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RESOURCES

OF

ALBANY COUNTY,
W Y O M I N G



1913

*Responsible Mgr.
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RESOURCES

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The Laramie Chamber of Commerce offers some statements of facts for the information of tourists, investors and home-seekers. It will be a pleasure to furnish you with detailed information upon any of the resources of Albany County.

LARAMIE CHAMBER OF COMMERCE

Office, Connor Hotel Building

LARAMIE, - - WYOMING

ROBERT W. INNES, SECRETARY

1913

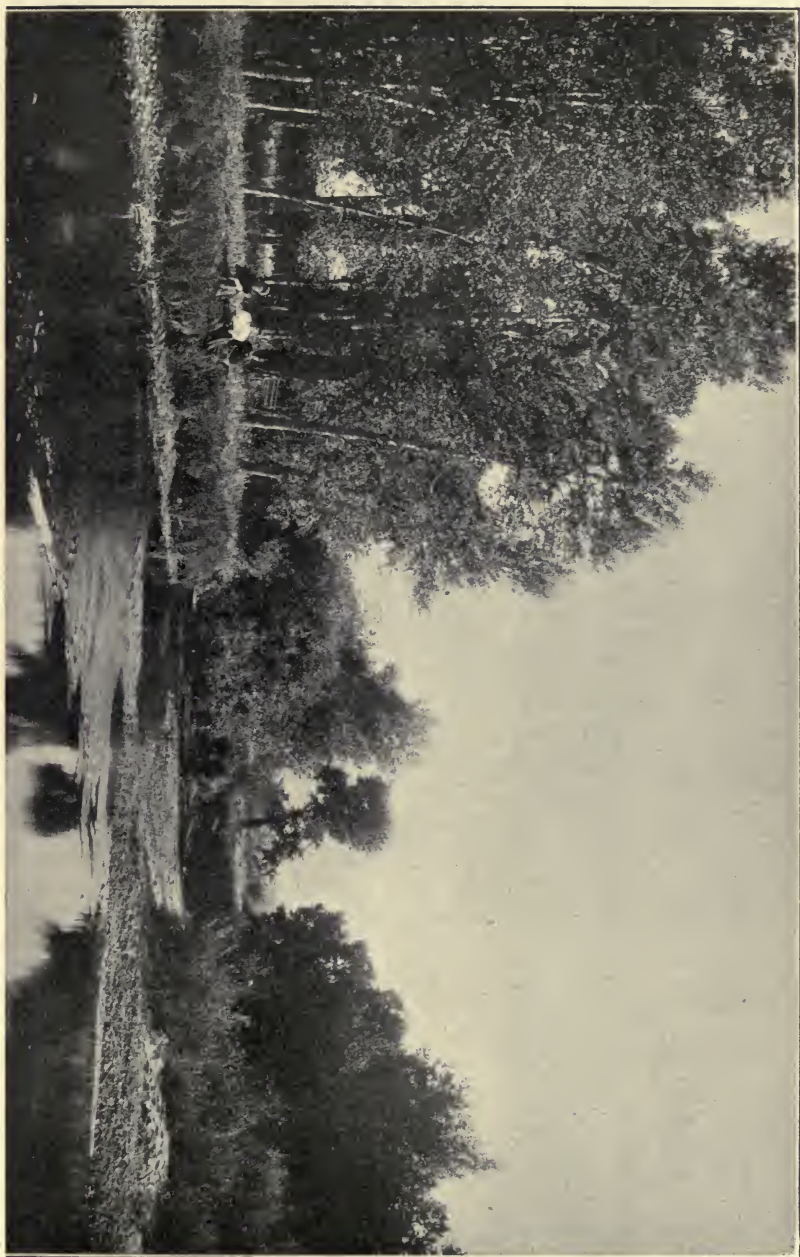
ALBANY COUNTY WYOMING

ALBANY COUNTY NEEDS

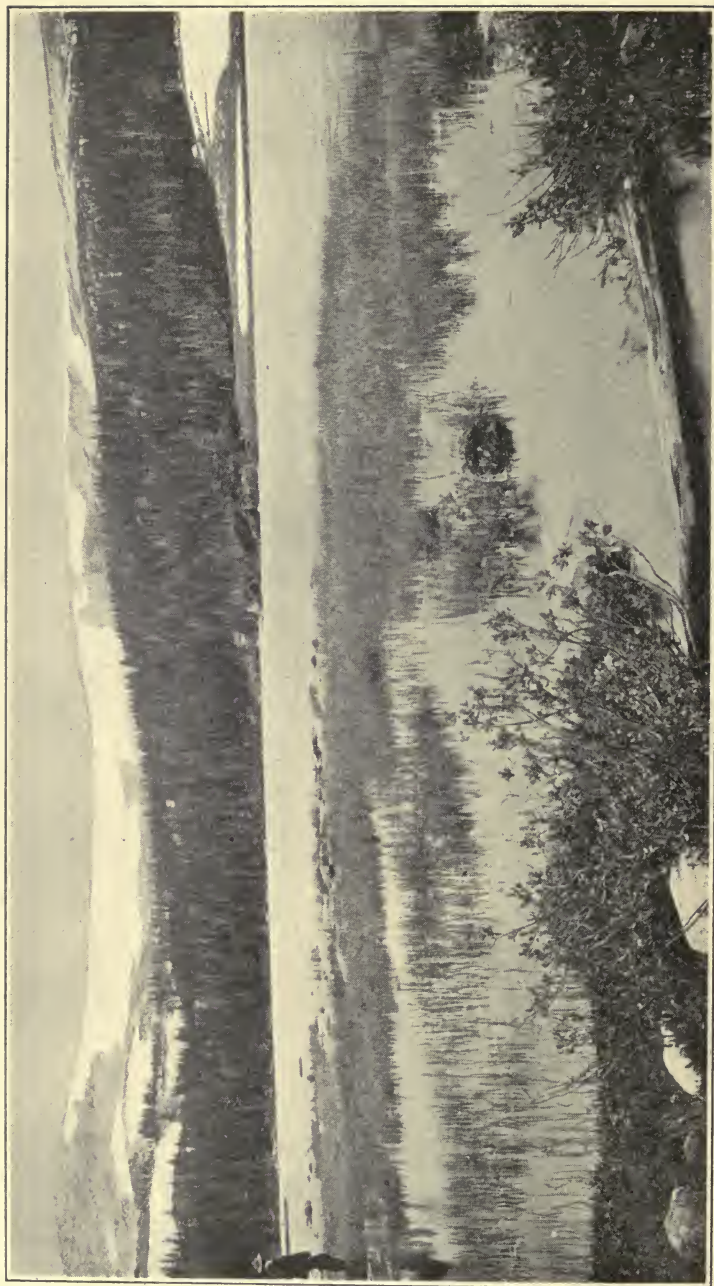
Men of push and brains to aid in the development of rich farming lands, for stock raising, dairying, hog raising, poultry raising, truck farming, and small fruit farming reap golden harvests.

Capital to develop our deposits of soda, lime and sand (particularly adapted to manufacture of glass), bentonite, asbestos, and natural deposits of Portland cement; coal, oil and natural gas; gold, silver, lead, copper, iron, graphite, plumbago and other minerals with which the plains, hills and mountains abound.

The development of our large and valuable tracts of timber lands.



Scene on Big Laramie River.



Scene on the Snowy Range.

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INTRODUCTION.

In presenting this pamphlet to the public, the Laramie Chamber of Commerce fully realizes the futility of telling all there is to say relating to the resources of Albany County in one small book. The purpose of this publication is simply to direct attention to a few of the resources and advantages of this county, in the belief that they will be of interest to the tourist, investor and homeseeker.

Albany County invites you, whether on pleasure bent, or seeking to better your condition, and it is the purpose of the Laramie Chamber of Commerce to see that accurate representations are made for the guidance of all who seek to avail themselves of the boundless opportunities of this large and prosperous, but thinly settled part of the state of Wyoming.

All authorities unite in stating that Albany County can support in happiness and prosperity at least fifty thousand more people. The lands are fertile, water abundant, transportation facilities good, roads among the best anywhere, scenic attractions worth traveling across the country to see, excellent climate, an invigorating atmosphere, and many other advantages which are worth while. Conditions are far more favorable for success than in any of the older, thickly populated communities.

All who look to Albany County for a future home should remember, however, that the same qualities of industry, prudence and perseverance are required for success here that would be needed anywhere. No one should come to Albany county expecting to "get rich quick", to achieve success without work and well applied knowledge. Above all, no one should come to Albany County expecting to find immediate employment in any line. When you come, bring enough funds to provide traveling and living expenses for a considerable period while you are visiting different localities and searching for the opportunity which appeals to you and in which you have confidence you can succeed. Do not build up false hopes of fabulous affluence and easy life without work.

A warm welcome into churches, schools, fraternal organizations and other societies, and into the large hearts of the western people awaits every new citizen who comes to Albany County with the honest purpose of achieving independence and making a home.

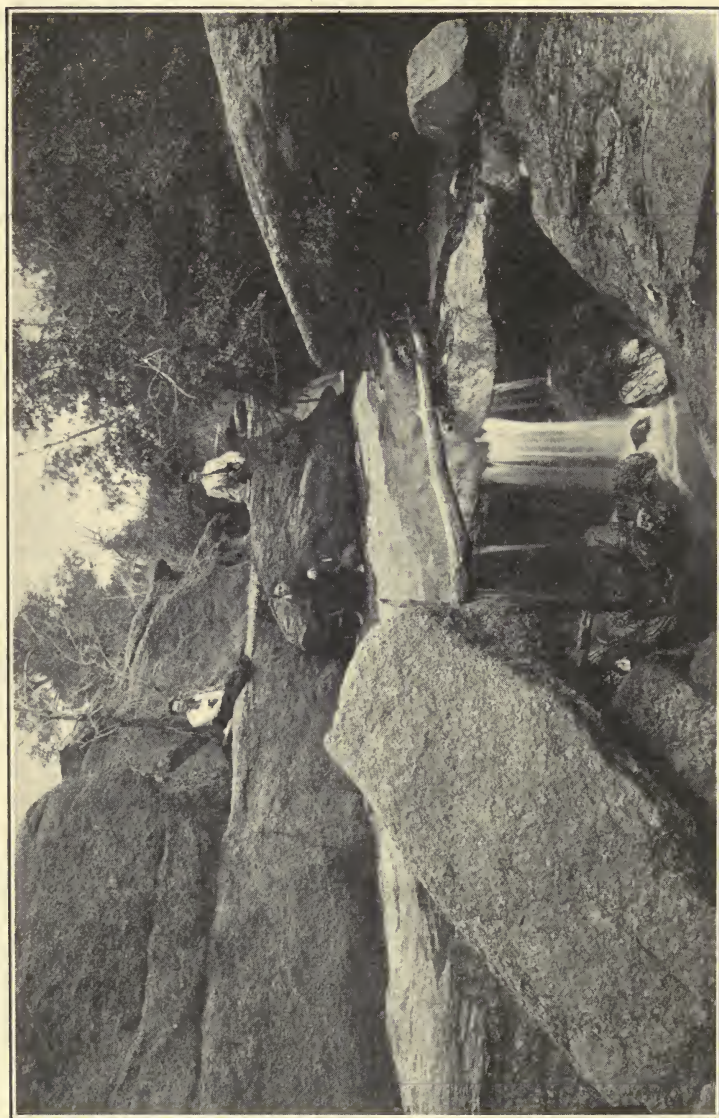


Scene on Sand Creek.

ALBANY COUNTY, WYOMING

Albany, as one of the southern tier of counties in the state, has some advantages in its location and topographical features which have not been fully discussed in any publication of this kind. The total area of Albany County is 3,248,640 acres, about one-third of which is listed for taxation. Tax valuation for 1912 was \$14,873,790.96. In 1910 the population of the county was 11,574, two-thirds of whom live in the City of Laramie, which is the third city in size in the state. This leaves approximately one per square mile living in the country, and, according to the last census, the average size of Albany County ranches was over 2,300 acres. The Laramie range of mountains extends the whole length of the county on the east and the Medicine Bow range cuts through the southwest corner. Between these ranges of mountains there is a large body of arable land on the Laramie Plains which depends for its water supply on the Big and Little Laramie Rivers, with their tributaries, and Rock Creek. To the north there are some developed ranches along the North Laramie River, which runs south of Laramie Peak, the highest point in the Laramie range of hills. Laramie Peak has an altitude of 10,000 feet. The Medicine Bow Mountains, west of Laramie, reach an altitude of 13,000 feet and supply the perpetual snows which make the Laramie Rivers perennial and supply irrigation water for the larger canals on the Laramie Plains and in Laramie County to the east. On the eastern border of the county the Sibylee, Chugwater and other streams supply water for many stock ranches and small farms which are located in valleys among the Laramie Hills. The mean elevation of the county is placed at 6,500 feet, but the larger part of the agricultural lands are close to 7,000 feet above the sea. The Laramie Plains cover approximately one-half the area of Albany County. It is a high plateau of comparatively level land, varying in altitude from a little less than 7,000 feet on the north to almost 8,000 feet on the southern boundary. This plateau has the appearance of a basin, as it is partially surrounded by the two ranges of mountains named above. The plains are crossed from south to north by the Union Pacific railway.

The Laramie, Hahns Peak and Pacific railroad runs through the county from Laramie to the west. The Denver,



Scene on Sand Creek.

Laramie and Northwestern railroad, now under construction, will also pass through the county from south to north. Altogether there are about 150 miles of railroad in the county.

We have excellent country roads to all parts of the county upon which it is a delight to travel, with team or auto.

A number of important irrigation ditches have been constructed to divert water from the large reservoirs in the county. Since all the water available during the irrigation season was appropriated, it seemed that development must necessarily cease. The far-sighted thought otherwise, however. Through the fall, winter and early spring months millions of cubic feet of water rolled down the river channels of the country, finding its way to the ocean to be forever lost to man. "Why not conserve that water and let it down in times of scarcity?" was the thought of those who gave the matter study and investigation. Surveys were made, and a number of natural reservoir sites were located; ditches have been run to these sites, grades, dams and other structures have been built, and when all the present undertakings are completed—many of them being already completed—more than half a million acre feet of water will be impounded each year to be turned loose upon the barren plains when the water is needed for the growth of plants.

The different projects and the acre feet capacity of the reservoirs are given below. For the benefit of those not familiar with irrigation terms, the following explanation is given—an acre foot is the amount of water that will cover one acre one foot in depth, and is considered sufficient, with the natural rainfall in most sections, for the irrigation of one acre of land for one year.

	Acre Feet.
Rock Creek Conservation Co.....	210,000
James Lake Project	40,000
Bosler	40,000
Laramie Development Company	20,000
Laramie Water Company—	
Lake Hattie Reservoir	133,000
Bell Reservoir	62,000
Bath Reservoir	37,000
Glendevey Reservoir	45,000—275,000

Land.

There is still considerable government land in the county open to homestead, desert claim, or reclamation under the Carey act. The reader should understand that government



Diversion Dam of the Lake Hattie Canal No. 2 on the Little Laramie River.

lands which are open to entry require considerable expenditure of capital, as water must be secured before the soil may be placed under a high state of cultivation. Developed ranches can be purchased at from ten dollars to seventy dollars per acre, though lands have greatly increased in value with the beginning of better cropping systems and the general increase in our agricultural development. We will endeavor to give authentic data of climate, farm crops, live stock and irrigation which will indicate the possibilities of more complete development. Albany County needs more farmers and ranchmen, and the fact that all those who are now living on ranches in the county are highly prosperous is most encouraging to the newcomer who would make his home in this section of the state.

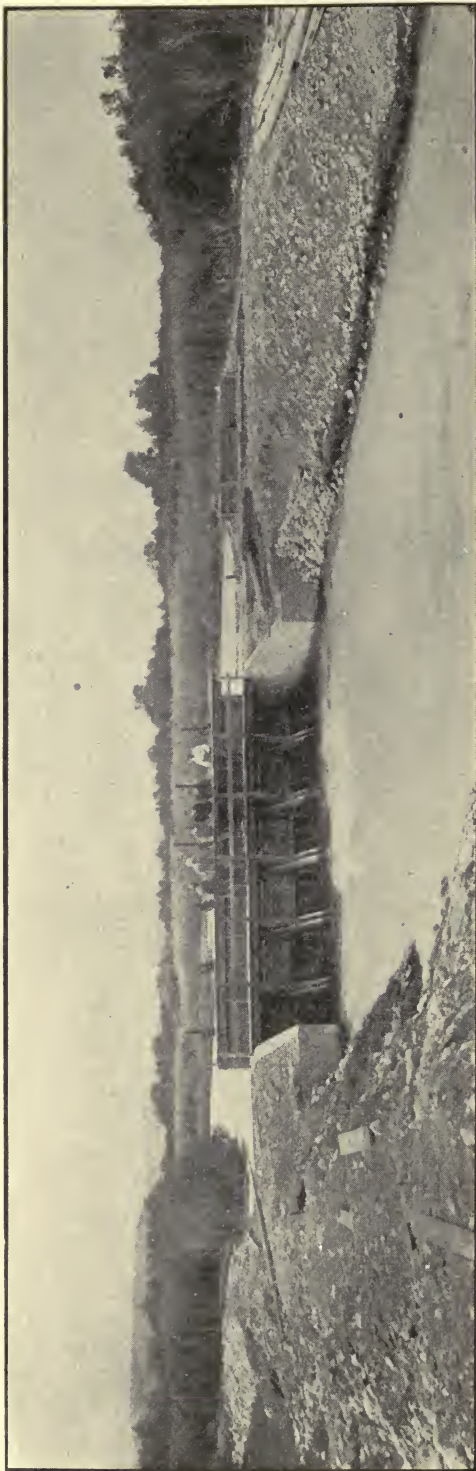
Location With Regard to Market.

This county could hardly be more advantageously located in relation to market for its produce. Live stock shipments may be sent directly to any of the great Missouri River markets, to Denver or Chicago. The surrounding country to be supplied with farm produce is very large and as yet the production has never been equal to the demand. Flour, butter, cheese, eggs, poultry, fish, potatoes, vegetables, small fruits and meats are shipped in enormous quantities, while land, water and climate are all suitable to the production of these things at home. All that is needed are farmers and manufacturers to produce them at home. To the south is the great North Park country, which must depend on outside producers for its agricultural supplies. The surrounding mountains and mining camps and towns all supply the best of market, and because of the distance of our agricultural lands from others, prices for farm produce are better than in the outside general market. For example, potatoes are always worth from 30 to 50 cents more per hundred than they are at Greeley or Denver, because potatoes from these regions cannot compete without paying that amount of additional freight tariff.

TOURING IN WYOMING.

To the automobile tourist there are few spots that afford more enjoyment than Wyoming.

Entering the state at Pine Bluffs, on the eastern boundary line, there is a succession of beauty spots and points of interest until one leaves the state at Evanston, having covered a distance of about 475 miles, and doing it, if one cares to go



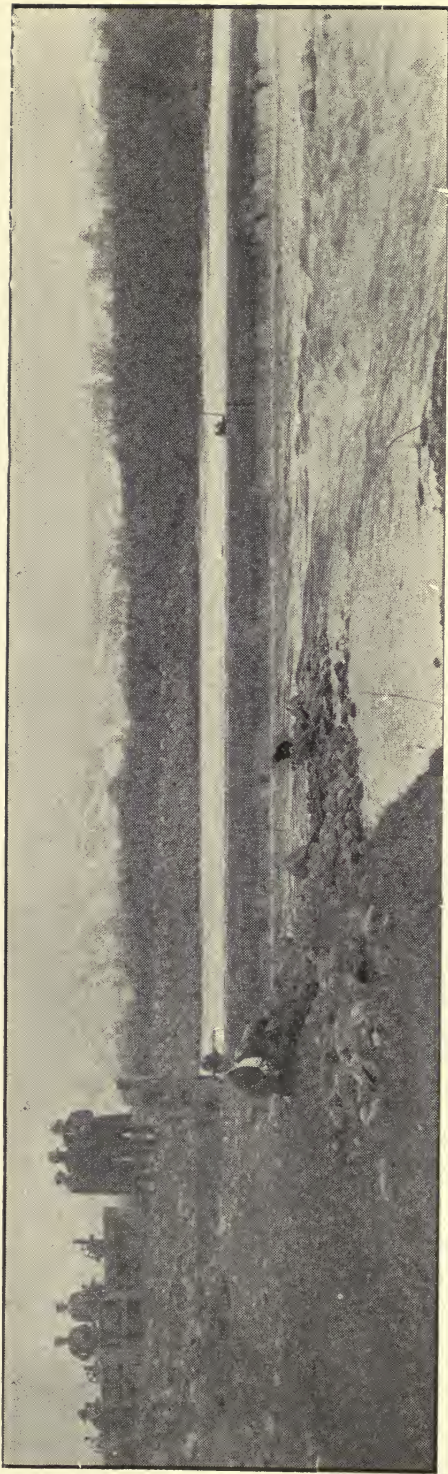
Headgates on the Little Laramie River of the Lake Hattie Canal No. 2.

after the record, in about twenty-six hours. However, if one really wishes to go some, there are places where the automobile puts the blush to the fastest express train. One has only to choose and he will find on this trip just what he wishes.

The transcontinental tourist will find much of interest in this journey. He will find that he has been gradually climbing since crossing the Missouri or Mississippi river until he reaches Sherman Hill, a few miles east of Laramie, the steepest climb of the journey. At other points in the Rocky Mountain range he will find rifts in the mountains that make the journey less laborious, but none more inspiring and enjoyable. He climbs steadily until the crest is reached, and then he plunges downward, finding a down-hill trip, so far as altitude is concerned, until the waters of the Pacific lave the wheels of the auto.

Along the way every convenience is found that one could hope for on a journey. From Sherman he gains a fine view of the Laramie Valley, lying on either side of the Laramie River, upon which the roads are good more days in the year than in any section of the west. The valley is forty to fifty miles wide, and one hundred and twenty-five miles long, smooth and level, the roads being mere trails across the surface, lying on gravel and free from mud, soft places and other objectionable features. These trails, some of them, are as old as the day when the buffalo and red man roamed the valley; others of later date, made when the white man became an inhabitant of the region, are wonderful examples of natural roads. Laramie lies well on the transcontinental route from the east to the west, affording alike an easy stage from Pine Bluffs and Denver and a safe harbor when one desires rest from the fatigue of a long journey. It is easily accessible, the distance between Laramie and Denver being ordinarily covered within six or seven hours, and more rapidly if one cares to speed his machine, and all the way through a rich section of country, passing through some excellent towns and cities, paralleling some of the finest railroads in the west; mountain scenery no finer in the United States; crossing mountain streams teeming with trout; in the region of wild game that will tempt in season. Rich farms and extensive ranches, where the tourist will be brought into touch with the most hospitable people on earth—the true Westerner, who has nothing too good for the stranger within his gates, with open heart and hand extended, friend to friend, whose fame is noted for caring for those who need care, and whose benison is sincere when the parting comes and the stranger speeds on his way.

From Laramie, one of the most important points on the transcontinental route, through the Rocky Mountain region,



A View on Lake Hattie Supply Canal No. 1.

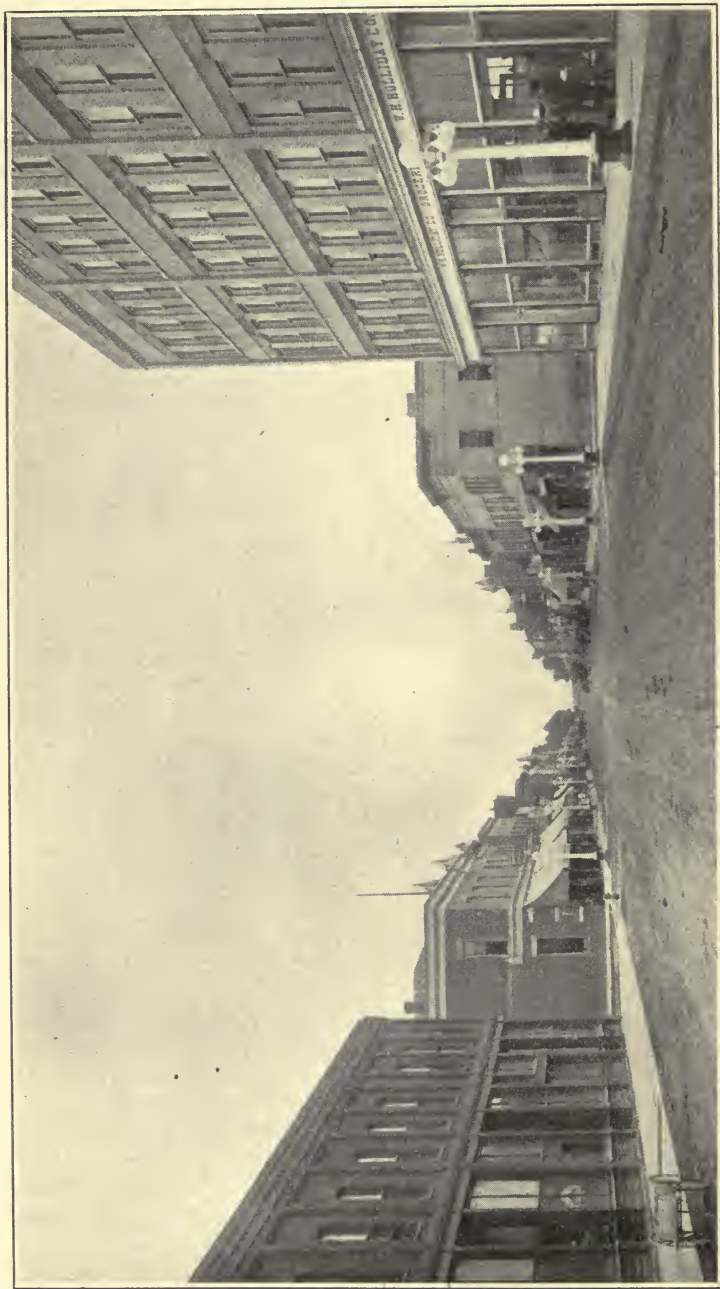
good automobile roads radiate in every direction. Here will be found a road leading to Walden, where lies one of the most remarkable coal beds in the world, and through primeval forests of virgin pine. To Douglas there is another excellent highway, opening into an oil region that must in time make Wyoming one of the most noted states in the Union. Westward there is a good highway to Medicine Bow, made famous through Owen Wister's splendid western novel, "The Virginian", thence to Fort Steele, Rawlins, the Continental Divide, Rock Springs, and Green River, where one passes from the slope towards the Gulf of Mexico to the slope whose waters flow into the Pacific Ocean and the Gulf of California, the divide being imperceptible, so gentle the slope at this point. Westward one crosses the great Red Desert, a vast plain seemingly barren, but abounding with animal life in season, and hundreds of thousands of sheep nibble the soft forage which nature has provided.

We pass through Rock Springs, another vast coal area, where some of the best grade of coal in the west is mined. From this point a road diverges towards Yellowstone National Park, that wonderland of the world, whose beauties are becoming more and more attractive to the people as this newer mode of travel is open to them. The road passes through some wonderful scenery before reaching the park, and there one is lost in wonder at the majesty of creation in the mighty upheavals that at one time brought the great sea that once covered this section of the earth, to the present tremendous ridge of granite that extends from the north to the south. The Park is a playground for those who would "See America first", and one of the best roads lies through Laramie, Rawlins, Rock Springs, the beautiful Eden Valley, and Pinedale, thence to the Jackson Hole and into the southern limits of the Park.

At Evanston one enters the Wasatch Mountains and very shortly crosses the state line into Utah. One cannot but admit that every foot of the way has been full of interest. Some of the finest fishing in the world is found on the trip. At Laramie the streams are filled with trout stocked annually by the hatcheries maintained by the state, assisted by the government. Wild game abounds through the mountains—elk, deer, antelope, bear, mountain lions, and game birds, both on land and water.

Scenic beauty spots are everywhere. Mountain climbing, fishing, hunting, trapping, boating and strolls among the deep pine forests, bring one very close to nature.

Is it to be wondered that the transcontinental tourist has discarded the stuffy Pullman for the more comfortable and



Second Street, Looking North.

exhilarating automobile, seeing things on his trip that he never dreamed existed as he flitted along, covering the distance from ocean to ocean in the fastest time possible?

It is the coming pleasure tour and every day adds to the wealth and knowledge to be gained by travel through one's own country, over good roads; the sweet, pure air filling one's lungs, and the steady hum of the automobile engines making glad music to the tired mind.

LARAMIE, WYOMING.

Laramie, Wyoming, is a city of 8,500 population, situated on the Union Pacific main line of railroad, 573 miles west of Omaha. Altitude 7,145 feet. Has an average of 300 days of sunshine during the year. The winters are ordinarily dry and bracing and the summers are ideal for work or pleasure, while the spring months are usually cool and moist. The fall months are nearly a perpetual Indian summer.

Laramie is the county seat of Albany County and the See City of the Episcopal Church in Wyoming. Here is located the University of Wyoming, with its several colleges, including the State Normal School, the School of Mines and Engineering, the Agricultural College, and the United States Experiment Station.

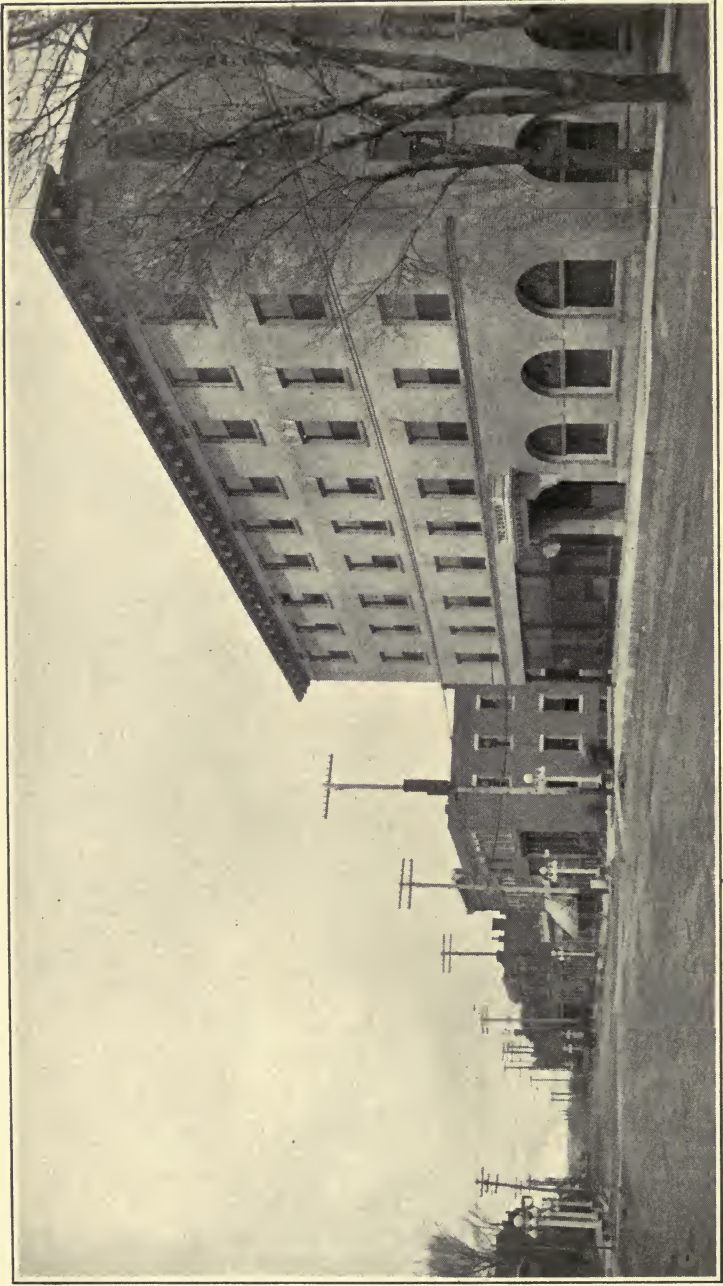
A special, annual congressional appropriation of \$5,000.00 is set aside for the breeding, feeding and development of the various breeds of sheep.

Laramie is pre-eminently a City of Homes, where more families own their own homes than is common in Western cities, and is properly called the educational center of Wyoming. In addition to the University, there is an excellent system of public schools with fine school buildings, including a modern high school building erected in 1910.

A well equipped free library supported by public taxation contains 16,000 volumes and has an average of two thousand five hundred regular applicants for books. The library works in conjunction with the schools in the city and county. The culture and consequent moral influence of a well sustained library more than compensates for the time and expense in establishing and maintaining such an adjunct to the educational institutions of a city.

Building Association.

The Albany Mutual Building Association has had an active part in the building of homes in Laramie for the past 25 years. Authorized capital, five million dollars. Number of



Grand Avenue, Looking West.

shares outstanding, twelve thousand, of the par value of \$200 each. Total bills receivable, \$877,697.90.

Banks.

First National Bank.....	Capital, \$100,000.00
Albany County National Bank.....	Capital, 100,000.00
First State Bank.....	Capital, 100,000.00
Postal Savings Bank.	

Churches.

The following religious organizations own very good church buildings, viz.: The Catholics, Episcopalians, Methodists, Baptists, Presbyterians, German Lutherans, Scandinavian Lutherans, and the Swedish Mission Church. Christian Science has many highly intelligent advocates in county and city.

Special Orders.

The Masons, Odd Fellows, Knights of Pythias, Elks, Eagles and Moose each own fine or very creditable lodge buildings.

Hotels.

The most important always to the traveling public is the hotel facilities of towns. In this particular Laramie is exceedingly fortunate. Four very good hotels furnish the city with hotel accommodations far exceeding such accommodations in many larger towns.

Few towns, if any, of equal population, have as fine streets, as many miles of concrete sidewalks, or a more complete system of sewers. The Laramie River, one of the largest and most beautiful of mountain streams, flows by the west side of the city. The health of Laramie is as nearly perfect as pure air, pure water and the best sanitary conditions can make it. Therefore the death rate probably is lower than in any other town in the United States.

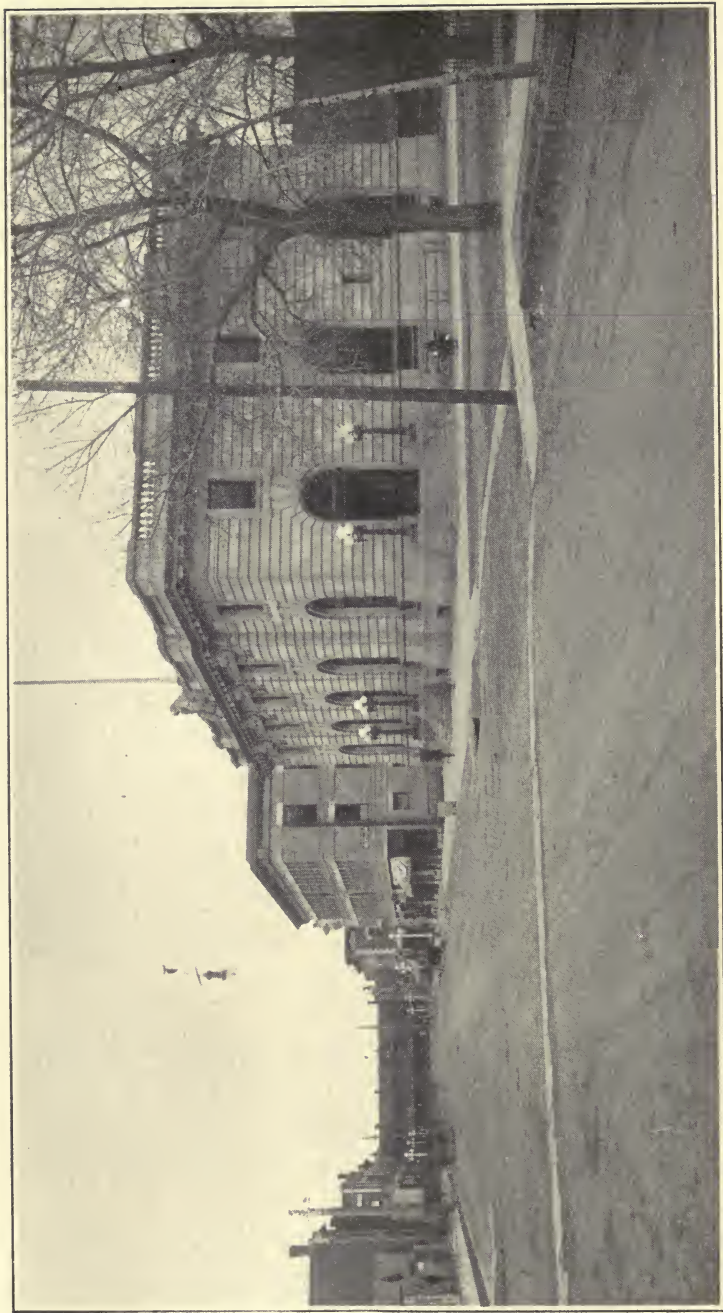
Theaters.

Two theaters, one modern in every particular, secure the finest attractions in the theatrical line as well as in the movies.

Fire Department and Water Supply.

The city has an up-to-date, paid, fire department with a complete alarm system.

The present water supply is from a large spring at the foot of the hills about two miles east of the city and at an altitude of 125 feet greater than the average level of the city. This maintains a gravity pressure of about 45 pounds, ever



Thornburgh Street, Looking West.

ready in case of emergency and for domestic use. The flow of said spring is about 1,800,000 gallons every twenty-four hours. The water is first run into a cement reservoir near the spring and from there conveyed to and throughout the city in heavy iron pipes. The use of this water is free for all purposes within the city.

Bonds have been authorized for the purpose of securing the water from another spring of equal flow. Thus is secured for many years to come a bountiful supply of pure spring water for domestic use.

The great areas of hay lands and highly nutritious grasses in the valleys of the Laramie rivers make this point an ideal place for stock yards for feeding stock in transit; there being an average of more than 10,000 cars of cattle, horses and sheep fed here in transit over the Union Pacific railroad each year.

Great reservoirs and irrigation canals are being constructed to be supplied from the waters of the two Laramie Rivers and from Rock Creek that will bring many thousand acres of fertile land under cultivation. The irrigation works above referred to have been constructed at the cost of several million dollars, making possible agriculture and stock raising to an extent unexcelled in any part of the country. Unimproved



Carnegie Public Library.



Garfield Street, Looking East.

lands are offered at tempting prices compared with irrigated lands in other states.

Plaster deposits lie in practically unlimited quantities near the city and supply two large plaster mills with material for the shipment of hundreds of carloads of cement plaster each year.

The railroad facilities are the Union Pacific and the Laramie, Hahns Peak and Pacific, the latter opening up a section of wonderful resources in southern Wyoming and northern Colorado.

A fair statement of the varied resources of Albany County and the country tributary to Laramie, contributed by the most reliable authority, is the basis for the contents of this pamphlet.

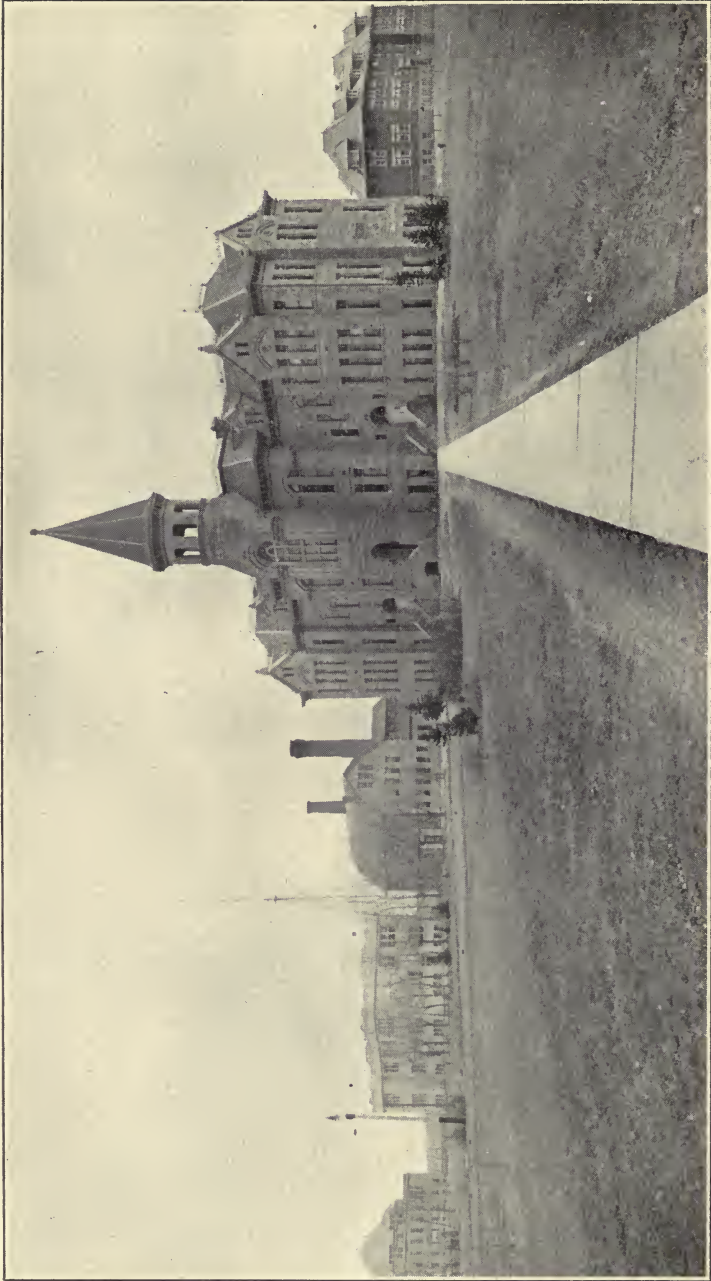
A careful perusal will, we believe, lead to many profitable investments and point the way for the establishment of many prosperous homes in this part of Wyoming.

Among the most prominent industries are the following:

- Three large automobile garages,
- The largest plant on the line of the Union Pacific railway for cutting and storing ice and icing refrigerator cars,
- Stock yards, where over ten thousand cars of stock are fed each year,
- Two plaster mills,
- Planing mills,
- Tie preserving plant,
- Packing plant,
- Two greenhouses,
- Three livery stables.
- Tannery,
- Electric light and heating plant, fully equipped to furnish power to manufacturers seeking locations,
- Flour mill and elevator,
- Creamery,
- Two daily and weekly newspapers,
- Steam laundry.

Educational Advantages.

In the present stage of our civilization, a matter of much importance to the man who is building a permanent home is easy access to both common schools and institutions of higher education. In seeking a location, then, the possibility of getting near the seat of the State University, is a matter of weight to thinking men. This is a real advantage to the



Some of the Buildings of the University of Wyoming.

man or family seeking a farm or ranch in Albany County. Laramie is the seat of the State University, with its several colleges, where studies suitable to the individual taste of the student may be selected. While this is a public institution, belonging to the state at large, there can be no question about the favorable influence it produces in the community, and many will choose living in town or country near this influence if they find there other advantages which insure their general prosperity.

Education is becoming so practical, and is proving such an essential to the greatest success of the individual, that every intelligent man is coming to a realization of the value to him of getting all the learning possible for himself, as well as providing every opportunity for his children.

Not only does the University supply opportunity for rounding out and finishing the education of the young people in its classical, literary, scientific and technical colleges, but here also is the Agricultural College and the Government Agricultural Experiment Station, with long and short courses for instruction for young people who devote all their time to acquiring information, and for older people as well, who are too busy with the affairs of life to more than keep up with the progress of the times. In the short courses farmers and stockmen can in one or two weeks get hold of the latest information which can be made of practical use in their business affairs.

The Wyoming Experiment Station, supported by federal appropriations, is for research in agriculture. When it was established twenty-two years ago agriculture was very new in Wyoming. The arid region and irrigation farming were then only beginning to be developed, and it may be truthfully said that the success of cropping under correct methods of farm



Experiment Station Stock Farm, Laramie.



West Side of Second Street, Looking South.

practice as demonstrated by the Station has been no less than a revelation to all who have learned of it. Without knowing anything about the facts in the case, there has been a prejudice in the minds of many against attempts to develop crop farming in Wyoming. This has been due to two general misconceptions. First and foremost, there were the personal interests at stake of the few large stockmen who were waxing rich through the occupation of vast sections of free range. These men were jealous of encroachment by settlers who began to develop smaller ranches, and felt it to their interest to put everything in the way of settlement and development which they legitimately could. Before them the Indian tried to prevent the white men from making use of his game country, because it interfered with his method of living. This condition has passed, and our best men now realize the value to the state of settlement and the development of our rich agricultural resources.

The second cause of slow development, which may be slightly dependent upon the first, was a prejudice against the general appearance of the country, due to lack of information or intelligent foresight in regard to its possibilities. The arid region—the short-grass country—all appeared so entirely different from conditions in the humid east that the first settlers could see no future for the country except one of general desolation and abandonment. True, there were very small sections of the arid region in Utah, California and Colorado where the first irrigation development was proving the success and superiority of irrigated agriculture, but it took actual demonstration and ocular proof in Wyoming, especially at our higher altitudes, to convince the people that here was a rich opportunity for the agriculturist. That live stock would thrive on the rich grasses of the range and fatten on the native hay produced by irrigation of the river bottoms was known. The Experiment Station and those ranchmen who have attempted cropping have obtained absolute proof of remunerative farming, and this pamphlet will contain nothing but authentic data of such resources.

Twenty-two Years' Data.

The Experiment Station has been demonstrating many farm problems; is now and will continue to study every agricultural question and freely supply the information to those who will make practical use of it. Its advantage to those who are raising stock or crops can only be appreciated by coming into contact with it or studying the publications which report the results of investigations.



East Side of Second Street, Looking South.

Climate and Weather.

The health and happiness of a people, as well as their success in agriculture, is so closely related to the climate and weather of a region, that we make a brief summary of Albany County weather phenomena. At the University complete meteorological records have been kept since 1901. These include records of temperature of the air and soil, relative humidity, dew point, precipitation, wind movement, barometric pressure, evaporation, etc. Along with this record are data of frosts, time of planting and harvest, and those crop and plant studies which, taken together, give a good summary of climate conditions. In general the climate is characterized by great dryness of the atmosphere, with a consequent large percentage of sunshine, cool nights, and never excessive heat during the day, while, contrary to what would be expected, the minimum temperatures at Laramie have not been so low as those either north or south of us. There is a large amount of air movement, but because of the high altitude and lightness of the atmosphere, there is seldom any damage resulting from wind, while the cool air is always kept pure and filled with electricity and ozone, which give it a snap at once energizing and delightful. The largest amount of rainfall comes in the spring and summer, when it is most useful to the farmer, and the falls and winters are so dry and open that bicycles and automobiles are used the year around. Seldom during the twenty-two years for which we have records has the maximum temperature, even for a single day, during the summer, reached 90 degrees. The minimum temperature during that time has been as low as 42 degrees below zero, which occurred in February of 1905, but as will be noticed in the table of maximum and minimum temperatures, the thermometer has seldom reached minus 30 degrees, and these cold spells seldom last more than a single day. The principal characteristic of the weather in the nature of single storms consists of an occasional heavy wind during the winter and spring months, sometimes accompanied by snow. Such storms never last more than two or three days and the stock losses even on the open range, since we have begun to observe the weather, have been very slight. There is an occasional heavy dashing rain sometimes accompanied by fine hail, but only two seasons in fifteen has any damage occurred to crops by hail storms. Late frosts can be expected in the spring until the first of June and killing frosts in the fall can usually be expected the first week in September. On this account, and because of the cool nights, corn and vines cannot be successfully produced, but any of the more hardy crops, which will stand a degree of frost in the spring,



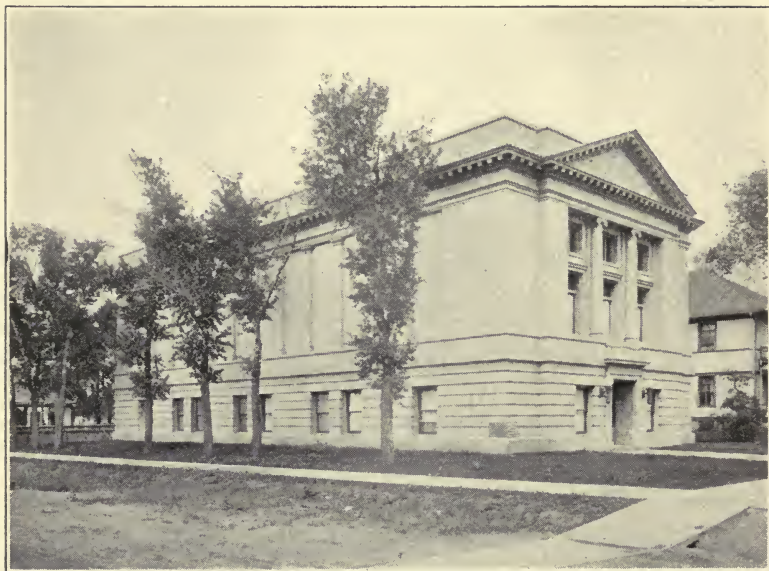
W. H. Holliday Company Buildings.

such as grains, root crops, flax, buckwheat, alfalfa, etc., are very successful. All the grass crops and grains reach great perfection, producing large yields of the very best quality.

High up in the mountains the precipitation is greater, and on the range and in the forests the snow is stored for summer irrigation. It seems that all the factors of climate tend to produce quick growth and most nutritious stock foods. Chemical analyses of our forage plants indicate that they are unusually rich in protein, and digestion trials have shown them to be highly digestible. (See Wyoming Experiment Station bulletins on Chemical Composition and Digestibility of High Altitude Forage.) The cool weather is also favorable to the laying on of fat and our hay-fed cattle are often sold on the market as corn-fed beef. The springs are very short and as that is the rainy season it is sometimes difficult to get plowing done and crops in sufficiently early. It is, therefore, necessary to fall plow and adopt other methods of farm practice suitable to the soil and climate. Herewith are published two tables which give the main factors of climate in our temperature and precipitation. It will be noticed that the mean monthly precipitation curve is identical with the needs of the growing season. The distribution of the precipitation could not be better for the agriculturist:



Postoffice Building.



Masonic Temple.



Albany County Court House.

PRECIPITATION AT LARAMIE FOR 30 YEARS.

YEARS.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1891.....	0.70	0.38	1.50	0.25	2.92	0.91	1.20	1.76	1.80	0.30	1.09	1.11	13.92
1892.....	0.01	0.36	0.52	0.19	1.16	3.97	2.22	0.14	T.	3.96	T.	0.20	12.73
1893.....	T.	0.11	0.29	0.32	0.33	0.54	0.34	1.08	0.39	0.28	0.06	0.10	3.84
1894.....	0.03	0.10	0.29	1.51	0.42	0.64	1.41	1.26	1.60	0.09	0.05	0.23	7.63
1895.....	0.08	0.14	0.43	0.43	2.09	2.12	2.71	1.17	0.18	0.74	0.32	-0.33	11.15
1896.....	0.44	0.17	0.59	3.53	2.37	1.72	1.66	0.89	1.16	0.18	0.00	T.	12.80
1897.....	0.39	0.35	4.23	0.55	1.83	0.72	1.29	1.11	0.32	0.55	0.33	0.77	12.48
1898.....	0.05	0.01	0.40	1.26	1.88	0.90	0.63	1.16	T.	0.48	0.61	0.23	7.63
1899.....	0.95	1.13	1.11	1.75	0.37	1.11	2.01	1.43	0.17	1.13	0.07	0.61	11.84
1900.....	0.01	0.82	0.58	2.91	0.24	0.35	1.25	0.61	1.11	0.56	0.06	0.03	8.53
1901.....	0.04	0.41	0.05	0.28	3.00	1.73	0.32	1.11	0.09	1.28	T.	0.21	8.52
1902.....	T.	0.26	0.41	0.88	0.26	0.60	1.49	0.40	1.58	0.74	0.22	0.89	7.73
1903.....	0.11	0.36	1.09	0.73	1.63	1.00	1.31	0.88	1.57	0.54	0.30	0.07	10.37
1904.....	0.25	0.11	0.36	0.84	1.74	2.01	1.33	0.33	2.37	0.50	0.04	0.08	9.38
1905.....	0.39	0.42	0.64	1.21	0.84	0.36	1.79	0.83	1.63	0.40	0.22	0.03	9.76
1906.....	0.58	0.05	1.01	1.75	1.79	1.71	1.75	0.59	2.00	1.33	0.41	0.39	12.57
1907.....	0.29	0.15	0.28	0.78	1.09	0.90	3.68	1.28	0.62	0.16	T.	0.23	9.46
1908.....	0.24	0.08	0.02	0.34	5.57	0.84	2.68	1.93	0.65	0.45	0.38	0.35	13.53
1909.....	.34	.27	1.11	.76	1.06	.67	1.00	1.87	.97	.50	.29	.24	9.68
1910.....	0.19	0.04	0.33	0.95	1.90	1.52	1.97	0.27	1.11	1.79	0.06	0.32	10.45
Sum.....	5.69	5.72	15.24	21.66	33.18	24.32	32.06	20.70	19.20	16.02	4.60	6.42	204.20
Means.....	.25	.29	.76	1.09	1.66	1.22	1.61	1.03	.96	.80	.23	.32	10.21



Second Street, Looking North.

TEMPERATURE MEANS AT LARAMIE FOR 30 YEARS.

YEARS.	TEMPERATURE MEANS AT LARAMIE FOR 30 YEARS.												High- est	Low- est	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.			Means
1801.....	20.2	23.3	25.6	40.5	54.5	58.4	61.2	61.1	55.1	43.2	28.6	19.6	40.9	83	-13
1802.....	20.6	25.2	30.8	35.5	44.4	55.7	62.8	61.9	56.0	39.2	33.1	20.7	40.5	85	-29
1803.....	26.8	20.7	28.8	34.2	44.2	57.2	64.0	60.7	52.8	42.3	29.2	26.6	40.6	87	-9
1804.....	19.9	16.2	20.4	39.1	50.0	55.8	63.2	62.2	51.8	44.4	36.8	21.5	40.9	88	-27
1805.....	20.5	17.9	20.4	40.0	50.3	55.8	63.2	61.6	54.5	40.9	27.0	15.3	38.5	87	-30
1806.....	28.0	22.8	26.2	37.4	47.3	59.1	62.3	61.9	52.6	41.9	26.3	31.4	41.4	84	-27
1807.....	16.5	21.2	24.3	35.0	49.3	56.6	60.7	60.4	56.8	42.3	34.8	15.0	39.3	85	-30
1808.....	17.0	25.5	24.7	40.3	44.1	55.8	65.1	62.9	51.9	39.3	23.1	14.3	38.8	88	-23
1809.....	20.6	9.5	24.5	38.3	45.5	55.8	62.1	67.0	50.7	40.8	35.7	18.8	39.9	87	-40
1900.....	25.7	19.7	32.2	35.9	50.8	61.5	62.8	62.3	51.8	45.1	38.5	25.7	42.7	91	-27
Means 10 Years.....	21.6	20.2	27.4	37.6	47.5	56.8	62.3	62.2	54.3	41.9	31.3	20.9	40.3	92	-23
1901.....	19.3	19.4	26.5	34.5	49.5	58.6	67.8	62.7	52.4	44.4	31.8	20.9	40.2	91	-25
1902.....	22.2	28.9	27.5	37.6	49.0	53.0	59.9	57.4	51.5	44.3	32.6	24.5	41.1	91	-18
1903.....	23.3	11.5	29.3	37.5	43.9	53.9	62.7	63.1	51.2	43.3	34.8	26.4	40.1	84	-8
1904.....	20.2	29.7	32.5	38.5	46.8	54.0	60.5	61.5	54.3	43.2	33.5	26.2	41.8	84	-16
1905.....	23.1	15.5	34.6	35.6	44.6	58.3	61.4	62.9	54.9	37.4	35.0	22.2	40.3	91	-42
1906.....	24.5	21.5	24.7	39.8	47.4	55.1	60.3	61.6	53.7	40.2	29.1	30.0	41.2	88	-19
1907.....	24.1	32.9	36.1	37.1	42.2	53.5	62.0	61.5	53.7	42.7	30.1	23.5	41.9	85	-9
1908.....	19.75	24.5	33.8	41.8	44.6	54.4	61.4	60.3	54.9	39.5	26.5	23.3	40.3	86	-24
1909.....	28.1	23.5	28.7	32.5	43.2	57.2	61.4	64	53	45	36	13.62	40.8	90	-23
1910.....	24.1	21.5	39.4	40.5	46.9	60.0	64.5	62.0	55.0	45.0	38.0	26.0	43.6	89	-14
Sum.....	445.0	436.9	587.1	751.6	933.5	1126.1	1249.1	1239.0	1077.6	845.5	639.5	445.5	40.7		
Means.....	22.2	21.8	29.4	37.6	46.7	56.3	62.5	61.9	53.9	42.3	31.9	22.3			



City Park and Play Grounds.

Building Material.

A most important consideration to settlers in parts of the arid region is that of obtaining suitable building material for farm buildings and fences either free or at a low cost. The conditions in Albany County are more favorable in this regard than in many parts of the west, and the laws governing forest reserves and state lands favor the actual settler in a way which makes it possible for him to obtain free timber for his own use.

One of the largest bodies of growing timber in the state is that of the Medicine Bow Forest Reserve, in southern Albany County. This is directly tributary to the Laramie Plains area, and settlers are given free permits to cut timber for building purposes or for mining, and to remove dead or down timber for wood, fencing or other use. The Wyoming law allows settlers on public lands who have insufficient supply of timber on their own claims to cut timber on lands owned or controlled by the state, for their own use, but not for sale or to be otherwise disposed of. Most of the ranchmen in Albany County construct their buildings from logs which they obtain free from forest reserves or state lands, and posts, poles, bridge timbers, wood and timber in large amounts is available and easily obtained. In the mountains west of Laramie there are a number of sawmills operating under permits on the forestry reserves which supply a large variety of building material to the Laramie market. One of these mills manufactures lumber of sufficient value to have received recognition in a medal granted at the Portland Fair.

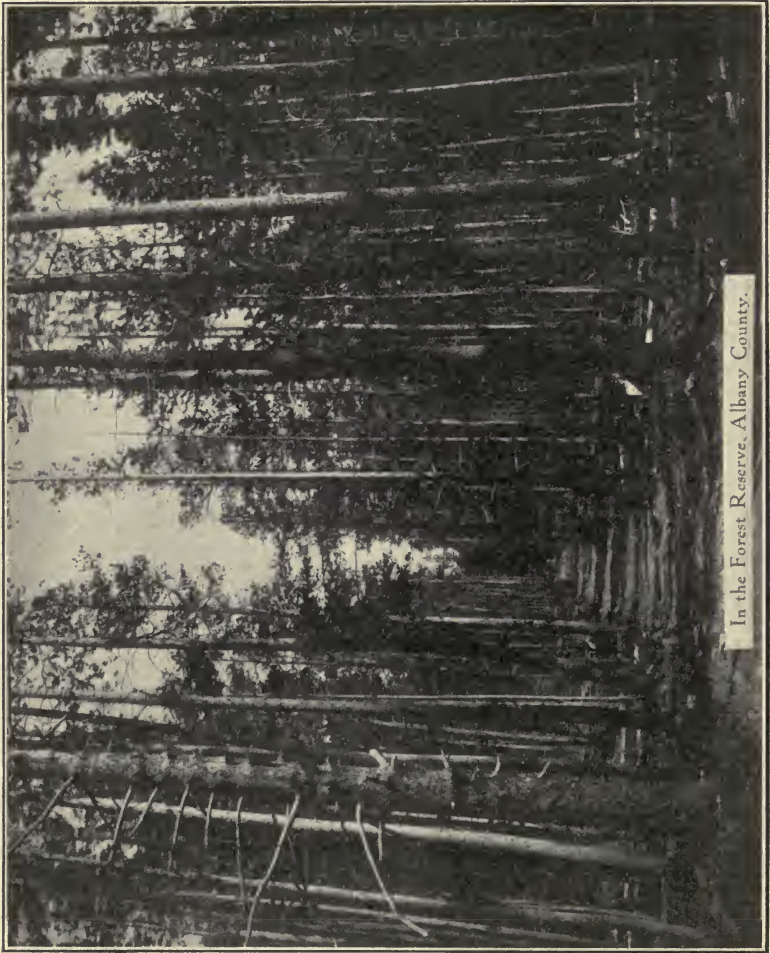
Sandstone and limestone are abundant and easily obtained along the base of the Laramie Hills, and a granite of a quality which received recognition at the Chicago Exposition is easily available. In the vicinity of Laramie are two plaster mills which are manufacturing plaster and stucco cements in large quantities. At the present time a movement is inaugurated to start Portland cement factories near Laramie, as materials for this purpose are abundant. Limestone of great purity is burned at Laramie for the making of ordinary plaster and the new brick plant is making pressed brick of such quality that it is shipped as far as Omaha for use in large buildings.

The Medicine Bow National Forest.

The Medicine Bow National Forest embraces an area of eight hundred square miles in the region tributary to Laramie. About two-fifths of this area (300 square miles) is in Albany County. The forest is administered by the federal government, necessitating the employment of a permanent and temporary force varying from ten to one hundred men, depending

on the time of year. The office of the Forest Supervisor and his immediate assistants is in the federal building in Laramie.

The resources of the Medicine Bow National Forest are many. It supports a stand of timber aggregating about two



In the Forest Reserve, Albany County.

and one-half billion board feet, valued conservatively at six million dollars, from which an excellent quality of pine lumber has been manufactured for the past forty years, affording building material at low prices for the improvement of farms and the building of houses. The price of lumber at the mills ranges from \$12.00 to \$18.00 per thousand feet. Railroad tie

and lumber operators have purchased from the government and sold locally millions of feet of timber, the production of these classes of material forming one of the chief industries of the region. Ranchers and others in and near the forest obtain free firewood, building and fencing materials amounting to nearly a million board feet a year.

On the forest there is range for 8,700 head of cattle and horses and 80,000 head of sheep, and local stockmen utilize this resource under permit from the federal government. The prices paid at the stock markets for livestock shipped from this range speak for themselves in declaring the value of the forage.

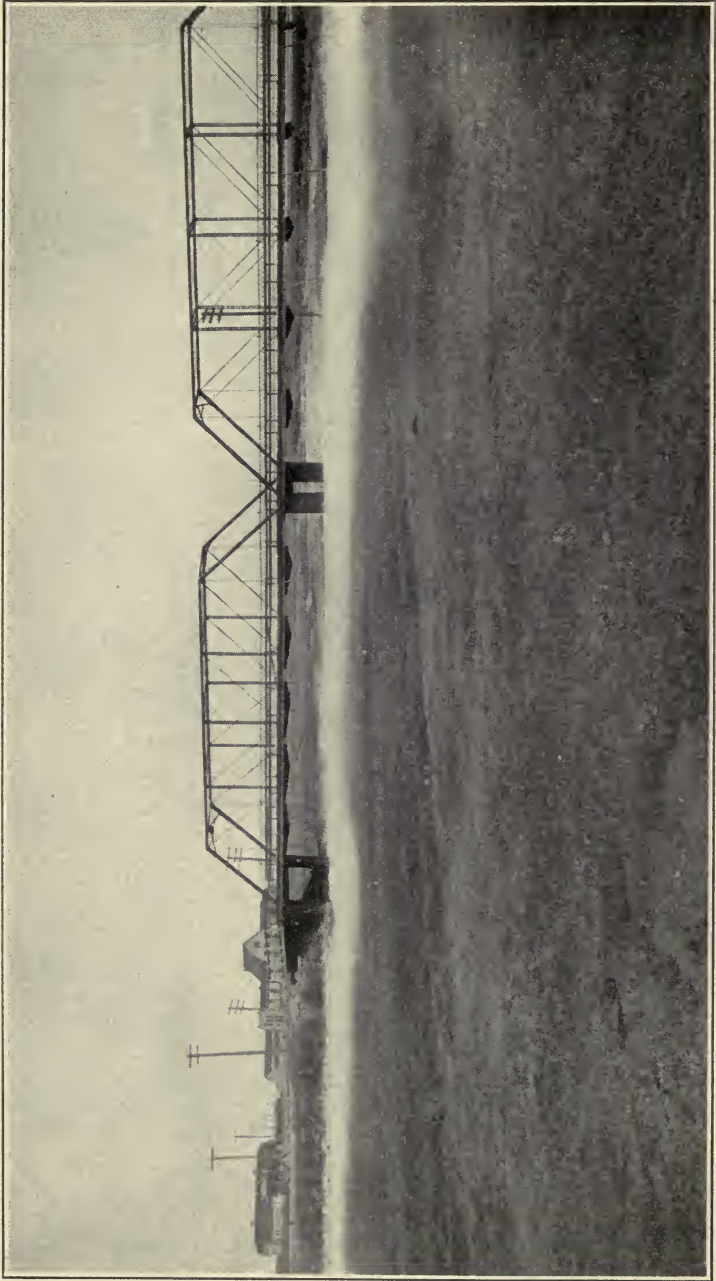
The Gold Hill, Rambler, Centennial and Keystone mining districts are located within the boundaries of this forest, and constitute one of its chief resources. Mining and prospecting are carried on within the forest under the same laws applying to the unreserved public domain.

Streams such as the Little Laramie River, and many others, whose waters form the basis of the agricultural development of the region, have their heads in the National Forest, and the forests protecting their watersheds and regulating the streamflow are guaranteed the protection of the government. There are thousands of undeveloped electrical horsepower in these same streams.

Not the least of the resources are the camping, hunting and fishing opportunities. Deer abound in many parts of the forest, and occasional bear, mountain lions, bobcats and smaller animals attract the hunter. Delightful camping places are numerous and easy of access. The region about the Snowy Range is particularly attractive, and large numbers of campers visit this country throughout the summer. There are summer hotels near and at Centennial, from where transportation may always be secured by wagon and horseback to the higher points.

The fishing in the Little Laramie, Big Laramie, Rock Creek, Douglas Creek, and other nearby streams is too well known and appreciated to need advertisement. In the mountain lakes about the Snowy Range there is excellent sport, particularly in Brooklyn and Towner Lakes. The Forest Service has stocked many of these lakes with eastern brook trout, and will replenish them and stock others each year.

The Medicine Bow National Forest boasts of one of a very few completely equipped "seed-extracting plants" in the United States. This plant has been erected at Foxpark at a cost of nearly \$10,000, and is used to extract the seed from the lodgepole pine cones to be used in reforesting denuded forest lands throughout the region. Each year the



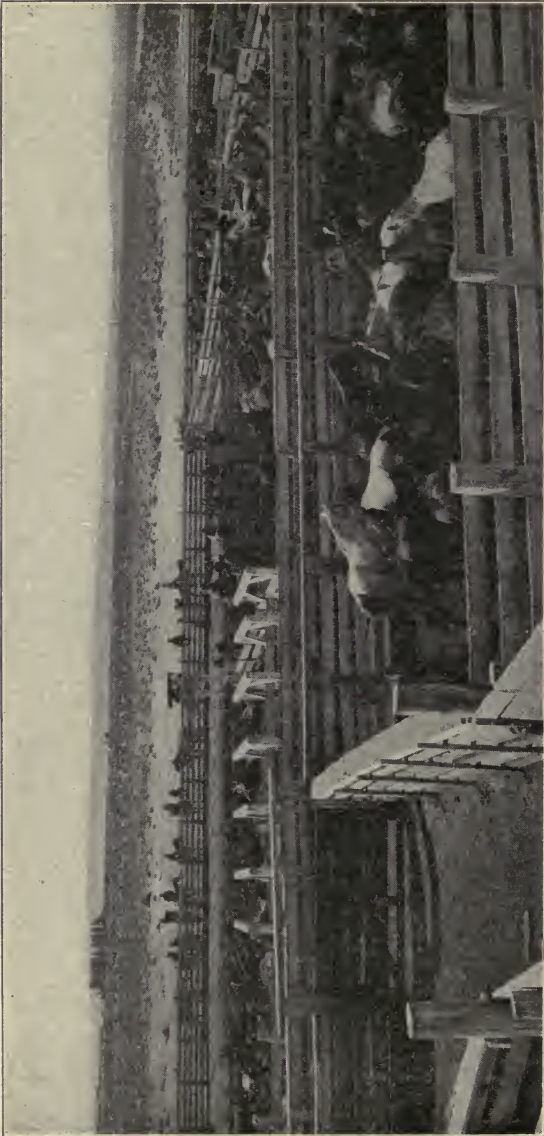
Laramie River, Showing Experiment Station Stock Farm.

ranchers and others living in or near the forest collect and sell to the Forest Service quantities of pine cones. An inspection of this unique plant is well worth a trip from Laramie over the Laramie Plains railroad.

The Medicine Bow National Forest is one of the assets of the region. It is administered by the government at no cost to the state or county, and each year 25 per cent of the gross receipts returns to the counties through the State Treasurer to be expended on roads and schools. In the fiscal year ended June 30, 1912, Albany County's share was nearly \$5,000. In addition to this, there is another 10 per cent expended on roads, and in the spring of 1913 \$1,800 will be spent on a road across the range from Centennial to Tenmile, which will form a short and scenic highway from Laramie to Saratoga.

It is to the people that the national forests are most valuable. They do not belong to the government officials in Washington, nor to the local forest service, but to the public, and it is the public who are most interested in their perpetuation and protection. The government maintains a protective force, and spends thousands of dollars each year in constructing roads, trails, telephone lines, and other protective features. Without the full co-operation of the public, however, protection must fail, and the disastrous fires in the northwest in 1910 showed what might happen to the valuable forest resources of this country. The government welcomes and invites the fullest use of the national forests for development and recreation purposes, asking cooperation in return, and the observance of such simple rules as the following:

1. Be sure your match is out before you throw it away.
2. Knock out your pipe ashes or throw your cigar or cigarette stump where there is nothing to catch fire.
3. Don't build a camp fire any larger than is absolutely necessary. Never leave it for a short time without putting it OUT with water or dirt.
4. Don't build a camp fire against a tree or log. Scrape away the needles, grass, or anything inflammable from all sides.
5. Don't build bonfires. The wind may come up at any time and start a fire you cannot control.
6. If you discover a fire, put it out if possible; if you can't, get word to the nearest forest ranger or state fire warden as quickly as you can.
7. Leave your camp in a sanitary and neat condition when you leave. Unburied refuse and garbage are unsightly and unsanitary, and may spoil the camping place for the next party.



Stockyards at Laramie.

LIVE STOCK.

It is hardly necessary in this pamphlet to repeat the 1910 statistics of the number of head of different classes of live stock on the farms, ranches and ranges of Albany County. In 1912 our live stock had an assessed value of \$1,461,204.

Perhaps no county has made greater or more important advance in the improvement of its stock, in better management, care and feeding, and certainly none has won more honors at live stock shows and large expositions. Substantial winnings have been made at the International Livestock Exposition at Chicago for a number of years upon both sheep and cattle; at the Alaska-Yukon Exposition at Seattle upon sheep; at the National Western Livestock Show at Denver upon cattle and sheep, and at numerous state fairs over the country upon sheep.

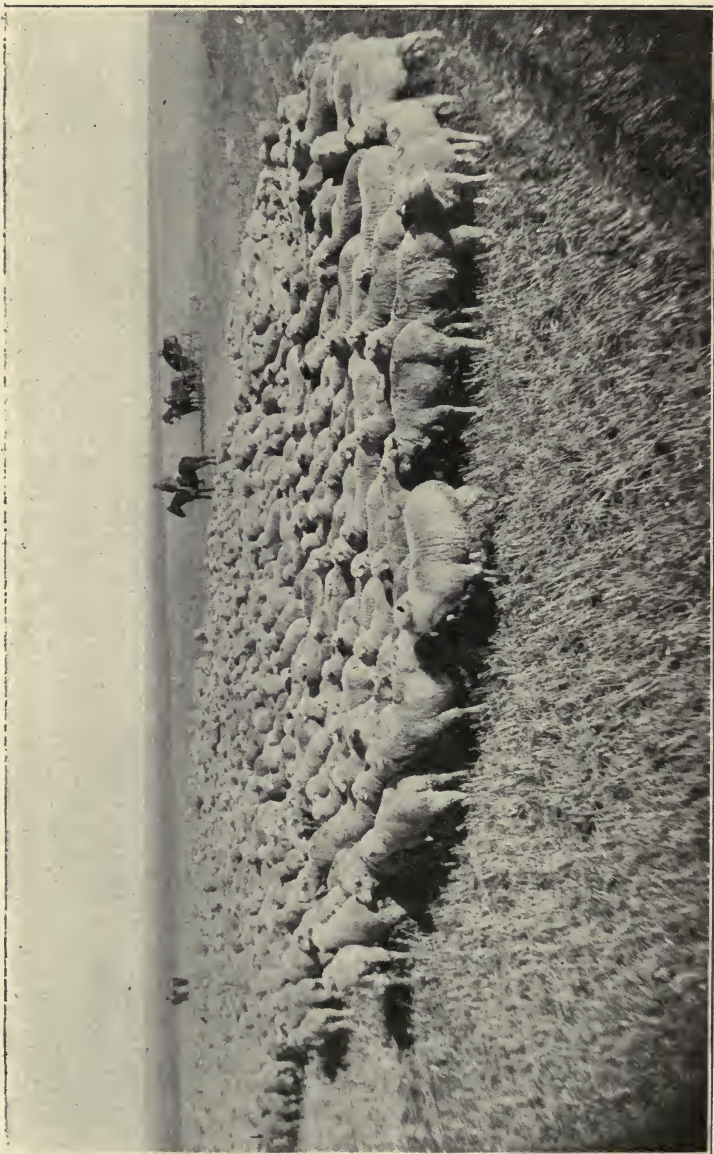
Range men are adopting better methods of management, caring for their stock in pastures and on the ranch, using corals for their sheep instead of leaving them in the open with the sheep wagon, and raising winter feed to bring their flocks and herds through the few winter storms in better condition than on the open range.

Medals and prizes have been won from time to time upon range wool and fleeces in competition with America.

One of the largest horse ranches in the west is located in northern Albany County, and there are several associations of ranchmen who have purchased imported Belgian sires and others who own good Percheron, Shire and Coach stallions.



Hogs in Alfalfa, Blackburn Ranch.



Sheep on the Blackburn Farm.

A few are now raising swine which are found highly remunerative fed on home-grown produce, and there is still room for considerable development in the swine industry, for in our high, dry climate they can be kept free from disease and other troubles, and our highly nitrogenous foods produce bacon and other products of first quality. Of other classes of stock in the county, there are a few Angora goats and a few years ago a man in the mountains west of Laramie made quite a success of the manufacture of cheese from goats' milk.

Stock Feeding.

Heretofore the principal feeding done has been the winter fattening of cattle on native hay. Within a few years, however, a number of ranchmen have taken up lamb feeding with alfalfa hay and corn, which is shipped in, and more recently with field peas, after the method followed in the San Luis Valley, in Colorado.

Dairying in Albany County.

A discussion of the subject of dairying and its possibilities on the Laramie Plains resolves itself at once into a consideration of two questions. Is the business profitable, and is it practicable? A brief study of the industry, keeping those points in mind, will at least enable us to judge intelligently as to the merits of the business.

That the dairy cow is a profitable converter of farm crops into human food is shown by a table taken from "Henry". In it is given the amount of food, suitable for man, returned by the different classes of farm animals for 100 pounds of digestible matter consumed:

Animal	Marketable Product lbs.	Edible Solids lbs.
Cow (milk)	139.0	18.0
Pig (dressed)	25.0	15.6
Calf (dressed)	36.5	8.1
Poultry (eggs)	19.6	5.1
Poultry (dressed)	15.6	4.2
Lamb (dressed)	9.6	3.2
Steers (dressed)	8.3	2.8

A study of these figures gives us something of an idea of the possibilities of the dairy cow as a machine for changing hay and grain into human food. Give her 100 pounds of digestible matter and she will return to you eighteen pounds of edible solids, practically all of which are digestible.



Ice Houses, Laramie River.



Union Pacific Railway Company Passenger Station.

The pig, which stands second on the list of food producers, is a valuable asset to the dairy farmer. Pork production and dairying go hand in hand, for the man who has skim milk to be utilized needs pigs to aid him in disposing of it to the best advantage. Skim milk and alfalfa hay will winter brood sows, and pea pasture is extremely valuable in fattening rations.

Thus we find that the dairyman may have what we might term a side-line in pigs, fitting in well with his scheme of dairy farming, and in these two classes of stock he has leading food producers.

From the standpoint of maintenance and building up of soil fertility the dairy cow is kept at a profit. In marketing a ton of butter we dispose of about 30 cents in fertility value, while a ton of alfalfa hay, sold, represents approximately \$9.00 in fertilizing materials taken from our soils. Let us feed our hay to milk cows, market butter, and by a careful application of manure, build up the richness of our soils.

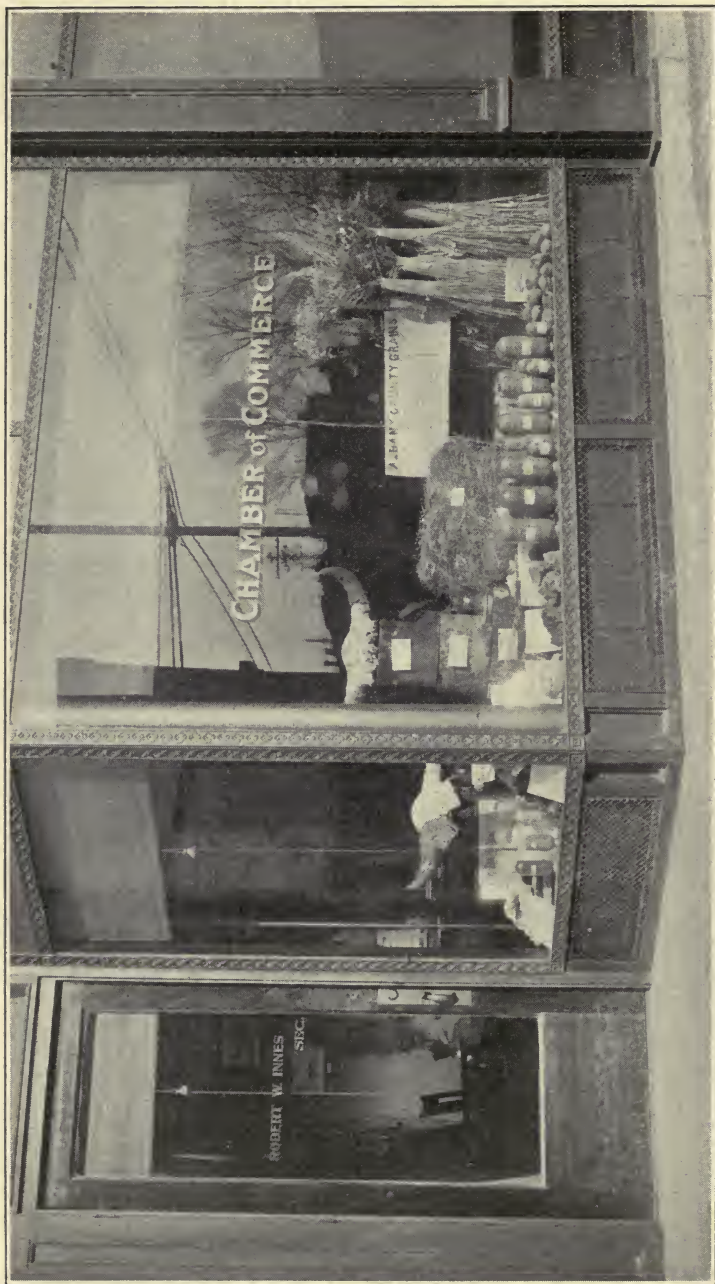
Markets are an important consideration when profits are being investigated. Dairymen of the Laramie Plains have good market facilities. An up-to-date creamery located in the City of Laramie furnishes an outlet for both milk and cream. Prices range high enough to make the business, properly conducted, remunerative. Mr. Sterzbach, manager of the creamery company, estimates that an average of \$1.90 per hundred pounds is paid for whole milk. He figures that at least 40,000 pounds more butter is needed to supply the local trade, and states further that there is much contingent territory orders which could be filled from Laramie were the dairy products available. With all local demands filled there would still be the eastern and western markets, and Elgin prices could be depended upon throughout the year.

Transportation charges on cream shipped into Laramie by express are not excessive. An average of twenty-five cents would cover the cost of sending in a ten gallon can of cream from near-by points. Empty cans are returned free.

In the matter of shipping dairy products to distant points the dairyman works at an advantage. He ships a highly concentrated product on which the carrying charges are bound to be less proportionately than they would be were he to send hay, grain or live stock.

Delivering milk or cream at the creamery means a long haul from some parts of the Laramie Plains. Yet this difficulty can be largely overcome through co-operation. One team can easily do the delivering for a neighborhood.

Settlers in this section who enter the dairy business find land values much less than they are in most of the older



Chamber of Commerce Rooms.

states. This means less fixed capital upon which interest must be figured. Yet our lands are productive. The 1911 Year Book of the Department of Agriculture gives the average yield of corn in the United States as 23.9 bushels per acre; oats, 24.4; barley, 21.0 bushels. Corn may be beyond us, but our irrigated sections will certainly show improved yields of oats and barley. Barley is coming to be recognized as a wonderfully good corn substitute.

Wherever the dairy industry has gained a foothold we find a prosperous community. With increased land values the tendency is toward dairying. Why? Because as has been previously indicated, the dairy cow heads our list of domesticated animals in her ability to convert field crops into human food. Hence the man with high priced land turns to her for aid in financing his big investments.

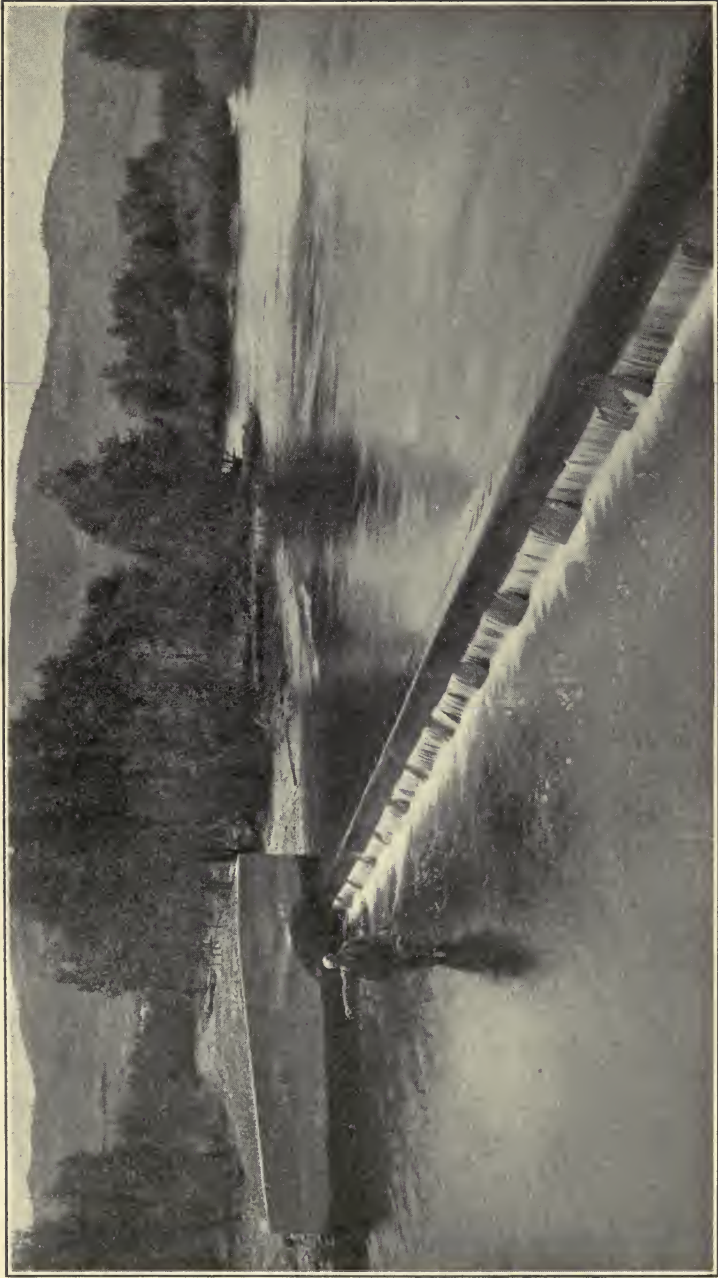
Star Valley, a section of our state with climatic conditions much like those of the Laramie Plains, is today demonstrating the possibilities of the dairy business. Settlers in the valley were having difficulty in making both ends meet, until they began to keep milk cows. Today one finds evidences of prosperity on all sides in spite of the fact that the valley is fifty miles from a railroad and cut off from it by a mountain range. Most of the cattle are not of the highest type, yet herd improvement is under way.

What of the practicability of dairying for the Laramie Plains? That it is a workable proposition, those who have studied the question will testify. Climatic conditions are not unfavorable. We can grow all the necessary feeds. With alfalfa, field peas, roots, oats, barley and rye at our disposal, what more do we need? Silos are no remote possibility, for alfalfa, field peas, oats, etc., make silage material. Market facilities are good with both local and distant field inadequately supplied.

In short, we have the requisites necessary for successful dairying. It remains with us to make the most of our opportunities.

Why has an industry both profitable and practicable been so woefully neglected? In the first place, we object to the work connected with the dairy business. That it is confining no one will deny. Milking twice a day, week in and week out, grows irksome. What business is without its drawbacks and what success worthy of the name is attained without effort and sacrifice?

Many of us have lacked in appreciation of the dairy cow as well as in knowledge of the subject and so have hesitated to embark in the enterprise. Your state university, good dairy



Diversion Dam on Big Laramie River of Lake Hattie Reservoir Supply Canal.

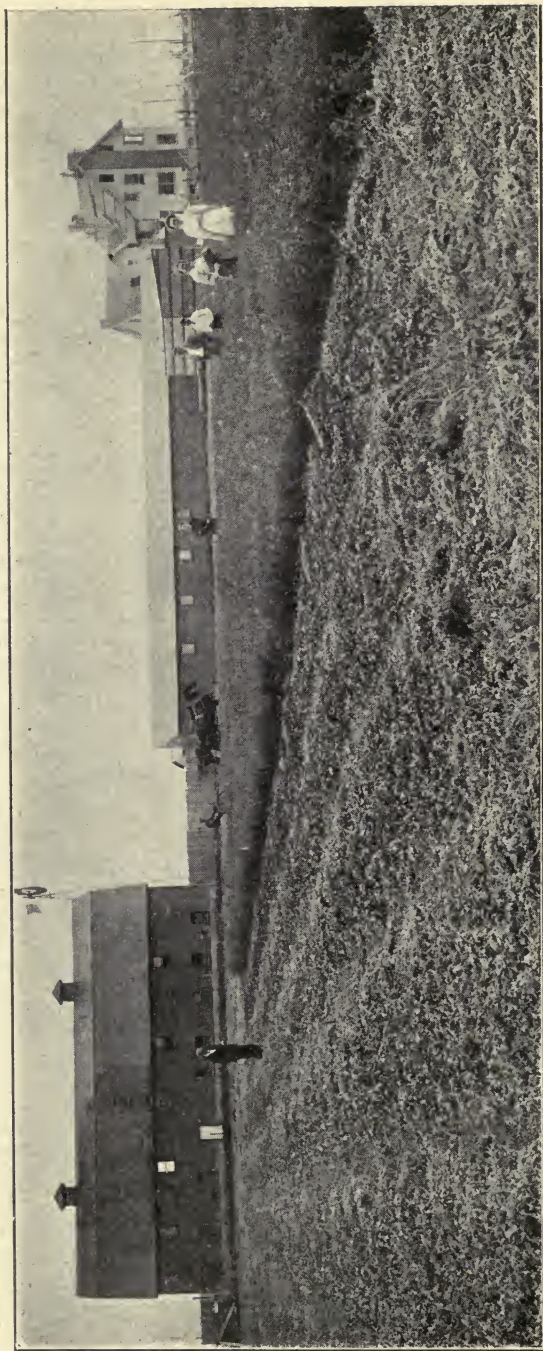
papers and a wealth of dairy literature are all at the disposal of those interested.

Enough has been said to give you a glimpse of our possibilities. An intelligent utilization of our advantages and hearty co-operation in the development of the dairy industry will do much toward adding to the prosperity of our valleys.

CROPPING RESOURCES.

Forage Plants.

Several of the older writers on alfalfa made statements that it would thrive at any altitude below 6,000 feet. On the Experiment Station farm at Laramie we early demonstrated that the conditions were favorable to the production of alfalfa at altitudes of over 7,000 feet, and now there are some extensive fields along the rivers and under the irrigating canals. Where the conditions are favorable for its growth, alfalfa is pronounced, without reserve, the most valuable fodder plant under cultivation for the arid region. It is so highly esteemed in other places that eastern farmers are overcoming the difficulty of growing it under humid conditions, and it is becoming an important crop in almost every state. Its points of advantage over other hay crops are: First, its large yield per acre, returning two to three times the amount secured from native hay; second, its hardiness and permanence after getting started, standing drouth well and giving maximum crops until at least seven or eight years old; third, its high nutritive value, any kind of stock making flesh and fat upon it, and fourth, its fertilizing value, for instead of impoverishing the soil, it enriches it by fixing free nitrogen from the air, leaving it in fine condition for other crops. While alfalfa is one of the easiest plants to grow, it requires methods of culture which are suitable at our high altitudes. The first farmers who tried alfalfa in Albany County did not succeed, but since adopting the press drill with which to plant the seed and putting it on good soil, where water does not stand too near the surface, we have never failed to secure a good stand. Full instructions for sowing alfalfa, its management, and curing the hay, may be obtained by addressing the Director of the Experiment Station. As an indication of the cropping qualities of alfalfa on the Laramie Plains, we quote the data of yields on the Station farm which were published in Wyoming Station Bulletin No. 43. The report is given for separate fields. Acre Plat 8 was planted to alfalfa in the spring of 1894, producing a crop the first year from seed of 1,967 pounds of cured hay. The second year, 1895, it was harvested August 6, giving 5,019 pounds, and



Alfalfa on Corthell Ranch, Two Miles West of Laramie.

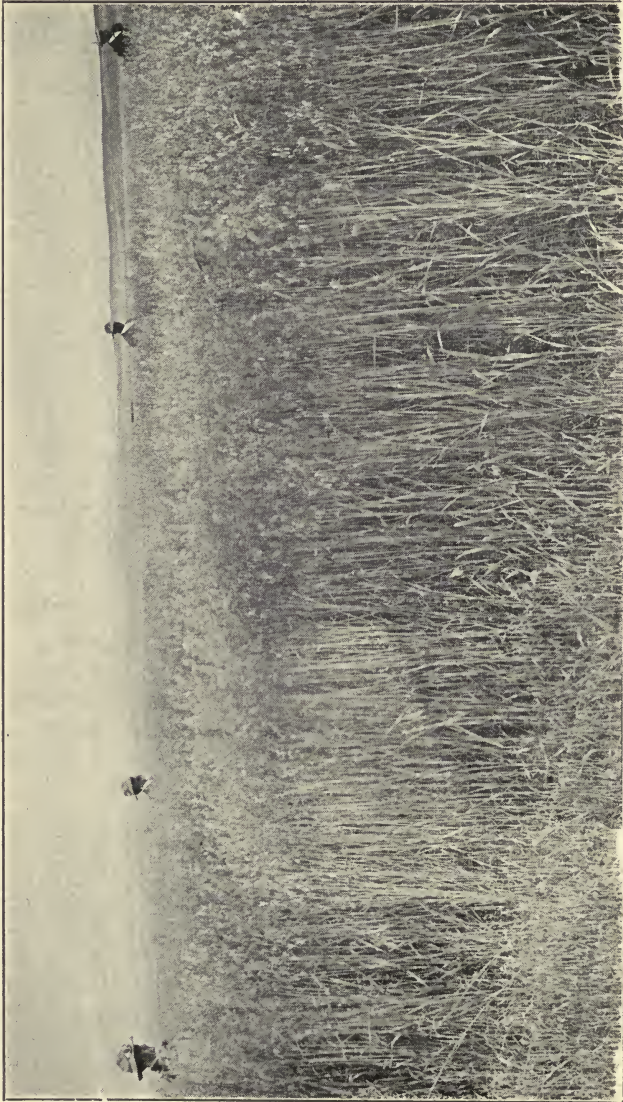
the second crop, September 24, 2,557 pounds, making the total yield a little more than three and one-half tons per acre. In 1896 only a partial crop was secured, but it was cut July 7 and September 8, yielding 2.34 tons. In 1897 the first crop, cut July 16, yielded 3,860 pounds, and the second crop, September 9, yielded 3,860 pounds, or approximately 3.86 tons for the season. In 1898 it was cut first July 14, yielding 4,759 pounds, and the second time September 8, yielding 3,909 pounds, a total of 4.33 tons. The average for four years is a little more than $3\frac{1}{2}$ tons per acre. On Acre Plat 18, which is a very shallow piece of land underlaid with gypsum, the yield for three years was from 1.8 to 3.5 tons, the average being 2.47. Acre Plat 27 gave an average yield per season of $3\frac{1}{2}$ tons per acre. Turk-
estⁿ alfalfa, the seed of which was supplied by the Department of Agriculture, gave average yields of 3.81 tons cured hay per acre. At our high altitudes the alfalfa produces very fine leafy stems, and recent studies of its chemical composition and digestion experiments show that it is richer in protein and more highly digestible than the stemmy hay produced at lower altitudes, as reported by other investigators. Fourteen experiments to determine the duty of water on alfalfa showed that it was supplied with sufficient irrigation water if the land was covered from 0.98 foot to 3.1 feet deep, making the duty of a cubic foot per second continuous flow of an irrigation season of four months of from 78.5 acres to 249 acres.

The great fertilizing value of alfalfa is shown by a careful experiment carried out by the Station and reported in Bulletin No. 44. The fixation of nitrogen by alfalfa overcomes the principal difficulty with arid soils, and a rotation of crops in which alfalfa is one practically solves the fertilizer problem over a large part of the west.

Where alfalfa is used in rotation with other crops the texture and richness of the soil is improved and the land is kept highly productive, providing, of course, it is not poor in mineral plant foods, which are usually abundant. A good rotation for Albany County is, beginning with the virgin soil: First year, oats; second year, potatoes, with a small amount of stable manure if it is available; third year, alfalfa, sown on the potato ground without replowing, having it harrowed and leveled. The alfalfa may be left on the land three, five or eight years, and then plowed up for wheat, oats, barley or potatoes, putting it in these crops two or more years.

Pure farming for hay alone is remunerative, for there is always good demand; with the introduction of lamb feeding and more up-to-date management of other stock, the demand

is increasing. Alfalfa brings from \$6 to \$14 per ton, which insures good returns for our lands, and if rotation is practiced, it



75-Acre Field of Oats on Blackburn Farm.
Yield, 85 Bushels Per Acre.

is probably a fair estimate to place the value of the fertilizer added to the soil at from \$30 to \$35 per acre. The following

is a summary of our results with an experiment to determine the fertilizing value of alfalfa.

At our high altitude the true grasses find a natural home, and there are few areas in other parts of the west which are so well grassed with native species, or which produce range and pasture equal to ours.

No class of forage is becoming more important than the Canadian Field Pea. The method of using it is to allow the crop to ripen in the field and fatten lambs by allowing them to run within hurdle fences or by herding them on the fields. They get both the grain and roughage, which will finish them for market in from eighty to one hundred days, producing a superior class of mutton. From eight to twelve lambs can be fed upon an acre. The fertility of the soil is continually improved and the returns per acre in the trials which have been made have given good net profit.

Farm Crops.

The small grains are more generally grown in Albany County than any other crop. Wheat, oats, barley, and rye in our congenial soils and cold climate reach great perfection. Winter rye can be grown either with or without irrigation and in rotation with alfalfa, wheat, barley and oats produces yields which are highly remunerative.

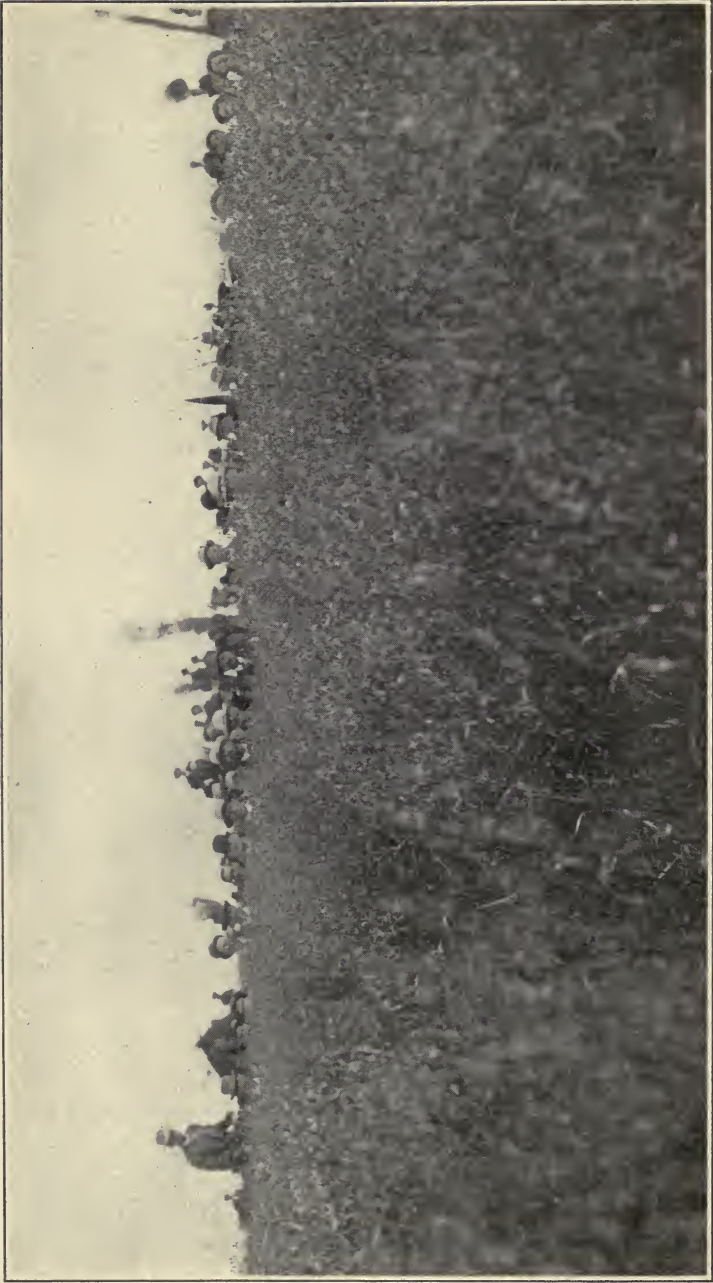
Wheat.

There is always a good market for the wheat which is grown in the county. At no time has the supply been equal to the demand, and the flouring mill in Laramie has been compelled to ship in wheat to supplement the home-grown product.

The average yield of wheat for ten years' trials upon the Experiment Farm at Laramie was 25.5 bushels per acre. Yields have been reported as high as eighty bushels. With the better kinds of wheat and proper handling, farmers obtain a yield of twenty or thirty bushels to the acre.

Oats.

Oats have been more largely grown than any other crop. For our conditions, oats and flax are the best crops to grow the first year after breaking sod land. The yields obtained, the quality of the crop and the length of straw have often been a matter of surprise to our own farmers. While the Experiment Station has investigated the oat crop by growing many varieties, testing nearly all the sorts known and trying various amounts of seed, etc., no special report has yet been



Field of Grain, Albany County.

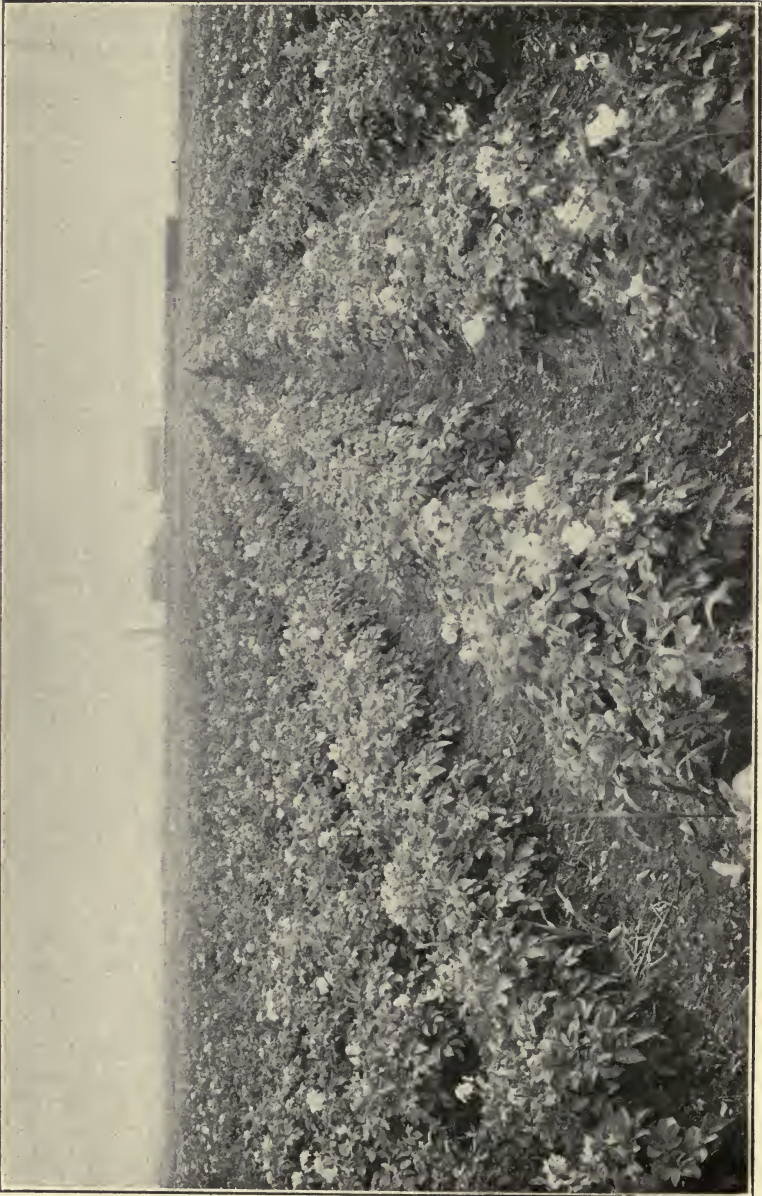
made of the oat experiments. A banner crop of oats was produced during the season of 1905 on the Millbrook ranch. Mr. E. J. Bell gave a ranch dinner, which was attended by United States senators, the high officials of the state and county and of the Union Pacific railroad. Not one of these men who had been interested in farming all their lives ever saw such a crop of oats as that growing on seventy acres of the older cultivated land. The oats stood higher than the backs of the horses and were very thick and heavy. A section of the field measured and harvested to determine the yield gave a crop of 107 bushels per acre, machine measure. Computed from the weight of the crop at 32 pounds per bushel, the yield was a fraction more than 137 bushels per acre.

Oats may be considered a sure crop, and even when put in too late to ripen the grain, the oat hay cut when the grain is in the milk is a valuable feed, especially for horses.

Barley.

At the great Chicago Exposition in 1893 a large barley merchant from Liverpool stated that if he could obtain such barley as the samples we were showing there from our Station farm, he would give 50 cents more per bushel for it than any barley he had purchased. He thought its quality unexcelled, and the white color due to our bright sunshine and lack of discoloring rains made it especially desirable for brewing the pale ale so popular in England. We have always believed that we could grow barley on an extensive scale for export. At St. Louis in 1904 we obtained a grand prize on our grains and the group jury recommended it especially on an exhibit of forty-four varieties of barley grown at Laramie. The feeding value of barley has been demonstrated by lamb feeding experiments, which have shown it equal to or better than corn for finishing for market.

tin No. 71 of the Wyoming Agricultural Experiment Station. We have grown brewing barley weighing 56 pounds per bushel, the standard being 48 pounds, and samples of hulless feeding barley have weighed as high as 67 pounds per bushel. The maximum yields of varieties in 1896, which were planted in small areas, was a little more than 77 bushels per acre for the Winter six-rowed and the Algerian No. 2. The next year the largest yield was 58 bushels by Manchurian. The next year Kilma barley yielded at the rate of 87½ bushels. The following season Scotch barley in a half-acre plat yielded 77.3 bushels per acre. While we have little computed data from which to estimate average yields, it is probable that, under ordinary conditions of soil and cultivation,



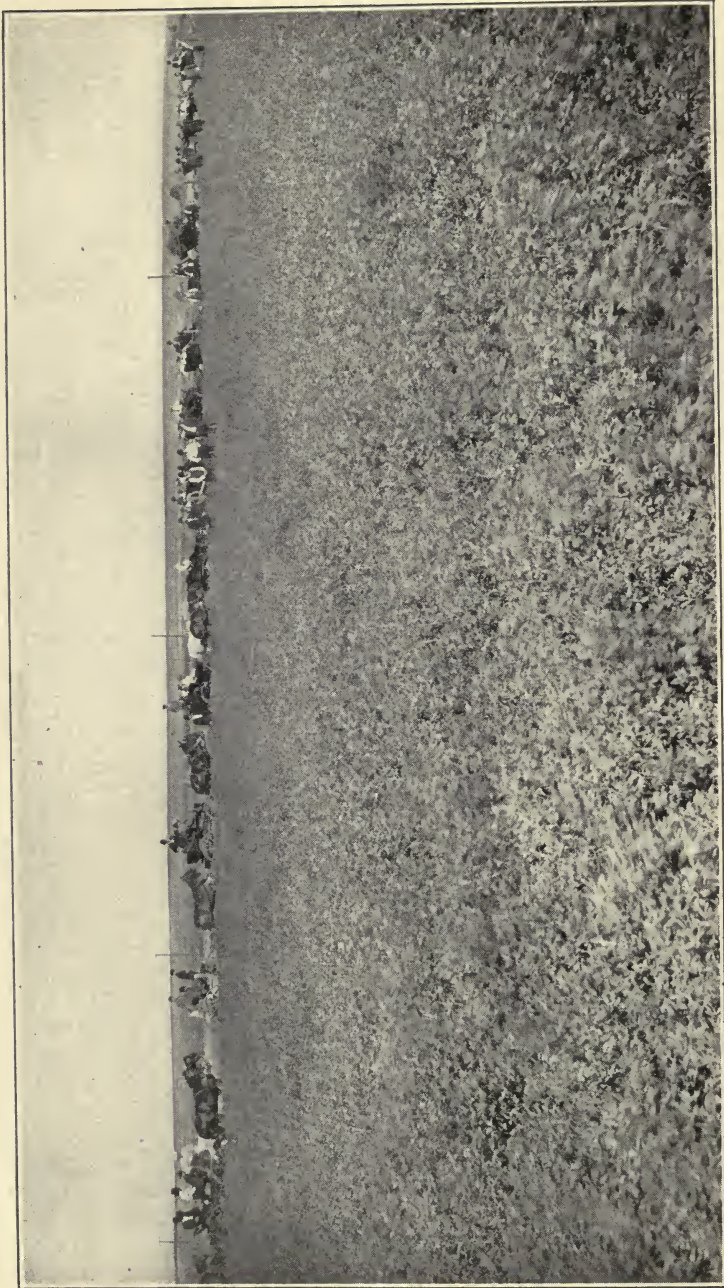
40-Acre Field of Potatoes on Blackburn Farm.
Yield, 7,000 Bushels, 1909.

brewing barley will average from 50 to 60 bushels per acre and hulless barley from 20 to 30 bushels. With fertilizing or on alfalfa land these yields may be doubled.

Potatoes.

Potatoes succeed in all parts of Wyoming and form one of our most important and valuable farm crops. They seem capable of adapting themselves to all our conditions of soil, climate and altitude. Good yields have been obtained in places up to 9,000 feet above the sea, and even where light frosts are frequent during the growing season. The phenomenon of sufficient cold to produce ice along a stream in mountain valleys and still leave uninjured as tender foliage as that of potatoes has often been observed. It would seem that the radiation in our clear atmosphere is sufficient to cool the already cold water below the freezing point, while foliage on higher ground is protected by warm layers of air and the heat absorbed during the day. At altitudes above 7,000 feet potatoes often produce fair crops without irrigation, even with our limited amount of rainfall. We have never recorded the general failure of a crop. The Experiment Station has carried out extensive investigations with potatoes and is able to give authentic information about this crop. Fifty varieties were experimented with through two seasons, and the average of so many gives reliable data. Potatoes on different soils gave yields on millet stubble to 99 sacks per acre; on timothy land, 96 sacks; on red clover, fall plowed, 80 sacks; and on wheat stubble, 60 sacks. Where these potatoes were fertilized with a thousand pounds of bone meal per acre on this land, the seed having been treated with corrosive sublimate for scab, the yields were as follows: Alexandre Prolific, on millet ground, 117 sacks; timothy ground, 107 sacks; clover ground, 126 sacks; wheat ground, 112 sacks; the average being 116 sacks for this variety. Charles Downing gave yields of from 94 sacks on wheat ground to 132 sacks on the millet ground, the average being 117 sacks. Koshkonong yielded from 85 sacks to 141 sacks, the largest yield in this case being on timothy ground, the average yield being 117 sacks per acre. Where different crops have been plowed under, the average yield of 50 varieties in 1896, at Laramie, was 94 sacks per acre.

The season for potatoes, as given in this bulletin, is: Time of planting, May 10 to June 1; time of harvest, September 20 to October 20; time of first killing frost, September 1 to September 10. The quality of our potatoes attracts general attention. Anyone who has tried potatoes which are grown at our high altitude with proper irrigation always testi-



Scene on Palmer & Whitehouse Ranch, Near Laramie.

fies to their splendid cooking qualities and agreeable flavor. Never have enough potatoes been grown to supply the demand, and on account of superior quality they always bring the best market prices. They do not grow so large as at lower altitudes with longer season, but are of excellent size for cooking purposes. The largest potatoes we have raised of any variety in the experiments above cited were seven to ten pounds for twelve tubers. Four varieties weighed ten pounds or a little better for twelve potatoes, but the average size of the largest tubers have weighed from one-half to three-fourths of a pound.

Other Field Crops.

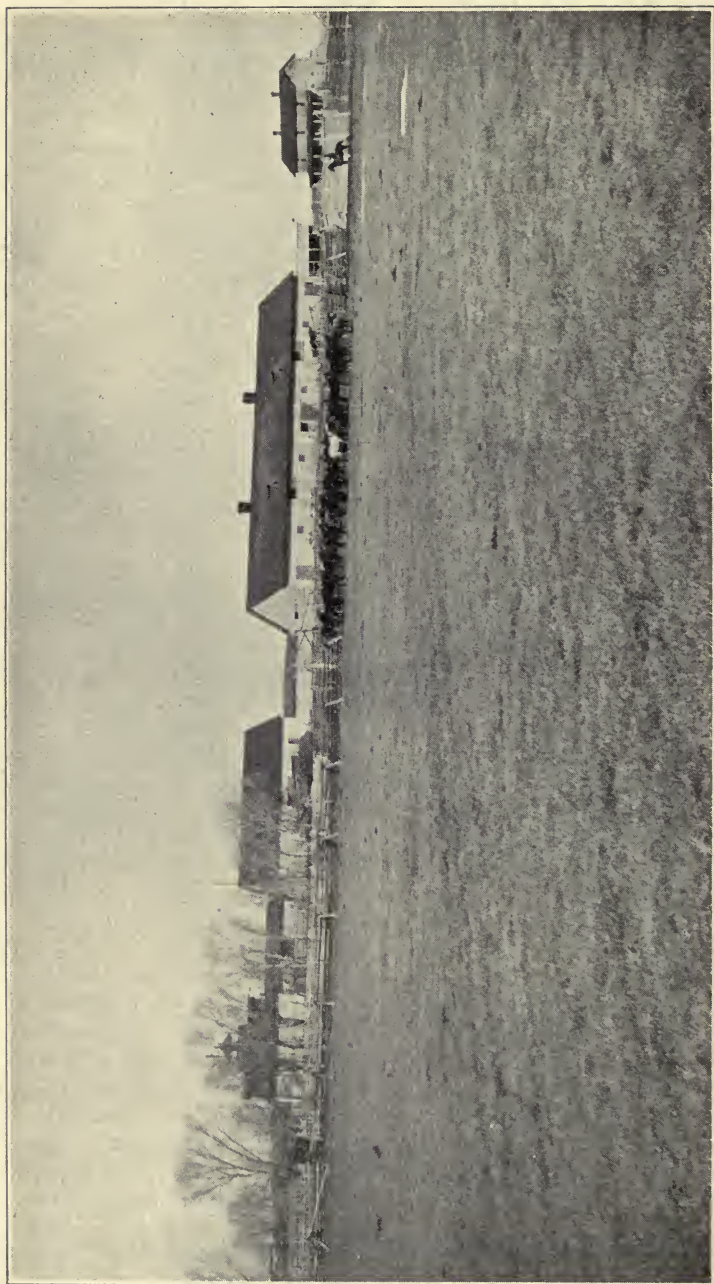
Flax has succeeded admirably in Albany County, giving maximum yields of about sixteen bushels per acre. This is considered a good yield of this crop. In feeding experiments has been shown the value of ground flaxseed for fattening in connection with alfalfa and root crops.

Buckwheat produces well and is a short-season crop which will fit into our agriculture when we have mills to produce the meal.

Turnips.

Turnips as a field crop are not sufficiently appreciated. The conditions of soil and climate are eminently favorable to the growth of turnips. At lower altitudes, where the seasons are long and warm, turnips cannot be sown in the spring for a fall crop, as they become strong and unfit for either table use or stock. There is no difficulty of this kind here, for, though the roots grow to a large size, they never become strong. Turnips are highly prized in England as a stock feed, to be fed with hay or grain for fattening beef. Here, where there is so little feed of a succulent nature, turnips for stock would be invaluable, and well repay the expense of growing for that purpose. No other crop that we have tried will give so many pounds of feed per acre. The average yield of twelve varieties, sown with drill, was 60,578.8 pounds, or 30.3 tons per acre. The expense of raising them is small. A safe estimate with the yields we obtained would make the expense of producing the turnips, exclusive of harvesting and hauling, at 50 cents per ton, or less. This would be cheaper than hay, and much cheaper than any other stock feed which can be obtained here. While the nutritive value of turnips is low, they will be found a valuable feed in connection with hay or grain.

Rutabagas or Swede turnips can be grown with the same success, and are more valuable as feed than the white varieties.



Scene on Palmer & Whitehouse Ranch, Near Laramie.

Vegetables.

Practically all garden vegetables do exceedingly well in Albany County. The flavor is unexcelled.

Parsnips, carrots, salsify, beets, onions, radishes, cabbage, kohlrabi, cauliflower, lettuce, garden peas, beans, etc., produce abundantly and the quality is of the first grade.

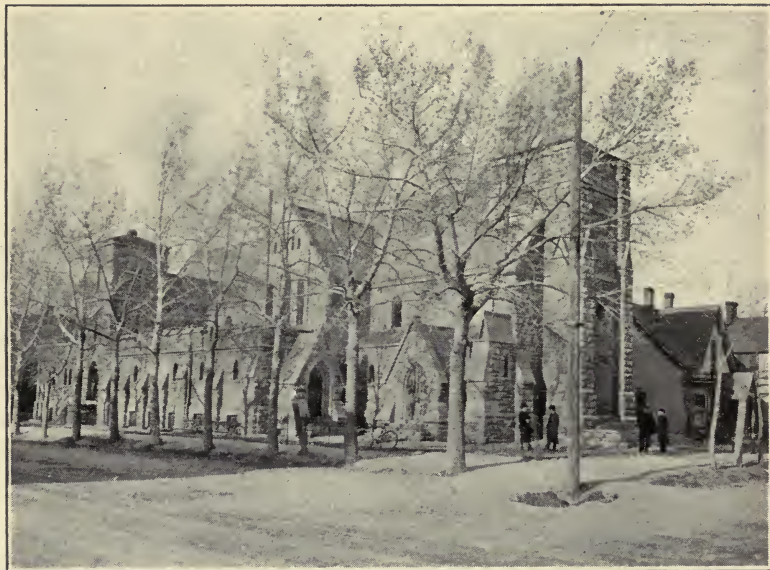
Fruits.

On the open plains, without wind breaks or other protection, tree fruits cannot be grown, but in the sheltered valleys, along the streams or in town hardy varieties of apples and crabs succeed, and Morello cherries are being produced by Mr. Jacob Lund. Mr. Lund's ranch is on the Laramie River, 28 miles west of Laramie, at an altitude of approximately 7,400 feet. His orchard of Wealthy apples and cherries bear fruit every year. Several people in town have raised apples and good crops of crab apples. On the Sibylee, northeast of Laramie, Mr. Edwin Moore has a fine apple orchard. He showed a number of varieties at the fairs last fall and took the prize at the State Fair at Douglas for the best display of crab apples from any county.

The small fruits which succeed are strawberries, currants and gooseberries, which will live and bear without being given winter protection. Raspberries and dewberries will produce if the canes are laid down and covered with earth for winter protection, as is practiced in Colorado and other parts of the arid region.



One of the Sources of Supply of Rock Creek Conservation Company.



St. Matthew's Cathedral.



Presbyterian Church.

GENERAL GEOLOGY OF ALBANY COUNTY.

To be brief, Albany County may be described as a broad basin forming the Laramie Plains, bounded on the eastern side by the Laramie Hills uplift and on the western side by the uplifts of the Medicine Bow range of mountains. The longer axes of both of these mountain ranges and the trough of this great basin or sinclinal fold is from southeast to northwest, in common with the general direction of the entire Rocky Mountain chain.

On the easterly side of this grand valley or basin is a range of mountains known as the Laramie Hills, or Laramie Mountains, sometimes called the "Black Hills" in the early writings concerning this locality. This chain of mountains lies east of the main line of ranges which form the great Rocky Mountain Chain of North America and extends from a point near the Colorado-Wyoming state line in a general direction west of north along the Albany-Laramie County line to a point in the northeastern corner of Albany County at Laramie Peak, whence this range turns north of west and again passes into the high table lands and smaller hills of central Wyoming, Laramie Peak being the highest and turning point of this entire uplift, having an altitude of 11,000 feet; the general altitude of the range varies from 7,000 feet to 9,000 feet above sea level.

The Laramie Range consists essentially of a huge core of archaean granites extending throughout the entire length of the range and flanked on either side by the later sedimentary formations which slope at a varying angle away from the main central uplift, showing the Cambrian shales and Carboniferous limestones immediately overlying the granite. These are succeeded by the red beds of the Triassic, the clays, limestones and marls of the Jurassic, and the sandstones, clays and shales of the Cretaceous to the Tertiary clays and other later formations occurring north of the range in the main Platte Valley. These latter, however, will not be discussed in this paper, as the Laramie Plains consists essentially of the upper Cretaceous formations, and the only Tertiary deposits are small isolated islands occurring near the northern limits of this county and are not important.

These formations and their general relation to the mountains on which they lie are shown in the accompanying section, by the late Prof. W. C. Knight of the University of Wyoming, across the Laramie Basin, but at different points in the Laramie Plains region in eastern Carbon County and western Albany County there are a number of smaller uplifts, where the underlying formations have been brought to the surface in a limited area, causing a local change of dip of these forma-



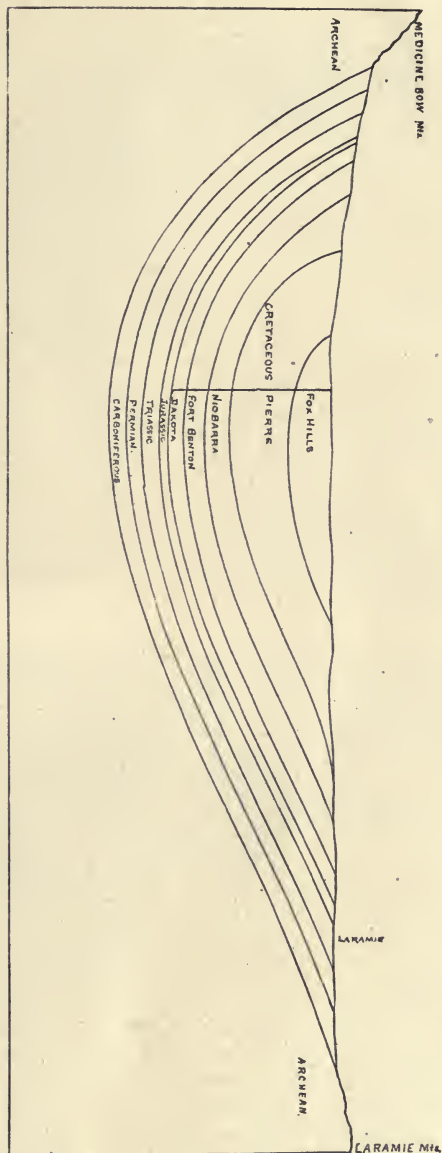
Methodist Episcopal Church.



Baptist Church.

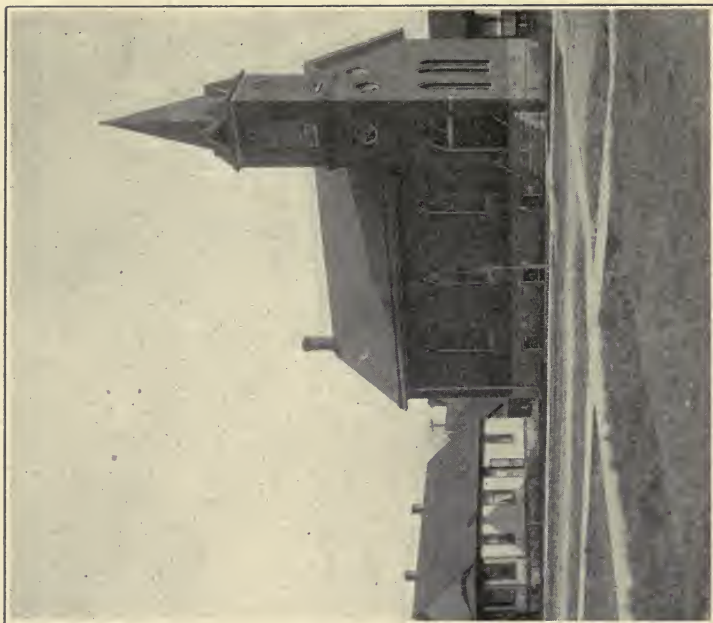
A geological section of the Laramie Plains, extending from the Laramie Mountains westward through Laramie to the Medicine Bow Mountains. (Drawn to scale.)

By Prof. W. C. Knight, University of Wyoming.



tions. Where these are commercially important they will be discussed later in this paper.

The Medicine Bow Mountains, on the western side of the basin and in the southwestern corner of the county, are the re-



German Lutheran Church.



St. Lawrence O'Toole Catholic Church.

sult of a series of uplifts occurring at various times along the length of the range, the main uplift forming the present backbone or crest of these mountains, and extends in a northwesterly and southeasterly direction.

In connection with this main range are a number of smaller and evidently later uplifts known as Jelm Mountain and Sheep Mountain on the south and Cooper Hill and Elk Mountain on the northerly end, these latter mountains lying in Carbon County. Jelm Mountain and Sheep Mountain are evidently uplifts similar to the eastern range, or Laramie Hills uplift, and show a similar red granite as a core with the sedimentary formations lying thereon on either side of the mountain, and appearing again on the western side of the Centennial Valley lying on the eastern slope of the Medicine Bow Mountains.

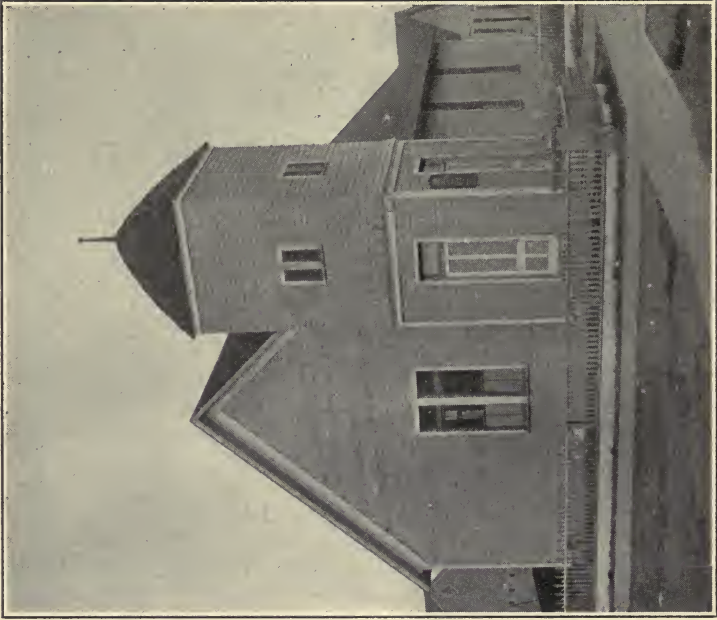
The Medicine Bow Range shows these same red granites in many places, and with them are associated gray granites, schists and similar rocks. These form the ranges proper, but near the central portion of the range in Wyoming occur what is known as Snowy Range, forming the highest point of the Medicine Bow Range. Here the formation consists of quartzites, trachytes, porphyries and similar rocks, the whole range affording an intensely interesting field of study for the economic geologist.

The ranges extend south into Colorado, and there is a great deal of the territory included in these and adjacent ranges which are naturally tributary to the Laramie Basin region, and where conditions similar to those here described will be found, on investigation, to obtain at these points.

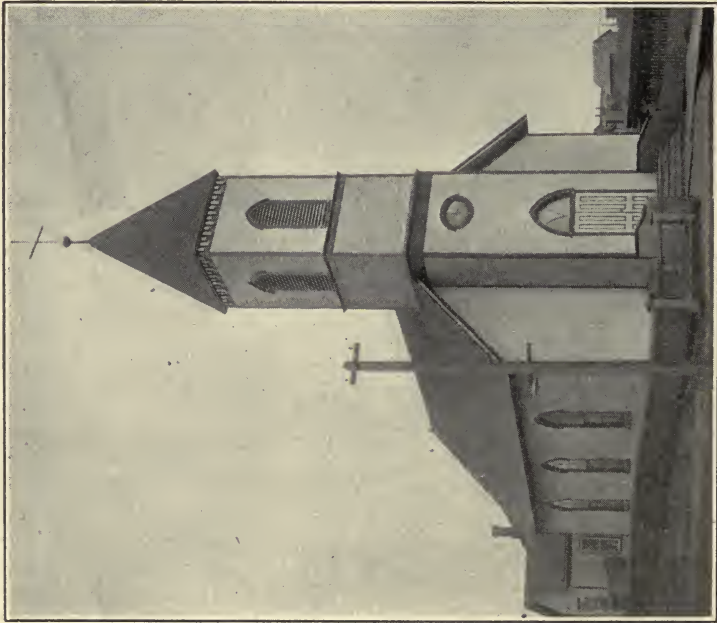
West of the Medicine Bow Range is the broad valley of the North Platte River, and west of the river lie the Sierra Madre Mountains in southern Carbon County, where the famous Ferris-Haggarty and Doane-Rambler mines are located, and, with the ranges of the Medicine Bow Mountains are popularly known as the Grand Encampment-Copper District, which together form the principal copper producing localities of Southern Wyoming. These regions are covered by a bulletin by the State Geologist, copies of which may be had by applying to the Geologist at Cheyenne.

MINING IN THE MEDICINE BOW MOUNTAINS.

Mining in this region has been carried on since the first Spanish explorers worked their way northward along the Rocky Mountain Range from their landing places on the Mexican coast, as traces of these ancient workings have been found, together with old tools, weapons and other articles indicating the presence of these the earliest pioneers. These



Swedish Mission Church.



Trinity Lutheran Church.

ancient workings are supplemented by others dating from the first emigrant train across the old Julesburg-Pass Creek-California trail. These prospectors were either killed or periodically run out by the Indians for many years, even after the Union Pacific railroad was built through in 1867.

In 1868 gold was discovered in Moore's Gulch, a small tributary of Douglas Creek, and while there is some evidence that gulch mining has been carried on in the lower tributaries of Douglas Creek at much earlier periods, this is the first well authenticated discovery of pay values in what is now known as Medicine Bow Mountains, though Hayden in his "Report of the Territories, 1867-8-9," says that "valuable specimens of ores and placer gold" had been brought to him from the mountains southeast of Fort Fred Steele, and known at that time as Elk Mountain and Medicine Bow Mountains, but there is no record of any prominent or permanent discovery made at this time.

Following the discovery of gold in Moore's Gulch, placer mining became very active and continued for a number of years, some of the gulches being worked for many years by crude methods and produced a great deal of gold, but there is no present way of determining the total amount produced.

The first lode claim located in Albany County of which there is any authentic record was the Morning Star claim, now known as the Douglas mine on Douglas Creek, which was made in 1870, and since that time lode mining has continued with frequent activities in the different camps of the district, notably at Centennial, where the Centennial mine was opened up in 1876; the Keystone at Keystone in 1878; the Cummins camp at Jelm in 1879, leading up to the discovery of copper in the great Rambler mine in 1900, and since that time mining in the Medicine Bow has become a permanent and profitable fact.

The Medicine Bow Placer Districts.

It is not too much to say that every stream which heads on the eastern slope of the Medicine Bow Mountains in Wyoming contains placer gold and that nearly every gulch on this slope will yield some return to the prospector with shovel, pick and pan. Neither is it too much to say that every gulch and stream in this locality has been tested in this manner and a number of streams, especially Douglas Creek and its tributaries, have been found to carry the yellow metal in commercial or paying quantities.

To the early prospector, whose outfit consisted of a couple of burros, a pick, shovel and gold pan, a little grub and a blanket, pay dirt means only gravel easy to get at, easy to pan and



High School Building.



East Side School.

with a sufficient number of large nuggets to enable him to make a day's pay whenever he came on a stream. The man who followed him considered as pay dirt any gravel which warranted the quick building of rough board sluices and riffles, with the additional facilities of a small ditch which could be constructed before the washing season allowed active work in the creek beds. Placer enterprises of this sort are necessarily few and short lived, and they were followed by the company which constructed larger and longer ditches than their individual predecessors, and installed a giant, with long ditches, and flumes at the base of the pit with a string of riffles long enough to catch any stray particles of gold that might otherwise escape.

The next step in the hydraulic history of a camp is the installation of numerous mining devices by associations of owners which endeavor to work the ground "worked out" by the gold pan and small ground sluice methods by sundry and various patent "processes" and "machines" guaranteed by the inventor to be the only thing ever really accomplished by the miner and which usually stands as a melancholy monument to misdirected energy among the willows, and a too blind faith in the works of man.

The Medicine Bow placer districts have passed through all of these stages and now are again coming to the front as a field for intelligent enterprise, backed by sufficient capital for commercial operations, and under careful direction will certainly show profitable returns. The presence of gold in these creek bottoms has never been doubted or denied. Every placer enterprise that has ever been conducted in these mountains has shown the presence of gold in the lands worked, and some of the enterprises have been conducted profitably to the extent of their capital and equipment, ceasing to work when they reached a point where they could not make it a success with the means at hand.

The Eastern Medicine Bow Water Shed.

This would practically include every stream which heads on the eastern slope of the Medicine Bow range of mountains, and without burdening the reader (for the present) with a catalogue of the small creeks of the region, these may be classed as the tributaries of the Medicine Bow River at the north end of the mountains, the tributaries of the Little Laramie River at Centennial and the central part of the region, and those of the Big Laramie River at the southern end of the county in the Jelm Mountain vicinity. Add to these the tributaries of Douglas Creek, which rises on the southeastern slope



North Side School.



West Side School.

of the Snowy Range, flows in a southerly course to within six miles of the Wyoming-Colorado line, then turns abruptly west and flows into the North Platte River in Carbon County. This creek, with its tributaries, drains the southwestern slope of the Medicine Bow range, and on this creek and its tributaries are found the principal gold-producing gravels which are noted in this section of Albany County.

Numerous placer workings are also found at the head of Pass Creek on the north; Brush Creek and French Creek, which head on the western slope of the same vicinity as Douglas Creek, and to a lesser extent in South French Creek and Mullen Creek, and in outline these rivers, creeks and their tributaries may be said to cover the water shed of the Medicine Bow range in Wyoming.

The Douglas Creek Placer Mines.

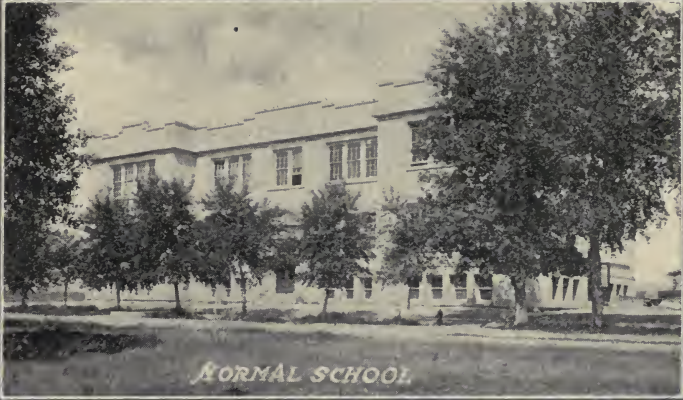
These include all the placers which may be found on Douglas Creek and its tributaries. Gold was first discovered in this district by Iram M. Moore in what is now known as Moore's Gulch, one of the tributaries of Douglas Creek, in the fall of 1868. The district was then organized and called Douglas Placer District, Mr. Moore being elected its first president and Captain John Metcalf its first recorder. The principal work was done in this district in 1869, and, though nothing but the ordinary sluice box, rocker, long tom and gold pan were used, about \$8,000 worth of gold was taken out of this gulch in that spring. It is given on good authority that many washings yielded from \$2 to \$2.50 to the pan and many nuggets were found weighing from 5 to 20 dwts.

Douglas Creek proper is about thirty miles in length, and the greater portion of its length has been located for placer, together with its most important tributaries, which are Lake Creek, Muddy, Spring, Keystone, Beaver Gulch, Horse, Gold Run, Joe's Creek, Moore's Gulch, Dave's Creek, Ruth's, Elk, Bear and Willow Creeks. The district may be stated to embrace an area fifteen miles long and ten miles wide, and lies forty-five miles due west from Laramie.

The Douglas Creek flats vary in width from 50 to 1,000 feet. Operations may be carried on in this district for six or seven months in the year, the working season beginning about the middle of April and closing about the middle of November. The water varies in each creek, but may be given as running from 6,000 miners' inches during high water in the spring down to 1,500 miners' inches at low water in August and September in main Douglas Creek, and the general fall of these creeks varies from 20 feet to 125 feet to the mile.



Buildings of the University of Wyoming.



Buildings of the University of Wyoming.

Those who are best informed on the actual working conditions of these creeks state that about 25 per cent of gold in this district is coarse and that a few of the nuggets taken out have considerable quartz attached to them. Nuggets have been taken out in the different portions of the district that weighed from 16 to 68 dwts. each, but the majority of the gold is in the shape of finer particles varying from fine or flour gold up to flat nuggets an eighth of an inch long. The greater portion of the gold is found deposited on the bed rock, which varies in different portions of the district, but it is generally of a granitic nature and usually shows considerably decomposed or weathered. The auriferous gravel beds are from three to fifteen feet in thickness, averaging about five feet. There is no pipe clay or hard cement to interfere with the successful washing of the gold, unless it be small deposits noted locally in some places. The gravel and wash consists of the decomposed, broken and washed detritus of the surrounding hills, and the formations consist principally of granite, diorite, schist, quartzite and slate, the boulders varying of course in each locality, with the usual amount of quartz, sand and black sand, the latter resulting from the crushing of the black oxides or iron which occur in many of the formations of this locality.

Platinum has been found in a number of these placers, usually associated with the black sand, and metallic platinum has been found in a number of instances.

LODE MINING IN ALBANY COUNTY.

Geology of the Medicine Bow Range.

The Medicine Bow Range consists of a core of granite, with smaller islands and spurs of the same material showing both in and through the associated metamorphic formations. The granite is usually of a reddish feldsitic variety, in many instances much altered and showing little quartz or mica, but in others showing a predominance of quartz, forming gray granites, and frequently showing strong evidences of metamorphism, especially in the outcrops, and which is usually limited in extent.

The metamorphic formations consist principally of Algonkian schists, usually lying on the granites and having a varying dip and trend or direction in different localities. These schists are of a number of varieties, some of which are local or limited in extent, the usual schist being a fine-grained black mica schist, and fine-grained horn-blende and tourmaline schist in bands varying from a few feet to several hundred feet in width.

Associated with these varieties have been noted muscovite or white mica schists and gneiss, and amphibolite schist in various localities.

The dike rocks are locally called "diorite," but have been identified and classified by the United States Geological Survey as belonging to the Gabbro rocks. Several varieties have been noted. These dykes vary in size from a few inches thick to a huge sheet several hundred feet in thickness, and generally lie conformably with the adjacent schist and quartzite, having the same trend or direction and the same dip, but instances are noted where the dykes cut across the formation at a varying angle, and are noted in the granite near the New Rambler, on Douglas Creek. Associated with the schists and diorites are ledges or bands of quartzite and slates, which lie conformably with the including schists, as far as now known, and are usually of considerable extent.

It is noted that in many instances the foregoing rocks (schists, dyke rocks, quartzites and slates) often show an extensive and sometimes a complete metamorphism, and change from their original condition, leaving only the structure as a means of identification, the composing materials being replaced by silica and lime.

The dyke rocks usually show a weathered and softened condition in the vicinity of the schist alteration, but this is often local and does not affect the main body of the rock.

The Snowy Range, in the Medicine Bow Mountains, is distinct in formation from the adjacent country, and consists of trachite and quartzites, with an occasional dyke of porphyry.

On either side of the Medicine Bow Range the upper carboniferous limestones are noted, with the succeeding sedimentary formation dipping away from the main range until covered by the wash of the valley.

Mineralization.

The mineralization may be said to be general throughout these formations, but varies in quantity and composition in each locality.

In the granites, schists, dyke rocks and quartzites are found bunches, streaks and veins of the different forms of iron and copper, both oxidized and base, varying from a tiny crystal or speck to a huge mass a number of tons in weight enclosed in the adjacent rocks, and which may or may not be part of or related to the body of ore.

Ore Deposits and Ores.

In a district as little developed as this portion of the Grand Encampment country, it is evident that the precise ore



Residence of Hon. W. H. Holliday.



Edward Ivinson Residence.

conditions may not be fully understood until greater depths have been reached and some of each class of ores and ore deposits fully exploited.

At present these are understood to consist of two classes, viz.: ores found in the hard, unchanged formation, the diorites and unaltered schists, associated with a vein quartz, as at the Blakeslee and Verde properties, south of Battle, as distinguished from the ores found as a contact deposit between two different formations, as at the Ferris-Haggarty and Doane-Rambler mines, and a fissure deposit, as at the New Rambler, on Douglas Creek, in the gray dioritic granite. The former may be termed original ores and the latter "secondary ores," or ores of replacement.

In the first case, sulphides of copper are found in the outcrops, with but little change beyond the shallow surface oxidization of the specimen, staining the adjacent rock with iron oxides and copper carbonates, often leaving the unchanged sulphides covered only with a thin film of oxides.

In the latter case, the sulphides are encountered at "water level," viz.: the level of permanent underground water, varying in depth in different localities and covered by a capping of iron oxides, known as the "iron cap," the "gossan" of the Cornish miner. This cap is usually a light, soft and porous brown oxide of iron, or limonite, sometime silicious, and associated with the limonite are noted forms of hematite or red oxide of iron in varying quantity.

Throughout the district have been noted a number of huge ledges of oxidized iron, notably at the Gertrude and the Hidden Treasure, near Battle, and on Iron Creek and French Creek, in the Medicine Bow Range. The cappings of these ledges are usually a very hard, silicious, red hematite, which gives place with depth to the softer iron oxide forms, more or less stained with copper.

In many instances the iron cap contains thin scales of native copper and shows stains of the green carbonate of copper or Malachite and some blue carbonate of copper or Azurite. Small amounts of Chrysacolla or silicate of copper are often found, as well as some of the rarer forms of the oxidized copper minerals, noted later.

The principal ores are the yellow pyrites of copper or chalcopyrite and "peacock copper" or Bornite, and the Covellite ores of the New Rambler. Some phenomenally rich copper glance or chalcocite has been struck, mostly near the surface, as in the Keener-Price at Battle, the Doane-Rambler and New Rambler and many other places, but in each case the deposit has been limited.



Residence of E. D. Hiskey.



The J. T. Holliday Residence.

The works so far have shown that the ores immediately succeeding the oxidized ores underlying the iron cap are very rich, often running from 35 per cent to 49 per cent copper in carload lots, as shipping returns have shown, but this is evidently a secondary enrichment, due to the leaching of the iron cap above and gradually gives place to the lower and more permanent grade of ore that is reached as depth is gained.

It is evident that the permanent ores of this district, when opened up by deep workings, will prove to be a low grade Chalcopyrite ore, suitable for treatment by a concentrating, roasting and smelting process.

Gold Hill.

This covers practically all the camps lying along the Snowy Range and the Albany-Carbon County line, a number of them being in each county.

The Laramie, Hahns Peak and Pacific Railroad runs to Centennial, Gold Hill and Medicine Bow district.

Elk Mountain.

This is the most northerly of the ranges comprising the Medicine Bow Range in Wyoming. In common with the most of these ranges on this eastern side, the sedimentary limestones of the Upper Carboniferous period lie on the schists and granites of the earlier formations, and at the Elk Mountain M. & M. Company's property, on the north side of Pass Creek, the ore is found at or near the contact of these formations.

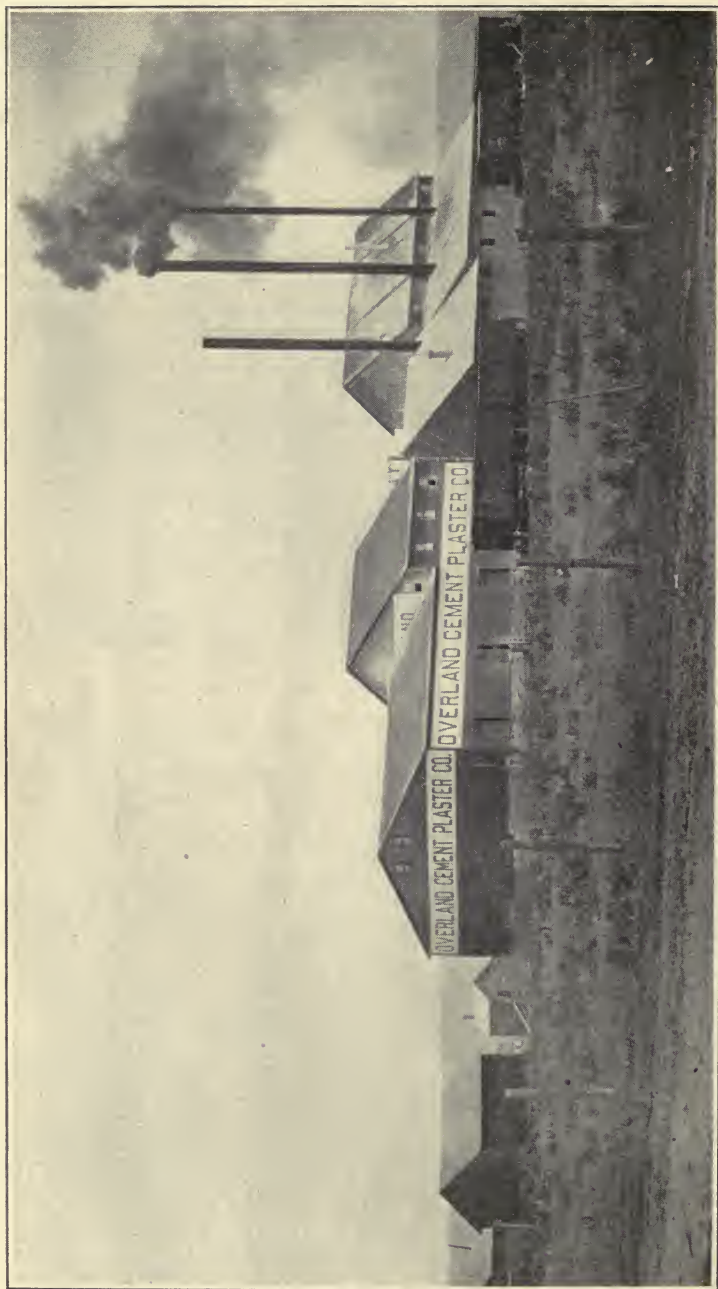
This ore, in the upper workings, is copper glance, occurring in bunches common to this ore, but in the lower workings is giving place to chalcopyrite, which is becoming more common as depth is reached. At the outcrops the usual iron oxides were found staining the limestone, with some glance and a great deal of green copper carbonates as a stain.

Centennial and Jelm Mountain.

These camps are located on the east slope of the Medicine Bow Range, the former having been prospected for gold almost exclusively.

Centennial, on the line of the Laramie, Hahns Peak and Pacific railroad, has shown some remarkably rich ores, and the half dozen properties now working in this vicinity are making good showings and will be heard from later.

Jelm Mountain is located south and east of Centennial, near the Colorado-Wyoming state line, on the Big Laramie River, and mining has been going on there for some years,



Overland Cement Plaster Company's Mill.

development work having been done on a number of properties and mills erected.

The Jelm district is close to the Colorado state line and distant about thirty-five miles in a southwesterly direction from Laramie. Encouraging work is being prosecuted here by several companies. The Laramie River, in close proximity to which the active properties are located, flows through the center of the district and affords an unfailing water supply for both milling and mining operations. The ores are gold and copper-gold, the camp having become known upwards of thirty years ago, when the Gold Hill mine was quite extensively worked for its gold ores. Of late years, more attention has been given to the copper deposits, and considerable bodies of low grade ore have been opened up. Owing to the limited means of a majority of the operators, rather desultory work has been carried on, but the indications are now that several companies will be able to extensively prosecute developments henceforth.

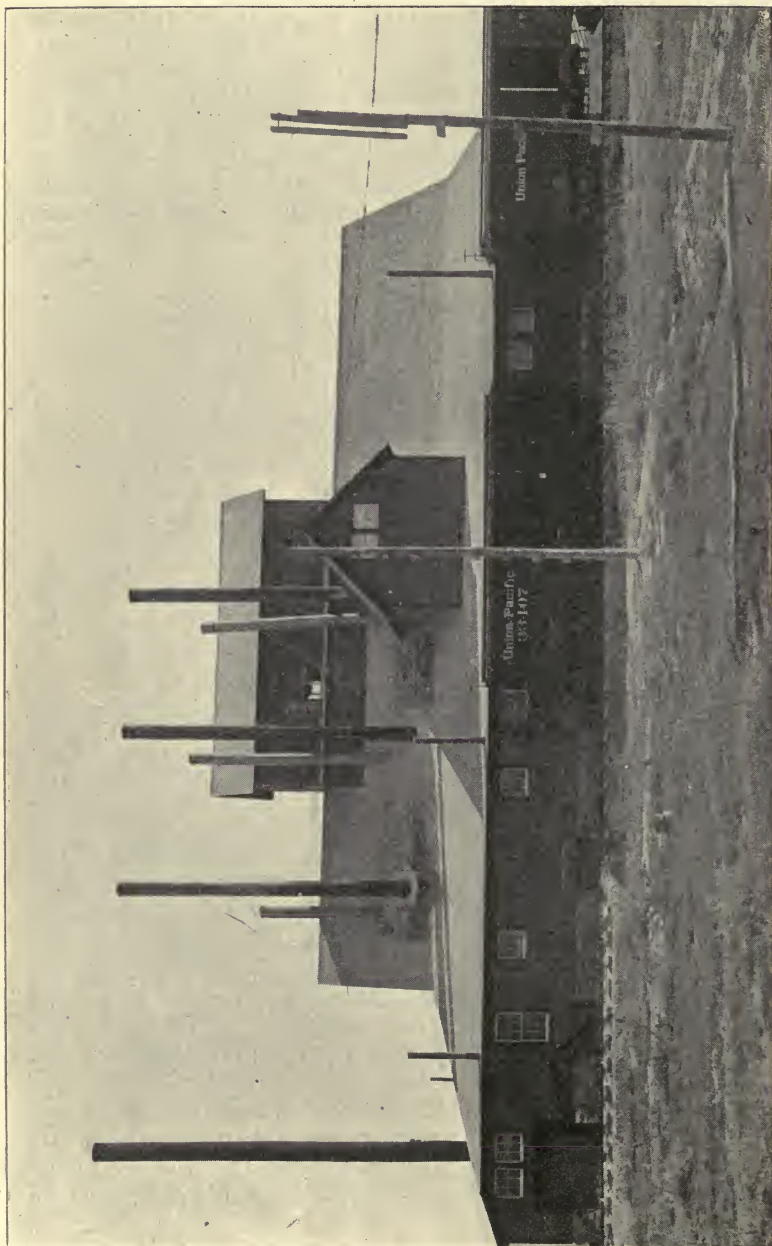
THE LARAMIE CEMENT PLASTER INDUSTRY.

There are a large number of gypsum deposits in Wyoming which vary in composition from pure crystal to gypsite powder. The Laramie cement plaster is made from a deposit of gypsite just south of that city.

The Geology of the Laramie Gypsite Deposit.*

The Triassic formation, or "red beds" as it is commonly called, which is exposed all along the eastern side of the Laramie Plains, contains a great deal of gypsum and one stratum of considerable thickness near the bottom of the formation and only a little above the sandstone and limestone of the Permian and Carboniferous. This bed was struck in the University artesian well at a depth of 595 feet and the Permian sandstone at about 800 feet. The Red Buttes gypsum rock is found in this formation and doubtless the gypsum outcrop could be found at almost any point along the eastern side of the Laramie Plains within a half mile of the limestone and sandstone exposures which form the western slope of the Laramie Mountains. The silica and limestone washed down from these exposures have mixed with the disintegrated gypsum of the Triassic beds and have been deposited in depressions of the plains, forming numerous beds of gypsite or gypsum earth. These deposits can often be detected by the whiteness of the soil and the peculiar vegetation, which consists of clumps of grease-wood

*Compiled from a bulletin by Profs. Slosson, Moudy and W. C. Knight, of the University of Wyoming.



Acme Cement Plaster Co. Mill.

Gypsite, or the material from which cement plaster is made, contains besides the gypsum some 20 per cent of other material, such as clay, sand and limestone. The composition of the different products on the market is very variable and cannot be supposed to be alike in their value and use, but what difference a greater or less amount of lime or silica or magnesia has on the working of the plaster has not been determined. The action of these substances as a whole is to retard the time of setting and reduce the strength as compared with pure plaster of paris.

The Laramie gypsite bed has an average depth of about nine feet. From a few inches below the surface to about seven feet it is pure gypsite powder, then comes a red layer of five inches, and below this a foot or more of the white gypsite powder resting on gravel and red clay. The plaster material is as fine as flour, requiring no grinding or even sifting. It is plowed, harrowed and scraped up, calcined and loaded on the cars.

The Manufacture of Cement Plaster at Laramie.

Plaster of paris and a fine quality of stucco have been made at Red Buttes, near Laramie, since 1889, and since 1897 the Consolidated Company have been putting on the market a plaster made from the ground gypsum rock.

The Laramie cement plaster is made from the deposit above noted, which covers about 180 acres and has been worked since 1896. Annual output, about 2,500 tons.

Composition.

The composition of pure gypsum, from which the plaster is made, is as follows:

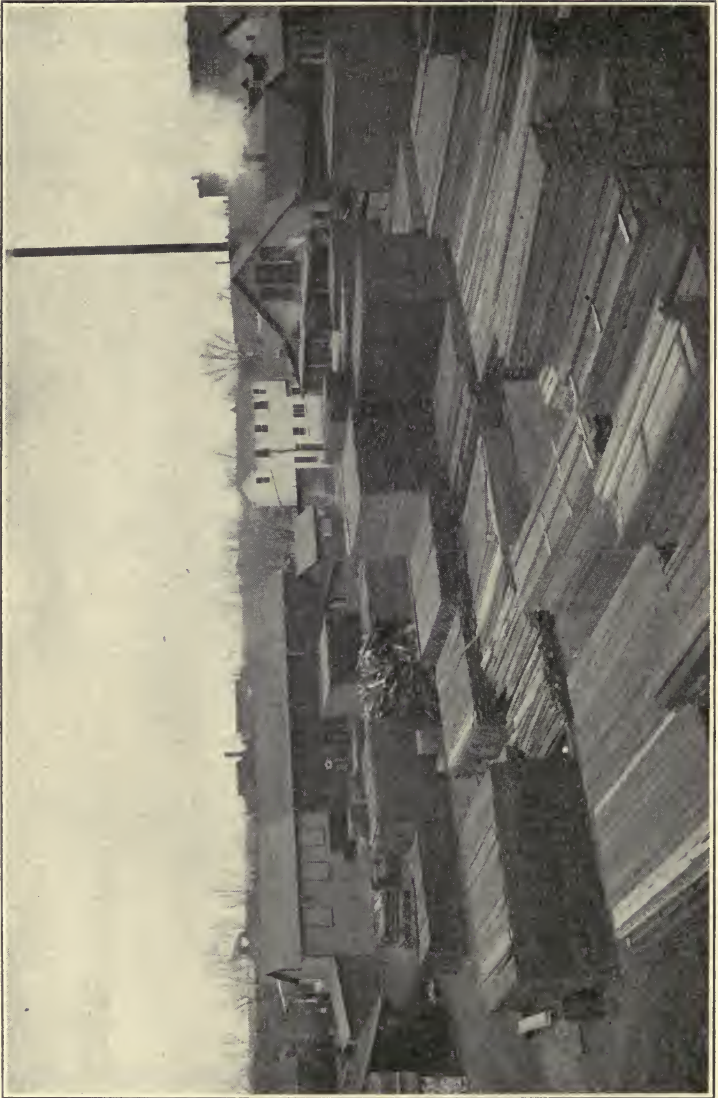
Calcium sulphate	79.1%	100.0 parts
Water	20.9	26.4
	—	—
	100.0	126.4

And of pure plaster of paris:

Calcium sulphate	93.8%	100.0 parts
Water	6.2	6.6
	—	—
	100.0	106.6

The composition of the finished cement plaster is as follows:

Water	6.93%
Insoluble residue (silica)	5.50
Alumina, Al ₂ O ₃ .....	.59



W. H. Holliday Co. Planing Mill and Lumber Yard.

Lime, CaO	37.11
Magnesia, MgO	1.45
Sulphuric acid, SO ₃	43.37
Carbonic acid (by diff.).....	5.05

100.00

These may be combined as follows :

Water	6.93%
Insoluble residue (silica)	5.50
Alumina, Al ₂ O ₃ .....	.59
Magnesium carbonate	3.04
Calcium carbonate	7.86
Calcium sulphate	73.73
Calcium oxide	2.35

100.00

There was a trace of iron but too small to determine.

Crushing Strength.

The crushing strength of the three kinds of cement as marketed with about same time of setting is as follows :

Red Buttes cement plaster, without sand.....	5200
Laramie cement plaster, without sand.....	4065
Agatite cement plaster, without sand.....	3550

The Red Buttes plaster contained numerous soft spots where the plaster did not set, owing to imperfect burning. These were not found in the Laramie and Agatite plasters.

Although the individual particles of plaster are heavier than water, yet a bushel weighs 64 pounds, or 95 per cent as much as a bushel of water. A block of the cement plaster after it is set and dry, containing 50 parts sand per 100 parts of plaster, has a specific gravity of 1.5 compared with water. A cubic foot weighs 93.5 pounds. The sand used had a specific gravity of 1.5 and a ten-quart bucket holds 29.5 pounds.

ALBANY COUNTY COAL MINES.

The following data on the coal mines of Albany County are taken from a bulletin on "Coal Resources of Wyoming," by Prof. L. W. Trumbull, University of Wyoming, 1906 :

The county has no large mines. For years there has been a small amount dug for local consumption. In fact, what was probably the first mine in the state was opened by the Denver and Salt Lake Stage Company in 1865, near where the old Overland Trail crosses Rock Creek. The coal was used for blacksmithing and was carried to other points on the trail for this purpose.

But a small portion of the county is underlain by Laramie rock. The most southern point at which coal has been found is on the hills to the north of Centennial Valley. Here coal of inferior quality has been dug at various times, but the coal strata are so bent and crushed, and are tilted so against the



Overland Cereals Co., Flouring Mill and Elevator.

mountains that the coal is much broken and slacked. It may be that farther to the east good coal can be procured at depth. In digging a deep well on Mill Brook, coal was cut at 300 feet. One six-foot and one three-foot vein were passed through, but so far as known no samples of it were saved, so that nothing is known regarding its quality.

Coal is being dug for local use among the ranchmen in Coal Bank Hollow by the Monarch Coal Company, who report a production of 500 tons during 1904, which was sold at \$2. This opening is in section 8, township 19 north, range 77 west, and shows ten feet of coal. On Rock Creek the Diamond Cattle Company have an opening in section 7, township 19 north, range 78 west, which shows six feet of coal. This opening produced 200 tons in 1904, which sold at \$2 at the pit mouth. At this point the strata are nearly horizontal, but farther down the creek the country is much faulted. Coal can undoubtedly be opened up at different points nearly as far down as the Diamond ranch house, but it will not be in large, continuous bodies, owing to the faulting. This coal is of the Laramie age.

At a point a mile south of Rock River the railroad cut shows a thin seam of coal in older rock. At one time a slope was driven to open this older coal near Harper and several feet of good coal was exposed, but a sudden rush of water drove the workmen out and the opening has since caved. No data are obtainable regarding it.

Table of Approximate Analyses of Albany County Coal.

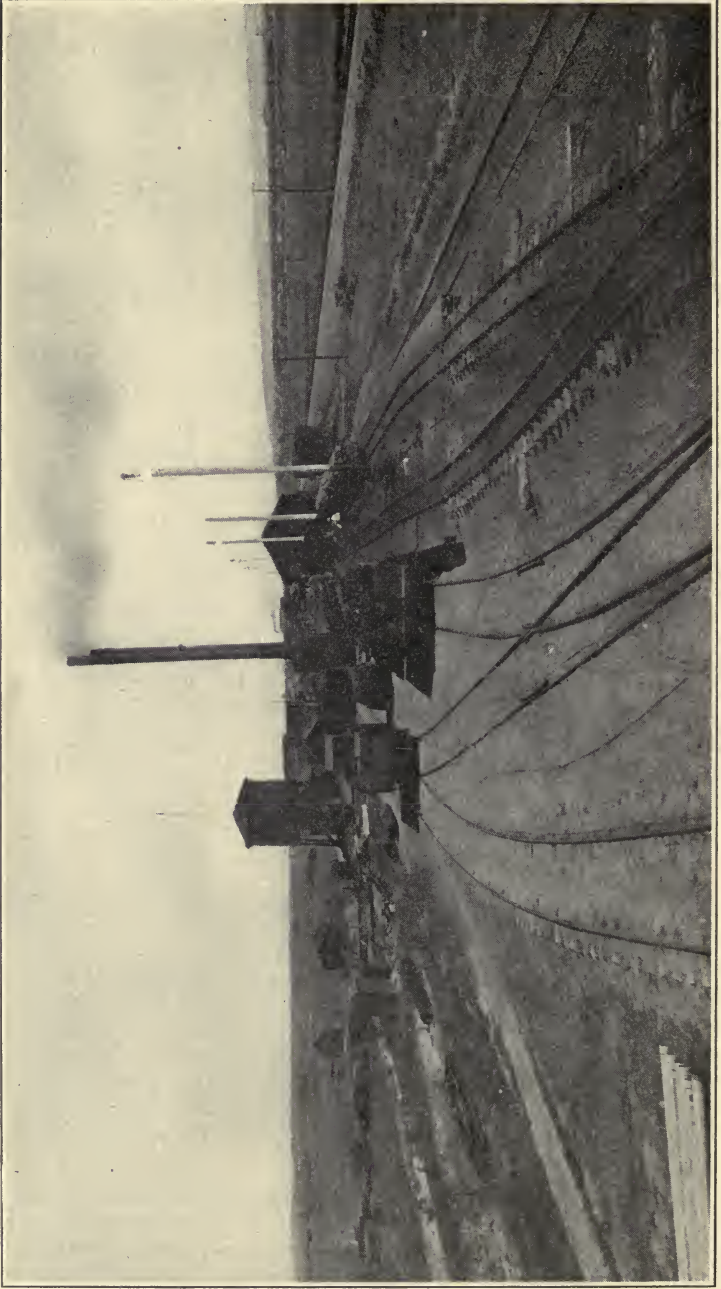
NAME OF MINE	Water	Volatile combustible matter	Fixed carbon	Ash	Sulphur	Total fuel
Brown	11.85	34.65	47.30	6.20	1.25	81.95
Brown (1894)	11.25	36.85	45.00	6.90	1.13	81.85
Chase	14.50	34.50	44.75	6.25	1.03	75.25
Rock Creek	14.40	34.90	39.70	11.00	.....	74.60
Rock Creek	11.50	32.40	49.70	6.40	.....	82.10
Dutton	11.85	34.65	47.30	6.20	.....	81.85

CLAYS, SHALES AND MARLS.

Reference is made in the general article on "The Geology of Albany County" to the later Cretaceous formations which compose the Laramie Plains, and in nearly all the recognized divisions or periods of this age are found materials suitable for commercial use, in some cases so pure as to require little or no additional material to become marketable products.

One of the most remarkable of these is the deposit of marl in the Niobrara Cretaceous formation that outcrops at a point eight miles southwest of Laramie and extends in a southeasterly and northwesterly direction along the range in common with the other formation exposed.

This marl is suitable for making Portland cement, is nearly pure and a greater portion of the deposit can be made into cement by simple calcination and the remainder rendered suitable by addition of a little lime which also outcrops in this vicinity.



Union Pacific Tie Preserving Plant.

Prof. L. W. Trumbull of the University of Wyoming states that the composition for commercial purposes is as follows:

Carbonate of lime.....	75%
Silica.....	10%
Alumina.....	6%
Small amounts of iron etc. which vary.	

This deposit is most available at the above point, where it is fifteen feet thick, where it is practically uncovered for a width of 1,200 feet and extends with other formations along the range, where it outcrops at various places and under various conditions.

The shales of the Fox Hill Cretaceous are utilized by the Wyoming Pressed Brick Company of Laramie for the raw material for their brick, which are rapidly becoming commercially important. The shales are mined at a point two and one-half miles west of Laramie, are at present hauled by team to the yards in town, ground and puddled and made up into two classes of brick for the general market. The present capacity of these yards is 1,500,000 bricks for the season, which can be doubled at any time.

These brick are of a beautiful red buff color, stand a test of 5,400 pounds per square inch and weather splendidly. The South Omaha passenger depot on the Union Pacific railroad is built of these brick, and other prominent buildings. The brick are quoted at \$9.50 and \$15 per M., f. o. b. cars, Laramie. Dr. A. B. Hamilton is secretary of the above company.

The clays of the Fort Benton period attain a commercial importance in the utilization of the "soap clays" or "Bentonite," which occur in massive beds at Rock Creek and other points in this county. These clays have been mined and shipped for years by Mr. William Taylor of Rock Creek, and there are other deposits in that vicinity. This clay contains, by analysis, silica, alumina, magnesia, iron, sulphur and water, samples having shown over 89 per cent silicate of alumina, 3 per cent magnesia, 1½ per cent lime and sulphur, 1 per cent iron and 6 per cent water. This clay is used as an adulterant, as a filler in paper making and medical purposes, being worked up and sold under the name of "antiphlogistine" after being known and used for years by Indians and stockmen for the general purposes of this medicine.

Other clays there are up and down this range and other ranges, and these three materials are only given to show the vast variety found here and the opportunity that exists in these scarcely known and certainly little worked fields for the

man who has made these materials his practical study and who knows their cash value when properly handled.

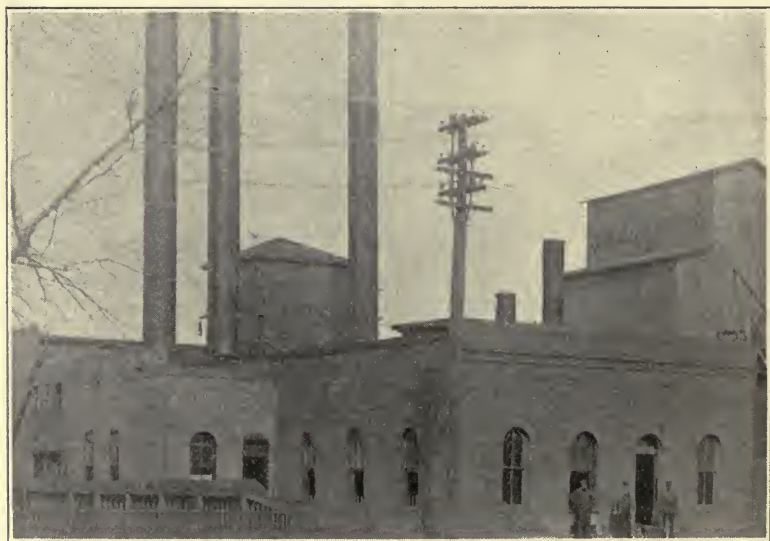
BUILDING AND LIME STONES.

Building stone of nearly every desired kind, from granites to the softer sandstones, lie east of Laramie along the Laramie Hills and in well-nigh endless quantity.

Two miles east of the city, on a spur of the Union Pacific railroad, are the quarries of limestone which supply a number of the sugar beet factories of Colorado with the pure limestone so necessary to this process. Their beds extend along the range northerly and southerly for about ten miles or more and are practically pure lime, running as high as 96 per cent carbonate of lime. During the season of 1905 40,000 tons of this limestone were shipped to the sugar beet factories and 10,000 tons for commercial use. Comment on the advantage of this limestone for burning lime and other purposes is unnecessary.

SODA DEPOSITS.

The soda deposits of Albany County consist of two groups of lakes—one located about twelve miles southwest of Laramie and the other twenty-three miles southwest, the first group of lakes being owned by the Union Pacific Railroad Company; the second by the First National Bank of Laramie and an English party.



Laramie Electric Co. Light and Power Plant.

These lakes have been operated and soda used since 1873. The lakes contain probably 100,000,000 cubic feet of crystallized sulphate of soda, and in places the deposit of soda is twelve feet thick.

In 1876, at the Centennial Exposition, a solid cube containing over 200 cubic feet of crystalline sulphate of soda was exhibited. At the World's Fair in Chicago a cube fully as large was shown; also another of the same extraordinary size was exhibited at the St. Louis Fair.

The chemical analysis is as follows:

Water	54.98
Sulphate of soda	44.55
Chloride of calcium . . . . .	.43
Chloride of magnesia . . . . .	.04

These are the most wonderful deposits of soda in the world, only waiting for some person with capital to come and open them up.

FIELD AND STREAM.

Summer Resorts and Camping Facilities.

From the city limits of Laramie the plains undulate to the base of the Snowy Range upon the south, to the Medicine Bow Mountains upon the west, to the Laramie Range upon the east and to Laramie Peak and Elk Mountain upon the north. It is in these mountains and hills, and in the valleys of the streams which find in them their sources, that one discovers everywhere spots of which the charm appeals to every heart and tempts the most staid and prosaic and most unromantic of beings into expressions of keen appreciation. Here the great golden eagle, soaring and wheeling in the clearness and brightness of the summer blue, looks down upon many a nook and hollow which has never yet, perhaps, known the tread of man. There are forests here and glades which are as they were before Columbus led the way into the glowing west, and which, since the red man followed into their quiet recesses his wounded game, have seen little of men other than an occasional prospector, hunter or trapper.

Down in the valleys are dotted everywhere the ranch homes of the cattle men and the sheep men, now for the first time being transformed into farms and scientifically irrigated areas, under the awakening impetus of the knowledge of the true worth of the land and climate. From every mountain peak there is obtainable a view of timber and rocks, of valleys and plains, which ten times over repays the trouble of the climb. Everywhere the eye finds nothing but the delightful



Trout Fishing Is a Popular Sport.



Result of a "Wild Gouse Chase" Near Laramie.

Hunting Is a Pastime All Enjoy Here.

and restful smile of Mother Nature at her best while the lungs drink deeply in an air which is as exhilarating as sparkling wine and the body responds to the bracing and vitalizing influences of the perfect pureness, wholesomeness and freshness in all its surroundings.

Mountain Climbing.

To those to whom the exertion necessary for the climb is not irksome, or who will trust themselves to the honest care of a well-broken pony or painstaking burro, there are higher points to be reached from which the reward obtained in far-extending view is more than trebled. There are summits within comparatively easy reach, from which a large part of southern Wyoming and northern Colorado can be scanned. There are fields of eternal snow within three hours' climb of the railroad; there are brilliant patches of alpine flowers growing in the hot sun along the edges of snow-banks; there are lakes above timber-line, fed by snow-fields, in which the speckled and rainbow trout fairly teem, and it is possible to leave Laramie by train in the morning, reach some of the highest peaks, fish in the most promising of those lakes and return to Laramie for dinner in the evening.

Some of the Best Fishing in the World.

Down the mountain sides and through the valleys everywhere the streams rush and wind. Deep pools and whirling back-waters, reaches of rushing water and quiet stretches of brush or rock-shadowed bottom afford an ideal home for the trout. Here the gamiest of their species, the speckled, the German and the Rainbow, live in numbers unlimited, and grow to attain a size and fierceness undreamed of by those who have never fished in such waters of the Rocky Mountains.

Every stream and every runlet will yield up its leaping and wriggling treasures to the persistent fisherman, while the larger streams will pay a goodly toll—a toll which sometimes means a thirteen-pounder to the lucky—and skillful—man, and which is not hard to exact within the limits of the city of Laramie itself.

Curiosities of Nature.

Albany County has more to offer than the grandest of scenery, the purest of air, the most sunny skies, the most tempting of camping places and fishing resorts. Within its borders are some of the finest natural curiosities in the shape of wind and water eroded rocks to be found in America.



Scene on Palmer & Whitehouse Ranch, Near Laramie.

Twenty-five miles south of Laramie, reached by one of the best roads in the state, are a number of natural features as have made certain localities in Colorado famous the world over. Here for eight miles is a succession of natural sculptures, monuments, pinnacles, wind worn caves, lions' dens and figures resembling animals and human beings; here are many mysterious piles of rock which need no vivid imagination to conjure into monster fortifications and cities of some long-forgotten race, and here also are the most numerous traces in the state of the aboriginal tribes, which, before the advent of the white man, made this region of natural wonder and beauty a favorite camping place for religious ceremonies. Indian paintings and remains of Indian camps there are in plenty, and after every wind and rain storm, the sand and rock crevices will yield up many beautiful specimens of chipped flint arrow and spear heads to the diligent searcher.

Geological Study.

As a field for the most profitable study of geological features, Albany County offers great inducements. From within its borders some of the most remarkable specimens of gigantic fossil reptilians have been unearthed, as have also some very beautiful specimens of smaller extinct animals. The slopes of the mountains and hills offer unlimited opportunities to study closely nearly all of the most important formations known in the Rocky Mountain geology.

Transportation Facilities.

Albany County is famous for its splendid natural roads. From the City of Laramie the highways, for the most part of gravel, stretch in every direction, affording a splendid means of reaching any part of the county by automobile, bicycle, stage or wagon. Most of the summer resorts run automobile stages during the summer from the City of Laramie, or have arrangements made by which automobiles may be obtained. The Union Pacific railroad crosses the county from southeast to northwest, and Laramie may be easily reached from any part of the United States. The Laramie, Hahns Peak and Pacific Railroad runs south from Laramie into Colorado. It has opened up a perfectly marvelous summer country to the traveling public, and a region which will also become a winter resort. Not one of the many tourists and summer visitors who have tasted of what the Centennial Valley and the mountains which surround it have to offer, has gone away without making a vow that he will come back again whenever he has the opportunity.



The Kuster Hotel.



Johnson Hotel.

The Laramie Plains line crosses many streams, all well stocked with trout, and with numerous ranches occupying the valleys, whose owners are glad to make provisions for the welfare of fishermen and tourists, either by accommodating them in their homes, renting cottages, or affording camping grounds.

From the prosperous little town of Centennial, from Albany ten miles further south, or from any of the ranches and resorts in the Centennial Valley, there lies close at hand a world of mountains, valleys and streams which must be seen to be appreciated. Every mile of road or few feet of climbing presents a thousand new charms to the observer, and every yard of water has its speckled or rainbow-hued tenant on the lookout for a choice morsel.

Generally speaking, there are good accommodations, good camping grounds, and the best of fishing and scenery everywhere within reach of the Laramie Plains line. For those who wish to go further afield, to the wonderful North Park region, or to the thickly wooded slopes of the Platte Valley, across the mountains, there is a daily stage running from Albany to the ranches and resorts in those regions.

A tourist can leave Laramie in the morning by the daily passenger train of the Plains Line and reach the Platte Valley or North Park before 4 o'clock in the afternoon. He can leave Laramie in the morning by the same train and reach the summit of the Medicine Bow Mountains by noon, returning to eat his dinner at Laramie in the evening.

All the tributaries of the Laramies, as well as all of the streams which have their source in the Medicine Bow Mountains, afford the best of fishing, and are kept well stocked up by the fish hatcheries at Laramie and Saratoga. The North



117 and 119 First Street.



107 and 109 Thornburgh Street

The Phillips Hotel.

Platte River is one of the best known places for big trout in the Rocky Mountains, eleven and twelve-pound rainbows being by no means uncommon, and from six to eight pounds being plentiful.

Other streams in the county, such as Sand Creek, in the South, Horse Creek, Crow Creek and Chugwater, in the eastern portion, and the North Laramie in the north, are well stocked with several species of trout. All streams can be easily reached, and everywhere there are ranches whose owners are glad to take care of visitors.

The fishing season is open from May 15th and the fish will bite at any time except directly after a freshet. Many of the ranchmen keep their tables supplied with the delicacy all through the summer season.

Flies that take well are: Coachman, light and dark royal, brown and gray hackles, professor, queen of the water, jungle cock, abbey, black gnat and coudung.

Camping parties will find good facilities for outfitting at Laramie, or can easily reach from there any point in the county selected.

Summer Resorts, Ranches and Camping Places.

Among the resorts and ranches which make a specialty of caring for visitors, the following may be mentioned:

The Temple Rock Ranch, twenty miles southwest of Laramie, can accommodate four to six in the house, provide tents and splendid camping grounds. The owners will provide meals for campers, also well broken saddle horses and driving horses. Guides can be hired. The fishing is good, there is sage chicken, duck and rabbit shooting in season. Eight miles to timber. Indian marks and arrow heads are very plentiful. N. Lundquist, proprietor.

The Cooper Resort at Jelm, in the southeastern part of the county, offers all possible accommodations to visitors. Will provide rooms and board, camping grounds, saddle horses, guides, etc. Good fishing, close to the mountains. F. D. Cooper, proprietor.

The Mountain View Hotel, Centennial. On line of the Laramie Plains Railroad. In center of Centennial Valley. Best of fishing. Close to the mountains. Within easy reach of the mountain lakes. Rates \$1.50 per day, \$7.00 per week. Gus Sundby, proprietor.

The J. H. McNealy Ranch, at Albany. At upper edge of the Centennial Valley. Can care for twenty to thirty visitors at a time. Saddle horses and teams for hire. Guides furnished.

Good fishing in several streams. Splendid scenery. Rates, 35c meals, 35c beds. J. H. McNealy, proprietor.

The Schroeder Hotel, Gleneyre, Colo. Within easy distance of Laramie by stage or automobile. Situated in the mountains at junction of MacIntyre Creek with Big Laramie. The best of fishing. Splendid scenery. Can accommodate twenty visitors at a time. Guides and conveyances furnished. Rates, \$2.00 per day; \$35.00 per month. Henry Schroeder, proprietor.

The McCasland Ranch, Cowdry, North Park. Can be reached by the Laramie Plains railroad or by automobile from Laramie. Best of fishing and hunting. Situated in the mountains. Can take care of all who come. Saddle horses and conveyances furnished. Rates, \$1.75 and \$2.00 per day. Frank McCasland, proprietor.

Wright Ranch, Fillmore. Twenty-four miles from Laramie on the Laramie Plains railroad. Can accommodate ten to twelve visitors and provide camping grounds for others. On Little Laramie and close to foot of mountains. Saddle horses and teams. Rates, \$2.00 per day, 35c per meal. Special rates by the week or month. G. L. Wright, proprietor.

Gregory Ranch. One-half mile from Centennial. Close to foot of mountains on North Fork creek. Can take care of any number of fishing and camping parties. Can accommodate twelve visitors in house, and provide meals as required for others. No charges made for camping grounds. Splendid fishing. Hunting in season. Charges \$1.50 per day for room and board. C. M. Gregory, proprietor.

Baily ranch. Near Centennial, upon the North Fork Creek. Can furnish room and board for ten persons and board for twenty. Good camping grounds near the house. Charges \$1.50 per day; board alone \$1.00 per day. Mrs. J. D. Baily, proprietor.

The Boggs Ranch. Situated one mile from Albany on the Laramie Plains Railroad. Can accommodate six persons in house and provide meals for others. Good camping grounds. Prices \$1.50 per day, or \$7.00 per week. Alick Boggs, proprietor.

The Buckeye Ranch. Situated in Centennial Valley two miles from Deerwood and three miles from Centennial. Can accommodate ten at a time. Rates, 35c per meal or \$1.00 per day. Excellent fishing close to the house. Mrs. Chas. J. Anderson, proprietor.

Lovett Ranch, Jelm. Easily reached by stage or automobile from Laramie. At foot of Jelm Mountain. Big Laramie River provides the best of fishing and runs through the ranch.

Mountains surround ranch. Can accommodate any number. Rates, \$2.00 per day, \$10.00 per week, \$35.00 per month. G. W. Lovett, proprietor.

Sundby Ranch. Within walking distance of Centennial. Splendid fishing. Near Snowy Range. Special rates upon application. Rev. N. G. Sundby, proprietor.

Duck Shooting.

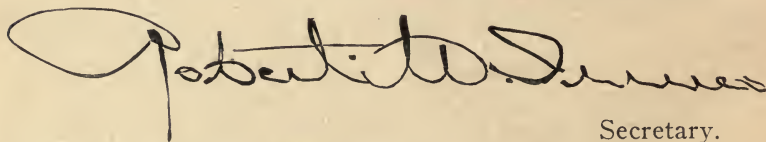
There are numerous lakes in Albany County which are celebrated throughout the state for duck hunting. The most important of these are the Hutton Lakes and Bamforth Lakes, either of which may be reached by auto from Laramie within a half or three-quarters of an hour. Any day, during the game season, the experienced sportsman can bag mallards, canvas backs, and red heads, as they are found by hundreds upon these lakes the year around. The reservoirs which store water for irrigation make excellent shooting lakes and many a good bag has been brought to the City of Laramie from these.

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J. E. WINSLOW,
Chairman Executive Committee.



Secretary.

Laramie, Wyoming, June 1, 1913.



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