SELLING SALEM DISTRICT

Dates of Slogans in Daily Statesman

(In Twice-a-Week Statesman Following Day)

Loganberries, Oct. 5.
Prunes, Oct. 12.
Dairying, Oct. 19.
Flax, Oct. 26.
Filberts, Nov. 2.
Walnuts, Nov. 9.
Strawberries, Nov. 16.
Apples, Nov. 23.
Raspberries, Nov. 30.
Mint, December 7.
Great cows, etc., Dec. 15.
Blackberries, Dec. 22.
Cherries, Dec. 29.
Pears, Jan. 4, 1923.
Gooseberries, Jan. 11.
Corn, Jan. 18.
Celery, Jan. 25.
Spinach, etc., Feb. 1.
Onions, etc., Feb. 8.
Potatoes, etc., Feb. 15.
Bees, Feb. 22.
Poultry and pet stock, Mar. 1.
Goats, March 8.
Beans, etc., March 15.
Paved highways, March 22.
Broccoli, etc., March 29.
Silos, etc., April 5.
Legumes, April 12.
Asparagus, etc., April 19.
Grapes, etc., April 26.
Drug garden, May 3.
Sugar beets, sorghum, etc., May 10.
Water powers, May 17.
Irrigation, May 24.
Mining, May 31.
Land, irrigation, etc., June 7.
Dehydration, June 14.
Hops, cabbage, etc., June 21.
Wholesaling and jobbing June 28.
Cucumbers, etc., July 5.
Hogs, July 12.
City beautiful, etc., July 19.
Schools, etc., July 26.
Sheep, Aug. 2.
National advertising, Aug. 9.
Seeds, etc., Aug. 16.
Livestock, Aug. 23.
Automotive industry, Aug. 30.
Grain and grain products, Sept. 6.
Manufacturing, Sept. 13.
Woodworking, etc., Sept. 20.
Paper mills, etc., Sept. 27.

(Back copies of the Thursday editions of the Daily Oregon Statesman are on hand. They are for sale at 10 cents each, mailed to any address. Current copies, 5c.)

BEES BOTH NECESSARY AND PROFITABLE

The fruit growers must have honey bees—

They must have them for pollination purposes—

To insure their fruit crops—

And they can make beekeeping profitable; they can harvest two crops, by attending to their bees intelligently and faithfully, and providing late summer bee pasture.

This is the best country known, outside of southern Oregon, for the early honey flow; so all that remains to make Salem a great commercial honey district is late bee pasture, and this can be provided, in white clover and other crops, that are themselves both profitable and good for the land.

As we must have bees, why not make a virtue of necessity—

And a profit of necessity, too?

DID YOU KNOW that Salem is the center of a potentially great beekeeping industry; that considered for a period of years, average honey yields of the Willamette valley WILL EXCEED THOSE OF ANY REGION EXCEPT SOUTHERN OREGON; that, with intelligent and industrious care, this can be made a veritable bee paradise, by providing bee pasturage for the late summer, which can be done, and which must be done, in order to make fruit growing more stable by being more certain of pollination; that fruit growers can harvest two sure crops by providing bee pasture and keeping bees—fruit and honey?

EVOLUTION OF THE PRUNE DRYER AS WORKED OUT BY GIDEON STOLZ

The Author Began Laying His Plans in the Fall of 1916, and He Has Developed Them to a Point That Should Interest Every Man Engaged in the Prune Industry in This District—The Problem Was a Complicated One, and Mr. Stolz Has Given It Much Study, and He Now Tells the Whole Story of His Practical Work.

Editor Statesman:

Last fall you solicited me to write up my experience in the work of developing my prune dryer. Want of time and the fact that I then planned a trip to California prevented me from taking up this task at that time. However, now that we are looking forward to the 1923 prune crop, I will attempt to give the subject my best endeavor, besides, I am only too glad to contribute to your commendable effort in boosting the great industries of the Willamette valley in devoting so much space to distributing knowledge that I know is of vast benefit, especially to the beginner. This term might properly include almost all who are now engaged in the raising of prunes and berries; at least I am in that class.

It was in the spring of 1913 that I first got into the growing of a prune orchard. I put out 40 acres, one-half a mile west of the Keizer school house, which has since been known as the Rambler Prune Farm. My trees made good growth each year by good cultivation and liberal fertilizing, so by the fall of 1916 I began to lay my plans to build a dryer the following year. At first I thought this an easy task, but I had not visited many dryers until I found it very complicated and needed much study for me to reach anything like a safe procedure, for I had never given fruit drying any thought.

I set myself to the task, for in my search I found many dryers that were not giving perfect satisfaction to their owners. In fact, prune drying, as well as prune dryers, was so in its infancy that almost every other man held different ideas. In December of that year, 1916, there was held a farmers' and fruit growers' convention or school of instruction by the Oregon Agricultural college at Corvallis. This was a free for all and lasted one week. This was naturally attractive to me at my stage of the prune game, so I spent four days in this school and got much benefit, for fruit growers were there from all parts of Oregon as far south as Ashland and some of the best growers from Clarke county, Washington, and it was a great privilege to meet these men and hear them give their experience.

One entire day was given to the discussion of dryers, and to my great disappointment here also I found a vast difference of experience; staunch advocates of the long and short tunnels. In fact one could not help but come to one conclusion, and that was that we had no standards in a prune dryer, and so far as I know this largely prevails today and is the only reason that I have consented to write this article, thinking that I may contribute something toward a standard principle on which prune dryers can be built.

My four days at Corvallis were of great benefit as stated because I got points that were a guide to me and I also took note of the troubles some had, such as some of the tunnels drying faster and the upper and lower trays drying different, drying better by day time than night, or lack of draft when the weather was stormy or foggy. Here was my task to meet and correct all of these in one effort. Well, it was too much for me at one effort, but now after operating my dryer for six years, I feel that I have fully met and overcome every defect and feel that I have an approach to the perfect dryer.

I cannot pass this point without giving due credit to my friend Otto Hansen, late business man of Salem. He too was in the prune game and had built and operated a dryer and was overcoming its weak points. I got many valuable points from him before I built. Then the man, Charles Weathers, whom I have on the Rambler farm was faithful to note down from year to year every defect so we could make corrections the next year.

The First Dryer.

I will now briefly describe my dryer as first built. I was handicapped by having perfectly level ground to build on. A slight hillside is preferable, so I excavated three feet. My main foundation wall is concrete 44x66 on which stands the dryer fully inclosed with rustic siding, so we have perfect control of air currents that is necessary but not the practice. Heating chambers, two units, each supplying five tunnels 18 feet deep and 16 feet wide inside measurements, 6 feet high at the back, tapering to 10 feet at the mouth of the tunnel, all concrete up to the bottom of the tunnel, hence are as near fireproof as can be had. Experience has since given hollow tile the preference, as it holds heat better than concrete. For each unit of five tunnels we have one of the largest box stoves made, 32x32x6 feet, each unit equipped with 27 feet 20 inch, 60 feet 16 inch, 11 feet 14 inch pipe, the two units leading to one brick smokestack of proper dimensions.

I had these measurements taken recently in order to be absolutely correct. This gives us 98 feet of pipe to each unit and is none too much. Better increase the heating chamber and pipe especially in height, which can be done where you have a hillside, for the uniform drying of your tunnels depends upon how well you mix the heat and air and a large heating chamber has a decided advantage. To get the air properly mixed we suspend large sheeets of iron over the stove and first sections of pipe and guard against a direct current to mouth of tunnels, all for the purpose of uniformity.

We have ten tunnels 36 feet long, 15 trays high, 12 trays deep, trays 32x37 inches, carrying about 30 pounds of green fruit to the tray. The tunnels have two inches rise to the foot, spaces graduated.

We found it necessary to build an addition to the sorting room, so we now have a sorting room of 32x44 feet. At the intake we have 20x44 feet with sufficient outside room to handle green fruit and trayer, all under cover. The dryer faces east, as our prevailing winds are from the south and west. We think this a decided advantage. That is, the upper end of the tunnels face east.

It was at Otto Hansen's suggestion that my division and outside walls are made of two inch material. At the time it was adopted to save space; however, it no doubt is a great element of safety, for there are no pockets where there is not a full current of air or places where a pitch seam might be superheated and cause combustion. I had this material cut by a sash and door factory out of bone dry material, tongue and groove placed horizontal and fitted into a grooved 2x4 for top and bottom on a two inch run to the foot. This makes easy construction as the top 2x4 supports the decking. Our lower and upper deck as well as the sides are double with sheet asbestos as a lining. Each tunnel is a unit of its own and separate to the top of ventilator shaft.

After Two Seasons

This represents our first construction. However, after operating two seasons we found our tunnels too long; for one stove for five tunnels was seemingly not sufficient. We got the required heat at the lower part of each tunnel, namely 170 degrees, and could even raise that if desirable, but our prunes did not get proper drying for some four trays at the upper end, so it was up to us to find a remedy. To overcome this we raised our ventilator stack ten feet to get a better pull or draft. Then on top of our heating chamber we carried the outer walls of each unit up tight to the bottom of the tunnels with hollow tile, thereby creating an upper heating chamber, conserving practically all the heat we had been losing.

In addition to this we cut two 6 inch holes through our decking in which we put an iron stove pipe with a T on top to spread the heat. Then we cut two 4 inch slots across each tunnel so we had a new intake of heat about midway of each tunnel with no decrease of heat at the lower end. This practically overcame all our troubles and so far as we could see we got as good results as a 22 foot tunnel, and every part of our tunnels was drying alike.

Re-circulating System

I felt that we were through making changes, then came the agitation for re-circulating fans. The Oregon Agricultural college made great claims what could be done, and as I always want to keep abreast with the best, I began to study this system and soon had the agent who sold fans on my hands. He had been out at my dryer taking measurements and was fully prepared to tell me what I needed and in fact what I must have to make re-circulation anything like a success. I propose to give this new source of experience in some detail as I know many are persuaded to follow the promoter's specifications to their loss, not alone for an unnecessary investment in converting their dryer over to adopt this system but the unnecessary added expense each year in operating, and I might say right here that economical and proper drying of prunes is one of the biggest items to be considered in constructing a prune dryer.

Any dryer or system of drying prunes that cannot dry at a net cost of 1 cent a pound is not a perfect dryer.

It would be better if many of our prune dryers were remodeled before adopting the re-circulating system.

Economy of operating was one thing I considered and was largely why I selected the long tunnel plan, for it must be apparent that my ten tunnels of 36 feet long have nearly the capacity of twenty tunnels 22 feet long with other dimensions the same.

Another point I kept in mind in my construction was to make my dryer as near fire proof as possible.

Coming back to the installing of the re-circulating system, I was up against scientific knowledge as against my inexperienced judgment. However, as there was a difference of some $2000 in the installing of what I was told I must have and what seemed to me was necessary by adopting only a partial re-circulating system, I bucked. However, before I placed my order for my fans, I made a trip to the Oregon Agricultural college at Corvallis where they had installed a fully equiped system under the plans that I was advised to adopt. Their model had but four tunnels of 22 feet with a stove fully as large as what I use for my large five tunnels and nobody would doubt that it would work perfectly, but it did not seem economical to operate; not to me.

Plans His Own.

I laid before the professor the size and capacity of my dryer, the perfect draft, and how I could not see my way clear to discard all that I had gained and install two 7-foot fans that would require two 10-horse power motors to operate. My idea was to install two 24-inch fans, one for each unit, and close up all intakes which were not needed. I found no encouragement at O. A. C. for this plan; in fact, I was told I was wasting my money. However, I came home and placed my order for the 24-inch fans, had them installed and got them to operate about ten days after drying began. They were a perfect success from the first. We operated the two fans from a counter shaft with a six horse power motor and reduced our time of drying fully eight hours with a decided saving of fuel. We also had a perfect and even temperature of heat and I think a decided safety fom fire, besides we have overeame atmosphere effect, hence have a decided gain all around by the added capacity to our dryer. In fact, there were only five days that we could have enough fruit to keep the night shift fully employed.

We cut an opening of two feet in the bottom of each tunnel and inclosed each unit into one chamber below with galvanized iron from which the fan draws through a 24-inch galvanized pipe. The fans are placed close to the center of the heating chamber and blow directly against the pipe and stove, deflecting on either side. We left our intakes as they were, using the center as inlet for fan, and closed all our openings in front with brick and mortar, leaving only the opening around the stove, as this is necessary to keep the stove from burning out. I might say in passing that I doubt if the fans could be installed as successfully where a small heating chamber is used and short tunnels are operated. We close the traps in the ventilator more than one half.

How Long to Dry?

The question may be raised as to how many hours it takes to dry prunes. This sometimes is misleading. Seasons differ and we differ in our ideas of a perfectly dried prune. We could lower twenty hours if that was desired. In interest of quality, we dry on twenty to twenty-two hour time under our present equipment and could lower this so far as having heating capacity.

Before closing I wish to give Mr. Harry A. Broad due credit for assistance in planning the installation of my fans. While he stood out to the last for a seven foot fan, he cheerfully gave his time and ability to adopting a proper plan for installing. After we had the fans in working order, he came and carefully tested each intake, measured the volume of air taken through the fans and automatic intake and after a careful test all around, he turned to me and said, "You win." By this he meant that I got practically the same results with an investment of $720 instead of nearly $3000. The $720 given is without motor.

Our fans take no air except what is taken from the upper end of the tunnels and puts it back into the heating chamber at about 140 degrees. The little moisture is a benefit. The point I make is, why operate a fan large enough to take in all the air when natural gravity or draft will take care of that, and by a little experience you have a perfect balance?

Now I hope I have not imposed on your good will, but I could not tell a cmplete story of my experience with a prune dryer and cut cross lots.

GIDEON STOLZ.
Salem, Or., Feb. 17, 1923.

FARM REMINDERS FROM THE COLLEGE

It Is Time to Begin to Think About Spraying; Spray Calendar Ready.

(The following are notes from a current bulletin of the department of industrial journalism of the Oregon Agricultural college:)

Spray Calendar Now Ready

An orchard spray program for Oregon has been preparetd by A. L. Lovett, entomologist, and H. P. Barss, plant pathologist of the O.A.C. experiment station. The program gives the time and method for control of pests and diseases of apples, pear, peach, prune, cherry, plums and apricots.

A special feature of the bulletin is a section devoted to the arid and semi-arid regions east of the Cascade mountains. This bulletin, Extension Bulletin No. 356, may be obtained free of cost at the Clerical Exchange, room 1, commerce building, O.A.C., Corvallis.

Aphids Change Spray Time

The delayed dormant spray is applied too early for maximum efficiency in aphis control, as indicated by evidences accumulated during the last two seasons by the O.A.C. experiment station. The standard control for apple tree aphids has been the addition of nicotine at the rate of three-fourth of a pint to 100 gallons of the regular delayed dormant lime-sulphur application. The ideal time of application for maximum aphis control is apparently at the very early pink stage. Where aphis control is a most important factor it seems desirable therefore to delay the regular delayed dormant application somewhat or else to apply the pink spray somewhat earlier than normally, adding the nicotine to the pink application, making it the aphis spray, rather than the delayed dormant.

Spray Must Be Early

The pear and apple leaf blister mite is best controlled with the dormant application of lime-sulphur. Indifferent results in control are due principally to careless application. To be effective it must be put on before the leaf buds begin to open.

The true function of dramatic art is to hold before our eyes the mirror of humanity. For the author the world is the theater; for the spectator the theater is the world.

Salem ought to become the center of a great and profitable beekeeping industry.