

The Outlook
October 4, 1913

A Cougar Hunt on the Rim of the Grand Canyon

This is the first of three articles by Mr. Roosevelt about his Arizona experiences last summer. It will be followed in the next two issues of The Outlook by articles entitled "Across the Navajo Desert" and "The Hopi Snake Dance." Two pictures illustrating the present article will be found in this issue, in the department "Current Events Pictorially Treated." – THE EDITORS

ON July 14, 1913, our party gathered at the comfortable El Tovar Hotel, on the edge of the Grand Canyon of the Colorado, and therefore overlooking the most wonderful scenery in the world. The moon was full. Dim, vast, mysterious, the canyon lay in the shimmering radiance. To all else that is strange and beautiful in nature the Canyon stands as Karnak and Baalbec, seen by moonlight, stand to all other ruined temples and palaces of the bygone ages.

With me were my two younger sons, Archie and Quentin, aged nineteen and fifteen respectively, and a cousin of theirs, Nicholas, aged twenty. The cousin had driven our horses, and what outfit we did not ourselves carry, from southern Arizona to the north side of the canyon, and had then crossed the canyon to meet us. The youngest one of the three had not before been on such a trip as that we intended to take; but the two elder boys, for their good fortune, had formerly been at the Evans School in Mesa, Arizona, and among the by-products of their education was a practical and working familiarity with ranch life, with the round-up, and with travelling through the desert and on the mountains. Jesse Cummings, of Mesa, was along to act as cook, packer, and horse-wrangler, helped in all three branches by the two elder boys; he was a Kentuckian by birth, and a better man for our trip and a stauncher friend could not have been found.

On the 15th we went down to the bottom of the canyon. There we were to have been met by our outfit with two men whom we had engaged; but they never turned up, and we should have been in a bad way had not Mr. Stevenson, of the Bar Z Cattle Company, come down the trail behind us, while the foreman of the Bar Z, Mr. Mansfield, appeared to meet him, on the opposite side of the rushing, muddy torrent of the Colorado. Mansfield worked us across on the trolley which spans the river; and then we joined in and worked Stevenson, and some friends he had with him, across. Among us all we had food enough for dinner and for a light breakfast, and we had our bedding. With characteristic cattleman's generosity, our new friends turned over to us two pack-mules, which could carry our bedding and the like, and two spare saddle-horses—both the mules and the spare saddle-horses having been brought down by Mansfield because of a lucky mistake as to the number of men he was to meet.

Mansfield was a representative of the best type of old-style ranch foreman. It is a hard climb out of the canyon on the north side, and Mansfield was bound that we should have an early start. He was up at half-past one in the morning; we breakfasted on a few spoonfuls of mush; packed the mules and saddled the horses; and then in the sultry darkness, which in spite of the

moon filled the bottom of the stupendous gorge, we started up the Bright Angel trail. Cummings and the two elder boys walked; the rest of us were on horseback. The trail crossed and recrossed the rapid brook, and for rods at a time went up its boulder-filled bed; groping and stumbling, we made our blind way along it; and over an hour passed before the first grayness of the dawn faintly lighted our footsteps.

At last we left the stream bed, and the trail climbed the sheer slopes and zigzagged upward through the breaks in the cliff walls. At one place the Bar Z men showed us where one of their pack-animals had lost his footing and fallen down the mountainside a year previously. It was eight hours before we topped the rim and came out on the high, wooded, broken plateau which at this part of its course forms the northern barrier of the deep-sunk Colorado River. Three or four miles farther on we found the men who were to have met us; they were two days behindhand, so we told them we would not need them, and reclaimed what horses, provisions, and other outfit were ours. With Cummings and the two elder boys we were quite competent to take care of ourselves under all circumstances, and extra men, tents, and provisions merely represented a slight, and dispensable, increase in convenience and comfort.

As it turned out, there was no loss even of comfort. We went straight to the cabin of the game warden, Uncle Jim Owens; and he instantly accepted us as his guests, treated us as such, and accompanied us throughout our fortnight's stay north of the river. A kinder host and better companion in a wild country could not be found. Through him we hired a very good fellow, a mining prospector, who stayed with us until we crossed the Colorado at Lee's Ferry. He was originally a New York State man, who had grown up in Montana, and had prospected through the mountains from the Athabaska River to the Mexican boundary. Uncle Jim was a Texan, born at San Antonio, and raised in the Panhandle, on the Goodnight ranch. In his youth he had seen the thronging myriads of bison, and taken part in the rough life of the border, the life of the cowmen, the buffalo-hunters, and the Indian-fighters. He was by instinct a man of the right kind in all relations; and he early hailed with delight the growth of the movement among our people to put a stop to the senseless and wanton destruction of our wild life. Together with his—and my—friend Buffalo Jones he had worked for the preservation of the scattered bands of bison; he was keenly interested not only in the preservation of the forests but in the preservation of the game. He had been two years buffalo warden in the Yellowstone National Park. Then he had come to the Colorado National Forest Reserve and Game Reserve, where he had been game warden for over six years at the time of our trip. He has given zealous and efficient service to the people as a whole; for which, by the way, his salary has been an inadequate return. One important feature of his work is to keep down the larger beasts and birds of prey, the arch-enemies of the deer, mountain-sheep, and grouse; and the most formidable among these foes of the harmless wild life are the cougars. At the time of our visit he owned five hounds, which he had trained especially, as far as his manifold duties gave him the time, to the chase of cougars and bobcats. Coyotes were plentiful, and he shot these wherever the chance offered; but coyotes are best kept down by poison, and poison cannot be used where any man is keeping the hounds with which alone it is possible effectively to handle the cougars.

At this point the Colorado, in its deep gulf, bends south, then west, then north, and incloses on three sides the high plateau which is the heart of the forest and game reserve. It was on this plateau, locally known as Buckskin Mountain, that we spent the next fortnight. The altitude is from eight thousand to nearly ten thousand feet, and the climate is that of the far north. Spring does not come until June; the snow lies deep for seven months. We were there in midsummer, but the thermometer went down at night to 36, 34, and once to 33 degrees

Fahrenheit; there was hoarfrost in the mornings. Sound was our sleep under our blankets, in the open, or under a shelf of rock, or beneath a tent, or most often under a thickly leaved tree. Throughout the day the air was cool and bracing.

Although we reached the plateau in mid-July, the spring was but just coming to an end. Silver-voiced Rocky Mountain hermit-thrushes chanted divinely from the deep woods. There were multitudes of flowers, of which, alas! I know only a very few, and these by their vernacular names; for as yet there is no such handbook for the flowers of the southern Rocky Mountains as, thanks to Mrs. Frances Dana, we have for those of the Eastern States, and, thanks to Miss Mary Elizabeth Parsons, for those of California. The sego lilies, looking like very handsome Eastern trilliums, were as plentiful as they were beautiful; and there were the striking Indian paint-brushes, fragrant purple locust blooms, the blossoms of that strange bush the plumed acacia, delicately beautiful white columbines, bluebells, great sheets of blue lupin, and the tall, crowded spikes of the brilliant red bell—and innumerable others. The rainfall is light and the ground porous; springs are few, and brooks wanting; but the trees are handsome. In a few places the forest is dense; in most places it is sufficiently open to allow a mountain-horse to twist in and out among the tree trunks at a smart canter. The tall yellow pines are everywhere; the erect spires of the mountain-spruce and of the blue-tipped Western balsam shoot up around their taller cousins, and the quaking aspens, the aspens with their ever-quivering leaves and glimmering white boles, are scattered among and beneath the conifers, or stand in groves by themselves. Blue grouse were plentiful—having increased greatly, partly because of the war waged by Uncle Jim against their foes the great horned owls; and among the numerous birds were long-crested, dark-blue jays, pinyon-jays, doves, band-tailed pigeons, golden-winged flickers, chickadees, juncos, mountain-bluebirds, thistle-finches, and Louisiana tanagers. A very handsome cock tanager, the orange yellow of its plumage dashed with red on the head and throat, flew familiarly round Uncle Jim's cabin, and spent most of its time foraging in the grass. Once three birds flew by which I am convinced were the strange and interesting evening grosbeaks. Chipmunks and white-footed mice lived in the cabin, the former very bold and friendly; in fact, the chipmunks, of several species, were everywhere; and there were gophers or rock-squirrels, and small tree-squirrels, like the Eastern chickarees, and big tree-squirrels—the handsomest squirrels I have ever seen—with black bodies and bushy white tails. These last lived in the pines, were diurnal in their habits, and often foraged among the fallen cones on the ground; and they were strikingly conspicuous.

We met, and were most favorably impressed by, the forest supervisor, and some of his rangers. This forest and game reserve is thrown open to grazing, as with all similar reserves. Among the real settlers, the home-makers of sense and far-sightedness, there is a growing belief in the wisdom of the policy of the preservation of the national resources by the National Government. On small, permanent farms, the owner, if reasonably intelligent, will himself preserve his own patrimony; but everywhere the uncontrolled use in common of the public domain has meant reckless, and usually wanton, destruction. All the public domain that is used should be used under strictly supervised governmental lease; that is, the lease system should be applied everywhere substantially as it is now applied in the forest. In every case the small neighboring settlers, the actual home-makers, should be given priority of chance to lease the land in reasonable sized tracts. Continual efforts are made by demagogues and by unscrupulous agitators to excite hostility to the forest policy of the government; and needy men who are short-sighted and unscrupulous join in the cry, and play into the hands of the corrupt politicians who do the bidding of the big and selfish exploiters of the public domain. One device of these

politicians is through their representatives in Congress to cut down the appropriation for the forest service; and in consequence the administrative heads of the service, in the effort to be economical, are sometimes driven to the expedient of trying to replace the permanently employed experts by short-term men, picked up at haphazard, and hired only for the summer season. This is all wrong: first, because the men thus hired give very inferior service; and, second, because the government should be a model employer, and should not set a vicious example in hiring men under conditions that tend to create a shifting class of laborers who suffer from all the evils of unsteady employment, varied by long seasons of idleness. At this time the best and most thoughtful farmers are endeavoring to devise means for doing away with the system of employing farm-hands in mass for a few months and then discharging them; and the government should not itself have recourse to this thoroughly pernicious system.

The preservation of game and of wild life generally—aside from the noxious species—on these reserves is of incalculable benefit to the people as a whole. As the game increases in these national refuges and nurseries it overflows into the surrounding country. Very wealthy men can have private game-preserves of their own. But the average man of small or moderate means can enjoy the vigorous pastime of the chase, and indeed can enjoy wild nature, only if there are good general laws, properly enforced, for the preservation of the game and wild life, and if, furthermore, there are big parks or reserves provided for the use of all our people, like those of the Yellowstone, the Yosemite, and the Colorado.

A small herd of bison has been brought to the reserve; it is slowly increasing. It is privately owned, one-third of the ownership being in Uncle Jim, who handles the herd. The government should immediately buy this herd. Everything should be done to increase the number of bison on the public reservations.

The chief game animal of the Colorado Canyon reserve is the Rocky Mountain blacktail, or mule, deer. The deer have increased greatly in numbers since the reserve was created, partly because of the stopping of hunting by men, and even more because of the killing off of the cougars. The high plateau is their summer range; in the winter the bitter cold and driving snow send them and the cattle, as well as the bands of wild horses, to the lower desert country. For some cause, perhaps the limestone soil, their antlers are unusually stout and large. We found the deer tame and plentiful, and as we rode or walked through the forest we continually came across them—now a doe with her fawn, now a party of does and fawns, or a single buck, or a party of bucks. The antlers were still in the velvet. Does would stand and watch us go by within fifty or a hundred yards, their big ears thrown forward; while the fawns stayed hid near by. Sometimes we roused the pretty spotted fawns, and watched them dart away, the embodiments of delicate grace. One buck, when a hound chased it, refused to run and promptly stood at bay; another buck jumped and capered, and also refused to run, as we passed at but a few yards' distance. One of the most beautiful sights I ever saw was on this trip. We were slowly riding through the open pine forest when we came on a party of seven bucks. Four were yearlings or two-year-olds; but three were mighty master bucks, and their velvet-clad antlers made them look as if they had rocking-chairs on their heads. Stately of port and bearing, they walked a few steps at a time, or stood at gaze on the carpet of brown needles strewn with cones; on their red coats the flecked and broken sun-rays played; and as we watched them, down the aisles of tall tree trunks the odorous breath of the pines blew in our faces.

The deadly enemies of the deer are the cougars. They had been very plentiful all over the table-land until Uncle Jim thinned them out, killing between two and three hundred. Usually their lairs are made in the well-nigh inaccessible ruggedness of the canyon itself. Those which

dwelt in the open forest were soon killed off. Along the part of the canyon where we hunted there was usually an upper wall of sheer white cliffs; then came a very steep slope covered by a thick scrub of dwarf oak and locust, with an occasional pinyon or pine; and then another and deeper wall of vermilion cliffs. It was along this intermediate slope that the cougars usually passed the day. At night they came up through some gorge or break in the cliff and rambled through the forests and along the rim after the deer. They are the most successful of all still-hunters, killing deer much more easily than a wolf can; and those we killed were very fat.

Cougars are strange and interesting creatures. They are among the most successful and to their prey the most formidable beasts of rapine in the world. Yet when themselves attacked they are the least dangerous of all beasts of prey, except hyenas. Their every movement is so lithe and stealthy, they move with such sinuous and noiseless caution, and are such past masters in the art of concealment, that they are hardly ever seen unless roused by dogs. In the wilds they occasionally kill wapiti, and often bighorn sheep and white goats; but their favorite prey is the deer.

Among domestic animals, while they at times kill all, including, occasionally, horned cattle, they are especially destructive to horses. Among the first bands of horses brought to this plateau there were some of which the cougars killed every foal. The big males attacked full-grown horses. Uncle Jim had killed one big male which had killed a large draft-horse, and another which had killed two saddle-horses and a pack-mule, although the mule had a bell on its neck, which it was mistakenly supposed would keep the cougar away. We saw the skeleton of one of the saddle-horses. It was killed when snow was on the ground, and when Uncle Jim first saw the carcass the marks of the struggle were plain. The cougar sprang on its neck, holding the face with the claws of one paw, while his fangs tore at the back of the neck, just at the base of the skull; the other fore paw was on the other side of the neck, and the hind claws tore the withers and one shoulder and flank. The horse struggled thirty yards or so before he fell, and never rose again. The draft-horse was seized in similar fashion. It went but twenty yards before falling; then in the snow could be seen the marks where it had struggled madly on its side, plunging in a circle, and the marks of the hind feet of the cougar in an outside circle, while the fangs and fore talons of the great cat never ceased tearing the prey. In this case the fore claws so ripped and tore the neck and throat that it was doubtful whether they, and not the teeth, had not given the fatal wounds.

We came across the bodies of a number of deer that had been killed by cougars. Generally the remains were in such condition that we could not see how the killing had been done. In one or two cases the carcasses were sufficiently fresh for us to examine them carefully. One doe had claw marks on her face, but no fang marks on the head or neck; apparently the neck had been broken by her own plunging fall; then the cougar had bitten a hole in the flank and eaten part of one haunch; but it had not disemboweled its prey, as an African lion would have done. Another deer, a buck, was seized in similar manner; but the death-wound was inflicted with the teeth, in singular fashion, a great hole being torn into the chest, where the neck joins the shoulder. Evidently there is no settled and invariable method of killing. We saw no signs of any cougar being injured in the struggle; the prey was always seized suddenly and by surprise, and in such fashion that it could make no counter-attack.

Few African leopards would attack such quarry as the big male cougars do. Yet the leopard sometimes preys on man, and it is the boldest and most formidable of fighters when brought to bay. The cougar, on the contrary, is the least dangerous to man of all the big cats. There are authentic instances of its attacking man; but they are not merely rare but so wholly

exceptional that in practice they can be entirely disregarded. There is no more need of being frightened when sleeping in, or wandering after nightfall through, a forest infested by cougars than if they were so many tom-cats. Moreover, when itself assailed by either dogs or men the cougar makes no aggressive fight. It will stay in a tree for hours, kept there by a single dog which it could kill at once if it had the heart—and this although if hungry it will itself attack and kill any dog, and on occasions even a big wolf. If the dogs—or men—come within a few feet, it will inflict formidable wounds with its claws and teeth, the former being used to hold the assailant while the latter inflict the fatal bite. But it fights purely on the defensive, whereas the leopard readily assumes the offensive and often charges, at headlong, racing speed, from a distance of fifty or sixty yards. It is absolutely safe to walk up to within ten yards of a cougar at bay, whether wounded or unwounded, and to shoot it at leisure.

Cougars are solitary beasts. When full-grown the females outnumber the males about three to one; and the sexes stay together for only a few days at mating-time. The female rears her kittens alone, usually in some cave; the male would be apt to kill them if he could get at them. The young are playful. Uncle Jim once brought back to his cabin a young cougar, two or three months old. At the time he had a hound puppy named Pot—he was an old dog, the most dependable in the pack, when we made our hunt. Pot had lost his mother; Uncle Jim was raising him on canned milk, and, as it was winter, kept him at night in a German sock. The young cougar speedily accepted Pot as a playmate, to be enjoyed and tyrannized over. The two would lap out of the same dish; but when the milk was nearly lapped up, the cougar would put one paw on Pot's face, and hold him firmly while it finished the dish itself. Then it would seize Pot in its fore paws and toss him up, catching him again; while Pot would occasionally howl dismally, for the young cougar had sharp little claws. Finally the cougar would tire of the play, and then it would take Pot by the back of the neck, carry him off, and put him down in his box by the German sock.

When we started on our cougar hunt there were seven of us, with six pack-animals. The latter included one mule, three donkeys—two of them, Ted and Possum, very wise donkeys—and two horses. The saddle-animals included two mules and five horses, one of which solemnly carried a cow-bell. It was a characteristic old-time Western outfit. We met with the customary misadventures of such a trip, chiefly in connection with our animals. At night they were turned loose to feed, most of them with hobbles, some of them with bells. Before dawn, two or three of the party—usually including one, and sometimes both, of the elder boys—were off on foot, through the chilly dew, to bring them in. Usually this was a matter of an hour or two; but once it took a day, and twice it took a half-day. Both breaking camp and making camp, with a pack-outfit, take time; and in our case each of the packers, including the two elder boys, used his own hitch—single-diamond, squaw hitch, cow-man's hitch, miner's hitch, Navajo hitch, as the case might be. As for cooking and washing dishes—why, I wish that the average tourist-sportsman, the city-hunter-with-a-guide, would once in a while have to cook and wash dishes for himself; it would enable him to grasp the reality of things. We were sometimes nearly drowned out by heavy rain-storms. We had good food; but the only fresh meat we had was the cougar meat. This was delicious; quite as good as venison. Yet men rarely eat cougar flesh.

Cougars should be hunted when snow is on the ground. It is difficult for hounds to trail them in hot weather, when there is no water and the ground is dry and hard. However, we had to do the best we could; and the frequent rains helped us. On most of the hunting days we rode along the rim of the canyon and through the woods, hour after hour, until the dogs grew tired, or their feet sore, so that we deemed it best to turn toward camp; having either struck no trail or else

a trail so old that the hounds could not puzzle it out. I did not have a rifle, wishing the boys to do the shooting. The two elder boys had tossed up for the first shot, Nick winning. In cougar hunting the shot is usually much the least interesting and important part of the performance. The credit belongs to the hounds, and to the man who hunts the hounds. Uncle Jim hunted his hounds excellently. He had neither horn nor whip; instead, he threw pebbles, with much accuracy of aim, at any recalcitrant dog—and several showed a tendency to hunt deer or coyote. "They think they know best and needn't obey me unless I have a nose-bag full of rocks," observed Uncle Jim.

Twice we had lucky days. On the first occasion we all seven left camp by sunrise with the hounds. We began with an hour's chase after a bobcat, which dodged back and forth over and under the rim rock, and finally escaped along a ledge in the cliff wall. At about eleven we struck a cougar trail of the night before. It was a fine sight to see the hounds running it through the woods in full cry, while we loped after them. After one or two checks, they finally roused the cougar, a big male, from a grove of aspens at the head of a great gorge which broke through the cliffs into the canyon. Down the gorge went the cougar, and then along the slope between the white cliffs and the red; and after some delay in taking the wrong trail, the hounds followed him. The gorge was impassable for horses, and we rode along the rim, looking down into the depths, from which rose the chiming of the hounds. At last a change in the sound showed that they had him treed; and after a while we saw them far below under a pine, across the gorge, and on the upper edge of the vermilion cliff wall. Down we went to them, scrambling and sliding; down a break in the cliffs, round the head of the gorge just before it broke off into a side-canyon, through the thorny scrub which tore our hands and faces, along the slope where, if a man started rolling, he never would stop until life had left his body. Before we reached him the cougar leaped from the tree and tore off, with his big tail stretched straight as a bar behind him; but a cougar is a short-winded beast, and a couple of hundred yards on, the hounds put him up another tree. Thither we went.

It was a wild sight. The maddened hounds bayed at the foot of the pine. Above them, in the lower branches, stood the big horse-killing cat, the destroyer of the deer, the lord of stealthy murder, facing his doom with a heart both craven and cruel. Almost beneath him the vermilion cliffs fell sheer a thousand feet without a break. Behind him lay the Grand Canyon in its awful and desolate majesty.

Nicholas shot true. With his neck broken, the cougar fell from the tree, and the body was clutched by Uncle Jim and Archie before it could roll over the cliff—while I experienced a moment's lively doubt as to whether all three might not waltz into the abyss together. Cautiously we dragged him along the rim to another tree, where we skinned him. Then, after a hard pull out of the canyon, we rejoined the horses; rain came on; and, while the storm pelted against our slickers and down-drawn slouch-hats, we rode back to our water-drenched camp.

On our second day of success only three of us went out—Uncle Jim, Archie, and I. Unfortunately, Quentin's horse went lame that morning, and he had to stay with the pack-train. For two or three hours we rode through the woods and along the rim of the canyon. Then the hounds struck a cold trail and began to puzzle it out. They went slowly along to one of the deep, precipice-hemmed gorges which from time to time break the upper cliff wall of the canyon; and after some busy nose-work they plunged into its depths. We led our horses to the bottom, slipping, sliding, and pitching, and clambered, panting and gasping, up the other side. Then we galloped along the rim. Far below us we could at times hear the hounds. One of them was a bitch, with a squealing voice. The other dogs were under the first cliffs, working out a trail, which was evidently growing fresher. Much farther down we could hear the squealing of the

bitch, apparently on another trail. However, the trails came together, and the shrill yelps of the bitch were drowned in the deeper-toned chorus of the other hounds, as the fierce intensity of the cry told that the game was at last roused. Soon they had the cougar treed. Like the first, it was in a pine at the foot of the steep slope, just above the vermilion cliff wall. We scrambled down to the beast, a big male, and Archie broke its neck; in such a position it was advisable to kill it outright, as, if it struggled at all, it was likely to slide over the edge of the cliff and fall a thousand feet sheer.

It was a long way down the slope, with its jungle of dwarf oak and locust, and the climb back, with the skin and flesh of the cougar, would be heart-breaking. So, as there was a break in the cliff line above, Uncle Jim suggested to Archie to try to lead down our riding animals while he, Uncle Jim, skinned the cougar. By the time the skin was off, Archie turned up with our two horses and Uncle Jim's mule—an animal which galloped as freely as a horse. Then the skin and flesh were packed behind his and Uncle Jim's saddles, and we started to lead the three animals up the steep, nearly sheer mountainside. We had our hands full. The horses and mule could barely make it. Finally the saddles of both the laden animals slipped, and Archie's horse in his fright nearly went over the cliff—it was a favorite horse of his, a black horse from the plains below, with good blood in it, but less at home climbing cliffs than were the mountain horses. On that slope anything that started rolling never stopped unless it went against one of the rare pine or pinyon trees. The horse plunged and reared; Archie clung to its head for dear life, trying to prevent it from turning down-hill, while Uncle Jim sought to undo the saddle and I clutched the bridle of his mule and of my horse and kept them quiet. Finally the frightened black horse sank on his knees with his head on Archie's lap; the saddle was taken off—and promptly rolled down-hill fifty or sixty yards before it fetched up against a pinyon; we repacked, and finally reached the top of the rim.

Meanwhile the hounds had again started, and we concluded that the bitch must have been on the trail of a different animal, after all. By the time we were ready to proceed they were out of hearing, and we completely lost track of them. So Uncle Jim started in the direction he deemed it probable they would take, and after a while we were joined by Pot. Evidently the dogs were tired and thirsty and had scattered. In about an hour, as we rode through the open pine forest across hills and valleys, Archie and I caught, very faintly, a far-off baying note. Uncle Jim could not hear it, but we rode toward the spot, and after a time caught the note again. Soon Pot heard it and trotted toward the sound. Then we came over a low hill crest, and when half-way down we saw a cougar crouched in a pine on the opposite slope, while one of the hounds, named Ranger, uttered at short intervals a husky bay as he kept his solitary vigil at the foot of the tree. Archie insisted that I should shoot, and thrust the rifle into my hand as we galloped down the incline. The cougar, a young and active female, leaped out of the tree and rushed off at a gait that for a moment left both dogs behind; and after her we tore at full speed through the woods and over rocks and logs. A few hundred yards farther on her bolt was shot, and the dogs, and we also, were at her heels. She went up a pine which had no branches for the lower thirty or forty feet. It was interesting to see her climb. Her two fore paws were placed on each side of the stem, and her hind paws against it, all the claws digging into the wood; her body was held as clear of the tree as if she had been walking on the ground, the legs being straight, and she walked or ran up the perpendicular stem with as much daylight between her body and the trunk as there was between her body and the earth when she was on the ground. As she faced us among the branches I could only get a clear shot into her chest where the neck joins the shoulder; down she came, but on the

ground she jumped to her feet, ran fifty yards with the dogs at her heels, turned to bay in some fallen timber, and dropped dead.

The last days before we left this beautiful holiday region we spent on the table-land called Greenland, which projects into the canyon east of Bright Angel. We were camped by the Dripping Springs, in singular and striking surroundings. A long valley leads south through the table-land; and just as it breaks into a sheer walled chasm which opens into one of the side loops of the great canyon, the trail turns into a natural gallery along the face of the cliff. For a couple of hundred yards a rock shelf a dozen feet wide runs under a rock overhang which often projects beyond it. The gallery is in some places twenty feet high; in other places a man on horseback must stoop his head as he rides. Then, at a point where the shelf broadens, the clear spring pools of living water, fed by constant dripping from above, lie on the inner side next to and under the rock wall. A little beyond these pools, with the chasm at our feet, and its opposite wall towering immediately in front of us, we threw down our bedding and made camp. Darkness fell; the stars were brilliant overhead; the fire of pitchy pine stumps flared; and in the light of the wavering flames the cliff walls and jutting rocks momentarily shone with ghastly clearness, and as instantly vanished in utter gloom.

From the southernmost point of this table-land the view of the canyon left the beholder solemn with the sense of awe. At high noon, under the unveiled sun, every tremendous detail leaped in glory to the sight; yet in hue and shape the change was unceasing from moment to moment. When clouds swept the heavens, vast shadows were cast; but so vast was the canyon that these shadows seemed but patches of gray and purple and umber. The dawn and the evening twilight were brooding mysteries over the dusk of the abyss; night shrouded its immensity, but did not hide it; and to none of the sons of men is it given to tell of the wonder and splendor of sunrise and sunset in the Grand Canyon of the Colorado.