

SUMMER'S DROUGHT CAN BE OVERCOME

Irrigation for Willamette Valley Urged by Government Investigator.

WATER SUPPLY ABUNDANT

Development of Smaller Farms, Expert Declares, Is Essential if Needs of Even Local Market Are to Be Supplied.

OREGONIAN NEWS BUREAU, Washington, Aug. 21.—Until the farmers of Western Oregon abandon the agricultural methods of the past generation and turn to intensive farming, with rotation of crops, until the 20 and 40-acre farm supersedes the ranch of ten times that size, and until modern methods of irrigation and cultivation are practiced generally throughout the Willamette, Rogue River and Umpqua valleys, Oregon will continue a victim of prevailing high prices, and her most promising agricultural region will fall as it has in the past, to meet even the demands of the local market. A change from old to new, with the general practice of irrigation, however, will double, if not treble, the output of these three valleys, and greatly relieve existing conditions.

This is the message conveyed in a report just issued by the United States Department of Agriculture, giving the result of three years' investigations of irrigation possibilities in Western Oregon, coupled with a study of the causes that contribute to the agricultural backwardness of the whole of Western Oregon.

Economic Problem Serious.

The report is written by A. P. Stover, who had charge of irrigation investigations in the Willamette Valley. The conditions that exist today, and are so forcefully worded as to command serious consideration. The concluding paragraphs read as follows:

"As the result of a widespread campaign of education and advertisement, Western Oregon is experiencing today one of the greatest eras of growth and development in its history. From all over the Union men are coming to this region to locate and invest their capital. Along commercial and industrial lines the development is very great. Indeed, along agricultural lines there is much investment and speculation, but on the whole, little real development is taking place outside of a few especially favored localities.

"This backwardness in the actual development of the agricultural industry constitutes one of the most serious economic problems confronting Western Oregon. This region is essentially and pre-eminently an agricultural one, and the chief supporting industry will always be agriculture, yet substantial development along this line is falling far behind the development along commercial and industrial lines, and as a result an abnormal condition is rapidly being created. The cities and towns are growing rapidly, their population is increasing, but the farming industry that is to support this growth of the cities and towns is making slow progress.

"Outside of the favored districts that are progressing, the general farming area is clinging to the same methods and securing the same results that obtained 25 and 30 years ago. In the heart of the large farming area, the large 200 and 400 acre farm is the rule, and the raising of grain crops that do not yield per centum return on the assessed valuation of the land is tenaciously adhered to.

Condition Is Abnormal.

"That conditions are abnormal is proved forcibly by the fact that although it is essentially an agricultural region, the farm products of Western Oregon, despite the high prices prevailing, fail absolutely to supply even the local demand. The valleys of Western Oregon each year actually import from Eastern states and from other outside sections, hundreds of thousands of dollars worth of ham, bacon, lard, butter, canned goods, eggs and even hay and grain—products that should be grown in such abundance as not only to meet the local demand, but to supply an extensive export trade that waits only to be developed. With such conditions existing, it can readily be seen that normal and substantial development can not take place until the agricultural industry receives an impetus that will enable it to keep pace with the development along other lines.

"The reasons for this state of affairs are not difficult to locate. One of the principal reasons for the prevailing condition is that the destructive cultural methods that have been followed for 50 years have so affected the producing power of the soils that they can no longer be farmed with profit in the old manner even though earnest and consistent effort be put forth by the farmer. The soils will not respond as they once did nor can they be made to produce as they should until radical changes in methods are adopted. Another reason is that prevailing farming practice is in a rut.

"The most important reason of all, however, why development should be so slow is that in this necessary change from the old one-crop method to the intensified and diversified method of constructive farming, adverse climatic conditions are encountered that affect most seriously the results that should be secured under the new order of things."

The report calls attention to the pecu-

lar climatic conditions of the Willamette Valley, with its heavy annual rainfall, but practical drought during the growing months of Summer, the season when all crops, but wheat require water. The valley, since it was first settled, has been devoted principally to wheat growing, for which the climate is admirably adapted, but the long continued growing of this one crop has brought the land into such condition that profitable crops of wheat are no longer produced.

Summer Irrigation One Remedy.

In favored localities, limited areas have in recent years been devoted to other crops, it is said, but practically nothing has been done with the vast area of grain land that each year is growing less productive. The seriousness of this situation was appreciated by the Portland Board of Trade, and at the instance of that organization the department has conducted investigations in the past three years to determine the feasibility of irrigation in the Willamette, Umpqua and Rogue River valleys, and to determine by experiment the value of irrigation in increasing yields, as well as ascertaining other information that will be of value in solving the problem that confronts the farmers generally through Western Oregon. Of the results of the investigations, the report says:

"The experiments made, though incomplete in many respects, have shown conclusively that great benefit is to be derived from Summer irrigation in the Willamette Valley; that through it crops may take advantage of the best growing months of the year, thereby giving not only a more assured return but a greatly increased yield.

"All crops experimented upon show a decided increase in yield, also improvement in quality when irrigated. In general, it seems safe to say that the intelligent application of water to crops will easily increase yields from 25 to 100 per cent. In other words, irrigation properly applied will double the output of farming operations. Water in abundance is available for the most extensive irrigation development.

"Irrigation will make possible the small diversified farm of 20 to 40 acres, on which a far better living will be made than is now possible on the average farm of ten times that size."

CIRCUS ARRIVES TODAY

PARADE STARTS FROM SHOW GROUNDS AT 9:15.

Barnum & Bailey Performers and Menagerie Will Appear Here Twice With 1200 Animals.

CIRCUS PARADE WILL START THIS MORNING AT 9:15 O'CLOCK.

Route of circus parade today: Starting from the show grounds, Ninth and Twenty-fifth streets, at 9:15 o'clock this morning, will move direct to Nineteenth street and Washington, and will then follow this route: Nineteenth to Morrison, Morrison to Third, Third to Burnside, Burnside to Sixth, Sixth to Oak, Oak to Fourth, Fourth to Washington, Washington to Nineteenth, and thence back to the grounds. The afternoon performance will commence at 2 o'clock sharp.

Today and tomorrow are circus days in Portland.

The first section of the circus train is expected by 1 o'clock this morning. It will bring the hotel and the kitchen outfit and the horses and men necessary to handle it to the grounds and get breakfast for 1200 men, women and children. A corps of 70 chefs, cooks, waiters and kitchen helpers come with this department.

The other four trains will arrive as soon after the first section as the regulations of the railroad will permit. The performers and the business staff live on the last train. By the time they arrive breakfast will be waiting on the "lot." Breakfast means about 5000 pan-cakes, 500 pounds of porkchops, 150 dozen eggs, 200 gallons of coffee, 100 pounds of butter, 100 gallons of milk, 25 bushels of potatoes and a few other items in like proportion.

The menagerie will come on the second train. In it are 1200 wild and semi-domestic animals, which also must be fed and watered. They will consume for tomorrow's breakfast 1200 pounds of meat and five tons of hay, to say nothing of a ton or so of vegetables. After the unloading of the mile-long train and the building of the city of tents the next event of interest will be the parade. It will be three miles long. It will leave the grounds at 9:15 o'clock. The afternoon performance will begin at 2 o'clock. The night show will begin at 8 o'clock. The doors will open an hour earlier to give people an opportunity of "bitting the bigger menagerie on earth."

The downtown ticket offices will be conducted in Sherman, Clay & Co.'s piano store. It will open early in the morning. Reserved seats and admissions can be bought there at the same prices charged on the show grounds. Those who wish to avoid the crowds will find the wintered method a great convenience. Much has been said of the fine European programme under the main tent. Jupiter, the balloon horse; Desperado, who leaps from the jaws of the tent and lands on his chest; and Charlie the Firm, the chimpanzee acrobat and bicycle rider, are among the features.

When the stomach fails to perform its functions, the bowels become deranged, the liver and the kidneys congested, causing numerous diseases. The stomach and liver must be restored to a healthy condition, and Chamberlain's Stomach and Liver Tablets can be depended upon to do it. Easy to take and most effective. Sold by all dealers.

NATURE DOES WORK

Raw Copper Tempered to Cutting Edge in Alaska.

AZTEC MYSTERY SOLVED?

Owner of Mine That Has Made Him Wealthy Has Practical Demonstration of Workings of Too Much Conservation.

Besides discovering a copper mine that has made him immensely wealthy, J. W. Range, of Seattle, who is staying at the Perkins Hotel, may have incidentally discovered the secret of hardening copper, an art that was lost with the passing of the Aztec Indians. Copper utensils and tools fashioned by the Aztecs have been a puzzle to science and a theory that the aborigines had a method of smelting and hardening copper is generally accepted by scientific authorities. The discovery of Mr. Range may upset these scientific theories, for he has found in the streams of frozen Alaska malleable copper nuggets that may be hammered and cut into all sorts of utensils, and fashioned into tools that may be sharpened to a keen edge. Nature did the smelting and tempering.

Mr. Range is president of the Dan Creek Gold & Copper Company, which has 23 claims within 15 miles of the famous Bonanza mine and the Guggenheim group of properties, covering a mile and three-quarters of Dan Creek. It was in the bed of the creek that the malleable copper nuggets were found. The nuggets range in size from a pea to 65 pounds, and are pure, refined copper.

Copper Scissors Will Cut.

An employe of the camp was temporarily disabled and, while passing the time away, hammered two small nuggets into plates, designed the blades of scissors on them and cut them out with a chisel. The blades were then sharpened with a file and riveted together with a piece of the malleable copper. The scissors have a keen edge and will cut wet tissue paper.

It is believed by Mr. Range that the Aztecs, instead of possessing the process of smelting and refining copper, found the metal ready for manufacture, like the nuggets along Dan Creek, and hammered out their utensils, implements and tools, just as the pair of scissors were hammered out in the Dan Creek camp.

In describing the process of nature in smelting the copper nuggets Mr. Range said: "Our ledges are capped with 3000 feet of lime rock. Lime rock is formed under the sea and is the flux for smelting copper. When the volcanic eruption took place, that brought the wealth of gold, copper and silver to the surface in Alaska so that it could be used by man, there was enough lime rock to flux the copper ore, and the highly refined nuggets were thrown up with the raw material. It is possible that water did the tempering of these nuggets, which may be hammered out and edged, but I don't know. Nature excels the handiwork of man when it comes to the tempering of metals. The nuggets contain a little gold and silver, and all that is necessary to market them is to send them to the refineries to take out these more precious metals. I presume that the refining process will take the natural temper out of the nuggets so that the copper will lose its edge."

Ultra-Conservation Is Bar.

While Mr. Range has discovered a property that relieves him from all care, so far as worldly possessions are concerned, and has probably solved the problem that has long puzzled science, he finds himself a victim of a conservation policy that he knows he is not a source of the system, but he says that it has greatly hampered the development of his and other mines.

He has just received a letter from Robert Guggenheim, telling him that the Guggenheim railroad, from Cordova to the Bonanza mine, will be in operation September 1, and that the road will be ready to accept shipments on that date. The Guggenheims have already announced that they will ship their ore to Tacoma for smelting, and Mr. Range will do likewise.

"The conservation policy hinders us this much," said Mr. Range. "We are compelled to ship ore by rail and water to smelters in the United States, because the coal in Alaska is tied up by the Government. Coal is all around us but it cannot be used. It was the intention of the Guggenheims to build a smelter near the mines, so that the copper in that vicinity could be smelted before shipment. Under the present system we must ship the ore a long distance and pay freight rates on the surplus rock the same as on the metal. It means that we must pay at least a double freight rate to get our metal to the United States.

"Of course, there is great wealth in the nuggets along the streams, which have been found in sufficient quantities to warrant smelting, but the great body of wealth lies in the immense copper ledges that crop from the mountain sides. Until the coal lands are unlocked and smelters are built in Alaska, these great bodies of ore must be untouched, or mined and shipped to this country in its raw state at double cost to the miner and ultimately to the consumer."

TRIBUTE PAID WILLIAMS

Circuit Court Issues Booklet About Oregon's "Grand Old Man."

As a tribute to the memory of the late George H. Williams, "Oregon's Grand Old Man," the Circuit Court of Multnomah County has issued a little booklet, compiled of eulogies on his life and character, which were read by members of the Oregon Bar, at a meeting of the Circuit Court last April, called for the purpose of passing resolutions on the death of the venerable old gentleman.

MANY STUDY ESPERANTO

Y. M. C. A. Class Makes Much Progress in Learning New Tongue.

With the National Esperanto con-

Fair Warning—

Don't expect to buy these fine Pianos for the same money when this sale closes

This \$475 Style for \$332

This \$375 Style for \$286

This \$400 Style for \$304

This \$450 Style for \$318

Think of selling four carloads of pianos in ten days—besides lots of Chickering and Kimbals and Autopianos, etc.—yet that is the selling record established by Bilers Music House during the last ten days.

Only a few of the entire four carloads of the pianos purchased of a bankrupt Eastern dealer's stock are now left, and any one wanting one of these must act quickly.

Of course there must have been quite a special inducement to produce such remarkable buying—and there is yet!

It is indeed a rare occurrence when you can buy the equal of these four carloads of pianos at such immense savings as we offer them for.

A clear saving of from \$89 to \$143 is obtained on these four pianos. And this is an actual saving, mind you, and not one fictitiously based on "list prices," but \$89 to \$143 below the lowest net retail prices you can buy these same celebrated pianos for anywhere in the United States.

A handsome \$375 style can now be had for \$286, saving you \$89; a regular \$400 style can be bought for \$304, saving you \$96; a superb \$450 instrument is now priced at \$318, saving you \$132, and a magnificent \$475 piano is now \$332, saving you exactly \$143.

And these are every one guaranteed pianos, warranted fully by the makers as well as by Bilers. So great is the cut on these reliable piano prices that the manufacturers have requested us to withhold advertising their names, so as not to demoralize future sales at regular prices.

The cases on these instruments are of the very latest designs, being made of figured mahogany, mottled walnut and burl oak. Some are richly carved, and others have plain style cases.

This is one of the greatest values ever given by the House of Bilers, and any music-lover who desires a thoroughly reliable instrument, with all the latest improvements, will make no mistake in selecting one of these beautiful instruments—besides, you save enough on the transaction to pay for an extended trip or vacation.

You will admit when you see these fine pianos that you never saw their equal in value. Come and see them. Hear their magnificent tone. Note their fine action and rich cases. Read the binding guarantee we give with each instrument. Compare them with the best that other dealers can offer at \$400 to \$500, and you will then find that we offer a far superior instrument for \$143 less. Isn't that WORTH saving?

But remember, we can't possibly duplicate these instruments at these prices after the few we have on hand are sold. Therefore, you had better hurry if you want one. Under no conditions will this sale continue after Saturday, and it probably won't even last that long, at the present rate of sales.

LARGEST, OLDEST AND MOST RESPONSIBLE

Bilers Music House

351, 353, 355 Washington Street.

East Side Store, 84 Grand Ave. Wholesale, 15th and Pettygrove Sts. OREGON'S HOME PIANO CONCERN



CHILDREN AWAITING THE ELEPHANTS IN THE BARNUM & BAILEY STREET PARADE.

vention coming to Portland next year, considerable interest in the "universal language" is being taken in this city. Among other organizations that are paying more or less attention to Esperanto is the Young Men's Christian Association which has maintained an Esperanto Club for the past year. The Esperanto Club, while under the auspices of the educational department of the Y. M. C. A., is not one of its regular classes. It was organized by local people who had become interested in the language and desired a place to meet and study. The club meets every Wednesday night, even in Summer, there are no charges connected with it and the club is open to all persons, whether members of the association or not.

During the past year the club has translated many letters received by the Portland Commercial Club which has been advertising in Esperanto journals. These letters have been turned over to the Y. M. C. A. by W. L. Crissey, secretary to Publicity Manager Chapman, of the Commercial Club. Replies have been sent, also in Esperanto, and it is expected that this correspondence will result in bringing a number of people to Oregon.

"While we have not taken Esperanto up as a part of our course," said Educational Director French yesterday, "we are interested in it and encourage the club that is meeting here. Since Portland was decided on as the convention city of the Esperantists, we have had many inquiries about the club. The membership will probably increase considerably during the next few months."

Work or play requires relaxation and the soft mellow taste of Fatima Cigarettes meets the requirement perfectly.

The flavor of the skillfully blended tobaccos affords a sense of comfort and content.

An inexpensive package makes possible ten additional cigarettes.

Pictures of popular actresses now packed with Fatima Cigarettes.

FATIMA TURKISH BLEND CIGARETTES

20 for 15 cents

THE AMERICAN TOBACCO COMPANY