

### California Fruit.

The Los Angeles county exhibit showing part of California's products at the Pan-American Exposition was provided under the auspices of one thousand business men of Southern California comprising the Los Angeles chamber of commerce. This exhibit consists of citrus fruits, oranges, lemons, etc., tangerine and other fruit supplied by the Southern California Fruit Exchange while the olive oils, canned goods and crystallized fruits are supplied by the Board of Manufacture.

Nuts of various kinds: English walnuts, almonds, etc., are supplied by the Association of Growers formed for the purpose of disposing of their crop. Fruits in glass are represented by samples of every product raised in the state; they consist of grapes, some bunches weighing as much as twelve pounds and measuring one foot in length. Sweet potatoes, very white, that measure sixteen inches in length that look like selected samples of overgrown carrots associate on equal terms with delicious peaches and oranges measuring from seven to nine inches in circumference and pears and quinces weighing two and one-half pounds each (Loquotsor (Japanese plum) Kumquat (Japanese orange), Monstera Deliciosa (Delicious Monster), and Papau are among the novelties in the fruit line that take the attention of the visitors as he passes through the exhibit.

Dried fruits in artistically arranged packages showing another method of preserving immense peaches, pears and clusters of raisins. In this line are exhibited two figures, a man and a woman made of all the various kinds of fruits that are ordinarily evaporated, representative of the Mexican native of California a hundred years ago. The exhibits are installed back of a facade made expressly to represent the old California adobe mission construction. Archways are lined with oranges and supported on pillars ornamented with Fan Palms, stems and California bamboo. Mounted on one of these arches is an elephant made entirely of English walnuts. This important industry of growing English walnuts was built up in the short space of fourteen years. The growers in this line have always kept the organization in their own hands with the result that the fruit is sold long before it is ripe.

The oranges used in the decorative features are replaced every day with fresh ones brought from the coast, as improved methods of propagation and cultivation now renders the crop continuous throughout the year. This total crop of oranges of Southern California last year was about 25,000 cars of which 17,000 cars only were shipped; leaving 8,000 cars of fruit to spoil because of insufficient transportation facilities.

There are on an average about 54,300 oranges to the car, sufficient to supply one dozen and one-half of oranges for each man, woman and child in the United States: If you failed to get your quota find fault with the railway companies.

While this exhibit is supposed to represent the horticultural products of the county, the displays of fish products have not been neglected, as mounted specimens are exhibited showing fish that have been caught on the western coast weighing from ten to 450 pounds each. These are from the Island of Santa Catalina that is situated fifty miles from Los Angeles. Photographs of the homes, ranches, summer resorts, etc., are exhibited in large numbers.

### The Zinc Industry of the United States.

The mining industries in the United States have undergone remarkable development during the last twenty years, with the result that the country is now the largest producer of metals and minerals in the world. The zinc industry has shared in this general progress, and some particulars of its growth and present position are furnished by a report of Mr. Vice-Consul Eekline (Diplomatic and Consular Reports, No. 550, Miscellaneous Series).

Germany and the United States are at present the largest producers of zinc, and in 1898 out of the world's supply of 470,994 metric tons, the former supplied 154,807 tons and the latter 101,688 tons; in 1890, out of a total of 510,701 metric tons, Germany's output remained almost stationary at 152,155 tons, while that of the States increased to 122,144 tons. During 1900 the production of the latter country

again greatly increased, and it is said to have reached 160,000 tons or 30 per cent. of the world's output, so that at the present the United States is probably the largest producer. The rapid growth of the industry in the States is seen by the fact that, since 1885, the production has increased by 187 per cent., or since 1890 by 105 per cent., whereas the increases in the European production during the same periods have only been 38 and 27 per cent. respectively. The metal is extensively used for galvanizing iron and steel, in the manufacture of brass and certain metallurgical operations, as well as for

occur in four districts, three of which are situated in New Jersey, Wisconsin and Colorado respectively, while the fourth includes portions of Missouri, Arkansas and Kansas. The order of the various States with reference to the quantity of ore raised is as follows: Missouri, Kansas, New Jersey, Wisconsin, Colorado and Arkansas; but in quality of ore Arkansas stands first, closely followed by Missouri, Kansas and Wisconsin. The ore usually consists of zinc sulphide or blende, but the carbonate and silicates of the metal also occur and are utilized. When cleaned and sent to the furnaces

same quality was as low as £3 14s 6d per ton. This led to the opening of a large number of mines, with the result that at present the quantity of ore which could be raised in the States very greatly exceeds the amount necessary to supply the total furnaces in operation there, and at the beginning of the present year the price of 60 per cent. ore had fallen to £4 12s per ton. Large quantities of ore have already been shipped to Europe, and, since it is stated that many of the mines here show signs of exhaustion, it is probable that the exports will be increased in the future.



many minor purposes. Zinc oxide has recently come largely into use as a pigment, since it yields a paint of extreme whiteness, which is durable and non-poisonous. Its production in the States has more than doubled during the last five years and in 1900 amounted to 51,000 tons, about 85 per cent. of which was used as a pigment and the remainder in the manufacture of linoleum, wall-papers, rubber, earthenware, glazes, etc. In 1885 the amount of zinc oxide used in the States for the production of paints was only one-sixth that of white lead so employed, but its use has extended to that at present the proportion is one-half. About 90 per cent. of the paint materials are made direct from the ores with anthracite coal as fuel, the remainder being obtained from the metal.

The zinc ores of the United States

the sulphides ores average about 55 per cent. of metal, while the carbonate and silicates yield about 38 per cent. The New Jersey ore consists partly of Franklinite, a mixture of oxides of iron, manganese and zinc, and partly of Willemite, one of the natural zinc silicates. The former is a very valuable ore containing about 25 per cent. of zinc, without the presence of lead or sulphur, and consequently the metal or oxide of zinc obtained from it is of high quality. In Colorado zinc occurs associated with lead and silver ores, and is only obtained as a by-product in the extraction of these. A great impetus was given to zinc-mining by the high prices which were obtained during 1898 and 1899, due to the increasing demand for the metal. In 1899 a 60 per cent ore was valued at £10 10s per ton, whereas in 1894 the

The total quantity of zinc ores raised during 1900 was 425,000 tons, the production of the metal and paint materials each absorbing about 150,000 tons, while the remainder, 125,000 tons, was exported to Europe. During the year there were 31,500 retorts in operation, of which 11,000 were worked with coal dust as fuel and others with gas, chiefly natural. The average yield of a retort is about 3.5 tons per annum. The cost of reducing a ton of zinc ore to metal with coal is now about 40s., an increase of 4s in four years, while the cost with natural gas is only 28s. It is claimed, however, that the metal reduced in the latter way is more brittle and more easily affected by air than that produced with coal, and also that the amount of metal is slightly lower for the same quality of ore.