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(Illustrated articles are marked with an asterisk.)

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PROGRESS OF IRRIGATION.

On September 15, a notable gathering of notable men took place at Salt Lake City, being the first meeting of the Irrigation Congress. The membership comprised many eminent persons, chiefly from States west of the Mississippi, their object in meeting being the interchange of views and discussion of the best methods of redeeming to useful purposes the millions of acres of arid lands which now lie drear and abandoned in various sections of the great West.

Of the success of irrigation wherever it has been properly carried out, all the speakers bore enthusiastic testimony. The driest lands are made to blossom as the rose, and wherever the blessed water spreads there is soon found a contented, happy and prosperous people.

The place selected for the assembly was especially appropriate. Salt Lake City being the first and perhaps the noblest example to be found in the country of the wonderful results gained by irrigation. Here in the midst of verdure and the music of running water in every street the congress began its sessions. Among the speakers was Wilford Woodruff, President of the Mormons. He said:

"Fifty-one years ago the 24th of last July, I entered this valley with 143 emigrants, or in other words, pioneers. We were led by President Young. This country that we arrived upon was called the Great American Desert, and certainly as far as we could see it did not deviate from that in the least. We found a barren desert here. There was no mark of the Anglo-Saxon race, no mark of the white man—everything was barren, dry, and desert.

"We pitched our camp a little distance to the south-east from here about 11 o'clock in the day. We had a desire to try the soil to know what it could produce. Of course all this company—nearly the whole of us—were born and raised in the New England States, Vermont, Maine, Massachusetts, Connecticut—had no experience in irrigation.

"You gentlemen come here to-day; you see the city, you go through the country. Here are a thousand miles, I might say, through these mountains filled with cities, towns, villages, gardens, and orchards, and the produce of the earth that sustains the people. Without this water, this irrigation for which you have met here to-day, this country would be as barren as we found it."

He was followed by President Cannon, one of the early settlers, who said: "I took my first lessons in irrigation when a boy, in 1848. I have had but comparatively little practical experience in the business since then, but it has become very familiar to us. We have not had much time to theorize upon it, but practically we have carried out this system throughout the length and breadth of our Territory.

"There is one point that I think of great importance, and I think it worthy the consideration of this body. We have refrained, I was going to say, religiously, from forming great corporations to take possession of the water; we have not been taxed for our water in Utah, but settlements have combined together and by their own labor have taken the water out and have contributed by their labor in forming dams and digging ditches to obtain the necessary supply for their acreage. I think this is a very important feature in this Territory. We have not had to pay for our water; poor men could take land and obtain water by their own labor.

"Another feature of our system has been that we have had small holdings. When we settled this city, the lots were divided out; each lot was an acre and a quarter. The lots were laid out in such a way that the front of one lot faced the side of another. It was designed to be a city of villas and to have plenty of room. You see the breadth of our streets and the amplitude of our lots; this was the original design. Then, next to our city, a tier of five-acre lots was laid out, then a tier of ten-acre lots, then a tier of twenty-acre lots. There were no lots laid out of a larger extent than twenty acres. That there might be perfect fairness, we cast lots for these. The mechanics were expected to want five acres; those who were in better condition it was thought would require ten acres, while the farmers received twenty acres.

"My distinguished friend, President Woodruff, lived and sustained his family upon twenty acres of land, and I may say to his credit there is no better farmer in this country than he has been. He has been noted throughout all our community for his indefatigable industry.

"We have kept from monopolizing the land and been willing to have it distributed in small holdings, so that every man might have a foothold. I believe that I do not overstate the truth when I say that in no part of the United States is there a population containing so many people living on their own lands and owning their own houses as in Utah Territory.

"I believe also in the artesian system. I have been a believer in it always and for a great many years. I believe that we can get large supplies of water from subterranean sources. I have experimented with this,

and I believe I have the honor of being the first person to own an artesian well in this valley or in all our valleys. I have sunk a good many wells, and I find them very excellent. I have one now with which I water several acres—a well four hundred feet deep. I think when we get experienced well drivers in this country, we shall find that we can bring large supplies of water to the surface that will aid us in cultivating our lands; for all that we have in this country is water.

"There is no part of Nevada which you travel through, no country, which looked any worse than this valley did nor any more unlikely to be productive than this valley did when it was first settled; but industry and skill have changed this valley into fruitful fields and orchards and there is no limit."

Many most excellent speeches followed, but our limited space prevents quotations therefrom. A great variety of resolutions were offered, some containing financial projects for building dams and canals, others for the acquisition or leasing of arid lands, others calling upon the general government to issue millions of dollars' worth of bonds and bore the arid earths for wells, and make the lands fit for people to live in. It was stated there are six hundred and fifty millions of acres of arid lands still held by the general government, of which five hundred millions of acres require to be irrigated by artesian wells, no other source of water supply being available. When all the speeches had been made and all the resolutions discussed the following reasonable platform was agreed upon and the congress adjourned:

Resolved, That this congress is in favor of granting in trust to the States and Territories needful of irrigation, all lands now a part of the public domain within such States and Territories, excepting mineral lands, for the purpose of developing irrigation to render the lands now arid fertile and capable of supporting a population.

THE INTRODUCTION OF REINDEER INTO ALASKA.

A very interesting experiment in the introduction of reindeer into this country has been commenced. Dr. Sheldon Jackson, the government agent of education in Alaska, has begun the work. During the past season he imported sixteen reindeer from Siberia, which cost about \$160. Next year he proposes to establish a herd of reindeer in the neighborhood of Fort Clarence and expects to begin with 100 animals. Siberia has vast numbers of these animals, and in its climate and vegetation resembles greatly Alaska, so that there is no reason to doubt that they will thrive on the eastern side of Behring Straits. The reindeer is useful as a draught animal for sleds, as well as for its milk, its meat, its skin. From the economical point of view the experiment is of the highest degree of interest and it is gratifying to see that the Federal Government recognizes the importance of the work.

Capt. M. A. Healy, of the revenue cutter Bear has reported to the Treasury Department, emphasizing the proposition as the most important question now before the Territory of Alaska. The recent destruction of seals and sea lions has certainly had its effect upon the food supply question of the country and islands in the neighborhood of Behring Straits, and any distress brought about by the destruction of seals may be alleviated by the introduction of the reindeer. In Iceland, where the reindeer was first introduced in 1870, it has increased greatly in number but is said to have relapsed into wildness and is now of little use to the inhabitants. It is to be hoped that better fortune will attend their introduction into Alaska, and that they will be treated as domestic animals, and not share the fate of the buffalo.

DESERTIONS FROM THE NEW NAVY.

The difficulty experienced by the officers of the Bennington to prevent wholesale desertions among the crew while the ship is in port is not by any means a new one in our fleet. The new ships, with perhaps the single exception of the Chicago, seem to be lacking in accommodations for their crews. While in the old-time frigate or line-of-battle ship a crew of 700, or even more, could be comfortably housed, with free circulation of air, it is impossible in the present type of steam vessels to find hammock room for one-third that number without huddling. Close quarters and foul air is now become the regular billet, and a single cruise is enough to dampen the ardor of the most enthusiastic sailor man.

The commander of the Bennington declares that, if the Brooklyn police do not increase their efforts to capture his deserters, he will not have men enough on his engines, not to mention his deck. Re ought to complain against the designer of the ship rather than against the police, for, under a strict interpretation of the navy regulations, it is a doubtful if, the men's case being properly set forth, they should be punished for desertion. The regulations provide with painstaking particularity that a ship's crew must be properly housed and fed.

So strict are these rules that it is made a part of the duty of the officer of the deck to taste the men's food before it is served, thus making sure of its wholesome-