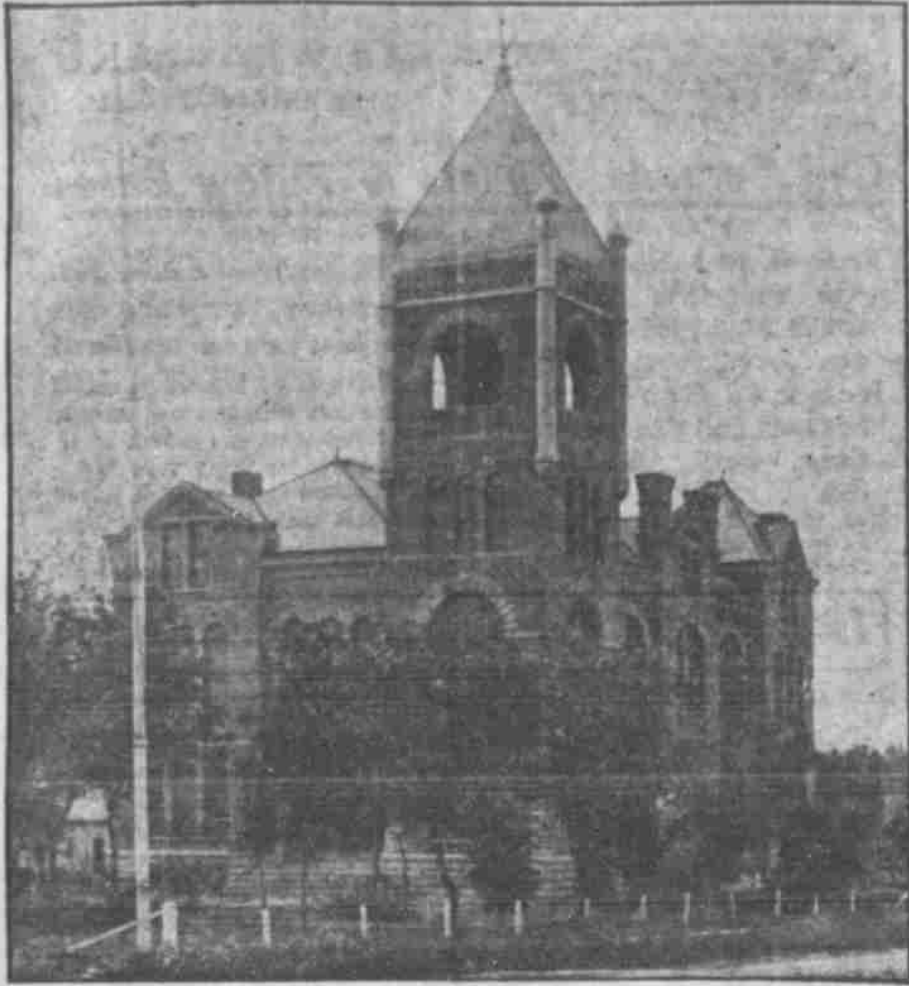


Cedar County, an Indian Paradise, Now Pours Wealth on White Men



CEDAR COUNTY COURT HOUSE AT HARTINGTON.

In the minds of most of the old residents of Cedar county, the beginning of the growth of the county dates back but few years, when there was nothing to show that the county and the many thrifty villages claimed a place on the map of the state. The prosperity of this county from the very beginning has had its foundation in the splendid rich soil, and it is upon this foundation that the live stock industry has become and is being one of the most substantial industries of the county. The great source of the continued fertility of the soil has been in the part and will be for years to come, live stock. So while live stock raising, in itself a great industry, depends upon the soil for support, it stands in a peculiar relation in that it supplies the means of its own perpetuation, and insures besides an abundant production of food stuffs and cereals.

Few Nebraska people realize the enormous scope of the live stock industry and its allied trades. Over \$12,000,000 were involved in this single line of production, a sum equal to five-sixths of the total of all other industries. In this great industry the state of Nebraska plays no inconspicuous part. A farming state, embracing a wide area of fertile country, it has for years devoted itself principally to agricultural, but to discover that land and live stock are indissolubly linked. Now it is turning its attention more and more to stock raising until now few farms are without herds or droves or flocks. With the growth of the industry has come the growth of the slaughter industry. But in the years to come the dairy industry is bound to stand out as one of the most prominent in the state.

Cedar county is located in the north-eastern corner of the state. The county has 27,000 acres in farms, with 23,000 acres under a high state of cultivation. The county was organized by act of the territorial legislature, February 12 1857. The surface of the county consists principally in gently rolling prairie. Valleys are numerous and some of them are of considerable extent. Those of the Antelope and Beaver in the northern, of Bow Creek in the central, and of the north fork

of the Logan creek in the southern part, are the principal valleys. In extent the valleys comprise nearly half the surface, and in some places are as level as a floor for miles. The uplands are composed principally of gently rolling prairie, but along the Missouri river the hills are higher, but very seldom are they too much so to admit of cultivation. The soil is well adapted to both excessive wet and excessive dry weather. In many places on the surface rest numerous boulders of considerable size. There is an immense amount of chalk rock in Cedar county which makes excellent building stone. Good brick clay is also found in abundance.

Originally there was a considerable quantity of timber along the Missouri river bottoms and along some of the creeks. Elm, bass wood, box elder, ash, hickory, soft maple, black walnut and red cedar were found in abundance. The same kind of grasses grow here as in other counties in northeastern Nebraska, blue joint being the principal variety. There is an abundance of water in Cedar county. The Missouri river bounds it on the north and receives the water from the east, middle and west Bow creeks, besides other small streams.

The Indians in an early day caused the people of Cedar county considerable trouble.

In 1828 many oxen were stolen by the Indians. In 1832 fifty citizens of the county banded together for protection against the Indians. In the year 1841 occurred what is called the Great Stampede. The Sioux, Cheyenne and other hostile tribes threatened the annihilation of the frontier settlement. The first election in the county was held in the fall of 1857. The county was represented in the territorial legislature by George A. Hall, elected in 1865. The first children born in the county were twins, a son and daughter, to Mr. and Mrs. George A. Hall in an early day there were several saw mills located in the county, the first being located by the Bow Valley Mills, below St. James.

The population of Cedar county in 1890 was 34, in 1850 it was 1,621, in 1880 it was 1,788. St. Helena, on the bank of the Missouri, was once the county seat of Cedar county. The place was selected for a town by C. P. Neyer, who arrived in 1853. Early in 1859 two log houses were built at St. Helena. P. C. Nissen, who arrived here in 1855, built the first store in 1861. A three month school was taught in 1859, in a log house, by Dr. Burping. This was the first school taught in the county. The Catholic church was organized in 1864. Rev. Father Daraber, a Catholic missionary from Council Bluffs being the first priest. St. Helena was incorporated in 1871. The Cedar County Advocate was started in St. Helena in 1874 by L. W. Chesler.

At the present time this county has a population of 18,000 people, with a valuation of over \$2,500,000. This county at the present time has seventy-two miles of railroad with seven incorporated towns on these railroads. All of these are thrifty trading points for a rich surrounding farming country. Fordyce, Oberlin and Washburn are thrifty railroad towns, but unincorporated. Incorporated railroad towns are Hartington, Coleridge, Laurel, Belden, Randolph, Magnet and Wynot. The county also has 64 miles of telephone line and four first-class flouring mills. The entire county receives excellent service from the net work of the free rural routes. Last year the farmers of Cedar county sold and shipped out of the county 25,730 beef cattle, 20,449 fat hogs, 700 bred horses and 2,500 mutton sheep. Besides this these farmers sold and shipped out 300,000 bushels of corn, 22,000 bushels of wheat and 1,232,000 bushels of oats. It is



From Left to Right—E. M. Baird, E. H. Collins, A. Labeley, F. W. Germain, J. Albert Olsen, C. H. Whitney, Frank Nelson, W. S. Weston, Louis Goetz. DIRECTORS OF HARTINGTON'S COMMERCIAL CLUB.



HENRY WISEMAN, CEDAR COUNTY PIONEER, WHOSE FAMILY WAS MASSACRED WHILE HE WAS WITH THE ARMY IN DAKOTA. HE IS SAID TO HAVE TAKEN A TERRIBLE VENGEANCE ON THE TRIBES WHO SLEW HIS LOVED ONES. HE IS STILL AN ACTIVE AND HONORED CITIZEN OF THE COUNTY.



LOOKING SOUTH ON BROADWAY FROM MAIN STREET IN HARTINGTON.



DELIVERY DAY ON CORN CULTIVATORS SOLD BY ONE HARTINGTON DEALER.

the deep interest that the farmers are taking in the growing of alfalfa that is bringing this county to the front as one of the prominent dairy sections of the state. At present the farmers of the county have 1,564 acres seeded to alfalfa. This accounts in a large part for these farmers having on their farms at the present time 1,700 head of milk cows, and they used last year 523 hand separators. It also accounts for these farmers shipping out of the county last year over 18,800 pounds of butter and 121,000 gallons of cream. The farmers' wives have also made a good showing in the poultry industry, as they marketed last year 63,700 dozen of eggs and 145,000 pounds of poultry.

More and more each year the farmers of this county are devoting more or less attention to the fruit industry, largely for home consumption. It is almost universally the case that these farmers have a nice patch of strawberries, and in many cases several other kinds of berries as well. At the present time there are growing and in full bearing in the county 37,000 apple, 3,000 pear, 1,300 peach, 1,300 plum and 15,000 cherry trees.

Cedar county is proud of its thousands upon thousands of acres of farms, its many thrifty well painted, cosy farm homes, its villages scattered over the entire county, yet it takes a deeper pride in its public schools than in all these. The county at the present time has ninety-three school districts, with 196 school buildings, where 126 teachers are employed. The county has 1,300 pupils enrolled. Number of new school buildings erected in 1908 and 1909 thus far has been five. The school buildings of the county as well as the grounds are in good repair, and the average salary of the teachers will run from \$40 to \$75 per month. W. E. Miller is serving his fourth year as county superintendent, and to him much credit is due for the excellent condition of the schools of the county.

Hartington, the county seat of Cedar

county, is one of the peculiar little cities of the state. It is unfortunate for a town to be forty or fifty years in the building, for it is quite apt to lack uniformity, but Hartington is of recent growth and development. Almost any city of its size has some good substantial brick blocks, but the business portion of Hartington is universal of good, modern brick buildings. There is nothing of the small, old shabby type to mar the better portion of the city. It is a clear and self-evident fact that the business men of this city take more than the usual amount of interest in the general appearance of their city. This we think has come largely from the present Commercial club, which has a membership of over fifty progressive, thrifty, intelligent business men. The club has been organized for more than five years, and its influence reaches far beyond the city limits of Hartington. They seem to have a wonderful faculty of getting at the different road districts and creating good road sentiment all through the county. Wherever there is a poor piece of road in the county, there they send a man to investigate and report. Many hundred dollars are spent each year by this club in the betterment of the public highway.

Public buildings of Hartington, such as the schools, churches and court house, will rank among the best in the state. Hartington's financial strength may be estimated to some degree by its own state and two national banks, whose capital and surplus aggregate \$190,000, with deposits amounting to almost \$200,000.

The business portion of the town is solidly built up of brick and stone. The residence streets are well laid out, well kept lawns, beautiful shade trees, and many fine residences affording a pleasing sight. Hartington is a notable city in homes, there being proportionately very few rented properties. This condition is in a large measure due to the Hartington Building and Loan association, which affords an opportunity to the family of small income of buying a home and paying for it by degrees. This association, in the fourteen years of its existence has issued \$100,000 of such loans, and has never foreclosed a loan.

Progress being the watchword of the people, civic improvements have not lagged. Hartington has eight miles of cement walks. The streets are illuminated by gas from a cold pressure gas plant owned by the city. Four miles of gas mains supply the business houses and residences with gas for illuminating and cooking purposes. The water works system is owned by the city, the water being pumped from wells to a tank of 17,000 gallons capacity. The pumps have a capacity of 250 gallons per minute. There are three miles of water mains and twenty double fire hydrants. Hartington is on the Chicago, St. Paul, Minneapolis & Omaha railway, has three elevators, large stock yards, and affords an excellent grain and stock market.

Electrical Science and Practical Application Growing in All Directions

Electrifying America.
MORE than 15,000,000 miles of single wire is used by the people of the United States in communicating with each other. Of this amount about 13,000,000 miles is operated by telephone systems, the rest by the telegraph companies. The length is enough to encircle the globe at the equator 600 times.

In fact it must be even greater by this time, as the above figures, though recently published by the census office, refer to 1907. At the 1890 census the telephone companies reported 24,385 miles of wire about one-fifth of the mileage of the telegraph companies. In 1907 the telephone mileage was eight times as great as the telegraph. (In the amount of business done, the sum paid in salaries and wages and the capital invested in 1907 the telephone business was a little over three and one-half times as extensive as the telegraph industry, and during that year it furnished employment for more than five times as many persons.)

Between 1904 and 1907 there was an addition of \$50,812 miles of wire for the use of the telephone systems, as compared with an increase of but \$3,611 in the mileage of owned and leased wires for commercial telegraph purposes. The increase in the wire mileage of the telephone systems during the five years referred to was more than six times as great as the total amount of wire added to the telegraph business since 1890.

The use of telephones by railroads exclusively in connection with the operation of the roads has increased rapidly since 1902. Although the electric interurban roads early recognized the advantages of the telephone for dispatching purposes the larger steam railroads have been disinclined to substitute the telephone for the telegraph.

The bulletin points out that it gives the first statistics for the commercial wireless systems already established, and states that they were operated at a loss of \$2,538 in 1907.

There were six commercial wireless telegraph systems in 1907, operating 122 tower stations, located at most of the large ports of the Atlantic and Pacific oceans, the Gulf of Mexico, the great lakes and in Hawaii. They transmitted 152,671 wireless messages. Over the telegraph wires in 1907 there were flashed 28,693,562 messages, of which 5,953,371 were cablegrams.

It is shown that 84.5 per cent of the cities with a population of at least 10,000 in 1900 were equipped with electric fire alarms. It appears that for 1907 there were 120,719 fire alarms received. Concerning police patrol signaling the bulletin says that there were 4,961,569 calls.

arrest the lightning at all—it merely conducts it safely to a point where it can escape without doing any damage, a method well known in modern police circles.

Lightning is so quick, so big and strong that nothing of human design can be made to capture it or keep it in confinement. Therefore it is only a question of letting it escape in the best possible manner for all concerned.

The voltage or pressure of long distance electric transmission lines, which are most frequently harmed by lightning, may be all the way from 5,000 to 100,000 volts and with this enormous pressure the electricity is always striving to reach the earth. The ordinary lightning arrester, such as is used on telephone lines, would be useless because it could not hold back this enormous pressure. Therefore the high tension lines must be carefully insulated with the best kind of insulating material. These insulators are the very best that can be made and they do the work all right until the lightning begins to break things up and commit crimes along the line until it has to be arrested.

Among the numerous types of lightning arresters for high tension lines recently in-

vented by the engineers of the General Electric company, is one which is known as the electrolyte, the operation of which is very interesting. This arrester consists of a number of aluminum trays mounted on a central rod and stacked one above the other as dinner plates might be stacked. These trays are filled with an electrolyte or liquid which forms a very thin film between each pair of plates. The trays are then placed in a cylindrical casing which is filled with oil, and are mounted on a pole.

One end of the series of trays is connected with the earth. The other end is

connected with a heavy metallic strip which leads up to a horn-shaped wire placed close to the line wire. The open space between the horn and the wire is known as the spark gap. Ordinarily the line voltage cannot break down the air resistance of the gap and leap across, but when lightning strikes the line the surging which is set up is so powerful that the discharge leaps the gap and passes down into the arrester. Here a peculiar action takes place. The electrolyte, under ordinary voltages, is of very high resistance and could not be broken down by the line voltage. But the ex-

remely high voltage of the lightning discharge, which lasts only an instant, punctures the electrolyte in a myriad of places, and for the moment allows the current to flow to earth and relieve the stress on the system. As soon as this is over, the punctures close up and prevent the line voltage, generated by the distant dynamo, from following up the advantage and forcing current to the earth through an arc of conducting vapor which would be formed in the gap. As a double precaution against the formation of such an arc, the gap is made with two diverging horns. An arc formed down in the narrow part spreads upward and outward in a fan shape and is eventually "blown out" of itself.

New Wireless Apparatus.
Mr. Marconi has invented a new form of apparatus for stations for duplex wireless telegraphy, in which a commutator is rotated synchronously with the studded or toothed disc before employed, which disc causes groups of electrical oscillations to be generated at regular short intervals. The commutators and studded disc are coupled mechanically, and the combined apparatus causes the receiver to be operative only during the intervals between the discharges, and to be rendered inoperative during the short periods when the discharges are taking place. Each commutator has the same number of bars as there are studs on the disc, and each is provided with pairs of brushes connected together at regular intervals by the commutator bars. The result is that the aerial is connected through the secondary to earth and disconnected from the receiver during the time a stud is passing between the disc contacts—that is, during the time of discharge—and connected through the secondary to the receiver during the intervals between the discharges. The operative periods of the transmitting apparatus are considerably shorter than those of the receiving apparatus, so that the making of each sign couples several operative periods.

Telephones Here and Abroad.
The London Times gives figures that illustrate strikingly the wide difference between the development of the telephone in this country and in Europe.

In all Europe, with some 400,000,000 of population, there were, at the beginning of 1909, approximately 2,500,000 telephones. Here, with 80,000,000 of population, there were at the same date nearly 7,000,000 telephones. With one-fifth the population of Europe we have three times as many telephones as Europe, and in proportion to population there are fifteen telephones here to one in Europe. A few concrete illustrations make the comparison even more striking. In all France there were at January 1, 1909, only 184,319 telephones.

Throwing Off a Wart.
"The waiver was upon us," he related to the girl he was trying to impress. "Their howling penetrated to our very marrow. We fled for our lives. But each second we knew that the ravenous pack was gaining on us. Closer, closer—at last they were close that we could feel their muscles against our legs so that—" "Ah," signed the woman, greatly relieved, "How glad you must have been that they had their muscles on!"—Everybody's Magazine.

Two Leading W. C. T. U. Workers



MRS. MARTHA M. ALLEN, National Superintendent of Department of Medical Temperance.



MRS. EDITH SMITH DAVIS, National Superintendent of Department of Scientific Temperance Instruction.

Arresting the Lightning.
In the first place the electrical device known as a lightning arrester does not