



At an average depth of fifty feet, in Madera county, California, an abundance of water is obtained. Electrical energy has solved the cost of pumping problems

## Madera, Transformed by Water and Electricity

By C. E. FISHER

ONE mile west of Madera, county-seat of Madera county, lives G. S. Hawley. Mr. Hawley is busy raising peaches, Plymouth Rock chickens and a family of four or five sturdy youngsters. His farm is a model twenty-acre California ranch. It is just the kind that one half the people of the United States, who are hungering for a small farm in California, would desire. It is on a good road; the mail man drives in front of the house; it is close to the market; close to a school; and from it Mr. Hawley makes not only his living but more money than the average bank cashier earns.

Mr. Hawley likes chickens and he raises fancy Plymouth Rock cocks and pullets that take blue ribbons in the poultry show. He likes to raise figs because he likes to eat figs. He likes to raise fruit and his hobby is perfect fruit. He has between eleven and twelve acres in orchard. He favors peaches, therefore the majority of his trees are peach trees, but he also has 135 apricot trees, six almond trees, six prune trees and sixty fig trees; he has two acres in alfalfa and a small acreage in berries. His irrigation system is thorough and complete. Last season from one acre of barley hay Mr. Hawley sold ninety-five dollars' worth of hay and followed the crop with fifteen hundred pounds of corn. He obtained seventy-five dollars from berries, almost a thousand dollars from peaches, half that much from apricots, somewhere near twenty dollars from almonds, a like amount from prunes and figs and one hundred and fifty dollars from alfalfa hay. Counting these and the income from butter and eggs,

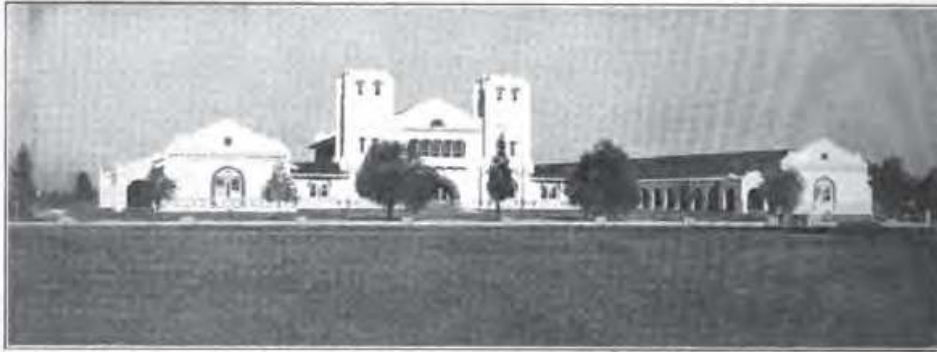
of which no particular account was kept, the total income from the twenty acres was in the neighborhood of two thousand dollars. He raised all the feed for his horses, chickens and cows; his family table was supplied with all the necessities which come from the farm and orchard, and his cash income was almost "velvet."

Now Mr. Hawley has brought this place from raw land, worth perhaps one hundred dollars an acre, to a high state of cultivation by his own labor and perseverance. Today it is one of the best orchards in the vicinity. How much is it worth? Orchards in not nearly so good condition are selling readily around five hundred dollars an acre.

This story is worth while because it shows what any man can do in Madera county.

Three years ago the United States Department of Agriculture made a soil survey of the valley portion of Madera county. On page 12 of the report submitted to the Secretary of Agriculture appears this statement:

"A study of the agricultural development of this area shows that it is far behind practically every other section in the San Joaquin valley, *although as far as fertile soils is concerned no such difference exists.* The lack of progress in Madera county is due primarily to one factor—the inability to secure an adequate supply of irrigation water, which is necessary for the highest development of these lands. Other contributing causes, although essentially minor ones, are the large individual holdings of land, a lack of knowledge of the efficiency of pumping



Madera county has modern schools. This splendid grammar-school building is one of California's finest

plants for irrigation purposes, and the high cost of reservoirs for the storage of flood waters of the various streams."

It is unfortunate for Madera county that this statement stands undisputed by supplementary documents from the same source. Within three years the large individual holdings of land have been ripped wide open and settlers have been pouring in, to change the grain fields and hay fields into orchards and vineyards. The second largest power company in the state is carrying electrical energy to every farm in Madera county and at a rate so reasonable that every farmer is taking advantage of it.

The rich soil deposited here centuries ago is the same that has made famous other counties in the San Joaquin valley. The subterranean water supply is the same that has percolated through the earth's strata from the great snow banks of the Sierras for the centuries since the great range was formed; and the present day development, strange as it may seem, is due to the harnessing of the waste water in the mountains and to sending it through copper strands to pump from beneath the sands the seepage from the same snow banks. Thus have men discovered and made use of Nature's secret. Should she deny stream flow or rainfall, somewhere within the reach of man she stores the life-giving water. Strong flowing wells are found at an average depth of three hundred feet. Some have been flowing for fifty years, at the rate of a million gallons per day.

But flowing wells are not depended upon by the Madera settler. At an average depth of fifty feet he finds all the water he wants. Some wells are but twenty-five feet deep, some are seventy-five feet. For five hundred dollars a settler can have a well drilled, build a reservoir, install a motor and complete equipment. Electrical power may be obtained at the rate of fifty dollars per horse-power per year and the operating company doesn't give a rap whether the rancher keeps the motor humming night and day during the three hundred and sixty-five days. A three horse-power motor is of sufficient capacity to drive a pump which will irrigate successfully from twenty to forty acres, which means that any farmer can insure his water supply for a whole year for the small sum of one hundred and fifty dollars. How many an Eastern or a Middle-western farmer would gladly go to his banker or in-

surance broker and lay down one hundred and fifty dollars to insure a crop when a drought portends!

Madera is a youngster in the family of California counties. Originally it was a part of Fresno, which joins it on the south, and as recently as 1893 was separated from the mother county and turned loose to make its way among other California state units. It is the heart of the valley and the heart of California, an irregular quadrilateral, ninety-eight miles wide at its extreme width from east to west, and more than twenty-eight miles long at its extreme length from north to south. It has an area of 2,140 square miles, one-third of which is valued chiefly for its scenery and mineral deposits. Another third is foot-hill land, tried and proved, and destined eventually to become a favored fruit section. The remaining third is on the floor of the valley, a vast stretch of level land rapidly assuming the appearance of a well-kept garden. Here, where formerly leagues of golden grain waved in the summer breezes, will soon be growing orchards of peaches, apricots, plums and prunes, vast fields of knee-deep alfalfa and great vineyards of wine and table grapes.

More than 120,000 acres of the large holdings have been subdivided into small tracts within the last year. Two of these tracts were thrown open to settlement in the fall months of 1912. Within six months from their opening 1,500 settlers had moved in to aid in the transformation from grain land to orchard. Everywhere is heard the hum of the electric motor or the staccato exhaust of the gasoline engine. Everywhere is heard the musical tattoo of the hammer and the rasp of the saw.

Madera, the county-seat, is a thriving city of 3,000, grown from a village within the past few years. Here are located large lumber and manufacturing concerns.

Land values in Madera county are still low. They are much lower than in many other localities of similar richness and similar opportunities. With the continued present influx of settlers, land values may be expected to steadily rise. The assessor's figures in 1907 and 1908 show that 240,000 acres planted to grain crops in Madera county gave a return of \$900,000. How much will the assessor's figures of 1913 show, when so great an area of this same land is now producing a wealth of fruits, alfalfa and dairy products! The comparison will be most interesting.

Source: "Madera, Transformed by Water and Electricity" by C. E. Fisher in Sunset Magazine August 1913 (vol. 31, no.2), pp. 386-388.