

M-o-n-t-a-n-a, That's a pretty good place to stay, We'll always think when we're far away,

Of M-o-n-t-a-n-a.

-Song of the Glacials. HE particular part of Montana about which this song was sung lies in the far northwest corner of the state, where the Rocky mountains, their summits covered with eternal snow, their bases clothed in pine forests of perpetual green.

swung over the Canadian border,

down through the heart of the continent to the year-long summer lands of Mexico. Eighty lakes, sapphire and opal and diamond clear, in the varying lights, reflect the blue west-

ern sky. Threescore living glaciers, green with the depths of ice that endures season after season, lies the the hollows of the giant peaks. Crystal streams descend in countless waterfalls over the brown rocks and break the silence of the forest trails.

In these mountains, left save for a few trails as they were before the first white men pushed their way across the plains to the further ocean, the wild things of that early wilderness still find a refuge.

Acustomed to think of Montana as a state of cattle ranges, big wheat crops, and the home of copper, we know nothing of this part of it-this land of delight. Yet we, in common with some 40,000,000 of other Americans, are its owners. Congress, in one of its moments of wisdom two years ago, set it aside as a national possession to be, as Chief Two Guns said. "a playground for all the people, rich and poor, white and Indian, forever.

It is now Glacier National park, and there are some 1,400 square miles within its borders. You may roam through it for a month and never tread the same ground twice.

It was by pony travel that a party of eastern tenderfeet, fresh from occupations in which exercise is at a discount and locomotion is mostly by street car, explored the park a few weeks ago. They emerged from a two weeks' exile, after some tribulation, hard as nails and healthy as savages. This dairy is a brief record of their experiences:

Two Medicine, Mont., Thursday. It is eight miles from the park gateway at Midvale to the first chalet at Two Medicine. But these are Montana miles, and as Old Philadelphia said, if they would only sell you land on the Montana measurement and let you resell it on the eastern scale it would be a mighty satisfactory transaction. The trail led over several small streams, and on through forests of pine and scrub oak. But always it led upward, a little nearer the snow-capped mountains inclosing the green ahead. The pace dropped to an easy walk, the horses' feet fell noiselessly upon the thick pine needles, and scarcely a sound disturbed the ferest peace. Late afternoon came all too soon. A sudden turn in the trail brought into view a pretty log chalet beside a deep blue lake, the mountains coming down to its very edge. Smoke curled from the cook house chimney, suggesting good things to eat. The ponies broke into a

trot, and for the moment saddle soreness was forgotten. This was Two Medicine, the end of the first stage of our journey. Cutbank Camp, Friday.

Leaving Two Medicine, we rode away in a golden morning. A light hoar frost sprinkled the grass. The sun was rolling a curtain of white mist upward from the violet sides of Rising Wolf

Upward the trail wound, the horses picking their way over fallen trees, now dipping into yeasty hollows, now climbing a slippery bank. One rode at an angle of 45 degrees forward and backward, alternately. The trees grew thinner and scrubbler-"Nature's stunted step-children," the official tenderfoot poet called them-and the trail steeper until we emerged aloft, almost at the timber line. Presently we were riding in a flurry of snowflakes that hid mountain and valley. A cloud rift letting through a gleam of sunlight revealed our snow falling as rain in the valley

below. Noon came and luncheon. It was hardly more than four hours since breakfast, yet hungry eyes watched the preparations until at length was heard a call which for music grateful to the ear will never be equaled in the Metropolitan Opera

That call consists of four syllables-grace notes they might be called if this were any subject for mere frivolity. It runs like this:

"Co-ome an' git it!" It is the park summons to meals. The rush

We "got it," and proceeded on our way newheartened, though the weather had still a new variation for us. The last section of the eighteen miles from Two Medicine was traversed through a heavy drizzle, and the going was heavy.

Lake St. Mary's, Saturday. We had started from Cutbank in better trim than on the day before, and were riding more at east. Around the bend in the trail ahead swept a band of painted Indians, drums beating and eagle feathers streaming in the breeze. A few paces from our leading file they reined in their ponies, formed line, and made guttural sounds of uncertain import. George Star, Blackfoot interpreter, trotted to the front.

"Chief Two Guns," announced Mr. Starr, indicating a stalwart Indian in beaded buckskin and a chief's war bonnet. "Chief Jim White Calf," indicating another handsome Indian, "both sons of old man White Calf, dead now-great chief. They come to welcome you to park. Big Moon, medicine man." Mr. Hig Moon nodded pleasantly. "For three days he makes medicine to have fine weather while you're in park."

The Narrows, Upper St. Mary's Lake,

Monday. Leaving the horses to be picked up later, we fourneyed today by motor launch up St. Mary's lake to this point, where still a new phase of this western scenery presents itself. The lake narrows as you ascend, and the mountains come closer, becoming as it were on more intimate terms with humanity. Very near seemed their brown sides, banded with gray and black, and snow-covered summits, in the clear air. A tiny glacler in a narrow guich loked so close that

you would expect to throw a stone upon its surface with ease. The guide said it was a full three miles away.

Lake McDermott, Wednesday. We have seen many beautiful sights, but the unanimous verdict on reaching camp tonight was that the day's ride had been the most beautiful ride of all; at which Tom Dawson, the veteran chief guide, only smiled. He is used to these tenderfoot raptures. "Why," he said, "you haven't seen anything to speak of yet. This is only the beginning."

Reautiful Lake Sherbourne was passed at a canter, for the tenderfeet by this time have become hardened to the saddle, and each rider's pany is his best friend. Toward evening we came upon a new and strange sight. By the remnants of a grass-grown stage road we reached a group of log houses, larger and more pretentious than most. The guide explained:

"This is Altyn, a dead town. It was built up by a copper mining prospect, but the prospect was only a pocket, and the pocket soon gave out. Then everybody went away. It has been deserted ten years."

We left Altyn behind and in a few minutes were in quite a different spot. The Lake Mc-Dermott chalets are grouped about a waterfall. around which the mountains stand sentinel. Their summits as we saw them first were flushed with pink in the evening light, and inspired new adjectives of admiration, all too weak.

Lake McDermott, Friday. Yesterday we rode to Iceberg lake and saw our park in still another guise. We passed through a forest of giant Christmas trees with the snow thick upon their branches and the whole world green beneath, then skirted the steepest mountains encountered in all our travel hitherto, climbed the famous Golden Stairs, and at last reached a valley where on three sides huge cliffs looked down upon a sapphire lake set in a sea of white. On one side a glacier centuries old moves an inch or so a year down the steep rocks, its waters feding the lake, whose surface is dotted with huge cakes of ice. The hottest day in August is cool at Iceberg lake, and finds the glacial fragments floating there as though it were early spring.

Today we traveled to still another beauty spot, Cracker lake, haunt of the big horn sheep, whose tracks here and there were seen upon the snow's smooth surface. Tomorrow we move onward to Lake McDonald and homeward.

Lake McDonald, Monday. Here on the park's western border, and by the side of the largest-many say the most beautiful of all its many lakes-we have spent our last day. Our exploration is at an end, for here the outside world makes itself felt again. Hobnailed boots and khaki, short skirt and sweater here meet the habiliments of civilization upon a common footing.

We said good-bye to our trusty ponies yesterday and today we tramped it to the Roval Gorge and waterfall, which are McDonald's chief beau-

Most of the folk who have been to the park are going back there. Our own west also has its

RUNS OVER ICE FIELD FAULTY RAIL ALWAYS PERI

ROADBED OF ALASKAN RAILROAD RESTS ON GLACIER.

Builders Admit Situation Has its Perile, Though There is Little Danger of Sudden Catastrophe-Minor Accidents Frequent.

An Alaskan railroad, the Copper River & Northwestern, runs for nearly

seven miles over the lower end of partly covered in

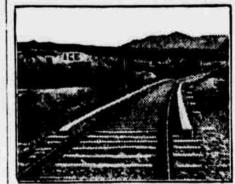
moraines and vegetation, although at points the ice is visible. In an ed to La Nature, says the Literary

Digest Prof Laurence Martin, chief of the National Geographical society's Alaskan expedition, describes this part of the road and recounts the dangers that is running in its risky location. Fortunately, glaciers move ment of damage claims would run the slowly, and there is little peril in any aggregate yearly drain, due to neglisudden catastrophe. Writes Professor "During our visit in 1909 the ice was

visible on six of the railroad cuts on the terminal glacier; it was no longer seen a year later, although it could be derailments were occasioned by debrought to light by digging slightly. In fective roadway or equipment, while 1909 the railroad had been built on a nearly 24 per cent. of the derailments sort of a shield of morainic ballast en- were caused by broken rails. Shatcased in the ice, which had been opened up with dynamite. It was found to be seriously changed in 1910. the sinking due to the melting of the ice varying from two to three feet in through proper alertness on the part one place and to six or even eight feet in others. . . . The railroad men had endeavored to repair the damage by filling in. . .

"Nowhere else in the world—at least to our knowledge—has a railroad line been constructed for nearly seven miles on the edge of a still active glacier. Here the layer of ballast which supports the ties and rails lies directly on the ice, and not, as at the Heney glacier, several miles to the north, on a solid moraine.

"This perilous situation gives rise to continual accidents; sometimes the melting of the ice displaces the profile of the road; sometimes there are formed new streams, which involve a



Over the Moraine, Showing the los on the Left.

bridge sliud 16 inches toward the river, and a new one had to be built. As these difficulties are renewed every summer, it is very expensive to maintain the way, and the speed of the trains must be kept very low, although the passengers are never in danger, as a very close watch is necessarily kept of the road.

"What makes the upkeep of the road still more risky is the possibility of a forward movement of the glacier. The road would be destroyed and all traffic stopped, for there would be no possible way of getting out. After the period of immunity of 67 years, which is attested by the vegetation, a movement of this kind may take place any day."

Improving Australian Railroads. Standardizing rail gauge on the railroads in the continental states of Australia is proving costly through delay in pushing the work forward, according to a recent report now in the hands of the federal government. The report of the engineers in chief recommends the adoption of a uniform gauge of 4 feet 81/2 inches (the existing New South Wales gauge) on the grounds of the comfort and convenience of pasconverting the 5 feet 3 inch gauge from there going to Stanleyville. lines in Victoria and South Australia to the 4 feet 81/2 inch gauge was only \$11,800,000 against \$36,475,000 at the present time.

Expanding Screw to Spike Rails to Ties roads a Frenchman has invented a two parts: First a hollow screw, open at the lower end, slit a short distance | neering authority in this country disup the sides and having a worm inside as well as outside. This is screwed into the hole in the tie. Into strong enough to bear the heavy it is screwed the second part, which trains and the driving axle loads of is a solid screw, conical in shape. As 50,000 and 60,000 pounds on the Amer this is driven home it forces the lower end of the hollow screw apart, making it spread and become wider below than above, thus biting the it inextricable.

Probably Worst Danger Known to Railroading, and Constant Watchfulness Only Minimizes It.

Only a few days ago a broken raff caused a railroad accident which might easily have resulted in serious loss to life. A passenger train was derailed and by a miracle the cars came to a standstill just before piling over the edge of bank into a swollen river. This is an illustration of the peril of the unsound rail.

During the three months ended January 1 of the current year 2,967 persons were killed and 51,323 were inthe Allen glacier, jured on steam railroads in the United States. There were 1,859 collisions and this part with 2,135 derailments. Passenger trains were concerned in 229 of the collisions and 194 of the derailments.

The property losses reached the total of \$3,408,953, and this sum covarticle contribut- ered only the damage to the rolling stock, etc., belonging to the railroads. Calculated at this rate the railroads would suffer annually in this manner a loss of substantially \$14,000,000, and the public has to pay for this in the end. The additional sums that would be involved in lawsuits and the paygence or mechanical failures, into many millions of dollars more,

Broken rails and fractured wheels were mainly responsible for the casualties, and 71 per cent, of all of the tered or fractured wheels were accountable for 26.5 per cent, of the derailments.

Collisions can mostly be avoided of responsible employes, but there is something insidious about the peril of the faulty rail. To the casual eye of the track walker the rail may be seemingly sound, and yet within the substance of its head or the thinner material of the supporting web a catastrophe may be lurking. Unseen, the steel may be yielding and at the next blow the rail may be shattered and a speeding train hurled from its course.

UNDER FIVE MILES IN LENGTH

England Has No Fewer Than Ten Railroads With a Trackage That is insignificant.

Altogether there are ten railroads in various parts of the country which are under five miles in length. The shortest line is that of the Felixstowe Dock and Railroad company, which runs from the Great Eastern line at Felixstowe Beach station, in Suffolk, down to Felixstowe dock. It is only 726 yards long, its entire rolling stock consisting of 12 freight cars.

The next shortest is the Milford Haven Dock company's railroad, which is only a mile and a quarter in length, and which was opened in 1882. It runs from Milford Haven on the Great Western roalroad to Newton Noyes pier, and its rolling stock consists of

one locomotive and 21 freight cars. The Stockbridge railroad support; once even the abutment of a mile seven furlongs in length, and has one locomotive, two passenger carriages and 68 freight cars. It runs from Deepcar, near Sheffield, on the

Great Central, to Stockbridge. The Rye & Cambridge Steam tramway is two and a half miles long, and possesses two locomotives, two passenger coaches and three freight cars, while the South Shields, Marsden & Whitburn railroad is a mile and threequarters long, and runs from South Shields to Witburn colliery, says the English Railway Magazine.

In Cumberland there is the Rowrah & Kelton Fell Mineral railroad, three miles long, which connects with the Furness railroad.

The nearest of these tiny railroads to London is the Corringham Light railroad, which starts at Covingham, about three miles from Stanford-le-Hope, in Essex, and runs to Kynochtown. The rolling stock consists of two locomotives, two passenger vehicles and ten freight cars.

Cape to Cairo Rival.

The French project for a trans-African railroad from Algiers to Cape Town, using the Belgian-English line from Stanleyville to Cape Town, has sengers, the facility of transfer of taken definite form. In January, says troops and merchandise, and the re- the Scientific and Mining Press, an duction of rolling stock. Owing to the expedition to make a preliminary huge cost of bringing about complete survey from Colomb-Bechar the presuniformity, it is suggested that as a ent southern terminus of the Algerian preliminary step the through lines railroad, to Lake Tchad, started out from Fremantle to Brisbane (including from the former point. The engineers the tran-Australian line now under believe that the crossing of the Saconstruction) should be converted to hara desert presents no unsurmount-4 feet 81/2 inches at a cost of \$60,710. able difficulties. From Lake Tchad 000. The engineers strongly urge that the line will presumably follow the the work of conversion should be be- divide between the Sharo and Nile gun without delay, and it is pointed basins and will enter the Belgian out that in 1897 the estimated cost of Kongo at Semio on the Bomu river,

Defects of Steel Ties. The use of steel ties on foreign railroads is not universally success ful. Mr. Braet, engineer in chief of the Belgian State railways, informs For attaching rails to ties on rail- Engineering News that the steel ties are unsatisfactory under high speed screw that is said to hold tighter traffic. The Netherlands State Railthan anything yet devised. It is in ways company has abandoned their use because of the expense. Engicountenance them, stating that none of the foreign steel ties in use are ican trunk line railways

Not His Fate to Die in Wreck. Los Angeles has a mail clerk, P. wood of the tie in a way that makes D. Popence, who has survived forty railroad wrecks.