

RUNNING the LINE of UNCLE SAM'S ALASKA RAILROAD

ALITTLE 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 490 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 Sustna and the Cantwell rivers and through the foothills of towering Mount McKinley. The experts predict great prosperity for the whole territory and declare that the ultimate cost of \$26,800,000 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 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 are 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.

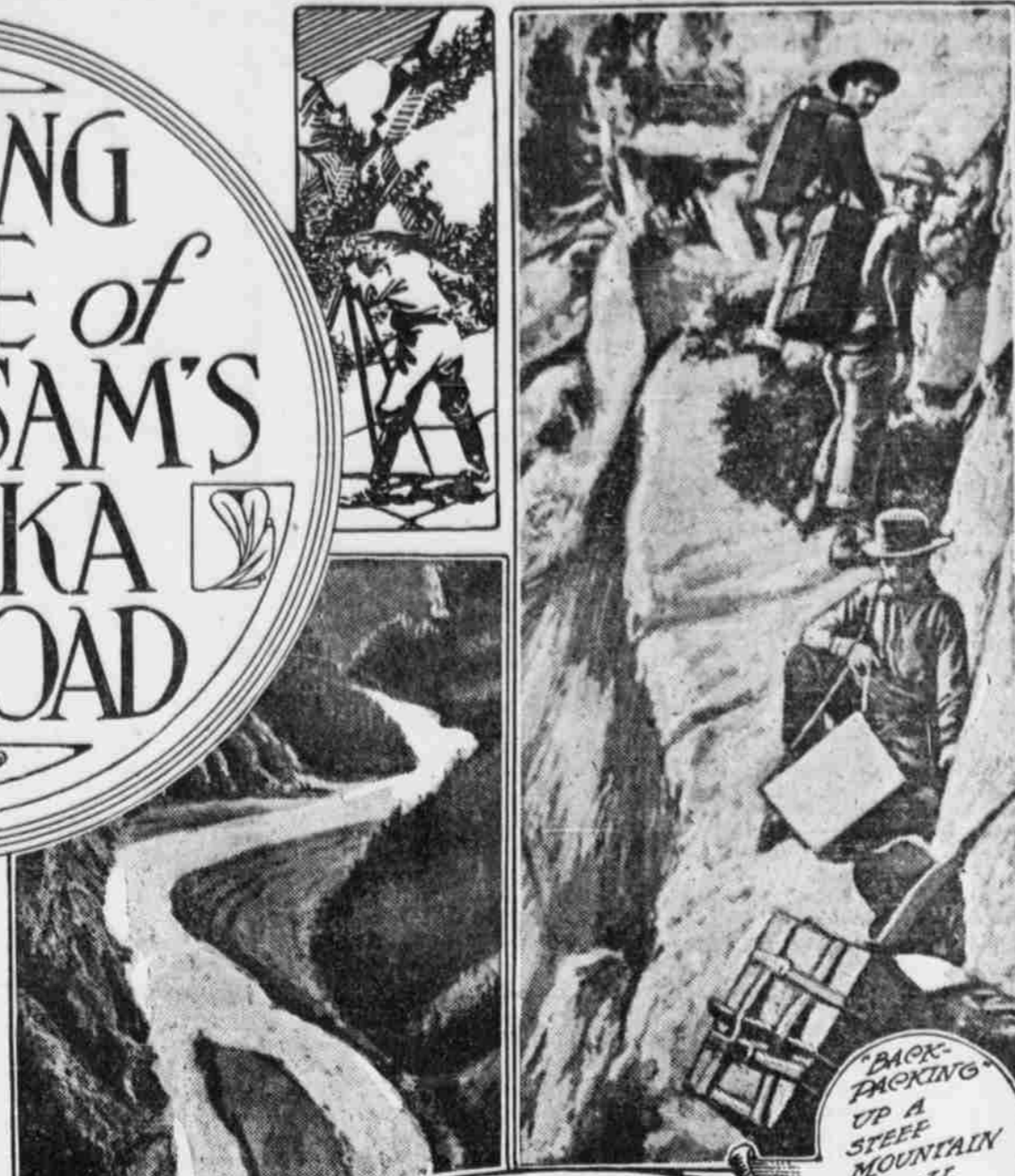
Mr. Riggs has given us some spectacular instances of the hazards confronting the civil engineer in that part of the world, and what has been experienced in the past up there is a pretty good index of the difficulties to be faced in running the line inland from the rail head of the existing road, 71 miles 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 oats 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 190 miles on rafts.

"Early one May a staff 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 bottomless 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 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 toil 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 alight 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 extended 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.

"the unselfish devotion of the late Samuel Pierpont Langley to the solution of the problem of aerial flight—to the discovery of the principle—has been admitted and admired by all well-informed Americans and that our country ought to enjoy the honor that would attach to the coming into use of this term."

The Best Collateral.
Even at a bank a man's best collateral is character.—Youth's Companion.

BACK-PACKING UP A STEEP MOUNTAIN TRAIL

A PACK TRAIN IN ALASKA

AVERAGE ESTATE OF ENGLISH RICH BEATS AMERICAN

Shown by Scrutiny of Given Number of Wills Taken Consecutively as Filed.

SOME CURIOUS FACTS SEEN

One Comparison of English and American Estates Showed \$400,000 to \$233,000—Women Figure Large—Many Rich Prelates—Unusual Wills.

London.—A study of the wills of Englishmen and Americans has been made by an official at Somerset house, where is located the principal registry for Great Britain. This official, while in New York last year, examined the wills of several hundred wealthy and prominent persons who had resided in that city, and thereby was enabled to get information of value to the British income tax office, which has been bothered by men who give away their fortune before they die, thus avoiding the inheritance tax.

The provision in the American law is similar to that in the English law in such cases. Money or other property given away "in contemplation of death" is subject to the tax. But this is difficult to prove, as was illustrated in the attempt made in New York to collect such a tax on a \$1,000,000 gift by the late D. O. Mills to his daughter. It was shown by the executors, by a letter written by Mr. Mills, that it was his "usual Christmas gift," though it did not come out at the hearing how many previous gifts of the kind had been made by him.

The inheritance tax is very heavy in Britain. In the case of the late London banker, Charles J. Sofer-Whitburn, who left \$7,400,000, the state collected, in duties, \$1,185,000, notwithstanding that the property went to the son and other blood heirs. On some legacies the death tax is 25 per cent.

English Rich Men Richer.

The first point of interest developed by the inquiry is that the average rich Englishman is richer than the average rich American. This is shown by adding up the fortunes of any 100 consecutive British wills and comparing the total with that of any 100 consecutive American wills, excluding from each list the men worth \$1,000,000 or over. The difference is almost 100 per cent in favor of the Englishman. Thirty English fortunes on the list totaled \$12,000,000, an average of \$400,000, while thirty New York fortunes totaled \$7,000,000, an average of \$233,000 each. The names on one list were taken just as they came, one after another.

Nor is Britain wanting in men of vast individual fortune. There was the case of Charles Morrison, ninety-one, formerly a haberdasher, who left \$54,000,000. He was a comparatively unknown Londoner. Alfred Belt, the South African diamond merchant, left more than \$40,000,000; Sir E. P. Willis left \$13,000,000; Cecil Rhodes, another British South African, more than \$100,000,000. Sir Julius Wernher's estate was appraised at over \$25,000,000. He, too, made his money in the South African diamond fields, as did Henry Isaac Barnato, who left \$12,500,000. Sir J. H. Schroeder left over \$10,000,000.

Average of Noblemen.

The estate of the late Lord Strathcona, high commissioner for Canada, was sworn provisionally at \$28,000,000. The duke of Sutherland left unsettled personal property, outside of his landed estates, exceeding \$1,100,000. The duke of Fife left over \$5,000,000. The duke of Westminster left more than that in unentailed property. The duke of Argyll left more than \$1,000,000. The duke of Bedford and the duke of Portland own London properties in excess of \$20,000,000 each.

It is estimated that \$500,000 would be a fair average value of an English nobleman's estate. The duke of Abercorn died possessed of \$1,900,000; Earl Spencer \$3,210,000; Lord Lister \$330,000; Viscount Gage \$855,000 in unentailed property; Lord Furness, the steamship man, \$5,000,000; Baron de Worms \$990,000; Lord Ashburnham's estate was appraised at \$1,250,000; Lord Hertford had \$495,000, the earl of Crawford left \$2,180,000; Lord Ranelagh \$3,260,000; Lord Ashbourne \$460,000; Sir Tatton Sykes \$1,446,000; Sir Richard Powell Cooper \$3,900,000, earl of Ancaster \$750,000.

Some Unusual Wills.

Miss Henrietta Hertz left \$435,000 for art galleries and schools and for research in the "problems, theories and history of the philosophers of western and eastern civilizations in ancient and modern times, and more especially in the nonutilitarian theories of the phenomena of life in relation to eternity."

A Spanish lady living in Paris, with property in Britain, said in her will: "As to my sisters, nieces, nephew, brother-in-law and cousin, nothing shall come to them from me but a bag of sand to rub themselves with; none deserves even a good-by."

Miss Amanda Cooper left \$250,000 to King George.

Mrs. Charlotte Duffield, who left

CROWN PRINCE AND HIS UNCLE



Prince Henry of Prussia, brother of the kaiser, and the crown prince of the Netherlands conversing during a visit of the former to the crown prince's headquarters in France.

LIVES IN PRESENT

Centenarian Doesn't Long for "Good Old Times."

Mrs. Alice Harrison, just turned 100, Keeps Up With the Times and Has No Special Formula for Longevity.

Denver.—Mrs. Alice Harrison reached the century mark of life recently. Mrs. Harrison has no formula for the use of those who wish to live to be one hundred years old. She has lived just an average sort of life and at the age of one hundred years she is a fairly regular church attendee, takes occasional strolls about the neighborhood of her home, waits on herself and entertains her many friends when they drop in to see her. She sews on patchwork quilts and makes fancy work for amusement, and reads the war news. Perhaps she still retains a trace of youthful vanity, because she has always refused to have her picture published.

Mrs. Harrison has made no special effort to take care of her health. Neither has she refrained entirely from the use of medicine and the patronage of doctors. She has had a sedentary life, which is generally considered less healthful than a more active existence. Her chief occupation has always been sewing, and reading has been and is her chief amusement.

Mrs. Harrison was born in Kentucky, May 28, 1815, the year of the battle of Waterloo. The greatest war that had ever been known was concluding the world at the time of her birth. But she has lived to see Europe engaged in another war which makes the Napoleonic conflicts seem puny.

Mrs. Harrison moved to Missouri with her father and mother when she was ten years old. She grew up and married there, and was the mother of eight children. She has outlived four of her children, and may outlive more of them if she continues to hold her age in the future as she has for the past few years. She came to Denver forty years ago to make her home with her son, Nathaniel L. Harrison. Since that time she has made many friends here. She has always liked Denver, but says she can be happy anywhere.

Perhaps the secret of her remarkably long life is that she doesn't live in the past as much as most old people do. The present time suits Mrs. Harrison and she enjoys the comforts of advanced age instead of pining for the candlesticks and feather beds of her youth.

She takes an interest in the European war and reads the news of the sinking of the Lusitania without remarking that "such things never happened in her day." She doesn't care to meet strangers, but she takes a strong interest in the doings of her friends.

She can remember the Mexican war. She has lived through the time of the invention of the telephone, the telegraph, the automobile, the phonograph and the wireless telegraph. She has seen the candle replaced by gas, kerosene and electricity. She has seen the marvel of an earlier age, the ironclad battleship, made useless by the invention of the submarine.

DECRIES WAR BABIES CRY



Mrs. Isabel Hall, past national senior vice-president of the Woman's Relief Corps, says the cry against "war babies" and "war brides" is a silly fad.

JUST TO PLEASE HIS WIFE

Atlanta.—Simply to please his wife, and not because he had done anything out of the way, a man who gave his name as W. R. Turner and his occupation as a real estate agent, made an unsuccessful attempt a few days ago to be put on probation.

With another man, said to be his brother, he went to Probation Officer

Coogler at police headquarters and made his novel request.

"It's not that I have done wrong," he explained, "but it's this way. I am about to make a business trip, and my wife objects."

He then went on to explain that his wife was nervous about the trip and was apparently aware that when a man was on probation he had to report regularly to the police, and he believed that with this safeguard his wife would relent and he could proceed on his trip.

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World's Smallest Park.

Pasadena, Cal.—Pasadena will soon boast the smallest park in the world, if plans of the Oak Knoll Improvement association are carried out. The park will contain one-fifth of an acre of ground, and when it has been improved and filled with bright flowers it will be deemed to the city.

Stove a Whisky Cache.

Pine Bluff, Ark.—Bob Patterson, negro, was arrested here just after he had "planted" a stove in his garden. In police court Patterson confessed he intended to use the place as a cache for whisky. He had left an opening over the place for the pipe.

Calf Has Only Three Legs.

Roseburg, Ore.—E. Harper of North Roseburg is the owner of a calf having only three legs. The calf was born a few days ago and is apparently in as good health as its more fortunate brothers and sisters. The animal has only one front leg, which Mr. Harper says is somewhat larger than the leg of a normal calf.

To Walk with Children One Goes at Shorter Steps, but One Has Time to Admire the Landscape.

To walk with children one goes at shorter steps, but one has time to admire the landscape.

WOULD CALL THEM LANGLEYS

Government Airships Should be Named After the Late Smithsonian Professor and Inventor.

The reading world has become familiar with the word "Taube," and understands that it stands for a German aeroplane. Men read every day of flying machines that are called "Wright," "Curtis," "Bleriot," and "Farman," a "Bristol," a "Morane-

Saulnier," and other names fastened to a plane by a builder or an aviator who has succeeded in fashioning a model differing from some other model.

No flying machine is called a "Langley," in commemoration of the creative and original service to aviation rendered by the late Prof. Samuel Pierpont Langley of Washington. Two citizens of the capital have joined in the suggestion—perhaps it might even be called a movement—to have the generic name "Langley" applied

to flying machines that are heavier than air.

The suggestion seems to have been brought forward first by Col. Archibald Hopkins of Washington, and Frank Warren Hackett has seconded the motion, suggesting that perhaps the commander in chief of the army and navy, upon this subject being brought to his attention, might favor Colonel Hopkins' proposal and give directions that henceforth the government airships shall be called "Langleys." Mr. Hackett has written that

"the unselfish devotion of the late Samuel Pierpont Langley to the solution of the problem of aerial flight—to the discovery of the principle—has been admitted and admired by all well-informed Americans and that our country ought to enjoy the honor that would attach to the coming into use of this term."

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