

# RUNNING the LINE of UNCLE SAM'S ALASKA RAILROAD

**A** LITTLE less than a year ago the United States government sent to Alaska a commission to direct the survey for a government railroad reaching inland and generally north from Resurrection bay to Fairbanks, a distance of something over 400 miles. One of the men chosen for this momentous task was Thomas Riggs, Jr., of the United States coast and geodetic survey. Mr. Riggs was selected because of his familiarity with the region and on account of the part he took in running the Alaskan-Canadian boundary line, finished but two years ago.

Associated with Mr. Riggs in the railroad survey were Lieut. Frederick Mears of the United States army and William C. Edes. As a result of the work done last summer and data previously gathered in the same territory by other expeditions of the coast and geodetic survey, the route now to be followed is to run in part along the Susitna and the Cantwell rivers and through the foothills of Mount McKinley. The experts predict great prosperity for the whole territory and declare that the ultimate cost of \$25,800,000 for the system complete will be amply compensated for by reason of the resulting benefits.

Whatever may be the ultimate economic significance of this government-owned railroad in Alaska, there should be no question about our present interest in the work done in running the preliminary survey and that which will later follow as the steel rails are led farther and farther northward in that rugged region.

From past experience, it has been amply established that surveying in Alaska is apt to be full of thrills. First, the open season is a short one and a great deal of action has to be crowded into a brief period by the surveyor. His is not the task merely of the explorer who pushes ahead by the shortest route to his objective, but instead is that of choosing the easiest gradients for the intrusive locomotive, spanning the shortest valleys and bridging the rivers or torrential streams where the foundations or the approaches can be built for the least amount of money compatible with present strength and durability.

Some of the most towering peaks in North America are in southern Alaska, and from their snow-clad shoulders in the spring and summer the waters flow seaward in great volume and with much violence. Then the stricken timber is washed down into the flooded channels, and this wealth of logs rushes onward like a veritable avalanche when the way is clear, or what is even more menacing, these millions of mighty sticks jam in some narrow pass, penning up the waters and themselves until ruptured by the titanic forces they have halted for the while. Then as the jam is broken onward tears the roaring stream and the whirling timber until the broad reach of some wide channels robs the torrent of its turbulent fury.

The surveyors have not only to avoid these dangers in planning the right of way and the points for bridging, but their work will demand that they actually cross some of these streams when blazing the way for the line. The waters are icy and the currents swift, while means of rescue are apt to be woefully scant.

Mr. Riggs has given us some spectacular instances of the hazards confronting the civil engineer in that part of the world, and what has been experienced in the past up there is a pretty good index of the difficulties to be faced in running the line inland from the rail head of the existing road, 71 miles long, which will form the nucleus of this great government undertaking.

But torrential rivers loaded with millions of logs are not the only forms of titanic masses with which the railroad builder in Alaska has to count. There are the slow marching but irresistibly advancing mountains of ice, the glaciers, and some of these have taken possession of the very valleys through which the railroad engineer would preferably choose to lead his line. Indeed, the Copper River and Northwestern railroad in Alaska gives a pretty good notion of some of the difficulties to be faced by the surveyors and provided for by the government when it comes to actual construction. That road is 195 miles long and yet in that distance there are nearly 275 trestles, bridges, tunnels and fills. Indeed, there are sections where a mile of construction has cost as much as \$200,000.

There is a steel bridge flanked by two glaciers that cost a million and a half dollars to build, and before a bit of that structure was reared the engineers spent three years in studying the peculiarities of those moving mountains of ice.

One of the most serious phases of Alaskan survey work is the problem of transportation. As Mr. Riggs says, "There is food to be carried for the party, which is a big item, and out for the horses. At some time during the life of the Alaskan boundary survey every known form of transportation in the North was used. In summer we have been known to adopt the Indian practice and pack dogs. One year, at the close of the season, practically all our horses had died, and we journeyed down the White river for a distance of 150 miles on rafts.

Early one May a start was made from White-

horse, first over a so-called wagon road where the six-horse wagons were frequently bogged or upset, and then after even that semblance of a road had disappeared the 50 horses constituting our pack train were loaded with the camp outfit and supplies. Rivers and lakes were crossed at great risk on the rotten ice. Seventeen days out from Whitehorse the party crossed the last remaining ice bridge on the White river, and this was hardly accomplished ere the gorge broke through with a report like that of a hundred cannon and went swirling away in the swollen waters of that stream."

In running survey lines in that far-away region, Mr. Riggs says: "Rivers filled with dangerous quicksands have to be crossed, mountains scaled at the risk of life and limb, and then comes drudgery of crossing the bott-neck swamps of the low lying lands. Horses mire down one after another and lie there with their heavy packs mutely gazing at the worn-out packer, who after exhausting every known means to get the poor beast to its feet gives vent to his harrowed feelings in ornate blasphemy."

The question of provisions is a vital one, because they go astray at times or a cache may be rifled by Indians or wild animals. The civil engineers and their parties are seldom able to live upon the land. They have to depend upon their regular supplies, and more than once a surveyor has been reduced to starvation rations and forced to make a hurried trip back to the nearest base.

Indeed, an instance of this sort occurred during the boundary survey, and two men were dispatched back in a canoe by way of an unexplored river. They went off with a little bread and a small allowance of bacon—hardly enough to last for two days. On they went, hoping to pick up the trail of a following relief party that had somehow been delayed. Fortunately, this was effected just before the canoe turned an abrupt bend in the river. Around that bend the stream dipped into a pocket which probably would have meant certain death.

True, in the lowlands of Alaska the summer is hot and the days long, but up in the mountains the arctic chill is felt, and the surveyors have to go provided with garments to meet these extremes, and above all must they have the sturdiest of boots in which to battle over that rugged country. The surveyor must check his lines by suitable triangulations, and to do this it will be necessary for him frequently to stand or climb where peril surrounds him well nigh on every side. Indeed, he will have to hold on by his eyelids or be something akin to a human fly, and besides getting himself there he must drag along his instruments.

But the sun is not overkindly in Alaska, and there are heavy and well nigh continual rains, especially along the coast. The surveyor seizes upon every clear moment to take panoramic pictures from definite points, and from these, later in the shelter of his camp or the warmth of his winter office back in civilization, he works out the topography of his line and plans the way for the engineers. In lieu of this, he must toll along as best he can under the climatic handicaps, and by means of the flashing heliograph he sends his signals afar into the haze and talks with his distant fellows.

There is besides the menace of disease. This was instanced in the case of the boundary survey

when an epidemic of smallpox broke out among the Indians at Rampart House. "We gathered in all the Indians," said Mr. Riggs, "forced vaccination on them, isolated the diseased and issued supplies to the whole tribe of about two hundred. Ninety-two of the natives developed the fever. It was an anxious time.

"We put all of the infected Indians on an island in the Porcupine and took away their boats so they could not get away. A daily inspection was made. I used to carry a sack of cheap candy to bribe the kids to be inspected. After a while they thought it great fun. Returning from among the infected Indians we would get into an airtight tent, stick our heads out of an opening, while the whole interior was filled with the fumes of formaldehyde."

During that expedition, sent out by the United States government under the auspices of the United States coast and geodetic survey, one of the best surveyors was stricken with pneumonia. The country was well nigh barren, and the only natural fuel, and that scanty, was in the form of scrub willows. The sick man was virtually bound up in his sleeping bag, and for three weeks was unable, by himself, to get out of his extemporized bed. According to Mr. Riggs, "We gave him everything we had in the way of medicine, and still he recovered."

Heroism and the tragic are apt to go hand in hand in this survey work, and yet the public knows next to nothing about the dangers faced by its servants in that far-away region. Let us cite a single instance that occurred to one of Mr. Riggs' details.

It seems a small party of his associates landed on an island in the Alaska river and had the misfortune to have their canoe swept away by a sudden rise of water. Binding a few sticks of driftwood together to form a makeshift raft one of the men managed to work his way through the icy torrent to the neighboring mainland. After three days of wandering over precipitous mountains and slippery glaciers he finally managed to crawl to one of the triangular stations or marks. He had just strength enough to push the signal out of plumb and then fainted away.

Happily the chief of the local party, some distance away, while pausing for the clouds to pass, by chance turned his telescope toward the deranged signal, and finding it out of line dispatched some of his people in a canoe to restore it. In this manner the exhausted man was discovered and a rescue party hastened away to the aid of his fellows on the island. For that heroism in the line of duty the man that breathed that frigid stream became a physical and mental wreck.

The government's railway will open up a very rich country. According to experts the wealth that has already been shipped out of the region is but the veriest scratchings from the surface of this vast treasure house of nature. But the road in its building will have to overcome many difficulties. The courage, grit and good red blood that has been drawn upon in running the survey are ample evidence of the character of the obstacles that must be battled with in laying the ties running the rails and springing bridges as the line advances.

Even so, we shall have the route in time, and the achievement will add one more record to the abounding capacity of our people.

## IN THE LIMELIGHT

### PAPAL SECRETARY OF STATE



Italy's participation in the European war necessarily involves to a certain extent the Holy See and the pope, and makes more important than usual the papal secretary of state, Cardinal Pietro Gasparri, who holds that high office, is a man of undoubted ability and long experience in church and diplomatic affairs.

He was born at Capovallazza di Ussita, in central Italy, on May 5, 1852. In his younger days he taught theology in the Pontifical Roman seminary, and canonic law at Propaganda Fide; and he was barely twenty-eight when he was appointed professor of law in the Institut Catholique of Paris, where he spent in scholarly pursuits nearly twenty years.

In 1898 he went back to Rome to receive his appointment as apostolic delegate to Peru, Bolivia and Ecuador; along with the title of archbishop of Caesarea "in partibus infidelium." His American delegation lasted four years and was crowned with satisfactory results in every way. He was then made secretary to the congregation for extraordinary ecclesiastical affairs, one of the most important positions in the curia, since this is the office of correspondence with foreign governments, and after that president of the commission to codify the canonic law.

After two years' hard work, having found it advisable to allow himself some relaxation, he took a vacation, traveling to the Holy Land in company with Monsignore, afterwards Cardinal Delal, and returned quietly to his work soon after. The purple cloth came to him one year later, with the consistory of December 16, 1907, not as the perfunctory conclusion of a bureaucratic career, but as an early and well-deserved recognition of very particular and brilliant merit.

### BANKER-DOCTOR AT THE FRONT

Berkeley Sherwood-Dunn of New York has gone to Europe as the head of a French hospital unit on the firing line, and if anything should happen to this banker and doctor the United States would mourn the loss of a man who has been for years active in public movements. It is not surprising that he is giving his services to France, for in that country he was educated, first practiced medicine and became a leader in public welfare matters.

Doctor Sherwood-Dunn was born in Rushford, N. Y., and after studying in the New York university took his degrees at the University of France, began practicing in Paris and was married there to an American girl. He was a member of a committee that revised the laws governing the admission of foreign students to the university, and prevented the threatened exclusion of Americans. Later he was one of the founders and directors of the Society for the Prevention of Cruelty to Animals in Paris.

Some time after he returned to this country a group of bankers invited him to join with them in organizing the Century Trust company, and he became its secretary. As a result he became generally interested in the banking business, and in 1907-8 he was the president of the European-American bank. He sold his interest in it in 1908 and removed to South Carolina, where he was largely interested in the banking business.

He is a member of the American Civic alliance, and during his residence in South Carolina he was the state chairman of the Progressive party there.



### WILD BEASTS HER CHUMS



Lady Mackenzie, who recently returned from Africa to take up her residence, for the present at least, on her ranch in Montana, is an interesting person in more ways than one. For some years she has been known as one of the most fearless and skilled of big game hunters, and her trips to Africa especially have resulted in extraordinary "bags" of elephants, lions and other large and fierce animals.

Always when she travels Lady Mackenzie carries with her some pet wild beasts, and callers at her apartments are sure to be met by some of these startling chums. She entertained sixty guests recently at Delmonico's in New York, and the diners were amused by the antics of lion cubs, wildcats and other lively animals, some of which were so strenuous that more than one dinner jacket was torn badly.

The menu was an elaborate one. There were stuffed eagles' eggs, roast black bear, rhinoceros tongues, Egyptian quail, salad served in coconuts and other edibles.

### GIVE A NICKEL TO SUFFRAGE

Occupying a prominent place in the Washington headquarters of the Congressional Union for Woman Suffrage and pointed to as a "horrible example" is a nickel donated at a suffrage street meeting by Congressman Thomas Heflin of Alabama, whom the women style the "arch enemy of suffrage in congress." An interesting story is told in connection with the Heflin five-cent piece. One day Miss Elsie Hill, one of the leading speakers for "the cause," was conducting a meeting at a Pennsylvania avenue corner, and a large crowd had collected to listen to her eloquent pleas. Among her hearers were many who believed in the cause sufficiently to contribute liberally when she called for financial assistance for the organization. Just as they were handing over their cash along came Congressman Heflin with some friends, and, seeing what was going on, the Alabama statesman flipped a nickel to one of the collectors, saying: "Take that for luck."



The coin was mounted on a bit of cardboard, properly labeled and placed in the headquarters, where it takes rank with the antisuffrage speech of former Congressman Bowdler of Ohio, also mounted and labeled.

