest of his wet clothes.”

When this was done they placed the engineer on a mattress brought out from the office, and wrapped him up in a warm coverlet.

“We will let him rest quietly here,” said Harry. “All of you please stand off and give him plenty of air. If you have whiskey, I will give him a little. Now all move away,” repeated Harry.

“We will, be jabbers,” said an Irishman, who had been intently observing what Harry was doing. “It’s a broth of a boy ye are; ye bate the doctor intoirely. Come here and let me hug ye, for ye have saved the loife of a foine man.”

But Harry laughed and begged to be excused.

“Here comes the doctor,” cried one of the

men, as a middle aged man came hurriedly to the spot.

"I fear I am too late to be of any use, unless some one here has used prompt means," said the doctor.

"That's all right, doctor," said one of the men. "We have two brainy boys here, who have done everything that was necessary. The man is now in pretty good shape."

The doctor carefully examined the patient and said,

"I think he is all right. Now tell me what you have done."

The man who had spoken before, explained just what Harry and Ned had done. The doctor listened carefully, and shaking Harry warmly by the hand, said :

"Capital! Splendid treatment! Everything you did was quite right. A regular doctor could have done no better. Mr. Harrington owes his life to both of you not only for taking him out of the water, but especially for what you have done since. How long do you say the body was in the water?"

"About five minutes," said one of the men.

"And how long were you working to resuscitate him?" he asked Harry.

"At least two hours, sir," was the reply.

"The case is a very unusual one," said the doctor. "It seldom happens that resuscitation is possible after so long a time, and it is still more unusual that efforts for resuscitation have been successful after the patient has remained apparently dead for two hours.

"But how did Mr. Harrington come to fall in?" asked the doctor. "What does this mark mean on his forehead?"

The men told him that Mr. Harrington was superintending the setting up of a post on the wharf for the attachment of a guy rope to the derrick. As one of the men carrying the post stumbled, the post struck Mr. Harrington on the head with a sharp blow apparently stunning him. He added that the engineer must have been quite unconscious, because he did not utter a word as he fell into the water and immediately sank out of sight.

The doctor explained that being stunned before falling into the water had been advantageous to Mr. Harrington, remarking, however, that it would be necessary to carefully watch the patient; that as soon as he regained consciousness, he would be able to say whether the blow on the head was serious or not.

However, he said, carefully examining the head,

“I do not think that any danger is to be apprehended from this blow.”

“I am glad to hear you say that,” said Harry. “I can’t tell you how glad I am that you are here.”

“How did it happen that you sent for me?”

“I did so on general principles. It would of course have been better for you to have been here from the first, but I knew that unless prompt measures were taken the man would die.”

“And now,” said the doctor, turning to the boys, “here you have been undressed for over two hours. You had better get into your clothes, or I may be treating some of you for lung trouble or something.”

Gladly taking the doctor’s advice, the boys dove into the lake and washed themselves. As soon as they were dressed, they stood at some distance from where Mr. Harrington was lying, anxiously waiting for him to regain consciousness. At last the patient opened his eyes, and looking around, said :

“Is that post in yet?” and then, seeing the surprised expression on the faces of the bystanders, and noting that he was lying in a bed and covered up, he said :

"Hello! What's the matter? Have I been hurt? Is that you, doctor?" recognizing his friend.

"Oh, a little accident has happened," said the doctor, "but it's all right now."

The gaze of the man then fell on the boys, and he said :

"Well, boys, did you get those specimens?"

"Yes," answered the doctor, "but the best specimen that they got was from the water at the foot of the wharf here."

"What do you mean, doctor?"

"I mean that you fell into the water, and that they have pulled you out."

"Who did you say pulled me out?" asked the engineer, not seeming to understand the doctor's previous words.

"These two lads," replied the doctor, turning around to look at the boys, but they, fearing they were about to be thanked, had quietly slipped away and disappeared.

Mr. Harrington at once asked that the boys be brought to him, saying that he wished to talk with them.

The doctor, after feeling his patient's pulse, promised to bring the boys, to him ; but he had some trouble in finding them and still more

trouble in persuading them to go to the engineer, but on being assured that it might be dangerous to thwart his wishes, they at once went back with him.

“Boys,” said Mr. Harrington, “they tell me that you saved my life. I will never forget this. Count me as your friend the rest of your lives.”

“That’s all right, Mr. Harrington,” said Ned. “We are glad to have been able to aid you. So far as pulling you out of the water is concerned, that was nothing, but as regards the resuscitation, it is Harry you must thank, for he is the one under whose direction it was all done.”

Mr. Harrington soon fell asleep, in which condition the doctor permitted him to remain. When he awoke about half an hour afterward he called the doctor and wished to arrange about getting back to the city.

The doctor, however, advised him to remain where he was for half an hour or so longer, saying that he would see if satisfactory arrangements could not be made. He added, however, that there was no objection to his talking to the boys.

So the boys sat down and had a long talk with Mr. Harrington.



"Tell me," he said, "what you have been doing to-day besides saving life?"

"Lots of jolly things," said Ned. "We climbed to the cliff on the opposite side of the lake, where Harry gave me a lecture on the Glacial Age, saying that the lake was due to the action of glacial ice."

"I only said I thought it was," said Harry.

"You are quite right, Harry," said Mr. Harrington. "This lake, like many others in Massachusetts and the New England States generally, owes its existence to the action of the glacial ice-mass. What else were you doing?"

"After eating our lunch," said Ned, "Harry told me a wonderful story, he called an Elephant-on-Ice."

On Mr. Harrington asking Harry to tell him the story, Harry suggested that Ned should repeat it so that they might test his memory.

"I am willing," said Ned. "Harry's story was about a hungry Siberian dog, and its still hungrier master. While the two were out one morning in search of breakfast, the fisherman's dog noticed a curious mound covered with ice and snow. Although the fisherman must also have seen this mound, yet it did not attract his attention as much as it did the nostrils of the

dog ; for, taking advantage of a moment when his master was not looking, the dog remained by the mound, from which he scratched away the ice and snow, and had a full breakfast on iced elephant's flesh. When the dog returned the man noticed the satisfied manner with which he was licking his chops. Moreover, he saw, from the way in which the dog's body was filled out, that he had enjoyed a square meal. Investigating this matter for himself, he also made a meal from the food thus laid up in Mother Nature's great ice chest. Even the dog, who had accompanied his master back to the elephant, took advantage of the occasion to fill up a little space that had been left empty in his stomach."

"A good story, Ned, and well told," said Mr. Harrington.

At this moment the doctor came up hurriedly, saying: "We are in luck, Mr. Harrington. Here comes an automobile."

## CHAPTER VIII

JOHN QUINCEY TREVOR, CAPITALIST

A LARGE automobile rolled rapidly up the road and stopped opposite the office. Its only occupant, a well dressed, middle-aged gentleman, got out and began walking at a brisk gait toward the office door. Before he had taken many steps, seeing the doctor, he turned, and approaching, inquired for Mr. Harrington; then, observing the bed and some one lying on it, he asked if there had been any accident.

The doctor, answering his questions, said :

“That is Mr. Harrington lying on the bed. He was accidentally struck on the forehead by a heavy wooden post. The blow both rendered him unconscious, and knocked him into the lake, where he was nearly drowned.

“I am glad to say, however,” added the doctor, seeing his anxiety, “that the patient now is out of danger.”

The gentleman inquired whether he could safely talk to the engineer, and having been

given permission to do so, approached the bed and said :

“How is this, Harrington? I hear that you have met with an accident.”

“Yes, Mr. Trevor,” said he, “but I am all right now,” and then turning to the doctor, who was standing near him, he said :

“Dr. Gray, let me introduce you to Mr. John Quincey Trevor, of Boston.”

“Ah, doctor,” said Mr. Trevor, “it is fortunate you were here at the time of the accident. Will you kindly tell me all about it?”

“With pleasure, Mr. Trevor, but it was these two lads who saved the man’s life. This one,” turning to Ned, “you probably know. He is Edwin H. Cartwright, son of H. A. Cartwright, of Cartwright & Herrocks, New York City.”

“How do you do,” said Mr. Trevor, shaking Ned warmly by the hand. “I know your father very well. In fact, I came on from Boston for the purpose of seeing him in reference to these quarries in which we are both interested. But who is the other lad?” asked Mr. Trevor, who was evidently much pleased with the appearance of both of the boys.

“This,” said Mr. Harrington, not waiting for

the doctor to answer, "is Harry J. Maxwell, the only son of an old western mining friend of mine."

Mr. Trevor requested the doctor for full particulars of the accident, the rescue and the resuscitation. He asked many questions and rapidly familiarized himself with all the details. Then turning to the engineer, he said :

"Harrington, you owe your life to these boys."

"I most assuredly do," said Mr. Harrington, "and shall never forget them. Some day I hope I will have become sufficiently acquainted with Harry to take, to some extent, the place of his father, who has been dead these many years, as you know I have no boy of my own."

"I don't wish to interrupt you, gentlemen," said the doctor, looking at his watch, "but it is now nearly half past five, and some steps should be taken to get Mr. Harrington back to the city."

"My automobile is at your service," said Mr. Trevor. "Unfortunately, as you see, I am alone. My chauffeur got drunk while on the road, and I was obliged to discharge him. I had considerable difficulty in getting here alone, for I have never given much attention to the operation of the machine. Indeed, it would hardly be

safe for me to attempt to run it to the city. Do you understand the machine sufficiently to operate it?" he asked the doctor.

"I am sorry to say I do not," said the doctor.

"Nor I," said Mr. Harrington, "even if you would trust yourselves to one who has so recently had an injury in the head."

An endeavor was made to find some one of the quarrymen who could manage the machine, but this effort was unsuccessful.

"Do you understand an automobile, Harry?" said Mr. Harrington.

"No, sir, I know nothing whatever about it."

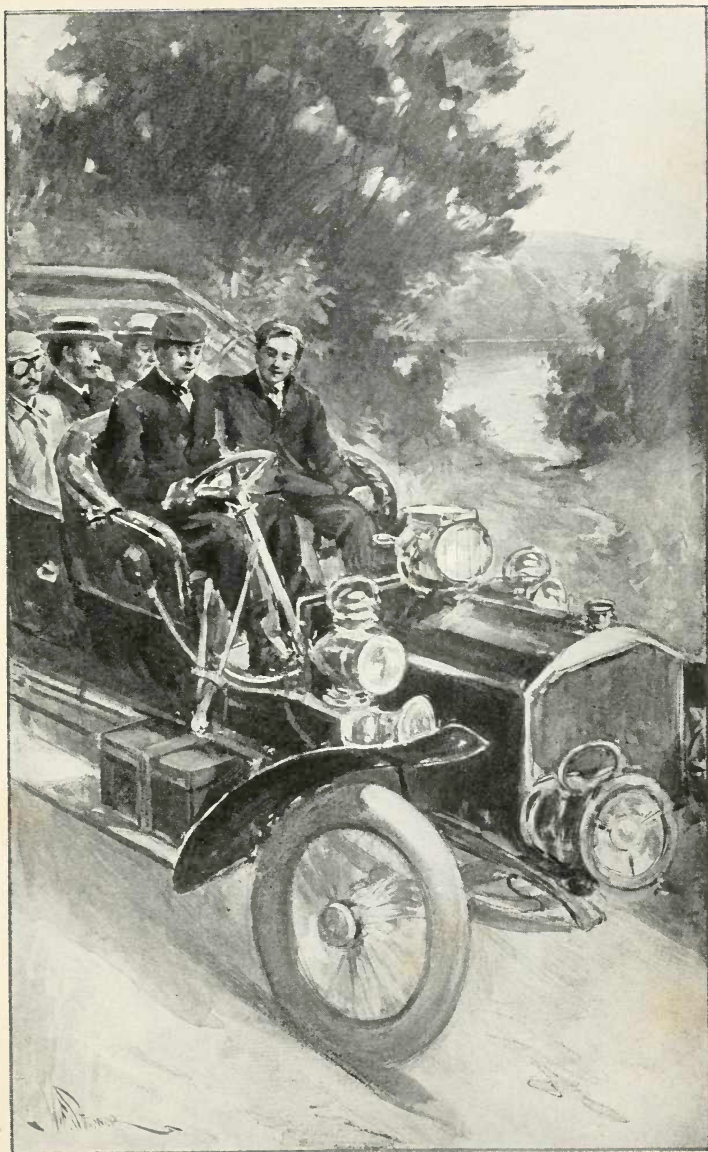
Mr. Harrington then called Ned to his side, who, he noticed, had been carefully examining the machine, and inquired:

"Do you think you could take us home safely in Mr. Trevor's automobile?"

"Yes, sir," said Ned. "I know this make of machine. Father has several, and I occasionally run them for him. My own too is somewhat like this."

"Then it's all fixed," said the doctor. "So Harrington, you had better get dressed."

Mr. Trevor's automobile was a large touring car, with three large seats. It could easily hold six people, so there was plenty of room for all.



“UNDER NED’S HANDLING . . . THEY . . . REACHED THE CITY”  
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Under Ned's handling of the machine, they safely reached the city, and left Mr. Harrington at his hotel.

As the boys were leaving, Mr. Harrington asked them not to fail to call on him in the morning, when they could have a long talk together.

On reaching home, Harry told his mother of their meeting Mr. Harrington on the trolley car, and the pleasant time they had spent with him at the quarry. They also spoke of the ride they had to the city in the automobile. But neither Harry nor Ned said a word about the accident at the lake. Harry had agreed with Ned before going to the house to take this course.

"It would look as if we were making too much about it," he said. "Don't you think so, Ned?"

"I do. Let us keep mum."

Mrs. Maxwell asked the boys many questions about Mr. Harrington, as to what kind of a man he was, his general appearance, and many other things.

"I have several letters from your father in which Mr. Harrington's name is mentioned. These letters show that he and your father were very much attached to each other."

"Mother, Mr. Harrington is a splendid man.

Talks so interestingly, and knows such a lot. I asked him to call on us."

"That was right, Harry. Why not ask him to come in the afternoon after Sunday-school and take supper with us?"

"That will be splendid, mother," said Harry. "I don't understand just how it is, but I have never met any man that I like as much as Mr. Harrington."

"Take care, Harry," said his mother, smiling, "you will make me jealous."

"And what do you think of him?" she asked, turning to Ned.

"I am of the same opinion as Harry. Think of a man like Mr. Harrington taking enough interest in two strange boys to actually give them a part of a busy day and treating them as he treated us, explaining things and talking to us just as if we were men. I believe I am as fond of him as Harry is. Indeed," he said laughing, "if you don't look out, Harry, I may cut you out."

"Try it, Ned. I will promise not to be jealous. Because I like him, is all the greater reason I should be pleased to have him your friend as well as mine."

"Well," said Mrs. Maxwell, as the supper bell

rang, "our supper is ready. I imagine you are ready to eat."

"Indeed we are," said the boys.

After supper, the boys took a seat on the hall sofa, and finished telling Mrs. Maxwell their story of the day.

"Boys, you must be pretty tired. I think you had better say good-night."

As they were leaving the room, Mrs. Maxwell remarked :

"To-morrow, being Sunday, we take our breakfast a half hour later, so you will have half an hour longer to sleep."

"What a glorious day we've had. So much has been crowded into the short time we have been together that it seems more than a week, and yet it has only been since yesterday afternoon," said Harry, when they reached their room.

"Yes, this has been a wonderful day. I think we may call to-day a red-letter day.

"Harry," remarked Ned, "we have reason to be very thankful for the opportunity for saving a valuable life we have had to-day. Don't you believe that all such things are providential?"

"Undoubtedly," answered Harry, and then he added, "Ned, I always liked you but now I

feel drawn toward you more closely than ever."

"Let me read you something," Ned said, taking up Harry's Bible.

"And as David returned from the slaughter of the Philistines, Abner took him and brought him before Saul with the head of the Philistine in his hand.

"And Saul said to him, Whose son art thou, thou young man? And David answered, I am the son of thy servant, Jesse the Beth-lehemite.

"And it came to pass, when he had made an end of speaking unto Saul, that the soul of Jonathan was knit with the soul of David; and Jonathan loved him as his own soul."

When Ned ceased reading, Harry rose excitedly, and grasping him warmly by the hand, he said :

"Ned do you feel that way to me?"

"I do indeed," said Ned. "I always did like you very much, but now I love you as a brother."

"Then David," said Harry, "Jonathan from this day is your covenant brother." And from that day on they often called each other Jonathan and David.

## CHAPTER IX

### A HAPPY SUNDAY

IT was early Sunday morning. The two boys were still in bed; Ned was sound asleep but Harry was wide awake, thinking over the many events that had so crowded themselves into the past few days. It seemed to him almost incredible that so much could have occurred since Friday afternoon. It is true that during this time he and Ned had been constantly together, but even then it scarcely seemed as if so much could have happened. In that short time he had learned to know his boy friend so well that he felt drawn to him as closely as to a brother. Then, too, what was of still greater importance to a boy of Harry's type, he had made an adult friend, who had said only the day before that he hoped soon to be able to look on him as his adopted son. He was very happy in his new friends, and felt instinctively that the last few days would exert great influence on his future life.

These and many similar thoughts crowded into his mind as he lay quietly beside

Ned. His youthful spirits, however, soon brought his mind back to his present surroundings, so thinking it was time to get up he determined to waken Ned. This he soon did and in such a manner that when Ned opened his eyes he found Harry sitting on him, shaking him good-naturedly.

"Ned, are you up in physiology?" he asked.

"I know something about it."

"Then tell me exactly how many ribs you have?" asked Harry.

"Don't know exactly, but I guess I have the usual number."

"In that case it is my duty to count them. Highly improper for you to remain any longer without precise information on so important a subject."

With that Harry began accurately locating the position of each rib, calling out,

"One, two, three ——"

"Stop, Harry, I am awfully ticklish," cried Ned.

"Lie still," replied Harry. "I am endeavoring to give you accurate information. Four, five ——"

But Ned squirmed so violently that Harry lost the exact location of the rib last counted, and therefore cried out:

“There, I have lost my place, and must start over again. But this time I will begin with the lower ribs. These, I think, are called the floating ribs,” and again commenced the operation of determining their exact location.

“Oh, say,” cried Ned, “the common ribs are bad enough, but the floating ribs are simply awful. It is quite too much of a good thing,” and making a great effort he at last succeeded in putting Harry under him, when he immediately began to repeat the manipulation to which he had just been subjected.

“Stop, Ned, the floating ribs are indeed awful. You are tickling me so that I am nearly dead.”

“Nearly dead, my boy? Then it is my duty to resuscitate you without any loss of time. I will employ the method so successfully used by the distinguished Maxwell when all others had failed. Let me see, I must place the patient on his back, just as you are now, grasp his nose with one hand and press back his Adam’s apple with the other. Then I draw a full breath in my own lungs, and applying my mouth to the mouth of the patient, forcibly blow my breath into his lungs.” Which he thereupon did. “And, pressing the hand

against the lower part of the patient's chest, firmly drive out all the air. I guess the proper way to most effectually do this is to press against the floating ribs."

Harry struggled to free himself, but ineffectually.

"The signs are good," said Ned. "The resuscitation is beginning. I will continue these movements for twenty or thirty times, when the patient will soon be ——"

"Dead," said Harry, laughing, "unless he escapes," as he at last released himself from Ned's grip.

"Why, don't get excited, Harry, I was only giving you some of your own medicine."

"Let me up, Jonathan."

"All right, David," said Ned, both boys using the biblical names which they had agreed on the night before.

Looking up at the clock, Harry exclaimed:

"Breakfast will not be ready for an hour and a half."

"That don't make any difference," replied Ned. "We can't sleep now. Let's get dressed and look at the minerals, or do something else."

It was characteristic of Ned as well as of Harry, or indeed, any healthy intelligent boy,



that when awake they must do something. So Ned suggested looking at the minerals or something else. They therefore got up and began dressing. While they were doing this, Ned, who had been more closely inspecting the room noticed a typewriting machine in one of the corners.

“Hello, Harry,” he exclaimed. “Can you use that machine?”

“Yes. I can write over fifty words a minute on it.”

“Is it a Remington or an Underwood? Oh, you need not answer me,” he continued, going up to the machine. “I see it’s a Remington. Have you studied shorthand too? These two things generally go together.”

Harry informed Ned that he was familiar with the Ben Pitman system of shorthand, and that he could take about 125 words a minute. He added, with a laugh, that he meant of course that he was able to write, and afterward correctly read, 125 words a minute.

“Did you learn typewriting and shorthand at the High School?”

“No, my friend, the dealer in minerals in the city here, of whom I was telling you the other day, advised me to learn them. He writes all

the labels for his mineral specimens on a machine. This makes plainer and more legible labels than could be obtained by hand writing. He kindly offered to teach me, so I began learning. I bought this machine at a sheriff's sale for less than one-third the retail price. It had not been used much and is almost as good as new."

On Ned asking for a sample of his friend's writing, Harry sat down at the machine, and placing a sheet of paper in place began striking the keys at a lively rate. To Ned's surprise he did not look at the keys.

"Hello," he cried, "don't you have to look at the keys?"

"No; my friend, the mineralogist, advised me to learn from the start to write without looking at the keys, so that, as you see, I can keep my eyes on whatever matter I am copying."

"That is very sensible," replied Ned.

Harry kept on striking the keys of the machine, and after a short time took out the sheet of paper, and handed it to Ned.

"Phew, that's pretty fast writing, and beautifully done," said Ned; "I see it is about Jonathan and David. Now let me see how nearly you have got this right," comparing it with the account he found in the Bible.

“You have a good memory, Harry. Got it down word for word.”

“Well, Ned,” said Harry, laughing, “I was reading it over only a few days ago.”

Ned then asked Harry to show him how well he could write short-hand. “I will read something to you from the Bible.”

Harry then handed Ned the shorthand notes.

“There,” he said laughing, “compare them with the original and see if they are not correct.”

“Oh, come,” said Ned, “I can’t read all these queer looking marks. Looks as if a number of flies had gotten into an ink bottle and then crawled over the paper. You copy them off on the typewriter, and then I can see whether you are giving me a bluff or not.”

So Harry sat down, and in a short time handed Ned a copy, which, on comparison, was found to be without any mistakes.

“That’s fine, Harry. What a great fellow you are. I am constantly finding out something new about you. I see by the way you handle the machine that you must employ it for other purposes than for simply writing out labels for your minerals.”

“Yes, I typewrite my school exercises, and, now and then, as a matter of practice, I make a

bluff at reporting the sermon at church. I am getting now so that I can report fairly well."

"Did you have much trouble in learning?" inquired Ned.

"Trouble! So much trouble that for a long time I doubted if I could ever master the art. Such astonishing changes are produced by a little difference in the length of the characters or by making the characters light or heavy, or by placing them above the line, on the line, or below the line, that unless one is very careful in writing, there is sure to be no end of trouble as soon as an attempt is made to read the notes. But I made up my mind to keep at it, and am now a pretty fair writer."

Ned again took up the typewritten sheet, containing the story that they had taken from the Bible and used to test Harry's ability on the machine, saying,

"Let's sit down and talk about this story."

"Certainly, Ned. Let's sit down on the sofa."

"All right. This sofa must be the twin brother of the jolly sofa down-stairs."

The boys sat alongside of each other, and read the wonderful story of how the prophet, Samuel, anointed David King of Israel in place of Saul.

How Samuel went down to Bethlehem to Jesse, David's father, and commanded him to bring in his eight sons, one by one, so that he might know which one God had chosen.

First came Eliab, so splendid a looking man that when Samuel saw him he said to himself, "Surely the Lord's anointed is before me." But God told Samuel that it was not the size of the man nor his looks that determined his worth, or as the Bible puts it, "Man looketh on the outward appearance, but the Lord looketh on the heart." So Samuel had all the other sons, except the youngest, David, come before him, but none of them was chosen. He, therefore, asked Jesse if he had not another son, and Jesse answered, yes there was little David left; that he did not count for much, and was out in the fields looking after the sheep.

Samuel asked that David be sent for.

Harry now read from his Bible :

" " And he sent and brought him in. Now he was ruddy, and withal of a beautiful countenance, and goodly to look at, and the Lord said, Arise, anoint him, for this is he.

" " Then Samuel took the horn of oil, and anointed him.' "

They then read the story of the fight between

little David and big Goliath, the champion of the Philistines. It was when Abner, Captain of the Hosts of the King of Israel, brought in the boy David, holding the head of Goliath with one hand, that Jonathan saw and loved David and became his covenant brother.

“Jonathan saved the life of David on several occasions when Saul tried to slay him. It was on one of these efforts of Saul to have David killed that the following incident occurred. A feast, called the Feast of the New Moon, was to be held. As one of the officers of Saul’s army, David was obliged, as a matter of duty, to sit at meat at the king’s table. Saul had determined to have David slain while he sat at the table. Fearing this, David asked permission of Jonathan to go to Bethlehem and make a sacrifice, begging that he would say to Saul, if his absence was noticed, that he had given him permission to be away. Jonathan willingly gave David this permission, telling him, however, that he would certainly be missed when his place was vacant at the feast. He advised David to remain away for three days, and then to go to a certain place and hide back of a great stone. ‘If I should call out,’ said Jonathan, ‘and tell you to cut and run, people standing by would know, and

you would get caught, so we will arrange it in another way. I will pretend I am trying to see how far I can shoot three arrows, and will tell the lad I have with me to go and fetch them. Now note carefully what I say to him, for I will try in the meanwhile to find out whether my father has forgiven you or not. If he has forgiven you I will say to the lad, "Behold, the arrows are on this side of thee," you can come safely, but if I find that my father intends to kill you, I will say, "the arrows are beyond thee." In that case you had better cut and run.' "

"What an interesting story," said Ned, as Harry told it. "Reminds me of the story of Cinderella and the Magic Slipper. When the Prince's messenger tried the slipper on the feet of all of Cinderella's sisters, and found that it would not fit, he asked, 'Are there no other young ladies in the house that we can try the slipper on?' 'Oh, nobody but Cinderella, and she don't count,' was the reply. And here we have the same thing: 'No, I have no other sons, only little David, and he is out with the sheep.' But Eliab and the others were rejected and David was chosen.

"And wasn't that a jolly plan Jonathan formed to let David know just how matters

stood," continued Ned. "'Behold the arrows are on this side of thee,' things all right; you can safely come this way; or 'The arrows are beyond thee; get out quickly, danger.'"

And then he continued:

"Let's agree, O David, on this as a secret between us, that if either should see danger to the other, and desire to secretly warn him, to say, 'the arrows are beyond thee,' to mean danger, cut and run."

"Agreed," said Harry.

"Harry, do you know what is meant when it said they made a covenant?"

"I am not sure, Ned, but I think it means they made what was then called a blood covenant."

"What was that?" asked Ned.

"When two people were to become blood brothers each cut his arm or some other part of his body, so as to make it bleed. They then mingled their blood by rubbing the two cuts together; or, they actually let some blood run into a cup, each drinking the other's blood, the idea being that then the blood of each then ran in the veins of the other. They were then called blood brothers, to show that their blood was intermingled. This kind



of brotherhood was regarded as establishing a much closer bond between two people than the so-called milk brothers, or those who had been nourished from the breast of the same mother."

Ned remarked that it was a curious custom, and that he trusted he and Harry might become blood brothers without eating each other. . At that moment the breakfast bell rang, so that, as Ned said the lesson in mineralogy he had been looking for would have to be postponed.

They had a regular New England breakfast in which baked beans and Boston brown bread were the chief articles, although, of course, there were other things.

Harry, like Ned, had been thinking very frequently about his new friend, Mr. Harrington. Since the rescue and resuscitation, he had felt still more strongly drawn towards the engineer than before, so shortly after breakfast, he proposed to Ned that they should go and call on him at his hotel. Ned agreed immediately, being quite as anxious to see the engineer as was Harry.

The boys enjoyed the short walk to the hotel very much. It was one of those glorious days in June when the air is so balmy and refreshing, especially during the earlier hours of the morn-

ing. There was a breeze blowing just strong enough to be agreeable, and to bring to them the fragrant odors of the flowers in the gardens of the houses along the streets.

On reaching the hotel, they sent up their cards to Mr. Harrington. In a few minutes he stepped out of the elevator, and, cordially greeting the boys, said :

“ I am glad to see you, boys. I need not ask whether you have slept well last night. You look too wide awake to make such a question necessary.”

“ We are all right,” said the boys. “ But how are you? Have you entirely recovered?”

“ Thank you, I am quite myself again. Have you had your breakfast?”

“ Yes, sir, but we can wait for you.”

“ I have had my breakfast more than an hour ago. I am an early riser.”

“ You are quite sure that you are all right now?” asked Harry.

“ Yes,” was the reply. “ The doctor called this morning, and dismissed himself. He said I could safely go this morning to church with a friend in a neighboring village. I suppose you are going to church this morning?”

“ Yes, sir,” said the boys.

Harry then gave Mr. Harrington an invitation from his mother to take supper with them that afternoon, adding that they hoped he would be able to come several hours before supper time, thus giving a better opportunity for conversation. Mr. Harrington gladly accepted the invitation saying :

“Will you boys take a short walk with me before starting for church? If I leave at ten o'clock on the trolley car I will be in plenty of time, and,” looking at his watch, “we have about a half hour before that time. I wanted an opportunity when we were alone to tell both of you how deeply grateful I am for what you did yesterday. You saved my life, and I shall never forget it. When I first saw you yesterday on the trolley car, I felt much drawn toward both of you, partly because I had a son who, had he lived, would now be about your age. My son died while only about three years old, and shortly afterward his mother died, so that I am now all alone, except for my profession and my professional friends. When I heard you talking together, I determined to try to become acquainted with you, and, therefore, asked you to call at the quarry office. At this meeting my good opinion of you greatly in-

creased, and when upon regaining consciousness, after the accident, I learned that it was to my two boy friends that I owed my life, I felt very happy. I had already discovered that you were wide awake boys, delighting in laying up a big mental bank account in the way of all kinds of information, especially scientific knowledge, and now I know that you do not hesitate to draw liberally on this account when the necessity arises."

"Mr. Harrington," said Harry, "both Ned and I, while happy and proud to have been able to help you, do not feel that we have done anything wonderful, or indeed, anything more than others would have done, and, therefore, hope that you will not feel as if you were so greatly obliged to us. Am I not right?" he said, turning to Ned.

"I feel just as Harry has put it. But as to the other part of the matter, in which you ask for friendship, I can only say that for myself, and I am sure that I can speak for Harry as well, I feel greatly honored by your kind offer.

"All right, then, boys," said Mr. Harrington, "I shall not speak again to you about this matter."

After a pleasant walk, they saw Mr. Harrington on the trolley car, and then walked slowly to the church where they joined Mrs. Maxwell in her pew.

The boys had never before so thoroughly enjoyed a church service as on that Sunday morning. When the minister gave out the text of his sermon: "Man looketh at the outward appearance, but the Lord looketh on the heart," the boys glanced at each other and smiled.

It was a powerful sermon. The minister called the attention of his hearers to the sacred nature of the service they were about to take part in at the communion table, and how the great Searcher of Hearts would judge all who came thoughtlessly. He described in simple but forcible language how the Prophet Samuel had all the sons of Jesse pass in review before him, and how the king, he was ordered by God to anoint, was not chosen until David appeared. He sketched the wonderful character of David, and referred to the many-sidedness of his character, a poet, a warrior, a musician, a politician, a courtier. A man who invented chivalry thousands of years before the time of King Arthur and his Knights of the Round Table.

He referred to the warm friendship between Jonathan and David, sketching briefly the character of the two friends, and showing how each reacted on the other, and the great help they were to each other. He referred to the covenant between them, and described its general nature. He spoke of the great advantages of such friendships as existed between Jonathan and David, and regretted that there were not more of them to-day. He concluded his sermon by alluding to the fact that David, with all his lovable qualities, was a great sinner, but rejoiced to say that he had repented, and that God had forgiven him. He then urged the congregation, in a similar way, to repent of their sins, and to partake of the sacred feast at the communion table.

After dinner, the boys attended Mrs. Maxwell's Sunday-school class. Many of the boys were schoolmates of Harry at the high school, and recognized Ned as the boy who had so easily excelled their crack athlete Harry. Some of them came up to Ned after Sunday-school, and invited him to come over to the school grounds on Monday afternoon when they were to have a half holiday.

As they were leaving the Sunday-school, Mr.

Harrington came to the door and joined them.

“Mother,” said Harry, “this is Mr. Harrington, the gentleman who was so very kind to Ned and yesterday.”

“I need not say how happy I am to meet the friend of my husband,” said Mrs. Maxwell, “and wish, at the same time, to tell you how grateful I am for your kindness to these boys.”

“There is no need for thanks, madam,” said Mr. Harrington. “The debt of gratitude is all on my side, since, as you know, I owe my life to their courage and intelligence.

“I do not understand you,” said Mrs. Maxwell, greatly surprised. “Harry, what is all this about? Ned, what does Mr. Harrington mean? Did you boys save his life?”

Then it was that Harry’s mother first heard of the accident of the day before and it was from the lips of Mr. Harrington himself.

“Why, boys,” said Mrs. Maxwell, “how is it you never said a word about this to me?”

“Mother,” said Harry, “Ned and I agreed to say nothing about the matter lest it might appear that we were making too much ado about something that anybody would have done had they been there.”

“That was the reason, Mrs. Maxwell,” added Ned. “But as to bringing Mr. Harrington back to life, as he says, Harry was the one who did that. I only did what I was directed to do.”

“I am indeed very proud of both my boys,” said Mrs. Maxwell.

“And I am proud of them also,” added Mr. Harrington. “Did they not tell you the other things they did while at the lake?”

“I believe they told me about everything except the rescue,” was the reply. “They certainly came home with the feeling that they had met a very pleasant gentleman. I especially remember the remark made, that they had both fallen in love with you.”



## CHAPTER X

### HOW HARRY WAS HELPED IN HIS SUBSEQUENT DISCOVERY OF THE LOST GOLD MINE

WHEN they reached the house Mr. Harrington gave Mrs. Maxwell a long account of what he had seen of her husband, while in Colorado. He was unable to give her any information of what had happened in Arizona, since he had never seen Mr. Maxwell after he left Colorado. He had, however, been in correspondence with him and had so learned of the discovery of a very rich deposit of an ore containing a high percentage of copper, gold and silver, in which the money received from the copper present probably paid all the expenses for mining and smelting the ore.

Mrs. Maxwell confirmed Harry's statement that although repeated efforts had been made by different parties, during the two or three years immediately after her husband's death, to locate the deposit, that none of them had been successful.

"Harry," remarked Mr. Harrington, turning to him, "this should be one of the first things you attempt as soon as you complete your mining studies."

"I intend making the attempt, Mr. Harrington," said Harry. "This was one of the reasons of my determining to become a mining engineer. Another reason was that I felt I would like to do the same kind of work that my father had done, and now I have still another reason," he added smiling.

"And what is that?" asked Mr. Harrington.

"Because you are a mining engineer, sir," said Harry.

Mr. Harrington looked pleased, and promised, should he be in the neighborhood when the attempt was being made, to aid Harry in this undertaking. This encouraged Harry exceedingly, for he was almost constantly thinking how he could find the position of a mine that had so long been unsuccessfully looked for by others.

"After supper," said Mrs. Maxwell to Mr. Harrington, "I will read you portions of my husband's letter to me about the deposit. It seems that he had been waiting to get your professional advice before laying out his claims.

There were some difficulties I was never able to thoroughly understand, that made him especially anxious to see you before definitely locating his claims."

"If you will do so, madam, it will greatly aid me in advising Harry how best to proceed when he begins the search."

"Harry, suppose you and Ned take Mr. Harrington to your room and show him the specimens of ore your father sent me. In the meanwhile, I will look up your father's letters, together with some correspondence received from the smelting company. You will have an hour and a half to talk," she added. "We take supper at half past five on Sundays."

On reaching the room, Harry at once opened a drawer of the cabinet, and took out several specimens of the ore from the lost mine. He handed the largest specimen to Mr. Harrington.

"A magnificent ore," exclaimed Mr. Harrington, weighing it in his hand and then examining it carefully. "Rich in copper, as well as in gold and silver. See here," indicating several parts of the specimen, "native gold and silver, with iron and copper pyrites, and look," he continued, carefully examining one side of the specimen, "at this side the ore has been in con-

tact with the rock in which the deposit occurred, and here," pointing to a small fragment of a different colored material, "is a portion of this rock, or, as we call it in mining, the country rock. I think I can say definitely that this specimen has been taken from the wall of a vein."

Harry, who had listened with great admiration to what Mr. Harrington said while examining the specimen, remarked :

"Then it is probable that at least this specimen came from a vein deposit?"

"I am almost sure of it," was the reply. "Moreover, from this piece of country rock, one can determine the general character of the rock in which the deposit occurred."

"Mr. Harrington," said Ned, "I had no idea that so much information could be obtained from a small bit of ore. Why the great criminal detectives are not in it with you scientific men. Here, although the only clew you have is a small fragment of gold ore, yet from it you learn not only the kind of deposit from which the ore was taken, but also the general character of the rock in which the deposit occurred."

Mr. Harrington smiled as Ned was speaking,

and when he had finished, remarked that the greatest detective stories ever written could not in his opinion equal those he could tell them of what scientific men had been able to discover when starting from but very faint clues. The boys asked for one of these stories, which the engineer promised to give them after awhile.

Harry, whose thoughts were still on the lost gold mine, listened carefully to all the engineer said. He could see that the little piece of rock called the country rock, should be of considerable help when endeavoring to locate the vein; for it was in that kind of rock the vein existed. He, therefore, asked Mr. Harrington if this was not so and was pleased to learn that his conclusion was correct.

Harry then handed Mr. Harrington several additional specimens, saying:

“Perhaps these will aid you still further.”

“Yes. These are the same kind of ore. But this specimen,” selecting the smallest piece, “you see consists mainly of the country rock. This is very important, and shows conclusively by its general appearance that it formed a small portion of one of the walls of the vein.

“And now,” continued Mr. Harrington, going to the cabinet or chest of drawers, “show

me your collection of minerals, Harry. I am glad to see that you have arranged them in order," he said, beginning carefully to read the labels that Harry had pasted on the front of the different drawers. "Your classes, I see, are Native Elements, Micas, Quartzes and Feldspars, Ores of Copper, Building Stones, Limestones and Marbles. Somewhat after Dana, is it not?"

"Yes, sir; only my collection being small, I had to arrange the classes to suit the number of drawers."

Harry now began to partly pull one drawer out after the other, so as to permit their contents to be examined. Mr. Harrington examining the shallow pasteboard boxes in which the specimens were placed, said:

"This is an excellent plan. Who gave you the idea?"

"A dealer in minerals in the city, from whom I occasionally buy specimens. He has been very kind to me, and has taught me much about minerals."

"Did you write the labels with the typewriting machine I see over there in the corner?" inquired Mr. Harrington.

"Yes, sir, now that I have learned properly to operate the machine, I find it much easier

than ordinary writing. Besides, it is neater and more easily read."

While the engineer was talking to Harry about the specimens of ore from the lost gold mine, Ned was puzzling about something that, judging from the expression of his face, was giving him no little trouble. He had seen how easily the engineer recognized the different kinds of minerals present in the ore. While he could understand generally how this might be done in some cases, by reason of certain peculiarities of color, lustre, hardness and specific weight, yet it did not seem to him that those differences were always sufficiently marked to be of much use, since in so many minerals these peculiarities were nearly the same. Now, he argued to himself, with plants and animals the differences in the shape are sufficient to distinguish them, but minerals, of course, since they come in solid masses, have no peculiar shape or, at least he thought they don't appear to.

The engineer who saw his puzzled countenance, remarked :

"What is puzzling you, Ned? Let us talk it over. Possibly I can help you."

"I have been wondering, Mr. Harrington,

how it is possible for you to recognize the different minerals in the pieces of ore by simply looking at them. If minerals were like plants and animals and had peculiar shapes, then I could understand how one might tell them. But minerals have no peculiar shapes, have they?"

"There you are wrong, Ned," was the reply. "Minerals as well as animals or plants, have shapes that distinguish them. It is as natural for a specimen of feldspar to have the peculiar crystalline form, fracture color, hardness and lustre of this specimen," taking one of the feldspars from the drawer, "as it is for a cow to have four legs."

"But," said Ned, laughing, "sometimes cows do not have four legs. I remember, in one of the side shows at a circus I once attended in New York City, seeing a wonderful cow that had five legs. I don't think it was a fake, for the animal appeared to be comfortable, although I noticed that it did not use its extra leg."

"True," answered Mr. Harrington. "Such a thing is so unusual that it is called in the animal kingdom a monstrosity."

"But," inquired Ned, "are there such things as monstrosities in the mineral kingdom?"



“Yes,” said Mr. Harrington, “although it is much more difficult to recognize them; for, in order to be able to do this, one must be familiar with their usual shapes, and this requires careful study. Look,” he said, taking out some specimens of crystals of quartz and calcite. “Notice how greatly the crystals in these specimens differ in their shapes, in the number of sides or faces, as well as in the angles at the edges. These crystalline forms are, to a certain extent, peculiarities or properties that afford us great aid in determining the different kind of minerals. A monstrosity, or departure from the crystalline form, does occur in the mineral kingdom, but not as frequently as it does in the animal kingdom, so that when a mineralogist finds a well marked mineral monstrosity, he is very proud.”

“Oh,” said Ned, “I understand now what I never could understand before. Once, while out on my bicycle, I stopped near a quarry to rest. While sitting under a tree, I saw a number of mineralogists engaged in breaking up fragments of the rocks, searching for minerals. One of them, a little, dried-up old man, was especially diligent in this search. He had wandered away from his companions, and, after much hard

work, had succeeded in breaking up a large piece of rock, from which he obtained a small specimen. As he stood up, probably to rest his back, he examined the specimen with a small magnifying glass, when he immediately began dancing around like a wild Indian, shouting out something I could not understand. His companions, seeing that something had happened, rapidly approached and said,

“ ‘What’s the matter, Professor? What have you found?’

“The professor said nothing, but merely handed the specimen to the nearest man, who instantly took out his magnifying glass, looked at it for a moment, and joined the professor in the war dance. All the others, as soon as they examined it joined in the dance, so that it seemed as if an insane asylum had broken loose. Wishing to know what had happened, I approached the party, and asked one of the younger men if he would kindly explain things. He was too much excited to speak distinctly, but I understood that a very unusual mineral specimen had been found, one which without doubt, would attract much attention from scientific men in different parts of the country.”

Mr. Harrington laughed as Ned related this story, and said :

“ I can readily understand, Ned, that what the professor found was a mineral monstrosity. It would by no means be apparent to an ordinary person wherein this peculiarity existed, but to a mineralogist, who had made a careful study of the forms in which such substances almost always occur, the monstrosity would appear quite as great, if not greater, than that of the famous cow to which you referred.”

“ I understand you,” replied Ned, “ though I suspect that Barnum would have backed a cow with an extra leg or ear, against any mineral monstrosity that has ever been discovered. The cow would be sure to draw more people at twenty-five cents a head than all mineral monstrosities ever discovered.”

“ Yes,” said Mr. Harrington, laughing. “ Barnum would choose the cow every time. If I understand your difficulty is to see how minerals can be properly distinguished from one another, when so many of their properties are possessed in common by nearly all.”

“ That’s it, exactly,” said Ned.

“ Well, Ned, let’s look more closely into the matter. You would have no difficulty in dis-

tinguishing a cow from a chicken, would you?"

"No, sir," said Ned, laughing. "A cow has four legs and a chicken has only two. A cow's tail points downward, and a chicken's points upward. A cow has horns, and a chicken has a comb. A cow cannot fly, and a chicken can. A cow is covered with hair, and a chicken with feathers. A cow bawls and a chicken cackles. Oh, that is easy; any one can see the difference between a cow and a chicken."

"Well, how about the difference between a cow and a horse?"

"Well," said Ned, "there's no trouble there, either. Let's see, the legs—— Well, it is not quite so easy here. Each has four legs, and the tails of both point down, and both are covered with nearly the same kind of hair. There is a difference in the tails, though, as any one knows. Each has two eyes, and a nose between the eyes and the mouth. Come to think, it seems to me they resemble each other in quite a number of things."

"And yet," said Mr. Harrington, "you have no difficulty in distinguishing a horse from a cow, have you?"

"None whatever, sir," said Ned, laughing.

“Then there must be peculiarities which each animal possesses or you could not readily tell them apart. And now,” he said, “coming to a more difficult case, I don’t suppose your friends have any difficulty in distinguishing you from Harry, do they, although you resemble each other much more closely than a cow does a horse.”

“That’s so,” said Ned. “As far as the different parts of our bodies are concerned, we are exactly the same ; same number of legs, arms, eyes, same shape, and indeed, nearly the same size and weight, but I am a little taller than Harry, and a little bigger around the legs and arms. Then my hair is black and Harry’s is light brown. And I have dark eyes and Harry has blue eyes.”

“So that,” said Mr. Harrington, “although you are necessarily alike in nearly all respects, yet there is no trouble in distinguishing between you, provided only one takes the time to study the differences wherever they exist.”

“I think I now understand the thing,” replied Ned. “Although two things may appear to be exactly alike, yet if one studies them carefully enough, he will find such differences as will enable him to readily tell them apart.”

“Just like the twin brothers you were tell-

ing me about that go to your school, Ned," said Harry.

"Yes, Harry, that's a splendid example," answered Ned.

"What are you speaking about?" asked Mr. Harrington.

"I was telling Harry about twin brothers who go to our school," said Ned. "They are as much alike as two peas of the same size. They have the same weight, height, color of hair and eyes, same shaped nose and mouth, and look so much alike that some of the teachers cannot tell them apart. Indeed, one of the teachers asked them if they would not dress differently. But he could not persuade them to do this, since they said their parents wished them to dress alike. I remember one of the teachers always handed the boys two different colored strips of paper when they came in the class, insisting on their pinning them to the lapels of their coats. I am glad to say that the boys got even with this teacher; for, when he was not looking, they would change both the pieces of paper and their seats in the class, and then the fun began."

"The teacher's plan was a very poor one," said Mr. Harrington. "There was sure to be something or other which would enable the two boys

to be distinguished, so that when that something was once discovered, there would be no difficulty whatever in telling one from the other."

"You are right, Mr. Harrington," said Ned. "The boys had very little trouble in telling them apart. The eyelashes of one were slightly longer than those of the other. Besides, one of the boys was much tidier than the other, and took better care of his nails and kept them clean and well trimmed."

"As many boys do not," interrupted the engineer.

The boys saw the point, and looking at their hands and nails, showed them triumphantly.

"Oh, I did not mean you," said Mr. Harrington. "I especially noticed how tidy you were yesterday when I saw you on the trolley car. But the example of the twins is a very good one. Now let's examine some of these minerals that you say look so much alike," taking out different specimens that resembled each other, and placing them side by side. "Now these look alike, don't they?" he added. "Tell me any differences you can see between them."

Ned examined the specimens carefully, and said:

"Well, the colors are slightly different, and

then when placed so as to have considerable light fall on them, they do not present the same appearance."

"How about this?" said Mr. Harrington, placing the same specimens of quartz and calcite before them that Harry had been showing to Ned the day before.

"Oh, this," said Ned, turning to Harry and smiling. "I can look at it better with my penknife than I can with my eyes. See, I can easily scratch one with the knife and the other is much too hard."

"Quite right," remarked Mr. Harrington, laughing. "I guess Harry has been before me here. Did you learn that yesterday in the lecture you told me about that Harry had been giving you?"

"Yes," said Ned, laughing. "But now I understand the matter much better from the way you have put it. Here are two things that closely resemble each other. In order to readily tell them apart, I must try to discover some respect in which they do not at all agree. Now I think of it, coming back to the twins, the boys soon found that one of the best ways to distinguish them was to look at them with their hands."



“What do you mean?” asked the engineer, smiling.

“Why one of the boys had a wart on the side of the middle finger of his right hand, so that whenever we had any doubt as to which boy it was, we settled the matter promptly by catching him by the hand and feeling for the wart. If the wart was there, it was one of the boys. If it wasn't there it was his brother.”

“Which brother?” said Harry laughing.

“Oh, I mean the other one. Of course, we knew the name of the boy who had the wart, so that if we felt the wart it was that boy, and if not, it was the other boy. This method was very successful until the other boy, who was a bright fellow, fooled us by cutting a small piece of wood, having the shape and size of the wart, which he glued on his hand at the same place. This bothered the boys for some time, until, talking the matter over, we suspected it, and, getting the two boys together, and easily recognizing the difference between the wood and the wart, we pretended that the boy with the true wart had the piece of glued wood on, and cut a part of it off in our desire to separate it from the glue, so that he never tried that trick again.”

“That was a good trick,” said Harry, laughing.

Mr. Harrington now pointed out how minerals could be distinguished by their fracture or the manner in which they broke or split under the hammer, showing what he meant by placing before them specimens of calcite, feldspar and quartz.

“In some cases,” he said, “it requires great care to be able to employ this method for distinguishing different specimens. In other cases,” showing them a specimen of lead ore called galena, which readily broke so that the surface showed little cubical faces, “this peculiarity is very striking, so that one can detect this mineral from others without difficulty.”

“Oh, Mr. Harrington,” exclaimed both boys at the same time, “please tell us one of those scientific detective stories you promised.”

The engineer, much pleased, and smiling said :

“I used that word detect in order to see which of you would be the first to remember the request that you both made for this story.”

“Well,” said the boys laughing, “which beat?”

“Neither,” said Mr. Harrington. “As far as I could tell, the request came at the same time from both of you. So put the specimens back, Harry, and you shall have the story.”

So the engineer sat down on the sofa, with one of the boys on each side of him.

He then told them, in an interesting way, the manner in which the great Cuvier was able, from a single bone found in one of the limestone quarries of Paris, to reason out the kind of animal to which it belonged. Although neither he nor any one else had ever seen such an animal, yet from his great knowledge of comparative anatomy, Cuvier was able to make a sketch of the animal to which he believed the bone belonged. He read a paper, explaining what he had done, before a scientific society to which he belonged. The members, however, laughed at him. Several weeks afterward, in a part of the same quarry, twelve feet below where the first bone was found, a complete skeleton of the same animal was discovered, and on comparing it with the sketch of the animal that he had left in charge of the secretary of the scientific society, it was found that the animal agreed, bone for bone, with the sketch.

The story greatly interested the boys. Ned declared it to be the best detective story he had ever heard. He correctly inferred that there could not have been many peculiarities in the

bones of fossil animals that the great naturalist had failed to observe.

“That’s just it, Ned,” said Mr. Harrington. “It was only by extremely careful study of every peculiarity in the bone brought to him by the workman that he was able to deduce so much. But you must not think for a moment that Cuvier only studied the bones of fossil animals. He was an accomplished comparative anatomist, that is, he had made a careful study of the exact manner in which the different organs of existing animals differed from the animals of the geological past, and it was especially to the peculiarities of the bones of both existing and ancient animals that he gave the greatest amount of study. While the results he obtained were certainly wonderful, yet much of the wonder disappears when his methods are understood.”

“Something like the case of the twins, then,” said Ned.

“Yes,” said Mr. Harrington, “that’s just it. Take the case of your twin schoolmates. Doubtless, the lazy or stupid teacher, who was apparently unable to think of any better means of identifying the two boys than by putting colored tags on them, was greatly surprised to find

that their schoolmates could readily tell them apart. But, as you know, there was nothing curious about it; for, as soon as attention was called to the small differences, the wonder ceased immediately."

"Then, Mr. Harrington," said Harry, who had been thinking deeply, "a scientific man must necessarily be a very close observer."

"That's the whole matter in a nutshell," replied the engineer. "If you wish to become a noted scientific man, you must learn to be a close observer. Try to let nothing escape you when you are studying natural phenomena or natural objects. Pay especial attention to the little things that are unobserved by most people. In this way, you can readily obtain results that will appear to other people to be marvellous, but which, in reality, are not at all wonderful."

"Do you know any other scientific detective stories, Mr. Harrington?" asked Ned.

"Plenty of them, Ned," was the reply. "But if I am not mistaken, that is the supper bell, and we must not keep Mrs. Maxwell waiting. I will merely tell you this: It is said that the great Agassiz had made such a careful study of fishes, even down to the details of the shapes of their scales, that he could readily, from the inspection

of a single scale, at once give a general description of the fish from which it had been taken."

The talk of the engineer made a great impression on both boys, but especially on Harry, who clearly saw how important it is to acquire the habit of closely observing things that might at first sight appear to possess no importance. He, therefore, determined that he would acquire the habit of close observation. We will see later on in the story, how Harry made use of this great principle in the discovery of the lost gold mine.

After supper, Mrs. Maxwell and Mr. Harrington had a long conversation, the engineer taking frequent notes from the letters, both from the dead miner and from the smelting company.

"There is no doubt in my mind, Mrs. Maxwell, that the deposits found by Mr. Maxwell were of a very rich character, and I think that as soon as it could properly be done, some attempt should be made to locate them. While it is all very well for Harry to think of going there when he graduates as a mining engineer, yet that will be so many years from now that I do not think it would be advisable to leave the matter open until that time. I expect to have my report completed on the granite quarries in this section of the country, and to submit it to

Mr. Cartwright and his associates in a few weeks, when I will leave for the West. Now I have a proposition to make, which I hope you will accept. But as the boys will be very much interested in this proposition, suppose we ask them to come here.

"Come here, boys," said Mr. Harrington. "I have something to say that I am sure will interest you. How long is the summer vacation at your schools?"

"Nearly three months," said both of the boys.

"How would you like to spend your vacation with me in the West?"

"Like it," said Ned. "That would be the jolliest thing I ever thought possible."

"And I too," said Harry.

"Well then," said Mr. Harrington, turning to Mrs. Maxwell, "this is my proposition. If you will let Harry go with me, as my guest, during the time I am in the West, I will take good care of him, and do my best to ensure him a pleasant time. You see, there will be no loss to Harry, even if I should keep him a month or so over the vacation time, for I am about starting on a trip to the West, to make brief examinations of a number of different mining properties, and the practical experience that Harry would

get in mining would be of great value to him, since I could teach him things in the field which it would be impossible for him to learn even in the best schools."

"Oh, mother," said Harry, "please let me go. You haven't any idea how much one can learn from Mr. Harrington. We learned more while we were up in our room before supper than I would probably learn in a week at any school."

"Of course, I dislike to think of Harry's going so far away from me," said Mrs. Maxwell, "but such an opportunity seldom comes, and, as I have always tried to help him toward his chosen profession, I think I should let him go: much as I shall miss him."

"Thank you mother," said Harry. Turning to Ned, he inquired:

"Well, Ned, I make you the same proposition, what do you say?"

"You hardly need ask that, Mr. Harrington. There is nothing I should like better."

"Do you think your father would let you off?" inquired Mr. Harrington.

"I am almost sure he would," replied Ned.

"Then," said Mr. Harrington, "it is agreed that if your father gives his consent, we will ar-



range to go to Colorado, Arizona, and other parts of the West some time near the first of July. I will, in the meanwhile, let both of you know what things you need to take with you, because frequently, on these trips, we will have to sleep in the open air."

To say that both the boys were pleased with the invitation would be putting it mildly. To go West was indeed great, but to go in the company of one they liked and respected so greatly, was, indeed, too good to be true. They almost feared that they would suddenly awaken and find it to be a dream. But no, here they were, wide awake.

"Well, it is now church time," said Mrs. Maxwell. "I will excuse you, boys, if you don't care to go, although of course I would like to have you come with me."

"What's the matter with all going together, and Mr. Harrington with us?" asked Harry.

"I would be pleased to go," said Mr. Harrington.

After church they said good-bye to Mr. Harrington and returned home. That night, when the boys got to bed, they lay for a long while talking about the great times they would have.

Already in their imagination, they were in

the wild West. Harry asked Ned whether he could use a pistol or rifle, and Ned claimed to be a fairly good shot, saying that he had often practiced while in New York City in a shooting gallery, as well as in a rifle range near the city. Then their thoughts passed to the question of riding, when they found that they were both fairly good horsemen.

They were both so excited that it was some time before they fell asleep.

## CHAPTER XI

### HARRY VISITS NEW YORK CITY

SEVERAL weeks had passed since the pleasant time the boys had during Ned's visit to Harry's home. Ned had remained with Harry until the time of his father's return on Tuesday. The boys had all kinds of jolly times together the Monday and Tuesday preceding Ned's return to New York City. Of course, the principal topic of conversation between them was the great times they expected to have on the long western trip. At Mr. Harrington's invitation, the half holiday on Monday was spent at the quarry. This time the engineer took them over the quarries and explained the manner in which the large blocks of granite were obtained with the least loss in quarrying. After this they set up a target against one of the walls of the quarry, in a part which was then not being worked, and had great sport in firing a revolver which Harry brought with him. At this sport both boys proved that they possessed true eyes and steady hands. Ned, however, was by far more expert in shooting than Harry.

Mr. Harrington returned to the city with the boys at the end of the day. Before doing this, they had a good swim together, when the boys found that Mr. Harrington was an excellent swimmer, thus showing that, had it not been for the blow which rendered him unconscious when he was thrown in the water, they would have had no opportunity of rescuing him.

When Ned left for New York on Tuesday with his father, Harry missed his friend very much.

Mr. Cartwright had not hesitated to accept the invitation of Mr. Harrington for Ned. He knew the engineer very well, and had the highest opinion of his personal character.

At first Mrs. Cartwright was unwilling to consent to Ned's going so far with a comparative stranger, but, on her husband assuring her that Mr. Harrington was a man to be thoroughly trusted, and pointing out the advantages which would accrue from Ned's spending his vacation in the open air rather than at some seaside or mountain resort to which they generally went, she consented. This consent was the more readily given because her husband told her that their physician felt that the condition of Ned's lungs, while not at all dangerous, was such as to

render it advisable that he should spend as much time in the open air as possible.

Since Mrs. Maxwell had already accepted the invitation of Mr. Harrington for Harry, this acceptance by Ned's parents settled the matter, so that it was arranged that the boys should take the proposed trip to the West. It only remained to fix the day when the engineer would be able to start.

It is not difficult to understand why Ned and Harry so missed each other, for there was much to talk about, both in the way of what they would see and do in their great western trip, as well as what it would be necessary for them to take with them. For this reason a correspondence began, which was much more extended than is usual with boys of their age.

One day, on coming home after a long walk, for the High School had closed for the summer vacation, Harry's mother handed him a letter, saying:

"Here is another letter from Ned. Judging from its weight I should say it is an unusually long one."

Harry opened the envelope, and when he had taken out its contents he began laughing, holding up for her inspection a single sheet of note

paper with writing on only about three-fourths of one of its sides.

“Not very long, mother. I guess it is these time-tables that make the envelope look so filled. I wonder what Ned is sending me time-tables for. I will read and see.”

The letter was evidently very much to Harry's liking; for after having hurriedly looked over it he said to his mother:

“Ned invites me to come to New York a few days before we leave for the West. Let me read his letter to you, mother.

“MY DEAR DAVID:

“I have jolly news for you. Mr. Harrington told father yesterday that he will start for the West in about a week, and wishes us to get ready to go with him, as planned. He said he would write you full directions as to how and where to meet him, so I suppose that by this time you have heard from him.

“Now listen to your Jonathan. Take three full days to pack your trunk and bid good-bye to your mother and friends, and then come straight to our home, at No. 674 M— Avenue, and stay with me until we leave with Mr. Harrington. You will have to come to New York anyhow, since we start from here, and you might just as well come now and have a few days' extra fun before leaving. Be sure to come. I promise you a good time. Not, of course, as good as the time I had at your house, but as good as I know how to make it.

“I enclose marked time-tables for your use.

“JONATHAN.”

Harry anxiously asked his mother whether she thought the necessary preparations could be made by the time Ned mentioned in his letter. He was very glad when his mother assured him that there would be no difficulty, so he at once sent Ned a letter saying he would come and naming the day and the train on which he would leave.

As Harry finished reading Ned's letter the postman left a letter directed to his mother. It was from Mr. Harrington and was as follows :

“MY DEAR MADAM :

“I have completed all my arrangements for leaving New York City on Saturday of next week. Harry had better meet me at Mr. Cartwright's house in time to take the train leaving New York at 1 P. M. for Chicago and the West.

“I enclose, on a separate sheet of paper, a list of some necessary articles for the trip. It will make no difference, however, if Harry should not get all these things now, since we will have plenty of time to buy them at Chicago, Denver, or some other of the large cities at which we will make short stops. On second thought, it has occurred to me that you had better not purchase the rubber and woolen blankets, but leave them until we get to Chicago, when I will see that the boys get the proper kind.

“I have left instructions for my mail to be forwarded to me from Chicago, Denver and San Francisco, according to the dates you will find on the enclosed slip.

Should it become necessary to change the order of the dates, I will acquaint you promptly by letter.

“And now, dear madam, I beg to assure you that I will take the same care of your boy that I would were he my own son, and will endeavor to return him to you with the added health, manliness and wisdom that a trip of this character should procure for him.

“Harry will, of course, keep you posted of our movements from time to time.

“As regards the locating of the lost gold mine of your late husband, I sincerely trust that we shall have some good news for you on our return. While my plans are not yet completed, and while I am not at liberty to select the entire route, yet I have, as far as possible, planned to make Arizona among the last places to be visited. In this manner, by the time the boys reach that territory, they will have had some little experience in the field, and will, therefore, be the better able to aid me in re-locating the lost mine.

“Trusting there will be no difficulty in having Harry meet me at New York at the time mentioned, with my respects to you and love to Harry, I am,

“Very respectfully yours,

“H. E. HARRINGTON.”

In due course of time Harry's trunk was packed, good-byes to his friends and to his mother said, and he was safely on the train for New York, via the New York, New Haven & Hartford Railroad.

Nothing unusual occurred to Harry during this journey. The train was on time. This he



knew by referring to the time-table that Ned had sent him. He had no time to get tired. There were so many new things for him to look at that it seemed a very short time before he found he was approaching the great city of New York.

The car was crowded during the early part of the run, but later in the day there was no one on the seat alongside of Harry, while the entire seat back of him was empty.

On reaching Harlem, the train made a short stop. As it was starting again, he was surprised to feel a pair of hands placed over his eyes, apparently from some one occupying the seat back of him. He could not understand at first who was taking such liberties with him, but quickly grasping the invisible hands at the wrists, he almost instantly called out:

“Where did you come from, Jonathan? When did you get on the train? This is not New York, is it?”

“No, Harry,” said Ned laughing. “I thought it would be pleasant if I met you at Harlem, so I jumped on a local which reaches Harlem some ten minutes before the arrival of your train. I found at the Grand Central Station, where your train stops, that you were on time so instead of waiting there for you, I de-

terminated to meet you here. I purposely stood back when the train arrived, and seeing you looking in another direction, I quietly got on and came behind you, intending to give you a surprise."

"Which you certainly did," said Harry.

"But the surprise was much less than I expected to make it," said Ned. "You are quick, Harry. How did you manage to recognize me so soon? Your hands had scarcely touched mine when you cried out, 'Where did you come from, Jonathan?'"

"Oh, that was because I had so carefully studied some of the peculiarities of your hands," said Harry, laughing.

"I didn't know they possessed any peculiar properties."

"But they do, all the same. In the first place, they are much cleaner and better cared for than the hands of most of the boys I know. Then I have noticed that you have a very unusual development of the muscles of the thumb. Besides this, I was sure I recognized a faint trace of the cologne you are fond of using, so that, putting these things together, I reasoned it out, and called you Jonathan."

"You are a close observer," said Ned, taking

a seat alongside of him. "I think, recalling what Mr. Harrington said, that you will make a good scientific man."

The boys sat chatting together while the train drew rapidly toward the Grand Central Station. Before the train began to run through the tunnels under the city, so as to gain an entrance into the station, Ned asked Harry for his trunk check, which he almost immediately afterward handed to an expressman who came through the cars for the purpose of expressing baggage.

"Cartwright, 674 M—— Avenue," said Ned to the expressman, handing him the check.

When the train came to a stop in the Grand Central Station, Ned led the way through a line of cabmen who were noisily soliciting patronage. He took Harry to a very stylish carriage, drawn by two beautiful horses, with a driver in livery sitting on the box, and a footman, also in livery, holding the door of the carriage open for them. Both driver and footman touched their hats on Ned's approach.

They drove rapidly through the streets of New York, until they entered a short driveway and stopped at the door of a magnificent house, the main building of which was some little dis-

tance back of the street, but connected with it by two wings that abutted on the street. On stopping, the footman descended from the box and opened the door, waiting for Ned and Harry to descend.

“Nothing more to-night, Parker,” said Ned, taking Harry into the house.

Harry, who had never before visited Ned in his home, and indeed, had never before been in New York City, was greatly surprised at the magnificence of the turnout. He had been wondering no little at the idea of sending a carriage with two horses and two men for the purpose of driving two boys home from the station. This kind of thing was something to which he had not been accustomed. He well knew that Ned's father was an exceedingly rich man, indeed, many times a millionaire, and while he had expected to see style, yet the turnout was beyond anything he had imagined. When, however, they came to the house, his astonishment was still greater. The open door let them into a vestibule or hall, that was of such dimensions that it would have been possible to readily place inside of it an ordinary two-story house. The decorations and furniture were of the most costly character.

The door of the house was opened by a man in livery.

“Johnson,” said Ned, “has Mr. Maxwell’s trunk come yet?”

“Yes, sir,” said the man. “The porter told me it came a few minutes ago, and I directed him, according to your instructions, to take it immediately to your room.”

“Has the dinner bell rung yet?”

“No, sir. Your father asked me to say that you would have half an hour to dress for dinner.”

“Then, Harry, let’s go up at once to my room and get ready. We will see father and mother at the dinner table.”

As they were going up-stairs, Ned said to Harry :

“I had your trunk taken directly to my room, believing that you would prefer to be with me. If, however, you would rather room alone, there is a suite adjoining mine, so that there will be no trouble in arranging the matter.”

“I would much prefer rooming with you.”

“Glad to hear it, old fellow, so come along,” said Ned.

Harry now understood why his mother had

provided him with an article of dress he had never before used. This was a full dress suit.

When his mother proposed it, he thought it unnecessary to go to the expense, since, as he said, he never expected to wear a dress suit in the West.

His mother, however, knew the manner in which Mr. Cartwright lived, and was unwilling to have her boy unable to dress as he certainly would see other people dress.

So a dress suit of the proper style was provided for Harry, and his mother had the good sense to make him wear it two or three times at table before he left for New York.

It is unnecessary to describe Ned's room, or more correctly, his suite of rooms. Suffice to say, they were furnished in the same lavish style as the rest of the house.

"I want you to look on these rooms as your own as long as you are with me," said Ned. "And now let's get ready for dinner, and after dinner I will show you some of the things I have here, that I want to talk with you about, in connection with our coming trip."

"Full dress?" asked Harry, laughing to himself, for under ordinary circumstances such a remark on his part would have been a bluff.

“Yes,” said Ned, not regarding it by any means in the light of a bluff. “We always have full dress at dinner. One never knows who is coming in, you know. But not full dress at other meals, of course.”

Although he did not say so, Ned was evidently greatly relieved when he found that Harry not only had a dress suit with him, but knew how to wear it.

The boys were dressed in time for dinner, when Ned showed his friend the way to the dining-room.

As they entered the room, Ned’s father and mother rose from the table, greeting Harry cordially.

“Glad to see you, Mr. Maxwell,” said Mr. Cartwright. “I trust you will have a pleasant time while here.”

“Harry,” said Mrs. Cartwright, “for I am not going to call my son’s friend except by his first name, I need not say how glad I am to have you here.”

Harry thanked Mr. and Mrs. Cartwright, as they sat down to the table.

“I will leave it to you, Ned,” said his father, “to give your friend a good time, and show him some of the sights of the city. Have you made your plans?”

"Not fully," said Ned. "Harry and I will talk the matter over after dinner."

After dinner they went to the library, where they passed a pleasant half hour. While in this room, Mrs. Cartwright showed Harry an album filled with photographs of different parts of Arizona and New Mexico.

As they were looking at these photographs, Ned remarked to Harry when they came to a view in Arizona, that it was in this part of the country that the lost gold mine was situated. On hearing this remark, Mr. Cartwright, who had been listening to the conversation, inquired what they meant by the lost gold mine.

Harry told Mr. Cartwright the particulars of his father's discovery in Arizona.

"Should you go into that part of Arizona, boys," said Mr. Cartwright, "do not fail to find the lost mine."

"Oh, we won't," said Ned laughing, for he knew that his father was chaffing them.

"We will do our best to find it," said Harry, believing that Mr. Cartwright was in earnest. "And what is better, Mr. Harrington has promised to give us all the help he can."

"Then, my boy," said Mr. Cartwright, now speaking without any jollying, "the chances of



your finding it are excellent. Mr. Harrington is one of the best mining engineers in the country. If I had any work in relocating a lost mine, or anything of that kind, I know of no other man that I should prefer having to do the work for me. If he has promised to help you, Harry, you may consider yourself very fortunate."

The boys shortly afterward said good-night and went up-stairs. As soon as they reached Ned's room, they took off their dress coats and vests, and sat in their shirt-sleeves, the night being quite warm. Ned showed Harry a number of different things he had bought for the western trip. These consisted of little odds and ends that Ned, who was liberally supplied with spending money, had collected. Although each object in itself took but little room, yet when they were all collected together, they presented a formidable appearance.

"Why, Ned, how are you ever going to get those things in your trunk?" exclaimed Harry.

"I guess I will have to leave some of them. But look here," he continued, "here is something that will interest you." So saying, he handed Harry one of a pair of six shooters. This weapon was of Colt's best make, with a blue

steel barrel. The handle was of hard wood. It is needless to say that the weapon was of the best workmanship, since it was one of Colt's best. Harry was delighted with it. Careful examination showed that it was a forty-four calibre, a good sized gun. He saw that the initials E. H. C. had been engraved on the name plate. He almost envied Ned in his possession of such a weapon, but of course, he knew his mother could not afford to provide him with so expensive a gun, so he good-naturedly congratulated Ned in the possession of a brace of such splendid revolvers. Ned only smiled and asked Harry to look at the initials on the name plate of the other revolver. He did so and was delighted to read his own initials, H. J. M., engraved on it.

"Do you mean that this is for me?" he exclaimed.

"Yes. Father bought them yesterday. Mother wanted to know whether it was perfectly safe to trust such things to boys like us, but father said, 'I think it perfectly safe to trust them to boys like Ned and Harry.'"

"I am very much obliged to your father," said Harry.

"But look here, Harry," said Ned, going into

the adjoining room. "Here is something that beats the revolvers. Look at this beautiful pair of rifles. They are sixteen-shot repeating-Winchesters, and not very heavy. You will hardly be able to guess where these came from. One is for you and the other for me."

"Something else from your father?" suggested Harry.

"No, guess again."

"I give it up," said Harry.

"Then read the name plates," said Ned.

Harry did so, and saw the initials H. J. M. from H. E. H., and E. H. C. from H. E. H.

"From our friend Mr. Harrington," exclaimed Harry. "Aren't they dandies?"

"Let me read you the letter that came with the rifles," and picking up an envelope addressed Messrs. Cartwright and Maxwell, Care H. A. Cartwright, 674 M—— Avenue, New York City, and taking out the letter, Ned read as follows :

“*Boston, Mass.*

“MR. DEAR BOYS :

“I am sending you each a Winchester repeating rifle of the latest and best make. I want you to learn how to use them. I understand that both of you are accustomed to the use of firearms. I am only sending a few cartridges since we can get a supply of the same in Chicago.

“I shall be in New York a day before leaving. I have to stop over at the quarry before leaving this part of the country, and shall call to pay my respects to Mrs. Maxwell. I will bring any messages she may have for both of you. Sincerely your friend,

“‘H. E. HARRINGTON.’”

“I say Ned, isn't there some place in the city where we can try these guns?” asked Harry, who after handling them over carefully, felt impatient to try them.

As there was a shooting gallery near by, the boys determined that the next morning should witness the trying out of their new gifts.

## CHAPTER XII

### PREPARING FOR THE WESTERN TRIP

TO such a boy as Harry, the events of the previous day had been full of interest and excitement. It had been a mile-stone in his life to have come alone to New York City and into such surroundings of wealth as he had from the moment he became Ned's guest. To have been met at the station by a carriage in livery, to have entered a home so wonderfully laid out and furnished as was Mr. Cartwright's, were revelations which would linger long in his memory.

Then the gifts he had received, of revolver and rifle, meant much to him. It was no wonder that he was up fully an hour before breakfast the next morning, keyed up with excitement for whatever might happen during the day. The unexpected had happened the day before, and he could hardly predict in his own mind what might take place to-day.

It was not long, however, before Ned, too, aroused himself, and the boys soon started in with good-natured, hard pommelling of each other.

Ned had again been quoting to Harry from "Poor Richard's Almanac," when the latter reminded him of his promise that when he came to New York he would show him the book from which he got these wonderfully bright sayings of Benjamin Frankin.

"Where did you see the book?" enquired Harry.

"Why, there are more than three dozen of these books. Did you think for a minute that I possessed them? Evidently you scarcely appreciate how valuable they are, but if you wish to see them, I will take you over to-day to one of our great city libraries and through the librarian himself, I think we can obtain leave to look them over. Father is much interested in the library, and through this introduction, I think we can get permission." Ned did not add, as he might have done, that his father was one of the principal supporters of the library.

"Are these books so rare as all that?"

"Yes," was the reply, "it is seldom, indeed, that a complete set can be obtained by any library."

Interest in "Poor Richard's Almanac," however, soon was lost, as the boys in process of dressing, again began examining the fire-

arms which had been given to them the day before.

"Now do not forget, Ned, that we are going some time to-day to that shooting gallery. I want to try my revolver and rifle."

"All right," said Ned, laughing; "to tell the truth, there is nothing that I would rather do than that too, and besides, as it is quite late in the season I should not be surprised if we had the gallery all to ourselves."

"If one only knew how to handle a repeating rifle, what terrible things could be done with it in a battle with the Indians for instance. Of course I know," he added, seeing that Ned was smiling and about to make some remark, "that we won't meet with any hostile Indians in the West."

"Oh, no," said Ned, "nearly all the bad Indians have been killed off long ago, and those who remain are too few to give much trouble."

Breakfast was soon announced, and after it, the boys made up their schedule for the day.

"Now, Harry," said Ned, "I will give you the choice of what we do first."

Not hesitating a moment, Harry chose a visit to the shooting gallery.

And so it was arranged that the revolvers and

rifles should be sent over to the gallery, and in order to save time, that they themselves should go to the shooting gallery by the way of the library.

To Harry, such a library was full of interest, its various collections of all kinds, its galleries of famous paintings, and its tiers upon tiers of books, all attracted him, and Ned watched with pleasure how his young friend enjoyed it.

Upon inquiry as to whether they could see "Poor Richard's Almanac," they were told by one of the assistant librarians that they were among their rarest books, and, as such, placed in a glass case from which they could be seen but not handled. Ned, therefore, sought the permission which he had been desirous of obtaining from the librarian himself.

"Is this the son of Mr. Cartwright, whom I know so well, and who is connected with our library?" was the librarian's query.

"Yes, sir," replied Ned, "and as we boys are interested in 'Poor Richard's Almanac,' could we have the privilege of looking over the books?"

Under these circumstances, the librarian, of course, could not deny the request, and soon all three were led into a small fire-proof room



which communicated with the main room, and, unlocking the glass case, the librarian handed one of the books to the boys, saying :

“ This is the First Volume of ‘ Poor Richard’s Almanac.’ ”

It was a small pamphlet, about six by ten inches, and upon its title page was the following :

*Poor Richard, 1733.*  
*An Almanac for the Year of Christ, 1733,*  
*Being first after Leap Year,*  
*by Richard Saunders, Philadelphia.*  
*Printed and sold by Benjamin Franklin, at the*  
*New Printing Office opposite the Market.*

As the librarian noticed the genuine interest of the boys in the volumes, he took pains to tell them what he could about them.

“ But where are the witty sayings ? ” asked Harry.

“ You will find them in between the different lines in the last column of the astronomical tables referring to the rising and setting of the sun, moon, etc. It is difficult to dig them out because they are all mixed up with other words, describing different matters in the tables, but it well pays you for the time spent.”

As Harry had heard his friend quote “ Poor

Richard" so often, it was a great deal of pleasure to him to work out, with the librarian's aid, several of the famous sayings which he had heard Ned quote so often.

But it must be confessed that both of the boys, although enjoying their visit to the library, were desirous of keeping their appointment at the shooting gallery, to the minute.

There they found the proprietor examining with great interest the firearms that had been sent there from the house. As he recognized Ned, he exclaimed, "These are the best guns I have ever seen."

"Yes, Jerry," he replied; "they belong to my friend and myself. We want you to show us how best to use them. We want to become as good shots as we can in the few days we have in New York, in which to take lessons. Can you do anything with us in two or three days, Jerry, if we come every morning for a lesson?"

"Can't say anything about your friend before I see him shoot, but as for you, Mr. Cartwright, I can help you, for I know you have a steady hand and a true eye. Let me see you shoot," he said, handing Harry one of the revolvers; "here, aim at that bull's-eye yonder."

Harry took the revolver and rapidly fired six

shots, three striking inside the bull's-eye, and the other three an inch or so from it.

"He will do," said Jerry. "He don't flinch, and he shoots well, and if you can come in every day while you are here, I promise to do much for both of you."

As the boys took their turn, Ned proved by far the better shot, so that there could be but little competition between them, but, after shooting for some time, the difference became smaller and smaller.

"Look out, Mr. Cartwright," said Jerry one day, "or your friend will soon be climbing over you."

Jerry explained to the boys the precautions that should be taken in using magazine rifles, the best way of holding and cleaning them, and the mechanism of the sights for different distances.

As the morning progressed, they found that in order to do all that they desired, they must not devote too much time to shooting, so, after planning for two lessons next day, one in the morning, and the other in the afternoon, the boys started out on their rounds—to the Aquarium, thence over the Brooklyn Bridge, in order that Harry might see this wonderful structure.

The afternoon was devoted to a trip up the Hudson and a walk through the park, and a visit to the Zoological Gardens, but Ned had something yet in store for Harry, for, when after their long walk in the hot sun, it was suggested that they take a Turkish bath, Harry immediately assented, although just what that meant he hardly knew. He had read something about them and was quite willing to assent to anything which Ned might suggest.

"Is that the place where they roast you one minute and freeze you the next?" asked Harry.

"Yes," said Ned, "something like that, but not quite so bad. As there is just about time for us to try the experiment before dinner, you can see for yourself what it really is."

After depositing watches, pocketbooks, and their other valuables, the boys were shown into neat little dressing-rooms, and Harry, not wishing to show his ignorance, became the willing follower of his chum, but when he noticed Ned getting on to the scales, he wondered what part of the bath this was.

"Get weighed now, and later on we will weigh ourselves again and see how much we lose," was Ned's reply.

“Do you mean that we shall lose enough weight while we are in the bath so that it will be perceptible?”

“Wait and see,” replied Ned, and thus began Harry’s first experience in the Turkish bath.

After being weighed they went into a hot room, the temperature of the air in which as indicated by a Fahrenheit thermometer was 150 degrees. On entering the room Harry thought he would not be able to stand so great a heat, but as Ned did not appear to mind it, he determined to say nothing. In a little while he began to feel fairly comfortable.

The floor of the room was covered with a marble mosaic, and the walls and ceiling with handsome tiling. Strips of thick carpet were placed in front of rows of reclining chairs. These chairs were so hot that it was necessary to spread a muslin sheet over the back and seat before sitting down.

It bothered Harry no little to understand why his body did not get as hot as the chair and wall of the room. He could place his hand on Ned’s shoulder without being burned, but could not keep it for any time comfortably on either the bare chair or the wall. What was the reason for the difference? He could not make it out.

Harry's puzzled look amused Ned, who had been watching him, so he said :

"Tell me what puzzles you, Harry. I take these baths very often. Our family doctor, at whose advice I began them, at first took them with me. He explained many things that puzzled me."

On stating his difficulty, Ned explained that the film of perspiration that covered their bodies acted as a shield against the heat ; all the heat on trying to enter their bodies being employed to change the perspiration into vapor. That as long as one was in good health, so that his body was covered with a film of moisture, the temperature would not get much higher than its ordinary temperature. He then said :

"My doctor told me a story of a man who went about the country exhibiting himself as the fire king. Among other feats this man exhibited was that of going into a heated oven at a temperature of over 500 degrees Fahrenheit. He would go into this oven, taking into it with him a dead chicken, properly prepared for cooking. Since the man was in good health, the heated air constantly expended itself in evaporating the moisture from the surface of his body, so that the temperature was not raised much beyond

100 degrees. On the contrary, the chicken, being dead, and having no protective covering or shield of perspiration, was gradually roasted. The interesting part of this story is that the man remained with the chicken sufficiently long in the oven to have the chicken completely roasted, and then came out, ate the fowl, and experienced no ill effects from the heat. I believe this is a true story."

"Well," said Harry, "I understand that thoroughly. I believe that is all right, for here we are sitting in air at the temperature of 150 degrees Fahrenheit, and are feeling very comfortable, at least I am. I hardly feel the heat at all now."

After remaining for about a quarter of an hour in the hot room, Ned took Harry into a still hotter room in which a thermometer indicated a temperature of 170 degrees. Harry did not find it difficult to remain here although the air felt hotter. He noticed that they did not seem to perspire as readily in this as in the other room, but Ned told him that in reality they were perspiring more rapidly, but that the hotter air was removing the perspiration more rapidly.

Harry then followed Ned into the steam

room, a small room so filled with steam that the incandescent electric lamps with which the room was lighted could only be seen as dim spots of light. At first, Harry could hardly make up his mind to stay in the room. It seemed once when he opened his mouth to talk to Ned as if his throat was being parboiled, but he said to himself, "If Ned can stand it, I can. I guess I will keep my mouth shut, and get ready to go in a hurry if it is necessary."

Ned, who had been watching Harry good-naturedly, rather expecting that he would turn tail and run, after they had remained in there two or three minutes, motioned to him to come out, saying when they got outside :

"You are a plucky fellow, Harry. I have seen people much older than you run out of the steam room on first entering it."

On leaving the steam room each of the boys was taken in charge by an attendant, who gave them a scientific rub down, or, as it is generally called, a massage. This consisted in manipulating the different muscles of the body so as to excite the flow of blood to them, and thus increase the general health and tone of the system.

After the massage they again went into the



steam room to warm up again, when they took a plunge and swim in a good sized pool of cold water.

On coming out of the plunge, the boys were thoroughly dried by one of the attendants, when they again weighed themselves, each of the boys having lost two and one-half pounds. They then retired to a room called the cooling room, where they rested for half an hour on beds covered only with a muslin sheet, with another sheet thrown over them.

“Such an experience as this is one which I shall long remember,” said Harry on his way back home that night. “I have often read about a Turkish bath, but I hardly expected ever to have one myself. I feel surprisingly strong and refreshed.”

As the boys went to their rooms that night, there was much to be talked over. Plans for the next day were soon worked up.

It is needless to say that the most frequented place was Jerry's rifle gallery. Every morning and every afternoon saw the boys practicing; competition between them became more spirited, for under Jerry's tutoring, Harry had made marked progress.

Between the rifle lessons, however, the boys

took time to make short trips up the Hudson to the United States Military Academy at West Point, where the cadets are trained for service in the United States army, and also to one or two large electric plants, and to the wireless telegraphic station.

Harry was greatly surprised at the extent of his companion's knowledge of the principles of the generation of electricity, and of the methods employed in sending and receiving wireless telegraphic messages. The men at the various plants appeared to know Ned well, so that Harry could easily see that he was a constant visitor.

"I wonder if we will ever have any chance to put our knowledge of shooting into practice," said Harry as he fired his revolver on the afternoon of their last practice day.

"Well," said Jerry, "you may and you may not; but your knowledge of it will never come amiss. If you do not have a chance out in Arizona, you may have a chance somewhere else."

Hardly had Jerry finished speaking when the boys were attracted by the gathering of a large crowd out in front of the window, and stopping in their competition, to see the cause of the

shouting, noticed a lady and her daughter almost exhausted, running up the street closely followed by a dog. Just as the lady came opposite the door, Jerry excitedly cried out :

“ In here, ladies, in here.”

Jerry tried to shut the door after them but the dog was too quick, and turning, made a fierce jump at him.

“ Now is your chance, Harry,” called Ned, “ quick,” and immediately came the report, for the boys, taking careful aim, emptied both their revolvers.

“ Good work,” cried Jerry. “ What did I tell you ? ”

In an instant the crowd from the outside was upon them, and pushing their way through, came two burly policemen, but when the air cleared their services were not wanted, for, stretched on the floor, was the poor dog.

In the meantime the boys had tried to make their way out before they should be noticed, but they were met face to face with those whom they had protected.

“ Is this Ned Cartwright ? ” questioned the lady, too excited to hardly believe her eyes.

“ Why, is it you, Mrs. Trevor ? ” replied Ned. “ I hardly expected to see you here,”

and then the details of the affair were all gone over.

Mrs. Trevor introduced her daughter to Ned, and he in turn, introduced Harry.

“And it is to you boys, I believe,” added Mrs. Trevor, “that Mr. Harrington, the mining engineer, owes his life. Certainly we were very fortunate that you were so near at hand just now.”

Both boys blushed at the praise which Mrs. Trevor showered upon them, and Ned changed the conversation as soon as possible.

“Are you staying in New York, Mrs. Trevor?”

“Only for a few days, as we have just come over to see Mr. Harrington, who, my husband understands, is about to leave on a long trip to the West.”

“Yes,” replied Ned, “and we are the lucky fellows who are going with him; it is in order that we might learn something about shooting that we have been taking darky lessons here.”

Next morning at breakfast as Mr. Cartwright was opening his morning mail, he turned suddenly to the boys and said, “Hello, my boys, I understand that you rendered timely assistance yesterday to Mrs. Trevor and her daughter. I

am rather surprised that you did not say something to me about it, and yet, perhaps, it is just as well that you should not make too much of it," casting an approving glance toward his wife who also plainly showed her pleasure and her pride in her son.

"And here is another letter," continued Mr. Cartwright, "and I think it must be from Mr. Harrington whom I have asked to take breakfast with us to-morrow. Yes, he writes that he expects to leave to-morrow at 5:15 P. M. He states that it may be necessary for him to change his plans in the West, as he will be compelled to stay longer in California than he expected. He further suggests that he thinks it would be wise for him to leave you in Arizona and join you at a later date, but gives you the choice as to whether you will do this or go with him."

This suggestion of Mr. Harrington's, that the boys remain in Arizona, came as a great surprise and pleasure to them, and they felt that if they could once get located and had time to make expeditions, with what information Mr. Harrington could give them, they might accomplish quite a little.

"What do you think of this plan, father?" suggested Ned. "Would you object to our

spending part of the time on the ranch in which you are interested, and then take guides with us and make a camping trip across a part of Arizona?"

The plan as outlined appealed immediately to Harry, and with eyes sparkling, he sent an approving glance toward Ned.

"If we could be successful even in the slightest degree," thought Harry, "in finding a clue to the lost gold mine, how happy I should be."

The breakfast was concluded without Mr. Cartwright placing his stamp of approval upon his son's suggestion, but Ned felt sure that it would eventually come, for his father was not a man who did things quickly and then repented of them, and so he was not surprised as he and Harry sat looking over the morning paper, to have his father call him into the library.

"Look this over and see how it strikes you, Ned," passing over a sheet of letter paper on which was printed the name of his banking house.

Ned grasped it eagerly, and looking over it hurriedly, exclaimed, "Oh, that is fine, father," and rushed into the other room and gave it to Harry to read.

"H. A. Cartwright & Horrocks, Bankers & Brokers,  
"New York, N. Y.

"To ——, Manager of —— Ranch,  
"—— Arizona.

"DEAR SIR :

"My young son and a boy friend of his are about to start for the West with a mining engineer, Mr. Harrington, who will pilot them around, but who intends to remain some time in San Francisco.

"Feeling that I would rather have the boys out in the open than in the city for a long period, I have suggested that they go down to the ranch and stay. As they wish to make a camping expedition from that point, will you pick out two of your best cowboys to accompany them, and provide them with the necessary camping outfit.

"They will let you know the exact date of their arrival when their plans are sufficiently matured.

"Yours truly,

"H. A. CARTWRIGHT."

"This will be great," said Ned; "it is something that I always wanted to do and never expected to have the chance. Let us go in and thank father. What do you say, Harry?"

No answer was necessary, for both boys were off in a minute.

## CHAPTER XIII

### BEGINNING OF THE WESTWARD TRIP

THE final preparations had all been made, and the good-byes all said. Mr. Harrington was comfortably seated with the two boys in a drawing-room compartment in a car on the Chicago Limited, one of the finest trains on the Pennsylvania Railroad systems; a train so luxuriously equipped with conveniences for the comfort of its passengers that it resembles a first-class hotel on wheels.

At a short distance from the depot at Jersey City, the train passed through a deep cut in some dark colored rocks. When Mr. Harrington told the boys that these rocks had been formed by the cooling of melted matter that had flowed through openings in the crust, Ned was greatly surprised and said :

“ Why, Mr. Harrington, you don't mean that there are volcanic rocks in this part of the country, do you ? ”

“ Not as you probably understand it, ” said the engineer. “ There are two ways in which melted



rock may escape from the interior of the earth ; in crater eruptions like those of ordinary volcanoes, and in fissure eruptions, in which the melted matter is forced in great vertical or horizontal sheets into fissures in the rocks of nearly all geological formations. Since these rocks are much harder than those through which they have been forced, they are generally left after the erosion of that part of the country, projecting above the general surface. While such rock masses, having once been in a molten condition, are necessarily devoid of stratification, yet they generally acquire, on cooling, a series of fractures that give to them a columnar appearance, generally known as basaltic columns. Some noted examples of such columns are to be seen in the Giant's Causeway in Ireland, and in Fingal's Cave in Scotland."

"Are there any other instances of this kind of igneous rocks in the neighborhood, Mr. Harrington?" inquired Ned.

"Yes, the Palisades of the Hudson are of this character, as are also Mt. Tom and Mt. Holyoke, in Massachusetts, and the Hanging Hills near Meridan, Connecticut. Eruptions of this character only occurred in the geological past. The molten material was hotter and in a more fluid

state than the lava of our volcanoes, the melted rock being sufficiently hot in some cases where it had been forced through fissures in sandstone to partially fuse the material near the walls.

“I understand,” he added, “that you have decided, toward the end of our trip, to wait in Arizona until my return from California. If you secure good guides, a camping trip through Arizona will be a splendid experience for you. Besides,” he said, laughing, “you can then apply some of the knowledge you will have gained with me in actual prospecting.”

There was no difficulty in passing from car to car since the train was vestibuled; that is, the separate cars were not open at the ends, but had their platforms closed in by a vestibule. The observation car was fitted with comfortable chairs and sofas, and provided with a small library for the use of the passengers. Mr. Harrington and the boys stood on the rear platform of the observation car for a while, but, as it was warm and dusty, they soon went inside the car, where they could also get a good view of objects through the large plate glass windows. After a while a porter came into the car, and cried out:

“First call for dinner in the dining car.”

As they were all hungry, they gladly went to dinner.

This was another new experience for Harry. He was no little surprised to find comfortable tables placed on each side of the car between the windows, so that while eating an excellent meal, one could, at the same time, view the passing objects.

"This is a very comfortable way of traveling," said Harry to Mr. Harrington.

"Yes," was the reply. "In these days business men insist on having as far as possible the same conveniences while traveling, as they would have in a first class hotel. By the way, Harry," he added in a joking manner, "do you know that you can not only get a bath on this train, but if you wish it, you can also get a comfortable shave."

"Thank you," said Harry. "I don't think the barber will be able to find much on my face for several years to come. Ned, had you better not give him a chance?"

"No, not for some years yet," was the reply.

Harry had been secretly wondering where they would sleep. Later on in the evening, Ned asked the porter to make up their beds.

Harry now saw the ingenious way in which

their comfortable seats were converted into beds. The upholstered backs and bottoms were movable, and by placing them on strips of wood connecting the opposite seats, they served as the bottom of the lower berth. The pillows were stowed away in the spaces underneath the seats. The mattresses for the lower and upper berths were stowed in a compartment between the side of the car and a curved panel front formed of the same hard wood as that with which the rest of the interior of the car was finished. This panel, when let down by the turning of a brass knob, showed not only two mattresses and two blankets, but also side panels of polished mahogany that were slipped into the spaces between the adjoining seats. At the same time, a rod, pivoted against the back of the recess, was moved out and securely fixed in position, for the suspension of heavy curtains, also contained in the recessed space. The sheets and the pillowcases, however, were brought by the porter from a closet in another part of the car.

As the compartment berths were wider than the ordinary ones, they had only the lower berth made up, the two boys sleeping together. By leaving the window curtain partly up they were able to see the country through which

they were traveling, as the moonlight was fairly bright. Ned soon fell into a deep sleep, but Harry, to whom this manner of going to bed was a great novelty, did not attempt to fall asleep until fairly an hour afterward, when, pulling the curtain down, he soon joined Ned in dreamland.

Next morning, after an excellent breakfast in the dining car, as they were sitting in the compartment, Mr. Harrington, opening a small folding map of the United States, said :

“ Boys, I wish you to become familiar with the areas of the different parts of the United States as compared with some of the other countries of the world. As you will see, this map has the outlines of two different countries placed over each other. From it you can see,” he said, pointing to the greater part of Florida, together with the southern parts of Georgia, Alabama, Louisiana, “ this section is as large as the whole of Italy, while the State of Texas covers an area as great as all Great Britain, European Turkey, Switzerland, Denmark, Portugal and Palestine ; New Mexico, Arizona, and part of Nevada and California, are as large as all of Norway and Sweden. The remaining part of California has an area equal to all of Japan, while the great

northwestern part of the United States, lying west of Lake Superior and the Mississippi Valley, is as large as all of China proper. The New England States, together with parts of New York and Ohio, have an area equal to that of France, while, as you will see, the remaining part of the country equals the area of Austria, Germany, Belgium, Holland, Greece and Spain."

"I like to study this way," said Harry enthusiastically. "It gives me a better idea of the size of the United States than anything I ever studied in school."

"You can see," said Mr. Harrington, pointing to the map, "how favorably the United States compares in area with nearly all other civilized countries. Our country is also taking the lead of most other countries in its products, especially in its mineral products. Here is a printed sheet giving the values of the mineral products of the United States during different years from 1895 to 1904.

"You will notice," said Mr. Harrington, "on carefully examining this table, how great the increase has been in many of our mineral products from year to year. In estimating this increase, it is not only the value of each ton of mineral product that must be considered but

also the total number of tons produced. Estimated in this way, one's idea of the value of mineral products is certain to undergo considerable changes; for example, what do you consider the most valuable mineral product of the United States?"

"Gold and silver, of course," exclaimed both boys in concert.

"Not at all," said the engineer. "On the contrary, the total value of the pig iron produced in our country during 1904, greatly exceeded that of the gold and silver combined, while the total value of the copper and lead was about equal to that of the gold and silver. But what mineral product do you suppose possesses the greater value?"

The boys were unwilling to risk it again, although they suggested coal.

"That's right," said the engineer. "The bituminous and the anthracite coal mined in the United States in 1904, was nearly three times as great as the value of the entire gold and silver output. Among other products that were nearly equal in value to gold and silver were coal oil or petroleum and natural gas.

"The same thing is true," continued Mr. Harrington, "of many other products that re-

quire to be mined in very large quantities ; for example, the phosphate rock that is employed for the manufacture of fertilizers, reached in 1904 a total value of nearly \$7,000,000, while the very common substance, table salt, which is absolutely necessary for the existence of life, was mined to such an extent that the total value of the product reached more than \$6,000,000."

"I had no idea," said Ned, "that salt was produced to such a great extent in the United States. Did I understand you, Mr. Harrington, to say that salt is absolutely necessary to the existence of animal life?"

"Yes," said the engineer, "we could not live without salt."

"Then," said Harry, "I suppose that the stories told about certain savage tribes never eating salt are incorrect."

"Yes," said Mr. Harrington. "This fact was proved by Surgeon General Hammond, of the United States army, as follows: A dozen equally healthy cattle were selected and lots cast dividing them into two sets of six each. Exactly the same amount and kind of food was given to all these animals, but to one set salt was given in a proper amount, while it was carefully excluded from the diet of the others. In a comparatively



short time, the six animals that were fed with a proper amount of salt were in a flourishing condition, while those from which salt was kept miserably perished.

“ Another instance of a product which people do not regard as of very great importance as a mineral is ordinary brick clay, the amount of which, as you will see by looking at the printed sheet, reached the enormous value of \$16,000,000.”

Ned, who had been looking over the table, now exclaimed :

“ See here, Harry, would you believe that the total value of the mineral waters produced in the United States during 1904 reached the sum of more than \$10,000,000? I had no idea that a product of this character was produced to such an extent.”

“ Yes,” said Mr. Harrington. “ A steady increase in the value of the mineral waters produced in this country has gone on, during the last ten years. This is to be expected, owing to the difficulty of obtaining pure drinking water in our large cities. This difficulty is increasing, so that the value of the mineral water product is apt to increase.”

“ You see, then, Harry,” remarked Ned, “ if

we don't succeed in life, and the worst comes to the worst, you and I can set up a mineral water fountain."

"If you do," replied Mr. Harrington, "and wish to make a success of it, you must employ a much purer water than is sold in many of the soda water fountains, for I strongly suspect that in many, only ordinary filtered water, and that not of the purest type, is simply charged with carbonic acid gas and sold as mineral water."

Mr. Harrington gave the boys many valuable lessons in geology and physical geography while they were traveling together. It is not, however, our intention to attempt to repeat all these conversational lectures. It is sufficient to state that the boys were thoroughly grounded in such general principles of geology as could be obtained either from a general view of the country through the car windows, or from an actual examination of those portions over which they afterward passed on horseback or on foot.

## CHAPTER XIV

### IN THE FIELD WITH MR. HARRINGTON

THE party reached Chicago on time. As Mr. Harrington had some business in the city the boys had nearly all the day for looking around. Chicago is situated on the southwestern shore of Lake Michigan on which it has a water-front of some thirty miles. It ranks as the second city of the United States both as regards its population and its manufacturing interests, being excelled in both of these respects by New York City only.

The port of Chicago, situated on the Chicago River, has, by excavation and dredging, been made the best port on the Great Lakes. Chicago is the largest railroad centre not only in the United States but also in the whole world, as many as twenty-two lines entering the city.

Among other places of interest visited by the boys were the great slaughtering and meat packing houses, the iron and steel plants, and the large machine shops for the manufacture of agricultural implements. They also saw portions

of the Chicago Drainage Canal, constructed for carrying off the sewage of the city. This great engineering work, commenced in 1892, was not completed until early in 1900. The canal extends from Chicago to Lockport on the Illinois River. It has a length of nineteen miles, nine of which have been cut through solid rock.

Of course it would have taken the boys much longer than the time at their disposal to see thoroughly all the objects above referred to, but they managed to get a very good idea of them, and afterward enjoyed talking them over with Mr. Harrington.

It is not our intention to trace the exact route taken by the party after leaving Chicago. Suffice to say that the professional duties of the engineer took him to various mining properties in the different parts of the West. Desiring to give his guests as many opportunities as possible for learning practical mining and prospecting, he had the boys go with him, wherever practical, down the shafts and through the levels of the various mines. Besides this they were always with him during his work on the surface. In this manner they were rapidly becoming acquainted with the geological formations and soon became so familiar with the com-

mon varieties of metallic ores and minerals that they were able at once to recognize them.

Though Ned benefited much from this teaching yet it was Harry who got the greatest aid. This was because Harry had read more of the general subject of mining than Ned. Light was being continually thrown on many things he had before been unable, thoroughly, to understand. Now, that he was actually in the field with so splendid a teacher as the engineer, he was able to get a wonderfully clear insight into the subject that proved of great importance to him in his after life.

Harry continually kept in mind the fact that he was to become a mining engineer, and especially the task he had set for himself of finding the location of the lost gold mine. He recognized the great advantage that was being offered him in this direction. Consequently, he made rapid and sure progress.

There was especially one thing in mining that he was ever on the alert to thoroughly learn and that was the peculiarities of mineral veins. As we have already seen, the engineer had assured him that the specimens of gold ore sent to Massachusetts by his father had been taken from a fissure vein. Harry, therefore, deter-

mined that he would as far as possible learn all he could about mineral veins while he was in the company of so great an expert as Mr. Harrington. One day as he and Ned were sitting with the engineer, he said :

“ Mr. Harrington, if you have time will you not tell us something about mineral veins ? ”

“ With pleasure, Harry, but as the subject is very broad, you had best let me know just what it is you wish to hear about.”

“ Since we have been with you in the field,” replied Harry, “ I see that there is a great difference in the kinds of mineral veins. I remember what you said about great fissure veins, but some of the veins we have seen appear to belong to a different class.”

“ I think I see your difficulties, Harry. There are three different kinds of mineral veins : fissure veins ; veins of infiltration ; and veins of segregation.

“ Fissure veins, as you already know, consist of vein matters that have collected in great fissures or cracks in the earth’s crust. Where such fissures are filled by molten material shortly after their formation they are known as dykes ; but where they are gradually filled with mineral matters they are called fissure veins. Since the

mineral matters that fill the fissures differ in structure and appearance from the rock in which they occur, they can generally be traced on the surface as outcrops, sometimes for as many as fifty or a hundred miles. Fissure veins are especially characterized by their size, their continuity, and the fact that they generally occur in parallel systems.

“Veins of infiltration are quite different in appearance from fissure veins although they are not unlike them in their mode of formation. They occur in places where great fissures occur in ordinary rocks. Instead, however, of these fissures remaining open, they are filled with portions of the surrounding strata broken in small pieces. It is the spaces between these separate fragments that gradually become filled with the mineral vein matter such as in the case of the ordinary fissure vein. Since veins of infiltration occupy the place of a previously existing fissure they possess distinct walls.

“Veins of segregation are those in which the vein matter does not differ, except in color, from the enclosing rock. These veins have no distinct walls, since they are not produced by the filling of fissures, but by the segregation or separation from the general mass, of certain

materials along certain lines, while in a plastic condition by heat, or by the action of the water.

“Mineral veins are filled with various vein stuffs and ores. A vein containing a metallic ore is called a metalliferous vein. All the veins I have mentioned may be metalliferous; veins of segregation are, however, too irregular and uncertain, and veins of infiltration too small for profitable mining. It is generally in the great fissure veins that most of the great metalliferous mines of the world are located.

“The common vein stuffs of metalliferous veins are quartz, carbonate of lime or calc-spar, carbonate of baryta or heavy spar, carbonate of iron, and fluoride of lime or fluor-spar.

“Generally the larger part of metalliferous mineral veins consists of vein stuff, only a small part consisting of metallic ores, the ores either being found in a central rib or in irregular isolated masses called pockets or bunches.”

“Thank you, Mr. Harrington,” said Harry. “That helps me very much. All metallic ores, however, do not occur in veins, do they?”

“No, Harry. Iron ores generally occur in great beds; lead and zinc ores are generally found in shallow cavities in limestone where



the rock has been removed by water flowing through the crevices. Most metals, however, do occur in veins."

Ned, who had been listening intelligently to the engineer, inquired,

"Mr. Harrington, do the vein stuffs get into the veins from above, from the side, or from below?"

"It is not certainly known, but it is generally believed that most veins have been filled from water from hot alkaline springs coming up from below through great fissures. In this way it is believed that both the vein stuffs and the metallic ores were deposited. Of course, fissures would naturally become filled with water and, since the fissures extend to great depths below the surface, the water would become very hot. Now hot water, especially when alkaline, possesses great solvent powers, so that it brings to the surface various mineral matters in solution and deposits these in a solid state on cooling."

One of the first large mines examined was the great Calumet and Hecla copper mine, on the Keeweenaw Peninsula in Michigan, on the southern border of Lake Superior. In this mine the copper occurs in the metallic state, and

generally contains a small per centage of native silver. The ore occurs in irregular fissures and cavities in basalt. Sometimes the copper occurs in great sheets. One of these sheets was forty feet long, six feet wide, six inches thick, and weighed about two hundred tons. This mine produced in 1898, 44,450 long tons of copper.

The Calumet and Hecla mine is noted for the great depth to which the shafts have been sunk, this reaching one mile from the surface. On account of this depth considerable difficulty has been experienced by the increase of temperature. At the present depth of the mine the copper is distributed through the gangue in the shape of very small granules. This condition of the copper renders it very much easier to be mined, since, if it were in large blocks, it would very greatly increase the cost and difficulty of taking out the ore.

Another group of mines that greatly interested the boys was the Lake Superior iron ore district, where wonderfully rich deposits of iron ore occur. The mass is in such a condition as to render its removal by means of steam shovels an easy matter.

“You will notice,” said Mr. Harrington, “how

machinery is here made to take, as far as possible, the place of workmen, in mining, loading and carrying the ore to the boats on the Lakes. You see that the steam shovel, after it scoops the ore out of the ore bank, loads it directly on the cars that are waiting on the track alongside the deposits, and that when a train is filled, it is at once drawn away by locomotives to the ore boats on Lake Superior. These boats carry the ore to some city like Chicago, Detroit, Toledo or Cleveland, where they are unloaded mechanically directly into the blast furnaces, or into great storage bins. The iron ores of the Lake Superior district are found in the Vermillion and the Mesabi iron ranges in Minnesota; in the Marquette and other ranges in Michigan; as well as in various ranges in Wisconsin. These ores, especially those of the Mesabi district, are wonderfully free from sulphur and phosphorous, and are therefore capable of being employed in the production of a high grade Bessemer steel."

Harry was especially pleased at being able to recognize one of the principal ores in the Lake Superior iron district.

"It is red hematite," he said. "Just like the specimen I have in my cabinet at home, which

I remember now came from the Lake Superior iron district."

After examining a number of other properties in this section of the country, Harrington and the boys returned to Chicago.

## CHAPTER XV

### MR. TREVOR EMPLOYS A NEW STENOGRAPHER AND TYPEWRITER

ON reaching the hotel, Mr. Harrington told the boys that he would be engaged for the next three hours, so that they could have that time to look around the city. Before leaving, Ned inquired as to when they would go West.

"We leave to-night on the Union Pacific Railroad for Denver by way of Omaha, North Platte and Julesburg," replied Mr. Harrington.

The boys spent the time very pleasantly in visiting one of the many great parks for which Chicago is noted. On their return to the hotel they were surprised and delighted to see Mr. Trevor in the lobby.

"You didn't expect to see me here, did you, boys?" he inquired pleasantly.

"No," said Harry, "but we are very glad to see you."

"Have you been shooting any more mad dogs, boys?" asked Mr. Trevor.

"Not as yet, sir," replied Ned.

At this moment Mr. Harrington, who had gone up to his room, came into the lobby.

“How are you, Mr. Trevor?” said Mr. Harrington. “I didn’t expect to see you until we reached Denver. I understood that you were going there directly from St. Louis.”

“That was our plan,” was the reply, “but some of the gentlemen with me, who expected to meet you in consultation at Denver, and who are to accompany us to California, had important business engagements in Chicago, so two of our private cars came direct through from St. Louis to Chicago. We leave to-night on the Union Pacific Railroad. As there is plenty of room, you will, of course, come with us. Since there are a number of important matters we wish to consult with you about, we can gain time by doing it while en route to-morrow.”

“I regret I cannot go with you, Mr. Trevor,” said Mr. Harrington. “I have these two lads with me, and have promised their parents that I will take good care of them.”

“Let them come along. There is plenty of room in my private car. I shall be pleased to have them. I am glad to be able to show them some little attention, since, as you probably know, they were able recently in New York to

give Mrs. Trevor and my daughter very efficient aid, when they were attacked by a rabid dog."

"Hello," said Mr. Harrington, smiling. "Have you boys been at life saving again? This is the first time, however, I have heard about the matter. But then," he added, "these boys don't talk much about things like this."

"When do we reach Denver?" asked Harry, when they were comfortably seated in Mr. Trevor's private car.

"Why, I understand that we do not go directly to Denver," said Mr. Harrington, "but expect to drop off a day in Omaha, Nebraska."

During breakfast the next morning in Mr. Trevor's car, there were present at the table, besides Mr. Trevor, Mr. Harrington, and the two boys, two other gentlemen, one of whom was Mr. Trevor's private counsel.

"You will have to amuse yourselves as well as you can, boys," said Mr. Trevor; "both Mr. Harrington and I will be busy for the greater part of the time in the next car."

"We will try to amuse ourselves without getting into any mischief," said the boys.

"Before going into the next car," said Mr. Trevor's counsel, "I wish you would call your private stenographer and typewriter. I would

like him to have prepared a rough draft of the syndicate agreement which we are to discuss at Denver. It would be an advantage to the gentlemen we are to meet in a half hour or so to have rough copies of this agreement, so that they can discuss it more intelligently."

"I will call him. I always take him with me on these business trips. He is an expert in both stenography and typewriting, so that there will be no difficulty in not only having accurate notes taken of all our proceedings but also of having copies made of the rough draft to which you allude. I would not be without his services for a considerable sum of money. There is nothing like having business papers properly drawn up."

At this moment a porter handed Mr. Trevor a telegram that he had just received at the last station. Mr. Trevor looked worried and anxious as he read it.

"Anything wrong, Mr. Trevor?" asked his counsel.

"I should say so," was the reply. "My secretary is an able man, but is too fond of stimulants. The absence of a stenographer at this moment is a serious matter."

"Perhaps we can find one on the train," suggested one of the gentlemen.



"I hope so," was the reply. "Porter, please ask the conductor if there is a stenographer on the train."

This inquiry was made, but in a short time the word came back that there was not, and that the chance of getting one before reaching Denver was very slight.

Mr. Harrington, who had been listening to the conversation, remarked :

"The matter is not quite so serious as you think, Mr. Trevor. I believe our young friend here," pointing to Harry, "is a good stenographer and typewriter."

"Can you report and typewrite, Harry?" asked Mr. Trevor.

"Fairly well, sir," said Harry. "If I can be of any help to you, it will give me very much pleasure to do so."

"I sincerely hope you can," said the lawyer. "But we must know certainly. In work of this character it will not do to employ any but a first class reporter. Come, my lad," he said, "see if you can take down this matter," leading Harry to a part of the car where was a table on which was mounted a typewriting machine and facilities for writing. He then handed him a tablet, while Harry selected several well

sharpened lead pencils from one of the drawers. The lawyer then began dictating a long draft of agreement concerning the purchase and consolidation of several mining properties. At first he began slowly, but seeing that Harry had apparently no difficulty in taking the matter, he spoke more and more rapidly. Fortunately for Harry, he had the good sense, when coming to proper names, to spell them out, as well as to spell such technical or legal phrases that would probably be unknown to the boy. Another thing in Harry's favor was that the lawyer was used to dictating, and knew exactly what he wanted to say, so that he was able to dictate without those vexatious changes and corrections that are so trying to a stenographer.

During the dictation, which was quite a long one taking fully half an hour, Mr. Trevor, Mr. Harrington and Ned anxiously watched the test. At length the lawyer said :

“ Now, my boy, let's see how well you can transcribe this matter on the typewriter.”

Not at all phased, Harry sat down at the typewriting machine, saying :

“ How many carbon copies do you wish, sir ? ”

“ Four carbons, or five copies in all,” said the lawyer.

Harry placed five sheets of paper in the machine, with the necessary sheets of carbon paper between them, and began pounding away at the machine. Harry felt that he was on trial. Fortunately, he had greatly improved, both in his stenography and his typewriting so that by this time he was quite an expert for his age. He soon had the first sheet written, with its four extra carbon copies. It was a matter of considerable surprise to the gentlemen, especially to the lawyer, to note the precision with which the lad struck the proper keys, while keeping his eyes on his notes. When he handed the sheets to the lawyer, this gentleman took one and handed a copy to Mr. Trevor and Mr. Harrington.

“Excellent,” said the lawyer. “Upon my word, Trevor, this is much better than your own stenographer could do it.”

“It is excellent,” said Mr. Trevor. “You do this work very well indeed, Harry.”

Mr. Harrington was especially pleased that the test was so much in Harry’s favor. Harry made no remark, but kept on rapidly transcribing his stenographic notes on the typewriter, and in a comparatively short time handed a second set of sheets to the lawyer, who again examined them carefully.

"It will do capitally. It will be advisable to have him attend our meetings and take down notes, together with such changes as we wish to make in this paper."

"Well, Harry," said Mr. Trevor, "may I consider you my private secretary and stenographer for the time being?"

"I shall be only too happy, Mr. Trevor, to do anything I can for you."

"Then," said the lawyer, "finish these notes, and bring the typewritten copies into the next car."

As soon as they left the car, Ned exclaimed :

"Bravo, Harry. I congratulate you on passing the test so well. You can get a good job now, if you wish it. How would you like to become the private secretary of a capitalist?"

"Just now, I should much prefer to get my education as a mining engineer. Afterward we can talk about private secretaryships and things of that kind. I guess, however, I had better complete this work, so you must excuse me if I do not talk to you."

Harry was nearly two hours in transcribing the notes, when he took them into the other car. The work was so satisfactory that Mr. Trevor requested both Mr. Harrington and the

boys to continue to occupy his private car until the boys left them at Prescott in Arizona. This was a great advantage to Mr. Harrington, since the private cars were readily attached to trains on the different railroads, and run to the various mines that the engineer was to examine. Mr. Harrington was all the more willing to do this, because these examinations were being made entirely for Mr. Trevor and his associates.

Although Harry's new duties as stenographer and typewriter for Mr. Trevor kept him busy in Omaha, yet he had an opportunity along with Ned of seeing the city. Omaha is situated on the Missouri River, opposite Council Bluffs, Iowa. It is an important railroad centre and had a large trade in live stock, lumber and grain. Like Chicago, Omaha has large slaughtering and meat packing industries.

The conference of the syndicate, consisting of Mr. Trevor and his associates, detained the party in Denver for two days, so that the boys had ample time for sightseeing.

Denver, the capital of Colorado, the boys found to be situated at the South Platte River and Cherry Creek. This city is the headquarters for both the mining and manufacturing interests of Colorado. Denver itself is located on a number

of plateaus, and is known as "the Queen City of the Plains." Owing to its equable climate, it is especially suited to sufferers from lung trouble, so that many of these unfortunate people come to the State so as to live in the bracing and healing atmosphere.

## CHAPTER XVI

### THROUGH COLORADO, NEW MEXICO AND ARIZONA WITH MR. HARRINGTON

THE journey through Colorado was exceedingly instructive. This State leads all the other States in the production of gold. Mr. Harrington, therefore, gave the boys considerable information concerning the mining and recovery of this precious metal.

“Gold,” he said one day, while comfortably seated with the boys in Mr. Trevor’s private car, “occurs in two different forms; viz., in pure or metallic state, and when combined with various chemical elements.

“Metallic gold, or, as it is also called, native gold, occurs in what are called placer deposits, in rounded grains, or flakes distributed in a loose state through sands or gravel, and in free-milling gold, in which the particles are firmly imbedded in a solid gangue or rock.

“In placer deposits the gold is obtained from the sands or gravels by agitating them in water, when the gold separates by reason of the greater density. This separation is effected either by

pans or cradles, operated by hand, or by devices called sluices. In the latter the sands or gravels are thrown in running water in a sluiceway, the gold settling on riffles on the bottom of the sluice, the riffle consisting of cleats, grooves or steps placed across the sluice at suitable intervals. Mercury placed in the spaces between the cleats, serves to aid in catching the smaller particles of gold.

“Where placer gold occurs in great deposits, containing only a small percentage of gold to the cubic yard, a kind of mining called hydraulic mining is employed. Here powerful streams of water, issuing from nozzles, called giants, are caused to strike against the beds of sand or gravel. The force of these streams is so great that the banks are broken up, the sand and gravel being permitted to pass into the muddy water through the sluices, in which the gold is deposited, while the lighter particles of sand and gravel are carried off with the water. In order to obtain the water necessary for hydraulic mining, it is sometimes necessary to bring it through long open boxes or troughs called flumes, from great distances, into reservoirs high above the placer beds. From these the water is led through metallic pipes into the giants.”



"What is the size of the particles of placer gold?" inquired Ned.

"They vary in size from very small grains to larger particles called nuggets. I have some placer gold," said the engineer, showing the boys several bottles containing grains of gold of different sizes, together with several separate nuggets.

"See," said Ned, "there are no sharp corners on the separate particles of gold."

"It is generally in the lower parts of the placer deposits that the larger nuggets are found. Where such deposits rest on the surface of rocks, the richest portions of the deposit are generally found where the sand and gravel come in contact with the rocks."

"Mr. Harrington," said Harry, "won't you show us some time how to use a gold pan for separating metallic gold from sand and gravel?"

"I will the first time we are in the field and the water supply and the gold bearing sands are convenient. The gold pan is simply a shallow pan with sloping sides and a flat bottom. The gold bearing material, in the form of a placer sand or gravel, or as a pulverized or gravel free-milling ore, is placed in the pan which is held in an inclined position in one

hand, while water is poured on the material. The pan is now shaken gently but swiftly. As the powdered ore is collected on the sloping side of the pan, the heavier particles of gold descend through the sand and collect on the bottom. As soon as all these have settled, the water is permitted to flow out of the pan along with much of the sand. Fresh water is now again added to the materials in the pan and another part of the sand worked away. This is repeated until nearly all the sand has been removed. By leaving a small quantity of water in the pan on the final washing, and moving it so as to produce a circular current, the contents are spread out in a circular path, thus permitting a better inspection of the metal. Panning looks easy but requires much skill in order to avoid losing the smaller particles of gold. The appearance of metallic gold is so characteristic that there is comparatively little difficulty in determining whether or not the specimen contains gold in paying quantities. The word 'colors' is used by the miners to indicate gold obtained in this way."

"Mr. Harrington," asked Ned, "how is the gold obtained from free-milling ore?"

"In free-milling ore, in order to separate the

gold from the gangue, the ore is crushed into a fine powder or pulp by means of a device called a stamp mill, the stamps of which consist of masses of iron or steel that are raised by steam power, and then permitted to fall on pieces of ore placed inside an iron mortar. In this manner the ores are converted into a powder. Water is permitted to flow into the mortar while the stamps are being operated, so that as the ore is gradually ground, the smaller particles pass through openings in the sides of the mortar. The liquid mass is caused to flow over the surface of a copper plate that has been covered with mercury or quicksilver. The mercury dissolves the particles of metallic gold, and so prevents them from being carried along with the sand and gravel from the table."

"Is not some of the gold lost in this process?" asked Harry.

"Yes, but not as much as you probably think; only a comparatively small quantity escapes. Still, enough does escape to make it worth while to recover the gold remaining in this mass, or, as it is called, the tailings."

"How is the gold obtained from the tailings?" asked Harry.

"There are several processes for this purpose,

one consists in the use of a chemical substance called potassium cyanide, that possesses the power of dissolving the gold. Another consists in the treatment of the tailings with chlorine gas, which is also capable of dissolving gold."

"How is the gold obtained from smelting ore?" inquired Ned. "I suppose from the word smelting, that these ores are melted or fused by heat."

"Yes, Ned, in order to extract the gold from smelting ores these ores are mixed with various substances called fluxes, and heated in furnaces until melted or fused. The fluxes both decrease the heat necessary for fusion, and result in reducing the gold to the metallic state."

When Mr. Harrington's work in the neighborhood of Denver was completed, the party left on the Atchison, Topeka, and Sante Fé railroad for points in the territory of New Mexico.

While in Northern New Mexico, a number of copper mines were examined. Ned noticed the apparent ease with which deposits of copper could be determined from the appearance of the surface, the bluish green stains on the rocks showing at once the presence of copper.

"I am glad," he remarked, "that we have

come across a mineral deposit that is easy to detect."

"Yes," said Mr. Harrington, "but do not make the mistake of supposing that wherever you see the characteristic copper stains, there are valuable deposits of copper ore. What is needed in a copper mine, is not only the copper stains, but a regular fissure vein containing copper ore. Copper-bearing veins generally consist of two parts, the part that lies above the line of permanent water in the ground, and therefore, exposed to oxidation by the air, and the part that lies below this level. In the first, the copper ores have been generally changed into what are called secondary ores, such as carbonates that are slightly soluble in water. In the second part the ore generally exists in the form of sulphides. Difficulty is often experienced in mining copper by not bearing this fact in mind. While all copper ores can be treated by smelting, yet in many cases it is more convenient to treat the secondary ores by a process called leaching. I have some simple chemicals with me, and can show you the leaching process. Let us go into the wash room, where we can use the chemicals more readily."

On reaching the room, Mr. Harrington took a glass tumbler, and threw into it a few small particles of a carbonate of copper, and pouring some water in the glass, he added to it a little sulphuric acid. The liquid began to give off small bubbles of gas, and in a short time assumed a deep blue color. "This," said the engineer, "is sulphate of copper or blue vitriol. Now it is easy to obtain metallic copper from this solution. Lend me your penknife, Harry," he said, and on receiving it opened one of the blades, which was quite bright and free from rust. He then remarked :

"Now notice what happens when I dip this knife blade in the blue liquid."

In a short time the boys saw that the surface of the blade was covered with a bright metallic coating of copper.

"In practice," continued Mr. Harrington, "the ores are subjected to the action of sulphuric acid and water, and then the copper thrown down from the solution on pieces of scrap iron, old tin cans, or scraps of iron generally. The mass is then subjected to smelting, and the copper obtained in a pure state."

One day while sitting in Mr. Trevor's car, when they were passing through the northern

part of New Mexico, Mr. Harrington said to the boys :

“ There are poisonous snakes and reptiles in both New Mexico and Arizona. When bitten by these reptiles, especially by rattlesnakes, unless prompt treatment is applied, one will almost invariably die, provided, of course, a sufficient amount of poison has been received. It sometimes fortunately happens that while the fangs of the snake or other reptile are passing through the clothing, much of the poison is mechanically removed, so decreasing the danger of the bite. In all poisonous bites it is necessary either to remove the poison as quickly as possible, or to neutralize it by some suitable chemical substance. Prompt means should be taken to prevent the poison from being carried into the circulation. This can best be done by tying a ligature around the limb of the patient if the bite comes on a limb, above the wound. If there are no sores or cuts in the mouth, the lips can be safely applied to the wound, and the venom removed by sucking. In some cases a portion of the flesh can be cut from the wound, care being taken, of course, not to cut a large vein or artery. The safest method of treating the bites of poisonous snakes or other reptiles is

to neutralize the poison as quickly as possible with some chemical substance such as permanganate of potash. I am going to give to each of you a small hypodermic syringe for injecting a solution of permanganate of potash directly into the tissues surrounding the wound. Sew the syringe in some part of your clothing, where it will always be accessible. In using it, keep the needle as clean as possible. Should it ever happen that you need to apply this treatment when the hypodermic syringe is missing, or when it fails to operate, do not hesitate, after sucking the wound, to vigorously rub the permanganate of potash into the wound. When this method of protection against the bites of venomous reptiles is employed, no fear need be had concerning the after effects."

"Mr. Harrington," inquired Ned, "I understand that a common remedy against snake bites is the free use of alcohol, and that when properly employed this treatment will often save life. Is that so?"

"Yes, stimulating the heart action by brandy, whiskey, or alcohol in any form is an admirable treatment. A little stimulant may be given, even when the use of the hypodermic syringe or the direct application of the permanganate of



potash is employed, since the poison tends to depress the action of the heart. Should you ever be bitten when either the hypodermic syringe or the permanganate of potash is absent, if you can do nothing else, build a fire and heat the blade of a penknife until it gets red hot, and plunge it in the wound so as to cauterize it."

After leaving the copper fields of New Mexico, the party was practically en route for California, but since the engineer felt himself under obligations to remain with the boys as long as possible and especially since Mr. Trevor had extended a warm invitation for the boys to remain with him, it was planned that they should remain in the private car until they reached Prescott Junction in Arizona Territory. Here the good-byes were said, Mr. Trevor and Mr. Harrington continuing on to California, and Harry and Ned taking the train to Phoenix. On bidding the boys good-bye, Mr. Harrington said :

"I have seen enough of you to know that you are abundantly able to take care of yourselves. I have jotted down on this piece of paper your route to Prescott and Phoenix, and from there, by stage road to the Martin ranch in Maricopa County, about thirty miles east of Phoenix. You will find many curious characters among

the cowboys, but as a rule they are true men, and if you treat them properly you can make warm friends with them."

The boys arrived at Phoenix, the capital of the territory, on schedule time. The train reached the city near sunset, and as they had been advised by Mr. Harrington, the boys went to one of the principal hotels and made arrangements to take the stage to the ranch early the next morning. Mr. Harrington had also told them that the stage road did not run directly to the ranch, the nearest point of the road being some ten miles distant. They were informed at the hotel, however, that they would have no difficulty in finding the ranch, and that the stage coach would reach the point where they would leave it in time to give them fully five hours' light.

Before going to bed, Harry said to Ned :

"What a curious name they give to this town, Phoenix. Seems to me I have heard that name applied to a mythical bird that possessed wonderful powers of rising from its ashes."

"Yes," said Ned. "While coming from Prescott on the train to-day, I was talking to a man who told me how the town got its name. The town site selected for Phoenix was the same as

that of one of the cities of prehistoric times, for, as you know, a race lived in this part of the world long before the Indians or white men came here. At a meeting of the white settlers held for the purpose of choosing a name, an Englishman, in an address to the people told them a story about a fabled bird called the phoenix. This bird had, he said, wonderful plumage and a sweet voice, and lived for 500 years, when it prepared for itself a charnel house, sung its funeral hymn, and entered its grave, when a fire broke out spontaneously, consuming both house and bird. Such, however, was the wonderful power of the bird, that from its ashes a new and glorified bird arose, and lived another 500 years. In its turn this new bird was consumed spontaneously, and resurrected for another period of 500 years in still more magnificent condition. The name Phœnix, which he proposed for the new town, was adopted unanimously by the people, and the town has been known by this name ever since."

## CHAPTER XVII

### ARIZONA CHARLIE AND DEADSHOT DICK OF THE MARTIN RANCH

IT was the breakfast hour on one of the largest and best managed ranches in the eastern portion of Maricopa County, Arizona, about thirty-five miles southwest of where the Verde River empties into the Salt River. Some thirty men, constituting the cowboys of the ranch, were sitting on the two sides of a long wooden table, eating breakfast, and chaffing one another.

The chaffing was mainly concentrated on two of the cowboys. One of these was a man about thirty years of age, known as Arizona Charlie. A casual look into his blue eyes and ruddy countenance might at first give the impression of a man possessing such an abundance of good nature as to be readily influenced. It did not, however, take long when brought into closer contact with him to see how mistaken such an estimate was. He had decided opinions of his own and when aroused or angered, there were few men around the table who would care to face him in an even fight.

The other man, who was much older than Charlie, was known as Deadshot Dick. He was much larger and better built than Arizona Charlie and, unlike the latter, who kept his face closely shaved except for a light colored moustache, had his face completely covered with a black beard.

As is common in the West, these men were not known by their last but by their first names, to which some additional cognomen or nickname was prefixed; Charlie had received the cognomen of Arizona, because of his ideas concerning the advantages possessed by Arizona over the rest of the world. In Charlie's opinion, there was no place on earth where as many wonderful things were to be found as in Arizona. Arizona, he argued, possessed better men, better cattle, better horses, and a finer climate than any other part of the world. Knowing his weakness, the men took pleasure in pretending to run down Arizona, and praise up some other part of the country, but Charlie was bright, and generally got the better of them. Charlie was fairly well educated, and spoke better English than most of the men, and was quite talkative. He was one of the best story-tellers on the ranch, and many an hour was passed, when the men sat outside

the eating house in the early evening, before turning in for the night, by Charlie and others telling of life in this part of the country especially during those years when constant warfare existed between the early settlers and the bloody Apache Indians. Charlie could manage and ride a horse better than any other man on the ranch, and that is saying no little, for all these men were more at home in the saddle than they were on foot.

Dick had received the cognomen of Deadshot on account of his skill in handling a pistol and rifle. When Dick once drew a bead on an animal it was as good as dead, since he practically never missed. His general character was exactly the opposite of that of Charlie. He seldom spoke, and when he did, he never used one word more than was necessary. The two men, Arizona Charlie and Deadshot Dick, were great chums, and were seldom seen apart. Unlike most of the cowboys, they were teetotalers, and were, moreover, good, clean-minded men.

It was only the night before that Mr. Martin, who was in charge of the ranch, had received a letter from Mr. Trevor, which read as follows:

“ You will have received some time ago a let-

ter from Mr. Cartwright, announcing that two young boys, his son, and his son's friend, are coming from the East, to spend a few weeks at the ranch. I wish you would pick out two of the best horses on the ranch, present them to these boys with my compliments, and send me a bill for the same. JOHN QUINCY TREVOR."

"Whew!" said Mr. Martin to himself. "These boys have a snap on Mr. Trevor. The best horses on the ranch will cost no little money. But can I get them good horses? Well I should think so. I wonder what sort of boys they are. He don't mention anything about the age. I guess I had better read the letter again I received from Mr. Cartwright."

So he opened another letter which he had received several weeks before, and again read it.

"Between them these men intend spending a lot of money on two boys," said Mr. Martin. "But since they are practically the bosses of this ranch, I have nothing to say, except that I will do my level best to make the visit pleasant. I wonder how old they are anyhow. I am afraid they are quite young, and will be a big bother. Now who are the best two men I can pick out for the kids?" he inquired of a num-

ber of cowboys who were in the room at the time.

“What’s the matter with Arizona Charlie and Deadshot Dick?” one of the men said. “You can’t get two better men for kids.”

“I guess you are right. Ask them to come here.”

In this way, the news of the proposed visit of the two boys from the East got out among the men, so that the next morning at breakfast as soon as the first sharp edge had been taken off of their appetites they commenced chaffing the two men.

“Well, Charlie,” said one of the men, “I hear you and Dick are going to be wet nurses for two Eastern tenderfoot kids.”

“Now, Jim,” replied Charlie, “I think a sight of you, but there is only room for two. So don’t ask me to take you, for I could not think of it. Ain’t I right, Dick?”

“Sure,” said Dick with a broad grin.

“How old are the kids, Charlie?” one of the men asked.

“I don’t know,” said Charlie, laughing. “Nor does Mr. Martin. He was trying to find out from the letter he received, but they are only spoken of as young boys. But,” continued



Charlie, "I am sure of one thing : you will give the boys a fair show if they behave themselves, and will try to give them a pleasant time on our ranch."

"All right, Charlie," said several of the men. "If the kids are old enough, you can certainly teach them how to ride, and Dick can teach them how to shoot."

"But where are our babies?" said one of the men, changing the subject of conversation.

"Yes, where are Jack and Jill?" asked Arizona Charlie. "This is the first morning that they have not been early at the breakfast table for a long while. Whatever else happens, you can count on both of them being on hand when the bell first rings."

The babies, Jessie and Jackie Martin, or, as they were more frequently called, Jack and Jill, were the two Martin children, a boy and a girl. They were just at that age, six and five years respectively, when healthy, good-natured children are welcome everywhere. They were consequently the favorites of all the men, most of whom they knew by name, and they would often climb up in their laps, begging for stories, either of fairies, giants, hobgoblins, or Indians.

Arizona Charlie was their special favorite, not

only because he was always ready to spin wonderful stories, both of Indians, and especially of fairies, giants and hobgoblins of his own imagination, but especially because the children delighted in being seated in front of him as he galloped his horse over the plain. Deadshot Dick, although not so demonstrative in his affection, was also greatly attached to the children. Whenever Charlie had one of the children mounted in front of him on his horse, Dick would take the other, and the two would gallop over the mesa. The horses could not go too fast to please the youngsters. The faster and more furiously they rode, the louder would the children cry out in their delight at the rapid, exhilarating motion.

The children were seldom seen apart. Wherever Jessie, the little girl was, one would be sure to find Jackie, the boy. For this reason they had received the nicknames of Jack and Jill, and like most other people in Arizona, they were better known by these names than they were by their Christian names of Jessie and John.

“But,” said Charlie, “I wonder what has become of the babies. But here comes Mr. Martin. He will tell us.”

Mr. Martin, on entering the room, said quietly,

as a matter of course, seeing that the children's places were empty :

"I see the babies have already finished their breakfast. Where did they go after leaving the table?" he inquired particularly of Arizona Charlie.

"Why, Mr. Martin," said Charlie, "the children have not been to breakfast."

"I don't understand that," said Mr. Martin anxiously. "Mrs. Martin was quite sick this morning, so I let the children come over to the eating room alone. They left quite early, at least a half hour before the breakfast bell rang. Were the children in the breakfast room this morning before you rang the bell?" he asked of the Chinese cook.

"No see children in dining-room," was the reply. "See 'em walkee that way," pointing in the general direction of Phoenix.

"An hour away from the ranch," said Mr. Martin anxiously. "I fear something has happened to them."

"Now, Mr. Martin, don't worry," said several of the men. "If we all mount our horses and ride in different directions, it will be odd if we don't find the youngsters. They can't possibly have gone very far."

“Wait a moment,” said Mr. Martin. “I heard the children talking this morning before leaving the house. Jessie said :

“‘Poor mamma is sick. We’ll go out and get a big bunch of pretty flowers for her, won’t we, Jackie?’

“‘Yes,’ said Jackie. ‘I know where pretty white and blue flowers are, way off from here.’

“It may seem odd to you men that I would let the children go off under such circumstances, but to tell the truth, I was so worried about Mrs. Martin’s condition that it hardly made any impression on me, and it is only now that I find the children missing that I begin to fear they have gone off on a long walk.”

“There are white and blue flowers in several of the gulches in the mountains,” said Arizona Charlie. “While it seems improbable that the youngsters could have gone so far, yet I remember only yesterday, as Dick and I were out riding with them, that they saw the white and blue flowers, and that Jessie, who was riding with me, called :

“‘We’ll get some of these pretty flowers some day for mamma, won’t we, Jackie?’

“‘Yes, I know how to bring you here, too,’ replied Jackie.”

"Then," said Mr. Martin, "I will go with some of you."

"Now, Mr. Martin, I hope you won't do anything of the kind," said Charlie. "As you say, Mrs. Martin is quite sick. If she should get to know that the children were lost, serious results might follow. You stay here. If Mrs. Martin should call for you, and you are not on the ranch, she would at once suspect that something was the matter."

"You are right, Charlie," said Mr. Martin. "You and Dick take half of the men, and go in the direction of the place where the children saw the flowers, and let the others divide, as we have already arranged. Let me know as soon as you get any news. There are bears on the mountains," he said shuddering. "God grant the children may not meet any of them."

The men said nothing, but examined their rifles and pistols, and started off in a manner that indicated that, should anything happen to the children by reason of bears, there would be started a war of extermination against all such animals in that section of Arizona.

There was but little disturbance in getting off. The men were soon mounted, and rode away in all directions. About half of the men, how-

ever, led by Arizona Charlie and Deadshot Dick, went in the general direction of the mountains, spreading out fan-like so as to cover as much ground as possible. In about two hours, word was sent back to the ranch that no traces of the children had been found.

When Jessie and Jackie left home that morning they were smart enough to go quietly into the dining-room when the Chinese cook was absent, and help themselves to some slices of bread and cake that were on the table. They then went quietly out of the door.

"We won't let them see us," said Jackie. "We'll play we are wunning away."

So they toddled away toward the mountain. After a half hour's walk, they sat down in a shady place to eat their bread and cakes.

"Now let's go and get the flowers," said Jackie.

So they walked on until they were nearly five miles distant from the ranch.

"Oh, look at the pretty flowers," said Jessie, pointing to some yellow ones.

"Yes," said Jackie. "But not the white and blue flowers we saw yesterday."

"Let's pick some of these," said Jessie.

So the children gathered a number of the

flowers, and then walked on for a considerable distance further.

At last Jackie began to feel less certain about the exact place where he had seen the white and blue flowers the day before while riding with Arizona Charlie.

"Guess I forget where the flowers are," he said to Jessie.

"Never mind," said Jessie. "We'll find some other flowers and take them home to mamma. Here are some," she continued.

"Yes, aren't they pretty?" And the children soon gathered a large bunch.

"Jackie," said Jessie, "I'se tired. Look at that nice cool cave. Wait a while and let me lie down. I want to sleep."

"All right," said Jackie. "You lie down to sleep, and I will watch and wake you up after awhile, and then we'll go right home."

The little toddlers were not in the least alarmed about being lost. They were so accustomed to wandering around in the neighborhood of the house, and had always so readily found it again, that they had no idea of the danger to which they were then exposed.

Jackie manfully stood watch for ten or fifteen minutes, when he said to himself:

“Guess I will lie down alongside of Jessie, but I’ll keep my eyes open, and won’t go to sleep.”

His intentions were good, but he was soon asleep. The two slept soundly until nearly five o’clock, so that when they awoke the sun was well down in the sky. They got up and started in what they believed to be the direction toward home.

“Oh, Jackie, look at the two pretty black pussy cats. Let’s take them home to mamma.”

The pretty pussy cats were two newly born bear cubs. They were only a few days old, and were as playful as kittens. Each of the children took up one of the cubs in their arms, and tried to walk away with them, but there was a difficulty in this, because they were too heavy, and also because they were not accustomed to being handled in that way; so the cubs struggled to get away and the children struggled to carry them.

While this struggling was going on, the large black mother bear, accompanied by her mate, seeing from a distance what was going on, began to growl furiously, rushing madly toward her cubs in order to protect them. But the children, interested in their new found playthings, did not appreciate the approaching danger.





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## CHAPTER XVIII

### HARRY AND NED SAVE THE MARTIN CHILDREN

THE boys left Phoenix the next morning by stage after an early breakfast. It was a beautiful day, and they enjoyed the ride exceedingly.

Owing to irrigation, the country around Phoenix is wonderfully fertile. It consists for the greater part of a plain, sloping gently toward the Gila, Salt and Verde Rivers.

The climate is such that it is possible, in many cases, to raise two crops the same year on some of the land; for example, barley or wheat, when sown in November, may be harvested in time to sow the next year's crop.

There were only a few other passengers on the stage, so that the boys got seats on the front, Ned sitting alongside of the driver, and Harry occupying a seat immediately back of him. The stage driver was known as Pete. Curiously enough, he was known only as Pete, having, unlike most of the men in that part of the world only one name. The boys afterward discovered that he insisted on being only called Pete.

"Pete is name enough for me," he said. "There ain't no other Pete that drives a stage around here, so I am just Pete." And, after a long struggle, in which the men poked lots of fun at him, he finally succeeded in gaining his point of being known simply as "Pete."

It is unnecessary to say that Pete was an adept in the management of stage horses. He had driven in that part of the territory for many years, and for a man to drive a stage coach with four horses for even half a year without being killed was proof that he knew how to manage horses.

Pete was generally taciturn. At first he was not disposed to talk to the boys, but, after he had tried several times to scare them by driving rapidly past dangerous parts of the road, and found that it did not worry them a bit, he thawed out, and became wonderfully talkative. He seemed to take pleasure in pointing out the various objects that could be seen from the top of the stage at different parts of the road.

For many miles the road extended through the irrigated lands. Wherever the waters were brought to the thirsty soil, there were luxuriant crops. Here were fruit trees, such as apples, peaches, lemons, oranges, quinces, pears, nectar-

ines, almonds, and plums to be seen. In other places there were large fields of rye, flax, sugarcane, and various forage grasses. Some of these fields, especially those containing crops of timothy, clover and alfalfa, were especially interesting to the boys, particularly the latter. Pete explained to them the different kinds of vegetables that were raised in the territory.

But what struck the boys as being very curious was that in some places the lands were irrigated only on one side of the road; they were wonderfully fertile on that side, while on the other it was a desert, sterile waste.

A good view could be had from the top of the stage coach of the irrigation systems that brought the fertilizing waters through the canals, ditches, and aqueducts, to the land. Occasionally they passed the reservoirs, consisting of artificial ponds or lakes in which the surplus or flood waters were stored, and afterward drawn off during periods of drought for the purpose of supplying the thirsty land.

“What a jolly thing irrigation is,” said Ned. “The farmers don’t need to worry during a dry spell. If it don’t rain, open the sluice gates and let the water flow through the canals and ditches and there you are.”

"Yes," said Pete, "beats eastern farming all hollow. I hear that you chaps are bound for the Martin ranch," he continued. "Is that so?"

"Yes," replied Ned. "We expect to stay there a short time, and then get two guides for three weeks or so and make a camping trip across the territory."

"I like you chaps," said Pete. "I'll give you a pointer. Get good guides. If you are lucky enough to get two such men as Arizona Charlie and Deadshot Dick, you will be fixed up all right. Both know Arizona from one end to the other. If you want to learn to manage a horse, there is Arizona Charlie. He can do anything with a horse that another man can do, and he can do a blamed sight that lots of other chaps can never do. I suppose you can ride a little, can't you?" he asked.

"Yes," said Ned, "we can ride a little, but want to learn to ride well."

"I see," said Pete, "that you have pistols and rifles. Can you shoot?"

"Yes," said the boys modestly.

"Now if you could only get Deadshot Dick as your other guide," said Pete again, "you would sartainly be fixed right for larning to shoot."

Dick is easily the best shot on the ranch, so do your best to get him, and you will have all the larning you need to show how to draw a bead on anything that walks or runs."

As the stage drew near to the way house, Pete remarked :

" You leave me here, boys. Do you expect some one from the ranch to meet you ? "

" We think not," replied Harry.

" Oh, well, if there is no one there," said Pete, " I reckon you can work your way along easy enough. There is a pretty good trail of about ten miles. Well, good-bye, boys. I bet you'll have a splendid time. There are a lot of fine men on the ranch, and if you only treat them on the square, they will treat you on the same, and give you a good time."

On inquiring at the way house, the boys found, as they had expected, that no one was awaiting them. The man in charge inquired :

" Are you the boys I hear tell they are expectin' at the ranch ? "

" Yes," replied Ned. " How far is it? About ten miles, isn't it ? "

" Yes. Ten good Arizony miles."

" What kind of miles are those ? " asked Harry.

“Miles a bird flies. Nearly fifteen miles as you would walk or ride.”

“I guess we had better go on,” said Harry. “We will leave our traps here, and send a man from the ranch for them.”

“All right,” replied the man. “Will you walk, or shall I get you horses?”

“I should prefer riding, Harry, wouldn’t you?” said Ned.

“Yes.”

“Want a guide?” asked the man.

“Not if the trail is clear,” replied the boys.

“The trail is clear enough if you don’t cut too often across the bends. But there is one place about six miles from here where a good two miles can be saved by cutting across a wide bend and taking a steep climb.”

The boys had a pleasant ride over the trail leading to the ranch. When they came to the principal cut off they concluded to save time by using it, so they turned the heads of their horses in the necessary direction. It was not long, however, before they lost their way, and therefore determined to retrace their steps. In doing this, they only got further and further from the true direction.

“Well,” said Harry, “I guess we are lost.”



“Yes, but only as regards the exact route. Since we know the general direction to the ranch, we can hardly miss it. See here,” he said, looking at his pocket compass, “the ranch lies over there, so that if we keep straight on we shall either strike the regular trail, or will not go very far from the ranch itself.”

As the boys went on, they heard the growling of two bears, and saw something that almost froze their blood; for, looking ahead there were two little children so intent on playing with two bear cubs that they evidently did not see the larger bears running toward them.

“Ned, Ned,” said Harry excitedly, “look there.”

Both boys shouted with all their might. The children heard them, and at the same time saw the two large bears running, so they left the cubs and ran rapidly toward the boys, the boys, at the same time, spurring their horses to reach them. It was a fortunate circumstance that the shout which attracted the attention of the children also drew the attention of the bears to the boys, so that, instead of running directly to them, they stopped for a while as if hesitating which foe to approach, when the mother instinct led the she bear to rush toward her

cubs, thus giving the children an additional chance.

When the bears reached the cubs, they apparently made a hurried examination to see whether all was right, and then, again growling furiously, rushed toward the boys and the children.

“Now, Harry, we must not lose our nerve or get excited. Take good aim, for unless we kill at the first shot, we will have no time to shoot again, as they are coming straight toward us. Aim directly between the eyes. I will take the right hand bear, and you take the left hand one.”

By the time the boys had unslung their rifles, the bears were not more than forty feet from them. They coolly took aim, and both rifles rang out simultaneously, and the two boys were delighted to see that the bears were apparently killed at once.

“Don’t go near them,” said Harry. “They may be only playing ’possum; let’s stay where we are, ready to shoot again if they should move.”

But the bears had been killed almost instantly, and as soon as the boys were satisfied of this fact, they came up to the children, who had not gone very far, and stopped to see what was going on.

“What are you doing here, children?” said Ned. “What are your names?”

“Jessie and Jackie,” replied the boy.

“What are you doing here?”

“We’s going home. We have been out to pick some flowers for poor mamma, who is sick, and we got tired and went into that nice cave and slept. When we woke up and came out of the cave, we saw the pretty black pussy cats, and wanted to take them home to mamma, but they wouldn’t go, and then the big bears came and growled and ran at us. Then you came and killed them. I am glad you came and killed them. I like you,” said Jackie.

“So do I,” said Jessie, “I lub you.”

At this moment two men came riding furiously up to where they were standing and instantly jumping from their horses, ran up to the children and began kissing and hugging them.

“Thank God you are not hurt,” said one of the men. “You came pretty near never going home to mamma again with these ugly beasts around.”

Seeing that the children were safe, the man now turned to the boys :

“I don’t know who you are, strangers, but

from this day count Arizona Charlie as your friend."

"And Deadshot Dick, too," said his companion.

In the meanwhile, Deadshot Dick had been carefully examining the dead bears.

"Charlie," he said, pointing to the bullet marks, "right plunk between the eyes. Couldn't have shot better myself. Strangers," he added, "you've a right to be proud of them shots."

But Charlie was most interested in finding out who the boys were.

"Where did you come from, strangers? Glad you got here, for you saved the children."

"We are from the East, and are looking for the Martin ranch, where we expect to spend some time," said Ned.

As soon as Charlie heard this, he looked more and more surprised and exclaimed:

"Well, I'm plumb done up. You don't mean to say that you are the two tenderfoot kids from the East. We knew that two boys were coming, but we didn't know how old they were, and have been making all kinds of guesses as to their age. But if you are the tenderfoot kids, give me tenderfoot kids every time."

The rifle shots had been heard by most of the cowboys who had started out on the hunt, and they now appeared riding rapidly. When they saw the two dead bears and the two cubs, and the two strange boys, they were greatly amazed. But when they saw that both children were safe, they began shooting their pistols into the air to show their pleasure. Most of the men, jumping from their horses, ran to the children and commenced fondling them, while others, who could not get near enough to them, began performing an original pas-de-dux on the ground.

“Who killed the bears, you and Dick?” asked one of the cowboys.

“No, these two strangers,” said Charlie.

“Strangers,” said the men, crowding up to the boys, “shake. We will never forget it.”

“But who are they, Charlie?” asked the men. “Where did they come from? Strangers don’t drop from the clouds, even in Arizony.”

“No,” said Charlie, “but the best things come from Arizona, and sometimes very good things come to Arizona. Say men, here’s a go. These strangers are the two tenderfoot kids you have been chaffing Dick and me about so much.”

“Great Scott,” cried some of the men. “You

don't mean to tell us that, do you? Are those the fellows we called tenderfoot kids?"

The boys hardly knew how to take the warm greetings of the men, but warmly grasped the hands that were offered to them.

As the two handsome boys stood side by side receiving congratulations, it is no wonder that they made many warm friends among the cowboys. They were the picture of health, rather large for their age, and had a manly look that made them very attractive to the cowboys. Exposure to the sun on the many trips they had taken with Mr. Harrington in the field had so bronzed them, that there was an absence of that whitish countenance so common among those the cowboys called tenderfoot people.

"How shall I call you? What are your names?" enquired Charlie.

"This is Harry Maxwell of Massachusetts," answered Ned, "and I am Ned Cartwright, of New York City."

"Hurrah for the Massachusetts and New York lads," cried the men.

"Well," said Charlie, "we will call you Mr. Harry and Mr. Ned."

"Oh, no," said Harry, "call us Harry and Ned."

“No,” said Charlie, “we shall call you Mr. Harry and Mr. Ned. But let’s send word to the ranch. One of you men ride as fast as you can and let Mr. Martin know that the children are safe.”

## CHAPTER XIX

### HARRY AND NED REACH THE RANCH

AS the cowboys got ready to take the children and the boys to the ranch Charlie wished Harry and Ned to have the honor of carrying back the children, but the boys insisted that the two cowboys should do this. This determination evidently pleased all the men.

“Not stuck on themselves, like so many tenderfoots,” they said.

It was a strange procession that moved toward the ranch. First came Charlie and Dick riding abreast with the children mounted in front of them; then came Harry and Ned, also riding abreast. Then followed two men with the body of one of the bears slung between their horses, followed by two men carrying the other bear in a similar manner. Then came two men carrying the cubs, while the rest of the cowboys followed. While they were riding toward the ranch, Ned explained to Charlie that they were expecting to spend several weeks in Arizona, some of them on the ranch, but the



greater part of them on a camping trip. "We wish to find two guides thoroughly acquainted with the territory. If you and Dick would go with us, we should be fixed all right."

"Yes," said Harry, "I hope you will be willing to do this."

"Boys," replied Charlie, "I said just now that Arizona Charlie was your friend. Of course I'll go with you, and so will Dick; won't you?" he asked, turning to his chum.

"Sure," replied Dick.

"You can count on both of us," replied Charlie, "but boys, I will tell you the truth. Mr. Martin has already asked Dick and me to be your guides, and we have agreed to do so. We didn't altogether like the job at first, for we thought that you were the kind of lads that would be afraid to get your shoes dusty, would wear starched shirts, and were of a type of tenderfoots that we Western men don't like."

"Now I'll tell you a secret," said Ned. "We heard of both of you yesterday. Pete, the stage driver, to whom we told our plans, informed us that there were no better men on the ranch than Arizona Charlie and Deadshot Dick. Pete said that what Charlie don't know about horses is not worth knowing, and as to Dead-

shot Dick there was not another man in the territory who could equal him with the rifle or pistol."

"Pete did us proud. Yes, I will teach you all I can about horses. You ride fairly well now; I have been watching you; but there are lots of points that you will have to know before you can ride properly. I say, Dick, do you think you can make any kind of shots out of these boys?"

"Sure," said Dick. "Both shots right plunk between the eyes."

"But," said the boys, "we could not do that every time."

"No, neither could anybody else," said Dick. "Hard thing for any one to hit a bear running toward him, just where he wants to. But you did, right plunk between the eyes. Yes, I can make first-class shots of both of you, and I will, too."

This was said by the men to be one of the longest speeches that Dick had ever been known to make at one time, but he evidently was in earnest.

The messenger sent out by Charlie had reached the ranch long before, so that while the approaching party was still at some distance

they were met by Mr. Martin and a number of cowboys, who had returned to the ranch after their unsuccessful hunt for the children, for the purpose of making arrangements to be gone for several days if necessary.

The messenger sent by Charlie had only told Mr. Martin that the children were safe, when he, without waiting for other particulars, jumped on his horse and rode rapidly to meet the party. On seeing the children unharmed, he said :

“Thank God, they are safe. But who killed the bears, you, and Dick, Charlie?”

“No, Mr. Martin, it was these two lads,” said Charlie, pointing to Harry and Ned.

Mr. Martin grasped the boys warmly by the hand, and thanking them with great earnestness, said :

“Let me know the names of the strangers to whom I am so much indebted.”

“So you are fooled, too, Mr. Martin,” said Arizona Charlie. “You don’t recognize the boys from the East we’ve all been looking for.”

“Why,” said Mr. Martin, in a surprised tone, “I had the idea that you were very young boys. I welcome you to the ranch.”

Mr. Martin was continuing to thank them, when the boys broke in :

“Please don’t say anything more about it, Mr. Martin. Of course we are very glad to have rendered assistance to your children. It was not so much after all.”

“Don’t you believe him, Mr. Martin,” said Arizona Charlie. “Dick and I saw the whole thing from a distance. These lads risked their lives to save the children, for they placed themselves between the children and the bears, and coolly waited until the animals were quite near, and then shot them.”

It was an excited party of men that gathered around the supper table that night. Many witty sayings were passed around, especially by the men who had not taken part in chaffing Charlie and Dick on account of the work for which they had been selected.

It was during this meal that Mr. Martin made an announcement. “You must congratulate me, men,” he said, “for while you were away, Mrs. Martin presented me with twin boys.”

“Look here, boys,” said Charlie, “I have a proposition to make.”

“Out with it, Charlie, let’s have it,” cried the men.

“I propose that to-morrow afternoon we have a grand entertainment and celebration for the

rescue of the children, the arrival of the boys, and the birth of the twins."

"Agreed," said the men.

The buildings on Martin's ranch, like most other buildings in this part of the territory, were constructed of adobe or sun-dried bricks. When the right kind of clay and mortar are mixed together, shaped into the desired forms, and then dried in the sun, a material is obtained capable of lasting for years in the mild and fairly equable climate of this part of the territory. This is especially the case if the clay contains lime, and the water employed for tempering the clay contains, as does much of the water in the arid West, fairly large quantities of alkali.

Harry and Ned were assigned one of the rooms in the enclosure occupied by the men, Mr. Martin explaining that just at the present time, owing to his wife's sickness, he would not be able to offer them quarters in his own building. The boys found the rooms assigned to them much more comfortable than they had expected from the looks of things on the outside. There were two small, good beds in the room, in which they slept soundly after the exciting incidents of the day.

The next morning the boys were up bright

and early, taking a walk around looking at the buildings. They were especially attracted by the many beautiful horses they saw in the stables. They afterward went to the eating house, where the food for the men was being prepared by a Chinese cook. Then they sat down on a bench on the outside of the dining-room, waiting for the bell to ring for breakfast. While they were there, Jessie and Jackie came, and climbing up, the little girl in Harry's lap and the boy in Ned's, began talking to them. Harry asked them where their big black pussy cats were, when Jessie, opening her eyes wide with excitement, put her little mouth near Harry's ear, and said :

"Let me whisper in your ear ; while we were away yesterday some one brought two little fairy babies to our house. Papa is going to keep them for Jackie and me to play with, ain't he, Jackie ? "

"Yes," replied Jackie.

"And we don't want any big black pussy cats, do we ? "

"No," said Jackie. "We would rather have the little babies, and mamma says she is going to keep them for us."

"Hello," said Ned, "there goes the breakfast bell. I guess you are ready to eat, aren't you ? "

"Yes," said Jackie, "we are always ready to eat."

After breakfast, Mr. Martin read the boys Mr. Trevor's letter.

"This is very kind of Mr. Trevor," said the boys. "But we hesitate to accept these gifts from him."

"Guess you will have to take them," said Mr. Martin. "I am sure you would not like me to lose the sale of two of my best horses, would you? We will let Arizona Charlie make the selection for you. He will pick out for you the best horses we have."

When Mr. Martin told Arizona Charlie what he wanted him to do, Charlie was very much pleased.

"The best horses on the ranch? I will pick them out all right, and be glad to do it, for I am going to teach these boys all I know about horses, so I will get them the best mounts on the ranch that are for sale. Come, boys, let's go through the stables and look over all the horses. There are some fine animals here. You can't find better in the territory."

So they went through the stables, carefully looking at the horses, Charlie telling the boys how to recognize their good and bad points.

"I will choose no bronchos for you," said Charlie, "but only horses that are well broken in. I think I know two horses that will just suit your weight; horses that are both kind and smart."

He then had the two horses that he referred to brought out of the stalls, and jumping on one of them, and beckoning Dick, who was standing near, to get on the other, they rode them to and fro before the boys. The two horses were indeed beautiful animals, one a chestnut, and the other a handsome beast with a glossy coat as black as night.

"We will take the chestnut for the light haired lad, and the black for the dark fellow," said Charlie.

"That just suits me," said Harry.

"And me too," said Ned. "I wanted that black horse as soon as I saw him."

"Then you are both satisfied," said Charlie. "Now you boys get on, and Dick and I will take ours. I will give you your first lesson in riding."

Under Charlie's skilful teaching, the boys soon learned how to best manage their steeds. These horses had been trained, as is commonly done in the West, to stop at once when the rider



dismounted and threw the reins on the ground in a certain manner. It was not many days before both the animals and the boys became much attached to each other, the boys always taking care of their horses, both in feeding and in grooming them, so that the animals soon knew their voices, and would come running up to them as soon as they were called.

While the boys were out on their first ride, Arizona Charlie suggested that they name their horses so that they would be more likely to answer only to their call.

"Well," said Harry, "I will call my horse Arrow, because when he runs he moves like an arrow from a bow."

"And I," said Ned, "will call my horse Saladin, because he reminds me of a beautiful horse described by Sir Walter Scott in one of his novels."

Dick was very much pleased with the arms of the boys. He declared that they were the finest he had ever seen. He gave the boys daily lessons in shooting, at both stationary and moving targets. He taught them the trick of quickly drawing a bead on a moving object. For this purpose he would throw apples into the air, and the boys would try to hit them before they

touched the ground. At first this was too much for them, but they learned after a while to hit them occasionally provided they were thrown up high enough.

## CHAPTER XX

### THE COWBOYS' ENTERTAINMENT. ONE WEEK AT THE RANCH

THE entertainment proposed by Arizona Charlie in commemoration of the rescue of the children and the birth of the twins, was a great success. The cowboys entered into the affair with much enthusiasm, not only on Mr. Martin's account and by reason of their affection for the little children, but also because they wished to show some attention to Harry and Ned. They felt greatly mortified that they should have made the mistake of calling the boys "tenderfoot kids" and determined to give them a great time at their show.

Among other events, were horse races, between the best animals on the ranch. The boys were anxious to have Arrow and Saladin in the races, and asked Arizona Charlie to ride them.

"We won't ride them ourselves," they said to Charlie, "for we want the best got out of them, and we know that you can do it."

Charlie did this willingly, with the result

that the boys' horses won all the races they entered.

"Now, Charlie," said one of the men, "run your horse against either of these. I will back it up for you."

Charlie laughed, and winking at the men, said :

"Not this afternoon."

"Well, then," said the men, "let the chestnut and the black horses race."

This was done, the horses being ridden by two of the other men. The result was, that they crossed the line neck and neck, which, of course, pleased the boys very much.

There were many wonderful feats exhibited, showing the mastery the men had over their horses. They could do all kinds of curious things while on horseback, and could dismount and remount while the animals were running at full speed.

"Beats a circus all hollow," said Ned to Harry.

"Yes," replied Harry, "these are true cow-boys."

When it came to foot races, although some of the men were fleet runners, yet the cow-boys were much better on horseback than on

foot. Still they were much pleased at what they regarded as very swift running.

"You Eastern lads don't often see such running as this, do you?" said one of the cowboys to Harry.

"I don't know," replied Harry, laughing. "I think my friend here could give your best runners all they wanted."

"What's that?" said Arizona Charlie, overhearing the conversation. "Do you think, Mr. Harry, Mr. Ned can run as fast as these men?"

"Yes. I think Ned can run perhaps a little faster than your best men."

"Come now, Mr. Harry," remarked Charlie, "I wouldn't like Mr. Ned to run and be beaten, but still let's have the trial. If he is beaten it won't be much disgrace, for he is only a boy, while they are full grown men. But wouldn't I like to see these men beaten. They are too much stuck on themselves."

When the cowboys saw Ned getting ready for running, they were much amused. Some of them said to the men:

"You will give the lad a good handicap, won't you?"

"Yes," was the reply. "Anything he asks

within reason. It's a shame to put a lad against such runners as we are."

"Oh," said Ned, "I guess we will run even. What shall the race be? How about two miles?"

The men were surprised that the lad asked for so long a run, for most of the races they had been running were the quarter and half mile, the latter being the greatest distance tried. They spoke among themselves, and said :

"Let's give the lad the two mile run. He'll be blown long before the end. That distance is as much as we can do."

Ned who knew that he had his work cut out for him, did his best. The out-of-door life he had been leading during his Western trip had put him in magnificent condition. Five men besides Ned entered the race. As they started out, all except Ned ran at their full speed, and soon outdistanced him. On seeing this, the cowboys began chaffing Ned, saying :

"You may shoot b'ars, but you can't run with our men. Better give it up."

When the first quarter mile was reached, the distance between Ned and the poorest runner was so great that it didn't seem possible for him to win. He said nothing, however, but only

gradually increased his speed. The five men were pretty evenly matched, so that the distance between them was not very great. Every now and then one of these men would make a spurt and get ahead of the others, thus causing great excitement among the spectators, for each of the men had their backers in the crowd.

"Take it easy, Sam," cried one of the men.

"Don't blow yourself, Dave."

"Look out there, Al, the lad has not commenced to get blown yet. He will beat you if you don't look out."

For the next half mile the race was very exciting. Ned was gradually cutting down the lead of the other men, and the spectators seeing this, especially those who had placed money on the race, were becoming greatly excited.

"Come," they cried to the runners, "don't let a boy beat you. Brace up, there, for the honor of Arizona and the West. What will people say when they hear that a boy from the East beats a lot of men brought up on a ranch in Arizona?"

The competitors did their best, for the distance between them and Ned was becoming dangerously smaller and smaller, and at last, when

Ned reached the poorest of the runners and passed him, the excitement became intense. By the time he passed the mile and three-quarter post, Ned was running abreast of the fleetest of his competitors, but it was evident to the crowd that there was this great difference, that while Ned was quite fresh and was constantly increasing his speed, his competitor was about winded, so that by the time Ned passed the line, he was fully fifty yards ahead.

The sympathy of the cowboys, even of those who had lost their money on the race, was now all with Ned. It was a plucky race, and was beautifully won by Ned, who was evidently in such a condition that he could have continued for another mile without showing any marked distress.

"Three cheers for the New York lad," cried the cowboys, and excitedly crowded over the track around Ned, shooting their pistols in the air.

"Capital," said one of the men who had been watching the race. "You Eastern boys can give us points on running, sure. That's bully, the way you have of holding your strength till near the last. We do this with our horses, but haven't the sense to do it in a foot race."

"That's right," said the men who were beaten,



shaking the victor by the hand. "It was a fair beat. We won't forget in other long-distance races to run slow at first, and then faster and faster."

Arizona Charlie was delighted with Ned's success, because, as he said, it was about time these men had some of their conceit knocked out of them. Deadshot Dick said nothing, but merely expressed delight by grinning and shaking Ned by the hand.

The contestants now began wrestling, and no little skill was shown in this direction. There was especially one man, perhaps forty years of age, splendidly built, who succeeded in throwing all who were willing to meet him. At last, when all acknowledged his superiority, he was trying in vain to get some one else to wrestle with him.

"Come on," he said to the men, "don't get scared. I won't hurt you. I'll let you down easy."

"No," replied the men laughing. "You're the best man. No one here can touch you."

Ned now quietly went up to Arizona Charlie and whispered something in his ear.

"What's that?" said Charlie in surprise. "You think Mr. Harry would be able to throw

that man? Why he is at least sixty pounds heavier."

"I know that, but Harry is great at wrestling. He knows points about the game that may give the heavy man and all the rest of you a surprise."

After a little talk, Arizona Charlie suggested that the Massachusetts lad would try a fall with him. "Of course he only promises to do his best, for the odds are greatly against him," he added.

As we have already said, Harry was an excellent wrestler, and had greatly improved in this direction, since during his trip through the West he had almost daily wrestling matches with Ned, who acknowledged Harry's superiority. Besides this, Harry's life in the open air had put him in magnificent condition, so that when he stripped off his shirt and undershirt, and stepped up, the cowboys saw that he was in splendid condition.

"Peels well," they said. "No extra fat on that lad. But he has no show against so heavy a man."

Harry was so light in comparison to his opponent that the man thought he could soon settle the matter by gripping him and throwing him on his back, thus employing the advantage

of his weight against the lighter built lad. But Harry was too agile for this, and always slipped past when he attempted to grip him, until, carefully waiting his opportunity, he threw himself against the man, and pressing his knee against one of his ribs near the back, succeeded in so throwing him to the ground that both shoulders touched.

“A fair touch,” cried the referee. “The lad wins.”

The enthusiasm of the cowboys now passed all bounds. The men rushed into the space around the referee, raised not only Harry, but Ned also, on their shoulders, and marched around the ground with them. Arizona Charlie and Deadshot Dick were especially delighted with the results. Charlie was pleased because the big man had been bragging so much, or, as they put it, had sassed the other cowboys too much. But what especially pleased Charlie, was that the events of the last two days had placed the lads in so different a light before the cowboys. Both he and Dick were greatly attracted toward them, and were pleased to see how manly and sensible they were. It was clear to both that several weeks in camp with such boys would give them a splendid time.

The boys spent one week on the ranch very pleasantly. A few days after their arrival, Mr. Martin took them over to see Mrs. Martin, who had by this time been informed of the children's peril, and of their rescue by the boys.

"I am very grateful, boys, for the services you have rendered us," said Mrs. Martin. "Mr. Martin and I wish to name the twins after you, unless you object."

The boys assured her that on the contrary, they would feel themselves quite honored.

"Then," was the reply, "we will name this one, who is a little older than his brother, Edwin Cartwright Martin, and the other, Henry Maxwell Martin."

During the week, the boys took daily lessons in riding and shooting. The kindly feeling between the boys and their guides grew daily, so that Charlie and Dick were practically never seen except in the company of the boys. Mr. Martin permitted the men to give their entire time to the boys, since he knew that much remained to be done to make the necessary arrangements for the camping trip. As for the other cowboys, the more the boys saw of the men the better they liked them, and the same was

true of the men. They got to like the boys more and more every day.

"They are the kind of boys for me," said one of the men. "No nonsense about them. Take jokes good naturedly. Try to play tricks on them and see if you don't get left, for they are bright, those Eastern brought-up boys are. They know more tricks than we can teach them."

This last sentence was made because one night, as Ned and Harry were entering their room, they noticed that a bucket of water had been placed over the door.

"Look at that, Ned," said Harry, who was a close observer, and first noticed the bucket that had been so ingeniously placed that it would not be spilled until the door was opened sufficiently wide for them to be exactly under it. By partially opening the door, however, and slipping in, they were able to take the bucket down without spilling its contents.

"See here," said Harry, pointing to a piece of paper on the bucket. "Pretty bright fellow, but fooled himself," since the man who played the trick, wishing the boys to know from whom it came, had placed a piece of paper on it with straggling characters in lead pencil, "with Dave's compliments."

The boys recognized Dave as the greatest practical joker on the ranch.

"Let's return the compliment," said Harry, and listening at Dave's door they found that he had not yet come in from the outside and that his door was unlocked. Stealing in, they made the same arrangements with the bucket over Dave's door, only they replaced the piece of paper with another, on which was written, "Thanks, Dave; you may need it yourself. Harry and Ned." Then, in order to make the joke a better one, they passed the word on to the other men, and slipped into their room. In about ten minutes the noise of falling water and a roar of surprise were heard from Dave's room. Dave was a good natured fellow, and when he read the slip of paper on the bucket, he came into the boys' room, and laughing, said:

"That's a good one on me, boys. Shake."

Knowing the good time that could be had with such boys on a camping expedition, many of the men begged to be permitted to go. Charlie, however, at Mr. Martin's suggestion, who felt that he could not spare any more of the hands, told them that it would not be possible.

Most of the articles required for the camping

outfit were obtained on the ranch. It was necessary, however, to send to Phoenix for some of the things. At the suggestion of Deadshot Dick, they took with them a large supply of cartridges for both rifles and pistols.

"The only way of learning to shoot," he said, "is to shoot often."

At the suggestion of Charlie, the party left the ranch early in the morning, thus taking advantage of the cool morning hours.

Mr. Martin and some of the cowboys rode a short distance to see them on their way, and when good-byes were said, sat watching them as they rode away toward the north, Arizona Charlie and Deadshot Dick leading two pack horses carrying the camping utensils and supplies, and the boys following behind.

The boys who had agreed not to say anything to their guides about the lost gold mine until they got to know them better, merely told Arizona Charlie that they would like to wind up somewhere in the mountainous districts of the eastern part of Yavapai County near the headwaters of the Verde River. Charlie planned to locate their first camp on the flanks of the mountains near the point where the Salt and the Verde Rivers unite to form the Gila River.

The horses being fresh and the day cool, they moved rapidly for several hours, and then more slowly as the sun rose higher and higher in the heavens. The boys enjoyed the pure bracing air of the district, with its almost cloudless sky. Its marked dryness gives to the air a transparency which is almost unknown in the eastern part of the country. It is for this reason that Arizona forms the best camping country in the world, for here it is possible to comfortably sleep out in the open air with only the starlit dome of the heavens for one's canopy.

"This is the country for me," said Arizona Charlie. "People have a very wrong idea of the greater part of Arizona being a desert, and its atmosphere so hot as to make travel almost impossible except during the early parts of the day. I know the territory has its deserts, and that it does get tarnation hot in the middle of the day, but it is seldom too hot to travel from sunrise to sunset if one needs to."

The boys were especially interested in the remains of great aqueducts that had been built many, many years ago for the purpose of carrying the waters of the streams to different parts that had been cultivated by these early inhabitants.



"Who built these great canals and then let them fall to pieces?" asked Ned.

"That's too much for me," was the reply. "They were certainly not built by the Indians who live here now, nor were the Indians acquainted with the people who built them, for they say that their forefathers found them in ruins even when they first came into this section of the country."

"There is no doubt," said Harry, "from the way they have been built that the ancient people whoever they were, had made fair progress in engineering."

"Yes," said Charlie, "and when we come to the valley of the Verde River, I will show you other traces of this early people."

Toward noon, at Charlie's suggestion, instead of stopping to cook dinner, they lunched off some sandwiches brought from the ranch; this was done in order to permit them reaching their first camping place before sunset so as to fix up comfortably for the night.

## CHAPTER XXI

### THE CAMP-FIRE. INDIAN STORIES

A FULL hour before sunset the boys and their guides pitched their tent at the base of Mt. McDowell of the Superstition Range. The boys did their share toward putting up the tents, leading the animals to water at a near-by spring, and filling the pails with water to be employed for cooking, washing dishes, etc. They then sat down to rest for a few moments while the guides were preparing a simple supper. The boys, whose artistic tastes had been strongly developed, were especially pleased with the beautiful sunset. The sun was gradually sinking below the rugged peaks of the mountains. The western horizon was lighted with magnificent gold, orange, and crimson tints. The outlines of the mountains, wrapped in a haze of purple and violet, formed a magnificent picture, depicted against a background, in which the glowing clouds floated like islands on a silvery sea. The scene was too beautiful to interrupt by conversation, so the boys sat silently watching the almost kaleidoscopic changes of color that oc-

curred as the sun sank slowly further and further into the West. They even sat silently after the sun had disappeared and the stars began to come out. In the meanwhile, Charlie and Dick had built a fire in front of the tents.

Like most first nights in camp, no one wished to turn in, so they sat around the camp-fire until late, telling stories. The boys soon had Charlie spinning yarns concerning the early days in the territory when many of the settlers were barbarously murdered by the Indians, their houses burned, and their cattle stolen.

“In was in Yavapai County,” said Charlie, “the county lying north of where we are, that the Indian troubles first broke out. Here was waged a bloody war between the early settlers and the Indians. The fighting, however, was not limited to this particular county. On the contrary, it shortly afterward extended to practically all parts of the territory. When the white people first came into the territory hunting for gold, the Indians made no attempt to drive them away, although then they could easily have done so, since they then greatly outnumbered them. They permitted the whites to remain nearly a year in the territory unmolested, and

made no little money in supplying them with wood, which they cut down in the neighborhood and hauled into the mining camps, exchanging the money received for food and whiskey. The Indians were a treacherous, thieving people, and the whites had to keep close watch over their goods, since the Indians would hang around during the day time, professing friendship, but when they disappeared at night, some of the miners' goods, horses or cattle disappeared with them. The first white people were killed by a band of Tonto Apaches in March, 1864, who murdered three miners in Hassayampa Cañon. This same band shortly afterward killed five Mexicans. The hostilities thus commenced, continued for more than ten years, and an almost ceaseless guerilla warfare was waged between the Indians and the whites.

“At the beginning of the war the only weapons of the Apaches were their bows and arrows. It did not take them long, however, to discover the advantage of firearms, and since they always took the guns and rifles from the men they killed, they were soon able to arm themselves with these weapons, nor had they any difficulty in obtaining a plentiful supply of ammunition.”

“Have you any idea of how many were killed

during these different disturbances?" inquired Harry.

"I have heard," said Charlie, "that at least 1,000 Indians and 400 whites were killed."

"So the whites got the best of it?"

"Oh, yes. The whites always get the best of Indians in the long run; but the white people made the mistake of not following up their victories. After fighting they would permit the Indians to escape to the mountains, where they would rest awhile, and then again attack them. It was only after some particularly bloody act the devils would be guilty of, that bands of determined men would be formed, who would follow the Indians into their mountain fastnesses, where they would almost exterminate them."

"Were these wars waged continuously during the whole ten years, Charlie?" asked Ned.

"They were not fighting all the time," said Charlie. "Sometimes for months there would be no fighting. Indeed, in many cases the Indians did not seem to wish to kill the whites. They saw that it would be better for them to let them live, raise cattle and crops, when they would come and steal them. The Indians would sometimes say to the whites tauntingly :

“ ‘You raise cattle, and we take ’em. We no kill you ; let you raise more ; we come another time.’ ”

“ Have you ever killed an Indian, Charlie ? ” asked Harry.

“ No. ”

“ Have you, Dick ? ” again asked Harry.

“ Shall I tell them the story, Dick ? ” said Charlie, turning to his friend.

Dick nodded his head in the affirmative, and at the same time said :

“ I’ll get wood for the fire, ” at once leaving them, and going some distance from where they were sitting.

“ Boys, ” said Charlie, as soon as Dick was out of hearing, “ he has only gone off because he don’t want to hear the story I am going to tell you. ”

“ We would rather not hear it if it makes Dick feel badly, ” said the boys.

“ Oh, that’s all right, ” said Charlie. “ He don’t mind my telling you. He only don’t want to hear me tell it, for it is about something that happened when he was young, when his father, mother and little sister were murdered by a band of seven Apache Indians. Dick was then about the same age as you boys. The Indians sur-

prised the family at the supper table, killed the father, mother and sister, after having horribly tortured them. Dick was absent at the time. When he came home on his horse about two hours afterward, he found the cabin burning and the bodies of his father, mother and sister lying outside. The Indians had driven off the cattle, set fire to the cabin, and had even burned the crops of corn and wheat.

“Dick then made a vow that he would never rest until he had killed every one of the Indians who had committed this cruel deed. Mounting his horse, he rapidly followed their trail, which he could readily do, since they had made no efforts to conceal it. After an hour's ride, he saw their camp at a distance. Knowing the Indians' ways too well to ride direct to the camp, he tied his horse behind a clump of trees at a distance from it, and cautiously stole upon them. He found them lying on the ground in a stupid state, having gorged themselves on one of the cattle that they had slain and partially cooked. They were a bad looking crowd, even for Indians, and Dick, knowing that he might be killed the next moment, was desirous of picking out the three redskins who had murdered his people. These he soon distinguished by the bloody scalps

hanging in their belts. He took aim directly between the eyes of the Indian nearest him, and shot him dead. Before the others knew what had happened, Dick had drawn one of his revolvers, and had plunked the other two who had the scalps of his father and sister, directly between the eyes. You may recall the fact that when Dick examined the bears that you lads killed the other day, he remarked to me in a significant manner, 'Both shots right plunk between the eyes.' I knew what he was thinking of, but you did not."

"Yes," said the boys, "Dick made this remark on several occasions."

"By this time," continued Charlie, "the Indians had sprung to their feet, and rushed toward the spot where they had placed their guns. Dick had calculated on this, and had purposely placed himself between them and their arms, so that while they were coming toward him, he shot two others with his revolver, hitting both directly between the eyes. He had now accounted for five of the Indians. The remaining two, seeing that Dick stood between them and their guns, endeavored to reach the latter by running on either side of him. Seeing this, Dick ran to the place where the guns were, and facing



around shot each of them directly between the eyes.

“ Dick now returned sadly to the burned cabin, and calling on some of his neighbors to aid him, he buried his people.

“ From that time on, Dick was greatly feared by the Apaches, who called him ‘Shoots-Between-the-Eyes.’ This name we cowboys have shortened to Deadshot Dick. Dick is both feared and hated by the Apaches, and many attempts were made to murder him by stealing on him unawares. But he was too well acquainted with their tricks. During the early wars he spent his time with the different parties that were formed to fight them. I have been told that during these wars Dick killed no less than fifty, every one of whom he shot directly between the eyes.”

“ How was this bloody war finally settled ? ” asked Ned.

“ Well,” said Charlie, “ I suppose the worst of it may be regarded as having been over early in the Seventies. About this time some especially bloodthirsty murders were committed by the Redskins. Popular feeling was so aroused that in 1871, the United States Government was finally induced to order General George Crook to

begin a regular campaign against them. Crook had the good sense to engage as scouts a number of Hualapi warriors, the ancient enemies of the Apaches. Bands of citizens in different parts of the territory coöperated with this movement, and after a series of engagements, the Apaches sued for peace. They have since that time been distributed among different Indian reservations."

"But there have been outbreaks since that time, have there not?" inquired Ned.

"Yes, Mr. Ned, one of the most bloodthirsty of the Apaches was Geronimo, Chief of the Warm Spring Indians, who had settled in the fertile lands of the Warm Spring Valley in New Mexico. Some greedy whites persuaded the Department of the Interior of the United States Government to send the Indians to a worthless reservation elsewhere, in this way the whites getting the better territory. This injustice resulted in the renewal of difficulties. Geronimo, a treacherous, cruel, and unreliable Indian, displayed great ability as a leader, and spread terror over the southwestern parts of the territory. He was defeated on several occasions, and made a number of treaties, none of which he kept. In May, 1885, he left the reservation on which he had been placed, and again went on the

war path. After a prolonged and difficult pursuit, he was finally defeated and again captured by the United States troops under General Miles."

"Was Geronimo killed?" inquired Ned.

"No, I believe he is living yet."

The boys were still sitting around the fire when Deadshot Dick came back and took his seat. The boys did not say anything to him, but looking him in the face, they silently grasped his hand.

Dick knew what they meant, and said:

"Thank'ee, boys."

The boys remained sitting around the fire after Charlie had finished. They were thinking of the many stories they had heard and of the barbarous deeds of the Indians, but particularly about the story of Deadshot Dick's early life. While they were gazing at the wonderful view of the heavens, with its thousands of bright stars, the sky as usual being entirely free from clouds except near the horizon, a bright meteor passed rapidly across the sky, leaving behind it a trail of fire. They watched it a few seconds, when it burst like a rocket, scattering fiery particles in all directions.

"Look at that magnificent meteor," said

Harry. "Have you ever seen as large a meteor, Ned?"

"Never," said Ned.

"I have seen them almost as bright," said Charlie. "The air here is so dry that we can see such things much better than if the air was filled with moisture, as I imagine it is in the part of the country from which you come. But it is late and we must be off early in the morning, so let's turn in."

They saw that their horses were carefully tied up, and that everything was right about the camp. They then turned in, and were soon in a deep sleep.

## CHAPTER XXII

### A CAMP BREAKFAST. PREHISTORIC RACES

ALTHOUGH the sun was only just above the eastern horizon when the boys awoke, yet they found that the guides had been up at least an hour, making preparations for breakfast. Dick was tending a pot, from which pleasant odors came, and Charlie was standing near another pot which was bubbling merrily, and emitting sounds musical to a hungry ear.

“What are you going to give us for breakfast?” asked the boys.

“I am going to give you floppers,” said Charlie.

“And what are you going to give us, Dick?” asked Harry.

“California strawberries,” was the reply.

“Oh,” said Ned, laughing, “I don’t believe you have any strawberries here. But tell us what you mean. You begin, Charlie. What do you mean by a flopper?”

“Watch and see me make one,” said Charlie, “and then you will know.”

Charlie placed a pint of flour and a pint of corn meal in a pan, and then added salt and baking powder, together with some water, and beat the ingredients into a fairly stiff batter. Then placing some lard in an iron pan provided with a long handle, he put the pan on some glowing embers from the fire, and poured in enough of the batter to cover the bottom to the thickness of about a quarter of an inch. The heat caused the batter to rise rapidly, until it was nearly half an inch in thickness. As soon as Charlie thought the cake was done on one side, he seized hold of the long handle of the pan, and dexterously threw the cake up into the air with a twist that made it turn over in falling. It did not, however, fall to the ground, for Charlie so held the pan under it, that it came down with the uncooked side downward. It had been cooked to a delicious brown.

“That’s what I call a flopover. Some people call it a flip-flop or a flapjack.”

“Now, Dick,” said Ned, “trot out those California strawberries. I am afraid you are trying to fool us, for you don’t have strawberries in the middle of July, on the side of a mountain.”

Dick seemed very much pleased at the re-

mark. He contented himself with pointing to an iron pot that was bubbling on the fire, and said :

“There they are.”

“Strawberries boiling in that pot. You are certainly jollying us.”

Dick did not say anything, but removing the lid from the pot, he showed the boys a well baked pot of beans.

“He put them on the fire last night,” said Charlie, “before he went to bed, and began boiling them again this morning.”

“Well, this is jolly,” said Harry. “Arizona baked beans. If they taste as good as they look and smell, they will be all right.”

The floppers were served by Charlie with a kind of maple syrup prepared by dissolving a lump of maple sugar in a small quantity of water. They were so good that the entire baking disappeared, and the boys persuaded Charlie to prepare a second batch, which followed the same course as the first. It is needless to say that their first camp breakfast was greatly enjoyed by all.

During the next two weeks they travelled comfortably through portions of the northeastern part of Maricopa County, and through Gila

County and Yavapai County. They were having a splendid time. The weather continued clear, the skies generally being cloudless, except small banks of clouds that frequently accumulated in the western sky toward sunset, and disappeared shortly after the rising of the sun the next day. The out-of-door life was adding to the already splendid health of the boys.

During the movements of the camping party from place to place, Harry had plenty of opportunities for prospecting on his own account. In this he was ably seconded by Ned, who had, since his acquaintance with Harry and Mr. Harrington, developed quite a taste in this direction. During their western trip, thanks to the constant instructions of Mr. Harrington, the two boys had made considerable progress in mineralogy and in prospecting generally. Both had learned to recognize the various indications of mineral veins or lodes. They had also taken frequent lessons whenever the opportunities afforded of using the pan for separating the gold from the placer sands and gravels. Especially while on the camping trip, they always panned the sands in the creeks and rivers, and had in this manner obtained some small nuggets and a sufficient quantity of placer gold to make



a fair specimen. This work, however, was mainly undertaken for the purpose of acquiring skill in the use of the pan.

In going from one part of the territory to another, they passed through a number of cacti deserts, or stony tracts covered with cacti growths in many curious and grotesque forms. One of perhaps the most conspicuous of these, the sahuaro, resembles a clumsy tree that sometimes reaches the height of at least forty feet, with trunks of a thickness greater than the body of a full grown man. The sahuaro bears a flower that produces a pear-shaped fruit highly prized both by Mexicans and Indians.

Charlie and Dick showed the boys several other species of cactus plants, which also produced palatable fruit. One of these, called the napal or prickly pear, bears a fruit called the tuna, that possesses a sweet, agreeable taste. The prickly pear grows from four to six feet in height, and is provided with thick fleshy leaves. These leaves when quite young, are cooked and eaten by the Indians. Their taste is not unlike that of a young string bean.

Still another fruit bearing form is called the grape cactus. This plant attains a height of from four to six feet. It has received its name

from the fruit, that closely resembles bunches of grapes.

Another curious cactus is that called the bisnaga, or the well of the desert. It is cylindrical in shape, and like all cacti, is covered with spines or thorns. The plant has at its centre a bowl-shaped cavity filled with good drinking water.

But perhaps one of the most valuable vegetable products of the cactus family is the mescal or maguey. This variety of cactus grows on the foothills and high plateaus in Arizona, and sometimes on the sides of the mountains. It is cultivated in Mexico for the production of an intoxicating drink called mescal, containing a large percentage of alcohol. The fibres of the plant are employed by the Mexicans for the manufacture of coarse paper and rough cloth. The maguey plant assumes a form not unlike that of the head of a cabbage, the head being surrounded by long, stiff, pointed, fleshy, green leaves, the edges of which are covered with sharp thorns. A slender rod or pole grows out of the head, reaching a height of from eight to twelve feet. At the top of this pole there are numerous short branches, that bear small cup-shaped flowers. These flowers, when in full bloom, contain

a syrupy nectar or honey that possesses a strong, sweet taste.

One morning, as they were breaking up camp after an early breakfast, Charlie told the boys that the valley in which they then were, like nearly all the valleys in the territory through which a fairly large stream of water flowed, was once densely inhabited by the ancient people, who built the reservoirs, the ruins of which they had been examining.

"How do you know that, Charlie?" asked Ned.

"Well, to begin with, from the number of their houses, some of which I hope to show you to-day. Then again, from the many pieces of pottery, and sometimes even the skeletons of the ancient people themselves that are turned by plows of the present cultivators of the soil."

"Where did these people come from?" asked Ned.

"You have me there, Mr. Ned," replied Charlie. "The Indians know nothing of these ancient people. They say that when their forefathers came to the territory, the old houses were in ruins. I have asked many white people the same question, but they have been unable to tell me where the people came from or why they

disappeared. Mr. Harry, you read a great deal, have you ever read anything about these people?"

"As far as I have read," replied Harry, "it does not appear that much is known about them. That they belonged to a very old race is proved by the fact that no metallic objects are found in the remains of their houses."

Throughout different parts of the valley of the Salt and the Verde Rivers, especially in the latter, the evidences the boys saw of these ancient people were very clear. In some places the remains of stone dwellings were to be found located on elevated tablelands. In other places fortifications had been built, not of adobe, but of stone, the separate stones being firmly bound together by an excellent cement.

The ancient cliff dwellings, that are to be found in nearly all the cañons of the Verde River and its tributaries, were of great interest to the boys. The deep gorges or cañons the streams had slowly made through the rocky strata, permitted one standing on one edge of the cañon to readily see on the opposite wall successive layers or strata belonging to the different formations.

It was the precipitous walls of such cañons that the ancient people had chosen for the sites

of their houses or cities of refuge. Availing themselves of the partial excavations between the harder layers of rock, they had enlarged the cavernous spaces by cutting directly into the soft rock. In some places they had cut through the harder sheets of rocks to the next line of caves, thus connecting one row of houses with another row directly below. The open faces of the caves or excavations were not, however, left unprotected, but were closed by walls of well dressed stone, carefully cemented together. Windows were left in these walls, both for the purpose of observation, as well as for ventilation. At all places where the wall of the cliff was readily accessible, walls had been built so as to shut it off from approach, and at many of these places structures had been erected in order to prevent the passage of an enemy.

The cliff houses had evidently been built for the purpose of protecting the people when obliged to flee when their enemies suddenly appeared in the valleys they were cultivating. Who these marauders were, and from where they came, however, is as unknown as the people themselves.

In many cases the inhabitants reached their cliff dwellings by secret passages from above. In

other cases the houses were reached by rope ladders that were drawn up as soon as the people had reached the ledge on which the houses were built. In still other cases, access appears to have been had by means of stairs or steps cut in the face of the cliff although the wearing of the rocks had obliterated all traces of this means of access.

## CHAPTER XXIII

### A CLOUDBURST IN THE CANON

THE examination of the old cliff houses was extremely fascinating to the boys. There was so much mystery about the habits of the ancient people, who had lived in these houses, the uncertain character of their foes, and the causes that finally led to their utter extermination, that greatly appealed to their imagination.

It was on the same day that Charlie had promised to show the boys some of the remains of the cliff dwellers that they made a careful examination of these old houses. In the greater number of cases, they were only successful, after an exceedingly fatiguing climb, in reaching the rocky ledge on which the walls of the houses were placed. Had not Charlie known the paths leading up the cliffs, he having visited these places on other occasions, they would in many cases have missed them altogether.

The boys and their guides were looking out of the windows of a cliff house, about five hundred feet below the top of the cañon, and some two hundred feet above the bed of the stream.

By reason of a bend in the cañon at this point, they could readily see the stream of water flowing through the bottom of the cañon. The path down to within forty feet of the bed of the stream appeared to be an easy one. They had become heated by the hard climbing, and the distant water looked very tempting to the boys, so they persuaded Charlie to go down with them to the bed of the stream for a bath.

"All right," said Charlie. "Dick, you go back and see to the horses, and then come and meet us here again, if you care to do so."

"I'll come back here," said Dick, "and bring a bite for you to eat."

"Do," said Charlie. "We shall be hungry after our bath."

The boys took off their coats and left them in the cliff house. The climb down the cañon did not prove to be a difficult matter, except near the lower part, but with some little care, they succeeded in safely reaching the bed of the stream, and were all soon in the water enjoying a bath. There was not much water in the stream, yet there were a number of pools where it was deep enough for a capital bath, and some places of sufficient length for a swim of several hundred feet.



Charlie was an indifferent swimmer, since the opportunities for learning to swim in Arizona were not very many. He was, however, very much pleased with the skill the boys exhibited in the water.

“ You swim like ducks,” he said.

They swam and walked along the bottom of the gorge for a mile or more, and were so much interested in studying the different features of the exposed rocks, and in swimming or wading in the different pools, that they failed to notice that the sky had begun to cloud up until their attention was called to the coming change in the weather by a peal of distant thunder.

“ It’s going to rain,” said Ned.

“ Let it rain,” said Harry, “ it won’t hurt us to get wet.”

But a look at Charlie’s face at once reminded both boys of a fact of which they had been fully aware, only they had not considered it, that they had exposed themselves to a very great danger should a heavy rain or cloudburst visit the upper valley of the stream.

“ Quick, boys,” said Charlie, starting to run back in the direction from which they had come. “ Let’s get out of this as soon as possible. We are in great danger. We must reach the

point we entered the water. It's the only place at which we can climb out of the cañon, for where we are, the walls are nearly vertical."

The boys now fully realizing their danger, ran with Charlie rapidly toward the place they had entered the water. That a cloudburst had occurred in the upper valley and that a large quantity of water was rapidly being poured into the cañon from above could be told by a dull roaring sound that came from apparently many miles up the cañon as well as by the rapid rising of the water. Charlie, who was an excellent runner, probably one of the best on the ranch, although he had not gone into the races, could easily keep pace with the boys at their most rapid rate up the cañon. It was some time before they came near the point at which they had entered the water. While they were still some distance from it, the force of the water in the stream so increased that Charlie, stumbling, was swept off his feet, and carried a considerable distance down the stream. The boys turned and found him trying apparently vainly to reach the side of the cañon, the water still sweeping him down.

"Don't wait for me, boys," said Charlie. "Run on; I will do what I can to save myself."

The boys said nothing, but jumping into the stream, soon reached him, but it was only after repeated efforts that they succeeded in getting him to one side, where the water was shallower, and again struggled up the stream toward the path up the side of the cañon. They were greatly retarded by Charlie, who was so exhausted by his fall and struggle, during a part of which time his head had been repeatedly under water, that they were compelled to drag him along.

As they came in view of the path up the side of the cliff, they were rejoiced to see Dick standing on a projecting rock about forty feet above the water, with a lasso in his hand.

When Dick reached the tent shortly after the boys descended into the stream, he saw the coming cloudburst, and knowing the great danger to which they were exposed, had taken with him a couple of lassoes and rapidly descended to the point where the boys saw him. At first he felt disposed to run down the stream to meet them, but he reasoned with himself that he could render them much more efficient aid by remaining where he was than by joining them. He had not been there long when he saw them running toward him. As soon as they came up, he lowered a lasso and quickly pulled one up after the other.

Charlie was the first, and Harry the last one up. He had insisted on the others going first. The three were soon safely standing alongside of Dick, far above the raging water, but just at this moment, Harry stumbled and fell backward into the stream, that carried him some distance away. He was apparently stunned by the fall. Without hesitating a moment, Ned sprang in after him, and after considerable difficulty, succeeded in bringing him to a shallower part of the stream. The water was now rising so rapidly, that he was unable to make any headway against it. The danger to which the boys were now exposed was great. As Charlie afterward said to them, he never expected that they would come out of it alive.

Ned had nearly exhausted himself in the efforts made in saving Harry and reaching the side of the cañon, and Harry was still partially unconscious from the blow received in falling into the water.

“Hold on, Mr. Ned,” shouted Charlie, “don’t give up. Dick and I will be able to reach you with a lasso.”

The first throw was unsuccessful, for the length of the lasso was too short. Quickly tying the two together, Dick, who was much the

stronger man of the two, took them, and with a single throw succeeded in landing the end of the longer line in Ned's hand. Still grasping Harry around the waist, Ned fastened the end of the noose under his arms. It was as much as both of the cowboys could do by their united strength to pull the boys up against the swiftly rushing stream, but at last they succeeded, and the boys were again safely landed on the ledge of rock. The waters were now rising so rapidly that had they remained for another half minute in the water, it would have been impossible to have saved them. The lengthened lasso had reached them at the last moment at which it would have been of any use.

It was some little time before either of the boys had thoroughly regained consciousness, for, in being pulled through the water they were both nearly drowned, but in less than five minutes they were in such condition that, with the help of the men, they reached a safer level, and before long they were again safely inside of the cliff dwelling about two hundred feet above the stream and out of all danger.

Although still undressed, yet the sight from the window was so grand that they could not resist standing and beholding it. The cloudburst

had evidently been one of unusual severity. In an almost incredibly short time the waters had risen in the cañon until they reached a height, as nearly as they could estimate, of over forty feet. This great mass of water came rushing down the cañon with a roar that nearly deadened the constant peals of thunder that followed the lightning flashes, for a cloudburst is, in reality, only a species of local thunder-storm.

"That was a close shave, boys," said Charlie.

"It was indeed," said the boys. "Dick, you have saved both our lives," grasping him warmly by the hand.

"And you saved mine, my lads," said Charlie.

The rapid flow of so much water through the narrow gorge produced a furious wind, that went howling down the cañon along with the water, so that had they not been within the shelter of the wall they might have been blown down it. But within the vantage ground of the windows at the cliff house, they could safely observe the raging of the tempest without, and hear the roaring of the rushing waters. The storm had, by this time, reached that portion of the cañon, and a very heavy rain was now falling. The boys could readily understand, from the great volume of water that was rushing down the

cañon, how the loose rocks which they had seen in the bed of the stream while swimming, could, under the mighty force of the rushing waters, cut out and deepen the channel of the stream. They could almost imagine that they heard the cutting and grinding above the roar of the tempest and the rush of the flowing waters, but this was improbable.

The cloudburst was soon over, the clouds disappearing as the sun came out. It was only a comparatively short time afterward, that the water had gone down considerably in the cañon, although it was still at a much higher point than its ordinary level.

As soon as they had eaten the little bite that Dick had brought them, they made their way back to the place where the horses had been left.

Like all camping parties, they had not brought more than a single suit of clothes. However, they were able to make out fairly well, even in replacing their sombreros by small caps that they had brought with them.

“Talk about getting tanned,” said Ned. “It won’t take long to get on a good coat of tan with these caps.”

Their greatest difficulty, however, was to provide shoes. Fortunately, they had each brought

with them a pair of heavy lace shoes made of thick leather, that came up half way to the knees. These shoes were very serviceable in wading through water or snow, or in walking over marshy land, but in other respects they were heavy and awkward.



## CHAPTER XXIV

### FURTHER EXPLORATION OF THE CLIFF DWELLINGS

AS the day was more than half spent, they determined to remain where they were over night, and to devote the rest of the day to further explorations of the old cliff dwellings and reservoirs.

Several miles further up the cañon, they found, in a little side valley, the ruins of an ancient reservoir. Here the widening of the valley had formed the site of a natural storage basin, that only needed for its completion the building of a stone dam across a point where the mountains on either side came so close together as not to leave much more than a passageway for the stream between them. In this way the ancient people had been able to obtain a reservoir several miles in length and three-fourths of a mile wide at its broadest part. The ravages of time had removed most of the heavy stone masonry that had been employed for damming up the stream. Sufficient, however, was left to show that the ancient builders had acquired considerable skill in building stone walls and hewing large blocks

of stone; for in many cases stones of large size had been well shaped and neatly cemented together. The general direction of the main canal connected with this reservoir could be clearly traced across the gentle sloping plain. Their attention was especially attracted by a small canal that tapped the main canal at a distance of about a quarter of a mile from where it joined the reservoir. This branch canal was much smaller than the other, and apparently led directly to a point near the edge of the cañon.

“Let’s follow this little canal and see where it leads,” said Harry.

Enough remained to permit them to follow it until it disappeared a few hundred yards from the edge of the cañon. On looking more closely, however, they found, at one point on the side of the branch canal, a small pipe made of burnt clay, that had evidently been originally placed below the surface, but was here and there exposed, so that, after some little difficulty, they followed it, and found it to stop at the opening in the ground that was evidently the mouth of a cave.

“It looks,” said Harry, “as if this pipe had been purposely buried by the ancient people in order to hide it from their enemies, and that it

was used for supplying some of the houses with water. We will try to find these houses."

A careful search resulted in the discovery at the point where the pipe suddenly stopped, an opening of sufficient size to permit the entrance of a man.

"Let's go in," said Harry.

"All right," said Charlie, "but I must first fasten the end of my lasso around your body, Mr. Harry, and Dick will do the same thing for Mr. Ned, and then we can stop you, should you slip in going down."

They had brought some candles and a small lantern with them for use in exploring the cliff dwellings. Lighting one of the candles, they placed it in the lantern, and leaning over, lowered it down the opening. A draught of air was evidently blowing up the opening, for the candle in the lantern flared somewhat as it was exposed to the draught.

"See," said Ned. "There is an opening below through which the air comes."

"Yes," said Charlie, "this cave is probably connected with openings in the side of the canon. I think we will find a cliff house here. But let's first see how deep it is," and then he let a fairly large stone fall down the opening. They

could hear it rolling down the sides of the incline, for about a minute when it apparently stopped.

Charlie then tied the lantern to the end of one of the lassoes, and let it down through the opening. By its dim light they could faintly see a gentle incline, down which they could readily go with safety. Harry, therefore, carefully descended with one end of one of the lassoes fixed under his arms. As he did so, he could see rough stone steps cut into the side of the cave.

It was fortunate that the precaution had been taken, for Harry, had not gone far before he slipped. His motion, however, was soon checked by Charlie, and in a little while the whole party had safely reached the bottom of the cave.

The floor of the cave was approximately circular in shape, and measured about 200 feet across. Looking up, they could see the opening through which they had come at a distance of perhaps seventy-five feet above them.

“Look,” said Harry, pointing to several large stone reservoirs covered on the inside with cement. “Here is where the water led in by the earthenware pipe was stored.”

“Yes, and here are some of the pieces of pipe

themselves that led the water into the cave," replied Ned, pointing to some short pieces of pipe that still adhered to the sloping wall in which the steps had been cut.

"But where did the people live for whom this supply of water was provided?" said Harry. "There must be a passageway from the cave into some of the cliff houses. You remember that the cave is near the edge of the cliff. From the size of these reservoirs it would seem that a great number of people had their homes located in this part of the cañon."

An examination of the cave showed a number of openings that had been dug in the softer portions of the rock forming the walls of the cave, apparently for the purpose of storing provisions, etc. Nothing, however, was found in them, except a number of pieces of rude pottery on the floor of the cave. They were about giving up further search when in one of the corners of the cave they discovered an opening that had been dug out of the solid rock, of such size that it could only be entered by crawling on the hands and knees. On holding a lighted match at the opening, the flame was blown into the cave, showing that the opening communicated with either the outer air, or with the air from another

and larger cave. Ned, who discovered the opening, first crawled through it, followed by Harry, and afterward by Charlie and Dick. The length of the passage was about twelve feet. When they emerged at the other end, they found themselves in a large, well lighted room, provided with four windows through which they could look down to the cañon below. In this case, the opening to the cave had evidently been employed for the entrance to this set of cliff houses.

“It would be impossible for an enemy to enter the houses through this opening,” said Harry, “even if they succeeded in finding the entrance to the cave; for one man with a club, or heavy stone, could readily stop any number of men as they were crawling through the long passageway.”

The cliff house, into which they had in this manner found an entrance, was situated on the side of the cañon near the top of the cliff. It was far better constructed than any of the houses that they had previously examined. The room was well lighted by four windows. The floor was provided with a covering of roughly dressed oak boards, laid on the upper surface of the ledge on which the house had been

constructed. Although these boards had been in the cliff house for possibly thousands of years, yet they were still in fairly good condition, having been preserved by reason of the dry air of the territory.

By climbing out of one of the windows, and walking carefully along the sides of the precipitous ledge on which the front of the cliff rooms were supported, they discovered some fifteen or twenty other cliff houses, which they entered by climbing in at the windows.

In a corner of one of these houses they found stone stairs leading down to a row of houses immediately below them. These houses were built in the same general style as the upper row, the two rows evidently forming the dwellings of a single community. One was so much larger than any of the others that it presumably belonged to the chief man of the community. This house contained no less than six windows, and the walls, unlike those in the other houses, had been covered with a kind of plaster formed by mixtures of yellow and red clay. Here some rude attempts had been made at ornamentation.

In nearly all the houses, smaller caves or rooms had been dug out of the sandstone on the

side facing the windows. As in the cave dwelling first visited, the access could only be had to these rooms by crawling through openings near the floor. Besides the entrances below they were all provided with small openings near the top for the admission of air and light.

At various points on the bluff or ledge on which the front walls of the houses had been erected they found the ruins of high towers, probably employed as lookout or signal stations, from which sentinels might readily give warning of the approach of an enemy.

In one of the many small rooms that were cut into the back wall were found several specimens of rich gold ore, clearly indicating that the people living in the cliff houses were miners as well as agriculturists.



## CHAPTER XXV

### THE RATTLESNAKE BITE. THE BURNING OF THE TENTS

**D**URING the next three or four days, they moved slowly toward the headwaters of the Verde River. One night while the boys were lying in their tents wrapped up in their blankets, Ned said to his companion,

“We can't be very far now from Dead Man's Gulch. Do you know where it is situated?”

“Not exactly, but from the letters the smelting people sent to mother, I know that it is in the mountainous district near the headwaters of the Dragoon Fork of the Verde River.”

“Have you said anything to Charlie and Dick about our intention of visiting this section of the territory?”

“No,” said Harry. “I was careful before we started to see that the route chosen would lead us into the neighborhood of the headwaters of the Verde River. You remember we concluded it would be best not to say anything to the guides until we come to know them

better. But I think we had better tell them tomorrow."

The next morning, shortly after breaking up their camp, the party reached another fork of the Verde River. Charlie told them that it was the Dragoon Fork of the Verde River; that he intended to follow the fork up into the mountain district, where he felt sure he could offer them some good hunting. But at the same time he said he could readily follow the main stream should they prefer to do so. This gave Harry the opportunity he desired, so he said:

"On the contrary, Charlie, the route up the Dragoon Fork is the one that I particularly wish to take. Have either you or Dick ever heard of a place near the headwaters of this branch, known as Dead Man's Gulch?"

"Yes, I know the place very well. It is a gulch that has been formed by a small tributary of the Dragoon Fork."

"Have you ever heard, Charlie, how that gulch received its name?"

"Yes, I understand that it took its name from a miner who died there some ten or eleven years ago."

"Charlie, that miner was my father. Now that we are in that portion of the territory, I am

anxious to visit this gulch and have a talk with an old Apache Indian named See-in-the-Dark, in whose tent my father died."

"Why, I know two prospectors in that region, Jim Gleason and Bill O'Reilly," added Dick.

"When did you hear of them, Dick?" asked Charlie. "I know you have been on the Martin ranch for two or three years."

"A miner who visited the ranch several months ago told me."

"Did the miner tell you where their camp was situated?"

"Yes," said Dick, "near the headwaters of the Dragoon Fork."

"Then, boys, we will go there," said Charlie. "Dead Man's Gulch is only three or four days' easy traveling from here, and we can have lots of fun during this time, for we need not hurry, and I am quite sure we can find some good hunting, for there are still to be found in the mountains through which we will be traveling some blacktail deer, and occasionally a puma or mountain lion."

Dick then told them that the miner who visited the ranch said that Jim Gleason and Bill O'Reilly had found some rich specimens of ore in the neighborhood of their camp in Dead Man's

Gulch, and that afterward See-in-the-Dark had brought to them other specimens of the same ore which he said Harry's father had with him the day he died. Convinced that the lost gold mine was in the neighborhood, Gleason and O'Reilly had been trying during the past two or three months to find the mine.

"And have you heard," asked Harry, anxiously, "whether they were successful?"

Dick told him that he believed the men had poor success. That they were nearly dead broke then, and found it very difficult to continue.

"Well, then, Charlie," said Harry, "we should like especially to pitch our camp for a week or so in Dead Man's Gulch, and see whether we can have any luck in finding the lost gold mine."

"We will certainly go there," said Charlie, "and we will help you hunt for the mine, won't we, Dick?"

"Sure," said Dick.

"And we won't ask for any shares, will we?"

"Certainly not."

That same evening, while Charlie was putting up the tents, the boys had taken their guns and gone away, hoping to kill some small game for supper, and Dick had gone off to get some wood for the fire. As he stopped to pick up some

small pieces of wood, a large rattlesnake bit him in the hand. Dick killed the snake with his axe, and then, tightly pressing the wrist of the bitten hand with the other, ran back to camp.

“Quick, Charlie, a glass of whiskey. Bit square on the thumb by a big rattlesnake. Struck full. Beginning to feel bad.”

Charlie gave Dick a drink of whiskey, and at once applied all the knowledge he had on snake bites, which was no little, such as tying a cord around Dick's wrist above the bite, and following some other practices that were common among the cowboys and miners. But none of his remedies were of avail, and the poison commenced to tell seriously on Dick. At this time the boys returned.

“Good-bye, Mr. Ned. Good-bye, Mr. Harry. Guess it's all up with me,” said Dick.

“He was bitten by a big rattlesnake, almost five minutes ago,” added Charlie, “and the poison is beginning to work. I can't do anything for him. Do you boys know anything to do?”

“Don't worry, Dick,” said Harry. “I think we can fix you up all right even now, though I wish we had been here sooner.”

Ned at once applied his lips to the wound, and

commenced sucking out the poison. Dick at once begged him not to do this, lest he poison himself, but Ned said he would take the risk.

Harry tightened the ligature that Charlie had made around the wrist, and then, heating his penknife at the fire and carefully wiping it off afterward, cut out a small portion of the flesh around the wound, the red hot knife serving also to cauterize the wound.

When the boys finished this work, Harry asked Ned to get ready the hypodermic syringe that he always carried in the pocket of his coat.

“Yes,” said Ned. “Fortunately, we took our coats off that time we went in swimming in the cañon, or we would have lost the syringes with our other clothes.”

So Ned got the instrument, and rapidly began to make a solution of permanganate of potash. While he was doing this, Harry took some crystals of the permanganate of potash and applied them directly to the surface of the wound, rubbing them in.

“It will sting a little, Dick,” he said.

In a few moments Ned had the syringe ready, and began to squirt the solution into the tissues around the wound.

“Now, Dick,” said Harry, “I believe you can

consider yourself entirely safe. This stuff we have rubbed and injected into the wound will kill the poison of the snake."

No fatal results followed Dick's bite. At Harry's request, Charlie gave him small doses of whiskey occasionally. In a little while his heart action became more and more normal, so that in a few hours he was quite himself again.

"Boys," said Dick, "you have saved my life."

"Well," replied the boys, "that is only doing what you did the other day when you pulled us all out of the cañon. If you hadn't done so we would have been dead by this time."

"And so would I," said Dick. "If I had been bitten when you weren't here."

"Oh, well," said Ned, "then let's cry quits."

"Agreed," was Dick's only reply.

The next morning Dick's hand was healed, except at the cut, the poison having been completely neutralized by the application of the permanganate solution; nor was Ned at all affected by the venom he sucked out of Dick's wound.

Charlie had prepared a capital breakfast, including young pigeons, that Dick had shot in

the early morning, and after they had finished, he said :

“ While shooting the pigeons this morning, Dick saw the tracks of several blacktail deer. How would you like to leave the tents up here, and go and try to follow their tracks? Their flesh makes excellent steaks, that we might manage to eat, even in July, and thus greatly add to our food supply.”

“ That will be capital sport,” said the boys. So, accompanied by Charlie and Dick, they mounted their horses and rode rapidly to the place where Dick had seen the tracks. They had but little difficulty in following them, and at a distance of several miles from the camp they saw a buck, together with several does quietly feeding at a distance.

“ We must be careful how we approach them,” said Charlie. “ In what direction is the wind blowing, Dick?”

There was very little wind at the time, so that it was hard to determine its exact direction, but Dick, wetting one of his fingers, held it up and almost immediately said :

“ North. This side of my finger is colder than the other.”

Carefully moving in a wide circle so as to have



the wind blowing directly toward them from the deer, they got within gunshot, the guides insisting on the boys going nearer, so that they could have the first shot, adding that they would pick off the animal afterward, should the boys miss. The boys agreed to try to kill the buck only, as that would give them all the meat they would need. Ned wished Harry to take the first shot, but Harry insisted on their both shooting together. Then they succeeded in stealing quietly within 150 yards of the deer, Harry aiming at the buck's head and Ned at its fore-shoulder.

At the crack of their rifles, the buck fell, apparently instantly killed, the rest of the deer running away toward the north. On examining the buck, they found that Harry's shot had passed through the side of the head, while Ned's shot passed through both shoulder blades.

The buck was a full grown animal. His weight must have been at least two hundred pounds, and he had a splendid pair of antlers.

"I'll mount these antlers for you, so you can show them to your Eastern friends," said Charlie, cutting them from the animal, which they then opened, and selecting the best portions of the flesh, returned with it to the camp.

The boys spent the afternoon in panning out some gold from sands and gravel in the bed of the stream.

That night they had deer steak, which they found to be exceedingly tender and juicy.

Early the next morning, as the boys had just finished dressing, and while Charlie was preparing breakfast, and had a piece of venison steak on the fire frying, Dick, who had missed one of the horses and had gone to look for it, came running toward the tent, crying :

“Get your rifles. A puma came into the camp last night and killed one of our packhorses.”

Seizing their rifles, they followed Dick, and mounting their horses, followed the trail of one of the horses that had succeeded in untying himself during the night, and had wandered off some little distance from the camp. In a short time they came up to the dead body of the horse. The puma had torn its throat and had feasted off a portion of its flesh.

“This accounts for our not hearing any noise during the night,” said Charlie. “The horse worked itself loose and wandered to this spot.”

“I suppose,” said Ned, “that the puma, attracted by the scent of the deer meat, had been

prowling around the tents last night and, coming on the horse, killed it."

"That's right, Mr. Ned," said Charlie. "Mountain lions can scent their prey from a great distance. The deer scent most probably brought this fellow to our camp."

Dick, who had been carefully examining the spot where the dead horse was lying, exclaimed :

"Here are the puma tracks. Let's follow them."

They had no difficulty in following, but it was not until they had gone over a distance of some five or six miles that they came up to the animal. At last, while at three hundred yards distance, the animal momentarily stopped running and stood facing them, lashing its tail furiously. Then taking careful aim, Dick showed himself a wonderful shot by killing him instantly.

"Let's skin the animal," said Charlie, "and then one of the boys can have the antlers of the buck and the other have the skin of the puma to show their friends."

"Now let's get back to camp to get breakfast," urged Charlie. "Of course, the deer steak will be burned, but there is plenty venison left, and we can cook another lot."

As they rode toward the camp they were sur-

prised to see flames, and then to hear several dull explosions.

“Something’s wrong at the camp,” said Charlie, spurring his horse.

Something indeed was wrong; for, unlike the preceding day, a strong wind was then blowing directly from the fire toward the tents. A spark had fired the grass, and thus rapidly spread its way to the tents. They arrived in time to save a quantity of their goods, although a considerable portion was destroyed. The most serious part of this loss, however, was the destruction of at least half of their ammunition, that had been exploded by the heat.

“This is bad business,” said Charlie. “One packhorse dead, the tents burned, and much of our provisions and ammunition destroyed. What shall we do, Dick?”

“Pack what we can on the horse that’s left; carry the rest ourselves, and make straight for Dead Man’s Gulch. Leave the boys there with Jim and Bill, go straight to Prescott and get what is needed.”

“Boys,” said Charlie, “how do you feel about this? Shall we go to Dead Man’s Gulch and leave you, as Dick proposes, and then go to Prescott, or would you rather go with us?”

“No,” said Harry; “Ned and I are old enough to take care of ourselves, and I am anxious to see the place where father died, and to try my hand at finding the lost gold mine.”

“Besides,” said Ned, “Mr. Harrington has planned to visit Dead Man’s Gulch, and is going to try to find the lost gold mine for us.”

“Then,” said Charlie, “we will make straight for Dead Man’s Gulch, and see if Jim and Bill won’t give you quarters until we can return with the tents and other things. Since we have made up our minds to go there, I know a short cut that leads through a portion of the mountains that I believe very few white men have ever visited.”

The progress of the party was much less rapid than usual, owing to the fact that the single packhorse was overloaded, and that every one in the party was carrying an extra weight. This, however, was an advantage to Harry, since it gave him a chance for doing something in the line of prospecting. When passing through a portion of the mountains referred to by Charlie he called Ned’s attention to a number of well-marked veins.

“Ned,” he said, “these are fissure veins. Let us see if they contain any gold.”

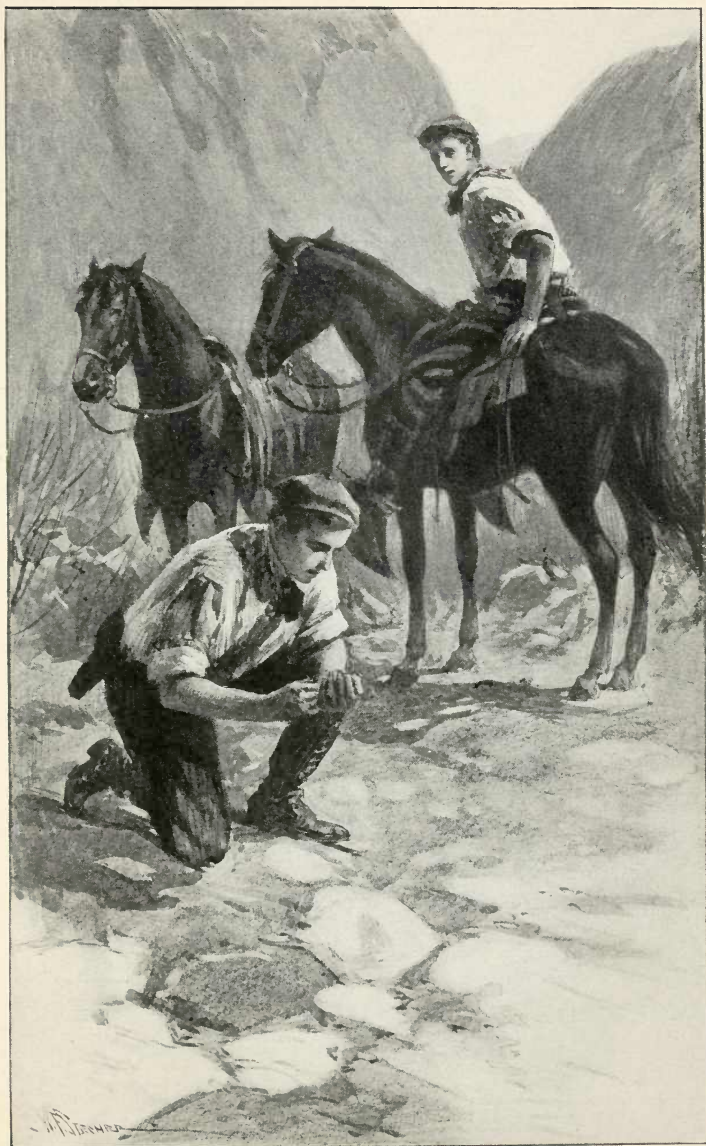
As it was nearly the time when they generally stopped for dinner, Charlie said :

“ Let’s grub here ; and Mr. Harry, if you wish to examine the veins, we can stop here for the rest of the day.”

“ I would like to examine them, Charlie,” was the reply.

“ You may find a new gold district here, Mr. Harry,” said Charlie. “ These parts of the mountains are visited by very few people.”

The boys made as careful an examination of the vein as the time at their disposal permitted. In places they found several outcrops of ore, containing a large quantity of free milling gold ; for, by selecting several samples of the ore and reducing it to a powder in a small iron mortar they had brought with them for this purpose, they succeeded in panning it, and thus obtained a fairly large quantity of metallic gold. Charlie and Dick, who were fairly well acquainted with mining, told the boys that it looked as if the discovery they had made might prove of considerable value, and that they had better take some samples of the ore with them to show to Mr. Harrington.



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## CHAPTER XXVI

### ARRIVAL AT DEAD MAN'S GULCH

WHILE on their way to Dead Man's Gulch from the place their tents had been burned, the camping party had, of course, slept out in the open air, with the great vault of heaven for their canopy. The weather being clear, they experienced no discomfort from this method of living. On the contrary, when wrapped snugly in their blankets, the boys enjoyed the novelty of the thing, especially as Dick always prepared for them a rough bed of fresh hemlock branches, these trees being plentiful in the mountains. There was an aromatic refreshing odor in the branches of these trees that was very pleasant, and in looking up to the sky above them, with its beautiful clusters of stars, they could not help enjoying the feeling of an abundance of room that had been absent in the necessarily contracted quarters of the tents they had been employing.

By two days of easy traveling, the party reached Dead Man's Gulch and had but little

trouble in finding the camp of Gleason and O'Reilly.

The arrival of a party of four mounted men with an overloaded packhorse, produced no little excitement in the tent of Gleason and O'Reilly in Dead Man's Gulch. They reached the tent in the early evening while Jim and Bill were preparing their frugal supper. Their supply of food was now quite low, so that the meal that was under preparation was far below the average meal of mining prospectors, both as regards quality and quantity.

"Hello, Dick," cried Jim, recognizing him, "I thought you were on the Martin ranch. What are you doing here? Come to try your luck at prospecting?"

"Not much," said Dick contemptuously. "Tried it before. Ranch and cattle punching, for me. Sure of three square meals a day, and a little cash at the end of the month."

"Strangers," said Bill, "you are welcome. Tie up your horses and sit down and have a bite. Jim, introduce me to your friend," he said, indicating Dick.

"Cert. This is Deadshot Dick; best shot in the territory. When he once draws a bead on anything with a rifle, there is no chance of its

escaping, for Dick doesn't know what it is to miss. Dick, this is my pard, Bill. Now, Dick, introduce your friends."

"My pard, Arizona Charlie," said Dick. "What he don't know about a horse ain't worth knowin'."

"Proud to make your acquaintance," said Charlie, shaking the men by the hand.

"And these lads," continued Dick, "are Mr. Edwin Cartwright, of New York City, and Mr. Harry Maxwell, of Massachusetts. We left the Martin ranch several weeks ago, on a campin' trip. Our tents were burned several days ago, and much of our grub, campin' stuff, and half of our ammunition destroyed."

"Boys," remarked the men, "we are glad to know you. Guess you have had an all right time."

"But," said Jim, who had been looking earnestly at Harry, "did you say that this young gent's name is Harry Maxwell, of Massachusetts? I say, my lad, was your father ever in this part of the territory?"

"Yes," said Harry. "My father died in this gulch on a winter day a little more than ten years ago. He was found in a wounded condition by an Apache Indian named See-in-the-

Dark, who took him to his tent and did what he could for him, but without avail, for my father died that night in the Indian's tent."

"Do you hear what he says, Bill?" cried Jim excitedly. "He is the son of the man who died in this gulch and took along with him to the other world the secret of the great gold mine that he had discovered."

"Glad to know you, Mr. Maxwell," said Bill, again shaking Harry by the hand. "But come, Jim, cook some more grub for the strangers."

"Much obliged, gents," said Charlie, "but I have another proposition. Let's put our grub together and prepare a regular feed. The boys shot a blacktail deer this morning, the second we have had this week, and we have brought with us a big load of good meat on our packhorse. Then we have some flour and corn meal, and I will toss together a batch of flopovers, which, with maple syrup, a cup of tea, and a nice juicy steak of fresh meat, together with what you have, will give us a square meal."

The idea of venison steaks and flopovers was very pleasing to the partners. As soon as the meal was prepared, they all sat down with most excellent appetites.

"Isn't Charlie a wonder for making flop-overs?" said Harry to Jim.

"Right you are," was the reply. Indeed, Charlie's cakes were so much appreciated by all that he was obliged to make up no less than three separate batches before the supper was finished.

When supper was over, Charlie told the prospectors that the boys had discovered a new gold field in a place situated two or three days' journey from where they were. Gleason and O'Reilly at once wanted to know the locality, but Charlie laughed, and said that was their secret, adding :

"But we have some specimens of ore the boys took out of a seven foot vein we traced for over a mile across the mountains."

Gleason and O'Reilly eagerly asked to see the ore. When Harry showed it to them, Jim examined it and remarked :

"Looks all right, Bill, don't it? Quartz rock and free milling gold in it. Yes," he continued, "here is a little piece of gold," taking out his knife and finding that it could be easily cut or indented with the knife.

Harry, taking a small bottle out of his pocket, showed them the metallic gold they had obtained by powdering about one pound of selected ore,

and then panning. This greatly excited both Jim and Bill. A pound of ore, even selected ore, from a seven foot vein, to produce so much gold was something great. It seemed to them to promise to be a great find. Especially when Charlie assured them that the location was in a district on the side of a mountain that he knew was visited very seldom.

“What are you going to do about the tents, ammunition and other things that were burned? Not going to give up your trip, are you?” said Jim.

“No. We planned to leave the boys here while we cut across the country to Prescott, buy what we need, and then return. The trip will probably take us a little over a week. I suppose you wouldn't object to having the boys camp alongside of you, would you, so that they can be near you, if anything should happen?”

“Glad to have them do so,” said Jim. “Like to have the youngsters around. They can have our tent. We would just as leave sleep out in the open this time of the year.”

“Bill,” said Dick, “have you found the gold mine that Mr. Harry's father discovered just before he died?”

“No,” was the reply. “Been hard at it now

for about three months. Haven't had any luck. Indeed, I am beginning to wonder whether that Indian See-in-the-Dark hasn't fooled us. I know Jim and I have been over nearly every foot of land in the territory for at least thirty miles in all directions, and have never seen a vein that contained any traces of gold. In fact, we have made up our minds to leave this part of the country and try our luck elsewhere. We expect to start out in a couple of days."

"When do you leave for Prescott?" inquired Jim.

"Early to-morrow morning," was the reply.

After finishing supper, the boys and Charlie went to look after the horses, while Dick took his axe and cut some boughs for the bedding. When this work was completed, they sat down alongside of Jim and Bill, who had been earnestly discussing some important question.

Jim at once spoke, and said :

"Charlie, we have a proposition to make to you. If you'll tell us where your new gold field is, we will go there, prospect the country, and if we find anything good, we will stake out three of the best claims, one for each of the boys and another one between you and Dick. Of course, we expect to stake out good claims for ourselves,

but we will be fair with you. As you see, our camping fixings here are not worth much, but if you will accept our proposition, we will leave all we can for the boys, and they can stay here and wait until you return."

Charlie said that he would submit the proposition to the boys, so calling them outside the hut, he told them what Gleason and O'Reilly had suggested.

"Well, Ned, what do you think?" asked Harry. "The chances of our getting back to these claims are not very good. If these men are honest, and find that the new district is worth anything, they will stake out claims for each of us, and one between Charlie and Dick."

"I would accept their offer," said Ned. "What do you think, Charlie?"

"Mr. Ned, I wish you and Mr. Harry to decide this matter between you. Dick and I make no claims whatever to your discovery. You two boys are employing us as your guides. We might make a claim, but Dick and I agreed that we would not do so. Of course, we would not mind having a good gold claim staked out between us, for sometimes such things can be sold for a great deal of money, but we don't want to



influence you at all. Don't you say so, Dick?"

"I say what Charlie says," was the reply.

On being assured by Charlie that Gleason and O'Reilly could be trusted to stake out the claims for them, they went back to where the men were sitting.

"We will accept your offer," said Harry. "We will tell you where the new gold field is, and for this you agree to prospect the district, and, if anything is found, to stake out three good claims, one for Ned, one for Charlie and Dick together, and the other one for me. Besides this, you agree to give us everything that you leave in your tent when you go to the new gold field. Is this understood?"

"Yes," said the men eagerly, "that's understood."

"It is but fair to tell you," said Harry, "that, notwithstanding your failure to find the lost gold mine, Ned and I are going to try to locate it, and, if we succeed in doing this, you are not to consider that you have any claims whatever against it. Is that understood?"

"Yes," said Jim, "that is agreed."

"Well, then," said Harry, "it's a bargain. Now, we don't want you to leave anything

here, except the tent and its fixings. We have plenty of provisions to last until Charlie and Dick return."

As soon as the agreement had been reached, Gleason and O'Reilly began making preparations for leaving early the next morning. When asked why they were hurrying so, they said they were afraid some other fellow would come along and stake claims in the new gold territory before they got there.

"Why," said Charlie, laughing, "if this district has remained all these years without anybody finding it, I guess you would not risk much by letting an extra day or two pass."

"You can never tell. We will slip off the first thing in the morning. There is not much for us to do here, anyhow."

The next morning they had everything ready, and started off before the sun was well up. Just before leaving, Jim handed Harry the letter See-in-the-Dark had taken from the dead body of the miner.

"Bill agrees with me," he said, "that you should have this."

Harry was much pleased to recover the last letter his father had written. He read it aloud to Ned, and then to Charlie and Dick.

They all regretted that it had been partially destroyed when used to light the pipe of the squaw.

Charlie and Dick wished to wait to fix up the tent for the boys, but the boys persuaded them not to, urging that they could readily fix up things for themselves, saying :

“The sooner you get off the sooner you can return.”

So in a little while the men left them.

“Take good care of yourselves, my lads. If we have good luck, we will be back in eight or ten days,” called Charlie, as they mounted their horses for their journey.

## CHAPTER XXVII

### DEATH OF SEE-IN-THE-DARK

THE boys stood watching their guides until they were out of sight.

“What do you propose to do first, Harry?” inquired Ned.

“Well,” was the reply, “if we are to sleep in this tent, we should first thoroughly cleanse it.”

“I was thinking the same thing,” said Ned, laughing. “Suppose we begin with the bunks. They look very ancient. Let’s take off all the old blankets and bedclothes and burn them, and then wash the logs and fill up the bunks with clean hemlock boughs.”

This simple operation of bed cleaning doesn’t sound much in describing, but in point of fact it took nearly two hours before it was done to their liking, and by this time they were ready for dinner.

About an hour before sunset, after making themselves familiar with the surrounding country, they visited the teepee or wigwam of See-in-the-Dark, which they had but little difficulty in

locating. The Indian was not visible, but an old emaciated squaw was sitting in the door of the tent. As soon as she saw the boys, she exclaimed :

“ You medicine men? Come in see Indian. He very sick. Drunk this morning; broke arm. Me can't fix it, but medicine men fix it.”

“ We must do what we can,” said Harry. “ We can't leave the old fellow in this condition. Do you know anything about setting broken bones, Ned? ”

“ Yes, a little. I once attended a course of lectures in New York, intended for boys like myself, on what is called First Aid to the Injured. I think I can set it. At any rate, I am sure I can make him much more comfortable than if we did nothing for him.”

Entering the tent, they found the Indian lying on some blankets in the corner. He was in a very weak condition, but raised his head when the squaw said :

“ White medicine man,” pointing to Ned, “ come fix arm.”

“ Good,” grunted the Indian. “ Bad arm. Broke it this morning. Squaw tried to fix it; squaw stupid, couldn't fix it.”

The arm had already stiffened, since it had

been broken several hours, but after a continuous effort, in which the Indian seemed to suffer considerable pain, although he said nothing, the bones were brought back to their proper places. Then, placing the splints in position, the arm was firmly held to them by wrapping their handkerchiefs around the splints, and then finally binding on them some long strips of cloth. The Indian was apparently much pleased with the manner in which Ned had set the broken bones.

“Young white man heap good medicine man. Arm much better,” said See-in-the-Dark. “But Indian no food, very hungry.”

“Squaw no food,” said the Indian woman. “See-in-the-Dark spend all money for fire-water. Nothing to eat all yesterday, nothing all to-day. You bring us something to eat?” she inquired eagerly.

“Yes,” said Ned, “we will be back in a little while with something.”

The boys started immediately for their tent, and in a little while returned with some food.

Ned, who had been feeling the Indian's pulse, whispered to Harry:

“I believe the man is dying. Give me a little of the whiskey.”

“Here, See-in-the-Dark, is some medicine for you,” said Ned.

“Fire-water good,” said the Indian. “Now I feel better,” for the small quantity of stimulant greatly strengthened him.

“See-in-the-Dark, I am going to tell you a story. Ten winters ago you found a wounded white man lying in the snow near your wigwam. You carried him to your tent and tried to help him, but he died there. Do you remember this?”

“Yes,” said the Indian, “me not forget. White man died. Had bag gold. Me got some yet.”

“See-in-the-Dark,” said Ned, “that man was his father,” pointing to Harry.

“Then me give son bag of gold,” said the Indian. “You good white medicine man. I like you,” he said to Ned. “Come back to-morrow morning and I will give you bag gold.”

“See-in-the-Dark,” said Ned, “do you know where the white man got this gold?”

“See-in-the-Dark not sure, but he guess not far from here. Very near here. You come to-morrow and see me. See-in-the-Dark sleepy now.”

They returned to the wigwam twice during

the night, but during all this time the Indian kept on sleeping, and it was not until early the next morning on their third visit that they found him awake.

“See-in-the-Dark very sick,” he said. “Going to happy hunting grounds. Like white medicine man heap much. Bring him food and bring him medicine in the night,” he said, evidently thinking that Ned gave him the whiskey at different times during the night. Then he said to his squaw: “Give white medicine man bag of gold,” and the squaw brought out a bag containing about fifty pounds of gold ore.

“Now, See-in-the-Dark,” said Ned, “tell me where the mine is from which this gold was taken.”

“Stoop down and listen,” said See-in-the-Dark. “Almost sure gold mine is not far from here. Not certain, but almost certain. Tell you where to look for it.” But just as Ned bent his head to listen to what the Indian had to tell him, another attack came on, and convulsion after convulsion seized the miserable man, until at last death put an end to his suffering.

“Hard luck, Harry,” said Ned, “but we did all we could do, and there is no use in fretting over it. We are at least certain that See-in-the-



Dark believes that the gold mine is not far from his tent. Let's go back and see what is in the bag."

On reaching their tent and opening the bag, Harry exclaimed :

"See, Ned, it is the same kind of ore as the specimens I have in my cabinet in Massachusetts that father sent direct to mother from the mine. We must try our best to find this mine."

"Let us read father's letter over again," he added, opening the letter the prospectors had given him.

So they read the letter over very carefully, and wondered if they would be able to find the lost mine and the chart to which reference has been made.

During the next two days the boys made careful search in all directions around their tent, without, however, any success. Early in the morning of the third day, See-in-the-Dark's squaw appeared.

"White medicine men come to Indian's wigwam," she said. "Bury See-in-the-Dark. Plenty to eat ; tribe come."

The squaw was so insistent that the boys consented.

When they reached the wigwam they found

the body of the dead Indian lying in state, well dressed, with his rifle lying near him, with bow and arrows by his side, and some food placed in his hands.

“Put food in his hand to eat till he gets to happy hunting grounds,” explained the squaw. “Then he kill plenty with rifle and bow and arrow.”

There were some twenty Indian braves of the same tribe as See-in-the-Dark, whom the squaw had brought to the wigwam to bury her husband. As soon as the boys entered the wigwam, she said :

“White medicine men heap good. Friends of See-in-the-Dark. Set arm, brought food and fire-water for him while sick.”

The Indians crowded around the boys, but especially around Ned, thanking him in their undemonstrative manner.

“Indian’s White men’s friends,” they said. “See ; plenty to eat.”

The Indians had brought an abundance of food with them, having prepared a great funeral feast.

“We carry away body to-night and bury him,” they said.

“Far from here ? ” inquired Ned.

“Yes,” was the reply, “nearly two suns,” meaning two days.

“Squaw no go. Stay here in tent. Only men bury Indian brave.”

The Indians kept up the funeral feast until late in the evening, when they went off carrying the body of the dead Indian with them.

## CHAPTER XXVIII

### HARRY FINDS THE LOST GOLD MINE

THE boys did not remain long with the Indians at the feast, but after eating a small portion of the food offered, to show the Indians that they felt friendly to them, they returned to their tent, and prepared their regular breakfast.

The boys then made a careful examination of the bag of ore the Indian had given them.

“Ned,” said Harry, handing him a specimen, “this is a much richer ore than any of that I have at home, although it is the same kind. We know that there is a rich deposit somewhere in this neighborhood, and we must find it.”

“I will help you, all I know how,” said Ned. “But don’t forget that those who have already tried to locate the mine, were men who know more about prospecting than we do, and they have been unsuccessful. However, we will do our best.”

For the next two or three days the boys made a careful search throughout the neighborhood.

It is true that they found several well marked fissure veins, but none of them gave the slightest evidence of containing gold. Thinking that some might contain it in such a finely divided state as to be invisible, they took specimens from different parts of the veins, and ground them to powder in the iron mortar, and then tried by panning to see if they could find traces of gold, but not a single color rewarded them.

“Ned,” inquired Harry one morning while they were examining the largest of the veins in the neighborhood, “do you see anything peculiar about this vein?”

“No, Harry. Unfortunately, I only see something which is too common,—that it evidently contains no gold.”

“But see here,” said Harry, taking out of the pocket of his coat some sample specimens of the ore he had taken from the bag given to them by the Indian. “Look at the gangue in this specimen. It is quartzite. Then look at this piece of country rock that still adheres to the specimen,” handing another piece to Ned. “It is porphyry. Now carefully compare the vein matter in this vein and the country rock through which the vein extends, with the gangue or vein matter in the ore, and the piece of country rock

still attached to it, and you can see at once that they are exactly the same."

"Capital," said Ned, enthusiastically. "You are a close observer, Harry. If Mr. Harrington were here, I am sure that he would be proud of his pupil. But what use do you propose to make of this discovery?"

"I propose that we follow this particular vein as far as it extends, and look carefully for the slightest indications of ore."

"All right; let's do it."

"I remember," continued Harry, "Mr. Harrington once said, when examining a rich fissure vein in one of the gold mines of Colorado, that sometimes veins which are exceedingly rich at a certain distance below the surface contain no gold on the surface. That it is only when a shaft has been sunk some distance that the gold ore occurs. He pointed out that in many cases, where tunnels have been carried into a mountainside, exceedingly rich deposits of gold ore have been found in veins that were absolutely destitute of any ore at the points where they outcropped at the surface. Oh, how I wish we could sink a shaft in this big vein!"

"Unfortunately, we can't do so," said Ned. "We neither have tools suitable for the purpose,

nor dynamite or powder for blasting. Of course, if we can do nothing else, we can wait until Mr. Harrington comes, and ask him whether he would advise going to this expense and trouble."

The boys went to bed that night greatly discouraged. They had now been in Dead Man's Gulch for six days, but so far they had been entirely unsuccessful. The next morning, after breakfast, Harry, who had been in a brown study during the meal, suddenly exclaimed:

"Ned, I believe I have solved the problem."

"What problem?" inquired Ned, excitedly.  
"Do you mean the lost mine?"

"Yes," replied Harry, "I think I have solved the problem of the shaft in the big vein."

"You have? Let's have it. That is, if you are not trying to jolly me."

"No, I am in earnest. Come here with me," he said, starting out on a run to the big vein they had been examining the previous day, and stopping at a point about 500 yards from the tent. Here the vein showed up very clearly, but only in a direction away from the tent. Toward the tent it was more difficult to trace. As has already been said, the tent of Gleason and O'Reilly in Dead Man's Gulch was pitched against a precipitous wall on the side of the

cañon, about sixty feet below the level of the table-land. The vein the boys had been examining the previous day, and at which they had now stopped, was situated on this table-land, and its outcrop could easily be distinguished in a direction away from the tent, whilst toward it it was less clearly visible, being covered by some of the loose soil that had been formed by the disintegration of the rocks near the edge of the cañon.

“See here,” said Harry, carefully examining the indications in the land. “This vein extends toward the cañon.”

“Well, what advantage can you take of that?”

“Why, don’t you see,” said Harry, “that nature has already done for us what we were wishing that we ourselves could do? The river has cut away this vein, and left in the nearly vertical cliff a splendid exposure of some sixty feet of this vein, so that if we examine the face of the cliff carefully, we may find some indications of ore.”

“But look here, Harry,” said Ned, laughing, after they had traced the vein on the face of the cliff and found no sign of it, “do you see where the lower part of this exposure will bring us?”



"Yes, directly to the back part of our tent."

"Well there is nothing here," said Ned after an examination. "What shall we do now?"

"See if the vein extends further down to the bed of the cañon."

Looking at this part of the vein, they found nothing except an evidence of extreme faulting of the rocks.

"There has been much faulting here," remarked Harry. "We would have difficulty in tracing the vein if it did extend here."

"Then," said Ned, "we are no better off than we were at first, are we?"

"Not much," replied Harry. "But still there are at least eight or ten feet inside the tent to examine. Come on, let's examine it carefully."

"Wait a moment," said Ned. "Let's raise the sides of the tent so that we will have more light."

They did so, and in a few moments were making a careful examination of the exposure of the vein on the nearly vertical sides of the cliff. Although the vein was well marked, yet no signs of ore appeared, and the boys were about to reluctantly give up further search when Harry, who had been examining the portion of

the vein immediately above the floor of the tent, said excitedly :

“Look here, Ned, look here. There has been an opening cut directly into the solid matter of the vein.”

“I don't see any hole,” said Ned. “It appears to me just as solid where you are pointing as the rest of the vein.”

“That's true, but a hole has been made in the vein at this point, and this hole has been stuffed up with clay, which has been made to look like the rest of the vein matter by skillfully placing pieces of vein matter in the clay. One would not notice it unless he examined it carefully.”

“Well,” said Ned admiringly, “the man who did that was certainly a clever fellow.”

“Hurry up, Ned, please. Get the pick and a small shovel, and help me clear out this stuff.”

Ned did so, and the boys soon took out the clay, showing a cylindrical opening large enough to permit a man to crawl through it.

“Ned, what does this opening remind you of?” asked Harry.

“Why it's exactly like the opening that led from the cave into the cliff dwelling that we examined the other day, or it is just like any of

the openings into the smaller rooms in the back of the main rooms in the cliff houses."

Taking a lighted candle in his hand, Harry crawled into the opening, followed by Ned, who held another lighted candle and a lantern.

The cylindrical opening extended for a distance of some fifteen feet. On emerging at the other end, they found themselves in a room that had been cut out of the solid rock. This room was twelve feet square and eight feet in height. The attention of the boys was at once attracted to a tunnel extending along the vein, and of sufficient height to permit them to readily walk erect.

"We will follow this tunnel," said Harry, "but carefully, for we will probably find that shafts have been sunk into it in some places."

The boys did so for a distance of nearly a half mile. As Harry had predicted, they came to a vertical shaft that was provided with a rude ladder. Carefully descending it for nearly a hundred feet, they came to a second tunnel, parallel to the first. Both on the floor of this shaft, as well as on the ceiling, and portions of the walls, they found a considerable quantity of what was apparently a rich ore.

"See, Ned," said Harry excitedly, "this is the same kind of gold ore that father sent to mother, and as you see, the same kind that the Indian gave us the other day. I think beyond a doubt that we have discovered my father's lost mine."

"But, Harry, do you suppose that your father himself cut all these tunnels and levels?"

"Oh, no. This mine was evidently one of the mines worked by the old cliff dwellers many thousands of years ago. Father evidently rediscovered it, and worked it on his own account. Let us look carefully and we will probably find some evidence that he was here. What I don't understand is how this mine is ventilated. The air appears to be fresh, and look at your candle—it is blowing toward the opening into our tent, so that it must be connected with the outer air at some point. When we have more time we will try to find out where this opening is. Another thing I don't understand is what the ancient miners did with all the stuff they took out of these levels."

"Well," said Ned, "that could be easily explained. There is probably some other opening which has been gradually filled up, and the pile of refuse rock or tailings, as Mr.

Harrington calls them, would have entirely disappeared during the many years that have passed since the mine was deserted by these ancient people."

"Yes, I guess that's the explanation. But let's go back to the shaft. I remember that this level or tunnel extended also in the opposite direction to that in which we have been going."

"Yes, I am sure it did."

They retraced their steps until they reached the shaft, when, walking through the level or tunnel in the opposite direction, they soon came to the place where the level stopped. Here some one had evidently been recently at work, for mining tools of modern manufacture, such as a pick, bar, drills, and hammers, were standing by themselves at a point in the tunnel near the place where it ended. Ned, who had been examining the handle of the pick axe, silently handed it to Harry, and said:

"Look here, Harry," pointing to a portion of the handle.

Harry looked, and saw the words "John Maxwell," rudely burned in the wood of the handle.

"Here," said Harry, greatly affected, "is where my father did his last mining. Yes, look

here," he continued, "just the same kind of ore as that we have been following all this time. But we have done enough for to-day. Let's make our way back to our tent."

## CHAPTER XXIX

### EXPLORATION OF THE LOST GOLD MINE.

“NED, we must carefully conceal what we have discovered until our friends arrive,” said Harry.

“Yes. Should this discovery become known, Dead Man’s Gulch would soon be filled with all sorts of people, and we might have difficulty in establishing our claim to the mine.”

“We had better put down the flaps of the tent and fix up things snug for the night,” so he took one side and Harry the other, and the tent was soon all right.

“Now let’s get supper,” said Harry.

“Harry, I have a proposition to make. This is a regular red letter day. Let’s get up a splendid supper as a kind of a celebration.”

“Agreed. We will prepare the best supper our larder will afford. And while we are about it, we may as well celebrate my birthday at the same time.”

“Your birthday, Ned? Let me congratulate you. So you are seventeen years old to-day, are you?”

"Yes. I intended to tell you this morning, but the wonderful discovery we made quite drove it out of my mind until we agreed to celebrate."

"That will be capital, Ned. We will have a double celebration. Now what shall we have for the great banquet?"

"Well, I guess it will be the same diet. Our canned goods are all gone. But then we will have tea and venison steak, and I will try another batch of flopovers."

It is not surprising that the boys were awake early in the morning, for the exciting events of the previous day had thoroughly prevented their sleeping. Although every now and then they fell into a quiet doze, yet they spent a large part of the night talking, until at last the bed grew so uncomfortable that Ned said :

"Harry, I am going to get up and start the fire, for I can't sleep. You need not come if you don't want to."

"I am just as tired of the bed as you are," was the reply.

They commenced eating by starlight, and were through breakfast before sunrise. So that after tending to their horses, they got everything ready for entering the mine.

"Let's take a half dozen candles with us," said



Harry. "You go first, Ned. I am going to pile some stuff around the opening, so that if any one should come into the tent they would not be likely to discover the mine entrance."

On going into the inside room, Harry suggested that some names be given to the different parts of the mine for ease in referring to them.

"Well," replied Ned, "let's call this the entrance room."

"The two tunnels," said Harry, "we will call the first and second levels, and the shaft that connects the first and second levels we will call shaft No. 1."

"Why you don't suppose there are other shafts, do you?"

"Don't know. There might be, and we will call this shaft No. 1, because it is the first we have discovered."

The boys spent the entire day in a careful examination of the different portions of the mine. They did not find any other than the two tunnels or levels already described. At a certain portion, however, of level No. 2, excavations had been started for a second shaft. Here the ore was quite as rich as that at which John Maxwell had been working the last day he was in the mine.

"This shaft," said Harry, "apparently shows that the ore rapidly increases in richness downward. Let's see if the roof of this level shows any good ore."

"See," said Ned, holding a lighted candle near the top of the level, "the ore here is nearly as rich as that below."

"Let's roughly measure the distance that we are on this second level from shaft No. 1, and see if the floor of that level shows any ore."

They made these examinations roughly, and were delighted to find that the floor of level No. 1 immediately above the portion they had been examining in level No. 2, contained ore that was nearly as rich as that below.

"Of course, Ned, you see what this means," said Harry, who was greatly elated by the result.

"It means that the entire vein between the first and the second level, at this point, is filled with good ore."

"Yes, and with every indication of a rapid increase in richness with an increase in depth. Besides, this is the only point we have closely examined, and the ore probably continues rich along the vein in both directions for a considerable distance."

"Then," said Ned, "this mine, which I propose to call the Maxwell mine, will almost unquestionably prove very rich."

"Undoubtedly. But, Ned, why not call the mine the John Maxwell mine?"

"Oh, no. I guess the Maxwell mine is enough, for both father and son discovered it."

"You mean the father and his son with his friend," said Harry.

"Oh, make it any way you want. It was your brainy following of the clues that led to the discovery of the mine."

"Well," said Harry, "we shall call this the Maxwell mine, and Ned, I insist that you shall share with me in its discovery."

"Well, we will not quarrel about it. We know that there is a long stretch of vein, and an extra claim or two on it would not be a matter of very great importance to your mother. But, Harry, we have not discovered where the air enters the mine that keeps it ventilated. Of course there must be some such place, or else we could not remain in here. The air would soon become too foul."

"That's true, Ned. Suppose we follow the first level, and carefully watch the direction in which the flame of this open candle is blown.

This ought to show us the general direction of the place where the air enters, for by moving against the wind, we ought to come to such an opening if it exists."

They accordingly watched the flame of the uncovered candle. The air that came into the mine was evidently passing through the level in a direction toward the opening into the tent. They, therefore, examined the level in the opposite direction.

"We have already been here," said Ned, "and we didn't see anything then."

"Yes, but then we were looking for the ore, rather than for an air opening. But now we will examine it only with the view of trying to find out, if possible, where the air comes in."

Their search in this direction was not at all successful.

"It doesn't look as if we were going to find the opening," said Harry.

"Wait a moment," said Ned, who had been carefully examining a pile of loose stones that were lying near the bottom of this level against a portion of the hanging wall of the vein. "See here," he said, holding a candle near the pile of loose stones, "here is a strong current of air."

"Bravo, Ned, this is probably the opening.

Now let's clear away these stones and see if that is so."

On doing this they found an entrance to a room, of about the same dimensions as that which they found at the end of the entrance to their tent.

"We will have to change the name of the entrance room to room No. 1, and call this room No. 2," said Ned.

"All right," replied Harry; "but see here," he added, pointing to a place where a portion of the country rock had caved in, thus hiding the entrance to the room. "This room will probably lead to some bigger opening."

So they carefully examined it, and found in one of the corners a cylindrical passageway of the same general dimensions as that which led from their tent. The blast of air through this opening was so strong that the candle flame was blown out. By lighting another candle and placing it inside the lantern, they were able to crawl through the cylindrical passageway, and after going through it for a distance of about twelve feet, they came out into a fairly large cave, at one end of which they could see the blue sky through a narrow opening about six feet wide leading to a narrow ledge. After

working for nearly an hour, they succeeded in enlarging this opening sufficiently to permit them to go out on the ledge. This they did cautiously, and examining it, found that they were on an absolutely inaccessible ledge, nearly a thousand feet above the level of the water in the cañon.

## CHAPTER XXX

### ARRIVAL OF MR. HARRINGTON, ARIZONA CHARLIE AND DEADSHOT DICK

AS the boys approached the cylindrical opening into their tent, Ned, who had gone first, suddenly turned back, and placing his hand over Harry's mouth to prevent him from crying out, whispered :

"Listen, Harry, there are people in our tent talking. I sincerely hope they have not discovered the opening we left. Keep quiet while I crawl through to the opening into our tent, and endeavor to hear what they are talking about."

Ned did this, creeping stealthily, so that he made no noise whatever, and approached the opening. Fortunately, the loose stuff that Harry had piled up around the opening, had prevented the people who were in the tent from observing it.

Ned listened and heard some one say :

"They must be around somewhere. Their horses are tied up all right, and all their things are arranged as if they had expected to come

back. They are probably taking a stroll in the neighborhood."

"I trust that nothing has happened to them," said another voice in an anxious tone.

"Now don't worry about them, sir," said the first voice. "I will back up Mr. Harry and Mr. Ned to take as good care of themselves as you or I could do."

Ned at once recognized the voice of the first speaker as Arizona Charlie, and thought that he recognized the other voice as that of Mr. Harrington. In a spirit of fun he cried out in a sepulchral tone:

"Who calls on Harry Maxwell and Edwin Cartwright? Who calls them from the grave?"

"Do you hear that voice, Dick?" he said. "Seemed to come out of the earth. Do you believe in ghosts, Dick?"

"Nary a ghost," said Dick. "Voice came out of hole back there."

The voice which Ned had recognized as Mr. Harrington's exclaimed:

"It came from the corner in that pile of loose stuff. See here," he said, beginning to pull away the stuff. "Look at this opening. That is where the voice came from."

"Good-afternoon, Mr. Harrington," said Ned,



as he emerged from the hole. "Don't suppose that I am rising from the grave to welcome you. Harry and I have just been making an examination of the lost gold mine that Harry found the other day. Great mine, sir, and we will have you examine it professionally in a few moments. Hello, Charlie. Hello, Dick. Glad to see you. Where did you run against Mr. Harrington? I am glad you brought him back with you."

By this time Harry had also emerged from the opening of the mine, and the entire party were eagerly shaking hands, asking all kinds of questions, and getting comparatively few intelligent answers. The important fact, however, evident to all, was that the boys were there safe and sound, that Charlie and Dick had returned and brought Mr. Harrington, and that the boys had found the mine.

"Come now, Charlie, tell me how it is that Mr. Harrington is with you," said Harry.

"Oh, that's easy," said Charlie. "While we were at the hotel in Prescott, we heard this gentleman tell the clerk that he was on his way to Martin's ranch, where he expected to meet two young gentlemen from the East. We looked at the register, and found that the name

was Harrington, so of course we knew at once, from what you had told us, that this was the mining engineer with whom you had been traveling, and who expected to join you afterward on the ranch. We told him who we were, and where we were going, and he at once proposed to get a horse and come directly to Dead Man's Gulch with us, instead of going there from Martin's ranch."

"Yes," said Mr. Harrington, "as soon as I heard you were at Dead Man's Gulch, I got Charlie to pick out a good horse for me, and we came straight across the country to this place, so here we are.

"Well, Harry," said Mr. Harrington, "is this much of a discovery you have made?"

"Oh, yes, Mr. Harrington, we have discovered a great mine."

"Don't you mean a prospect?" said Mr. Harrington laughing.

"Come and see for yourself, and I think you will agree to call it a mine."

"But aren't you boys tired?" said Mr. Harrington. "How long have you been underground?"

"Since sunrise this morning," said Harry. "We got our breakfast by starlight, and now," he

said, looking at his watch, "I see it is half-past four, but we are not tired. We want you to come in and look at what we have discovered, and tell us whether it is a mine or a prospect."

"Come," said Ned, lighting the lantern, "I will lead the way."

In a little while the engineer, together with Charlie and Dick, were following the boys through the first level. Mr. Harrington was greatly surprised.

"This is a true fissure vein. This is the foot wall and here is the hanging wall."

And then, turning to Harry, he said:

"This vein ought to outcrop at the surface. Do you know whether it does or not? I think I remember as we approached your tent, I noticed a well-marked vein leading toward the tent, but as far as I could see it did not appear to contain any ore."

"Yes, Mr. Harrington," said Harry, "this gallery is parallel to a large fissure vein that extends several miles in a nearly straight line. As you say, at the surface it gives no signs whatever of gold. This we tested by grinding specimens of the vein matter in the iron mortar, and panning out, but we didn't get a single color. But come and see the other level."

"What!" said Mr. Harrington. "Is there another level?"

"Yes, about a hundred feet below this is another level parallel to this, and in better ore." So saying, he led the way to shaft No. 1, down which the party went, and were soon examining the second level.

"Well, Harry," said Mr. Harrington, "you are right in calling this a mine. See here," he said, examining, as Harry had done, both the roof and floor, "here is good ore, even better ore than that above, so that there is at least a mass 100 feet thick yet remaining to be taken out, and, judging from the increased richness of the ore on the floor, there is such a mass below here as will make this a very rich mine. But tell me, my boy, have you found any evidence of your father having been in this mine?"

"Yes, Mr. Harrington," said Harry, leading him to the other end of the level and showing him the handle of the pick he had found the day before.

"John Maxwell," said Mr. Harrington, reading the rude lettering. "Yes, evidently my old friend Maxwell. We are undoubtedly in the mine your father was working, Harry. Did you find these tools just where they are now,

or have you carried them from some other place?"

"No, we found them where they are now. We only took them up to look at them, and put them down again."

"But how are these levels ventilated?" said Mr. Harrington. "I notice that the air is pure here, and that there is quite a draught in a general direction from your tent."

"I will show you," said Harry, and, leading the way, he brought the party to the point in the first level which opened out into the cave, and led them through the enlarged opening, so that in a short time they were standing on the high ledge on the side of the cañon.

"And now," said Mr. Harrington, "tell me how you made this discovery. Had somebody made it before you, or did you make it entirely yourselves?"

"Harry made it entirely himself," said Ned, generously. "I helped him a little, of course, but he made it, and this is the way he did it," giving Mr. Harrington a clear description of the clever manner in which Harry had reasoned out and followed the faint clues that he had discovered in connection with the matter which filled the barren vein above and the peculiar charac-

ter of the country rock through which it extended.

“Harry,” said Mr. Harrington, “that was a splendid piece of work on your part. I am indeed proud of my pupil.” Then he added :

“This explains how it was that the mine has never been before discovered. This ledge on which we are standing is inaccessible, and the narrow opening that you say you have enlarged would be invisible from any point on the opposite side of the cañon. Then the clever manner in which your father hid the opening in the cliff back of your tent by filling it with clay, and stuffing in the clay enough of the vein matter to thoroughly hide it, prevented the only accessible opening from being found. How greatly surprised the two men who gave up their tent to you boys will be when they find that the opening to the mine for which they had been vainly searching for so long a time was right in their tent, so that they could have reached it with almost a single step.”

Charlie and Dick were very proud of the discovery made by the boys.

“They are great lads,” said Charlie enthusiastically to Mr. Harrington. “Never met lads

I liked better. Equal to any men I have ever seen. Brainy, plucky and trustworthy."

"Yes," said Dick, "Charlie's right."

While the party was sitting on the cliff talking together, Ned went back to the cave, and in a few minutes came out again and said :

"Come and see what I have found in the cave."

As they followed Ned back, he showed them, in the end furthest from the entrance into the tunnel or level of the mine, another cylindrical opening about twelve feet in length. Cautiously crawling through this opening, they found that it led to a chamber cut out of the solid rock. At one end of the chamber was a flight of stone steps. Descending these they found themselves in a single large room of a cliff house, that was lighted by four windows. The room showed signs of having been recently inhabited, for in it, neatly and carefully arranged, was a bed, table and a chair. On the table was a Bible, with the name of John Maxwell written on the fly leaf.

"See here," said Harry, opening the book, "my father's Bible. I must take it home to mother."

"And what is this?" said Ned, picking

up a piece of paper that had fallen from the Bible.

“It is a carefully made plan of the mine,” said Mr. Harrington. “This will be of great use to us in laying out the claims.”

“Let’s see whether there are any other houses,” said Harry, climbing out of the window. “No, this is the only one. If there were any others, they have all disappeared.”

“It’s getting late,” said Mr. Harrington, “suppose we return to the tent.”

It was a happy party that sat down to supper that evening in front of the tent. Ned insisted on making a batch of his floppers, while Harry prepared another batch of soda biscuits. These, with some of the canned goods that the men had brought with them from Prescott, made a meal that more than equaled even the feast which they had held in honor of the discovery of the mine and Ned’s seventeenth birthday on the previous day.



## CHAPTER XXXI

### STAKING CLAIMS ON THE MAXWELL, CARTWRIGHT AND HARRINGTON PROPERTIES. CONCLUSION

THE next few days were spent by Mr. Harrington in making a careful examination of the underground workings of the mine, and several additional days in studying the peculiarities of the vein where it outcropped at the surface.

As had already been mentioned, there were a number of veins more or less parallel to the Maxwell vein, and situated west of it, but one in particular seemed to attract the engineer's attention.

An examination of it showed an opening closely resembling that leading into the Maxwell mine. This opening, which was adroitly concealed like the one leading to the Maxwell mine, however, did not lead into any chamber, but had merely penetrated the vein far enough to show the presence of rich ore.

"This vein, like the Maxwell vein, will probably rapidly increase in richness with depth," remarked the engineer.

"I propose that we call the mine that will

probably be established on this vein, 'the Harrington mine,' " said Ned.

"That's all right, boys," said the engineer, "but we must not forget that this discovery should be regarded as having been made by Harry's father, so that all benefits resulting from it must accrue to Mrs. Maxwell and Harry and not to others."

"That may be so, Mr. Harrington," replied Harry, "but I must insist that some of the benefits of this discovery go to you."

They were now ready to intelligently stake out claims on the two veins. In order to do this, two additional days were necessary, in order to meet all the requirements of the United States statutes respecting mineral claims. Mr. Harrington explained that it was necessary to place a formal notice on the lands cautioning others that they had been claimed or preëmpted. These claims can only be made by a citizen of the United States, or by one who has declared his intention of becoming a citizen. Each claim is limited to a distance of 1,500 feet along the vein and 600 feet across it, or 300 feet extending each way from the centre. The law requires either the driving of a post, or the erection of a pile of stones, at each corner of the claim and

the location of a post or board at the point of discovery, on which are plainly written the name of the vein, the number of feet claimed, and the direction from the point of discovery in which the vein extends. Besides this, the description must state whether the 1,500 feet extending along the vein are taken from one side only from the point of discovery, or whether a part is taken on one side and the remainder on the other. In the latter case, the number of feet claimed on each side of the point of discovery must be plainly stated.

“After this is done,” said Mr. Harrington, “it is necessary to regularly record the claims in the county seat. I would advise that ten separate claims be made out on the Maxwell vein or vein No. 1; five of these claims to be entered in the name of Harry’s mother and the remainder in Harry’s name, although it may be necessary to take out some of the claims under different names.”

“Mr. Harrington,” said Harry, “I wish these claims to be made out as follows: Four for mother, two for me, one for Ned, one for you, Mr. Harrington, one between Charlie and Dick, jointly, and the remaining claim between Jim and Bill jointly.”

"I don't wish a claim," protested Ned. "I think the benefits of Harry's discovery should go to Harry's mother and to him, although I think Harry is right in having one of the claims staked out in your name."

"But, Mr. Harrington," said Harry, "I must insist that the claims shall be made out as I have stated, and I shall be very unhappy if you refuse to do this."

"Ned," replied the engineer, "I think you had better agree. I shall not refuse because Harry wishes this to be done, and there is plenty of the vein. Of course," he added, to Ned, "we will insist on staking out what we believe to be the best claims or those in which the presence of rich ore has actually been proved. We will stake our claims on the far end of the vein."

"Don't bother your head about Dick and me," said Charlie. "Of course, we would like to have a claim, but we really have no right to it."

"Yes," said Harry, "I want a claim taken out in your name."

As soon as this matter had been definitely settled, Mr. Harrington added :

"I would also recommend that ten claims be staked out on vein No. 2."

“Mr. Harrington,” said Harry, “may I make a suggestion?”

“Certainly, Harry, what is it?”

“That we divide these claims between mother, you, Ned and myself.”

Both Ned and Mr. Harrington objected to this, but it was finally agreed that these claims should be staked out in the following names. Three to Mrs. Maxwell; three to Harry; two to Mr. Harrington, and two to Ned.

The final preparations were completed for leaving the camp at Dead Man's Gulch. It was determined, after consultation, to leave the tent standing, care, of course, being taken to conceal the opening to the mine in the back of the tent, by filling it with clay in which pieces of vein matter were inserted in the manner in which it had been left by Harry's father.

“I think it will be best to leave the tent standing,” said Mr. Harrington, “since on our way to the county seat, we will pass through the gold field that Harry and Ned have discovered, where we will see Gleason and O'Reilly. As soon as these men learn that we have staked out a claim for them, one of them will be only too glad to come and look after the property; for, as soon as the claims are filed in the county seat, the

location of the gold mine will be fixed and hundreds of prospectors will flock here, so that it will be necessary to have some one on the property."

On reaching the new gold field, they found that Gleason and O'Reilly had prospected the field and staked out claims on what appeared to them to be the best vein. They were very well satisfied with what had been done, for the vein was very rich and gave indications of rapidly increasing in richness in depth.

"Glad to see you, boys," said Jim, as soon as he recognized the party. "I guess by this time you have given up all hope of ever finding the lost gold mine. If Bill, and I, and hundreds of others, couldn't find it, of course you couldn't. But don't be disappointed; we have laid out a good claim for each of you here. This gold field will probably prove to be a very rich one."

"No," said Harry, "we did not give up. We found the mine, and where do you think we found it?"

"Come now, Mr. Harry," said Jim, "you are jollying us sure. Tell us where you found it."

"The entrance to the mine was situated in the cliff on the side of the gully against which your tent rested and inside your tent."

"Well, I'm jiggered," remarked Jim. "Do

you hear what he says, Bill? To think of our looking all over the country for miles and miles, and then coming back and sleeping almost within reach of the entrance and yet not find it."

The men then eagerly asked the full explanations of the discovery.

"Well," said Bill, "it was a square deal. We gave up the search, you took it up and were successful. I congratulate you boys on this discovery. It was certainly very clever work."

"Jim," said Harry, "we have staked out a very good claim for you and Bill together, and are now on our way to the county seat to enter this and the other claims we have staked out there."

"You're treating us very liberal," said Jim, "and we are certainly much obliged to you."

When Jim and Bill heard that Mr. Harrington was a mining engineer, they asked him to make an examination of their claims. He did so, remaining with them a couple of days for this purpose, correcting some mistakes they had made in locating these claims. This pleased them so much that they insisted on one of the claims being taken out in his name, since, as they said, they could not afford to pay him for

his professional services. It was while these claims were being staked out, that Harry suggested that the mine so established be called the Cartwright mine, a proposition to which both Jim and Bill at once agreed.

Before leaving, Mr. Harrington suggested that either Jim or Bill should at once return and take possession of their old tent and watch the mine until some plan could be made concerning it.

"All right," said Jim; "you go back, Bill, and I will stay here."

After the claims were regularly entered at the county seat, they returned to the Martin ranch, where a few days were very pleasantly spent. Their welcome here, especially by the cowboys, as well as by Jack and Jill, and Mr. and Mrs. Martin, was of a character which left no room for doubting its sincerity.

On reaching Denver, they had the good fortune to join the Trevor party, who had completed the examination of their western properties, and were on their way home to the east. On hearing the news of the discovery of the Maxwell mine, and of the Harrington and Cartwright prospects, arrangements were commenced, that were finally consummated by the agreement of all the parties,



by means of which their proper working was undertaken on terms very favorable to the holders of the claims.

The companies formed to operate these properties were ably financed by Mr. Trevor, Mr. Cartwright and their associates, and proved a source of great revenue. We have not given the exact location of the mine and prospects for reasons that will be readily understood. They all, however, proved to be among the greatest producers in the west, the Maxwell interest being more than sufficient to enable Harry to obtain the best preparation in mining engineering that the country could afford.

Several weeks after reaching home, Harry received a cordial invitation from Mr. and Mrs. Cartwright to come and spend the week with them in New York.

One morning, at the breakfast table, soon after his arrival, Mr. Cartwright handed separate letters to Harry and Ned, saying :

“ I see these are from Mr. Trevor. I think I know what they contain. Mr. Trevor on behalf of myself and some of the other capitalists who have undertaken to finance the Maxwell, Harrington and Cartwright properties, invites you and Ned to meet them at a quiet little affair to-

morrow at 9:30 P. M. at the Waldorf-Astoria. I trust that you will both be present."

On opening their letters, they found, as Mr. Cartwright had intimated, an invitation from Mr. Trevor to meet him and a few of his friends at the Waldorf-Astoria at 9:30 P. M. on the following day.

After they had left the table, Ned remarked to Harry :

"Don't fool yourself, Harry, about this being a quiet little affair. Mr. Trevor, father, and his associates have a way of running these quiet little affairs that may surprise one, especially when they are held in a place like the Waldorf-Astoria."

As Ned had predicted, it was far from "a quiet little affair" to which they had been invited.

To their great delight, Mr. Harrington was one of the guests, and, to their great surprise, Mr. Martin of the ranch was another. All the guests having arrived, they were ushered into one of the largest private dining-rooms in the hotel, where a table was set for twenty guests. Ned and Harry were assigned places of honor on the left and right hand, respectively, of Mr. Trevor, who presided. On taking his seat, Mr. Trevor remarked :

“Our entertainment being given in honor of these lads, I am sure all will understand why no wines or liquors will be served to-night.”

“That’s all right, Trevor,” exclaimed several. “We heartily approve of this course.”

But the dinner more than made up for the absence of the usual stimulants. The chef excelled himself. And well he might; for, as Ned afterward informed Harry, the total wealth represented at that table, as Mr. Trevor’s associates, reached fully one thousand million dollars.

When the last course had been served, Mr. Trevor, rising, said :

“Gentlemen, as you are all aware, our guests of honor are our young friends here. I think it but right, therefore, that I should give you a short account of what they have done, and why my associates and I have wished to greet them as we have done this night. In order that you may the better understand these boys, I shall call on several of the gentlemen present to tell you what they know of them. I will first call on Mr. Harrington, our mining expert.”

Mr. Harrington, in a capital speech, then gave a graphic account of the way in which the boys saved his life at the lake in Massachusetts, while

he was making an examination of the granite quarries, in which so many of the gentlemen present were financially interested. He then traced the manner in which the lost gold mine had been re-located, as well as the discovery of the new gold field. He congratulated those present who were financially interested in these mines, saying that the Maxwell mine was, in his judgment, destined to become one of the most valuable mines in the West, while the Harrington and Cartwright prospects would, he believed, prove extremely valuable. In conclusion, Mr. Harrington paid a glowing tribute to the courage, intelligence, and manliness of both boys, saying that he esteemed it a high privilege to have so thoroughly gained their friendship.

Mr. Martin, who was next introduced, gave a detailed account of the manner in which the boys had saved his children's lives by the shooting of the bears, relating, at the same time, the incident in the cañon during the cloudburst, and the treatment of Deadshot Dick when bitten by the rattlesnake.

"It is now my pleasure," added Mr. Trevor, "to introduce to you a well-known member of the Carnegie Hero Commission, a gentleman known all over the mine for the kindness of his

heart and the extent of his riches, who, I am sure, will interest you in what he has to say."

At the mention of the well-known name, no little excitement was produced since very few of them knew that the gentleman was present, he having slipped quietly into the room, while Mr. Harrington was talking.

"I am very happy," said the gentleman in that pleasant conversational style which characterized his public speeches, "to have been here to-night, and to have listened to what has been said concerning these lads, who are the kind I especially like. The Carnegie medal has been awarded to each of them only after a most careful investigation, an award which I feel sure, from what I have heard, has been richly deserved. It is, therefore, with great pleasure that I present each of you boys with the Carnegie medal," and calling them to him, he pinned a medal on each of their coats, at the same time, grasping them warmly by the hand.

"It is not often," continued the speaker, "that I assume the rôle of a prophet, but I am sure you will pardon me if I add that lads of the type of those to whom the Carnegie medal has just been awarded, brainy, enterprising, courageous, manly lads, who will doubtless identify

themselves with the business developments that Mr. Harrington has predicted as probably resulting from these mines, cannot fail to occupy important positions in the communities that will collect in the new fields, so that I think I can safely congratulate them on victories and successes yet to be achieved."

As he finished speaking, the guests called on both Harry and Ned for speeches. The lads surprised both themselves and their friends by the modest and manly way in which they thanked the gentlemen for the kind things said about them, adding that they would endeavor to realize, the bright future that had been so kindly predicted.

Next summer, both Harry and Ned spent their time in the West on the mining properties. The Maxwell mine even exceeded the bright promises that Mr. Harrington had made for it, while the Harrington and Cartwright mines threatened to become formidable rivals of the Maxwell mine as producers of precious metal.

THE END



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