

which is the head of practical navigation on the Missouri, and is generally admitted to be the commercial centre of Northern Montana. The two most practicable routes are one from Helena and one from Livingston, via Shields River, White Sulphur Springs, Smith River and the Great Falls of the Missouri, tapping much of the best agricultural, mineral, coal and grazing lands of the Territory.

The Siuslaw is a river of considerable size, flowing into the ocean about midway between the Columbia and the California line, and forming for some distance the boundary between Lane and Benton counties. It is navigable for some distance above its mouth, and is entered by steamers and schooners of medium draught. Near its mouth is the flourishing little town of Florence, and a few miles above is a salmon cannery. A saw mill has just been constructed on the river and arrangements are being made for two more. From two gentlemen who have just returned from a reconnaissance of that region, we learn that much desirable Government and railroad land lies there inviting settlement, chiefly the former. Along the stream there are long stretches of fertile bottoms, covered with brush and timber, which require clearing. Back from the river, along the sidehills, there are quite extensive tracts from which the timber has been burned, and which are covered with a luxuriant growth of native grasses. These gentlemen state that of such lands there are in excess of 50,000 acres, chiefly unsurveyed. Ferns, of course, have asserted their rights in common with the grass, and have attained a giant growth, often six feet in height. As a stock and dairy region the Siuslaw offers great advantages, and is well worth the examination of intending settlers. A good road leads to it from Junction City, and other roads are being constructed.

A correspondent from Clarke County, Washington Territory, writes about the use of dynamite in disposing of stumps in a clearing, which he declares to be a better mission for that great explosive than destroying human life. He says: "After trying our old, slow process of digging, chopping and burning by both natives and Chinamen, we have found a more speedy and sure plan. A friend near Salmon Creek, a former neighbor of mine, gathered some of his neighbors to witness a trial of giant powder upon some large stumps. Selecting two huge ones whose roots had interlocked, he called for an opinion as to the work necessary to remove them by the old methods. A man present proposed to chop and dig them out in a week's time, which seemed to meet general approval. He then put a charge of dynamite in a hole scooped out of the dirt under one of the stumps, giving fuse enough to allow every one to get out of danger. The charge worked to a charm, and one stump was split into three pieces and sent several yards away. The same process removed the other, leaving only a deep hole and a few stray pieces of roots under ground. The cost of one charge was fifty cents; the other sixty cents. Take the cost of time, labor and material from that week of work proposed, and you will readily take in the value of the experiment. The hardest, most solid stumps to dig out are the easiest to blow out, and are split so as to be ready to burn. All one has to do is to fill up the holes, and go ahead with the plow as if stumps had never been there. Several are now utilizing dynamite in Clarke County."

Our lumber regions are receiving the inspection of many saw mill owners of Wisconsin, Michigan and other States, who can see that many of them must change their field of operations from the rapidly disappearing forests

of the East to the comparatively untouched timber belt of the Coast Range and Cascades. For years the State of Maine has been relied upon to furnish a large portion of the timber used for the spars of ships, and has been able to supply those for the largest vessels, requiring sticks from 75 to 100 feet long, and as large as 34 inches in diameter. Her supply has for some time, however, been short, and the attention of shipbuilders has been directed more than ever to the forests of Oregon and Washington, which now possess the finest timber in the world for such purposes. Orders are being received from all quarters of the globe. Our forests not only can furnish larger sticks, but a greater number of proper size in a given territory, and it is claimed that the timber is stronger and less liable to be defective. These spars are worth, when completed, from \$125 to \$500 each. Northern Michigan has formerly furnished thousands of feet of her Norway pine for car timber, which has been considered superior on account of its hardness and rigidity. But the pine forests of Northern Michigan and Wisconsin are nearly denuded of their best timber, and we must soon be called upon to furnish timber in large quantities for this purpose, our fir being more like the Norway pine, in the qualities named, than any other timber that can be found in quantity. All these demands, immediate and prospective, must continue to furnish a good market for this product.

Putnam River, the great Alaska stream which Lieutenant Stoney discovered in 1883, and partially explored in 1884, will be again visited by the same officer, who will occupy the seasons of 1885-6 in making a more complete exploration. Putnam River runs in the general direction of west-southwest. It has not been found difficult of navigation for 400 miles, except at rapids, where it has been necessary to pull stores, etc., over in boats made of skin. The country on the banks of the river is generally wooded and rolling. The river empties into the sea through a delta, to which there are about a dozen mouths, the longest of which begins about forty miles up the stream. The explorers need have no fear of famine during most of the year should disaster befall them. The forests are dense and abound in vegetation. Game of every description is plentiful. From certain nutritious roots the natives make food. In places salmon berries are found. The winter brings the mercury down to 60 degrees below zero; but in the spring and summer the temperature of Northern Alaska is agreeable. "The risks," said one of the officers, "are only those incident to the exploration of any new country. We go for a trip of about eighteen months. We shall have provisions sufficient to last us for three years. During the summer, the open season, we shall push ahead with the steamer, making trips of observation and surveying also into the interior. In the winter we shall explore with sledges, wrapped up in fur coats. There will be two months of Arctic darkness when we will be unable to explore. The Russians never pushed inland along the Putnam River, and the natives never saw a white man before our previous expedition arrived among them." Another large river is reported by the natives, and its existence is considered extremely probable. The present expedition will probably determine that question, besides revealing much that is now unknown about our great Alaskan possessions.

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