The ALIMPSEST

OCTOBER 1947

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THE PURPOSE OF THIS MAGAZINE

The Palimpsest, issued monthly by the State Historical Society of Iowa, is devoted to the dissemination of Iowa History. Supplementing the other publications of this Society, it aims to present the materials of Iowa History in a form that is attractive and a style that is popular in the best sense—to the end that the story of our Commonwealth may be more widely read and cherished.

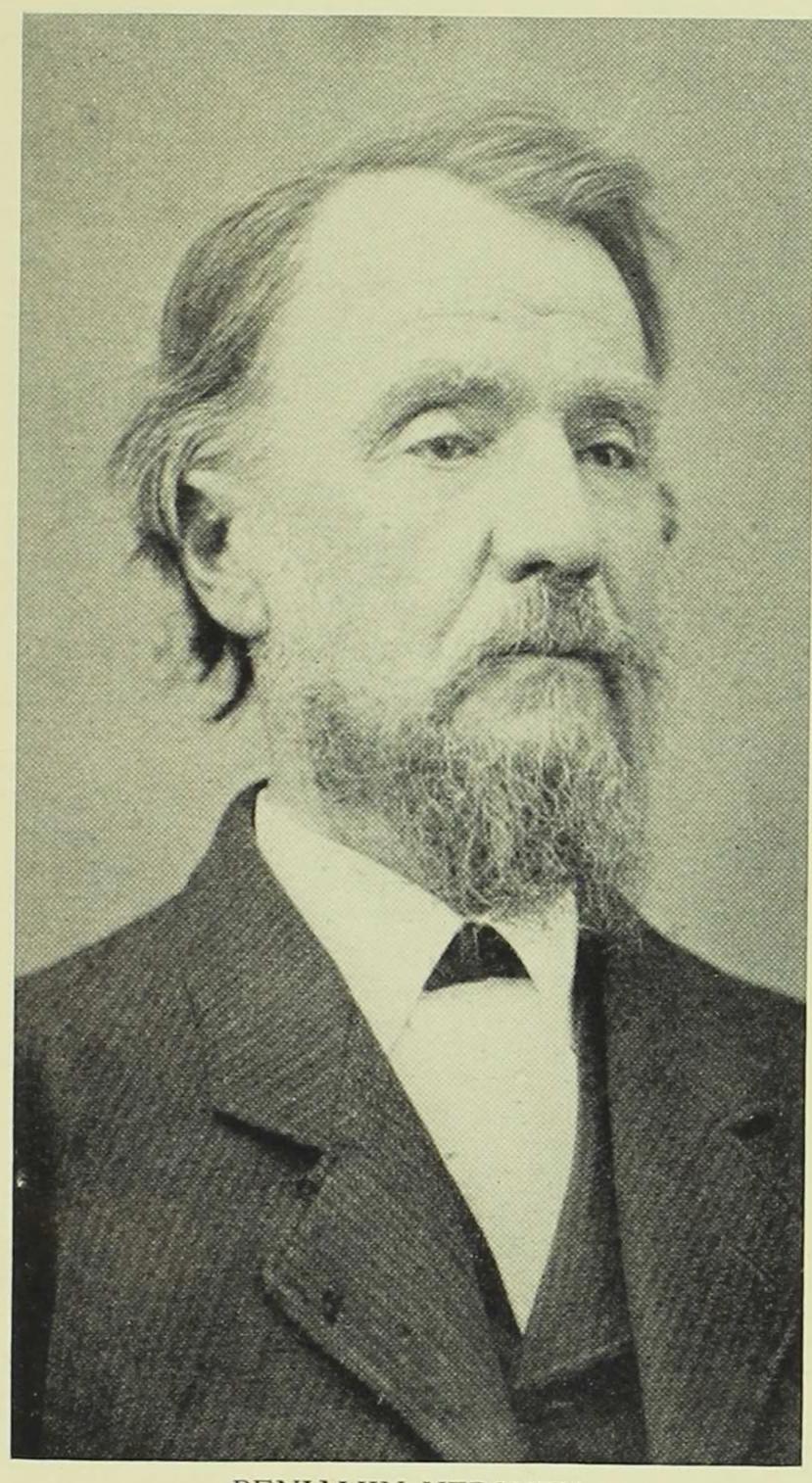
BENJ. F. SHAMBAUGH

THE MEANING OF PALIMPSEST

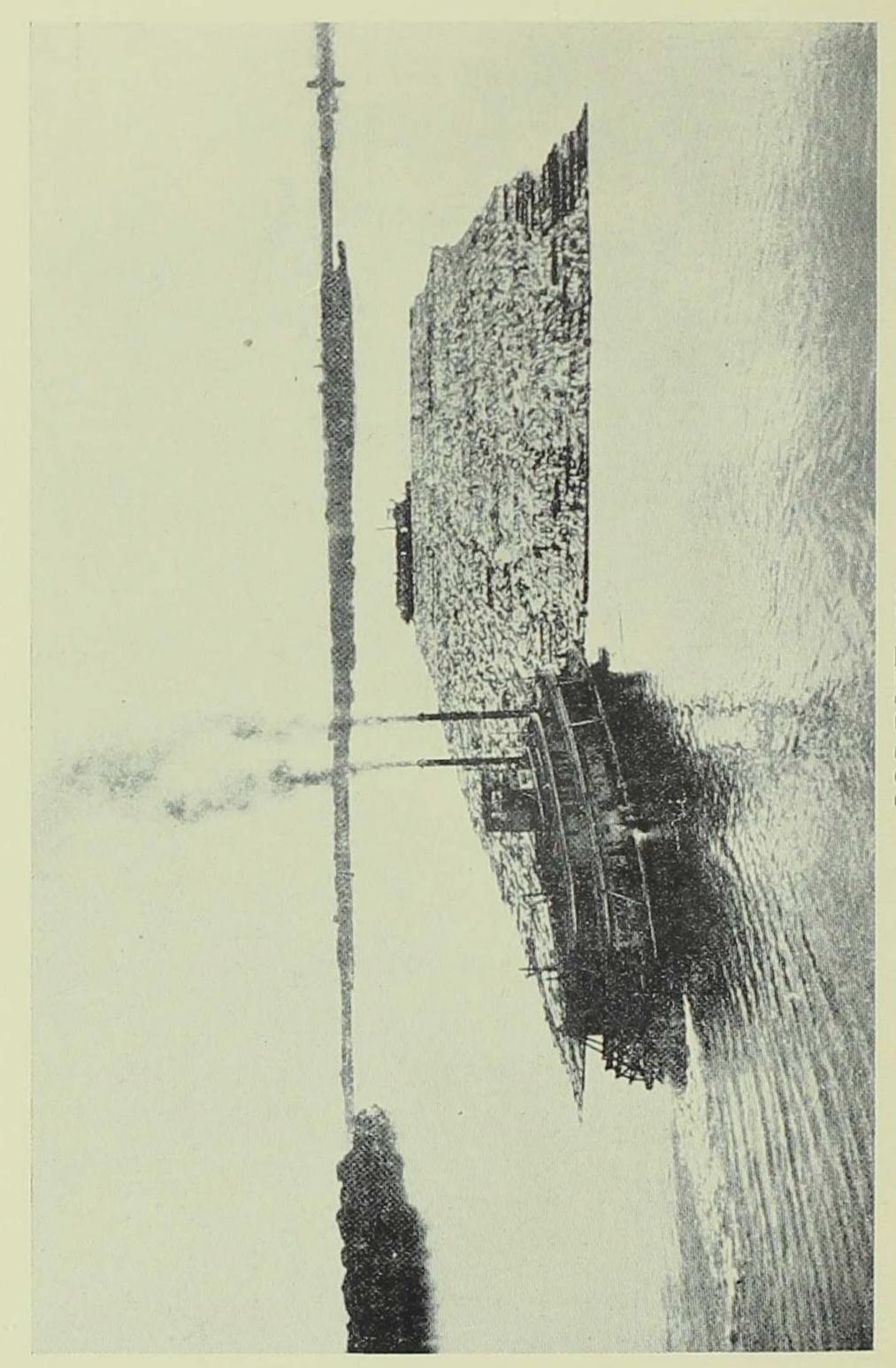
In early times a palimpsest was a parchment or other material from which one or more writings had been erased to give room for later records. But the erasures were not always complete; and so it became the fascinating task of scholars not only to translate the later records but also to reconstruct the original writings by deciphering the dim fragments of letters partly erased and partly covered by subsequent texts.

The history of Iowa may be likened to a palimpsest which holds the records of successive generations. To decipher these records of the past, reconstruct them, and tell the stories which they contain is the task of those who write history.

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BENJAMIN HERSHEY



LOG RAFT 1898

THE PALIMPSEST

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Ben Hershey - Lumber Baron

To the early settlers of Iowa lumber was a necessity. A pioneer could protect his family from the rain, cold, and blizzards by building a log cabin, but logs were not always available and lumber was more convenient. A farmer often drove as much as fifty miles with a load of wheat drawn by slow-moving oxen to some settlement where a sawmill had been set up. Having arrived, after several days on the way, he sold his wheat, usually for a small price, and bought some of the resin-scented boards. Then he returned home over the long, weary miles, rejoicing that he had material for his home or at least for some of the furnishings of that home.

But settlers meant towns, and towns meant stores and offices, schools and churches, houses and hotels. After a few years the pioneer was ready to replace his log cabin or his one or two-room frame house with a more commodious dwelling and lumber was the material most often se-

lected. The decade of the fifties was an age of building. The panic of 1857 and the Civil War interfered somewhat with this building program but construction work went on. Pine lumber was in demand.

Iowa, unfortunately, lacked the soft pine logs which made the best building material. The vast pineries of Wisconsin and Minnesota far to the north gave promise of an unlimited supply, but they were five hundred miles away and whether the logs were to be transported to Iowa sawmills or sawed on the ground and the lumber brought to the Iowa markets, the great problem was transportation. Hauling the great logs over the trackless miles was impossible; hauling the lumber was almost as difficult.

There was one means of transportation which was free to all and not too difficult. From the Falls of St. Anthony in Minnesota to New Orleans in far south Louisiana the current of the majestic Mississippi, more powerful than myriads of locomotives, was pulling southward for a thousand miles, pulling night and day, year in and year out, except when the river froze over or the water was very low. Along the way, tributaries added their currents. Men soon learned how to utilize the power of the rivers. Logs or sawed lumber were fastened into rafts and launched on the Missis-

sippi or its tributaries, which carried them to market. The cutting of the logs, making them into rafts or sawing them into lumber, and guiding the logs to the sawmills far to the south or the lumber to market towns became a gigantic enterprise; from this industry there emerged some of the fortunes of the Mississippi Valley and a group of entrepreneurs commonly called "lumber barons".

Some of these men who exploited the pineries of the north found that the great bend of the Mississippi River at Muscatine made an ideal landing place for the logs or lumber. The harbor was excellent and the location was convenient for the consumer in southeastern Iowa. Among the men who centered their lumber business at this place were the Hersheys, the Weyerhausers, and the Mussers.

The founder of the Hershey lumber business was Benjamin Hershey who was born in Lancaster County, Pennsylvania, on April 10, 1813. His parents were farmers of the Mennonite faith and he was trained to habits of frugality and industry. In 1836 Ben Hershey married Elizabeth Whitmore. Four daughters were born to the couple during the years in Pennsylvania.

After several years as a farmer and tobacco merchant, Benjamin Hershey decided to move west and in 1852 he made a visit to Muscatine.

Impressed by the opportunities in the Iowa town, he moved his family to Iowa the following year, rented a sawmill, and was embarked on one of the story-book careers. Two years later he bought the sawmill.

His keen mind soon recognized the possibilities of the river as a transportation agent and in a short time one crew of workmen were felling the trees on the upper reaches of the Mississippi, dumping the logs into the water, and making them up into rafts; other workers had charge of floating the logs down the river to the mill; and a third group sawed them into lumber and placed it in piles. The log rafts had to be guided past islands and around curves and sand bars. With a large raft, a steamboat was absolutely necessary to do the steering.

After the trip down the river, the crews usually tied their rafts near an island ten or fifteen miles upstream from the sawmills, then they would let a portion of the logs loose at a time. These drifted downstream and were caught and tied up in the harbor at the mill. From this point they were handled mostly by machinery. They could be dragged out of the water and lifted in the mill to the screeching saws as easily as if they were so many matches. The bigger the log the better it suited the sawyers.

Hershey soon bought a steamboat and named it the Ben Hershey. She was 130 feet in length, with a 28-foot beam, and was said to be the largest and best raft boat on the Mississippi River. This was the first steamboat on the Mississippi River to be equipped with electric lights, a tremendous advantage in rafting at night.

A big raft sometimes contained as much as two million feet of lumber and covered several acres in area. Irving B. Richman, historian, gleaned

various items about the rafting industry:

"A monster raft containing 2,000,000 feet of lumber and loaded with 500,000 shingles, 700,000 lath and 100,000 pickets, passed down in tow of the rafter J. W. Van Sant. This was in May, 1872. . . . May 19, 1873, a lumber raft of 1,700,000 feet arrived yesterday, propelled by the steamer James Means. It came from Reed's Landing, about 355 miles in four and a half days. . . . On May 22, 1875, a raft containing 2,300,000 feet of lumber, with the usual top loading, was tied up near Chambers' mill [at the mouth of Mad Creek] and attracted much attention from its immense size, its area being three and a half acres."

In the Muscatine Journal of June 5, 1879, there appeared this item: "That Big Raft—There was quite a crowd along the levee last evening to see the Ben Hershey land the largest raft ever brought

down the river. The raft by actual measurement was 310 feet wide and 535 feet long, containing

twenty strings."

With the coming of the railroads, the distribution of lumber was greatly accelerated. Carpenters liked to work with pine. It was strong and durable and at the same time it took the nails readily and sawed much more easily than hardwood and the native lumber. Hershey's select soft pine lumber was the delight of every woodworker and builder. Vast quantities were soon being shipped out by rail to the cities and towns of the Middle West. It was the age of building and development and lumber was the item most in demand. Ben Hershey was ready for the opportunity. He had lumber in any amount from a farmer's "jag" to a trainload.

Benjamin Hershey made millions from his saw-mills, but at heart he was a stockman and farmer. He liked cattle and horses. He owned an 800-acre farm, located some two miles south of Muscatine and about a mile from the mill. This he stocked with thoroughbred Hereford cattle. To secure these cattle he made trips to England. On one occasion on his return from England, his fellow townsmen had the brass band out at the rail-road depot to welcome him home.

The Hershey farm was a place to spend money.

The sleek, fat animals were curried and groomed. The cows' hoofs were sandpapered and manicured. A large dairy barn was started in 1875, topped by a cupola adorned by the gilded figure of a cow. A creamery occupied an adjoining wing, cooled by means of a 500-foot tunnel running back under the Mississippi River bluff. Hershey also raised fine horses, having at one time as many as five hundred animals, either on his Muscatine farm or on his Nebraska ranches which had a combined area of some 13,000 acres.

The Congregational Church at Muscatine usually received an annual donation of \$100 from Mr. Hershey, a worth-while gift in those days, and Mira Hershey, a daughter, taught a Sunday School class for boys. Following one trip to England Mr. Hershey invited the minister and the church board members down to his farm to see the new thoroughbreds from England and received this short and decisive reply, "We are not interested in your livestock." That fall, when the church was raising the money for the annual expenses, the soliciting committee, as usual, called on Mr. Hershey and received this laconic reply, "You are not interested in my livestock and I am not interested in your livestock."

Hershey, a Republican in politics, was seldom active in political affairs, but he served one year

on the Muscatine council and was mayor of the city in 1865 and 1866.

One of the prominent characters at the Hershey farm at Muscatine was an Irishman. We will call him Dan Finnigan, although that was not his real name. Dan was supposed to give a flock of Emden geese special attention. Among other delicacies they were fed shelled corn soaked in whisky. It was thought that this would make the roast goose a greater delicacy. One day, one of the farm helpers discovered that the Emden geese were getting shelled corn soaked in water and Dan was drinking the whisky.

It so happened that two eccentric brothers owned stock in the Hershey Lumber Company. They were dissatisfied because, they said, Ben Hershey ran everything; but the company was such a financial success that they made most of their objections in a hushed voice and behind Hershey's back. Few people paid much attention to them, but they continued to complain about Ben Hershey and the company, the "wild spending of money", and the vast spreading out of the logging operations. Finally, they came to a stockholders' meeting and voted against every proposal. They became bolder and finally came to the office and put their wet-blanket questions to the office force, hoping to stir up opposition to the head of the firm.

Mr. Hershey decided to sidetrack these troublemakers. The next time they appeared at the office, Mr. Hershey received them personally. "What do you want for your stock, gentlemen?", asked Mr. Hershey. "Four thousand dollars", replied one of the brothers. Hershey looked at his secretary, Peter Francis, and inquired, "Do we have \$4,000.00 on hand this morning?" "Certainly we do", was the secretary's reassuring answer. "Write the gentlemen a check and take an assignment of their stock", Mr. Hershey ordered. The transfer was made and the eccentrics rushed to the bank, where, much to their surprise, they received cash in exchange for their check. During the next few days their curbstone advisers ridiculed their financial blunder.

During the following years the stock of the Hershey Lumber Company advanced rapidly in value, eventually becoming a real Eldorado, for it paid far beyond the wildest dreams of the investors, a little better than 3,000 per cent on the original investment. Luck was with Ben Hershey. He could produce vast amounts of lumber at very low prices. The average cost of freight, by raft on the Mississippi River, from the pineries to the mill at Muscatine, was only \$1.40 per thousand. Now it costs at least ten times that much, and more in some cases, to transport lumber by rail

from the pine-producing States on the Pacific Coast to the Middle West.

Many stories have been recorded of this Iowa "lumber baron". On one occasion, an employee came past the lumber yard in the evening. He saw what he thought was a tramp wandering around among the towering piles of sawed lumber. The fellow wore a slouch hat and was smoking a clay pipe. Smoking around the highly inflammable pine lumber was, of course, strictly forbidden, for most of the driveways through the lumber piles were covered with dry sawdust and shavings. One spark might easily start a roaring inferno. The employee reported to the night watchman that "a tramp is roaming around in the lumber yard smoking a pipe." The watchman hurriedly investigated and found that the suspected tramp was Ben Hershey, president of the company.

The story of Ben Hershey would be incomplete without mention of his daughter, Mira. She, too, had the gift of the "Midas Touch". She later went to Los Angeles, California, and entered the real estate game. She was a builder and laid out new additions. Before long, her efforts began to bear fruit. She built hospitals, office buildings, hotels, and apartment houses. She gave away one hospital in memory of her father, made a gift of \$1,800,000 to the Good Samaritan Hos-

pital of Los Angeles, and was lavish in her gifts to orphan asylums. In her will she gave \$200,000 to charitable institutions and made a bequest of \$400,000 to the University of California.

The end of the great Hershey lumber industry came suddenly and without warning. Mr. Hershey was instantly killed in an accident in Chicago. A tremendous crowd attended his funeral in a Muscatine church. Mr. Hershey's costly gold watch was buried with him. One woman, who was present as a little girl, remembers that as she and her mother were leaving the church in hushed silence, she could hear the watch ticking as she passed the casket.

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Jesse J. Fishburn

Osceola and Oskaloosa

It is a long way from the Everglades of Florida to the State of Iowa, but tales of heroism and romance travel quickly across the miles. So it was that Iowa settlers, as they sat about their fires on long winter evenings, wove legends about the heroic Seminole Indian, Osceola, and his beautiful wife, Oskaloosa, two Indians who lived in the Everglades and never set foot in Iowa. And so it was that these same settlers chose to name a town and a county after Osceola and a town for Oskaloosa.

Osceola was born in Georgia about 1800, almost fifty years before Iowa became a State. Although some authorities have contended that he was the son of a Creek woman and an English trader named Powell and there were also stories indicating that his mother was an escaped slave, it seems probable that he was of pure Indian blood, a handsome example of a typical "full-blooded and wild Indian". Possibly his mother remarried after his father's death, and her second husband may have been named Powell. At any rate, Osceola was frequently called Powell by the whites. His Indian name, "Osceola", has been said to

mean "Black Drink". One authority, however, points out that it may reasonably be translated "Rising Sun".

Little is known of Osceola's boyhood, but it is said that he fought against Andrew Jackson in the War of 1812 and again in 1818. It is known that he was living near Fort King about 1832, visited the fort frequently, and was from time to time employed to restrain predatory Indians or to arrest deserters from the army. Although he had not been born to high rank, nor is there any record of his having been formally chosen chief, he gradually assumed a position of prominence among the Seminoles.

In October, 1834, the proud Osceola made his first appearance in the public affairs of his nation when he addressed a group of chiefs at a council at Fort King. He spoke regarding the treaty of Payne's Landing, which had been made in 1832. Osceola passionately opposed this treaty because it required the removal of the Seminoles from Florida and he voiced his disapproval in these words:

"My Brothers! The white people got some of our chiefs to sign a paper to give our lands to them; but our chiefs did not do as we told them to do. They did wrong; we must do right. The agent tells us we must go away from the lands which we live on, our homes, and the graves of our fathers, and go over the big river [the Mississippi] among bad Indians. When the agent tells me to go from my home, I hate him; because I love my home and will not go from it."

Following this declaration Osceola became one of the outstanding Indian leaders in the Seminoles' fight against removal from Florida. Wiley Thompson, the government agent at Fort King, referred to him as "one of the most bold, daring, and intrepid chiefs of the Nation, and one who has been more hostile to emigration and has thrown more embarrassments in my way than any other".

The next year, in 1835, Osceola was present at another meeting called by Thompson. Again the government agent was trying to persuade the chiefs to acknowledge the treaty of Payne's Landing. Most of the chiefs contented themselves with a silent refusal to touch the pen to such an instrument, but Osceola is reported to have plunged his knife into the paper with a dramatic gesture of defiance, saying, "This is the only way I will sign!" As punishment for his independent arrogance Osceola was seized and put in irons. After several days he feigned a change of heart and was released, with the understanding that he would use his influence in favor of the immediate emigration of the Seminoles.

Instead, he gathered the Indian forces of the opposition and on December 28, 1835, ambushed and murdered Thompson and several of his companions, including Charley Emathla, a chief who was agreeable to the removal of the Seminoles from Florida. This act of violence precipitated the Second Seminole War, a war in which Osceola's skill and daring carried him to a position of authentic leadership. He hid the women, children, and old men of his tribe in the depths of a great swamp where the white troops were unable to find them for a long time. Then Osceola and his warriors turned to the work of harassing the white army. In this he was so successful that he outmaneuvered the United States forces and aroused public criticism of the army and its leader, General Thomas S. Jesup.

Jesup, angered by the public cry for more energetic action and somewhat nettled by Osceola's successes, violated the flag of truce in October, 1837, and ordered Osceola to be seized when he came to Fort Peyton for an interview. Many citizens condemned this act of "inexcusable treachery" and sympathized with the captured Indian warrior.

Following his capture, Osceola was taken to Fort Marion at Saint Augustine and was later removed to Fort Moultrie near Charleston, South Carolina. While at Fort Moultrie he scorned a chance to escape with two of his companions saying, "I have done nothing to be ashamed of; it is for those to feel shame who entrapped me." The imprisoned Osceola continued to brood over the wrongs inflicted upon him and his people until his death in January, 1838, of a throat infection. According to the story, he died wearing his war regalia, in accordance with the irrevocable oath of war and destruction which he had taken.

Osceola's grave, surrounded by a small iron fence, remains today just inside the entrance at Fort Moultrie. Words on the simple white stone marker read:

OSCEOLA, PATRIOT AND WARRIOR DIED AT FORT MOULTRIE JANUARY 30, 1838.

Following Osceola's unjust treatment at the hands of the white man, many pioneer settlers chose to pay tribute to his memory by naming counties and towns after him. Today in the United States there are three counties and four-teen towns which bear the name of Osceola.

In Johnson County, Iowa, in 1837 and 1838, there were two rival county seats on paper. One was Napoleon and the other was Osceola. The latter, backed by Pleasant Harris, a native of Indiana, was carefully laid off — on paper — with

lots for churches, colleges, parks, and a courthouse, but it never had any defined location. During the winter of 1837-1838 (the winter of Osceola's death) the rivalry between the imaginary towns of Napoleon and Osceola was a lively topic for conversation among the settlers. One would-be poet even broke out in verse with an "Ode to Osceola" and "Napoleon's Reply". In a seriosarcastic tone the "Ode" ran thus:

The mighty chief whose deeds so brave,
Whose hate so deadly to each foe,
Has late been summoned to the grave;
The warrior's head now lies full low.

We'll build a city to his name —
With church and stately tower adorn;
High as the heavens shall reach its fame,
And in it none shall hunger, thirst or mourn.

But even poetry could not win the contest for Osceola; Napoleon was selected as the county seat only to lose that position of honor in December, 1839, when an "Act to Relocate the Seat of Justice of the County of Johnson" was passed by the territorial legislature and the county seat was moved to Iowa City. Thus the town of Osceola in Johnson County was never actually a town.

A little more than ten years later, Dickinson Webster, a well-known pioneer of Clarke County,

who strongly condemned the treatment of Osceola, suggested naming the seat of government in Clarke County after the Indian. So it was that in 1851 the Iowa town of Osceola was named.

Iowa's Osceola County, located in northwestern Iowa, was not organized until 1872. The details concerning its naming seem to have been lost, but the fact that it was called Osceola seems to be good evidence that the heroic deeds of the Seminole chief were still admired thirty-four years after his death. One account regarding the naming of the county contained the comment that Osceola "is quite a pleasant sounding name and old settlers who still survive, whether living in the county or elsewhere, have learned to love the sound of the word".

Iowans also liked the musical name attributed to one of Osceola's wives. Facts about the life of this Indian heroine seem to be almost non-existent but legends and traditions are numerous. According to one story, the Seminoles captured a Creek princess and Osceola decided to make her his wife, giving her the euphonious name "Ouscaloosa" — "the most beautiful one" or "the last of the beautiful".

There is proof that Osceola had at least two wives, for an eye-witness account of his death mentions their presence, but their names are not

given. One wife, it is said, was named Che-choter, "the morning dew". Peoka is also given as the name of one of Osceola's wives. There is also a tradition that Osceola had a part-Negro wife, who was seized as the daughter of a slave mother and made a slave. Kenneth W. Porter, who has made a study of this story, says of the name Oskaloosa, "The word is, without much doubt, Muskogee. . . . Oski means 'rain' and lusta, frequently contracted or corrupted to lusa, means 'black'. Tuscaloosa means Black Warrior, for example. So Oskaloosa might well mean Black Rain. Perhaps this is Osceola's supposedly part-Negro wife! — an appropriate name, certainly."

The origin of Oskaloosa's name may, however, be due to fiction, rather than to fact. A romance entitled Osceola; or, Fact and Fiction, was published in 1838. The author [James B. Ransom], designated on the title page only as "A Southerner", made Ouskaloosa the favorite wife of the hero and described her as the "last of the Uchee". Apparently these stories and names, mixing fact and fiction, appealed to the pioneers who were realistic about Indians nearby but romantic in their attitude toward the victims of oppression at a distance.

When Mahaska County was organized in 1844,

the county commissioners had difficulty in deciding whether to call the county seat Mahaska or Ouscaloosa. In a vote taken among the bystanders the latter name won out, and the town of Ouscaloosa was organized. The present spelling is a result of the original recording of the town by a clerk who guessed at its orthography. And so it was that the musical name of an Indian woman in Florida was given to an Iowa town.

George W. Seevers paid tribute to Oskaloosa and the town of Oskaloosa in a poem which he wrote for the Oskaloosa Herald in 1853:

Oskaloosa! Oskaloosa!

What a beauteous name;

Who'd have thought a wee papoose

Ever bore the same?

Once it was an Indian baby,

Then a chieftain's mate;

Now a city, next it may be

Capital of state.

A village known as Oskaloosa Junction also existed in Mahaska County for a time and a post office by that name, at or near the present town of Beacon, was recorded in 1866, but it has long since been abandoned. Like her famous husband, Ouscaloosa or Ouskaloosa has been honored by several other States. Illinois, Kansas, and Missouri, as well as Iowa, have their Oskaloosas.

"What's in a name?", asked Shakespeare. In Osceola and Oskaloosa there are tragedy and romance, history and fiction, music and the echoes of injustice. But for these names, what Iowan would think of an Indian in Florida, who died in prison because he loved his home country, or recall the legends woven about the name of Oskaloosa?

STEET FOR SHIPP BETTER THE LOCKERS

CORNELIA MALLETT BARNHART

A Half Century of Engineering

In September, 1886, I strolled up the stone walk to Old Capitol, a grass-green freshman, about to register. At times that seems like a misty midsummer night's dream and again it is but yesterday. The first shot out of the box I was "called" by the Registrar. "Young man, sign your first name in full; there might be a dozen C. P.'s."

How did I happen to fancy engineering? It is amusing to recall. When I was twelve years old I read in *Harper's Weekly* that the Chief Engineer of the United States was paid \$50,000 a year — more than the President. I showed the item to my mother and said, "That is the job for me."

She told me I would have to go to college and that cost a lot of money, so I immediately began to work and save for the great adventure. Later I was invited to the University commencement by a graduating friend and my inquiries sealed my fate. It was engineering. I immediately applied for a vacation job with a bridge company and was hired at fifty cents per day. The first course was heating rivets and I found that if they were not passed out sputtering, white hot, they were

"socked" back at me. That was exasperating, but it taught me that heating and throwing rivets was an art and a serious job. Then followed laying out patterns in the shop, mixing chemicals, making blueprint paper, blueprinting, and assembling prints, and the mysteries of mechanical drawing and tracing. On the side I learned how to spill a bottle of India ink over a tracing and erase it so it could still be used.

I was initiated into the work of erecting bridges by being given the job of carrying off three-inch planks covered with dust. Pulling out old piers and killing rattlesnakes by the dozen was another of the "kids" jobs. My first experience with concrete was filling piers. We were told by the foreman that if "we did not mix like hell" it would turn to rock. I was the only good swimmer on the job and one of my duties was to rescue tools that fell in the river. "Get it Charlie" was a daily order, not so bad at 100 in the shade. How proud I was when I pulled our best bridge man out, half drowned. He couldn't swim and I kept a plank between me and his crazy clutching. A great dispute once arose as to the length of some vertical rods that did not fit. I solved it for them on the rule of the square of the hypothenuse and a surplus foot was cut off. That word, hypothenuse, floored them.

Before long there was a fall crispness in the air. September 15, 1886, the time for the trek to the State University of Iowa approached and I planned to be on hand early. An all-day ride on a fast freight brought me to the Athens of Iowa. My first requirement was a room with heat and light in a comfortable locality within reasonable walking distance of the University. Rooms were hard to find. You furnished your own fuel and boiled all water before speaking to it. There was no electricity and kerosene lamps were needed, for the city gas pressure might fail.

Board was fair and reasonable. Once I tried a club, at \$1.90 per week with milk and \$1.80 without. The meals were filling, if not balanced, but dad came out, took one meal, and said "move"! There were three choices for a bath — a sponge,

the river, or the barber shop.

After registration, the next step was to find the engineering department and I was directed to the "first brick building north of the Capitol". The armory was on the first floor, the engineering department on the second floor, and a heating plant in the basement. What a shock that bare room was. It was 30 by 60 feet, with cracked walls, dirty windows, and an old pine floor. In one corner were field instruments and equipment; on the west side was a blackboard. The windows on the

east side looked out across the campus to Clinton Street and the view included the Indian standing stoically in front of Wieneke's cigar store. The room was equipped with a half dozen crude drawing tables, school desks for the drawing and art classes, and a couple of filing cases. The only object of beauty was a girl who sat in front of me.

Our professors — Philetus H. Philbrick, W. E. Crane, and Charles E. Magowan — were all civil engineers in from the great but then expiring era of railroad building. Their work had been building bridges and railroads and these were supposed to be the only worth-while projects. The course was entitled "Civil Engineering", and embraced all lines; modern subdivisions and specialties had not yet arrived.

Military drill was popular and was accepted without question; and the raw uncouth freshmen of September were erect, peppy, keen-eyed boys, full of snap as a new whip, when the competitive drills came in the spring, with girls there to watch them. How the girls loved those uniforms! Military drill is an asset to any engineer for it cultivates a good bearing, alertness, and leadership, and a big job or a great contracting outfit must be handled on military principles.

Time marched on. Philbrick and Crane left and Charles Jameson came in. New buildings

were built and Jameson, a diplomat, saw that the engineers were taken care of. He was a young man, fresh from many activities, and brought us many new visions of engineering. His enthusiasm and optimistic predictions for engineering were stimulating and infectious and he understood the psychology of youth. He instituted prizes for accurate surveys and bridge designs, sponsored competitions in railroad location, paid us for designing and building apparatus and testing machines, and found paying jobs in drafting to give us pocket money. We did not fight the "laws" then. Their feud was with the "medics" and our little handful of engineers sided with the "laws".

Within a year I found that my high school algebra had been a farce. I had had no idea of its importance or practical application or that it was a foundation for the higher branches and sciences. Of course machines, tables, and graphs do wonders in saving time and brain work for ordinary purposes, but knowledge counts, although there are exceptions. We had a mathematical wonder in school, with a grade of 99 for four years, and Professor Laenas G. Weld said that the only reason he did not give him 100 was that no man could be perfect in "Math". But this man was not a successful engineer in later years, because he had a disagreeable personality.

Professor Jameson would not let engineers go in for athletics much; he said he would give us plenty of exercise in the field and he did. However he injected engineers' athletics into the events. I won a transit race, I remember, but did not think much of the fact until the following summer when it gave me my first large independent job in a U. S. government hydrographic survey for the location of bridges, under George T. Baker, later president of the Iowa State Board of Education. He selected his chief transit man by a competition in alacrity in taking a point, setting the line, and reversing. My experience in the transit race enabled me to win the first place by a good margin.

I joined a debating society at the University in order to learn to talk on my feet, and a fraternity to get the social angle. My drafting money paid the expenses. My four years cost \$1,200, "with milk", and the money was well invested.

I left the commencement ball at midnight and at 7 A. M. the next morning reported at the Clinton Bridge Works for duty. The hours were seven to six. You carried your lunch. There was no provision for overtime or extra hours, and \$45 a month was supposed to be a liberal starter. The chief engineer and draftsman had just left on some kind of a "get up and git" strike, and I found myself making plans for a large part of a Mississippi

River bridge. As I had worked there four summers, I knew much of the routine. I received instructions somewhat like this—"Use the La Crosse 160' for that span", which simply meant, make a blueprint with some minor adjustments.

After a month the company hired an excellent Norwegian bridge engineer, a graduate of the Royal Engineering School of Stockholm, to handle the cantilever span. I stayed till the big job was well under way on erection and then, my particular duties finished, after an average of 12 hours a day for \$45 a month, I looked around for something more lucrative.

Our old city engineer at Clinton had died in the meantime and I stepped into his shoes. Brick paving was one of the new things booming in Clinton. I had conducted extensive experiments, investigations, and tests, and had written a thesis on it in the University, so I was ready for the job. The city took it up enthusiastically and let contracts for five miles. D. W. (Dan) Mead was our principal contractor and as fine a man to work with as I ever encountered.

For a while I was the only engineer in Clinton County outside of the bridge works. There were no State, county, industrial, or consulting engineers then. Engineers were paid a per diem compensation and I soon found out there was no

money in working on that basis; the State law set the county surveyor's pay at \$4 per day and engineers' pay at \$6 and everyone wanted to gauge our pay accordingly. Many subdivisions were to be laid out. I took a small one by the day, laid it out carefully and fully, and kept account of the exact cost, with proper allowances for overhead and contingencies. I then made a price by the lot and with two field parties made very substantial profits. At the same time I was working on something else.

Many of my young friends have asked me "does engineering pay?" Well, frankly, not what it should. We were underpaid, but my average run of strictly engineering commissions provided a comfortable living, with one very shining exception. This was "the big job", \$42,000 net. I had some small losses in engineering, but I have found some very generous profits in the allied accessories of the business which my engineering training called to my attention. I learned there were "diamonds all about us". Many instances arose where contractors were afraid to bid and we did the job at good profits, and very little personal time.

Clinton has much low ground edging on bluffs and "filling" was in demand. I bought a sand-stone bluff that no one would look at for building purposes, and sold 60,000 yards of dirt and rock

off of it which brought it down to a good building site. Then I graded it off, landscaped and planted it, built a house on it, and sold it, doubling my money. I bought lumber yards "for a song", then purchased a sawmill that was to be dismantled, and sang the song myself. I put four days on the project and made a fair year's salary on the deal.

In the days before sand and gravel plants, we needed a large amount of sand so I rigged up a centrifugal pump on a barge with an old traction engine and then sold the outfit and the contract at a good profit. On one occasion some houses were to be moved off a site. I bought twenty-five of them at \$100 each, set them on my own lots, reconditioned them, and sold them. I once ran a stone quarry. I bought a waterpipe system in the ground and sold the cast iron pipe (good as new) at 500 per cent advance. I "shot" some wells with dynamite that contractors would not bid on, quadrupled the flow, and made \$500 in one day. I used dynamite for everything to save manual labor and gained the nickname, "Dynamite Charlie".

I always kept close cost accounts of everything and soon built up an appraisal business. The Dubuque and Cedar Rapids waterworks were bought at my appraisal figures, after fierce court fights. There were many little dabs of \$50 and \$100.

Before the days of the Highway Commission there were no State or county engineers and we had consultation calls from all over the northwest. All was not pleasant sailing, however; for twentyfive years I carried on a fierce fight with the multimillionaire owner of public utilities and with newspapers, who spent thousands of dollars and many years trying to "bust" me and run me out of town because I "was inimical to the utility interests".

When World War I broke out, a hurry-up summons came from Washington, and I landed in the U. S. Bureau of Housing and Transportation, a stranger among several hundred persons. John Alvord, the chief, was the only one I knew, but I was determined to know all about that Bureau. It was a wonderful opportunity and all my experience was called into play. Hundreds of millions of dollars were to be spent and 17,000 men had to be handled. Military discipline came handy. I finally achieved my chief engineership of a U.S. Bureau but not at \$50,000 a year.

All education does not come from books or classes. An engineer needs the ability to meet people on their own ground and understand their views, natures, and objects. He must be able to handle and entertain one or a crowd. He must know customs, social forms, and covenants of both classes and masses, understand the psychology of

life, the mind, and human events. He must acquire the habit of independent thought. His conduct must be quiet, normal, and self-regulated, not influenced by others or swayed by the crowd. He must learn how and where to find facts and he must be able to file them away in his mind. He can't know it all, so he must learn to find what he needs when it is wanted. He must learn to lead rather than to follow, study people, and be able to read and mold human nature — "put up, the front up", as the Jap says.

"The greatest asset of the engineering profession", it is said, "is its reputation for honesty", but there is one thing more. Some one has said it well: "I expect to pass through this world but once. Any good therefore that I can do, or any kindness that I can show to any fellow creature, let me do it now. Let me not defer or neglect it, for I shall not pass this way again." This I adopted for my own use and guidance. Selah.

CHARLES PERRY CHASE

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