

Irrigation in the United States

Walter E. Weyl, in the Success Magazine, tells of Reclamation of the American Desert

In colonial days the sturdy settlers took an average of four hundred acres of land. Though land poor, they prospered. The homesteader got his one hundred and sixty acres. He plowed what he could and reserved what he could not. Cultivation was extensive, superficial; no more labor or capital was put upon the land than was necessary, for labor was scarce and capital scarcer.

The first men who crossed into arid America played the game according to the old rules—and lost. They took their quarter sections, one or as many as they could acquire. They cultivated what they could, and held the rest for the inevitable increase in value. But the inevitable did not happen. One year, two years, of ample rain then the drought. The settlers were dismayed. Without rain nothing would grow, and who under the over-arching firmament could compel the rain? There were men, stimulated by the great need who tried. The clouds were bombarded by cannon shots; dynamite was exploded in the prairies of Texas. "The result," as Secretary of Agriculture Rusk, described it, "was a great noise." The light, fleecy clouds remained sterile.

Imagine your last cent, your last ounce of energy, your last hope for yourself and family, invested in those treacherous farms on the border of the arid belt, and realize the crushing, heartbreaking disappointment of the men who could not compel the rain. They did not give it up. They struggled against the arid conditions, buoyed up by the cheerful word of the oldest inhabitant. Not for a moment would the farmers admit that the land was arid. Unaccustomed to the new conditions, they did not know enough to come in "when it does not rain."

And yet these disheartened farmers were on the verge of an important discovery. They were to witness the "miracle in irrigation." It was no new thing. It was older than the Anglo-Saxon race, older even in America than many of the men who prayed for the rain. But it was new in Western Kansas. And this is the way—so runs the story—that irrigation came to the State.

In the year 1878, thousands of acres had been planted to wheat in Finney County, and in sober anticipation a grist mill was erected to grind the crop. The rain failed; the seed died; the grist mill was abandoned. But one settler, versed in the method of irrigation, obtained permission to use upon his land waters of the abandoned mill race. His land became wonderfully fruitful, the news of the experiment spread far and wide, and Western Kansas admitted its aridity, gloried in it, and became a convert to irrigation.

Thenceforth irrigation was largely adopted on the Western prairies just across the ninety-seventh parallel. Canals were built from the Arkansas River, more than four hundred miles of them being constructed at a cost of nearly three million dollars. Then the men "higher up," the irrigators of Colorado, diverted the precious waters to their own uses, and Bill Nye's joke became a joke in sober earnest. The Western rivers, he had said, are "a mile wide and an inch deep; they have a large circulation but very little influence."

Then the Kansas men went deeper. They used the underflow. Wells were sunk, windmills, kept in operation by the tireless prairie winds, furnished power, and the arid land was irrigated. The little farms were extensively cultivated and became profitable, and in a short time irrigation with the underflow waters became more successful than it had formally

been with surface waters.

But the farmers of the arid prairies were not the pioneers of American irrigation. The Indians had irrigated in Arizona before Columbus was born, and in Utah the Mormons had begun irrigation before the close of the Mexican war.

It was on a hot summer day in 1847 that the Mormon caravan, with its scores of wagons, horses, mules, oxen and cows, entered the valley of Salt Lake. It was a wonderful picture that the fleeing men saw—the broad, flashing valley sloping toward the inland sea, the mountains lifting their summits to the clouds, the clear transparent air resting upon the narrow silver thread, the river, which flowed like the Jordan from the fresh lake to the salt lake.

"Here I shall rest," said Brigham Young. "Here we will rear our temple in holiness to the Lord." The prospect of any but an imaginative man would have been discouraging. The fugitives had no money, and were poorly supplied with agricultural implements. The barren land was covered with white alkali, and so hard that the plow would scarce enter. It was with some misgiving that the fugitives, after pouring on the water of the stream, planted their first stock of potatoes. But the land did not withhold its fruit, and upon the first bountiful crop and upon subsequent crops the Mormons erected an agriculture, a city, and a state.

What was done in Utah was repeated in other states. In Colorado the Greeley Colony, inspired by ideas of a Utopia, succeeded in irrigating a portion of the land and of founding prosperous homes for homeless people. What they aimed at was the regeneration of society; what they obtained was the famous Greeley potato. The Rockford mellons grew upon unreclaimed arid land. In Southern California, at Anaheim, a little group of German mechanics and small tradesmen proved that irrigation and cultivation of arid land pays. At Riverside a colony bought for two dollars and a half an acre, lands that had been valued at seventy five cents, and upon these lands when irrigated, the farmers planted oranges. In a few years the unimproved lands sold from three hundred to five hundred dollars an acre, and the improved farms as high in some cases, as two thousand dollars an acre.

Millions of acres of land have been reclaimed from the American desert, and this land once worth less than a dollar, now sells for a hundred, a thousand, and two thousand dollars an acre. Wherever it was easy to water the land, irrigation has taken place. But now the little streams are all taken, and the nation faces the big problem of irrigation.

Now it is a problem of great dams, costing millions and even tens of millions of dollars. Sometimes the place is so isolated and the land so rough that it is well nigh impossible to transport the necessary heavy articles, such as fuel or cement. Wood is often unobtainable, and the sand is of a poor quality and mixed with mud. The sudden floods bear away the half built dams and the hopes of the dam builders. To carry out the great irrigation projects now required, if we are to reclaim the arid lands of America, six things are required; time, patience, skill, special knowledge, a large capital, and a willingness to wait years for a return on the investment.

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Application for a lease must be made to the Agent or Sub-Agent of the district in which the rights applied for are situated.

In surveyed territory the land must be described by sections, or legal sub-divisions of sections, and in unsurveyed territory the tract applied for shall be staked out.

Each application must be accompanied by a fee of \$5, which will be refunded if the rights applied for are not available but not otherwise. A royalty shall be paid on the merchantable output of the mine at the rate of five cents per ton.

Every lessee of coal mining rights which are not being operated shall furnish the district agent of Dominion Lands with a sworn statement to that effect at least once in each year.

The lease will include the coal mining rights only, but the lessee may be permitted to purchase whatever available surface rights may be considered necessary for the working of the mine at the rate of \$10 an acre.

For full information application should be made to the Secretary of the Department of Interior, Ottawa, or to any Agent or Sub-Agent of Dominion Lands.

W. W. CORY,
Deputy Minister of the Interior.

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My wife, Elinore Vadnais, having left my bed and board, all persons are cautioned against giving her any credit on my account as I will not be responsible for any debts incurred by her.
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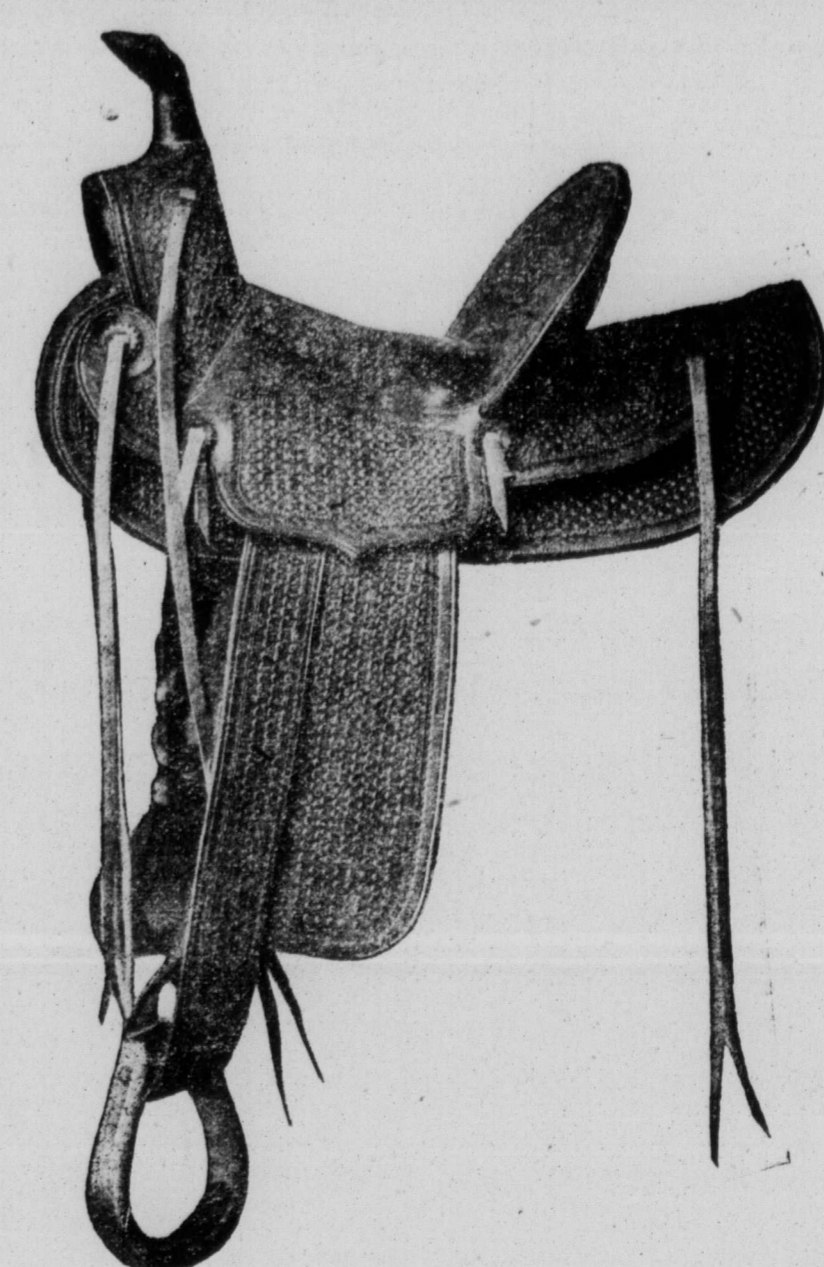
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