IRRIGATION

Irrigation multiplies the value of the land by affording to the farmer actual control of the moisture supply. Irrigated farming is vastly superior to dependence upon rainfall; where the water supply is ample there can be no such thing as drought. The farmer of irrigated land learns the reuirements of his soil and applies the water at the times and in the quantities best suited to his crops.

Irrigated farming is real farming. It is the application of exact science to the greatest occupation of man. It eliminates chance insures regular crops and maximum yields.

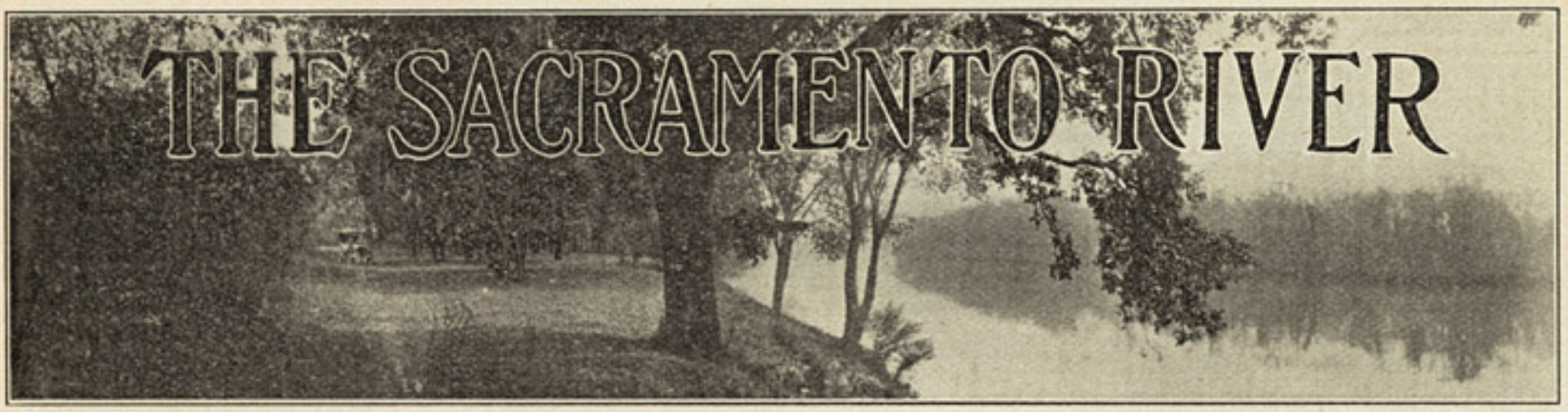
In the Sacramento Valley, where the summers are practically rainless, irrigation gives to the farmer complete control of his growing and harvesting periods. An almost continuous growing season enables him to secure the maximum of production by repeated planting and harvesting. There are nine months of active growing weather, and as high as three crops are secured in a single season by the best gardeners, which means that the best lands here are worth at least three times as much as similar lands where a short growing season limits production to a single crop. Potatoes are planted here in January or February, and dug in April. Sweet corn, beans and other quick maturing crops afford a rapid rotation. Thousands of acres are planted to beans after a harvest of barley is taken off in June. Alfalfa affords the best example of the value of the long season, as it grows almost continuously, making a growth so rapid in the summer months that the new crop often encroaches on the old.

IRRIGATION on a large scale requires the construction of great engineering works for the diversion and distribution of the water to the land. The building of such works on a comprehensive scale has only recently begun in this valley. The present irrigated area probably does not exceed 75,000 acres, but irrigation systems have been built and are now being built to supply several hundred thousand acres. The largest of these are the Butte County Canal, in Butte and Sutter Counties, built to irrigate 80,000 acres; the Central Canal, in Glenn and Colusa Counties, designed to irrigate 156,000 acres, and probably capable of irrigating a total of 200,000 acres; the Yolo Consolidated Canal, in Yolo County, which is intended to irrigate, ultimately, more than 100,000 acres; the Orland Unit Project, now being built by the United States Reclamation Service at Orland, Glenn County, for the irrigation of 14,000 acres. Other projects recently built are the Los Molinos system in Tehama County, the Rich Field ditch at Corning, and a small system at Colusa. Other irrigation systems are the Palermo, Oroville and Forbestown ditch systems in Butte County, the South Yuba system in Placer County, the El Dorado system in El Dorado County, the Orangevale and Fair Oaks system in Sacramento County, the Browns Valley system in Yuba County.

CONSIDERABLE areas are irrigated by pumping from wells and from living streams. Pumping has long been practiced along the Feather and Sacramento Rivers, but irrigation with water pumped from wells is comparatively new, although rapidly growing in favor. Pumping from wells is practiced extensively at Willows, in Glenn County, at Dixon, in Solano County, and at other points. Water is available at a depth of from twenty to thirty feet in most parts of the valley.

Hydro-electric power is used principally. Great transmission lines, carrying power of mountain streams, are built through and across the Sacramento Valley, affording cheap power to drive pumps. This is the ideal power for the farmers use, requiring practically no attention. He merely turns the button to start the pumps.

Irrigation development on a large scale being begun, there is every reason to anticipate a very rapid extension of the irrigated area. The four great systems above mentioned, which are now under construction and partly in operation, are designed to irrigate ultimately more than 500,000 acres. The Butte County Canal, with a present capacity of 80,000 acres ,has 200,000 acres of land available. The Yolo Consolidated has the advantage of a great storage reservoir site capable of impounding, according to reports of United States Geological Survey engineers ,no less than



200,000 acre feet of water. The Central Canal, together with 100,000 acres of land lying under it, has recently been purchased by a Pittsburg syndicate, the avowed purpose being to build the works and colonize the land. The Orland Project is progressing toward completion and will be finished before the irrigating season of 1911.

In addition to these are several other large projects in various stages of development. A new canal to be known as the Feather River Canal is under construction at Oroville, designed to take water from the Feather and distribute it over 50,000 acres of valley land near that point. An irrigation company, composed of men representing large capital, has recently filed papers preparatory to the development of an irrigation project in Yolo and Solano Counties, to utilize storage reservoirs on Putah Creek.

THE United States Reclamation Service is making surveys for a great project involving the diversion of the Sacramento River at Iron Canyon, above Red Bluff, and the irrigation of the entire upper valley on both sides of the river. This is contemplated as a second unit of a great Sacramento Valley project, the Orland Unit being the first. Application for the construction of this Iron Canyon project was made to the Department of the Interior several months ago by the owners of approximately 100,000 acres of land. Secretary Garfield, in his acknowledgment of this application, declared this project to be of national importance and that the intention of the Department was to proceed with it and other units as funds become available.

Engineers of the Reclamation Service proposed some years ago a great plan for the construction in units of a system of works designed to irrigate the dry lands, reclaim the swamp lands of this whole valley. The plan involves the building of great storage reservoirs for the double purpose of controlling floods and impounding surplus waters for summer irrigation. The favorable attention of the engineers was attracted by the large area of lands available, the especial advantages of climate and the splendid natural facilities for the construction of such a series of projects. Extensive surveys were begun several years ago and are still in progress.

This proposed great project, which is actually begun at Orland, is of National importance, because it involves the application of a new principle in dealing with river systems, that suggested by President Roosevelt two years ago when he appointed the Inland Waterways Commission, the principle of co-ordinate development of all the uses of water, the full control of the running stream for the benefit of man.

The Sacramento River and its tributaries comprise a great system of waterways, the control and use of which will add billions to the wealth of this State. The co-ordinate development of irrigation and drainage will irrigate two million acres now dry and reclaim 400,000 acres of swamps, and probably prevent the floods which occasionally inundate cultivated lands lying near the edges of the low basins.

Reclamation of swamp lands is also being carried on along comprehensive lines in this valley. Forty thousand acres are being reclaimed this year in Yolo, Yuba and Solano Counties, and a tract of sixty thousand acres lying east of the river just above Sacramento has been purchased for reclamation, bonds floated and the work will begin shortly. Other great projects are being promoted, one of these being designed to effect the reclamation of practically the whole Sutter Basin, comprising 100,000 acres. These swamp lands are worth about $25 an acre. Reclaimed they pay interest on several hundred dollars an acre.

The Sacramento River is a valuable asset of the irrigated farm, not alone as the source of water supply, but as the great natural highway for the shipment of products. It is navigable to Red Bluff, near the head of the valley, while the Feather is navigable to Marysville. There are four lines of passenger steamers on the lower river, two of these running between Sacramento and San Francisco.