

We Can Save You Money

Every article in the store at reduced prices. New Goods to fill in our broken Stock have been received and are on sale at Closing Out Prices. If you want **SHOES** and the best we can suit you and at prices you can't duplicate. Try the Florschiem for men and "Steel Shod" for children; nothing better. A good line of Mens & Boys Suits

—WE CAN SAVE YOU MONEY—

L. H. HUGGINS & CO.

FREDERICK JEFF'S EXTREME PERIL

Tacoma, Wash.—Rescue after many long months in the store for Frederick Jeffs, son of Mr. and Mrs. W. J. Jeffs, formerly of Tacoma, but now of Victoria, B. C., who is marooned on indefatigable island, one of the Galapagos group off the west coast of Ecuador. Admiral Evans has received orders from the navy department to send a ship to rescue this sailor.

Fred Jeffs is 27 years of age. It was when Mr. Jeffs was in business in Tacoma that Fred began his acquaintance with the sea captains and other officers which finally resulted in his going to sea. After being away several years he returned to Tacoma and for some time he was with the Connelly Shoe Company on Pacific avenue. Later he went to Hood River, Or., to manage a boot and shoe store. Then again the longing for the sea returned and he went as mate on a ship bound for Australia.

A brother, George, was drowned on the ill-fated steamer Clallam some four years ago, as he was returning to Victoria from a visit to his brother, S. J. Jeffs, at Olympia. The latter is now manager of the boot and shoe department in the People's Store, Tacoma, and another brother, William Henry, is a marine engineer on one of the steamers plying between San Francisco and China, and still another brother, Albert Victor, is manager of marine boiler works at Portland.

Jeffs, who was working his way back to the United States, having seen the better part of the world, shipped on the Norwegian bark Alexandra, of Christiania, which sailed from Newcastle, New South Wales, on November 28, 1896, for Panama, with a cargo of coal aboard.

After having been becalmed for many days and the supply of water threatening to give out, Captain E. Peterson, the skipper of the Alexandra, on May 8, ordered the boats lowered and an attempt was made to land at Charles Island of the Galapagos group.

Owing to the strong Antarctic current, a landing could not be effected, and in endeavoring to locate Chatham Island, another of the Galapagos Islands, the water supply gave out entirely, compelling the crew of nine men to seek refuge on indefatigable island.

To find water on a volcanic island, where there is none except during the rainy season, is not an easy task, and when drinkable water was at last found in a cave, the crew discovered that their boats were lost and they could not return to their bark.

For two months the stranded mariners lived on pelicans, tortoises, iguanas, crabs and various sea foods. While there is thick vegetation in parts of indefatigable, one of the largest islands of the Galapagos archipelago, for the most part it is covered with lava and cactuses is the principal plant life. It is the home of a species of iguana peculiar to the Galapagos Islands. This animal is of the lizard family and the specimens to be found on these Pacific Islands are the only animals of their kind to be found in the water as well as out of it.

That Jeffs was not rescued from the island with his comrades was evidently due to illness, which caused him to refuse to join the other members of the party when they changed their camp from the west side of the island to the eastern shore. In his report, after being rescued, Captain Peterson tells of the way in which Jeffs was left behind.

"Some of our men," he says, "found a cove on the east coast of the island, which they called 'Trapper's Cove,' and which they thought would be more likely to be in the view of passing ships, as vessels plying between other islands of the group and Guayaquil passed the eastern side of the indefatigable in following their course. All but Sailor Fred Jeffs agreed to go to the new camp, and we left him, after using every possible means to urge him. Thinking that Jeffs would decide to follow us, we left him a bag of provisions, some turtle and boiled biscuit. After many days of hard walking over the sharp rocks and stones we arrived at the new camp."

By questioning the members of the crew after they were rescued, the American vice-consul at Guayaquil learned that Jeffs had been suffering from pleurisy and that his companions, weakened from lack of water and privation, had been unable to carry him over the treacherous country between the east and west shores. The Galapagos Islands are the home of the largest tortoise known to exist, many measuring more than three feet in length, and it was necessary for the stranded party to fight these creatures by day and barricade themselves at night.

The Norwegian consulate, having learned that the bark Alexandra was supposed to have been abandoned in the waters surrounding the Galapagos Islands, sent the Bolanda Isidra Jacinta from Guayaquil, under command of a German captain, Bohnhoff, who found the crew of the abandoned ship on October 28. Not having sufficient provisions to permit of the men returning to find Jeffs, Captain Bohnhoff decided to pass along the western shore of the island on the way to Guayaquil. Here again the Antarctic current proved too strong for the vessel and a severe storm made it utterly impossible for the skipper to follow out his plans, so that the efforts to locate Jeffs had to be abandoned.

Of the nine men who had originally landed on indefatigable island, but seven were rescued by the skipper of the Isidra Jacinta, Sailor Martin

Sobiescher having died on the island, supposedly killed by turtles. His skeleton has been identified by the officers from the shoes he wore. The ninth man was Jeffs, and to find him, living or dead, a ship of the United States navy will be dispatched to indefatigable island, an almost unpopulated occasion in the history of the navy department.

There is good hope for believing that Jeffs may still be alive, as the climate of the Galapagos, despite the location directly on the equator, is not severely hot.

The animal life on these islands is peculiar and many expeditions have been made for the purpose of studying the various specimens to be found there. On indefatigable island moisture seems to be more scarce than on the other islands of the archipelago, and the turtles—that is, the land tortoises—rely on the giant cactus plants for moisture.

The waters surrounding indefatigable island are extremely dangerous, owing to the large number of reefs and shoals and the swift currents, many of which do not appear on the charts. The request to the navy department to send one of the ships of Admiral Evans' fleet to the rescue of Jeffs was made by Representative Ebernetzer Hill, of Connecticut, who is taking a great interest in the plight of the shipwrecked sailor. The attention of the Connecticut representative was called to the case by a sister of Jeffs, Mrs. Henry G. Claridge, of South Norwalk, Conn.

The request of Representative Hill to the navy department was endorsed by the state department, which has had several communications on the subject from the American vice-consul at Guayaquil, Robert Jones.

No Use to Die.

"I have found that there is no use to die of lung trouble as long as you can get Dr. King's New Discovery," says Mrs. J. P. White, of Kenosha, Pa. "It would not be alive today only for that wonderful medicine. It loosens up a cough quicker than anything else, and cures lung disease even after the case is pronounced hopeless. The most rapid remedy for coughs and colds, la grippe, asthma, bronchitis and hoarseness, is sold under guarantee at Chas. N. Clarke's Drug Store. 50c and \$1.00. Trial bottle free."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Catarrh Cure, Cooper's Nine C's.

There are thousands of people who suffer with Catarrh, but do little or nothing to remove the dread disease. This neglect permits the disease to inflame the Mucous Membrane and may affect the nose, throat, lungs, stomach, bowels or bladder. Cold aggravates Catarrh and if allowed to become chronic it leads to Bronchitis and also to Consumption. Fully forty per cent of the deaths in America are from diseases of the air passages. Use the Nine C's and be cured. It is also a sure cure for Croup, Bronchitis, Colds and LaGrippe. If

used and you derive no benefit your money will be returned. Sold at Chas. N. Clarke's Drug Store.

Candidate for Congress.

The following article appeared in the Portland Journal Sunday:

"Andrew J. Nelson Derby, of Hood River, is a Democrat, has announced his candidacy for the Democratic nomination for congress from the second district. He pledges himself among other things to serve the people honestly and to do all in his power to promote the cause of irrigation and the improvement of the Columbia river, should the people of the district see fit to honor him with the nomination and subsequent election to the office now held by Congressman W. R. Ellis, of Pendleton."

"Mr. Derby is an attorney at Hood River and has many friends throughout Wasco and Sherman counties where he is very well known and highly respected. He is a southern man by birth, having been born at Livingston, Alabama, May 1, 1877. He received his academic education at Livingston Military Academy, and in 1897 Mr. Derby moved to Portland and was graduated from the University of Oregon law school in the spring of 1904. He was admitted to practice and followed his profession here for a year when he returned to Hood River, where he has since been practicing law with much success."

"Mr. Derby was a Democrat ever since he was old enough to take an interest in things political. As a resident of eastern Oregon and the Columbia river district he is earnestly interested in the advancement of irrigation and the improvement of the Columbia river."

Good Fruit Land For Sale.

From ten to thirty acres of Willamette flat land. If you cannot buy eighty acres, you can buy ten acres. Get a start in Hood River and your fortune is assured. Buildings and improvements here for a year when he returned to Hood River, where he has since been practicing law with much success.

"Mr. Derby was a Democrat ever since he was old enough to take an interest in things political. As a resident of eastern Oregon and the Columbia river district he is earnestly interested in the advancement of irrigation and the improvement of the Columbia river."

Good Fruit Land For Sale.

From ten to thirty acres of Willamette flat land. If you cannot buy eighty acres, you can buy ten acres. Get a start in Hood River and your fortune is assured. Buildings and improvements here for a year when he returned to Hood River, where he has since been practicing law with much success.

"Mr. Derby was a Democrat ever since he was old enough to take an interest in things political. As a resident of eastern Oregon and the Columbia river district he is earnestly interested in the advancement of irrigation and the improvement of the Columbia river."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at the stretch the cost will average over \$100,000 a mile and will sometimes reach \$150,000.

"That the construction of the S. P. S. Ry. is possibly the most important piece of railroad work carried on in the United States during 1907, is the editorial opinion of the Engineering News, given in the same number. The editorial points out that the Hill lines will be able to get away from the steep grades over the Cascade mountains to the Northern Pacific and Great Northern, the former crossing the range at an elevation of 2927 feet and the Great Northern climbing to an elevation of 3380 feet, while each road has grades as steep as 2.2 per cent in its ascent of the mountains.

"In the entire distance of 20 miles along the valley of the Columbia," continues the editorial, "there is absolutely no rising grade against west-bound traffic and for eastbound traffic the maximum grade is only 0.2 per cent or 10 1/2 feet per mile. The total rise in the 20 miles is only 324 feet. Notwithstanding that the line is compelled to follow the narrow valley of the river, maximum clearance has been reduced to 3 per cent. That such a road will permit enormous train loads and very low cost of hauling and will have great traffic capacity can be seen at a glance."

Writes of North Bank Road.

An engineer's appreciation of the splendid construction of the Spokane, Portland & Seattle railway is contained in the current issue of the Engineering News, New York. The writer is W. P. Hardesty, of Portland, and his contribution is the leading article. He deals with the engineering difficulties presented in the construction of the road. He tells of the details of the work at considerable length. The article is illustrated with views of the grade and of both portals of the Cape Horn tunnel. In summing up his observations on the work he says:

"It is believed that no other road in the United States, even when the conditions for easy construction are much more favorable, has such light grades and curves for such a length as this one. The fact that there are no adverse grades at all between Kenosha and Vancouver for west bound trains will allow trains of enormous weight to be hauled in this direction. The exceedingly light requirements for high standards used in construction applied to a country of the rugged character traversed by this road, have resulted in very costly work. No expense has been spared to make everything of the best and the most and more rigid standards of the future in the railway world have been anticipated for many years."

Mr. Hardesty points out that the high price of labor and materials have resulted in very expensive road. He says that for miles at