

## Oregon Has Great Future in Dehydration

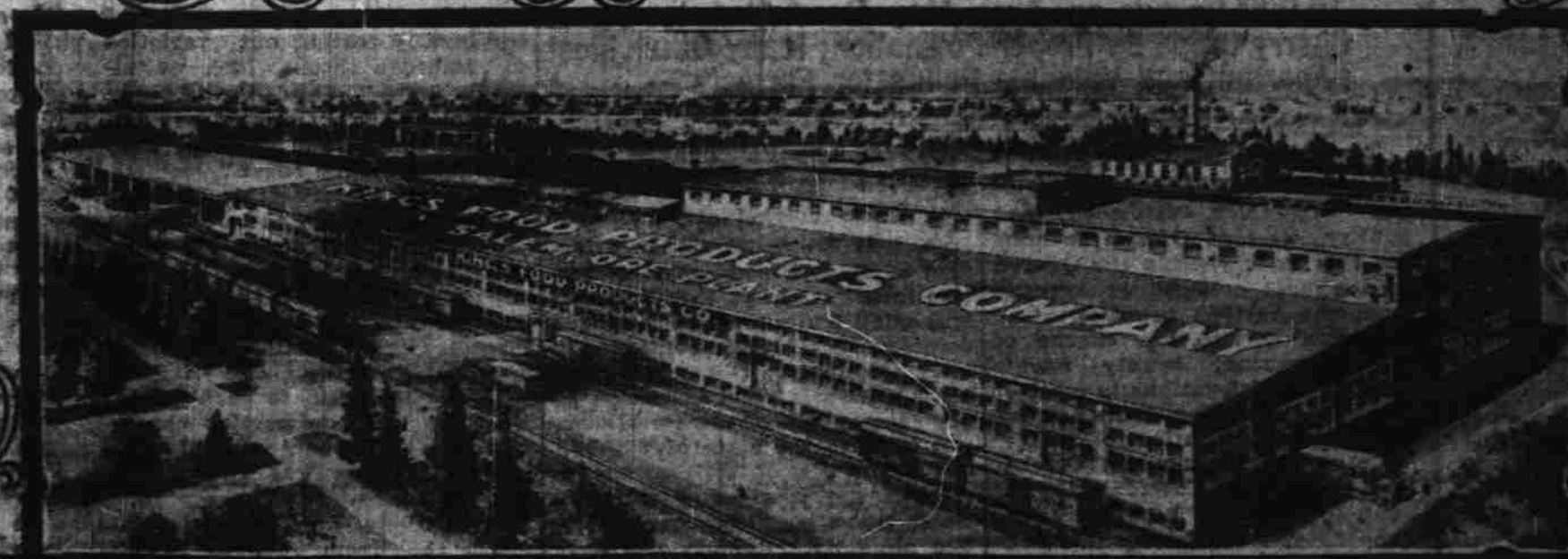


### World will be Benefitted

Largest Plant in the  
Industry Located at  
Front and Market Streets  
Salem



A FIELD OF OREGON SPINACH



LARGEST DEHYDRATION PLANT IN THE WORLD, LOCATED AT SALEM

PRUNES—SUCH AS ONLY OREGON CAN GROW

### What is Dehydration?

What if misfortune should frown upon you and yours and it became necessary for you to retreat from the Oregon you love to the land from which you came?

How you would miss the incomparable sunshine, verdant slopes and rugged scenery! How you would long once again to be in the Land of Roses where, at your meals and on picnics, you and your family might enjoy the fresh loganberries, apples, prunes, spinach and beans, the flavor of which only the sunshine and showers of Oregon can give them.

Let us hope, for your sake and the writer's, that this never comes true; but should you ever be going back on just a visit, you will want to know of the new and advanced method of dehydration which now makes it possible for anybody, anywhere, any day in the year, to enjoy the characteristic taste of fresh Oregon fruits and vegetables, at a cost which is winning friends for Oregon-grown products the world over.

There are other reasons why you will want to know about dehydration. With the successful preservation of the full fresh flavor and the natural sugars and mineral salts, a more appetizing and more perfectly balanced diet may now be enjoyed the year around, in Oregon as well as elsewhere.

Think what this broader marketing of our singular fruits and vegetables will mean to the State of Oregon, not only in increased resources and resultant income, but in winning more friends and future residents for the Pacific Northwest.

Oregon has been endowed by nature with a soil and climate which give to fruits and vegetables a flavor

THE SAME APPLES  
REFRESHED TO 33 QUARTS

ONE QUART OF  
DEHYDRATED APPLES

incomparable. With conditions for growing distinctly in our favor, expansion and development has become almost solely a matter of preservation and marketing. In Oregon, canning and dehydration are the principal methods of preservation. Canning changes the flavor and elements of most fresh fruits and vegetables. Dehydration retains them.

Decades ago, California came into the "sunlight" as a fruit and vegetable state because of her climate which was not only favorable for the growing of produce, but which also enabled the producers to dry their prunes, grapes and similar crops in the sun. Exposed to the sun's rays, the moisture from fruits and vegetables was quickly absorbed or evaporated and only the mass of pulp remained. Unfortunately, the residue, caught dust and other foreign matter which became a distinct disadvantage in the marketing of the products.

In the canneries, the fruits were treated by another process but, at best, both methods must be described as cooking, one in the sun and the other in vats. In the prune industry, the fruit was treated in chemical baths and then taken to huge evens and evaporated. None of these systems, however, can be rightly described as "natural" ones for the simple reason that the ultimate product was tremendously changed in its nature and flavor, as all of us who have tasted fresh and preserved fruits and vegetables will testify.

The detailed history of the dehydration industry is both interesting and educational. It should be understood by every housewife as well as every man and woman who is concerned

both with the progress of our great state and with any service which shall benefit mankind. It should no longer be true that what is plentiful and cheap at one time in one locality is an expensive luxury in another. Millions of pounds of fresh fruits and vegetables in the past have gone to waste while in sections less fortunate there was great demand and prices were out of all reason. Supply should and now can be more perfectly balanced with demand.

Back in 1911 R. W. King came to Portland and although not engaged in the fruit or vegetable industry, ultimately conceived the principles on which dehydration is today based.

The Northwest, while growing unquestionably the finest fruits and vegetables, did not have a climate that would permit of "sun preservation." The precipitation, while contributing to ideal fruit growing conditions, operated as a handicap in the respect of natural evaporation. The canning industry, as great as it had developed, had not achieved the real result desired—namely, retaining the fresh natural flavor of fruits and vegetables.

For all time the sun has furnished heat and the wind has circulated air, but it took centuries before it was discovered that heat and air could remove the water from fresh fruits and vegetables and preserve them for future consumption. That was later called evaporation.

Chemists began to analyze food and they found that fruits and vegetables were composed of tiny structural cells which would be quickly damaged and cave in should the water

be either hastily or entirely removed. It was learned that this should be done in a given temperature and with a given velocity of air according to each different fruit and vegetable.

But the sun and the air could not be regulated. Science had, however, long since given us heat that could be regulated and powerful suction fans that could be controlled by mere touch. Experts had given us construction, by means of which sanitary, dust-proof tunnels could be built. So why not employ these modern instruments to the benefit of people the world over? It was by this simple formula of reasoning that King conceived dehydration.

We all know that fruits and vegetables contain, among their health-giving elements, from 70 to 80 per cent of plain water. The proteins, carbohydrates, ash, fat and vitamins constitute the remaining portions. By circulating air and heat under control, it is possible to remove all of the water up to a point where the structural cells do not collapse and thus retain their power to revive when later soaked in water.

A homely comparison of the action of dehydration and refreshing can be tested with an ordinary sponge. Place a moist sponge on a radiator and allow an electric fan to blow over it. The water will gradually disappear. The sponge will be reduced in size; will weigh much less. In that condition, the sponge may be carried anywhere and when it is desired to regain its former size and condition merely place it in water. The moisture is quickly re-absorbed and the sponge is once again in its original condition. King merely proved that fruits and vegetables were constructed very much like

a sponge. What transpires with a sponge, in the treatment described above, is much the same as what happens to fruits and vegetables under this highly perfected process.

As the general manager of the largest dehydration plant in the Pacific Northwest said to your correspondent, "To emphasize what dehydration has meant in the saving of shipping charges and therefore in the ultimate price to the consumer, imagine a thousand housewives in any given locality who will consume, over a period of months, eight carloads of Oregon fruits and vegetables. We can ship our products to these women in three ways: First, eight carloads of canned goods; second, one carload of dehydrated products and seven carloads of water, or third, just one carload of dehydrated products. They have the water in their own kitchens."

With any process that serves the consuming public as well as to preserve, for an indefinite time, the full fresh flavor of fruits and vegetables, and, at the same time, so materially reduce the cost of shipping and storage, that industry is destined to a great place in supplying the world's demand for food.

Last year Oregon fruit and truck garden growers, Oregon labor and Oregon industry were paid over a million dollars by the dehydration industry alone and, with the promise of future progress, this sum should increase to a tremendous degree. All of which means happier, healthier people in all parts of the world and happier, more prosperous people in Oregon.

PART OF INTERIOR OF PLANT SHOWN ABOVE