

tively plain sailing. Another fleet of stern-wheel steamers will be waiting, and in three days—the time given by a surveyor, who has passed a long service in that country—a passenger should arrive at Dawson City. On Lake Teslin, which is from 2 to 5 miles wide and 80 miles long, a steamer is now completed, and arrangements are being made for the placing of many others on the lake prior to or on opening of navigation. Lumber is plentiful around the lake for the construction of boats and batteaux by those who wish to prospect en route, and last season a number of craft, each capable of carrying three or four passengers and five tons of freight safely to Dawson City, were easily constructed in two days.

There is clear navigation from the head of Lake Teslin to Dawson City, with but one rapids—that of Five Fingers—along the entire distance, and this, with care, is reported to be usually navigable on the northern or right-hand channel. Out of Lake Teslin flows the Hootalinqua or Teslin River, which, after being joined by the Big Salmon River, is known as the Lewis, which is followed to Fort Selkirk, where, with the Pelly, it forms the Yukon, of which it is the principal source.

It is said that by the arrangements which are being made on the Teslin route the trip from Vancouver to Dawson City will be made in a fortnight during the early part of the season; and it is believed that with the railway in operation this time will be cut down to about a week.

By the Yukon River.

"Starting from Victoria, or Vancouver," says Wm. Ogilvie, of the Yukon River route to the gold fields, "we make our way by an ocean steamer to St. Michael's, about 2,700 miles from Victoria or Vancouver. The steamer approaches St. Michael's a greater or less distance as she draws more or less water. A boat drawing 12 ft. or less may come within a mile of it—one of greater draught has to anchor further out. The cargo is discharged on lighters, towed by small steamers to the warehouses of the several companies. From here up to Dawson or other points on the Yukon, passage is made on stern-wheel steamers, of which there are at present 7 or 8. Four belong to one of the trading companies, three to the other, and one or two to other parties. The time taken in ascending the river from St. Michael's to Dawson, supposing we have fair weather continuously, is from 14 to 18 days. The steamer has to fight its way up this long stream against a stiff current, with, in low water, shallow places at several points: also there is much time lost procuring wood. Much of the fuel at present used is cut by Indians, and piled up along the banks. For the first 500 miles upwards the fuel consists entirely of driftwood, as there is no timber in the vicinity of the river large enough to be utilized for that purpose. Above this point timber is plentiful, but green. The boat is tied up to the beach, all hands available sent ashore, trees cut down, generally carried on board in long lengths, and sawn into proper lengths for furnace use on board. Much of this is entirely green, as what little dry wood was scattered along the bank of the river has been pretty well used up. In the future much delay will be caused to steamers on this account, as the wood gets further and further from the river. Heretofore, there were

only 3 or 4 steamers plying on the river. Next summer there will probably be 25 or 30. These will use up in a single trip all the wood cut, as the steamers now on the river use from 16 or 18 cords a day to 24 or 30.

"Through the kindness of Capt. Kennedy of the Alaska Commercial Co.'s steamer Alice, I am able to give her dimensions and the log of one of her trips. Capt. Barr of the North American Transportation and Trading Co. kindly gave me from his logs the distances from point to point along the river as he deduced them from the travelling rate of the steamer. I am inclined to think his distances are overestimated and that a survey of the river will prove it shorter than he puts it. Dimensions of steamer Alice: Length 165 ft.; beam 32 ft.; depth 8 ft. Compound tandem engines, but no condenser, high pressure cylinder, 14 in. bore, low pressure, 22 in. Length of stroke 6 ft. Steam pressure 150 to 180 lbs., consumption of wood per day 16 to 18 cords. She can carry about 500 tons, but when so loaded draws too much water for the river (about 5 1/2 ft.). In 1896 she made a trip from St. Michael's to Fortymile as follows; the distances are by Captain Barr: St. Michael's to mouth of Yukon, 72 miles, 9 hrs. 40

season, it has never been repeated since. The fastest round trip on record, from and to St. Michael's, was made by the same Co.'s steamboat Alice, in 1897. It took less than 22 days. As a rule, the trip occupies a month. We may generally count on several days detention at St. Michael's. There high winds render it impossible for the river steamers to make their way over Behring Sea to the mouth of the river. The same detention may be caused on the return trip, and the steamer may have to lie in the mouth of the river for days. Then, again, the channel at the mouth is shallow and crooked, and as it is only open for 3 or 3 1/2 months in the year it is impossible to mark it, and even if we could do so it is not permanent, for the ice drifting about in the shallow water in Behring Sea often ploughs up the mud in ridges, making barriers across places which were heretofore good, deep water. In 1896 a boat ran on to a barrier near the mouth of the river and lay there for 14 days before the wind and tides combined raised the water high enough to enable her to float. To enter the country by this route we need not contemplate arrival at Dawson much earlier than the middle of July. The ice in the river breaks about the middle of May, but

Behring Sea, as a rule, is not open until the last 10 days of June—indeed, in 1896 it was not until July 7 that the ocean steamer could approach St. Michael's."

St. Michael's is on an island in Norton Sound, 70 miles north of the Yukon's mouth, and is the commercial capital for the Yukon and Arctic regions. Besides the trading warehouses and officers' houses, there are a Swedish mission and school and some other church mission-houses in St. Michael's. Since the rush north ward set in, St. Michael's has expanded greatly, the new structures consisting chiefly of lodging-houses, hotels and saloons.

Instead of half-a-dozen steamers plying the Yukon, as heretofore, there is likely to be a fleet of 50 steamers on the river this summer. The Alaska Commercial Co. is now having constructed 14 large river steamers and a large number of barges to be used in the navigation of the Yukon between St. Michael's



RAPIDS ABOVE SHAKES, STIKINE RIVER, LOOKING DOWN.

min., mouth of Yukon to Nulato, 576 miles, 81 hrs. 30 min., Nulato to mouth of Tanana, 249 miles, 36 hrs. 30 min., mouth of Tanana to Fort Yukon, 456 miles, 60 hrs. 25 min., Fort Yukon to Circle City, 88 miles, 21 hrs. 10 min., Circle City to Fortymile, 156 miles, 47 hrs. 40 min., Fortymile to Sixtymile, 97 miles, 19 hrs. 15 min. This makes the total running time from St. Michael's to Fortymile 255 hrs. and 25 min., or ten days, 15 hrs. 25 min., the distance being 1,597 miles. In addition she must have lost 4 to 6 hrs. at least per day cutting wood and loading it.

"After we get up the river some 1,300 miles we strike what is known as the Yukon Flats. These flats were no doubt the site of a lake ages ago, now filled up with numberless islands and channels, most of which are too shallow, crooked and narrow for steamboat passage. The sand and mud drifts about in them, changing the course of the steamboat channel, and every year appears to be getting more and more difficult of navigation. In the summer of 1895 water remained high until well into September; the result was that one of the Alaska Commercial Co.'s steamers, the Arctic, made 5 passages from the mouth of the river to Fortymile. This is the record

and Dawson City. Maitland Kersey states that steamers are now being built in England for use on the Yukon River by his company. These steamers will be shipped in sections and put together in B.C. The C.P.N. Co. has river steamers to connect with its ocean vessels. A few weeks ago, a stern-wheel steamer, named the Research, destined for the Yukon, was launched in London, England. She draws 2 ft. 6 in., has a speed of 10 knots, and carries stores for 15 months. Her 22 passengers are to live in her commodious deck house after reaching Dawson City.

Anticipating the great river traffic, the U.S. Government is sending Prof. Pritchett, of the Coast & Geodetic Survey, to Alaska, to make an examination of the delta of the Yukon, for the purpose of locating & marking the deep-water entrance to the river. For this Congress has appropriated \$10,000, & the 30 men composing the party leave San Francisco for the north in April.

It is quite an easy thing to build a boat, but, according to President Turner, of the Alaska Trading & Mining Co., a boat for the Yukon is not just the same sort of craft that would do for other service. The Weare, the largest Yukon river steamer, draws 4