

first-class brands of which are delivered in San Francisco, and even in Portland, for little over \$20.00 per ton. The works have been in operation about ten of the twenty years that have elapsed since their completion, and have undergone many changes. The average annual production during the periods of activity has been about fifteen hundred tons, worth an average of about \$35.00 per ton. For example, there were fourteen hundred and sixty-five tons, worth \$45,232.00, shipped in the year ending June 30, 1883, and for the next year, fifteen hundred and forty tons, valued at \$29,274.00. Oregon does not appear in the census statistics of 1870 as a producer of iron, but in 1880 the state (meaning, of course, the Oswego furnace) is credited with an output of thirty-two hundred tons, which entitles Oregon to rank as the twenty-eighth state of the Union in point of production of iron. It may not be amiss to remark that the total product of the United States for the same year was seven million two hundred and sixty-five thousand one hundred and forty tons.

The decline in the price of iron and steel has been universal, charcoal iron keeping pace with it, so that the metal from Oswego sells for about half what it commanded twelve years ago when the above estimate of cost was made. But as iron has fallen so, too, has the cost of producing it. Labor is somewhat cheaper, the ore can not possibly cost half as much as there stated, charcoal in large quantities can certainly be procured for half of nine cents per bushel, and limestone, costing \$20.00 per ton in 1874, was but \$6.00 in 1876, and could probably be furnished now at a dollar or two less. Besides, the producing powers of the plant have been largely increased in late years until it is now regarded as one of the best equipped and most effective establishments in the country. Its product is quoted now in San Francisco at \$21.00 per ton, while various brands of Scotch pig, brought as ballast in wheat ships bring from \$19.00 to \$23.00 per ton. It appears that the Oswego pig does not have the advantage of being made from a mixture of ores in scientifically proportioned charges, whose constituents are of known composition as determined by chemical analysis—in other words, chemistry's transcendent powers are not brought to bear upon the problem of making the best out of whatever materials are at hand at Oswego. It is thought by some that the magnetic iron ore of Gold Hill, Jackson county, might be profitably shipped for reduction with the limestone of Clackamas county, the Gold Hill deposit being of exceptional purity. The experiment is well worth trying.

H. O. LANG.

#### HEALTHFUL INFLUENCE OF BATHING.

Bathing for health and comfort is a practice long tried, sanctioned by many nations, and condemned by none. The ancient Grecians and Romans, once the proud models of both physical and mental superiority, had in their little villas very expensive public baths connected with their gymnasiums and libraries, and in

all subsequent ages able and intelligent people have continued this valuable appliance, until now the better class of Europeans deem the absence of a well equipped bath room in any residence almost a disgrace to the owner. It is said "the bath is common in Turkey, Egypt and Persia, among all classes, from the crowned head to the poorest peasant." And "in all Russia, Finland, Lapland, Sweeden and Norway, no hut is so poor as to be destitute of a family bath." To these proofs of the utility of bathing, science adds volumes of explanatory items of fact.

"The skin of the human body is made up, to a large extent, of excretory and secretory glands, of minute blood vessels and millions of branches of the principal nerves of sensation. In Wilson's "Treatise on Healthy Skin," we are told there are about two thousand eight hundred pores to the square inch of surface, and on the entire body several millions, which are but the openings into miles of minute tubing, little channels of intercourse between the outer world and inner life. Let anything unhealthy be retained in these channels, and disease and death results. To keep them free to act there is nothing equal to complete immersion in water of a temperature varied to suit the temperament and condition of different persons and different seasons in life, whether cold, tepid, warm or comparatively hot, as experience and good judgment may suggest, the immersion being attended or followed by friction or rubbing.

People in every variety of business vocation, and in almost every condition of life, have repeatedly given testimony to the healthful and happy results of appropriate bathing. Gardeners, florists, horticulturists, farmers, tillers of the soil, need a bath. Crude earth may nourish vegetation, but not man, and when mixed with glutinous perspiration it forms an unhealthy, almost poisonous compound, which calls for the cleansing effects of the bath. The engineer, brickmaker, machinist, housebuilder, blacksmith, shoemaker, saddler, harness-maker, every kind of mechanic needs a bath. Dust and grease may not injure their work, but they do not improve the appearance or health of any person, and they effectually clog the pores of the skin. All laborers come in contact, more or less, with unclean substances, and all of them should have access to a convenient bath; and there is another class of men who need a bath, as much for its happy effects on their nerves as for simple cleanliness; the studious scholar, the professional teacher, the magistrate, the scribe, the clergyman, the dealer in nice fabrics, all indoor workers, and especially mental workers, need not only the cleansing but invigorating and happy effects of a good bath. And last, but not least, in case of sickness, which often happens when least expected, as in cholera, cholera morbus, cramp, fits and numberless other ailments, a pliable portable bath which requires but little water, ready just at the right moment, may save some precious life. Finally, every house should contain a convenient bathing apparatus, and every member of the household should use it at least once a week. As good, practical, portable baths are advertised for sale at a merely nominal price, no one need be without so useful an article, which is invaluable in health and inestimable in sickness.—*Health and Home.*