

# Farming by Electricity an Accomplished Fact

The California-Oregon Power company supplies electric service in Josephine, Jackson and Klamath counties in Oregon and Siskiyou, Shasta and Modoc counties in California, supplying electricity to all the towns from Grants Pass, Oregon on the north to Dunsmuir, California on the south and also supplies electricity to Klamath Falls and other towns adjoining.

Electric service is supplied by five power plants:

Prospect plant, Prospect, Oregon, supplying 7000 horse power; Gold Ray plant, Gold Ray, Oregon, supplying 3000 horse power; Klamath plant, Klamath Falls, Oregon, supplying 800 horse power; Fall Creek plant, Fall Creek, Cal., supplying 4000 horse power; Shasta River plant, Shasta River, Cal., supplying 600 horse power. Five plants supplying a total of 15,400 horse power.

The company is now building a new plant on the Klamath river, 13 miles from Thrall, Cal., which will have an ultimate capacity of 50,000 horse power. A dam is being built in a rock gorge of the Klamath river that will be 130 feet high, 90 feet thick at the base and will contain 150,000 tons of concrete and steel.

This dam will form a storage reservoir or lake of 1000 acres and although the river has a flow at this point of 80,000 miners inches, it will take the storage reservoir above the dam 20 days to fill when the water is turned in.

In order to divert the flow of the water to build this dam, it was necessary to excavate a tunnel in the solid rock 16 by 18 feet and 360 feet long to carry the entire flow of the river around the foundations of the dam.

The foundations for dam and power house are in and carried well above the high water mark, and the completion of the dam is merely a matter of handling a large amount of concrete. The rock crushers and concrete mixers are all on a side hill and all material is handled by gravity until deposited in the dam.

Two water wheels and generators of 12,500 horse power each are now on the ground and the company expects to be supplying power from this plant before September, 1914.

The company owns its own railroad thirteen miles long connecting with the main line of the Southern Pacific at Thrall, Cal., and up-to-date has hauled to the new power project fifty carloads of cement and sixty carloads of machinery.

Extensive improvements and additions are also contemplated by the company at its Prospect plant at Prospect, Oregon in the near future.

**Modern Lights**  
Electric service from a luxury has become a necessity.

Lighting with the modern high efficiency Tungsten or Mazda lamp is a vast improvement over that in use a few years ago. Not only does the lamp give a whiter light, but the current consumption has decreased and the price of electricity been reduced so that it is possible to get four times as much actual light for one dollar as it was ten years ago.

**Electric Cooking.**  
Electric cooking is no longer an experiment but an assured fact. Over 200 families in the Rogue River Val-



Diversion Point on Upper Rogue river at Prospect

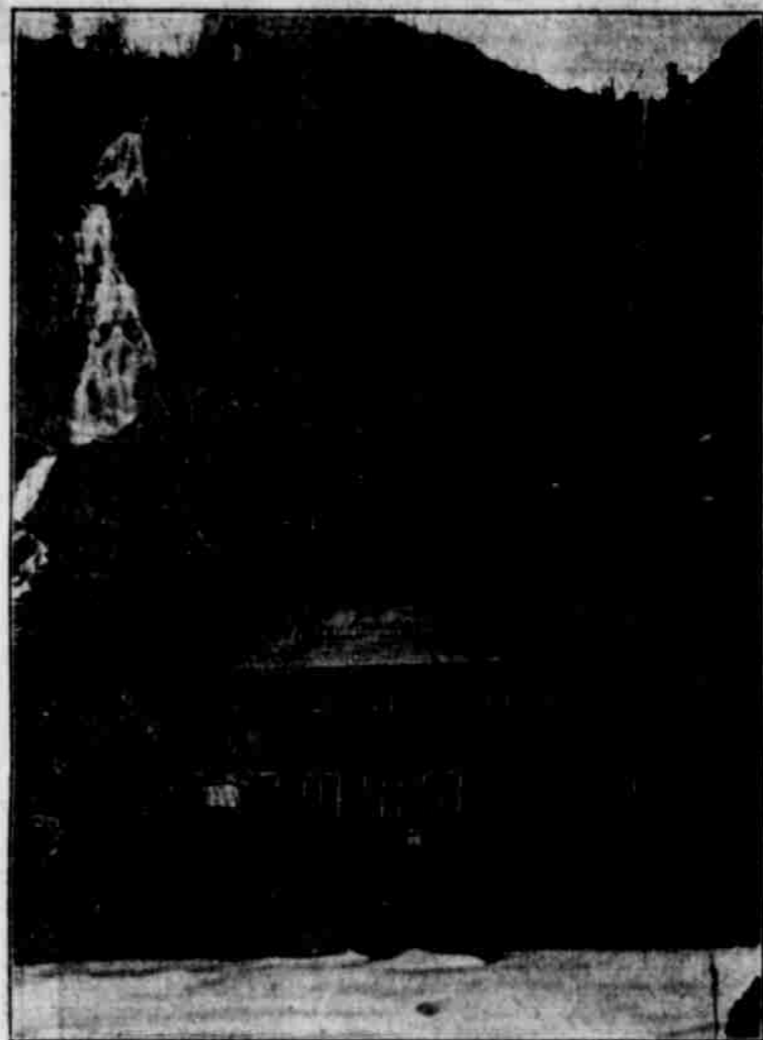
ley are doing all their cooking by electricity and many more families make a partial use of electric cooking devices. There are automatic electric cookers now on the market that can be left for hours without attention, with no danger of burning the food.

Electric cooking is not confined to household use, as there are three large restaurants and one hotel in Southern Oregon who do all of their cooking by electricity.

**Electric Heating.**  
Electric heating is the latest application of the electric current and great improvements have been made in electric heating appliances in the last few years. Its great advantage is the entire absence of any smoke or odor and it is especially applicable to rooms difficult of ventilation. Not only are air heaters supplied but heating units are made that can be connected directly to the pipes or furnace of an ordinary hot water heating system and used to heat an entire building. Several such installations are in successful use on the system of this company.

The principal objection to the use of electric heating in the past has been the large amount of current required. To heat a room 20 feet square, for example, requires the same current that it would take to operate a five horsepower motor or to light 200 sixteen power lamps.

On account of having a market for a large amount of electric power that is used for electric pumping in the summer, the California-Oregon Power company has made a rate for electric current to be used for heating in the winter only that has enabled a number of its customers to install electric heating systems, there being several complete business buildings and a number of residences heated entirely with electric heat, besides a number of installations where office rooms, ticket selling



Power House at Prospect, Showing Five Hundred Foot Vertical Drop

booths, bath rooms in residences and similar rooms are heated with electric heat.

**Electric Water Heating.**  
One of the greatest of household conveniences is an always ready supply of heat. Electric water heaters can be connected in series with the water pipes to heat the ordinary range or kitchen boiler and a special advantage is claimed for it that the water is always hot in the morning

at a time when other heating appliances have not been started.

A number of barber shops and five large hotels heat all the water for baths and lavatories with electric water heaters.

**Electric Labor Saving Devices for the Household.**  
Few people realize the number of electric labor saving devices that have found a place in the household and especially in the Western country, where competent household help is almost unobtainable except at a fabulous price, and the housewife welcomes every appliance which will make her labors lighter.

The electric iron has become a household necessity and 90 per cent of the families using electric light also use an electric iron.

The electric vacuum cleaner has revolutionized the methods of keeping the house clean and those of us who remember the old process of cleaning rugs and carpets by hanging them over a clothes line in the back yard and beating them with a bed slat, marvel at the fact that the vacuum cleaner was not thought of long ago.

The latest improved vacuum cleaner averaging less than seven pounds and sold at a price within the reach of nearly every family, draws the dust from the rugs in place on the floor, cleans thoroughly curtains, mattresses and floors, has a suction powerful enough to pick up matches and other small articles, and best of all the room requires no dusting after its use.

Other labor saving devices are electric washing machines for families who do their own laundry, electric buffing motors for polishing silverware and small electric motors for running churns, ice cream freezers, etc.

Electric cooking and heating devices save the labor of handling fuel and cleaning up the resultant dirt and ashes. There are also many electric devices for personal use such as electric curling iron heaters, hair dryers and massage vibrators.

The California-Oregon Power com-



Gold Ray Dam and Power House

through long lines of pipe to any height desired.

The California-Oregon Power company has one pumping plant at Gold Ray with a 12-inch pump, having a capacity of 2,500 gallons a minute that delivers water through about six miles of pipe line to an elevation of 200 feet above the pumping plant and capable of pumping water enough for 3,000 acres of land. On the company's lines in California are several large pumping plants, pumping water from 100 to 200 feet high and some of the plants capable of pumping water for 10,000 acres of land.

**Miscellaneous Uses of Electric Power.**

Electric motors are being used for innumerable power purposes, including the operation of quartz mills, quarries and brick yards, planing mills, box factories and ice plants, and the time is not far distant when a large quantity of electric power will be needed for interurban roads in this territory.

The California-Oregon Power company during the season of 1913 has built over twenty miles of distributing lines along the county roads of the Rogue River Valley, supplying electric current to ranches, orchards and country homes, the owners of which are quick to realize that electric current is no longer a luxury, but a necessity, and that as labor is uncertain and high priced, every labor saving device in the home and on the ranch instead of being an expense is a true economy.

The line extensions built by the company in the Rogue River Valley in 1913 cost over \$30,000. In addition about \$20,000 have been spent in improving the switching system controlling the transmission lines and in case of a defect in the line at any point the defective section can be a once cut out and service supplied from the plants nearest the break until the damaged portion of the line can be repaired.

The switches now being installed by this company are the outdoor type mounted on steel towers, this type having been found to be the best for controlling the current used in long distance transmission.

In 1914 the company expects to complete its large plant on the Klamath river so as to have it in operation before fall and also contemplates a number of pole line extensions in the ranch and orchard districts, a special effort being made to run service lines wherever there is a prospect of electric pumping for irrigation.



Flume Carrying Water to Drop

One enterprising poultry raiser brought three hatchings of 1,500 chickens each to maturity in electrically heated brooders with entire success and practically no loss of young chicks.

The electric motor is the rancher's best assistant. It will saw wood, grind feed, pump water, run a churn or cream separator, a grindstone or forge blower and is always ready for use twenty-four hours per day.

One of the most important uses of the electric motor on the ranch or orchard is for pumping water for irrigation.

Gravity ditches are often expensive to build and keep up and in many cases it is impossible to obtain a supply of water by gravity; but the electric pump can be installed wherever there is a well, spring or small stream, is easy to install and economical to operate and requires practically no attention except to open and close the switch operating the motors.

In the Rogue River Valley about 200 small pumping outfits have been installed, ranging in size from small outfits, pumping from a well for household use, to larger outfits capable of irrigating twenty to forty acres of orchard. The irrigation problem of the foothills will probably be solved by means of the electric pump; as, given a water supply, the electric pump will deliver water



Prospect Power Pole Line

pany now has ninety-one miles of distributing lines for supplying the ranch and orchard district of Southern Oregon. Electricity is used for milking cows, heating incubators and brooding young chickens when hatched.

There is one firm in the valley doing a good business manufacturing electric incubators for sale.

## Interurban Trolley Line Being Built in Medford



Construction crew at work on East Main street on Southern Oregon Traction Company line, franchise for which was granted Spencer S. Bulls of Olean, N. Y., last May. Line will be in operation in March and will eventually be extended throughout the valley.

## Southern Pacific \$50,000 Depot in Medford

