

METERS ABSOLUTELY NECESSARY, ASSERTS THE CHIEF ENGINEER

B. D. Clark of Water Bureau Declares System Should Be Installed at Once.

SIGNED STATEMENT MADE

Meters Offer Solution of the Question of Consumption; Figures Are Submitted.

Despite statements to the effect that he did not believe water meters were necessary at this time, D. D. Clark, chief engineer of the water bureau, has developed, in a signed statement yesterday, that water meters are absolutely necessary and their installation should begin at once.

Following is his statement:

"It is an unquestionable fact in favor of the policy of extending the use of meters until every service in the city is supplied; and furthermore I believe that the work should commence at once and be continued as rapidly as is consistent with economy of operation.

"I think many have gained an erroneous impression regarding the time required to complete this work. The time that will actually be taken will depend upon the growth of the city and the rapidly with which the present mains are overloaded, but in my opinion it is not probable that the work of metering present services will be completed in less than five years.

Meters Found Advantageous.

"The experience of other cities in this respect is that the installation of meters on old services at the rate of from 10 per cent to 25 per cent per year produces satisfactory results, and I have no reason to think such a plan would not work advantageously in Portland. By this method the consumption would be gradually regulated and controlled as the city grows—thus reducing the time when larger mains must be laid, and hence a saving in interest charges will be effected.

"As an illustration of the probable effect of this regulation and control I will state that on November 20, 1914, the total mileage of water pipes in this city of 111 miles was 171.2 miles of 12 inch and over, 121.2 miles of 10 inch and over, leaving 128.2 miles of pipes less than four inches diameter, only about six per cent being larger than two inch diameter.

Cost of Meters Estimated.

"The estimated population supplied with city water at above date was 165,000, or an average of 375 per mile of pipe, or 48,075 residing along the 123.2 miles of small pipes and supplied by approximately 10,000 pieces. Assuming the cost of meters for these services to be \$10 each, in place, the total cost would be \$100,000. The 123.2 miles of small mains will unquestionably in time have to be replaced with larger sized pipes as the population increases and the demand upon these particular pipes exceeds their normal capacity.

"The cost of substituting six inch and eight inch mains for these small pipes will approximate \$76,896 for \$1,400 \$947,654.40, and interest on same at 4 1/2 per cent, \$42,644.45.

"If it is assumed then that the serviceable life of but one half of these small pipes could be prolonged for five years the saving in interest charges alone would be \$106,611.10, or more than sufficient to move the cost of installing meters on the entire mileage of small pipes; and, besides, the meters would still be good for years of service in place of the water actually used by him.

Much Doubt to Be Saved.

"I have no doubt that if meters had been installed generally in the Peninsula district three or four years ago the laying of the 30 inch Highland main, now being completed, and its approximate cost of \$225,000, could have been delayed for at least five or ten years with the saving of the interest charges, amounting to approximately \$10,000 per annum.

"Based upon the recorded consumption through 12,585 meters during the year 1914, the average per capita consumption was found to range from 23.5 gallons in the west side business district to 127.3 gallons in the east side business district, down to 11.9 gallons per day in the district supplied through the Vernon stand-pipe, the average for the residence dis-

tricts alone, in the entire city, being 64.1 gallons per day.

Deductions Are Made.

"Deducting the record of the meters in the east and west side business districts, and assuming that a fair supply for all other services in the city would not exceed the average rate through meters in the residence districts (64.1 gallons per day per capita) this will give a total daily consumption of 20,989,000 gallons for the entire city. This amount is appreciably less than the capacity of conduit No. 1, which exceeds 22,000,000 gallons per day.

"If the above amount—20,989,000 gallons per day—was actually passed through meters and paid for at present meter rates, 10 cents per 100 cubic feet, or 13 1/3 cents per 1000 gallons, the yearly income would amount to \$1,021,481, or say \$1,111,000 in excess of the entire receipts of the department for water sold during the year 1914, when the water actually furnished approximated 30,000,000 gallons per day. If all the water furnished—30,000,000 gallons—was metered, the rates could be reduced 50 per cent, or from 13 1/3 to 6 1/2 cents per 1000 gallons, and the revenue would still exceed that obtained during the past year.

Los Angeles Situation Quoted.

"Los Angeles has completed a system of aqueducts and pipes of large size conveying a 265,000,000 gallon capacity supply from a mountain source 25 miles distant at a cost of over \$27,000,000. It appears that they now have an abundant supply for which they have no immediate use except for irrigation purposes, and yet this is what William Mulholland, chief engineer of the Los Angeles water department, has to say upon the subject of a universal meter system:

"We favor meters because we believe it is the only fair and equitable method of selling water, because it prevents waste, and because it accomplishes a saving in size of mains which would otherwise be required. We have been metering for 15 years at an annual rate of 100,000 gallons, and we intend to continue this policy until every tap in the city is metered. Completion of aqueduct in no way changes our policy in this respect.

"This statement was made subsequent to the completion of the new conduit.

"The majority of the water works engineers and managers the country over favor the installation of meters.

"Engineer, Water Bureau."

ALL CLASSES INDORSE METERS; SWEEPING TESTIMONIALS GIVEN

(Continued From Page One.)

us. We like the idea of paying for what we get.

E. C. DOLAN, proprietor of the Rosarian cafeteria, 345 1/2 Washington street—I believe in metering the city and make the people pay for the water they use and waste. I have seen people let water run all night.

C. C. BROWN, manager of the Madison Park apartments—I am very much in favor of meters, as I think they will save the consumers money.

MRS. G. H. GUTHRIE, 617 Everett street—My meter is perfectly satisfactory to me.

H. VETTER, 665 Everett street—I have got a meter here and now I want one for a house I have on the east side. I am one of the 1700 to file an application for a meter.

S. S. McADDEN, 664 East Alder street—I have had a meter for several years. I am well satisfied and glad it is the only thing. I find that it is much cheaper than the flat rate especially during the springing season.

JOHN STRAUB, 627 East Morrison street—A meter is the only way water can be distributed. All services should be metered or we should take out the meters.

"We Want Meters."

WILLIAM PILBERG, 374 Park street—Especially during the springing season do we favor the meter. Our bills are less than under the flat rate.

E. M. NELSON, 704 Market street—I am heartily in favor of meters and wouldn't be without one. All my neighbors have meters and everyone up here will vote for them. I have a lot and a third to sprinkle and in a dition irrigate a garden. The most I pay is 75 cents a month. We want the meters.

O. R. MILLER, 914 East Yamhill street—I have a meter on my house and on my barber shop. At the shop I used to pay \$2 a month. About six months ago I got a meter and now it costs me only 50 cents a month. I use all the water I want to sprinkle to wash the porches and for household purposes and, believe me, I am for the meters.

MRS. ROBERT TREAT PLATT, 653 Johnson street—With a meter we are paying about half what we paid under flat rate system. We find that meters are much better than the flat rate, as we pay only for the water we use.

MRS. C. A. WHITMORE, 657 Johnson street—Our meter has proven all that we could wish for.

MRS. E. G. CLINE, 661 Johnson street—Our meter is satisfactory in every way and we think it is the only way to serve water equitably.

MRS. N. W. WOOD, 668 Kearney street—I have no complaint to make with our meter which we have had for four years.

H. BARNELL, 715 Overton street—I like the meter fine. Wouldn't have anything else.

A. E. LINCOLN, 500 Davenport street—I have had a meter for years and never had the least bit of trouble.

MRS. J. P. MARSHALL, 75 Ella street—The meter is a great saving. We have a lawn to sprinkle too. Wouldn't have anything else but a meter.

MRS. W. B. MITCHELL, 681 Rodney avenue—I have had a meter for three years and can say that I have used all the water I desired for sprinkling the lawn and household purposes, and have saved money. I believe everyone should have a meter.

GEORGE W. SINNEN, 334 Cook street—I'm in favor of meters. Meters are the only fair way to adjust water rates.

J. C. NAGLE, 691 Rodney avenue—I have been a meter user for some time and believe that to maintain a sufficient supply during the warm weather when water is needed that meters are desirable.

Get Plants for Lawn.

DR. H. J. MITCHELL, 1037 Belmont—My lawn gets plenty of water and looks fine. I am very well satisfied with a meter and I never have used over the minimum. It's the best way to sell water.

REBECCA, 340 East Twenty-ninth street—Tell Daly to leave my water meter in. I am for them and we need them.

MRS. M. D. DAVID, 183 North Twentieth—I have used a meter for more than two years and find it very satisfactory.

MRS. M. STEELE, 948 East Taylor street—I am strongly in favor of meters. I believe all services should have them. I pay only 50 cents a month and certainly would not like to have the meter taken away from me.

C. W. DRUHEL, 266 Chapman street—I get off cheaper with the meter and don't pay for more than I

POINTING THE WAY



SEATTLE SETS GOOD EXAMPLE ON WATER METER PROPOSITION

Eighty Per Cent of Individual Service Metered, Points Out Expert Engineer.

Seattle has a water supply at its source five times as great as Portland.

Seattle finds it necessary, and equitable, and economical to meter 80 per cent of the individual services.

"Cedar Creek, source of Seattle's water supply, has a flow of 400 second feet. Portland has from Bull Run river a minimum of 72 second feet.

"If Seattle finds it necessary to have meters, why shouldn't Portland? Inquired J. H. Cunningham, member of the American Society of Civil Engineers, with offices in the Spalding building, yesterday.

"Commissioner Daly's assertion that the minimum outflow of Bull Run river is 72 second feet or 48,000,000 gallons daily during the low water of summer months is perfectly accurate.

"That is only 3,000,000 gallons a day more than the carrying capacity of one of our two pipe lines.

"The assertion is contested by an angler whose letter in the Oregonian is given full space.

"Mr. Cunningham's position is certified to by the United States geologic surveys made by disinterested government experts.

"Water meters were endorsed by resolution of the local branch of the American Society of Civil Engineers last year at its recent meeting.

"Metering is the only way by which a water supply can be handled satisfactorily to consumers.

"I wouldn't expect a person who knew that the fixtures at his house were leaky to ask for a meter to detect the waste.

"I know that last year so much waste water ran on some of the Irvington lawns that mosquitoes bred in the little pools in the grass and became a nuisance.

"The talk about creating storage on Bull Run river. There is only one available storage site that I know of. Bull Run it is not directly connected with the river."

the meters will carry. We are only a small family and on meter and find our bills are much less than on a flat rate.

Rate Made Cheaper.

P. H. HICKS, 441 Mason—For my own home I find the meter the finest thing out. It has resulted in making my rate cheaper.

MRS. CHARLES CRAGSTER, 349 West Twenty-ninth—We are very well satisfied with our meter and prefer it to the old flat rate system.

J. WOLLENHANT, 714 Glean—People get their water for less money, pay for what they use and save money. I like it. I got a meter, and I am tickled to death. It's the only fair way of paying for water. Hurrah for meters.

A. W. DYE, 362 Fremont street—I have been using the meter for the last year, and I find it much cheaper and better in every way.

JOHN J. H. PILTZ, 1089 Belmont street—I wouldn't think of moving into a house where there is no meter. It's the only proper way to charge for water.

MRS. L. B. MARSHALL, 669 East Tenth street North—Meters are the only thing.

GEORGE BLUM, 872 East Tenth street North—I have a meter and can say it's the best way to buy water.

A. R. WATSON, 863 East Tenth street North—Best service is on a meter, and it's cheaper.

DAISY ABRAHAM, 1105 Belmont street—No one should object to paying for what is used. I am willing to pay for all the water I use, and am well pleased with the meter.

W. WOOD, 101 Sixth street—I've got a meter and pay only 50 cents a month, while many others I know, not on a meter, pay more.

A. L. O'BRIEN, 1192 East Taylor street—I have no fault to find with our meter.

MRS. HOLGATE, 1107 Belmont—I like water meters better than the flat rates, and they are much cheaper.

MRS. LUNDHARD, 1028 Belmont—We favor meters and find them satisfactory.

MRS. GEORGE ROHE, 1060 Belmont—I think the meters are good, provided they don't raise the rates.

MRS. W. M. HARTFORD, 1080 Belmont—The meter is the best way to get a better water supply than the flat rate system.

A. J. MEVES, 312 Washington street, restaurant—I believe in meters. It is the only fair way to furnish water to consumers. It will stop the waste of water.

C. JACOBSEN, 207 1/2 Second street—I believe in the meters. It gives the small man a square deal.

S. STRITZMAN, 155 Third street, Palace barber shop—I believe the only proper way is to meter the city, and let everyone pay according to what he uses.

MRS. V. WESTLUND, 884 East Tenth N.—We don't pay as much as we used to. If we don't use the hose we don't have to pay for it. Sure we like the meter.

MRS. A. LEAP, 911 East Tenth N.—Doesn't cost money more than it used to. We use all the water we want. Are in favor of meters.

J. P. GRIFFIN, 145 Broadway, owner of Cat's Fiddle—I am in favor of putting meters on water to equalize the system and therefore everybody will be treated alike and pay for just what they use.

O. PRAYER, 966 E. Twentieth N.—I have a meter and am in favor of them. Think the installation of meters should be general.

MRS. B. WENT, 621 Going—Hope

Tenth North—I like the meter. Perfectly satisfied.

F. A. BATES, 400 1/2 Falling—Why should my neighbors be paying 60 cents for house use and \$1 a year for hose, which is \$10.30 a year, when I can use all the water I want for \$6 and do not have to sign for sprinkling nor be bothered by inspectors as to whether I am wasting water. I want to say that I am strictly in favor of meters.

J. H. ELTZ, 1067 Belmont—Have used meters for three years and bills reasonable. We think meters are the right thing.

MRS. JESSIE CONRAD, 154 East Tenth street—I believe in meters, and think every house should have them. My water bills are reasonable on meter.

H. HUMBERSTONE—Have been thoroughly satisfied since water meter was installed.

ALBERT HILL, "The Rent Man," 288 1/2 Russell street—The meter system properly administered will certainly prove a benefit to this city. My experience has been that it provides a more equitable rate for large consumers.

A. F. GREEN, 565 Rodney avenue—Am in favor of meters. Think they are more satisfactory to consumers who are willing to pay for all they use.

Plan Meter Saver.

J. M. ATTERBURY, 311 Dekum avenue—We would not do without our meter. Think it the only just way and a money saver.

MRS. H. VIESKO, 312 Saratoga—Any one that has a meter is certainly satisfied with it. That has been our experience.

Home Creamery, Mrs. S. FANNLER—Am heartily in favor with water meters. I think they are the most logical solution to the water question.

S. E. MOESER, 863 Monroe street—I believe in the meter system because it gives each and every one a square deal. The man without a meter will let his water run a great many times when it is not doing himself nor anybody else any good.

G. B. CARNELL, Empress hotel, 308 1/2 Stark—I believe in metering the last year at 27 cents per meter. All alike and stops the waste of water.

MRS. FRED D. WRIGHT, 910 East Tenth North—Our bills have just been all right. We are not saving in water, get better service, more water and the cost is less.

H. J. BRILL, 906 East Tenth North—We think the meters are all right.

MRS. EMMA L. REED, 249 Cook avenue—I am in favor of the water meter, as it places all on an equal basis. My experience has been on both flat rates, lawn and garden costs me less than when on flat rate. I am decidedly in favor of meters.

H. J. CIX, 369 Fargo street—Think the meter is a benefit to the small water user, as well as the large. Am very much in favor of the water meter.

894 East Tenth street North—We rather have the meter. We have less water rate to pay.

Perfectly Satisfied.

W. C. CLOW, 907 East Tenth street North—It is more fair. I would rather have a water meter. The old way it cost so much more.

MRS. W. E. STEVENSON, 909 East Tenth street North—I much prefer the meter. Am perfectly satisfied.

S. NUDEMAN, 981 East Twenty-first street—I find that I can use all the water I need and it costs me less than when on a flat rate. Am in favor of general installation.

MRS. W. B. CREWIDSON, 1062 East Ninth street North—Meters are the fairest to those who use all the water they need, and the only cure for the water hog. Using water for household purposes, lawn and garden costs me less than when on flat rate. I am decidedly in favor of meters.

F. N. FRER, 448 Broadway—On the whole, I favor the meter.

MRS. G. A. WELSH, 542 Broadway—I prefer the meter. My rate is less now than it was before.

MRS. H. H. MOYER, 544 Broadway—I think the meter is really a good thing.

MRS. M'DOWELL, 449 East Ninth street North—We are very much satisfied with the meter. Meters are the fairest to those who use all the water they need, and the only cure for the water hog. Using water for household purposes, lawn and garden costs me less than when on flat rate. I am decidedly in favor of meters.

MRS. W. B. CREWIDSON, 1062 East Ninth street North—Meters are the fairest to those who use all the water they need, and the only cure for the water hog. Using water for household purposes, lawn and garden costs me less than when on flat rate. I am decidedly in favor of meters.

MRS. F. M. MILES, 337 Eugene street—We have a meter, and are well satisfied.

MRS. HELENA SPRANER, 308 Sacramento—All should be treated alike. Am for meters.

O. A. LEICH, 319 Sacramento—Meter system is the best way.

MRS. I. M. WALKER, 1100 East Morrison—We are pleased with meter. Water rent is less.

MRS. R. G. RICE, 1114 E. Morrison—I would prefer meter. Bills have been reasonable. Would not be without meter.

MRS. G. A. DOUGLAS, 1121 Belmont street—I certainly am in favor of meters. I have saved money by having a meter. Would not be without one.

MRS. WILLIAM FEHRENBACHER, 1093 Belmont—Am very well satisfied.

With meter. Bills have been reasonable.

CHARLES MAUTZ, 106 E. 33rd st.—I would not be without a meter. My bills are less. The meter is justice.

H. I. WARDEN, 1085 Belmont—I use all the water we want and have never paid over the minimum charge except one time when toilet was leaking.

F. S. HYDE, 715 East Yamhill—I have meter on my house and would not have without it. Our bills are much less than when on flat rate.

Find It O. K.

MRS. H. LYONS, 1447 Cleveland ave.—We have had a meter for some time and are perfectly satisfied with it. Our water rent is cheaper than ever before.

W. N. GARY, 181 E. 36th st.—We favor the meter and find it O. K. and it gives the other fellow a chance.

MRS. R. J. COOPER, 1960 East Taylor—We think the meters are all right and would not do without one.

I am satisfied with the water meter.

OTTLIE HOENLY, 316 Sacramento—Everybody should have a meter.

MRS. LOUISE LEIGH, 464 Vancouver—For my part I like the meter.

E. J. G. GORDON, 355 East Sixth street N.—I think the meters are more honest than flat rate. Have had one for four years and am in favor of them.

M. GAMMIE, 348 East Sixteenth N.—We are satisfied with the meter and have found things satisfactory.

F. L. GEORGE, 741 Weldier—I have a meter and like it much better than the flat rate. Think it is much cheaper.

MRS. J. HAM, 1088 Belmont street—We are satisfied with the meter and have found things satisfactory.

MRS. HARRY M. HENDERHALL, 680 Broadway—I have a meter and like them. Think they are much cheaper.

Will Save Money If Amendment Passes

The adoption of proposed amendments to the Bancroft bonding act, ballot No. 114, will lessen the burden to property owners bonding their property for street and sewer assessments under the Bancroft bonding act and save the city money. The amendments will allow property owners to bond where the assessments are \$5 or more, will provide for 20 semi-annual installments instead of 10 as at present and allow the city to collect and pay the interest on improvement bonds when it becomes due. The city has advanced about \$750,000 to pay the interest on outstanding bonds and stands no chance of getting this money back unless the amendment is adopted Monday.

A. R. Specht Pays Portland a Visit

A. R. Specht, former manager of the Owl Drug company's local store and now Southern California manager of the Owls from Los Angeles to San Diego, is back in Portland after a year's absence and just in time to attend the Rose Festival.

Of course, he does not admit that the festival had anything to do with his sudden desire to make a business trip to Portland and the northwest, but he personally confirmed the report that he is back in the city for a few days. He plans to return to California the latter part of next week and in the meantime will visit Seattle and Spokane.

GROCERS OPPOSING BIGELOW BECAUSE OF MARKET POLICY

Butchers Are Also in Combination Which Is Supporting Baker and Adams.

The controlling members in the grocers and butchers organizations are determined to put the public markets out of business, if possible. They want, by all means, to defeat Commissioner C. A. Bigelow, the champion of the public markets.

Yesterday the grocers and butchers came out openly in support of George L. Baker and William Adams for commissioners. It was persistently reported that an understanding between the grocers and the butchers and Baker and Adams had been reached.

"Yes, sir, the grocers are supporting Baker and Adams," said Robert Duncan, secretary of the Retail Grocers' association, yesterday. "We don't care what it costs so long as Bigelow is defeated. We are going to deliver all the votes we can to elect Baker and Adams and defeat Bigelow."

He said the grocers and their allies interests controlled about 600 votes.

Several days ago Duncan wrote Bigelow about the public markets, intimating that the 6000 votes he mentioned would be against him if he sued for the public markets. Bigelow replied that he refused to be sandbagged or coerced into opposing public markets or anything else in which he believed.

Brothers of Adams are in the wholesale butchering business. Asked if he thought the public markets were a good thing for the city, Adams refused to say.

"I think the markets are a permanent institution in the city," he said. "It is now a question of regulation."

Baker also sidestepped the question. He said:

"I got in favor of a legitimate public market for the sale of the farmers' produce direct to the consumer, but not as a bartering place for those who are not genuine producers."

As only producers are allowed to sell at the public markets now, Baker's meaning is not clear.