The Desert Land Act in Operation, 1877-1891

by

John T. Ganoe

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THE DESERT LAND ACT IN OPERATION, 1877–1891

With the passage of the Desert Land Act in 1877, serious misgivings at once arose as to its advisability. In his report for the same year, the Commissioner of Public Lands recommended its repeal and the substitution of a law which would give the arid lands to individuals or corporations for reclamation on the same principle as that applied to other lands.[1] The Secretary of the Interior protested against entry on land before its character was determined and suggested that a commission be formed to study the situation.[2] In response, Congress provided on March 3, 1879 for a commission of three persons in addition to the Commissioner of the General Land Office and the Director of the Geological Survey to codify all laws relating to the disposition of the public domain and to classify the land by types. The commission was also expected to present a system for land surveys and to make recommendations as to the best method of distributing western land to actual settlers.[3] The commission's report in 1881 was probably the most extensive survey of the public lands made up to that time.[4]

Although the report revealed little concerning the operation of the Desert Land Act as a national policy, it soon became evident to the Commissioner of Public Lands and to the Secretary of the Interior that the law was being used primarily to gain control of water. The entries were for long narrow tracts along the banks of streams,[5] and if 640 acres could be located in this manner the entrant had a great advantage in irrigating his land.

[1] U. S. General Land Office, *Annual Report of the Commissioner*, 1877:34. Hereafter cited as *G. L. O. R.*

[2] U. S. Department of the Interior, *Annual Report*, 1877:xxii.

[3] *Ibid.* (1879–80), 1:31.

[4] T. C. Donaldson, *The Public Domain* (Washington, 1881). This report was issued as U. S. 47th Congress, 2 sess., *House Miscellaneous Document* 45, part 4 [serial no. 2158].

[5] *G. L. O. R.*, 1880:85–89.

The Commissioner of the General Land Office, J. A. Williamson, considered this procedure a violation of the provision of the act which stated that the land was to be taken in compact form. This, he interpreted as meaning not merely contiguous but a surveyed section or its legal subdivisions and, for unsurveyed land, a form as near that of the legal units as the situation of the land permitted.[6]

Moreover, the Commissioner of Public Lands soon came to the conclusion that the entire national land system was being undermined by fraud. In response to his request, Congress provided for an investigation of fraudulent entries under the various land acts.[7] This authorization was approved on March 3, 1883, and by April 1, the investigators were in the field gathering evidence.[8] The General Land Office had opposed the Desert Land Act from its inauguration and now urged more strongly than ever that the theory on which the law was based was fallacious.[9] The investigators revealed that final proof, supposed to be submitted within three years, never occurred in a large proportion of the entries. Furthermore, no attempt was being made to irrigate the land as it was being taken for stock raising and as a means of controlling the ranges.[10]

The reports of the investigators were startling. W. H. Goucher, the special agent working in California, estimated that only 5 percent of the entries were made in good faith and that 90 percent of those in his district had been made between 1883 and 1885.[11] The land office at Tucson, Arizona, reported that the stockmen were monopolizing the land and stated that "One of the methods whereby large cattle owners acquire title to land enough to control all the water in a large district is the placing of their employés here and there at the different waters and

[6] *Ibid.*, 88.

[7] U. S. Laws, Statutes, etc., *The Statutes at Large of the United States of America . . .* (1883) 22:623.

[8] *G. L. O. R.*, 1883:206.

[9] *Ibid.*, 8.

[10] *Ibid.*, 1884:8.

[11] *Ibid.*, 1885:59. The report was dated Nov. 17, 1884.

acquiring title through them."[12] Charges against the cattlemen were made with monotonous frequency.

The Secretary of the Interior begged Congress to act. The land was being patented by the livestock interests in such a way as to gain control of thousands of acres. Odd sections were purchased either from the Government or the railroads and fenced in a manner that enclosed the intervening land although it was not owned by the cattlemen.[13]

The governors of the territories did not agree with the complaints of the Commissioner of Public Lands and the Secretary of the Interior. The Governor of Idaho Territory asserted:[14]

> In a few years an acreage greater than the whole State of Rhode Island will be reclaimed in the Snake River Valley alone, and changed from an arid, parched, and unsightly desert into rich and blooming agricultural lands, safe from drought or floods of rain. This happy condition is entirely attributable to the desert-land act, which should not be, and I beg to express a hope, will not be, changed.

The Governor of Montana Territory estimated that not over 5 percent of the entries were fraudulent and complained bitterly against the suspension of entries pending investigation, claiming that it was working "untold hardship" on the settlers.[15]

Until 1885, nearly all of the charges made by the Public Land Commissioner and the Secretary of the Interior were directed against the cattlemen. In attempting to formulate a reclamation policy for the arid lands, Congress had not considered their use for grazing purposes. The representatives from the Eastern States who dominated Congress expected the lands to be transmuted into a rich agricultural region like that of the Ohio and Mississippi valleys. Westerners were fully aware of what was taking place, and moreover, if the cattlemen seized the lands, it was not entirely without invitation. The Governor of Wyoming Territory gloried in the growth of the cattle industry and frankly advertised the ways to obtain large quantities of land under the various acts. In his annual report, he stated:[16]

[12] *Ibid.*

[13] Department of the Interior, *Annual Report* (1887) 1:15, 19.

[14] Idaho (Ter.) Governor, *Report . . .*, 1884:8, 9.

[15] "Report of the Governor of Montana," in Department of the Interior, *Annual Report* (1886) 2:834.

[16] Wyoming (Ter.) Governor, *Report*, 1883:27–28.

The greatest source of encouragement to men of moderate means desiring to engage in cattle-raising in Wyoming arises from that feature of the policy of the United States Government by which it encourages its citizens to acquire title to the public lands. In Wyoming, by fulfilling the requirements of the land laws, a male citizen may take up the following number of acres:

	Acres
Under the homestead act	160
Under the pre-emption act	160
Under the timber-culture act	160
Under the desert-land act	640
Total	1,120

By the first three acts land may be taken up in 40-acre tracts, and under the desert-land act a tract a mile and a quarter long and three-quarters of a mile wide may be filed upon.

A married couple, the wife being able to enter 640 acres under the desert land act, can get possession of 1,760 acres, sufficient to support several hundred of cattle. If, say, three men having means sufficient to make the payments at the land office necessary when filing upon lands under the four acts referred to, join their entries along a stream of water, they will have grazing land enough for at least a thousand head of cattle. They will be put to the expense of erecting fences around their lands and sheds to protect their herd against violent storms, but that done, their business will, it is thought, be put upon as safe a basis as is cattle-raising in Iowa.

To this governor, the activities of the stockmen were justified. In his opinion, the land of the Government was not worth $1.25 an acre, and since the stockmen had the water rights they might as well run their fences back to the divides as no other settlers would want the land along the watersheds.[17] He also believed that the land laws did not allow enough leeway for action and claimed that the investigations by the Interior Department worked gross unfairness against the honest man who told what he had actually done and exempted the perjurer who claimed fictitious improvements.[18]

The Governor of Utah did not deny that there was fraud but held that the entire national land system, except for the homestead and preemption acts, was an invitation to fraudulence.[19]

[17] *Ibid.*, 48–52.

[18] "Report of the Governor of Wyoming," in Department of the Interior, *Annual Report* (1885), 2:1202–1207.

[19] "Report of the Governor of Utah," in Department of the Interior, *Annual Report* (1885) 2:1029

He blamed the Department of the Interior for the troubles, asserting that because[20]

> the Department [was] holding so strictly to the requirements under the desert-land act stockmen, in their own interests, have entered lands about the springs and streams for the purpose of watering stock. The waters are so scarce in the Territory that a company of four or five men engaged in stock business can enter the same number of springs and streams, paying the Government for not more than a section or two of land, and virtually get the use of thousands of acres that cannot be settled or entered under any of the present land laws.

The only dissenting voice from the territorial governors was that of Governor Edmund G. Ross of New Mexico. He believed that land was being taken by fraud and possibly with the connivance of officials, and he saw no reason for changing the laws to aid the grazing interests because, as he put it, people rather than "dumb brutes" should inhabit the land.[21] To him the problem was a conflict between two civilizations, the nomad and semi-barbarian against the granger, and he insisted that the cattle industry should be curtailed in the interest of the latter.[22]

The statistics show a marked decrease in the number of entries under the Desert Land Act by 1887, and the Secretary of the Interior virtuously declared that the reduction was due to new methods used by the General Land Office.[23] Probably the explanation is that the cattle industry had reached its maximum development by the middle eighties. Great losses had resulted from overstocking the ranges and the severe winters, and the profits of the industry showed a marked decrease beginning in 1885.[24] This situation naturally affected the number of desert-land entries.

A new epoch in the operation of the Desert Land Act began with the decline of the cattle industry. In 1882, there were no irrigation works built on sound engineering principles, but

[20] *Ibid.*

[21] "Report of the Governor of New Mexico," in *ibid.*, 1008–1010.

[22] *Ibid.* (1887) 1:874–875.

[23] See *G. L. O. R.*, and Department of the Interior, *Annual Report* (1887) 1:6.

[24] "The Range Cattle Traffic," *House Executive Document 267*, U. S. Congress, 48th, 2 sess., serial no. 304; U. S. Congress, 51st., 1st sess., *Senate Report 829*, serial no. 2705.

by 1888, investors were turning from ranching to the rapidly developing irrigation companies.[25] In Wyoming, companies were being incorporated at the rate of one or two per year, usually, however, with a capital of less than $100,000. In 1882, eleven were incorporated; in 1883, nine, including one which was capitalized at $300,000 and another at $1,000,000; in 1884, nineteen; and in 1885, thirty-six.[26]

In 1887 Arizona had at least 400 miles of irrigation canals that cost over a million dollars, and had reclaimed over 200,000 acres. This work had been done by stock companies, controlled by landowners who had obtained land under the Desert Land Act.[27] In California the growth of irrigation and the number of desert-land entries were equally rapid.

The development of irrigation in the intermontane region was no less meteoric. In Idaho, even by 1884, the Governor pointed with pride to the achievements in reclamation.[28]

> Near Blackfoot a canal is nearly finished that will reclaim between 40,000 and 50,000 acres. In Cassia County—along the south side of the Snake River—Raft River, Goose Creek, and many smaller streams are owned entirely by the Mormons and used by them for irrigation purposes.
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> At Shoshone, in Alturas County, 25 miles north of Snake River, Little Wood River has been turned on the desert and a thriving town with its outlying farms has grown and is growing, where but two short years ago was a sage-brush covered, desert plain.
>
> In the Bruneau Valley some 60,000 acres are already under cultivation and a canal has been started to cover from 25,000 to 30,000 acres more. In Wood River Valley a canal has been constructed and irrigates over 20,000 acres, while below these now fruitful acres lie 50,000 acres which will shortly be covered with water and cultivated.
>
> The Idaho Mining and Irrigation Company of New York is constructing a canal with a capacity of 4,000 cubic feet of water per second, which takes the waters of the Boise about 75 miles above its confluence with the Snake River. This canal will irrigate and reclaim about 600,000 acres of land lying on the north side of the Snake River and south of Boise City.

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[25] U. S. Geological Survey, *Annual Report* (1891–92) 13 (3):115 (Washington, 1893). Hereafter cited as *G. S. A. R.*

[26] "Annual Report of the Governor of Wyoming," in Department of the Interior, *Annual Report* (1885) 2:1191–1193.

[27] "Report of the Governor of Arizona," in *ibid* (1887) 1:754–756.

[28] Idaho (Ter.) Governor, *Report*, 1884:8–9.

On the Payette River two canals are nearly completed that will cover about 50,000 acres, while a third is contemplated that will reclaim 30,000 acres more.

On the Weiser there are about 75,000 acres being brought under irrigating ditches, there being three or four different canals now building. In addition to the above a plan is maturing to take the waters of the Snake River and reclaim nearly 2,000,000 of acres of valley land. This, if carried into effect, will give Idaho land enough to supply the entire Pacific slope with cereals, fruits, and vegetables, and make her the richest of the Territories.

In 1890, the Governor reported that almost all irrigation was being carried on by corporate development and that most of the land was being taken under the minimum provision of the Desert Land Act.[29] The Governor of Utah stated in 1885 that the increase in the number of desert and timber-culture entries was due to the building of canals for reclamation purposes.[30] In New Mexico some owners were beginning to cultivate grasses, and the progress in irrigation by private enterprise and the incorporation of over thirty companies for that purpose was reported.[31]

The development of irrigation was so rapid that the Director of the Geological Survey expressed fear concerning its future possibilities, since, in order to utilize the water supply to the fullest extent, it would be necessary to buy out vested interests amounting to several hundred million dollars. When asked by the Congressional committee on irrigation for an explanation of the rapid growth, he replied that it was obviously because of the lucrative increment. Scarcely a week passed, he declared, without domestic and foreign companies asking for information and offering capital for investment.[32]

To the Public Land Commissioner this trend became the new crux of the land problem. Whereas the reports of the investigators had once complained against the cattle companies, they now turned to the speculators and the land and ditch companies. In Wyoming, seventy-eight desert-land entries comprising some 48,000 acres were transferred immediately after proof to a land

[29] "Report of the Governor of Idaho," in Department of the Interior, *Annual Report* (1890) 3:564-568.

[30] "Report of the Governor of Utah," in *ibid.* (1885) 2:1029.

[31] "Report of the Governor of New Mexico," in *ibid.* (1888) 3:843-844; (1890) 3:458-459.

[32] *G. S. A. R.* (1889-90) 11 (2):233-234 (Washington, 1891).

and ditch company, previously organized for the expressed purpose of acquiring these lands. Most of the entrymen lived in eastern States and had never seen the land. Even the purchase money was supplied by the company.[33] The reports from other districts tended to confirm the inference. The Surveyor General of Arizona reported that "Speculators of all degrees have now turned their attention to the facilities offered by the desert-land law, and 'the woods are full of them'."[34] In the same Territory, non-residents entered 113,178 of the 199,026 acres between July 1, 1885 and June 1, 1887.[35]

The Census of 1890 indicates in a measure the growth of irrigation during the latter part of the eighties. There were then 3,631,381 acres under irrigation by 54,136 irrigators, but this development cannot be attributed entirely to the Desert Land Act. Colorado, which was not included in the original act, had more than one-sixth of the total number of irrigators and nearly one-fourth of the improved acreage. In terms of States, it stood third in the number of irrigators and first in the proportion of total area irrigated.[36] Moreover, there had been considerable irrigation in California and Utah prior to the passage of the act, and it is reasonable to suppose that it would have continued to increase there. In addition, the homestead entries of the eighties were greater than the number of desert-land entries in the regions covered by the Desert Land Act. Only in Montana and Wyoming, and in some years in Arizona, Nevada, and Idaho, did the desert-land entries exceed those for homesteads.

Reclamation, however, involved the utilization of water as well as land, and analysis of the operation of the Desert Land Act in relation to the various methods of irrigation indicates its influence on water rights. If a farmer made a bona-fide entry for irrigation rather than cattle raising, he had four possible ways of

[33] *G. L. O. R.*, 1888:49.

[34] *Ibid.*, 1887:522.

[35] *Ibid.*, 523.

[36] U. S. Census Office, 11th Census, 1890, *Report on Agriculture by Irrigation in the Western Part of the United States at the Eleventh Census: 1890*, by F. H. Newell, special agent, 1–2 (Washington, 1894).

reclaiming the land: build ditches and appropriate water and manage the project by individual effort; affiliate with others to form a cooperative enterprise in which the stock was held by the landowners themselves; join a large group to form an irrigation district which, with the permission of the State, assumed quasi-governmental powers and issued bonds for the construction of projects based on the tax levy of the district; or, finally, purchase water from an irrigation canal company at a fixed rate.

Reclamation by individual effort was most unsatisfactory from the standpoint of conservation. The Desert Land Act was designed to dispose of arid lands to actual settlers, and it looked primarily to the utilization of perennial streams which could be easily diverted. Under the act as it remained until 1891, this was about all that could be done. In most of the arid regions the water supply was quite limited, and since the act recognized the doctrine of appropriation two important problems arose.[37] The appropriator took the land along streams where water could be diverted most easily and cheaply. As a result the water was invariably used first on the land at the lowest level. With the streams thus utilized it was impossible to irrigate the uplands without buying out the vested interests which had accrued below. Thus, the efficient utilization of water from the standpoint of its maximum beneficial use was thwarted.[38]

The other result was the curtailment of future development due to the early appropriation of easy-access streams. Although the doctrine of appropriation was applied to the public domain, title to water did not go with the land. When the land was owned by private individuals, the water rights came from the States. The resulting diversity of laws relating to water generated problems of equity that baffled the courts. The separate control of land and water tended to create water monopolies with the landowners dependent on the owners of the streams.[39]

[37] " . . . the right to the use of water by the person so conducting the same, on or to any tract of desert land of six hundred and forty acres shall depend upon bona fide prior appropriation."—Desert Land Act, sect. 1.

[38] *G. S. A. R.* (1889-90) 11 (2):233-236.

[39] Elwood Mead, *Irrigation Institutions*, 22, 23 (New York, 1903).

President Harrison, in his third annual message, urged Congress to adopt protective measures on the basis of its control over water rights in the Territories.[40]

The percentage of irrigation projects carried out as partnership and cooperative enterprises is not known. Almost all of the canals in Utah were built by cooperative effort. The farmers usually formed clubs to furnish both the money and labor and then divided the stock accordingly.[41] In California irrigation was begun by individual enterprise, chiefly by the holders of large estates. The Crocker-Huffman and Galloway canals cost more than a million dollars each.[42] Later, when the canal companies became involved in extensive litigation, reclamation was undertaken through irrigation districts in accordance with the district irrigation law of 1887. Idaho followed Utah closely in its method of development, whereas Wyoming depended largely on individual effort and land and irrigation companies. This diversity makes it impossible to tell with certainty the amount of irrigation promoted by the various methods of reclamation.

Strictly speaking, the Desert Land Act made no provision for relcamation except by individual effort, and it was on the basis of this assumption that Congress had designated 640-acre units. This amount was assumed to be sufficient, but irrigation farming needed more than land and water; it required capital,—often more than the individual settler could command. Since the act merely required that the land be irrigated in order to prove title and did not specify the amount, the farmer could adopt any method so long as his land was under irrigation at the end of the three-year period. Under the Desert Land Act entrymen could join together to build projects and irrigate their land and receive title from the Government. The persons forming this type of company, however, were of limited means. Capital, except in the form of labor, was extremely limited and consequently

[40] U. S. President, *Compilation of the Messages and Papers of the Presidents, 1789–1897* . . . by James D. Richardson, 9:205 (Washington, 1898).

[41] Mead, *Irrigation Institutions*, 233–237.

[42] *Ibid.*, 186.

these small partnership and cooperative concerns followed the practice of individual irrigators and built comparatively small ditches and irrigated only the low lands. The Mormons in Utah found the cooperative system well adapted to their needs, but as related to the efficient utilization of land and conservation of water, it proved little better than individual action.

The relationship between the Desert Land Act and the district plan of irrigation involved the organization of a community to issue bonds with which to build ditches. The security of the bonds would be the tax issues on the district, but back of the tax was a lien on the land. As title to the land resided in the Government until final proof and it could not be made until water was actually delivered, no lien could be placed until after irrigation. Consequently this method of raising money to build projects was eliminated.

In spite of the hardships involved in promoting irrigation, many believed that it, like the railroads, would create vast fortunes. The boom was based on this hope, and it was only through bitter experience that irrigation companies learned that the land law, passed by the Government to aid the development of irrigation, did not operate in their favor. Concerning its actions, Elwood Mead, who was perhaps more familiar with the irrigation problem of the West than any other man, stated:[43]

> When the Bear River Canal was begun in Utah, the land it was to water was an unoccupied sage-brush desert. Before its survey was completed, and in less than thirty days after it was begun, every acre of land had been filed upon. Three years later not one acre in fifty was being irrigated by the original entry men. Before the survey of the canal of the Wyoming Development Company was completed, six sections of the best land below it had been filed on by speculators. To protect itself, the company had to organize a syndicate to file on the land under the Desert Act.

It was evident, then, by about 1890, that remedial legislation was necessary, but it was difficult to know what action should be taken. The attempt to reclaim by means of a land law which gave no consideration to the water problem had worked havoc.

[43] *Ibid.*, 20.

In the meantime a movement to repeal the entire desert-land policy had developed. Beginning with the criticism of the Commissioner of Public Lands in 1877, the Desert Land Act was the object of intermittent attacks from numerous sources. Colorado was not included under the act until 1891, although, as has been noted, it was one of the major States in the development of irrigation. The Colorado representatives tried continually to have the act modified. In the first session of the Forty-seventh Congress, they brought forward a bill to settle the question of arid lands in Colorado by leasing them in 5,000-acre tracts for ten-year periods at four cents an acre.[44] The majority of the Committee on Public Lands reported favorably as it was believed that the bill was designed to allow capital to utilize the land and would at the same time guard proprietary rights. The majority also held that the existing laws of other States and Territories would be unsuitable for this land.[45] The minority felt that leasing the land in this manner would, in essence, make the Government a landlord similar to Old World sovereigns and that the bill was a step backward toward feudalism. It recommended that the Government sell in larger plots but not lease.[46] Because of this divergence of opinion the bill failed to pass.

The second source of agitation against the act came from the arid region itself and consisted mainly of attempts to relieve settlers under the Desert Land Act. Several bills were brought forward, one to amend the fees on the ground that the minimum paid for other lands in the United States was too much for desert lands;[47] and another, which is interesting in the light of the investigations made by the Interior Department, to authorize the assignee to make final proof of the reclamation of his land.[48] A number of bills sought to amend the act by extending the

[44] *Congressional Record*, 13:417, 840, 989 (Jan. 16, Feb. 2, 8, 1882). H. R. 2829, providing for the leasing of land in Colorado, was introduced, but the Committee on Public Lands reported H.R. 3857 as a substitute.

[45] U. S. Congress, 47th, 1st sess., *House Report 197* (Washington, 1882).

[46] *Ibid.*

[47] *Congressional Record*, 10:3707 (May 24, 1880).

[48] *Ibid.*, 1774 (Mar. 22, 1880).

time for making proof and payment, and others provided for incorporation of irrigation companies.[49]

A memorial, drawn by the Nevada Legislature in February 1883 and presented to Congress the following December, asked that desert entries, if not proved after the three-year period as provided by the act, be cancelled. The Legislature believed that the land would be entered under other land acts if this were done.[50] In the Forty-ninth Congress, bills were again brought forward to repeal the act as the investigations of land fraud were well under way. Nevertheless, the resulting Senate report held that the law should not be repealed but modified to prevent the existing abuses. Congress, however, merely postponed action,[51] and during the next few years bills for repeal were immediately laid on the table.

Meanwhile, the Commissioner of Public Lands and the Secretary of the Interior continued to plead for repeal. On February 13, 1888, a Senate Resolution asked the Secretary of the Interior whether he considered it advisable to have the Geological Survey segregate the land and lay out sites for reservoirs. Soon thereafter an act was passed providing for the survey of arid lands and investigation of reservoir sites.[52]

This act, apparently innocent enough in its intent, created a great furor. The plans of a Utah corporation to utilize the waters of Bear Lake and Bear River affected Idaho, and when the Idaho convention met to draw up a constitution, resolutions of protest were passed and the Utah company was forced to appeal to the Secretary of the Interior for protection. The

[49] These bills particularly emanated from the California representatives in 1882 during the first session of the Forty-seventh Congress. See *Congressional Record*, 11:1307 (Feb. 7, 1881); 13:275, 417, 1304, 3925 (Jan. 9, 16, Feb. 20, May 15, 1882); 15:154, 1177 (Dec. 18, 1883, Feb. 18, 1884).

[50] *Ibid.*, 15:199 (Dec. 20, 1883).

[51] These modifications provided: 1, Restriction of the amount purchased to 320 acres; 2, Sale only to citizens of the U. S.; 3, The requirement of a five-year residence period; 4, A provision against alienation of land; 5, At least one-half of the land to be reclaimed in five years. U. S. Congress, 49th, 1st sess., *Senate Report 69* (Washington, 1886); *Congressional Record*, 17:6266 (June 29, 1886).

[52] Texts of the various resolutions, letters, etc. relating to this act are conveniently found in *G.S.A.R.* (1888-89) 10 (2):1-17 (Washington, 1890).

Secretary replied that speculators could not take the land by the terms of the act and the Commissioner of Public Lands was instructed on August 5, 1889, to " 'immediately cancel all filings made since October 2, 1888, on such sites for reservoirs, ditches, or canals for irrigating purposes . . . and . . . hereafter receive no filings upon any such lands'. "[53] When the question was referred to the Attorney General, he ruled that the act reserved the land from settlement. "Entries," he said, "should not be permitted, therefore, upon any part of the arid regions which might possibly come within the operation of this act."[54]

For all intents and purposes, this interpretation meant that the arid lands could not be reclaimed. Coming just at the time when the irrigation boom was at its peak, it caused a protest to the Congressional Committee on Irrigation and Reclamation of Arid Lands.[55] Obviously the law as interpreted was working against the welfare of the country. Since the good land was withdrawn, the settlers were forced to take inferior lands which meant the utilization of water that could not thereafter be put to its best use. As a result the committee recommended the amendment that was approved August 30, 1890, in which that part of the act withdrawing lands from settlement was repealed.[56] Thus, the attempt of the Secretary of the Interior to gain his point by urging the maintenance of the literal provisions of the act had not met with Congressional approval.

In the meantime, Congress was still besieged with requests

[53] *G. L. O. R.*, 1890:61.

[54] *Ibid.* The provisions of the act upon which this opinion was based were: "all the lands which may hereafter be designated or selected by such United States surveys for sites for reservoirs, ditches or canals for irrigation purposes and all the lands made susceptible of irrigation by such reservoirs, ditches or canals are from this time henceforth hereby reserved from sale as the property of the United States, and shall not be subject after the passage of this act, to entry, settlement or occupation until further provided by law:

Provided, That the President may at any time in his discretion by proclamation open any portion or all of the lands reserved by this provision to settlement under the homestead laws."—*Statutes at Large* (1888) 25:527 (Washington, 1889).

[55] For the activities of this committee, see U. S. Congress, 51st, 1st sess., *Senate Report 928* (Washington, 1890).

[56] *Statutes at Large* (1890) 26:391 (Washington, 1891).

to take some action on arid lands. In the first session of the Fifty-first Congress more than fifty bills and resolutions pertaining to this problem were introduced and Congress accordingly passed an amendatory act, approved on March 3, 1891, which was designed to remedy the abuses.[57] In the first place it provided that the party making the entry would have to file a map indicating how he intended to irrigate the land and prove that his water supply was adequate for the purpose. This would eliminate taking land where there was no water, or merely to assign it to others for cattle raising.

In the second place, the act recognized the principle that irrigation could not be done satisfactorily by a single individual working entirely through his own efforts and provided that entrymen could associate together and file a joint map showing their irrigation plans. The importance of this partnership and cooperation plan is shown by the Census of 1910 which estimated that this method was used on nearly half of the acreage irrigated.[58]

The third feature of the act aimed to define reclamation in terms of the money expended on irrigation. When the Desert Land Act was first contemplated the question of what constituted reclamation and of how much water would have to be applied to meet the terms of the act was considered. The only answer made was that there should be enough "to make it an object for people to occupy the land."[59] From that time on, the problem had vexed the Secretary of the Interior. The amendatory act attempted to settle it by providing that at least $3.00 per acre must be expended and proof shown at the end of each year that $1.00 per acre had been spent to secure water. If in any year before the final entry was made, the entryman failed to show such proof, the land was to revert to the United States.

In the fourth place, the amendment limited the act to indi-

[57] *Ibid.* (1891) 26:1096-1097; 6 *Federal Statutes Annotated,* 395.

[58] U. S. Bureau of the Census, Thirteenth Census of the United States, 1910, *Bulletin, Irrigation* . . . 846 [Washington, 1911-12].

[59] *Congressional Record,* 5:1969 (Feb. 27, 1877).

viduals. Hitherto, the cattle companies, many of them controlled by English and Scotch bankers, had been able to acquire large areas of land by manipulating the entries. The amendment provided that the entrymen should be citizens of the United States, and, what was more important, that "no persons or association of persons shall hold by assignment or otherwise prior to the issue of patent, more than three hundred and twenty acres of such arid or desert lands, . . ." This provision was an attempt to limit the acreage by prohibiting corporations from taking more than 320 acres in addition to entries of the individual entrymen. The final section extended the operation of the act to Colorado.

The movement to repeal the Desert Land Act was unsuccessful, and beginning in 1891 irrigation entered upon a new era. The problems of operation had not been solved, and it remained for the future to see what could be done.

JOHN T. GANOE

University of Oregon
Eugene, Oregon