

PUBLIC HEALTH SURVEY.

City of Astoria.

State of Oregon.

Made by Frank W. Rafferty.

1932

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## Descriptive Data.

Astoria is located at the mouth of the Columbia River ten miles from the Pacific Ocean. The Columbia River is the dividing line between Oregon and Washington. The population of Astoria is given by the 1920 census as 14,032, while the census of 1930 shows a decrease of 3,723 persons, the population now being 10,349. The population of Astoria's trade territory is estimated as 75,000, in the summer this is about 125,000. The principal nationalities are Finns, Swedes and Norwegians. The foreign born number about 3,147 with 0.3% colored people.

Astoria has been practically been 50% built-up and improved since the big fire 10 years ago. The principal industries are fishing, shipping, farming, and manufacturing. Astoria is the world's Chinook salmon packing capital. With twenty-two salmon packing and ten cold storage plants on the Columbia river, five thousand fishermen and two-thousand fishing crafts, Astoria is the center of Oregon's third largest industry. Salmon packing plants open to the public from May until December, employ thousands of workers. Salmon are canned and cooked within a few hours after they are caught with perfect cleanliness and sanitary protection. The taking of salmon unlike the logging industry, does not reduce the source of the industry. Through governmental and state propagation the salmon are increasing. The average total yearly pack for the Columbia River is 500,000 cases with a value of \$7,500,000.

Astoria's location at the mouth of the Columbia River renders the timber of Clatsop and Columbia counties in Oregon and of Pacific and Wahkiakum counties in Wash. naturally accessible. Twenty billion feet of timber is available in the district in large and small tracts. Log rafts are assembled and can be purchased on the

river at ruling prices. Great forests of hemlock for export or local manufacture or utilization for pulp while yellow douglas or red fir cedar, airplane spruce, cedar, larch are still available in adequate quantity for the logger or manufacturer.

With alder and other similar woods available in great quantities in this district, furniture manufacturing is forging ahead rapidly in this place, and there is sufficient raw material for several more plants. The existing plant has been forced to decline hundreds of thousands of dollars worth of orders. Hardwoods are shipped to available factories by boat.

Raw materials for vegetable and berry picking is available in the lower Columbia river district. Peas, beans, cauliflower and other vegetables of the highest grade are grown here. Wild grown berries are now furnishing raw material for two small plants.

The Astoria Flouring Mills has a 5200 barrel per day capacity at its mill at the Port of Astoria. Connecting with the flouring mill is an immense grain elevator with a capacity of 1,250,000 bushels of bulk grain.

The municipal government is the city manager commission form, the port is governed by the Port Commission; Clatsop County by judge and commissioner pledged to business administration.

The total revenue for 1930 was \$1,073,669.54. The total expenditures \$1,137,866.93. The total taxable valuations \$9,141,472.

The civic organizations active are as follows, Elks, Moose, Masons, Gyros, Kiwanins, Rotarys, Odd Fellows, Modern Woodmen, Y.M.C.A. Y.W.C.A. while the American Legion, Finnish Brotherhood, Sons and Daughters of Norway and Swedish and other societies maintain active organizations.

One of these organizations carry on active health work but all respond if called upon by the city health officer. Dr Vernon

tells me of one case in particular, a small boy who had osteomyelitis

of the right tibia. His folks were poor and had no money to send him to the hospital. Dr Vernon went to one of these organizations and asked for help, they called a special meeting at once and provided the necessary money for hospital care. Similar instances were cited by Dr. Vernon.

#### Statistics On Astoria.

Payroll, 7,000, employed including fishermen-\$5,500,000.

Bank deposits-\$6,000,000.

Postal Savings-\$800,000.

Manufacturing-Manufactured products of this district exceed \$10,000,000.

in value and include salmon, flour, fertilizer, mill feed, furniture, butter, canned fruit, boats candy salmon eggs.

Salmon industry- \$7,500,000.

Dairy industry- \$1,850,000.

Poultry- 350,000.

Misc. Crops- 425,000.

Postal Receipts- 68,000.

Value of farms- 6,567,279.

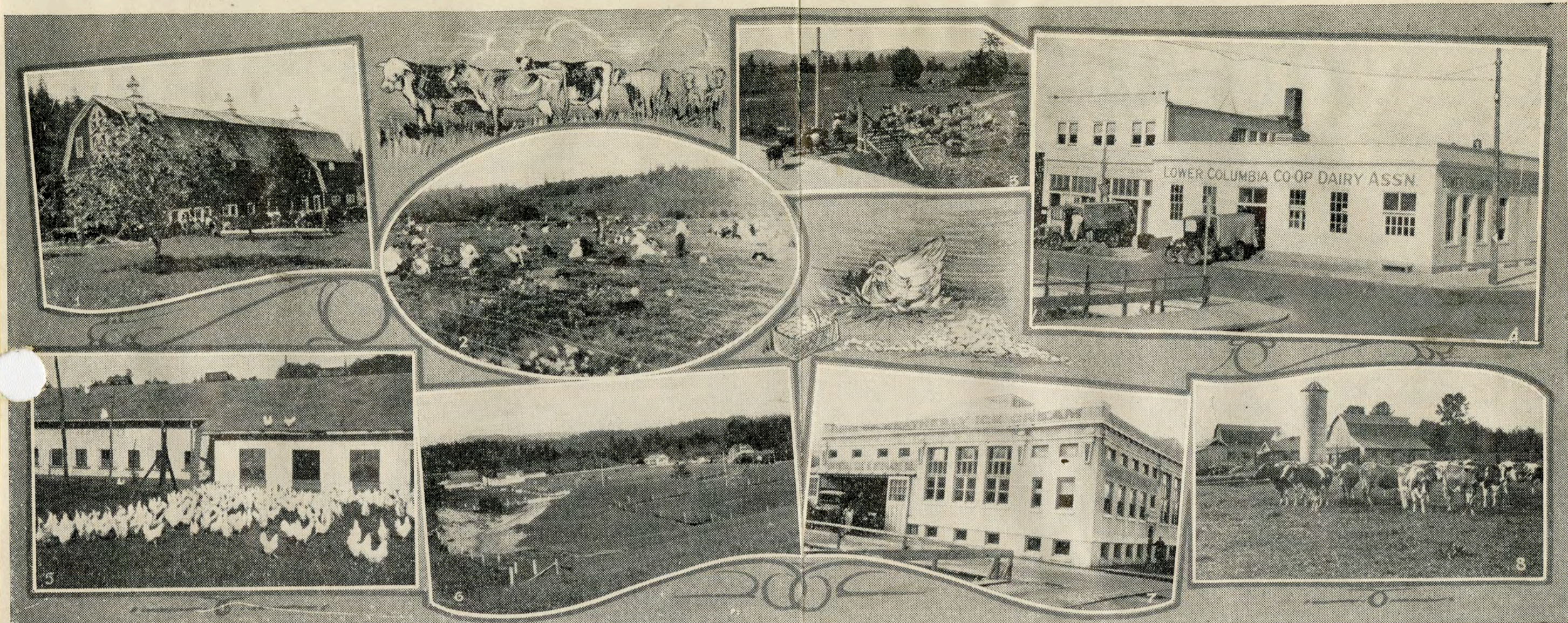
Astoria harbor-10 miles from open sea. Depth 48 feet for width of 1200 feet. Depth 45 feet for width of 200 feet. Depth of 42 feet for width of 6000 feet. Anchorage space 12 square miles with depth of from 24 to 70 feet. Wharves and piers have an aggregate berthing space of 12,750 linear feet.

License permits issued by the city.

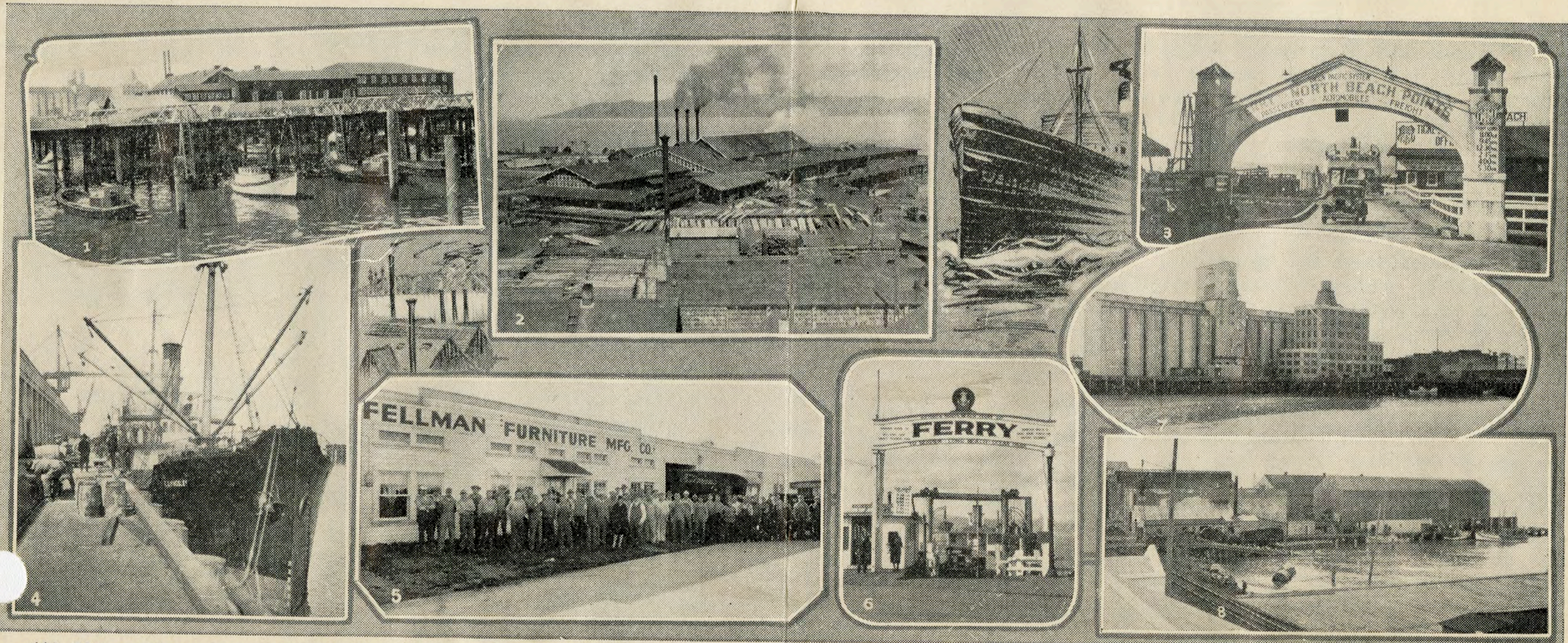
1. Rooming houses.
2. Bath houses.
3. Pool-halls.
4. Hotels.
5. Barber-shops.
6. Apartment houses etc.

License permits issued bt the city.(cont).

Auctioneers,hotel runners,taverns,hawkers,peddlers,pawn-  
brokers,solicitors,book-agents,reak-estate and insurance agents,brokers,  
dealers in general merchandise,clothing boots and shoes,groceries,dry  
goods,meat markets,hardware,tinware,crockery,glass-ware,millinery,  
dealers in cigars,and tobacco,fruit and confectionary,lawyers,doctors,  
furniture stores,dentists,book and stationary stores,commission agents,  
tailoring establishments,jewelry stores,and all offensive trades and  
occupations,and to define what shall constitute the same.



(1) Dairy barn (2) Picking Cranberries (3) Dairy herd near paved highways (4) Creamery (5) 1000 Hens equals Independence (6) Tideland (7) Creamery (8) Silo and herd near Astoria.



(1) Net-racks, cannery and fishing boats (2) Astoria saw mill and box factory (3) Ferry to Megler (4) loading cargo, Port of Astoria (5) A Growing Industry (6) Ferry to Pt. Ellice (7) Grain elevator and Flouring Mill at Port of Astoria (8) Cannery where Royal King Chinook is packed.

## B. Health Departments.

The health department of the city is composed of a part time health officer, the county court and the city manager.

The city health officer gets a salary of seventy-five dollar dollars per month and an additional twenty-five per month for county work. The only other officials engaged in health work are the city school nurse and the county health nurse. They both get \$1800 per year. Their duties are those of general health work, with special reference to the general health of the school child.

C, Activities of non-official Health Agencies.

The activities of non-official, private or voluntary health agencies is practically nil.

<sup>T</sup>  
The Red Cross and the Police Matron are engaged in social service work

I asked the City Health Officer and several others in regard to non-official, private or voluntary health agencies but they could give me no information in regards to this matter.

D. Health Department Administration.

The health officer in Astoria is Dr. Nellie S. Vernon.

She has no other personnel and gets a salary of seventy-five dollars per month from the city and twenty-five dollars per month from the county.

Her general duties as a health officer are quarantine, release of all contagion and all sanitary work. Her main activities being general education in in Public Health and Preventive Medicine.

Dr. Vernon makes out and records all births and deaths, epidemics prevalent and cooperates with the doctors in reporting all contagious diseases. She inspects all dairies and looks after sanitary complaints.

E. VITAL STATISTICS

BIRTHS AND DEATHS

Year	1926	1927	1928	1929	1030
Total Births	230	205	219	215	212
Total Deaths	215	201	236	220	208

Note: Secure list of deaths classified by principle causes for a period of 5 years

	1926	1927	1928	1929	1930	Total
Hearth Disease	46	41	55	52	51	245
Accidental	24	30	40	37	40	172
Cerebral Accident	19	22	38	23	26	118
Carcinoma	21	9	13	14	19	76
Bronchopneumonia	8	8	12	11	9	48
Pulmonary T.B.	5	7	12	8	6	38
Kidney Disease	9	7	8	10	8	42
Lobar Pneumonia	3	5	8	6	4	26
Peritonitis	7	5	2	4	3	21
Septicemia	4	6	5	7	5	27
Burns on body	3	2	3	1	2	12

E.Vital Statistics.(cont.)

Foetal deaths up to one year.

Year.	No.	Per 1000 live births.
1926	10	43.5
1927	5	24.7
1928	6	27.3
1929	6	28.8
1930	7	32.5

## F. CONTROL OF COMMUNICABLE DISEASES.

Control measures are organized by reporting of all infectious diseases to the City Health Officer who authorizes quarantine isolation or restriction.

### LIST OF COMMUNICABLE DISEASES FOR FIVE YEARS

Diseases	1926		1927		1928		1929		1930	
	Cases	Dts	Cases	Dts	Cases	Dts	Cases	Dts	Cases	Dts
Smallpox	5	0	2	0	14	0	37	0	4	0
Typhoid	4	0	2	0	15	2	5	0	5	0
Diphtheria	4	2	9	0	2	0	6	0	2	0
Scarlet Fever	10	0	49	0	23	0	9	0	4	0
Tuberculosis	6	4	4	8	8	12	3	4	6	3
Measles	26	0	23	0	7	0	455	0	12	0
Whooping Cough	27	0	2	0	1	0	7	0	17	0

Dr. Vernon has no idea how many cases are investigated each year, but it is relatively small.

Fifty homes were personally visited in effort to find out how communicable diseases were reported. People were very uncooperative as a whole. I tried to pick a representative group of people in Astoria. However I did visit more homes in the Finnish and Swedish districts. Most of these people were suspicious of everything asked and very incooperative. A few gave me information that their children had gone to school with chicken-pox and Small-pox until sent home by the school authorities. Most of them do not call in the physician unless seriously ill and think nothing at all about letting their children run around with others even though they know they are suffering with some contagious disease.

The better classes however are much better and are very prompt in calling the physician and abiding by his decision.

G. Control of Venereal Diseases.

	1926	1927	1928	1929	1930.
Cases of Syphilis Reported	1	2	5	1	3
Cases of Gonorrhoea Reported.	3	0	4	7	6

The small number of venereal cases reported in is probably due to the fact that the older doctors are some-what lax in reporting cases. Dr. Vernon tells me that she is continually after them to report all cases promptly. The newer physicians are much more prompt in reporting and cooperate with her quite well. Many of the physicians report directly to Portland and do not bother to turn in a report in Astoria.

There are no provisions made for the treatment of the venereal cases except that the State Board of Health can authorize treatment which Dr. Vernon will carry out free of charge.

The old red light district of Astoria was abolished years ago. These houses of ill-fame are now licensed as rooming houses. Prostitution is considered illegal but they get around this by applying for a rooming house permit. The law does not make even a feeble attempt to suppress these bootlegging and prostitution places.

There are four chiropractors and two Christian scientists in Astoria. They in no way interfere or encroach upon the Medical Profession.

City ordinance regarding places of ill-fame:

-and to suppress bawdy houses, gaming and gambling houses, places kept for opium smoking, and to punish inmates of bawdy houses or houses of ill-fame, and to define what shall constitute the same, and to punish keepers of places for smoking opium, and opium smokers.

## I. Control of Milk Supplies. •

There are numerous small dairy farms in Clatsop County, dairy farming being one of the principal industries. Clatsop County now has over 8000 dairy cows and its herds are free from major cattle diseases. Careful breeding and sire selection coupled with campaigns of education which have brought the dairyman to realize the necessity for weeding out non-producers have resulted in a high average of production for the district.

There are no local sanitary laws or legal provisions. Everything is state inspected and state enforced. Locally Dr. Vernon prosecutes all cases coming up for infraction of the state sanitary laws, but only on complaint. She personally does not inspect the dairies except on complaint. Dr. Vernon tells me that there has been only one infraction in the past five years, and before this particular person had to be prosecuted he cleaned up his dairy herds so the case was dropped.

There are about 300 producing dairies in the surrounding territory of Astoria. As has been stated before these are inspected only by the state and by Dr. Vernon on complaint. The dairies as a whole are all in first class sanitary condition and have been graded class A. in the past. I personally inspected one of the dairies, which had a dairy herd of about 40 cows. The milking was done by automatic milkers which are allowed to nearly milk the cow dry then they are disconnected and a milker finishes the job. The milk was taken to a clean cold milk-house. The cream is taken to the creamery in Astoria. All utensils were thoroughly

cleaned and sterilized. The barn had concrete floors with gutters for the excreta of the cows. These were kept clean by running water down them and sweeping them clean. The herds are examined a couple of times a year by a veterinarian. Tuberculin tests are run on all the cattle and the last tests showed the cattle to be 100% free.

Pasteurization is carried out at the Sunflower Dairy the number of gallons daily being on the average about 150 gals. the spray pasteurization method is used the temperature being 142 to 144 degrees fahrenheit. The milk is held 30 to 45 minutes. Automatic recording thermometers are used. The total number of distributors in Astoria are three namely, the Sunflower Dairy, the Consumers and Hansens Dairy.

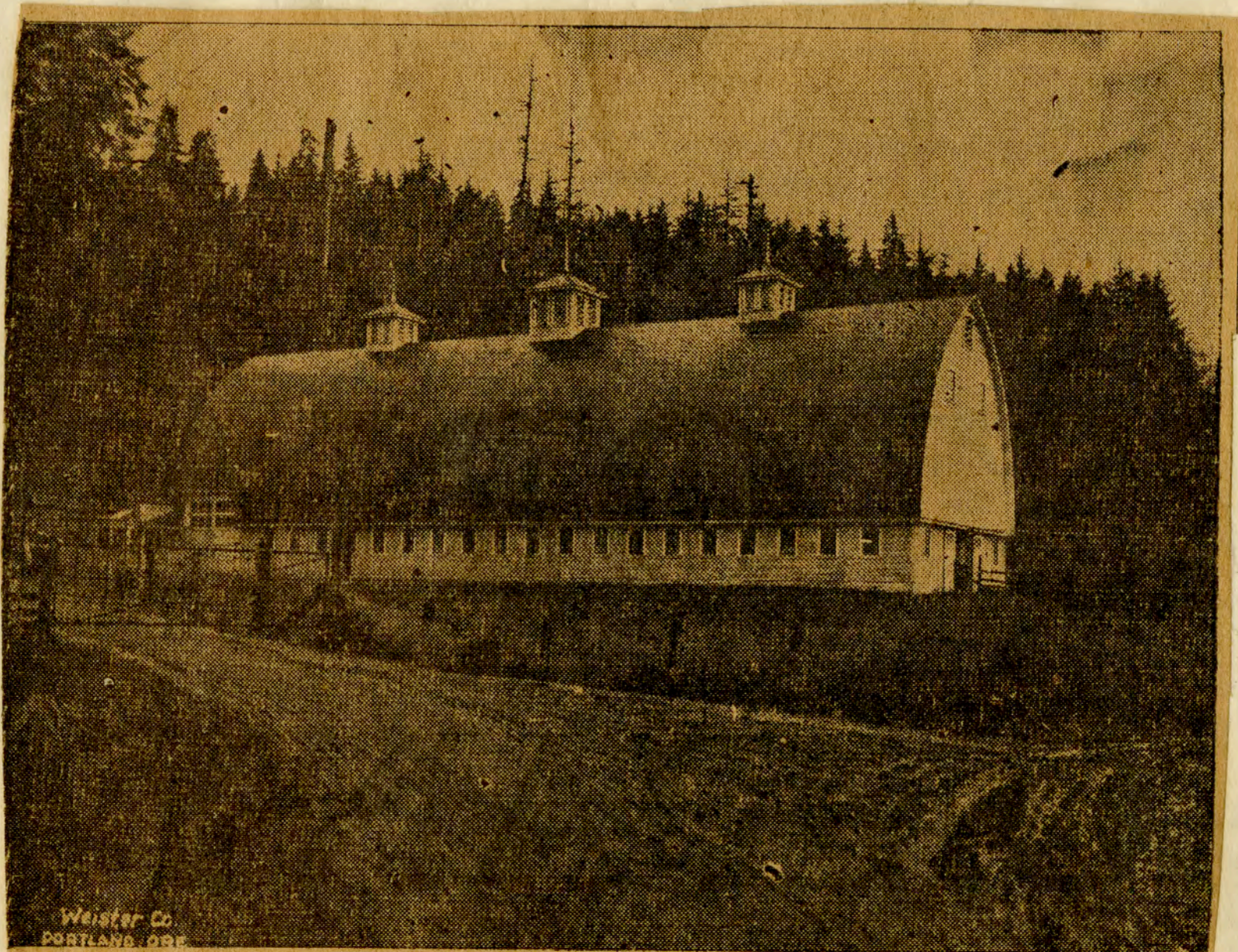
The usual laboratory tests are run on all milk and cream. The milk sold is grade A. The bacterial count after pasteurization usually runs between 5000 and 10,000 per cc. of milk.

The number of small dairies selling bottled milk is 14. Their sanitary condition is good.

The number of dairies supplying creamies are 86. There general sanitary condition is good.



Clatsop county Guernseys.



Typical barn in Clatsop county.

## J. Control of Foodstuffs.

The condition of food handling establishments was found to be excellent as a whole.

Food handlers are ~~not~~ examined in this city. They can go to any Dr. they wish to be examined.

### Record of Inspections.

	Total No.	Remarks on Sanitation.
Hotels.	6	Very good.
Eating Places.	12	As a whole good.
Soda fountains.	4	Excellent.
Fruit stands.	3	Average fair.
Bakeries.	55	Excellent.
Groceries.	37	Good.
Meat markets.	8	Very good.
SlaughtersHouses.	6	

The Astoria and Elliot hotels were visited and both found to be very clean. Individual rooms visited were free from dust and dirt and in first class shape.

The Imperial Cafe was personally visited. The dining room was very orderly and free from dirt, as was the lunch counter. There were no accumulations of dirty utensils or debris behind the counter. The kitchen was also quite clean. The garbage cans were all well covered. The cooks and waitresses are all required to be examined by some Doctor before they are allowed to go to work.

Lawsons soda fountain was found to be scrupulously clean. Everything being well covered and all dishes and utensils properly cleaned.

Charlie Wongs fruit stand was examined and found to be just about the same as the usual run of such places. All of the fruits and vegetables were displayed uncovered on the main street of the city. Here they are subject to the dirt flies and the handling of the various buyers. All the produce was of good quality and no spoiled goods were found. There were accumulations of dirt and debris behind the counter which gave an unsavory impression. On the whole the place was in but fair sanitary condition.

There are five bakeries in town and all are first rate. The Dixie Bakery compares favorably with any of the large bakeries in the larger cities. Everything is done automatically and everything is very clean. All produce was properly covered.

Beezleys Grocery presented a most disorderly appearance. Boxes of food-stuffs were found scattered all over the floor so one could hardly get around. Many partially filled boxes of spoiling fruit were observed. Cakes and pastries were displayed in a rather inadequate and unclean place. This place gave on the whole a very poor impression.

The refrigerator of the Columbia Meat Market was quite clean and all meats in a very orderly arrangement. In the back where the the cutting and grinding is done there were no flies and no piles of meats or scraps lying around exposed. The front show cases were immaculate, all meats were kept cold while on display.

There are no slaughter houses in or around Astoria. All meats are shipped into the city.

K. Control of Barber Shops, Beauty Parlors, Bath Houses.

Record of Inspections.

	Total No.	Remarks on Sanitation.
Beauty Parlors.	6	Very Good.
Barber Shops.	3	Good.
Bath Houses.	4	Excellent.
Swimming Pools.	1	Fair.

The Mynetta Beauty Parlor was visited and found to be very clean. The individual places were all quite clean. All combs are dry sterilized.

The Palace Barber Shop has seven chairs and a shoe shine parlor in conjunction. Each barber has a dry sterilizer for combs brushes, and razors. New clean towels are used for each person. The wash bowls were clean as was the floor.

The Y.M.C.A. has the only swimming pool in the city. It is about 50 by 20 feet in size and is all tile. The water is changed twice weekly and is maintained at a temperature of 78 degrees fahrenheit. The water is disinfected by the use of chlorox the amount used being determined by a colorimeter. The water appeared rather murky and cloudy but the showers, lavatory and locker rooms were quite clean.

Astoria is noted for its Finnish steam baths of which there are several. The Union Steam Baths were visited. There are three steam rooms with which are connected several small dressing rooms. There is a wooden table in each steam room for the individual to ly upon. Hot water is sprayed against a radiator which raises the temperature of the

room There is no condensation of steam but the room is perfectly clear. Each individual is furnished with a clean towel and warm clean blankets. The benches are all cleaned with boiling water and steel brushes once daily. All bath rooms were clean and fresh no musty odors were detected. The owner is ezperimenting with a new white paint which he hopes will stand up under the heat and will improve the appearance and cleanliness of the rooms.

L. Public Toilet Facilities, Comfort Stations, Garages, and Gasoline  
Service Stations.

Record of inspections,

	Total. No.	Remarks on Sanitation.
Garage.	5	Fair.
Service station.	8	Fair.
Comfort Stations.	1	Excellent.

The Lovell Auto Company presented a well kept store-room and shop. The lavatories were not overly clean however.

The Richfield Service Station presented a rather dirty disorderly appearance inside the station but on the outside everything was spick and span. The toilet bowels were not very clean.

There is only one comfort station in Astoria maintained by the city. This one is located in Uniontown and is called the Doughboy, because there is a monument of a soldier there. The building is new and the grass is well kept around the station. The mens lavatory had two toilets and one wash bowel with paper towels. Everything was very clean.

## M. Control of Water Supplies.

The water supply of the City of Astoria is owned and operated by the city. The source of supply being Cedar and Bear Creeks. The first supply was installed in 1895 and conveyed to Astoria through wooden 6 in. pipes. The present supply was installed in 1922 and is conveyed by 12 in. steel pipes to Astoria. The water wasn't purified until 1928. At this time a Typhoid Epidemic hit the city in which fifteen persons were taken ill. To meet the emergency disinfection by chlorination was instituted. There are four reservoirs, a large one at the head works with a capacity of one hundred million gallons and three smaller reservoirs in Astoria with a capacity of twenty million gallons. There has always been an adequacy of supply of water, though in some of the dryer summers in the past the excessive use of water for lawns and gardening has been curtailed. The reservoirs in Astoria are situated on the heights. Each is surrounded by iron fences excluding all visitors. The sides are built of granite blocks and the floor of cement. The surrounding grounds are clean and covered with grass.

The water is chlorinated at the head works. This work is in charge of the caretaker. As has been stated a chlorinator machine was installed after the Typhoid epidemic in 1928. liquid chlorine is used and is introduced directly into the water. Varying amounts are used mainly about 0.30 to 0.80 part chlorine per million. This of course depending on the amount of organic matter present in the water. The water is tested frequently to determine the amount of chlorine present by use of a Colorimeter. No

## I. Public Sewerage Systems.

The present sewerage systems were installed years ago and is under supervision of the city of Astoria. The percent of population accessible is given as approximately 90%. This is only a rough estimate by the city engineers. All houses within 150 ft. of the sewer are required to connect up with the sewerage system. So probably all those accessible are connected up with the sewers.

The type of sewer system is the old combined system in which the sewerage and gutter water are carried away thru the same lines. As the sewer system was installed so many years ago and this type is cheaper the city installed the combined system.

The outfall sewer empties into the Youngs River Bay and the Columbia River by several outlets which are submerged 0.5-1.7 ft. in the water even at low tide. The great volume of water quickly dilutes the sewerage and that refuse coming to the top is eaten by the sea gulls. The sewerage isn't in any position relative to water supplies as Warrenton is the only city below Astoria and it receives its water supplies from the Lewis & Clark Rivers & Creeks. The sewerage disposal doesn't effect any beaches on the Columbia side but on the Youngs River side there is one bathing beach on the opposite side of the river. This summer the people protested that it was ~~not~~ safe for bathing purposes but examination of the water showed it not to be contaminated.

Sewerage continued-

The sewerage isn't treated in any way but is allowed to flow without being sterilized into these two large bodies of water where it is soon diluted and carried out to sea. There was found to be none of the effluent floating on the water when these outfalls of sewerage were inspected.

Private methods of excreta disposal.

There are no surface cans or privy vaults in Astoria, though a number of cess-pools and septic tanks. The exact number of which I was unable to find out.

An Ordinance Regulating the Plumbing, Ventilation, and Drainage of Buildings. The City of Astoria.

Section 1. No person shall hereafter move a building from one part of the city to another part of said city, erect or cause to be erected or converted to a new purpose by alteration, any building or structure, or change the construction of any building by the addition or otherwise so that it or any part of it shall be inadequate or defective in respect to plumbing, ventilation, sewerage, or any other usual or proper or necessary provision or precaution for security of life or health nor shall any owner, lessee, tenant or any occupant of any building or structure cause or allow any matter or anything to be done in or about any such building or structure dangerous or prejudicious to life or health.

Section 8. All fixtures connected to the sewer must be properly trapped and the trap put as close to the fixtures as practicable and having a water seal not less than one and one-half inches. No traps shall be allowed on main lines of sewer drain or soil pipe.

Section 26. No privy, vault or cesspool shall hereafter be constructed in any part of the city of ASTORIA where a sewer is at all accessible, within 200 feet of the property to be served.

Section 29. The Plumbing Inspector or City Physician shall have the power in all cases, where there is a public sewer in any street or alley to cause any owners of land upon or adjoining such street or alley, his agent or tenant to make a sufficient drain and proper sewer connection from his or her house or yard or lot, closet and premises whenever, in their Opinion the same may be necessary, and shall thereupon give such persons occupying such premises, notice in writing.

Section 30. Every tenement, lodging house, or building shall be provided with one water closet for every ten rooms or less, and one additional ten rooms or less. Improved privy sinks may be used in factories, as the Health Board may require, but in no case shall water closets

be located in the sleeping apartments of any building. Where four or more men are employed, on buildings under construction or alteration, toilet accomadations must be provided.

Section 33. Any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof, before the Municipal Judge, shall be fined not less than five or more than one hundred dollars, or by imprisonment in the City Jail not exceeding 30 days.

## J. General Sanitation .

The disposal of garbage and refuse is controlled by the city and is let out on contract thru the city Manager and Commission . The garbage is collected once weekly by trucks. At the time appointed the people place their garbage cans in a convenient place for the men to collect them . The garbage is poured out into the trucks and the cans left. All garbage is required to be placed in well covered cans. The edible parts of the material are fed to hogs while the rest is burned on the city garbage dump. The dump is some ways from the city and all refuse is burned out in the open. Dead animals are burned on the city dump. There are no provisions for the removal of stable manure, as far as I could ascertain. There are no barns or livery stables within the city limits.

The streets of Astoria are quite clean and remarkably free of debris or refuse. The main business streets are swept by the street cleaners who keep them quite clean. They are also flushed at intervals, during the summer only, The paved streets are all flushed during the summer. In the winter this is of course unnecessary with the heavy rains.

### Ordinance governing nuisances.

To prevent and remove nuisances, and to declare by general rules what shall constitute the same, and to make the expense of abating a nuisance a lien upon the property where such nuisance exists.

## P. Industrial Conditions.

The dominant industry in Astoria is fishing. There are about 5000 men engaged in this occupation alone. The fishing season is only 4 months during the summer. These men work for themselves selling the fish to the canneries. There are also various places where net fishing is practiced. These men are hired by the different fish canneries.

The canneries inspected were well lighted, connected with the city water and sewerage systems. These canneries were all relatively clean and sanitary in every respect.

There are really no industries detrimental to the health of the individual though the danger of being drowned while fishing must be born in mind. Lumbering is a hazardous occupation in that a large number are killed every year. Tuberculosis is quite prevalent among the lumber-jacks. This is probably due to the strenuous life they lead and the dissipated life of a few.

Each employee gives so much of his pay each month to a hospital fund, so they will be cared for in case of accident or sickness.

## Summary.

The health department is composed of Dr. Nellie S. Vernon. She has no other personnel. Her main duties are isolation, quarantine and restriction, and education in public health and preventive medicine. There is also a county and public school nurse who carry on general health work.

The activities of non-official health agencies is practically nil. The Police Matron and the Red Cross engage in social service work.

Vital statistics were quite complete and easily obtainable. Outside of an occasional epidemic of Scarlet Fever, Measles, or Typhoid Fever, there was nothing unusual.

Contagious diseases are controlled by prompt reporting and then quarantine, isolation or restriction. The usual prophylactic measures are employed, such as vaccination or immunization.

The amount of venereal diseases prevalent doesn't appear to be excessively high according to the statistics, but undoubtedly all cases aren't reported. Treatment is usually private, but on authority of the State Board of Health Dr. Vernon will give the treatment.

There are no local ordinances as regards the sanitation of dairy farms or the sale of milk. This is state inspected and controlled. Everything is satisfactory as shown by the very few prosecutions in the past years. Milk is pasteurized in the usual way. Laboratory tests show the products to be class A.

Food handlers are examined by local physicians. Personal inspection revealed the general sanitation in the various eating establishments, bakeries, grocery stores and hotels to be very.

good, comparing favorably with places elsewhere.

Barber shops, beauty parlors, and bath houses were very good as regards sanitation.

Public toilet facilities while not extensive are quite clean and sanitary. The garages and service stations do not present such a favorable impression. However from what I have seen in other places the general sanitation is just about the same.

The water supply comes from Bear and Clear creeks and there is an adequacy of supply even in the driest summer months. The water is chlorinated at the head works. The water is tested every two weeks and has always been found safe since the installation of the chlorinator. Private water supplies cause no trouble.

The sewerage system is controlled by the city. The combined system is used in which the sewerage and gutter water flow in the same lines. The outlets are into the Columbia River on the north side of the city and the Young's River Bay on the south side. This in no way interferes with the water supplies of any other cities. It also has no effect on bathing beaches. There is no sterilization of the effluent.

The fire chief is the plumbing inspector. The hauling of garbage is let out on contract by the city. This is burned on the dump about one mile south of town. The streets are cleaned by white wings.

The sanitation in industries is good.

A brief criticism:

The department of health namely Dr. Nellie S. Vernon is generally speaking one in name only. I have called on several physicians in the city and inquired as to just how much they come in contact with the health officer and what sort of work she is actually doing. They all practically voice the same sentiment namely that the health officer is a kindly old lady and in no way interferes with the practitioners. They say that innumerable times in cases of contagious diseases where the afflicted are county charges they have told the health officer about it and requested her to take the case over and look after it but she always makes some excuse that she is sick or indisposed. The physicians of course would be against having a new health officer as they can run things just as they please now. A number of the physicians told me personally that they didn't report their venereal cases for if they did they wouldn't have any patients. Of course they said that the specialist had to report a few or it would look rather bad. They all seemed to think it would be a splendid place for a young Dr. to start in as a health officer, but the question of getting rid of the present one would be opposed by a number of the physicians. The health officer has to testify whether a driver is drunk or not, this she does well as the fee is ten dollars.

I also think an attempt should be made to educate the people into reporting the cases of communicable diseases. Only this morning I called upon a family in which two little youngsters had chicken-pox and a Dr. had not been called in. The mother said they weren't sick and allowed them to play with other children even with the rash still present.

I do believe though that the sewerage, water, milk and conditions and the general sanitation will compare with any city of the same size.