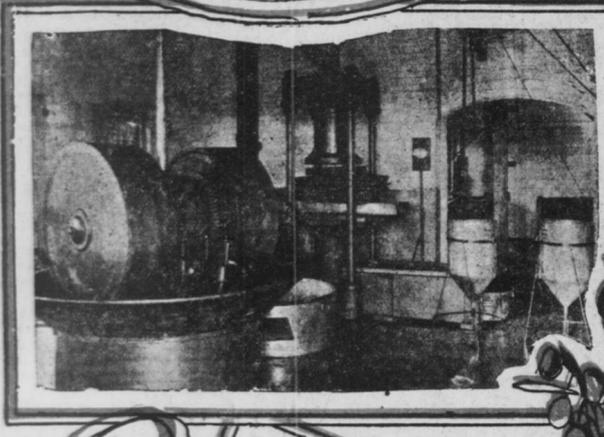


OLD OLIVE CRUSHER IN SANTA CLARA



AN OLIVE PICKER AT WORK



A MODERN CRUSHER AND PRESS



A RICHLY LOADED BRANCH

GATHERING THE OLIVE CROP



PICKING OLIVES ON SAN FERNANDO RANCH



OIL VATS OF THE LOS ANGELES OLIVE GROWERS' ASSOCIATION

Work on a California Olive Ranch, the Largest of Its Kind in the World.

THE largest olive ranch in the world is one of the big things of California. This, too, when the olive is one of the chief horticultural products of those countries bordering on the Mediterranean which were old before America was ever dreamed of. That the ranch which outclasses all others in size is situated close to where the olive was given its first trial in California soil by the mission fathers is a justification of the judgment of those pious pioneers. Down near San Fernando a plot of twelve hundred acres was set to olives eight years ago by the Los Angeles Olive Growers' Association. As olive trees in this country become profitable in from three to five years after the cuttings are planted, the ranch has passed from the stage of promise to the stage of making good. For a mile or more the road runs past the orchard, the long, straight rows of trees, one hundred to the acre, stretching quite to the foothills. Just now the trees are straggly and ill-shaped. The busy harvest time of the olive grower begins in November and ends in February or March. On this ranch the earlier varieties predominate, and the trees that but a few weeks ago were bent almost to the ground with their weight of green berries have been relieved of the burden and seem struggling to regain the trim shape that delights the eye of the horticulturist. This, however, cannot be without the aid of the pruning shears. No for a season the trees must look considerably the worse for the heavy crop they yielded; the more so because the berries are usually taken from the branches with small rakes. In some parts of the State the trees are still heavy with the fruit, the quantity of oil increasing as long as the berry remains on the tree. When the crop is light picking is sometimes deferred on this account; but in favorable seasons like the present, when the crop is geger-

ous, picking begins early and continues late. For oil of the highest quality the berries are gathered in November or December; but if quantity rather than quality is the object, the picking may be put off until February or March. The harvesting of the olive crop on the San Fernando ranch has come to be one of the typical scenes of California life. Every day in the picking season a horde of Chinamen are turned loose in the big orchard. They are armed with boxes, bags and rakes. Standing on ladders they grasp the branches on which the berries hang as thick as leaves, and with the rakes strip the branches of the plump green fruit, which drops into canvas bags hung across their shoulders. From the bags the olives are dumped into picking boxes, which are carted away as filled. At all times care must be taken not to bruise the berries, as bruised berries are liable to ferment and must be rejected. This daily scene on the big San Fernando ranch is repeated on a smaller scale in many other parts of California, for the olive industry has come to have third place in horticultural importance. The climate of certain portions of the State is very similar to that of the countries bordering on the Mediterranean, and the olive flourishes in the counties around San Francisco Bay, in the valleys of the Sacramento and San Joaquin rivers and in the foothills of the Sierras up to a height of 2000 feet. That olives may come to maturity, they must have a certain number of degrees of heat from the blossoming of the tree till the first frost. The temperature during the winter must not go below 14 degrees, and snow must not fall more than four or five times a year, or remain on the ground for longer than two or three days at a time. When these conditions are present, as they are in many parts of California, the olive will grow in almost any soil, even among stones and rocks, and without irrigation or fertilization. Within reach of a sea breeze the olive thrives with particular vigor.

Obviously the olive growing is a most desirable industry in this country, for it utilizes dry, rocky tracts of land with scanty soil, in which nothing else would thrive, and with little cultivation and no fertilizing produces an abundant and valuable crop. The area of land devoted to olive growing is constantly on the increase in this State, groves being found in Alameda, Santa Clara, Napa and Sonoma counties, and in the country around Sacramento, Mission San Jose, Marysville, Oroville, Auburn, Penryn, Los Gatos, Sunol, Niles and Cloverdale, to say nothing of Southern California, where a large portion of the soil is well adapted to the olive. The olive tree, once thoroughly estab-

lished, is extremely hardy and will survive neglect, poor treatment and unfavorable conditions. Indeed, it has been sug-

gested that olive trees are like women—the worse they are treated, the better they behave. Hardly any frosts, heat or

the California foothills there is no fear of excessive cold and it is not necessary to raise trees from the seed. Trees grown from cuttings become productive in three years. In the fourth or fifth year they are in full bearing, while trees raised from seed do not produce until they are ten or twelve years of age. The European olive bears a little fruit at fifteen years, but does not reach its full productiveness till it is thirty-five years old. In California two gallons of oil have been obtained from trees only two years old, and as many as thirty gallons have been produced from the crop of a tree only six years old. The San Fernando orchard is expected to yield twenty gallons per tree, or 2000 gallons per acre, this season. A single tree in Southern California, standing apart from the rest, has a record yield of 150 gallons of berries in a single season. There are numerous varieties of olive. After examination of a half-hundred or more the Los Angeles Olive Growers' Association selected the Mission, the Nevadillo Blanco and the Manzanillo for the big San Fernando ranch, these being the best oil producers. The Mission olive ripens in December and contains 24 per cent of oil. The Manzanillo matures in October, and yields 39 per cent of oil of high quality. The berry is of fair size and is much used for pickling. The Nevadillo Blanco ripens early in November, and produces 12 per cent of oil. Thus the product is fairly divided between oil-giving and pickling varieties. Pickled berries bring about 12 per gallon, the cost of picking and preserving being hardly one-third of that amount. But, though pickling the berries is an easier and quicker method of getting an income from the trees, pressing the berries for oil is the more profitable. When the berries are intended for this purpose they must be thoroughly ripe when picked, for the oil does not begin to form until the fruit ripens. At the mill the berries are ground to pulp by passing them under rollers in such manner as to avoid crushing the pits, which contain little oil and tend to lower the high quality of the product. There are oil presses of various kinds, differing rather in construction than principle, as may be seen by comparing the quaint and primitive affair still in existence at the home of Ramona in Ventura County and the latest improved machinery of the big Los Angeles concern. The pulp is placed in a round mat of about the diameter of a wagon wheel, or in flat circular bags made of sack. At the bottom of the press there is a strong wooden grating on which rests a flat round iron plate with holes in it. One of the pulp bags is put on the plate, on the bag is laid another plate, then another bag, and so on until six or seven bags are piled one on top of another. The first pressing is gentle and slow, yielding what is called virgin oil of the highest quality. As it is very readily contaminated by contact with inferior oil or extraneous matter it is conveyed to another part of the establishment and set aside for about a month, so that it may slowly deposit its impurities. Gray or white filter paper may be used to obtain the clearest oil; or the process may be performed more rapidly by passing the oil through cotton batting. The vessels in which the oil is placed must be scrupulously clean, so as to avoid injury to the delicacy of its flavor or the brilliancy of its appearance. After the virgin oil has been expressed the pulp is put back into the press, hot water being added to help the flow of oil. The product of the second pressing commands a much lower price in the market. The pulp is generally subjected to a third pressing, another press and other bags being used, so that the apparatus used for the finest oil may not acquire any flavor of old pulp. The third pressing yields oil of a low grade, which is sold to manufacturers of soap, or is used as an ingredient in illuminating and lubricating oils. Oil improves with age and may be kept for a long time without deterioration. Even after the third and last pressing the pulp has some value; it is dried and used as a feed for cattle, as fuel or as fertilizer for the soil. Nothing is wasted on a well managed olive ranch. For pickling the Manzanillo and Mission olives are excellently suited, as also is the Spanish Regalis or Queen olive. The olive expert prefers ripe olives, which are of much the same color as a black-heart cherry, for pickling; but the average person has grown so accustomed to eating green olives that dark ones do not sell well. So to suit the taste or lack of taste of the great public, the berries for pickling are gathered in a green state, before the oil has begun to form, for any discoloration renders them unattractive to the eye and less marketable. To pickle them, the berries are placed in wooden vessels and covered with a strong solution of lye, where they are left for twelve hours. After being taken out they are put into fresh water every twelve hours for nine or ten days, to take away the taste of the lye. But as even after long soaking the bitterness remains they are passed twice through strong brine. In the last water wild laurel leaves are often placed, as they communicate a pleasant flavor to the berries. With the Anglo-Saxon the taste for olives and olive oil is a cultivated one, but among the Latin races the love of the olive seems natural. In Southern Europe many a peasant makes a meal on a handful of the dried berries, a chunk of bread and a cup of wine, and finds that he can do hard work on it, too. France produces about nine million gallons of olive oil and imports a good deal as well, while Spain produces about twenty-three million gallons and consumes most of it. More olive oil is imported into Mexico than into the United States, though America has seven or eight times the population of her sister republic. This fact, however, may in some measure be accounted for by the enormous growth of the industry in this country.

EXPENSIVE RIDING.

THE most expensive season tickets in the world, perhaps, are those issued by the Congo Railway Company. The first-class single fare for a journey of about 500 miles is \$100. Lately this company has issued season tickets available for one year at the following rates: For four return journeys, \$45; for eight return journeys, \$85; and for twelve return journeys, \$125. Naturally the issue of these tickets is very limited, so far only four having been delivered, but application for a fifth has been made. They are not printed, but written out on a piece of cardboard, four inches by six inches, folded in two; on one side the date and name of holder are inserted and the other is divided in squares, where the beginning and end of each journey is filled in by the station masters at the time it is performed.

burning will kill the trees or destroy their productiveness. They have no enemies, the fruit being so bitter that the birds of the air do not peck at it, and the wandering tramp leaves it unmolested. Predatory birds and hungry men have no use for the olive, much to the satisfaction of its grower and owner. But, hardy and immune from attack as the grown olive is, the young tree requires considerable care and attention for the first three or four years of its life especially when raised from suckers, as is the almost universal practice in California. In Europe it is common to grow olive trees from seed, for seed trees are stronger and better able to withstand sharp frosts. But in the mild climate of