



Steel Spans a River

Amelia Smith Hay 218

BEN HUR WILSON

Comment by the Editor

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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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Abram Tuston Hay

While it is true that all through the years manufacturing flourished in many of the larger cities of Iowa, especially those located along her bordering rivers, the general impression has prevailed that her chief stock in trade was agriculture, not industry. This, undoubtedly, is correct even today. If, however, one were to select certain examples of Iowa's many interesting and sometimes unique industrial establishments, an important chapter of the State's history might be written which would be so filled with romance as to intrigue even the most unimaginative reader. These industries are sometimes located in strange and seemingly inexplicable places. Why should Newton, for example, become the washing machine capital of the world, Red Oak be a calendar-printing center, Fort Madison have the country's leading manufacturer of pens, and Shenandoah be the home of some of the world's largest seed-houses? However, were one suffi-

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ciently familiar with all local factors, he might point out some rational explanation for the location of each industry. The reason would frequently be found to be the guiding hand of a single individual, some genius particularly talented, versatile, and energetic. In other words, the human factor looms large as the immediate reason for many seemingly misplaced industries.

Moreover, in industry as well as in other undertakings, the particular individual who may have made the greatest contribution to its beginning and ultimate success has occasionally been almost completely overlooked. David H. Moffat, for instance, who conceived the idea of the great Moffat Tunnel and spent a sizeable fortune promoting it, died poor and was buried in a grave practically unmarked for many years. William Kelly invented a process for manufacturing steel similar to that of Henry Bessemer, but both the fame and the financial reward went to Bessemer. Abram Tuston Hay, of Burlington, Iowa, while not altogether unknown, should likewise have received far more recognition for his work than he did. It was almost entirely through his early efforts, research, and inventive genius that the first successful method of manufacturing steel for bridges and other structural purposes in America was developed. Many of the processes he in-

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vented and perfected were far in advance of his time, yet there is rarely a person, even in the steel industry today, who has heard his name mentioned in this connection. The originator of "Hay's Steel Process" is certainly one of the unsung heroes of industry.

Born on August 30, 1826, in Philadelphia, Abram Tuston Hay came from a long line of notable ancestry, dating back to colonial times. His grandfather, Edward Hay, was born in Scotland in 1756 but came to America before the Revolutionary War and settled in the city of Philadelphia. Here he married Martha Tuston, whose family name was later bestowed upon the subject of this sketch. Edward Hay, Jr., the youngest of their six children and the father of Abram Tuston Hay, was born on March 2, 1800. Too young to enlist as a soldier in the War of 1812, he volunteered as a drummer boy in the American army. He came through the war unharmed, "with glory and with experience beyond his years", and on November 21, 1822, he married Hester Lightcap at Jenkintown, Pennsylvania. Both her father and grandfather had served in the Revolutionary War. The home was established in Moreland Township, now a part of Philadelphia, where their children were born.



In 1835, when Abram was nine years of age, the family moved to Franklin County, Ohio, where they settled upon a "timber claim" in Pleasant Township. There, with his two brothers, Abram "helped clear the mighty forests from one hundred acres of land."

His father was a blacksmith and Abram early learned the trade and became familiar with the art of welding and tempering iron. Thus were sown the seeds of interest in the nature and uses of metals. During his formative years, however, educational advantages in so new a country were meager or absent altogether, and the boy, like many other pioneer sons, laid the foundations for his later comprehensive studies "both in science and philosophy, by the light of the log fires at the close of a day's toil." In his twentieth year, opportunity came for him to enter the academic department of Central College, Ohio, where he enrolled in "an independent course in the higher branches". Here he pursued courses in "English grammar, natural philosophy, chemistry, astronomy, and the high branches of mathematics."

Leaving the academy in 1848, after two years of study, he taught school in London, Madison County, Ohio, where he remained until July, 1849. The following October, he began work as clerk



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and salesman for a wholesale grocery concern at Columbus, but not finding the business to his liking, he resigned his position and took up telegraphy, which was then in its infancy. He worked in the Columbus office of the Morse Telegraph Company until the spring of 1851, when he went west to Missouri, via Cincinnati and the Ohio River. He reached St. Louis on the twenty-fourth of April and commenced working for the "Illinois and Mississippi Telegraph Company" the following day. Almost immediately he was sent to Keokuk, where he became manager of the Iowa division of the company's lines, with headquarters at Burlington. While engaged in the telegraph business, he obtained an elementary knowledge of the theory and practice of electricity, laying the foundation which later also aided him greatly in his metallurgical research and experiments. He remained with the telegraph company until July, 1854, when he quit to take a position in a United States Land Office located at Brownsville, Minnesota. He remained with the Land Office until March, 1856, when he resigned and started a land business of his own which proved a profitable venture.

The young man, however, had time for romance and early in 1856 he returned overland to Burlington, Iowa, where on the twenty-second day of



January he married Miss Amelia Smith, daughter of Jeremiah Smith, who had made some of the government surveys in the Black Hawk Purchase in 1832, settling in Flint Hills (Burlington) the following year.

The young couple, it is said, traveled by rail to Dubuque (on railroads in Illinois), and thence by stage and sleds to Brownsville, via Decorah. River traffic, of course, was closed by the ice. The young wife was thus introduced to the rigor of a northern winter and the rough fare of the frontier. After his resignation from the Land Office, Hay removed to Chatfield, in Fillmore County, where the couple resided for a short time, but in 1857 he gave up his business in Minnesota entirely and he and his wife returned to Burlington where they made their future home. Hay had spent his spare time in studying law and had been admitted to the Iowa bar. He now opened an office in Burlington, engaging in the practice of law and doing business in land. In this venture, he was associated with John M. Corse, who won fame in the Civil War. The partnership seems to have been mutually profitable. The business consisted largely in the prosecution of Civil War claims and the transfer of land and land warrants. Hay continued this business until the spring of 1866, when failing health



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made it necessary that he engage in work of less confining nature. This misfortune, however, gave him an opportunity to pursue the scientific investigations in electrical phenomena and the chemical relation and affinity of minerals in which he had long been interested.

The following year, 1867, he completed his first researches into the nature and causes of steam-boiler explosions which at that time occurred frequently on steamboats and in mills. He came to the conclusion that the "foul water" was the chief source of danger and published his conclusion that proper treatment of the water would largely eliminate this difficulty. His theory was immediately taken up, widely discussed, and finally accepted by many boiler inspectors and engineers. This discovery came at an opportune time. Steam railroads were fast coming into the country and had Hay made no other contribution to the cause of safety in transportation, his name would deserve a place among the great benefactors of humanity. Water treatment plants were soon established wherever boilers were used.

About this time he received a patent on a process of using magnetism to reduce and purify the ores of metals, and "for the application of a direct circuit of electricity to steam boilers as a protective agent against corrosion and incrusta-



tion" — two things which made the use of boilers hazardous.

In December, 1870, at the request of United States Inspector James H. McCord and other officials, he investigated the dangers to which the traveling public was exposed by the transportation of petroleum products on passenger steamers. His report attracted wide notice and the subject was brought before Congress. As a result a law was passed in February, 1871, prohibiting the transportation of coal oil and other inflammable materials on such vessels. Here again he contributed advice and information which doubtless

resulted in saving countless lives.

In April, 1872, at the request of his friend, John H. Gear, then a member of the House of the State legislature, Hay examined the foundation of the Capitol building, then in course of erection. His report, it has been said, condemned the structure "mechanically, geologically and chemically". Official investigators concurred in this judgment and the General Assembly adopted a resolution ordering that the defective work be taken out, at a cost to Iowa of some \$52,000.

Hay's first patents covering improvements in methods of welding steel and iron were granted in November of 1872, and by August of 1873 he had applied the process successfully to the making



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of fine iron and the welding of scrap steel in a plant at St. Louis. In 1876, with John H. Gear, M. S. Foote, G. R. Henry, and others, Hay organized the Hay Metallurgic Company, to handle the Hay patents. The following January, the Hay Steel Company of Chicago was formed. This was a big step forward and placed him in line for greater achievements.

On the ninth of September, 1878, the Hay Steel Company, under his supervision, commenced work on the metal for the first all steel bridge ever constructed. This structure, which was completed the following April, was erected by the Chicago and Alton Railroad Company over the Missouri River at Glasgow, Missouri, under the direction of William Sooy Smith, a prominent structural engineer employed by the railroad. Not a pound of iron, it is said, was used in the bridge. Every beam and chord, every bar and rod, and even the nuts and bolts were all made of steel manufactured by the "Hay Process". On June 7, 1879, Mr. Hay, upon special invitation, attended the formal opening and dedication of the new bridge at Glasgow in the presence of more than ten thousand spectators and guests of the Alton Railroad. This honor, no doubt, was one of the crowning achievements of his life. The



following September, he directed the manufacture of the metal for a second all steel bridge to be built by the Burlington Railroad across the Missouri River at Plattsmouth, Nebraska. The proven strength and success of the previous structure had much to do with this contract. Three hundred tons of "Hay Steel" were also manufactured for the reconstruction of the bridge across the gorge at Niagara Falls.

In 1881 and 1882, Hay was associated with the Union Steel Company of Chicago in the manufacture of steel rails. In February, 1883, he and his family moved to Joliet, Illinois, where he was connected with the Joliet Steel Company, also engaged in the manufacture of rails. Later he was engaged in the manufacture, by a laminated process patented by him, of tough steel for such special purposes as jail cells and safes. The manufacture of jail equipment, thus begun in a small way, is still carried on in Joliet by one of the few firms now in the business. The world's largest horseshoe factory, employing a modification of his laminated process, also operates at Joliet as does the country's largest wire mill, all being a direct or indirect heritage handed down from Hay's earlier activities.

He was later, with marked success, associated with the Midland Steel Company of Muncie, In-



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diana, and with the Tudor Iron Works of St. Louis, Missouri. In August, 1894, he was compelled to give up work due to an injury to his foot while in St. Louis. A gangrenous condition developed, forcing him to return to Burlington the following October where he was confined to his bed until his death on January 22, 1895, at the age of sixty-eight years.

Funeral services, with the Reverend J. C. Mc-Clintock of the Presbyterian Church and the Reverend William Salter of the Congregational Church officiating, were held at the home on West Avenue on January 24th. Interment was in Aspen Grove Cemetery. Appropriate resolutions were passed by members of the Des Moines County Bar, who attended the obsequies in a body. It has been said of him that "he was a lawyer, scientist, philosopher and inventor, and believed everywhere in the reign of sovereign law, and saw in the realms of nature what the apostle calls the goodness and severity of God." To appraise the life of so talented and versatile a man as Abram Tuston Hay is a difficult task. Of one thing, however, we may be certain; in all his sixty-eight years, there must have been not a dull moment. His life was one of movement and action, always forward. He was ever out in the forefront and lived all the while in advance of



his times. His influence for progress was out of all proportion to his formal education, and he was in very many ways a great benefactor of mankind. He was not only a keen scientist, but a great thinker and a student of human affairs.

While the world reaped the benefit of his experiments along many lines of investigation, it was said at the time of his death "that in his modesty and unwillingness to seek notoriety for notoriety's sake, he never embodied the results of his studies in book form so as to make them more specifically valuable for other students. But those personal friends who have had the privilege of listening to him in his communicative moods, recall with pleasure the enjoyment they had in social conversation. They were often surprised by the depth of his thought and the original conclusions he drew from the forces in nature which were his real text book." He had, it was said, a deep insight "into the mysterious elements of the world, such as electricity and magnetism, and all those forces comprised within the grand cosmos which have engaged the attention of profoundest philosophers of all ages." These studies and his own discoveries and inventions gave him a wide range of knowledge, seldom possessed by a single individual. He was a frequent contributor to the



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local press generally as well as to the scientific and special journals of the country.

It was because of his research and his willingness to depart from accepted standards that he was able to make valuable discoveries in electricity and metallurgy, which stamped him with the genius of a true scientist. He had, it was said, an intuitive grasp of primary principles "which led him to great independence of thought, and often brought him in antagonism with many of the accepted theories of the day." It is typical of the man that such opposition never deterred him in the least from going ahead with his investigation and history has revealed that more often than not, he was correct in his surmises. Indicative of his remarkable sagacity in working with metals, is the fact that he was one of the first to extract aluminum from fire clay by means of an electrolytic process. His product was termed "Aluminum Bronze". Hay accomplished this feat in the early seventies, antedating by nearly fifteen years a similar discovery made by Charles Martin Hall, on February 23, 1886. Hall, however, has always been given full credit for the perfection of this method of refining aluminum from its ores, an honor which, without doubt, should have been shared by Hay.

Although a lifelong Democrat, Hay cared very



little for politics from the standpoint of a partisan and he rarely, if ever, attended a caucus or convention of his party. Indeed, he seldom voted. He was interested, however, in politics in a broader sense and delighted to discuss great measures and principles. He believed in the principle of free trade, but he was not an extremist and he believed in applying business methods to the construction of a tariff.

In one political issue he was, however, deeply interested. He was an ardent advocate of the free coinage of silver and contributed many articles to the press denouncing the demonetization of silver in 1873 and demanding the restoration of the white metal, claiming that the silver dollar was the original standard of our monetary system contemplated by the Constitution and sustained by the laws of the country until the action of Congress in 1873. Many of the best scholars and businessmen of the Middle West found delight and profit in discussing with him the practical affairs concerning agriculture, mining, and manufacturing. Such, very briefly, was the character, personality, and abilities of Abram Tuston Hay, who must be rated as one of Iowa's illustrious citizens.

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Steel Spans a River

The seventh of June, 1879, ushered in a new era in railroad engineering and construction, in so far as bridges were concerned. That day witnessed the ceremonies celebrating the completion of the first steel bridge in America, the famous "Hay Bridge" of the Chicago and Alton Railroad, spanning the Missouri River near the little village of Glasgow, Missouri. Here history was made, the full import of which can scarcely be overestimated. Many attempts had been made throughout the country to construct railroad and other bridges of iron, but such efforts had resulted in many dismal and sometimes disastrous failures. The constant vibration, the repeated strain of impacts, and the changes in temperature soon caused the iron to crystallize, followed by breaking, often without warning and where least expected. The story of the inception, planning, and construction of the "Glasgow Bridge" and the many engineering feats connected therewith, must ever remain one of the great romances of the history of early American railroads. The bridge was designed by Edward Hemberle of the American



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Bridge Company of Chicago and consisted of five Whipple truss spans, each 314 feet in length, with some three thousand or more feet of approaches — quite a sizeable undertaking even in these modern days of superlatives.

It was typical of the Alton (now consolidated with the Gulf, Mobile and Ohio Railroad) that it pioneered many innovations in railroading. Celebrating its centennial in 1947, it lays claim to having operated the first sleeping car, in 1858, and the first "diner", in 1868, and of having constructed the first all steel bridge, in this or any other country, in 1879. The Chicago and Alton Railroad Company was chartered in 1847, the first division from Springfield to Alton being completed in 1852. Building northward the following year, it reached Joliet, where a physical connection was made with the Chicago and Rock Island into Chicago. Soon thereafter the Alton company built directly into Chicago on its own right-of-way. At first the company operated a packet line from Alton to St. Louis, handling both passengers and freight. This arrangement was later superseded by rail connection, the first railroad to join these two important cities. Somewhat later, the line was extended westward in order to open the State of Missouri to settlers, and by 1872 a line

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was completed from Roodhouse (Ill.) as far west as Mexico, Missouri, with a branch to Cedar City, just across the river from Jefferson City.

On April 10, 1877, a meeting was called at the Southern Hotel in St. Louis, and a group of prominent citizens discussed the organization of a company to build an extension from the western terminus at Mexico to Kansas City, a distance of approximately one hundred and sixty miles. As a result, the Kansas City, St. Louis, and Chicago Railroad Company was incorporated. Financing was promptly accomplished, and with equal promptness, the prospective railroad was leased in perpetuity to the Chicago and Alton Company so as to form a continuous line from Chicago to Kansas City. The lease provided that when the Missouri River was reached, in the vicinity of Glasgow, Missouri, "a suitable ferry should be operated until such time as the construction of an iron bridge could be completed." This ferry service was actually inaugurated with two boats — the J. C. McMullin and the W. H. Christy — each having a capacity for handling six or seven cars and a locomotive.

To bridge the wide Missouri in those days was no small matter, and T. B. Blackstone, president of the Chicago and Alton Company, entrusted the



job to his chief engineer, General William Sooy Smith, a man of high ability who well understood the seriousness of the many problems involved. The American Society of Civil Engineers, meeting in Chicago in 1872, had taken special notice of the subject and had discussed the difficulties attending the construction and maintenance of iron bridges.

General Smith offered a resolution at this meeting calling for the appointment of a committee which should attempt to secure an appropriation from the United States government for building a "first-class testing machine" by means of which a selected group of army, navy, and civil engineers might make exhaustive tests to determine the quality of various metals which might be employed in the building of bridges in this country. Such a testing machine was later installed and served its purpose well. The committee which was appointed, with General Smith as chairman, included such notable men as General George B. McClellen, James B. Eads, builder of the famous Eads Bridge across the Mississippi at St. Louis, and many of the country's most outstanding engineers. One day General Smith received a modest letter from A. T. Hay, a resident of Burlington, Iowa, who stated that for the past twelve years he had been quietly



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engaged in experimenting with iron and steel, and that he had perfected a method of making new alloys which had exhibited some remarkable qualities.

Just a bit skeptical, perhaps, Chairman Smith showed the letter to the members of his committee and they were interested enough to invite Mr. Hay to join them in a conference. The invitation was promptly accepted and he brought with him to Chicago some specimens of his new steel. So convincing were his arguments and so pleasing was his manner of presenting the facts that the members of the committee are said to have sat enthralled by his story from two o'clock in the afternoon, until daybreak the following morning. Speaking in an informal manner, Hay told them of the twelve years he had experimented with what he described as an electric furnace for fusing ores, and that by this means he had perfected formulas for fourteen different "mettaloids" in various proportions, each possessing distinctive and valuable properties of its own. General Smith became so enthusiastic that he visited Burlington where he made further personal investigation and tests of the steel produced by the "Hay Process" and became thoroughly convinced of its merits.

Following this visit, General Smith recom-



mended to President Blackstone of the Alton Railroad that a bridge, crossing the Missouri at Glasgow, should be built of "Hay Steel", by which name the product had then come to be designated. The approval of this recommendation by the Alton stirred up a veritable hornet's nest within the engineering profession. Iron bridges had everywhere been collapsing, while wooden ones had held secure. It seemed incredible that men in their right minds should come to such a decision! Engineer Pope of the Detroit Bridge Company said, "My heavens, Smith, you are not going to build a steel bridge are you?" The answer was, "Certainly, why not?" Mr. Pope promptly responded, "The first frosty morning that comes, it will go into the drink." Such criticism and ridicule, however, did not deter the Alton's engineers from going to work promptly on the project. A contract was entered into with the Hay Steel Company of Chicago to furnish the steel for the structure which was to be cast and fabricated at the Carnegie Edgar Thompson Works, according to the formula set forth in the specifications and approved by Mr. Hay and the committee. More than 800 tons of metal were needed for the structure. The company set to work on the order on September 9, 1878, under the personal supervision of Mr. Hay.

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Work on the foundations and piers had been started the preceding May and crews were soon at work on the bridge proper. Its construction, however, did not take place entirely without mishap and some anxiety. One unfortunate accident occurred during construction, when one of the 314-foot spans collapsed about six hours before its completion, due to a failure of the cribbing supporting it and about 160 tons of steel fell into the Missouri River. The top chord was 102 feet above the water, "but while many of the members were bent and twisted into all sorts of shapes, none of them showed a fracture." This event fully indicated the toughness of the steel which had been employed. Due to this misfortune, the American Bridge Company, which held the contract for the erection of the bridge, was financially unable to continue the work of construction and subleased its Chicago plant and the equipment on the job at Glasgow to the Chicago and Alton Railroad Company, which completed the work begun by the Chicago firm. It may be said, in passing, that the present-day American Bridge Company, which was organized in 1900, has no connection, either directly or otherwise, with the former company.

In spite of this accident, the fallen span was



dismembered and reërected within a remarkably short time so that there was no great delay in the final completion of the bridge proper, which was completed by the first of May, 1879. It was not dedicated and placed in service, however, until June 7th, owing to necessary delays in completing the approaches, tieing in with the main line of track, the final testing and approval of the work, and other more or less obvious details involved in any undertaking of such magnitude.

The "Hay Steel", employed in the construction of the bridge, received the highest praise even from its former critics. It was described as "a metal of peculiar structure, in that it possesses in common many of the qualities of both iron and steel. It has the tensile strength and hardness of steel, and yet the elasticity and flexibility of iron. It is capable of being produced in all grades from the highest edge-tool steel down to the lowest grade of common steel." So superior did it prove to be in every respect that the difference of deflection between the five spans of the Glasgow Bridge was only one-fifth of an inch, an almost incredible record.

It seems, too, that it promised to be a versatile product and, according to one comment, for a railroad rail, "it has all the wearing qualities of the Bessemer, with all the elasticity and pliancy

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of the toughest iron rail. It makes a railroad rail that will not snap asunder in cold weather or break from concussion. In the judgment of eminent railway men it will be the railroad rail of the future."

When the day for the formal testing and opening of the new bridge finally arrived, nearly ten thousand people gathered to witness the occasion. Many came by rail. Others came on horseback and by stagecoach, but the greatest number of spectators were carried by the many stern-wheeler steamboats plying the waters of the Missouri, whose very death knell was that day being sounded by the coming of the "iron horse".

Among the prominent men who took part in the ceremonies were J. C. McMullin, general superintendent of the Chicago and Alton Railroad, John J. Mitchell, president of the Kansas City, St. Louis and Chicago Railroad Company, William Sooy Smith, L. P. Moorehouse, E. S. Cheeseboro, and W. C. Dunham. But, no doubt, the proudest and most important guest of all was Abram Tuston Hay, of Burlington, Iowa, who had received a very special invitation from the Alton Railroad to be present on this occasion. The Burlington Hawkeye that day announced: "That Burlington has the honor of giving to the world an invention of such far-reaching results



is certainly cause of gratulation among our citizens and to the inventor." It also commented that the steel would "give the world safer bridges, more enduring railway tracks and machinery, and in a thousand ways benefit mankind."

As a matter of fact, the bridge unexpectedly had what was possibly its severest test at the very moment the engines and the superintendent's car, decorated with flags and bunting, were leaving the bridge in the midst of the celebration. The steamer, Kate Kiney, in attempting to pass underneath, struck the lower chords of the bridge and her smokestacks were completely swept away. This accident caused considerable excitement, but it neither injured the bridge nor interfered with the test in any way. The bridge was designed to carry two 66-ton locomotives, pulling a load of 1,820 pounds per lineal foot. It successfully withstood these and other rigid tests, showing absolutely no signs of weakness. "In the preliminary tests as well as the tests yesterday," the Hawkeye stated, "the results have been surprising. They exceed anything heretofore attained in civil engineering and metallurgic processes. The bridge is not only stronger and safer, but it is lighter and consequently carries less dead weight. The new metal is already attracting a great deal of attention in







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scientific and professional circles, and has caused a good deal of a flurry among parties interested in the old processes. In fact, they have waged a bitter warfare against the Burlington innovation and are as badly disappointed as we are pleased at the victory which the inventor has won over prejudice, jealousy and capital invested in existing metal works."

The Glasgow Bridge, in spite of the heavy toll imposed upon it by ever increasing traffic, showed no signs of weakness during the twenty years it remained in service and it was replaced in 1899 by the present modern structure only because of the ever-growing load of railway traffic. It thus survived by at least four years the life of Abram Tuston Hay, the genius whose long and heroic struggle, sometimes under most adverse circumstances, made its construction possible. BEN HUR WILSON



Amelia Smith Hay

In April, 1835, Dr. Anthony Potts and his daughter, Ann Potts, of Whitehall, Illinois, made a journey of two hundred miles on horseback through the forests and prairies of frontier Illinois to a village on the west bank of the Mississippi River, then known as "Flint Hills", later to be rechristened Burlington. The immediate purpose of their journey was to render any necessary assistance in a prospective "blessed event", then

awaited in a frontier cabin.

The child was born on April 20, 1835, and was named Amelia. In the *History of Des Moines County*, published in 1879, Amelia Smith, by that time Mrs. A. T. Hay, was described, apparently incorrectly, as the "oldest native Iowan". But Amelia Smith was truly a part of pioneer Iowa. Her mother was Ellen Maria Potts Smith, a daughter of Dr. Potts. Her father was Major Jeremiah Smith, Jr. The "Major" was derived from service in the Black Hawk War and the "Jr." was added, it is said, to distinguish him from another Jeremiah Smith, an employee of the Indian agency.

Major Smith was born of Scotch parentage in 218



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Ohio on March 23, 1802, and migrated to Iowa in 1833. He had received a good education for the period and became prominent in early Iowa where he was merchant, Indian trader, soldier, land surveyor, politician, and a leader in civic affairs. At one time he owned some five hundred acres of land at or near the site of Burlington, some of which he obtained by means of land warrants based on military service in the Black Hawk War, in which, it is said, he and his brother traveled more than two hundred miles on horseback to volunteer their services.

Jeremiah Smith was respected by his pioneer neighbors. He was chosen to represent Demoine County in the Michigan Legislative Council in October, 1835, and served in the extralegal session of the legislature which met at Green Bay in January, 1836, intending to legislate for that part of Michigan Territory not included in the new State of Michigan. He also served as a member of the Legislative Assembly of the newly created Territory of Wisconsin which met at Belmont, Wisconsin, in the autumn of 1836. In his zeal to serve Burlington, his home town, Major Smith made a voluntary personal pledge to erect a capitol at Burlington if that city were made the temporary capital. This promise he redeemed and the Legislative Assembly met at Burlington in



Smith's capitol in November, 1837, but on the night of December 12th the capitol burned and Jeremiah Smith lost the money he invested, said to be about \$7,000.

During these exciting years, Amelia Smith grew up in what was practically a wilderness, on the homestead which was later to become the scene of many unusual and varied activities. Both her father and her grandfather were "men of affairs", and much of community interest centered about their home. Even the red men were "more or less welcome guests there."

Educational advantages, beyond the elemen-

tary grades, being almost wholly lacking in so new a country, Amelia attended school in Whitehall, Illinois, the home of her maternal grandparents. There she received what in those days was considered a good education. On January 22, 1856, she was married at Burlington to Abram Tuston Hay, who later became a prominent and useful citizen of Iowa and the nation. In midwinter, they journeyed to Brownsville, Minnesota, where Mr. Hay had settled in 1854 to open a land office. On the way the stagecoach overturned in a blinding snowstorm, but young Mrs. Hay, the only woman aboard, was unhurt, thanks to the heavy robes and blankets, and the pioneer travelers reached their journey's end in safety.

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They resided in Minnesota until 1857, when they returned to Burlington where they purchased a part of the Smith estate, including the homestead and cabin (still standing in 1947), and made their future home there. Here they spent most of a very busy and happy life. Four children were born to this union — a son, Alfred G. Hay, who made his home in St. Louis, and three daughters, Josephine Hester, who married Joseph H. Mason, Anna Tuston, and Laura A. Hay. Miss Laura A. Hay, the only surviving child of Abram and Amelia Hay, now (1947) makes her home in Columbus, Ohio. One granddaughter, Mrs. Adna M. Brooks, a daughter of Josephine Hay Mason, now serves on the staff of the Burlington Free Public Library.

In spite of her prominence, Mrs. Hay led the normal life of the women of her time. She was always quiet and dignified, but fond of company and entertainment in the home, and she enjoyed the warm friendship of many prominent people in Burlington, Chicago, and Washington, D. C.

In later life, she recalled as "highlights" in her life a railroad excursion trip to Chicago where she and her husband attended the theater and a ball, and an exciting steamboat race on the Mississippi, in which the boat on which she and her friends had taken passage won the victory.



She cared little for personal prominence in society and club work, but was always a willing worker with others in any good cause. For a few years, while her husband was developing the "Hay Steel", the family resided in Joliet, Illinois, where her daughters attended St. Mary's Academy. This, too, remained a memorable interlude in her very active life.

She was long a faithful member of the Burlington Congregational Church and maintained a wholesome interest in all its various activities. Dr. William Salter, the pastor, was a warm personal friend of the family. Blessed with good health and a retentive memory, she retained interest until late in life in everything that concerned and benefited the world. She kept in close touch in so far as possible with all those numerous friendships which had endured through many, many years. After a serious illness of several months, she died on the evening of October 9, 1918, at her home at 2700 West Avenue, Burlington, at the age of eighty-three years. Burial was in the family plot in Aspen Grove Cemetery at Burlington, beside the body of her illustrious husband, who had long since preceded her into the great beyond. BEN HUR WILSON

Comment by the Editor TWO FACTS AND A FICTION

Many persons have played a game in which the players line up and the person at one end starts a message down the line, each player in turn whispering it to his neighbor. By the time the message reaches the last person in line the person who started it is usually unable to recognize it, but the contrast makes for hilarity.

More serious are the changes which stories often undergo in neighborhood gossip, politics, and even in history. For example, there is the story of Major Jeremiah Smith, Jr., and the capitol he built at Burlington for the Legislative Assembly of Wisconsin Territory. There is no doubt that he built the capitol and the fact that it burned on the night of December 12, 1837, is well authenticated. It is also a fact that the legislators asked Congress to reimburse Major Smith for his loss. But did he ever get paid? In 1871 Hawkins Taylor wrote a story for the Annals of Iowa in which he stated that Congress appropriated \$10,000 to reimburse Jeremiah Smith for the loss of the capitol building, but, sad to say, an uncle of the rightful claimant, also



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named Jeremiah Smith, heard of the appropriation, claimed it, and made off with the money, leaving the rightful owner holding the empty sack. In 1879 a similar story was published in a history of Des Moines County, but in this case the amount was given as \$4,000 and the two Smiths were said to have been cousins.

A search of the laws and appropriations made by Congress during these years revealed no appropriation to any Jeremiah Smith, but there was a record of another Jeremiah Smith, an older man who was employed as a miller by the Indian agent in charge along the Des Moines River. When the Sauk and Fox Indians ceded their lands in Iowa to the United States in 1842 a large amount of money was appropriated to pay their debts to the traders and among the claims approved was one for \$4,000 to Major Jeremiah Smith, Jr., of Burlington for goods sold the Indians. This fact, no doubt, was known to Jeremiah Smith, Sr., the miller. He claimed the money, signed his name, Jeremiah Smith, which was rightfully his, although the money was not, and disappeared with the \$4,000. In the course of time the older Smith was reported to have obtained money appropriated to pay Jeremiah Smith, Jr., for the burned capitol.



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