

THE PALIMPSEST

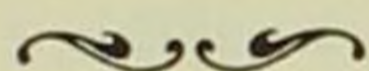
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The Old Rustic Mill

The old rustic mill has a quaint appearance, a peculiar fascination, and a delightful charm. Beside it are scenes of romance. Around it are memories of triumph and joy. Ancient in origin and unique in design, the old mill with its rural, rustic setting holds a place of high esteem in the memory of mankind.

Mills there have been of many types — hand mills, relics of remote antiquity; horse-power mills, invented perhaps by the Romans; wind gristmills, used particularly in Holland and transplanted by the Pilgrims to the hills of New England. But for romance and charm the old water mill is unsurpassed. At once historic and glamorous, it recalls an idyllic past. What youthful memories, what pure delights come trooping back as now and again one strolls “down by the mill stream”!

Listen to the water mill,
All the live-long day,
How the clicking of the wheel,

Wears the hours away;
Languidly the Autumn wind
Stirs the greenwood leaves,
From the field the reapers sing,
Binding up the sheaves;
And a mem'ry o'er my mind,
As a spell is cast;
The mill will never, never grind
With the water that is past.

True, the old mill, with the passing of the years, has come to be little more than a memory. For the most part, in Iowa at least, the dam has gone, the shaft has broken, and the old mill-wheel has forever ceased to turn. Yet as one travels hither and yon, across prairie and plain and river and hill, he may now and again observe an old landmark, moss-covered and falling to decay. Oh, that the old rustic mill, with its romance and charm, might be preserved for the delight and inspiration of youth for many generations yet to come!

In the days before electricity was made available, and before steam came into common use, water was used as the great source of power. Indeed, the water of Iowa streams has turned hundreds of water-wheels and ground the grist for thousands of pioneers. About six hundred mills driven by water-power have been erected along Iowa streams.

Tradition has it that the first water mill in Iowa

was built on the Yellow River in 1829, and that the dashing young Lieutenant Jefferson Davis, who was stationed at Fort Crawford, was for a time attendant at the mill in 1831. Because of the interesting tradition concerning its management, this first Iowa mill is usually referred to as the Jeff Davis Mill. History does not record the complete story, but it is probable that this first water-wheel ground no grist, but operated only as a sawmill. In 1839, it is said, this old landmark was burned "like a ship on the water's edge". Only a few cross logs have been found in recent years to mark its former site.

Perhaps as early as 1834 a small sawmill was erected on the Little Maquoketa River at the now almost deserted village of Sageville, just north of Dubuque. Soon buhrstones were installed for grinding grain. In 1852 this early pioneer mill was replaced by a great stone mill which operated by water-power for many years, and which still stands to tell its story of the past. The wheels have long since ceased to turn, the windows are broken and gone, and the once massive walls of stone have begun to crumble away. Age, industry, commerce, hardship, triumph, romance, and beauty are all represented in the old rustic mill at Sageville — perhaps the oldest mill now standing within the borders of Iowaland.

In a typical mill there were three things to be done. The grain needed to be cleaned of dirt and chaff, the clean grain had to be ground, and, to obtain the best results, the product of the grinding was "bolted through a fine cloth" which would allow the flour or meal to pass through, but would reject the "shorts" and bran. These "tailings" which came out of the lower end of the bolting reel were usually reground. In early Iowa the grain was usually cleaned before it was taken to the mill, and in pioneer times the flour was not bolted. The process was simple — merely that of grinding the grain.

When grist was brought to the mill it was passed at once to the millstones, the principal part of the mill machinery. These consisted of two flat circular stones three and a half to five feet or more in diameter. The lower stone was stationary, while the upper one was balanced to revolve upon the nether. The surfaces facing each other were grooved or roughened in such a manner as to give both a cutting and a crushing action. The stones were set close together, the object of the miller being to make as much flour as possible at the first grinding. The composition of the stones, their adjustment to each other, the "dress" of the stones, and the speed at which they revolved, were all matters of importance. Emphasis was laid

upon the careful balancing of the upper millstone upon the nether. Frequently the stones were made of native boulders or of limestone. High-priced stones might be imported, but in the early Iowa mills these were not common. In the decade of the sixties machines were invented for the dressing of millstones, but in the earlier period the efficiency of the mill depended much upon skilled millstone dressers who "went over the stone with proof-staff and pick" to correct every flaw.

The water-wheel itself presents an interesting theme. Water-wheels are of various types. A familiar form was the "overshot" wheel, driven by water flowing in at the top. The "buckets of the wheel" received the water and retained it until the revolving wheel emptied it into the stream below. The work was accomplished chiefly by the force of gravity, although the velocity of the water as it entered the wheel was a contributing factor. The other most commonly used water-wheel in pioneer days was the "undershot" type, which was made to revolve by the momentum of the water as it passed under the wheel. The overshot wheel was the more efficient, but because of the conditions of the streams, the undershot wheel was probably more frequently used in Iowa mills. The turbine was a much later development in the evolution of water-power.

A typical overshot wheel might have been seen a generation ago at the Fountain Spring Mill on Elk Creek, near Greeley, in Delaware County. But alas, time moves on, and landmarks perish. The mill-race has become only a memory. The wheel long since was broken, the stream flowing from an upland spring was diverted, and the mill-stones ceased to turn. The old Fountain Spring Mill stood for many years, but more recently it has disappeared.

In the decade of the thirties emigrants came in great numbers from Pennsylvania and Ohio where mills and factories were common. Thrifty pioneers they were coming into a new and undeveloped country. But they were not dismayed. They anticipated the vast importance of running streams and set about at once to take advantage of them. While most of the settlers squatted upon claims in timber-covered bottom lands, others "were threading the channels locating mill sites". For many were the millers and millwrights among these pioneers.

Among the early settlers of Van Buren County was Samuel Clayton, who in 1836 settled at the mouth of Chequest Creek and "raised a little patch of corn". In 1837 Clayton and his two sons "felled trees on both sides of the creek, cut them into the longest logs possible, hewed them on two

sides, and laid them end to end" to form the first mill-dam built west of the Des Moines River in the present State of Iowa.

The dam completed and the frame of the mill erected, the pioneers soon "had a gear rigged to the main shaft, and a perpendicular shaft rising above the floor of the shed was fitted with a run of buhrs". These, like many of the first buhrs used in that region, were of native stone — the round "niggerheads" frequently found in that neighborhood. The first grain that passed through the mill was ground by Samuel Clayton who fed it into the buhrs with his hands, regulating the feed so as to get the best results, and stopping now and again to brush up the cracked particles. The results were not the best. "There was no bolt. You simply took your corn, shelled and carefully dried, awaited your turn and went home with as good meal as could be obtained in the County." In grinding corn the results were fairly satisfactory, but equipment for grinding wheat had not yet been installed.

Nor were the settlers' troubles over when the mill was started and the grist began to flow. The mill served the settlers in a large area, and each one must take his turn whether he be one mile or twenty from home and whether he be in need or not. Frequently a neighbor returning from the

mill would be asked: "Is the mill a-runnin?" And all too often the response came back: "Crick too high", "Crick too low", "Froze up", "Shaft broke", or other discouraging news.

Perhaps it was in 1842 that a "hand-made water turbine" succeeded the overshot wheel that had originally been installed in the Clayton mill. In 1851 a flood destroyed the mill. The wheel was lost. More than fifty years later — in 1905 — the erosion of another flood washed away the silt and brought the old wheel again to light. It has been preserved as a memento of one of Iowa's oldest mills.

Along the wooded embankment of Pine Creek in Muscatine County, near the entrance of Wild Cat Den State Park, is another old rustic mill. The water-wheel there, too, long ago ceased to turn. The once sturdy timbers have grown mossy green and spotted with decay. But the old mill still stands — a landmark of other years — and pioneers recall the days when their grain was ground at the historic old Pine Creek Mill.

It was in 1833 that Benjamin Nye and a few other pioneers came from Vermont and settled along Pine Creek. Presently a store was opened for the sale of coffee, sugar, molasses, salt, pork and whisky; and a post-office was established. Letters came addressed to "Iowa Post Office,

Black Hawk Purchase, Wisconsin Territory". The New England settlers, however, remembering the capital city of their native State, soon changed the name of the new town to Montpelier.

The town of Montpelier never became large, and it was destined after a few years to become a deserted village. Pine Creek, however, was a racing, rippling little stream, admirably adapted to the use of the water-wheel. Moreover, the pioneers in the vicinity of Montpelier and for many miles around needed a place where they could have their grain ground. Accordingly, it is said that three mills, at various times, were located in that region. One of them was built about 1848, and is widely known as the old Pine Creek Mill — the only present-day evidence of what was once a thriving village.

Another historic old mill, but one which no longer survives, was the old Terrill Mill north of Iowa City. In December, 1840, the Iowa Territorial Assembly passed a special act authorizing Walter Terrill to build a dam across the Iowa River at a point just north of what was then the capital city. The mill, completed in 1843, was operated for half a century. Finally, when the mill had ceased its grinding, Mr. and Mrs. Euclid Sanders gave the dam to the State University as a part of the equipment for the College of Applied

Science. This unique form of endowment caused a great deal of comment and considerable jesting.

After commenting in a facetious manner about the advantages to the University in having a dam which would operate a power plant and at the same time serve as a hydraulic laboratory, one writer said: "The school need not be discouraged by the Winter's cold freezing up the dam for that gives science the greatest opportunity of all. It will give young ladies a chance to illustrate the beautiful laws of dynamics which can be done nowhere else so gracefully as on the ice. If any of them fall that illustrates the law of chance as well as gravity and statics."

Continuing, the critic exclaimed, "O! there is no limit to the science there is in a mill dam", and he suggested that Carnegie consider the matter of giving mill-dams "to needy colleges" to develop the higher courses of learning. "Education by water-power", he said, "is the new development of the age. It 'beats the band'. This is the way the music goes now."

Then let us pray that come it may —
As come it will for a' that
That every school o'er a' the earth
Shall have its dam and a' that
For a' that and a' that
It's comin' yet for a' that,
That water power, the world o'er
Shall run the schools for a' that.

Perhaps the most rugged and surely one of the most picturesque of the old rustic mills that still stands in Iowa is located at what was once the town of Motor, on the Turkey River, in Clayton County. In the decade of the sixties an enterprising miller spent a handsome fortune to establish what he hoped would be a thriving city. There he erected a seven-story mill and a two-story cooperage, both constructed of limestone almost as enduring as the nearby hills from which the stones were quarried — buildings that would withstand the storms of a hundred winters.

Other pioneers came and other buildings were erected. To perfect the scheme of community building, it was planned that the narrow gauge railroad running from McGregor to Elkader should be projected southward to Motor. But alas, adversities came. A flood washed away the railroad ties before the road was completed. Chinch bugs came in hordes to eat the growing wheat. Motor's prosperity was of brief duration. Farmers used the deserted railroad bed as a wagon road, over which to haul their wood to the Elkader market. The road was not wide enough for teams to pass, and so it was agreed that persons going from Motor to Elkader should make the trip before noon, while return trips were made only during the afternoon.

More than half a century has now passed since the town of Motor flourished. The buildings for the most part are gone. Yet the old mill with its high and massive walls, its beautiful woodland surroundings, and the spring-fed stream, make it a place of abiding interest. This is indeed one of the most picturesque spots in all Iowaland.

Such in brief and in part is the story of the old rustic mill. Slowly but surely it is passing, and the causes for its vanishing are not a few. Disastrous floods and occasional fires have forced the abandonment of numerous mill sites, spring and summer freshets have swept mill-dams away, and, with the services of sixty, seventy, or even eighty years, "some of the mills simply became too old to operate longer". But perhaps the major cause for the passing of the local mill was economic — the great agricultural change from the growing of wheat to the increased production of corn and cattle and hogs.

At all events, the old mill has almost disappeared. Where there was once industry and commerce and romance there is now only the memory of the days that are gone. In the words of Professor Floyd A. Nagler, an eminent engineer and student of pioneer life, "Here is an industry and a romance passing before our very eyes! The old water-mill has practically disappeared from

Iowa along with the log cabin and the sod house.
. . . Yet to-day Iowans return for their recreation to these old mill sites on Iowa's water courses to find some of the romance, poetry and beauty which the old water-mill contributed to the life of the pioneer."

And so it is that as I sit and ponder I look once more upon the familiar scene of an old rustic mill. The wheel is gone, the shaft is broken, the stream flows on but grinds no grist. Look and listen as I will, there is about me a strange and quiet stillness. But even now not all is silent. There is a momentary rustling of the leaves, a twittering of the birds, and a gentle rippling of the stream. And as the voice of nature breaks the silence that surrounds me, I seem to hear again the voice of a poet as he describes the passing of the Old Rustic Mill.

And a mem'ry o'er my mind,
As a spell is cast;
The mill will never, never grind
With the water that is past.

J. A. SWISHER