

IRRIGATION IN IDAHO

By HEBER Q. HALE, Assistant Commissioner of Immigration, Labor and Statistics of the State of Idaho.

It is to be noted that George C. Carey, former governor of the state of California, and president of the National Irrigation Congress, "that irrigation is one of the greatest and most necessary problems this country has to solve. Without it the cities must be built in the desert. With it the country can be made a garden of Eden. It is the only way to save the nation's life."

The persistence of this statement is given a little thoughtful consideration. From an insignificant concern, irrigation has developed within the last few years into a problem to which the great attention of the nation is being directed. In consequence, millions of acres of land are being converted into green and fertile fields where grew the sturdy and sturdy of the desert. King of the desert, the shrub of the hawk, the host of the owl and the doubtful host of the coyote, the car of the traveler, the loving of milk cows, the cow of the master of the barn-yard, and the laughter of merry children, the ear and gladden the heart.

And we advance an argument in favor of irrigation? Are not its benefits sufficiently obvious as to establish it among the certainties of science? Argument, indeed, is gone. Irrigation has turned black earth into gardens and waste places into habitable homes; how it has turned the farmer, as he turns the cool, ripening waters upon his thirsty land to defy the parching winds of the desert.



SENATOR W.E. BORAH OF IDAHO

LIST OF SEGREGATIONS IN IDAHO UNDER CAREY ACT.

NAME OF COMPANY AND ADDRESS.	Total Acreage	Unsold Acreage	Price per Acre
Twin Falls Land & Water Co., Twin Falls	230,000	45,000	\$25.00
American Falls Land & Power Co., Pocatello	57,000	27,000	25.00
Chamberlain & Co., Boise	6,000	2,000	30.00
Payette Canal Company, Payette	6,000	2,000	15.00
Idaho Irrigation Company, Ltd., Albert	110,000	24,000	25.00
Marysville Land & Improvement Co., Marysville	3,000	2,000	25.00
Payette River Land & Irrigation Co., Powell	85,000	75,000	30.00
Twin Falls North-side Land & Water Co., Shoshone	180,000	100,000	25.00
Idaho & Payette Land & Irrigation Co., Grouse Ferry	22,000	22,000	25.00
Payette Irrigation Company, Stone	4,500	4,500	28.00
Twin Falls Salmon River Irrigation Co., Twin Falls	140,000	140,000	40.00
Clear Creek Reservoir Company, Boise	50,000	50,000	25.00
Payette Irrigation Company, Pocatello	2,000	2,000	30.00
Totals	886,500	513,000	

Lands under the last five companies listed above are not yet subject to entry. Their segregations have been applied for and some of them already made and it is confidently expected that their lands will be open to settlement during the coming year.

ADVANTAGES OF IRRIGATION.

As to the advantages of irrigation, we need here note only a few brief facts. Even where rainfall is plentiful, there are important advantages in crop production by irrigation over the natural rainfall. In the first place, irrigation waters can be applied at such times and in such quantities as they are needed; this gives a certainty to results which cannot be realized where the chance of adequate or untimely rainfall is dependent upon nature. Where the natural rainfall is depended upon, it is impossible that only so many plants can be allowed to occupy the soil as are likely to increase the loss of soil moisture beyond what the rains and dillies will make good; whereas, by irrigation methods, the closeness of stand upon the ground is limited only by the demands for root-room, air and sunshine. Here, then, so many more plants can be grown upon an acre by irrigation than otherwise, the yield will be much larger.

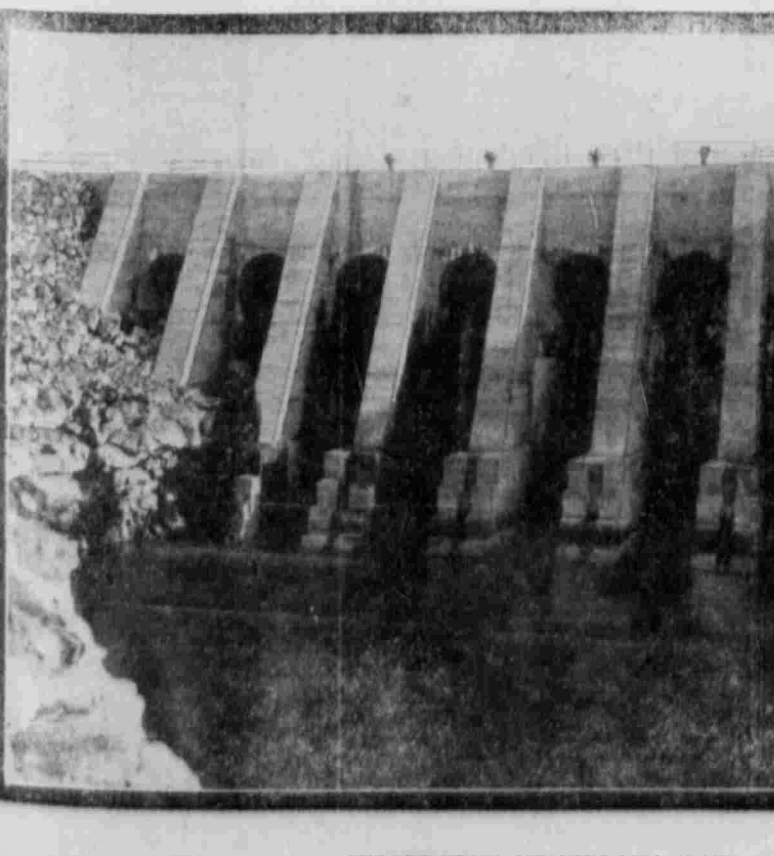
Then, too, water used for irrigation is almost without exception much larger percentages of both the grain and ash ingredients of plant food than rain waters do, and, as this is largely in the soluble form, it becomes at once available and thus stimulates vigorous growth.

CRUDE BEGINNING.

The beginning of irrigation in Idaho was in harmony with its surroundings, very crude. Along with the pioneers, there came into our mountain valleys in the early sixties, the farmer to grow grain and vegetables for him. These were Idaho's first cities.

With this first farmer and those coming after him during the next half-century and a half decades, the method of irrigation consisted merely of diverting a portion of the waters of a stream in a slow furrow upon the land lying along its banks. Very often an obstruction across the stream was necessary to make such diversion.

But when the population had increased sufficiently to inhabit these lands along the headwaters of the streams and made the flowing of the upper lands necessary for the creation of new homes, co-operative effort in the procuring of water for their farms became obvious. Under this system, a number of farmers residing in a certain locality would unite in the construction of a canal, conducting water from a creek or river upon their lands, miles away. The canal thus constructed would be their own property, and they would procure their water at actual cost. This system, though quite extensively practiced today, has about reached its limit, so far as new irrigation projects in this state are concerned; for the reason, principally, that opportunities for such are no longer in evidence.



WASTE-WAY MINNEKOKA DAM.

THE MAN OF THE HOUR IN IDAHO.

THE new senator from Idaho who was seated March 4, 1907, has the distinction of being the only senator holding his seat by a direct vote of the people, or as near that as possible under the Constitution, also of never having held political office up to the time of his election to succeed the Hon. Fred T. Dubois. He, however, has always been a close student of politics, and in his college days in Illinois and Kansas was known as a campaigner and "a rattling good spell-binder."

Senator Borah was born on a farm at Fairfield, Wayne county, Illinois, June 29, 1857. He is the son of William M. and Elizabeth (West) Borah, whose paternal grandparents came from New England. His father was a native of Kentucky, and his mother was born in Indiana.

HIS EARLY TRAINING.

The senator's early training was received in the public schools of Fairfield and the Southern Illinois academy at Enfield, Illinois. He later entered the Kansas State university at Lawrence, Kan., from which institution he was graduated with the degree of M. A. The foundation of the career of the present junior senator from Idaho was laid in the law office of Mr. A. M. Lashley at Lyons, Kan., where he remained a year and one-half and was admitted to the bar in 1888. Convinced, however, that there was a broader field of action further west, he moved to Boise, Idaho, where in 1891 he opened a law office, and has been in active practice there ever since.

NATIONAL REPUTATION.

The senator's one particular case that gave him a national reputation and endeared him to all law-abiding citizens of his state was his masterly handling of the prosecution of the dynamiters, who during the labor troubles at Coeur d'Alene dynamited the Bunker Hill Sullivan mine. In that diabolical plot the strikers killed several non-union miners. Governor Steunenberg declared martial law and placed the present senator in charge of the prosecution.

THE RECLAMATION ACT.

With the Carey Act has come a companion quite as beneficent though slower in progress—the Reclamation Act. The workings under this act are wholly within the hands of the reclamation service of the United States, which constructs the irrigation works similar to the provisions of the Carey Act, letting the settlers have the water at actual cost. Idaho has also taken advantage of this act, and what is known as the Minnedoka and Boise-Payette projects, reclaiming, respectively, 50,000 and 375,000 acres of land, at a cost of \$1,000,000, which sum practically exhausts the original allotment made to this state. The total acreage under these projects is now in private ownership.



lands and cost of construction. Accompanying this article is a table showing by counties the information that the figures given do not show the total cultivated acreage in any one county; they pertain wholly to the irrigated lands and lands coming within the circumference of irrigation systems. This will account for the small showing for some of the counties—especially by the six counties in the northern part of the state, viz., Latah, Idaho, Nez Perce, Kootenai, Bonner and Shoshone, where irrigation is almost wholly dependent upon the production of crops. Shoshone county has no farming to speak of—all mining. Bonner and Kootenai counties are principally mining and timber in their industries, though farming is practiced in a small way. Latah, Idaho and Nez Perce counties, however, form one of the principal granaries of the state. These three counties have under cultivation 1,779,000 acres and will produce this year, it is estimated, a surplus of 2,000,000 bushels of wheat.

From the table it will be observed that Idaho has under canal systems nearly 2,000,000 acres of land, over half of which is under actual cultivation; that this state has expended nearly \$2,500,000 in the construction of irrigation works, and that the length of her canals totals over 3,000 miles. If her canals were put end to end, there would be a waterway formed sufficient in length to throw a loop around the state of Idaho and extend an arm which would reach to the door of Kaiser Wilhelm's palace in Berlin, Germany.

HOW OTHER STATES STAND.

Idaho has in all about 1,935 separate canals and irrigation ditches, she has 13 Carey act projects, covering 385,500 acres, and 2 government reclamation projects reclaiming 425,000 acres. As compared with surrounding states, Idaho has more irrigated land, more land open to settlement, a greater acreage under Carey act projects and, excepting Montana, has reclaimed more land by virtue of the reclamation act than any state in the west, or in the Union, so far as known. Idaho has 618,709 acres of irrigated land in excess of Utah; 2,454,608 more than Nevada; 1,101,653 over Colorado; 1,954,608 over Wyoming; 1,454,608 more than Montana; 1,394,558 over Washington, and 2,746,498 more than Oregon. As to Carey act projects, Utah and Nevada have none; Wyoming has 28; Montana, 3; Colorado 3, Oregon 3 and Idaho 13. Under this act Idaho has provided water for 185,500 acres more than Wyoming; 336,158 over Colorado; 821,500 more than Montana and 702,700 more than Oregon. Under irrigation systems, Idaho has available for settlement 513,000 acres of land, which is that amount more than Utah reports, 415,000 acres more than Nevada has, 215,000 acres over Wyoming, 455,000 acres more than Nevada has, 213,000 acres over Wyoming, 455,000 over Montana, 488,000 over Colorado, 455,000 more than Washington, and 435,000 acres more than Oregon.

TABLE SHOWING COMPARATIVE IRRIGATION STATISTICS.

STATE	No. of Projects	No. of Acres Under Canal Systems	No. of Acres Actually Irrigated	Length of Canals	Cost of Construction
Idaho	13	886,500	513,000	3,000	\$2,500,000
Utah	1	500,000	40,000	2,185,000	60,000
Nevada	1	170,000	26,000	500,000	100,000
Wyoming	28	700,000	30	575,000	300,000
Montana	3	65,000	35	1,450,000	20,000
Oregon	3	185,000	32,000	1,000,000	70,000
Colorado	3	56,302	1	208,000	60,000
New Mexico	5	235,000	35,000	1,000,000	644,000
Washington	2	345,650	649,650	80,000	60,000

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IS VERY POPULAR.

His fearless conduct in the management of the Steunenberg case, together with his recognized ability as a lawyer, made him a popular candidate for the senatorship. In the primary elections he was elected by a large majority, and on August 2, 1906, favorable to his candidacy for the senatorship, after a long and bitter struggle, Mr. Borah was victorious in having a plank inserted in the platform of the convention pledging all the candidates of his party to the legislature to vote for him for United States senator.

HIS ELECTION.

This practically made an election of the United States senator by a direct vote of the people, and at the polls Idaho showed her approval of Mr. Borah by electing 54 members of the legislature pledged to him out of 72 voted for, and on Jan. 15, 1907, the senate and house of Idaho formally elected him to the United States senate.

Senator Borah was married April 28, 1885, to Miss Maudie McConnell, daughter of ex-Governor W. J. McConnell of Idaho. The senator's life has been too busy a one to be much of a club man. He is an Old Fellow and a Knight of Pythias.

TABLE SHOWING IDAHO'S IRRIGATED LANDS.

COUNTY	No. Acres Under Canal Systems	No. Acres Actually Irrigated	Length of Canals	Cost of Construction
Ada	196,367	84,000	213	\$1,507,000
Bannock	125,349	70,900	110	375,500
Blaine	41,744	81,824	194	58,100
Bingham	708,940	458,320	1,938	2,012,332
Blaine	335,784	210,550	850	4,431,430
Boise	41,448	20,181	268	166,850
Bozeman	1,000	710	10	2,500
Canyon	128,905	15,700	1,541	3,002,320
Cassia	25,123	15,700	132	12,220
Elmore	6,500	2,600	112	13,520
Clatsop	110,437	34,700	90	586,735
Fremont	623,564	236,985	1,425	1,482,240
Idaho	7,415	5,020	75	41,250
Kootenai	8,500	8,500	29	226,000
Latah	31,025	21,169	120	71,063
Lemhi	23,041	12,595	270	136,668
Nez Perce	7,180	5,940	41	218,000
Owyhee	126,175	81,285	694	1,090,712
Shoshone	158,000	6,244	102	168,000
Twin Falls	242,130	201,150	681	4,003,231
Washington	43,388	20,770	170	218,770
Totals	2,954,608	1,656,593	9,021	\$20,491,771

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RECORD YEAR FOR IMPORTS.

Value of Merchandise Brought in 1906 Was Far Over a Billion.

The value of all merchandise imported into the United States during the year ended June 30, 1906, according to an agricultural bulletin from the United States department of commerce, was larger than that of any previous year, and amounted to \$1,227,000,000. The value of farm products imported during the year was also the largest on record, and equaled \$244,000,000, or 42.5 per cent of the total imports.

The tendency during these years has been for imports of farm products to increase as measured by value, more slowly than that of manufactured goods. During 1880-1884 farm products constituted 31 per cent of the total; in 1895, 30.1 per cent; and for the period of 1890-1894, the percentage was 46.7. The highest percentage was in 1894, when farm products were valued at \$115,000,000 of the total, and the lowest was in 1903.

Forest products imported into the United States have increased in value from \$40,000,000 in 1890 to \$95,000,000 in 1906, or more than 100 per cent in ten years. The years of greatest increase were 1902, which showed a total of \$120,000,000 greater than that of the previous year, and 1906 which exceeded 1905 by \$15,000,000.

The decrease in 1905 as compared with 1906, in the value of imports into the United States from South America, of both farm and forest products, amounted to a total of \$16,000,000. However, the value in 1905 was \$13,000,000 more than in 1904.

Farm imports increased from Europe increased \$1,000,000 in 1906 as compared with 1905; from Africa they increased \$3,000,000, and from Asia \$1,000,000. These gains were almost offset by decreases in the value of imports from Europe from the other grand divisions, so that the net increase for all imports of farm products in 1906 over 1905 was less than one-half million dollars. Most of the forest products imported in 1906, as measured by value, came from countries of North America. The value of this class of imports from each grand division except South America and Oceania was larger in 1906 than in 1905.

seclusion of the offenders. Though embarrassed at many turns in the case, he succeeded in convicting one of the dynamiters of murder and 12 others of felony. Eight others whom he had indicted escaped the law by bribing the soldier guard and breaking jail, and were never retaken.

STEUNENBERG CASE.

Mr. Borah's reputation was principally local until he became identified with the prosecution in the Steunenberg case. He was one of the party of Boise citizens and friends of ex-Governor Frank Steunenberg who went to Caldwell the night of the assassination, Dec. 29, 1905, and, through personal attachment to his martyred friend and as a citizen of Idaho and an attorney of ability, he has from that hour, taken a very active part in bringing to justice the perpetrators of that awful crime. He has been associated with every step in the preliminary investigations and identified with all the court proceedings in the case.

HAYWOOD TRIAL.

The trial of W. D. Haywood commenced May 9, 1907, and lasted until July 25. Haywood and his associates were arrested in Denver Feb. 17, 1906, and brought to Boise on the 18th of the same month. The first notable effort of Senator Borah in connection with the trial was his argument in opposition to the motion of the defense for a bill of particulars, which was overruled by the court. His address to the jury is conceded to be one of the most notable deliberations of the times. While it was courageous, bold and profoundly impressive, it was totally devoid of abusive utterances.

HARBASSED BY ENEMIES.

During this trial Senator Borah was harassed by political and other enemies in his indictment in the United States court, in an alleged conspiracy to defraud the government out of timber lands. So soon as the Haywood trial was begun, he demanded an immediate hearing, but the government attorneys wanted more time. The trial of the senator was finally begun on

completed and water delivered to the settlers. On this tract over 10,000 acres were put under cultivation this year.

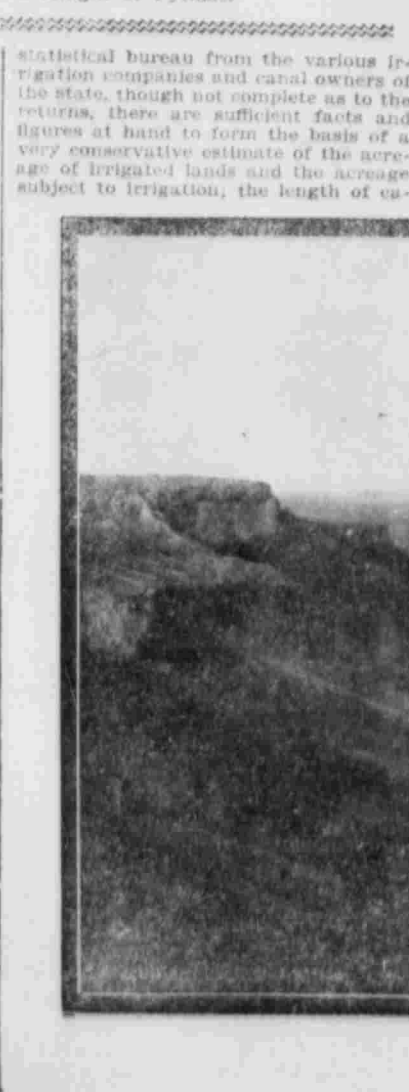
The Boise-Payette project is situated principally in the Boise valley, the waters for which will be taken from the Boise and Payette rivers, near the heads of each immense storage systems have been installed by great masonry dams across the river channels. The main canal, of 40 miles in length, will flow through two capacous reservoirs, situated on Deer Flat, west of Nampa; work on which is now nearing completion. These two reservoirs are of huge capacity, and will be used in which to store water during the wet season of the year for distribution during the summer. This project will be completed and the water delivered in the spring of 1908.

The Minnedoka project contemplates the further reclamation of 70,000 acres of land on the south side of the Snake river, by the installation of a pumping plant, on which construction work, it is expected, will begin next spring. This will be the first departure, on a large scale, from the gravity method of water diversion.

GREAT CAPITAL DEMANDED.

Future irrigation projects in this state, with perhaps a few exceptions, will require the investment of huge capital. Land is yet plentiful, and there is yet an abundance of water; but in order to force the water to reach the former, immense dams will have to be constructed across the deep river gorges, or extensive storage reservoirs built, or pumping plants installed, any one of which would mean an expenditure of hundreds of thousands of dollars. Yet, this should induce no fearful apprehensions as to the irremediable redemption of our vast land areas. The progressiveness of our western states has attracted the capitalists of the east and they are investing their thousands and their millions with lavish hands upon the shoulders of our untapped resources. Capital waits at our door.

From reports received at the state



BOISE RIVER, SITE OF DAM.