

work is being done and the results are favorable for the miner. The lack of adequate means of reaching the mining districts is felt in many places, but, at the present rate of advancement, this lack will not long remain.

The streets are lighted by six hundred incandescent and twenty-four arc electric lights. Gas and electric light companies supply these illuminants throughout the city for public and private purposes. The city owns its water works system, on which \$500,000.00 have been expended, and improvements necessitating the expenditure of \$125,000.00 more are contemplated. In order to purchase the water works from the corporation which owned them, the city issued five per cent. bonds to the amount of \$500,000, which were readily sold at an average price of \$1.08, showing the confidence in the city's financial condition. The city has thirty-two miles of water mains, and the pumping capacity of the works is fifteen million gallons per day. The supply is obtained from the Willamette river, about five miles up the stream. The average daily consumption is five million gallons.

The Portland Paid Fire Department is an efficient organization, operating under the city board of fire commissioners. The official report for 1887 shows the value of real property and apparatus held in trust by the organization to be \$171,350.21. The total running expenses for the year were \$58,927.69. There are thirty-three electric fire alarm boxes, and the system is in excellent working order. The numerical strength of the department is ninety men. There are twenty horses, seven engines, with necessary adjuncts, and seven thousand feet of rubber hose. The losses by fire during the year amounted to \$84,173.72, for which \$80,311.62 were paid in insurance. A firemen's mutual relief association is in operation in connection with the fire department.

The manufacturing advantages of Portland and vicinity are not utilized to an extent at all commensurate with their importance. There is abundant raw material in Oregon, cheap and reliable water power, and generally favorable conditions for the growth of varied manufacturing enterprises. The comparatively recent discovery of the resources of the region must account for the small amount of manufacturing that is done where circumstances are so favorable. People from the East, accustomed to the closer and fuller development of their resources, and alive to the advantages of manufacturing as near the source of supply as possible, are surprised at the neglected opportunities which they observe on the Pacific slope, and particularly in and about the commercial center of a region incalculably rich in the elements that promote manufacturing prosperity. Still, that class of

industries is well established, and is constantly increasing in volume and importance. They are yet truly infant industries, though every year there is a gratifying increase in the amount of raw materials consumed, the number of hands employed and the value of the product. From a record compiled by the *Oregonian*, the following figures for 1887 are taken:

INDUSTRY.	No. Hands Employed.	Value of Product.
Saw mills.....	500	\$1,596,000.00
Planing mills.....	204	550,000.00
Fruit canneries.....	94	96,000.00
Brick.....	106	58,000.00
Box factories.....	68	79,000.00
Foundries and metal works.....	583	1,176,000.00
Furniture.....	301	750,000.00
Cooperage.....	15	30,000.00
Wagons and carriages.....	61	72,000.00
Woolen mills.....	335	750,000.00
Furs.....	39	75,000.00
Breweries.....	72	500,000.00
Spices and ground coffees.....	15	180,000.00
Cloak making.....	105	145,000.00
Jewelry.....	12	26,000.00
Meat packing houses.....	95	485,000.00
Marble works.....	20	24,000.00
Harness and saddlery.....	60	260,000.00
Crackers and breadstuffs.....	78	275,000.00
Soda water.....	20	55,000.00
Confectionery.....	72	230,000.00
Ice making.....	27	75,000.00
Miscellaneous.....	497	417,000.00

RECAPITULATION AND COMPARISON.

Total value of product, 1887	\$7,804,000.00
Total value of product, 1886	5,447,500.00
Increase.....	\$2,356,500.00
Total number of persons employed, 1887	3,379
Total number of persons employed, 1886	2,764
Increase.....	615

The grand total of receipts and payments of moneys at the Portland postoffice for 1887 was \$4,195,271.12. The total number of reports and clearances of marine craft at the Portland custom house, exclusive of river boats, was four hundred and twenty, with an aggregate registered tonnage of five hundred and forty-eight thousand one hundred and eighty, for the year ending January 31, 1888. Of this number, one hundred and twenty-six, with a tonnage of eighty-five thousand six hundred and eighty-seven, were foreign, including fifty-one American vessels, of an aggregate of forty-one thousand five hundred and ninety-one tons burthen, which cleared for foreign ports, and the remainder, two hundred and ninety-seven, with a total of four hundred and sixty-two thousand five hundred and three tons burthen, were coastwise arrivals and departures. With the improvement of the Columbia and Willamette rivers, now progressing under the charge of government engineers, shipping interests will be materially benefited, adding largely to the volume of marine business transacted at this port.

From the figures quoted above, affording something of an idea of the business of Portland, it will be seen that her industries are varied and important. The whole Willamette valley is also studded with towns, which turn out, in the aggregate, a large vol-