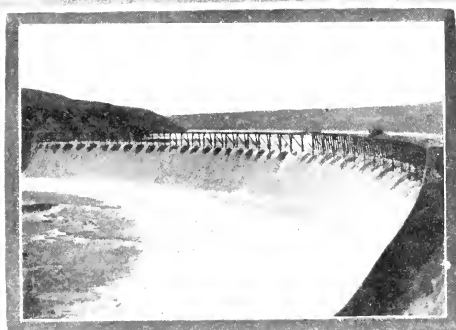


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The Resources  
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# MONTANA

1916



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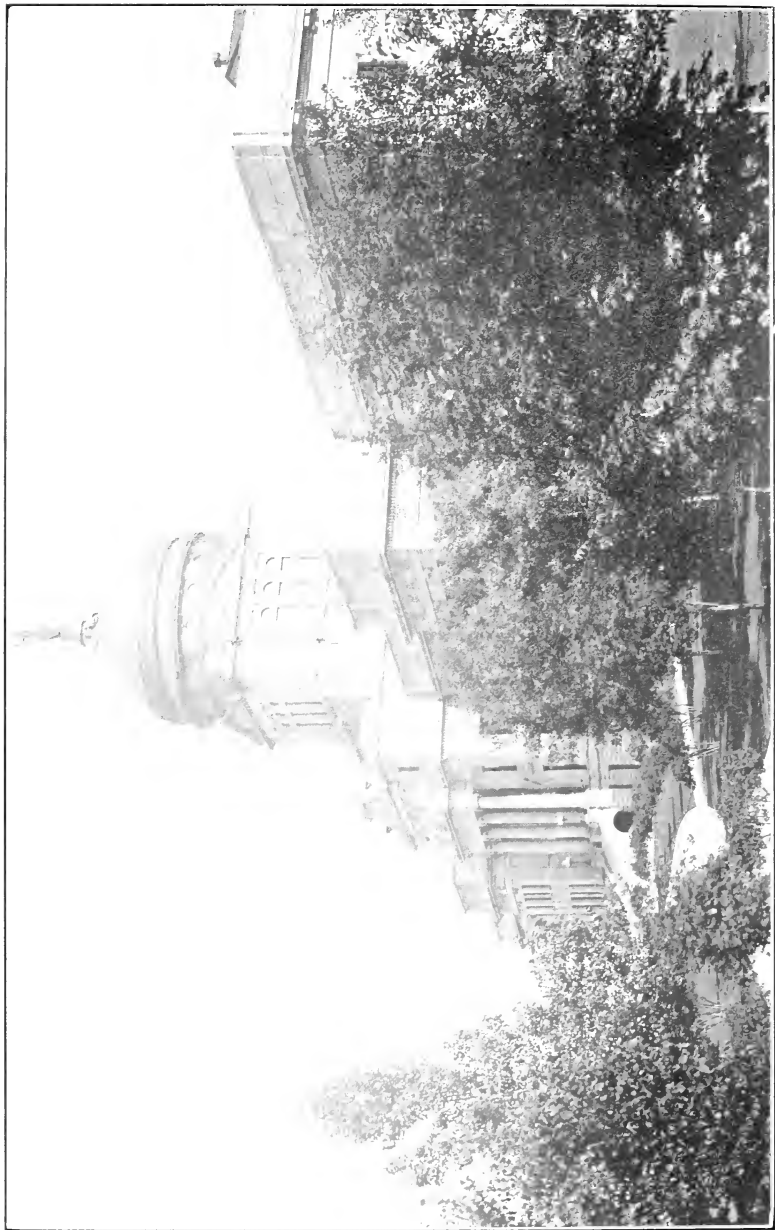
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A Glimpse of Montana's State Capitol, Built Out of Montana Stone at a Cost of \$1,100,000.



# *The Resources and Opportunities*

— OF —

# MONTANA

(1916 EDITION)

“There’s a Place for You in Montana”

*By* SETH MAXWELL

Commissioner of the Department of  
Agriculture and Publicity

This Publication is Issued and Circulated by Authority of the  
State of Montana

HELENA, MONTANA

1916



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# Foreword

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**T**HIS PUBLICATION is issued by authority of the State of Montana by the State Department of Agriculture and Publicity for the purpose of acquainting prospective settlers and investors with conditions as they exist in Montana.

This Department represents no private interest; it has nothing to sell. Its aim and ambition is merely to give to the earnest inquirer the truth regarding Montana. This State wants settlers for the millions of acres of good agricultural land waiting for the plow, and it also seeks legitimate investors who will assist in the development of the many and varied natural resources with which this commonwealth is endowed. For the energetic and ambitious, it is confidently believed that there exist in Montana opportunities for advancement which cannot be duplicated; opportunities which, even here, will not long be available. It is to acquaint this class of people with what Montana has to offer that this publication is issued.

This is the fifth "Montana Book" and it is a distinct pleasure and inspiration to realize that these publications have come to be regarded as the standard authority on Montana; that they are in demand in libraries, colleges, schools, newspaper offices and legislative and administrative bodies throughout the world; and that they have served to correct not only erroneous ideas concerning this State, but have also attracted to Montana a tide of desirable immigration unequalled in the marvelous development history of the northwest.

The State of Montana invites the closest investigation of the claim that farming pays better here than in any other state; and that living conditions are more nearly ideal here than can be found elsewhere.

In a book of this size, it is very difficult to give more than passing reference to many industries which, of themselves, are of immense importance. It has been the aim to merely set forth in these pages information which will be of practical value to the average American of moderate means who seeks to better his condition, and to give to his children a better chance than can be found in some of the more crowded portions of the Republic.

SETH MAXWELL, Commissioner.

# The State and its People

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Energetic Americans, Inspired by the Enthusiasm of Assured Success, and With a Wealth of Natural Resources at Their Disposal, Carve Out a New Empire of Opportunity

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MONTANA, THIRD LARGEST of the States of the Union, and greatest in natural wealth, is the newest empire of opportunity. Fastest growing of all the States, it is but even now merely glimpsing the dawn of its greater destiny; it is just beginning to realize the vast extent of the great resources which Nature placed at the disposal of its people and to utilize these resources in the service of Mankind.

To the ambitious and energetic, Montana extends a cordial and a sincere invitation. It asks them to come here and share in its prosperity by assisting in its development. It offers a larger measure of assured success than can be found anywhere else upon the American continent, and to substantiate this claim it modestly presents the record of merely a few brief years of actual achievement.

Montana is the keystone state of the great American Northwest. It lies between the 104th and 116th meridians of longitude west of Greenwich and between the 45th and 49th parallels of north latitude. The western boundary follows the Coeur d'Alene and Bitter Root mountains and is irregular; in the southwest corner the line dips below the 45th parallel and follows the main range of the Rocky Mountains; the northern boundary is along the 49th parallel and the eastern boundary the 104th degree of latitude. It is bounded on the north by the Canadian provinces of Saskatchewan, Alberta and British Columbia; on the south by Wyoming and Idaho; on the west by Idaho and on the east by North Dakota and South Dakota. The average length from east to west is about 535 miles and the average width from north to south about 275 miles. Montana thus embraces an area of 147,182 square miles.

It should always be remembered that Montana is big. The vast area of the state must be borne in mind in any consideration of its climate, its resources and its opportunities. It is the third state in size in the Union, only Texas and California being larger; France and Germany are each only about one third larger. England, Scotland, Wales and Ireland combined, with their thirty millions of people, have fewer miles of territory; Montana embraces a greater area than all the New England states, New York, New Jersey, Delaware and Maryland added together. These states have a combined population of 19,701,130; Montana, with greater natural resources, has an estimated population of 750,000. There are counties in Montana larger than some of the populous states of the East.

Montana is the last of the great public land states. When the broad acres of this state, now lying idle and unclaimed, shall have been seized upon by the homesteader



**Spring Seeding in Montana—Forty Horses at Work on One Field.**

and the farmer, the day of free farm land in the United States will have passed. In the first great rush toward the west, the fertile acres of Montana were given not a thought. Its mines had given Montana its renown, but save for the rockribbed ore deposits lying within its mountains and save for the grazing ground which it afforded for cattle and sheep, the casual saw little for the future of the commonwealth.

But the new day came and with it came the awakening of a great state. It was shown that the benchlands upon which grew the nutritious bunch grass could be transformed into the greatest and most productive wheat farms in the world. Gradually the skeptic was convinced; gradually the land hungry of eastern states turned their eyes toward Montana, and the state awoke from its lethargy. Another transcontinental railroad, in record-breaking time, stretched its line across Montana and into the state began to come the advance guard of the farmers who were to change its destiny and make it the "breadbasket of the world."

They made good, and with less than one-eighth of the tillable lands of the state now under the plow, Montana, among the states of the Union, now stands twelfth in the production of wheat, seventeenth in the production of oats, thirteenth in the production of barley, thirteenth in the production of potatoes, and third in the production of flax. When the 35,000,000 acres of good farming land in this state shall be under cultivation it is not unreasonable to suppose that this state will take the lead in the production of practically all staple farm crops.

Montana, the most prosperous and growing state in the Union, is the most highly endowed of all of the commonwealths. Its hills and mountains are great storehouses of mineral wealth, which modern industry is releasing at an ever increasing rate. Its valleys and benchlands are fertile to a high degree and are being rapidly converted into farms of great productivity. Its ranges give sustenance to immense



Harvesting a Portion of Montana's Big Grain Crop.

herds of cattle and sheep which find a market at ever increasing prices. Its rivers and streams are capable of producing electrical power sufficient to turn the industrial wheels of an empire and this power is being rapidly developed and placed in the service of mankind. Its forests and streams abound in game and fish, offering a veritable paradise for the sportsman; while its scenic attractions, although but yet comparatively little known, are such as to inspire the admiration of world-traveled tourists.

Montana, with its more than 147,000 square miles, is capable not only of supplying practically its every want but is also capable of exporting immense quantities of the staple products of commerce. As has been well said, it is an empire in the making and only those of far seeing vision can yet dream of the Montana which is to come.

The year 1915 dealt with Montana with a lavish hand. Not only has this State produced the greatest crops in its history, but these crops have been marketed at prices which give good profit to the husbandman and encourage him to larger efforts. The mineral production of the State, estimated by the geological survey at a value of eighty-seven million dollars, established a new high record and the present high prices of copper and zinc, which are Montana's chief metal products, indicate that the output for 1916 will greatly exceed that of the year just closed.

During the past year a new, and it is thought important, industry was added to Montana's varied activities. Natural gas, in commercial quantities, has been developed in a half-dozen widely separated portions of the State, while along the southern border prospecting for oil has resulted in the opening of a number of wells which are even now on a paying basis and there is every indication that the production of petroleum is soon to be one of Montana's chief industries.

The past year also witnessed the first utilization, by a transcontinental railroad, of electrical power for motive purposes, when an entire division of the



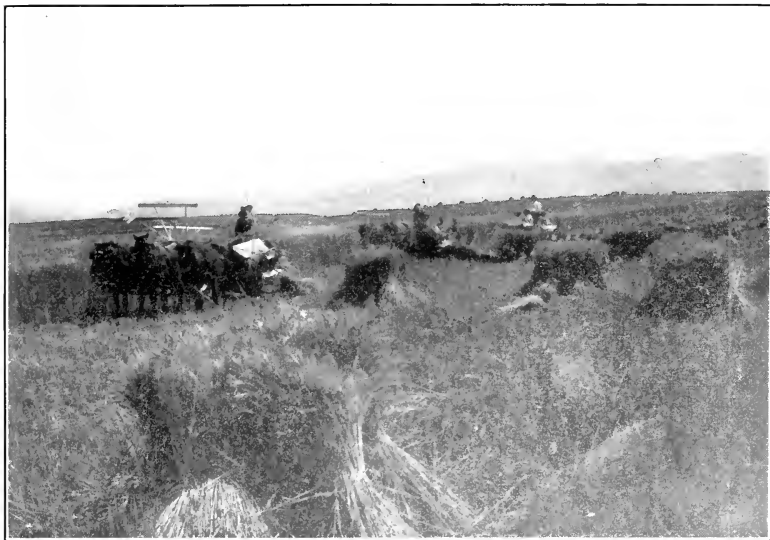
**Montana's Fertile Prairies Are the Breadbasket of the World.**

Chicago, Milwaukee & St. Paul Railroad, a division which crosses the main range of the Rocky Mountains, was electrified and great electric motors replaced giant steam locomotives for the hauling of freight and passenger trains. The electrification is now being extended on this road through the entire mountainous section of the State and within a few months the silent power, generated by Montana's great water falls, will pull transcontinental trains for a distance of more than four hundred miles and across two great mountain ranges.

The agricultural development of Montana, although in but its infancy, is making remarkable progress. During the past sixteen years, the wheat production of this state has increased from 1,929,000 bushels to 33,800,000 bushels; the production of corn has increased from a paltry 23,000 bushels to 1,960,000 bushels; oats from 2,568,000 bushels to 31,200,000 bushels; potatoes from 640,000 bushels to 6,640,000 bushels and yet, despite these vast increases, the fertile soil of Montana has scarcely been scratched. Of the thirty-five million acres of land in Montana suitable for farming, crops have thus far been produced on less than four million acres. In the light of these facts, Montana looks forward to the day when she will take her place as the premier agricultural state of the Union.

The remarkable development which this State is undergoing at the present time is largely due to the energetic character of its people and their ability to look into the future and to build for days which are yet to come.

It is fifty years now since Montana's first citizens were attracted to this then territory by the discovery of numerous rich deposits of placer gold, but the pioneer spirit is still a predominating influence among the people of this State. The gold seekers, who came to Montana in the sixties, did not pack up their worldly goods and return to their former homes when they had made their fortunes here.



Cutting Wheat on Dry Land Farm Near Dillon (Yield 66½ Bushels Per Acre.)

Instead, they remained in the land of their adoption and devoted their fortunes and energies to the building of a great commonwealth. Throughout the years which have followed, the strong character of these pioneer citizens has been continually molding the destinies of the State. Their influence has been felt in private and public affairs and their ideals have been ever foremost in the eyes of Montana citizenship. Few of them now remain, but their sons and daughters inherited their vision of lofty purposes and newcomers into the State have caught the spirit of greatness which they inspired.

During the past six years, more than 100,000 men and women have come into this state from all parts of the Union to take advantage of the vast area of public lands which were available here for homestead entry. These people have and are making good in the fullest sense of the word. It has often been remarked that it was perhaps fortunate for Montana that the great era of agricultural development in this State, now in progress, was contemporaneous with the general recognition of the fact that farming, the most independent of all earthly means of earning a livelihood, required brains as well as brawn. The result of this was that the Montana homesteader was not the cast off or the ne'er-do-well of other communities, but was the strong, self-reliant and ambitious. These people were quick to imbibe the Montana spirit and the results which they have attained speak eloquently in their behalf.

Nothing of the wild and woolly west remains in Montana. Illustrations of modern farm life are to be found in even the newest communities. The well furnished home, the opportunities for social intercourse, the groups of happy and contented school children all give ample testimony that "life in Montana is different."

The public school system of this state is a strong index to the character of its people. The minimum limit for a school term is four months. Over four-fifths of



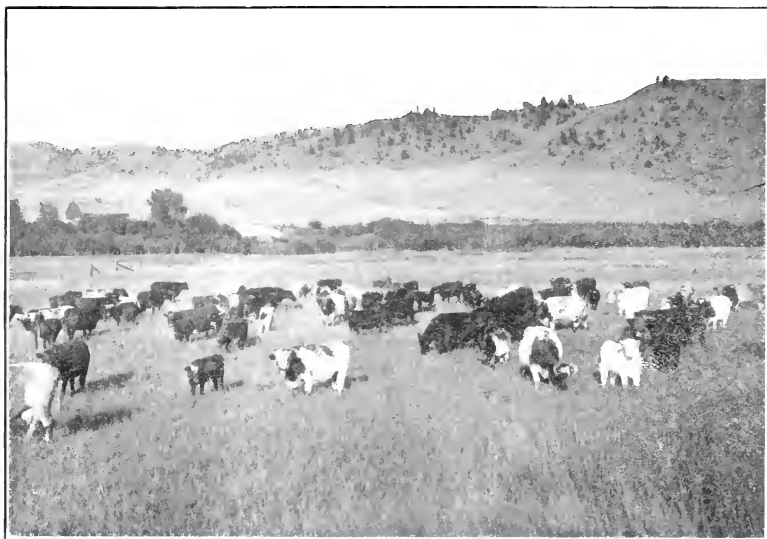
**The Best of Horses Are Raised on Montana's Farms.**

all the schools in the state have at least a six months term, while practically all of the town schools are in session for nine or ten months. It was disclosed by a recent comparative study of public school systems in the United States, conducted through the Russel Sage Foundation, that many states with more than double the population of Montana, expend less for the maintenance of their schools. Only four out of the forty-eight states of the Union exceed Montana in the per capita expenditure for children of school age. Only three states west of the Mississippi river have public school property of as great a value, in proportion to the school population, as Montana. While the average annual salary paid to public school teachers in the United States is given as \$485, the average paid in Montana is \$645, an amount equalled by only six other states in the Union. During the past five years more new school houses have been built in this state than in any other and the progress of education in Montana continues strongly upward.

The character of any people depends, to a large extent, upon their environment and their ability to earn the means necessary to live in comfort and contentment. In this matter, Montana is proud of the superior position it holds. Industrial conditions in this state are good, not only for the employer but likewise for the employee. As an instance of this, attention might be called to the fact that in the city of Butte, where more than seventeen thousand miners find employment, the average wage paid is higher than in any other industrial community of like size in the United States, if not in the world. Good working conditions prevail throughout the State and the eight hour day is almost universal in industrial activities.

The agricultural growth of Montana has been one of the marvels of this great age of achievement. A man who twenty-five years ago would have said that Montana would in 1915 produce 33,000,000 bushels of wheat or six million bushels of potatoes, the big portion from non-irrigated land, would have been laughed to





**Montana Cattle Help Supply the Nation With Beef.**

scorn. And yet today, so changed is the Montana idea of its own agricultural possibilities, that the well-informed citizen looks upon last year's record breaking crops as merely an indication of what may be expected in the next few years when Montana gets the people necessary to properly cultivate the 35,000,000 acres of fertile agricultural land which lies within the borders of this great empire.

Some half-dozen years ago it was begun to be realized that the great need of Montana was people—active, energetic people who were not afraid of work but who, with adequate reward assured, were willing to do their share in the development of the magnificent resources of this great commonwealth. For such people, it was realized, this state offered opportunities which are not to be found elsewhere. Repeated experiment and thorough trials had demonstrated that the benchlands of this state were capable of producing enormous crops of grain and that, properly farmed, Montana was destined to become one of the great cereal producing states of the Union. The greater part of these fertile and highly productive benchlands were yet in the public domain and could be secured by the ambitious under the liberal provisions of the homestead law.

It was hard to make those who had always associated Montana climate with that of the Arctic regions believe that, despite the popular impression to the contrary, the climate of the greater part of this state was practically the same as that of Ohio, Indiana and Illinois, although the reports of the weather bureau proved this to be true. It was hard to make people believe that there were agricultural possibilities in a state which their geographies had taught them was useful, aside from its mineral production, only by reason of the fine grazing it afforded *in the summer time* for great herds of cattle and sheep.

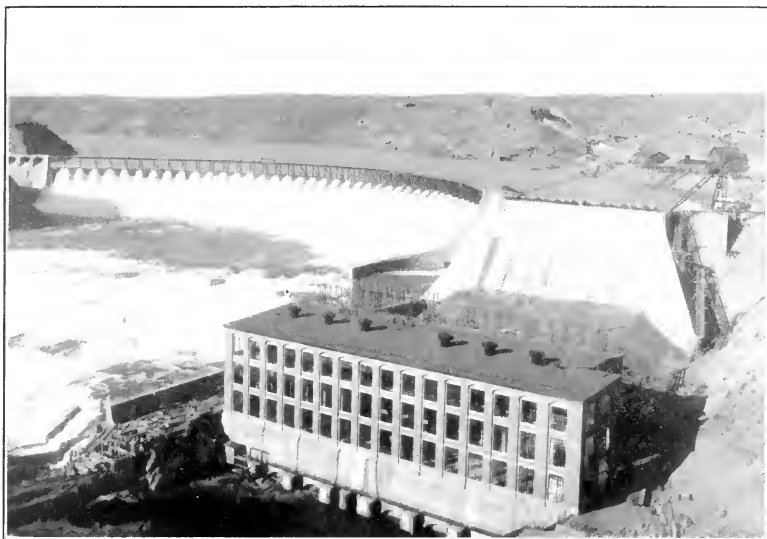
But education, as always, won over popular ignorance and during the last six years more than 29,000,000 acres of public and Indian lands have been entered by settlers in



**Montana Produces More Wool Than Any Other State.**

Montana, and during every year of this period Montana has led all the states of the Union in providing new homes for homeseekers. Thus far there has been no slackening of this great tide of immigration and there is no indication that there will be any until the last of the public lands suitable for farming has been filed upon by some energetic home-builder. Of the more than 100,000 homesteaders who have come to Montana in the last six years the vast majority have come with the determination to make good and are making good. During the last fiscal year almost 4,000,000 acres of land—3,994,418 to be exact—were patented to settlers, the largest area transferred from the government to private persons in any year in the history of the state. When it is considered that the land patented to Montana settlers last year could not all be placed within the borders of the state of Connecticut and would occupy more than half of the state of Maryland, one can begin to understand something of the size of the empire which the newcomers into Montana are appropriating, and when it is considered that each settler, in order to secure a patent to not to exceed 320 acres of this vast domain, must first reside upon his "claim" for a period of three years and cultivate at least one-eighth of it, something of the sturdy purpose of these homesteaders and something of their faith in the agricultural future of Montana can be appreciated.

The higher quality of Montana's agricultural products is becoming generally recognized. At every national exhibition held in the last five years the exhibits from Montana's farms have been among the leading prize-winners, this great string of victories having been crowned during the past year by Montana winning the grand prize in agriculture at the Panama-California Exposition at San Diego, and the grand prize in both cereals and apples at the Panama-Pacific Exposition, while at the latter exposition more gold and silver medals were awarded to Montana farmers than to those of any other state.



Montana Has the Greatest Water Power in the Country.

Not only do Montana products excel in quality, but figures from official sources show that this State is in a position of undisputed leadership in its high average production per acre. The Yearbook of the United States Department of Agriculture, for 1915, shows that the average per acre production of oats in this state during the past year was 52 bushels—the highest state average given any state by the Department. This report also shows that with an average of 22.5 bushels, Montana last year led all the states in the per acre production of rye, while with 155 bushels, it tied with Maine for the high record in the per acre production of potatoes. Aside from a few states where wheat raising is only incidental and where less than 20,000,000 bushels are produced, Montana with a state average of 26.5 bushels led all the states in the per acre production of this great cereal.

These, it will be understood, are the averages for the entire state, an area of more than 147,000 square miles. When only the records made by really good farmers throughout the state are considered it is found that results have been achieved which would stagger the belief of those unacquainted with farming in Montana. Down in Beaverhead county, in the southwestern corner of the state, a farmer filed upon a homestead less than a year ago and last fall he harvested a crop of wheat which averaged  $66\frac{1}{2}$  bushels to the acre for the entire hundred acres he had put under the plow. Over in Fergus county, in the central portion of the state, in the now famous Judith Basin, over a dozen farmers reported yields running from 50 to 60 bushels per acre. Near Cut Bank in the extreme northern part of Montana 350 bushels of flax were harvested from a measured ten acres—the highest flax yield of which there is any authentic record. In Sheridan county, in the northeastern corner of the state, a newcomer leased a section of state school land, for which he paid a rental of \$320, put it into flax and marketed his crop for \$12,000. In Cascade county, in the central portion of Montana, was a field of oats yielding 103 bushels to the



**Montana Won the Grand Prize on Apples at the Panama-Pacific Exposition.**

acre, while in the county adjoining on the north 45 acres of oats yielded an average of 109 bushels per acre—and this from a homestead which was less than two years old. In Valley county a yield of 69 bushels of marquis wheat per acre was reported, while a Hill county farmer established what is believed to be a state record by threshing 71 bushels of wheat to the acre. These instances of previously unheard of yields could be continued almost indefinitely, but enough have here been given to show something of the marvelous fertility of Montana soil and to explain why in an agricultural way Montana is growing faster than any other state in the Union.

There is still plenty of opportunity for the ambitious farmer. There is land left. According to the last report of the commissioner of the General Land Office, dated July 1, 1915, there remains in Montana more than 19,000,000 acres of unappropriated and unreserved public land available for entry under the homestead laws. At least half of this is suitable for farming and will some day be farmed. The state owns more than 4,000,000 acres which can be leased very cheaply or purchased on easy terms, payments being extended over a period of twenty years. The Northern Pacific Railway grant is on the market at prices which are low when the character of the land is taken into consideration. Larger ranch holdings are being cut up and colonized. All of these conditions serve to make it easy for the landless man to change and better his condition, and to such the State of Montana extends a cordial invitation.

Among the great assets of this commonwealth—and they are legion—none count for more than the splendid citizenship with which this state is blessed, a citizenship which, surrounded by every opportunity for material prosperity, has nevertheless neglected no effort toward making Montana a better place in which to live.

Montana is proud of the educational facilities it offers to its future citizens. A wide variety of local school conditions may be found in different parts of this great



Lumbering is One of the Chief Industries of Montana.

empire, but many a settler has come to Montana to find school facilities far superior to those he had left behind in some of the older states. The revenues available for the support of the common schools of the state are growing rapidly each year. To begin with, at the admission of the state twenty-six years ago, two sections in every township—that is, one-eighteenth of all the land in the state—were set apart for the endowment of the public school system. Year by year, as advantageous opportunity appears, these lands are sold to settlers, never at less than ten dollars per acre, and usually more. A fund is thus accumulating for the endowment of the public schools. Meanwhile lands not sold are leased and revenue is thus derived from them.

The permanent school fund, derived from the sale of land and timber and invested in interest-bearing bonds, is steadily growing each year and already amounts to more than three million dollars, although less than one-tenth of the land has been sold. Every year the income from this fund is apportioned to the school districts of the state in proportion to the number of children of school age therein. While the number of children has been rapidly growing, it has not grown so fast as the fund, and the per capita apportionment has been steadily increasing for the past several years. In 1911 it was \$3.00; in 1912, \$3.50; in 1913, \$4.00; in 1914, \$4.50, in 1915, \$5.00 and \$5.25 in 1916. As the county high schools do not share in this apportionment, it really amounts to over \$6.00 for every child actually enrolled in the common schools. Each county also levies a school tax of four mills, which yields an average of about \$20 per pupil. Finally each district may supplement this by a local tax up to the limit of ten mills. The results actually accomplished are most encouraging. The minimum limit of school terms is four months, but there are very few that come down to this limit. More than four-fifths of all the schools in the state have at least a six months' term. Nearly all of the town schools are in session for nine months and many for ten.



**Montana's Scenic Beauties Attract Thousands of Visitors Every Year.**

In the matter of secondary education, Montana has made great progress within recent years. For a long time there have been good high schools in most of the larger towns, as Butte, Helena, Great Falls, Missoula, Billings and Anaconda. In the smaller towns, however, the people were determined not to be behind and several years ago a law was enacted by the legislature enabling a high school to be established in each county, at the expense of the whole county and free to all the children of that county. Already seventeen counties have taken advantage of this opportunity, have erected fine modern buildings, and are carrying on courses of four years which are fully accredited for university entrance. The average salary paid to principals of these schools is over \$2,000 per year, and some receive as high as \$3,000. Besides these county high schools there are district high schools of equivalent character in many of the larger towns—indeed there are only three counties in the state which have no school accredited to the State Board of Education, and even in these counties there are schools doing some good high school work, but not yet equipped to be quite able to meet the requirements for standardization.

In organizing the work of higher education, Montana has been peculiarly fortunate. The Act of Congress which admitted the state to the Union, supplemented by other laws, set apart vast areas of public domain. For all the higher institutions, this aggregates nearly seven hundred square miles. Already the endowment yields a much larger annual revenue than the total income of many private colleges of renown, and the legislature supplements this by liberal appropriations from the general funds of the state. The University of Montana is located at Missoula, the State College of Agriculture and Mechanic Arts at Bozeman, the State School of Mines at Butte, and the State Normal School at Dillon. Recently the state arranged for the unification of all of its institutions of higher learning, thus consolidating the four institutions listed above under the general designation of the University of Mon-



Historic Three Forks, Head of Missouri River.

tana, and placing their control under a Chancellor, who has his office in the state capitol at Helena. For this responsible management of its greater university of Montana this state not only secured one of the most eminent educators of America but at the same time it arranged an original and effective program for the control of its land grant institutions.

In addition to the institutions of learning maintained at public expense, there are a number of thriving educational enterprises carried on by private activity. The oldest institution for higher education in Montana is the College of Montana, sustained by the Presbyterian church, at Deer Lodge. The Montana Wesleyan university has been doing excellent work in Helena for many years under Methodist auspices. The educational work of the Catholic church is most extensive. In several of the larger towns parochial schools are maintained, and in several places are boarding academies which carry on both elementary and secondary work. These include St. Vincent's Academy at Helena, Sacred Heart academy at Missoula, and Mt. Angela Ursuline academy at Great Falls, as well as the Catholic central high school at Butte, and St. Charles college at Helena.

Practically every church in America is well represented in Montana. There are three residential bishops in Helena—Catholic, Methodist and Episcopal. The former has just completed in Helena a cathedral which is second to none in the Northwest, and also has charge of an extensive system of sectarian education, embracing collegiate, secondary and parochial schools. Throughout every section of the state is to be found well supported churches of every denomination, and all the larger cities boast of splendid social clubs and fine Y. M. C. A. buildings.

Politically, Montana is among those desirable states which are classed as "doubtful" at election times, a condition which not only protects the state from the abuses of unbridled political power, but also develops a strong sense of responsibility on the



Harvesting Oats Along the High Line of the Great Northern.

part of those entrusted to public office. In the first election following statehood, Montana's electoral vote was cast for Benjamin Harrison; in 1896 and 1900 it was cast for W. J. Bryan; in 1904 for Theodore Roosevelt; in 1908 for W. H. Taft, and in 1912 for Woodrow Wilson. The present state administration is democratic, with the exception of the State Senate, in which the republicans have a majority.

Strong interest is displayed by the people of Montana in public affairs, and the state has been particularly free from administrative scandals. The magnificent state capitol at Helena, a picture of which is shown in the frontispiece of this book, was built at a cost of \$1,100,000 and is universally regarded as a splendid example of a state getting the full value of every dollar spent.

Political power is jealously guarded by the people, and through the instrumentality of a direct primary law, under which all nominations are made, they keep in close touch with political conditions. Through the initiative and referendum clauses of the state constitution, they reserve to themselves the power to enact or defeat legislation by popular vote, a power which thus far has been seldom but always wisely used. Of seven measures which have been initiated through popular agencies, five have passed and two have been rejected. Of two measures referred to the people after legislative enactment both were rejected. Equal suffrage, without regard to sex, has been written into the constitution.

The people of Montana welcome outside capital and treat it with every degree of fairness, while at the same time insisting that capital be also fair with the people. Every branch of legitimate industry is encouraged, while the people amply safeguard themselves with every necessary protection. A railroad and public service commission has been established to regulate the rates of every public utility and common carrier; a "blue sky" law has been enacted to protect investors from fraudulent promoters; a grain inspection department looks after the proper inspection of Montana grain; farmers are protected in their seed purchases by a system of free seed inspection; weights and measures and pure food laws are rigidly enforced; an





Winter Feeding of Cattle.

eight-hour day for underground miners has been written into the state constitution and an eight-hour day is in force on all public and practically all private works—child labor is prohibited and truancy laws are well enforced, while the law prohibits employers from requiring women employees to work more than nine hours a day in certain classes of work; an efficiently administered workmen's compensation law has been placed in successful operation at a lower administrative cost than has been attained by any other state in the Union; the promotion of the dairy industry is in the hands of a state dairy department; an efficient and well managed agricultural experiment station, with sub-stations in various parts of the state, carries on extension work among the farmers of Montana, and good-road building has become the rule under the energetic activity of the state highway commission.

Intelligent aid is extended agricultural operations of all kinds, and every effort is made to insure the success of the new settler. Important among the agencies active in this work are the county agriculturists, who are in reality county agricultural teachers, whose pupils are the farmers of their respective counties. These men, who are paid jointly by the state and the federal government under the Smith-Lever Act, assist the individual farmer in working out his particular problems and already their influence is being felt in the direction of better farming and increased production.

The Montana State Fair, held each year at Helena, is a great statewide agricultural exposition, which attracts visitors not only from all over Montana, but from every state in the Union and is generally recognized as the best agricultural show in the country. Practically every county in the state exhibits at this annual event, which arouses much competition among the farmers of the state, and is an educational institution of incalculable value. The standing of the Montana State Fair is indicated by a remark made by the late James J. Hill to President Taft at the 1909 State Fair, when the great railroad builder assured the nation's chief executive that this was the finest agricultural display he had ever seen.

In short, Montana, while offering to the honest and energetic of all classes unequalled opportunity to better their condition in life also strives valiently and successfully toward those happy conditions which make life more worth living and without which success in a material way becomes scarcely worth while.

# Home-Making in Treasure State

Magnificent Empire of Public Land, Available for Entry Under the Liberal Provisions of the Homestead Law, Furnishes Opportunity for Many Thousands of Farmers.



ELDOM, IF EVER, has there been a finer vindication of the wisdom of the policy of the United States government in the disposition of the public domain, than Montana has furnished in the past few years. The demonstration of the productivity of Montana soil, together with the knowledge that there was available here millions of acres of government land, served to attract toward Montana a tide of homesteaders such as the country has never before witnessed.

During the last few years energetic farmers by the tens of thousands have learned of the superior productive power of Montana's soil and have taken advantage of the liberal homestead laws to come to this state and get a home. They are here now and they are on the high road to prosperity. In every county of the state they have settled and everywhere they are making good.

The lifegiving effect of this great agricultural development is felt on all sides. In 1913 more miles of new railroad were built in Montana than in any other state in the Union. Since that date there has been practically no new railroad construction, due to the high cost of materials and unsettled business conditions, but during 1916 the Montana railroads have renewed construction work and during the present season it is confidently predicted that several branches will be constructed into new territory within the next twelve months.

In no way can the remarkable growth of Montana be more strikingly shown than in the reports of the Commissioner of the General Land Office giving the number of homestead entries made in Montana during the period when the present influx of settlers has been at its height. The following figures cover the years 1911-15 inclusive:

## HOMESTEAD ENTRIES.

Year	Number	Acreage
1911	15,399	3,917,816
1912	12,597	3,234,199
1913	17,844	3,996,358
1914	20,662	4,429,623
1915	16,146	3,500,268

## ENTRIES OF ALL KINDS.

Year	Number	Acres—Original
1911	21,988	4,257,302
1912	20,626	3,600,260
1913	29,246	4,675,840
1914	37,699	5,335,393
1915	30,395	4,065,439



Threshing on Productive Bench Lands.

#### FINAL PROOFS AND PATENTS.

Year	Acres final proof	Acres patented
1911	522,269	1,187,312
1912	629,835	742,230
1913	1,475,722	2,342,923
1914	2,667,632	3,485,067
1915	2,358,665	3,994,418

According to the last report of the Commissioner of the General Land Office, dated July 1, 1915, there yet remains in Montana more than 19,000,000 acres of unreserved and unappropriated public land, over half of which is suitable for farming. In the greater part of this area homesteads embracing 320 acres may be "taken up." The homestead laws have been recently made much more liberal. Formerly the homesteader was required to live continuously and uninterruptedly for five years upon his claim before he could perfect title. Under a recent act of congress the required residence on a homestead is reduced to three years, each year of which the homesteader may, if he so desires, have five months' leave of absence. The homestead law gives the ambitious a chance to secure a home at the mere expense of nominal filing fees. Unmarried women, as well as women who are the heads of families, have the same rights as men under the homestead law.

Montana, more than any other state in the Union, spells Opportunity for the ambitious farmer who wants to get ahead. The public domain of this state offers an exceptionally brilliant chance for the young man just starting out in life for himself or for the tenant who has grown tired of paying rent and desires to become a freeholder. More than 19,000,000 acres of free public land may be had in this state for the asking. It is Uncle Sam's gift to those of his citizens who are willing to contribute to the development of the nation by making productive broad acres which now are barren. The present federal homestead laws have been greatly liberalized within the past few years and it is now possible for any ambitious man or woman who owes allegiance to the United States government to secure title to 320 acres of public land by residence and cultivation of only three years.



A Field of Montana Oats.

Montana's forward stride, as shown by the assessment of property for purposes of taxation, is aptly illustrated by the following table:

	Acres Assessed	Total Value of State	No. of Counties
1890	4,930,196	\$112,916,272	16
1891	5,402,016	143,472,743	16
1892	5,737,841	129,466,949	16
1893	6,055,807	127,548,175	21
1894	6,523,346	118,850,892	21
1895	6,558,425	124,076,586	23
1896	7,726,240	120,697,847	23
1897	7,886,094	130,757,412	24
1898	8,210,376	133,969,519	24
1899	9,123,673	142,117,656	24
1900	8,877,833	153,401,594	24
1901	8,651,348	166,787,593	26
1902	10,542,536	185,725,657	26
1903	12,060,904	201,333,315	26
1904	12,219,920	201,748,063	26
1905	13,255,102	209,912,340	26
1906	14,194,569	233,953,571	27
1907	14,975,584	251,882,437	27
1908	15,746,887	248,774,792	27
1909	15,770,887	280,401,064	28
1910	17,956,224	309,673,699	28
1911	19,167,871	331,670,418	29
1912	20,382,209	346,550,585	31
1913	22,541,034	382,807,277	34
1914	25,836,655	412,361,919	38
1915	28,842,624	439,785,918	41

The State of Montana is divided into ten land districts, each containing a United States land office for the administration of the public land affairs of that particular district. These land offices are located at Billings, Bozeman, Glasgow, Great Falls,



Packing Apples in the Yellowstone Valley.

Havre, Helena, Kalispell, Lewistown, Miles City and Missoula. A person desiring to make homestead entry should first decide where he or she wishes to locate then go or write to the land office of the district in which the land is located and obtain from the records diagrams of the vacant land.

A personal inspection of the land sought to be entered should be made to ascertain if it is suitable and when satisfied on this point entry can be made at the local land office or before a United States Commissioner.

Any one desiring to obtain information in regard to vacant lands in any district before going there for personal inspection should address the register and receiver of the particular land office who will give such information as is available. The local land officers cannot, however, be expected to furnish extended lists of vacant land subject to entry except through township plats which they are authorized to sell at a nominal price. A plat showing the vacant land in any township (a township being six miles square) may be had at the price of \$1.00.

All unappropriated surveyed public lands adaptable to any agricultural use are subjected to homestead entry if they are not mineral or saline in character and are not occupied for the purpose of trade or business and have not been embraced within the limits of any withdrawal, reservation or incorporated town or city, but homestead entries on lands within certain areas are made subject to the particular requirements of the laws under which such lands are open to entry.

Homestead entries may be made by any person who does not come within either of the following classes:

(a) Married women, except as hereinafter stated.

(b) Persons who have already made homestead entry, except in certain cases where former entry has been cancelled through no fault of the entryman.



**A Glimpse of the Big Wheat Territory Surrounding Great Falls.**

(c) Foreign-born persons who have not declared their intention to become citizens of the United States.

(d) Persons who are the owners of more than 160 acres of land in the United States.

(e) Persons under the age of 21 years who are not the heads of families except minors who make entry as heirs, or who have served in the Army or Navy during the existence of an actual war for at least 14 days.

(f) Persons who have acquired title to or are claiming, under any of the agricultural public land laws, through settlement or entry made since August 30, 1890, any other lands which, with the lands last applied for, would amount in the aggregate to more than 320 acres.

A married woman who has all of the other qualifications of a homesteader may make a homestead entry under any one of the following conditions:

(a) Where she has been actually deserted by her husband.

(b) Where her husband is incapacitated by disease or otherwise from earning a support for his family and the wife is really the head and main support of the family.

(c) Where the husband is confined in a penitentiary and she is actually the head of the family.

(d) Where the married woman is the heir of a settler or contestant who dies before making entry.

(e) Where a married woman made improvements and resided on the land applied for before her marriage, she may enter them after marriage if her husband is not holding other lands under an unperfected homestead entry at the time she applies to make entry.



### Sugar Beets Are a Profitable Crop in the Irrigated Districts.

The marriage of the entrywoman after making entry will not defeat her right to acquire title if she continues to reside upon the land and otherwise comply with the law.

A widow, if otherwise qualified, may make a homestead entry notwithstanding the fact that her husband made an entry and notwithstanding she may be at the time claiming the unperfected entry of her deceased husband.

A person serving in the Army or Navy of United States may make a homestead entry if some member of his family is residing on the lands applied for, and application and accompanying affidavits may be executed before officer commanding branch of service in which he is engaged.

A homestead entry may be made by the presentation to the land office of the district in which the desired lands are situated of an application properly prepared on blank forms prescribed for that purpose and sworn to before either the register or receiver, or before a United States commissioner, or a judge, or a clerk of a court of record, in the county in which the land lies, or before any officer of the classes named who resides in the land district and nearest or most accessible to the land, although he may reside outside of the county in which the land is situated.

Each application to enter and the affidavits accompanying it must recite all the facts necessary to show that the applicant is acquainted with the land; that the land is not, to the applicant's knowledge, either saline or mineral in character; that the applicant possesses all the qualifications of a homestead entryman; that the application is honestly and in good faith made for the purpose of actual settlement and cultivation, and not for the benefit of any other person, persons or corporation; that the applicant will faithfully and honestly endeavor to comply with the requirements of the law as to settlement, residence and cultivation necessary to acquire title to the land applied for; that the applicant is not acting as the agent of any



**Montana Farmers Build Substantial Homes.**

person, persons, corporation or syndicate in making such entry, nor in collusion with any person, corporation or syndicate to give them the benefit of the land entered or any part thereof; that the application is not made for the purpose of speculation, but in good faith to obtain a home for the applicant, and that the applicant has not directly or indirectly made, and will not make, any agreement or contract in any way or manner with any person or persons, corporation or syndicate, whatsoever, by which the title he may acquire from the government to the lands applied for shall inure, in whole or in part, to the benefit of any person except himself.

A homestead entryman is required to establish residence upon the land within six months after the date of entry unless an extension of time is allowed, and is required to maintain residence thereon for a period of three years. He may absent himself, however, for a portion of each year not exceeding five months.

Cultivation of the land for a period of three years is required. During the second year not less than one-sixteenth of the area entered must be actually cultivated, and during the third year, and until final proof cultivation of not less than one-eighth is required. There must be actual breaking of the soil followed by planting, sowing of seed and tillage of a crop other than native grasses.

The homestead entryman must have a habitable house upon the land entered at the time of submitting proof. Other improvements should be of such character and amount as are sufficient to show good faith.

All original, second and additional homestead, and adjoining farm entries may be commuted, except such entries as are made under particular laws which forbid their commutation.

The entryman or his statutory successor submitting such commutation proof must show substantially continuous residence upon the land, and cultivation thereof, for a period of at least fourteen months immediately preceding submission or proof of





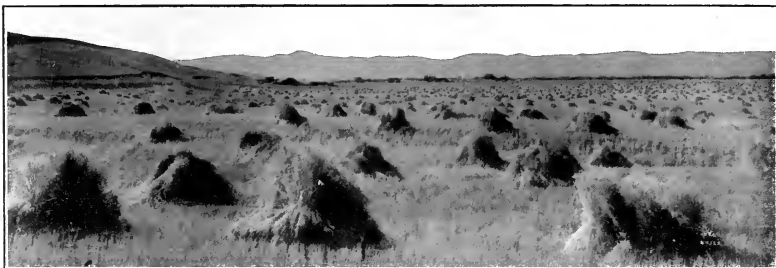
**Growing Peas Is a Big Industry in Gallatin and Bitter Root Valleys.**

filing a notice of intention to submit same, and the existence of a habitable house upon the claim. The area actually cultivated must equal at least one-sixteenth of the entire acreage. A person submitting commutation proof must, in addition to certain fees, pay the price of the land; this is ordinarily \$1.25 per acre, but is \$2.50 per acre for lands within the limits of certain railroad grants. The price of certain ceded Indian lands varies according to their location, and inquiry should be made regarding each specified tract.

When a homesteader applies to make entry he must pay in cash to the receiver a fee of \$5.00 if his entry is for 80 acres or less, or \$10.00 if he enters more than 80 acres. And in addition to this fee he must pay, both at the time he makes entry and final proof, a commission of \$1.00 for each 40-acre tract entered outside of the limits of a railroad grant and \$2.00 for each 40-acre tract entered within such limits. Fees under the enlarged homestead act are the same as above, but the commissions are based upon the area of the land embraced in the entry. In all cases where lands are entered under the homestead laws of Arizona, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming, the commission due to the register and receiver on entries and final proofs, and the testimony fees under final proofs, are 50 per cent more than those above specified, but the entry fee of \$5.00 or \$10.00, as the case may be, is the same in all the states.

A mortgage by the entryman prior to final proof for the purpose of securing money for improvements, or for any other purpose not inconsistent with good faith, is not considered such an alienation of the land as will prevent him from submitting satisfactory proof. In such a case, however, should the entry be cancelled for any reason prior to patent, the mortgagee would have no claim on the land or against the United States for the money loaned.

According to circular number 420 of the General Land Office, there remained in Montana, July 1, 1915, a total of 19,065,121 acres of unappropriated, unreserved,



Where Crop Failures Are Unknown.

public land. Of this acreage, 10,804,819 acres was surveyed and 8,260,302 was unsurveyed. There is unreserved and unappropriated public land in each of the forty-one counties of Montana, the following table showing the acreage in each county July 1, 1915:

County	Surveyed	Unsurveyed	Total
Beaverhead .....	208,374	200,928	409,302
Big Horn .....	224,500	151,400	375,900
Blaine .....	280,180	396,750	676,930
Broadwater .....	98,827	42,689	141,516
Carbon .....	189,801	157,046	346,847
Cascade .....	79,709	78,040	157,749
Chouteau .....	274,260	134,500	408,760
Custer .....	1,245,920	352,480	1,598,400
Dawson .....	685,695	1,391,520	2,077,215
Deer Lodge .....	22,679	15,134	37,813
Fallon .....	645,120	717,280	1,362,400
Fergus .....	570,244	811,721	1,381,965
Flathead .....	66,475	.....	66,475
Gallatin .....	10,650	.....	10,650
Granite .....	89,356	109,592	198,848
Hill .....	219,220	26,575	245,795
Jefferson .....	76,373	48,773	125,146
Lewis and Clark .....	496,148	55,369	551,517
Lincoln .....	3,980	.....	3,980
Madison .....	286,294	399,838	686,032
Meagher .....	168,057	77,197	245,254
Mineral .....	59,248	.....	59,248
Missoula .....	43,830	61,765	105,595
Musselshell .....	56,315	35,840	92,155
Park .....	31,862	22,798	54,660
Phillips .....	601,100	1,390,200	1,991,300
Powell .....	64,309	154,375	218,684
Prairie .....	96,160	13,120	109,280
Ravalli .....	6,172	388	6,560
Richland .....	105,765	200,320	306,085
Rosebud .....	738,308	209,600	947,908
Sanders .....	80,925	34,162	115,087
Sheridan .....	662,813	.....	662,813
Silver Bow .....	54,524	5,400	59,924
Stillwater .....	47,914	.....	47,914
Sweetgrass .....	169,628	.....	169,628
Teton .....	187,554	30,080	217,634
Toole .....	119,282	4,160	123,442
Valley .....	1,646,135	897,280	2,543,415
Wibaux .....	34,400	.....	34,400
Yellowstone .....	56,683	33,982	90,665
	<hr/>	<hr/>	<hr/>
	10,804,819	8,260,302	19,065,121

# Opportunity in State Lands

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Millions of Acres Held in Trust by the State of Montana to be Sold to Homeseekers, With Payments Extending Over a Period of Twenty Years.

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OR THOSE who do not desire to reside upon land while acquiring title or who do not wish to become subject to the requirements of the homestead laws or who desire to avoid some of the hardships of pioneering, the state lands of Montana offer an unusual opportunity. The lands granted to the State of Montana by the Congress of the United States for the use of public schools and for other public purposes remaining unsold at the present time aggregate 4,113,053 acres, classified as grazing, agricultural, timber and coal lands. Sections 16 and 36 in each township within the state, lying outside of Indian reservations and national forests are state lands, unless sold, and in addition to Sections 16 and 36 the state has selected and owns thousands of acres of land, all of which is for sale except coal and some timber lands. A minimum price of \$10.00 per

acre is charged for state lands, and sales are made upon the basis of 15 per cent cash and the remainder extended over a period of twenty years with interest at 5 per cent.

The State Board of Land Commissioners is custodian of all state lands, and the fixing of sale dates is discretionary with this board. The law requires a sale to be held in each county in the state at least once every two years. Sales may be held oftener if deemed necessary.

Those who desire to buy state land should make formal application to the Register of State Lands, Helena, Montana, upon the receipt of which, together with a fee of 50c, the land will be offered for sale at public auction at the next sale held in the county where the land is situated. Advance notice of such sale will be mailed to the applicant.

Sales of state land can be made only to citizens of the United States or those who have declared their intention to become such, or to corporations organized under the laws of this state.

Not more than 160 acres classified as agricultural land and susceptible of irrigation; nor more than 320 acres classified as agricultural land not susceptible of irrigation; nor more than 640 acres classified as grazing land can be sold to one purchaser. State lands not sold may be leased for a period not exceeding five years, and the purchaser of state lands on which a lessee has improvements must pay such lessee a reasonable value therefor. If the lessee and purchaser cannot agree on the value of the improvements, the State Land Agent fixes the price the purchaser must pay for same; provided, such improvements as are capable of removal without damage to the land may be removed by the lessee. Lessees of state lands are re-

quired to pay a rental for grazing use of \$50.00 to \$100.00 per section per annum and for agricultural use of from \$150.00 to \$320.00 per section per annum.

No maps or lists of state lands are published. A typewritten list of the state lands in each county will be furnished at the legal rate of 20c per folio, a folio consisting of one hundred words, two figures counting as one word. The cost of a list of state land in a single county ranges from \$5.00 to \$15.00.

The following table shows the amount of state land in each of the several counties of the State, November 30, 1915:

County	Acres
Beaverhead	163,414.24
Big Horn	42,538.58
Blaine	165,479.91
Broadwater	20,971.34
Carbon	44,702.11
Cascade	100,807.03
Chouteau	312,785.56
Custer	205,814.73
Dawson	242,010.50
Deer Lodge	10,911.92
Fallon	128,603.01
Fergus	249,050.02
Flathead	115,140.44
Gallatin	54,976.69
Granite	17,202.45
Hill	205,375.97
Jefferson	28,840.87
Lewis & Clark	112,089.26
Lincoln	57,197.34
Madison	121,698.00
Meagher	138,649.18
Mineral	26,285.05
Missoula	79,412.98
Musselshell	99,747.22
Park	39,606.71
Phillips	112,345.25
Powell	52,564.25
Prairie	58,698.48
Ravalli	28,778.10
Richland	86,888.41
Rosebud	193,419.02
Sanders	58,897.68
Sheridan	181,256.27
Silver Bow	14,994.27
Stillwater	59,539.30
Sweet Grass	76,612.59
Teton	162,019.35
Toole	112,143.11
Valley	326,325.97
Wibaux	31,358.21
Yellowstone	67,454.49
Total	4,397,695.96

For further information about Montana State Lands or for lists giving dates of forthcoming sales, write Register of State Lands, Helena, Montana.

# Land Values Are Increasing

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## Proven Productiveness of Montana Soil Results in Large Influx of Farmers Who Purchase Holdings at Bargain Counter Prices

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COUNTLESS FARMERS who have used their homestead rights or are in a position to buy farming land outright are taking advantage of the comparatively low prices at which Montana lands are held and are purchasing land here which, if history is any precedent, is practically certain to double in market value within the next few years.

When it is considered that farming lands in the older states of the Union are selling at from \$100 to \$200 per acre, and that land which will actually produce more can be purchased in Montana at from \$10 to \$40 per acre, the wisdom of such a course becomes apparent. It is the history of all farming countries that land values are low in the beginning, but rapidly increase in value as the country becomes more thickly populated and as its productive power is proven.

This movement is already under way in Montana. A few years ago, farms which are now held by their owners at from \$25 to \$40 per acre, could have been purchased and were purchased at prices ranging from \$1 upward. At that time, it should be remembered, the land was thought to be fit for nothing but grazing, and there was but little demand for grazing land, because there were millions of acres of free grazing land available for the flockmasters of the state. As soon as the farmers began to come in, however, land values began to rise and that they will continue to rise for many years is the confident prediction of every well informed man.

Thousands of acres of good farming land are now being marketed by the Northern Pacific railroad company, the Big Blackfoot Lumber company, and many of the larger old-time ranching companies of the state. The Northern Pacific lands, in eastern Montana, and the Big Blackfoot lands in the western part of the state, constitute an empire in themselves, and they are now on the market at prices which are far below their productive value.

The Northern Pacific land and some of the larger ranches offer an exceptionally fine opportunity for colonization, as in many cases they can be purchased in large, compact bodies at prices which will yield a handsome profit to the man who will undertake the development and colonization of them. Already there are several large concerns operating along this line, and they have been uniformly successful.

For a man with a little capital and the determination to build a home, the logged-off lands of northwestern Montana offer a field of endeavor which in proportion to the returns promised can scarcely be equalled. As is generally known, there are thousands of acres of bench and valley lands from which timber has been removed, leaving the stumps and undergrowth upon a soil which when cleared is of uniformly



**An Irrigated Potato Field.**

fertile character, usually perfectly sub-irrigated and suitable for the growing of all kinds of crops. Such land is available for the most profitable kind of extensive cultivation. Much of this land is held by the big lumber companies of the State, while a considerable portion of it is in private ownership by original homesteaders and timber entrymen.

Roughly speaking the logged-off lands of Montana are in the counties of Lincoln, which has approximately 20,000 acres of such land; Flathead, with 70,000 acres; Missoula, 40,000 acres; Mineral, 35,000 acres; Sanders, 25,000 acres, and Ravalli, 30,000 acres. These lands will be sold on easy payments extending over a considerable period of time. Generally speaking, land of this character can be bought on time payments of from \$10.00 to \$25.00 per acre, which is regarded by many as cheaper than homesteading. The settler can get title at once by completing his payments, and can sell as his land rises in value.

The man who buys a stump ranch and clears up ten acres each year is merely making an annual payment of \$500.00 on a cleared ranch. The stump land produces fine clover, blue grass and timothy pasture for cows, and even before clearing offers an excellent opportunity for stock raising on a limited scale.

Many of the finest orchards in the state were developed from cut-over lands, and throughout the northwestern part of Montana are to be found thousands of sturdy farmers who have secured logged-off land and are building beautiful and substantial homes in what was until recently a wilderness. The work is slow, of course, but its reward is certain.

# A Wealth of Natural Resources

Montana's Many-Sided Richness Make Possible Diversified Industries All of Which Contribute Greatly to the State's Increasing Prosperity.



ARDSHIPS are no longer the lot of those who come to Montana; instead those who come to this state at the present time find a people who are enjoying prosperity along with all the comforts and conveniences of civilization. The diversified resources of this state, its many-sided richness, all contribute to this end.

Montana has numerous industries, each of which is capable of supporting a much larger population than the entire state boasts today. The mineral deposits of this state alone would make a wealthy commonwealth. Its agricultural resources and opportunities, both for grain growing and for intensive and diversified farming, rival those of the great rural communities of the west. Its forests could for years supply the nation's demand for lumber. Its livestock leads in both quantity and quality. Its natural water power could turn the industrial wheels of the continent. Its transportation facilities are being developed to meet its rapidly growing needs, and a period of great industrial activity, inevitable because of the abundance of raw material and cheap power, is upon the threshold. Combined, these resources serve to make Montana the premier state in the Union, a commonwealth which needs only men and capital to lay its diversified riches at the feet of mankind.

Farming in Montana, while yet in its infancy, is making gigantic strides. Of the more than 93,000,000 acres of land within this state, it is conservatively estimated that over 35,000,000 acres are available for agricultural purposes. Of this agricultural empire upwards of 6,000,000 acres will in a short time be brought under irrigation leaving some 29,000,000 acres which will be farmed by non-irrigated methods, a condition which will inevitably make Montana the greatest producer of small grains in the world. Non-irrigated farming in Montana is carried on almost exclusively on the benchlands, which are nearly level or undulating table lands lying between the streams. Along the streams the valleys are relatively wide and level. The borders that line them are usually rough and rugged. The railroads usually traverse the valleys; hence the impression made upon the traveler is usually anything but favorable. The benches lie beyond the hills and extend away and across until the bluffs are reached which border another stream. These are the best lands in Montana. They are usually composed of a clay loam covered with the short grasses of the prairie and are underlaid with clay.

The benchlands of Montana are farmed on what is known as the dry-land plan of farming, which means the holding of all moisture in the soil until it can be utilized by the growing crops. This is done by plowing, packing, harrowing and



**Growing Sweet Peas for Seed.**

cultivating the soil at a certain time and in a certain way. Under this method winter and spring wheat, winter and spring rye, speltz, barley, flax, oats and peas can be very profitably grown without the hazard of failure even in a dry year, providing they have been planted in season and in properly prepared land. In all parts of Montana potatoes are especially prolific, and beans are a success below the middle line of the state. In the eastern part of the state corn is rapidly coming into favor as a profitable and certain crop.

The climate of Montana, though comparatively dry in many parts, is temperate and because of the comparative coolness of the nights in the harvest season is extremely favorable to the production of large yields of grain. This, more than anything else, has given Montana first place in the Union for large grain yields.

Intensive farming in Montana is to a large extent carried on on irrigated lands, and in the matter of furnishing water for the supplying of moisture to growing crops, Nature has again been bountiful to this state. Of the more than 35,000,000 acres of land, which will ultimately be cultivated in Montana, it has been conservatively estimated that upwards of 6,000,000 will some day be irrigated.

Already the federal government, through the reclamation service, has spent many millions of dollars on irrigation projects in this state, and this work is still under way. The last congress appropriated several millions of dollars for reclamation work in Montana during the present year, and the reclamation service is now engaged in completing some of the largest irrigation enterprises ever undertaken on the continent.

The national reclamation act was one of the most important pieces of legislation to the agricultural development of Montana since the passage of the homestead law, and this act is now being utilized by the building of great irrigation projects in





A Montana Watermelon Patch.

various parts of the state. Under irrigation it is possible to practice intensive farming to the highest degree and thus to produce more valuable and certain crops. Under good administration, it follows that in irrigated regions the greatest number of citizens can be given opportunities on the smallest area. With the high price of labor it has been found impracticable to produce crops wholesale on land of this character. The individual farmer who has industry and intelligence, and especially if he has a family, the members of which can do their part, can make a far better living and produce greater crop returns on a small farm than is possible by the consolidation of small farms into larger holdings.

Under the reclamation act there has been constructed, or are being constructed, in Montana, the Huntley Project, the Lower Yellowstone Project, the Milk River Project, including the St. Mary storage feature, and the Sun River Project. All of these projects have been completed to a certain degree, but all of them are incomplete as regards ultimate development. Water is being delivered to irrigated land on each of these projects, and at frequent intervals additional areas are being made available for entry. The irrigable areas of the various reclamation projects are as follows: Huntley, 32,405; Lower Yellowstone, 60,116; Milk River, 219,557; Sun River, 216,346. In addition to these projects the reclamation service, under an agreement with the office of Indian Affairs, is carrying on development work on Indian reservations. The Indian projects in Montana are the Blackfeet, on which 122,500 acres will be irrigated; the Flathead, 152,000 acres, and the Fort Peck with 152,000 acres. The total area to be irrigated in Montana by the reclamation service is thus 954,924 acres, of which 426,500 acres is in Indian reservations which are, or will shortly be opened to settlement. The estimated cost of these irrigation projects reach the stupendous total of \$35,828,020.



**Growing Sugar Beets in the Irrigated Districts.**

In addition to the work of the United States reclamation service, the development of irrigation enterprises under the Carey Land Act has been undertaken in Montana, with the result that there are now three very successful Carey projects in Montana already or practically completed and receiving settlers, while two other projects, it is expected, will be completed within the year.

The largest of the Carey projects in this state and one of the largest irrigation enterprises ever undertaken in the west is the Valier project, surrounding the town of Valier in the northern part of Teton county. This project is now the home of one of the most prosperous and successful farming communities in the entire northwest. For the benefit of settlers on the project, the company constructed a railroad, which connects at Conrad with the Great Northern, and which furnishes adequate facilities for marketing the livestock and produce raised on the project. The Valier project embraces almost 195,000 acres, of which over 100,000 acres will actually be irrigated. Within this project there are now available for entry under the Carey act and susceptible of irrigation some 38,000 acres of land. Under the Carey Act, the entryman pays the state \$1.50 per acre for the land, and also pays the irrigation company \$40.00 per acre for perpetual water right. The annual maintenance on this project is 50c per acre. Land in the Valier project may be entered on easy terms, \$5.00 per acre being required at the time of purchase and the balance being payable in fourteen annual installments, with interest at six per cent per annum.

Rapid development has marked this project and a fine spirit of co-operation exists between the settlers and the irrigation company. During the year 1914 the acreage farmed on this project increased by 6,050 acres, while the number of hogs on the project increased from 1,884 to 5,135. The Valier-Montana Land & Water Company, which developed this project, does everything possible to insure the success of the settlers on the project. The company's engineer runs the farmer's ditches, often



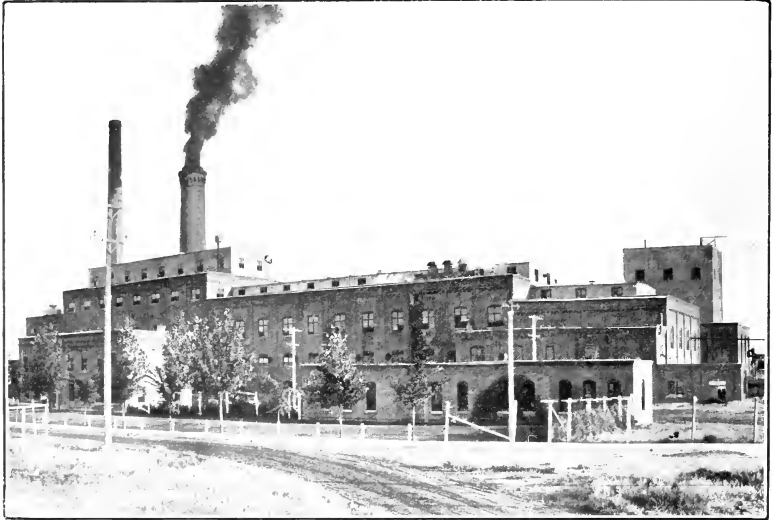
A Field of Alfalfa Under the Ditch.

having a man go out and help in building the ditches at no cost to the settler. In addition, the company has men each season who cover the project showing the farmer how best to irrigate his land and giving him every aid possible to get started in the right way. For full information regarding the Valier project, address the Valier Farm Sales Company, Valier, Montana.

Another very successful Carey project in Montana is the Big Timber project, located near Big Timber, in Sweet Grass county, Montana, and embracing 18,000 acres of irrigable and 14,000 acres of non-irrigable land. On this project some 9,000 acres of land have already been settled upon and cultivated, while an equal amount is now available for settlement. The price for a permanent water right on this project ranges from \$45.00 to \$60.00 per acre, terms being two to ten per cent cash on first payment and the balance running from one to ten years, with interest at the rate of six per cent. This project is exceptionally favored in the excellent quality of the soil, and the intelligent interest shown by the company in the treatment and assistance rendered settlers on the project. Full information regarding the Big Timber Carey project may be had by addressing the Glass-Lindsay Land Company, Big Timber, Montana.

The Billings Carey Land project was the first successful development of Montana irrigation lands under the Carey Act. The project embraces a total of 34,000 acres, of which 27,000 acres is susceptible of irrigation. Owing to the success of this project there is now open to entry but 2,132 acres of Carey land susceptible of irrigation. Permanent water rights on Carey lands in this project cost from \$25.00 to \$58.00 per acre, with an annual maintenance of \$1.00 per acre.

The Billings project is located upon what is known as the Billings bench, but a short distance from the rapidly growing city of Billings, and the project has made good progress during the last few years. The Billings Land & Irrigation Company,



Great Western Sugar Factory at Billings.

which developed the project, recently took up the question of markets which was becoming of great importance owing to the growth of the district. In 1913 the company built a farmer railroad over the project, connecting the farmers with the Billings market. This enabled many of the farmers to engage in the growing of sugar beets for the sugar factory at Billings and also put the dairymen in a position to market their milk and cream in that city. The road is so located that but a small portion of the land is more than two miles from a loading station. A thriving town has sprung up in the center of the project. Literature regarding the Billings project may be had by addressing the Billings Land & Irrigation Company, Billings, Montana.

Beet-growing is exceedingly profitable in the irrigated districts of the Yellowstone and Clark's fork valleys, which are within shipping distance of the Great Western Sugar company's factory at Billings. The success of beet-growing in this section of the state has resulted in extensive investigations being carried on in other parts of Montana, and it is expected that additional sugar factories will be constructed in the near future. Already experimental beet-growing, encouraged by the sugar companies, is under way in Ravalli, Blaine, Teton and Richland counties.

Stockraising has long been an important industry in Montana, and in 1915 this commonwealth still raised more sheep and produced more wool than any other state in the Union. The beef industry in Montana since early territorial days has been of prime importance, and it was but natural that the almost unlimited amount of free public range would attract to this state enormous herds of cattle. It is interesting to note that with two exceptions every year between 1891 and 1910 over 200,000 head of beef cattle were shipped from Montana to eastern markets.

With the enactment of the 320-acre homestead law and the spreading of knowledge of the true agricultural conditions in Montana, followed by the influx of farm-



**Feeding Sheep on Alfalfa and Syrup.**

ers, the land available for free public range was rapidly reduced, and during the past two or three years it has been the policy of the big cattle companies to gradually close out their extensive holdings. It is estimated that not to exceed 173,936 head of cattle were shipped from Montana during the year 1915, and with the increased local demand it is more than likely that this output will continue to grow smaller for several years. It is admitted on all sides that Montana is now in the transitory stage as regards the beef cattle industry, but those who have given the subject thought unhesitatingly declare that within a few years Montana will regain its prestige as a great producer of beef, although to do this means the production of cattle on an entirely different basis than that of the past.

In addition to cattle which may be ranged during most of the year on uncultivated lands the beef production of the state will unquestionably be larger in the near future by the development of small herds throughout the state. It has been demonstrated that it is a real economy for the farmer to feed as many head of livestock upon his farm as is practicable, and the large importation of high bred stock during the past year indicates that an unusually numerous body of farmers are taking advantage of this condition.

Montana has for years been the leading sheep growing and wool producing state of the Union, and in 1915 it produced a total of 28,682,000 pounds of raw wool of a value of \$7,302,437. In a lesser way the wool industry is undergoing the same change as the beef industry, the settlement of the open range making it necessary to cut down many of the larger flocks of the state. The increasing number of small flocks, however, and the better and more intelligent care now being given the range, together with the high price of wool, makes it certain that the growing of sheep will always be an important industry in Montana.



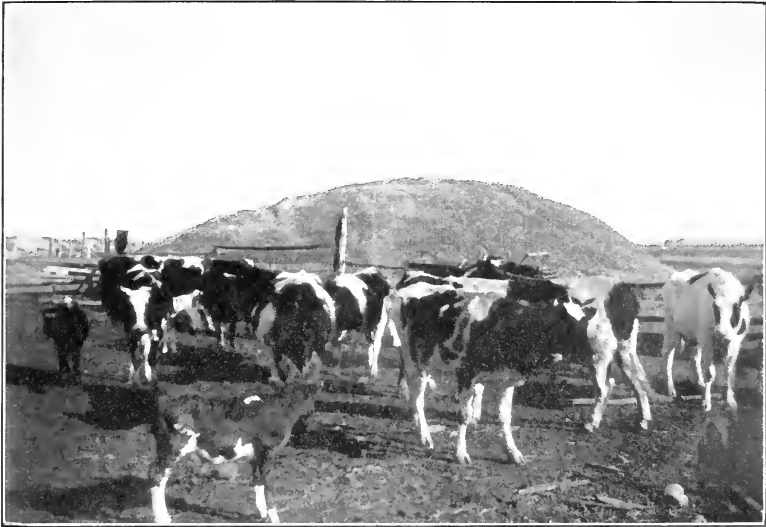
**Holstein and Black Poll Cattle in the Bitterroot.**

In addition to the development of its beef and dairy herds, horses and hogs are also of prime importance. The growing of hogs on a commercial scale has recently been successfully undertaken in practically every section of the state and is rapidly being extended. Many Montana swine are consumed in the larger markets of the state, and the surplus finds ready sale at both eastern and western primary markets.

Horse-raising is a very important industry in Montana. The range horse—the “cayuse” of olden days—has given way to a large extent to full blooded stock with a preponderance of heavy draft animals. A few years ago the United States War Department established at Miles City the largest remount station in the United States, and co-incident with this has been developed at Miles City the largest primary horse market in the world. Here very successful sales are held every month, and practically every kind of horse flesh, from the full blooded running and trotting animals to the heaviest of draft horses, are bought for shipment to every section of this country and abroad.

Although the dairy industry of Montana is still in its infancy, the possibilities in this line of farming are very great, and the past two years has seen rapid growth. The climate of Montana is very favorable to dairying. The winters are not so severe as in some central states, and the greater part of Montana is better adapted to dairying than these states. In summer the weather is fine for the work, and with cool evenings and plenty of good cold running water in all parts of the state, dairy products are easily handled.

Montana is noted for the vast amount of hay that is being grown. Clover, alfalfa and other grasses are produced in abundance. With plenty of water for irrigation in nearly all parts of the state, pastures, one of the most essential items for



A Richland County Holstein Herd.

the dairyman, are easily kept in good condition until late in the fall. Alfalfa is being raised in nearly all sections of the state, and dairymen find that this is a very valuable roughage feed and cheap in cost. The demand for dairy products is very strong the year round, and there is no state in the Union in which the market is so well maintained. Taking into consideration the cheapness of the land, the vast amount of feed that can be grown and the high prices received for dairy products, Montana, it seems certain to assume, will rapidly become the ideal dairying state.

Horticulture in Montana, like many other enterprises, began in a small way but it likewise has grown to large proportions. Today fruit growing is one of the leading pursuits of the entire northwest, and Montana is sharing in its production in proportion to the utilization of her sections adapted to horticultural development. Private corporations and reclamation funds have given the horticultural industry an impetus that nothing can check, and each year sees hundreds of acres being planted to orchards. The utilization of the horticultural lands of the state affords pleasant and profitable employment for hundreds of people and will be the means of developing a type of rural life and establishing rural homes that equal, if not surpass any rural community in the United States. Recent experiments by farmers who are not afraid to learn what their soils will produce, have served to revolutionize previous conceptions of the horticultural opportunities of Montana. While fruit growing has heretofore been largely confined to the western section of the state, in which it has been marked with great success, it has been found that eastern Montana is also adapted to horticulture. Grapes have been successfully grown in Blaine county, while apple orchards are now common throughout the eastern part of the state.

Commercially, the Bitter Root valley, including Missoula and vicinity, stands foremost in orchard development. Next in horticultural importance comes that part of



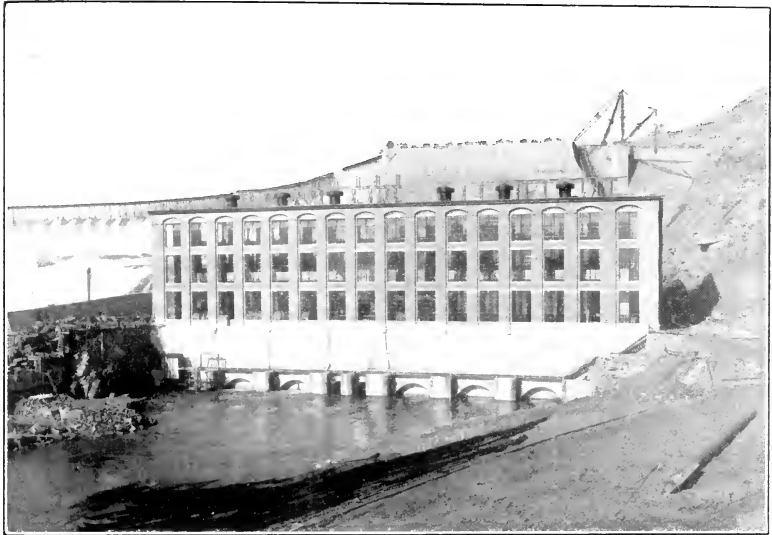
**Portland Cement Factory at Trident.**

Flathead county lying tributary to Flathead lake. Following these sections are found Carbon county, Sanders county from Plains to Trout Creek, and Lincoln county. The orchard acreage of the state is upward of 30,000 acres, the greater part of this, however, being young orchards not yet in bearing.

Montana presents conditions for the growing of a large list of fruits, the success of their growing being measured by the care with which the grower selects the variety and the location upon which they are grown. The apple is the principal commercial fruit grown in Montana; McIntoshs, Wealthies and Gravensteins have established a reputation of their own whenever they have entered the market. Cherries rank next to the apple in importance, and many carloads are annually shipped from Bitter Root, Missoula and Flathead orchards. Pears, plums and prunes are a good source of revenue to growers who give them proper attention, and excellent success has been met in the production of peaches and grapes. The growing of canteloupes, watermelons, cucumbers and garden stuffs, especially peas, is rapidly coming into prominence in various sections of the state.

Markets for all kinds of agricultural and dairy products are ready-made in the mining districts of the state. Butte, the largest mining camp in the world with a monthly pay roll considerably in excess of a million dollars; Great Falls and Anaconda, large smelting centers, and numerous smaller camps throughout the state employ thousands of men who yearly add many millions of dollars to the mineral wealth of the nation. Since 1880 Montana has produced one-third as much copper as has the entire United States since 1845, and this year's production, it is conservatively estimated, will closely approximate 400,000,000 pounds. In no other mining district of the world are the methods used so advanced and so economical as can be found about the copper mines of Butte. Long ago the management of the different companies learned that the best results could be obtained by paying the best wages, by employing the most capable men, by adopting the best and safest methods and using





Power House at Big Dam Below Great Falls.

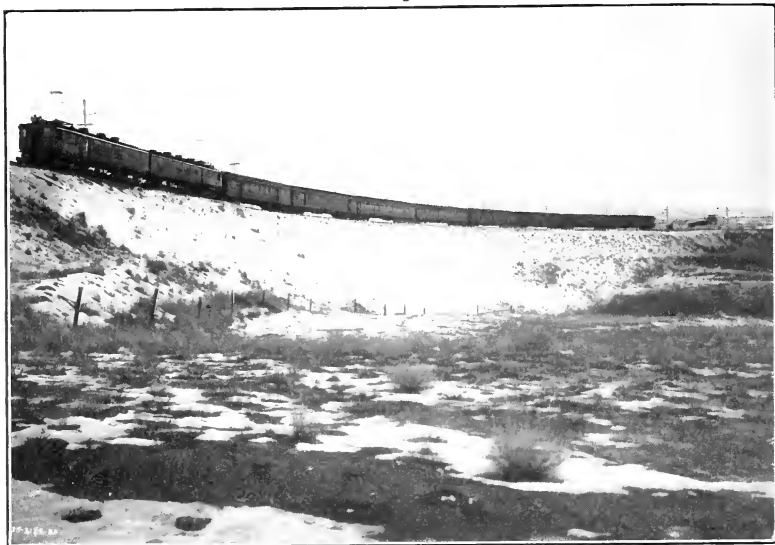
the best equipment. They learned that the best of everything is cheapest in the long run, and new processes are being constantly utilized; while \$6,000,000 was last year spent to enlarge and improve the smelting and reduction plants at Anaconda and Great Falls.

Within the last two years the zinc producing industry has come rapidly to the front in Montana, and the next year is expected to see Montana the leading zinc mining state of the Union. Gold mining, which brought the Montana pioneers across the plains and built up the State's first camps, has been outstripped by the mining and smelting of the baser metals, such as copper and zinc, and yet the gold production of this state, which has reached a total of approximately \$330,000,000, is still an important industry—the annual production now ranging between \$3,000,000 and \$5,000,000. The bulk of this gold is now developed as a by-product of the copper mines of Butte, but in various parts of the state gold mining, both placer, including hydraulic and dredging, and quartz mining contribute to the annual supply of the yellow metal.

Montana is the largest producer of silver in the world, and its annual production of from 12,000,000 to 14,000,000 fine ounces is being gradually increased. Silver is secured principally from the copper ores, and any increase in its production is largely the result of a greater copper output.

Extensive and profitable coal mining operations are carried on in various sections of the state, and the mining of precious stones gives promise of assuming important proportions. Near Yogo, Montana, is the largest sapphire mine in the world, and other districts throughout the state give indication of the profitable production of precious and semi-precious stones.

Coincident with the growth of Montana has come the enormous development of the water power of the state, and electricity has become the popular power in all



Electrically Driven "Olympian" Crossing Continental Divide.

industrial enterprises and is rapidly being utilized for the propelling of freight and passenger trains across the mountain divisions. There are few places in the world in which nature lavished so generous a hand in the distribution of natural resources as in Montana. And this is particularly true with respect to the bounteous water power within the confines of this state. Two of the greatest rivers of the continent, the Missouri and the Columbia, have their headwaters in the mountains of Montana at elevations ranging from 5,000 to 7,000 feet, and traversing Montana for great distances leave its borders at elevations but slightly in excess of 2,000 feet above sea level. So great is the waterfall of Montana's streams that conservative electrical authorities have estimated that not less than 1,000,000 horse power can be developed within this state. Already one company, the Montana Power Company, has developed more than 100,000 horse power, and additional development is being prosecuted as rapidly as markets are found. The electrification of over 400 miles of the main line of the Chicago, Milwaukee & St. Paul is being rapidly completed, and it is expected that the other transcontinental roads will shortly follow the lead of this one. Electrical power is used at all of the principal mines of this state, and the invisible fluid has become an important essential in the industrial and domestic life of the commonwealth.

Supplementing its 60,000,000 acres of rich valley and bench agricultural and grazing lands, Montana has approximately 30,000,000 acres of mountain lands for the most part timber, and the lumbering industry of this state contributes in no small degree to its prosperity. The total estimated stand of commercial timber in the State of Montana is approximately 65,000,000 M. feet, of which 33 per cent is in private ownership, 6 per cent in state ownership, 3 per cent in national parks and reserved public land, and 58 per cent controlled by the national forests, which cover an area of 17,977,580 acres. The commercial value of the forests in all ownership



Logging in the Forests of Western Montana.

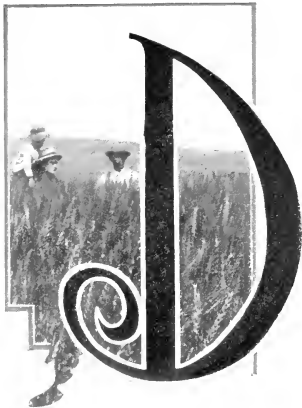
represents an aggregate community wealth of approximately \$1,500,000,000. To a state whose greatest resource is its agricultural land, the value of such a body of timber is incalculable. This great body of forest land has developed a lumbering industry which, with its enormous pay roll, adds much to the prosperity of the state and assists in furnishing a market for the products of Montana's farms.

The real value of Montana's diversity of resources cannot be even estimated. Not only are each of them adding millions of dollars to the wealth of the State, but in addition the success of each industry contributes largely though indirectly to the success of others. This is particularly true with regard to the influence which Montana's mining, lumbering and industrial resources have upon the development of the farm lands of the State. Not only do these industries offer a home market for many of the farm, garden and range products of the state, but in other ways they contribute to the success of the farmer and particularly the new settler. The first years on a new homestead are necessarily lean years for the farmer, and in the majority of instances he welcomes an opportunity to earn a little money on the outside while getting ready to grow crops. The five months annual leave of absence allowed under the homestead laws is being put to practical advantage by many new settlers, who spend this period working at good wages in the mining or lumbering districts, and thus secure ready cash to assist them in their farming operations. In many instances the opportunity to secure outside work of this character has enabled a man of limited means to make a success where failure would otherwise have characterized his homesteading operations.

Montana has been proclaimed the greatest grain producing state in the Union, and its great agricultural wealth is so strongly supported by so many other industries that its lasting prosperity is assured.

# Where an Acre Is Worth More

Impartial Figures of United States Department of Agriculture Show That Montana Soil Leads in the Production of Practically all Staple Farm Crops.



RY STATISTICS are uninteresting to many people, but to those who wish to make a serious study of agricultural Montana, no more interesting material can be found than in the plain figures which show the remarkable growth of farming in this state and the enormous productive power of Montana soil.

It has been well said that an acre in Montana is worth more than an acre elsewhere, and this statement is clearly substantiated by the impartial records collected by the bureau of crop statistics of the United States Department of Agriculture. A few comparisons, taken from the 1915 Year-book of the United States Department of Agriculture, will show the strength of this statement. In 1915, North Dakota was the greatest wheat-producing state in the Union, yet the per acre production in North Dakota was but 18.2 bushels, while the per acre production in Montana was 26.5 bushels. Iowa was the greatest oat-producing state in the Union, yet the per acre production in oats in Iowa was but 40 bushels, while the per acre production in Montana was 52 bushels. North Dakota was the largest producer of barley, yet the per acre production of barley in that state was but 32 bushels, while in Montana it was 34 bushels. Wisconsin was the greatest rye-producing state in the Union, yet the per acre production of rye in Wisconsin was but 18.5 bushels, while the per acre production in Montana was 22.5 bushels. Minnesota was the greatest potato-producing state in the Union, yet the per acre production of potatoes in Minnesota was but 106 bushels, while in Montana it was 155. New York, last year, produced more hay than any other state in the Union, yet the per acre production of hay in New York was but 1.30 tons, while in Montana it was two tons. North Dakota led all the states in the total production of flax, yet the per acre production of flax in North Dakota was but 9.9 bushels, while in Montana it was 10.5 bushels.

The following table, compiled from the 1915 Yearbook, shows the average per acre production of principal crops of twelve principal agricultural states of the Union:

State	Wheat	Oats	Barley	Flax	Potatoes	Rye
Ohio	20.3	41.0	31.0	.....	82.0	17.5
Indiana	17.2	40.0	28.0	.....	95.0	16.0
Illinois	19.0	45.0	34.0	.....	110.0	18.5
Michigan	21.3	42.0	29.5	.....	59.0	15.5
Wisconsin	22.7	46.5	35.5	13.5	87.0	18.5
Minnesota	17.0	43.0	30.5	10.5	106.0	19.5
Iowa	19.8	40.0	31.0	9.0	105.0	18.5
Missouri	12.3	26.0	25.0	8.0	98.0	13.5
North Dakota	18.2	40.0	32.0	9.9	90.0	15.0
South Dakota	17.1	42.0	32.0	11.0	115.0	19.5
Nebraska	18.3	32.0	31.0	11.0	105.0	17.5
Kansas	12.5	26.5	31.0	5.7	83.0	16.0
United States	16.9	37.8	32.0	10.1	95.5	17.2
MONTANA	26.5	52.0	34.0	10.5	155.0	22.5



A Fifty Bushel Crop of Wheat on an Eastern Montana Homestead.

These figures, it should be understood are the average for the entire state. When individual yields are under consideration, it is found that exceptionally good farmers in every section of the state produced crops which are really amazing.

The following newspaper clippings selected at random from the press of Montana, show something of what the better farmers in this state are doing toward producing record-breaking yields:

#### BEAVERHEAD COUNTY.

Dillon Examiner—At the close of this week the threshing season in Beaverhead county will be practically finished. According to John Ewing, a wellknown rancher living at Barretts, nine miles south of Dillon, this year's crop of grain will be the heaviest in the county's history. Mr. Ewing said: "More grain has been produced by the ranchers of Beaverhead this year than ever before, and they have made the highest average yield per acre. Ranchers living on the west side of Beaverhead river, between Dillon and Barrets, produced 87,000 bushels of grain, according to the statistics of the threshers. The average yield per acre in the county is about 65 bushels, while in many instances a yield of nearly 90 bushels has been recorded." Mr. Ewing's average yield per acre was 81 bushels. The average amount of bushels produced by the average rancher in the county varies from seven and eight thousand to eleven thousand bushels. The Beaverhead Ranch company, which produces more grain than any other rancher in the county, last year produced 100,000 bushels of grain and it is understood that this year's yield from their grain fields will surpass last year's amount by several hundred bushels."

#### BIG HORN COUNTY.

Hardin Tribune—George Lammers reports that his 120 acres of wheat on sod yielded an average of 30 bushels. Peter Beck, who conducts the Bair ranch, had an average of 38 bushels, spring wheat, and 53 bushels, barley per acre. The Batty sisters



**A Herd of Brown Swiss Dairy Cattle.**

had 90 acres of wheat which averaged 40 bushels, and 30 acres of this crop averaged 43 bushels. The best yield of winter wheat so far this season, is that of August Bergsten. From 15 acres he averaged 52 bushels per, and from 96 acres all told he was rewarded with an average of 47 bushels.

#### **BLAINE COUNTY.**

Great Falls Leader—Senator S. B. Taylor of Blaine county is in Great Falls from his home near Lloyd. Mr. Taylor is one of the leading farmers and stockmen in his county. "The crops look good up our way," said Senator Taylor today. "In fact, I believe that the wheat and rye of our section will average 35 bushels an acre right through, and that is some statement. Last year my rye averaged 26 bushels, and I had as good rye as anyone in that section; this year I believe the figure will be 35. Our rye is as good as that raised anywhere, and we are raising a great deal of it, and with good market. Our wheat is also of the best and rates A 1 hard in eastern markets. We are beginning to harvest, and the grain cuts fine. The country of that section is settling up rapidly and thousands of farms now show where once was only range land. And speaking of range land, the native grasses stand to one's stirrups where the ground is not tilled, and all kinds of stock look ready for market. We have some showing in our section of Montana, as well as in other sections, and this fall's crop will be a bumper one."

#### **BROADWATER COUNTY.**

Townsend Star—In conversation with Geo. Baily this week we are informed by him that his wheat crop measured up seventy bushels to the acre. He says he still has the wheat and the ground still bears the stubble marks so that if anyone doubts the yield, the premises are open for inspection. Seventy bushels is "some yield" but Broadwater is equal to anything in the grain line.



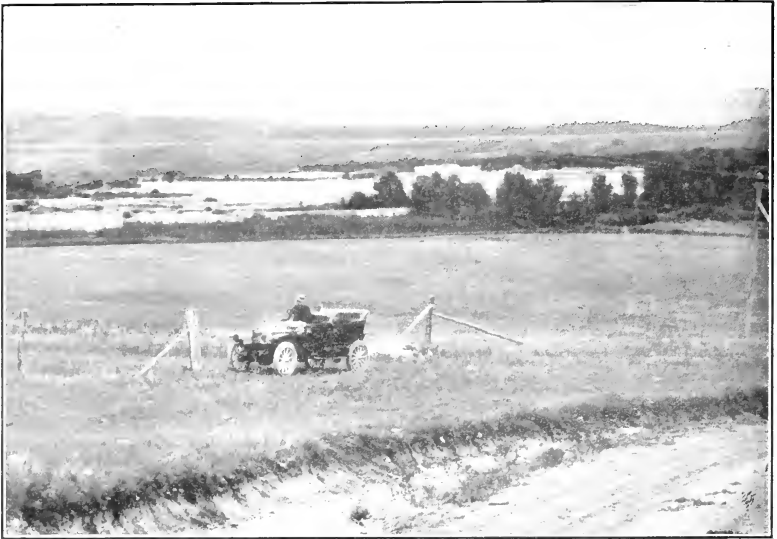
A Field of Standing Oats.

#### CARBON COUNTY.

Red Lodge Picket—A winter wheat yield of sixty-four bushels per acre is the record established in Carbon county without irrigation by W. A. Brockway on his Shane Ridge farm, nine miles west of Boyd, according to A. G. Anderson, the Boyd merchant, who was in Red Lodge on Saturday. The field comprised seventeen acres and it threshed 1090 bushels, or on an average of sixty-four and one-eighth bushels to the acre. This yield was obtained on non-irrigated land and demonstrates that, under changed climatic conditions, the words "dry land" are no longer applicable to Montana acres. Reports of other large yields on non-irrigated land in the county come from the Boyd section. From C. A. Sauerwein, who was in the city on Saturday from his irrigated ranch, it was learned that one of his neighbors, Nels Bue, threshed forty bushels to the acre from a forty-acre field of Turkey Red, and that other non-irrigated wheat lands thereabouts yielded equally as well. On Mr. Sauerwein's own ranch, Judson Underwood, who had in a field of the Marquis wheat, a new kind just being introduced in Montana, this week threshed 1800 bushels, obtaining a splendid yield per acre. Mr. Sauerwein's ranch is one of the finest in the valley and he recently topped the apple market in Billings with seventy-five boxes of apples of the Wealthy variety grown in his orchard.

#### CASCADE COUNTY.

Great Falls Leader—Thomas Daley lives four miles northwest of Portage in Cascade county. His postoffice address is Portage, Cascade county, Montana. Mr. Daley is a man who lives upon a homestead taken up two years ago, and has not been able to farm extensively, but has had to work his way. This year he had 36 acres in Turkey Red winter wheat, No. 1 hard. The 36 acres yielded 1,542 bushels, or a little less than 43 bushels to the acre. Sixteen measured acres of the land was upon new



Cottonwood Valley in the Judith Basin.

sod, well ploughed and went  $62\frac{1}{2}$  bushels to the acre. This was measured land and measured yield, and the threshing was done by Adolph Ingold. "I have been two years on my homestead four miles northwest of Portage, Cascade county, Montana, and 20 miles northwest of Great Falls," says Mr. Daley. "I have done my best, farming under the circumstances. I had 16 acres on the sod, deep ploughed and dry farmed, which went  $62\frac{1}{2}$  bushels to the acre. The land was measured and the wheat was measured before witnesses. Adolph Ingold did the threshing. In all I had 36 acres in the same kind of wheat, but the second 20 acres brought down the average, the entire 36 acres yielding 1,542 measured bushels of Turkey Red No. 1 hard wheat, or an average of a little less than 43 bushels to the acre, which is not so bad. I have 160 acres under homestead, taken up two years ago. I have lived in Montana all my life."

Great Falls Correspondence in Butte Miner—Reports of authentic character from Highwood, 26 miles east of here, tell of one of the largest wheat yields ever secured in this section of Montana. W. Vaughn, one of the successful ranchers of the Nine Mile bench, north of Highwood, using a combined harvester, completed harvesting 250 acres of wheat from which he got 19,973 bushels of wheat. This is an average above 57 bushels per acre. Mr. Vaughn cut 500 acres with a binder, but this has not been threshed. Seventeen acres from the Wheeler ranch, near Highwood, yielded an average of 63 bushels. Mr. Wheeler is on the engineering staff of the Milwaukee railway and formerly was located at St. Paul. Threshing is in full swing here.

#### CHOUTEAU COUNTY.

Chouteau County Independent—Harry Kelso of Highwood raised a record crop on twelve acres of ground, when his field of Turkey Red wheat gave him the heavy yield of 65 1-5 bushels. Carl Pinske of Goosebill was in the city last Saturday, bringing with him some fine potatoes. Mr. Pinske exhibited 26 potatoes from three hills, and they weighed  $32\frac{1}{2}$  lbs.





Spring Plowing in Sight of the Snow-Clad Mountains.

#### CUSTER COUNTY.

Miles City American—Ed. Whitbeck brought to this office a very fine sample of oats of the White Russian variety. Mr. Whitbeck has a fine large field of these oats and feels confident that they will yield 75 bushels to the acre. The report has come to town that wheat in the Rock Spring country has yielded 44 bushels to the acre and oats 89. Who says Montana is not a farming state?

#### DAWSON COUNTY.

Dawson County Review—Although the crops of the season just past cannot be said to be of the "bumper" variety, reports received from some of the agricultural sections where threshing has been finished prove that many of the yields were exceptionally good—in fact they were fully up to predictions made at the beginning of summer. Secretary Rasmusson is gathering crop statistics and while the report is as yet far from complete, he has secured sufficient data to show that the returns of the harvest were very far removed from the "failure" category. For instance, Miles Borntreger of the Bloomfield country had 155 acres of wheat which threshed a total of 4,200 bushels. He has 10,000 bushels of grain altogether, and his neighbor, I. L. Jones, harvested a similar quantity. A. H. Oellermann of the same country had a 50 acre field of macaroni wheat which showed an average yield of 41 bushels per acre. In the Crackerbox neighborhood, A. E. Aiken cut 50 acres of Fife wheat which threshed 28½ bushels per acre and his oats showed an average yield of 72 bushels. Willis Maples cut 100 acres of oats which yielded 65 bushels to the acre, and the grain is said to be of particular excellent quality. F. W. Hohensee had 46 acres of wheat which averaged 26 bushel per acre; 25 acres of oats that yielded 45 bushels and from 20 acres of flax he threshed 320 bushel of seed, an average of 16 bushels to the acre. Halvor Bjornson of the Union country harvested wheat which showed a yield of 27



Harvesting Oats in the Flathead.

bushels; oats that averaged 52 bushels and flax 18. None of the above mentioned crops are considered phenomenal, by any manner of means, and it is believed when the secretary's records are completed that they will show a large number of others fully as good, and very probably some that are even better.

Jordan Gazette—Probably one of the best average yields of crops raised in Dawson county this season was harvested by John Womble, who resides near the head of Vail creek, 20 miles northwest of Jordan. Mr. Womble settled on the land a little more than two years ago, but did not start to do any breaking until the spring of 1914. Since that time he has put 250 acres of raw prairie sod under a high state of cultivation and in the finest condition to produce excellent crops.

Mr. Womble this season threshed 3,342 bushels of fine, clean and well matured wheat. He had several different varieties of this grain, the yields of which were as follows: Marquis spring wheat went 34 bushels to the acre; Turkey Red winter wheat produced 40 bushels per acre, and two or three other varieties did not yield so well. Mr. Womble considers the Marquis the best spring wheat for this country, its growth and maturity seeming to be especially adapted to the climate and other conditions. He had 16 acres of oats which yielded 700 bushels.

#### FALLON COUNTY.

Baker Sentinel As threshing progresses reports are coming in placing the yields fully up to, if not beyond expectations. Hans Hanson is reported as having threshed 40 bushels to the acre of winter wheat on his entire acreage, and S. H. North, nearby, from two and a half measured acres threshed 59 bushels per acre. G. F. Latham's spring wheat, just west of town, yielded better than 25 bushels, and Theo Olson's, four miles southwest, went about 30. Receipts at the elevators are just beginning to come in.



A Heavy Stand of Winter Wheat..

#### FERGUS COUNTY.

Fergus County Argus—A report reached town this week of a most remarkable yield of wheat on the Cape ranch near Coffee Creek. The wheat from 149 acres was recently threshed and showed an average yield per acre of 57 bushels. This field was damaged by hail during the summer and the insurance company allowed a 12 per cent loss on it, which was conservative. Just how big the yield would have been had there been no hail damage is a matter of wonder. Assuming that the insurance company allowed the full loss it would have been around 65 bushels per acre, but it would probably have been higher.

Stanford World—There have been so many prenominal yields reported from the different sections of the Judith basin during the 1915 harvest period that it is extremely difficult to create any excitement by mentioning them. In fact no one who is acquainted with the basin's potent power to produce thinks anything of these big yield reports, they have rather learned to expect them and as long as the yield ranges between 25 and 75 bushels the report does not create much comment. If a farmer states to another that his wheat made only 20 bushels to the acre that provokes the question, what was the matter? But so long as it is above that mark the yield is taken as a matter of course. Last Saturday E. E. Haker was in town and upon being asked concerning the amount of wheat he threshed he stated that the final count showed a total of 56,000 bushels. Think of it—56,000 bushels. There are places where that would be a remarkable yield for an entire community, but not so in the Judith basin. Mr. Haker came to this section of the country in 1912 and afterwards leased the Frank Strouf home ranch. He has worked it for three years and this year he harvested 56,000 bushels of wheat from an acreage of 1800 acres. A little figuring will show that that is an average yield of a little more than 31 bushels to the acre. Yields of seventy bushels to the acre may be attained from small acreages, and



**A Threshing Crew at Work.**

ields of forty and forty-five bushels per acre have been obtained from quarter sections, but it is doubtful if there has been so large a tract in the state that has beaten the 31 bushel average yield. And it is certain that there are few men in the state who have produced more than 56,000 bushels of grain. A little figuring with a pencil and a piece of paper will show how much money this represents at the present price of the grain.

Stanford World--The first of the week the final strokes were applied to the Baker Brothers big job of threshing, the tally box was noted and the figures stood close to the 13,000 bushel mark. Big yields ranging from fifty to sixty bushels have been reported over the country, but none have come to hand that covered a very large acreage. The Baker Brothers field was 365 acres in extent and a little work with the pencil will show that the average yield for the entire field was a little better than 35 bushels. This is an extra good yield and will show profit even with the price where it is at present. This is a striking example of the wisdom of care in the preparation of the seed bed. The field of wheat in question has attracted attention ever since the plowing for the crop was begun and frequent prophecies were always to the effect that this would be one of the best fields in the country. The land was prepared in capital shape and no effort was spared to give the crop all the advantage that this climate and proper farming methods could supply and the result was a crop that has attracted the attention of farmers, land men and tourists throughout the season.

#### **FLATHEAD COUNTY.**

Kalispell Times- Edwin Pray, a rancher who resides near Polson, is in the city today on business with the county surveyor's office, and gives a glowing account of the crops in that section. Mr. Pray states that he believes the wheat will average 30 bushels per acre, and oats probably 40. He knows of one crop of oats which went 90 bushels per acre, and another of 75, but of course, these are the exception rather



A View of the Beautiful Kootenai.

than the rule. In some instances, Mr. Pray says, this is the first crop which has ever been produced. One of his neighbors has been cultivating his homestead for four years without results, and this spring rented another place which he thought was better. His abandoned farm produced a volunteer wheat crop of 600 bushels on 30 acres, and he has heard of another case where a volunteer wheat crop went 30 bushels per acre, but this could not be vouched for.

#### GALLATIN COUNTY.

Bozeman Courier—Joseph Kountz, farmer and banker of Bozeman, is pleased with the returns from the threshing machine on his ranch near Whitehall, where 38 acres of Turkey red winter wheat yielded 2,175 bushels, or an average of 58 bushels to the acre, 35 acres yielded 1,700 bushels, or an average of 48½ bushels to the acre, and a field of 60 acres planted in Marquis spring wheat, also on dry land, yielded an average of 30½ bushels an acre.

Belgrade Correspondence in Butte Miner—Corn was pulled by Thomas Gordon, a rancher, residing about five miles southwest of Belgrade, and brought to Belgrade, where it is on exhibition in a department store. The cornstalks, including small roots, measures 10 feet 11 inches in height, with several ears on each stalk. The corn was planted in June and Nebraska seed was used. It is the finest specimen of corn ever seen in this locality.

Bozeman Correspondence in Butte Miner—A yield of 40 bushels of Alaska peas from one field and 35 bushels of the same variety from another field are the per acre returns Charles Spick reports after the George Border threshing machine had completed part of his crop last week before the rain interrupted. He has a fine field of Gem peas worth \$2 per bushel which should thresh out in the neighborhood of 50 bushels per acre.



Waiting for the Threshing Crew.

Bozeman Correspondence in Butte Miner—A yield of winter wheat so phenomenal that it invites incredulity is reported by E. W. Radford, who is in charge of a threshing machine and outfit west of Manhattan. The average per acre yield will exceed 81 bushels. This is in a field of 32 acres of Turkey Red wheat raised by Richard Quint, which has been threshed with the exception of a little over one acre and the machine is now idle because of the rain. The total yield from the field as far as they have gone is enough to average 80 bushels per acre for the field and the rest will increase the average. Mr. Radford is running the J. W. Freeman threshing outfit of Bozeman and threshed out recently 135 acres for G. S. Black near Manhattan, which averages well above 40 bushels an acre, a part of which went 57 bushels.

Bozeman Courier—From a field of five and a half acres on the College View farm of Harry L. Summers, John W. Chaney has harvested over 1,500 bushels of fine potatoes of gigantic average size, and when the crop is weighed it is confident that the average will be above 300 bushels to the acre. This is the second year of big potato crops on this farm, and although the yield may be no larger than on many other Gallatin valley farms, the excellence of the product and its proximity to Bozeman make it notable.

#### GRANITE COUNTY.

Granite County News—The Brazil threshing outfit, finished threshing the Col. Morse piece of grain, adjoining town on the east, Sunday. From the 20 acres, 800 bushels of wheat were threshed. Mr. Morse stored the grain with the expectation of receiving higher prices. This is one of the best yields of Marquis wheat threshed from dry land in this section.



Sheep on Manhattan Farm.

#### HILL COUNTY.

Box Elder Press—The outlook for a big grain yield is promising. The best crop to date is the report of the yield of Borde Brothers who threshed an average of 54 bushels of Macaroni wheat to the acre, 150 acres. The yield on this farm was so much greater than had been expected that all available storage room was used and the grain had to be piled on the ground. The following yields have also been reported: Wm. Glynn on 30 acres, 28 bushels wheat to acre; 30 acres on stubble, 18 bushels to acre. John Murphy, 75 acres, 23 bushels wheat to the acre. Frank Kurtz, 100 acres, 39 bushels wheat to the acre; barley, 20 acres, 88 bushels to acre; oats, 90 bushels to the acre. Oscar F. Harvey, 70 acres, 29 bushels wheat to acre. Jasper Nevins, 16 bushels wheat to acre. Edward Formanack, 240 acres, 16 bushels wheat to acre. J. Jarosz, 36 bushels wheat to acre.

Havre Plaindealer—Early reports of the excellent crops around Kremlin, 29 miles west of Havre, are amply borne out by the results of threshing already done in that district. From a gentleman prominent in the business life of Kremlin, and who is in close touch with the farmers of that section, the Plaindealer is in receipt of the following list of grain yields in that district. The figures apply to winter wheat: Gus Renner, 42 bushels per acre; Gus Renner 71½ bushels per acre; Oscar Erlandson, 44 bushels per acre; T. R. Nelson, 42 bushels per acre; Vernon Hill, 38 bushels per acre; Peter Horn, 36 bushels per acre; F. M. Wilson, 35½ bushels per acre; Chas. Thomas, 33½ bushels per acre; Frank Horeish, 33 bushels per acre; Anton Bordie, 38 bushels per acre; Wm. Reimer, 34 bushels per acre; Sara and Mary Fenton, 36 bushels per acre; Chas. Benson, 29 bushels per acre; B. A. Albertson, 28½ bushels per acre; Odin Sjordal, 28½ bushels per acre; Frank Barden, 29 bushels per acre; Rose Vosen, 25 bushels per acre; Martin Berglie, 23 bushels per acre.



A Young Lincoln County Orchard.

#### JEFFERSON COUNTY.

Whitehall News—D. F. Riggs, the land man and auctioneer, brought a potato to the News office last Friday which tipped the scales at four pounds and measured twelve an one-half inches in length. The only fault that we could find with the Murphy was that it was so large that many could not find space to grow on an acre of land. The spud in question was grown on Mr. Rigg's ranch, south of Whitehall, and was surely a beauty, clean and smooth as a billiard ball.

#### LEWIS AND CLARK COUNTY.

Augusta Times—Jack Williams was in from Hogan Monday after a load of lumber for his new barn. Jack informs us that he had a pretty good crop on his homestead this year. He threshed 1,023 bushels of winter wheat from 27 acres. He has planted 72 acres in winter wheat this year.

Augusta Times—C. D. Wheeler and Mrs. Henry were in from the Wheeler ranch last Monday. Mr. Wheeler says he raised tons of purple top turnips this year for cow feed. Many of them are as large as the 17½ pound sample which he left at the Times office last week, and they were all raised without irrigation.

#### LINCOLN COUNTY.

Eureka Journal—Eureka has been quite a shipping center for wheat the past week, Geo. W. Gilpin, the grain buyer having already purchased ten carloads of wheat in the valley, and threshing will continue for perhaps three weeks.

#### MADISON COUNTY.

Madisonian Times—Charles S. Baker and Mrs. Baker of Ruby came to town Sunday to make arrangements for Mrs. Baker and the children to remain here this winter so that the children may attend school. Mr. Baker is living on a dry land





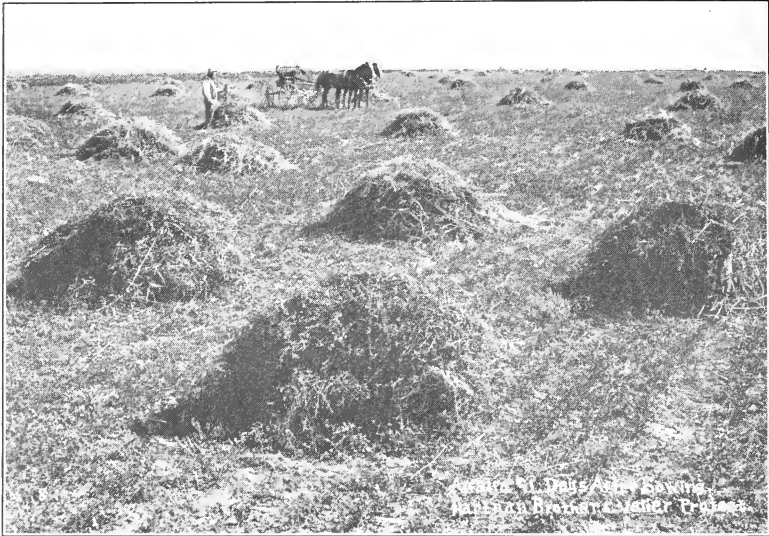
Government Irrigating Ditch on the Flathead Reservation.

homestead near Ruby and in speaking of his success in farming without irrigation said he had just harvested his crop of spring wheat and that it went better than 30 bushels to the acre. He says he considers that a very good showing when the fact that the grain was not planted until the 17th day of May is taken into consideration.

#### MEAGHER COUNTY.

Judith Gap Journal—The 310-acre field adjoining town on the west was threshed out a little over a week ago. There were 18,290 bushels threshed out of the field, or at the rate of 59 bushels per acre. This yield was made after a hail loss of 12½ per cent had been paid and taking this into consideration the yield of the field if it had not been struck by hail would have been 63 bushels per acre. The field belongs to C. R. Stone and has been farmed by him and Walter Witt very successfully for the past two years. The land was originally state school land and was purchased by Mr. Stone some five years ago. A year ago Mr. Stone declined \$60.00 an acre for the land that many an old-timer would not have given a dollar an acre for up to seven or eight years ago. And this same land produced 63 bushels of wheat per acre this year—more than half the price of the land at \$60 an acre after paying all expenses.

Harlowton Correspondence in Anaconda Standard—Additional reports of the threshing in this district are coming in daily from the three main divisions of territory adjacent to the city. The following this week have been reported: C. R. Stone of Judith Gap, 320 acres of Turkey Red, averaging 59 bushels per acre, and 200 acres of spring wheat with 48 bushels to the acre; Clarence Morgan of Judith Gap, 100 acres of Turkey Red with 53 bushels to the acre; Pearson of the Gap, 80 acres of winter wheat at 40 bushels; Wilmer Johnson, 30 acres of Turkey wheat at 42 bushels; Milton Dressback, 30 acres of spring wheat with 34 bushels to the acre, and 90 acres of winter wheat with 25 bushels, and 20 acres of oats at 50 bushels the acre. Ed. Jacobson had 11 acres of Karkhieff wheat which ran 40 bushels to the acre on



**Alfalfa on the Valier Project.**

which he will realize \$50 to the acre, selling his grain for seed. Dr. J. W. Beardsley has 40 acres of Turkey Red at 33 bushels to the acre; M. McFarland of Oka, 40 acres of Turkey wheat, 41 bushels to the acre, and 320 acres at 35 bushels to the acre; L. L. Dixon, 116 acres of Turkey wheat at 38.5 bushels; Jack Darrington of Nihill, 10 acres of Turkey Red with 40 bushels to the acre, and 15 acres of spring wheat with 32 bushels to the acre; John Jacobson, 90 acres of spring wheat with 40 bushels to the acre. South of town the following returns are in: J. S. Langston, 43 acres of Turkey Red, 52 bushels to the acre; Jess A. Langston, 22 acres of Turkey Red, 58 bushels to the acre; Jim Kent, 200 acres of Turkey Red, 41 bushels to the acre; Rufus Dockins, 22.5 acres with 57.5 bushels to the acre; Charles Langston, 70 acres of Turkey Red, 28 bushels to the acre; George Lacey, 75 acres of Turkey Red at 32 bushels to the acre; Jess Duffy, 40 acres with 63 bushels to the acre; Jess E. Langston, 87 acres of Turkey Red with 48 bushels to the acre. West of town returns are incomplete. Bob Montgomery of Two Dot reports 10 acres at 59.5 bushels to the acre, 30 acres with 56 bushels to the acre, and 30 acres of spring grain with 49 bushels to the acre.

#### **MINERAL COUNTY.**

Mineral County Press—C. O. Dunkle of Tarkio, completed threshing his oats last week. They went over fifty bushels to the acre on the entire 70 acres and the seed was put in late. All those in the Tarkio and Quartz districts got handsome grain yields this year.

#### **MISSOULA COUNTY.**

Ronan Pioneer—Every farmer who has finished threshing can report a big yield this year. Some are so surprised over the bushels they are getting that they can hardly believe it to be true, even with the evidence before their eyes. Some are



A Northwestern Montana Farm Scene.

afraid it is a dream and that they have hardly become awake. Since the Pioneer was published last week it has been learned that John Semar, living west of town almost to the Flathead river, has an average of 44 bushels per acre on 50 acres. This wheat was "stubbled in" last fall and is a remarkable yield. Besides he got 19 bushels per acre volunteer wheat on 40 acres. Mike Gadbois had better than 20 bushels per acre from his fall wheat and better than 15 bushels from spring wheat. This may not seem worth mentioning, but when it is known that none of this land from which the yields came has been touched for three years, then it is some wonder. This makes the third time this acreage has been cut since it was sown. Henry McRae had 44 bushels per acre on the Beck place in the same locality and this is all a volunteer crop. Not having water to irrigate the land, and believing it useless to cultivate the land without water, nothing was done last fall, but the grain came so well last spring that it was looked after and 44 bushels per acre is the harvest. Miss Carrie Miltenberger is another of the lucky ones in that neighborhood. She has sown wheat for the past three years, but last fall became discouraged and did not sow any. This spring it was like all other tracts in that section. The wheat came up so promising that the land was allowed to remain as it was, and last week she threshed 120 acres and it yielded over 30 bushels per acre. This entire acreage was pastured until June and was all a volunteer crop. Miss Edna Whitney, a school teacher from Anacortes, Wash., is another to reap a harvest without sowing. Miss Whitney has been on her land for two months past and while here had the satisfaction of seeing 40 acres of volunteer wheat harvested and threshed which averaged 26 bushels per acre.

#### MUSSELSHELL COUNTY.

Lavina Independent—Here are a few records of verified wheat yields in Musselshell county. The address of each farmer and the kind of crop grown, together with the yield in bushels per acre is as follows: M. R. McMullen, Ryegate, Turkey Red, 84; H. B. Hersey, Elso, Forty-Fold wheat, 56.7; H. H. Porter, Elso, Forty-Fold, 54; Henry



Pure Bred Holstein Herd Near Havre.

Kleisaat, Roundup, Turkey Red, 53; Bert Haylock, Roundup, Turkey Red, 51.4; W. P. Hunter, Darrell, Turkey Red, 50.1; B. Eliasson, Roundup, Turkey Red, 50; A. J. Elingson, Roundup, Turkey Red, 48.3; Ernest Paulley, Belmont, Turkey Red, 48; George Meachem, Glendale, Turkey Red, 48; R. W. Tarrt, Emory, Turkey Red, 48; Henry Doering, Ryegate, Turkey Red, 46; William Fentres, Big Wall, Turkey Red, 46; W. P. Hunter, Darrell, Turkey Red, 45; Alex Swanson, Emory, Turkey Red, 45; Oscar Reichard, Roundup, Turkey Red, 45; A. A. Meachem, Emory, Turkey Red, 45; Charles A. Virgils, Roundup, Turkey Red, 43; Earl Morrow, Lavina, Turkey Red, 43; W. O. Oldham, Roundup, Turkey Red, 42.5; Sam Edwards, Belmont, Marquis, 42; J. T. Buckingham, Lavina, Fife, 40.2; Art Wilson, Roundup, Turkey Red, 40; E. N. Blair, Belmont, Turkey Red, 40; W. F. Ording, Roundup, Turkey Red, 38.2; O. H. Helgeson, Belmont, Turkey Red, 37.5; Merwin Neace, Melstone, Turkey Red, 37; Fred Blue, Melstone, Turkey Red, 35; Paul ranch, Lavina, Turkey Red, 35; William Card, Ryegate, Turkey Red, 32.6; Charles A. Virgils, Roundup, Macaroni, 50; Ernest Paulley, Belmont, Marquis, 41; Watt Bros., Elso, Marquis, 36; O. H. Helgeson, Belmont, Marquis, 30; Sam Parker, Roundup, oats, 112; Carl Weeks, Melstone, oats, 100; Paul ranch, Lavina, oats, 80; J. M. Candler, Lavina, oats, 77; Fred Cram, Emory, oats, 65; James McLeod, Roundup, oats, 63.6; Ben Plenger, Lavina, oats, 92.6; Watt Bros., Elso, oats, 50; Charles A. Virgils, Roundup, oats, 41.

#### PARK COUNTY.

Livingston Correspondence in Butte Miner—Because of the skepticism with which some of the uneducated receive reports of grain yields on Montana farms resulting from the wonderful advantage the Treasure State has over every other commonwealth in the Union, affidavits have been made by a surveyor sent to measure a wheat field in the Shields River valley and also of the yield of wheat. The ranch is owned by Mrs. H. J. Miller of Livingston and operated by John J. Waters. It is believed this ranch has made a record wheat yield for Montana. Here are some of the facts contained in the affidavit. Field of wheat contained 39 acres. The machine measure 2,588 bushels. Taking 60 pounds to the bushel the wheat totalled 2,933.04



Loading Potatoes Near Piedmont.

bushels, or 74.4 bushels to the acre. It is the biggest yield ever heard of in Park county. The wheat was Turkey Red.

Wilsall Correspondence in Butte Miner—First returns from the harvest fields indicate that the Shields river valley wheat this year will grade unusually high, with a normal yield per acre. Threshing operations began the first of this week and as yet not enough returns are available to justify estimates that are correct. However, all indications point to an average yield of high quality, with the exception of the foothills, where it is believed the grain has been slightly frost-bitten, but the yield will be unusually heavy. Returns to date are as follows: Merrill Henry, seven miles north of Wilsall, 60 acres; yield, 40 bushels per acre; weight, 63 pounds per bushel. Harold Johnson, one mile north of Wilsall, 45 acres; yield, 35 bushels per acre; weight, 62½ pounds per bushel.

#### PHILLIPS COUNTY.

Malta Enterprise—Threshing operations still continue with more energy than ever and a number of new machines are at work near Malta. Last week the crops on the B. W. Brockway farm were threshed and on five acres that was in corn last year the winter wheat gave a yield of fifty-two bushels per acre. The rest of the field gave only fair returns and cut the average of the whole considerably.

#### POWELL COUNTY.

The Silver State—Plum Murray, one of the successful young farmers of the Avon district, was a Deer Lodge visitor Monday on a business mission. Mr. Murray had just finished harvesting his hay crop which he reports was one of the best in recent years. The quality was excellent and the yield big.

#### PRAIRIE COUNTY.

The Terry Tribune—The greatest yield of oats which has been reported in this section was threshed from a field on the J. J. Morrow farm a few miles from Mildred. From statements made by the man who did the threshing and several others who



Seeding in the Gallatin.

were present at the time the yield of 105 bushels per acre must be taken as correct. This is the largest yield of any grain ever grown in the Terry section so far as we have any knowledge, and we congratulate Mr. Morrow upon his success. From every direction have come reports of great yields of both oats and wheat, but the nearest approach to the field mentioned has been 85 bushels—and this was considered a “corker.”

#### RAVALLI COUNTY.

Stevensville Register—Four hundred cases of celery will be shipped to Butte by parcel post from the A. M. Hightower ranch on lower Burnt Fork between now and the first of the year. This amount is the product of a combination of an acre of good soil, 30,000 celery plants and the enthusiastic labor of Henry Hightower, a student in the Stevensville high school. One firm in Butte has contracted to handle the entire output, part being shipped soon, more about Thanksgiving time, and the remainder in time for the Christmas trade. The shipment is made by parcels post because the celery can be delivered to the rural carrier at the door, saving the expense of hauling to town. The estimated net return from the crop will be between \$400 and \$450.

#### RICHLAND COUNTY.

The Sidney Herald—Dr. Magruder reports 32 bushels of blue stem to the acre on his farm south of the city and 20 bushels of Marquis, the latter having suffered from the frosts early in the spring. Peter Anderson threshed an average of 36½ bushels of wheat to the acre on dry land, while A. Vaux reports a yield of 37 bushels to the acre on last year's corn land and 25 bushels on another field, both dry land, and his wheat in the valley, under irrigation, averaged 33 bushels to the acre.

Enid Correspondence in Sidney Herald—The following crop reports have been received—E. A. Roberts, wheat, 25 bushels per acre; oats, 36 bushels; barley, 41



Tractors Break Thousands of New Acres Every Year.

bushels. Mrs. Addie Roberts, wheat, 17 bushels; oats, 54 bushels. Thompson Kemmis, Jr., wheat, 21 bushels; oats, 40 bushels. G. G. Dupuis, wheat, 20 bushels; oats, 35 bushels. S. B. Bean, wheat, 20 bushels; oats, 33 bushels.

#### ROSEBUD COUNTY.

Ingomar Index—Harry Guyer, a homesteader living in the Snow Belt district, about 25 miles northeast of Ingomar, threshed a 12-acre field of Turkey Red winter wheat this week. From this field Mr. Guyer received 600 bushels of excellent wheat, an average yield of 50 bushels to the acre. Mr. Guyer also had in 10 acres of a new variety of oats known as Black Beauty. He got off this field 730 bushels of oats, making an average yield of 73 bushels to the acre. His flax averaged  $12\frac{1}{2}$  bushels per acre. This yield of Turkey Red winter wheat is the largest, for any sized field, we have reported this year. For this 12 acres of winter wheat Mr. Guyer at the market price today, Oct. 21, 1915, at this market will receive 78 cents per bushel or a total of \$498, making the proceeds per acre, \$39. Or in other words, Mr. Guyer has realized \$39 this year on 12 acres of his land that did not cost him \$10 per acre. Where, on top of earth, can a farmer do better?

Sumatra Record—Tuesday of this week, Joe Fields brought to this office a red beet which would be a credit to any community, and some fine potatoes, one making a meal for three persons. The beet weighed  $9\frac{1}{2}$  pounds. Mr. Fields came to this country three years ago with 10 cents in his pocket and has had a hard struggle to get along, as he had to work out to make money to improve his claim. He had two grubstakes, amounting to almost \$100 stolen. Still, he has succeeded in improving his place, fenced it and has 40 acres of corn, an abundance of potatoes and other vegetables, including about one-fourth of an acre of onions. Mr. Fields recently made final proof on his claim and will soon be the proud possessor of a fine half-section of land. His farm lies about five miles east of Sumatra.



A. B. Cook's Famous Prize Hereford Herd at Townsend.

#### SANDERS COUNTY.

Sanders County Signal—Ollie Gregg finished threshing Sunday. He received a larger yield than expected. His wheat running about 24 bushels to the acre and his oats running as high as 50 bushels to the acre. He got in all about five thousand bushels.

#### SHERIDAN COUNTY.

Sheridan County News—Threshing on the Fort Peck reservation has been going at full swing during the past week and everyone is well satisfied with the yields obtained. Jacob Brombarger threshed a field of wheat averaging 25 bushels per acre, Grant Maxwell, 21 bushels per acre, Mr. Chipman, 20 bushels per acre. A. S. Barlow threshed a field of oats which averaged 50 bushels to the acre. Flax is running about 12 bushels per acre. Thus it would seem that by using these crops as an estimate the Fort Peck land is as good as any within the State of Montana.

#### STILWATER COUNTY.

Park City Pioneer—Postmaster Ed Peck went up to his ranch in Lake Basin last Saturday, and while in that neighborhood took advantage of the occasion to find out how crops were. Mr. Peck says on the ranch of his neighbor, Frank Vanoy, from a 40-acre tract an average of 45 bushels per acre was threshed. Mr. Peck reports that the threshers haven't got to his ranch yet, but he is confident that the grain yield on his place will equal any per acreage mark yet reported in that locality.

#### SWEET GRASS COUNTY

Big Timber Pioneer—Perry Jasper of the Boulder, who was a business visitor in the city yesterday, reports the biggest wheat yield so far reported—260 bushels from four acres, or 65 bushels to the acre. The grain was hauled two miles to the machine





**Beau Perfection Twenty-Third, Grand Champion Hereford Bull.**

before threshing, so that some ranchers could get good seed wheat, and on the way scattered a great deal. However, it stands as the highest yield reported.

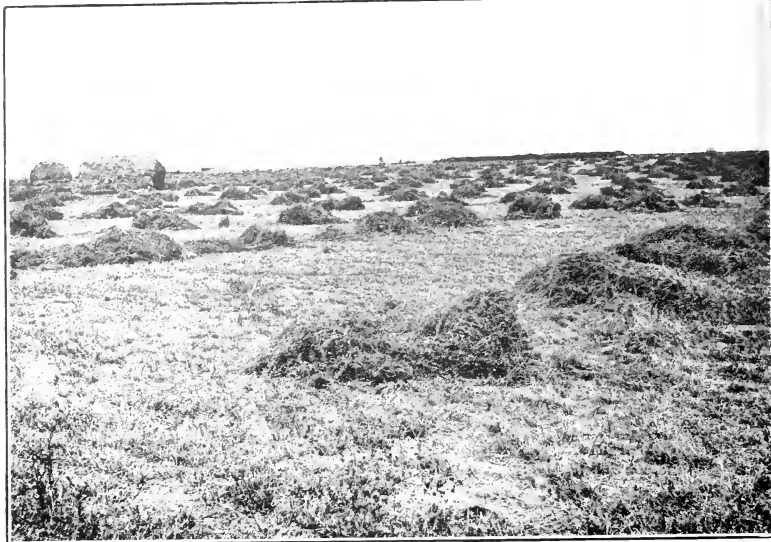
**Big Timber Pioneer**—Henry Keithley and family were in from his ranch home and made a three day's visit at his father's T. W. Keithley. He says his crops were light, having been struck by hail three different times, but his neighbors, the Dunn boys, had 51 and 52 bushels of winter wheat to the acre.

#### TETON COUNTY.

**Valerian**—The record crop yields from all over the state have been printed in the big papers every day, but up to this time there has not been one to compare with one yield right on the outskirts of the town of Valier. This week J. N. Starbuck finished threshing 160 acres of fall wheat, and the machine tallied a yield of 63 bushels to the acre. The wheat will, according to those who know overrun the machine measure about three pounds to the bushel, which will make the yield about 65 bushels per acre. Mr. Starbuck recently resigned as postmaster of this city, and who could blame him, with a crop growing that was admired by every passer-by, and its yield was predicted a large one from the time it began to head out. Raising 65 bushels to the acre has got a postoffice job backed off the boards, or any other political job.

**Montana Daily Record**—Fifty-five bushels of wheat to the acre is by no means an unusual yield this season for the dry land farmers of Teton county, according to E. J. Hirshberg of Choteau, who is in the city today. He says yields have averaged better than 40 bushels. One farmer, on a measured tract of 10 acres, threshed 88 bushels to the acre.

**Cutbank Correspondence in Helena Independent**—A flax yield of 350 bushels on a 10-acre patch on the farm of Robert Paul, north of Cutbank, or a yield of 35 bushels to the acre, is the best yield known, according to the best information obtainable. Mr.



**Productive Alfalfa Field Near Billings.**

Paul, a conservative Scotchman, has made affidavit as to the acreage and the thresher has made affidavit as to the yield. One of the largest paint manufacturing firms in America, whose representatives travel through the flax belt of the United States and Canada, says this is the biggest yield ever recorded. A yield of 32 bushels in the Golden Valley of North Dakota, three years ago, was the best to this time, the manager says. The manager of the paint house says the region east of the Rockies, in which Cutbank is located, is the best flax zone in the United States or Canada.

#### **TOOLE COUNTY.**

Devon Register—Following are some of the grain yields reported around Devon: J. H. Creighton, two fields wheat, 27 and 32 bushels per acre; oats, 70 bushels; Clinton Craig, oats, 90 bushels; J. L. Clark, wheat, 39 bushels; oats 95; Owen Doolittle, wheat 54 $\frac{3}{4}$ ; Ed. Wilkins, wheat, 32; Clifford Bros., wheat, 38; Gust Dukleth, wheat, 36; Mrs. Bertha Hinman, wheat, 28; T. Mallette, wheat, 33.

#### **VALLEY COUNTY.**

Valley County News—Word comes from Hinsdale to the effect that the oats yield this year on J. T. Rowe's farm was at the rate of 102 bushels to the acre, machine measure, and this grain averaged forty-six pounds to the bushel. The stalks stood over the field six feet in height and the heads were seven inches lang. It is recorded as one of the banner yields of the county, exceeding in acre yield the 100-bushel record made on the farm of H. C. Christianson, whose place is a few miles south of Opheim.

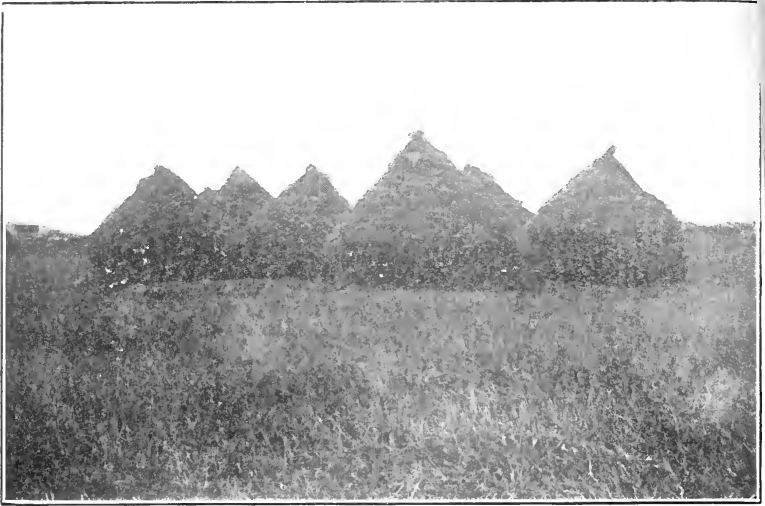
Glasgow Courier—The biggest yield reported to date is that of Charles Tanner of Hinsdale, whose wheat averaged between 45 and 60 bushels to the acre. Reports of threshing in this vicinity give yields averaging between 20 and 30 bushels of wheat to the acre, while oats is running as high as 100 bushels to the acre. Pete Breig-



Orchard in the Missoula Valley.

enzer, who has a farm nine miles northeast of Glasgow, threshed 2,800 bushels of excellent wheat off 100 acres. This wheat is all high grade and up to the standard of the grain that is being raised on the north bench this fall. An average of 25 bushels of wheat to the acre from 220 acres was threshed on the farm of Nels Dokken near the city.

Valley County News- A yield of sixty-nine and two-thirds bushels per acre of Marquis wheat, thresher measure, is announced by the News correspondent in that town as having been secured by W. B. Dolson, of Barnard. He expressed belief that this wheat weighs seventy-three pounds to the bushel. The statement is made by the correspondent also that Mr. Dolson thinks this big yield breaks not only the record in Valley county but also in the State of Montana this year on spring wheat production. Mr. Dolson is reported to have grown this big crop on summer fallowed ground, plowed ten inches deep, and the enormously prolific yield is being attributed in some measure in that neighborhood to this fact as well as to the favorable wheat-growing weather which prevailed. The Dolson yield exceeds by far the greatest yield heretofore reported from any part of the bailiwick. While J. E. Gasser was in the city Friday from Valletown, he stated that there were threshings in that vicinity which disclosed crops of macaroni wheat running forty-five bushels per acre. The bluestem, he said, gave up an average of about thirty-six bushels. His own bluestem, he added, yielded at the rate of twenty-eight bushels per acre. Throughout the Valletown region, he also explained, good grain crops were harvested. The J. D. Kelly crop, twelve miles northeast of Hinsdale, is reported to have been forty-five bushels per acre, sixty-six pounds to the bushel. This wheat is said to have grown on fall-plowed land. Mr. Kelly harvested only eighteen bushels per acre off another piece of land nearby which was merely spring plowed. In the Tampico district, from which a great many reports of high yields have been coming, the News has it straight and vehemently, from T. O'Connor, who was in the city Friday, that there



**Many Montana Farmers Stack Their Wheat.**

was an average threshed of twenty-five bushels per acre throughout that territory. In the Opheim country the Carl J. Anderson oats crop is reported to have yielded fifty-five bushels per acre, on an 100-acre harvest, which yielded 5,500 bushels. In the same region John St. Germain harvested sixty bushels of oats to the acre. The flax crop of J. Pudois yielded at the rate of twenty-two bushels per acre and his wheat forty-three bushels. Hevener and Brathovde, in the Tango country, are said to have procured a yield of seventy-eight bushels of oats per acre. In the Baylor region Forest E. Hale's wheat gave up twenty-six bushels, and oats in the same neighborhood is said to be running about sixty bushels per acre.

#### **WIBAUX COUNTY.**

The Wibaux Pioneer—C. H. (Dad) Molton who lives two miles east of Wibaux has just completed threshing a crop of 20,000 bushels of wheat, which averaged close to 30 bushels to the acre. If you want to find out what this splendid crop of wheat is worth to the producer, just look up the market reports and you will find it to be in the neighborhood of \$25.50 per acre or a total of \$17,000 for the entire crop. It is reported that the crop of wheat just threshed on the Van Luchene ranch immediately south of town averaged 42 bushels to the acre.

#### **YELLOWSTONE COUNTY.**

Laurel Outlook—Another big yield of Turkey Red wheat that was grown on dry land was made on Miss Helene Wold's ranch southeast of Laurel. Miss Wold has 320 acres of land that she acquired by homesteading. It is located on the ridge between Duck creek and Spring creek. She hired seventeen acres plowed last year. It was summer fallowed and seeded early last fall. The crop was threshed yesterday and it yielded 1,000 bushels of No. 1 grain. This lacks only a trifle of making 59 bushels per acre. This average is a tie with the yield secured by M. E. Dye on his place on the Whitehorse flat. Miss Wold now holds the record for high yield on the



Lower End of the Beautiful Mission Valley.

bench where her farm is situated and the high average secured is proof that dry farming is profitable in this section of the state.

The 1915 Yearbook of the United States Department of Agriculture shows in plain figures just why farming in Montana is profitable and just why "an acre in Montana is worth more than an acre elsewhere." The Yearbook shows the average per acre value of each of the various crops grown in the various states, computed over a period of five years.

In the table given below the Yearbook figures showing the average five-year value of an acre of wheat in the various states is given, and from this basis the average five-year value of a 160-acre farm of wheat is computed. The result shows that every year the Montana farmer pockets from \$200 to \$1,600 more money than does the farmer who has not as yet learned that farming in Montana pays better. Here are the figures on wheat:

## WHEAT.

	5 Year Average Value per Acre	Average Yearly Value of 160 Acre Crop
Ohio .....	\$14.52	\$2,323.20
Indiana .....	13.66	2,185.60
Illinois .....	13.90	2,224.00
Michigan .....	15.07	2,411.20
Wisconsin .....	16.55	2,648.00
Minnesota .....	11.75	1,880.00
Iowa .....	16.25	2,600.00
Missouri .....	13.62	2,179.20
North Dakota .....	8.60	1,376.00
South Dakota .....	7.95	1,272.00
Nebraska .....	13.43	2,148.80
Kansas .....	12.76	2,041.60
United States .....	12.79	2,046.40
MONTANA .....	18.11	2,897.60



Growing Corn on the Flathead Reservation.

In the table given on this page, the Yearbook figures showing the average five-year value of an acre of corn in the several states is given, and from this basis the average five-year value of a 160-acre farm of corn is computed. The result shows that every year the Montana farmer pockets as much as \$2,000 more money than does the farmer who is as yet unacquainted with the superior producing power of Montana soil. Here are the figures on corn:

#### CORN.

	Value per Acre 5 Year Average	of 160 Acre Crop Average Yearly Value
Ohio .....	\$21.18	\$3,388.80
Indiana .....	18.57	2,971.20
Illinois .....	16.82	2,691.20
Michigan .....	20.91	3,345.60
Wisconsin .....	21.50	3,440.00
Minnesota .....	16.95	2,712.00
Iowa .....	17.17	2,747.20
Missouri .....	14.55	2,328.00
North Dakota .....	13.16	2,105.60
South Dakota .....	12.05	1,928.00
Nebraska .....	10.49	1,678.40
Kansas .....	8.21	1,313.60
United States .....	14.99	2,398.40
MONTANA .....	21.29	3,406.40

In the table given on this page, the Yearbook figures showing the average five-year value of an acre of oats in the several states is given, and from this basis the average five-year value of a 160-acre farm of oats is computed. The result shows that every year the Montana farmer pockets from \$200 to \$1,600 more money than



Enormous Yields Are Obtained on Irrigated Land.

the farmer who has been living in ignorance of crop conditions in Montana. Here are the figures on oats:

## OATS

	5 Year Average Value per Acre	Average Yearly Value of 160 Acre Crop
Ohio	\$13.56	\$2,169.60
Indiana	11.15	1,784.00
Illinois	11.68	1,868.30
Michigan	12.67	2,027.20
Wisconsin	12.12	1,939.20
Minnesota	10.49	1,678.40
Iowa	11.57	1,851.20
Missouri	9.59	1,534.40
North Dakota	7.88	1,260.80
South Dakota	7.60	1,216.00
Nebraska	8.80	1,408.00
Kansas	10.42	1,667.20
United States	11.65	1,864.00
MONTANA	16.35	2,616.00

In this table are shown the Yearbook figures giving the five-year average value of an acre of rye in the states with which comparisons are made, and from this basis is computed the average annual value of a 160-acre crop of rye. The result shows that at the end of every year the Montana farmer has from \$240 to \$740 more money to deposit in the bank than does his less fortunate eastern farmer. Here are the figures on rye:

## RYE.

	5 Year Average Value per Acre	Average Yearly Value of 160 Acre Crop
Ohio	\$12.37	\$1,979.20
Indiana	10.97	1,755.20
Illinois	12.30	1,968.00
Michigan	10.98	1,756.80
Wisconsin	12.36	1,977.60
Minnesota	12.56	2,009.60
Iowa	12.61	2,017.60
Missouri	11.67	1,867.20
North Dakota	9.46	1,513.60
South Dakota	9.59	1,534.40
Nebraska	9.77	1,563.20
Kansas	11.29	1,806.40
United States	12.07	1,931.20
MONTANA	14.10	2,256.00

In the table on this page are given the Yearbook figures showing the five-year average annual value of an acre of barley in the various states, and from this basis is computed the average annual value of a 160-acre crop of barley. The result shows



Good Barns and Good Fences Are the Rule in Montana.

that at the close of each harvesting season the Montana farmer has a crop which is worth as much as \$1,700 more than the crop raised with the same labor on the same amount of land in some of the other big farming states of the nation. Here are the figures on barley:

#### BARLEY

	5 Year Average Value per Acre	Average Yearly Value of 160 Acre Crop
Ohio .....	\$17.13	\$2,740.80
Indiana .....	16.39	2,622.40
Illinois .....	18.44	2,950.40
Michigan .....	16.88	2,700.80
Wisconsin .....	17.98	2,876.80
Minnesota .....	13.22	2,115.20
Iowa .....	16.21	2,593.60
Missouri .....	15.27	2,443.20
North Dakota .....	9.37	1,499.20
South Dakota .....	9.12	1,459.20
Nebraska .....	8.61	1,377.60
Kansas .....	7.48	1,196.80
United States .....	14.60	2,336.00
MONTANA .....	18.24	2,918.40

The Montana farmer who grows potatoes will get rich in half the time as the farmer of any other state. In this table is shown the Yearbook figures giving the five-year average annual value of an acre of potatoes, together with the computation showing the value of a 160-acre potato patch. These figures show that the Montana farmer who grows 160 acres of potatoes will make \$5,000 more per year than the average farmer outside of Montana, and \$8,000 a year more than the least fortunate. Here are the potato figures:

#### POTATOES.

	5 Year Average Value per Acre	Average Yearly Value of 160 Acre Crop
Ohio .....	\$52.11	\$ 8,337.60
Indiana .....	47.76	7,641.60
Illinois .....	45.48	7,276.80
Michigan .....	45.90	7,344.00
Wisconsin .....	48.98	7,836.80
Minnesota .....	47.44	7,590.40
Iowa .....	47.49	7,598.40
Missouri .....	42.43	6,788.80
North Dakota .....	46.51	7,441.60
South Dakota .....	43.41	6,945.60
Nebraska .....	43.94	7,030.40
Kansas .....	43.72	6,995.20
United States .....	58.01	9,281.60
MONTANA .....	92.48	14,796.80



# Montana Products Lead World

Not Only Is the Treasure State First in the Quantity of Its Grains But it Is Likewise First in Quality as Shown by Record-Beating Awards.



OF MONTANA it may be truthfully said that the products of this state are not only first in quantity per acre, but also first in quality. From the Louisiana Purchase Exposition in St. Louis in 1904 to the Panama-Pacific and Panama-California expositions in 1915, the products of Montana's farms and fields have been in the front rank of prize-winners, and the success of Montana at the various expositions and land shows held during the past ten years has done much to establish the permanent reputation of this state as the premier agricultural commonwealth of the nation.

Montana's long string of consecutive victories was crowned last year with the greatest agricultural conquests ever won by any state in the Union. At the Panama-Pacific International Exposition at San Francisco, Montana won the grand prize in cereals, the high-

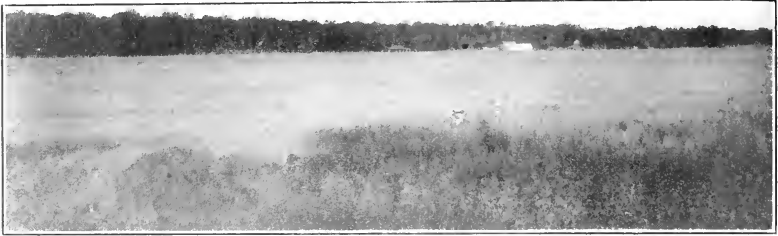
est competitive award in the agricultural division, and the grand prize in apples, while Montana farmers were awarded more gold medals, more silver medals, more bronze medals and more honorable mentions than were given the agricultural exhibitors of any other state or foreign country.

Montana received nine medals of honor, these being awarded on wheat, oats, barley, flax and general agricultural products. There were awarded to the agricultural exhibitors of this state 73 gold medals, 236 silver medals, 195 bronze medals, and 100 honorable mentions.

At the Panama-California Exposition at San Diego, the grand prize in agriculture was awarded the Montana exhibit, while 15 gold medals were awarded to exhibitors from this state on cereal products, flax, alfalfa, barley, wheat, oats, wild grasses, clover, peas and other displays.

As long ago as the Chicago Exposition of 1893, besides mining awards for gold nuggets, crystals and placer gold, for collections of silver and silver crystals, for copper ores, for coal and for building stone, this State won distinguished recognition by its agricultural products, awards being made to the State of Montana on apples, and also on a collective exhibit of flaxseed, oats and hay. J. W. Dawes, M. M. Ferguson, Sam Fowler and the Manhattan Malting company secured awards on barley; William Caldwell and J. Mason secured awards on wheat; Bailey & O'Donnell on hay, and Thomas Blake and Mrs. Ed. Duke on Timothy hay.

At the Louisiana Purchase Exposition held in St. Louis in 1904, the Grand prize for the mining industry was awarded to the State of Montana. The State of Montana was awarded a gold medal for fruit; Bass Brothers of Stevensville received a gold medal for apples, and the Bitter Root Farm of Hamilton a gold medal for apples



Lost in a Sea of Oats.

and crab apples. Thirty-eight silver and twenty-three bronze medals were received by various exhibitors from Montana on apples, crab apples, strawberries, plums and prunes. For agricultural exhibits from Montana there were received sixty-nine gold medals, sixty-two silver medals and fifty-three bronze medals. Gold medals were awarded to the following exhibitors from this State:

Barley—Duncan Cameron, Cascade; B. H. Kemp, Cascade; A. H. Sales, Salesville.

Barley and Oats—G. F. Anderson, Belt; J. E. Morse, Dillon; P. R. Nash, Bozeman; James A. Potter, Bozeman.

Barley, Oats and Wheat—E. M. Davidson, Belgrade; W. C. Newton, Bozeman; Daniel Payne, Monarch; Robert Scott, Sand Coulee.

Barley, Wheat, Oats, Rye and Speltz—Experiment Station, Bozeman.

Barley, Wheat, Rye and Oats—E. Bisson, Great Falls.

Beans—Frank Rene, Echo.

Beans and Peas—Samuel Dick, Great Falls.

Bromus Inermis—J. R. Kruger, Plains; Christ Prestbye, Kalispell.

Hay—Alfalfa—Paul McCormick, Billings.

Hay—Timothy—J. M. Horan, Belt.

Hay—Claude V. Flynn, Toston.

Hay Seed—Timothy—Ed. Peterson, Kibbey.

Oats—F. K. Armstrong, Bozeman; A. M. Austin, Flathead; C. H. Austin, Flathead; O. H. Barnhill, Holt; Joseph Braitvant, Highwood; Henry Bush, Chinook; James Cook, Chinook; Wallace Cook, Chinook; C. R. Featherly, Dillon; John H. Green, Plains; Frank Harlen, Missoula; B. J. Heaney, St. Peter; J. M. Horan, Townsend; Carl Innes, Dillon; Otis Johnson, Plains; J. H. Lamphear, Manhattan; C. H. Lind, Great Falls; Con Mannix, Townsend; Theodore Nelson, Dillon; Theodore Norman, Bozeman; C. E. Skidmore, Bozeman; G. W. Sparr, Bozeman; Leonard Stone, Central Park; Charles Stephens, Highwood; J. H. Stubbs, Kalispell; M. D. Sullivan, Townsend; Otis Thompson, Plains; C. Van Wagen, Laurel, and M. L. Wade, Choteau.

Oats and Wheat—C. M. Anderson, Belt; W. R. Cullen, Monarch; Jacob Carolus, Bozeman; John C. Coulson, Cascade; C. A. Lee, Sand Coulee; J. J. Patterson, Truly; C. W. Winslow, Waterloo, and W. L. Cork, Riceville.

Wheat—Pete Fake, Eden; H. Hicke, Truly; G. P. Kessner, Stockett; Joe Maxner, Eden; Charles Morgan, Truly; John G. Ross, Great Falls.

At the Lewis and Clark Centennial Exposition held at Portland, Oregon, in 1905, the State of Montana was awarded a gold medal for Educational Exhibit, gold medal for collective exhibit of grains and grasses, gold medal for mineral exhibit and gold medal for gold exhibit.



A Newly Made Home on the Prairie.

In the agricultural exhibit Montanans were awarded a total of sixty-two gold medals, thirteen silver medals and two bronze medals. The gold medals awarded in the agricultural division were on the following products:

Barley—Manhattan Malting Co., and J. P. Stone.

Barley and Oats—J. E. Morse.

Barley and Wheat—W. J. Bowers.

Barley and Timothy—Ed. Peterson.

Barley, Wheat and Oats—Nash Bros., and C. R. Gearch.

Barley, Spring Rye and Wheat—Manhattan Malting Co.

Bromus Grass Seed, Wheat, Oats and Flax—C. Presbye.

Flax and Oats—P. R. Nash.

Oats—John Kinner, Mrs. A. Loek, J. Carolus, C. Van Wagen, W. A. Little, G. N. Featherly, John H. Stubbs, John McKennick, Pabst Steel, S. Holmsland, Thos. Bauers, Thomas Nelson, J. E. Morse, Clark Harlan, W. C. Newton, C. Mancat, George Bentley, C. W. Winslow, Carl Innes, Charles King, and U. Marte.

Rye—C. H. Campbell, E. E. Wilcox.

Rye and Wheat—C. H. Lindle.

Timothy Seed—J. C. Gibson.

Wheat—Thomas Kening, A. C. Vanderpool, James Baker, S. D. Luce, S. Holmsland, H. F. Peterson, E. F. Mann, A. H. McMillan, Daniel Cummings and George Sparrel.

Wheat—Macaroni—John Epperson.

Wheat and Oats—John Baumgardner and Otis Johnson.

At the Dry Farming Congress held in Cheyenne in 1908, Montana exhibitors received most of the prizes, among the important winners being the following: W. B. George, Silver Cup for the best 25 pounds of wheat; Miss Mabel Sudduth, first, for best display made by woman homesteader, first for sheaf flax, second for display of alfalfa, and third for hullless barley; Dr. W. X. Sudduth, second for wheat, first and second for flax, second for field peas, third for Durum wheat and field beans. Of the five first sweepstate prizes, the Billings exhibit took three.

In later showings Montana exhibits have far exceeded the earlier records, exhibits from this state winning in competition against the world whenever and wherever shown. At the Dry Farming Congress of 1911, held at Colorado Springs, the gold medal for the best potatoes was awarded to H. E. Murphy of Wibaux, while the gold medals for the best hulled barley and the best hullless barley were won by John Forster of Grey Cliff.

At the great Land Show held in Madison Square Garden, New York City, in 1911, Montana exhibitors practically swept the boards, being awarded first prizes for



**Corn Is a Profitable Crop Throughout Eastern Montana.**

the best wheat in the United States, best oats in the United States, best barley in the United States and the best alfalfa in the United States.

The \$1,000 silver cup, donated by the late James J. Hill of the Great Northern Railway, "for the best one hundred pounds of wheat grown in the United States in 1911," was awarded to James Todd of Geysler, Cascade county, Montana. Mr. Todd's exhibit consisted of one hundred pounds of Turkey Red winter wheat that was grown without irrigation. It was part of a yield of 75 bushels grown on an acre and weighed 65 pounds to the bushel.

The \$1,000 silver cup donated by A. J. Earling, president of the Chicago, Milwaukee & St. Paul Railway, for "the best one hundred pounds of oats raised in the United States in 1911," was awarded to Hartman & Patton of Bozeman, Gallatin County, Montana. The oats entered by T. Menard of the same county were found to be the next best.

The \$1,500 silver cup donated by Colonel Gustav Pabst of Milwaukee for the best bushel of barley grown in the United States in 1911 was awarded to R. Eisinga, of Manhattan, Gallatin county, Montana.

The \$1,000 silver cup donated by Paul L. Van Cleve, to be awarded "to the persons demonstrating the best and widest uses of alfalfa as food for man and beast who shall also exhibit at this exposition alfalfa meal or flour and bread and other products therefrom," was awarded to Dr. W. X. Sudduth of Broadview, Yellowstone county, Montana.

At the Land Products Show, held in St. Paul under the auspices of the Northwestern Development League, December 12 to 23, 1911, there were exhibited the best



Montana Soil and Sunshine Make Sure Crops.

collection of land products from the state of Minnesota, North Dakota, South Dakota, Montana, Idaho, Oregon and Washington ever brought together, and in this show Montana again distanced all competitors.

The valuable cup offered by L. W. Hill for "the largest and best exhibits of products from any one state," was won by Montana. This exhibit was collected and exhibited by J. H. Hall, Commissioner of the Bureau of Agriculture, Labor, Industry and Publicity, who received the cup as the representative of the State of Montana.

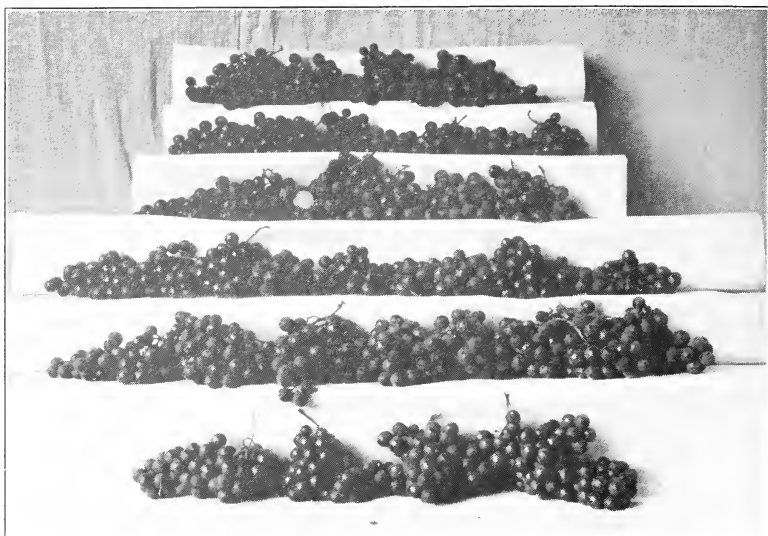
The beautiful cup offered by the O'Donnell Shoe Company for "the best bushel of winter wheat produced in the American Northwest" was awarded to Frank Smart of Bozeman, the wheat being a part of the Gallatin county exhibit.

The cup offered by the St. Paul Association of Commerce for the best sample of barley grown in North Dakota or Montana was awarded to John Klaver, of Manhattan, Montana.

The cup offered by W. A. Campbell for the "most beautiful, elaborate and attractive booth at the show" was won by the Judith Basin exhibit, Fergus county, Montana.

The J. J. Hill cup for the best individual display of potatoes was awarded to Pat Carney, of Waterloo, Madison county, Montana.

At the Minneapolis Land Show, of 1912, a Montana exhibit won the largest prize ever offered for five bushels of wheat. This was a \$5,000 traction engine, and the competition covered the entire American Northwest. Nash & Bridgeman of Clyde Park, Park county, Montana, easily won this big prize, while the second, third and fourth places in the same competition were taken by Montana exhibitors.



**Grape-Growing Is Being Extended in Western Montana.**

The scores of the ten leading contestants were as follows: Nash & Bridgeman, Clyde Park, Montana, 92.1; Peter Deboer, Conrad, Montana, 84.23; J. F. Kane, Conrad, Montana, 81.05; Dick Heun, Conrad, Montana, 80.08; J. V. Skarvoid, Christine, N. D., 79.53; K. F. Ebner, Cando, N. D., 79.03; J. W. McNamara, Amanda, N. D., 75.52; Fred Pietz, Mott, N. D., 73.00; Frand Anderson, Hefner, Ore., 72.61; Josephine Connolly, Power, Montana, 67.8.

Out of the twelve sweepstakes offered at the Dry Farming Congress, in Tulsa, Oklahoma, in 1913, Montana won four. The significance of this victory can be appreciated more fully when it is understood that these prizes were competed for by products from every section of the American continent.

The sweepstakes won by Montana exhibitors were as follows:

First on Turkey Red wheat by Joe Nash.

First on sheaf of hard wheat by Joe Nash.

First on sheaf of alfalfa by Joe Nash.

First on timothy by Pat Carney.

It was, however, at the California expositions in 1915 that the pre-eminent superiority of Montana products was finally demonstrated. These expositions resulted in what was undoubtedly the greatest agricultural competition ever staged in the world. Exhibitors were present not only from practically every state in the Union, but also from the Dominion of Canada, South America, Europe and Asia. The Montana agricultural display, under the direction of Resident Commissioner F. A. Hazelbaker, was the constant center of great throngs of people from every section of the world who expressed amazement at the quality of farm products sent from this state. After the awards were made, samples of Montana prize-winning grains were eagerly sought by foreign representatives for seed purposes, with the result that Montana's participation in these expositions will contribute directly toward better crop production in every part of the world.

The following gives a complete list of the awards made at the Panama-Pacific Exposition to Montana exhibitors:

MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION  
AGRICULTURE.

GRAND PRIZE.

State of Montana .....Helena .....Exhibit of Cereals.

MEDALS OF HONOR.

W. A. Davis Seed Company..Bozeman .....Canadian Field Peas.  
State of Montana .....Helena .....Flax, sheaf and threshed.  
State of Montana .....Helena .....Wheat, sheaf and threshed.  
State of Montana .....Helena .....Oats, sheaf and threshed.  
State of Montana .....Helena .....Grains, sheaf and threshed.  
State of Montana .....Helena .....Barley, sheaf and threshed.  
State of Montana .....Helena .....Exhibit Gen. Agr. Products.  
State of Montana .....Helena .....Flour.  
F. C. Sumner .....Clyde Park. ....Exhibit Grains and Grasses.  
Gust Seigling .....Armington .....Grains and Grasses.  
Montana State Fair.....Helena .....Collection of Potatoes.  
J. L. Dyer .....Helena .....Howard Elliott Potatoes.

GOLD MEDALS.

Bozeman Commercial Club..Bozeman .....Field and Garden Peas.  
Beek and Smith.....Bozeman .....Sheaf Hard Winter Wheat.  
C. F. Bolin.....Rosebud .....Sheaf Turkey Red Wheat.  
Billings Poly. Institute. ....Billings .....Threshed Hog Millet.  
Wm. Bison .....Missoula .....Sheaf Hard Spring Wheat.  
C. M. Barnes .....Hamilton .....Potatoes.  
Douglas Cogdill .....Whitehall .....Sheaf Rye.  
Wm. A. Davis Seed Co. ....Bozeman .....Field and Garden Peas.  
J. L. Dyer.....Helena .....Potatoes.  
E. E. Eiker.....Huntley .....White Dent Corn.  
Carter Edinger.....Dillon .....Potatoes.  
Millard Holman.....Dillon .....Hard Winter Wheat.  
J. A. Grady.....Terry .....Potatoes.  
Robert H. Gattis.....Creston .....Potatoes.  
James Griffin.....Chinook .....Alfalfa Seed.  
Pat Carney.....Waterloo .....Grains and Grasses.  
T. B. Haynes.....Creston .....Winter Emmer.  
W. J. Hartman.....Bozeman .....Threshed Kharkov Wheat.  
Thos. Haynes.....Creston .....Potatoes.  
James A. Jergenson.....Whitehall .....Sheaf White Oats.  
Lewistown Commercial Club..Lewistown .....Grains.  
B. J. Kleinhesslink.....Big Timber .....Hard Winter Wheat.  
Lewistown Commercial Club..Lewistown .....Six Row Barley.  
H. O. Bohn.....Anaconda .....White Oats.  
Mrs. J. K. Lewis.....White Sul. Springs.....Sheaf Hard Spring Wheat.  
Ernest Marks.....Clancy .....Hard Spring Wheat.  
State of Montana .....Helena .....Timothy, sheafed & threshed.  
State of Montana .....Helena .....Alfalfa.  
State of Montana .....Helena .....Potatoes.  
State of Montana .....Helena .....Vegetables.  
State of Montana .....Helena .....Grasses & Forage Crops.  
Hugh McNeil.....St. Ignatius .....Hard Winter Wheat.  
Phil Magee.....Lo Lo .....Threshed Oats.  
J. P. Nash.....Bozeman .....Threshed Marquis Wheat.  
T. T. Nash.....Bozeman .....Hard Spring Wheat.  
R. L. Norris.....Simms .....Winter Emmer.  
Fred Newgard.....Ronan .....Potatoes.  
W. E. Overstreet.....Salesville .....White Oats.  
James Philips.....Dillon .....Potatoes.  
Mrs. Chas. Palmer.....Eureka .....Potatoes.  
H. Platt and Sons.....Como .....Potatoes.  
Frank Robson.....Dillon .....Potatoes.  
H. D. Roub.....Hinsdale .....Potatoes.  
W. E. Scott.....Bozeman .....Potatoes.  
State of Montana .....Helena .....Exhibit Cereal Products.  
D. A. Scollard.....Bozeman .....Sheaf Winter Emmer.  
State Nursery Company.....Helena .....Alfalfa Seed.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### GOLD MEDALS.

Gust Seigling.....	Armington	Sheaf Rye.
S. F. Blakesley.....	White Sul. Springs.....	Sheaf Two Row Barley.
F. C. Sumner.....	Clyde Park.....	Threshed Hulless Barley.
F. C. Sumner.....	Clyde Park.....	Sheaf Winter Emmer.
F. C. Sumner.....	Clyde Park.....	Sheaf White Hulless Barley.
F. C. Sumner.....	Clyde Park.....	Sheaf Two Row Barley.
F. C. Sumner.....	Clyde Park.....	Sheaf White Macar. Wheat.
A. H. Stafford.....	Bozeman	Threshed Marquis Wheat.
Gust Seigling.....	Armington	Sheaf Oats.
F. C. Sumner.....	Clyde Park.....	Flax Seed.
F. C. Sumner.....	Clyde Park.....	Sheaf B. Macaroni Wheat.
F. C. Sumner.....	Clyde Park.....	Hog Millet Seed.
W. V. Talbot.....	Armington	Sheaf B. Macaroni Wheat.
W. V. Talbot.....	Armington	Sheaf Two Row Barley.
Pat Carney.....	Waterloo	Potatoes.
W. V. Talbot.....	Armington	Grains and Grasses.
F. W. Vote.....	St. Ignatius	Six Row Barley.
John Vallence.....	Hamilton	Potatoes.
Montgomery Wisner.....	Bozeman	Threshed Marquis Wheat.
C. S. Wentworth.....	Lewistown	Macaroni Wheat.
Geo. Beckwith.....	St. Ignatius	Sheaf Flax.
E. A. Willard.....	Hardin	Grain and Forage Grasses.
C. L. Wentworth.....	Lewistown	Grains.
O. C. Haynes.....	Miles City	Sheaf Hard Winter Wheat.
R. L. Heaney.....	Glendive	Sheaf White Oats.
C. L. Wentworth.....	Lewistown	Sheaf Winter Emmer.
Durell Whitcraft.....	Race Track	White Oats.
Green Meadow Farm.....	Helena	Netted Gem Potatoes.
Robert Jones.....	Wisdom	Grasses.
Billings Poly. Institute.....	Billings	Threshed Lima Beans.

### SILVER MEDALS.

C. W. Allen.....	Big Timber	Canadian Field Peas.
Joseph Allard.....	St. Ignatius	Sheaf White Oats.
James L. Applebury.....	Corvallis	White Oats.
James L. Applebury.....	Corvallis	Two Row Barley.
James L. Applebury.....	Corvallis	Millet.
James L. Applebury.....	Corvallis	White Hulless Barley.
Wm. Benninger.....	Anaconda	Sheaf Timothy.
Boon and Manlove.....	Anaconda	Timothy
Nels Larsen.....	Bozeman	Threshed Oats
C. F. Bolin.....	Rosebud	Sheaf Oats
E. A. Willard.....	Rosebud	Sheaf Flax
Wm. Benninger.....	Anaconda	Six Row Barley
Billings Poly. Institute.....	Billings	Threshed Navy Beans.
Billings Poly. Institute.....	Billings	String Beans
Chas. F. Bolin.....	Rosebud	Timothy
M. H. Baker.....	Libby	Timothy
Jake Bair.....	White Sul. Springs.....	Timothy.
Wilfred Bisson.....	Missoula	Hard Winter Wheat
J. P. Bartlett.....	Simms	Sheaf Hard Winter Wheat
John Beck.....	Bozeman	Sheaf Scotch Fife Wheat.
C. F. Bolin.....	Rosebud	Sheaf Hard Spring Wheat.
Henry Buckhouse.....	Missoula	Brewing Barley.
B. R. Burch.....	Belgrade	Brewing Barley.
Jos. Chamberlin.....	White Sul. Springs.....	Sheaf Alsike Clover.
N. G. Cunningham.....	Stockett	Hard Winter Wheat.
John Clark.....	Chinook	Macaroni Wheat.
J. R. Cunningham.....	St. Ignatius	Sheaf Grain.
Pat Carney.....	Waterloo	Six Row Barley.
Mrs. Ida Cottrel.....	Florence	Potatoes.
W. V. Talbot.....	Armington	Potatoes.
Henry Cote.....	Missoula	Soft Spring Wheat.



## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### SILVER MEDALS.

Martin Crest	Big Timber	Soft Spring Wheat.
James Chamberlin	White Sul. Springs	Spring Rye.
Agnes Doyen	Miles City	Millet.
Wm. A. Davis Seed Co.	Bozeman	Smooth Garden Peas.
Jacob Doerr	Boulder	White Oats.
Geo. R. Hogan	Bozeman	Marrow Fat Peas.
Chas. W. Jones	Great Falls	Smooth Garden Peas.
Peter Dyk	Manhattan	Two Row Barley.
John Dyk	Manhattan	Two Row Barley.
Hugh Dart	Dillon	Potatoes.
A. M. Day	Anaconda	Winter Emmer.
J. F. Donohoe	Whitehall	Sheaf Alfalfa.
Bert Douglas	Rexford	Potatoes.
Vincent Delmoe	Whitehall	Sheaf Bromus Emermis.
Elmer Daley	Lima	Sheaf Flax.
Vincent Delmoe	Whitehall	Sheaf Alsike Clover.
Tony Deschamps	Missoula	Sheaf White Oats.
Tony Deschamps	Missoula	Threshed Oats.
Romulus Deschamps	Missoula	Turkey Red Wheat.
W. C. Daniels, Jr.	Canton	Soft Spring Wheat.
Agnes Doyen	Miles City	Hard Spring Wheat.
Noah Early	Lavina	Turkey Red Wheat.
E. E. Eiker	Huntley	Northwestern Dent Corn.
E. E. Eiker	Huntley	Pop Corn.
Geo. Edinger	Dillon	Grains.
E. E. Eiker	Huntley	White Flint Corn.
E. E. Eiker	Huntley	Yellow Flint Corn.
Geo. Edinger	Dillon	Sheaf Oats.
Geo. Edinger	Dillon	Oats Threshed.
E. E. Eiker	Huntley	Grains.
Ed. Ekman	Laurel	Potatoes.
W. M. Eckhart	Fort Benton	Hard Spring Wheat.
Thos. Emmelcamp	Manhattan	Threshed Two Row Barley.
Geo. Edinger	Dillon	Threshed Barley.
Geo. Fowlie	White Sul. Springs	Turkey Red Wheat.
A. J. French	Helena	White Oats.
John Fredericks	Libby	Sheaf Alfalfa.
J. C. Ferguson	Riechli	Potatoes.
Robert Fisher	Deer Lodge	Soft Spring Wheat.
G. F. Fleming	Suffolk	Spring Club Wheat.
Robert Fisher	Deer Lodge	Sheaf Oats.
Grant Brothers	Salesville	Sheaf Red Clover.
Leonard Gossett	Libby	White Oats.
Joseph Grenier	St. Ignatius	Sheaf Oats.
L. O. Gault	Whitehall	Spring Rye.
Glendive Chamber of Com.	Glendive	Yellow Flint Corn.
J. F. Hallford	Bozeman	Sheaf White Oats.
T. B. Haynes	Creston	Oats.
W. Hampton	White Sul. Springs	Winter Emmer.
D. E. Hardman	Simms	Sheaf Alfalfa.
Geo. R. Hogan	Bozeman	Forage.
T. B. Haynes	Creston	Grains and Forage Grasses.
Geo. R. Hogan	Bozeman	Bromus Emermis.
L. E. Hines	Bozeman	Sheaf Timothy.
H. M. Gilbertson	Falispell	Threshed Turkey R. Wheat.
Joseph Grenier	St. Ignatius	Sheaf White Fife Wheat.
Geo. R. Hogan	Bozeman	Red Clover Seed.
Viola Hamilton	Libby	Sheaf Alsike Clover.
J. F. Hallford	Bozeman	Sheaf Red Clover.
Chas. Hackman	Missoula	Sheaf Turkey Red Wheat.
J. F. Hallford	Bozeman	Sheaf Club Wheat.
Viola Hamilton	Libby	Soft Spring Wheat.
B. F. Howard Ranch	Libby	Soft Spring Wheat.
Pete Hamel	Missoula	Hard Winter Wheat.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### SILVER MEDALS.

Pete Hamel	.....Missoula	.....Hard Spring Wheat.
M. Irwin	.....Whitehall	.....Hard Winter Wheat.
James Jergenson	.....Whitehall	.....Flax.
Robert Jones	.....Wisdom	.....Sheaf Red Top.
W. C. Jones	.....Wise River	.....Sheaf Red Clover.
James Jergenson	.....Whitehall	.....Soft Spring Wheat.
Mrs. A. O. Jones	.....Bozeman	.....Threshed Swed. Sel. Oats.
J. W. James	.....Anaconda	.....Sheaf Club Wheat.
Lewistown Com. Club	.....Lewistown	.....Sheaf White Oats.
B. J. Kleinhesslink	.....Big Timber	.....Oats.
Lewistown Com. Club	.....Lewistown	.....Sheaf Winter Emmer.
F. W. Korman	.....Saco	.....Potatoes.
Lewistown Com. Club	.....Lewistown	.....Spring Rye.
B. J. Kleinhesslink	.....Big Timber	.....Extracted Honey.
Geo. Linsey	.....St. Ignatius	.....Sheaf Oats.
A. Lonsberry	.....Libby	.....Sheaf Alfalfa.
Pat Lappin	.....Anaconda	.....Oats.
Pat Lappin	.....Anaconda	.....Soft Spring Wheat.
Ernest Monforton	.....Salesville	.....Threshed Marquis Wheat.
O. S. Miller	.....Hardin	.....Sheaf Flax.
Richard Manger	.....White Sul. Springs	.....Sheaf Alfalfa.
R. Milne	.....Big Timber	.....Potatoes.
H. Matt	.....Arlee	.....Threshed Swed. Sel. Oats.
Phil Magee	.....Lo Lo	.....Sheaf Oats.
Geo. Miles	.....Bozeman	.....Sheaf Six Row Barley.
Ernest Monforton	.....Salesville	.....Hard Spring Wheat.
J. P. McKenna	.....Deer Lodge	.....Soft Spring Wheat.
Montgomery Wisner	.....Bozeman	.....Sheaf Marquis Wheat.
E. M. Martinall	.....Dell	.....Sheaf Red Top.
Nash and Wasonaar	.....Bozeman	.....Grains.
Nash and Wasonaar	.....Bozeman	.....Six Row Barley.
Nash and Wasonaar	.....Bozeman	.....Oats.
John Behring	.....Bozeman	.....Hard Spring Wheat.
J. P. Nash	.....Bozeman	.....Oats.
Theo. Nelson	.....Dillon	.....Oats.
Geo. H. Featherly	.....Dillon	.....Sheaf Oats.
R. L. Norris	.....Simms	.....Sheaf Speltz.
R. L. Norris	.....Simms	.....Sheaf Six Row Barley.
R. L. Norris	.....Simms	.....Sheaf Flax.
Nash and Wasonaar	.....Bozeman	.....Flax.
Nash and Wasonaar	.....Bozeman	.....Bromus Eneris.
Nash and Wasonaar	.....Bozeman	.....Winter Rye.
J. P. Nash	.....Bozeman	.....Sheaf Hard Spring Wheat.
J. P. Nash	.....Bozeman	.....White Hulless Barley.
R. L. Norris	.....Simms	.....White Hulless Barley.
Nash and Wasonaar	.....Bozeman	.....Sheaf Two Row Barley.
Thos. Parker	.....Anaconda	.....Sheaf Bromus Emermis.
Joseph Potts	.....Wise River	.....Sheaf Red Clover.
E. P. Pierce	.....Boulder	.....White Oats.
Hiram Platt	.....Como	.....Potatoes.
Perkins Brothers	.....Deer Lodge	.....Grains and Grasses.
F. M. Plummer	.....Libby	.....Sheaf Red Clover.
Alfred Perkins	.....Warm Springs	.....Sheaf White Hulless Barley.
Chas. Reuter	.....Waterloo	.....Bromus Emermis.
Jacob Rehder	.....Missoula	.....Oats.
J. W. Randles	.....Stevensville	.....White Oats.
W. A. Remington	.....Great Falls	.....Threshed Blue Barley.
Ernest Richlie	.....Missoula	.....Potatoes.
Gust Seigling	.....Armington	.....Sheaf 6-Row Barley.
John Ringling	.....White Sul. Springs	.....Sheaf Alsike Clover.
Rummel Bros. & Scott	.....Eureka	.....Sheaf Red Clover.
J. J. Rossman	.....Bozeman	.....Sheaf Hard Winter Wheat.
W. A. Remington	.....Great Falls	.....Threshed Polish Wheat.
Rummel Bros. & Scott	.....Eureka	.....Soft Winter Wheat.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### SILVER MEDALS.

Jacob Rehder	Missoula	Sheaf Rye.
F. C. Sumner	Clyde Park	Threshed Fall Rye.
Wm. C. Smith	Cardwell	Red Top.
Jacob Rehder	Missoula	Wrinkled Peas.
F. C. Sumner	Clyde Park	Sheaf Red Top.
F. C. Sumner	Clyde Park	Sheaf German Millet.
E. A. Scollard	Bozeman	Black Emmer.
F. C. Sumner	Clyde Park	Sheaf Hard Spring Wheat.
F. C. Sumner	Clyde Park	Sheaf Black Hulless Barley.
F. C. Sumner	Clyde Park	Threshed Buckwheat.
F. C. Sumner	Clyde Park	Sheaf Six Row Barley.
F. C. Sumner	Clyde Park	Threshed Black Emmer.
Charles Sherman	White Sul. Springs	Sheaf Oats.
F. C. Sumner	Clyde Park	Prince Royal Oats.
Gust Seigling	Armington	Sheaf Black Hulless Barley.
Gust Seigling	Armington	Sheaf Alfalfa.
F. C. Sumner	Clyde Park	Threshed B. Hulless Barley.
F. C. Sumner	Clyde Park	Sheaf Marquis Wheat.
F. C. Sumner	Clyde Park	Timothy Seed.
F. C. Sumner	Clyde Park	Threshed Peas.
F. C. Sumner	Clyde Park	Alfalfa Seed.
Gust Seigling	Armington	Sheaf W. Hulless Barley.
Gust Seigling	Armington	Sheaf Hard Spring Wheat.
Gust Seigling	Armington	Sheaf Macaroni Wheat.
Gust Seigling	Armington	Sheaf Flax.
Gust Seigling	Armington	Sheaf Turkey Red Wheat
P. D. Scott	White Sul. Springs	Hard Winter Wheat.
R. N. Shay	Laurel	Hard Winter Wheat.
M. P. Sheinfelt	Eureka	Soft Spring Wheat.
J. L. Smith	Pipestone	Macaroni Wheat.
H. L. Sprague	Glasgow	Hard Winter Wheat.
H. L. Sprague	Glasgow	Soft Winter Wheat.
A. H. Stafford	Bozeman	Sheaf Hard Winter Wheat.
Wm. Staferson	White Sul. Springs	Sheaf Hard Spring Wheat.
Wm. Staferson	White Sul. Springs	Six Row Barley.
W. H. Stuart	Boulder	Sheaf Rye.
John Subley	White Sul. Springs	Sheaf Alsike Clover.
W. V. Talbot	Armington	Sheaf Hungarian Millet.
W. V. Talbot	Armington	Sheaf Hog Millet.
W. V. Talbot	Armington	Sheaf German Millet.
W. V. Talbot	Armington	Threshed Peas.
W. V. Talbot	Armington	Alfalfa Seed.
W. V. Talbot	Armington	Sheaf Mammoth Clover.
W. V. Talbot	Armington	Turkey Red Wheat.
W. V. Talbot	Armington	Threshed 60-Day Oats.
W. V. Talbot	Armington	Sheaf B. Hulless Barley.
W. V. Talbot	Armington	Threshed W. Oats.
W. V. Talbot	Armington	Sheaf Scottish Chief Oats.
W. V. Talbot	Armington	Sheaf Big Four Oats.
W. V. Talbot	Armington	Sheaf Kerson Oats.
W. V. Talbot	Armington	Sheaf Six Row Barley.
W. V. Talbot	Armington	Sheaf Alfalfa.
W. V. Talbot	Armington	Sheaf W. Hulless Barley.
Turange Brothers	St. Ignatius	Oats.
Mrs. E. S. Tolliver	Monarch	Native Grasses.
C. H. Valinum	Bridger	Navy Beans.
C. W. Voges	Big Timber	Sheaf W. Oats.
F. W. Vote	St. Ignatius	Sheaf Flax.
E. A. Willard	Hardin	Flax.
E. A. Willard	Hardin	Oats.
G. M. White	Birdseye	Grains and Grasses.
J. T. Wood	Victor	Potatoes.
C. L. Wentworth	Lewistown	Six Row Barley.
Thos. W. West	Havre	Potatoes.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### SILVER MEDALS.

G. M. White.....	Birdseye .....	Oats.
Chas. Warren .....	Boulder .....	White Oats.
E. A. Willard .....	Hardin .....	Sheaf Winter Emmer.
Jacob Zenter .....	White Sul. Springs.....	Sheaf White Oats.
G. W. Whitney .....	Bozeman .....	Sheaf Alsike Clover.
Dr. W. H. Williams.....	Harlem .....	Alfalfa Seed.
C. L. Wentworth .....	Lewistown .....	Sheaf Soft Winter Wheat.
E. A. Willard .....	Hardin .....	Sheaf Hard Winter Wheat.
C. L. Wentworth .....	Lewistown .....	Sheaf Turkey Red Wheat.
C. W. Winslow .....	Whitehall .....	Sheaf Scotch Fife Wheat.
C. L. Wentworth .....	Lewistown .....	Sheaf Hard Spring Wheat.
G. M. White.....	Birdseye .....	Sheaf Hard Spring Wheat.
C. W. Winslow .....	Whitehall .....	Spring Rye.
D. F. Wood .....	Troy .....	Soft Spring Wheat.
G. W. Whitney .....	Bozeman .....	Six Row Barley.
C. L. Wentworth .....	Lewistown .....	Sheaf Two Row Barley.
State of Montana.....	Helena .....	Forestry Products.

### BRONZE MEDALS.

A. L. Applegate.....	Deer Lodge .....	Hard Winter Wheat.
James Applegate .....	Deer Lodge .....	Sheaf Turkey Red Wheat.
James L. Applebury.....	Corvallis .....	Threshed Club Spring Wheat.
C. B. Axtell .....	Salesville .....	Sheaf Bromus Enermis.
James Applebury .....	Corvallis .....	Sheaf Soft Spring Wheat.
James Bair .....	White Sul. Springs.....	Sheaf Alfalfa.
J. P. Bartlett .....	Troy .....	Clover.
Wm. Benninger .....	Anaconda .....	White Hulless Barley.
Wm. Benninger .....	Anaconda .....	Sheaf White Oats.
Wm. Benninger .....	Anaconda .....	Sheaf Alfalfa.
Wm. Benninger .....	Anaconda .....	Sheaf Timothy and Alsike.
C. F. Bolin .....	Rosebud .....	Macaroni Wheat Sheaf.
A. H. Bowman .....	Hardin .....	Timothy.
H. A. Briggs .....	Victor .....	Sheaf Turkey Red Wheat.
G. F. Burch .....	St. Ignatius .....	Sheaf Turkey Red Wheat.
R. M. Calkins, Jr.....	White Sul. Springs.....	Oats.
Pat Carney .....	Waterloo .....	Alfalfa.
Pat Carney .....	Waterloo .....	Clover.
Pat Carney .....	Waterloo .....	Wheat.
T. E. Carney.....	Waterloo .....	Soft Winter Wheat.
Joseph Chamberlin .....	White Sul. Springs.....	Forage Crops.
Joseph Chamberlin .....	White Sul. Springs.....	Red Clover.
Riley Cheeseman .....	Cardwell .....	Soft Spring Wheat.
Joseph Cechlosky .....	Libby .....	Mammoth Clover.
Dr. Copenhagen .....	Helena .....	Comb Honey.
Dr. Copenhagen .....	Helena .....	Extracted Honey.
Richard Collins .....	White Sul. Springs.....	Sheaf Alfalfa.
Ed. Cordry .....	Bozeman .....	Winter Club Wheat.
Henry Cote .....	Missoula .....	Sheaf Hard Winter Wheat.
J. R. Cunningham.....	St. Ignatius .....	Sheaf White Oats.
J. R. Cunningham.....	St. Ignatius .....	Threshed 6-Row Barley.
J. L. Dyer .....	Helena .....	Soft Spring Wheat.
Elmer O. Daley .....	Bynum .....	Hard Spring Wheat.
A. M. Day .....	Anaconda .....	Timothy.
Vincent Delmoe .....	Whitehall .....	Sheaf Timothy.
A. M. Day .....	Anaconda .....	Hard Winter Wheat.
J. L. Dyer .....	Helena .....	White Oats.
Elmer O. Daley .....	Bynum .....	Sheaf Blue Stem Wheat.
E. E. Eiker .....	Huntley .....	Blue Joint.
Geo. Edinger .....	Dillon .....	Threshed Wheat.
J. R. Cunningham.....	St. Ignatius .....	Sheaf Hard Spring Wheat.
Joseph Eichhorn .....	Miles City .....	Sheaf Timothy.
Geo. Edinger .....	Dillon .....	Sheaf Barley.
A. J. French.....	Helena .....	Soft Spring Wheat.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### BRONZE MEDALS.

Henry Fitter .....	Lima .....	Blue Joint.
Chas. Franklin .....	Wise River .....	Sheaf Alsike Clover.
Geo. Fairweather .....	Anaconda .....	Sheaf Red Clover.
Wm. A. Flaherty .....	Cold Spring .....	Red Top.
R. H. Franklin .....	Hardin .....	Millet.
Geo. Fairweather .....	Anaconda .....	Timothy.
John Flaherty .....	Cold Spring .....	Sheaf Timothy.
Wm. Fleming .....	Bozeman .....	Sheaf Timothy.
Wm. A. Flaherty .....	Cold Spring .....	Hard Winter Wheat.
J. A. Gastineau .....	Three Forks .....	Hard Winter Wheat.
Chas. W. Goodall .....	Park City .....	Sheaf Soft Spring Wheat.
J. E. Gordon .....	Silver Star .....	Flax.
J. H. Gordon .....	Silver Star .....	Rye.
J. H. Gordon .....	Silver Star .....	Flax.
Grant Brothers .....	Salesville .....	Threshed Turkey R. Wheat.
Grant Brothers .....	Salesville .....	Forage.
Grant Brothers .....	Salesville .....	Alfalfa.
James Griffin .....	Chinook .....	Macaroni Wheat.
James Griffin .....	Chinook .....	Hard Winter Wheat.
J. E. Gordon .....	Silver Star .....	Soft Spring Wheat.
Jeff Gowen .....	Bozeman .....	Hard Winter Wheat.
Joseph Grenier .....	St. Ignatius .....	Hard Winter Wheat.
Joseph Grenier .....	St. Ignatius .....	Threshed Fife Wheat.
Thos. Haynes .....	Creston .....	Sheaf Alfalfa.
Chas. Hackman .....	Missoula .....	Six Row Barley.
C. A. Hamann .....	Eureka .....	Sheaf Alsike Clover.
Geo. R. Hogan .....	Bozeman .....	Sheaf Alsike Clover.
Geo. R. Hogan .....	Bozeman .....	Sheaf Red Clover.
W. J. Hartman .....	Bozeman .....	Sheaf Turkey Red Wheat.
Thos. Haynes .....	Creston .....	Sheaf Spring Wheat.
T. B. Haynes .....	Creston .....	Macaroni Wheat.
Lellman Hinton .....	Simms .....	Sheaf Red Clover.
Viola Hamilton .....	Libby .....	Sheaf Red Clover.
Geo. R. Hogan .....	Bozeman .....	Sheaf Timothy.
A. C. Herbst .....	Libby .....	Sheaf Timothy.
C. S. Howell .....	Townsend .....	Oats.
Hodgkiss Brothers .....	Choteau .....	Sheaf Hard Spring Wheat.
Pete Hamel .....	Missoula .....	Sheaf Hard Spring Wheat.
W. J. Hartman .....	Bozeman .....	Wheat.
Harmon Brothers .....	Libby .....	White Oats.
Mrs. D. Ingram .....	Dillon .....	Six Row Barley Sheaf.
C. B. Jones .....	Anaconda .....	Timothy.
D. E. Jones .....	Anaconda .....	Bromus Enernis.
Mrs. E. A. Johnson .....	Hamilton .....	Threshed Club Wheat.
Robert Jones .....	Wisdom .....	Sheaf Timothy.
E. A. Jones .....	Hamilton .....	Soft Spring Wheat.
L. V. Jennings .....	Salesville .....	Sheaf Alsike Clover.
W. C. Jones .....	Wise River .....	Sheaf Mammoth Clover.
Orville Jones .....	Bozeman .....	Sheaf Scotch Fife Wheat.
John Kennison .....	Dell .....	Sheaf Timothy.
B. J. Kleinhesslink .....	Big Timber .....	Timothy.
Lewistown Com. Club .....	Lewistown .....	Forage Grasses.
Lewistown Com. Club .....	Lewistown .....	Soft Spring Wheat.
Lewistown Com. Club .....	Lewistown .....	Sheaf Fife Wheat.
Lewistown Com. Club .....	Lewistown .....	Sheaf W. Macaroni Wheat.
Lewistown Com. Club .....	Lewistown .....	Sheaf Blue Stem Wheat.
Lewistown Com. Club .....	Lewistown .....	Millet.
Lewistown Com. Club .....	Lewistown .....	Sheaf Blue Grass.
Lewistown Com. Club .....	Lewistown .....	Bromus Enernis.
John Keifer .....	Bozeman .....	Sheaf Bromus Enernis.
B. J. Kleinhesslink .....	Big Timber .....	Sheaf Timothy.
B. J. Kleinhesslink .....	Big Timber .....	Comb Honey.
G. A. Lewis .....	Bozeman .....	Sheaf Red Clover.
G. A. Lewis .....	Bozeman .....	Sheaf Red Clover.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### BRONZE MEDALS.

Mrs. J. K. Lewis.....	White Sul. Springs .....	Sheaf White Oats.
John Legerue .....	Helena .....	Sheaf Soft Spring Wheat.
Geo. A. Loasby .....	Big Timber .....	Hard Spring Wheat.
Fred McDonald .....	White Sul. Springs.....	Sheaf Turkey Red Wheat.
Hugh McNeill .....	St. Ignatius .....	Soft Spring Wheat.
Ernest McDonald .....	Bozeman .....	Sheaf Timothy.
Geo. Miles .....	Bozeman .....	Sheaf Timothy.
J. MacPherson .....	Anaconda .....	Bromus Enermis.
John L. McFadyen .....	Dillon .....	Sheaf Hard Spring Wheat.
Ernest McDonald .....	Bozeman .....	Sheaf Red Clover.
Dall Moore .....	Wise River .....	Sheaf Red Clover.
Ernest Monforton .....	Salesville .....	Sheaf Marquis Wheat.
Ernest Monforton .....	Salesville .....	Hard Spring Wheat.
Thos. Nash .....	Bozeman .....	Threshed 2-Row Barley.
R. L. Norris.....	Simms .....	Sheaf Alfalfa.
R. L. Norris.....	Simms .....	Spring Rye.
Dr. R. L. Packard .....	Whitehall .....	Sheaf Alfalfa.
Thos. Parker .....	Anaconda .....	Sheaf Orchard Grass.
Perkins Brothers .....	Deer Lodge .....	Bromus Enermis.
Perkins Brothers .....	Deer Lodge .....	Flax.
Joseph Potts .....	Wise River .....	Sheaf Timothy.
Henry J. Ravet .....	Bozeman .....	Sheaf Winter Club Wheat.
Jacob Rehder .....	Missoula .....	Sheaf Alfalfa.
Wm. Repass .....	St. Ignatius .....	Hard Winter Wheat.
John Richardson .....	Raynesford .....	Hard Winter Wheat.
John Ringling .....	White Sul. Springs.....	Sheaf Red Clover.
John Ringling .....	White Sul. Springs.....	Bromus Enermis.
Rummel Bros. and Scott.....	Eureka .....	Sheaf Timothy.
W. A. Sabin .....	St. Ignatius .....	Hard Spring Wheat.
P. Scott .....	White Sul. Springs.....	Forage Grasses.
Gust Seigling .....	Armington .....	Sheaf Grail Fife Wheat.
Gust Seigling .....	Armington .....	Sheaf Two Row Barley.
Gust Seigling .....	Armington .....	Sheaf Bromus Enermis.
Wm. Smith .....	Cardwell .....	Sheaf Two Row Barley.
Wm. Stafferson .....	White Sul. Springs.....	Sheaf Alfalfa.
Wm. Stafferson .....	White Sul. Springs.....	Sheaf Oats.
Wm. Stafferson .....	White Sul. Springs.....	Sheaf Alsike Clover.
F. C. Sumner .....	Clyde Park .....	Threshed B. Macaroni Wheat.
F. C. Sumner .....	Clyde Park .....	Sheaf Kharkov Wheat.
F. C. Sumner .....	Clyde Park .....	Threshed Turkey R. Wheat.
F. C. Sumner .....	Clyde Park .....	Red Clover Seed.
F. C. Sumner .....	Clyde Park .....	Orchard Grass Seed.
F. C. Sumner .....	Clyde Park .....	Sheaf Orchard Grass.
F. C. Sumner .....	Clyde Park .....	Sheaf Bromus Enermis.
F. C. Sumner .....	Clyde Park .....	Sheaf Flax.
F. C. Sumner .....	Clyde Park.....	Threshed Kharkov Wheat.
F. C. Sumner .....	Clyde Park.....	Threshed Kaubauka Wheat.
F. C. Sumner .....	Clyde Park.....	Sheaf Speltz.
W. C. Talbot.....	Armington .....	Threshed Hulless Barley.
W. C. Talbot.....	Armington .....	Sheaf Timothy.
W. C. Talbot.....	Armington .....	Sheaf Blue Joint.
W. V. Talbot.....	Armington .....	Sheaf German Millet.
W. V. Talbot.....	Armington .....	Sheaf Fife Wheat.
W. V. Talbot.....	Armington .....	Sheaf Red Clover.
W. V. Talbot.....	Armington .....	Sheaf Alsike Clover.
Mrs. E. S. Tolliver.....	Monarch .....	Sheaf Millet.
Mrs. E. S. Tolliver.....	Monarch .....	Sheaf Alfalfa.
Mrs. E. S. Tolliver.....	Monarch .....	Sheaf Blue Grass.
Mrs. E. S. Tolliver.....	Monarch .....	Wrinkled Garden Peas.
Mrs. E. S. Tolliver.....	Monarch .....	Sheaf Timothy.
P. N. Thomas .....	Libby .....	Sheaf Timothy.
Major Thompson .....	Bozeman .....	Soft Spring Wheat.
W. S. Thompson.....	Townsend .....	Sheaf Red Clover.
Dick Trueman .....	Wise River .....	Sheaf Elsike Clover.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### BRONZE MEDALS.

Dick Trueman .....	Wise River .....	Sheaf Red Clover.
F. W. Vote .....	St. Ignatius .....	Flax Seed.
Chas. Warren .....	Boulder .....	Soft Spring Wheat.
Louis Webber .....	Bercail .....	Hard Winter Wheat.
C. L. Wentworth.....	Lewistown .....	Sheaf Macaroni Wheat.
C. L. Wentworth.....	Lewistown .....	Sheaf Timothy.
C. L. Wentworth.....	Lewistown .....	Sheaf Flax.
Durell Whitcraft .....	Deer Lodge .....	Sheaf Turkey Red Wheat.
Geo. A. White .....	Helena .....	Sheaf Timothy.
Geo. A. White .....	Helena .....	Sheaf Alfalfa.
G. M. White.....	Birdseye .....	Sheaf Blue Joint.
G. M. White.....	Birdseye .....	Soft Spring Wheat.
Matt M. White.....	Bozeman .....	Sheaf Bromus Enermis.
G. W. Whitney .....	Bozeman .....	Sheaf Bromus Enermis.
G. W. Whitney .....	Bozeman .....	Sheaf Spring Club Wheat.
G. W. Whitney .....	Bozeman .....	Sheaf Red Clover.
E. A. Willard .....	Hardin .....	Sheaf Red Clover.
W. O. Williams.....	Jefferson City .....	White Hulless Barley.
C. C. Willis.....	Plains .....	Timothy.
C. C. Willis.....	Plains .....	Red Top.
C. C. Willis.....	Plains .....	Sheaf Red Clover.
C. W. Winslow.....	Whitehall .....	Sheaf Red Top.
Henry Youngblut .....	Helena .....	Sheaf Club Wheat.
Green Meadow Farm.....	Helena .....	Red River Ohio Potatoes.
Jacob Zentner .....	White Sul. Springs.....	Alsike Clover.
Jacob Zentner .....	White Sul. Springs.....	Exhibit of Forage.
Jacob Zentner .....	White Sul. Springs.....	Bromus Enermis.
Jacob Zentner .....	White Sul. Springs.....	Flax Seed.
John Verwolf .....	Manhattan .....	Hard Spring Wheat.

### HONORABLE MENTIONS.

Bailey and Dorr .....	Hamilton .....	Threshed White Oats.
James Bair .....	White Sul. Springs.....	Sheaf Alsike Clover.
M. H. Baker .....	Libby .....	Sheaf Red Clover.
J. P. Bartlett .....	Troy .....	Timothy.
Wm. Benninger .....	Anaconda .....	Grain.
Wm. Benninger .....	Anaconda .....	Sheaf Red Top.
S. F. Blakesley.....	White Sul. Springs.....	Sheaf Alfalfa.
C. F. Bolin .....	Rosebud .....	Sheaf Grain.
C. F. Bolin .....	Rosebud .....	Sheaf Blue Joint.
C. F. Bolin .....	Rosebud .....	White Top.
A. H. Burns .....	Libby .....	Timothy.
A. H. Burns .....	Libby .....	Sheaf Timothy.
Joseph Cechlosky .....	Libby .....	Sheaf Alsike Clover.
Joseph Chamberlin .....	White Sul. Springs.....	Sheaf Timothy.
Vincent Delmoe .....	Whitehall .....	Sheaf Red Clover.
R. Deschamps .....	Missoula .....	Sheaf Turkey Red Wheat.
J. L. Dyer .....	Helena .....	Sheaf Alsike Clover.
J. L. Dyer.....	Helena .....	Sheaf Flax.
J. L. Dyer.....	Helena .....	Flax Seed.
Elmer O. Daley.....	Bynum .....	Flax Seed.
Joseph Eichhorn .....	Miles City .....	White Top.
Joseph Eichhorn .....	Miles City .....	Sheaf Red Clover.
E. E. Elker .....	Huntley .....	Sheaf Timothy.
Frank Ellis .....	White Sul. Springs.....	Timothy.
Frank Ellis .....	White Sul. Springs.....	Red Top.
Henry Fitter .....	Lima .....	Sheaf Blue Joint.
Henry Fitter .....	Lima .....	Sheaf Timothy.
John Flaherty .....	Cold Springs .....	Sheaf Red Top.
Wm. Fleming .....	Bozeman .....	Red Top.
John Flynn .....	Missoula .....	Timothy.
Joseph Grenier .....	St. Ignatius .....	Forage.
J. F. Hallford .....	Bozeman .....	Grain.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION AGRICULTURE—Continued.

### HONORABLE MENTIONS.

J. F. Hallford	Bozeman	Sheaf Red Top.
Thos. Haynes	Creston	Sheaf Blue Joint.
Geo. R. Hogan	Bozeman	Sheaf Blue Joint.
A. C. Herbst	Libby	Orchard Grass.
A. C. Herbst	Libby	Sheaf Flax.
A. C. Herbst	Libby	Sheaf Alsike Clover.
Robert Jones	Wisdom	Timothy.
James A. Jergenson	Whitehall	Forage.
James A. Jergenson	Whitehall	Sheaf Alfalfa.
Robert Jones	Wisdom	Sheaf Blue Grass.
W. C. Jones	Wise River	Sheaf Alsike Clover.
John Keifer	Bozeman	Sheaf Blue Grass.
Lewistown Com. Club	Lewistown	Sheaf Mammoth Clover.
Lewistown Com. Club	Lewistown	Sheaf Hungarian Grass.
Lewistown Com. Club	Lewistown	Sheaf Orchard Grass.
Lewistown Com. Club	Lewistown	Sheaf Blue Joint.
Pat Lappin	Anaconda	Red Top.
J. E. Lange	Salesville	Blue Grass.
J. E. Lange	Salesville	Sheaf Timothy.
G. A. Lewis	Bozeman	Sheaf Timothy.
Pat Lappin	Anaconda	Timothy.
Richard Manger	White Sul. Springs	Sheaf Timothy.
Richard Manger	White Sul. Springs	Red Top.
E. M. Martinall	Dell	Red Top.
E. M. Martinall	Dell	Sheaf Blue Joint.
C. Mysee	Reed Point	Sheaf Flax.
T. T. Nash	Bozeman	Soft Spring Wheat.
Frank Nelson	Potomac	Timothy.
R. L. Norris	Simms	Grains.
E. W. Overstreet	Salesville	Sheaf Timothy.
Perkins Brothers	Deer Lodge	Timothy.
F. M. Plummer	Libby	Sheaf Alsike Clover.
E. L. Popham	Victor	Sheaf Hard Spring Wheat.
Chas. T. Rader	White Sul. Springs	Sheaf Alfalfa.
R. H. Robinson	Cardwell	Sheaf Blue Grass.
Wm. Savage	Troy	Sheaf Red Clover.
Gust Seigling	Armington	Sheaf Vetch.
Gust Seigling	Armington	Red Top.
Gust Seigling	Armington	Flax.
Thos. Sheridan	White Sul. Springs	Sheaf Timothy.
W. D. Scott	Helena	Sheaf Alfalfa.
H. L. Sprague	Glasgow	Macaroni Wheat.
Wm. Stafferson	White Sul. Springs	Sheaf Red Clover.
Wm. Stafferson	White Sul. Springs	Sheaf Timothy.
D. J. Stephens	Wisdom	Sheaf Bromus Enermis.
D. J. Stephens	Wisdom	Red Top.
John Subley	White Sul. Springs	Sheaf Alfalfa.
F. C. Sumner	Clyde Park	Brome Grass Seed.
F. C. Sumner	Clyde Park	Sheaf Alfalfa.
W. S. Thompson	Townsend	Red Top.
W. V. Talbot	Armington	Sheaf Orchard Grass.
W. V. Talbot	Armington	Sheaf Pringle Cham. Wheat.
Turange Brothers	St. Ignatius	Sheaf Alfalfa.
W. N. Thomas	Libby	Sheaf Alfalfa.
J. C. Walter	White Sul. Springs	Sheaf Alsike Clover.
C. L. Wentworth	Lewistown	Sheaf Alfalfa.
C. L. Wentworth	Lewistown	Sheaf Red Clover.
G. M. White	Birdseye	Red Top.
G. M. White	Birdseye	Sheaf Red Top.
G. M. White	Birdseye	Bromus Enermis.
G. M. White	Birdseye	Sheaf Blue Grass.
G. M. White	Birdseye	White Top.
E. A. Willard	Hardin	Sheaf Blue Joint.
Jake Zentner	White Sul. Springs	Red Top.
P. D. Scott	White Sul. Springs	Sheaf Blue Grass.



MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION  
HORTICULTURE.

GRAND PRIZE.

State of Montana ..... Helena ..... Largest and best display of  
apples exhibited and main-  
tained during the exposi-  
tion.

MEDAL OF HONOR.

Mrs. G. H. Grubb ..... Kalispell ..... Wealthy.

GOLD MEDALS.

State of Montana..... Helena ..... Processed Fruits.  
Hazel Elliott ..... Hamilton ..... King.  
W. E. Grandey..... Whitehall ..... Wealthy.  
T. S. Hood ..... Red Lodge ..... Wealthy.  
Mrs. E. A. Johnson..... Hamilton ..... McIntosh.  
Mrs. Ben Kress..... Hamilton ..... McIntosh.  
F. S. Putnam and Son..... Fromberg ..... McMahan.  
J. B. Taylor..... Hamilton ..... McIntosh.  
J. C. Wood..... Big Fork ..... McIntosh.  
J. C. Wood..... Big Fork ..... King.

SILVER MEDALS.

I. E. Andrus..... Missoula ..... McIntosh.  
I. E. Andrus..... Missoula ..... Wagner.  
T. L. Bateman ..... Ravalli ..... Yellow Bellfleur.  
Franklin Engler..... Victor ..... Lawyer (Delaware Red).  
Franklin Engler..... Victor ..... English Russet.  
Franklin Engler..... Victor ..... Wealthy.  
J. A. Fossum..... Somers ..... Wealthy.  
Hort. Sub Station..... Corvallis ..... Delicious.  
Byron Howell..... Stevensville ..... Lawyer (Delaware Red).  
Mrs. E. A. Johnson..... Hamilton ..... Northwest Apples.  
Mrs. Ben Kress..... Hamilton ..... Wolf River.  
F. E. Kolm..... Lewistown ..... Northwest Apple.  
J. P. Lupton ..... Hamilton ..... Wealthy.  
S. J. MacPherson..... Fromberg ..... Wolf River.  
John Milbank..... Big Fork ..... Delicious.  
F. C. Pickering..... Joliet ..... Northwest Apple.  
C. E. Proctor..... Proctor ..... Banana Apple.  
H. H. Roberts..... Bridger ..... Wolf River.  
L. E. Schadd ..... Billings ..... Wealthy.  
D. E. Showen..... Fromberg ..... Northwest Apple.  
J. B. Taylor..... Wolf River ..... Hamilton.  
Fred Whiteside..... Kalispell ..... McIntosh.  
J. C. Wood ..... Big Fork ..... Rome Beauty.  
J. C. Wood ..... Big Fork ..... Wealthy.  
Jesse Yenny ..... Big Fork ..... Gravenstein.  
Jesse Yenny ..... Big Fork ..... Wealthy.  
State of Montana ..... Helena ..... Baldwin.

BRONZE MEDALS.

I. E. Andrus ..... Missoula ..... King.  
I. E. Andrus ..... Missoula ..... Red Bellfleur.  
I. E. Andrus ..... Missoula ..... Wealthy.  
Jordan Bean ..... Bridger ..... Wealthy.  
Bischoff and Swartz ..... Hamilton ..... Baldwin.  
Wm. Blackie ..... Victor ..... Wealthy.  
Wm. Colbrick ..... Kalispell ..... Senator.

## MONTANA AWARDS AT PANAMA-PACIFIC EXPOSITION HORTICULTURE—Continued.

### BRONZE MEDALS.

T. J. Dudley .....	Fromberg .....	Wealthy.
Franklin Engler .....	Victor .....	Starks.
Richard Gregg .....	Kalispell .....	Esopus (Spitzenburg).

### BRONZE MEDALS.

Mrs. G. H. Grubb .....	Kalispell .....	Ben Davis.
Mrs. E. A. Johnson .....	Hamilton .....	Salome.
Mrs. E. A. Johnson .....	Hamilton .....	Wealthy.
Dr. A. L. Peterman .....	Victor .....	Wealthy.
F. C. Pickering .....	Fromberg .....	Wealthy.
Taylor Sisters .....	Hamilton .....	Northern Spy.
State of Montana .....	Helena .....	Lawyer (Delaware Red).

### HONORABLE MENTIONS.

Mr. Ashby .....	Victor .....	McIntosh.
Como Farms Company .....	Darby .....	King.
Como Farms Company .....	Darby .....	McIntosh.
Como Farms Company .....	Darby .....	Northern Spy.
W. J. Crismas .....	Joliet .....	McIntosh.
C. E. Davenport .....	Hamilton .....	McIntosh.
Mrs. G. H. Grubb .....	Kalispell .....	McIntosh.
Mrs. E. A. Johnson .....	Hamilton .....	Wolf River.
Mrs. E. V. Morgan .....	Fromberg .....	McIntosh Red.
J. B. Taylor .....	Hamilton .....	Gano.
Dr. A. L. Peterman .....	Victor .....	McIntosh Red.
J. B. Taylor .....	Hamilton .....	Jonathan.
J. B. Taylor .....	Hamilton .....	Northern Spy.
J. B. Taylor .....	Hamilton .....	Senator.

## MISCELLANEOUS.

### GOLD MEDALS.

State of Montana .....	Helena .....	Scene portraying Agricultural Activities.
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### SILVER MEDALS.

State of Montana .....	Helena .....	Scene partraying Agricultural Activities.
F. E. Leiberger .....	Kalispell .....	Furs.
Butte Sewer P. & T. Co. ....	Butte .....	Tile and Brick.

### BRONZE MEDALS.

Kenyon Killibug Company .....	Great Falls .....	Bug Poison.
Frank Lemmer .....	Great Falls .....	Taxidermist Work.
C. Cobb .....	Kalispell .....	Taxidermist Work.
F. E. Leiberger .....	Kalispell .....	Taxidermist Work.
E. L. Hillis .....	Anaconda .....	Taxidermist Work.
Engineering Model Works .....	Butte .....	Relief Map.
W. T. George .....	Dillon .....	Map.
A. Schlecten .....	Bozeman .....	Colored Farm and Mountain Scenes.

### HONORABLE MENTIONS.

Thompson and Schoetner .....	Butte .....	Colored Farm and Mountain Scenes.
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RECAPITULATION—AGRICULTURE.

Grand prize .....	1
Medals of Honor .....	12
Gold Medals .....	77
Silver Medals .....	240
Bronze Medals .....	199
Honorable Mentions .....	98
Total Awards in Agriculture at San Francisco Panama-Pacific International Exposition .....	627

RECAPITULATION—HORTICULTURE.

Grand Prize .....	1
Medals of Honor .....	1
Gold Medals .....	10
Silver Medals .....	27
Bronze Medals .....	17
Honorable Mentions .....	14
Total Awards in Agriculture at San Francisco Panama-Pacific International Exposition .....	70

RECAPITULATION—MISCELLANEOUS.

Grand Prize .....	1
Silver Medals .....	3
Bronze Medals .....	8
Honorable Mention .....	1
Total Awards in Agriculture at San Francisco Panama-Pacific International Exposition .....	13

The following shows the awards won by Montana exhibitors at the Panama-California exposition in San Diego:

GRAND PRIZE.

State of Montana.....Helena .....Agriculture.

GOLD MEDALS.

Bozeman Milling Company.....Bozeman .....	General Products.
Great Northern Ry. Co.....St. Paul .....	General Exhibit.
Crystall Graphite Company.....Butte .....	Graphite.
Butte Sewer P. & T. Co.....Butte .....	Pipe and Tile Brick.
Montana State Building.....San Diego .....	Building
State of Montana.....Helena .....	Flax.
State of Montana.....Helena .....	Mineral.
State of Montana.....Helena .....	Alfalfa.
State of Montana.....Helena .....	Barley
State of Montana.....Helena .....	Wheat.
State of Montana.....Helena .....	Oats.
State of Montana.....Helena .....	Wild Grasses.
State of Montana.....Helena .....	Clover.
State of Montana.....Helena .....	Peas.
State of Montana.....Helena .....	Grasses.

RECAPITULATION—SAN DIEGO

Grand Prize .....	1
Gold Medals .....	15
Total awards at Panama-California Exposition at San Diego, 1915.....	16

RECAPITULATION.

of Montana's winnings at Panama-Pacific International Exposition, San Francisco, 1915, and Panama-California Exposition at San Diego, 1915:

	Grand Prize	Medal of Honor	Gold Medals	Silver Medals	Bronze Medals	Honorable Mention
Agriculture, P. P. I. E.....	1	12	77	240	199	98
Miscellaneous .....	..	....	1	3	8	1
San Diego .....	1	....	15	....	....	....
Horticulture, P. P. I. E.....	1	1	10	27	17	14
<b>Total.....</b>	<b>3</b>	<b>13</b>	<b>103</b>	<b>270</b>	<b>224</b>	<b>113</b>
<b>Grand Total .....</b>	<b>726 Awards</b>					

# The Climate of Montana

Contrary to Popular Impression, the Treasure State Is Not in the Arctic Zone; Instead, Its Climate Is the Same as That of the Central States.



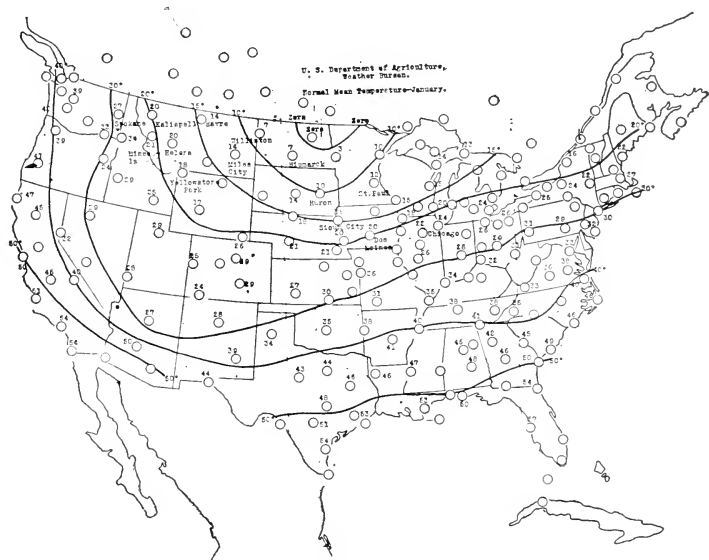
WEATHER conditions in Montana have probably been the basis of more erroneous statements regarding this state than all other causes combined, and those who have endeavored to spread the truth about the Treasure State have had more difficulty in convincing the uninformed that Montana is not in the Arctic zone than in establishing any other fact concerning this commonwealth.

Through one of those not unusual freaks of popular misunderstanding, years ago there spread throughout the land a legend which made a "Montana blizzard" a by-word, a terrible something to be dreaded, to be endured by only the most hardy. Montana winters were pictured as being long and excessively cold, and its summers something to be vainly hoped for. Nothing could be further from the truth, for even in winter, the uncomfortably cold day is the exception rather than the rule in Montana, and the summers and autumns of Montana are the most delightful to be found on the continent.

As a matter of fact, amply verified by the records of the United States weather bureau, Montana has a milder climate than eastern states of the same latitude. In truth, the climate of this state corresponds very closely with that of Iowa and Illinois, with this important exception—while the cold weather in these states is of the damp and penetrating kind, the cold weather in Montana is dry. There is printed on the following page a diagram, prepared by the section director of the United States weather bureau, showing the normal mean January temperature of the United States, with lines drawn on the map through points of equal mean temperature. A glance at this map will show that western Montana has the same mean mid-winter temperature as southern Wyoming, southern Nebraska, and central Iowa; while Central Montana has the same average mid-winter temperature as the southern part of South Dakota, northern Iowa, Illinois, southern Michigan and New York.

In any discussion of Montana climate, however, much consideration must be given the great area of the state and the great range of altitudes here. Montana is two-thirds as large as the German empire; its altitude ranges from the high peaks of the main range of the Rocky Mountains, which crosses the state from north to south, to great areas of plains in the eastern section, and valleys in both the eastern and western sections which are but approximately 2,000 feet above sea-level.

In Montana there are high mountain peaks which reach above the level of perpetual snow; there are sheltered valleys in which the wind scarcely stirs a leaf; there are great plains, level as a floor, and there are many foothills and stretches of rolling



Lines Pass Through Points of Equal Mean January Temperature.

land. All these have their own effect on the climate of the State, making for different temperatures and different weather conditions in different sections of the State. The most pronounced of these diversified conditions is due to the influence of the main range of the Rocky Mountains, on the western slope of which there is, generally speaking, much milder winter weather and considerable more precipitation than on the eastern.

The climate of Montana is conducive to good health. Fogs are practically unknown, and malarial conditions are entirely absent. The winter season is not one of continued cold. Bright, sunny days in December, January and February are the rule rather than the exception. When the State is visited by a snow storm the temperature may drop considerably below zero, but these cold spells are not only infrequent, but are also short, being rapidly modified by what is known as the "chinook" wind, a western breeze, which warmed by the Japanese current in the North Pacific, spreads its modifying influence as far east as the Dakotas.

Montana is blessed with bounteous sunshine, there being sections of the State where an average of more than 300 days of clear weather is experienced each year. The altitude makes for a clear, dry atmosphere, and the disheartening, cloudy, damp day is seldom witnessed here.

Many enthusiastic tributes have been paid Montana's climate. A federal government report contains the following:

"The light snowfall in the valleys throughout the state during the winter months is usually speedily evaporated by the chinook winds which are prevalent from Oregon to Nebraska, from the Peace River to Arizona, being particularly common in Montana, where they do much to modify the climate."

In his book, "The Treasure State," James H. Mills said:

"The average temperature in Montana is about the same as in New York or Penn-



Farmers' Picnic at Moccasin.

sylvania. The snowfall in the valleys is less than in either of those states; there is more sunshine than in any Middle, Eastern or New England state, and the great mountains, ribbed with veins of gold, silver and copper and crowned with majestic forests, are but gigantic framework in which are set great picture valleys, bench lands and foothills, fertile as the Valley of the Nile, and which have never yet refused to yield bounteous harvests when touched by the hand of industry and nourished with water."

Randall J. Condon, superintendent of the public schools of Cincinnati, Ohio, who for some years resided in Helena, has written for a geography used in the public schools, a brief but comprehensive description of Montana. From personal knowledge, he discusses the climate as follows:

"It is doubtful if there is another state in the Union where the climate, taken the year round, is so delightful as that of Montana. Its northern latitude is more than offset by the mild westerly winds, which temper the climate of the mountains and plains and yet do not bring excessive moisture.

"Fogs are almost unknown, and on the days when the temperature is low there is not that penetrating chill which is felt in the more humid states.

"As in any extreme northern state, the thermometer occasionally records a low midwinter temperature, but the cold spells are short. While they remain there is practically no wind; the air is dry and the sunshine clear. The ordinary outdoor occupations may be carried on in winter with little inconvenience. On the other hand, the summer temperatures are never oppressive, and heat prostrations are unknown. The temperature in the middle of the long summer days may rise higher than in the states further south, but with the coming of night the cold mountain breeze brings a delightful change."

The following comparison of the monthly and annual mean temperatures of the states of Ohio, New York, Wisconsin and Montana is of interest:

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Montana	19	22	30	44	53	59	66	65	55	45	31	24	44
Wisconsin	15	16	29	42	56	65	70	67	59	48	32	19	44
New York	22	22	31	44	55	65	69	67	61	49	37	27	46
Ohio	28	27	38	50	61	70	74	71	65	53	41	31	49

The United States weather bureau maintains an up-to-date station in Helena, which collects and compiles climatic records from all parts of the state. Mr. H. F. Alps, the meteorologist in charge of the Montana station, has very kindly submitted the tables which appear on the following pages and which show the monthly mean, minimum and maximum temperatures and the monthly and annual precipitation reported from various parts of Montana during the year 1915:

U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU  
 Monthly Mean Temperatures From January to December, 1915

COUNTIES	STATIONS	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Beaverhead.....	Dillon.....	27.6	33.0	34.6	45.8	51.2	51.0	60.4	62.2	49.6	45.8	36.0	27.9	43.7
Carbon.....	Red Lodge.....	20.3	27.6	29.0	46.2	27.4	50.4	55.0	61.0	47.3	45.2	29.0	22.6	40.1
Cascade.....	Great Falls.....	22.4	31.0	32.5	54.5	53.2	56.6	62.5	70.3	52.6	52.2	35.8	30.6	46.5
Custer.....	Miles City.....	17.6	21.2	22.9	50.8	56.2	61.6	67.5	72.2	56.8	52.4	38.4	27.5	46.4
Dawson.....	Glenaville.....	13.7	21.6	20.0	55.2	56.0	59.9	65.4	70.1	55.0	50.4	36.9	23.9	44.7
Deer Lodge.....	Anaconda.....	24.3	31.0	36.0	47.8	47.2	51.6	57.5	65.2	49.6	47.5	31.1	26.0	42.9
Ferns.....	Lewistown.....	22.0	30.3	31.6	49.4	48.6	52.7	59.6	68.0	46.4	46.0	30.0	26.8	42.6
Flathead.....	Kalispell.....	20.2	28.4	37.1	49.2	51.4	55.8	60.0	69.1	51.4	46.1	32.3	23.3	43.5
Gallatin.....	Bozeman.....	20.4	28.8	33.6	48.4	46.8	51.4	57.3	64.2	49.0	47.5	30.4	22.6	41.7
Granite.....	Phillipsburg.....	24.3	26.0	33.8	46.6	46.9	52.4	59.0	65.8	48.8	44.4	29.0	21.4	41.5
Hill.....	Havre.....	11.4	16.5	24.9	53.6	52.7	56.8	62.4	70.1	51.8	49.2	32.4	24.4	42.2
Jefferson.....	Renova.....	25.8	32.6	24.7	50.6	50.4	54.2	59.9	65.8	52.0	48.9	33.6	26.6	44.8
Lewis and Clark.....	Helena.....	23.6	31.2	37.8	51.8	50.7	55.2	61.1	69.5	52.0	49.7	34.4	27.7	45.4
Lincoln.....	Libby.....	20.1	31.7	40.6	50.8	55.0	59.6	62.4	68.8	54.1	47.4	31.3	21.6	45.3
Madison.....	Norris.....	28.0	35.5	37.8	51.0	49.3	55.7	61.2	68.2	53.6	51.8	36.0	29.6	46.5
Meagher.....	White Sul. Springs.....	22.0	31.3	33.3	53.2	48.5	47.4	52.0	57.4	63.6	48.6	46.5	31.5	42.2
Missoula.....	Missoula.....	18.3	30.8	39.9	49.6	51.5	56.8	62.2	70.8	53.4	45.8	33.0	25.8	44.8
Musselshell.....	Wheaton.....	26.7	31.8	32.7	53.2	51.7	56.0	62.4	68.7	54.2	52.3	34.2	28.0	46.0
Park.....	Clydepark.....	21.5	28.2	34.0	49.2	48.4	51.6	56.6	63.2	49.6	47.8	33.1	24.2	42.3
Powell.....	Ovando.....	15.8	27.0	37.3	48.2	50.0	54.0	59.1	68.0	51.4	46.2	31.6	20.0	42.4
Ravalli.....	Hamilton.....	27.8	35.8	42.6	51.4	53.6	57.0	62.0	68.2	53.6	53.0	33.0	25.2	43.7
Rosebud.....	Forsyth.....	19.6	22.2	29.0	52.8	53.0	56.6	61.2	68.3	54.0	47.5	34.7	25.8	43.7
Sanders.....	Thompson Falls.....	20.7	32.5	34.7	47.7	51.5	56.0	62.6	68.0	51.8	45.5	29.6	22.2	43.7
Sheridan.....	Medicine Lake.....	5.8	15.6	18.2	51.3	51.6	55.6	60.4	65.3	50.8	46.3	27.8	16.2	38.7
Silver Bow.....	Butte.....	23.2	29.8	35.4	48.0	46.4	51.2	58.5	67.1	49.8	45.1	27.4	22.0	52.0
Stillwater.....	Busted.....	24.6	31.2	33.8	51.1	49.2	53.7	59.8	66.0	51.4	52.0	36.8	28.6	44.7
Sweetgrass.....	Big Timber.....	27.4	31.2	36.0	52.2	50.4	54.0	60.1	72.3	56.7	54.0	36.3	29.4	26.7
Teton.....	Conrad.....	17.7	29.9	30.6	52.6	53.9	54.6	59.0	65.0	50.0	46.0	32.0	26.2	43.7
Valley.....	Glasgow.....	7.1	18.4	25.2	54.4	54.7	58.7	64.1	70.6	52.2	50.2	33.6	18.8	42.3
Yellowstone.....	Billings.....	23.4	31.2	35.2	54.3	53.8	57.6	63.6	69.2	54.5	50.3	34.9	29.0	46.4





UNITED STATES DEPARTMENT OF AGRICULTURE WEATHER BUREAU  
Monthly and Annual Precipitation From January to December, 1915

COUNTIES	STATIONS	January	February	March	April	May	June	July	August	September	October	November	December	Annual
		Beaverhead.....	Dillon.....	1.03	0.70	1.68	1.60	5.18	4.60	3.44	0.30	2.51	0.44	1.02
Carbon.....	Red Lodge.....	0.62	0.94	1.68	1.23	4.40	3.65	2.09	2.38	2.58	0.75	1.10	0.88	21.40
Cascade.....	Great Falls.....	0.56	0.53	2.05	0.91	1.20	5.06	5.04	1.67	3.22	0.13	0.32	0.40	21.03
Custer.....	Missoula.....	1.03	1.03	0.21	0.68	0.78	5.84	5.51	2.74	1.38	0.84	1.21	0.89	22.41
Dawson.....	Glendive.....	0.25	0.33	0.07	0.29	3.43	4.14	3.75	0.23	2.45	1.00	1.11	0.47	17.52
Deer Lodge.....	Anaconda.....	0.31	0.26	0.43	0.67	3.09	2.90	1.20	1.48	0.15	1.13	0.69	14.81	
Fergus.....	Lewistown.....	0.65	0.12	0.77	1.17	3.69	5.24	3.76	1.78	1.67	1.11	0.90	0.80	22.50
Flathead.....	Kalispell.....	1.19	1.01	0.59	1.16	1.67	2.09	2.74	0.22	2.04	0.34	1.69	2.00	18.77
Gallatin.....	Bozeman.....	0.91	0.65	1.95	2.60	3.67	4.44	3.91	0.38	3.34	0.62	1.38	1.75	25.00
Granite.....	Phillipsburg.....	0.64	0.39	0.24	1.03	3.07	6.21	3.63	0.79	1.61	0.10	0.65	1.27	19.54
Hill.....	Havre.....	0.67	0.44	0.10	0.24	1.35	3.35	3.17	0.94	2.65	0.42	0.12	0.77	14.22
Jefferson.....	Renova.....	0.52	0.08	0.75	1.36	3.28	4.12	2.09	2.33	1.51	0.16	0.75	0.59	17.54
Lewis and Clark.....	Helena.....	0.37	0.36	0.63	0.93	1.74	5.25	2.88	0.59	2.13	0.33	0.29	0.86	16.36
Lincoln.....	Libby.....	0.89	1.45	0.86	1.64	2.61	0.96	1.09	0.15	1.81	1.32	2.03	2.51	18.42
Madison.....	Norris.....	0.46	0.94	0.60	1.59	4.03	3.97	2.92	2.07	2.58	0.71	1.25	0.56	20.78
Meagher.....	White Sul. Springs.....	0.16	0.00	0.18	0.60	1.33	2.71	1.45	0.95	2.31	0.04	0.17	0.45	13.05
Missoula.....	Missoula.....	0.14	0.08	0.26	1.60	4.56	3.22	2.50	0.95	2.96	0.54	0.72	0.54	18.17
Montana.....	Wheaton.....	0.49	0.32	0.97	0.38	3.05	4.09	4.34	0.29	2.27	T	0.90	0.30	17.40
Park.....	Lydepark.....	0.44	T	0.54	1.33	2.75	3.11	3.34	0.55	2.00	0.17	0.90	0.79	15.92
Powell.....	Orando.....	0.57	0.50	0.47	1.43	4.01	3.03	3.67	0.48	1.41	0.59	0.89	2.05	19.10
Ravalli.....	Hamilton.....	0.16	0.00	0.85	0.44	3.37	3.68	.....	0.75	1.42	1.15	.....	.....	.....
Rosebud.....	Forsyth.....	0.14	0.30	0.03	0.61	2.35	5.61	2.24	3.04	0.70	0.40	0.14	0.10	15.66
Sanders.....	Thompson Falls.....	0.32	1.21	1.36	2.09	3.05	1.20	2.40	0.74	1.59	0.73	2.83	2.50	20.02
Sheridan.....	Medicine Lake.....	0.45	0.35	0.15	0.16	2.90	1.75	3.85	1.39	0.93	1.36	0.99	0.32	14.60
Silver Bow.....	Butte.....	0.48	0.56	0.57	0.66	2.88	4.84	2.33	0.30	1.37	T	1.22	1.52	16.73
Stillwater.....	Busteed.....	0.83	0.08	1.41	1.01	2.06	4.04	1.88	2.03	4.15	0.14	0.95	0.49	19.07
Sweetgrass.....	Big Timber.....	1.25	0.65	1.54	1.37	2.67	4.65	3.54	1.23	3.10	0.10	0.40	0.18	20.68
Teton.....	Conrad.....	0.65	0.01	0.68	0.50	0.85	3.15	.....	.....	.....	.....	0.12	0.27	.....
Valley.....	Glasgow.....	0.99	0.25	0.17	0.14	4.66	2.64	3.17	0.58	1.76	0.50	0.94	0.93	16.73
Yellowstone.....	Billings.....	0.76	0.96	1.07	0.31	2.86	5.22	2.61	1.37	2.42	0.18	1.00	0.66	18.52

# The Nation's Playground

With Two Great National Parks, and Unrivalled Scenic Attractions, Montana Offers Inviting Retreat to Those Seeking Rest and Recreation.



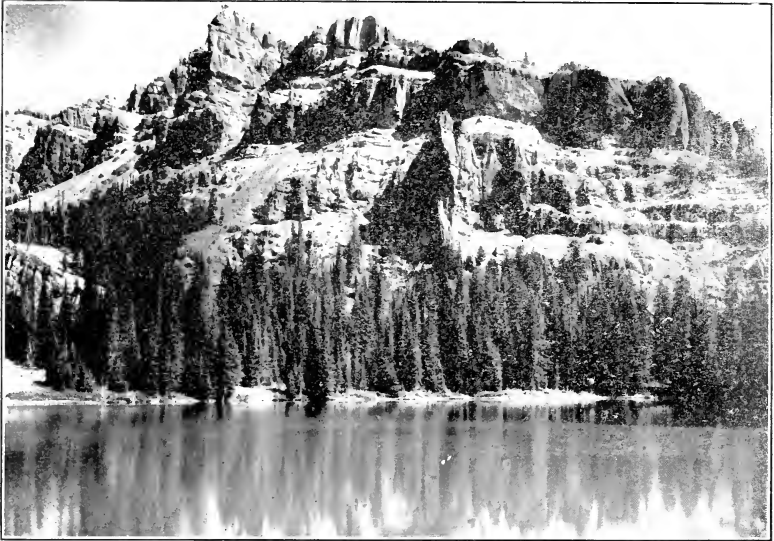
NATURE was in her most generous mood when Montana was in the making; nowhere else was there lavished in such profusion such a wealth of scenic attractions, and while Montana is calling for the homebuilder and the settler, it nevertheless welcomes the casual visitor.

"See America First, and Begin with Montana," is a good rule to follow, and those who have followed this rule unhesitatingly pronounce the Treasure State the playground of the nation. Certainly the state can live up to this appellation, for in no other commonwealth may be found so many and so varied works of Nature which appeal irresistibly to those upon vacation bent. With its wealth of natural scenery, its countless lakes and majestic peaks, its glaciers, its geysers and its wonder-colored canyons, its unlimited supply of fish and game, its great altitudes with their accompanying ideal summer

temperatures, and, last but not least, its superb mountain highways, which bring the great outdoors within easy and comfortable reach of the tourist, Montana indeed offers inviting retreat to those who would, for a day, a week or a month, break away from the commonplace.

It can be truthfully said that a vacation in Montana can be arranged to suit any taste and any purse. Camping parties can spend months in the mountains and on the lakes at a cost which is so small as to be almost negligible. Boon companions may wander for days through primeval forests at the mere expense of coffee and bacon and bread, while the sparkling trout streams serve to make their table a banquet board. On the other hand, those who would retain all the luxuries of civilization while upon their outings may here find magnificent hotels dedicated to their comfort and convenience.

While the lakes and mountains and forests of Montana would of themselves put Montana at the head of the list of recreation places, it is to the two greatest and largest national parks that Montana owes its best known summer attractions. These two great national playgrounds—the Yellowstone and Glacier National Parks—are primarily Montana institutions. Even before the nation was awakened to the importance of reserving these great natural wonders for the benefit and enjoyment of all the people, these parks were vacation and sight-seeing places for the people of Montana. Glacier National Park, containing more than 1,500 square miles and nestling upon the very apex of the continent, is wholly within Montana, while Yellowstone National Park, the oldest and best known of all the national reservations, is reached through this state. The official entrance to this park, an imposing rock arch, dedicated by President Roosevelt, is at Gardiner, Montana, five miles from Mammoth Hot Springs, the administrative headquarters of the great reserve, which contains more



Ram's Horn Lake on the Upper Gallatin.

than 3,500 square miles, while across the park at Yellowstone, Montana, is the western entrance, now vying in importance with its older rival.

The pride which Montana takes in these two great national playgrounds is shown by the building of a magnificent automobile highway, which connects Yellowstone and Glacier National Parks, and which incidentally gives the tourist an entirely new conception of the phrase "See America First."

Between these two parks, this great roadway runs for over four hundred miles along the "backbone of the continent," giving an ever changing vision—the majesty of towering mountains, the sublime of primeval forests, the romantic glamour of great cattle ranches, the busy activity of thriving cities and great industrial enterprises, and the quiet prosperity of rich farm and meadow lands.

Along this highway may be traced the history of the commonwealth. By the roadside may yet be seen the placer miners sluicing gold as the Californian of '49 washed it from the native sands. There may be seen some of the deepest mines and some of the largest smelting and reduction plants in the world. There may be seen the woodsman felling the giant trees and the sawmills which cut them into the lumber of commerce. There may be seen the harnessing of swift and turbulent streams and their conversion into the mystic power which turns the wheels of industry all over an empire teeming with life and activity. There may be seen great traction engines breaking virgin sod that it may be sown to grain, and further beyond may be seen the shack of the homesteader—Montana's newest citizen. And if you care to stop by the side of the road you may angle from the sparkling streams the gamest trout known to the disciples of Isaak Walton, or wandering into the forests you may treat yourself to the spectacle of the greatest and most varied collection of wild game which yet remains in America.



**Mountains and Forests on Upper Middle Creek.**

Along this roadway may be seen in a state of civilization far beyond what the average tourist expects, the remnants of tribes of the aboriginal inhabitants of the western hemisphere. The Indians who formerly roved the plains and hunted buffalo and white men's scalps have been tamed and, yielding to the influence of the white men's way have turned to raising cattle and growing grain, in which more than one Indian has found the way to success which measures large even by the white man's standard.

The mountains and prairies of Montana are prolific in game. In fact, after centuries of relentless hunting by Indians and white men, elk, moose, deer, antelope, Rocky Mountain sheep, Rocky Mountain goats and bear abound. On account of the ruthless slaughter of moose by the Indians and antelope by both races, it has been found necessary to perpetually protect these beautiful animals. Big game hunting which in most parts of the world, is a princely pastime, capable of indulgence only by the very wealthy, may be had in Montana by even the humblest. Despite the slaughter of bison and other large animals by early settlers of the state and relentless hunting by Indians ages before the white man's advent, all game in Montana, with the exception of the American bison, is now increasing under the protection afforded by the game laws and constant patrolling by the members of the state game department. Twenty-five years ago the elk on the northern boundary of the Yellowstone National park did not number one-half as many as they do today and in the north-western part of the state where these animals have never had the protection afforded by the federal authorities, they have more than held their own and are numerically stronger now than twelve years ago.

Unlike some of the eastern states and Canadian provinces the game and fish districts of Montana are not subject to private lease by native or foreign citizens and all of the vast territory of the state, covered by almost 150,000 square miles of prairies,



Near the Head Waters of the Gallatin.

mountains and timbered areas, watered by thousands of lakes and streams, is open to all followers of the sport, subject only to the liberal provisions of the state game laws, which permit the killing in season of all game animals, except moose, antelope, buffalo, bison, caribou, mountain sheep and goats, and elk in certain counties, while the gamest of game fish, trout and grayling, may be taken from the waters at all times of the year with rod, hook and line.

There is not a city or town in the mountainous region which does not yearly contain the carcasses of deer killed within a radius of a few miles of the business sections. Many deer are annually bagged within ten miles of Helena, and the same may be said of Butte, Anaconda, Missoula, Dillon, Livingston, Bozeman, Deer Lodge and Kalispell. Mountain sheep and Rocky Mountain goats are in considerable numbers within a few miles of Anaconda and Deer Lodge. But few states possess the proud and majestic Rocky Mountain sheep. Montana is pre-eminently the abode of the largest number of these magnificent animals in the United States. For the present these beautiful animals are protected by the game laws and are expected to rapidly increase.

From September first of each year, on which date the season opens for ducks and other water fowl, only, until November 30, when the season on all big game closes, the mountains of Montana contain thousands of hunters, some camping for a few days, and others out for a month or six weeks' trip, systematically bagging all the different varieties of birds and animals permitted to be killed under the law. The season on elk and deer is from October 1 to December 15; there being a limit of one per season on the former and two per season on the latter; on grouse, prairie chicken, fool hen, pheasant, partridge, sage hen, with a limit of five per day, from September 15 to October 15, except in the counties of Custer, Dawson, Richland, Sheridan, Valley, Philips, Rosebud, Big Horn, Prairie and Fallon, in which counties the open season



**Bear Hunting is a Favorite Sport in Montana.**

on these birds is from September 1 to October 1; wild ducks, limit twenty per day, and wild geese and brant (no limit) September 1 to January 1.

There is no closed season on bear, which are often the coveted quarry of local and eastern sportsmen, during the months of April, May and the early part of June. At this time, especially during the month of May, the skins are prime. The animals have just finished their winter hibernation. When they first emerge from their long retreat, they are in fairly good flesh and ravenously hungry. Unless they immediately find food in considerable quantity they rapidly lose flesh and soon become thin and gaunt. It is at this time that bear travel over a large area in twenty-four hours in quest of meals and it is especially true of the Grizzly or Silver Tip variety that at this season they are most fierce and seldom seek to avoid an encounter with their natural enemy—man—consequently to the hunter, in addition to procuring pelts in their prime condition, there is the added zest of dangerous sport.

Bear are native to all the mountainous regions of the State, but probably the greatest numbers are found in the counties adjacent to the Yellowstone National Park and in the northwestern portion of Montana, being particularly numerous on the South Fork of the Flathead and Swan rivers, in Powell, Flathead, Missoula and Lincoln counties, where many silver tips and other varieties of the bruin family abound. These regions are also the homes of thousands of elk and deer which may be hunted during the open season, subject only to the provisions of the game laws, which require the possession of the proper hunting license and an observance of the law as to the limit.

While Montana has long been known as the hunter's paradise, the fishing streams are also among the best on the American continent. Here, native to the waters of the eastern side of the continental divide are found millions of toothsome grayling, beautiful game fish, the peacocks of the aqueous realm, which are native to



**American Bison on Reserve at Ravilla.**

only three localities—Montana, Michigan and Alaska. On the western slope of the Rocky Mountains trout abound in great quantities and numerous varieties. To specify the best trout fishing in Montana would be a presumption and more than that it would be largely a guess—there are so many streams and mountain lakes in which abound these gamy specimens of the finny tribe. The Stillwater, Big Boulder of Sweet Grass county, the Upper Yellowstone, the Gallatin and tributaries, the Madison, Red Rock river and lakes, the Big Hole, Silver and Georgetown lakes, Flint creek, Rock Creek, the Big Blackfoot river, Clark's Fork, the Flathead, Stillwater river of Flathead county, the Big river, the Kootenai, the Yakt, the Swan and hundreds of smaller streams throughout the state, together with the lakes of Lincoln and Flathead counties, all afford this most alluring pleasure. An excellent detailed description of the fish streams and game regions of Montana and how best to reach them, written by Mr. Dave Morgan, chief deputy game warden, is published in the first biennial report of the Montana Game and Fish Commission, a copy of which will be forwarded free by this Department upon receipt of four cents' postage.

The game laws require that all males over the age of fourteen years who are resident citizens of this state and who desire to hunt and fish shall first procure a license therefore. This license may be had upon payment of \$1.00 to the state game and fish warden or any salaried deputy or \$1.10 to a justice of the peace or non-salaried deputy. Any person who has not resided in this state for the six months last past, but is a citizen of the United States may procure a non-residents' license, of which there are three classes—the "general" which entitles the holder to hunt large and small game and to fish, and costs \$25; the "limited" which entitles the holder to hunt small and feathered game and to fish, and costs \$10; and "fishing" which entitles the holder to fish only and costs \$2. Any person who is not a citizen of the United States, irrespective of the time he has resided within this state, is entitled to secure an alien license, which is in two classes—"alien general," which entitles the holder to



Fairy Lake on Upper Shields River.

hunt large and small game and to fish and costs \$30; "alien fishing" which entitles the holder to fish only and costs \$5.

Among the natural wonders of Montana, the tourist should not neglect the Lewis and Clark cavern (formerly called Morrison's cave), a limestone cavern of great scientific interest, because of its length and because of the number of large vaulted chambers it contains. It is of historic interest, also, because it overlooks for a distance of more than fifty miles the trail of Lewis and Clark along the Jefferson river, named by them. The vaults of the cavern are magnificently decorated with stalactites and stalagmite formations of great variety in size, form and color, the equal of, if not rivaling, the similar formations in the well known Luray caves in Virginia.

The cavern is located about three-quarters of a mile northeasterly from Cavern, a postoffice in Jefferson county and a station on the Northern Pacific railway, about 45 miles from Butte. The cave may also be reached from the Chicago, Milwaukee & St. Paul station of Alcazar, about two miles distant. The cavern is situated in a massive deposit of what is known as Madison limestone, which at this place dips steeply to the southwest. The various chambers in the cave, as far as explored, extend for a distance of about 700 feet horizontally and 350 feet vertically, but there are many openings and passages that have never been explored. The chambers and passages seem in general to follow the dip of the formation. The cavern is best reached by following the railroad track easterly for about a quarter of a mile and then following a circuitous road or trail about one and a half miles. The mouths of the cavern are 1,300 feet above the railroads and the climb requires about an hour and a half. Its two entrances which are about one hundred yards apart, are upon the walls of a deep canyon about 500 feet below the rim. The Lewis and Clark cavern is a national monument, under the jurisdiction of the Secretary of the Interior.





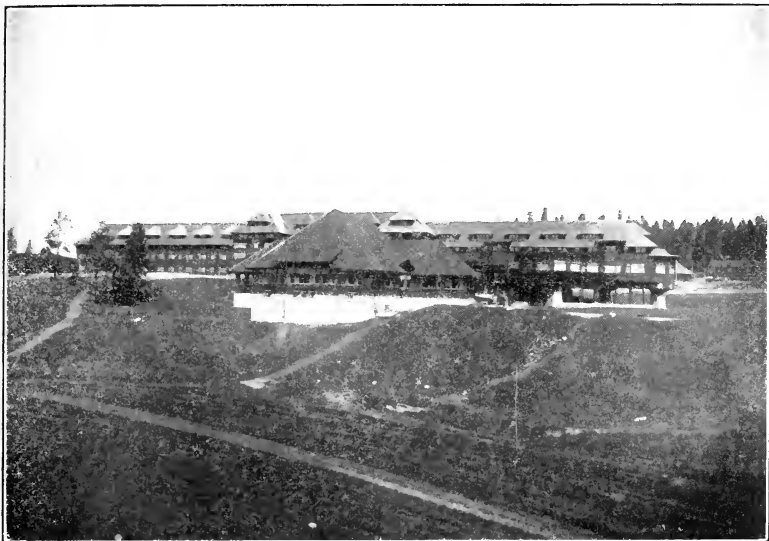


View of Madison River Near Red Bluff.

canyon of the Yellowstone, a mighty river dropping over a precipice of 360 feet and into a chasm, the wonderful coloring of which has baffled every artist who sought to transfer its marvelous tints to canvas.

There are numerous and varied accommodations for those who desire to "do" Yellowstone National Park. The great national playground is open to all the people and the choice of the method of viewing its wonders lies entirely with the individual. Many parties annually go through the park with their own camping "outfits," making the trip as leisurely as they desire, and while enjoying the unusual scenes about them live, in reality, close to nature. Although wild game of all kinds is protected in the park, fishing is allowed in all the streams and in many parts of the park excellent catches may be had. Others patronize the professional camping companies and thus enjoy outdoor life without the expense and worry of providing and caring for their own means of transportation. Many others secure accommodations at the Wylie permanent camps, which company also maintains a line of stages for the transportation of its guests. Another favorite method of seeing the park is to take advantage of the palatial hotels which the Yellowstone Park Hotel Association has erected at various points throughout the park, in close proximity to the scenes of the great natural wonders. The precincts of the park have recently been opened to the automobile, and many tourists annually drive their own cars through wonderland. By following the hotel route the tourist is enabled to reach all points of interest in the park and at the same time to enjoy, between sight-seeing expeditions, all the comforts and conveniences of a metropolitan hostelry, with most excellent cuisine and service.

Those desiring to visit the Yellowstone National Park should go to Livingston, on the main line of the Northern Pacific, from which point a branch line runs up the picturesque Yellowstone to Gardiner. Over this line modern Pullman trains are run twice daily, making the trip to the park as easy and comfortable as a ride on a trans-



**World Famous Hotel at Grand Canyon, Yellowstone National Park**

continental train. Representatives of the various companies holding camping, transportation and hotel concessions in the park may be met on the train and all arrangements made for necessary accommodations. The cost of the park trip is usually between \$35 and \$60, depending upon the character of the accommodation desired. The season is from June 15 to September 15 each year.

Glacier National Park is the newest of the great national playgrounds, having been created by act of congress in February, 1910, and yet so well and favorably known have its attractions become that between June 1 and October 15, 1914, 12,168 visitors registered at its two entrances, Belton and Glacier Park station. The park is located in northwestern Montana and comprises an area of 1,500 square miles. It is bounded on the north by the Canadian border, on the south by the main line of the Great Northern railway, on the west by the north fork of the Flathead river and on the east by the Blackfeet Indian reservation. The main range of the Rocky Mountains extends from north to south throughout the center of the park, and within this region is found a variety of mountain scenery unsurpassed for beauty and grandeur on this continent, and said by those who have seen both countries to excel the famous Alps of Switzerland. Recently Secretary of the Interior Franklin K. Lane, wrote:

"The United States contains Switzerland, the Riviera, the fiords of Norway and the Egyptian desert. This is a flamboyant way of saying a simple fact that there is nothing of natural grandeur or beauty which our people cross the water to enjoy, which has not its rival or superior within this country. And in addition our land is rich in canyons, forests and natural wonders, the like of which the Old World does not present.

"To see the Yellowstone, with its golden canyon and its strange spouting geysers; the emerald lakes of Glacier, gathered in the laps of massive mountains of brilliant red; \* \* \* —to see these is to know 'Nature in her supremest moments.'"

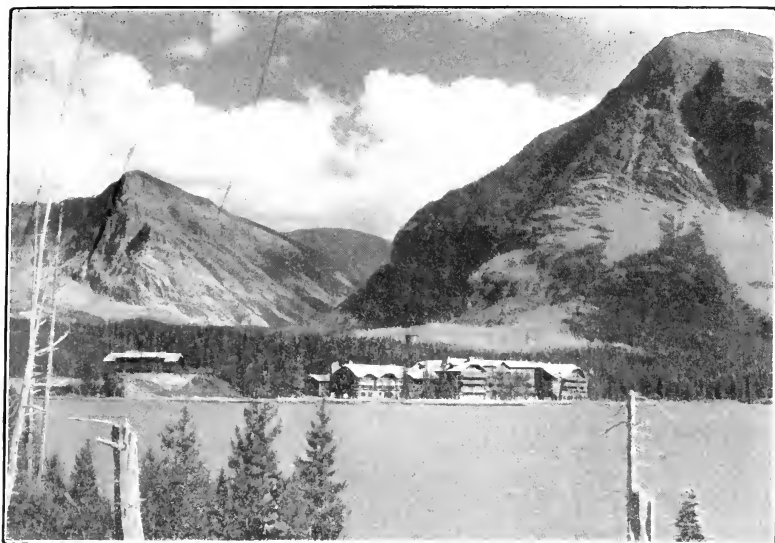


**Two Medicine Lake, Glacier National Park.**

Glacier National Park takes its name from the fact that within its borders are upwards of 60 living glaciers, of which the Blackfoot glacier, covering an area of almost five miles square, is the largest. There are within the park more than 250 mountain lakes, hundreds of wild mountain streams and countless beautiful water falls. There are snow-covered mountain peaks ranging from 8,000 to 10,000 feet in height, a number of which have never been climbed by white men. This region of scenic beauty and scientific wonder is awaiting the tourist, the explorer, the fisherman, the artist, the scientist and the mountain climber, and because of its variety of attractions and ease of access, it is destined to become one of the great playgrounds of the world.

Already much progress has been made toward making it easy for the tourist to see Glacier-land. So rapidly has this been carried on, that it is now possible to penetrate the very heart of the glacier region by automobile, Secretary of the Interior Lane having directed the building of an automobile road to Lake McDermott, where may be found all the comforts and conveniences of a modern city hotel, located in what was until recently one of the most remote and inaccessible recesses of the northwest.

The Great Northern Railway, the officials of which were active in the movement for the setting aside of this great natural reserve, has taken a leading part in providing accommodations for those who desire to view the park. At Glacier Park station, the eastern entrance to the park, a magnificent hotel, costing upwards of \$200,000, and having accommodations for 300 guests, was opened to the public in the spring of 1913, but before the close of the year it was found that this was inadequate to meet the demand, and the construction of an annex, to double the hotel's capacity, was immediately commenced and rushed to completion. This hotel is unique among the inns of the world and deserves more than passing mention. It is constructed of huge logs, and its great lobby, with its campfire in the center, and around which hang



**Many Glacier Hotel, Lake McDermott, Glacier National Park.**

hundreds of bear skins and buffalo skulls and other early-day trophies, is one of the show places of the continent. In addition to this hotel and the one at Lake McDermott, the Great Northern has established comfortable and sanitary permanent camps at easy stages throughout the park. These are gradually being replaced by Swiss chalets, a magnificent example of which is located at Belton, the western entrance to the park.

Many who make the trip through the interior of Glacier Park do so by walking, taking camping equipment with them on pack horses or securing accommodations at the permanent camps. Others go through on horseback, plenty of horses and guides being available during the season. The trip takes the visitor over the continental divide and over some of the largest glaciers and is very popular with those who desire to "rough it." For those who do not care for traveling as hard as this, however, easy and in fact luxurious trips can be made far into the interior of the park from either entrance. From Glacier park station, as stated above, the tourist may penetrate the heart of the glacier region at McDermott lake, using automobiles and steam launches the entire way. From Belton, on the western side, there is an easy stage or auto ride to beautiful Lake McDonald, upon the shores of which are numerous permanent cottages and camps, as well as two modern hotels, both of which were greatly enlarged in 1914 to accommodate the rapidly increasing tourist travel. Long before Glacier National Park was created by congress, Lake McDonald had more than a state-wide reputation as a summer attraction, and many prominent citizens have secured small land holdings on the shores of the lake and spend the entire summer amid these attractive surroundings.

Glacier park is reached only by the main line of the Great Northern railway, being entered either from Glacier Park station, on the eastern border, or Belton, on



**Steamer Passing Through the Narrows, Flathead Lake.**

the western. Trips through the park may be made at a cost of from \$1 to \$10 a day, depending upon the character of the accommodations desired and the number of persons in the party making the trip. Good accommodations may be had at the hotels and permanent camps at the uniform rate of \$3 per day, American plan. The Glacier park season is from June 1 to October 15.

In addition to the two great national parks, there are many other places which invite one to while away vacation hours. Along the shores of Flathead lake, the largest fresh water lake in the country, numerous restful places are to be found. Flathead lake is easily reached from Kalispell, on the Great Northern, or from Ravalli, on the Northern Pacific. Swan lake, near by, is popular with summer colonists.

The famous Kootenai country, stretching through Lincoln county in the north-western corner of the state, attracts many summer visitors, who find restful days in the shadow of the giant pines and along the banks of the wonderfully beautiful lakes and rivers. The Blackfoot valley, in northern Powell county, offers numerous attractions, and is especially popular with Helena and Great Falls people, while the lakes on the Missouri river near Helena, are being rapidly developed into summer resorts. At Helena, also, is the famous Broadwater natatorium, the largest enclosed swimming pool in the world, which annually attracts visitors from all over the country.

These are but a few of the better known places, which appeal to those on vacation bent. There is scarcely a section of the western part of the state, however, in which mountain streams and mountain scenery, are not to be found, and those who want to get away from the beaten paths of summer tourist travel can easily do so by dropping back a few miles, where they can be immersed in solitude.

NEWSPAPER DIRECTORY OF MONTANA.

County and City	Name of Paper	Politics	Printed	Editor	Publisher
<b>BEAVERHEAD</b>					
Dillon	Examiner	Democratic	Wednesday	C. E. Adams	Examiner Printing Co.
Dillon	Tribune	Republican	Friday	F. E. Foote	Tribune Pub. Co.
Wisdom	News	Independent	Thursday	Richard Hathaway	Richard Hathaway.
<b>BIG HORN</b>					
Hardin	Tribune	Independent	Friday	Robert A. Vickers	Vickers and DeTuncq.
<b>BLAINE</b>					
Chinook	Democrat	Democratic	Friday	Ed. T. Pierson.	Ed. T. Pierson.
Chinook	Opinion	Republican	Thursday	H. B. Brooks	Opinion Pub. Co.
Chinook	Equal Tax Advocate	Non-Partisan	Monthly	W. B. Sands	W. B. Sands
Cherry Ridge	News	Independent	Monday	Ed. T. Pierson.	Ed. T. Pierson.
Harlem	News	Democratic	Friday	H. C. Anderson.	H. C. Anderson.
Turner	Advocate	Independent	Monday	Ed. T. Pierson.	Ed. T. Pierson.
Zurich	Promoter	Independent	Saturday	Ed. T. Pierson	Ed. T. Pierson.
<b>BROADWATER</b>					
Townsend	Star	Independent	Wednesday	T. N. Averill	T. N. Averill
Toston	Sun.	Independent.	Friday	Alex. Watkins	Alex. Watkins.
<b>CAREON</b>					
Red Lodge	Journal	Democratic	Wednesday	Chas. H. Draper	Chas. H. Draper.
Red Lodge	Picket	Independent	Friday	Walter Alderson	Walter Alderson.
Bradser	Times	Republican	Friday	J. T. Spencer	J. T. Spencer.
Fromberg	Herald	Independent	Thursday	C. C. Crossen	C. C. Crossen.
Joliet	Independent	Independent	Thursday	Herrick Swan	Herrick Swan.
<b>CASCADE</b>					
Great Falls	Tribune	Democratic	Daily & Wednesday	W. M. Bole	The Tribune, Inc.
Great Falls	Leader	Republican	Daily & Weekly	E. I. Coney	The Leader Co.
Great Falls	Montanan	Independent	Thursday	E. N. Southall	The Montanan Co.
Great Falls	Mining Farmer	Agricultural	Friday	H. P. Griffin	R. M. Husham
Great Falls	Trade Journal	Independent	Monthly	H. P. Rahan	Tribune Printing Co.
Great Falls	Equity News	Non-Partisan	Thursday	C. F. Lowrie	Amer. Soc. of Equity.
Great Falls	Indian Posten	Independent	Friday	H. Schmidt	Norwegian Press Co.
Belt	Belt Valley Times	Republican	Thursday	R. H. Bemis	Belt Valley Times Co.
Cascade	Courier	Democratic	Friday	Chas. W. Tierney	William F. Berger.
Geyser	Times	Independent	Friday	C. E. Dudley	C. E. Dudley.
Simms	Enterprise	Ind. Dem.	Friday	Fred Schoenigel	Fred Schoenigel.
<b>CHOUTEAU</b>					
Fort Benton	River Press	Republican	Daily & Weekly	W. K. Harber	River Press Pub. Co.
Fort Benton	Independent	Republican	Friday	H. H. Kreis	B. H. Kreis.
Big Sandy	Sentinel	Democratic	Friday	D. F. Swenson	D. F. Swenson.
Big Sandy	Mountaineer	Republican	Thursday	H. S. Flint	H. S. Flint.
Carter	Herald	Democratic	Wednesday	Eliz. B. Sessions	Eliz. B. Sessions.
Geraldine	Review	Democratic	Saturday	C. E. Shawler	C. E. Shawler.
Highwood	Herald	Independent	Thursday	D. F. Swenson.	D. F. Swenson.
Loma	Leiger	Independent	Friday	Robert W. Mackie	Robert W. Mackie.
Square Butte	Tribune	Independent	Friday	Robert W. Mackie	Robert W. Mackie.
<b>CUSTER</b>					
Miles City	American	Democratic	Thursday	G. F. Aultmann	American Print. Co., Inc.
Miles City	Star	Republican	Daily	Jos. D. Scanlan	Independent Prtg. Co.
Miles City	Yellowstone Journal	Progressive	Daily	S. Gordon	Journal Pub. Co.
Miles City	Independent	Republican	Friday	Jos. D. Scanlan	Independent Prtg. Co.
Miles City	Stockgrowers Journal	Progressive	Wednesday	S. Gordon	Journal Pub. Co.

NEWSPAPER DIRECTORY OF MONTANA—Continued.

County and City	Name of Paper	Politics	Printed	Editor	Publisher
CHATELAIN—Continued.					
Miles City	Boys Messenger	Non-Partisan	Monthly	The Boys	State Industrial School
Ismay	Journal	Ind. Rep.	Friday	H. W. Wilson	H. W. Wilson
PAWSON					
Glendive	Yellowstone Monitor	Democratic	Thursday		E. A. Martin
Greene	Independent	Republican	Tuesday	J. R. Widmyer	J. R. Widmyer
Glendive	Review	Republican	Thursday	H. T. Allen	H. T. Allen
Brundage	Banner	Democratic	Friday	Rep. M. Larson	Rep. M. Larson
Circle	Kedwater Valley Pioneer	Ind. Dem.	Saturday	F. S. Kellert	F. S. Kellert
Edwards	Times	Independent	Saturday	Shelton Ullerton	Shelton Ullerton
Hamblin	Enterprise	Ind. Dem.	Saturday	L. E. Thompson	L. E. Thompson
Jordan	Gazette	Democratic	Thursday	Jos. T. Parker	Jos. T. Parker
Faxton	Plot	Independent	Thursday	Forest Gaines	Forest Gaines
Sand Springs	Prairie Preezes	Democrat	Saturday	W. H. Gibson	P. L. Watson
DEER LODGE					
Anaconda	Standard	Democratic	Daily	C. H. Eggleston	W. A. Power, Mgr.
FALLON					
Baker	Fallonia	Democratic	Thursday	B. H. Tipton	B. H. Tipton
Baker	Scout	Republican	Friday	Louis A. Conser	Louis A. Conser
Bozeman	Enterprise	Democratic	Friday	Wm. O'Shaughnessy	Wm. O'Shaughnessy
Bozeman	Blaze	Democratic	Friday	T. B. Damagan	T. B. Damagan
Edkalaka	Enterprise	Republican	Friday	O. A. Dahl	O. A. Dahl
Ollie	Enterprise	Democratic	Friday	Darrell B. Bague	Darrell B. Bague
Pineale	Leader	Democratic	Thursday	Chas. S. Finsel	Chas. S. Finsel
Plevna	Herald	Independent	Friday	George J. Buegel	George J. Buegel
FERGUS					
Lewistown	Democrat-News	Democratic	Daily	E. G. Ivins	Democrat News Co.
Lewistown	Fergus Co. Democrat	Democratic	Thursday	E. G. Ivins	Democrat News Co.
Lewistown	Herald	Republican	Friday	J. A. Gilhuly	J. A. Gilhuly
Corvise Creek	Journal	Democratic	Wednesday	Curtis Burns	Curtis Burns
Denton	Record	Democratic	Thursday	John S. Turford	John S. Turford
Denton	Review	Democratic	Thursday	J. W. Altizer	J. W. Altizer
Grass Range	Independent	Independent	Thursday	F. B. Ellsworth	Guy L. Scott
Grass Range	Review	Independent	Thursday	R. B. Yrooman	J. M. Yrooman
Huger	Herald	Democratic	Saturday	A. R. Thompson	A. R. Thompson
Hobson	Judith Basin Star	Independent	Thursday	J. A. Raiff	A. L. Radtke
Moccasin	Dispatch	Independent	Thursday	Chas. A. Burdick	Chas. A. Burdick
Moore	Independent	Republican	Thursday	J. B. Thompson	J. B. Thompson
Roy	Enterprise	Democratic	Thursday	Ed. R. Johnson	A. R. Thompson
Stanford	World	Democratic	Thursday	W. R. Henderson	W. R. Henderson
Valentine	News	Democratic	Thursday	G. F. Budweiser	G. F. Budweiser
Windham	Leader	Independent	Friday	C. H. Smith	C. H. Smith
Winifred	Times	Democratic	Friday	R. F. Cranston	R. F. Cranston
Winnet	Times	Democratic	Wednesday	E. V. Alexander	E. V. Alexander
FLATHEAD					
Kalispell	Bee	Democratic	Tues. & Friday	Fred Whitfield	Bee Pub. Co.
Kalispell	Journal	Democratic	Thursday	G. M. Houtz	G. M. Houtz & Son
Kalispell	Times	Republican	Thursday	H. L. Knight	Knight and Sons
Kalispell	Interlake	Progressive	Daily	G. B. Scott	Interlake Pub. Co.



NEWSPAPER DIRECTORY OF MONTANA—Continued.

County and City	Name of Paper	Politics	Printed	Editor	Publisher
FLATHEAD—Continued.					
Big Fork	Arctician	Independent	Friday	H. A. Huff	H. A. Huff
Columbia Falls	Columbian	Independent	Thursday	C. E. Clemens	C. E. Clemens
Layton	Leader	Democratic	Weekly	R. H. Copeland	R. H. Copeland
Polson	Courier	Republican	Thursday	C. P. Cowman	C. P. Cowman
Whitefish	Pilot	Democratic	Tuesday & Friday	F. R. Tallman	F. R. Tallman
GALLATIN					
Bozeman	Chronicle	Democratic	Daily and Thursday	Jas. P. Bole	Chronicle Pub. Co.
Bozeman	Courier	Republican	Wednesday	C. C. Davis	Henry F. Sears
Bozeman	Exponent	Non-Partisan	Friday	Robert B. Streets	Republican Courier Co.
Bozeman	Journal	Independent	Thursday	M. S. Carpenter	Bozeman Journal Co.
Chandler	Journal	Republican	Thursday	Maude Woodward	Chas. M. Woodward
Three Forks	News	Democratic	Thursday	W. C. Ballard	Three Forks Pub. Co.
Three Forks	Herald	Independent	Thursday	P. S. Dorsey	P. S. Dorsey
GRANITE					
Phillipsburg	Mail	Republican	Friday	Lawrence Hauck	Lawrence Hauck
Drummond	News	Independent	Thursday	Chas. E. Anderson	Chas. E. Anderson
HILL					
Hayre	Hill Co. Democrat	Democratic	Saturday	J. K. Bramble	J. K. Bramble
Hayre	Plainsdealer	Republican	Saturday	S. V. B. Williams	Hayre Plainsdealer
Hayre	Promoter	Republican	Daily	R. W. Lewis	R. W. Pierson
Box Elder	Valley Press	Independent	Friday	P. H. Hersey	P. H. Hersey
Chester	Democrat	Democratic	Friday	P. Van Horne	C. P. Van Horne
Fresno	Sentinel	Democratic	Saturday	M. H. Casey	M. H. Casey
Gilford	Tribune	Democratic	Friday	J. T. Casey	J. T. Casey
Greeness	Review	Independent	Friday	Berkley Walker	Berkley Walker
Helena	Independent	Independent	Friday	R. B. McNeil	R. E. McNeil
Helena	Times	Democratic	Thursday	Axel Olsson	Axel Olsson
Kremhn	Chancellor	Democratic	Friday	Matt H. Casey	Matt H. Casey
Rudyard	Dispatch	Democratic	Friday	G. H. Cormany	G. H. Cormany
Shimpon	Border Call	Democratic	Friday	C. E. Evans	J. T. Casey
JEFFERSON					
Boulder	Monitor	Independent	Saturday	H. R. Young	H. R. Young
Whitehall	Jefferson Valley News	Independent	Thursday	F. C. Fessenden	F. C. Fessenden
LEWIS AND CLARK					
Helena	Independent	Democratic	Daily	Will A. Campbell	Independent Pub. Co.
Helena	Record Herald	Republican	Daily and Thursday	P. E. Spidson	Record Pub. Co.
Helena	Progressive	Progressive	Thursday	O. H. F. Shelby	Pro. Pub. Co.
Helena	States-Zeitung	Independent	Friday	Dr. Karl Weiss	W. W. Steink & Farm. Inc.
Helena	Stockman & Farmer	Agricultural	Semi-monthly	Wm. L. Foster	W. W. Steink & Farm. Inc.
Helena	Montana	Patrolman	Monthly	Charles Beard	Waldman Stein
Helena	Messenger	Non-Partisan	Monthly	F. R. Bateman	Naegel & Co.
Helena	Montana Churchman	Religious	Monthly	A. B. Casteel	F. R. Bateman
Helena	Montana Banker	Financial	Monthly	A. B. Casteel	F. R. Bateman
Helena	Treasury Star	Mining	Thursday	P. F. Wilkinson	H. T. Mock
Augusta	Times	Progressive	Friday	Will J. Rendall	Will J. Rendall
Gilman	Optimist	Democratic	Friday	A. J. Hedrix	A. J. & H. A. Hedrix
LINCOLN					
Libby	Western News	Democratic	Thursday	Jas. E. Stevens	Kennedy & Lang
Libby	Kootenai Times	Republican	Wednesday	C. G. Campbell	C. G. Campbell
Bureau	Journal	Independent	Thursday	Oscar F. Wolf	Oscar F. Wolf
Troy	Echo	Republican	Friday	B. N. Kennedy	B. N. Kennedy

## NEWSPAPER DIRECTORY OF MONTANA—Continued.

County and City	Name of Paper	Politics	Printed	Editor	Publisher
MADISON					
Virginia City	Madisonian Times	Independent	Friday	T. E. Castle	Madisonian Pub. Co.
Sheridan	Forum	Democratic	Friday	C. H. Browne	C. H. Browne
Twin Bridges	Monitor	Independent	Thursday	H. A. Moore	Jos. T. Shea
MEEVER					
White Sulphur Springs	Republican	Ind. Rep.	Friday	M. E. McKay	M. E. McKay
Hardlowton	Hardlowton Press	Democratic	Friday	T. J. Johns	F. E. Johns
Hedgesville	Herald	Prohibition	Thursday	H. N. McConnelley	H. N. McConnelley
Judith Gap	Journal	Non-Partisan	Friday	Lytle A. Cowan	Lytle A. Cowan
MINERAL					
Superior	Mineral Co. Press	Democratic	Thursday	Ross Hargrave	Ross Hargrave
Superior	Mineral Independent	Democratic	Thursday	Ray Cole	Ray Cole
MISSOULA					
Missoula	Missoulian	Pro. Rep.	Daily	Jos. M. Dixon	Missoulian Pub. Co.
Missoula	Sentinel	Independent	Daily	French T. Ferguson	Missoulian Pub. Co.
Missoula	New Northwest	Independent	Friday	E. B. Craighead	E. B. Craighead
Missoula	Montana Kalmou	Non-Partisan	Tues. & Thurs.	Emmet Thorndun	Students of University
Missoula	Konali	Non-Partisan	Semi-monthly	Arthur Jacobson	Missoulian Pub. Co.
Missoula	Inter-Mountain Educator	Educational	Monthly	M. J. Eloff	Wm. G. Ferguson, Mgr.
Missoula	Montana Motorist	Good Roads	Monthly	Leslie M. Wood	Wm. G. Ferguson, Mgr.
Ronan	Pioneer	Independent	Friday	E. H. Rathbone	E. H. Rathbone
St. Ignatius	Post	Independent	Friday	A. W. Nelson	Post Pub. Co.
MUSKELSHIELL					
Roundup	Tribune	Democratic	Thursday	C. V. Woodard	Roundup Tribune Co.
Roundup	Record	Republican	Friday	A. W. Eiseleth	A. W. Eiseleth
Lavina	Independent	Independent	Friday	Evan Lee	Evan Lee
Melstone	Messenger	Independent	Friday	J. H. Jesser	J. H. Jesser
Mussashell	Advocate	Independent	Friday	W. W. Holmes	M. W. Stockwell
Regate	Reporter	Independent	Thursday	Chas. H. Allan	Chas. H. Allan
PARK					
Livingston	Enterprise	Independent	Daily	W. J. McMahon	Livingston Pub. Co.
Lyde Park	Herald	Independent	Friday	H. C. Kenyon	H. C. Kenyon
Wilsall	Shields Valley Record	Republican	Thursday	Oscar H. Lee	Oscar H. Lee
PHILLIPS					
Madia	Chall	Democratic	Friday	F. R. Flint	P. R. Flint
Madia	Enterprise	Republican	Thursday	Henry A. Johnson	Henry A. Johnson
Poolson	Montana Idea	Democratic	Friday	C. C. Mills	C. C. Mills
Saco	Independent	Republican	Friday	W. D. Miller	W. D. Miller
POWELL					
Over Lodge	Silver State	Democratic	Thursday	Joseph Smith, II	Joseph Smith, II
Over Lodge	Post	Democratic	Friday	C. E. Aspling	C. E. & J. S. Aspling
PRAIRIE					
Terry	Tribune	Republican	Friday	E. H. McDowell	E. H. McDowell
Terry	Messenger	Independent	Thursday	Harry L. Smith	Harry L. Smith
Mildred	Forum	Democratic	Thursday	R. C. Marks	R. C. Marks
RAVALLI					
Hamilton	Ravalli Co. Record	Democratic	Thursday	J. E. Shoudy	J. E. Shoudy
Hamilton	Western News	Democratic	Tuesday and Friday	Miles Romney	Miles Romney

NEWSPAPER DIRECTORY OF MONTANA—Continued.

County and City	Name of Paper	Politics	Printed	Editor	Publisher
RAVALLI—Continued.					
Hamilton	Rayvill Republican	Republican	Friday	J. C. Conkey	J. C. Conkey.
Stevensville	Northwest Tribune	Ind. Dem.	Friday	J. R. Paulds	J. R. Paulds.
Stevensville	Register	Non-Partisan	Thursday	Bruce Wells	Bruce Wells.
RICHLAND					
Sidney	Herald	Independent	Friday	Harry G. Ketcham	Harry G. Ketcham.
Edin	Richland Co. Chief	Independent	Saturday	Clemmens & Owens	Clemmens & Owens.
Enid	Echo	Republican	Thursday	Geo. S. Walker	Geo. S. Walker.
Fairview	Times	Democratic	Thursday	E. C. Hicks	E. C. Hicks
Lambert	Promoter	Independent	Thursday	Sam F. Jarvis	Sam F. Jarvis.
Savage	Yellowstone Valley Star	Republican	Thursday	M. A. Frissell	M. A. Frissell.
ROSEBUD					
Forsyth	Democrat	Democratic	Thursday	Jack McCausland	McCausland & Patton
Forsyth	Times Journal	Democratic	Thursday	E. J. Fleming	Times Journal Co.
Hysham	Echo	Independent	Thursday	W. T. Sherman	W. T. Sherman.
Ingoniat	Index	Democratic	Thursday	Geo. D. Skinner	Geo. D. Skinner.
Rosebud	Record	Democratic	Friday	Mrs. M. L. Knappson	H. P. Knappson.
Rosebud	Record	Democratic	Friday	C. H. Folk	C. H. Folk.
SANDWICH					
Thompson	Sanders Co. Leader	Republican	Friday	A. W. Thayer	A. W. Thayer and and Ray S. Conger.
Thompson	Independent Enterprise	Independent	Friday	W. E. Murrer	W. E. Murrer.
Canias	Sanders Co. Signal	Independent	Friday	Alex. R. Rhone	Alex. R. Rhone.
Dixon	Herald	Independent	Friday	G. A. Williams	G. A. Williams.
Plains	Plainsman	Independent	Friday	Guy Stratton	Guy Stratton.
SHERIDAN					
Plentywood	Sheridan Co. News	Democratic	Friday	Geo. W. Tilton	Geo. W. Tilton.
Plentywood	Plainsdealer	Democratic	Friday	Geo. Weatherhead	Geo. Weatherhead.
Plentywood	Herald	Republican	Friday	C. S. Nelson	C. S. Nelson.
Antelope	Independent	Democratic	Friday	Geo. Weatherhead	Geo. Weatherhead.
Bainville	Valley Tribune	Republican	Thursday	A. S. Hier	A. S. Hier.
Brookton	Bulleth	Democratic	Thursday	Dale Curran	Lucy A. Curran.
Culbertson	Searchlight Republican	Republican	Friday	F. S. Reed	F. S. Reed.
Dooley	Sun	Democratic	Friday	W. R. Vezina	W. R. Vezina.
Flaxville	Sentinel	Democratic	Friday	W. E. Johnson	W. E. Johnson.
Flaxville	Democrat	Democratic	Friday	P. A. Paulsen	P. A. Paulsen.
Honolulu	Thorne	Independent	Friday	A. R. Butler	A. R. Butler.
Honolulu	Sheridan Co. Sunbeam	Republican	Friday	Jos. F. Dolin	Jos. F. Dolin.
Madoc	Wanderer	Democratic	Thursday	Burley N. Bowler	Jos. F. Forbald.
Medicine Lake	Wave	Republican	Thursday	John H. Paulsen	Jos. F. Paulsen.
Medoc	Messenger	Democratic	Saturday	C. W. Drake	C. W. Drake.
Mondak	Yellowstone News	Republican	Thursday	C. W. Drake	C. W. Drake.
Outlook	Promoter	Democratic	Thursday	John L. Burns	John L. Burns.
Poplar	Standard	Democratic	Thursday	Linden O. Johnson	Linden O. Johnson.
Redstone	Review	Republican	Thursday	Clayton K. Reed	Clayton K. Reed.
Westby	News	Pro. Rep.	Friday	R. V. Simmons	R. V. Simmons.
Whitetail	Courier	Democratic	Saturday	L. J. Doerr	L. J. Doerr.
Wolf Point	Herald	Democratic	Friday	C. M. Hanson	C. M. Hanson.
SILVER BOW					
Butte	Miner	Democratic	Daily and Thursday	J. L. Dobell	Butte Miner Co.
Butte	Independent	Democratic	Saturday	J. B. Mulcahy	J. B. Mulcahy.
Butte	Daily Post	and Rep.	Daily & Semi-Weekly	J. H. Durston	Inter-Mountain Pub. Co.
Butte	Montana Socialist	Socialist	Saturday	Board of Directors	Socialist Pub. Co.
Butte	Tribune Review	Republican	Saturday	Sam M. Roberts	Gates & Roberts.
Butte	Montana-American	Independent	Friday	Lyon E. Conroy	Lyon E. Conroy.
Butte	Republican	Republican	Weekly		

## NEWSPAPER DIRECTORY OF MONTANA—Continued.

County and City	Name of Paper	Politics	Printed	Editor	Publisher
<b>STILLWATER</b>					
Columbus	Stillwater Co. Democrat	Democratic	Saturday	Walter L. Hurd	Shouwen & Hurd
Columbus	News	Republican	Thursday	James T. Amitt	James T. Amitt
Park City	Pioneer	Ind. & Dem.	Friday	Francis T. Ellis	Francis T. Ellis
Reed Point	Review	Independent	Friday	Charles M. Smith	Charles M. Smith
Absookor	Enterprise	Independent	Friday	Mrs. L. O. Edmunds	Mrs. L. O. Edmunds
<b>SWEETGRASS</b>					
Big Timber	Pioneer	Republican	Thursday	Jerome Williams	Jerome Williams
<b>TETON</b>					
Choteau	Montanan	Republican	Friday	C. E. Trescott	C. E. Trescott & So
Choteau	Ancilla	Independent	Wednesday	Max E. Bishop	Max E. Bishop
Brady	Chizee	Democratic	Thursday	W. F. Aldrich	W. F. Aldrich
Byrum	Herald	Non-Partisan	Thursday	W. H. Patrick	W. H. Patrick
Conrad	Independent	Democratic	Thursday	T. A. Busey	T. A. Busey
Conrad	Observer	Republican	Thursday	John F. Ferguson	John F. Ferguson
Cut Bank	Pioneer Press	Republican	Friday	Daniel Whetstone	Daniel Whetstone
Dutton	Southb.	Independent	Friday	W. R. Lathrop	W. R. Lathrop
Field	Times	Democratic	Tuesday	Fred Schoonsgel	Fred Schoonsgel
Valley	Vanderbilt	Republican	Friday	H. F. Latonger	H. F. Latonger
<b>TOOLE</b>					
Shelby	Promoter	Democratic	Friday	C. G. Bishop	C. G. Bishop
Dillon	Register	Democratic	Saturday	J. E. Kavanaugh	J. E. Kavanaugh
Eldridge	World	Republican	Saturday	F. W. Egerton	F. W. Egerton
Galtica	Journal	Republican	Thursday	Henry O. Woare	Henry O. Woare
Sweet Grass	Advocate	Independent	Friday	E. R. Holderby	E. R. Holderby
<b>VALLEY</b>					
Glasgow	Democrat	Democratic	Friday	Paul E. McGovern	Paul E. McGovern
Glasgow	Comer	Republican	Friday	T. J. Hocking	T. J. Hocking
Glasgow	Valley Co. News	Pro. or Ind.	Tuesday and Friday	W. E. Rhodes	Rhodes Printing Co.
Bar	World	Democratic	Friday	Frank Tooke	Frank Tooke
Baylor	World	Independent	Friday	Paul S. Paulsen	Paul S. Paulsen
Gleneta	Reporter	Democratic	Friday	Joe A. Whetstone	Joe A. Whetstone
Thomson	Thomson	Democratic	Friday	Frank Tooke	Frank Tooke
Northern	North	Republican	Thursday	Raymond K. Sore	Raymond K. Sore
Northern	Outlook	Democratic	Friday	Charles C. Coy	Charles C. Coy
Oswayo	Valley Co. Reporter	Democratic	Thursday	Mamm & Skare	Mamm & Skare
Tango	Tribune	Democratic	Friday	Charles L. Coy	Charles L. Coy
<b>WIBAUX</b>					
Wibaux	Pioneer	Democratic	Friday	Ray L. Linder	Wibaux Pioneer Co.
Wibaux	Beaver Valley Gazette	Republican	Thursday	Charles E. White	Charles E. White
<b>YELLOWSTONE</b>					
Billings	Evening Journal	Democratic	Daily	J. M. Kennedy	Gazette Printing Co.
Billings	Times	Democratic	Thursday	M. C. Morris	M. C. Morris & Sons
Billings	Gazette	Republican	Daily & Semi Weekly	W. W. Gall	Gazette Printing Co.
Broadview	Bulletin	Democratic	Friday	E. L. Hull	G. A. Waterman
Broadview	Independent	Independent	Weekly	Sherman & Stevens	Sherman & Stevens
Huntley	Journal	Independent	Friday	H. P. Switzer	Journal Pub. Co.
Laurel	Outlook	Independent	Wednesday	Gelph & Price	Gelph & Price

## Progress of Montana Agriculture

(All figures from the year books of the U. S. Department of Agriculture.)

### SIXTEEN YEARS' GROWTH IN WHEAT.

Year	Acres	Bu. per Acre	Production	Value
1900	72,555	26.6	1,929,963	\$ 1,177,277
1901	88,807	26.5	2,353,386	1,576,769
1902	90,583	26.0	2,355,158	1,460,198
1903	98,735	28.2	2,784,327	1,837,656
1904	108,608	23.9	2,596,731	2,311,091
1905	119,469	23.8	2,843,326	2,018,787
1906	137,389	24.0	3,297,336	2,110,295
1907	139,000	28.8	4,003,000	3,243,000
1908	153,000	24.2	3,703,000	3,185,000
1909	350,000	30.8	10,764,000	9,364,000
1910	480,000	22.0	10,560,000	9,081,000
1911	429,000	28.7	12,299,000	9,470,000
1912	803,000	24.1	19,346,000	12,381,000
1913	870,000	23.8	20,673,000	13,644,000
1914	910,000	20.2	18,356,000	16,704,000
1915	1,275,000	26.5	33,825,000	26,384,000

### SIXTEEN YEARS' GROWTH IN POTATOES.

Year	Acres	Bu. per Acre	Production	Value
1900	4,781	134	640,654	\$ 339,547
1901	.....	.....	.....	.....
1902	11,521	153	1,762,713	881,356
1903	12,904	176	2,271,104	999,286
1904	13,162	143	1,882,166	1,148,121
1905	13,668	120	1,642,560	969,110
1906	14,099	152	2,143,048	1,307,259
1907	18,000	150	2,700,000	1,350,000
1908	20,000	138	2,760,000	1,932,000
1909	25,000	180	4,500,000	2,295,000
1910	25,000	120	3,000,000	2,550,000
1911	27,000	150	4,050,000	2,997,000
1912	37,000	165	6,105,000	2,442,000
1913	36,000	140	5,040,000	3,377,000
1914	37,000	140	5,180,000	3,315,000
1915	39,000	155	6,045,000	3,022,000

### SIXTEEN YEARS' GROWTH IN FLAX.

Year	Acres	Bu. per Acre	Production	Value
1901	16	13.7	200	\$ 268
1902	12,500	9.0	112,500	76,500
1903	12,625	14.0	176,750	106,050
1904	9,334	8.0	74,672	70,938
1905	16,570	10.0	165,700	135,874
1906	24,855	12.0	298,260	298,260
1907	34,000	13.0	436,000	353,000
1908	9,000	11.5	104,000	104,000
1909	10,000	12.0	120,000	192,000
1910	60,000	7.0	420,000	1,008,000
1911	425,000	7.7	3,272,000	5,890,000
1912	460,000	12.0	5,520,000	6,182,000
1913	400,000	9.0	3,600,000	4,140,000
1914	320,000	8.0	2,560,000	3,072,000
1915	180,000	10.5	1,890,000	3,213,000

## Progress of Montana Agriculture—Continued

(All figures from the year books of the U. S. Department of Agriculture.)

### SIXTEEN YEARS' GROWTH IN CORN.

Year	Acres	Bu. per Acre	Production	Value
1900	1,598	15.0	23,970	\$ 14,172
1901	3,095	25.0	77,375	69,638
1902	3,714	22.0	81,708	58,830
1903	3,788	24.1	91,291	56,660
1904	3,902	22.2	86,624	58,904
1905	3,941	19.4	76,455	51,989
1906	3,980	23.4	93,132	60,536
1907	4,000	22.5	90,000	61,000
1908	4,000	23.4	94,000	85,000
1909	5,000	35.0	175,000	150,000
1910	8,000	23.0	184,000	175,000
1911	20,000	26.5	530,000	424,000
1912	24,000	25.5	612,000	428,000
1913	28,000	31.5	882,000	679,000
1914	50,000	28.0	1,400,000	1,064,000
1915	70,000	28.0	1,960,000	1,352,000

### SIXTEEN YEARS' GROWTH IN OATS.

Year	Acres	Bu. per Acre	Production	Value
1900	65,865	39.0	2,568,735	\$1,078,869
1901	147,365	42.0	6,189,330	2,228,159
1902	159,154	41.9	6,668,553	2,400,679
1903	162,337	46.4	7,532,437	2,636,353
1904	167,207	37.7	6,303,704	2,899,704
1905	178,911	41.3	7,389,024	3,177,280
1906	196,802	43.2	8,501,846	3,740,812
1907	240,000	49.0	11,760,000	5,410,000
1908	254,000	41.6	10,566,000	5,177,000
1909	300,000	51.3	15,390,000	6,464,000
1910	350,000	38.0	13,000,000	6,118,000
1911	425,000	49.8	21,165,000	8,466,000
1912	476,000	48.0	22,848,000	7,997,000
1913	500,000	43.5	21,750,000	6,960,000
1914	530,000	35.0	18,550,000	7,234,000
1915	600,000	52.0	31,200,000	9,984,000

### SIXTEEN YEARS' GROWTH IN BARLEY.

Year	Acres	Bu. per Acre	Production	Value
1900	5,194	38.8	201,527	\$ 96,773
1901	16,398	39.0	639,522	364,528
1902	17,874	37.0	661,338	337,282
1903	18,231	40.2	732,886	425,074
1904	17,502	29.9	523,310	324,452
1905	15,227	33.0	512,491	281,395
1906	14,313	33.0	472,329	264,504
1907	17,000	38.0	646,000	400,000
1908	25,000	35.0	875,000	534,000
1909	50,000	38.0	1,900,000	1,197,000
1910	52,000	28.0	1,456,000	903,000
1911	31,000	34.5	1,070,000	728,000
1912	39,000	36.5	1,424,000	755,000
1913	60,000	31.0	1,860,000	893,000
1914	70,000	30.5	2,135,000	1,132,000
1915	80,000	34.0	2,720,000	1,306,000

## FIFTEEN YEARS' OF MONTANA CATTLE.

Year	Milk Cows		Other Cattle	
	No. of Head	Value	No. of Head	Value
1902	52,380	\$2,101,486	1,048,559	\$28,560,233
1903	53,951	1,953,026	1,059,045	20,563,797
1904	55,030	1,809,455	1,048,455	19,314,006
1905	61,634	2,098,638	964,579	17,352,775
1906	65,948	2,308,180	916,350	18,134,570
1907	69,000	2,484,000	879,000	17,580,000
1908	75,000	3,300,000	905,000	19,910,000
1909	80,000	3,720,000	842,000	23,071,000
1910	77,527	3,407,090	865,620	24,067,032
1911	85,000	4,122,000	813,000	22,439,000
1912	91,000	4,495,000	732,000	21,814,000
1913	95,000	5,795,000	717,000	27,533,000
1914	104,000	7,332,000	753,000	34,939,000
1915	114,000	8,550,000	791,000	38,759,000
1916	129,000	9,998,000	894,000	45,058,000

## MONTANA'S CONTRIBUTION TO THE WORLD'S MEAT SUPPLY.

The following table shows the number of head of Montana beef cattle shipped to markets out of the state in each of the years noted:

Year	No. of Head	Year	No. of Head
1885	70,089	1900	160,055
1886	119,620	1901	151,986
1887	82,134	1902	230,000
1888	167,602	1903	210,573
1889	123,880	1904	288,775
1890	174,035	1905	267,966
1891	250,000	1906	276,722
1892	203,000	1907	214,642
1893	279,158	1908	241,320
1894	302,655	1909	255,178
1895	206,460	1910	243,662
1896	254,864	1911	205,873
1897	252,162	1912	188,675
1898	232,225	1913	180,000
1899	203,499	1914	158,623
		1915	173,936

## SIXTEEN YEARS' OF MONTANA WOOL.

Year	No. of Sheep Shearing Age	Average Weight of Fleece	Shrinkage Per Cent	Wool	
				Washed and Unwashed	Wool Scoured
1900	3,717,160	7.00	63	26,020,120	9,627,444
1901	4,526,517	6.75	63	30,553,990	11,304,976
1902	5,081,000	7.00	63	35,567,000	13,159,790
1903	5,100,000	6.00	63	30,600,000	11,322,000
1904	5,576,000	6.75	64	37,773,000	13,598,280
1905	5,200,000	7.25	66	37,700,000	12,818,000
1906	4,940,000	7.25	65	35,815,000	12,535,000
1907	4,600,000	6.70	63	30,820,000	11,403,400
1908	4,600,000	7.00	64	32,200,000	11,592,000
1909	5,000,000	7.00	63	35,000,000	13,300,000
1910	4,800,000	7.00	64	33,600,000	12,096,000
1911	4,650,000	7.50	64	34,875,000	12,903,750
1912	4,300,000	7.25	62	31,175,000	11,846,500
1913	4,200,000	7.50	63	31,500,000	11,655,000
1914	3,869,000	7.80	63	31,177,000	11,165,490
1915	3,725,000	7.7	62	28,682,000	10,899,160

## FIFTEEN YEARS' OF MONTANA HORSES.

Year	Number of Head		Value
	On Farm and Range		
1902	246,570		\$ 7,251,264
1903	244,104		8,988,890
1904	236,781		9,084,698
1905	239,149		10,352,765
1906	291,970		18,379,534
1907	292,000		21,316,000
1908	304,000		19,760,000
1909	319,000		25,520,000
1910	315,956		27,115,764
1911	344,000		29,928,000
1912	347,000		30,189,000
1913	354,000		32,922,000
1914	372,000		37,944,000
1915	391,000		33,626,000
1916	430,000		36,980,000

## FIFTEEN YEARS' OF MONTANA MULES.

Year	Number of Head		Value
	On Farm and Range		
1902	3,424		\$131,784
1903	3,390		161,552
1904	3,424		195,754
1905	3,561		237,526
1906	3,917		314,939
1907	4,000		328,000
1908	5,000		415,000
1909	5,000		510,000
1910	4,174		445,278
1911	4,000		428,000
1912	4,000		364,000
1913	4,000		436,000
1914	4,000		424,000
1915	4,000		392,000
1916	4,000		392,000

## FIFTEEN YEARS' OF MONTANA SWINE.

Year	Number of Head		Value
	On Farms		
1902	51,745		\$ 560,916
1903	54,850		496,941
1904	57,592		467,071
1905	59,896		512,111
1906	62,891		578,597
1907	66,000		660,000
1908	68,000		680,000
1909	75,000		758,000
1910	99,261		858,000
1911	124,000		1,290,000
1912	143,000		1,416,000
1913	153,000		1,821,000
1914	184,000		2,190,000
1915	276,000		2,981,000
1916	298,000		2,682,000



## Montana's Contribution to World's Mineral Wealth

Mining was Montana's first industry and the taking of precious and semi-precious metals from the bowels of the earth is even yet in its infancy. In 1915 the mineral production of the state reached a new high water mark when the total value of the gold, silver, copper, lead and zinc taken from Montana mines reached the stupendous sum of \$87,000,000. That this record will be greatly exceeded in 1916 is apparent and it is conservatively estimated that this year's mineral output will be in excess of \$140,000,000.

The following table shows the mineral production of Montana by years:

Year	Gold	Silver	Copper	Lead	Zinc	Totals
1862 to 1881.....	\$200,000,000	\$ 11,000,000	\$ .....	\$ .....	\$ .....	\$ 211,000,000
1882 .....	2,550,000	4,370,000	1,539,860	.....	.....	8,459,860
1883 .....	1,800,000	6,000,000	3,452,960	226,424	.....	11,479,384
1884 .....	2,170,000	7,000,000	5,386,500	246,326	.....	14,802,826
1885 .....	3,400,000	11,500,000	6,779,800	274,350	.....	21,954,150
1886 .....	4,402,000	13,849,000	5,761,200	491,132	.....	24,526,332
1887 .....	5,978,536	17,817,548	8,853,750	607,662	.....	33,257,496
1888 .....	4,200,253	15,790,736	15,103,946	569,160	.....	35,664,095
1889 .....	3,500,000	19,393,939	13,334,970	456,975	.....	36,685,884
1890 .....	3,300,000	20,363,636	16,630,958	964,089	.....	43,029,827
1891 .....	2,890,000	20,139,394	14,377,336	1,229,027	.....	38,635,757
1892 .....	2,891,386	22,432,323	19,105,464	990,035	.....	45,419,208
1893 .....	3,576,000	21,858,780	16,630,958	946,089	.....	43,029,827
1894 .....	3,651,410	16,575,458	17,233,718	730,551	.....	38,191,137
1895 .....	4,327,040	22,886,992	21,114,869	754,360	.....	49,083,261
1896 .....	4,380,671	20,324,877	25,356,541	670,010	.....	50,732,099
1897 .....	4,496,431	21,730,710	26,798,915	928,619	.....	53,954,675
1898 .....	5,247,913	19,159,482	26,102,616	809,056	.....	51,319,067
1899 .....	4,819,157	21,786,835	40,941,906	909,410	.....	68,457,308
1900 .....	4,736,225	18,482,211	39,827,135	701,156	.....	63,746,727
1901 .....	4,802,717	18,334,443	36,751,837	498,622	.....	60,387,619
1902 .....	4,400,095	17,662,285	24,606,038	332,749	.....	46,961,167
1903 .....	4,590,516	17,097,702	28,200,695	387,445	.....	50,276,355
1904 .....	5,097,786	18,887,227	36,410,310	195,525	.....	60,590,848
1905 .....	4,889,234	17,359,912	48,165,277	227,160	.....	70,677,583
1906 .....	4,469,014	8,027,072	56,105,288	254,390	.....	68,855,764
1907 .....	3,286,212	6,149,619	44,021,758	198,660	.....	53,656,249
1908 .....	3,057,640	5,488,785	33,220,149	193,056	77,080	42,036,710
1909 .....	3,791,510	6,436,931	40,567,541	128,287	505,425	51,429,694
1910 .....	3,730,486	6,567,942	36,170,686	180,677	1,708,462	48,358,253
1911 .....	3,710,571	6,351,794	34,105,963	289,421	2,497,178	46,955,287
1912 .....	3,625,235	7,829,597	51,106,914	335,104	1,857,403	64,754,613
1913 .....	3,493,432	8,346,797	44,613,448	481,176	4,965,693	61,900,546
1914 .....	4,117,911	6,645,102	31,019,542	376,584	5,690,608	7,849,747
1915 .....	4,978,300	7,195,600	60,000,000	550,000	14,500,000	87,000,000

\$334,259,870 \$491,393,627 \$929,704,782 \$17,138,558 \$32,311,241 \$1,804,585,246

The following shows the number of tons of coal produced in Montana by years:

Years	Production (Tons)
1901 .....	1,442,569
1902 .....	1,502,115
1903 .....	1,514,538
1904 .....	1,471,504
1905 .....	1,743,771
1906 .....	1,502,200
1907 .....	2,030,564
1908 .....	1,978,347
1909 .....	2,541,679
1910 .....	2,970,246
1911 .....	2,913,406
1912 .....	3,143,799
1913 .....	3,365,712
1914 .....	2,938,671
1915 .....	2,789,755

## Montana's Most Prosperous Year

On September 1, every indication was that 1916 would be Montana's most prosperous year. The bureau of crop estimates of the United States Department of Agriculture reported that crop conditions were excellent and that the growing acreage, with the exception of one grain, was larger than ever before. With prospective high prices for farm products there was every indication that Montana farmers were to have the best year in their history.

The same degree of optimism pervaded the mining industry. The European war had the effect of establishing exceptionally high prices for copper and zinc and the mines of the state have for months been increasing their production.

The indications were, on the date mentioned, that during 1916 the farms, ranges and mines of Montana would send to the markets of the world products valued in excess of \$255,000,000, an average production of more than \$300 in new wealth for every man, woman and child in the State.

The following table compiled from the latest available information, indicates the value of the various products of Montana which will go to market in 1916:

### AGRICULTURE.

Wheat	\$36,000,000
Oats	12,000,000
Flax	5,000,000
Barley	2,000,000
Corn	2,000,000
Rye	150,000
Hay	17,000,000
Potatoes	4,100,000
Sugar Beets	1,500,000
Apples	700,000
Other Fruits	300,000
Vegetables	1,250,000
Total Agricultural	\$82,000,000

### LIVESTOCK.

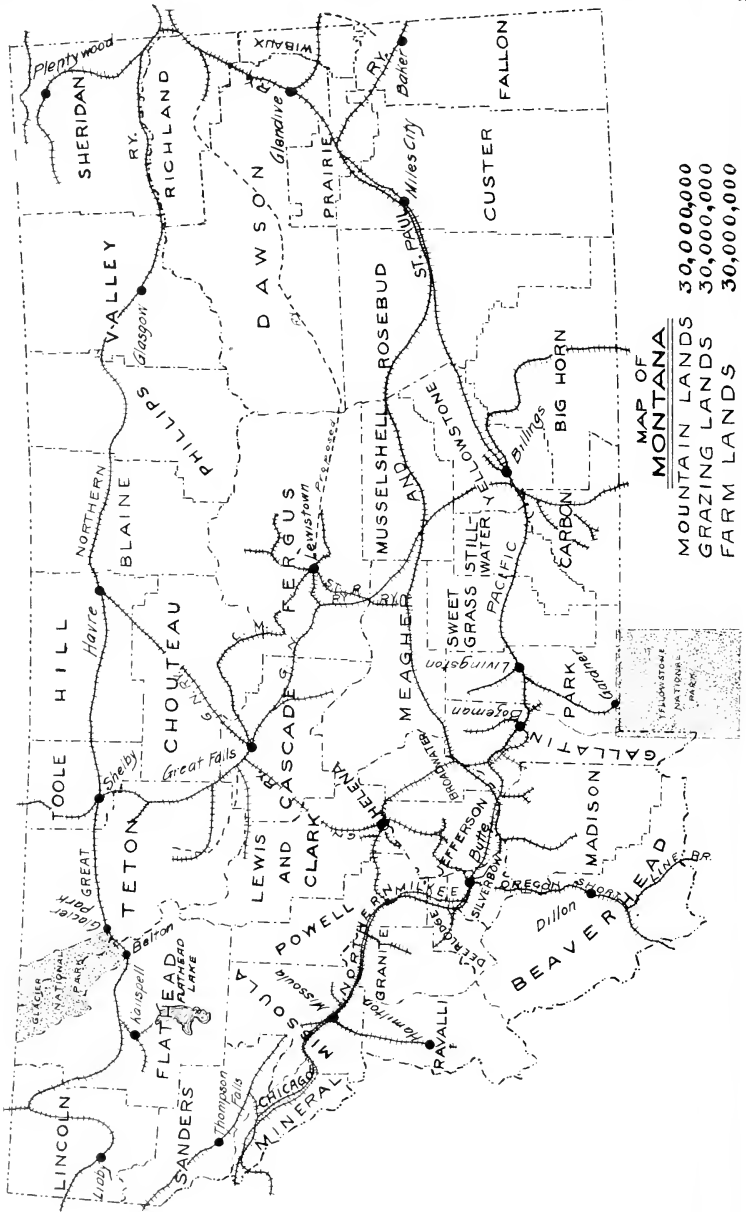
Beef Cattle	\$16,000,000
Wool	8,000,000
Swine	3,000,000
Horses	2,000,000
Total Livestock	\$29,000,000

### MINERAL.

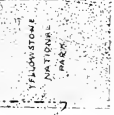
Gold	\$ 5,000,000
Silver	12,500,000
Copper	97,000,000
Lead	1,000,000
Zinc	26,000,000
Coal	5,000,000
Total Mineral	\$146,500,000
Grand Total	\$257,500,000

## Counties of Montana

County	Area Sq. Miles	Assessed Valuation 1915	Estimated Population 1916	County Seat
Beaverhead	5,632	\$ 9,921,164	19,970	Dillon
Big Horn	5,111	5,494,909	3,670	Hardin
Blaine	4,219	5,587,686	19,830	Chinook
Broadwater	1,248	4,260,871	5,310	Townsend
Carbon	2,108	8,123,797	23,600	Red Lodge
Cascade	3,411	31,649,303	46,075	Great Falls
Chouteau	4,594	9,105,442	17,055	Fort Benton
Custer	7,111	14,272,833	25,850	Miles City
Dawson	9,280	10,854,401	23,600	Glendive
Deer Lodge	746	9,938,341	21,725	Anaconda
Fallon	5,003	8,451,930	14,925	Baker
Flathead	6,380	12,874,107	25,860	Kalispell
Fergus	7,178	20,910,585	41,926	Lewistown
Gallatin	2,529	16,724,404	22,700	Bozeman
Granite	1,728	3,681,090	3,980	Phillipsburg
Hill	4,180	9,247,436	24,480	Havre
Jefferson	1,642	6,215,035	6,790	Boulder
Lewis and Clark	3,476	24,151,849	26,960	Helena
Lincoln	3,660	6,215,569	8,355	Libby
Madison	3,588	7,493,144	9,870	Virginia City
Meagher	3,553	11,084,129	10,100	White Sul. Spgs.
Mineral	1,224	4,035,277	2,750	Superior
Missoula	3,022	16,123,572	32,460	Missoula
Musselshell	2,944	12,614,799	16,280	Roundup
Park	2,679	10,985,589	14,690	Livingston
Phillips	5,266	4,335,839	9,760	Malta
Powell	2,549	7,346,760	8,100	Deer Lodge
Prairie	1,685	5,088,483	6,350	Terry
Ravalli	2,391	7,492,264	15,640	Hamilton
Richland	2,703	5,554,436	18,874	Sidney
Rosebud	6,067	12,883,047	17,875	Forsyth
Sanders	2,837	6,044,324	7,860	Thompson
Sheridan	5,103	10,599,544	23,510	Plentywood
Silver Bow	698	42,419,268	91,760	Butte
Stillwater	1,684	6,028,429	9,185	Columbus
Sweet Grass	2,310	5,379,076	6,600	Big Timber
Teton	6,546	12,419,568	21,975	Chouteau
Toole	1,949	4,380,412	7,880	Shelby
Valley	5,496	5,442,026	16,660	Glasgow
Wibaux	944	3,823,421	6,400	Wibaux
Yellowstone	2,708	29,531,859	34,960	Billings
	147,182	\$439,785,918	754,200	



MAP OF  
**MONTANA**  
 MOUNTAIN LANDS 30,000,000  
 GRAZING LANDS 30,000,000  
 FARM LANDS 30,000,000



**BEAVERHEAD COUNTY.**

Beaverhead county, located in the southwestern corner of the state, contains the source of the Missouri river and is well watered. The principal rivers are the Beaverhead and the Big Hole and each has many tributaries. Along the streams are valleys of varying sizes, from which rise bench lands and rolling hills that extend to high mountains.

The discovery of gold at Bannack in 1862 caused a stampede into what is now Montana; other rich placer deposits were soon found; the territory of Montana was created and Bannack made the capitol. Beaverhead county was created by act of the first territorial legislature, approved February 2, 1865. Many of the most interesting events in the early history of Montana occurred in this county.

Beaverhead county embraces much picturesque scenery, is noted for the excellence of the fishing and hunting, and several hot springs, and many residents of the cities of Butte and Anaconda enjoy outings there in the summer.

The industries are stock-growing, farming and mining. Large quantities of gold, silver and lead have been mined, and many undeveloped mines and mining districts offer attractive opportunities for the investment of capital. Near Melrose large deposits of high grade phosphate rock have been discovered on public land and many thousand acres have been withdrawn from the operation of the laws relating to the acquisition of mining claims.

Farming lands are irrigated and non-irrigated. The chief farming district embraces land in the Beaverhead valley and the smaller connecting valleys of Black-tail, Rattlesnake and Grasshopper creeks. Oats and hay are the principal crops. Oats yield from 60 to 100 bushels per acre and are of a very high grade. Farming without irrigation on bench lands is being rapidly developed. Good crops of wheat, barley, flax, potatoes and other products have proved the adaptability of large areas on bench lands for successful farming without irrigation. Thousands of acres are planted to alfalfa and timothy and the native grasses yield good crops of excellent hay.

The leading industry is stock growing, which includes the raising of sheep, cattle and horses. The numerous flocks of sheep flourish on the nutritious native grasses and produce great quantities of wool. Large sums are annually realized from the sale of horses. The cattle industry has two phases; one is the raising of cattle bred in the county and the other is the fattening of beef steers bought outside the county, and sometimes outside the state, and brought into Beaverhead county to be fattened for the market. Annually more than 20,000 steers are fed in the winter in the Big Hole Basin.

Markets for all products are close at hand. Butte gets much of its farm products from this county. Transportation is provided by the Oregon Short Line railroad which crosses the county from north to south. The Pittsburg and Gilmore railroad, a subsidiary of the Northern Pacific, has been built from Armstead west into Idaho and is expected to be part of a new transcontinental line.

Dillon, the county seat, is a delightful place of residence and is the principal business point in the county. It had a population of 1,835 in 1910, and it is estimated that this has increased to about 2,500. In the city are two banks with deposits of more than \$2,700,000, and a good hotel, two wholesale and twelve retail stores, a fine public library and public schools noted for their excellence. Two weekly newspapers are published. Dillon has electric lights, water works and sewers. There is a good opening here for a flour mill and a cheese factory.

The Montana State Normal College, a branch of the University of Montana, and a well equipped institution for the training of men and women to become

teachers in the public schools, is located at Dillon. The college possesses a well merited reputation for the success it has achieved, many of the most efficient teachers in the public schools of Montana being graduates of the Normal.

Other towns include Lima, an important shipping point in the southern part of the county, and Wisdom, an inland town, in the heart of the famous Big Hole basin.

The population of Beaverhead county in 1910 was 6,446; the present estimate is a population of 10,970. The assessed valuation is \$9,921,164.

**LAND AREA**—Beaverhead county, which is in the Helena land district, embraces an area of 5,632 square miles, including 409,302 acres of unreserved and unappropriated public land available for entry under the homestead law; 163,414 acres of state land, and 1,401,618 acres of national forests. Of the total area of the county, 538,604 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 375,000 bushels; oats, 1,100,000 bushels; barley, 20,000 bushels; potatoes, 250,000 bushels; hay, 185,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 13,078 head; milch cows, 1,551 head; other cattle, 64,136 head; sheep, 157,744 head; swine, 1,318 head.

The Beaverhead commercial club recently issued a map showing the exact location of vacant public land in the county. For a copy of this map or for other information regarding opportunities in this county write W. T. George, president Beaverhead commercial club, Dillon, Montana.

### BIG HORN COUNTY.

Big Horn county, one of the youngest counties in Montana, was created January 6, 1913, under the provisions of the act providing for the creation of new counties, as the result of an election held by the qualified voters residing in the territory embraced within its boundaries.

The principal geographical feature of the new county is the Big Horn river from which it is named. The Little Big Horn river also traverses the county and its source is followed by the Burlington railroad. On this stream is the Custer Battlefield National Cemetery, in which have been built monuments to the soldiers who fell in the disastrous battle of the Little Big Horn, commonly known as "Custer's Massacre". Big Horn county includes nearly all of the Crow Indian reservation and a part of the Northern Cheyenne Indian reservation.

The development of the county as a farming region dates from the opening to settlement in 1906 of a part of the Crow Indian reservation, and it is expected that further cessions of Indian lands on the reservation will be made before many years, as the amount of land included within the reservation is much in excess of the needs of the Indians. In addition to opportunities to obtain ceded lands, Indian owners under certain conditions may lease their tracts, and from time to time sales are made of lands that belonged to Indians who have died.

The industries are stock raising and farming; but there are many other sources of wealth in an undeveloped state. Coal has been found in numerous places, and ranchers near Hardin get their supplies from convenient coal banks. Much is expected from oil and gas development now in progress in this county. The Big Horn river is a rapid stream having many falls and is capable of furnishing hydro-electric power in large quantities, one proposed project alone providing for the development of 210,000 h. p.

The elevation of the Big Horn valley is about 2,900 feet and the climate is excellent. The growing season is long and the soil fertile. All the grains, grasses and vegetables that grow anywhere in the state make excellent yields. Common yields are, oats 50 to 100 bushels; wheat, 30 to 65 bushels; alfalfa, 5 to 7 tons; 60 bushels of corn to the acre have been raised, 600 bushels of potatoes, and sugar beets of excellent quality. The beet crop is a cash crop and the grower nets from \$40 to \$60 per acre. Parts of the county seem to possess advantages for the growing of apples on a commercial scale similar to those enjoyed by the Clark's Fork and Yellowstone valleys where the industry is well established and very profitable.

The chief agricultural development is in the Big Horn valley. Hardin is the center of 100,000 acres of irrigated land in the Big Horn and Little Big Horn valleys. The Big Horn valley extends north 35 miles to the Yellowstone valley and south 50 miles to the canyon of the river. West of Hardin is a high table land of 150,000 acres which it is proposed to irrigate.

In the northern part of the county and in other parts are large areas of land heretofore chiefly used as grazing lands that are suitable for dry farming, and this industry is being rapidly developed.

The only railroad is the Burlington, which runs along the banks of the Little Big Horn river from a point near the Wyoming line to Hardin, where it turns to the northwest and after a few miles enters the Yellowstone valley which it follows to its terminus at Billings. From Billings, trains on the Burlington line continue to the Pacific coast on the tracks of the Northern Pacific or of the Great Northern either by way of Butte or Helena and Missoula, or by way of Great Falls and Shelby.

Hardin, the county seat, is the most important town, having a population of about 1,500. It is situated sixty miles east of Billings on the west bank of the Big Horn river near where the Little Big Horn joins the larger stream. Hardin has made a remarkable progress in the few years since it has been in existence. It has many substantial business houses and residences, some built of brick made close to the town. It possesses a water system, a telephone system extending down the valley, has grain elevators, banks, a newspaper, churches, schools, and hopes for the establishment of a beet sugar factory. There are also openings for a creamery and canning factory. The trading point for an extensive, rich and rapidly developing region, Hardin is a busy and substantial town which is growing steadily in population, wealth and in the amount of business transacted.

Big Horn county has a population estimated at 3,670, and property of an assessed valuation of \$5,494,909.

**LAND AREA**—Big Horn county, which is in the Billings land district, embraces an area of 5,111 square miles, including 375,000 acres of unreserved and unappropriated public land available for entry under the homestead law, and 42,538 acres of state land. Of the total area of the county, 247,192 acres are privately owned. The remainder of the county is included in Indian reservations.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 250,000 bushels; flax, 5,000 bushels; barley, 151,000 bushels; corn, 35,000 bushels; oats, 375,000 bushels; potatoes, 160,000 bushels; hay, 45,000 tons; sugar beets, 10,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 5,910 head; milch cows, 703 head; other cattle, 47,976 head; sheep, 55,558 head; swine, 2,106 head.

For further information regarding Big Horn county, address A. L. Mitchell, secretary Hardin commercial club.

## BLAINE COUNTY.

Blaine county is another of the newer counties of Montana, having been created along with Hill county, by a vote of the people, in February, 1912, out of territory embraced in Chouteau county.

Milk river crosses the county near the center from west to east. North from the river to the Canadian line extends a region of rolling hills, intersected by numerous streams and coulees, land that is still used chiefly for grazing purposes but which contains much good farming land. South of the river the country rises to the Bear Paw mountains in the western, and the Little Rocky mountains in the eastern part. Flowing north from these elevations are many creeks that empty into Milk River. The southern slope of these hills drains into the Missouri River.

The irrigated lands in the Milk river valley are among the most productive in the United States. Various small streams supply water for irrigating limited areas. Farming without irrigation is successfully conducted on the bench lands; many thousands of acres have recently been put into cultivation; and on extensive areas of unoccupied public land many thousand settlers may find homes.

The development of the agricultural resources of the Milk river valley has been hindered by the delay in completing the Milk river reclamation project; but difficulties having been overcome, there is the prospect that this great enterprise will henceforth be carried on with commendable energy. Upon the completion of this project it is expected that, as in the case of the Huntley project in Yellowstone county, sugar beets will prove to be a most profitable crop and that a sufficient acreage will be planted to cause the erection of a beet sugar factory at some convenient place.

Blaine county has considerable mineral wealth. At Chinook are developed coal mines and at many other places are coal banks that supply local demands.

Chinook, the county seat, had a population in 1910 of 780, which has since increased to 1,890. It is a rich and busy little city and is one of the most attractive places of residence in the state. It is surrounded by a rich farming country, has a coal mine at its door, modern water works, business houses whose trade extends over a large territory, banks, newspapers, good hotels, a creamery, elevators, many churches and good schools. Chinook offers an opening for a flax fibre mill, a flour mill and a beet sugar factory.

Many thousand of fertile acres are tributary to Dodson, whose business will be multiplied when the Milk river project is completed and the irrigated lands settled upon. Harlem is an enterprising and growing town which owns its water system and has all the conveniences of a modern city. Harlem has large business houses, attractive residences, a newspaper, and is the shipping point for an extensive country.

Blaine county is in the Havre land district. The Fort Belknap Indian reservation is almost wholly within this county but there is no prospect that it will soon be opened to settlement.

The assessed valuation of the county is \$5,587,686, and the population is estimated at 10,830.

**LAND AREA**—Blaine county embraces an area of 4,219 square miles, including 676,930 acres of unreserved and unappropriated public land available for entry under the homestead law, and 165,479 acres of state land. Of the total area of the county, 378,525 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 350,000 bushels; oats, 560,000 bushels; barley, 25,000 bushels; corn, 15,000 bushels; flax, 10,000 bushels; potatoes, 70,000 bushels; hay, 45,000 tons.



In 1915, the assessor's rolls showed the following livestock: Horses, 9,949 head; milch cows, 1,826 head; other cattle, 18,438 head; sheep, 43,317 head; swine, 1,397 head.

For further information regarding Blaine county, write the Commercial Club, Chinook, Montana.

### BROADWATER COUNTY

Broadwater county lying north of Gallatin, south of Lewis and Clark, west of Jefferson and east of Meagher counties, embraces the upper Missouri river valley and is within close shipping distance of the cities of Butte and Helena. It was created from parts of Meagher and Jefferson counties by act of February 5, 1897.

The Big Belt range forms the eastern, and lower mountains the western boundary. In both ranges rise streams that flow into the Missouri river. The principal agricultural districts are in the Missouri river valley and in the valley of Crow creek.

The industries are farming, stock raising and mining. The mineral area is extensive and rich and the placer and quartz mines have yielded great sums. The principal mines are at Radersburg and Winston, from which places many tons of ore are annually shipped to smelters.

The range sheep industry has been the source of many fortunes for men who owned from 2,000 to 20,000 sheep. Mountains or foothills still afford good range for many horses, cattle and sheep. Much attention has been paid to the breeding of high grade stock, and the claim is made that Broadwater county has the best horses in Montana.

Fine herds of beef and dairy cattle are numerous. In 1904 fifty farmers and business men organized and started the Townsend creamery, which is the pride of the county. From a small beginning the output has steadily increased and about 200,000 pounds of butter of a superior quality is produced annually. The butter finds a ready sale at Helena and other neighboring cities. More recently a flour mill was erected at Townsend and the product readily found profitable market.

There are pure bred herds of Poland-Chinas, Chester White, Berkshire, Duroc and Hamshire hogs and the raising of swine is profitable.

The principal farming districts are in the Missouri and Crow creek valleys, where many thousand acres are irrigated. The chief crops are oats, wheat and alfalfa, timothy and bluejoint hay. Oats make large yields, are of a superior quality, and have been sold to cereal mills and for seed. Wheat is in demand from millers and many cars of alfalfa and timothy hay are shipped annually. Potatoes yield from 300 to 400 bushels to the acre and other vegetables do equally well.

During the last few years many thousand acres on the foothills and benches that extend from Three Forks to the northern end of the county have been settled upon and farmed without irrigation. A large part of the uplands is adapted to dry land farming and good crops have been raised at many places, the rainfall in the spring and early summer being sufficient to produce large yields of crops that are properly planted and cultivated. The soil, a warm and very productive loam, is easy to work. Winter wheat, rye, bald barley and alfalfa are the chief crops on non-irrigated farms. Raw lands may be bought at low prices and turned into productive farms. Large ranches have been subdivided and are offered for sale in farm lots. The raising of apples and other fruits on a commercial scale is a new and promising industry. Apples of many varieties have been grown. At the Stafford ranch

near Avalance creek is an excellent orchard that has been in bearing for twenty years; and it is said that four thousand dollars were received from the sale of fruit gathered one year from fifteen acres.

The main line of the Northern Pacific follows the Missouri valley from Lombard to Townsend, and the Butte branch is separated by the Jefferson river from the southern boundary. The Milwaukee enters the county near Lombard and passes through the southern end.

The chief towns are Townsend, Winston, Radersburg and Toston. Toston is the shipping point for the growing mining camp of Radersburg, eleven miles west, and for an extensive country including much of the fertile Crow creek valley. Winston, 21 miles from Helena, is the supply point for a rich mining district and of a farming and stock region.

Townsend, the county seat and principal town, is located where the Northern Pacific railroad crosses the Missouri river, is a financial, educational and social center. The population in 1910 was 759, and is now estimated to be 1,200. The city has an electric lighting plant, a volunteer fire department, five miles of sidewalks, graded streets, fine street lights, excellent schools, Catholic, Episcopal, Methodist and Methodist South churches, good school buildings, large business houses, good residences, two elevators, a flour mill, a creamery, a brewery, a cigar factory and a newspaper. It offers an opening for an alfalfa mill, a cement plant and pottery manufacturing.

The population of Broadwater county is estimated at 5,310, and the assessed valuation is \$4,260,871.

LAND AREA—Broadwater county, which is in the Helena land district, embraces an area of 1,248 square miles, including 141,516 acres of unreserved and unappropriated public land available for entry under the homestead law, 20,971 acres of state land, and 221,653 acres of national forests. Of the total area of the county, 309,117 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: Wheat, 300,000 bushels; hay, 43,000 tons; apples, 15,000 bushels; currants, 2,000 quarts; barley, 15,000 bushels; corn, 5,000 bushels; oats, 425,000 bushels; potatoes, 125,000 bushels.

In 1915, the assessor's rolls showed the following livestock: Horses, 5,480 head; milch cows, 939 head; other cattle, 10,319 head; sheep, 57,211 head; swine, 1,796 head.

For further information regarding Broadwater county, address the Townsend commercial club.

### CARBON COUNTY.

Carbon county, which adjoins Wyoming and takes its name from the extensive coal deposits that exist within its boundaries, was created from parts of Park and Yellowstone counties by an act approved March 4, 1895.

The southern part is a mountainous region of great scenic beauty in which rise numerous streams whose waters flowing north through valleys of varying width finally discharge into the Yellowstone. The largest stream is Clark's Fork of the Yellowstone. Rock Creek is a large stream that flows through the central part. Many thousand acres in the valleys are irrigated from canals that bring water from these streams and their rapid fall make them available as sources of hydroelectric power.

In the mountains are forests, gold, silver, lead and copper mineral claims, excellent hunting and fishing, and much remarkably beautiful scenery. In the

southern part of the county, along the Wyoming border. lies the Elk basin oil field, which is the scene of the first discovery of oil in commercial quantities in Montana and is now being extensively developed. Two large companies and many smaller concerns are now operating in this district, and there is every indication that it will shortly become one of the great oil-producing regions of the country. A pipe-line has been laid for the transportation of petroleum to refineries. The Elk basin oil field is now reached most easily from Bridger, a station on the Clark's Fork branch of the Northern Pacific, connecting with the main line at Billings.

Other industries are coal mining, stock raising, and fruit growing. Immense coal measures exist. A government report stated that in 1907 there were 1,238,796,784 tons of unmined coal in the Red Lodge field which is one of the several fields. Forty-five feet is the total thickness of the veins. A thousand men are employed at Red Lodge and about 600 at Bear Creek, Washoe, Bridger and Coalville, making a total of about 1,600 men who are employed at good wages and their demands create a home market for farm products.

Stock growing is an important industry. Many sheep run on the ranges and Carbon county is noted for the excellence of its beef cattle. Besides raising livestock on the range and hogs on alfalfa pasture, Carbon county has uncommon advantages for the fattening of beef cattle and sheep for market, having a good climate, abundance of water, and home grown hay, grain, beet top and beets for food. The conversion into beef, mutton or pork, of hay and grain on the place where produced, is the most profitable use that can be made of these crops.

The Clark's Fork valley, about fifty miles long and from four to ten miles wide, is the principal agricultural district of Carbon county and is one of the most productive parts of Montana. From the river and streams that empty into it enough water is brought to irrigate the greater part of the land in the valley, while on the foothills farming is successful without irrigation where the proper system of cultivation is carried on. Clark's Fork valley produces a great variety of field and orchard products. Sugar beets is a main crop, alfalfa is extensively grown, and wheat, oats and barley make large yields. Standard vegetables do well; celery is extensively grown, and cantaloupes of the Rocky Ford flavor are raised. Near Fromberg, is the noted apple orchard of Rev. J. G. Clark, from 32 acres of which \$10,000 worth of apples, plums and crab apples have been gathered in one year.

The main line of the Northern Pacific railroad is separated from this county by the Yellowstone river. At Laurel the Rocky Fork branch to Red Lodge goes out from the main line and also the Clark's Fork branch which terminates at Bridger. From Bridger the Montana, Wyoming and Southern railroad extends to Belfry, Bear Creek and Washoe, a distance of 25 miles. The Burlington railroad has completed the Fromberg cut-off from Schribner near the Wyoming line and runs through trains using the Northern Pacific tracks from Bridger to Laurel and the Great Northern tracks from Laurel to Great Falls, Shelby Junction and Pacific coast points.

Washoe and Bear Creek are coal mining towns in the foothills west of Clark's Fork valley. Bridger is a coal mining town and the supply point for a farming and ranch country. Fromberg, the chief town of the valley, has two coal mines adjacent to it and is surrounded by a highly cultivated region of farms and orchards.

Joliet, a flourishing town in Rock Creek valley, is the principal shipping point for the central part of the country.

Red Lodge, the county seat, had a population of 4,860 in 1910, is the seat of a coal mine that gives steady employment to over 1,000 men, and is one of the busiest and most prosperous cities in the state. It has a high school, graded

schools, two hospitals, two newspapers, three banks, hotels, two wholesale and thirty-five retail stores. Many new business houses have been recently erected and much money has been spent in city improvements. Many miles of cement walks have been laid and a sewer system costing \$50,000 was installed a few years ago. The city is lighted by electricity, has an elevator, a creamery and does a large trade with the country tributary to it.

The population of Carbon county is estimated at 23,600, and the assessed valuation is \$8,123,797.

**LAND AREA**—Carbon county, which is in the Billings land district, embraces an area of 2,108 square miles, including 346,847 acres of unreserved and unappropriated land available for entry under the homestead law, 44,702 acres of state land, and 359,159 acres of national forests. Of the total area of the county, 416,236 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 500,000 bushels; oats, 875,000 bushels; barley, 150,000 bushels; corn, 15,000 bushels; potatoes, 360,000 bushels; hay, 105,000 tons; sugar beets, 75,000 tons; apples, 45,000 bushels; plums and prunes, 1,000 bushels; cherries, 750 bushels; strawberries, 15,000 quarts; currants, 10,000 quarts.

In 1915, the assessor's rolls showed the following livestock: Horses, 9,345 head, milch cows, 3,090 head; other cattle, 13,298 head; sheep, 63,437 head; swine, 4,953 head.

For further information regarding Carbon county, address secretary of commercial club, Red Lodge, Montana.

### CASCADE COUNTY.

Cascade, one of the richest and most populous counties of Montana, is situated in the northern central part of the state, has rich mineral and agricultural resources, an unequalled water power, and is destined to be the seat of numerous manufacturing establishments and of a commerce that will extend for hundreds of miles in every direction.

The southern part includes a part of the Little and Big Belt ranges and the Highwood mountains extend across the eastern border. The Missouri river crosses the county from the southwest to the northeast and is joined near Great Falls by the Sun river, which rises in Teton county and drains a large section east of the Rocky mountains, and by the Smith and Belt rivers from the south. These streams have extensive valleys.

Cascade county, like the greater part of Montana, is in the Chinook belt, and warm winds from the Pacific ocean moderate the winter temperature. The occasional cold spells are rarely of long duration and are attended by the dry, calm atmosphere that makes the cold in Montana felt less at zero than at twenty above in humid countries. Stock run on pasture during the whole year, and are fed only a short time during the winter.

Farming, mining and stock growing are the chief industries. Rough and high grounds afford excellent pasturage for live stock. The soil is fertile, and the land as a rule lies well for farming operations. In the Missouri, Sun and Belt river valleys are extensive irrigated areas. Near Cascade is Chestnut valley, a long settled and thriving farming district. The Sun river valley contains a government reclamation project and many farms that were irrigated before it was begun. The Belt valley is a large and productive section.

Far from railroads are some tracts open to homesteading, but the best opportunity for the homeseeker is to buy lands which are for sale at prices below their investment value, or to acquire a farm unit in the Sun river project. The bulk

of the farm products are raised on non-irrigated land. Large crops are grown without irrigation by cultivation by the dry land system of farming. In the northern and eastern sections dry farming is very successful.

Common yields are from 20 to 60 bushels of wheat, 40 to 100 bushels of oats, 20 to 60 bushels of barley and of other crops in similar proportions on irrigated farms. More uniform and usually greater are the yields on irrigated lands. Hay and timothy and alfalfa is a large crop and sugar beets have been grown as an experiment. Vegetables make surprising yields. Apples and other fruits do well.

The principal cities are Great Falls, Belt, Stockett, and Cascade. Cascade is a trading point for a rich farming and stock growing district, has city water, good schools, churches, a flour mill, two elevators, a creamery, a bank, business houses, and two weekly newspapers. Stockett has great coal mines and is surrounded by a good farming country. Belt is in a fertile valley, has a population of nearly 1,500, has electric lights and water works, schools, elevators, hospital, churches, a bank, business houses, a weekly paper, and coal mines that have employed 400 men.

Great Falls, the principal city in Northern Montana, and the second city in size in the state, takes its name from the wonderful asset with which it is endowed. In seven and one-half miles the great Missouri river, with a mean low water flow of 3,500 second feet, drops 535 feet over a series of falls and rapids. At the head of these falls, at a place where the Missouri, Sun and Belt river valleys come together, where there is a down hill haul from all directions, where all railroad lines meet, the logical location for a great city, is Great Falls, which had a population of 13,948 in 1910. The population, according to local estimate, has almost trebled since the census was taken. The site was chosen for its natural advantages, the city was planned on generous lines, and it is the natural trading point for a great, fertile and rapidly developing section. Already 150,000 horsepower of electrical energy is developed at Great Falls and distributed by high tension power lines to practically all points in the state, where there yet remains for development 200,000 horse power.

Extensive copper and zinc smelters employ a great number of men whose earnings contribute materially to the business of the town.

A Great Falls smelter has the largest smokestack in the world. The Royal Milling company has a large flouring mill; here is located the largest meat-packing plant between St. Paul and the coast, and there are more than fifty other manufacturing establishments.

Great Falls has all the improvements and conveniences of a progressive, growing, western city, and a system of large and beautiful parks that is peculiar to itself. It has seven banks with total deposits of \$8,772,910; two \$400,000 hotels, fine public, business and residence buildings; street cars, electric lights, sewer, paved streets, parked avenues, a people confident of its future greatness, and two daily newspapers. It is a pleasant place of residence and a prosperous commercial city. The United States Land office for this district and the office of the Collector of Customs for Montana are located here. Openings for manufacturing establishments and for wholesale houses are numerous.

The population for Cascade county is estimated at 46,075, and the assessed valuation of the county is \$31,649,303.

LAND AREA—Cascade county, which is in the Great Falls land district, embraces an area of 3,411 square miles including 157,749 acres of unreserved and unappropriated public land available for entry under the homestead law, 100,807

acres of state land, and 421,242 acres of national forests. Of the total area of the county, 1,292,953 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 2,100,000 bushels; oats, 1,500,000 bushels; barley, 250,000 bushels; corn, 40,000 bushels; flax, 15,000 bushels; potatoes, 250,000 bushels; hay, 100,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 12,800 head; milch cows, 4,582 head; other cattle, 30,701 head; sheep, 229,095 head; swine, 4,828 head.

For further information regarding Great Falls and Cascade county, address A. J. Breitenstein, secretary Great Falls commercial club.

### CHOUTEAU COUNTY.

Chouteau was one of the original counties of the state which has been reduced several times by the formation of new counties. In 1912 Blaine and Hill counties were formed from the eastern and northern parts respectively and Chouteau county was reduced from an area of 15,539 to one of 4,594 square miles, besides losing the greater part of its population. The county, though so greatly reduced in size, is still very extensive and the development of its resources is indicated by the fact that its population and wealth are now greater than before the division.

The Missouri river enters Chouteau county from the south, flows northeast about sixty miles and makes its great turn to the southeast. The Teton river, coming from the west, and the Marias river from the north, join the Missouri near the center of the county. Arrow river forms a part of the southeastern boundary. In the southwestern corner are the Highwood mountains in which rise Highwood and Shonkin creeks and tributaries of Belt river. In the northeastern corner is a part of the Bear Paw mountains.

The industries are stock growing and farming. This part of Montana has long been noted as a stock region and the county contains many cattle and great numbers of sheep. The native grasses are luxuriant and nutritious and the permanence of the industry is assured by the extent of good grazing lands near the mountains and along the rivers that are too rough for farming.

Farming, which until recently was relatively unimportant, has made great advances in the last five years. A limited area of land adjacent to streams is irrigated, but the chief advance in the development of agriculture has taken place on bench lands which are farmed without irrigation. Homesteaders have come into all parts of the county but there is some vacant land still subject to entry.

The county seat is Fort Benton which is situated at the head of navigation on the Missouri river and had a population of 1,004 in 1910, and now has an estimated population of 1,600. Before Montana was organized as a territory Fort Benton was an important fur trading post and for years following the gold discoveries in the early sixties was a very busy place. Steamers, starting from points on the Missouri river near where Kansas City now is, brought numbers of passengers bound for the gold fields and great quantities of freight to Fort Benton. Stage lines carried the passengers to Virginia City and other points and numerous freighting teams hauled needed supplies over long and dangerous trails to the mining centers. Fort Benton maintained its commercial importance until the coming of railroads into the state. The steamboat service on the Missouri river was abandoned when the trunk lines were completed.

Some of the present great fortunes of Montana were founded at Fort Benton in the days when it was the trading center for a great territory and the seat of large business establishments whose activities extended for hundreds of miles in

all directions. The stock industry later became the dominant one. Old Fort Benton has been preserved; and many of the most interesting incidents of Montana history are associated with the town of Fort Benton.

Fort Benton is the largest town in the county. It is a place of much business importance and is surrounded by a good agricultural district. It has three churches, a hospital, two banks, with deposits of \$1,500,000, hotels, general stores, a daily and two weekly newspapers, a court house and good public schools. There are many handsome private residences. The city is amply supplied with water and has a complete sewerage system.

Geraldine, in the southern part of the county, although less than three years old, is an important and thriving center and is growing rapidly.

The population of Chouteau county is estimated at 17,055, and the assessed valuation is \$9,105,442.

**LAND AREA**—Chouteau county, which is in the Havre and Great Falls land districts, embraces an area of 4,594 square miles, including 408,760 acres of unreserved and unappropriated public land available for entry under the homestead law, 312,785 acres of state land, and 6,303 acres of national forests. Of the total area of the county, 1,311,218 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 2,250,000 bushels; oats, 750,000 bushels; barley, 125,000 bushels; corn, 35,000 bushels; flax, 75,000 bushels; potatoes, 80,000 bushels; hay, 40,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 13,917 head; milch cows, 2,879 head; other cattle, 14,529 head; sheep, 17,566 head; swine, 3,697 head.

For further information about Chouteau county, address B. H. Kreis, secretary, Fort Benton commercial club.

### CUSTER COUNTY.

Despite the fact that all of one large county and parts of two others have been taken from Custer County during the past three years, reducing its area from 12,915 square miles to 7,111, the wealth of the county is now almost as great as it was before it lost almost half of its territory, and its population is even greater. All of which is but another way of saying that Custer County is one of the fastest growing counties in the state. This county is strikingly typical of the change from a grazing to an agricultural region which has come over the greater part of eastern Montana.

The Yellowstone river flows through the northwestern part of this county, and the Powder and Tongue rivers, two large streams which rise in Wyoming, drain the southern part. Mizpah river is an important affluent of Powder river and Pumpkin creek of Tongue river. All of these streams have valleys of varying width back from which are extensive stretches of bench lands.

Custer has long been the leading stock county of Montana, and from it have probably been shipped more horses, cattle, sheep and pounds of wool than from any other county in the United States. Miles City is the greatest primary horse market in the northwest. The stockyards embrace 50 acres and monthly auctions are held during the season. Last year more than 29,000 of the strong, hardy full sized horses for which Montana is noted were sold here to buyers from foreign lands and many parts of the country. Adjacent to Miles City is Fort Keogh, an army remount station, where many horses are yearly bought and trained for the cavalry service.

The mean temperature is 44, the same as Wisconsin; the altitude is about 2,300 feet; severe storms are rare; the air is dry, and heat and cold are not felt as in humid regions; in an average year 175 days are clear, 125 partly cloudy, 65 cloudy

and 80 rainy. The normal rainfall, about 15 inches, is sufficient for all properly cultivated crops. More than half of it falls during the growing season. Cottonwood and ash grow near streams and pine and cedar in the hills. The county is underlaid with lignite coal which provides cheap fuel.

Nearly every grain, vegetable and fruit known in the northern part of the United States grows in Custer county. Oats, wheat, barley, rye, corn, cabbage, rutabagas, pumpkins, squash, egg-plant, cauliflower, tomatoes, cucumbers, peppers, radishes, peas, beans, celery, asparagus, make a partial list. Watermelons have a flavor and crispness that are unequalled, cantaloupes grow to perfection, and strawberries are of fine flavor, color and size. Peaches, pears, apples, crab-apples, gooseberries, currants, and raspberries do well. There is a home market for fruit and vegetables and an unsupplied demand for alfalfa, dairy products, eggs and chickens.

Horses, cattle and sheep thrive on alfalfa, which is the leading crop, and sells at from \$5 to \$12 a ton; an acre, cut three times a year, yields from four to five tons. Oats yield from 50 to 100 bushels an acre, barley does well, and 50 bushels of wheat is not regarded as an exceptional yield.

The transformation of Custer county from a stock to a farming country is proceeding with astonishing rapidity. Recently it has been demonstrated beyond question that Custer county is in the "corn belt" and the raising of corn, both for the grain and as a forage crop, has become an important phase of the farming industry of this part of the state.

The chief town is Miles City, the metropolis for all this rapidly developing empire, and the county seat. It is located at the junction of the Tongue and Yellowstone rivers, and is an up-to-date, growing, progressive western town of more than 7,000 people. There are two daily and three weekly newspapers, a number of manufacturing establishments, many wholesale and retail stores. It is the distributing point for a large and developing territory, ships more horses, cattle, sheep and wool than any other town of its size in the country, and is a division point on the Chicago, Milwaukee & Puget Sound Railway, whose large monthly pay roll contributes to its prosperity. Many opportunities exist for the investment of capital in manufacturing and other enterprises, a canning factory and sugar beet factory being especially needed.

The population of Custer county is estimated at 25,850 and the assessed valuation is \$14,272,833.

LAND AREA—Custer County, which is in the Miles City land district, embraces an area of 7,111 square miles, including 1,598,400 acres of unreserved and unappropriated public land available for entry under the homestead law, 205,814 acres of state land, and 341,293 acres of national forests. Of the total area of the county, 1,443,232 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915; wheat, 700,000 bushels; oats, 850,000 bushels; barley, 28,000 bushels; corn, 210,000 bushels; flax, 95,000 bushels; potatoes, 85,000 bushels; hay, 30,000 tons.

In 1915, the assessor's rolls showed the following livestock; horses, 22,224 head; milch cows, 1,378 head; other cattle, 52,998 head; sheep, 113,339 head; swine, 1,509 head.

#### DAWSON COUNTY.

Dawson county, organized in 1869, and named for Andrew Dawson, for many years a leading man in the fur trade, is the largest county in the state, having an area of 9,280 square miles, consisting for the most part of prairies, bench lands and hills. There are no mountain ranges, although the mountain sheep hills parallel the Yellowstone river in the eastern part of the county and form a divide between the drainage basin of the Yellowstone and the much larger area that drains into the



Missouri river. The Musselshell river is the western, and the Missouri river the northern boundary. Big Dry and Red Water creeks which empty into the Missouri river have extensive drainage basins. The Yellowstone river flows through a part of the county.

Stock growing was the first occupation of the settlers in Dawson county and remains a leading industry. Perhaps one-fourth of the entire acreage is too rough to be farmed and will always be devoted to grazing. Agriculture was first allowed as a business in the Yellowstone valley where many thousand acres are irrigated.

The greatest advance, however, has been in the increase in the acres farmed without irrigation, so-called "dry land farms". Farming without irrigation is a demonstrated success on farms of thousands of new settlers who have filed on homesteads and have transformed a part of the vast range into productive grain fields. Large stock ranches also have been sub-divided and sold as farms and many acres of Northern Pacific railroad lands have been put into cultivation.

The average annual precipitation at Glendive for the last 25 years was 15.54 inches. At places the rainfall is higher and everywhere it is sufficient when properly conserved. The evaporation is much lower than in states farther south and the timeliness of the rainfall increases its efficiency. Of the total of 15.54 inches of precipitation at Glendive, 10.72 inches falls during the crop growing season, as follows: March, 1.32 inches; April, 1.10 inches; May, 2.29 inches; June, 3.39 inches; July, 1.78 inches; and August, .84 inches.

Wheat, oats, rye, barley, flax and alfalfa are the chief crops. Yields are reported of oats, 100 bushels to the acre; flax, 34 bushels; barley, 42 to 60 bushels; wheat, 50 bushels, and corn, 45 bushels. From all parts of the county have been collected reports of higher yields on large fields of all staple crops.

Dawson county is now reached by the Northern Pacific railway, which maintains divisional headquarters at Glendive, but much of this county, especially the north-western part is yet distant from transportation facilities. The Great Northern railroad, will, however, soon extend its New Rockford-Lewistown branch from the eastern to the western boundary of Dawson county penetrating the central part. Work began on this extension in the spring of 1916, although no definite statement of the time of completing the line has been made by the officials of the company. The Glendive-Helena cut-off of the Northern Pacific is proposed to extend from Glendive to a point of junction with the Great Northern railroad in Fergus or Meagher counties and thence to Helena.

Dawson county is underlaid with coal which is sold at low prices in the towns; and the farmer who has not opened a deposit of coal on his own place is able to obtain a supply from some coal bank in his neighborhood.

The principal towns are Glendive and Jordan. The county seat is Glendive, whose population in 1910 was 2,428, according to the census, and is now said to be 5,000. It is a division point on the Northern Pacific railroad which employs about 800 men with a monthly payroll of \$75,000. The Northern Pacific hospital has recently been completed at a cost of \$125,000. Glendive is a progressive, growing town, is well lighted, has large business blocks, banks, hotels, newspapers, fine public buildings, attractive residences, and has spent more than a million dollars on municipal improvements. It offers an excellent opening for a flour mill and a brick yard.

Jordan, a large and thriving town, is the distributing point for a great new country which has been opened up in the western and northern part of the county. It is expected that it will have railroad connections with the outside world within the next year.

The population of Dawson county is estimated at 23,600 and the assessed valuation is \$10,854,401.

LAND AREA—Dawson County, which is in the Miles City, Lewistown, and Glasgow land districts, embraces an area of 9,280 square miles, including 2,077.215 acres of unreserved and unappropriated public land available for entry under the homestead law, and 242,010 acres of state land. Of the total area of the county, 1,733,228 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: Wheat, 850,000 bushels; oats, 1,200,000 bushels; barley, 125,000 bushels; corn, 85,000 bushels; flax, 50,000 bushels; potatoes, 95,000 bushels; hay, 22,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 20,409 head; milch cows, 3,240 head; other cattle, 15,734 head; sheep, 118,195 head; swine, 3,678 head.

### DEER LODGE COUNTY.

Deer Lodge county, which is in western Montana and is drained by Deer Lodge river, embracing a part of the valley of that stream, is one of the original counties of the territory. By the formation of new counties it has lost the greater part of its original area and is now a very small county, and yet is one of the richest in the state.

The chief industry is copper smelting. At Anaconda is located the Washoe Smelter, of the Anaconda Copper Company, which employs many thousand men and has a monthly pay-roll of hundreds of thousands of dollars. This great smelter is the largest and most modern ore reducing plant in the world and smelts about one-fourth of the copper produced in the United States. The ores are brought from the mines at Butte, 28 miles distant, directly to the smelter by the Butte, Anaconda & Pacific Railroad, which was built for this traffic, and which is operated exclusively by electrical power. Even after an inspection of the smelter one can scarcely comprehend the immensity of its operations. In connection with the smelter is an extensive sulphuric plant.

Constant progress is made in reducing the cost of production of copper by lessening the cost of getting out ore at the mines and in treating it at the smelters. Large savings have recently been effected by the increased use of electrical power; and the mines of Butte and the smelters of Anaconda and Great Falls are models of efficient operation, while the wage scale is the highest in America.

Anaconda, the county seat, owes its existence to Marcus Daly, founder of the copper industry in Montana, who was attracted to it by the presence, so near Butte, of an abundant supply of water. It has grown into a city of about 17,000 inhabitants, is an attractive place of residence, has one of the most costly hotel edifices in the state, many large business blocks, handsome dwellings, a daily newspaper, and manufacturing of fire and building brick. The county court house, the Hearst library, and the Margaret Theatre would be notable buildings in a much larger city. The Montana State Fish Hatchery is located in beautiful Washoe Park.

Population and business of Deer Lodge county are chiefly centered in the city of Anaconda, which is situated at the base of the mountains. In the mountain regions are placer and quartz gold mines, extensive forests and many places of much scenic beauty. The Butte, Anaconda & Pacific railroad has recently been extended into the mineral region near Georgetown which is expected to develop into a very productive mining district.

At Warm Springs is located the State Hospital for the Insane, which cost more than \$500,000, and at which is maintained the finest pure bred Holstein dairy herd in the state.

Hay and oats find a ready sale in Butte and Anaconda. In these two cities, many millions are annually paid to miners and smelters and their demands for products of the dairy and the garden create the best markets for Deer Lodge county products.

The population of Deer Lodge county in 1916 was estimated at 21,725 and the assessed valuation of the county is \$9,938,341.

**LAND AREA**—Deer Lodge county which is in the Helena land district, embraces an area of 746 square miles, including 37,813 acres of unreserved and unappropriated public land available for entry under the homestead law, 10,911 acres of state land, and 307,793 acres of national forests. Of the total area of the county, 153,190 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 22,000 bushels; oats, 150,000 bushels; barley, 2,500 bushels; potatoes, 100,000 bushels; hay, 21,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 4,050 head; milch cows, 974 head; other cattle, 2,807 head; sheep, 5,300 head; swine, 584 head.

#### FALLON COUNTY.

Fallon county occupies the extreme southeastern corner of the state, and is just beginning to attract attention to its diversified resources. For many years, Fallon, which was then a part of Custer county, was merely a great stock range; today it is largely a grain field, and every year thousands of new acres are brought under the plow.

The Little Missouri river crosses the southeastern corner of the county and the northern part is watered by Fallon creek and Beaver creek. Box Elder creek flows through the central part of the county. Many extensive valleys follow the courses of these streams and back of these valleys are great stretches of bench lands, which are being farmed by the non-irrigated method.

In addition to the farming and stockraising industries of the county, natural gas has been developed at Baker and extensive prospecting is now in progress for oil in commercial quantities.

Baker, the county seat and principal town, is growing rapidly. It is one of the newer towns of the state, but in 1915 claimed a population of 1,500 and had every prospect of soon having 2,500 people within its confines. A flax-tow mill was recently established here and is a pronounced success. Ekalaka, in almost the geographical center of the county, is a large inland town, surrounded by a good farming and stockraising country.

The population of Fallon county is estimated at 14,925 and the assessed valuation is \$8,451,930.

**LAND AREA**—Fallon county embraces an area of 5,003 square miles, including 1,362,400 acres of unreserved and unappropriated public land available for entry under the homestead law, 128,603 acres of state land and 107,580 acres of national forests. Of the total area of the county, 855,188 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 500,000 bushels; oats, 560,000 bushels; barley, 52,000 bushels; corn, 92,000 bushels; flax, 65,000 bushels; potatoes, 95,000 bushels; hay, 20,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 19,535 head; milch cows, 3,473 head; other cattle, 30,928 head; sheep, 74,952 head; swine, 2,199 head.

## FERGUS COUNTY.

Fergus county, which includes a large territory in the central part of the state, was created by act of March 12, 1885, and named for James Fergus, a noted pioneer. It is the second largest county in the state, and one of the richest and best developed.

The greater part of the western part of Fergus county consists of the Judith Basin, which extends approximately sixty miles east and west and ninety miles north and south and comprises about 2,000,000 acres of table and gently rolling fertile farm lands, having an elevation varying from 3,500 to 4,500 feet. The Little Belt mountains bound it on the west and lesser ranges in other directions, making it a sheltered country. It is drained by the Judith river and tributary streams. The Missouri river forms the northern boundary and receives the Arrow river and smaller streams. The eastern part of the county is drained by the Musselshell river.

Stock growing, farming and mining are the industries. Before the advent of railroads stock growing, for which the conditions were ideal, was the main industry and it remains a very important one. Producing gold mines are located at Kendall, Maiden and Gilt Edge and there are undeveloped mineral claims in other sections. The country is underlaid with coal and there are many large and numerous small coal mines.

A unique and important industry is the mining of sapphires at Yogo gulch about fifteen miles southwest of Utica. The best of the Yogo sapphires are of the first grade in color and quality and bring high prices. These mines are owned by an English syndicate which distributes the gems through all markets of the world.

In the last eight years agriculture, from being comparatively unimportant, has grown to be the leading industry. The transformation of the Judith Basin from a stock growing to a farming country has probably been more rapid than has ever occurred in any other part of the United States. Township after township which a few years ago were open range lands are now among the most productive grain districts of America.

The opportunity for the land seeker in Fergus county is to purchase farm land at \$39 an acre and up near railroad lines, cheaper land farther back, or to take up a homestead in the unsettled section. Land that may be relied upon to raise year after year thirty or more bushels of high grade wheat or other crops in like proportion before many years will have a fixed value perhaps amounting to double the price at which lands in the Judith Basin may now be bought.

Lewistown, the metropolis and county seat, even when an inland town eighty miles from a railroad, was a very busy and prosperous place and has expanded its activities in all lines as the country has developed. The population returned by the census of 1910 was 2,992 and is estimated to be more than 6,000 now. The city has an abundant supply of pure water, supplied by a municipal plant constructed at a cost of \$150,000, boulevarded streets, cement sidewalks, a sewerage system, a fire department, and a public library. The business houses are chiefly of stone or brick; there are four elevators, a flour mill, a brick yard, five wholesale mercantile establishments and a number of retail ones. Four banks have deposits of more than \$2,750,000; there are good schools, churches, and a hospital; an electric light plant, telephone systems, one daily and one weekly paper, large machine shops, hotels, theatres and many handsome residences. A great many costly business blocks and fine residences have been erected in the last two years.

Moore, twenty miles south and west of Lewistown, in the center of a rich agricultural district, is the second town in importance, and had a population in 1910 of 573.

Straw, Garneill, Hobson, Benchland, Utica, Windham and Denton are towns in the farming district. Stanford has grown in five years from a small village to a thriving town. Kendall is the chief town in the gold mining districts. Grass Range and Winnett are rapidly growing towns in the eastern part of the county.

The population of Fergus county is estimated at 41,926 and the assessed valuation is \$20,910,585.

**LAND AREA**—Fergus county, which is in the Lewistown land district, embraces an area of 7,178 square miles, including 1,381,965 acres of unreserved and unappropriated public land available for entry under the homestead law, 249,050 acres of state land, and 204,497 acres of national forests. Of the total area of the county, 1,824,164 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 4,750,000 bushels; oats, 2,750,000 bushels; barley, 250,000 bushels; corn, 65,000 bushels; flax, 75,000 bushels; potatoes, 320,000 bushels; hay, 100,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 24,195 head; milch cows, 5,655 head; other cattle, 41,455 head; sheep, 98,212 head; swine, 9,953 head.

### FLATHEAD COUNTY.

Flathead county is situated in the northwestern part of the state, embraces the greater part of the Glacier National Park, the large and fertile Flathead valley, and beautiful Flathead Lake. It was created out of Missoula county in 1893, and is named for the Indian tribe that formerly occupied the country. The eastern boundary is the main range of the Rocky mountains, of which the Flathead and Mission, in the southern part, are outlying ranges. Mountains on the west separate the drainage basins of the Flathead river from those of the Kootenai and Clark's Fork of the Columbia. The northern part is mountainous; in the southern part lies Flathead lake, bounded by the low hills beyond which lies Mission valley. This is a region of numerous springs, streams, rivers and lakes whose waters flow into Flathead lake and out from it by the Flathead or Pend O'Reille river at Polson.

Flathead lake has an area of 360 square miles and is the center of attraction. Around its wooded shores are some of the most beautiful spots on the continent. Orchards grow close to the water, and attractive summer homes are found at many places.

During 1915, the federal government sold more than 900 villa sites along the shores of Flathead lake and, with the many summer homes which are now being built around the lake, it is expected that this will shortly become one of the great summer colonies of the country. Flathead lake is not merely a wonder and delight to the visitor, but is of great practical use. It is navigable and numerous fast passenger boats make regular trips between lake ports during the summer season. Besides steamboats and gasoline launches, there are tugs, barges and rafts which transport considerable freight.

Lumbering is a great industry and there are numerous mills. Kalispell has large mills and, at Somers, where also is a tie-preserving plant, is one of the largest mills in the state. In the northwestern Montana lumber district, of which Kalispell is the financial center, the standing timber has been estimated as amounting to forty billion feet. In the lumber industry about 2,000 men are employed and receive for wages about \$1,250,000 a year. The lumber sold brings \$2,500,000.

The industries are farming, fruit growing and lumbering. Wheat yields from 35 to 50 bushels per acre, oats from 35 to 75 bushels, and barley, rye, hay, potatoes and other vegetables make large yields. The logging camps and lumber mills furnish home markets for farm produce.

On both shores of Flathead lake are fine farming and fruit growing districts, and south of the lake is the Flathead reservation which was opened in 1910. The climate is excellent and it is never very hot or very cold. Kalispell is 2,965 feet above sea level; the annual precipitation is 15.45 inches and crops grow without irrigation.

Many varieties of apples are successfully grown; a mature orchard will yield 500 boxes per acre and a box will sell at from \$1.25 to \$1.75. Crab apples are raised in abundance and often pay better than the regular apple. Probably the most profitable crop raised is cherries, and especially the large sweet cherry. Fruits mature in any part of the valley, but the lake shore is a favored spot owing to the equalizing influence on the atmosphere of a large body of water and because the residents have become fruit specialists. Orchards are free from pests and a wormy apple is unknown.

The county is adapted not only to diversified farming and fruit growing but to dairying and truck farming, and its natural resources, when developed, will support a dense rural population.

The southern portion of the county, that embraced in the former Flathead Indian reservation, has been handicapped by lack of transportation facilities, but official announcement has been made that a branch line of the Northern Pacific, running north from Dixon, will be constructed at once and it is confidently predicted that when this road is built this region will experience rapid development.

The country is rich in water power. At Big Fork is the plant that supplies Kalispell with electric light and power. Immense power is available in the Flathead river at Polson which is to be used for pumping water for irrigation and to furnish power for other purposes.

Kalispell, Whitefish, Polson and Columbia Falls are the chief towns. Polson, the principal port on the south shore of Flathead lake, is the shipping point for a large and productive part of the Flathead reservation. It is a thriving town, having grown from nothing to be an incorporated town with a population of 2,000 in six years. It has city improvements, good schools, churches, banks, large business houses, electric lights, telephones, a weekly newspaper and steamboat service to all points on the lake. A five story brick flouring mill, having a daily capacity of 200 barrels of flour, was erected in 1912 and adjoining it is an elevator of 30,000 bushels capacity. On the shore of the lake, near the docks, the Farmers' elevator, having a capacity of 35,000 bushels of grain, has been constructed. A large warehouse has been built at the docks and the grain storage capacity of Polson is about 100,000 bushels.

Big Fork, in a fine fruit district, is the trading point for the Swan river country. On Whitefish lake, a beautiful body of water seven miles long at the head of Flathead valley, is Whitefish, which has grown in a few years to be a modern, progressive town of 2,000 people, having city water, electric lights, telephone, sewers, brick business blocks, banks, business houses, a weekly newspaper, and a good fruit country adjoining. Columbia Falls, at the head of the fertile eastside of the Flathead valley, has a bank, stores, a newspaper, lumber mills, the State Soldiers' Home and is an important trading point for a rich agricultural district. Somers, the principal port on the north shore, is the terminus of the branch line of railroad from Kalispell and is the center of a great saw mill and of a tie pickling plant. A state fish hatchery has been established at Somers. Dayton and Big Arm are towns on the west shore. Belton is the entrance to the Glacier National Park, a region of wonderful scenery to which thousands of visitors are yearly attracted.

Kalispell, the county seat and the business center of northwestern Montana, has 200,000 acres of rich agricultural land tributary to it, and ships large quantities of apples, cherries and small fruits. The population, in 1910, was 5,549. A United

States land office is located there, the county high school and a business college; the city has a water system, a sewer system, electric light and power, telephones, paid fire department, over ten miles of cement sidewalks and paved and macadamized streets. The two principal streets have recently had modern pavements laid on them. There are five elevators, a cold storage plant, a large lumber mill, a flour mill, a nursery, many large merchantile establishments, four banks, three weekly newspapers including one daily, a public library, good schools, many churches, handsome dwelling houses, good hotels and many large business blocks.

The population of Flathead county is estimated at 25,860 and the assessed valuation is \$12,174,107.

**LAND AREA**—Flathead County, which is in the Kalispell and Missoula land districts, embraces an area of 6,380 square miles, including 66,475 acres of unreserved and unappropriated public land available for entry under the homestead law, 115,140 acres of state land, and 2,202,120 acres of national forests. Of the total area of the county, 867,350 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 850,000 bushels; oats, 1,700,000 bushels; barley, 125,000 bushels; corn, 4,000 bushels; potatoes, 265,000 bushels; hay, 35,000 tons; apples, 75,000 bushels; cherries, 5,000 bushels; strawberries, 60,000 quarts; raspberries, 80,000 quarts; currants, 12,000 quarts.

In 1915, the assessor's rolls showed the following livestock: Horses, 6,277 head; milch cows, 3,137 head; other cattle, 6,404 head; sheep, 4,146 head; swine, 2,084 head.

### GALLATIN COUNTY.

Gallatin county was one of the original counties created in 1865 by act of the legislature of the newly created territory of Montana. It was named for the Gallatin river, which was discovered by Lewis and Clark in 1805 and named after Albert Gallatin, who was secretary of the treasury in President Jefferson's administration. It has given freely of its territory to form other counties and is now a relatively small county. The southern part of the county extends to the Yellowstone National Park and is a mountainous region pierced by the West Gallatin river into which flow numerous streams. The mountains are covered by forests, interspersed with parks, and there are several large basins of open country where the native grasses are abundant and afford a splendid summer range for livestock. Excellent coal has been found in this section and there are deposits of copper and asbestos. This part of the country is a favorite resort for the camper, the fisherman and the hunter, and is entered by a good road, which extends from the Yellowstone National Park, follows one of the most beautiful streams in America, passes through picturesque canyons, through forests and parks and basins and the bases of mighty mountain peaks.

The cultivated area is in the foothills, which descend from the mountains surrounding the valley, and in the Gallatin valley, an extensive region of wonderful fertility. The valley lands are irrigated from the waters of the West Gallatin river or tributary streams while on the benches and foothills farming is usually carried on without irrigation. The irrigated and unirrigated lands under cultivation are about of equal extent, but every year there is an increase in the number of acres of land farmed without irrigation due to the breaking and cultivation of tracts on the foothills that have been used heretofore for grazing. While there is no chance to file on public land in the valley or the adjacent foothills, there are splendid opportunities to buy land of remarkable fertility at low prices considering its productiveness.

The Gallatin valley has been called "The Egypt of America" and Gallatin county was the pioneer county to make farming the main industry of its inhabitants.

The annual products of its farms are probably of greater value than those of any other county in the state.

The average production of grain per acre is believed to be unequalled in any county in the United States. Reports collected from 192 irrigated grain fields, embracing 14,000 acres, gave an average crop of 58.2 bushels of wheat per acre and \$38.28 as the average returns per acre. The average yield of oats was 76.4 bushels, barley 58.7 bushels, and potatoes 291.5 bushels. From 76 non-irrigated grain fields, embracing 7,090 acres, the average yield per acre was 42 bushels and the average value of the crop \$35.39 per acre. Both irrigated and non-irrigated lands show a money return per acre that supports the claim that no county in the United States is known where farming is so profitable as in Gallatin County, Montana.

The quality of the grains have caused them to be in demand for seed and for shipment to flouring, cereal and malt mills. Barley has been shipped to Europe, Japan and Australia.

A new industry, which promises to be remarkably successful and profitable, is the growing of seed peas under contract with seed houses. The soil and climate are ideal for the production of peas of the highest grade, and the pea crop should net the grower not less than \$40 per acre.

Strawberries and raspberries make great yields and are in demand in the towns of the county and in Butte and other Montana cities. All hardy vegetables yield amazingly, the celery being of exceptional quality. Hardy apple trees make large yields of excellent fruit. Dairying is an important and increasing industry, and from the sale of eggs and chickens large sums are derived. Hogs thrive on alfalfa and cow peas and sell at profitable prices. There are many horses of excellent grade and beef and dairy cattle of the best types. No farming district in the northwest has greater advantages and no farming community is more prosperous.

The county is served by the Northern Pacific and Chicago Milwaukee and Puget Sound railways, and by the Gallatin Valley railroad, a subsidiary of the latter. The main line of the Northern Pacific crosses the county from Bozeman tunnel to Logan and thence to Lombard; the Butte branch starts from Logan and passes west through the Jefferson valley; and from Manhattan a branch line has been built to Ancney in the Camp creek country; at Mountainside, a railroad comes in from the Trail Creek coal fields.

The chief towns are Bozeman, Three Forks, Belgrade and Manhattan. Less than six years old, Three Forks, with two railroads, a population of 2,000, large business houses, many civic improvements and a growing, busy little city, is an example of how towns grow in developing Montana. Manhattan is a milling and shipping point for a productive section. Salesville, in the southern, and Maudlow, in the northern part of the county are important grain shipping points. Belgrade is a thriving town in the center of the valley, has large flour mills and elevators and ships great quantities of grain. Logan is a trading place for the lower Madison valley and is a junction point on the Northern Pacific railroad. At Trident is a large cement factory.

The county seat is Bozeman, "the beautiful", a city modern in every respect, with fine residences, surrounded by beautiful lawns and shade trees, churches, schools, business blocks, mills, and elevators. The population in 1910 was 5,107. The city owns the water works; there are sewers, a paid fire department, paved streets, many miles of cement sidewalks, parks, street car lines, and the grounds of the Inter-State Fair Association. The Montana Agricultural College, the largest educational institution in the state, having more than 500 students; the Montana Agricultural Experiment Station; the United States local land office and the United States



Fish Hatchery are located at Bozeman. It is a beautiful residence and educational city and an important business place. There are flouring mills, a cereal food factory, several elevators, a brewery and numerous small factories. Every year in September Bozeman gives a "Sweet Pea Carnival", a unique festival that attracts thousands of visitors.

The population of Gallatin county is estimated at 22,700 and the assessed valuation is \$16,724,404.

**LAND AREA**—Gallatin county, which is in the Bozeman land district, embraces an area of 2,529 square miles, including 10,650 acres of unreserved and unappropriated public land available for entry under the homestead law, 54,976 acres of state land, and 840,418 acres of national forests. Of the total area of the county, 788,419 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 3,350,000 bushels; oats, 2,500,000 bushels; barley, 500,000 bushels; corn, 12,000 bushels; potatoes, 195,000 bushels; hay, 87,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 11,769 head; milch cows, 3,562 head; other cattle, 14,258 head; sheep, 14,185 head; swine, 4,998 head.

### GRANITE COUNTY.

In 1893, Granite county was created from the western part of Deer Lodge county. It lies east of the Bitter Root valley and much of its territory is mountainous. The slope of the land is from the high mountains in the south to the Hellgate river in the north. In the mountain area is much beautiful scenery, excellent hunting and streams in which trout are abundant, and also much timber.

Granite county achieved a world wide reputation as a rich mineral district more than a score of years ago. Out of the great Granite-Bimetallic mine it is said that more than \$40,000,000 in silver and gold have been taken, the production of other mines swelling the total to \$50,000,000. While the famous mines of generations ago are not now producing in large quantities, it is probable that there remains in them and in undeveloped prospects in the many mineral districts ores worth many millions of dollars. Prospectors continue to search for new deposits, leasers are working in old mines, and many small mines are operated by individual owners or by companies. The outlook is for an improvement in the mining industry in all districts and for swift development into a great producing camp of the Georgetown lake country into which has been extended the Butte, Anaconda and Pacific railroad.

In the West Fork district of Granite county great quantities of sapphires have been mined. The stones, which are found in gravel deposits, from which they are taken by hydraulic mining, are of value as gems when of the first quality and as abrasives when of inferior grade.

Much attention has been paid to the breeding of improved strains of horses and cattle. Belgian, Percheron, Shire, and standard bred stallions have sired young horses that have sold for high figures. At least half of the range cattle is Hereford stock.

The county has convenient markets for its products in Missoula, Anaconda and Butte. The Flint creek valley has peculiar advantages for successful dairying and creameries at Phillipsburg and Hall produce large quantities of excellent butter and other dairy products which have won many prizes at the Montana State Fair and at other expositions.

The valleys of Flint and Rock creeks and Hellgate river contain many acres of irrigated lands that yield profuse crops of grain and grasses. Flint creek valley, extending from Drummond to Phillipsburg, embraces the most productive agricultural

section. The soil is alluvial, rich and deep, and convenient railroads transport grain, grasses and vegetables to the market close at hand. Oats make large yields and crops of 75 to 100 bushels per acre are not uncommon. In Rock creek valley are many fine ranches. The average production of grain is high, but hay is the chief crop. Hellgate valley has an easterly and westerly trend and a width, in places, of more than a mile of rich alluvial soil. The Northern Pacific and the Chicago, Milwaukee & Puget Sound railways run through it; and its productive lands offer advantages that are equalled at few places.

The advantages of the county for fruit growing are attracting attention. The suitability of the soil and climate for the successful production of fruits on a commercial scale is shown by several orchards.

Phillipsburg, the county seat and principal town, is a terminus of a branch line of the Northern Pacific railroad, had a population of 1,109 in 1910, occupies a commanding position upon the terrace of Flint creek valley, has excellent drainage, a good water system, an electric lighting plant, a court house, handsome homes, good hotels, business houses, a bank, a creamery, a foundry, a brewery and a weekly newspaper.

The public schools of Phillipsburg and the Granite county high school afford excellent opportunities for obtaining a good education. Hall, in the Flint creek valley, is in the center of a prolific farming section, has an up-to-date creamery, and has a number of business establishments, is within easy reach of lignite coal mines, and controls the trade of a populous farming district. Drummond, on the main line of the Northern Pacific railroad where the Phillipsburg branch starts, is the trading place for the northern end of the county, has mercantile houses, a newspaper, and men who will be glad to tell of the advantages the neighboring country has to offer to the homeseeker.

Granite county has an estimated population of 9,380 and an assessed valuation of \$3,681,090.

LAND AREA—Granite county, which is in the Helena and Missoula land districts, embraces an area of 1,728 square miles, including 198,948 acres of unreserved and unappropriated public land available for entry under the homestead law, 17,202 acres of state land, and 718,094 acres of national forests. Of the total area of the county, 257,490 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: Wheat, 75,000 bushels; oats, 450,000 bushels; barley, 25,000 bushels; potatoes, 65,000 bushels; hay, 34,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 4,077 head; milch cows, 906 head; other cattle, 11,817 head; sheep, 18,807 head; swine, 1,058 head.

### HILL COUNTY.

Hill county was created, by vote of the people, March 6, 1911, being carved out of a portion of old Chouteau county.

This county is strikingly typical of eastern Montana in the rapid development of its agricultural resources. Formerly regarded as fit only for grazing, it has furnished homes for thousands of new settlers who have filed upon public land and made good as farmers. An exceptionally large percentage of the land of the county is tillable and it is rapidly taking its place as one of the most productive farming counties of the state.

Hill county is watered by the Milk River, which flows southeast from the Canadian border through the eastern portion of the county, and by numerous creeks.

There is not, however, except in a few districts, sufficient water for irrigation and practically all the farming in this county is non-irrigated. Excellent yields of wheat, flax, oats, barley and corn are obtained and many of the farmers are going into hog-raising on an extensive scale.

Recently there has been much prospecting for oil and gas in this region and commercial gas has been produced in large quantities within two miles of Havre, the county seat. This gas has been brought into town, with the result that during the winter of 1915-16, Havre was the only city in the state heated by natural gas.

Havre has experienced a remarkable growth within the past few years and has every prospect of soon becoming one of the most important cities in the northern part of the state. The city now has an estimated population of 5,000, and an assessed valuation of almost \$2,000,000. It boasts three banks, three wholesale houses, one daily and three weekly newspapers and a dozen progressive retail stores. It has city water and an electric lighting system and is thoroughly modern.

The utilization of the large deposits of natural gas in the vicinity of Havre make it probable that this city will shortly become a manufacturing center of considerable importance.

The estimated population of Hill county is 24,480, and the assessed valuation of the county was \$9,247,436 in 1915.

**LAND AREA**—Hill county, which is in the Havre land district, embraces an area of 4,180 square miles, including 245,795 acres of unreserved and unappropriated public land available for entry under the homestead law, and 205,375 acres of state land. Of the total area of the county, 784,000 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 1,250,000 bushels; oats, 750,000 bushels; barley, 28,000 bushels; corn, 15,000 bushels; flax, 85,000 bushels; potatoes, 110,000 bushels; hay, 40,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 13,256 head; milch cows, 3,592 head; other cattle, 8,777 head; sheep, 42,118 head; swine, 1,115 head.

### JEFFERSON COUNTY.

Jefferson, one of the original counties of the territory, lies on the eastern slope of the Rocky Mountains and is separated from the Missouri river valley by parallel ranges of which the Elkhorn mountains form a part. From the mountains in the western, northern and eastern boundaries, the ground slopes to the Jefferson valley where the lowest elevations are found. Many mountain streams unite to form the Boulder river, which rises in the northwestern part, flows east for a number of miles and thence south to the Jefferson river with which it unites at Jefferson Island. The northwestern part of the county is drained by Prickly Pear creek, which empties into the Missouri river near Helena. The southern boundary, for the greater part, is the Jefferson river.

Mining is the principal industry, stock growing and farming being next in importance. Nearly all of the mountains that comprise a great part of the county are mineralized and scores of millions of dollars have been extracted from the mines. There are thousands of mineral claims and many producing mines. Mining is active in the Corbin-Wicks neighborhood, where great sums have been spent in the last few years in development work in mines, and at Clancy, Boulder, Basin, Amazon and other places.

Stock growing has been an important and prosperous industry from early days. The native grasses furnish good food, little winter feeding is necessary, and many horses and cattle are shipped every year. In the mountains are large areas

of good grazing lands that are not adapted for farming and the permanency of the stock industry is assured.

The area devoted to farming increases yearly. Farming without irrigation has been successful in many cases, but the chief production is from irrigated lands in the Jefferson and Boulder valleys. The Jefferson valley, about 35 miles long, extends from the canyon on the east to Waterloo on the west and embraces Jefferson Island. Whitetail, Deer, Fish and Pipestone creeks water this section which contains many fine farms. The Boulder river has a long valley in which are situated many productive grain and stock ranches. Prickly Pear valley has the advantage of being near Helena.

Oats, winter wheat, rye and hay are the chief crops. Irrigated oats yield from 25 to 50 bushels per acre and a bushel often weighs 44 pounds. Winter wheat and rye yield from 30 to 50 bushels on irrigated and from 15 to 40 on non-irrigated land.

Native grasses make excellent hay, and alfalfa yields from 3 to 6 tons to the acre. For butter, eggs, vegetables and fruits the many mining camps supply a market and the markets of Butte and Helena are in part supplied from this county. Diversified farming is pursued by many and dairying is profitable. Hardy apples produce abundantly. Excellent opportunities are present for the farmer, fruit grower, dairyman and gardener as well as for the capitalist, who will help to develop mines, and the stock grower. In addition to precious metals are deposits of limestone and cement rocks. The excellent granite that was used to construct the wings of the State Capitol was quarried in Jefferson county, only ten miles from Helena. In the limestone formation, north of Jefferson canyon, is the wonderful Lewis & Clark cavern, one of the most beautiful and extensive caves in America.

Boulder, the county seat, is situated in the central part of the county, thirty-seven miles from Butte, and thirty-five miles from Helena. It is a thriving town with good schools, churches, banks, business houses, a newspaper and many attractive residences. It is the home of the State School for the Deaf and Blind.

Whitehall is the chief trading point in the southern part of the county and of the Jefferson valley. It had a population of 417 in 1910 and is perhaps the most populous town. It is a railroad junction point, has good schools, churches, and large business establishments. Piedmont, a new town, is in a good farming section. Many orchards have been planted, and vegetables are extensively grown. Basin, in a mining region, has commercial establishments, churches and schools. Clancy is in a prosperous mining and agricultural region. Corbin and Wickes are centers of mining activity. Elkhorn is where the famous Elkhorn group of mines is located.

In Jefferson county are four noted mineral springs which are visited by many invalids who are benefited by the waters, and by many others in search of recreation. Alhambra and Sunnyside are fifteen miles south of Helena and have excellent accommodations. Boulder Hot Springs are the county seat and a costly hotel building has recently been erected. Pipestone Springs, on the Northern Pacific railroad, 26 miles from Butte, is a favorite resort.

Jefferson county enjoys the advantages of being close to the cities of Butte and Helena, where farm products may be marketed and to which ores may be shipped for treatment at smelters. The average wealth and production per capita is high, and there are attractive opportunities for the homeseeker and the capitalist to acquire land at its present low valuation for farming or fruitgrowing and to purchase interests in mining properties that need the expenditure of capital to develop them into producing mines.

The estimated population is 6,790 and the assessed valuation is \$6,215,035.

**LAND AREA**—Jefferson county, which is in the Helena land district, embraces an area of 1,642 square miles, including 125,146 acres of unreserved and unappropriated public land available for entry under the homestead law, 28,840 acres of state land, and 482,267 acres of national forests. Of the total area of the county, 307,609 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 150,000 bushels; oats, 425,000 bushels; barley, 10,000 bushels; potatoes, 80,000 bushels; hay, 28,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 4,049 head; milch cows, 1,576 head; other cattle, 12,715 head; sheep, 2,900 head; swine, 795 head.

### LEWIS AND CLARK COUNTY.

One of the oldest and wealthiest counties in Montana is Lewis and Clark county. Under the name of Edgerton, it was one of the original counties of the territory, the name afterwards being changed to keep in remembrance the famous explorers of 1805. It was the scene of many events of historical interest in pioneer days; and Helena, the town of which grew up around the placer diggings of Last Chance gulch and became the financial, commercial and mining center of the state, was fittingly selected as the territorial capital and as the seat of government of Montana after its admission into the Union as a State.

Nearly all the population and the greater part of the area of Lewis and Clark county are on the eastern side of the Rocky mountains, the land sloping from high mountains to the Missouri river which runs through the county in a northeasterly direction and receives several important tributaries. A considerable area in the northern part of the county is in the Sun river drainage basin. The Prickly Pear valley, adjacent to Helena, and the Sun river valley, embrace most of the land that is under cultivation.

On the western slope of the Rockies is a sparsely settled and mountainous part of the county in which are several mining districts. The drainage is mainly into the Big Blackfoot river, and the greater part of this region is included in national forests.

Mining, stock growing and farming are the occupations of the country residents, and commercial and manufacturing pursuits employ large numbers in the cities. The county embraces a very extensive and rich mineral belt and mining has been successfully carried on since 1864 when the wonderfully rich placers of Last Chance Gulch, now included within the limits of Helena, were discovered. Many other places were productive, and every year a considerable quantity of placer gold is recovered. Much land that could be profitably worked with a gold dredge will, it is thought, be found on exploration. Near Lincoln, on the west side, are placer grounds that have been yielding gold for many years. Mines at Unionville, a few miles south of Helena, have produced many million dollars' worth of gold. The Spring Hill and other great mines are in this neighborhood. During the past few months two producing mines have been opened in the Scratch Gravel district, three miles north of Helena, and many prospects are now being developed in this district. In either direction from Helena, mining camps are found only a few miles apart. The principal mining town is Marysville where many large mines are producing. It is reached by a branch line of the Northern Pacific from Helena, 21 miles distant. Gould is an established mining camp in the same section. A branch line of the Northern Pacific railroad extends to Rimini, 18 miles from Helena, which is a shipping point for an extensive mineral territory in the southwestern part of the county.

To treat the ores of this and adjoining counties, the American Smelting Company operates a smelter at East Helena where a large number of men are employed.

East Helena is a considerable town which is connected with Helena by an electric railway and two steam railroads.

Stock growing has been a leading industry from early days and the fattening of beef cattle in the Prickly Pear valley for shipment to distant markets, is a branch of the business that is becoming important.

The chief agricultural districts are in the valleys of the Prickly Pear and Missouri rivers near Helena and in the northern part of the county from the Dearborn to the Sun River. Farming development has been stimulated in the Augusta neighborhood by the construction of a railroad from Great Falls, and in the country near Helena by the recent completion of a large irrigation project. Much land, in what is known as the Helena valley, is also farmed by non-irrigated methods. Fruits also grow successfully and several orchards have been set out. Soil and climate conditions are favorable for the Prickly Pear valley becoming a great fruit district. For farm products of all kinds, especially for vegetables and for fruits, the city of Helena and the adjacent mining camps will provide markets, the local production at present falling far below the local demands.

The enormous power that is generated at the electric power plants on the Missouri river is used in part to pump water from Hauser Lake to irrigate about 30,000 acres of land within a few miles of Helena. The agricultural development of the country near Helena, caused both by the extension of cultivation of unirrigated lands and by the large increase in the acres under irrigation, promises to be rapid. In the past three years, many new settlers who have gone into the northern part of the county and have broken and planted many acres of raw land; older settlers have increased the number of acres under cultivation on their farms, and this part of Lewis and Clark county will soon become a very productive farming district.

Helena, the county seat, is the capital of Montana and is a commercial, financial and political center. The population, in 1910, was 12,515. It is an attractive place of residence and is said to be the richest city per capita in the United States. The total resources of the banks of Helena are more than \$1,000 per capita. Costly private residences and large business blocks testify to the wealth of the inhabitants.

Helena is the center of many religious activities. The Episcopal Bishop of Montana, the Bishop of the Methodist church, the Bishop of the Roman Catholic diocese of Helena, and official leaders of other denominations reside in the city. Hospitals, asylums and benevolent institutions are numerous. It is an educational center having an excellent public school system, and many denominational schools. By the aid of friends in Helena and at other places a large endowment fund has been raised for the Montana Wesleyan University, a long established institution which has secured handsome grounds, not far from the Capitol, upon which will be erected a group of fine buildings. The Deaconess School for young children, is a useful institution which is located a few miles from the city. The Catholic church has parochial schools, graded schools for boys and girls, a high school occupying a \$500,000 building; St. Vincent's Academy, a school for girls, conducted by the Sisters of Charity, which has been in existence for many years and has a large attendance; and Mt. St. Charles College, for boys, which was opened in 1911, and has splendid buildings. One of the most beautiful church buildings in America is the new St. Helena Cathedral recently completed.

The capitol, a splendid building costing \$1,100,000 contains the offices of various state executive officials, the Supreme Court, and the chambers of the two branches of the legislative assembly. The Montana State Fair is held every year on grounds near the city and is attended by many thousand visitors. The federal courts meet in Helena and the chief federal officers for the state have offices in the city. A

United States assay office and the land office for the Helena district are located here, as are also the headquarters of the engineer in charge of the government reclamation work in Montana.

Helena has all of the advantages and conveniences that are to be found in a modern and progressive city with public, business and residence buildings that compare favorably with those of any city whatever its size, and has some advantages peculiar to itself, such as the largest enclosed natural hot water natatorium in the world and one of the greatest developments of water power on the continent. Two immense dams and generating plants have been completed and a third is under construction. The three dams develop a total of 220 feet and will make available 100,000 horse power. This abundant and cheap power is available for use on the farm and in the mines; is transmitted in large quantities to Butte and is an advantage for manufacturing plants that few cities possess. This almost unequalled power, the location of the city near districts that produce large quantities of grain, and the excellence of the railroad facilities are expected to unite in making Helena a flour milling center as well as to be reasons for other manufacturing establishments to be started. Helena is an important jobbing center and goods are shipped to all parts of the state. The manufactures are crackers, candies, soap, spices, extracts and baking powders, brick and clay products. There are two breweries, an iron foundry and planing mills. There are two daily newspapers and five large printing establishments.

Helena is a railroad center, being on the main line of the Northern Pacific and the place from which the Rimini, Elkhorn and Marysville branches start. The Great Northern, through the Montana Central division, gives communication with the main line at Havre, the Burlington at Great Falls and Oregon Short Line at Butte.

Lewis and Clark county abounds with opportunities in farming, fruit growing, mining and manufacturing, and is on the eve of great growth in all these lines.

The population is estimated at 26,960 and the assessed valuation is \$24,151,849.

**LAND AREA**—Lewis and Clark county, which is in the Helena land district, embraces an area of 3,476 square miles, including 551,517 acres of unreserved and unappropriated public land available for entry under the homestead law, 112,089 acres of state land, and \$63,147 acres of national forests. Of the total area of the county, 668,929 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 300,000 bushels; oats, 750,000 bushels; barley, 50,000 bushels; flax, 10,000 bushels; potatoes, 350,000 bushels; hay, 56,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 6,116 head; milch cows, 1,161 head; other cattle, 20,518 head; sheep, 137,000 head; swine, 1,476 head.

### LINCOLN COUNTY.

Occupying the northwest corner of the state and comprising a large area, rich in natural resources and but slightly developed, is Lincoln county, which was organized in 1909 from a part of Flathead county. The greater part of the county is mountainous and heavily timbered. Streams and lakes are numerous and the rainfall is heavier than in any other county in the state. The great river of this part of Montana is the Kootenai, which is said to have a larger flow of water than either the Missouri or the Yellowstone. Tobacco, Fisher and Yakt rivers are important tributaries draining large regions.

The industries are lumbering, mining, farming and fruit growing. Lumbering is the leading industry and large lumber mills are operated at Libby, Eureka and Warland. It has been estimated that there are twenty billion feet of merchantable

timber standing in Lincoln county. Large numbers of men are employed at good wages in the lumber industry whose permanence is assured. The lumber camps furnish a local market for farm products and the wages of the workmen contribute largely to the business of the towns.

The mineralized area is extensive and rich. In the southwestern part is the Libby silver-lead mining district whose rocks are said to be a counterpart of those of the rich Coeur d'Alene district of Idaho. The Snowshoe mine, in this district, has produced about \$1,000,000. About 40 miles southeast from Libby are the West Fisher gold fields where many discoveries of rich ores have been made and much development work done. As soon as a railroad is built into this district, it will begin to produce large quantities of gold. In the northern part, near Eureka, are also promising mineral claims; and the Yakt district, in which is Sylvanite, contains much mineral wealth. The quartz mines present many opportunities for the successful investment of capital to aid in their development. The Libby placers were among the first discovered in Montana and have been producing gold since the early sixties. Hydraulic mining followed the ground sluicing and gold dredges may be used where the ground is favorable.

The average rainfall is about 24 inches and irrigation is not necessary. The growing season is long, and the altitude away from the mountain peaks, is low, being 2,308 feet at Eureka, 2,113 at Jennings, 2,055 feet at Libby, and 1,881 feet at Troy. Tobacco Plains is the largest area without a growth of timber; smaller tracts of the same kind exist in many sections, and the area of farm lands is annually added to by the clearing of cutover timber lands. Throughout the county the conditions of soil, rainfall and climate are such as to insure prolific growths of all grains, grasses, vegetables and fruits.

As a fruit country, Lincoln county has exceptional advantages. The Tobacco Plains district has a number of excellent orchards. Apples, plums, pears, cherries, and berries of all kinds produce large crops of excellent quality. The same is true of the whole Kootenai valley, which has the lowest altitude of any part of the state. Many thriving orchards exist near Libby and every year a number of acres of newly cleared land are planted to orchard trees. Troy is at even lower altitude; and the whole Kootenai valley has the advantages to make it one of the greatest fruit districts in the country.

The Kootenai river drops 60 feet at Kootenai Falls and 40 feet in the rapids, a fall of 100 feet in the distance of one mile. This wonderful water power is as yet undeveloped.

Lincoln county has much beautiful scenery, many picturesque mountain peaks and waterfalls, and a curiosity in Blackwell glacier. Many visitors are attracted to the county by the excellence of the fishing and the hunting.

The advantages of this section, for wood pulp mills, are generally admitted.

Three fine bridges have been completed across the Kootenai river at Troy, Libby and Rexford at the cost of \$95,000, the balance of the bond issue of \$125,000 voted for the purpose, having been used to aid in road construction. A good road now extends along the Kootenai river from Gateway at the Canadian boundary to the Idaho state line.

The main line of the Great Northern railroad runs through the county and a branch line runs from Rexford north into the Fernie coal mining district of Canada.

The principal towns are Eureka, Libby and Troy. Eureka is the chief trading point for the Tobacco Plains country, has electric light, water works, churches, schools, a bank, a creamery, a newspaper, business buildings and attractive resi-



dences. Large saw mills give employment to many men. The town is surrounded by a very productive farming and fruit district and immense forests are in the neighborhood. Copper, cement rock and marl are mineral assets. Eureka is a growing town and has openings for a flour mill, a cement plant and a brick factory.

Libby, the county seat, is on the Kootenai river, had a population of 630 in 1910, which has since increased to 1,500; has fine public, business and residence buildings, hospitals, churches, banks, newspapers, numerous stores, a water works, electric lights, many miles of graded streets and cement sidewalks. Libby is in a great timber district and has large saw mills. The tributary country is rich in mineral, has beds of marble and includes part of the Kootenai valley orchard district besides many acres of good farming land. Libby is growing rapidly and has cheap fuel, available water power, clay, timber for wood pulp, and many other inducements for manufacturers.

The estimated population of Lincoln county is 8,355 and the assessed valuation is \$6,215,569.

**LAND AREA**—Lincoln county, which is in the Kalispell land district, embraces an area of 3,660 square miles, including 3,980 acres of unreserved and unappropriated public land available for entry under the homestead law, 57,197 acres of state land and 2,005,535 acres of national forests. Of the total area of the county, 531,224 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat, 65,000 bushels; oats, 325,000 bushels; barley, 45,000 bushels; corn, 8,000 bushels; potatoes, 125,000 bushels; hay, 7,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 1,690 head; milch cows, 530 head; other cattle, 1,305 head; sheep, 46 head; swine, 221 head.

### MADISON COUNTY.

Madison county is situated in the southern part of the state, having Idaho as its southern boundary. It was one of the original counties created by the territorial legislature and one of the sixteen counties existing when the constitution of the state was adopted. Virginia City was the territorial capital and was the scene of many notable events in pioneer days.

It contains Alder Gulch, discovered in 1863, which has produced more gold than any other similar area in the world and is still producing. At the mouth of the gulch are the large dredges of the Conrey Company which handle at large profits great quantities of gold bearing dirt. Quartz mining followed placer mining and Madison has produced and is still producing more gold than any other county in the state. The greater part of the county is in a mineralized region and numerous mining camps exist. Silver Star, Iron Rod, Twin Bridges, Rochester, Sheridan, Virginia City, Pony, Norris and Red Bluff are towns that are surrounded by rich mining districts. In addition to gold, silver, copper and lead are ores of tungsten, iron and manganese, pure limestone and coal. Sapphires and rubies are found in placer diggings. In the numerous mining districts are many good opportunities for the prospector, the miner and the capitalist.

Mining, stock growing and farming are the three leading industries. Some of the best bred horses, cattle and sheep in the United States are in this county. Fine herds of cattle are numerous, and much attention has been paid to improving the breeds of sheep. Horses, cattle and sheep are shipped in large numbers each year and sell at prices that prove their quality.

Madison county contains timbered mountain ranges, long rapid rivers, extensive and fertile valleys, and is watered by the Madison, Jefferson, Ruby, Beaverhead and Big Hole rivers and their numerous tributaries. An immense quantity of hydro-

electric power is available, part of which is being utilized by the Montana Power Company which has built, seven miles from Norris, a dam across the Madison river and established a large plant that generates 20,000 horse power the year around. The power is transmitted to several points in the state, to Butte and Anaconda on the west, and to Bozeman, Livingston, Billings and other places on the east.

A mountain range forms the eastern boundary, another is in the center, and a third in the western part. The chief agricultural districts are in the valleys and between the ranges. The Jefferson valley extends from the northern boundary to Twin Bridges where the river is formed and embraces in its own drainage basin and those of the South Boulder and Willow Creek a great extent of excellent farm land. South of Twin Bridges are the Beaverhead and Ruby valley, the former about 15 miles long and five miles wide, and the latter about 30 miles long and from one to three wide. The extensive area in these valleys contain many highly improved and very productive farms. The trading points are Waterloo, Twin Bridges, Sheridan, Laurin and Alder. A part of the Willow creek valley is in Gallatin county, but the upper part is in Madison county and extends to Pony and Norris. South of Norris is the Madison valley, about 36 miles long, and, including the bench lands, about 5 miles wide. Large crops of oats, wheat and hay are raised. Meadow Creek, McAllister, Ennis, Jeffers, Cameron and Lyon are postoffices in this valley, which has room for at least five times its present farming population. Many excellent stock ranches are in this section.

In the valleys are irrigated areas and on the benches, farming without irrigation has been successful. Several projects are pending that will increase the acreage of irrigated lands and some of the large ranches are being subdivided and sold in farm lots.

The county is sparsely settled and offers good advantages to the homeseeker who desires to secure farming and fruit lands by purchase at low prices. The markets of Butte and Anaconda are convenient; and fruits, dairy products, eggs and chickens are always in demand.

The principal towns are Virginia City, the county seat, an important commercial and mining center, a rich town and of great historical interest, having been the territorial capital; Pony, a mining town and trading point for the Willow creek country; Sheridan, a pretty thriving town, surrounded by rich farm lands and near producing mines; and Twin Bridges, which is situated at the head of Jefferson valley near the confluence of the Ruby, Beaverhead and Big Hole rivers and at the outlet of the valleys of those rivers. Twin Bridges possesses a favorable location for growth in size and business importance and undoubtedly has a very bright future before it.

The State Orphan's Home is at Twin Bridges and occupies buildings that have been erected at the cost of \$160,000. It has numerous inmates and is well supported by appropriations for its maintenance.

The Northern Pacific has a branch line extending from Whitehall to Alder and another from Sappington to Pony and Norris. The extension of the Pittsburg and Gilmore railroad from Dillon to Twin Bridges and Whitehall is a probability of the near future.

The population of Madison county is estimated at 9,870 and the assessed valuation is \$7,493,144.

LAND AREA—Madison County, which is in the Helena and Bozeman land districts, embraces an area of 3,588 square miles, including 686,032 acres of unreserved and unappropriated public land available for entry under the homestead law, 121,698 acres of state land, and 839,382 acres of national forests. Of the total area of the county, 565,184 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: Wheat 300,000 bushels; oats, 1,200,000 bushels; barley, 65,000 bushels; potatoes, 450,000 bushels; hay, 95,000 tons.

In 1915, the assessor's rolls showed the following livestock: Horses, 9,811 head; milch cows, 1,280 head; other cattle, 26,878 head; sheep, 131,728 head; swine, 2,836 head.

### MEAGHER COUNTY.

Meagher county was one of the sixteen counties existing when Montana was admitted into the Union as a state in 1889. It was named for General Thomas F. Meagher, some time acting governor of the territory of Montana, whose statue adorns the grounds of the capital at Helena. Of great size when created, much of its original territory has been taken for new counties. There is now pending a proposal to form a county, to be known as Wheatland, out of the eastern part of Meagher county and adjacent parts of Sweet Grass county and Fergus county. Harlowton and Judith Gap will be in the new county if it is created.

Meagher county is situated in the central part of the state. It is separated from the Missouri valley by the Big Belt range. The two ranges and outlying spurs bound it on the north and in the southeastern part are the Crazy mountains. The Musselshell rises in this county and flows east. Smith river also rises in this county and flows north, entering the Missouri river near Great Falls. A large stream is Sixteen Mile creek which heads in the Castle mountains, flows west through a canyon of remarkable scenic beauty, and joins the Missouri at Lombard.

The principal railroad is the Milwaukee, which crosses the southern part of the county from east to west. A railroad was built in 1910 to connect White Sulphur Springs with the main line. The Billings & Northern division of the Great Northern crosses through the eastern corner of the county.

The chief farming districts are the Smith river valley in the northern, the Musselshell valley in the southern part, and the country around Judith Gap. The county has long been and is still a great stock country. Large tracts of land were acquired by stockmen who ranged cattle and sheep on the open range and raised hay and grain for their own use to be fed during the winter. Lands in the valley were irrigated, and it is only within a few years that farming has been carried on to any extent on unirrigated land. Irrigated lands in the Smith river and Musselshell valleys produce large crops of wheat, oats, barley, timothy, alfalfa and vegetables.

The Smith river valley is about 50 miles long by 10 or 12 miles wide. Stock growing is the chief industry, but many acres of the valley and bench lands that formerly were devoted to raising hay and to pasture are being planted to grain, and a very extensive area will be put in crops when a railroad is built through the valley. The soil is very fertile; yields of 50 to 75 bushels of oats, 35 bushels of winter and 53 bushels of spring wheat, and 2 to 4 tons of hay are reported. On the Catlin ranch it is said that 30 bushels of flax to the acre have been raised. Oats often weigh 45 to 48 pounds a bushel. Many prizes have been won by Meagher county exhibits at the State Fairs. Another very productive section is the Musselshell valley, where are some of the largest and finest ranches in the state. Around Martinsdale, Two Dot and Harlowton are many productive farms both irrigated and unirrigated. The benches between the valleys are being farmed with success, the soil being fertile and the annual rainfall 19 inches.

Great development has taken place in the country near Harlowton, and around Judith Gap and Hedgesville. Average yields of grain are high and some remarkable ones are reported.

Ores of gold, silver, copper, lead, zinc and iron exist. Near Delphine is some activity in mining. Castle was formerly a large producer of silver.

White Sulphur Springs, the county seat, is picturesquely situated near the head of Smith river valley 18 miles from the Milwaukee railroad, with which it is connected by the White Sulphur Springs & Yellowstone Park railroad. The waters of the wonderful springs that give name to the town possess healing qualities of great value. The water has a copious flow at 110 degrees. The springs have been bought by John Ringling, the circus owner, who intends to erect here a large and costly hotel and to provide the conveniences of a great health resort. The town has a high school, graded schools, three churches, banks, a newspaper, hotels and stores. Some of the large ranches in the neighborhood are being sold in small lots and the population and business of the town is increasing.

Harlowton, in the Musselshell valley where the Judith Basin line joins the main line of the Milwaukee, is the chief town and has experienced great growth in population and business in the last five years. It is a well built, busy and growing town, and has a large hotel, extensive flour mills, business houses, banks, a newspaper and is the distributing point for a large agricultural and stock district. Railroad shops and a railroad pay-roll contribute to its prosperity.

Judith Gap, at the entrance to Judith Basin, is a flourishing new town in a very productive section. It is a division point on the railroad and in the large round houses and shops and in the operating department many men are employed. The town has a newspaper and numerous business houses and hotels.

Meagher county offers excellent opportunities to the homeseekers to purchase lands at low prices or to enter land under the homestead law on the benches where vacant public land may still be found.

The population is estimated at 10,100 and the assessed valuation is \$11,084,129.

LAND AREA—Meagher county, which is in the Helena land district, embraces an area of 3,553 square miles, including 245,254 acres of unsurveyed and unappropriated public land available for entry under the homestead law, 138,649 acres of state land, and 728,887 acres of national forests. Of the total area of the county, 1,124,708 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915; wheat, 450,000 bushels; oats, 525,000 bushels; barley, 20,000 bushels; flax, 15,000 bushels; potatoes, 65,000 bushels; hay 60,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 8,737 head; milch cows, 1,735 head; other cattle, 20,696 head; sheep 212,218 head; swine, 2,190 head.

### MINERAL COUNTY.

Mineral county is one of the newest counties in the state having been created from the extreme western portion of Missoula county in August, 1914. The county, which is generally composed of picturesque ranges of mountains, is cut in two by the swift flowing Clark's Fork of the Columbia and contains one of the longest and most fertile valleys of the state, although the valley, in many places, is very narrow. Back of this valley there are, in places, benchlands which have been found to be very productive, and the county, although very backward in the past, is now experiencing a healthy agricultural growth.

Lumbering and mining are, however, the chief industries of this section of the state. At St. Regis is located one of the largest sawmills of the state and at Henderson another mill is in operation. The region west of St. Regis is heavily timbered and will furnish work for logging crews for many years to come.

Superior, the county seat and principal town, is a rapidly growing, progressive place. Its location is extremely picturesque, being on the Clark's Fork river with towering mountains on either side. The town now has an estimated population of 450, and boasts one bank, with more than \$100,000 deposits, eight retail stores, one theater, two weekly newspapers.

Along the Clark's Fork river, in Mineral county, it is estimated that 20,000 horse power can be developed and the development of this power will undoubtedly give a strong impetus to the industrial life of this section of the state.

There has been renewed activity in mining in this county during the past few months and at the present time more than 400 men are employed on properties adjacent to Superior.

Mineral county offers unusual inducements to tourists. There is magnificent scenery and the best of hunting and fishing may be found within easy access of the railroads.

In the development of the county, it seems probable that dairying will soon play an important part. The excellent pasturage which the cut over lands of the county furnish, together with the purest of water and a never failing market for dairy products, tend to make dairying very remunerative along the Clark's Fork, and this industry promises to enjoy much growth in the near future.

The estimated population of Mineral county is 2,750 and the assessed valuation of the county, in 1915, was \$4,035,177.

LAND AREA—Mineral county, which is in the Missoula land district, embraces an area of 1,224 square miles, including 59,248 acres of unreserved and unappropriated public land available for entry under the homestead law, 26,285 acres of state land, and 875,000 acres of national forests. Of the total area of the county, 171,784 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat 10,000 bushels; oats 75,000 bushels; barley 20,000; potatoes 45,000 bushels; hay 12,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 618 head; milch cows, 207 head; other cattle, 351 head; sheep 88 head; swine 331 head.

### MISSOULA COUNTY.

When the territory of Montana was divided into counties, the extensive country drained by the Bitter Root, Clark's Fork and Kootenai rivers was put in Missoula county. The flourishing counties of Ravalli, Missoula, Sanders, Flathead, Mineral and Lincoln, have been formed from Missoula county, which still retains an extensive area having a large variety of rich natural resources.

The principal industries are farming, fruit growing, lumbering and mining. The principal farming districts are the Bitter Root and Missoula valleys and the recently opened Flathead Indian reservation. South of the city of Missoula, to the boundary line of Ravalli county, extends the part of the wonderful Bitter Root valley which is embraced in Missoula county and north and west lies the Missoula valley. Around Frenchtown, 17 miles from Missoula, is an old and prosperous farming community. In the Missoula valley average crops are  $2\frac{1}{2}$  to  $3\frac{1}{2}$  tons of timothy hay to the acre,  $2\frac{1}{2}$  tons of clover at the first crop and 2 tons at the second. Great yields of wheat and oats are reported from irrigated lands. On non-irrigated land, wheat yields from 30 to 40 bushels to the acre, oats 60 bushels and barley 45 bushels. Potatoes yield about 250 bushels to the acre, many vegetables are grown and the county is splendidly adapted for dairying and has some dairy cattle of the highest quality. While stock raising is not a leading industry, many head of beef cattle are annually shipped to Montana cities and to Pacific coast points.

In 1910 the Flathead Indian reservation, the southern part of which is in Missoula county, was opened to settlement. The reservation is about 60 miles long and about 40 miles wide and contains a million and half acres. While the greater part of the area is mountainous and grazing land, the agricultural area is very extensive. Mission valley is one of the most beautiful and fertile in the state.

Large yields of grains, grasses, vegetables and fruits are too common in the Bitter Root and Missoula valleys to excite comment and the reports that come from various neighborhoods in the Flathead reservation indicate that a very extensive country is coming into cultivation which in quantity, quality and variety of products will rival those of the valleys that have made western Montana famous. In parts of the Mission valley, all the conditions for successful fruit growing on a commercial scale are present. With the coming of a railroad, rapid increase in the acreage in cultivation will take place but remarkable progress has already been made in the short space of six years.

The fruit growing industry is a leading industry in Missoula county and is very profitable. Apples, cherries, plums, pears, berries, peaches in a few places, and grapes at St. Ignatius Mission are grown. Bing and Lambert cherries have been shipped in carload lots to New York. Many varieties of apples are grown but the McIntosh Red, which is the leading variety, attains perfection. This apple, beautiful in color, excellent in flavor and of good keeping quality, is in demand in all the markets of the world and many carloads are shipped to New York and other eastern points. The apple raising industry is capable of great development and markets for fruit of the first quality should never be lacking.

Lumbering is a very important industry, and the lumber mills at Bonner are among the largest in the northwest. Smaller mills are numerous.

The towns are Missoula, Bonner, Ravalli and Ronan. Ronan the chief town in the Flathead reservation, has a population of 500, is incorporated, has a bank, a newspaper, business houses, and is looking forward confidently for the arrival of a railroad that will hasten the development of the fertile region of which it is the trading point. Ravalli and St. Ignatius are growing towns in the reservation; at Bonner, six miles east of Missoula where the Big Blackfoot river emerges from a canyon, is an electric power plant and one of the largest lumber mills in the northwest. An electric railway connects Bonner with Missoula.

The city of Missoula is the metropolis of the western part of Montana. It is conveniently located at the northern end of the Bitter Root valley which extends south for about 65 miles, has the Missoula valley adjacent to it, is close to the Flathead reservation on the north and to the Big Blackfoot valley on the east. Missoula is a well built, progressive city that has all modern improvements, good public, business and private buildings, banks with large deposits, electric lights, power and street railway, two daily newspapers, numerous large business houses, a number of manufacturing establishments and openings for many more. A beet sugar factory is shortly to be opened here. The Western Montana Apple show is an annual event in Missoula and wonderful displays of Montana fruits are made. The secretary of the State Board of Horticulture, who is also the chief inspector of fruit and fruit trees, maintains an office in the city. The headquarters of the United States forestry service for district number one are also in Missoula, at which is also located the United States land office for the district. Fort Missoula is an army post in the suburbs. Missoula is the seat of the University of Montana which, in the few years since its establishment, has grown to be an institution of great usefulness. It is a delightful place of residence and is known as "the Garden City."

Missoula is an important railroad point, being on the main line of the Northern Pacific and the Chicago, Milwaukee and Puget Sound railways, both of which have built extensive passenger and freight stations, have large yards, and a pay-

roll that contributes much to the volume of business done. Missoula is connected with the famous Coeur d'Alene mining district of Idaho by a branch of the Northern Pacific that passes through the county before leaving the state.

The estimated population of the county is 32,460 and the assessed valuation is \$16,123,572.

**LAND AREA**—Missoula county, which is in the Missoula land district, embraces an area of 3,022 square miles, including 105,595 acres of unreserved and unappropriated public land available for entry under the homestead law, 79,412 acres of state land, and 940,000 acres of national forests. Of the total area of the county, 903,571 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915; wheat, 300,000 bushels; oats, 750,000 bushels; barley, 45,000 bushels; potatoes, 185,000 bushels; hay, 20,000 tons; apples, 80,000 bushels; strawberries, 50,000 quarts; raspberries, 20,000 quarts; currants, 10,000 quarts.

In 1915, the assessor's rolls showed the following livestock: horses, 5,757 head; milch cows, 2,614 head; other cattle, 9,701 head; sheep, 6,058 head; swine, 3,400 head.

### MUSSELHELL COUNTY.

Musselshell county was created March 1, 1911, from parts of Fergus, Yellowstone and Meagher counties. It embraces a large part of the valley of the Musselshell river and is named for that stream.

The industries are coal mining, stock growing and farming. Very extensive beds of coal of good grade have long been known to exist in the Bull mountains, but they were not developed until the Chicago, Milwaukee and Puget Sound railway was built through the Musselshell valley a few years ago. Now the mines at and near Roundup have been developed so that they have the capacity to produce 5,000 tons of coal a day; at other places are smaller mines; prospects that may soon become producing mines are numerous; and a very extensive area of known coal land has not been developed at all.

For a generation before the arrival of a railroad the Musselshell was a splendid stock raising country. The water was good, the grass abundant and nutritious, and the winters mild. Stock growing is still a leading industry and many carloads of wool and beef cattle are shipped annually. Farming did not become an industry of importance until the railroad was built, since which time it has experienced a remarkable growth.

A considerable acreage in the Musselshell valley and a smaller amount in tributary valleys are irrigated. The recent development, however, has been chiefly in farming bench lands without irrigation; and wherever proper systems of cultivation have been followed, profitable and in some cases surprisingly large crops have been raised of wheat, oats, flax and alfalfa.

The Musselshell river runs through the center of the county, the railroad runs along its banks, and the developed farm lands are found both on the north and south sides; and new farms on homestead lands or on lands bought from the Northern Pacific railroad or on some of the old stock ranches extend back for miles. There is still good homestead land to be had and cheap lands to be bought.

Roundup, the county seat, has been called "the Miracle of the Musselshell," and its growth in a few years from a small village in a cattle country to one of the best built, busiest and most progressive towns of the northwest has been little short of marvelous. The population is estimated at 3,150 and the city has water works, improved streets, many miles of cement sidewalks, is lighted by

electricity and has cheap electric power and fuel, has good schools, churches, banks, two newspapers and many business houses. The great pay-roll of the coal mines is the basis of the commercial business of the town, whose trade extends for many miles in all directions. Roundup is surrounded by a rich and developing agricultural country. Klein is a busy coal mining camp near Roundup.

Near the eastern boundary is the town of Melstone, which is a division point on the Milwaukee railroad and is the trading point for a rapidly developing country. Melstone is surrounded by a good farming district and there are undeveloped beds of coal in the vicinity.

Lavina was a noted place in the old stage coach days and the new town, a mile east of the old one, enjoys the same advantages of location and is a thriving, growing place. Many prosperous ranch homes are in the vicinity. An artesian well yielding water under good pressure is in the town.

The county around Rygate, a town in the western end of the county, has undergone a wonderful transformation in the last five years from a grazing to a farming country. The soil is good and large yields of all staple crops are made. Opportunities exist to buy good land on easy terms.

The character of the soil, the climatic conditions and sheltered positions of considerable area of land in Musselshell county suggest that fruit growing on a commercial basis would be successful; and the growing of sugar beets on irrigated lands in the valley would surely be carried on on a large scale if there were a beet sugar factory within shipping distance.

The population of Musselshell county is estimated at 16,280 and the assessed valuation is \$12,614,799.

LAND AREA—Musselshell, which is in the Billings and Lewistown land districts, embraces an area of 2,944 square miles, including 92,155 acres of unreserved and unappropriated public land, and 24,480 acres of national forests. Of the total area of the county, 1,221,375 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat, 850,000 bushels; oats, 375,000 bushels; barley, 30,000 bushels; flax 15,000 bushels; potatoes, 105,000 bushels; corn, 20,000 bushels; hay 28,000 tons.

In 1915, the assessor's rolls showed the following livestock; horses, 9,257 head; milch cows, 2,507 head; other cattle, 8,086 head; sheep, 42,468 head; swine, 3,939 head.

### PARK COUNTY.

Park county is one of the southern tier of counties and adjoins the Yellowstone National Park from which it was named. It was created February 23, 1887, from a part of Gallatin county and some of its original territory is now included in Carbon and Sweet Grass counties.

The county is watered by the Yellowstone and Shields rivers and their numerous tributaries. In the southern part of the county are high mountains on each side of the Yellowstone valley. The Yellowstone river emerges from the Yellowstone National Park and flows south through several canyons to Livingston, where it turns to the east. South of Livingston is a long valley of varying width; and on each side are foothills rising to the mountain ranges which contain timber, minerals, much beautiful scenery, and favorite resorts for hunting and fishing. Hunters, Chico, and Corwin springs attract many health seekers, and their waters have valuable curative properties.

The industries are stock raising, farming and mining. The minerals are gold, silver, copper, lead, scheelite, and coal. Emigrant gulch was formerly a producer of placer gold in large quantities and there are quartz mines in the neighbor-



hood. Jardine and Crevasse are mining camps near the Yellowstone Park entrance; and the New World mining district, in the high mountain range in the southeastern corner, of which Cooke city is the trading point, is highly mineralized, has been developed to a considerable extent, needs, it is said, only a railroad to become one of the greatest producing mineral districts in the United States. The developed coal mines are at Aldridge, in the southern part of the county, and at Trail Creek near the Gallatin county line. Marble and gypsum have been found and cement rock of a superior quality. It is proposed to erect a mill that will manufacture white cement.

Park county has much excellent grazing land on which pasture livestock of excellent grade.

The agricultural industry, which is growing rapidly in importance, embraces farming of irrigated lands in the valleys and of unirrigated lands on the benches and in the foothills. The soil is fertile and crop yields challenge comparison with those grown anywhere. Oats, wheat, barley and alfalfa are the chief crops in the irrigated districts and truck farming and fruit growing are also engaged in to a limited extent. All root crops make remarkable yields. On the unirrigated lands, wheat, oats and barley are the leading crops.

The Yellowstone valley, south of the canyon near Livingston, embraces a large and productive farming district and another part of the valley lies east of the city. The largest farming district, however, is the Shields river valley embracing the northern part of the county and including arable land estimated as amounting to 800,000 acres. Until the construction, a few years ago, of the Shields river branch line of the Northern Pacific, this vast area of fertile farm land was, except in the lower part, devoted to stock raising. It has been rapidly transformed into farms, but many acres still remain unplowed. Great crops of all grains and grasses are produced in this favored region.

Taking the county as a whole the yields of leading crops every year are about as follows per acre: irrigated wheat, 45 to 60 bushels; unirrigated wheat, 25 to 35 bushels; irrigated oats, 70 to 90 bushels; unirrigated oats, 40 to 60 bushels. Many crops exceed these figures. Alfalfa yields from 2½ to 5 tons. About 100,000 tons of hay are annually cut and there is a good demand for all that is not needed for home consumption.

The estimated population of Park county is 14,690 and the assessed valuation is \$10,985,589.

**LAND AREA**—Park county embraces an area of 2,679 square miles, including 54,660 acres of unreserved and unappropriated public land available for entry under the homestead law, 39,606 acres of state land, and 988,282 acres of national forests. Of the total area of the county, 675,407 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 1,750,000 bushels; oats, 875,000 bushels; barley, 125,000 bushels; corn, 7,000 bushels; potatoes, 200,000 bushels; hay, 67,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 8,857 head; milch cows, 2,667 head; other cattle, 18,912 head; sheep, 74,925 head; swine, 4,878 head.

### PHILLIPS COUNTY.

Phillips county was created in February, 1915, from the eastern portion of Blaine county and the western portion of Valley county. Generally speaking, this section of the state is devoted almost exclusively to farming and stockgrowing, although in the southern portion of Phillips county there are a number of producing gold mines.

Until recently, farming was unknown in Phillips county and the broad, fertile prairies of the county were given over to the grazing of thousands of head of cattle and sheep. This has been largely changed now, and throughout the county are to be found large farming districts which are rapidly going forward.

The county is well watered by the Milk river, which flows from west to east through the central portion. A considerable acreage in the county will be irrigated by the Milk river project, now being constructed by the United States reclamation service, and already dairying and intensive farming is being practiced in some irrigated sections.

In the Little Rockies in the southern part of this county, is one of the most productive gold camps in Montana. The Ruby Gulch Gold Mining company of Zortman is the principal producer. At Landusky are the mines of the August Gold company. The Rawhide, the Ninety-Six and the property of the Fergus Mining company have been extensively developed.

Malta, the county seat, until a few years ago one of the famous "cow towns" of the west, has developed into a prosperous, progressive city. It has electric lights, modern stores, well kept streets and every aspect of a thriving town. It is the distributing point for a large farming territory, lying both to the north and to the south and is enjoying a rapid growth. Dodson, on the western side of the county, and Saco, on the eastern, are thriving towns.

The estimated population of Phillips county is 9,760 and the assessed valuation of the county, in 1915, was \$4,335,839.

LAND AREA—Phillips county, which is in the Havre and Glasgow land districts, embraces an area of 5,266 square miles, including 1,991,300 acres of unreserved and unappropriated public land available for entry under the homestead law, 112,345 acres of state land, and 29,240 acres of national forests. Of the total area of the county, 205,977 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat, 450,000 bushels; flax, 15,000 bushels; barley, 35,000 bushels; corn, 25,000 bushels; oats 325,000 bushels; potatoes, 75,000 bushels; hay, 20,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 10,842 head; milch cows, 1,639 head; other cattle, 11,314 head; sheep, 129,507 head; swine, 924 head.

## POWELL COUNTY.

Powell county lies on the western slope of the Rocky mountains west of Lewis and Clark and north of Deer Lodge counties and was organized in 1901. One of the original counties of Montana was Deer Lodge, whose territory has been divided into the four counties of Silver Bow, Deer Lodge, Granite and Powell. Within Powell county are much of the best lands the original county contained, and it has retained as county seat Deer Lodge, which is one of the oldest and most attractive towns in the state.

In 1858 Granville Stuart, an honored pioneer who now lives at Butte, and five companions made at Gold creek in what is now Powell county the discovery of placer gold which, it is claimed, led to the settlement of Montana. Though unable at the time to work the placer they returned and began work in 1862, the news of their discovery led to the prospecting of other districts, and Bannack and Alder gulch were discovered. Gold seekers in large numbers flocked into the country and a territory was created and named Montana.

The industries are mining, stock growing and farming. The placers have been worked from early days and much gold has been taken from them. On

both sides of Deer Lodge valley are quartz mines and mineral claims. Some of the best mining opportunities in any district of the state are to be found in the several mining districts in the upper Ophir and Snow Shoe districts. Near Helmsville and Ovando several gold and copper properties have been developed, and in the neighborhood of Elliston there is much activity in mining. On Dry Cottonwood creek, 14 miles southeast of Deer Lodge, many sapphires have been mined.

Powell county is well timbered, especially in the northern part, and lumbering is an industry of importance. A large part of the land is mountainous and where it is not covered by timber is a luxuriant growth of native grasses. Much attention has been paid to improving the breeds of live stock and Powell county is noted for the excellence of its horses, cattle and sheep. Many car loads of beef cattle and wool are annually shipped.

The Deer Lodge valley where irrigation is practiced contains many productive farms. A number of large ranches in the vicinity of Deer Lodge have recently changed hands and will be sold in farms of moderate size with the result of adding greatly to the number of farms in the valley. The valley of the Little Blackfoot is not extensive but contains many good farms. Nevada creek valley is larger and in it are raised large crops of hay and grain. The Big Blackfoot valley is a fine stock country which will change in part to a farming district when railroads are built into it. The soil is fertile, all grains do well, and in few sections can such profuse yields of timothy be secured.

On some of the large ranches in the Big Blackfoot valley farming has been successfully conducted on a large scale and on many small farms and homestead claim excellent crops have been raised. The arable area is extensive, but its agricultural development has been held back by the lack of railroads. The northern part of Powell county is now almost exclusively a stock raising district, but when it is made possible to transport farm products to market by rail the fertile plough lands in the valleys, on the benches and foothills, will be devoted to farming and the higher and rougher lands will be used for grazing live stock. Cultivated grasses make large yields and the native grasses are abundant and nutritious; water is plentiful; the climate is good and the soil fertile; wood for fuel is abundant; as soon as a railroad reaches this district it should attract a large population to engage in diversified farming for which the country has so many advantages.

The location of Powell county close to the cities of Butte, Anaconda, Missoula, and Helena insures convenient markets for all products. Truck gardening, raising poultry and eggs are profitable, and the county has unusual advantages for the dairyman.

The main line of the Northern Pacific, after crossing the main divide, follows the course of the Little Blackfoot river and at Garrison is joined by the line extending from Butte through the Deer Lodge valley. Through the latter valley the Milwaukee railroad runs.

Deer Lodge, the county seat, was prominent in the history of Montana in territorial days. It is a city of homes, is beautifully located, has well laid out streets bordered by shade trees, has many churches, fine graded schools, is the seat of St. Mary's Academy for girls and of the College of Montana, an old, well equipped and well endowed institution of higher learning. The town has many handsome public and private buildings, banks, newspapers, and commercial establishments. About 200 new buildings were erected in 1910 and 1911 and large sums were spent in public improvements including a new sewer system and several miles of sidewalks. The Montana State Prison is located at Deer Lodge, and the furnishing of supplies to the inmates and the guards is a considerable item in the town's business.

Other towns are Elliston on the Little Blackfoot, a mining center; Garrison, a railroad junction point and the trading place for a considerable territory; Ovando and Helmville. Helmville is the principal town in the northern part of the county and is surrounded by a good farming region which will experience rapid development when the railroad comes.

The population of Powell county is estimated at 8,100 and the assessed valuation is \$7,346,760.

**LAND AREA**—Powell county, which is in the Helena land district, embraces an area of 2,549 square miles, including 218,684 acres of unreserved and unappropriated public land, available for entry under the homestead law, 52,564 acres of state land, and 621,509 acres of national forests. Of the total area of the county, 573,327 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 50,000 bushels; oats, 425,000 bushels; barley, 25,000 bushels; corn, 2,000 bushels; potatoes 95,000 bushels; hay, 76,000 tons.

In 1915, the assessor's rolls showed the following livestock; horses, 4,832 head; milch cows, 1,353 head; other cattle, 13,631 head; sheep, 97,214 head; swine, 1,213 head.

### PRAIRIE COUNTY.

Prairie, carved in 1915 from parts of Custer and Dawson, is Montana's baby county. It is one of the smallest counties of the state, but is likewise one of the best developed. Practically the entire area of the county is available for farming purposes and as all of the county is within easy access of the best of railroad transportation, it will undoubtedly be but a short time until every tillable acre in the county is placed under the plow.

Prairie county is watered by the Yellowstone river, which flows through the county from west to east, and by a number of smaller streams which flow into the Yellowstone. Irrigation however, is not practiced in this county, as exceptionally high yields have been secured by non-irrigated farming. This county, like Dawson and Custer, is in the heart of the "corn belt" of Montana, and its long growing season enables corn to attain certain maturity.

The climate is practically the same as that of Iowa and Illinois. The altitude is approximately 2,300 feet, insuring cool nights, there are comparative few severe storms; the air is dry and one does not feel the cold of winter or the heat of summer as in more humid regions. The normal rainfall is in excess of fifteen inches, more than half of which falls during the growing season and, under proper cultivation, this has proved ample for all crops in this soil.

Terry, the county seat, is a rapidly growing town with excellent railroad facilities. It is served by the main lines of both the Northern Pacific and the Chicago, Milwaukee, and St. Paul. Terry is a distributing center for a large farming country in the northern part of the county and is rapidly assuming metropolitan airs. The second most important town in the county is Fallon near the extreme eastern border. Like Terry, Fallon enjoys a good trade and is growing rapidly.

The population of Prairie county is estimated at 6,350 and the assessed valuation of the county, in 1915, was \$5,088,483.

**LAND AREA**—Prairie county, which is in the Miles City land district, embraces an area of 1,685 square miles, including 109,280 acres of unreserved and unappropriated public land available for entry under the homestead law, and 58,698 acres of state land. Of the total area of the county, 634,568 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat, 450,000 bushels; oats, 575,000 bushels; barley, 45,000 bushels; corn, 65,000 bushels; flax, 70,000 bushels; potatoes, 80,000 bushels; hay, 12,500 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 7,626 head; milch cows, 1,552 head; other cattle, 7,242 head; sheep, 55,184 head; swine, 1,779 head.

### RAVALLI COUNTY.

Between the high Bitter Root mountain range which forms the western boundary of Montana and an outlying range of the Rocky mountains lies the Bitter Root valley noted as one of the most wonderful sections of America on account of the salubrity of the climate, the fertility of the soil and the beauty of the scenery. All but about fifteen miles of this valley, which is about 75 miles long and varies in width from a mile or two to fifteen miles or more, is in Ravalli county. On both sides are extensive foothills and benches. From the mountains descend many streams that furnish water for irrigation, and through the length of the valley flows the beautiful Bitter Root river, one of the headwaters of the Columbia river. Protected by mountain ranges the winters are usually mild, the thermometer rarely falling to zero. The summers are delightful; the days are never excessively hot and the nights are always cool. There are many places of rare scenic beauty, mineral springs, excellent trout streams, and places where big game may be found. The first church in Montana was established by Father DeSmet in the Bitter Root valley in 1841; and there the first crops of wheat, oats and potatoes were grown. The first flour and saw mills to be built in what is now the state of Montana were built then under the direction of the Catholic missionaries to the Flathead Indians, the tribe which inhabited the country. Ravalli county was formed from Missoula county in 1893 and named for Father Ravalli one of the pioneer priests.

The industries are farming, fruit growing and lumbering. Agriculture in Montana had its beginning in the Bitter Root valley which early attracted settlers who engaged in stock raising and in farming. Hay, wheat and oats made astonishing yields. Marcus Daly, the copper magnate, bought a large tract of land near Hamilton and made the most highly improved farm in Montana. Good crops have been grown without irrigation on bench lands. The valley lands are irrigated and large yields of all staple crops are harvested every year. A new and promising crop is seed peas. The potato rivals the apple as a profit producing crop.

Celery, asparagus, tomatoes, peas, cabbage and other vegetables are raised in large quantities and sold in the cities of the state.

Ravalli is not a range stock county, but has many pure bred horses, cattle and hogs. The Bitter Root Stock Farm at Hamilton was formerly the home of Mr. Daly's stable of famous thoroughbred and standard bred horses and many noted performers on race tracks were raised there. The dairy stock is of high grade and the valley has many advantages as a dairying section.

Some of the early settlers planted fruit trees which succeeded so well that it became evident that the Bitter Root valley possessed unique advantages as a fruit district, and much credit is due to the early fruit growers whose experiments resulted in building up a great industry. Orchards are found in all parts of the valley and on bench lands that are not suitable for farming. The profits from growing apples are so great that no one can afford to grow grain on lands suitable for orchards. Large capital has been enlisted in developing irrigation and orchard enterprises and much publicity has been given to the attractions and advantages of this section. One of the longest private irrigation canals in the world has been constructed by the Bitter Root Valley Irrigation company.

Apples are the chief commercial fruit crop, the variety most extensively grown being the McIntosh Red which reaches perfection in this valley. Hundreds of thousands of trees have been set out in the last few years. Cherries, pears, plums, peaches and berries are also very successful. Fruit tracts are usually irrigated, and water has been brought at great expense from distant reservoirs to insure an unailing supply. For quality of product and profit yielded the orchards of the Bitter Root valley challenge comparison with those in the most famous fruit districts.

The mountains are heavily timbered and lumbering is an important industry. At Hamilton is one of the largest saw mills in the state and there are smaller ones at other places. Ravalli county has also mineral wealth—gold, silver, copper and coal.

Flourishing small towns are close together, the chief ones being Stevensville, Victor, Corvallis, Darby and Hamilton, the county seat and principal town. Hamilton has city water works, sewers, electric lights, a fine city hall and county court house, three saw mills, one flour and oatmeal mill, an elevator, an evaporator, a creamery, manufactories and desires a beet sugar factory. It has one of the finest hotel buildings in the state, banks, large business establishments, good schools, many churches, three newspapers and is the chief trading point of a rich and growing country.

Stevensville, the next town in population and business importance, has city water works and electric lights, excellent schools, a hospital, six churches, banks, a public library, a newspaper, a creamery and a number of retail stores.

Victor and Corvallis are flourishing towns in the valley surrounded by good fruit and farming districts. Darby, the terminus of the railroad sixteen miles south of Hamilton, is surrounded by a rapidly developing country.

All parts of the county present excellent opportunities for the homeseeker to purchase improved or unimproved farms, orchards or farm lands at low prices below their value considered from an investment standpoint, and in many cases on very easy terms.

The estimated population of Ravalli county is 15,640 and the assessed valuation is \$7,492,264.

LAND AREA—Ravalli county, which is in the Missoula land district, embraces an area of 2,391 square miles, including 6,560 acres of unreserved and unappropriated public land available for entry under the homestead law, 28,778 acres of state land, and 1,131,346 acres of national forests. Of the total area of the county, 388,755 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat, 250,000 bushels; oats, 1,250,000 bushels; barley, 75,000 bushels; corn, 8,500 bushels; potatoes, 425,000 bushels; hay, 50,000 tons; apples, 150,000 bushels; strawberries, 100,000 quarts; raspberries, 27,000 quarts; currants, 17,000 quarts.

In 1915, the assessor's rolls showed the following livestock: horses, 6,679 head; milch cows, 3,811 head; other cattle, 10,986 head; sheep, 12,072 head; swine, 4,437 head.

#### RICHLAND COUNTY.

No county in Montana has enjoyed greater growth in the past few years than has Richland, which was carved out of the northeastern corner of Dawson county in 1914. The territory now embraced in Richland county was formerly regarded as the premier stock range of the great cattle country, but is today one of the most progressive farming sections of the state.

Both irrigated and non-irrigated farming is practiced in Richland county. In the eastern section of the county lies the Lower Yellowstone project of the United States reclamation service, one of the largest irrigation projects in the west; in the western and northern sections, non-irrigated farming is followed on a large scale and with exceptionally satisfactory results.

Sidney, the county seat, which is reached by branch lines of the Northern Pacific and Great Northern railroads, is a remarkably well built city of about 1,500 population and growing very rapidly. It has all modern improvements, including a water system, electric lights, well graded streets and miles of concrete sidewalks. Its business blocks are of the most modern, fire-proof construction, which would not be out of place in a town many times the size.

Fairview, the second town of importance in the county, is along the state line between Montana and North Dakota and is growing rapidly. It has a population of about 900, and is a well built, progressive little city. Fairview is in the center of the Lower Yellowstone project and has every chance of becoming one of the finest farming towns in the state. Lambert, in the western part of the county, has for the past year been the temporary terminal of the new Great Northern extension from New Rockford to Lewistown and has enjoyed a large trade with the country to the north and west. This road is now being extended westward a distance of twenty-five miles and will, it is believed, be put through to Lewistown within the next few years.

An exceptionally large number of new settlers have gone into Richland county within the past three years and what homestead land remains is some distance from the railroads. Large private holdings, however, including much Northern Pacific land, has recently been put on the market and many buyers are coming into this section of the state. Improved irrigated land sells for between \$40 and \$50 per acre, and unimproved irrigated land at from \$25 to \$30. Non-irrigated benchland ranges in price from \$30 for improved to \$10 for unimproved.

The estimated population of Richland county is 18,874 and the assessed valuation, in 1915, was \$5,554,436.

**LAND AREA**—Richland county, which is in the Lewistown and Miles City land districts, embraces an area of 2,703 square miles, including 306,085 acres of unreserved and unappropriated public land available for entry under the homestead law and 86,888 acres of state land. Of the total area of the county, 728,018 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 1,500,000 bushels; oats, 1,350,000 bushels; barley, 65,000 bushels; corn, 125,000 bushels; flax, 100,000 bushels; potatoes, 97,000 bushels; hay, 25,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 15,992 head; milch cows, 2,992 head; other cattle, 9,404 head; sheep, 3,154 head; swine, 3,695 head.

### ROSEBUD COUNTY.

Rosebud county was created in 1901 from a part of Custer county; and in January, 1913, a large area in the western and southern parts was taken by the new county of Big Horn. Rosebud is one of the counties in the Yellowstone valley. It has been developing very rapidly in recent years but is still sparsely settled and offers excellent opportunities to homeseekers. Stock growing was almost the only industry when the county was organized and is still a very important one. Large quantities of wool and large numbers of beef cattle are annually shipped.

The county has a great extent of arable lands and the farming industry is rapidly growing in importance. Farm lands are of two kinds, irrigated lands, which are situated in the valleys, and non-irrigated lands, which are situated on the benches and in the foothills. The chief irrigated districts are in the Yellowstone and Rosebud valleys where are produced great yields of alfalfa, sugar beets, wheat, oats, barley, corn and vegetables. In no county in Montana does corn do better, and stalks and ears of surprising size have been exhibited at state fairs. The productiveness of the soil is strikingly shown by the great yields of vegetables and by the size of specimens. Yields on irrigated lands are about as follows: wheat, 50 to 60 bushels; oats, 70 to 90 bushels; sugar beets, 18 to 22 tons; alfalfa hay—three cuttings—2 to 6 tons an acre.

A large part of the Crow Indian reservation was in Rosebud county previous to the creation of Big Horn county, in which it is now included, together with a part of the Northern Cheyenne reservation. The agency and part of the latter reservation remains in Rosebud county.

The Northern Pacific railroad follows the south bank of the Yellowstone river from the eastern to the western boundary of the county. The Chicago, Milwaukee and Puget Sound railroad runs along the north bank from the eastern boundary to Forsyth, at which place it turns to the northwest, passes through the northwestern part of Rosebud county and enters the Musselshell valley at the boundary line between Musselshell and Rosebud counties.

The principal town is Forsyth, the county seat, which is located on both railroads, and in population and business is the most important town in the large extent of country between Billings and Miles City. Forsyth is a progressive place, has good schools, several churches, a public reading room and gymnasium, municipally owned water works, a sewer system, cement sidewalks, electric lights, telephones, a newspaper, banks, hotels, business houses and attractive residences. The railroads employ a considerable number of men, and from Forsyth are shipped large quantities of wool and livestock. It is the trading point for an extensive and developing agricultural section.

Other towns on the Northern Pacific railroad are Rosebud, which is a thriving town and trading point for a large territory on both sides of the Yellowstone river, and for the country, drained by the Rosebud river, and Hysham in the western part of the county, which is surrounded by a very productive country and is a progressive and growing town.

The estimated population of Rosebud county is 17,875 and the assessed valuation area of the county, 1,838,617 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 193,419 acres of state land and 100,607 acres of national forests. Of the total is \$12,883,047.

**LAND AREA**—Rosebud county, which is in the Lewistown and Miles City district, embraces an area of 6,067 square miles, including 947,908 acres of unreserved and unappropriated public land available for entry under the homestead law, 1915: wheat, 350,000 bushels; oats, 525,000 bushels; barley, 42,000 bushels; corn, 165,000 bushels; flax, 20,000 bushels; potatoes, 140,000 bushels; hay, 40,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 13,560 head; milch cows, 1,309 head; other cattle, 29,770 head; sheep, 109,945 head; swine, 3,138 head.

#### SANDERS COUNTY.

Sanders county embraces the country lying north of Missoula and south of Lincoln and Flathead counties adjacent to Idaho. It was created in 1906 from a part of Missoula county and named for Wilbur F. Sanders, who was a distinguished pioneer.



The industries are farming, fruit growing, stock raising, lumbering and mining. The chief agricultural districts are in the Clark's Fork valley near the towns of Plains, Paradise and Thompson Falls. Back from the valley on the benches on both sides are farms and fruit tracts. In the Little Bitter Root and Flathead valleys and on Camas Prairie, in the recently ceded Flathead reservation, great agricultural development has taken place and this fertile section will produce great quantities of grain when a railroad is built into it.

Sanders county has a fertile soil, and any crop that grows anywhere in the state makes large yields. The rainfall, about 18 inches annually, most of which falls during the growing season, as a rule provides sufficient moisture for crops, although Clark's Fork river and its tributaries provide an abundant water supply for irrigating purposes. The area now under irrigation is being increased, and excellent opportunities exist for capitalists to undertake large irrigation projects. To its fertile soil, Sanders county adds the advantages of a mild climate and a low altitude, the elevation at Heron being only 2,256 feet. The mountains surrounding the valleys afford protection; and because the springs come earlier and the summers last longer than in other parts of the state, varieties of fruits and vegetables thrive that do not succeed where conditions are different.

The soil in the bottom lands is usually a fine, deep, sandy loam, while on the bench lands a rich gravelly loam is found. Frequent yields per acre are from 2 to 4 tons of timothy, 4 to 5 tons of red clover and 3 to 6 of alfalfa; 40 to 50 bushels of wheat, 60 to 100 bushels of oats, 60 to 70 bushels of barley, 600 bushels of potatoes, and vegetables and fruits in proportion. No finer strawberries are grown anywhere, and they find a ready sale in the mining camps. The agricultural products are sold in all the large cities of the state, but the principal market is in the mining camps of the Coeur d'Alene country, lying immediately south, with which there is a direct railroad connection by way of the Coeur d'Alene branch of the Northern Pacific.

Wheat, oats, barley, flax and hay are the principal crops and the yields per acre are large.

The fruit growing possibilities of numerous districts in this county are almost limitless. Apples, peaches, pears, cherries, apricots and berries thrive in one or more of them, and some of the best orchards in Montana are in the Plains valley.

The conditions of fruit growing are substantially similar to those in the Bitter Root and Missoula valleys; the Northern Spy, the Baldwin, the Spitzenburg apple grow to perfection; and no finer specimens of the famous McIntosh Red can be found anywhere than are produced in the Plains valley. All other kinds of fruit grow in profusion in all the valleys of the county, and each succeeding year sees new orchards started. Sanders county promises to become one of the chief fruit producing counties of the northwest.

The county is well adapted to dairying and poultry raising, both of which bring large and certain returns.

The mountains, which cover about three fourths of the area of the county, are covered with billions of feet of pine, fir, spruce, tamarack and cedar, and lumbering has been a leading industry since the Northern Pacific railway was built through it in 1883. There are many saw mills and the lumber companies pay out large sums for wages. Much of the timbered land, when cleared, will make the finest kind of farming land.

Sanders county adjoins the famous Coeur d'Alene mineral district and has a similar geological formation. Around Trout Creek and White Pine sufficient work has been done to show the existence of rich deposits of lead, silver and

copper and throughout the mountain districts are mineral claims that promise to develop into mines. The mineral districts of Sanders county need capital for their development and promise splendid returns for investments in mining properties.

The Camas Hot Springs on the Flathead reservation, which have been reserved by the government on account of their wonderful curative qualities as a resort for invalids, may become a rival to the Hot Springs of Arkansas. Near Paradise are Quinn's Hot Springs, a favorite place of resort that has good accommodations.

Large sums have been spent in the last three years in improving highways and in constructing at Plains and Thompson Falls very long and expensive bridges across Clark's Fork river which afford communication to farming and fruit districts near those towns.

A valuable asset is the great water power of Clark's Fork river and of tributary streams. By constructing a 25 foot dam at Thompson Falls it was possible to generate 60,000 horse power.

Plains, in the productive Plains valley and the trading point for the western part of the Flathead reservation, is the chief town. It has a water works system, electric lights, an elevator, a public school building which cost \$25,000, four churches, banks, newspaper, numerous business houses, which have spent much money on permanent improvements and many new buildings have been recently erected.

Thompson Falls, the county seat, a growing town in a rich undeveloped district has two public schools and a high school building, a hospital, a church, a newspaper, a bank, hotels, stores and a fine system of water works.

Paradise is the railroad point where are a large railroad roundhouse and a tie preserving plant. A large sum is paid to the numerous railroad employes.

Camas is a new town in the reservation that has grown up around the springs and promises to become an important place. The springs attract visitors to the town which is a trading point for a country that has recently been settled. It has hotels, business houses, a bank and a newspaper.

Dixon, a growing town situated on the Northern Pacific railroad where the Flathead river empties into Clark's Fork, is the trading point for a good farming country, is connected by auto stages with towns north of it, and is the port of a steambot that runs on Flathead river. The town has merchantile establishments, a bank, a newspaper, hotels, and expects to be the southern terminus of a railroad to be constructed through the reservation.

The estimated population of Sanders county is 7,860 and the assessed valuation is \$6,044,324.

LAND AREA—Sanders county, which is in the Missoula land district, embraces and area of 2,837 square miles, including 115,087 acres of unreserved and unappropriated public land available for entry under the homestead law, 58,897 acres of state land, and 1,005,438 acres of national forests. Of the total area of the county, 447,662 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat, 200,000 bushels; oats, 525,000 bushels; barley, 17,500 bushels; corn, 10,000 bushels; potatoes, 85,000 bushels; hay, 7,500 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 3,002 head; milch cows, 1,500 head; other cattle, 3,896 head; sheep, 2,150 head; swine, 654 head.

**SHERIDAN COUNTY.**

Sheridan county, occupying the extreme northwestern corner of Montana, was created out of a portion of Valley county in 1913, and since that date has enjoyed wonderful progress. This county is a vast expanse of fertile prairie land, through which runs the Big Muddy and Poplar rivers.

The southwestern portion of the county is in the Fort Peck Indian reservation which was opened to settlement in 1914. At the time of the opening but a very few of those who were successful in the government drawing availed themselves of the privilege of filing upon the claims, this being due to the fact that the appraised price, running from \$1.25 to \$7.00 per acre, had to be paid for the reservation land, while, outside the reservation, just as good land could be secured under the homestead law. Since that time, however, the rapid acquisition of the free homestead land in this vicinity has served to call attention to the attractiveness of the reservation land and during the past year practically all of the reservation, not allotted to the Indians, has been filed upon by settlers.

There are a number of good towns in Sheridan county, Plentywood, the county seat, is the largest and most important. Although less than seven years old, the town now boasts a population of almost 4,000 and is rapidly growing. It is a thoroughly modern little city, boasting all conveniences. Medicine Lake is likewise an excellent distributing point and is growing fast. Scobey, the present western terminus of the Great Northern's branch line, is the trading point for an immense territory, while Poplar and Wolf Point not only supply the greater part of the Fort Peck reservation but also enjoy a big trade in the country south of the Missouri river. East of Scobey are Opheim and Glentana, both rapidly growing inland towns which have excellent prospects. Dooley, Outlook, Daleview and Whitetail are important points along the Soo road, which parallels the Canadian border for a distance of more than sixty miles in the northern part of Sheridan county.

Sheridan county has been one of the largest flax producing sections of Montana, while wheat, oats and barley also yield heavily. Good farming is the rule rather than the exception in Sheridan county, and the rapid growth of this section of the state is, to a large extent, due to the exceptionally large proportion of real farmers who invaded this territory when it first began to attract the homeseeker a few years ago.

The present population of Sheridan county is estimated at 23,510 and the assessed valuation of the county, in 1915, was \$10,599,544.

**LAND AREA**—Sheridan county, which is in the Glasgow land district, embraces an area of 5,103 square miles, including 662813 acres of unreserved and unappropriated public land available for entry under the homestead law and 181,256 acres of state land. Of the total area of the county, 653,531 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 3,600,000 bushels; flax, 750,000 bushels; barley, 125,000 bushels; corn, 130,000 bushels; oats, 875,000 bushels; potatoes, 192,000 bushels; hay, 32,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 20,168 head; milch cows, 5,928 head; other cattle, 10,116 head; sheep, 5,694 head; swine, 4,229 head.

**SILVER BOW COUNTY.**

Silver Bow, the smallest county in the state, having an area of but 698 miles, is by far the richest and most populous. Its prosperity is derived largely from the marvelous richness of its copper and zinc mines, and, while the mining industry

has overshadowed all others, Butte, the metropolis of the state, has developed into a large distributing center. Butte is practically Silver Bow county, although the incorporated area of the municipality itself, embraces but a comparatively small portion of the territory actually covered by the city. The area devoted to agriculture in Silver Bow county is very small, and no great increase is likely.

Butte is known as the "greatest mining camp on earth" but it is much more than that. It is the largest city in the state, the population, at the present time, being estimated at almost 90,000 and, aside from its mining interests, it is of importance because of its manufactures and as a financial, railroad, commercial and distributing center. With one exception, every interstate railroad operating in Montana has lines into Butte.

Butte, from a one time mining camp, and later a city of smoke, has emerged into a city of beautiful homes, splendidly paved streets, fine public buildings, dignified business blocks, and is generally accorded the distinction of being one of the most metropolitan cities of its size on the continent. Few cities can boast of a more healthful or bracing climate. Seldom is the winter excessively cold and when, occasionally, there is a touch of zero weather in mid-winter, there is an absence of chill and penetration due to the peculiar dryness of the air.

Copper and zinc form the basis of Butte's exceptional prosperity, the annual production of the former being in excess of 300,000,000 pounds and the latter about 215,000,000. More than 15,000 miners are employed underground at the highest wages paid for this kind of work anywhere in the world. The total mining payroll of the Butte district, in the spring of 1916, was more than \$2,500,000 monthly. Butte produces one-fourth of the copper mined in America, and one-seventh of the world's production. In addition to the copper and zinc mined, there is annually produced, chiefly as by-products, 12,000,000 ounces of silver and about \$1,500,000 in gold. The Anaconda, the greatest silver producer in America, is in Butte, while the Butte and Superior is the greatest zinc producer on the continent. The Anaconda is likewise the second greatest copper producing mine in the world.

The production of zinc in the Butte district is of recent growth. In 1908, the total value of the zinc mined in the district was estimated at \$77,080. It reached \$1,708,000 in 1910, went to \$6,200,000 in 1914 and to more than \$20,000,000 in 1915. In 1916, figured on the prevailing price of spelter and the rate of production in the early spring, it is believed that the total value of the zinc production in Butte will reach \$43,000,000.

The operation of the mines in Butte furnish ready markets for many products of the Treasure State. Electrical power is sent to Butte over long-distance transmission lines from Great Falls, Helena and the Madison river. More than 65,000,000 feet of lumber is annually used in making safe the underground workings.

The permanence of the Butte mining district is assured. Gold and silver camps are usually short-lived, but copper veins increase in value as depth is attained. Copper mines in Europe have been worked for more than a thousand years, and on this basis, although Butte has been a copper producer for 34 years, and during that time has sent to the markets of the world a billion dollars worth of the red metal, the camp is but in its infancy. The depth of the producing Butte mines range from 1,000 to 3,500 feet.

Butte is noted for its modern and excellent educational system. There are 27 public schools, with one of the largest and most efficient corps of teachers in the northwest. There are also seven parochial schools and a most up-to-date high school, which offers technical training in several lines. The State School of Mines, a branch of the University of Montana, is located here, and annually turns out a class of mining engineers whose theoretical education has been supplemented by intimate acquaintance and observation of the practical ideals of mining and smelting.

There are 42 churches in Butte, Protestant and Catholic. Almost every religious denomination is represented, including Catholic, Adventist, Baptist, Christian, Episcopalian, Greek, Hebrew, Latter Day Saints, Lutheran, Methodist, Presbyterian, Reorganized, Scientist and Unitarian, besides several missions.

Railroad men term Butte the "cross-roads of the northwest." Five transcontinental lines run into the state's metropolis, and the railroad business of this city is declared to be the largest of any inland city of its population in the world.

The population of Silver Bow county is estimated at 91,760 and the assessed valuation, in 1915, was \$42,419,268.

**LAND AREA**—Silver Bow county, which is in the Helena land district, embraces an area of 698 square miles, including 59,924 acres of unreserved and unappropriated public land, little of which is, however, suitable for cultivation, 14,994 acres of state land, and 188,144 acres of national forests. Of the total area of the county, 90,600 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 10,000 bushels; oats, 25,000 bushels; barley, 2,500 bushels; potatoes, 12,500 bushels; hay, 10,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 2,539 head; milch cows, 1,696 head; other cattle, 2,348 head; sheep, 8,115 head; swine, 587 head.

### STILLWATER COUNTY.

Stillwater county is another of the newer political sub-divisions of the state, and since the creation of the county, in 1913, from parts of Yellowstone, Sweetgrass and Carbon counties, it has enjoyed an exceptionally rapid growth.

Stillwater county lies in the center of the great dry land farming region of eastern Montana and the inhabitants of the county devote themselves exclusively to farming and stockraising. The southern part of the county is well watered by the Stillwater river, which flows north and empties into the Yellowstone at Columbus. Along the Stillwater river is one of the oldest farming regions of the state, and about Absarokee are to be found many irrigated farms on which intensive farming and fruit raising is practiced.

The northern part of the county embraces a portion of what is known as the Lake Basin country, one of the best developed and most productive dry land farming sections of the state. This section is soon to be opened by a Northern Pacific branch.

Columbus, the county seat, is said to be the best lighted town of its size in the state, and is a thoroughly modern little city. It has doubled in population since the 1910 census was taken and is now estimated as having a population of 1,000. It has bank deposits of more than \$500,000, and has ten retail stores, two newspapers, two elevators, and two lumber yards. Nearby is quarried the famous Columbus sandstone which was used in the erection of the State Capitol at Helena. An effort is now being made to secure a flour mill and a cheese factory, while at least 15,000 horse power is awaiting development.

An effort is being made to secure the construction of an electric or steam road up the Stillwater valley. Such a road would not only furnish much needed transportation for an agricultural population of 4,000 but would also tap extensive timber lands and coal and mineral deposits. The Rosebud Lakes, easily reached from Columbus, offer fine scenic attractions and the East Rosebud Lake colony is one of the popular summer places of the state.

Although there is but little good homestead land left in Stillwater county, land can be purchased at prices which are very attractive. Improved farm land sells at about \$30 per acre while unimproved land may be had for \$20 or even less.

The estimated population of Stillwater county is 9,185 and the assessed valuation of the county, in 1915, was \$6,028,429.

**LAND AREA**—Stillwater county, which is in the Bozeman and Billings land districts, embraces an area of 1,684 square miles, including 47,914 acres of unreserved and unappropriated public land available for entry under the homestead law, 50,539 acres of state land and 99,200 acres of national forests. Of the total area of the county, 522,280 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 943,000 bushels; oats, 407,000 bushels; barley, 50,000 bushels; flax, 40,000 bushels; potatoes, 125,000 bushels; hay, 20,000 tons; sugar beets, 3,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 5,844 head; milch cows, 1,739 head; other cattle, 9,514 head; sheep, 58,704 head; swine, 3,095 head.

### SWEET GRASS COUNTY.

Sweetgrass county, which was organized in 1895, is situated in the southern part of the state. The Yellowstone river runs from west to east nearly through its center. On the south the land rises from the level of the river to a high range of mountains in which head the Boulder and Stillwater rivers; and on the north the land rises to the Crazy mountains. Big Timber and Sweet Grass creeks are large streams that enter the Yellowstone river from the north. The northern part of the county is drained by tributaries of the Musselshell river.

In the southern part, much of which is in a forest reserve, are tracts of merchantable timber and a highly mineralized district containing ores of gold, silver, lead and copper. Coal has also been found. This region is one of remarkable scenic beauty. Many visitors come each year to fish in the Boulder river, a beautiful mountain stream in which trout abound. One of the most wonderful natural objects in the state is the Natural Bridge over the Boulder river. On several streams are cascades of rare beauty.

The county is well watered and there are many valleys. The Yellowstone valley, about 55 miles long by 2 wide, the valleys of the Boulder, Big Timber, Sweet Grass, American Fork and Otter creek, of varying length and width, are the chief agricultural districts. Private irrigation ditches have brought water to the lands in the valleys where hay is the chief crop and is raised in connection with stock raising. The county is noted for the excellence of the native grasses and stock growing is an important and profitable industry. Sheep are owned in large numbers and great quantities of wool are shipped from Big Timber.

Farming is on irrigated and unirrigated land, the latter a recent development. Many acres are under private irrigation ditches, and a great impulse has been given to the agricultural development of the county by the completion of the Big Timber Carey Act project. Many new settlers on these lands have raised excellent crops, and more land is being cultivated each year, and a large and prosperous community of farmers and fruit growers will occupy many acres that a few years ago were used only for grazing. Oats 162 bushels to the acre, barley showing a cash return of \$48 an acre, wheat from 20 to 40 bushels, flax running to 25 bushels an acre, and potatoes remarkable for size and quality are reported as having been raised on lands in this project. Alfalfa is the chief crop on irrigated lands and yields about four tons per acre.

Farming without irrigation is succeeding because the soil is fertile and the rainfall averages about 20 inches annually. Many settlers have come into the northern and eastern parts of the county and are transforming what used to be a noted range country into a region of productive farms.

Many orchards have been set out and the county promises to become a large producer of fruit. The soil and climate are well adapted for the growth of sugar beets.

Hog raising is attracting attention and the conditions are favorable for its development into a very profitable branch of farming. The excellence of the grasses, water and climate suggest that dairying ought to become one of the leading industries.

Small towns that are trading points for the surrounding country are Melville in the northern and McLeod in the southern part of the county. Big Timber, the county seat, is the chief town. It is an attractive and growing place and has an elevator, a creamery, a newspaper, hotels, stores, schools, churches, a hospital, a city hall, miles of cement sidewalks, electric lights, a water works system, an attractive court house, and is the trading and shipping point for a rich agricultural and stock country. Of 26,000 horse power available only 20 horse power is developed.

The estimated population of Sweet Grass county is 6,600 and the assessed valuation is \$5,379,976.

**LAND AREA**—Sweet Grass county, which is in the Bozeman land district, embraces an area of 2,310 square miles, including 169,628 acres of unreserved and unappropriated public land available for entry under the homestead law, 76,612 acres of state land, and 413,809 acres of national forests. Of the total area of the county, 655,116 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 85,000 bushels; corn, 12,000 bushels; flax, 20,000 bushels; oats, 325,000 bushels; barley, 40,000 bushels; potatoes, 79,000 bushels; hay, 72,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 5,127 head; milch cows, 1,851 head; other cattle, 16,535 head; sheep, 140,159 head; swine, 2,843 head.

### TETON COUNTY.

The extensive territory lying on the eastern side of the Rocky mountains, extending from the Canadian boundary on the north to the northern boundary lines of Lewis and Clark and Cascade counties on the east to the western boundaries of Hill and Chouteau counties, is embraced in Teton county, which was created in 1893. On the west it extends to the summit of the Rocky mountains; and owing to its great extent and differences in altitudes, the climate and soil at one place may differ considerably from those at another. In the mountains, the snowfall is heavy and important rivers, furnishing water for irrigating the low lands, have their source there. There are passes through which the Chinook winds come and temper the winter climate which is seldom severe enough to prevent outdoor work for any extended period. The average rainfall is about 16 inches. In the northwestern corner is the Blackfeet Indian reservation which, it is expected, will be opened to settlement soon. A part of Glacier Park that included much of its most attractive scenery is in this county.

The industries are livestock and farming. Teton county is a famous stock region, contains many noted ranches where blooded horses, herds of high grade cattle and fine flocks of sheep are owned; and the livestock industry is still a leading one. Large quantities of wool are sold annually.

Farming, which is of irrigated and unirrigated land, has made a wonderful advance in the last few years.

Teton county contains great expanses of beautiful prairie land, and in the past few years many settlers have moved in and begun farming on unirrigated lands. Yields, on dry land farms, of from 18 to 35 bushels of spring wheat,

25 to 40 bushels of fall wheat, 40 to 65 bushels of oats, and 40 to 50 bushels of barley are reported. Potatoes and vegetables have done well. Where the proper system of cultivation has been followed, paying crops have been raised, and the success of these pioneer dry land farmers will lead to the establishment of many thousand farm homes on the broad prairies.

The Burton bench is a large farming district where wheat yields average 40 bushels an acre and oats 85 bushels. There is no record of heavier oats than those grown on this bench; a bushel has weighed 55 pounds and the lightest of 83 samples sent to the World's Fair was heavier than the heaviest from any other state.

The largest private irrigation project in the state is the Valier Carey Act project which contemplates the reclamation of 126,148 acres, including 40,568 acres of deeded land. Much of the work has been completed and many acres of land sold, occupied and cultivated.

Flax has made large yields in several districts, and at Conrad a large factory has been erected for making fiber from flax straw.

Power, Dutton, Collins and Brady are thriving new towns that are shipping points for a large and rapidly developing dry farming region.

In the mountain ranges are indications of minerals, but little work has been done. Coal is mined in a small way at several places; and there are indications of petroleum.

The chief towns are Choteau, Conrad, Valier and Cut Bank. Cut Bank is a railroad and trading point adjoining the Blackfeet reservation and a convenient point from which to reach the large tracts that have recently been restored to entry. Valier is the terminus of the Montana Western railway which connects at Conrad with the Great Northern railroad and is in the center of the Conrad, Valier project. It is located on Lake Frances, a large and beautiful artificial lake, and has grown in three years to be a large, busy and well built town. Valier is a marvel for its age, and is an example of the energy and ability that is bringing about the remarkable development Montana is undergoing.

Conrad, the chief town, had a population of 888 in 1910 which has since much increased; and 200,000 acres of irrigated and 600,000 acres of unirrigated land are tributary to it.

The county seat is Choteau, an attractive town of about 1,000 population. It is beautifully situated in the fertile valley of the Teton river and is surrounded by a rich farming and stock growing district for which it is the trading point.

The population of Teton county is estimated at 21,975 and the assessed valuation is \$12,419,568.

LAND AREA—Teton county, which is in the Helena and Great Falls land districts, embraces an area of 6,566 square miles, including 217,634 acres of unreserved and unappropriated public land available for entry under the homestead law, 162,019 acres of state land, and 434,441 acres of national forests. Of the total area of the county, 839,101 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: Wheat, 2,250,000 bushels; oats, 1,125,000 bushels; barley, 75,000 bushels; flax, 350,000 bushels; potatoes, 125,000 bushels; hay, 34,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 15,893 head; milch cows, 3,222 head; other cattle, 14,982 head; sheep, 89,418 head; swine, 4,291 head.



### TOOLE COUNTY.

Toole county, which is located along the northern border of the state, is a farming and stockraising county which is in the initial stages of its development. Toole county was created out of parts of Teton and Hill counties in 1914, and is one of the smaller counties of the state.

All farming in Toole county is carried on by non-irrigated methods, but some exceptionally high yields have been secured. In the season of 1915, a ten acre field of flax yielded 350 bushels, said to have been the highest per acre yield of flax ever produced from non-irrigated land. Flax is one of the principal crops of this county and the growing of this crop has enabled many homesteaders to secure sufficient money to enable them to develop their holdings.

Recently, there has been considerable work done in an effort to develop the large oil deposits which are believed to lie beneath the Sweetgrass hills in the northern part of Toole county. Strong flows of gas have been encountered, but thus far the oil development has not reached a commercial scale.

Shelby, the county seat and principal town, is a railroad junction point and is the trading center for a large and productive territory. Sweetgrass, in the northern part of the county, is a port of entry from the Dominion of Canada. Galata and Devon, in the eastern part of the county, are good farming towns, both growing rapidly.

The population of Toole county is estimated at 7,880 and the assessed valuation, in 1915, was \$4,380,412.

**LAND AREA**—Toole county, which is in the Great Falls and Havre land districts, embraces an area of 1,949 square miles, including 123,442 acres of unreserved and unappropriated public land available for entry under the homestead law and 112,143 acres of state land. Of the total area of the county, 310,066 acres are privately owned.

**CROP PRODUCTION**—The following gives the estimated crop production for 1915: wheat, 350,000 bushels; oats, 575,000 bushels; barley, 20,000 bushels; flax, 100,000 bushels; potatoes, 24,000 bushels; hay, 7,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 5,967 head; milch cows, 1,441 head; other cattle, 4,471 head; sheep, 36,038 head; swine, 545 head.

### VALLEY COUNTY.

Although Valley county has been greatly reduced in size within the past few years in order to create and help to create two new counties in that section of the state, it is still one of the largest counties in the state, and is being rapidly developed.

Like all the rest of eastern Montana, Valley county was, until recently, merely grazing ground for sheep and cattle; but like the remainder of that section of Montana it has been transformed and today it is one of the substantial farming sections of the commonwealth.

Excellent crops of wheat, flax, oats and barley are produced all over the county on land which has been under the plow not to exceed two seasons and, in many cases, crops sown on spring breaking returned large yields.

Glasgow, the county seat, is the metropolis of northeastern Montana and is a distributing point for a great farming empire extending in every direction. Glasgow is a modern city of about 2,000 population and is growing rapidly.

The estimated population of Valley county is 16,660 and the assessed valuation, in 1915, was \$5,442,026.

LAND AREA—Valley county, which is in the Glasgow land district, embraces and area of 5,496 square miles, including 2,543,415 acres of unreserved and unappropriated public land available for entry under the homestead law, 326,325 acres of state land. Of the total area of the county, 276,930 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat, 850,000 bushels; oats, 925,000 bushels; barley, 87,500 bushels; corn; 75,000 bushels; flax, 125,000 bushels; potatoes, 120,000 bushels; hay, 45,000 tons.

In 1915, the assessor's rolls showed the following livestock: horses, 13,357 head; cattle, 12,424 head; sheep, 92,479 head; swine, 1,412 head.

#### WIBAUX COUNTY.

Wibaux county is the third smallest county in the state, but it probably has a greater percentage of its total area under cultivation than any other county in the state. It is the "gateway" county to Montana, the county through which all Northern Pacific passengers, from the east, enter Montana.

Beaver creek extends northward through the county, forming a large fertile valley which is highly productive. There is but little land in the county which is not tillable and during the past two years the amount of land in crops in this county has more than doubled.

Wibaux, the county seat and principal town, is a thriving city of 700 people and is growing rapidly. It has two banks, fifteen retail stores, two weekly newspapers, a creamery, three garages, two livery stables, two hotels and five elevators, the latter with a combined capacity of about 250,000 bushels. City water works and an electric lighting plant, together with good streets and fine sidewalks, give the town a metropolitan appearance. It is expected that a flour mill will be established here during the coming year.

But little public land remains in Wibaux county which is suitable for farming, although private land can be purchased at low prices and offers an unusual opportunity for the industrious farmer. Improved farm land sells for \$25 per acre and unimproved land can be purchased from \$15 to \$18 per acre.

The estimated population of Wibaux county is 6,400 and the assessed valuation of the county, in 1915, was \$3,823,421.

LAND AREA—Wibaux county, which is in the Miles City land district, embraces an area of 944 square miles, including 34,400 acres of unreserved and unappropriated public land available for entry under the homestead law, 31,358 acres of state land. Of the total area of the county, 422,834 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat, 525,000 bushels; oats, 675,000 bushels; barley, 54,000 bushels; corn, 65,000 bushels; flax, 75,000 bushels; potatoes, 76,000 bushels; hay, 15,000 tons.

In 1915, the assessor's rolls showed the following livestock, horses, 5,356 head; milch cows, 1,139 head; other cattle, 4,715 head; sheep, 1,477 head; swine, 1,123 head.

#### YELLOWSTONE COUNTY.

Yellowstone, the most important and populous of the counties in the Yellowstone valley, was created February 26, 1883 and named for the Yellowstone river which crosses it from the western to the eastern boundary. The Big Horn river forms a part of the eastern boundary, and mountain ranges in the south, west and north afford protection and modify the climate. During the past five years, the average temperature for December, January and February has been 29 degrees below zero. Spring opens early; and plowing and planting is com-

monly done before the rainy season, April, May and June, in which months half of the annual rainfall of over 15 inches falls. The long days of sunshine are ideal for the growing and maturing and harvesting of crops.

The rural industries are stock raising and farming. Yellowstone county has long been noted for the number and excellence of its livestock, and great quantities of wool and numerous cars of cattle and sheep are annually shipped. In addition to raising livestock, another phase of the livestock industry has assumed large importance, viz., the feeding and fattening of cattle and sheep for the market. Hog raising is also being very profitably pursued. The conditions are ideal for dairying.

Farming is of irrigated and non-irrigated lands. The Yellowstone valley is extensive and about 268,000 acres are under irrigation in the county. Irrigated lands may be purchased at from \$35 to \$50 an acre on the newer projects, and \$75 to \$150 under the older ditches.

Average yields of land in the irrigated districts are uniformly high. Alfalfa and sugar beets are the great crops in the valley, the yield of the former being 3 to 6 tons an acre and on the latter from 10 to 20 tons. Oats yield from 50 to 90 bushels per acre, wheat from 40 to 60 bushels, and corn from 30 to 50 bushels. Barley of the first malting variety is grown. Potatoes yield from 200 to 400 bushels to the acre, and the largest known yield from one acre, 1,213 bushels, was made near Laurel in this county. Vegetables of various kinds do well and are grown successfully for shipment to distant points. Berries are very profitable; apples do splendidly and many orchards have been set out. Fruit growing is an increasing industry and the products of the orchards sell for a large sum annually.

The Yellowstone valley is the chief sugar beet growing district of the state. Sugar beets yield enormously and have a high percent of saccharine strength. At Billings is the only beet sugar factory in the state.

Away from the valleys and the irrigated districts farming is carried on without irrigation and is called upland farming or dry land farming.

The northwestern part of the county is the Lake Basin country, a very extensive region in which many new settlers are growing successful crops by dry farming methods. The Broadview district is another important dry farming section which has made displays at the State Fair which have attracted much attention.

The Northern Pacific railroad's main line follows the Yellowstone river across the county and branch lines extend from Billings via Laurel to Red Lodge and Bridger, Carbon county. The Billings and Northern division of the Great Northern runs north to Great Falls. Communication with Omaha, Denver, points on the Crow reservation, and northern Wyoming is offered by the Burlington system.

The chief towns are Billings and Laurel. Others are Huntley, Ballantine and Hardin in the Huntley project; Broadway and Comanche on the Billings and Northern division of the Great Northern railroad in a part of the county which has been transformed in the past few years from a stock range to a farming region.

Laurel is an example of how towns grow in Montana. A few years ago the population was about 200 and today it is about 1,500. It is surrounded by a fertile and extensive district of irrigated lands and its trade extends back to the bench lands that are being converted into farms. It is located opposite the mouth of Clark's Fork river whose valley is one of the most productive in Montana. Laurel is a very important railroad point and is on the Northern Pacific, the Burlington and the Great Northern railroads. New railroad shops and round-

houses have recently been built at Laurel at a cost of \$3,000,000 and the railroad pay roll is a large one.

Billings, the county seat, is the center of an irrigated area of approximately 500,000 acres and of a non-irrigated farming country of 1,000,000 acres, ships great quantities of livestock, wool, hides and grain, is the headquarters of hundreds of traveling salesmen and of numerous branch houses of large firms, has many jobbing houses, numerous churches, good public schools, a polytechnic institute representing an investment of \$200,000, costly society buildings, two daily newspapers, and all the conveniences and improvements of an up-to-date city. Billings has numerous manufacturing establishments, the most important being the beet sugar factory which pays out annually about \$1,500,000 in payment of beets. Hydro-electric power is abundant and 50,000 horse power is available. The population was 3,221 in 1900 and 10,031 in 1910, an increase of 211 per cent. The people of Billings are noted for their public spirit and enterprise.

The population of Yellowstone county is estimated at 34,960 and the assessed valuation is \$20,531,859.

LAND AREA—Yellowstone county, which is in the Billings land district, embraces an area of 2,708 square miles, including 90,665 acres of unreserved and unappropriated public land available for entry under the homestead law, and 67,454 acres of state land. Of the total area of the county, 767,535 acres are privately owned.

CROP PRODUCTION—The following gives the estimated crop production for 1915: wheat, 1,050,000 bushels; oats, 950,000 bushels; barley, 56,000 bushels; corn, 75,000 bushels; flax, 25,000 bushels; potatoes, 240,000 bushels; hay, 74,000 tons; apples, 20,000 bushels; strawberries, 28,000 quarts; currants, 17,557 quarts.

In 1915, the assessor's rolls showed the following livestock, horses, 9,613 head; milch cows, 4,004 head; other cattle, 15,071 head; sheep, 88,708 head; swine, 6,384 head.

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