

ESTIMATED COST FOR A NEW WATER SYSTEM.

Engineer Chase Files his Report with the City Council.

CAN BE BUILT FOR \$50,000.

Killam Creek the Most Desirable Stream--Estimate Does not Include Cost of Piping the City, Engineering, Hauling, etc.

Engineer W. B. Chase, who was employed to furnish an estimate of cost for a new gravity water system for Tillamook City, handed in his report, which was accepted by the city council on Tuesday. It is as follows:

Tillamook, Oregon, September 28th, 1903. To the Hon. Mayor and Common Council of the City of Tillamook.

GENTLEMEN,—In the examination of sources for a water supply for Tillamook City, I examined first the stream known as Killam Creek. It was measured at a point about 3 1/2 miles from the city. The weir board made for the purpose was not of sufficient size to measure the entire flow, but the amount measured was 294.48 cu. ft. per minute, equal to 2,208,384 gallons in 24 hours, which is a hundred gallons a day for each of 22,083 persons.

I do not think that more than two thirds of the stream flowed through the weir, so that the supply flowing in Killam Creek September 21st is ample for a very large town. The quality of the water is excellent and all that can be desired.

Sept. 22nd, we measured the flow of the stream from which the city is now supplied. The amount found flowing above the intake was 45.23 cu. feet per minute, equal to 488,484 gallons in 24 hours, a supply of 100 gallons per day each for 4884 persons.

We also visited the North fork of the Wilson river. There was so much water flowing in the stream that it was unnecessary to measure it. The amount was beyond all doubt as to the sufficiency.

ELEVATIONS. The elevation of Killam Creek at a point approximately 5 1/2 miles from town was 220 feet above the streets of Tillamook. This elevation is not great enough for our purpose quite, but more can be had by going up the stream a short distance. It rises very rapidly.

Hugley creek at the reservoir is about 155 feet above the city streets, and the intake about 310 feet. There is no doubt about obtaining all the head desired here, but I consider the quantity of water too small to justify an expensive water works, unless no other supply could be obtained.

WILSON CREEK. The stream rises slowly above the bridge on the North fork, where the elevation is about the same as the streets. Going so far, we would require more than 300 feet elevation, all to be gained above the bridge, which would require a very long pipe line through a rough location.

The stream is an ideal water supply for a large city, but the cost of getting it to Tillamook would probably be too great for the present time.

RESERVOIR SITES. A site for a distributing reservoir for a city ought to be as near as possible, usually the nearer it is the more economical is the piping system.

About four miles from Tillamook is Owen's hill, a large ridge. At the place measured the elevation was about 340 feet, and near by a sort of a saddle at an elevation of 260 feet. Any desired elevation below 340 feet can be had by going down the hill to the west. A site can be found on this hill not very far out of line from Quick's. There is also a site known as Johnson hill, standing well out onto the plain. The elevation there is 225 to 230 feet above the streets of Tillamook City. It is about 3 1/4 miles from town.

There is a hill or ridge near the present pipe line, but further from the city, elevation 400 feet. There is no difficulty in finding a reservoir site within three or four miles of Tillamook.

Johnson hill is the nearest and is in position to receive the waters from Killam creek, or the North fork of the Wilson.

QUANTITY OF WATER REQUIRED. For ordinary uses 100 gallons a day for each person is regarded as a sufficient provision for pipe capacity, but the pipe must flow it in 12 hours. On a 12 hour basis 1000 people require 18.56 cu. feet per minute, 2000 people require 37.12 cu. feet per minute, 3000 people require 55.68 cu. feet per minute, 4000 people require 74.24 cu. feet per minute.

PIPE SERVICE. 1 stream, 1 inch nozzle, 28 cu. ft. per min. 2 " " " 58 " " " 3 " " " 87 " " "

The head necessary to send three one inch streams 75 feet high and provide the friction head for a 10 inch pipe four miles long is about 226 feet, which is approximately the elevation the reservoir ought to be. You will observe that the amount required for the three one inch streams exceed the amount per minute required for the people, which is always the case in small cities. Three seven eighth stream require a little less.

It is unnecessary to provide pipe capacity for both quantities at the same time because we are providing for four times the present population and because fires are of short duration and you would hardly require three one inch streams at the same time.

A 12 inch diameter pipe would provide for a longer future and would give a better fire service, but I think a ten inch will do for many years. The 12 inch pipe to do the same work as noted above would only require about 193 feet head. This could shorten the mountain line, because we would not need to go so far up the stream for head for the mountain section, but since the 12 inch line from the reservoir would cost about \$2,500.00 to \$3,000.00 more than the 10 inch line, the 10 inch line is probably the cheapest. These things can only be accurately determined by a survey.

RESERVOIR. To hold one day supply for 4000 people would require a reservoir capacity of 53,436 cu. ft., and would need to be 73.1 by 73.1 feet by 10 feet or any other form having the same volume. LINE FROM INTAKE TO RESERVOIR. To flow the amount required for 4000 people in 24 hours requires a pipe capacity of 37.1 cu. feet per minute. If the line were 1 1/4 miles long and the

DRAWING PLANS FOR BOAT.

Prominent Portlanders Back Scheme to Secure Trade.

Up to date there has been over \$30,000 worth of stock subscribed in the Oregon Pacific Navigation Company, which is to be the basis of the general manager, F. H. Skinner, of this city, who, with others, incorporated the concern a few months ago with the avowed intention of buying or building a steam schooner to be commissioned upon the Portland-Tillamook run. Plans are now being drawn for the vessel, it having been found impossible to find a craft suitable for the route, and within comparatively short time the officials of the corporation expect to inaugurate a weekly service between the two points.

"We have some of the most influential citizens and business men of this city interested in the project, and some of the best men in Tillamook County, also," was the reply of Mr. Skinner to an inquiry as to who was behind the move.

"Myself and associates have been looking up and down the coast for a steamer, but have been unsuccessful in locating anything suitable for the demands of the business, so we have concluded to build a vessel. Plans are now being drawn, but it will possibly be a month or longer before these will be in shape for work to begin. The intention is to construct a 300-ton vessel, and especially for coast work. In the end, we find the run decided upon does not pay, there are other routes along the coast where such a vessel can be utilized."

It was ventured that there were many steam schooners in the several ports which might be taken, that is perfectly true," vouchsafed the manager, "but few of them draw less than 14 feet, while it is impossible to get a steamer to the City of Tillamook which has a draft of over ten feet. The bay itself is easy to access with deep-draft vessels, but the depth of the water here, although makes it imperative that we have a craft that will fill the bill. Some day, in the near future, there may be some extensive improvements made of the channel from the bay into the slough, and we have been informed pressure is being brought to bear upon the Government officials looking to that end, but for the present we must adapt ourselves to circumstances."

When asked regarding the report that he had negotiated for the purchase of the steamer Sue Elmore, of Astoria, and later for another at Tillamook, Manager Skinner emphatically denied that he or those interested with him had failed to proffer the purchase price first agreed upon, but made the declaration that the owners of the Elmore raised the figure \$5000 when the time was reached for the payment to be made, and the increase was not met, as the steamer was not deemed worth the money.

Those Who are Interested. Dr. J. K. Locke is president and treasurer of the corporation, with A. H. Partridge filling the office as secretary and Mr. Skinner manager. The board of directors consists of three members, all Portlanders, but a change is to be made in the near future, the addition of two from Tillamook. If the trade expected is enjoyed, the company proposes to construct barges in order that the work of caring for freight may be further facilitated. A 30-ton gasoline craft will be added to the fleet after the first year, and being of 95,000 feet, and the smaller points in the vicinity of Tillamook, connecting them with the Portland steamer.

The company will, among other things, provide towage service upon Tillamook bar, also at Nehalem, Netarts, Nestucca, Siletz, and Alsea bays will be given service through the smaller bays, and this innovation is expected to develop an amount of business from those points which already trade considerably with San Francisco.

Scows will carry lumber from the mills at Tillamook and Nehalem. Of the annual output of 95,000 feet, and the former place the company has been assured it will be given an opportunity to transport at least 150,000 feet to this city each trip. There is 500,000 feet of spruce lumber now waiting shipment, and thousands of feet of this character of material available, which is found useless at present, but could be utilized in Portland with profit. Nehalem turns out 70,000 feet of lumber a day, and there is a plant building which will have a capacity of 10,000 feet. Besides this trade, there is the cheese and other dairy output and coal prospects at Nehalem.

Local merchants are interested in the outcome of the venture because it means the money now received at San Francisco for necessities will come here, hence another large revenue and the guarantee of coming and going. The project has been promulgated quietly, and no undue publicity given through appeals for assistance to any of the commercial bodies, but now that an encouraging start has been made, it is not improbable this aid will be sought.

"If I could find a designer who I was certain could beat Herreshoff, I would build Shamrock IV, and challenge for the cup to-morrow. I am retaining Shamrock III, so you can see that I am in hopes of finding such a designer. I intend to keep the cup until I get it. These were the statements made by Sir Thomas Lipton at his apartments at the Auditorium Annex in the first interview he has given since going to Chicago.

Todd & Co.'s Prize Drawing.

Todd & Co.'s prize drawing took place this morning with the result:

- Gray Ford, cash \$50.00
A. Benschel, merchandise 25.00
J. H. Johnson, merchandise 20.00
Al Bugas, suit 15.00
J. C. Hunter, suit 12.50
Doc Davis, overcoat 12.50
Albert Kinnaman, gent's macintosh 10.00
J. Kodak, ladies' macintosh 8.50
J. S. Stephens, boy's macintosh 5.00
M. Trowbridge, girl's macintosh 5.00
Mrs. Lamb, gent's shoes 5.00
G. Bailey, gent's shoes 3.50
Frank Fitzpatrick, gent's shoes 3.50
J. P. Allen, gent's shoes 3.50
Ed. Hadley, gent's shoes 3.50
Asa Wells, gent's shoes 3.50
Dr. A. Smith, ladies' shoes 3.50
W. H. Easter, ladies' shoes 3.50
Geo. Elliot, ladies' shoes 3.50
C. C. Svenson, ladies' shoes 3.50
Gene Price, ladies' shoes 3.50
C. W. Talmage, gent's hat 3.00
Miss Nellie Murphy, gent's hat 3.00
Palace Hotel, gent's hat 3.00
Mrs. Clara Wadley, gent's hat 3.00
J. Diamond, gent's hat 3.00
A. Benschel, gent's hat 3.00
Alva Williams, pair shoes 2.50
Joe Price, pair shoes 2.50
J. Diamond, pair shoes 2.50
Bill Miller, pair shoes 2.50
A. Appleman, pair shoes 2.50
E. Elliot, hat 2.00
C. H. Mattoon, hat 2.00
Fred Davidson, hat 2.00
L. E. Getchell, hat 2.00
O. P. Mattoon, hat 2.00
Mrs. Bowen, shirt 1.00
M. J. Coie, shirt 1.00
C. H. Mattoon, shirt 1.00
R. S. Clark, shirt 1.00
Mrs. Annie Williams, shirt 1.00

BEAVER.

This is surely the land of mist and sunshine and the homecoming of fog and bark gatherers, all glad to be welcomed home.

Mr. Sailing returned Saturday with Misses Sailing and West. Mr. Bixby, jr., has left for his home at Newberg to attend college this winter. Mr. and Mrs. Coulson, of Beaver, entertained friends and relatives last Sunday.

On the 22nd a birthday party and dinner was given at the residence of David Plum and wife, it being Mr. Plum's 30th birthday. After dinner was served the company was entertained with music and 4 speeches from the grapplephone, and when the guests left they all wished Mr. Plum many happy returns of the day.

Several parties are to be baptised next Sunday at Beaver. Mr. Kirk, of Beaver, run a barber shop last Sunday, just to accommodate a few select friends so as to make them presentable at Sunday school. It takes almost a snag puller to remove the growth from some men's faces, but Kirk's razors are equal to any snag puller, that is if one wants the roots removed.

Some of Miss West's friends dined with her on Sunday, and amongst others were Miss Lorena Kirk and brother, Ame. Mrs. Woods now occupy the old store building previously occupied by Mr. Jos. Bixby.

NETARTS.

Rav Puelps, of Sheridan, and a nephew of Geo. W. Phelps, came in on Sunday to spend a couple of weeks on the beach and visiting with relatives. The gasoline schooner Gerald C. arrived in the bay on Saturday with a cargo for our merchant, Geo. W. Phelps. She left on Sunday evening. She will call at Nestucca on her way down to Yaquina.

Henry Mills and Ralph Dimick, of Hubbard, came in over the mountain on Sunday and will spend two or three weeks on the beach. Axel Nelson started to the valley on Monday to bring in a load of fruit. Marion Hodgdon is talking of going out to Sheridan next week after a load of oats. Marion Phelps went to the lighthouse on Monday with a load of freight. Geo. W. Phelps killed a bear one day last week.

SOUTH PRAIRIE.

The dairymen are rejoicing over the recent showers, as they keep the grass growing nicely. This has been the best year the dairymen have experienced in this county. Isaac Quick and family have the heart felt sympathy of their neighbors and friends in the loss of a son and brother. Mr. Lamb is improving his buildings for the winter. Mrs. Darby is expected home from the East this week. Guy Vaughn expects to begin picking apples in a few days. Alvin Johnson has a carpenter busy erecting a house on his place. Some of the boys of the neighborhood must have been driving with one hand the other night, for they ran off a culvert and got dumped in the mud. Two vats are still going at the South Prairie cheese factory.

It Pays to Advertise. Advertise in the HEADLIGHT when you have property to sell. One trade was made this week whereby a party who had a piece of property to sell advertised in the HEADLIGHT and it found him a purchaser. Had the property been put in the hands of a real estate agent \$100 would have been the commission and as much more as the real estate agent could get out of the purchaser by raising the price of the property after it is put in their hands to sell, or in other words using the double section. Moral: It cost but \$2 to advertise the property several times in the HEADLIGHT, thus the advertiser saved \$98 and did not have to tie his property up for six months either.

Shot Guns, Air Guns, Pop Guns and the Mamous, 30-30 Rifles, at Ralph Ackley. One Lefever Hammerless Shot Gun, with automatic ejector, at \$40 00; Regular Price, \$59.00, at Ralph Ackley.

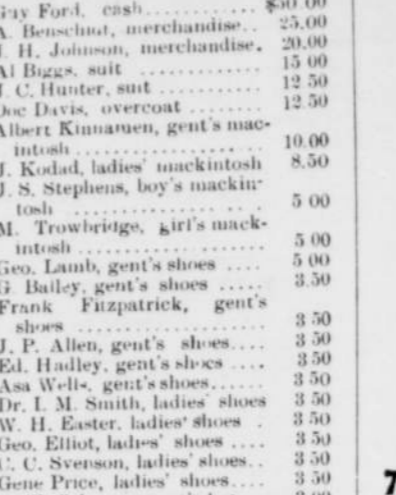
CLOAKS! CLOAKS! AT HALTOM'S. Ladies' and Misses Cloaks arrived on Steamer just in.

With the discovery of the body of a boy 14 years old on the bulkheads at Catherine street and East River, New York, the police are confronted with evidence of a crime that recalls the deeds of "Jack the Ripper."

The Cornucopia mines of Oregon, formerly owned by John E. Searles, of Chicago, have been sold to a \$5,000,000 New Jersey corporation. The consideration, according to Fred S. Lock, Baker City, who promoted the deal, was \$600,000. This is the biggest mining deal ever consummated in Oregon.

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THE OLD RELIABLE



Quick Brothers, HOUSEHOLD MOVERS AND DRAYMEN.

Heavy Teaming a Specialty with us. Our Delivery wagon delivers to country or city.

Good Year for Dairying. Never before in the history of dairying as high for butter fat as it has this year, and the large increase in the output of cheese will make this the banner year for that article. Butter fat at 25c a pound is considered a good price, but when it ranges above that figure and reaches as high as 29c and 30c, there is no disputing the fact that the dairymen are receiving more for their butter fat this year than they had ever received before. And considering that they buy little or no mill feed, it is seen at a glance that this is the most prosperous year they have ever enjoyed, the large increase of milk at the factories being proof of this.

Real Estate Transfers. Furnished by H. T. Botts, abstractor. A. S. Dilley and wife to Dee Tomblinson. Lots 3 and 4, block 4, town of Lincoln, now Tillamook. \$400.00. State of Oregon to Jacob H. Cook and Nelson P. Wheeler. S 1/2 Nw, sec. 16, tp. 1 south, range 7. \$100.00. B. C. Ranous to Eliza Jane Ranous. Quit claim. Sw Ne and Se Nw, sec. 4, tp. 5, range 10, except 5 acres. \$1.00. U.S. Land Office to Solon Schiffman. Receipt. W 1/2 Se, Sw Ne and Se Nw, sec. 18, tp. 2 south, range 7. R. O. Richards et al to P. McIntosh & J. Bixby. 1/2 acre in Sw Nw Sec 26 3 S 9. \$250.00. Christian Peterson and wife to F. C. Davis and Emily D. Sheldon. W 1/2 Se Sec 5 and Nw Ne & Ne Nw Sec. 8 1 N to. \$700.00. Geo. B. Lamb to Samantha Mills. Various tracts in Secs. 29 & 30 3 S 9. \$100.00. Samantha Mills and husband to George B. Lamb. Same tracts as above. \$200.00. Claude Thayer and wife to Lizzie M. Hadley. Lots 7 & 8 Block 40 Thayer's addition to Tillamook. \$150.00. Everett Palmer and wife to Homer E. Palmer. W 1/2 Nw Sec. 29, Sw Sw Sec. 20 & Se Sec. 19 2 S 10. \$1200.00. Homer E. Palmer and wife to Everett and Lillian Palmer. S 1/2 Ne Ne Ne. Lot 1 and part of lot 2, Sec 30 2 S 10 \$160.00. Addie Cottle and husband to Jacob H. Cook. Se Ne & Ne Se 16 2 S 10. \$500.00. Sarah J. Hittenhouse to W. H. Eason. Tract on Nehalem river. \$450.00. Francis J. Hall to Mary A. Corbett and Amelia Clark. S 1/2 Nw, Ne & Ne Sw 3 3 N 6. \$100.00. Two mortgages filed to secure \$2000.00.

Circuit Court Docket. Judge Boise will hold Circuit Court on Monday, the docket being: E. D. Dewey vs. M. J. McMahon. Suit to quiet title. Wm. Reid and B. L. Eddy for plaintiff. Alice Kiger vs. Joseph Giebesch et. al. Confirmation of sale. C. W. Talmage for plaintiff. Andrew J. Rhoades vs. George W. Bodyfelt, et al. Suit to quiet title. H. T. Hots for plaintiff. C. & E. Thayer vs. M. D. Cananough. Foreclosure. F. J. Richardson and T. B. Handley for plaintiff. T. H. Richardson vs. W. C. Ralston, et al. Foreclosure. T. B. Handley and F. J. Richardson for plaintiff. Naomi G. Phelps vs. Albert W. Phelps. Suit for divorce. B. L. Eddy for plaintiff. Levi L. Stillwell vs. Sarah J. Stillwell. Suit to determine trust. T. B. Handley, C. Thayer and F. J. Richardson for plaintiff. The Astoria Co. vs. Ernest Barton formerly Ernest O. Svenson, et al. Foreclosure. B. L. Eddy for plaintiff. Cora G. Krebs vs. Frank L. Gunn and Angie Gunn. Confirmation of sale. B. L. Eddy for plaintiff. Benoit Proovost vs. William L. Riefenburg. Confirmation of sale. H. T. Botts for plaintiff. Paul Schrader vs. Otto Hays. Confirmation of sale. H. T. Botts for plaintiff. C. L. Rogers vs. Andrew Conklin and Jane Conklin. Confirmation of sale. H. T. Botts for plaintiff.

To build a dam without a waste gate is madness.—J. C. Gove. Repentance regulates the bowels of compassion.—J. C. Gove. Columbia will be remembered as the nation that blocked the construction of an isthmian canal because it wanted the earth as compensation for allowing the United States to spend \$200,000,000 on the work.

Farm Property for Sale.

For Sale. 260 acres, on tide water of river, 150 acres in grass, 110 good buildings, waterpipe to house. Can give possession at any time. Reason for selling, old age. FELIX ROY, Balm, Ore.

FOR SALE. At a Bargain, the Jasper Farm. One mile from town. See Kiger & B.

Ranch for Sale. I offer for sale my place known as Carnie Mountain, located near halem Bay. This place consists of hundred acres of land, over half is open prairie, either now under plow or ready for the plow. The grass land, well watered by streams, and can easily be made the best, if not the best stock farm in Tillamook County. Price able and terms easy. Apply to P. C. WARREN, Warrington.

FOR SALE. Dairy Farm of Acres on the Mian. In Tillamook County, Oregon, miles from tidewater. Good road \$1,750, on easy terms. For further information see Commissioner L. Parrish, Holbein Oregon or write to Amos Rankin, ton, Cal.

Professional Care. B. L. EDDY, ATTORNEY-AT-LAW, TILLAMOOK, OREGON.

H. T. BOTT, ATTORNEY-AT-LAW, Complete set of abstracts. Office upstairs, North of Tillamook County Bank. TILLAMOOK, OREGON.

CLAUDE THAYER, ATTORNEY-AT-LAW, TILLAMOOK, OREGON.

CARL HABERLACH, ATTORNEY-AT-LAW, Deutscher Advokat. Office across the street and north of the Post Office. TILLAMOOK, OREGON.

ROBERT A. MILLER, ATTORNEY-AT-LAW, Oregon City, Ore. Land Titles and Land Office Business a Specialty. TILLAMOOK, OREGON.

A. W. SEVERANCE, ATTORNEY-AT-LAW, TILLAMOOK, OREGON.

DAVID WILEY, M.D., PHYSICIAN, SURGEON AND ACCOUCHEUR. All calls promptly attended. TILLAMOOK, OREGON.

J. S. STEPHENS, Real Estate, Insurance Agent for the Northwest School Furniture Co. Notary Public. OFFICE IN OLSEN BLOCK. TILLAMOOK, OREGON.

CLAUDE THAYER, Agent for Fireman's Fund and London and Lancashire Fire Insurance Companies. Tillamook, Oregon.

Advertisement for EUREKA HARNESS OIL. Rain and sweat have no effect on harness treated with Eureka Harness Oil. It resists the damp, keeps the harness soft and pliable, scratches do not break, no rough surface to chafe and cut. The harness not only keeps looking like new, but wears as long by the use of Eureka Harness Oil. Sold everywhere in cans—Eureka Harness Oil Company.