

FEDERAL LEGISLATION CONCERNING
TIMBER CULTURE

by

HAROLD J FRONING

B. A., Southwestern College, 1926

A THESIS

submitted in partial fulfillment of the

requirements for the degree of

MASTER OF SCIENCE

KANSAS STATE COLLEGE

OF AGRICULTURE AND APPLIED SCIENCE

1936

Spec
Coll
LD
2668
T4
1936
F71

PREFACE

Through the series of acts that composed the timber culture laws, eleven million acres of public land passed from government ownership to private control. The significance of these acts is self evident when it is realized that an area greater than one-fifth the size of the state of Kansas was given to individuals for the production of trees. The major legislation concerning timber culture covered the period between 1873 and 1893.

The purpose of this paper is to make a study of the demands for legislation for the growing of trees on the western prairies, to investigate the provisions of such legislation, and to consider the operation of the timber culture laws.

The writer wishes to thank Professor C. M. Correll and Professor Fred A. Shannon for their most willing and helpful assistance in the working out of this paper. The writer also expresses appreciation to the library staff for their willing and courteous service. It is with pleasure the writer acknowledges the cooperation, advice, and sympathetic assistance of his wife, Wanie Condit Froning.

TABLE OF CONTENTS

Preface	ii
Early History of the Public Domain	1
Agitation for the Timber Culture Act of March 3, 1873	10
A Review of the Legislation Dealing with Timber Culture	21
Failure and Repeal	34
Varieties of Trees Permitted	53
Graphs and Maps	55
Conclusions	69
Bibliography	70

EARLY HISTORY OF THE PUBLIC DOMAIN

In the sixties and the seventies of the nineteenth century, the American pioneer was found moving into the broad, treeless domain of the western prairies. The settlement of this territory presented a new problem to the pioneer. The winds which swept over the prairies demanded the break which growing trees always afford. Many people felt that trees could be grown on the western prairies if settlers were encouraged to plant and cultivate them. The representatives to Congress from the western states and territories demanded assistance from the federal government for the raising of trees. It was through this agitation that Congress attempted to change the treeless, arid, and semi-arid region of the west into a country that would produce not only trees but timber as well. Congress wanted not only to supply the west with sufficient trees, but to replenish the fast diminishing timber supply of the nation.

Before going into a discussion of the plans of Congress in regard to the perpetuation and conservation of the timber supply of the nation, it is well to review three things: the extent of the public domain, the method by

which the federal government came into control of the public domain, and the policy of the federal government in regard to its large store of public lands.

The question of ownership of western lands early became a serious public controversy between the different states. The grants given to some of the colonies by England were not clear in the definition of their western boundaries.¹ They were not only confusing and ambiguous, but grants made to one colony would cover some of the same territory given to other colonies. The boundaries extended indefinitely westward, often crossing the lines of other colonies. This gave rise to the question of ownership of western lands. There were states that had no western lands or western land claims. They were naturally interested in sharing in the profits from the sale of this land and early suggested that all western lands be given to the federal government. Maryland, in particular, refused to sign the Articles of Confederation unless all land claims were ceded to the federal government.

The difficulties between the states were put to an end with the cession of the western lands to the Congress

¹"Report of the Public Land Commissioner", Executive Document, 46 Cong., 3 Sess., No. 47, p. 31.

of the United States. Twenty-one years intervened between the first and the last cession, New York being the first and Georgia the last.²

After the cession by the original states of their western lands, the large addition of the Louisiana Purchase was consummated. This was a territory almost equal in area to that of the United States under the Treaty of Paris of 1783.

The addition of Florida increased the public domain in area 59,269 square miles. The public domain was rounded out with the settlement of our northern boundary disputes with England, the Mexican cession, Texas, Gadsden and the Alaskan purchases.

² See H. B. Adams, Marylands' Influence Upon Land Cessions to the United States (Johns Hopkins University Studies, 3 series, No. 1).

The following table shows in acres the sources of the public domain.³

State cessions	259,171,871
Louisiana Purchase	756,961,280
Florida	37,931,280
Mexican Cession	334,443,520
Texas Purchase	61,892,480
Gadsden Purchase	29,142,400
Alaska Purchase	<u>369,529,600</u>
Total	1,849,071,871

According to estimates the aggregate of the public lands of the United States, disposed of and remaining at the time of June 30, 1880 was 1,849,071,871 acres. On this date there were left remaining in the hands of the government for disposal 1,255,527,782 acres. This land

³ Miscellaneous Documents, 47 Cong., 2 Sess., No. 45, p. 15. The public domain is here regarded as land belonging to the Federal Government as distinguished from the national domain which is all the territory within our national boundaries.

was located in the following states and territories.⁴

In Iowa, Indiana, Illinois, and Ohio, practically none.

Kansas	28,049,731
Minnesota	26,894,236
Nebraska	31,010,859
California	73,894,272
Nevada	66,774,269
Oregon	50,815,040
Washington	37,925,323
Colorado	61,146,991
Utah	49,967,725
Arizona	68,659,597
New Mexico	73,067,399
Dakota	83,647,595
Idaho	51,664,595
Montana	86,431,128
Wyoming	59,026,606
Missouri	1,000,000
Wisconsin	5,440,338
Michigan	853,214
Louisiana	1,148,892
Florida	7,756,493
Indian Territory	17,150,250
Alaska	369,529,600
Public Land Strip	<u>3,637,600</u>

Total 1,255,527,782

The early policy of Congress was to dispose of public lands in large blocks. The opinion then commonly held regarding public lands was that the public lands should be used to pay the public debt and help bear the expenses of running the federal government. By selling lands in large

⁴ Miscellaneous Documents, 47 Cong., 2 Sess., No. 45, pp. 15-16.

blocks, the government was relieved from dealing with small land purchases. The sales were usually made at public auction. The method of disposing of the land in large blocks soon met with disfavor; therefore, the size of the tracts offered for sale were gradually reduced. Also, a minimum selling price was established in order to prevent land from being sold at too low a price.

Land was given to soldiers who enlisted in the armies of the Revolutionary War and the War of 1812. During the Mexican War, Congress offered land bounties to those who enlisted for service, but by the time of the outbreak of the Civil War the giving of land bounties to soldiers was replaced by the homestead policy.

Bounties of public lands were given for the building of railroads, wagon roads, canals, and for river improvements. This policy of giving part of the public domain for internal improvements was for the purpose of national development. It was necessary for the farmer of the west to deliver his products to the markets of the east. He was in debt and it was necessary for him to sell his commodities for a price in terms of money rather than in exchange for other products in his local community.

The right of pre-emption, that is, the right to set-

tle on and improve unsurveyed or unappropriated public lands, and later be able to buy them at the minimum price, was at first prohibited by law. In 1841 the right to pre-empt was definitely established. This law gave to the settler the first right of purchase, and was a concession to those actually living on the frontier.

It is interesting to note in tabulated form the disposal of public lands prior to the time of the timber culture agitation. The following classification was made by the Commissioner of Public Lands showing the disposal of public lands granted up to June 30, 1867.⁵

	Acres
Military Service	60,114,928
Agricultural Colleges	1,352,081
Railroad Aid	20,739,340
Swamp Land	47,377,523
Internal Improvements	12,403,054
Schools	67,983,914
Universities	1,082,980
Indian Scrip	669,564
Float Scrip	15,296
Wagon Roads	3,225,413
Ship Canals	1,450,000
Salines	514,485
Seats of Government and other Public Buildings	146,860
Individuals & Companies	1,998,863
Deaf and Dumb Assylums	44,971
Reserved for Indians	12,827,272
Homestead Policy	7,136,511

⁵ Report of the General Land Office, 1867. p. 364.

The homestead plan of giving free land to the settler showed a change in the policy of the government in the disposal of public lands. No longer was Congress interested in making a profit from the sales, but rather in giving the land to bona fide settlers. The profit in so disposing of the land came through the increase in national wealth that was produced by those who made their homes on the land. Land under the homestead laws was open to the settler who would live on it for five years, cultivate the same, and make certain improvements. The law was so amended as to make it comparatively easy for anyone of limited means to secure a freehold in the west. The passing of this law in 1862 did not do away with the right of pre-emption nor the cash purchasing of public lands.

One provision of the Timber Culture Act of 1873 was, in fact, an amendment to the Homestead Act. This law provided that patents should be granted to homesteaders who had been on their claims for three years, and during the last two years of that time, had had one acre of trees under cultivation for each sixteen acres of the home-

stead.⁶ The Timber Culture Act was a bounty for the growing of trees on the western prairies. The entryman under the timber culture laws planted and cultivated a specified number of acres of trees for the statutory period, and in return received a certain amount of land. The timber culture laws did not in any way prohibit the entryman from taking out either a homestead or a pre-emption claim.

⁶ U. S. Stat. at Large, Vol. XVII, p. 605.

AGITATION FOR THE TIMBER CULTURE ACT OF MARCH 3, 1873

Wood was considered highly important in the private and industrial life of the people of the United States in the seventies of the nineteenth century. Representative Dunnell of Minnesota, in a speech to the House on April 27, 1876 showed the annual demand of the 60,000 miles of railroads that were constructed, or in the process of being constructed. He reported that 2,500 sleepers were required for each mile of railroad constructed, which would call for 15,000,000 trees annually. Sleepers required renewal every five years, making an annual demand for 30,000,000 trees each year. Wood was also the fuel used in train engines at that time, and it took one and three-fourth cords to run an engine twenty-five miles. The demand for lumber was increasing twenty-five per cent each year.¹ Along with the realization that the demand for timber was rapidly increasing, came the recognition that the supply

¹

Summary of the figures used by Representative Dunnell from Minnesota in an address to the House on April 27, 1876. Cong. Record, 44 Cong., 1 Sess., app., p. 102.

was diminishing. In the report of the Commissioner of Public Lands in 1866, emphasis was placed on the fact that the supply was "so rapidly diminishing that it was a matter of serious concern".²

The line of the frontier was leaving the forest area of the United States but there was the opinion that trees could be grown on the prairies if cultivated and protected from fires. The Surveyor General of Kansas in 1865 reported, "Timber is not superabundant, yet as far as settlements have extended, there seems to have been a sufficient supply for every one. The large timber is confined mainly to creeks and river bottoms, and the smaller growth is found along the banks of ravines. Thrifty growing underbrush is every-where predominant, giving evidence that if it were not for the sweeping prairie fire, young forests would spring up in all directions."³

Again the report of the Commissioner of the General Land Office of 1867, in commenting on the land of Nebraska, says, "I think a sufficient number of experiments have

² Report of the General Land Office, 1866, p. 33.
³ Idem, 1865, p. 94.

already been made in the western country to show clearly that the forests may be restored to these almost treeless prairies in a comparatively short period of time." ⁴ He then continues in his report by listing a number of farms on which trees have been successfully grown. Later he writes, "I would again speak of the great importance of planting trees in this country, and the great ease with which these cultivated forests may be produced. I do not believe the prairies proper will ever become covered with timber except by artificial means." ⁵

Tree planting associations were formed in the western states. Many communities set apart a festival day for the planting of trees. The day was in the form of a local holiday. In fact the western states themselves took the lead in encouraging the growth of trees. On March 2, 1868, Kansas passed a law whereby "Every person planting one acre or more of prairie land, each acre containing not less than 160 trees, within ten years after the passage of this act, with any kind of forest trees, except black locust, and successfully growing and cultivating the same for three

⁴ Idem, 1867, p. 131.

⁵ Report of the General Land Office, 1867, p. 135.

years, and every person planting, protecting and cultivating for three years, one-half mile or more of forest trees, along any public highway, said trees to be planted so as to stand at the end of three years not more than one rod apart, shall be entitled to receive for twenty-five years, commencing three years after the grove or line of trees has been planted, an annual bounty of two dollars per acre for each acre so planted, and two dollars for each one-half mile so planted, to be paid out of the county treasury of the county in which said grove or line of trees may be situated."⁶

As the homeseeker moved into the western prairie there was an urgent demand for national assistance in the growth of trees. Mr. Armstrong, a delegate from the Dakota Territory, in an address before the House in 1872, said in part, "The homeseekers dread a lonely exile, and they would almost as soon select a homestead in the moon, or pre-empt one hundred and sixty acres of blue sky as to locate with his family on the green prairies of the west, thirty miles from a tree. The birds avoid the desert for want of trees to sing in, and the sunny rills go panting for shady nooks

⁶

Kansas Statutes 1872, ch., 204, p. 402.

to hide in."⁷ And again in the same address, "The settlements cling to the groves and streams, but creep cautiously and reluctantly on the verge of the boundless prairies No coal has been discovered in the settled portion of the territory and the consequent want of fuel, together with the cost of imported lumber for building purposes will long delay the settlement of the prairie region."⁸

In the Public Lands report of 1867, the Commissioner says, "The cultivated forests, it is supposed, will prove more desirable than the natural growth. A large number of intelligent and enterprising farmers are engaged in planting forests in some of the counties of the state (Nebraska), in nearly the whole extent of which all common fruit trees can be raised from the seed as easily as corn. The planting of ten to fifteen acres of forest trees on each quarter section is recommended by the geologist, with a view to increase the moisture, to add greater fertility to the soil, and to produce beneficial effects upon the climate. It is ascertained that for the past twelve or fourteen years the rain has gradually increased in quan-

⁷ Amos Armstrong, Internal Improvements, Cong. Globe, 42 Cong., 2 Sess., App. p. 57.

⁸ Ibid.

tity, and is more equally distributed through the year. It is supposed this change will continue to extend across the dry belt to the foot of the Rocky Mountains, as settlements are extended and the forest trees are planted in proper quantities." ⁹

The idea was very common that trees would bring the much needed moisture to the western prairies. This thought is expressed numerous times in the discussion of the western plains country. "... The protection afforded to the prairies in preventing forest fires has resulted in increasing growth of timber, independent of the planting of orchard and shade trees and a greater regularity and more equal distribution in the fall of rain. The destructive inundations, excessive droughts, and sudden change of temperature so well remembered by the early settlers of Iowa, and prevailing a quarter of a century ago, are diminishing every year in that prosperous state. Similar changes are noticed in the eastern portion of Kansas and Nebraska, in the vicinity of Denver, and in the valley of Salt Lake; in fact, in every locality where the improvement of settlers, even for so short a period as ten

⁹

Report of the General Land Office, 1867, p. 107.

years, has resulted in adding considerably to the number of trees; attesting not only the extraordinary importance of the forest in rural economy, but the readiness of nature to second the operations of man in respect to climate, and other agencies affecting the productiveness of the soil.

"If one-third the surface of the great plains were covered with forest there is every reason to believe the climate would be greatly improved, the value of the whole area as a grazing country wonderfully enhanced and the greater portion of the soil would be susceptible of a high state of cultivation.

"It is recommended that an amendment be made to the homestead law requiring each settler, on proving up at the end of five years, to make proof of having planted and cultivated a certain number of trees, living, and at least three years old, from the seed or from setting out at the time of the application for a patent. The labor of tree planting being first enjoined as a requisite to obtain a title, would fix the attention of settlers to the subject; and discovering the feasibility of the enterprise, they soon would prosecute from the consideration of its evident advantages to themselves and the whole community. An ad-

ditional inducement might perhaps be presented by a general law, offering an additional number of acres to each settler who would successfully cultivate for a given number of years a certain number of acres in forest.

"The production of a thriving forest at some point west of the 100th meridian, as it would establish the fact of its practicability, would, without doubt, contribute greatly to the value of that part of our domain. Whether an enterprise of the kind, under the auspices of the government, would be likely to realize the expectations of its projectors, would depend very much upon the character of the person who might be charged with the duties and responsibilities of the undertaking. It is scarcely to be doubted that the artesian well system might be rendered a great success on the plains. All the conditions appear favorable." ¹⁰

Evidence was presented in the House of Representatives that the falling of trees in the Apennines had a destructive effect on the rainfall of that region. In Belgium the planting of trees had induced rains to fall where previously there had been barren sands. Springs

¹⁰ Report of the General Land Office, 1866, p. 70.

and running streams would flow with the coming of trees to the western prairies. Also, that the island of St. Helena had experienced more frequent rains since the ¹¹ planting of trees during the occupancy of Napoleon I.

It was shown that not only would trees bring moisture but that they would also lessen the amount and strength of the winds. It was represented in Congress that if trees ten feet high were planted in rows one hundred feet apart, they would protect the intervening ground from wind and drifting snow. This was shown to be true because the currents of the air move parallel to the earth's surface. It was predicted that trees three hundred feet apart and thirty feet high would give protection against winds to ¹² the ground between.

The thoughts expressed at the time of the passing of the timber culture acts are still given repetition by the men of our time. They have been given expression in the plans of the Franklin D. Roosevelt administration, in the attempt to plant a belt of trees across the western prairies. The appeal made on behalf of the western prairies to aid in the planting of trees is certainly one in which there is a very generous response.

11

¹² Cong. Record, 43 Cong., 1 Sess., App., p. 37.

¹² Cong. Record, 43 Cong., 1 Sess., App., p. 37.

Those who came from sections of the country where the tree was part of nature's gift, found the prairie very lonesome and monotonous. The open field, free from trees, offered a challenge to the farmer to plant many acres to crop. There was no need to clear the land for the land was covered with prairie grass, and needed only the sharp point of the breaker's plow. Yet in the early settling of the land of our country the tree formed the basis for the building of the newcomer's home. He made his fences from the trees, and from the wood on his farm he heated his home in the winter. As the pioneer moved out of the wooded area he found the fencing of his land, and the building and heating of his home new problems.

He solved the difficulty of building his home by using prairie sod or rocks rather than wood from the forest. The sod was taken from his own farm and at times the rock was found on his own or adjoining farms, but often it was necessary to bring the rocks many miles. The cost of building fences was much greater than in a wooded section. In the report of the Department of Agriculture for the year 1871 we find that the cost of fencing material in the great plains was from 60 to 300 per cent higher than in other regions, and the total cost per rod ranged from 100 to 400 per cent higher than elsewhere, and

that the cost of maintenance ranged from 90 to 200 per cent
higher than in other regions. ¹³

Western men were interested in doing something for the production of trees on the western prairies. They felt that trees could be grown, that they were definitely needed in the settlement of the country, and that trees would bring beneficial climatic changes, such as an increase in the amount of moisture, and a reduction in the force of the wind.

13

Report of the United States Department of Agriculture,
1871, p. 497.

A REVIEW OF THE LEGISLATION DEALING WITH TIMBER CULTURE

The original bill of the Timber Culture Act as presented by Mr. Hitchcock of Nebraska in the Senate, February 20, 1872 provided, "That any person who shall plant, protect, and keep in a healthy, growing condition for 5 years, 120 acres of timber, the trees thereon not being more than eight feet apart each way, on any quarter section of any of the public lands of the United States, shall be entitled to a patent for the whole one quarter section at the expiration of the 5 years, on making proof of such fact by not less than two credible witnesses; but only one quarter in each section is to be thus granted."¹ It also provided that any person who had taken out a grant of land under the Homestead Act, and who at the end of three years had had under cultivation for two years, one acre of trees for each sixteen acres of land under the Homestead grant, and which trees were not more than eight feet apart and were in a healthy growing condition, might receive the patent for the land at the end of the third year.²

¹²Cong. Globe., 42 Cong., 2 Sess., p. 4463.²Ibid.

After a short debate the act was amended in the following ways: the time of cultivation was extended to a period of ten years; the trees were to be planted not more than twelve feet apart; and the number of acres reduced from one hundred and twenty to forty per one hundred sixty acres. At the time that the bill was up for discussion it was suggested that the privilege of the bill be limited to those who had not availed themselves of the privilege of the Homestead Act or the Pre-emption Laws. Mr. Hitchcock asked that this not be included in the bill, in as much as the bill was not for the purpose of settlement of territory, but rather to encourage the growth of trees on the western prairies. The purpose of the bill, according to Mr. Hitchcock, was to grow timber, not only for the value of the timber alone, but also for the good of the soil, and for the influence of trees upon the climate of the western prairies.³ Another problem that had to be solved; it would take capital to plant, cultivate, and protect trees. The above act was originally not written for the poor man, but for the man of means who could afford to invest in the purchase, planting, and cultivating

³

Cong. Globe, 42 Cong., 2 Sess., p. 4463.

of forty acres of trees in one year's time. There was no residence requirement on the land, and persons from outside of the state or territory on which the entry was made might participate in it.⁴ The bill passed the Senate on June 10, 1872, which was during the first regular session of the 42nd Congress. We find no record of the bill in the House during that session except that it was read and sent to the Committee on Public Lands.⁵ It was brought up in the closing hours of the last session of the 42nd Congress. There was no discussion on the merits of the bill, but it was introduced and passed as sent to the House by the Senate. The bill was approved on the same day by the President of the United States and became a law March 3, 1873.⁶

The provisions of the bill made no restrictions as to citizenship or declaration of citizenship on the part of the entrymen. There were no age qualifications. The only specification found in the act as to who might take out a claim was "any person" who would carry out the provis-

⁴

Ibid.

⁵

Ibid., pp. 4444 and 4448.

⁶

Cong. Globe, 42 Cong. 3 Sess., pp. 2111 and 2204.

ions of the act.⁷ Apparently it would be possible for every member of a given family to take out timber claims. In addition to the fact that an entryman did not need to be a resident of the state or territory in which the land was located, the work might be done by an agent rather than the entryman himself.⁸ An entry might be made on any quarter of the public land, but only one quarter in each section could be entered under the timber culture laws.⁹ This allowed three quarters on every section to be open to homesteaders or those taking land under pre-emption laws. Apparently the makers of the bill were of the opinion that trees grown on one quarter of each section was sufficient to take care of the timber needs of the communities.

In making final entry under the act, the party, or if he were dead, his legal representative, must "prove by two credible witnesses that he, she, or they, have planted, and for not less than ten years, have cultivated and pro-

7

U. S. Stat. at Large, XVII, 605.

8 Decisions of the Department of the Interior relating to Public Lands, vol. IV, p. 493. (Hereafter referred to as L. D.).

9 U. S. Stat. at Large, XVII, 605.

tected" the necessary quantity of timber.¹⁰

The difficulty of the bona fide settler, under the Timber Culture Act of 1873, was that it was impossible for the average settler of that time to break up forty acres of sod and plant the same to trees within the limits of one year. This caused much just complaint among those desirous of availing themselves of the privileges of the law. Many memorials were presented to Congress as it met in the winters of 1873 and 1874, asking for a remedy for this feature of the Act. Not only did this feature need a remedy, but there were other defects of the law that needed revision.

In response to the need for a change in the Law, Mr. Dunnell of Minnesota, introduced an amendment to the Timber Culture Bill into the House on January 27, 1874.¹¹ This Act provided that citizens of the United States or persons who had declared their intentions to become citizens, and who were heads of families or had arrived at the age of twenty one years, were the only ones qualified to make entries of land under the Timber Culture Act. Forty

¹⁰

U. S. Stat. at Large, XVII, 605.

¹¹

Cong. Record, 43 Cong., 1 Sess., p. 995.

acres of land (the same amount as was required under the first act) was to be planted to timber, and a provision was made for a proportionate amount to be grown on less than a quarter section. The trees were required to be planted, protected, and kept in a healthy growing condition for eight years. Again the trees were not to be more than twelve feet apart.¹²

The important amendment, according to the House Committee on Public Lands, was the time element required or allowed in the planting of the trees.¹³ A party making an entry on one quarter section of land was required to break out ten acres the first year, ten acres the second year, and twenty acres the third year following the date of entry. They were then to plant ten acres of trees the second year, ten acres the third year, and twenty acres the fourth year. Eight years from the date of entry, final proof could be made, or at any time within five years after the expiration of the eight years. In other words, final proof did not need to be made until thirteen years after

¹²

U. S. Stat. at Large, XVIII, 21.

¹³

Cong. Record, 43 Cong., 1 Sess., p. 1134.

the date of the entry. Of course there was always the possibility of contest in which the entrymen might be brought up before the land office for failure in living up to the conditions of the Act. Again two credible witnesses were required to prove that the provisions of the Act were correctly carried out before the patent should be granted. The fee was reduced to \$10.00 at the time of filing, with a \$2.00 commission to each the register and the receiver, and a \$4.00 fee at the time that final proof was made. The total fee was \$18.00.¹⁴

It has been the policy of the United States government to give its people every possible chance to make good on promises made for the payment of public lands. When reverses came to the settler the government usually has been willing to make concessions, grant longer time, or give relief to the suffering parties. The middle west has had droughts, winds, and other calamities quite regularly. Grasshoppers as well as drought and wind affected the growth of timber on the western prairies. In the words of a Kansas Governor, Thomas A. Osborn, in his message to the

¹⁴

U. S. Stat. at Large, XVIII, 21.

legislature in January of 1875- "The year of 1874 will occupy an important place in the record of eventful periods in the history of that state. As our prosperity has been unparalleled, so likewise was the disaster in waiting for us. The grasshoppers came, and in a single day the crops upon which our people chiefly rely were almost destroyed."

¹⁵ Congress was petitioned to give relief to those timber culture entrymen who had lost their trees from the plague of grasshoppers. In response Congress passed the amendment of May 20, 1876 which provided that if any person holding a claim or making final proof under the acts of 1873 or 1874, should show by two credible witnesses that the trees planted and growing on the claims of such persons had been destroyed by grasshoppers during any one or more of the years allowed in which to plant the trees, the time for the final proof should be extended the same number of years as the trees planted were so destroyed. ¹⁶

At the time of the passing of this act, Congress was receiving many memorials concerning the planting of seeds, nuts, and cuttings in the place of trees. The Kansas leg-

¹⁵ Governor Thomas A. Osborn, Public Documents of Kansas, 1875, p. 3.

¹⁶ U. S. Stat. at Large, XIX, 54.

islature in the year of 1876 memorialized Congress for such a provision in the Timber Culture Act.¹⁷ The planting of trees was both expensive and difficult, while tree seeds and cuttings were much cheaper and more easily handled. The Act of May 20, 1876, which extended time of fulfillment because of the grasshopper devastation, also allowed the planting of seeds and cuttings as well as trees.

The Act of June 14, 1878 is an Act amendatory of and a substitute for the Act of March 13, 1874. The timber culture acts were introduced and defended by Senators and Representatives from western states. Again we have the introduction of a timber culture act by a Senator from Nebraska. Senator Saunders introduced the Act of June 14, 1878 in the Senate on December 7, 1877.¹⁸ When the Bill was reported back to the Senate with amendments, the first opposition to the timber culture policy developed. Senator Ingalls from Kansas was of the opinion that the Timber Culture Act in his district had kept large areas of the public land from being entered under the homestead laws. There were some determined opposition and sugges-

¹⁷

Kansas Statutes, 1876, No. 39, p. 351.

¹⁸

Cong. Record, 45 Cong., 2 Sess., p. 57.

tions for repeal of the acts on the part of Senators from eastern states.

Senator Paddock of Nebraska felt that the requirement for planting forty acres of land to timber was too great, and had consequently added to the failure of the act. He presented the following memorial from the legislature of Minnesota, "Your memorialists recognize the question of tree planting as one of the first magnitudes to the people of the prairie region of our country. Without tree culture much of the territory of the United States would be uninhabitable. The necessities for fuel, fencing, and shelter from the winds, all unite in demanding such legislation as will encourage the people to grow timber. Your memorialists would therefore ask that you would amend the existing timber culture acts so as to reduce the number of acres to be planted to trees, from forty acres to ten acres; providing, however, that the trees shall not be planted more than four feet apart instead of twelve feet. A change of this character would produce more trees than at present, while the Timber Culture Act would thereby be made a success." Senator Paddock was of the opinion that the severity of the law (planting of 40 acres to timber) was so great that those who had honestly made an

attempt to fulfill the law, were not able to produce the required acreage and thus resorted to fraud to reward them for their efforts.¹⁹ The debate gave evidence that the policy of appropriating western lands for the purpose of growing timber was not to continue unchallenged.

The provisions of the amendment of 1878 were as follows: The persons who were allowed to make entries were heads of families or single persons of at least twenty one years of age, and who were citizens of the United States, or who had declared their intentions of becoming citizens, and who had made no previous entry under the timber culture laws. Entries were restricted to one quarter section, and only one entry could be made by any one person. The public lands open to entry under this act were those lands that were prairie, or lands that did not have timber growing on them.

There was a provision that the entry must be for the growing of timber, and for the benefit of the person making the entry. The entry had to be made in good faith and not for the purpose of speculation. The number of acres to be planted to trees was materially reduced. Five

¹⁹

Cong. Record, 45 Cong., 2 Sess., pp. 1853-1856.

acres on a quarter section were required to be broken out the first year, five acres to be broken out the second year, and the second year the first five acres were to be cultivated to crop. The third year the second five acres were to be cultivated, and the first five acres planted to trees, seeds, or cuttings. The fourth year the second five acres must be planted in trees, seeds, or cuttings. Ten acres were thus to be cultivated and planted to trees within the four years after the making of the entry.²⁰ In attempting to remedy the law they had made it wide open to fraud. All that was required to be done to the land in order to maintain legal control under the provisions of the acts, was to plow five acres the first year and five acres the second year. By that time the claim might be relinquished at a good profit to some one who desired to take the land as a homestead.

In the timber culture acts previous to the law of 1878 a certain acreage of growing timber had to be shown at the time final entry was made. Under this amendment the final proof consisted in showing that not less than 2700 trees of the proper character had been planted on each

²⁰

U. S. Stat. at Large, XX, 120.

of the ten acres, and that there were at least 675 living and thrifty trees on each of the ten acres planted. Furthermore, it was required that the character of the trees planted should be recognized as of value for permanent timber.²¹

The Law of May 14, 1880 encouraged suits of contest. If cancellation was brought about through a contest, the contestant had to be so notified, and he was allowed thirty days in which to file an entry on the canceled land. Any one had the right to contest a timber culture claim by making charges that the demands of the acts were not being carried out. This required the payment of a fee and the advertisement of the contest in the county paper.²²

Before taking up a discussion of the laws which repealed all the timber culture acts, we will follow that part of the operation of the laws which dealt with fraud.

²¹

U. S. Stat. at Large, XX, 120.

²²

U. S. Stat. at Large, XXI, 140.

FAILURE AND REPEAL

One of the platitudes in the history of the public domain was that there were connected with its disposal many abuses and much fraudulent practice, and the operation of the timber culture acts exhibited these features in abundance. In 1883, the Commissioner of the General Land Office wrote: "My information leads me to believe that a majority of the entries under the timber culture laws are made for speculative purposes and not for the cultivation of timber."¹ Under the timber culture laws there could not be a sale of an uncompleted timber claim. In the case of Staab vs. Smith, C, a third party, showed that he had purchased the relinquishment of Smith's entry. The purchase by C gave him no more rights than any other qualified entryman. The court ruled that since the relinquishment of Smith had been filed, his entry ceased to exist, and the first legal application for the land was allowed after the cancellation.² C, having failed to be

¹ Report of the General Land Office, 1883, p. 7.

² L. D. III, 320.

the first to enter after the relinquishment was made, did not receive the land. Thus land relinquished was "held open to settlement and entry without further action".³

Although relinquishments could not be sold according to law, the land was open to settlement as soon as relinquishments were made. Thus the first person who made application for the land under any of the land laws applicable to the territory in which the land was located, was given the right of entry. The purchaser of a relinquishment might accompany the person making the relinquishment to the land office and be the first to file on the land thus relinquished. This gave rise and opportunity for those interested in speculation to take out a timber culture claim, and hold it until a bona fide settler would pay the first entryman to relinquish his right. In this way tracts were frequently relinquished a number of times before they were finally taken over by some bona fide settler.

The Commissioner of Public Lands picked at random thirty-one timber culture entries illustrating relinquishments in an eight year period. They were as follows:

3

U. S. Stat. at Large, XXL, 140.

Three had been relinquished five times, fifteen had been relinquished four times, twelve had been relinquished three times, and three had been relinquished two times. The Land Commissioner reported these relinquishments to have been chosen "promiscuously" from the records of different townships in Dakota, Nebraska, and Kansas. He reported "the same tracts of land are entered and relinquished over and over again. Generally in each case a new entry is filed simultaneously with the presentation of the relinquishment." ⁴

In the report of the Land Commissioner for the year 1888 there are the statements of 57 registers of land offices or local officers of the same. The following are statements from this report: One reason for frauds under the timber culture acts as reported by the officer in charge of the San Francisco Land Office was that of speculation in the entry. "The timber culture entry with-holds the land from settlement for one year during which time the entryman may dispose of his claims to advantage. If he fails to make the expected profit in the first year, a

⁴

House Executive Documents, 50 Cong., 1 Sess., vol. I, p. 138.

small outlay will hold it for a second year, and if at that time he has not disposed of it he may abandon the entry and another party make a similar entry. In this way the land may be held out of actual settlement for a long period of years." ⁵ The land officer from Stockton, California wrote that the timber culture law in his district had "been used as a cloak to cover frauds for speculation". ⁶ The Grand Forks land office reported that "The Timber Culture Law, instead of being beneficial to any beyond a few bona fide entrymen, still maintains its reputation here as elsewhere, of opening a field of speculation." ⁷ The land office of Mitchell, Dakota territory, reported that the timber culture laws "offer too easy opportunity to speculate in relinquishments, and permits the title to land taken up under it to remain in abeyance for an almost indefinite period." ⁸ The land office of Devils Lake, Dakota Territory, felt that very few holders would be able "to make good their title under the provisions of

⁵

⁶ Report of the General Land Office, 1888, p. 58.

⁷ Ibid., p. 59.

⁷ Ibid., p. 64.

⁸ Ibid., p. 65.

the Law, however faithfully they have endeavored to perform its conditions."⁹ The office at Fargo reported about ten per cent of all timber culture entries were made for speculative purposes. Here again the land officers repeated the accusation that in cases of speculation, the land was held for a year or two, in order to dispose of it advantageously, or if not disposed of at the time, it was relinquished and the whole process was repeated.¹⁰ The land office of Aberdeen, Dakota Territory, felt that timber culture entries "in nine cases out of ten, when made by non-residents, are made for purely speculative purposes".¹¹ From Blackfoot, Idaho the office reported that "at least one-half of the timber culture entries are made in bad faith, and one-third of the balance will never be consummated."¹² The land office of Lewiston, Idaho felt that fraud under the timber culture acts was most frequent. Often timber culture claims would be taken out by local residents in order to hold the land until some friend would come from the east, or until a minor son should become of

⁹

⁹Ibid., p. 65.

¹⁰Ibid., p. 66.

¹¹Ibid., p. 66.

¹²Ibid., p. 67.

age.¹³ The office of Hailey, Idaho reported, "In our judgment the attempts to improperly acquire land are more frequently made by timber culture applicants. In this arid region, from the scarcity of water, it is almost impossible to cultivate timber successfully, but under existing laws, a person can obtain the use of land for four years without planting anything but tree seeds."¹⁴ The Waukeeneey, Kansas land office reported "that a very large majority of the entries made under the timber culture laws in this district might be considered speculative; it being nearly impossible to grow timber, and they must eventually be relinquished and proved up on under some other law."¹⁵ The Garden City land office reported ninety-five per cent of the timber culture entries in that office as speculative, the officer adding that "it is almost impossible to raise trees here without irrigation".¹⁶ The Salina, Kansas office reported that seventy-five per cent of all timber culture entries in that district were speculative, and were held "for the purpose of gaining from the increase value of the

¹³

¹⁴ Ibid., p. 67.

¹⁵ Ibid., p. 68.

¹⁶ Ibid., p. 68.

land".¹⁷ The Wichita, Kansas land office estimated that nine out of every ten timber culture entries in that district were made for speculative reasons.¹⁸ Larned, Kansas land office reported fifty per cent of all timber culture entries to be for speculative purposes.¹⁹

It is interesting to find that twenty-four out of the fifty-seven land offices reporting considered that the majority of the land entered under the timber culture laws were for speculative purposes.

The next class of people who were interested in the benefits of the timber culture acts were those who desired the land for a temporary time for the purpose of pasturing stock, or for planting crops. They were more interested in the present use of the land than in ultimate ownership. This was generally the case where large stock ranches had been established. The method was very simple. The rancher would hire a number of cow boys to take care of the herd, and each cowboy was expected to take out a claim. These claims were usually located along streams or near water holes. This type of entry took up all the watered lands of the district and made the remaining areas unfit and unfav-

¹⁷¹⁸ Ibid., p. 69.¹⁹ Ibid., p. 70.¹⁹ Ibid., p. 82.

orable for other settlers.²⁰

The McCook, Nebraska land office reported that "all or nearly all the lands bordering on streams have been taken under homestead, pre-emption and timber culture laws." These are made "presumably to cattle companies".²¹ The Land Commissioner reported, "Within the great stock ranges of Nebraska, Kansas, Colorado, and elsewhere, one quarter of nearly every section is covered by their herdsmen who make false land office affidavits as a part of their condition of employment."²² These entries could be held for thirteen years with the merest pretense of living up to the law. The entry might run longer than the thirteen years if the matter of non-fulfillment of requirements and failure to make final proof did not come to the attention of the local land officers.²³ Generally the method by which non-fulfillment of requirements was brought to the attention of the land office, was by means of contest. But often contests, by which bona fide entrymen might hope to bring the facts to the attention of the of-

20

Report of the General Land Office, 1885, p. 204.

21

House Executive Document, 49 Cong., 1 Sess., vol. 1, p. 204.

22

Report of the General Land Office, 1887, p. 72.

23

Ibid., 1885, p. 72.

officials, were prevented by force. ²⁴

At times men who sought to make an investment in the growing of timber came out to the west to make timber culture entries. They expected to have the work done by hired labor. This was permissible under the decisions of the Department of the Interior in regard to the public lands. This was permissible if the non-resident person came to the land and made entry at the local land office. It was not permissible to make an entry without looking over the designated land, and seeing that it was fitted for the purpose assigned. This was exemplified in a case from Denver in which a group of persons made entry on homestead and timber culture claims without ever having seen the land and then returned home. A large business carried on by land agents and lawyers in which applications signed by mail almost anywhere in the United States were filed by agents or attorneys. ²⁵

This fraud was practiced by "land brokers" and "land agents". A land attorney in Hastings, Nebraska, would advise people that they could make entries without going to

²⁴

²⁵ Ibid.,
House Executive Document, 50 Cong., 1 Sess., vol. 10.
p. 225.

the district in which the land was located. If a man made a payment of seventy-five to one-hundred dollars, the attorney would furnish him the description of a good piece of agricultural land and make entry for him. One person reported paying this attorney seventy-five dollars for which he secured a timber culture claim and a homestead. The party did not go to Colorado where the claims were located until seven months after this time, but the entry was recorded in the Denver office, the affidavit showing in one case that it had been made out in the presence of the receiver of that office, and the other in the presence of an officer of a county clerk in Colorado.²⁶

The Law of June 14, 1878 provided that the land upon which a timber culture entry might be made was "that the section of land specified in my said application is composed exclusively of prairie lands or other lands devoid of timber."²⁷ The Commissioner of the General Land Office in a decision of May 27, 1885 defined a prairie as "an extensive tract of land destitute of trees".²⁸ Only lands destitute of timber might legally be entered. There

²⁶

²⁷ Report of the General Land Office, 1886, p. 83.

²⁸ U. S. Stat. at Large, XX, 113.

Report of the General Land Office, 1885, p. 98.

wasn't much fraud in this regard on the prairies for most of the western prairies were devoid of trees. But in sections where the land was naturally somewhat wooded the question arose as to when was the land devoid of timber. There was much land entered that was not void of timber. In the earlier rulings of the land department an entry was allowed where there were five-hundred trees of natural growth, "varying in diameter from six inches to two feet or more, and consisting of ash, elm, and some underbrush".

29

In another contested case the entry was allowed to remain where there were on the section "from five to six acres of trees of different kinds, probably 1,200 in number". It was held "that if the section contained a less quantity of timber than that required to be grown by an entryman, one-hundred and sixty acres of it is subject to entry under the Timber Culture Law." ³⁰ In a decision handed down by Acting Secretary Meldrow on October 11, 1887 "devoid of timber" meant just what the statute said, that is, that there was not to be timber growing on the section, a quarter of which could be filed for timber cul-

29

L. D., II, 267.

30 E. D., III, 437.

ture. 31

There is this much to say in favor of the timber culture laws as compared with other laws in which the public domain was given to private citizens. Even if the land were held in speculation for a number of years, it was ultimately put into the hands of a person who finally secured the patent through the homestead acts or pre-emption laws. There were no valuable timbers which nature had given to us as a nation to be destroyed. The land remained as nature gave it to be taken up as a homestead claim by some bona fide settler. Of course this is no justification for taking land from the public domain for the purpose of making profit by those entering the land under false pretences. If a profit were to be made on the land, it should have gone for the common good of all, to whose care and trust the large public domain was given.

The land commissioner in the land office report of 1881 questioned the utility of the timber culture acts for the purpose of inducing the cultivation of trees in the western prairies. At the same time he was not ready to recommend the repeal of the law of "so beneficent an in-

tention", but he did feel that he should call attention to the abuses to which it was subject.³² Again in 1883, he wrote, "Continued experience has demonstrated that these abuses are inherent in the law, and beyond the reach of administrative methods for their correction. ... I am convinced that the public interest will be served by a total repeal of the law and I recommend such repeal."³³ All the land commissioners urged the repeal of the law in their annual reports from 1883 to the actual repeal by Congress in 1891.³⁴

It was very evident that the law was not accomplishing the purpose for which it was written. There were no, or few, trees grown on the western prairies. It is impossible to determine the amount of timber that was produced through the encouragement of the timber culture laws. There were some lands on which trees were successfully grown during the operation of the laws.

The Land Commissioner in his report of 1883 wrote, "My information is that no trees are to be seen over vast regions of country where timber culture entries are most

³²

³³ Report of the General Land Office, 1881, p. 13.

³³ Ibid., 1883, p. 8.

³⁴ Reports of the General Land Office, 1883 to 1890.

numerous." ³⁵ Representative Wilson of Washington told the House of Representatives, "You can ride for three days in the great agricultural basin of eastern Washington and not see a single timber culture entry of any value." ³⁶

This condition was not due wholly to fraud but to climatic conditions over which men had no control. "Men have expended large sums of money, in single instances \$200, \$300, \$500, \$1,000, in efforts to secure the growth of timber, those efforts being frustrated by reason of climatic conditions." ³⁷ Mr. Pickles of South Dakota, writes, "We have thoroughly tested the tree culture law in our country, and we cannot grow trees as provided by that law, or so well and successfully as it may have been done in other localities. In the northwest and in the country still farther west trees cannot be made to grow through the operation of the law." ³⁸

After the expenditure of the money in the attempt to grow trees the entryman would lose his claim if he had not raised the required number of trees. At the end of the eighth year period it was necessary that he have 675 heal-

³⁵

³⁶ Report of the General Land Office, 1883,
Cong. Record, 51 Cong., 1 Sess., p. 2538.

³⁷ Ibid.,

³⁸ Cong. Record, 51 Cong., 1 Sess., p. 2352.

thy growing trees on each acre of the ten acres designated. There was a tendency under such conditions for an otherwise honest individual to look for a means of escape by which he might save his investment.

Again the western people looked to Congress to save them from their difficulty. The legislature of the state of Washington presented to Congress a memorial which stated that the summers were hot and dry, the winters long and severe, and that moisture was insufficient for the growth of trees. They asked that those who had made investments in an honest attempt to grow trees, and those who had in good faith planted and cultivated trees as provided by law, be permitted to commute their entries at the rate of \$1.25 per acre.³⁹

There was a constant demand in Congress after 1883 for the repeal of the law. The committee on public lands, in reporting back to the House and recommending the passage of an act to repeal the timber culture laws, said that the "acts should never have been passed".⁴⁰ The repeal of the acts passed the House four different times before it was able to carry the Senate.

39

Cong. Record, 51 Cong., 1 Sess., p. 2538.

40

House Report, 49 Cong., 1 Sess., no. 1679, p. 1.

From reading the Congressional Record on the debates that centered around bills asking for the repeal of the timber culture acts, I believe that most of the opposition was to the general revision of the public land laws.

The western congressional leaders were active in doing away with the timber culture laws. Mr. Dunnell of Minnesota was the only western leader in the House who actively opposed the repeal of the acts. He had introduced the measure of 1873 and he still felt that the administration of the law was to blame for its failure.⁴¹ Representative Pickler of South Dakota, Representative Peters of Kansas, and Representative Wilson took an active part in bringing about the repeal of the Laws.⁴² Mr. Plumb from Kansas guided repeal through the Senate.

The name of the Act of March 3, 1891 that dealt with the repeal of the timber culture acts was "An Act to repeal Timber Culture Laws and for other purposes."⁴³ Very little of the act was concerned with timber culture. The greater share of the act dealt with the repeal of the pre-emption laws and various other provisions of the public land laws. At the time of the final passage of the act

⁴¹

⁴² Cong. Record., 51 Cong., 1 Sess., p. 2352.

⁴³ Ibid.

⁴³ U. S. Stat. at Large

there was very little discussion on the repeal of timber culture laws.

The repeal act might be summarized under the following headings:

1. All timber culture laws were repealed.
2. All existing claims created prior to the repeal were given credence.
3. Entries could be commuted at the rate of \$1.25 per acre.

The first provision was to be absolute. There were to be no future entries under timber culture laws. But in fact there were a few such entries. These may be accounted for by the lack of enforcement of the law on the part of the administration.

The second provision was stated as follows: "That this repeal shall not affect any valid rights here-to-fore accrued or accruing under said laws, but all bona fide claims lawfully initiated before the passage of this act may be perfected upon due compliance under the same terms and conditions, and limited to the same limitations." The only exception to this provision was that in making final proof, the entryman need not show that 2700 trees had been planted on each acre of the ten acres.

The third provision was for commutation and was passed for the relief of those who had planted and cultivated

trees, but who had failed to grow the required number. The law provided that if trees, seeds or cuttings has been planted and cultivated for four years according to the provisions of the timber culture acts, and the work had been done in good faith, the entry might be commuted at the rate of \$1.25 per acre. This provision was open to those who were residents of the state or territory in which the land was located. There was no relief for those who lived elsewhere.

In my opinion the commutation of land was justifiable to the person who had made an honest effort to grow trees, but had failed because of unfavorable climatic conditions. But it is apparent that by allowing commutation of timber culture entries the bars were let down to those who had taken the land for speculative purposes. The only requirements remaining were that ten acres be broken, planted to trees, seeds or cuttings; and at the end of four years the entry could be bought for \$1.25 per acre.

The repeal of the timber culture acts was amended on March 3, 1893.⁴⁴ Under this act parties could make final entry without showing the existence of trees, or if there

⁴⁴

U. S. Stat. at Large, XXVII, 572.

were trees, they might be of any kind, size or age. The law may be summarized as follows:

1. That trees, seeds or cuttings were to have been planted in good faith.

2. That trees, seeds or cuttings so planted, had been cultivated for a period of eight years.

3. Final entry could be made without regard to the number of trees growing on the land.

With the passing of the Act of March 3, 1893, we come to the end of the major legislation dealing with timber culture. There were in all twenty-four laws passed that concerned timber culture grants.⁴⁵ The majority of these were of minor importance, such as those dealing with the legal right of administering oaths in the making of final proof. The laws dealt with in this paper are those that affected the requirements and operation of the acts.

U. S. Stat. at Large, XVII, 605; XVIII, 21; XIX, 54, 59, 405; XX, 91, 113, 169; XXI, 48, 140, 506; XXV, 854; XXVI, 121, 1095; XXVII, 270, 572; XXVIII, 227, 594, 744, 599; XXIX, 43; XXVII, 63; XXXIII, 59; XLII, 1281.

VARIETIES OF TREES PERMITTED

There was the question as to what constituted "timber trees". Here we find a gradual enlargement as to what was considered under the term "timber trees". One of the earlier rulings of the Land Commissioner was as follows: "The Timber Culture Laws, on offering a bounty for the production of timber on the western prairies, had in view not fruit trees or shrubbery, or trees of a subordinate importance, but the object was to encourage the growth of what are known as "timber trees", comprising oak, ash, elm, and such other trees as are commonly used for ship building, and house building. The Osage orange, although it attains a large growth in favorable localities, and is much used elsewhere for hedge wood being serviceable also for various purposes, is not of the class commonly used for ship building, and hence its cultivation would not satisfy the legal requirements." ¹ On January 10, 1881, in a letter from the public land Commissioner to F. M. Phillipps a list of the desirable trees was included. They were alder, birch, sycamore, cedar, chestnut, cotton-

1

Reports of the General Land Office, 1877, p. 49.

wood, fir, mountain ash, white willow, and tulip.² It will be noticed that the cottonwood tree was included in this list. As late as September, 1879, the department of the General Land Office held in the case of Noel et al. that the cottonwood trees were not timber trees, and could not be grown as such under the Timber Culture Acts.³ Later the Osage orange, when cultivated within the latitude where it attains its natural growth, was considered as a timber tree.⁴ With the omission of the cottonwood and the Osage orange from the list of accepted trees, the westener would have very limited success in this new undertaking. The Osage orange was successfully grown by a large group of western farmers for the purpose of fencing. At first, the growth of trees, when planted in a row close to each other, made a natural fence. With the coming of barb wire fencing the trees were cut and made into posts.

2

Ibid., 1881, p. 52.

3 L. D., 1, 166.

4 L. D., VI, 119.

GRAPHS AND MAPS¹

The Homestead Acts and the Timber Culture Acts were in competition with each other during the life of the latter. It was possible for two land entries to be made by one individual at the same time. When a new section was opened for settlement an entryman might take one quarter as a homestead and another quarter as a timber culture claim. The advantage of entering both a homestead and a timber culture claim was that 360 acres might be filed on at one time. The homestead entry required residence while the timber culture entry did not.

It is interesting to note how these two great systems of entry competed with each other year by year. Figure 1 is a graph of the number of homestead and timber culture entries for the period in which timber culture lands were open to entry. The general curves of the two land systems are very similar. When the number of entries for home-

¹ The statistics used in this section are based on the figures published by the General Land Commissioners in the Reports of the General Land Office from 1874 to 1908. The calculations were performed by the writer of this paper.

Acres
(million)
10

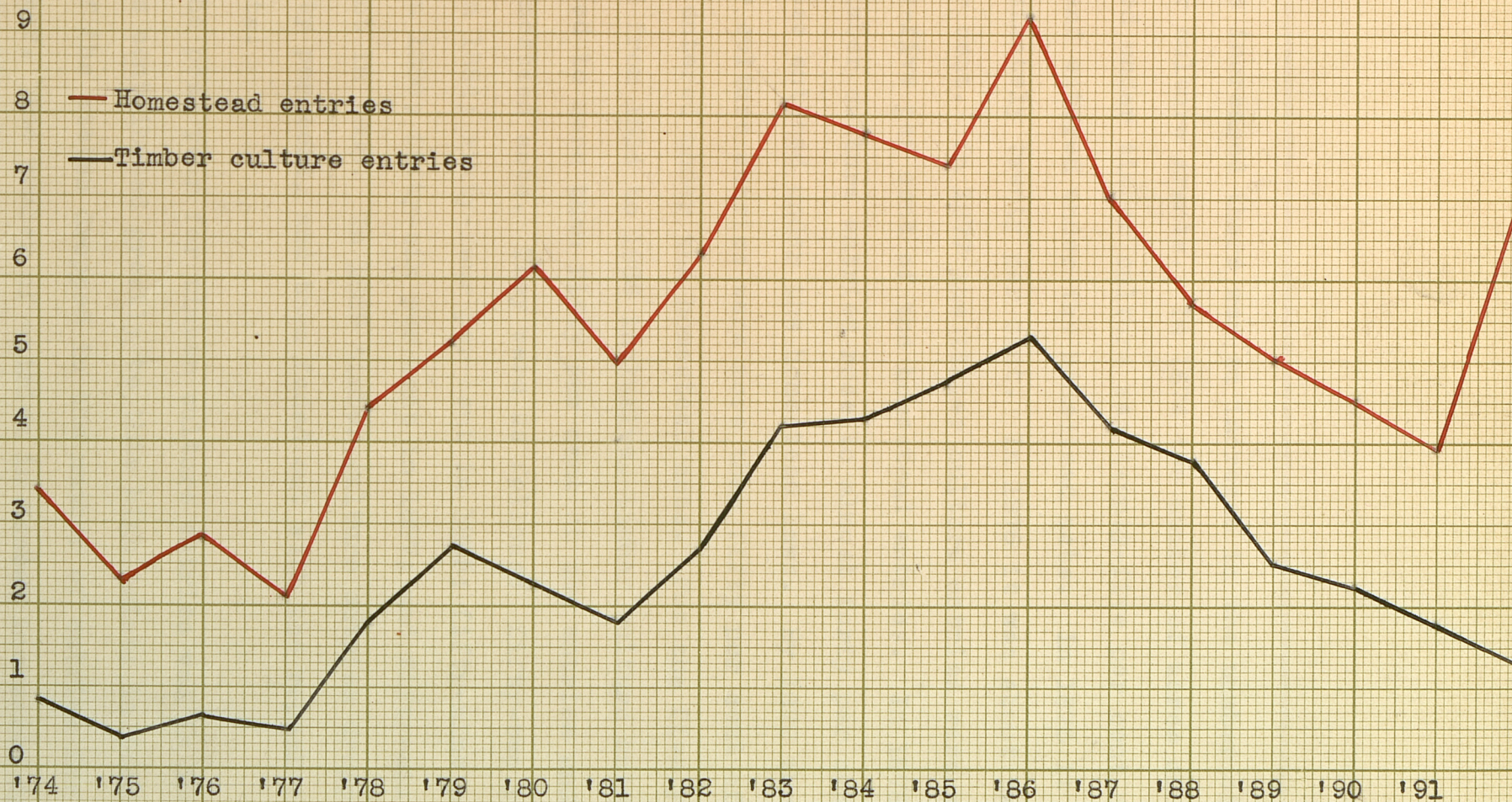


Fig. 1. A comparison of timber culture and homestead entries.

steads increased there was an increase in the number of timber culture grants. In 1874 the number of acres of land entered under timber culture was twenty-five per cent of the land entered under the homestead acts. In 1875 it was approximately twenty per cent. In 1876 it was about twenty per cent. In 1877 the timber culture entries were again twenty-five per cent of the homestead entries. In 1878 the timber culture entries rose to almost forty per cent of those entered under the homestead laws. By 1879 the timber culture entries were more than fifty per cent of those entered under the homestead acts. For the five year period from 1884 to 1888 inclusive, timber culture entries amounted to more than fifty per cent of the entries under the homestead acts. They were as follows: fifty-two per cent in 1884; sixty-four per cent in 1885; fifty-nine per cent in 1886; fifty-six per cent in 1887; and fifty-six per cent in 1888. In 1889 timber culture entries dropped to forty per cent, and then faded out with the repeal of the acts.

The peak year for timber culture entries was in 1886. Kansas contributed greatly to this high point; in fact, most of the states dropped in the number of entries for that year. The number of entries in Kansas increased from

1,169,303 in 1885 to 1,920,802 in 1886. The increase in the Kansas acreage was in the western part of the state. In the Garden City, Kansas land office for the year 1886, there were taken out 724,510 acres in timber culture claims. This was an increase of 300,000 acres over the preceding year. The Waukeeneey, Kansas land office for the year 1886 entered 669,172 acres of timber culture land. This was an increase in that office of more than 500,000 acres over that of the previous year.

The reason for the slump in entries during the years of 1874 and 1877 could have been the grasshopper invasion and the drought that covered the western section of our country at that time. The increase in the timber culture entries for the years 1878 and 1879 could have been a result of the change in the law of March 13, 1878, which reduced the acreage of trees and the time of planting. It should be noted that in those years in which there was an increase in the number of timber culture entries there was also an increase in the number of homestead entries. In the later eighties both timber culture and homestead entries declined. Figure 2 shows the total acreage and entries under timber culture laws from the time of their passage in 1873 to June 30, 1909. There were 10,865,480

	Entries				Area		
	Original:	Final	:Commuted		Original	: Final	:Commuted
Arizona	: 1,152	: 52	: 74	:	164,806	: 7,149	: 10,223
Arkansas	: 41	: 4	: 1	:	4,817	: 480	: 40
California	: 8,264	: 480	: 567	:	1,163,922	: 63,411	: 78,728
Colorado	: 27,864	: 3,789	: 660	:	4,332,922	: 485,243	: 98,179
Dakota Ter.	: 77,446	: 1,309	:	:	12,055,642	: 185,467	:
Florida	: 3	:	:	:	480	:	:
Idaho	: 4,054	: 341	: 236	:	533,957	: 40,436	: 28,244
Iowa	: 1,044	: 390	: 39	:	81,378	: 31,987	: 2,292
Kansas	: 64,345	: 12,886	: 961	:	9,702,653	: 2,005,831	: 141,931
Louisiana	: 713	: 87	: 42	:	101,695	: 11,937	: 5,856
Minnesota	: 15,268	: 2,924	: 389	:	2,099,046	: 373,580	: 40,261
Montana	: 3,595	: 407	: 225	:	486,638	: 56,019	: 29,044
Nebraska	: 59,127	: 16,870	: 1,250	:	8,876,351	: 2,546,696	: 187,371
Nevada	: 46	: 1	:	:	6,292	: 160	:
New Mexico	: 1,612	: 91	: 55	:	230,316	: 12,931	: 7,837
North Dakota	: 1,699	: 7,897	: 781	:	263,123	: 1,226,605	: 120,524
Oregon	: 7,126	: 1,499	: 252	:	1,051,235	: 224,056	: 35,902
South Dakota	: 2,925	: 13,764	: 821	:	449,583	: 2,124,753	: 121,730
Utah	: 1,476	: 138	: 89	:	179,690	: 15,556	: 10,157
Washington	: 9,354	: 2,004	: 538	:	1,362,193	: 292,447	: 75,689
Wisconsin	: 1	: 1	:	:	40	: 40	:
Wyoming	: 3,123	: 332	: 125	:	459,556	: 50,383	: 15,288
Totals	290,278	65,226	7,105		43,606,344	9,855,175	1,010,305

Fig. 2. Timber culture entries from the passage of the Act. of March 3, 1873 to June 30, 1909. Annual Report of the Department of Interior, 1909, p. 89.

acres passed into the hands of private citizens through the operation of these acts. This is equal in area to one-fifth the size of the state of Kansas.

Following are other conclusions drawn from the chart. Final proof was made on twenty-two per cent of the original acreage taken out under the timber culture laws. Two and thirty-one hundredth's per cent of the original entries were commuted and passed into the hands of private citizens without showing the growth of trees. Nine and twenty-nine hundredth's per cent of the land that passed into the hands of private citizens was commuted.

Land given under these acts was located in twenty-one states and territories. The major portion of the acreage originally entered and finally patented was located in nine states. Following is a table showing the per cent of the total area of each of the nine states that was granted to individuals under the timber culture acts.

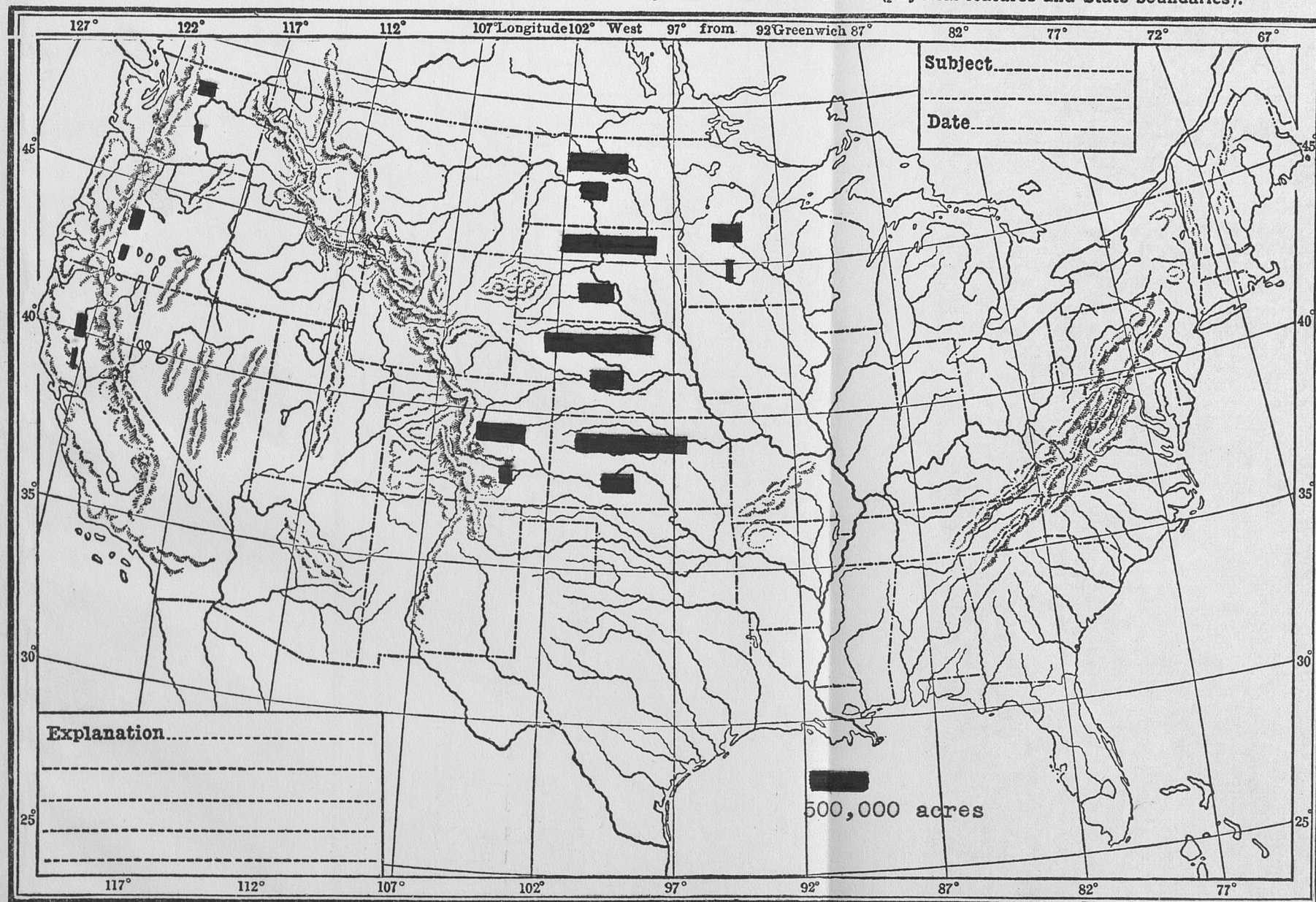
	Per cent
Nebraska	5.51
South Dakota	4.80
Kansas	4.08
North Dakota	3.11
Colorado	1.02
Washington	.83
Oregon	.42
Minnesota	.39
California	.14

By observing the map figure 3, the position of the states will be seen in which the greatest portion of the timber culture grants were given. In each state the upper of the two bars represents the amount of land taken out in original entries, and the lower bar represents the amount of the original entries that were patented.

It will also be noted that North Dakota, South Dakota, Nebraska, and Kansas, the largest recipients of timber culture lands, form a line from north to south on the eastern border. Colorado and Minnesota are found in the same block but received less land. On the western coast are found three states that are next in order in the amount of land received. They too form a line from north to south, but are on the western border.

Figure 4 is a graph showing the original timber culture entries by years in the mid-western states, in each one of which there were entered 500,000 acres or more. In this graph the Dakotas are taken jointly as most of the original entries were made while the Dakotas were still part of the Dakota Territory. In the period between 1874 and 1877 the states were somewhat on a level in the number of entries. Kansas had two peaks - one in 1879 and the other in

McKinley's Series of Geographical and Historical Outline Maps. No. 175b. United States (physical features and State boundaries).



Copyright, 1900, The McKinley Publishing Co., Philadelphia, Pa. Renewed 1928.

Fig. 3. Disposal under timber culture acts.

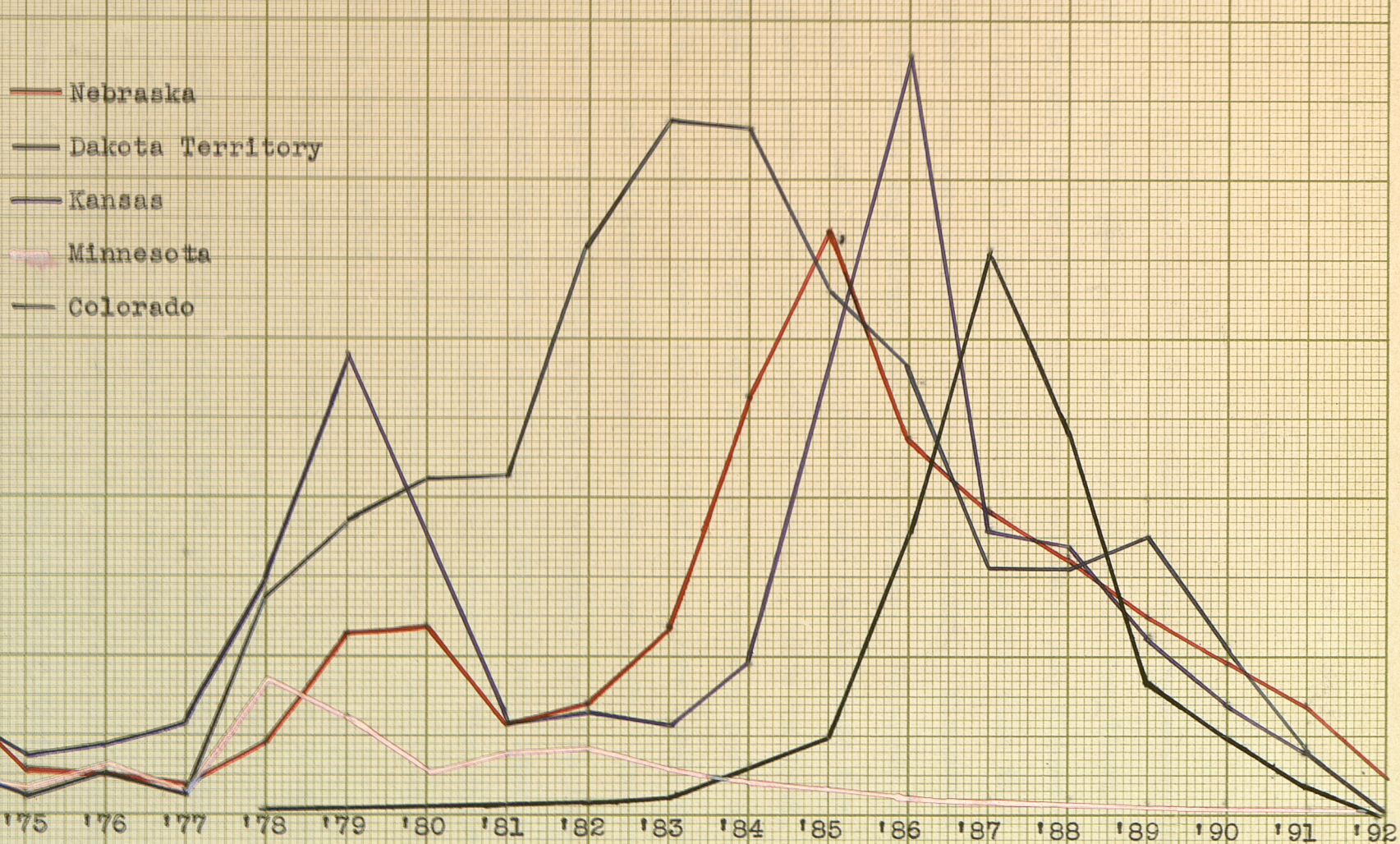
Acres
(100,000)

20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

— Nebraska
— Dakota Territory
— Kansas
— Minnesota
— Colorado

'74 '75 '76 '77 '78 '79 '80 '81 '82 '83 '84 '85 '86 '87 '88 '89 '90 '91 '92

Fig. 4. Timber culture entries in prairie states.



1886. In both years it led the states and territories in the amount of original entries. Colorado and Minnesota were low in the number of entries during the time that the Dakotas and Kansas were increasing rapidly. Minnesota at no time made any large number of entries. Colorado remained low until 1887, one year after Kansas made the highest peak. The high point of Kansas, made in 1886, was largely due to the entries made in the western part of that state. It can be seen that the taking of new lands was passing into eastern Colorado by the year 1887. Nebraska reached its high in the amount of original entries in 1884 and remained somewhat of a constant until there came a parallel decline of the four leading states. The chart gives a picture of the westward movement of the frontier during this period.

Figure 5 shows the original timber culture entries by years for the three leading states on the Pacific Coast. Washington and Oregon reached their peak in 1884 while California made her highest point in 1888.

Figure 6 shows a graph of the number of acres entered by years in the land offices of the state of Kansas. In the construction of the graph the state was divided into four sections from east to west, allowing approximately

Acres
(100,000)

3

2

1

0

— California
— Oregon
— Washington

'74 '75 '76 '77 '78 '79 '80 '81 '82 '83 '84 '85 '86 '87 '88 '89 '90

Fig. 5. Timber culture entries on West Coast.



Acres
(100,000)

10

9

8

7

6

5

4

3

2

1

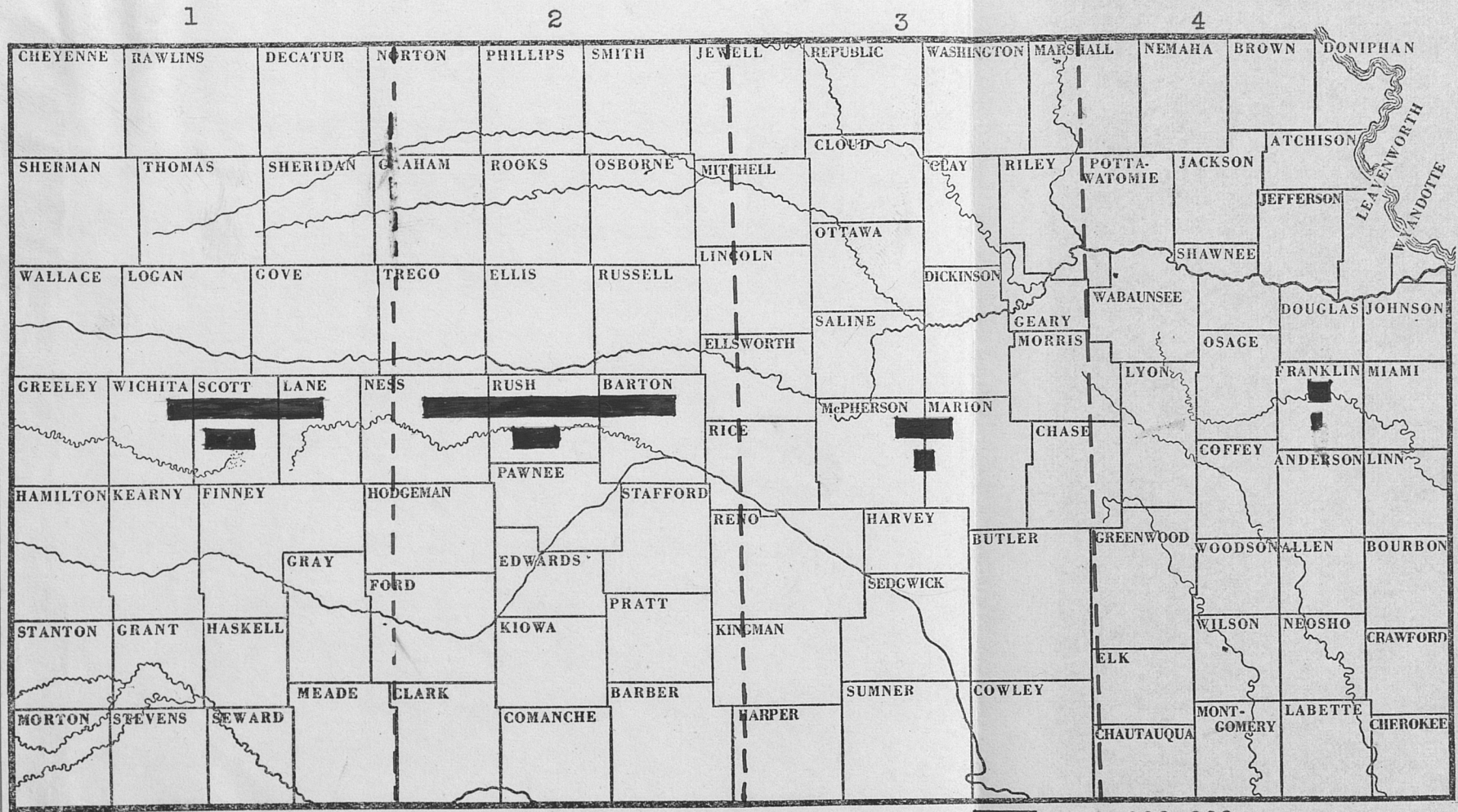
'77 '78 '79 '80 '81 '82 '83 '84 '85 '86 '87 '88 '89 '90 '91 '92 '93

- West section (Colby, Dodge City, Garden City, Oberlin).
- West-central section (Kirwin, Larned, Waukeeneey).
- East-central section (Concordia, Salina, Wichita).
- East section (Independence, Topeka).

Fig. 6. Timber culture entries in Kansas Land Offices.

two degrees longitude for each section. The entries made in the land offices in each section were combined in yearly totals. From the graph it will be seen that the most entries were made in the western half of the state. The climatic conditions of this section made it difficult and at times impossible to grow trees. The land offices of the extreme western fourth of the state were not opened until 1882. Prior to that time entries in the extreme west might have been made through one of the land offices of the mid-western section. There were two peaks for the mid-western section, one in 1879 and the other in 1886. Neither of the two sections of the eastern half of the state participated greatly in timber culture entries. The mid-eastern section entered more than the east section.

Figure 7 shows in graphic form the sections of the state of Kansas that participated in the timber culture acts. The state was divided into four sections from east to west. The upper bar in each section shows the amount of land taken in original entries. The lower bar in each section shows the amount of the original entries that was granted patents. The western half of the state entered more land than the eastern half.



■ - 1,000,000 acres.
 Upper bar original entries.
 Lower bar land patented.

Fig. 7. Disposal in Kansas under timber culture acts.

CONCLUSIONS

The results of the study of this paper show that there was a need and a demand for legislation to encourage the growth of trees on the western prairies. It was felt that trees could be grown on the western prairies, that they were definitely needed in the settlement of the western country, and that they would bring beneficial climatic changes.

The acts failed to fulfill the purposes for which they were passed, because they were applied to a section of the country in which the growing of trees was very difficult or almost impossible. The westerner looked on the laws as made to be evaded. They used the laws for the purposes of speculation and for the holding of land out of settlement.

The laws were repealed upon the recognition of their failure, after which easy terms to complete compliance were given to those that had secured rights under the laws.

As a result of the timber culture acts the western prairie was benefited by the growth of a few trees, but the results of the defects of the acts far outweighed the benefits derived.

BIBLIOGRAPHY

Primary Sources

U. S. Government Documents.

Congressional Globe, 1872, Congressional Globe Office,
Washington, D. C.

Congressional Record, 1873-1893, Government Printing
Office, Washington, D. C.

Decisions of the Interior Department Relating to Public
Lands, 1880-1893, Government Printing Office,
Washington, D. C.

Executive Documents, 1886-1891, Government Printing
Office, Washington, D. C.

House Reports, 1880-1891, Government Printing Office,
Washington, D. C.

Reports of the General Land Office, 1873-1909, Govern-
ment Printing Office, Washington, D. C.

Reports of the House Committee on Public Lands, 1879-
1891, Government Printing Office, Washington, D. C.

Report of the Secretary of the Interior, 1873-1891,
Government Printing Office, Washington, D. C.

United States Statutes at Large, 1873-1920, Govern-
ment Printing Office, Washington, D. C.

Kansas Documents.

Kansas Session Laws, 1872, Kansas Publishing House,
Topeka, Kansas.

Public Documents of Kansas, 1877, Kansas Publishing
House, Topeka, Kansas

Secondary Sources

Hibbard, Benjamin Horace, A History of the Public Land Policies, The Macmillan Company, New York, 1924.

Adams, Herbert B., Maryland's Influence Upon Land Cessions to the United States, Johns Hopkins University Studies, 1, Third Series, 1885.