

Cooper

WEST GALLATIN NORTHERN PACIFIC EXPLORING EXPEDITION

In August 1881 it seemed an assured fact that in a very few years the main line of the Northern Pacific Railroad would run through the central part of Montana which would include Bozeman. There was every certainty that that railroad when built would control almost all of the passenger travel to and from Yellowstone National Park. Even without a branch line to the Park the Northern Pacific would be able to land passengers much nearer the Mammoth Springs or the Geyser Basins than any other main line at present contemplated or under construction; while with a branch or independent line running directly from Bozeman, the only town in Montana with a close proximity to both entrances to the Park, it would prove not only the greatest possible advertisement for the Northern Pacific but it would very materially assist in making Bozeman one of the chief towns of Montana.

Thus in accordance with the Territorial statutes, articles of incorporation were properly entered into and filed, by-laws adopted, means provided and pledged, and preliminary steps taken to determine the most feasible route to the Park. In furtherance of the last named object a surveying party consisting of Peter Koch, Walter Cooper, and George Wakefield, were chosen to make the trip over the route. Koch, a civil engineer, went for the purpose of surveying, determining, and estimating possible railroad grades, and Cooper and Wakefield, with a definite knowledge of Geology were sent to determine location and for Geological observations. It was confidently believed that a comparatively easy and inexpensive grade could be found by following up the West Gallatin to or near its head, then crossing over to the head waters of the Madison River and so on to the upper Geyser Basin. Should the preliminary survey justify general expectation, the railroad would become an assured fact by the easiest and shortest route to the Yellowstone Park.

Walter Cooper's Diary of the Gallatin Trip follows:

August 19, 1881.

West Gallatin Northern Pacific Exploring Expedition.

Peter Koch, George Wakefield, Walter Cooper, with Nelson Collins, packer, and Ford, cook, left Bozeman at 11 o'clock. Strong evidence that no desert land exists in Gallatin Valley. Koch took observations at Salesville. Scenery fine; day lovely; Red stone quarry at mouth of Gallatin Canyon. My Brownie dog overtook us just out of Salesville. Had tied her in barn before starting with instructions not to let her loose for several hours. She is no trouble, but will get very tired.

Made camp at mouth of Spanish Creek which has one-fourth flow of water as that of Gallatin. Caught three trout with brown hackle; trout rise slow to fly. No signs of game so far. River falls evenly and regularly at about thirty feet to the mile. Canyon quite open and opposite mouth of Spanish Creek wide, beautiful valley one-fourth to half a mile wide; hills and valley covered with a good growth of grass.

August 20th.

Cook up at four o'clock. Breakfast at five. Left camp at 6:30. Crossed river mouth of Spanish Creek - one-fifth flow of water of Gallatin river. Reconnoitered just above creek. Entered Sow Belly Canyon one and one-half miles long; rough portion of trail over granite shale rock; canyon short. Fall of stream eighty to one-hundred feet to the mile. Canyon widens from time to time - with two crossings weaving up toward Mt. Blackmore, crossing it from the east. One stream puts in from the west. Scenery very fine from other side in Hell Roaring Creek Canyon. Limestone formation changes to granite. River here about fifty feet wide. On either side of the river cliffs rise to the height of one thousand feet to two thousand. Scenery grand. On the east Squaw Creek flows into Gallatin,

on the east side opposite Hell Roaring and seems to be quite a good stream. Hills and mountains above Hell Roaring heavily timbered with spruce pine timber suitable for ties for railroad. Timber grows in every bend of river in great abundance and should judge that from four to six ties could be made from each large fir tree. Still no signs of game. The angler would be in his glory. Many springs and streams come in from the east; cool refreshing; halt to take water in the first fork of any size since crossing Hell Roaring. Traveled till 5 o'clock making nineteen miles. All hands turn out for a hunt. Cooper killed three grouse. Wakefield caught five trout with grasshoppers; no game.

August 21st.

Cook up at four o'clock. Started at 6:30. Traveled three miles to the Lower Gallatin Basin. Good signs of game. River still eighty to one-hundred feet wide - fall perceptably less - should judge forty five feet to the mile. About three miles from the head of the canyon large creek comes in from east. Reached the forks about 12 o'clock. Traveled up what seemed to be the main fork which was the east. Traveled two miles to the largest and most beautiful spring facing out of a limestone mountain one hundred feet above the river level. River not very cold but pleasant to drink. Four mountain lynxes ran away under a heavy cannonade by Wakefield at long range. Camped two miles above spring for the night, having traveled twenty-three miles. Fall of river moderate - about sixty feet wide - average one foot deep. Formation from the beginning or upper end of canyon in limestone mixed with silt a portion of the way. Must be a silt - limestone streak - formation of main range - from the distance to be recounted.

Monday August 22nd.

Cook up at four o'clock. Started at 6:12 o'clock. Traveled ten miles to summit of range between Gallatin summit. So flat we thought we had not

reached summit. Camped twelve miles below summit. Difficulty in determining just when we reached top. Stopped at ten o'clock one-half mile below summit. Brownie's feet raw and sore. I make her moccasins out of buckskin I am carrying in saddle bag. We found a small fort set in the ground marking the boundary line between Montana Territory and Wyoming Territory. Streams enlarge to quite a brook in a very short time. Should judge fall to be for the five miles passed today forty feet to the mile. Halt here to wait for pack horses to come up. 11:12 made camp. One-half mile below summit found two ponds; one - the large one closest by boundary. Survey small pond. One o'clock all started hunting. All home at night; no game.

August 23rd.

Cook up at 4:30. Started 6 o'clock down north fork of Madison to Pass Creek. Fall about 110 feet to the mile for $1\frac{1}{4}$ miles. Creek empties into the north fork of the Madison at this point. Fall about forty feet for one mile. Creek enters canyon. Fall increases to 70 feet to the mile. Follow north fork 12 miles. It opens out on the Madison Valley. Should judge entire fall from summit camp to 600 feet or above. Up to this time 12 noon we have encountered no difficulties whatever or obstructions in the way of building a railroad or a wagon road. Trail somewhat difficult on account of fallen timber and beaver dams which could easily be removed at small expense.

Make Brownie new mocassins. Started at 1:15. Traveled 12 miles to a point on the Madison river four miles from crossing of Virginia City road where there is a mail station at the foot of the big hill on the Virginia City road. The hill is very steep and sandy and at least six miles long.

August 24th.

Made a day camp on top of hill. Reached Geyser Basin at 7:30, having traveled fourteen miles during night without water. Got breakfast at Marshalls. Started at once for Upper Geyser Basin. Reached there at 10:30 o'clock.

Saw the Splendid Geyser go off at 11 o'clock. Saw Old Faithful go off at 12:05. Saw the Giant go off at 5:30. It was in constant forcible action sixty one minutes - forty minutes of that time about fifty to seventy-five feet high. During the first few bursts she threw water four hundred feet high. Saw the Grand by Moonlight and at the same time watched the Riverside from a distance. It was magnificent throwing water side ways out into the river beside it.

August 25th.

Cook up at usual time. Started for home at 6:30. Reached Lower Basin at 10. Left there at 11:05 to take direct course down the river Gallatin. Object was to ascertain character of country between mountains of Gallatin and Bozeman.

August 26th.

Up as usual. Traveled steadily. Water shallow in river. Fall 70 feet to the mile. Made twelve miles in forenoon. Halted at 1:45 for noon meal. Smokey and hazy ahead. Smell of smoke in the air. Push on till 6:30. Smoke denser. Must be approaching forest fire, probably not in our path. Seems advisable to rest for night and push on early in the morning. Might be cut off if we go back.

August 27th.

Up at 3:30. Quick breakfast. Get under way at 5. Keep to course of river - still shallow. Timber hard to break through. Smoke awful. Horses nervous. Birds with seared wings flying past us. No red glow anywhere but thick heavy smoke. Traveled all day - choked with smoke. Plenty water but must push on. Very short noon halt. Dark early and smoke worse. See red glow now ahead and very nervous. Taking turns now sleeping, as its us for it I guess. Afraid to travel before daylight for fear we might get off our course and get lost in the increasing smoke.

August 28th.

For fear of what may lay ahead am trying to keep up journal. Day breaks late. Ready to start by 5:30. No use earlier. Fire creeping toward us from every direction; all around us. Horses feet very sore. Travel through hot ashes. Steer horses down creek bed whenever possible. River increasing in size as fed by streams down canyon. Water getting too deep to travel in stream. Noon in middle of stream. No grass or feed left for horses to crop except the very last of what we are carrying. Trying to keep Brownie riding on top of one of the packs. Her feet very raw. What this night will bring and tomorrow we know not.

August 29th.

Make all possible haste. Trail easier to follow. Traveled greater part of last night. Flames jump canyon from one side to the other. Spectacular sight but an inferno. See small game with seared fur and bewildered elk and deer race by. We hardly halt for food. Cannot now travel any part of way in stream. Hot ashes falling everywhere. Noise of fire deafening. By late afternoon reached burned over section and find heat not as intense. Stench of smoke still awful. Coughing constantly. Horses short winded and exhausted. We judge we have made fifty miles since two this morning. No feed left in upper or lower part of Gallatin Basins. Timber practically burned out. Near seating sight. Only comfort we are getting well down canyon toward home. Reached Hell Roaring at 7 o'clock tonight. Halting now for food. One mountain completely bare of timber. We are naming it Baldy. Fire out here. Some smoldering patches still and hot ashes everywhere. Some places the largest trees still standing. One wonders how they escaped. Seems a miracle. Will push on now to Spanish Creek and camp near mouth of canyon late tonight.

August 30th.

Reached home at 8 o'clock P.M. Had good nights sleep at Spanish last night.

Still smokey but no further danger. Found hardly any feed for horses but halted outside canyon this morning and let them crop grass. Smoke still bad, and valley seemed to be full. Found fire only confined to canyon. Probably started by lightening. Worst fire in many years. Horses feet too sore to make any time. All day getting home. Will complete report to send into St. Paul.