

**ROYAL RANGER RALPH;  
The Waif of the Western Prairies.**  
BY WELDON J. COBB.

CHAPTER VII.—Continued.  
Their hands and eyes met. One glance at their resolute faces told that Dyke Despard would have a care for himself when these two men started upon his trail.

"Remember," spoke the scout, "this is an ordinary venture."  
"I realize and am ready for it," replied Darrel sturdily.

"Already Despard has crossed the dead line of civilization and is among the bad lands to the east."  
"Then we can follow him there."  
"Yes; only he is at home and among friends, where the white rangers and the red warrior will be banded against us. Patience, courage, and craft can alone overcome our enemies."  
"I will dare it for the sake of the hundred that we seek to save," cried Darrel, enthusiastically. "But you are ill from the wound you received—unable to go out on the trail until you are recovered."  
"Not so, Darrel," replied the scout. "The herbs I have taken have restored my strength."  
"Then we start."  
"At once."  
One hour later, mounted on two superb steeds and fully armed and equipped for the expedition, the old scout and his young companion set forth upon the most perilous and momentous adventure of all their eventful lives.

CHAPTER VIII.  
ON THE TRAIL.  
The path was bright as day as Darrel and Ranger Ralph rode from the little town at Minner, Gulch toward the hills to the east in the near distance.

As nearly as possible, the former informed the scout of the course Despard had taken in carrying away the receptacle of medicine, Inez Tracy.

"They soon found themselves threading a rocky defile, a one which the practical eye of the scout discovered evidence of recent travel."

"They have come this way," he said to Darrel.

"How can we overtake them?"  
"As easily as you think."  
"Why not?"  
"They have a fat start of us, and once in the mountains it will be difficult to follow their trail."

The huntsman became wild, and at times almost impossible, as they proceeded on their way. At midnight the scout came to a halt, utterly at fault.

"We are in a quandary now," he remarked.

"How?" asked Darrel.

"Here the country diverges. The outlaw may have gone down the valley by the wilderness beyond, in and through the gulch yonder to the outlaw country, or straight down through the hills for the Indians."

"For nearly an hour I reconnoitered a short distance in each direction. The result has showed a satisfied expression on my returned to the head of the cañon."

"Have you learned anything?" asked Darrel, eagerly.

"Yes."  
"What is it?"  
"The scout showed a ribbon, which Darrel recognized as belonging to the dress worn by Inez Tracy."  
"Do you recognize it?" asked Ralph.

"Yes."  
"Then the Indian country is our destination. They are carrying her to their old-time allies, the Mohees."  
Darrel looked deeply concerned, but the scout seemed more encouraged and vigilant than ever, and urged his horse to a more rapid rate of speed.

The morning light brought them encouraging traces of the persons they sought. They were toiling up a steep ascent, when Darrel found a piece of bright red cloth, evidently belonging to Despard's hand, and they pressed on confident that they were on the right trail.

"Do not let the mountains come to a stop," remarked the scout.

"And beyond that?"  
"Risks and forest, and the camping grounds of the marauding bands of savages. Hat smoke."

As Ranger Ralph spoke, his companion observed a slight volume of smoke emanating from some rocks beyond them.

"They drove about as rapidly as the broken roadway would admit. At a turn a scene of wondrous beauty and extent bled them momentarily spellbound."

The mountain of stone shot down sheer a thousand feet perfectly perpendicular, and beyond it stretched a wooded plain far as the eye could reach.

There seemed no means of reaching it, except by a toll-gate ride to where there was a huge gradual descent.

Darrel thrilled to learn excitement as he glanced at a point some distance below them.

A body of horsemen were just disappearing into a dense stretch of timber.  
"Despard and his men?" he cried.

"It must be them."  
"Then they have escaped us?"  
"No; necessarily, the trail will be better on the lowlands than here. I think I know Despard's plans."  
"What are they?"  
"To rejoin one of his old allies in a raid on the Pueblo River, forty miles across the country."

To reach this they would undoubtedly have to pass through much danger, and it might be impossible to follow Despard's trail easily.

Several times that day they saw vagrant parties of Indians in the distance, but concealed themselves until they were out of sight.

"There are two points for us to remember," said the scout, that evening at dusk.

"What are they?" asked Darrel.

"First, to attempt the rescue of Inez Tracy, and second, to follow the trail, to whom Inez's father left his fortune, before Despard leaves where he is. We are likely to encounter many dangers ere we accomplish it, and must be wary, for we may come upon our enemies at any moment."  
"Yes."  
"They had come to the banks of the

"You think Despard's men built the fire?"  
"Yes; for they must have recently passed this spot."  
"That I cannot tell."  
"Then let us ascertain."  
They dismounted and approached the cave. Both started as a low wail, like that of a person exhausted by pain, seemed to emanate from the smoking cavern.

"Do you hear that?" cried Darrel, excitedly.

"Yes."  
"Some one is in there!"  
"Probably a wild beast that they tried to smoke out."  
The cry was repeated—agonized, muffled, but still perfectly distinct.

Darrel Grey turned pale.

"It is a woman's voice," he gasped, wildly. "Ah! Ralph, if it should be—"

"Who?"  
"Inez."  
The scout started.

"No, no; you wouldn't dare to let the girl that way!"  
"You do not know them. No crime is too deep for these Indian chieftains. Quick! Aid me; I must know who is in that cave!"

In a moment they were at work tearing and dragging the half-rotten matting from the mouth of the cavern.

Even after they had removed it the place was so filled with smoke as to choke and blind them.

Still, Darrel did not delay, but dashed recklessly forward.

A cry of horror and joy of relief escaped his lips as he saw a woman lying on a pile of leaves. It was that of a woman, but it was not Inez Tracy.

Instead, the dim light of the cave showed a face dusky, though beautiful—the countenance of a full-blooded Indian. Her eyes were closed, and her hands, stiffened by the smoke, lay on her chest, threatening her with a certain death when Darrel found her. He lifted her gently in his arms and bore her to the open air.

The profound amazement of Ranger Ralph started at the strange figure.

Darrel ceased the bonds that secured the girl. Her wild, hair-dressed eyes swept his face for a moment before she heaved, and she grasped his hand in the most agonizing of her life.

"Who is she?—how came she here?" asked the bewildered Darrel.

"Ask her," spoke Darrel's companion, it seems, suggested the scout.

"But she is dead," she murmured, in a low, broken voice, as she looked up at the woman who she held in her arms. "The White Fawn has her secrets and will not tell them. But when the day comes when the Black Crow stands face to face with her again, let him beware!"

"Despard," gasped the scout. "It was he who shot her up in that cave to die? See here, my girl, we've helped you out of a dreadful way; will you return the favor?"

The Indian maiden did not direct attention to the scout, but fixed her eyes with a devil-dog light on the face of Darrel.

"The White Fawn would die to serve the young lady here," she said earnestly.

"Then lead us to the prairie beyond," spoke Darrel.

She sprang before his horse.

"I obeyed their dusky gods, who led them from the spot with the swiftness and accuracy of one familiar with the locality."

Not a word was spoken until they reached the base of the descent to the plain below. The broad prairie, with its wooded stretch, lay before them.

As far as one of these girls it accompanied them. Though she turned as if to leave them, suddenly she paused in a listless attitude. Then she spoke impetuously.

"She will come," said Ranger Ralph. "She has discovered something, you think," asked Darrel.

A minute later the fifth figure of White Fawn reappeared.

"A crowd of friendly savages," she said, breathlessly. "They are on their way to the reservation. They are my friends. They go by my way. Come, my friends shall be cared for, and you shall be led."

She led Darrel's horse by the bridle, and she escorted a slight young man, a half-breed Indian, and a large party of Indians, who surrounded them in a friendly manner, and they remained for an hour with them, securing valuable information as to the country around them.

They were informed that the roving bands of Indians were massing their forces under the leadership of a chief of the Nez Percés who was urging them to a general attack on the settlements of the pale faces.

It was a party leaving the camp that night. Darrel eyed the hand of Darrel Grey in a wary, earnest pressure.

"You have saved my life," she said, "White Fawn never forgets friend or foe. Take this, and in your hour of danger, it may save you, if you ever fall into the hands of Snake or his tribe."

She fitted away one Darrel could ask for an explanation of her strange words.

He regarded the singular ornament she had given him, as his horse started away. It was a piece of Indian char-acter, carved upon it, and laid together by a chain made of the rattle of a snake.

Little did either of the men dream of its future value to them, or of the effect upon the future of the nation surrounding White Fawn was destined to exert.

They were now compelled to exert caution on their movements, and kept to the timber as much as possible.

The information they had received led them to believe that their enemies had gone to the savages, massed a camp at the Pueblo River, forty miles across the country.

To reach this they would undoubtedly have to pass through much danger, and it might be impossible to follow Despard's trail easily.

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"There are two points for us to remember," said the scout, that evening at dusk.

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CHAPTER IX.  
THE MINE.  
Ranger Ralph directed his horse across the river and Darrel Grey followed closely after him. The stream was very deep at its center, but the horses bridled their swift current and landed them safely on the opposite bank.

"That is our only chance," shouted the scout, "do not lose it."

"No; not lose it," replied the ranger. "The Indians brought his horse to its knees, and it fell quickly and was carried away about him. In the end, and on both sides the woods were filled with the young Indians. They had been attracted to the spot by the warning cry of the Indian in the cañon."

Immediately after discovering the strangers, the savages had disappeared, and their spears, which had been hurled towards the thicket.

"Hurry," ordered the scout, in a low tone. "We are in a scrape and must make the best of it."  
"How?" asked Darrel.

"Use the time being," replied the scout. "The Indians are coming. We had better separate."  
Ranger Ralph suddenly swung himself up to the branches of an immense tree, which was the tallest of the forest.

Darrel Grey sought to do the same, but he was hindered by the excitement of the occasion, delayed a moment, too long.

Three stalwart savages suddenly came to a halt.

"That they had discovered him, the chief of the Indians had just informed him. He started for the river and ran down its banks swiftly."

A cry of concern broke from Darrel's lips as he glanced about. Several other Indians were running in an opposite direction.

He was completely dumbfounded, and he seemed to be in a bad predicament.

He had just one quick glance at the river, and he determined to trust himself to the water. Then Darrel dropped out of view and began to wade into the swift central current of the river.

He could hear the savages talking excitedly, and apparently making their way toward him. "Save the child," said one of the Indians, but that he would not long be able to say, there he is reality.

He pulled to a new idea of safety as he saw another of the Indians had a hand on his gun, and he saw that he had a chance of escaping. He had a chance of escaping, he had a chance of escaping, he had a chance of escaping.

He had a chance of escaping, he had a chance of escaping, he had a chance of escaping.

**PLACER MINING  
IN THE KLONDIKE.**

A Full Description of the Way the Precious Dust is Taken Out of the Earth.

So far all the mining that has been done in the Klondike country has been what is known as placer mining. This is the simplest and oldest form of mining, and is usually adopted in new gold fields. In its crudest form, placer mining is simply the picking up of a panful of dirt from the bed of a stream where gold is supposed to exist, the washing away of the dirt and pebbles and the gathering of the gold, which, because of its weight, sinks to the bottom of the pan.

For example, let us follow a prospector on some stream in our Western gold fields, where the complication of generally frozen ground does not enter into the question. After traveling perhaps many weary days he comes on a stream coming down some mountain gorge that looks "likely," as he says, to his practiced eye. He stops and examines the pebbles on the bottom, and finds a good many of them are quartz.

This, although not in itself an indication of gold, is a good sign, so the prospector scrapes away the earth and stones at the bottom of the stream to the depth of a foot or so, and then



TWO TYPICAL KLONDIKERS IN FULL DRESS

takes out a panful of dirt. The pan, by the way, is nothing but a broad, shallow dish of strong sheet iron.

Having done this, he puts in enough water to make the painful semi-liquid, and then gives it a rapid, twisting motion. "This causes the gold, if there is any, to sink to the bottom of the pan. Then the gravel and sand are carefully washed out until only the heavy residue remains in the pan. This residue is carefully examined to see how many 'colors' there are in it. 'Colors' is the term miners give to the particles or nuggets, if there are any, of gold that can be seen at the bottom of the pan.

But gold is not the only thing that sinks to the bottom of the pan. Almost always there is found with gold a fine black sand, which is magnetic iron ore, and from this the gold has to be separated. Of course, if the gold is in nuggets of any size this is a simple process, but if it is in fine dust, as is generally the case, the mercury process is employed.

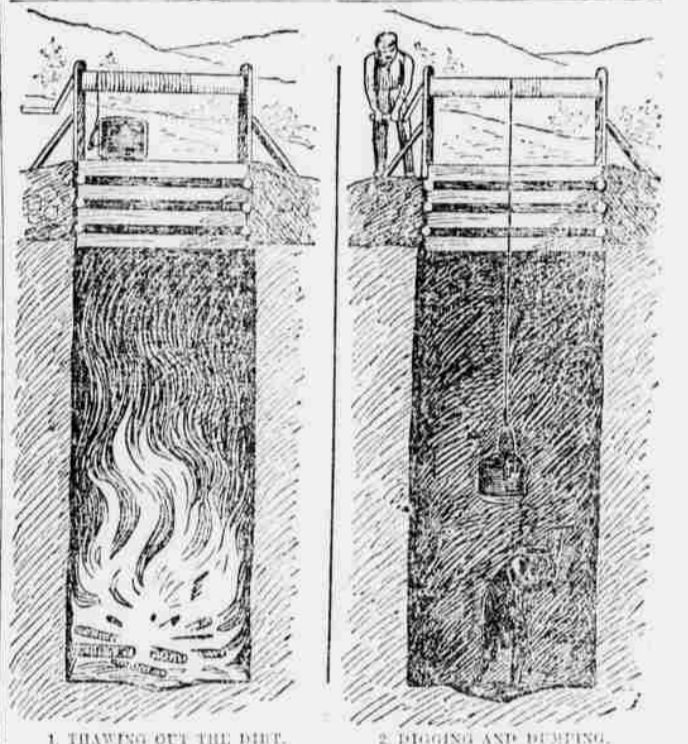
In this the residue in the pan is placed in a barrel with some water and

outside until the stream opens in the spring. Then the sluice boxes are set up and the water's discharge washed out. Thus a miner is enabled to keep busy about all the year.

This method of locating out a shaft and tunnel is by no means new, for it has been carried on for many years in the basins of the Anuro and Lena Rivers in Siberia, where the conditions are very similar to those in the Klondike region.

Later it was changed to Rockwell and then to Juneau, which name it still holds. This last christening took place in 1881.

The next year both placer and quartz mines were discovered on Douglas Island, about four miles from Juneau. These are now the famous Treadwell mines, having been bought by John Treadwell in 1881, and, says J. C. Condit, "from these mines ore has been taken out to pay the purchase



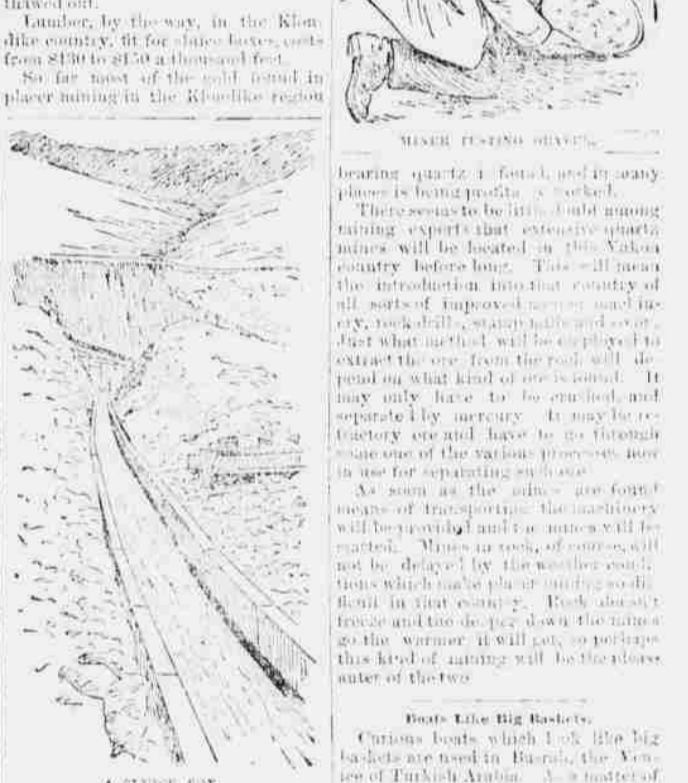
1 THAWING OUT THE DIRT. 2 DIGGING AND DEWATERING.

Placer mining in Alaska differs from placer mining in Western states only in that the dirt has to be thawed out, and that water for washing can be obtained there only a month or two in any given year.

And even when bedrock is reached it is in many cases filled with cracks and seams which are rich in gold and well worth the digging out. As to the value of exposures in this frozen soil scientific differences. The Mining and Scientific Press, and recently that they can be used effectively, while the Mining and Engineering Journal, in speaking of the Siberian mines, says their effect is simply to heat the ground together harder. For this same reason, says the latter journal, the ground must be dug with a pick and shovel until thawed out.

Lumber, by the way, in the Klondike country, fit for sluice boxes, costs from \$130 to \$150 a thousand feet.

So far most of the gold found in placer mining in the Klondike region



MINER TESTING SLUICE.

bearing quartz, a fourth and in many places is being profitably worked.

There seems to be little doubt among mining experts that extensive quartz mines will be located in the Yukon country before long. This will mean the introduction into that country of all sorts of improved machinery and heavy rock drills, dynamite and other things which make placer mining profitable in that country. Rock drills, dynamite and the deep-draw mines go the warmer it will go, so perhaps this kind of mining will be the latest water of the two.

Curious little which look like big baskets are used in Barrow, the Venetian of Turkish Arabia. As a matter of fact, they are practically perfect, being made of wicker-work, plastered to keep out the water. They are known as 'baskets' and the English who found them (see above) to be made like the three men of Arabia who went to sea in a bowl. Full comparatively recent times a boat something similar is shown and no length the same material, called 'boats', were used. By accident on many of the turbulent streams in Wales another form of a boat could be seen to give the navigation of these streams, and

And this brings us to the subject of quartz mining in Alaska, for the gold-bearing region up there is by no means confined to the Klondike country. According to the recently published handbook on "Klondike," written by L. A. Condit, of Washington, there are in southeastern Alaska gold mines which have been worked for the past twelve years, and which in 1895 yielded over \$2,000,000 to the gold surplus of the world. Of this mining region Juneau is the center, and its discovery is shared by Richard Harris and Joseph Juneau. In 1880 these two men started out from Sitka. It was in the summer—and in August discovered gold in a stream which they named Gold Creek. Later they explored this stream to its source in a mountain valley, which they named Silver Bow Basin. Then a town site was established at the mouth of Gold Creek, which was at first named Har-

SLUICING AT A RICH CLAIM IN THE KLONDIKE.  
(From the mine, \$3000 was taken from a piece of ground 24 by 34 feet in plane dimensions. It is officially designated as "No. 2, Below" Bonanza.)

mercury. The gold, when it touches the mercury, forms an amalgam. After a quantity of gold has been put in the barrel the mercury is taken out, and what remains in the bag is heated, either in a retort or in some other way, until what mercury is left is vaporized, and the gold remains, nearly pure.

This is placer mining in its most primitive form, but it is slow work, and long ago various methods were devised

to shorten it where it was to be carried on to any extent.

The first step in advance in placer mining is the use of the "rocker." The rocker looks like one of the old cradles we find one in a while in the attic of some old house up in the country. It is a box about three feet long and two feet wide, placed on rockers just like a cradle. A part of the box is covered with a piece of heavy sheet iron, placed a few inches below the top and pushed full of holes about a quarter of an inch in diameter. The bottom of the rest of the box slants towards the lower end and is covered with a piece of woven blanket. Towards the end of the box slats are placed across, with mercury behind them, to catch what gold gets by above.

The miner sets up his rocker near the stream and piles his gravel on the sheet iron, keeping it wet all the while and keeping the rocker in motion. The fine gold and sand slip through the slats, while nuggets of any size remain on the iron. The finer gold settles on the blanket and the dust is caught by the mercury behind the slats. The blanket is frequently rinsed in a barrel of water with mercury at the bottom, and this mercury, together with that behind the slats, is "roasted" as in the other method.

But even this method is not used when "sluicing" is possible, as it is when the stream has sufficient fall. In sluicing a number of long boxes are made which fit into each other like a stoppage. Across these boxes slats are placed with mercury behind them, and sometimes the bottom are bored full of holes and mercury placed under them. A long line of these boxes is placed at a considerable slant and the miner shovels his gravel in at the upper end, lets the water run down the slant and the gold, if in nuggets, sinks and is held by the slats, or, if fine, is caught by the mercury. Three times as much gold can be washed out in this way as by a rocker, because three times as much dirt can be washed. And after the boxes are all done with they are burned and the ashes washed for the gold held by the wood.

These are the various methods of placer mining and thus they are practiced in the Klondike region, hampered only by the natural conditions of the country. Let us now look for a moment at what these conditions entailed the Klondike miner to do.

Let us suppose the gold-hunter has passed through the difficult journey and arrived at the gold fields. He first goes out and prospect until he finds a claim where "colors," in his pan encounter him to locate. If he should happen to be early on a new field he would probably stake out a claim next to one that was already paying in the hope that his would pay, too. A Klondike claim is supposed to be laid out 500 feet long parallel with the general direction of the creek, and 600 feet crosswise, the idea being to give each location the width of the gravel from rim rock to rim rock. Most of the creeks up there have a slight fall with wide bottoms. Bedrock is anywhere from four to twenty feet below the surface and pay dirt is apt to extend clear down to bedrock.

Of course, the great difficulty that the miner has to contend with is the fact that the ground is frozen solid all the year, and even in summer

"I do not know."