

It is reported that at last a machine has been made which saves all the gold in the black sand mines of the ocean beach. It is the invention of Abe Rose, who is working it at his mine at Randolph, and consists of a set of sluices containing peculiar devices on the bottom for separating the sand and gold. The machines can be cheaply constructed, and if they succeed everywhere as well as at Randolph, will come into general use.

Latest advices from the East are to the effect that the New York hop crop is practically ruined by lice and honey dew. The importance of this fact can only be realized by one who knows that New York produces four-fifths of the entire crop of the United States. If, then, there is to be less than half as many hops put on the market from this country as last year, the price, which is now but from five to seven cents per pound, must advance materially, much to the advantage of growers in Oregon, Washington and California, where a good average yield is expected.

The Oregon Pacific Railroad and Oregon Development Company have issued a circular stating the arrangements made for accommodating members of the G. A. R. who desire to attend the grand re-union in San Francisco. Fare from Corvallis or Yaquina to San Francisco and return will be \$16.00, and if more than one hundred and twenty-five go, a rebate of \$2.00 on each full ticket will be given. This offers a splendid opportunity for members of the order in Western Oregon to attend conveniently and cheaply. These rates can be obtained at the company's office in Corvallis, on presentation of proper certificate from the post commander. It is desirable that names be placed on file as early as possible to avoid inconvenience at the last moment.

The tenth annual catalogue of the Oregon State University, located at Eugene City, has been received. It is a neatly printed pamphlet of sixty-two pages, issued from the office of the Eugene City *Register*, and contains a list of officers, faculty, students and graduates, with calendar, course of instruction, and all information in regard to government of the institution and its relation to the state. Special attention is called to the statute giving each county one free scholarship in the collegiate department, and one additional for each member of the legislature. Persons desiring more information about free scholarships should apply to their county superintendent of schools. Catalogues may be had by addressing the secretary of the faculty, at Eugene City, Oregon.

At a meeting of the Fruit and Vegetable Growers' Association of the United States, recently held at Columbus, Ohio, Ezra Arnold, of Illinois, presented specifications and drawings of a cheap evaporator made by himself, which he claimed to have used with better success than the more elaborate and expensive ones. It is very simple and can be made by any one at a trifling

cost. Mr. Arnold presented to the association his title to the evaporator on condition that it would appropriate a sufficient sum to cover the expense of procuring illustrated descriptions and directions for making and using them. It was his idea that thousands of people would avail themselves of this opportunity to dry fruit who ordinarily could not afford to do so. Any one desiring one of these illustrated circulars should address W. Orlando Smith, secretary of the association, box one hundred and four, Alliance, Ohio, and enclose stamp for return postage.

Work is progressing rapidly on the Montana Central, and will soon be completed and rails laid if arrangements for shipping them can be made. The Montana Northern, from Great Falls to Assinaboine, on the international boundary, has surveying parties at work from both ends of the line. The Canadian Pacific will soon begin work on a line running south from Maple Creek to connect with Assinaboine, and before the end of the year the entire route from Helena, by way of Great Falls and Fort Benton, to the Canadian Pacific at Maple Creek will be under contract and partially constructed. This is an invasion of Montana by the Manitoba system which the Northern Pacific will probably counteract by running a branch to Fort Benton, from either Helena, Livingston or Billings. A company has been organized to parallel the Montana Central's line from Helena to Red Mountain, and it is asserted that the same will be done with the line to Benton. The Manitoba line is being pushed westward from Devil's lake at a rapid rate to meet the Montana Northern, and the appearances indicate that in another year Helena will have two more Eastern outlets, one by the Canadian Pacific and one by the Manitoba.

NEW BALLOON.

A new dirigible balloon, of colossal dimensions, is now in course of construction in Berlin. The inventor, Herr Gaswindt, hopes to overcome the grand difficulty in aeronautics—the attainment of a speed greater than the average velocity of the wind—by the enormous size of the balloon. A series of meteorological observations extending over several years, has shown that near the surface of the earth the velocity of the wind in the temperate zone rarely exceeds twelve meters per second, and Herr Gaswindt expects to attain a speed of not less than fourteen to fifteen meters. A sum of two hundred thousand marks, it is said, has already been offered for the patent. The balloon is one hundred and fifty meters in length and fifteen meters in diameter, with a capacity of eighteen thousand cubic meters, about ten times as great as that of the Renard and Krebs balloon. The total weight is about forty-three thousand pounds, the envelope and netting alone representing ten thousand pounds. The propelling machinery consists of two steam engines of fifty horsepower each. The cost is estimated at one hundred thousand marks (\$50,000).