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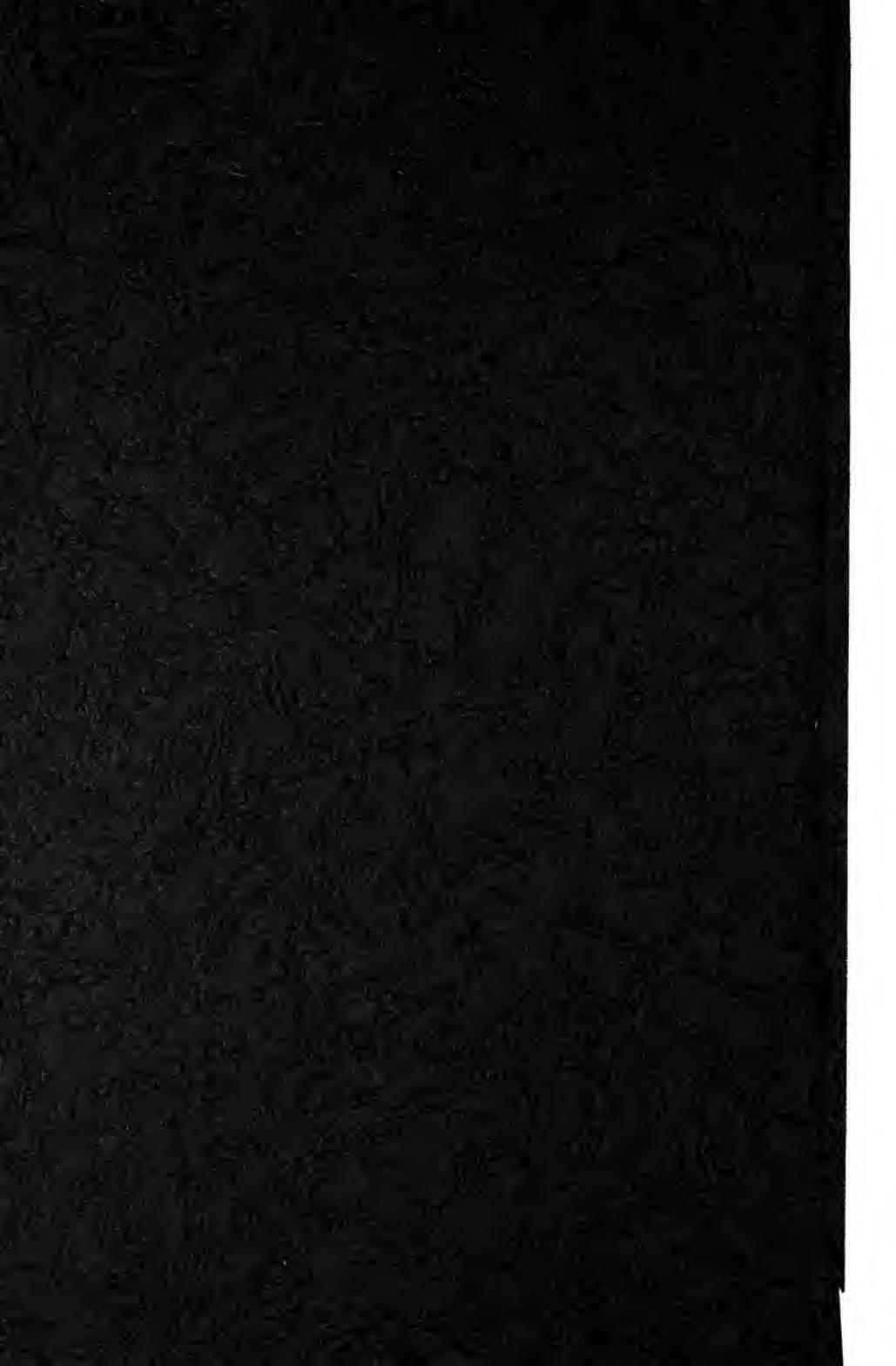


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WYOMING

—AS AN—

AGRICULTURAL STATE

—ADDRESS ON THE—

RECLAMATION OF THE ARID LANDS

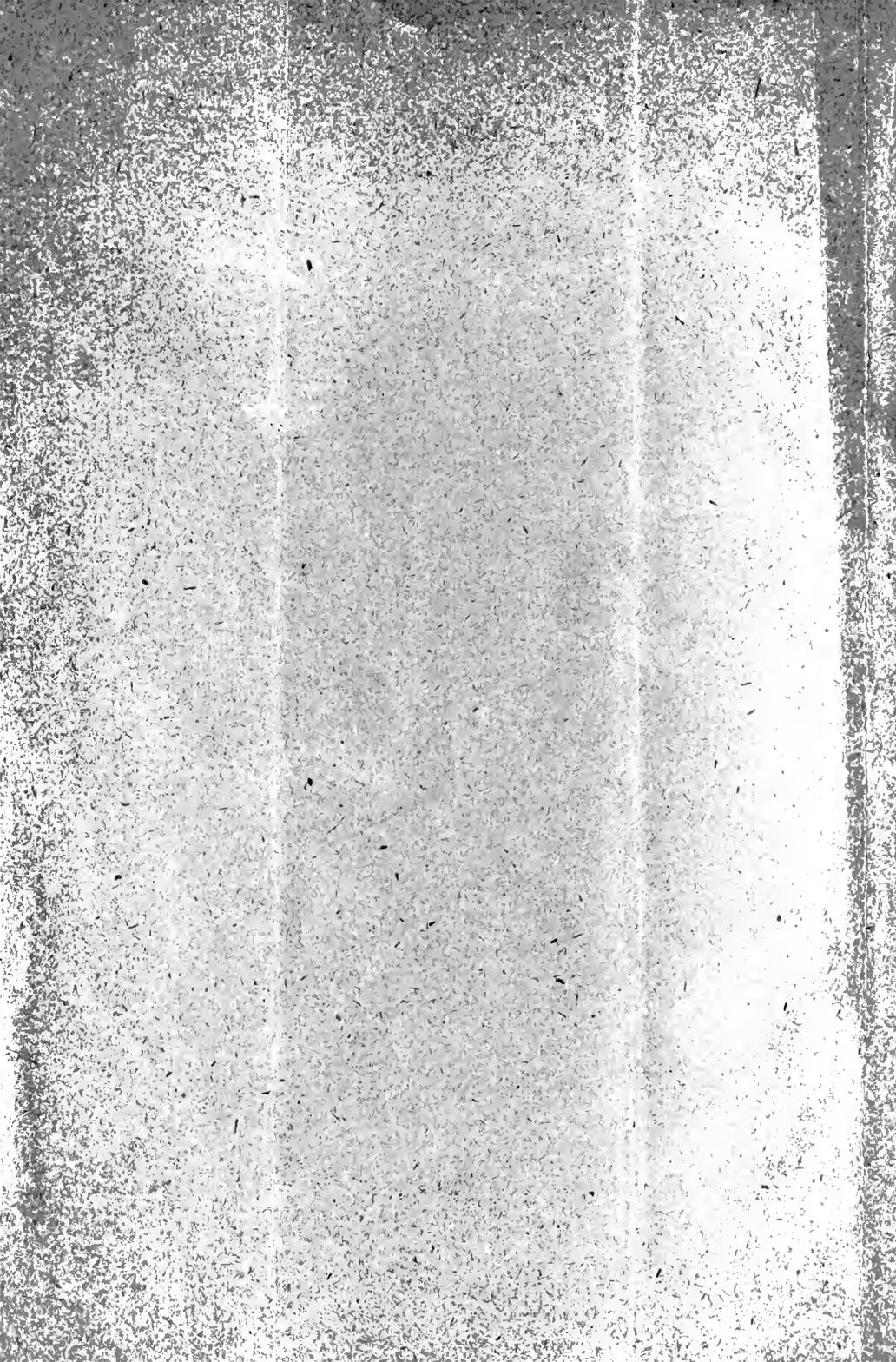
—BEFORE THE—

CHEYENNE CHAMBER OF COMMERCE, JAN. 16, 1894,

By ELWOOD MEAD, State Engineer.

PUBLISHED BY THE CHEYENNE CHAMBER OF COMMERCE, AN ORGANIZATION TO PROMOTE THE INTERESTS OF THE STATE OF WYOMING.

CHEYENNE WYO.
TRIBUNE  JOB PRINT.
1894.



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“WYOMING AS AN AGRICULTURAL STATE”

—ADDRESS ON THE—

RECLAMATION OF THE ARID LANDS

—BEFORE THE—

CHEYENNE CHAMBER OF COMMERCE, JAN. 16, 1894,

By ELWOOD MEAD, State Engineer.

Wyoming as an Agricultural State is an anomaly; an anomaly difficult of comprehension by students of irrigation from the outside world and one which the friends of irrigation within the State find hard to explain. In this I am speaking more particularly of the agriculture of the cultivated field and exclude that form of agriculture which is more intimately associated with what is known as the range industries. I do this because it is my purpose tonight to talk of what we need rather than of what we have.

Naturally, it is a State of great opportunities. We are in the latitude belt of the great agricultural states of this country. As an arid State we have good neighbors. Excluding California, Colorado, Utah and Montana rank first, second and third among the arid states in the value of their farm products. The State is favored in the volume and availability of its water supply. Colorado, Wyoming and Montana provide eighty-five per cent of the available water supply of the entire arid region, and of these three, Wyoming stands first or second. In the mileage of ditches the State takes high rank. In the excellence of its water laws and the administrative system which they provide, it is the accepted model of the whole arid region. From the census report of 1890 down to the last irrigation congress there has been only commendation for our water laws.

With fertile soil and abundant water supply, satisfactory water laws, the example and encouragement given by the success of irrigation in neigh-

boring States, it would seem as though we had an adequate foundation for rapid growth. But for various causes we have never got beyond the foundation. The evidences of growth are largely absent.

AREA OF CULTIVATED LAND.

One can travel, or could last summer, over every mile of operated railway in the state, a distance of over one thousand miles, without seeing a field of wheat. The census report of 1890 says that this county, with its million dollar investment in irrigation works, managed to grow thirty-nine acres of wheat. Albany county grew six acres and Carbon county fifty-six acres. The three most populous counties combined grew one hundred and one acres. In all this great State with its sixty-three million acres of land only 19,000 acres were cultivated, about one per cent of the land under ditches. In the light of facts like these it is not surprising that our agricultural standing is low; that our modest exhibit at Chicago subjected us to the charge of having had to go out of the State to procure it. One could not remain in that exhibit a day without hearing expressions of surprise and amazed conjecture as to whereabouts in the State it was produced.

I speak of this because of the contrast to the reception accorded the exhibits of adjoining States. While Colorado's magnificent display of farm products was a constant subject and commendation it occasioned no surprise because it was in accord with popular anticipation, and the same was true of the superb collection of cereals from Montana, but when the report went around that Wyoming wheat had scored the highest percentage of any in the building there was a general agreement that the State was traveling outside its class. The same result occurred a few years ago when Wyoming won the first prize in a national potato contest. The winner of the second prize demanded an investigation and wrote to the journal conducting the contest that the result showed fraud on its face because any one who knew anything of Wyoming knew it had no farmers and no farms.

I could consume all the time that I shall tax your patience with similar illustrations, showing that our actual agricultural production is small and our reputation poor.

I think, however, that enough has been said on this unpleasant feature of irrigation development in this State. It has only been referred to as a prelude to a discussion of the causes for this condition of affairs. Why is it that with equal natural advantages, with as ready access to home seekers, this State has fallen so far behind its neighbors in population and agricultural development? Why is it that the census of 1890 shows that Colorado cultivated under irrigation, two hundred and sixty-five thousand acres of land, Utah one hundred and fifteen thousand acres, Montana seventy-five thousand acres, while Wyoming dragged along at the tail of the procession, with only nineteen thousand acres. This result has not been due to superiority in natural conditions. It has been due in part to lack of organization and lack of interest in securing emigrants, but in a greater part to unfavorable legislative conditions, which have stood as a bar to success wherever organization and effort have been put forth.

Before entering upon an explanation of these factors I wish to state that the reclamation and settlement of an arid State requires agencies and aids not required in the settlement of states like Kansas and Nebraska.

There, all that was necessary was to find an unoccupied quarter section. The emigrant was immediately independent and self-supporting. The cultivation of his farm required no change from methods with which he was familiar.

In the arid region the locations where agriculture can be practiced at all are restricted, and the places where ditches can be built at an outlay within the means of individual settlers extremely limited. The methods of agriculture which must be pursued in an arid State are largely different from those which prevail in the humid region. The emigrant has to serve an apprenticeship in a new art, and knowing this, he is not disposed to venture upon it, unless it is under conditions which offer him some exceptional encouragement and support. The rapid and successful development of arid States has required two things: First, the location and construction of irrigating works, in order that settlers may at once begin to earn a livelihood, and, second, some organized agency to call the attention of intending immigrants to the advantages offered and to assure the needed assistance and instruction in mastering the unfamiliar art of irrigation. Without going into all the details of the influences which have placed adjacent States so far ahead of us in this work, I will give the leading forces in two.

So far as Utah was concerned, the rapid extension of irrigation, and the prosperity of the farmers of that territory has been largely due to the interest and aid of the Mormon church. It provided the money to build canals; the emissaries to secure colonists to occupy the land which they reclaimed and exercised an iron-clad control over emigrants, in restricting them to small holdings; to the acreage for which they could provide water and which they could thoroughly cultivate, twenty acres being the accepted unit. The result of this is that all the water carried in the ditches thus built is used and all the land under them cultivated.

SETTLEMENT OF COLORADO.

In Colorado the first impetus to settlement was partly due to a favoring natural condition, but largely to a fortunate legislative accident. The favoring natural condition was the cheapness with which ditches could be built from the streams leaving the mountains north of Denver; the legislative accident was the including of these lands within the limits of the Union Pacific land grant. The Greeley colony was located on these lands because of the opportunity to purchase outright the railroad lands at a nominal price. This was the beginning of a series of colonization enterprises. The railroad land was purchased, ditches built to reclaim it and both land and ditches disposed of to colonies organized in the East by the promoters of these enterprises. Foreign capital became interested in the work, a corporation popularly known as the English company invested millions of dollars in the purchase of lands, the construction of ditches and in efforts at colonization in this region. To show that the opportunity to secure control of the railroad lands was the moving impetus in this work it may be stated that, while this section of the State was gridironed with ditches, other sections of the State with equal natural advantages and requiring no greater outlay in their reclamation stood still. It was not until the State had control of the donation of public land, granted to the State by Congress without any condition as to the terms of its disposal, that the construction of ditches became universal throughout the

State. Under the operation of the State law governing the disposal of State lands irrigation construction made wonderful progress. This law provided that one-half of the State land located beneath ditches already built, or proposed ditches, could be disposed of to the ditch company at a nominal price and the remaining half leased to the company for a period of five years at a nominal price. There was no difficulty in securing capital under these conditions. Possessing one-half the lands, ditch companies in constructing canals, were very largely improving their own property; controlling the other half they were able to colonize it with actual cultivators of the soil and users of water. So favorably were these conditions regarded that the agents of capital overran the State looking for ditch locations and petitioning for the location of State lands. One corporation invested \$4,000,000 in irrigation works in four years. Rapid as was ditch construction the progress of colonization was almost as great; 10,000 people settling upon the farming lands of San Luis valley in one year. In my judgment no influence has contributed so greatly to Colorado's growth and prosperity as the method of disposing of its State lands. Not even the discovery of silver at Leadville did so much to increase its population.

PROGRESS OF RECLAMATION IN WYOMING.

During all this period, Wyoming was the headquarters of the range industries. Our irrigation system, like nearly all the industries of this State, had its origin in the success of the cattle business. Three-fourths of all our irrigation works were built by cattlemen or from the proceeds of the range cattle business. The ditches were not built to furnish homes for farmers but as an adjunct to this business or a convenient means of acquiring title to land. Persons interested in the range industries were not looking for farmers. Their interest lay in exactly the opposite direction, in keeping the country as the Indian left it. An influx of farmers meant the closing of water fronts, the withdrawal of desirable lands, the sacrifices of privileges they enjoyed. So long as he held the hot end of the poker the stockman was not looking for a fir . In this he was only exercising business prudence; he was the pioneer in the occupancy of the country, his money and that of his friends was invested in the pioneer industry. It was expecting more than human nature will warrant to expect that he should jeopardize his own for the interest of others. I have always thought the criticism which we sometimes hear of the stockmen of this State is unjust and unfair. If criticism should be visited upon any one for the lack of interest in this matter, it belongs to the parties who would have been benefited by our agricultural development, the dwellers in cities and towns, the persons interested in industrial enterprises, all those whose prosperity is largely dependent upon the increased comfort and diminished cost which comes through a home food supply. And in speaking of this matter it is not with any purpose of criticising any interest but simply to explain the reason of our present agricultural condition.

With no one providing for his coming and with all classes and conditions indifferent as to whether he came or staid away it is not surprising that the number of farmers is few. With the majority of the ditches owned by men who are not farmers and who regard both ditches and irrigated land as a side issue to some other business it is not surprising that a large percentage of the land under ditches is unproductive. Growing out of this

development we have, however, to face these facts; the locations where ditches can be built cheaply in this State have practically all been utilized; a large part of the land under these ditches is now unused; a considerable portion of this unused land is valuable as farming land, but because of a prejudice against farmers, because of a disbelief in the success of farming in this State, the owners of this land are reluctant to dispose of it to actual cultivators. This is unfortunate in two particulars. The land as now held is unprofitable to its owners. Its ownership by individuals has withdrawn it from settlement and occupancy by those who might use it to a better advantage. I am in hopes, however, that we are to soon see a marked improvement in this direction and I look for much good to result from the occupancy of the land at Wheatland by small farmers.

AGRICULTURAL POSSIBILITIES OF THE STATE.

But when all the farming land now under ditches has been brought under cultivation we will only have fairly begun our agricultural development. More water runs to waste in the North Platte river each year than is carried in all the ditches in the State. More water runs to waste in the Green river than is used in irrigation. More water runs to waste in the Big Horn than in the Platte and Green combined. The lands which these streams would water are among the best in the State; the conditions of farm life superior to that now prevailing, except in a few favored localities. The ditches to be built must be large, the tracts of land to be reclaimed extensive. Business and social institutions which require the cooperation of a large number of people could be established; the most objectionable feature of ranch life, its isolation, overcome.

To make these lands available, the canals to water them must first be built. Settlers can not occupy the lands until they can be irrigated. They can not build the ditches because the expenditure of both time and money which this involves is beyond their means. Surveys and estimates for canals from the North Platte fixes the cost of one at \$110,000, another at \$250,000, another at \$2,000,000. The canal to water the plateau lands on Green river will cost nearly two millions. It will require an outlay of a million dollars to water the lands north of the Stinkingwater and half as much to reclaim the lands along the Big Horn. We have reached a point where there is little irrigable public land for settlers outside the valleys of these streams. We can not invite immigration here until in some way the money required to build canals is provided.

Since our admission to statehood a continuous effort has been made to enlist capital in this work. The obstacle which has, in every case, proved insurmountable is the unsatisfactory nature of our land laws. The objectionable features of these laws can be explained by giving the experience of one of the companies which endeavored to secure aid in the East.

Between Douglas and Fort Fetterman is a tract of 13,000 acres of superior land. Some spirited public citizens of Douglas thinking to put an end to their annual contribution of \$60,000 to Nebraska, subscribed the money necessary to secure an estimate of the cost of a canal to water this land. The estimate was \$110,000, or about \$10 an acre. So far as natural conditions go, with the exception of expense, no more favorable location for a ditch project could be found. The land is fertile, the water supply

abundant, the elevation satisfactory and there is a local market with good prices for all that could be produced.

The land is worth nothing without water, but if the experience of other localities can be taken as a guide, the possession of a water supply will make it worth \$15 or \$20 an acre. Parties approached were willing to provide the needed amount provided the land could be made security, but when it was explained that it was public land, that there were no settlers and could be none until the ditch was assured, the question was raised as to what inducement there was to an investor to make an improvement of \$10 an acre on government land when he had no means of securing the land, no means of determining whether the land would be occupied by a person willing to pay for that improvement, or, if willing, whether he would be able to pay for it.

The party whose aid was solicited then asked if the promoters of the enterprise would be willing to furnish an independent and adequate guarantee that the settlers who filed on the land would either become part owners in the canal or purchasers of water for their land at a price to repay the money expended on the canal. This could not be done. Leaving out of consideration the speculative filings, made simply to secure the advance in values due to the construction of the canal and the improvement of adjacent lands, it was certain that only a small number of the settlers could pay \$10 an acre for the water supply for 160 acres, but that all would be disposed to file on 160 acres, because there would be no material increase in cost over filing on a lesser area. The result was too apparent, there would have been first speculative filings on a portion of the land by men who were not farmers, but who would avail themselves of the opportunity to secure a share in the increase of value. Second, filing on 160 acres by farmers able to provide water for and to cultivate one-fourth or one-half that area. Under favorable conditions, it was certain that fully half the land must remain idle and unproductive for an indefinite period, and the chances for the investment proving safe or lucrative not one in a million.

The objections raised in this case are the objections which have been raised in every case. We have here natural conditions which require that canals shall be built in advance of settlement. We have land laws which permit of settlement of the lands to be benefitted under terms which amount to virtual confiscation of the sums spent in their improvement. So long as these laws remain in force it is not reasonable to expect that we will secure any material assistance from the outside world.

There was a time when money could be secured to construct ditches to water public land just as there was a time when any prospect hole in the mountains could be sold as a mine, but the results following both investments have been of the same character. Fully ninety per cent of all the ditches built to water public land have proven financial disasters to their owners and this fact is now generally understood.

The obstacles which the present land laws present are aggravated in our case by the fact that we are not able in any way to circumvent them. We have not, as have other States, any adventitious aids. We have not, as has Colorado, a State land law which permits of this donation being used as an aid to development. The conditions attached to the donation to this State, which fixes the minimum selling price of these lands at \$10 an acre,

prevents their being used for any such purpose and renders our last condition worse than the first. We have not, or has Montana, a railroad grant extending along our most desirable streams. We have not, as has New Mexico, Arizona and California, Spanish land grants whose possession by private individuals opens a field for private enterprises. We have not, as has Nebraska, been able to invite settlers by a rain belt delusion and thus secure the private ownership of the lands to be reclaimed. Because Wyoming is unable to evade the provisions of the public land laws her people can not secure any aid from the coffers of capital.

While we furnish an engineer to Arizona to expend a million dollars of eastern capital in the reclamation of a Spanish land grant, while we provide the Superintendent of this water division to old Mexico to expend a large sum in the improvement of another land grant, we are compelled to see our own resources undeveloped, our people look elsewhere for employment, our business enterprises come to naught and all because of land laws which have no reason or justification for their existence.

The homestead law as applied to the region for which it was framed was a beneficent institution. As applied to a region entirely different it is an obstruction to progress, the most effective barrier to securing homes for the very class it was designed to protect. The principle of the homestead law must be preserved, but it must be a homestead law suited to the arid region. The present homestead law, instead of being a means of keeping homes for settlers, is a means of keeping homes from settlers. The desert law offers no aid whatever in the diversion of our great rivers. The acreage is too small for the purposes of the ditch builder; it is too great for the purposes of the settler. There is not one immigrant in ten thousand who comes to this country to find a home, who has the means to reclaim and cultivate 320 acres of land under irrigation.

Because the homestead law was a beneficent institution elsewhere, there is a popular distrust and a popular prejudice against any complaint of its operation here, but this distrust is due to lack of investigation of the question. It is simply because the matter has not been studied that the domain of its operation has been extended. What I wish, and what we must have, is a law which will furnish adequate security for the money spent in the reclamation of these lands, and to do this we must have a law which will prevent speculative or excessive filings, which will limit the filings on land under ditches to the area which a settler can cultivate and which he can provide water for.

I can see no injustice, I can see no hardship in making the land a basis of credit for the money which reclaims it. I can see no hardship to the settler who occupies that land in requiring as an absolute condition that he shall pay for the expenses thus incurred. I can see no wrong or injustice in permitting the party expending money to reclaim this land becoming the owner of it if, after a reasonable time, settlers can not be found to occupy it. A homestead law which would provide such conditions would furnish all the incentive required, all the security required for the reclamation of our arable lands. But until we have some such law, until public sentiment becomes awakened to this question, until favorable action can be secured from Congress the greatest resource of this State will run to waste, our lands will lie idle, the cost of living will be excessive, and worst of all our

ultimate use and control of these streams will be jeopardised by the establishment of prior claims below us. The people of this State have expressed a righteous indignation at the action of Colorado in diverting the Laramie river to the injury of prior appropriators in this State, but there is little appreciation of the fact that so far as the Platte river is concerned the indications are now that the shoe will soon be on the other foot.

In an article entitled "Wyoming, the Second Pennsylvania;" in Harper's Magazine last year, the writer states the people of Wyoming regard this State as a second Pennsylvania and are justified in their belief that the stores of iron and coal which the State possesses have been the foundation of great and prosperous commonwealths, but gives as his own conclusion, after a survey of the whole State; that the "State has a greater and surer asset in Wyoming soil." It is because I believe that this is true, because I wish to see the lands of this State utilized as homes for the present generation, because, being a citizen of the State, I wish to see it grow and prosper, that I have called your attention to this matter and hope that your aid and influence may be directed to securing this needed reform.

THE REMEDY.

It is one thing to locate the disease, but a far different matter to prescribe the remedy. Especially is this true of the reclamation of the arid lands. Differences in climatic conditions, differences in laws in the several arid states, has given rise to diverse views as to the proper course to be pursued. Nor are the people of any single state agreed. The problem is new and complex. Comparatively few have had the time or opportunity to give the necessary study and investigation to the subject. Because of this, there is a reluctance about endorsing any measure of relief.

In submitting my personal views it is not with any desire of insisting upon their being accepted. Should the people of this state favor some different plan which will reach the desired end, I am ready to accept and advocate it.

OUTLINE OF NEEDED REFORMS.

What we want first is a change in the land laws which will either require the present holder of the irrigable public land to reclaim it or transfer it to some one who will. Thus far the United States has been a failure as an arid land owner. A landlord who pays no taxes and makes no improvements.

We want land laws which recognize the fact that all arid land is not irrigable and which will provide for the management and disposal of the grazing land in connection with the irrigable.

We want land laws which provide for the preservation of the store house of our water supply, the mountain forests.

We need canals from our rivers but we also need them built under conditions which will protect the rights and insure the prosperity of those who are to use them. There is only one way to do this, the land and water must go together; the owners of the land must also own the ditch which makes the land productive.

We want no canal companies carrying water for hire.

We want no such vassalage as divided control of land and water creates.

PROTECTION OF APPROPRIATORS.

We need a system which will enable us to more effectively protect the rights of appropriators on small streams; which will prevent the over appropriation and the wrongful diversion and use of their waters. This cannot be done now because the authorities in charge of the public land give no attention whatever to the requirements of our irrigation system. It accomplishes nothing for the State to refuse "Permits" to appropriate water so long as the United States grants filings along streams which permit of the unrestricted construction of ditches to divert the waters of those streams. Crow Creek is a fair illustration of the results of this system. Eighty ditches have been built to divert its water supply when the stream will not fill one-fourth of that number. Twenty-eight of these ditches have never complied with the provisions of the irrigation law, yet they each year rob those entitled to the use of the water and subject the taxpayers of the county to a heavy expense in the attempt to regulate them.

LOCATION OF IRRIGATION WORKS.

We need a system which will secure the construction of irrigation works according to some prearranged plan and which will assist in securing the co-operation of the parties constructing them. So long as there is a divided control of land and water all attempts at securing co-operation on the part of immigrants will be futile. We have already had sufficient experience to show that a haphazard and unrestricted diversion of water is not only wasteful and expensive, but in addition it makes the adequate protection of priorities impossible. Yet we are unable to profit by this lesson. The last diversions are of the same character as the first. I have already referred to Crow Creek, one of the first streams utilized. One of the last is the Grey Bull river, the valley of which has been largely reclaimed in the past two years. Under a prearranged plan half a dozen ditches would have reclaimed the entire area. Instead of these, permits have been issued for fifty individual ditches. Controversies have already arisen between ditch owners. Petitions have already been received for the abandonment of some of these ditches and the transfer of the appropriations to others. The construction of useless ditches involves an enormous waste of water, imposes unnecessary hardship and expense upon the settler, and is laying the foundation for future litigation which is unpleasant to contemplate. The fault for this is not with the people who are endeavoring, under most adverse conditions, to reclaim that section. It is with those in authority, in failing to provide an intelligent system for such reclamation. If the plans for the ditches from that stream had been prepared beforehand, the settlers occupying those lands would have only too gladly co-operated in their construction, and the result would have been a model irrigation system, which would have cost the settlers less, would have removed all danger of future litigation, lessened the expense of taxpayers for supervision and would have resulted in no possible injury to any individual or interest.

LAND AND WATER UNDER ONE CONTROL.

To remedy these defects one condition is absolutely essential, the

land and water must be under one control, and that control must be exercised in the location of ditches as well as in the division of water between ditches. The present haphazard method of constructing irrigating works is the exact counterpart of the primitive methods of disposing of land in the early history of this country when each settler went into the woods and "blazed" out his domain in any direction and to any extent which inclination or interest might dictate. The long continued and disastrous litigation which this entailed upon the southern States is certain to have its counterpart in water controversies if we do not take adequate measures to secure a reform in present methods.

PROPOSED METHODS OF RECLAIMING ARID LANDS.

Four plans for securing the reclamation of the arid lands are now prominently before the country. Two of these plans provide for the exercise of jurisdiction and control over the work by the authorities of the National government. Two provide for the exercise of such control by the authorities of the several State governments. The plans proposed for the prosecution of this work by the National government are: First, the building of ditches by direct appropriations from the treasury of the United States, the work to be done according to plans provided by government officers and under the supervision of such officers. The second of these plans provides for the work being done by private parties who are given a lien upon the land to be reclaimed as security for the return of the money invested in their construction; but the supervision of the work, the control of the land and the control of the water supplies to be under the jurisdiction of the National government.

The plans which provide for the prosecution of this work under State control are: First, the preparation of plans and the construction of ditches by the State, the money to be provided by direct appropriations from the treasury or by the sale of bonds. Second, the construction of ditches and canals by private enterprise under plans prepared by, or accepted by the State authorities, the parties constructing the canals to be secured by a lien on the land to be reclaimed.

All of these plans agree in two particulars. First, that the object of this reclamation is to provide homes for settlers, that the land must be disposed of in small tracts to settlers who are to be cultivators of the soil and users of water. Second, that the expense of such reclamation is to be borne by the parties who receive the benefit, that is, the settlers who occupy the land reclaimed. If either the State or national government provides the money from its treasury, or from the sale of bonds, it does so with the expectation and understanding that the money is to be returned from the sale of the land and the improvements placed thereon by the expenditure of this money. If private parties furnish the money for the construction of these works they expect to either receive their compensation from the sale of the lands and improvements, by the State or national government to settlers, or through the sale themselves of the land and ditches, to settlers.

Another plan for the carrying out of this work by congress has been sometimes discussed and advocated by the press of this region. It is that congress should make absolute appropriations or donations for the construction of ditches exactly as it makes appropriations for the improve-

ment of rivers and harbors. I have not included this as among the plans before the country because such plan has never been advocated in congress; because I am told by some of the best lawyers in this State that congress would have no constitutional right to make such appropriations, and because it would meet with the unanimous opposition of other sections of the country.

STATE SUPERVISION FAVORED.

Whether this matter be considered from the standpoint of local interest or from the standpoint of the best interests of the whole arid region, I am in favor of either of the two plans for prosecuting the work under State control, rather than either of the two plans for prosecuting the work under national control. As regards the two plans for prosecuting the work under national control; I am opposed to the first because I wish to see some results accomplished in the lifetime of this generation. I do not think there is any hope of doing this if we are to depend upon appropriations from the national treasury. I am opposed to it because any one who has had any acquaintance with the methods pursued in the construction of national public works knows that they are far more dilatory, far more expensive, than is the case in the prosecution of similar work by either State or private authorities.

NATIONAL INTERFERENCE WITH EXISTING RIGHTS.

I am opposed to both of the plans for prosecuting this work under national control because it involves the surrender of the control of our streams to those authorities; because it revolutionizes the irrigation system already established in this State. Whenever the United States begins the building of ditches, an immediate conflict between the rights of appropriations under the State law and appropriations under the ditches built by the national government will ensue, the result of which will be the jeopardizing of every appropriation made at the present time.

I do not look upon any movement which contemplates, or which threatens this with the slightest degree of favor. The pioneers of irrigation in this State have already expended over ten million dollars in the construction of ditches and the reclaiming of lands. Through the negligence of the United States to render them any aid or assistance, they have done this work under the most adverse conditions; they have done it in accordance with a system of water laws of their own creation, a system of laws which they understand, which make their rights the prior claims upon the waters of the streams, and which secures their rights and claims against all possible encroachments from the diversion of these streams by any agencies under control of the State hereafter. I believe that any surrender of the guarantees which the State laws afford, of the protection which these prior water rights now enjoys, would be nothing less than a crime, and I as fully believe that the invitation to the United States authorities to take charge of this work, to assume such jurisdiction over our streams, would involve such a surrender.

SACRIFICE OF NATURAL ADVANTAGES.

I am opposed to making canal building a national work because it involves the sacrifice of our natural advantages and the surrender of the exclusive control of our water supply. Under such a system political influence instead of industrial needs would govern the building of canals.

Each arid State would strive to forestall its neighbor in securing government aid. Ditch building would become a matter of lobbying and log rolling instead of legitimate business enterprise, and in this contest Wyoming would certainly suffer.

Take the case of the North Platte river; would canals from that stream be first built in Nebraska or Wyoming? So far as political influences are concerned, the representation of Nebraska in congress is greater than that of Wyoming. The land to be reclaimed in Nebraska has passed into the hands of settlers and in part from settlers to loan companies through mortgage foreclosures. All these parties would have a direct interest in securing the first aid and in making their rights the prior claim on the stream. Their combined influence would reach half the representatives in congress and there is no question but that it would be far more potent than the mute appeal of the arid, unoccupied acres of Wyoming.

What is true of the North Platte is true of every inter-state stream in this State. It would be Wyoming against the field. One State with 60,000 people against a half dozen States with a hundred times our population and an infinite superiority in wealth and influence.

The greatest possible diversion and use of inter-state streams in Wyoming will be a benefit rather than an injury to the States below us. Not half the water can ever be used in this State and three-fourths of all used will pass on to the States below, after it has rendered its service here. It will reach the irrigators in adjoining States at the period of least supply and will be an equal protection from the disasters of floods or injury from drought. But all those who have talked with the residents of those regions know that it is difficult to convince them of these facts and that if we are to adopt a system which makes it possible to disregard them they will very likely be disregarded.

PRACTICAL EXPERIENCE CONFINED TO ARID STATES.

I am opposed to the national government being placed in control of this matter, because it is naturally a concern of the State; because the best results will come through a system which appeals to local pride and enlists local enterprise; and because it is a matter in which all practical knowledge, all practical experience, is confined to the arid States. To transfer the management and control of this question to Washington, is to transfer it two thousand miles from the States where the work is to be performed; it is to place it under the control of a body of men, three-fourths of whom are absolutely ignorant of its fundamental requirements.

In an able speech advocating the transfer of the lands to the States, before the Salt Lake Irrigation congress, W. H. Mills of California, said: "The great fault with the land system of the United States, is that you are attempting to administer a domain actually more vast than was ever drawn together in one single, civil polity. * * * It is the very fact that you cannot administer a land department in one place that would make it judicious today for the government of the United States to establish land offices, with all the power possessed by the general land office in the various States. * * * Ignorance and inexperience have run that office continually, and you can organize a land department in every State and territory west of the Missouri river that will take up the lands

and attend to them with a higher degree of intelligence and a greater expedition than you will ever accomplish by attempting to administer them from Washington."

I believe that local experience will largely sustain that statement. If we are to disregard the unhappy experience of individuals in their dealings with the land office at Washington and consider only general legislation there is abundant evidence that national legislation on land matters has either shown a marvelous ignorance of the arid region or disregard of the requirements of that region. The government transferred the fertile lands of Kansas and Iowa to the settler who occupied them upon the most liberal terms, but the individual who wishes to reclaim the desert wastes of Wyoming is subjected, under the operations of the desert law, to the requirement of expending, within a limited time, enough money to buy a farm in many sections of the fertile and populous east.

The first attempt of the national law makers to deal with the irrigation problem direct, was the legislation of 1888, which withdrew all the irrigable lands of the arid region from settlement until such time as the government could investigate this question, an investigation which those in charge estimated would occupy fifty years. Its first law was one which had to be absolutely disregarded, until public sentiment in the arid States could force its repeal. We have the condition fixed by congress which says that no acre of State land shall be sold for less than ten dollars. Even the wildest flight of imagination cannot conceive how the erudite statesman who framed that clause could have believed that unimproved arid land was worth any such sum. What would have been the result to this State if we had not been able to secure the repeal of the law of 1888? It could have been nothing except to stop our growth. What is the effect of the \$10 limitation? Simply to prevent State lands being made an aid to growth; to make the selection of irrigable land by the State Land Commission equivalent to withdrawing it from occupancy and development and to make the selection of grazing lands ridiculous.

VIEWES OF MAJ. POWELL.

The transfer of the control of the reclamation of our irrigable lands to Washington would place it under the control of the Interior Department. The representative of this department, at the Los Angeles Irrigation Congress in October, 1893, said:

"There is not enough water and never can be; a quantity of water can never be conserved sufficient to irrigate more than one-third of the land already owned by private individuals.

"Not one more acre of land should be granted to individuals for irrigation purposes. If you irrigate the lands yet remaining in the hands of the government you have got to sacrifice some of the lands yet remaining in the hands of individuals."

According to this, it is the opinion of the Interior Department, or the accredited representative of this department, that no more irrigable public land in Wyoming should pass into the hands of the settler. The result of this policy, if carried out, would be that the valley of the Platte river would remain an arid waste, while the waters of that stream were used to reclaim the lands in the hands of private individuals in Nebraska.

It would mean that the valley of the Big Horn would remain a wilderness while the waters conserved upon the mountains of Wyoming and gathered together in the valley of that stream would be used to reclaim the lands belonging to private individuals in western Dakota.

In the light of legislation of this character; in the light of opinions like these held by the authorities at Washington; in the light of the hostility of the agricultural east to the rapid development of the agricultural west, I think we ought carefully to consider before we favor transferring the control of our development to Washington and to the domination of such adverse influences.

REASONS FOR FAVORING STATE CONTROL.

I am in favor of the transfer of the control of these lands and the entire solution of this problem to the several States. I am in favor of it because each one of the arid States has already assumed and exercised its control over the most complex and difficult part of this question, the management of the water supply. I am in favor of it because it involves no disturbance of existing rights to such water supply but rather affords the State the means and opportunity to extend needed aid in the improvement of the water supply, and to render the protection of existing rights more efficient than is possible at the present time. I am in favor of it because it enables each State to modify a general plan, which may be prepared by congress, to suit local conditions. This cannot be done under any national system. The requirements of Wyoming and California are too diverse to be harmonized. The difference in climatic conditions should be recognized by a corresponding difference in laws. The owner of three hundred and twenty acres of land in southern California is a nabob. The productive value of twenty acres is greater than six hundred and forty acres in certain portions of Wyoming. If we are to have a national irrigation system, California will urge, and properly from their standpoint, that the limit to a homestead should be twenty acres, so will Arizona, and if they should succeed in placing that limit upon the disposal of lands in this State, then California and Arizona would get all the settlers and the condition of Wyoming would be worse than it is at present. One arid land law will no more meet the requirements of this region, so vast in extent, so diverse in conditions, than will one coat fit all men.

THE GRAZING LANDS.

The disposal and management of grazing lands is of no consequence whatever in California; it is one of the greatest problems with which this State has to deal. The grazing interest of this State has been the leading interest and will always continue to be one of the leading interests, because of the high elevation of a large part of this State, because a large part of this State is and will be remote from markets. The water of a large number of our streams can only be profitably utilized, the lands can only be profitably reclaimed, when used in connection with the grazing lands which adjoin them. The failure of the present land law to recognize this fact is working great hardship to many of the small settlers on the streams remote from markets. They can only make their irrigable lands profitable by using them in connection with the grazing lands adjoining. As it is now, they have no means of controlling or protecting these grazing lands.

and when range herds of cattle or flocks of sheep invade them their support is destroyed.

The land commission, designated to select State lands in Wyoming, has received applications from such settlers, which aggregate over a half million acres, for the selection of grazing lands adjoining their farms, and there is no knowing what these applications would aggregate if the said commission had not given notice that no further requests of this kind would be considered at the present time. The number of these requests and the statements made by applicants can lead to but one conclusion: that the need for relief in this matter is urgent; that the injury which is being wrought from this omission is serious and widespread. Many of these ranchmen state that their ability to support themselves and their families, their ability to remain citizens of this State, rests entirely upon some relief being afforded; which relief must give them the opportunity to use and control the grazing lands contiguous to their farms. Now, this question, so full of serious import to Wyoming, is a matter of no consequence to California, of no consequence whatever to Kansas, to Dakota, to Nebraska, and the only way in which we can expect it to receive adequate and intelligent treatment is by the transfer of its management to those who understand it and have a vital interest in its proper solution; and that authority is the State.

I am in favor of the transfer of this matter to the State, because I believe in that way homes can be secured for the homeless at less cost than if the work is placed under the control of the national government. I believe that ditches built by the State, or by private parties under the supervision of the State, will be better built, will be built at less cost than if built under the control and supervision of the United States; and if the settler is to pay for this, the settler is the one to be benefitted by the economical procedure.

I believe that Wyoming, of all the arid States, is the last one to look with favor on a surrender of the control of this matter to the national government. We occupy the crest of this continent, we have in our mountains the greatest store-house of water in the whole arid region. If the solution of this question is left to us, if we are given the means to carry on this reclamation, then the extent of our development will only be limited by the extent of our opportunities. If this matter is transferred to the United States then our development will not depend upon our opportunities, but upon the influence of the States below us.

The only objection which I have ever heard urged to the transfer of the entire control of this matter to the State has been the contention that State legislatures are essentially dishonest; that State legislatures can not be entrusted with the management of so great a trust. I have never believed that that objection was a valid one because in the first place it is not necessary, it is not desired that an absolute grant be made from the United States to the State. All that is desired is that the grant be made conditionally; that the State be made a trustee; that the general conditions under which these lands are to be administered and reclaimed be fixed by congress and that on the failure of any State to comply with those conditions that congress be authorized to again assume control.

I do not believe it, because to admit that the State authorities are

incompetent to deal with this question is to admit that the whole theory of separate State governments is a failure. If a State government can not be trusted to deal with an essentially domestic affair, an essentially State affair, then it seems to me that the sooner State government is abandoned the better. If we are to entrust the management of our industrial development to congress because of a fear and distrust of our State government then statehood is a failure and State government ought to be abolished. Personally, I believe that such fear and distrust is without adequate foundation; that the theory of State governments to administer local affairs is a correct theory; that State governments are fitting and appropriate custodians for the control of all such matters; and that one of the most injurious, one of the most dangerous tendencies at the present time, is the disposition to transfer all power, all authority, all responsibility, to the national government.

