

# DESCHUTES KNOWN AS RIVER OF GOLD

## Irrigation Work Planned Will Reclaim 400,000 Acres and Many Other Projects Are in Prospect

It is related that when the Hyksos, or shepherd kings who reigned in the Israelites into the land of Egypt first beheld the mysterious overflow of the Nile they lifted their hands in admiration, hailed the mighty flood as the "River of Gold," set about to develop one of the first of known irrigation enterprises and made Egypt the "granary of the world."

So, too, the men who first realized the possibilities in Central Oregon of the applied waters of the Deschutes River have termed the stream the "River of Gold," and have begun the development of a new and wonderful empire. The Deschutes, too, has been classed by the United States Irrigation Commission as "the best river for irrigation in the world," and by the Oregon Conservation Commission as "a marvel and a scientific wonder."

Surveyed, proposed and under actual construction and operation are irrigation projects in the heart of Oregon, deriving their water from the Deschutes or its tributaries, which will reclaim more than 400,000 acres. How many more thousands of acres the genius and enterprise in days to come may make productive it is impossible to forecast. The great bulk of these lands will owe allegiance to the Deschutes alone which gains much of its fame from the uniformity of its flow and the purity of its waters.

At the principal points of intake for irrigation ditches now in Central Oregon the stream is known as a river that never changes. The elements that during dry seasons drive other streams below their beds and at other times drive their waters over the banks have no effect upon the Deschutes. Its flow of water of melted snow from the Cascade Range is constant in summer and in winter except in the lower reaches of the river canyon where irrigation is not an element possible of consideration.

In almost the geographical center of Oregon is a tract of land 30 miles square that is now growing into a prosperous community under the impetus of applied irrigation. At the extreme southern end of this tract lies the town of Bend—Farewell Bend as it was known to the traders of early days, when it was no more than a post where supplies could be purchased by trappers and stockmen. A few miles south of Bend, the Deschutes, after flowing peacefully for 35 miles through meadows forming a ribbon of pasture and wild hay lands through a boundless forest, plunges down Benham Falls and begins its tumultuous course between narrow walls that gradually deepen to 2000 feet. To the east and west lie sloping table lands of varied width and of length approximately 50 miles that are capable of irrigation.

On the east side of the river, extending from Benham Falls northward 20 miles to where the Crooked River comes in from the east, cutting a gash through the table lands from 300 to 1000 feet deep before joining the Deschutes, the Deschutes Irrigation & Power Company has made three segregations of lands under the Carey act aggregating approximately 215,000 acres, and of which 150,000 acres are tillable and feasible of irrigation. Four years ago from Bend northward to the Crooked River there was not a foot of plowed land. Two years ago the Bend country got its vegetables and most of its other edible supplies from the Willamette Valley. Potatoes freighted 95 miles from Shaniko, the nearest railway point, cost \$4 a sack and other foods in proportion.

Today in the same district there are 85,000 acres under water supplied by 250 miles of canals on which has been expended \$1,000,000. On these lands the farmers are producing up to 200 bushels of potatoes to the acre, three tons of alfalfa to the acre, 15 tons to the acre of sugar beets and sweet carrots, 85 bushels of oats to the acre, cabbage, sweet corn, asparagus, turnips, celery with two feet of crisp, white stalk, onions in enormous yields, cucumbers 17 inches long, pumpkins, squash, melons, raspberries, blackberries and strawberries and are starting thirty varieties of orchards. The towns that have sprung up in the district are now supplied with home-grown products at one-fourth and less of what they cost but a few seasons ago.

This great plain slopes toward Crooked River to the south and from the point of intake to the farthest point of distribution north the water drops 670 feet. The canals are unlike the sluggish streams in most irrigated districts, for in places the water flows through the main ditches almost a torrent. The Deschutes delivers 40 miles away as clear and pure as when taken directly from the river. On many farms the waters are stored in reservoirs and the newer settlers come with their water wagons for domestic supply.

As will be observed from the statement that of the 215,000 acres segregated under this project about 150,000 acres will be reclaimed, the land is not all tillable. In places the soil is shallow and in others the bedrock comes to the surface. The land is rolling and is dotted with juniper trees 10 to 20 feet tall and many a symmetrical as the most cherished and carefully trimmed ornaments on Portland lawns. Juniper is the firewood source for the district, some of the trees growing to the thickness of four feet at the butt. The juniper has no tap root and ordinarily a team can pull over the stoutest of the trees when the clearing of the land is begun.

For lands segregated under the Carey act in Oregon the settler pays nothing to the state, but he must pay for the water right. In the two of the three segregations that are now watered by the Deschutes Irrigation & Power Company the water right is \$100 an acre. The right to enter does not depend upon other land laws and one who has exhausted his homestead right may still acquire title to Carey act lands. The water right may be paid for in four yearly installments of one-fourth, each and deed may be acquired after the water right is paid for either after one has lived on the land 90 days and placed one-eighth of the irrigable acres in cultivation or has lived on the land 30 days, placed three-quarters of the irrigable land in cultivation and built a substantial four-room house. The

water right cost is \$2.50 for each acre of non-irrigable or pasture land.

When the tract was first opened for entry in 1905 the water lien was fixed by the state at \$14.75 an acre. At that rate about 43,000 acres of the cream of the segregations was taken, originally by speculators. It was not until 1907 that the price of the water right was raised to \$40 an acre. In addition to the holdings still offered by the company for entry real estate men in the district have "re-sales" listed. These "re-sales" are entries made principally under the lower water rate and they sell from \$25 to \$75 an acre for unimproved land. Six to ten miles east of Redmond lies what is known as the Powell Butte country, in which is a total of about 13,000 acres segregated and watered by the Deschutes Irrigation & Power Company. This is looked upon as the best of the irrigated district.

In this locality some re-sales are offered but the price runs usually to \$75 an acre, although there are tracts that may be obtained, it is said for \$50 an acre. The Powell Butte country gains its name from a high butte up the sloping sides of which stretch the broad acres of some of the best farms in Central Oregon—farms that need no irrigation to produce abundant crops. Altitude on the butte seems to provide a conservation of moisture and it is the lower lands that are the irrigated tracts. There the soil is deep and fertile, and even on some of these, with an average yearly rainfall of from 12 to 14 inches, the owners by practicing dry farming methods are securing big crops and it is said are depending on the irrigating ditches principally for water for domestic purposes. The three units in the Deschutes Irrigation & Power Company's project are the Powell Butte, Pilot Butte and Benham Falls segregations. In the Benham Falls segregation are 68,000 acres not yet watered. The work on the Benham Falls ditch has been merely nominal. Two men have been employed for two years working along the ditch line for the purpose of holding the segregation. The water right on the Benham Falls lands will cost \$60 an acre because of the high cost of canal construction, but it is asserted that the fertility of the land will more than make up for the increase in cost over the water rights in the other two divisions. With the completion of the Benham Falls project and the termination of all the work incident to watering the other divisions and safeguarding the water supply by the building of what will be known as the North Canal, the sum expended for irrigation by the Deschutes Irrigation & Power Company will be close to \$4,000,000.

In the Bend and Redmond district are several other projects most of which are co-operative or private enterprises more or less limited to the holdings of the stockholders. On Squaw Creek, a tributary of the Deschutes flowing from the south and west, 15,000 acres are now watered by irrigation ditches and the estimate of acreage susceptible of irrigation there is placed at 60,000. This is on the west side of the Deschutes.

Six miles west of Bend, across the Deschutes River, is the Tumulo district in which 2500 acres are watered from Tumulo Creek. In addition there is what is known as the Arnold project, now under construction and which will irrigate private holdings near Bend aggregating 6000 acres. The project calls for a short main flume with two laterals having 12 miles as the greatest length. The landowners are paying their proportion of the cost at a rate of \$9 an acre and receiving stock in the project in return. A number of Bend business men are also interested in the enterprise. Water will be turned on the lands next spring.

Northwest of Redmond is a tract of land lying in the wedge formed by the confluence of the Crooked and Deschutes Rivers, which Joseph G. Houston and other Portland men are planning to reclaim. The project calls for the establishing of a power plant at Odin Falls in the Deschutes, which will be used, among other things, for pumping water 110 feet out of the canyon from where it may be distributed on about 5000 acres of land. South of this tract is another tract of 2000 acres which will be watered in the same general project and which will be known as the Orchard Cove tract. This tract should not be confused, however, with Cove Orchard, one of the famous garden and orchard spots in Central Oregon and now wholly owned by William Bogert.

West of the Deschutes River are 21,000 acres segregated under the provisions of the Carey act and known as the Columbia Southern project. This district



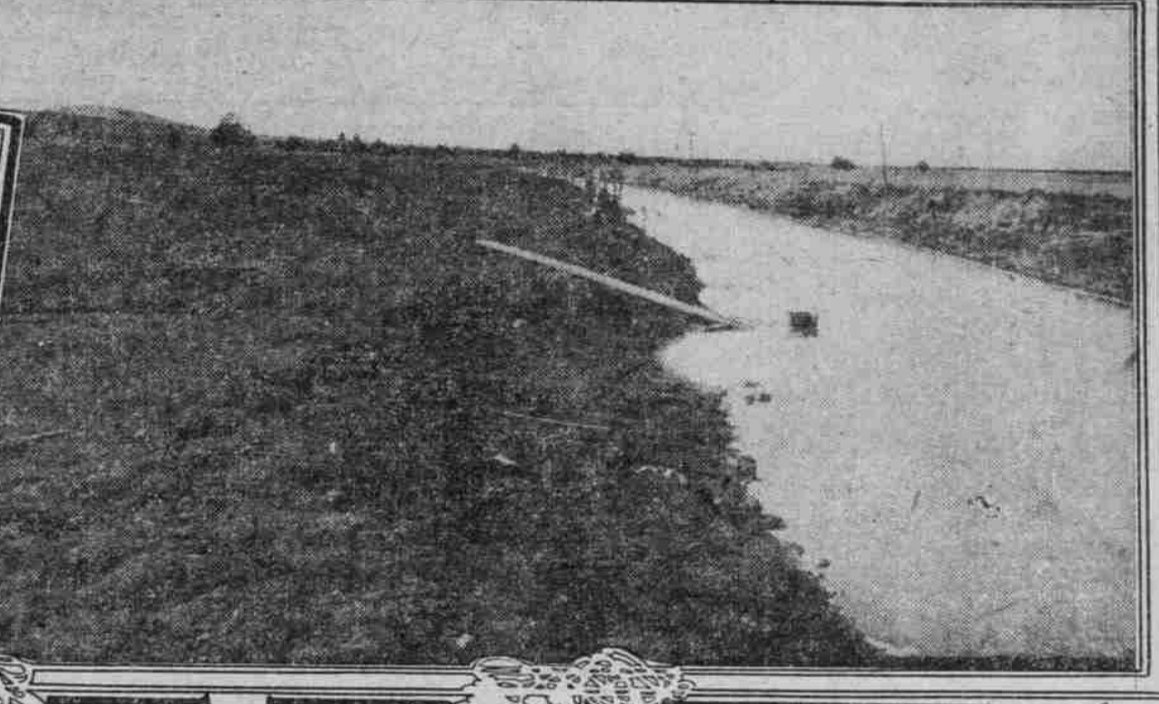
CRAW ON EXPERIMENTAL TRACT NEAR BEND



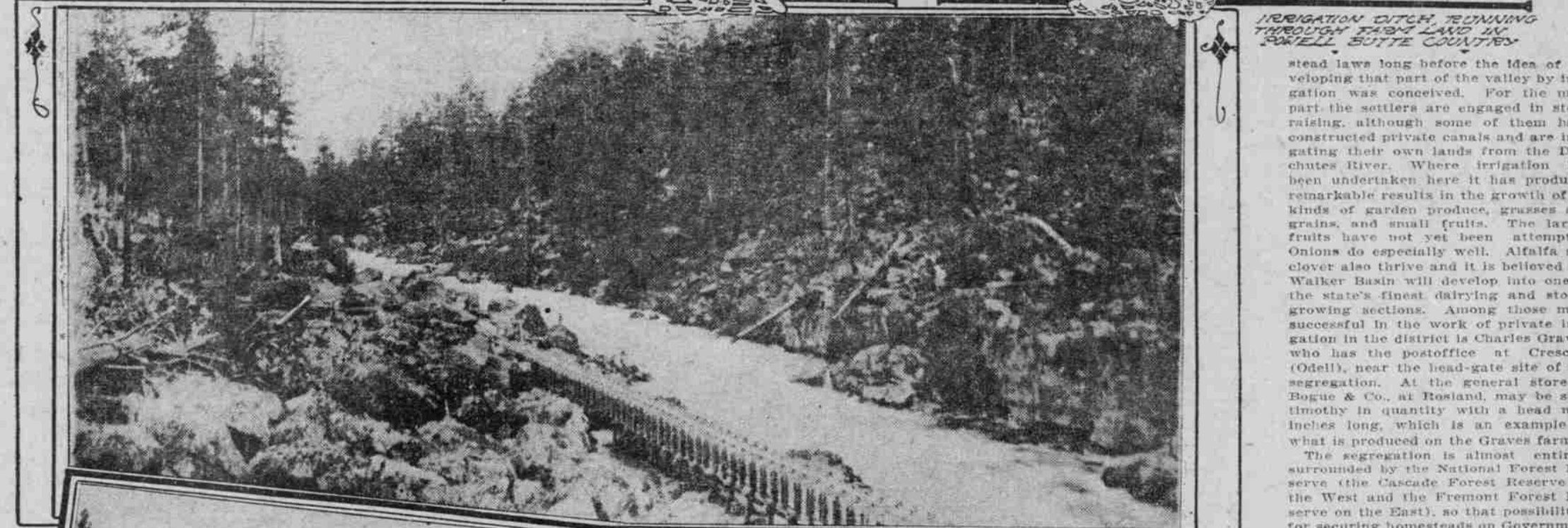
IRRIGATED FIELD NEAR REDMOND SHOWING RESERVOIR HOLDING WATER FOR DOMESTIC PURPOSES



CLIVE FALLS ON DESCHUTES HEAD OF PROPOSED IRRIGATION WORKS FOR 70,000 ACRES NEAR MADRAS



IRRIGATION DITCH TERMINATING THROUGH DESCHUTES NEAR POWELL BUTTE COUNTRY



HEADGATE OF DESCHUTES IRRIGATION AND POWER CO CANAL NEAR BEND



FIELD OF BARLEY ON EXPERIMENTAL TRACT NEAR BEND

will find its outlet to the eastward and the railroads via Laidlaw, a settlement near the junction of the Tumulo and Deschutes Rivers, about half way between Bend and Redmond. The promoters of the project are having litigation troubles but the Laidlaw country will one day become one of the rich districts of Central Oregon. Further north in the Madras country other irrigation enterprises are under consideration. To the west and north-west of Madras lie what are known as the Agency Plains and Madras Plains, consisting of high, almost level table lands now devoted to grain and stockraising. Boise capitalists are proposing to water these two tracts. The plan is to impound the waters of Crescent Lake, which lies in the mountains 118 miles south of Madras. This lake is three and one-half miles wide and about six long and a dam at reasonable cost will further store the waters. From Crescent Lake it is planned to carry the water by flumes to the Deschutes River, thereby increasing the flow of the river during the irrigating period. The intake for the irrigating ditch is to be in the vicinity of Clive Falls and then by canals about 30 miles long to the land. The tract to be converted by this enterprise consists of about 70,000 acres of land, practically all of not all of which is made up of private holdings. The promoters of this enterprise are E. H. Rogers, D. O. Stevenson and others. The Government Reclamation Service has also shown some interest in Central Oregon irrigation. Table work and topographical surveys have been made of the Obocoo and Crooked River projects which provide for the impounding of the two streams and the irrigating of about 125,000 acres, in the Prineville, Lamonia and Madras districts. Included in this project are 37,000 acres of land lying northward from Prineville and on which dry farming experiments are now proving successful. Included there are also the Agency Plains and most of the acreage it is proposed by the Boise capitalists to irrigate. These irrigation projects are combined in a section of Central Oregon about 50 miles square in extent. In the lands covered by the Deschutes Irrigation &

both as to yield and size of the roots. The district and the irrigation enterprises have not been without vicissitudes, the chief cause of which has been the lack of railroad transportation, for it is 95 miles from Bend and 75 from Redmond to Shaniko, the nearest railway station. What is now produced is almost wholly for home consumption. The country, however, has demonstrated its possibilities, the railroads are now under construction and it has been proven that the Deschutes, in respect to irrigation alone, has been well named "The River of Gold."

### Walker Basin to Be Irrigated

Canals From Deschutes Will Water Valley 25 Miles Long.

In the southern end of the Deschutes Valley is what was known in the early days as the Walker Basin, which is to be irrigated under the Carey act. This end of the valley is almost entirely enclosed by pine-clad mountains, and contains an area of level country about 25 miles long and six miles wide, stretching along the Deschutes River. The end of the valley is remarkable for its entire freedom from stone, and the presence of water available for domestic use at a depth of from 15 to 20 feet beneath the surface. The State's segregation here contains something over 28,000 acres of decomposed volcanic ash soil with a uniform depth of from 10 to 12 feet. This segregation also differs from the rest of the Deschutes Valley in that it has no sage brush, juniper, or underbrush of any kind, but is covered with a scattered growth of small black pine which the settlers there use for fuel and tanning. The Huntington wagon road, which extends through central Oregon into California, and which has served the settlers since the early days, passes through this segregation. Living in and around this tract are perhaps 50 families who settled there under the home-

stead laws long before the idea of developing that part of the valley by irrigation was conceived. For the most part the settlers are engaged in stock raising, although some of them have constructed private canals and are irrigating their own lands from the Deschutes River. Where irrigation has been undertaken here it has produced remarkable results in the growth of all kinds of garden produce, grasses and grains, and small fruits. The larger fruits have not yet been attempted. Onions do especially well. Alfalfa and clover also thrive and it is believed the Walker Basin will develop into one of the state's finest dairying and stock-growing sections. Among those most successful in the work of private irrigation in the district is Charles Graves, who has the postoffice at Crescent (Odell), near the head-gate site of the segregation. At the general store of Bogue & Co., at Rosland, may be seen timothy in quantity with a head nine inches long, which is an example of what is produced on the Graves farm. The segregation is almost entirely surrounded by the National Forest Reserve (the Cascade Forest Reserve on the West and the Fremont Forest Reserve on the East), so that possibilities for securing homesteads on Government desert lands in that region of the valley are few; but it is anticipated that settlers will soon be able to occupy lands under the Carey Act. The work of installing the irrigation system has been let to the Deschutes Land Company, an Oregon corporation, although composed largely of Minneapolis capital. The State has given this company a contract and lien of \$26 an acre for doing the work. None of this segregation has been put under water as yet, but the company has expended something over \$10,000 to date in the prosecution of its work and with the installation of excavating machinery in the early spring, 1910, it is expected to have some 10,000 acres ready for water by the end of the season. The engineers plan for irrigating the segregation call for about 56 miles of main canal and about 70 miles of laterals. The company has its water rights on the Elk Fork of the Deschutes River, which heads in Crescent Lake. The head-gates and diversion dam for taking the water from this branch of the river, will be near the segregation and about 12 miles from the outlet at Crescent Lake. A dam will be placed at the outlet of Crescent Lake, which will make the lake available as a storage reservoir for both this segregation and the National Reclamation Service. The Klamath-Falls and Natron extension of the Southern Pacific will pass between the head-gates and the outlet of Crescent Lake, and both the Hill and the Harman surveys cross the segregation from north to south. The segregation is half in Crooked and half in Klamath County. Under the provisions of the Carey act, a Portland company, known as the Portland Irrigating Company, proposes to reclaim a large area in the Chewaucan Valley. The Chewaucan River has its source in the interior of the Snake Range, and flows northward and then turns south into the main valley, covering 12,500 acres which drains southward into Albert Lake. The water rights on the river are now in litigation. The Chewaucan ranch has secured title to the large marsh mentioned under the Federal drainage laws, and is now seeking to utilize the water from the river to irrigate the drained land. The ranch company and the irrigating company are now in the courts, contesting the water rights. There are about 75,000 acres in the segregation of very fertile lands. An extension to Lake View of the Oregon Trunk line would pass through or within easy distance of the reclaimed lands, and the town of Paisley would be the trading center.