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The Reconstruction of the Public Schools After the Great Fire, 1871-1881

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THE RECONSTRUCTION OF THE PUBLIC SCHOOLS AFTER THE GREAT FIRE 1871 - 1881

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VITA

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CHAPTER ONE

INTRODUCTION

Chicago was officially incorporated as a city on March 4, 1837.[1] The Fort Dearborn settlement had grown from a mere 360 people in 1816 to approximately 4,000 in 1837. The city's school age population had grown from a few stray children to approximately 30 children in attendance at what, for all practical purposes, was a private school.

The first public schools in the Chicago area were modeled on the school organization used in the eastern and southern states. This was a result of early migration patterns. A significant number of early Illinois settlers had migrated from New York and Virginia. Most of these settlers had been accustomed to the county form of government. It seemed then a natural transition for the county form of government to be the established unit of local administration. This became official when the state legislature transferred power to the county in 1831. This same legislation also established Chicago as the seat of Cook County.

In 1785, the federal government had passed an ordinance known as the "Land Ordinance." This legislation essentially came to form the initial financial basis for the system of public education in the western states. Among other

provisions of the ordinance, it stipulated a that specific section be held in trust for the purposes of supporting public education. This reserved parcel of land would be known as "Section 16" of every township.

Accordingly, funds to operate and maintain a public school were acquired through the lease or sale of school land, together with taxes levied on real estate within the township. As early as 1831, more than one fourth of the 985,141 acres given to Illinois in "Section 16" had already been sold, much of it at less than $1.25 per acre. According to Mary Herrick in her book the Chicago Public Schools, "The unbelievable waste of this gigantic gift to twenty-nine states is one of the starkest tragedies in the history of the United States."[2]

As early as 1833, the one hundred or so citizens of the Chicago settlement petitioned Colonel Richard Hamilton, County Commissioner of School Lands, for the sale of school property. Land speculation was a thriving business in early Chicago and school property included some very choice locations. All but four blocks of the original land grant was sold for a total of $38,619.47.[3] This was considered an enormous amount of money at the time and probably sufficient for school needs. As land in "Section 16" was sold at auction in the early 1830s, the money was placed in the School Land Fund supervised by Colonel Hamilton. The interest from the fund was then appropriated among several teachers in the town, in accordance with the number of pupils residing within the legal boundaries. One of

the first appropriations from this fund was made to a private school operated by Miss Eliza Chappel in the fall of 1833. The "Chappel School" was a small log house accommodating approximately 20 children of all ages. A second allocation in 1834 and a move to the First Presbyterian Church building on Clark Street, might be considered the first public school in Chicago.[4]

Colonel Hamilton, however, was opposed to the rapid sale of school land and was suspicious of the speculation the sale might help to generate. Alfred T. Andreas in the History of Chicago observed:

> Property was not judiciously disposed of, for had it been retained until present time, the rentals there from would afford a revenue which would make the school system of Chicago the wealthiest municipal institution of its kind in the world.[5]

A number of different make-shift schools served the children of Chicago during the next decade. As the city's population grew so did the schools' enrollments.

In February, 1835, the legislature passed an act establishing a special school system for Township 39 north, Range 14 east of the third principal meridian. This, in other words, meant Chicago. The incorporation of the city under a special charter two years later rendered the act void; nevertheless, this action of the state legislature shows that Chicago was viewed as a special case early in Illinois history. Sections 1, 2 and 3 prescribed the manner in which legal voting residents of the town should elect school

inspectors to supervise the educational interests of the town and divided the town into districts. Section 4 provided for the annual election of three school trustees from each district. Thus the governance of the Chicago Public Schools was established.

As previously noted, the county system of local government was adapted by Illinois when it entered the Union in 1818. Chicago, the seat of Cook County, was divided into four school districts in 1835 with the Board of School Inspectors at the head of the system. An annual election of three trustees per district formed the committee of School Trustees. The governance of the emerging system was divided between the two administrative bodies, the Board of School Inspectors and the Committee of School Trustees.

With the incorporation of Chicago in 1837, the common schools of the township came under the control of the city's governmental body. Thus, an interlocking legal relationship between city government and public schools was born. This relationship, and various legal adaptations, has continued for over 150 years. This shift of control of the common schools from the county commissioners to the local civic body was modeled on the Massachusetts system.[6]

Beginning 12 May 1837, the common council of the City of Chicago was then able to appoint individuals to the board of school inspectors. At first, the council appointed persons who were willing to serve without financial compensation and

had a special interest in education. They were usually civic minded individuals who viewed public service as a necessary element in the function of government.[7] The voters elected representatives to the common council and to the district board of trustees in the district in which they resided. Each district elected three trustees for a total of twelve trustees.[8] The council in turn was able to appoint school inspectors on a regular basis. See appendix A for a detailed chart of the relationship between office holders and voters. Accordingly, the voters elected the members of the common council as well as the school trustees, the common council approved the appointment of school inspectors, and both groups in turn reported to the common council.

The county level of government continued to be involved, but to a much lesser degree. This arrangement continued because funding was still provided through the County Commissioner of School Lands. Gradually, the operation of the common schools in Chicago became a primary concern of the city government. It should be noted that two specific powers were transferred over to the common council in this formative period. Both the power to appoint school inspectors and the power to change the number of school districts within the city came under the control of the common council. The latter allowed greater local control over the educational process. Legislation in 1839 transferred the function of the County commissioner of school lands to local municipal control in the

form of a "Business Agent" for the school system.[9] This change helped to intertwine the schools and local government even tighter.

In 1840, a committee on schools of the common council was established to review the operation of the schools in terms of national trends in education. Information on other school systems and legislative initiatives in several states was gathered for the purpose of recommending changes in the Chicago schools. In essence, the committee reported that Chicago was in the mainstream of acceptable educational practices.[10] As a result of this committee's review and final statement, no significant changes were recommended or undertaken until 1854.

The Board of Inspectors, appointed by the city council in 1840, initiated the practice of keeping records of their visits to schools and recommendations made to improve conditions in the schools. Some of these recommendations were: a list of favored textbooks, a recommendation for the creation of a high school for older children, division of the school year into four quarters of 12 weeks each and the establishment of a regular calendar.

These insights for change and recommendations for improvement reflect the general tone of the times. On a national level, leaders of the "common school movement" were attempting to mobilize public opinion and support for the reform of education in general and particularly for public

schools. Their agenda ranged from universal education for the rising middle class to education as a means of social improvement and economic advancement.[11]

One of the leaders in the common school movement was Henry Barnard who spread his influence through the "Connecticut Common School Journal" and personal publications on educational issues. As an educator, he was particularly influential in the area of school house design and function. In one of his book, School Architecture, he makes a strong point for the importance of the school:

> The school-house should be constructed throughout in a good workman-like manner. No public edifice more deserves, or will better repay, the skill, labor, and expense, which may be necessary to attain this object, for here the health, tastes, manner, minds and morals of each successive generation of children will be, in a great measure, determined for time and eternity.[12]

In May, 1844 the overcrowding in schools reached the point that the city council was moved to action. What resulted was a two story branch building on the north side of Madison at Dearborn. The school, known as "School Number One," was built at a cost of $8,000. Credit for the building of this particular school must be given to Ira Miltimore, a member of the city council at the time of its construction. He guided the project through the various committees of the council and responded to the many critics of "spending city money on projects that serve a limited population." Many citizens viewed it as a frivolous extravagance. Mayor

Augustas Garret recommended that the council should either sell the building or convert it to an insane asylum. "The Big School House" was also known as "Miltimore's folly."[13]

Developments, however, soon justified the expense. Within a year the school was overcrowded and there was a shortage of seats. The shortage of seats would prove to be an ongoing problem with nearly every generation for the next five decades. In 1845 School Number 4 was completed at the corner of Ohio and LaSalle. The year 1846 saw the completion of School Number Two at Harrison and Clark streets. Interestingly enough, there was no particular rhyme or reason to the initial numbering or naming of schools. It appears that the first numbers were sequential, but later building numbers took their number in part from the district that they served. As a result, school Number Four, was really Number Three in the sequence of building, but became Number Four because it served district four.

By 1850 the population of Chicago had increased to nearly 30,000 persons. By 1853 it would double to 60,000. Chicago's march of progress and expansion can be gaged by the creation of the city council of the Office of the Superintendent of Schools. In November 1853, the duties of the superintendent were defined as follows.

> The superintendent will act under the advice and direction of the Board of Education . . .he shall acquaint himself with whatever principles and facts may concern the interests of popular education . . .to matters pertaining in any way to the

> organization, discipline and instruction of public schools, to the end that all the children in this city who are instructed at the public schools, may obtain the education which these schools are able to impart. In moving daily from school to school, he shall endeavor to transfer improvements and to remedy defects. He shall keep a record of all proceedings and he shall keep the Board of Education constantly informed of conditions of the public schools.[14]

John C. Dore, principal of the Boylston Grammar School, Boston was selected as the first superintendent. In this initial position, he supervised 3,000 pupils and 35 teachers This meant that in 1853, each teacher was responsible for approximately 85 pupils. Superintendent Dore organized the first formal set of policies and procedures to be followed within the schools. The general chaotic conditions that had characterized the public schools up this point in time was replaced with a system for organizing classes, maintaining records and monitoring promotions from one grade to the next.[15]

Superintendent Dore was also concerned with some of the social and economic conditions which affected the general achievement of pupils in the public schools. A significant portion of the school population came from foreign backgrounds and highly mobile households. Regular pupil attendance was a constant concern. A lack of appropriate teacher training and preparation compounded these problems.

In his first annual report to the board of education, Dore indicated that a system for examining all pupils in all schools would reveal which schools made the greatest pupil

achievement.[16] He predicted that success in school depended to a great extent upon the organizational ability of the principal. Thus the role of the principal began to change from that of direct supervisor of pupils and teachers to that of educational leader.[17]

In the same report, Superintendent Dore proposed the establishment of a high school for the city. He put forth a number of arguments for the case of a high school, but none was more appealing to the mind of a midwesterner and the Chicago Common Council than the proposed goal of training new teachers.

> . . .But there is another advantage to be derived from the High School to be established in this city. . .It is proposed to form a class in the High School expressly to qualify young ladies to teach. The High School will thus afford the city all the advantages of an independent Normal School, and avoid the necessity of relying upon the East for teachers, by educating our own.[18]

John Dore served as superintendent of schools from 1854 to 1856, during which time he helped to transform the role of superintendent from that of supervisor of people to a genuine educational leader. Essentially, Dore's responsibilities as superintendent evolved from that of a secretary to the board to a process of supervising all of the educational components within the system.

In 1856, Superintendent Dore was succeeded by William Harvey Wells. He, like Dore, was a professional educator who had received his training and experience in the East. William

Harvey Wells was generally regarded as one of the most effective school administrators in nineteenth century America. His influence was felt not only in Chicago, but throughout the entire midwest. As the Superintendent of Schools, he managed to stay above the confusing politics of Chicago and through charismatic leadership, provided firm direction and goals for the improvement of education in Chicago. He continued Dore's systematic approach to organizing schools by grades and separating older children from younger children in the grammar schools and primary schools.

His annual reports to the board of education and the general public are interspersed with practical and well defined views on a wide variety of educational concerns.

> Our primary schools are the basis of our whole system. If evils are suffered to exist here, they will manifest themselves in all high stages of the pupil's progress, and cling to him through life.[19]

As was his fashion, he goes on to spell out where the evil is and who's responsibility it is to correct.

> That this evil is necessary, no intelligent teacher believes. If we look for the seat of the difficulty, we shall probably find one of the principal causes in the fact that most children are first taught to call names of a large portion of words they read, without understanding their meaning.[20]

Superintendent Wells' reports grew in length and detail to the point that each annual report became in fact an assessment of the previous year's accomplishments and a goal setting process for the next school year. After the second year of his tenure as superintendent, the reports were

organized into sections and eventually into departments reflective of the administrative structure of the schools. From that point on, information was reported according to its logical inclusion in the committee reports for schools and grounds, curriculum, administration and personnel.

Superintendent Wells took serious note of the lack of proper school facilities for the growing school age population. In spite of the his genuine concern and effort to reduce the number of children in classes, particularly the primary rooms, he had to admit that there were as many as 150 children in some primary classrooms. In his report for 1857 he stated,

> While we may congratulate ourselves upon the liberal provision made by out city for the education of her children, and I trust also upon the present healthy condition of the schools, we cannot conceal the fact that a large number of children are growing up in our midst, without ever availing themselves of the means provided for their instruction. Over 17,000 children between 5 and 15 years of age live in the city, 8,306 are in attendance and 8,794 are no where to be counted . . . The crowded condition of the school rooms is not only a serious evil in itself, but creates a necessity for an inadequate supply of teachers in proportion to the number of scholars.[21]

Two years later in the Annual Report for 1859 he makes the same case:

> The cardinal evil which is undermining the very foundation of our public school system, it the inadequate provision that is made for the accommodation and instruction of the primary schools. The remedy is to issue bonds for such amounts as are necessary.[22]

No additional bonds were issued by the council nor was any consideration given to increasing the funding for building additional school house facilities during 1859.

It is interesting to note that two new primary buildings were opened in 1859, one in the South Division and one in the North Division. Both buildings were designed by Paul Van Osdel and his associate Fred Baumann. Van Osdel was quickly becoming the principal architect in the growing city. In addition to the extensive training he received in Europe before coming to Chicago, he was also a trained engineer.

Superintendent Wells' sensitivity to many of the issues surrounding the schools at this time did not blind him to some of the contradictory solutions being offered. Larger buildings and larger classes were frequently echoed in the Chicago press as a means of dealing with a shortage of seats and too many pupils. In general, the middle and upper classes were indifferent to the needs of the public schools, since many of their children attended parochial and private schools. In the report for 1860, he addressed the issue of new school house construction:

> It has been the policy of the Board of Education during the last two years to build large houses, capable of accommodating not less than 1,200 pupils each. For buildings of this size, I believe no better models can be found than those of the Skinner and the Newberry schools. I trust, however, that the city will never build houses so large as these, from choice . . .Experience has proven that six hundred pupils is a number large enough for all purposes of classification, and the disadvantages of bringing a greater number of children together in the same building and on the

same play grounds are obvious.[23]

When Superintendent Wells decided to resign from the Chicago Public Schools, a meeting was scheduled with members of the board of education and the entire teaching staff of the system. This was a special meeting requested by the teachers themselves. They wanted the meeting in order to express their strong personal feeling for the superintendent and express their sadness at his leaving. The superior educational leadership of Wells left a strong mark on the Chicago schools and the teaching force.

Wells was succeeded by Josiah Pickard, who like his predecessors, was a professional educator. He suffered, though, by following in the footsteps of a very popular public figure. He was not always successful in presenting a clear concept of where the schools should be going to both teachers and the board. This was in striking contrast to Wells who seemed much more able to convey his ideas and develop support. In fairness to Pickard, it should be pointed out that the conditions and forces present in Wells' tenure as superintendent accelerated during Pickard's thirteen years as superintendent.

Industrialization of Chicago was continuing at a dizzy pace in spite of periodic down swings in the economy. Each year brought more railroads and depots to the city, more grain elevators, more meat processing plants, more lumber yards, planing mills and more general manufacturing. The factories

and foundries spread out on to the prairie in search of ever cheaper land and labor.

In the second year of Pickard's term, the annual report reflected some of the gains and continuing problems of the schools. Charles N. Holden, president of the board, noted in his portion of the report:

> The High School has, as usual, during the past year sustained its high reputation, and the graduates of both departments have given new honors to our popular school system. During the past year we have opened a new branch of the High School, known as the training branch of the Normal department, under the instruction and training of Miss N. Ella Flagg, one of our High School graduates; this has proved a very satisfactory success, and I do not say too much, when I say that this is not excelled by any similar school in our country.[24]

In the superintendent's section of the annual report, Pickard makes note of the fact that during the past year, each primary teacher of the city has had an average of seventy pupils under their charge. Even the expediency of half-day sessions did not relieve the overcrowding in the schools.

The close of the 1860s brought an increase in the city's population, an increase in the number of children of school age and a slight increase in the level of employment and wages. The depression and abrupt swings in the economic cycle following the Civil War served to suppress individual hopes and expectations while providing opportunities for the entrepreneurs of industrialization. Most of the nation was experiencing the same kinds of economic instability or similar conditions. A new wave of industrialization and economic

expansion was shaping events in the nations growing urban centers.

As the 1860s came to a close, the statistics for the schools remained essentially where they had been for much of the decade in terms of the percentages of change. There was still a severe shortage of seats for children and school houses in which to conduct educational programs. William King, President of the school board in 1869 acknowledged the sorry state of affairs in his annual report. "That many applicants have been unable to obtain admission into our schools for want of room therein is true."[25]

Statistics

Number of school districts	17
Number of school buildings	28
Number of school seats	12,617
Number of rented buildings	10
Number of seats in rented building	1,375[26]

The early years of Pickard's tenure as superintendent in Chicago were marked by a number of unusual historical events. He began his superintendency during the unsettled period of the Civil War, which in turn was followed by a serious depression. The failing support by the board and the general public for the public schools increased at the same time that more children appeared at every school door. These were indeed difficult circumstances and times. They pale, however,

by comparison with the events that Pickard would face in the autumn of 1871.

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CHAPTER TWO

THE GREAT CONFLAGRATION

As of 6 June 1871, the Chicago Public Schools consisted of forty-five separate structures that were built expressly for educational purposes or rented to meet increasing educational needs. The system's single high school was a three story stone building that also housed the Normal School which in effect was the training school for future Chicago teachers. Ella Flagg (later, Ella Flagg Young, General Superintendent of Schools) was the supervising teacher. Twenty-six buildings were either main school buildings or branches and were built of brick. The remaining buildings were wood structures like most of the buildings in Chicago.

The census for 1871 placed the city population at 298,894. School records indicate that the school population was somewhere near 38,000 in June, 1871. Joshiah L. Pickard was the General Superintendent of Schools, having served in that post for four years.

The summer of 1871 in the midwest proved to be one of the driest periods in recorded history. After nearly three months with little or no rain, the parched earth of the midwest was a tinder box ready to explode.[1] Extensive fires raged in the lumbering areas of Minnesota, Michigan and Wisconsin as well

as the western portions of New York and Pennsylvania. An estimate of forest fires destroying commercial timber areas is provided in Elias Colbert's Chicago and the Great Conflagration. According to Colbert, 450,000 acres were destroyed in the midwest. Of this amount, 200,000 prime acres in central Michigan alone were destroyed. This 480,000 acreage would translate into approximately 750 square miles.[2]

A headline in the Chicago Evening Post read "The Conflagration Spreading and Increasing in Northern Wisconsin."

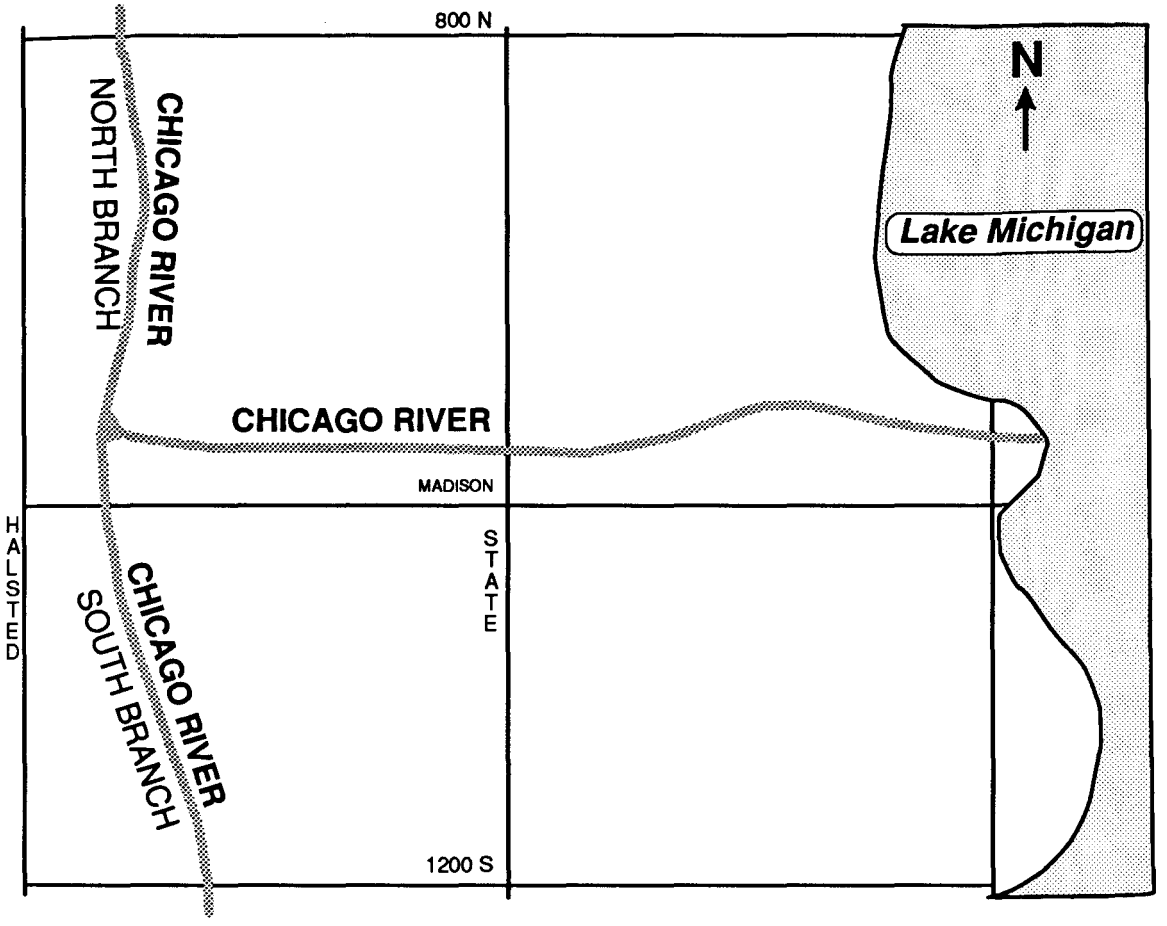
> News from northern fires today stated that they are raging worse than ever. A man just arrived at Fort Hoard from Pensaukee, says that 30 men were burned to death. . . a mill destroyed and part of the town. . . and thinks the rest has gone by this time.[3]

Chicago in the fall of 1871 was, in the genuine sense of the word, a boom town. Railroads and transportation, machinery and lumber, cattle and hogs and a dozen other industries had made Chicago the fastest growing city in the United States.[4] It had a population in excess of 335,000 people and its buildings, of all sizes and shapes were spread over 23,000 acres. The value of these 59,500 structures was somewhere in the area of $620 million.[5] The construction of most of the city reflected a boom town type character. Most buildings went up quickly and little thought was given to considering the total environment or the impact a lack of planning was likely to have on the city as a whole.

As the city grew, it became separated by the Chicago

River and its two branches into three well defined areas. A view of a map reveals three distinct divisions--North, South and West. See figure 1. The meeting of the North and South Branches of the Chicago River just a mile west of Lake Michigan created the boundaries. The area north of the river as it travels west from Lake Michigan to the juncture of the two branches was the North Division. The area South of the river formed the South Division. The entire area west of the two branches formed the West Division. See figure 1, following page. Each division had an organization, purpose and identity which was very distinct and dissimilar to the others.

The Chicago River was both a blessing and a curse for the city in this period. Often a sluggish and, in certain locations, a completely stagnant body of water, the river was never adequate for the increasing needs of the city. During the preceding three decades from the city's founding in 1837 to the close of the Civil War, the Chicago River was used both as a means of transportation and as an open sewer. Over the decades, the population increased rapidly and a number of offensive trades, such as small soap factories, tanning shops and livery stables developed along the two branches of the river. A slaughtering business was established on the east side of the North Branch in 1848. About the same time, an iron and copper manufacturing concentration developed along the South Branch. The use of high temperature ovens and foundries continually fouled the surrounding community.



LEGEND

CHICAGO RIVER AND BRANCHES

Figure 1. Map of Chicago showing the Chicago River and branches. Map created by author.

Use of the river as a dumping area increased further with the addition of manufacturing of related side-products, principally candles, hides and soaps. Periodic cholera, diphtheria and smallpox epidemics occurred during this same period, forcing the creation of a Board of Health in 1867 to provide minimal health measures.[6] Individual backyard wells were gradually replaced with a more reliable water system supervised by the city Water Commissioners.[7]

By 1870, seventeen grain elevators were concentrated along the South Branch of the river. These elevators were utilized in processing and holding close to 6,500,000 bushels of grain annually from all over the northwest. Fourteen miles of river-wharves were linked to trains that carried the grain south and east to the populous centers of the nation. All along the river stood coal yards, huge warehouses, wholesale storage-buildings, distilleries and flour mills. Beyond the river, in the west and north divisions, the planing mills and factories worked up to ten hours a day. The river became the receiver of sewage and dumping by both commercial interests and individual property owners.[8]

During the first week of October, 1871, a series of fires broke out in various parts of the city. Most of these early fires, however, were clustered in the West Division of the city where tenements and warehousing facilities were concentrated.[9] This was an overcrowded working class area and

the buildings were almost entirely of wood construction. A Chicago Board of Health Survey in 1867 revealed that there were 40,854 buildings of which 38,128 were wood. Of the 38,128 wooden buildings in the city, 31,702 were used as dwellings.[10]

In 1871, the Chicago Fire Department was typical of most large city fire departments, having been modeled on fire departments of cities on the eastern seaboard. It operated under the direction of the common council and political influence was not generally considered to be a selection factor even though the fire commissioners were elected.[11] Manpower to operate the fire stations and fire fighting equipment was dependent on volunteers. As a rule, only the station captain was a regular full time employee of the Chicago Fire Department. The department consisted of four hook and ladder trucks, two hose elevators, seventeen steam engines, fifty-four hose carts and forty-eight thousand feet of hose. All of this was expected to work well with the new Chicago Water Works that was inaugurated in March, 1867.[12]

At approximately 10:00 p.m. on Saturday night 7 October 1871, a fire broke out on Clinton Street, just north of Van Buren Street in the West Division. A fierce wind had been blowing all day across the prairie from the southwest and helped to fuel and spread the fire north and east. Despite strenuous efforts by the fire fighters, the fire destroyed just about all the buildings within an area bounded by Adams

on the north, Clinton on the west, Van Buren on the south and the south branch of the river on the east. The value of the buildings destroyed was not very high, "being mostly two-story frame buildings used primarily as laborers' boarding houses."[13] The value was placed at approximately $300,000, and about 100 families lost their homes and their possessions in this medium sized fire.

What is significant, though, is the attention the event attracted from a large number of people in the immediate area as well as citizens from other areas of the city. According to the Chicago Tribune,

> At first the people came from the west side, but as time passed on-they began to come from across the water, and as the blazing viaduct and place made Adams Street Bridge impossible, they swept in a solid mass across the Madison Street Bridge, meeting as they crossed the returning stream of those who satisfied their curiosity, or who felt it undesirable to stay after 12:00.[14]

Since fires were a fairly common occurrence at this time in most urban centers, the curiosity of the crowd is understandable. This smaller fire on Saturday set in place certain reactions for the citizens of Chicago, "a mind set," that would condition their response to the great conflagration that was about to take place.[15]

At approximately 9:30 the next evening, Sunday 8 October 1871, the fire alarm sounded again in the West Division. This happened just as evening services in many of the city's churches were concluding and the congregations were returning to their homes. Apparently, most people took the fire alarm

to mean a revival of the previous evening's fire.[16] This seemed reasonable since the growing orange glare in the sky came from the same general direction as the Clinton Street fire of the previous night. Most people continued to their homes and made their necessary preparations to retire for the evening.

The actual causes and circumstances surrounding the origin of the great Chicago fire have yet to be thoroughly explained and documented. Several versions of the origin of the fire have been offered along with a variety of interpretations.[17] However, there were no eye-witness accounts which have been documented nor has there been much success in efforts to sort out the numerous explanations of events that led up to the fire. One can select from a variety of plausible explanations, but no definitive explanation has been offered. The Chicago Tribune addressed the subject on its editorial page on 27 October 1871,

> There have been not less than nine hundred causes assigned for the Chicago conflagration by people who, residing many miles away and knowing nothing about the circumstances, may be supposed to be as unprejudiced . . . on the subject.

The only certain fact surrounding the origin of the fire is its location. The first signs of the fire were sighted in the barn or stable of the O'Leary family at 137 Dekoven Street, at the corner of Dekoven and Jefferson streets, in the West Division.[18]

Several things converged to give the initial blaze a good

headway. The neighborhood was largely a section of pine shanties for working class laborers. Most of these men were employed in the surrounding lumber yards, breweries and railroad yards. A night watchman in the Court-house tower miscalculated the location of the fire and called for help from the wrong fire company, thus causing an unnecessary delay.[19] Continuing high winds quickly spread the fire to other wood buildings in this neighborhood of "shams and shingles." This part of the city was a genuine tinder box and the spark had been struck.[20]

As the fire took hold of the southwest corner of the city, people in other sections of the city began pouring into the streets to see the expanding glow in the sky. This was becoming a sight out of the ordinary. By 10:30 the flames, nearly a mile wide and a hundred feet high, were igniting small fires blocks ahead of the main fire.[21] Blazing sparks of wood were carried on the wind and began falling on the roofs of the big stores north and east of the river. People began taking whatever action they could to control the little fires starting in their midst. Businessmen as well as home owners in the area near the river began wetting down their roofs and walls as a precaution. Confidence remained high, however, that the fire would stop when it reached the blackened section of the previous night's fire. But as the intensity of the fire grew, fear of a fire out of control also grew. With the force of a hundred and fifty acres of shanties

and factories aflame, the fire leaped over the charred section and attacked the grain elevators along the river.[22]

At this point, people began pouring across the river from the West Division into the downtown section in expectation that the river would halt the spread of the fire. Panic and confusion prevented people and community leaders from organizing a sensible response to what was becoming a crisis of serious proportions. Firemen, exhausted from the previous night's fire were not able to respond to all the calls for help. At approximately midnight a "blazing board rode the wind over the river and settled on a shanty roof at Adams and Franklin," a good distance from the burning inferno.[23] From this spot the fire now began anew, moving across the business section in its northeasterly direction.

Fire engines began racing back across the bridges from the West Division to the South Division in an effort to save the valuable central business section. As the fire spread through the business section toward the lake shore and the North Branch of the river simultaneously, businessmen rushed to their establishments in a vain effort to protect their property. Many hired wagons and carts to haul expensive furnishings and valuable merchandise to safe locations across the river in the North Division. It was only a matter of time however, before the fire would cross the river and claim these as well. Supposedly, a significant number of buildings in the central business district were fireproof.[24] Prominent among

these buildings was the Chicago Tribune. Joseph Medill, owner and publisher of the Tribune had constructed a building that was expected to survive just about any calamity short of an earth quake. While the fire continued to spread in the central business district from the southwest section of the city, Medill and his editors and staff readied the paper for publication. In the meantime, maintenance workers poured water down the exposed sides of the building. But like everything else in the path of the conflagration, the Tribune also succumbed to the fire. In, A Brief Biography and Appreciation, the Chicago Tribune in 1947 recounted Joseph Medill's reaction to events surrounding the fire.

> "When the fire broke out on October 8, 1871 and swept over Chicago, my first thought was for the Tribune."
>
> When, early in the morning following the outbreak of the blaze, he fought his way from his residence on the West Side to the office of his paper, he found the entire force of his paper at work preparing the story of the disaster to the city.
>
> Fearing the blazing embers would ignite his offices, by noon the next day, the editor was busy locating a new home for the paper. A temporary haven was located at 15 Canal Street in a ramshackle building, and with make shift equipment, the entire force, working all day and night, succeeded in issuing the paper with the loss of only one edition.[25]

Field and Leiter's store (Marshall Field and Company) attempted to save its great emporium by using hoses and fire equipment to spray its marble facade, the section of the store that fronted on the Street. The great store, like everything else in the path of the fire, was destroyed. With the

exception of one bank, all of Chicago's hotels and banks, were destroyed in the fire.

Distraught citizens ran ahead of the fire, edging eastward, whenever they could, toward the lake front, the cemetery or Lincoln Park. Old people and sick people borne on mattresses, stretchers and in chairs, were knocked to the ground and trampled by the frenzied crowds. Approximately 300 people are thought to have perished in the fire. This figure does not take into account the number of unregistered citizens and vagrants of which there were considered to be several hundred in the city at the time of the fire. Since all the hotels and most of the guest-houses in the business section succumbed to the fire, few records were available to project reasonable estimates of the real loss of life.

As the crowds of frantic people reached the lake front, to their horror, they discovered they were still not safe from the advancing inferno. On the lake front, thousands attempted to take refuge, far from any building or anything else that was combustible. But here on the shore, the heat and snowstorm of burning embers was truly torturing. To protect their families, some men resorted to burying their wives and children in the sand with long narrow wooden pipes for air and continually running back and forth with water to keep the sand wet and their families safe.

In the meantime, the fire had completely engulfed the center of the city's civic and business section, laying waste

to the most valuable property in the city. At this point, the Court House collapsed. This building had been the storehouse, and was now the tomb, of the public records for the city and the county. The chain of titles by which every owner held every foot of property in Cook County, from the government to the latest buyer, lender etc. was recorded in the official files of the Court House. In another section of the city, General Philip Sheridan, a famous Civil War hero attempted to halt the fire by depriving it of any additional fuel. Securing a supply of gun powder, he began blowing up buildings in the path of the fire. But, "gun powder was as useless as anything else, as it turned out, for the flames whisked across the vacant spots without a pause."[26] Again, the constant wind kept feeding and moving the fire across the city.

Throughout Monday, the fire kept to its wind-driven path of north and east, destroying the business section and starting in the North Division. The North Division was particularly vulnerable to fires. Although the houses were built on more spacious lots, most of these buildings were also constructed of wood. The fire consumed nearly everything in its path, with the exception of the single residence of John Ogden and the Water Works at Chicago and Michigan avenues. The Water Works was believed to be fire proof, and indeed, the lime stone blocks did withstand the intense heat of the fire. The roof, floors and window sashes, however, were good fuel for the advancing flames. When the wooden roof collapsed in

on the water pumps, the machinery was disabled. The fire fighters had lost their most important source of power in fighting the spreading fire. Chicago was now almost totally without water.

"Great blankets of flame, detached from any particular part of the fire, swept across the sky."[27] Except around mountains of coal by the river, there seemed to be little smoke associated with the fire. One theory was that the moving wall of flames consumed the smoke.[28] In block after block, as the walls thudded to the ground, every street became a blow-pipe of flames and intense heat. Iron columns embedded deep in the center of buildings melted like butter. Everything was consumed in the path of the fire. No piece of wood, however, charred, was found in the wake of the great inferno. Iron, bronze, gold, silver, brass, all turned to puddles of metal during the fire and hardened after the fire passed. Even wood far down in the foundations of buildings disappeared entirely. Car-wheels were destroyed and solid steel safes were consumed. Several hundred tons of pig iron, standing two hundred and fifty feet from the nearest building or flammable material, melted into one liquid mass.

According to several accounts, a gas seemed to form ahead of the flames. This gas, according to one observer and theorist, filled the abandoned buildings, so that deafening explosions took place when the fire reached the building. These successive explosions might account for the rapid

expansion of the fire as well as the terribly intense heat generated by the fire.[29] The wind from Chicago was so hot the next afternoon at Holland, Michigan, a hundred miles away and across the great cool expanse of Lake Michigan, men had to lie down behind ditches and hedges to let the scorching blasts pass.[30] The Chicago marine pier which stuck out into the lake like a finger in a pond was ablaze before anything could be done to isolate the structure from the fire. Likewise, the wooden pumping station for the municipal water system, located two miles from the shore was threatened. The tender of the water crib saved the station by constantly dousing the wooden structure with water.[31]

The heat generated by the fire was so stifling and intense that firemen facing it, could not get any closer than thirty or forty feet. With falling water pressure, firemen were lucky to get water ten feet beyond the nozzles of their hoses. Streams of water would not carry much above the second story of buildings. Fire engine after fire engine was caught by the flames and abandoned. As fire companies became separated from each other and in some cases from their own commanders, confusion increased. A concerted leadership against the fire began to collapse.[32] In a very short time, there ceased to be any concerted effort to stop the progress of the fire. "The conflagration had become its own director."[33]

Nearly everything east of Orchard Street and north to

Fullerton was destroyed. James Sheahan in The Great Conflagration gives a particularly clear picture of the disorganization and suffering in the North Division.

> In a district embracing 75,000 people, there were necessarily many who were upon beds of sickness. These had to be rescued by their immediate friends, or perish, and too often, the only immediate friends were helpless children. The mind shudders to think of what happened to both sick and well. Until the day shall come when the ruins of these 20,000 habitations shall be critically examined, the number of those who thus perished--whole families--will never be known.[34]

One of the most striking characteristics of the fire was its intense, destroying heat. Anything in the path of this all encompassing inferno was destroyed or changed. "Amid the hundreds of acres left bare, there is not to be found one piece of wood of any description, and unlike most fires, it left nothing half burned."[35] All that was left was the bricks and stones that crumbled to the ground and probably half extinguished some of the fire. Nothing in the way of human cast off or debris was to be found in the scorched section of the city. The combustion was complete.[36]

Relief from the great fire finally came in the form of rain. Late Monday afternoon, rain began falling on the smoldering and burning city of Chicago. Slowly the stifling clouds of smoke, dust and ashes gave way to the huge piles of cinders and bricks. As welcomed as the rain was, it meant the number of homeless--healthy and suffering--were now exposed to new dangers. Epidemic disease and unsanitary living conditions now threatened the hundreds of thousands of people

left without food or shelter.

On Tuesday, 10 October 1871, the charred city began to look at itself and assess its losses. Three and a half square miles in the three districts had been blackened, more than 98,000 people had been burned out of their homes. Over 17,000 buildings had been destroyed; $200,000,000 worth of property had gone up in flames. In the central business section, everything was gone from the shores of Lakes Michigan to approximately Wells Street, between Congress Street and Lake Street. All of the vital services of a vibrant and expanding economic center were gone. The most essential civic and government buildings had been destroyed along with thousands of legal documents and records. According to Elias Colbert:

> So many records were destroyed; so many people driven from the city, who could alone give accurate information on some essential point; such a universal scattering and destruction among those who remained, that it is practically impossible to cover every item in the immense aggregate of loss.[37]

The tables on pages 40 to 43 provide a random listing of the destruction by category and estimated cost.[38]

In the first few days after the fire, thoughts of repairing and rebuilding came well after the immediate concerns of housing, feeding and generally sheltering the city's population. The losses to the city had been enormous. Not a single person in the city was unaffected by the enormity of the fire.

The map on the following page shows the destruction of the city within the fire zone. See figure 2. This zone was

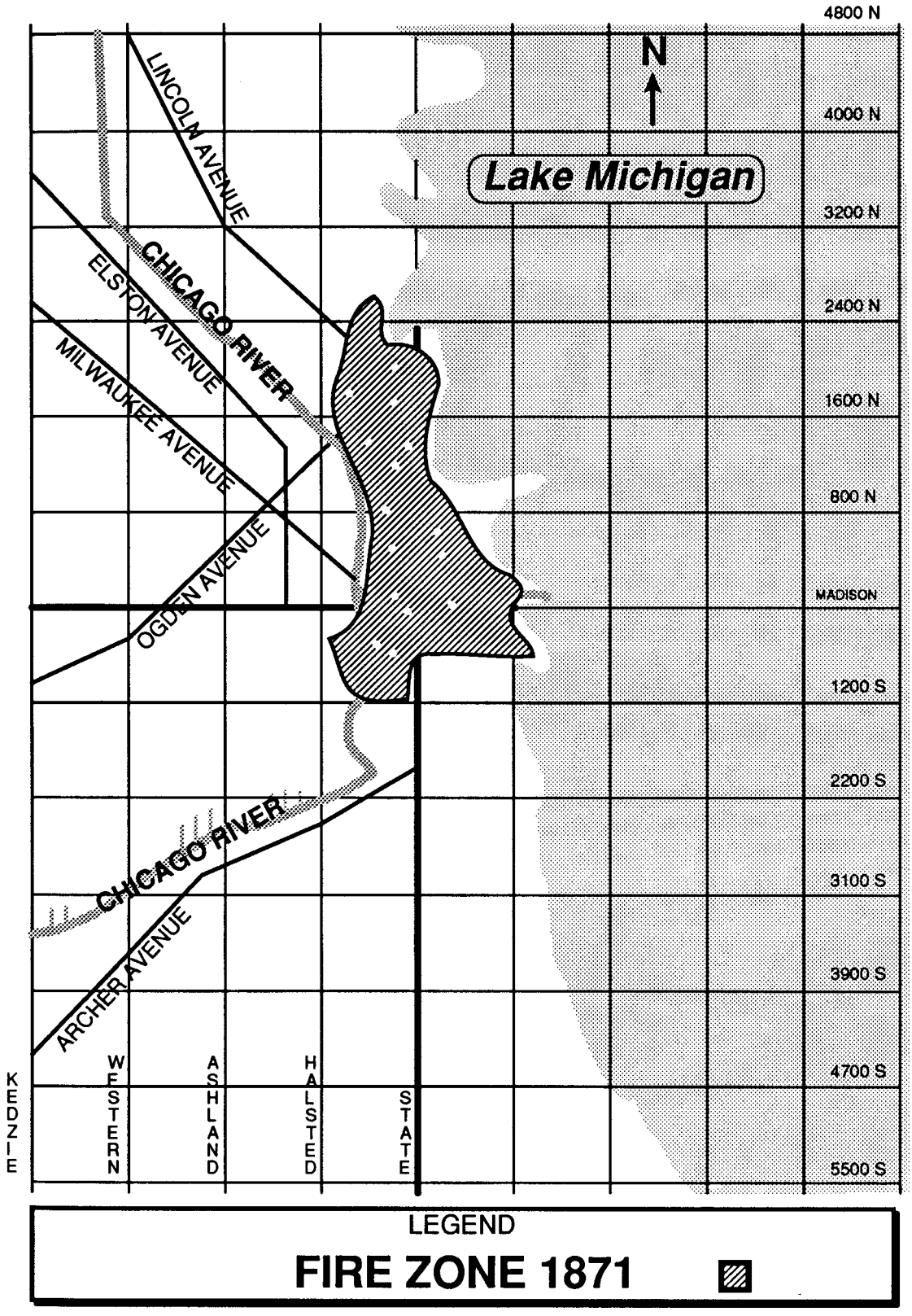

4800 N
N
4000 N
Lake Michigan
3200 N
LINCOLN AVENUE
CHICAGO RIVER
ELSTON AVENUE
2400 N
MILWAUKEE AVENUE
1600 N
800 N
OGDEN AVENUE
MADISON
1200 S
2200 S
CHICAGO RIVER
3100 S
ARCHER AVENUE
3900 S
4700 S
5500 S
KEDZIE
WESTERN
ASHLAND
HALSTED
STATE
LEGEND
FIRE ZONE 1871

Figure 2. Chicago city map showing the fire zone. Map created by author.

approximately four miles long and nearly a mile wide. Approximately, 2100 acres had been burnt across the city. All of the deeds, records, archives, libraries, galleries and cultural buildings were lost. Since only one bank had survived the fire, little was available in the way of currency. In fact, when the Federal Building burned at Monroe and Dearborn, more than $1,000,000 in currency had gone up in flames.

The same map on page 37 shows the location of public schools which fell within the fire zone. In all, fifteen schools buildings and/or rented spaces were destroyed in the fire. Something close to ninety classrooms were lost, which translated into approximately 10,000 seats for an already overcrowded and financially strapped school system. The public schools were indeed dealt a very severe blow.

Six of the school buildings lost in the fire were very substantial buildings that had been erected during the last three years. For the most part, these buildings were two and three story brick buildings with stove pipe heating in each classroom. Classrooms were large and could accommodate between forty and fifty children. The other nine schools were of wood construction and were one or two stories with only the barest of educational services. These wood buildings were usually rented for one or two years by the board of education to adjust to the shift in school population from one locale to another. Often as not, these were substandard rooms in

churches, public buildings or commercial type facilities.

The immediate reaction of Mayor Mason and his advisers was to close the schools that escaped the fire for two weeks and convert all public schools to shelters for the homeless. The central high school was designated as the city and county headquarters. Much of the initial work of organizing the relief and emergency services to the displaced population was undertaken by the Chicago Relief and Aid Society. Mayor Mason decided on the Relief Society because of its reputation for "being clear of politics and influence." About 35,000 people faced starvation or worse during the days immediately after the fire. Doctors, working in coordination with the Relief Society and the Board of Health, cared for the sick in emergency dispensaries set up in schools and churches. Their efforts were so successful that "the smallpox epidemic which scourged many places in the winter of 1871-72 was kept under control in Chicago."[39]

On 10 October 1871, only two days after the fire, Governor John Palmer called the legislature to meet in special session to consider measures of relief and assistance for Chicago. A select committee of the state legislature guided the relief that was provided to Chicago. The state legislature:

1) Refunded $2,955,340 to the city for the amount advanced on the Illinois Michigan Canal Project.

2) Enacted legislation enabling warehouses to deliver grain even when the receipts had been destroyed.

3) Provided for the restoration of destroyed records by purchasing books of the abstract companies unharmed by the fire.

4) Authorized reassessment of the state and county taxes.

5) Approved a bond issue for $1,500,000 to rebuild the court-house and jail.[40]

HOTELS

Palmer House	$250,000
Sherman	360,000
Tremont	360,000
Briggs	200,000
Bigelow	300,000
Metropolitan	100,000
Adams	125,000
Massassoit	75,000
Matteson	15,000
City	60,000
St. James	120,000
Revere	150,000
Nevada	80,000
Total loss, exclusive of furnishings	$2,890,000

PUBLIC BUILDINGS

Customs-house and Post Office	$650,000
Court-house	1,100,000
Chamber of Commerce	285,000
Armory	25,000
Huron St. Police Station	14,000
Larabee St " "	22,000
Gas Works	50,000
Water Works (partially)	200,000
Long John Engine Co.	14,000

A. C. Coventry	7,000
A.D. Titsworth	8,000
Hook and Ladder building	10,000
Machinery of Fire Department	26,550
Battery of Artillery	10,000
Bridges	200,000
Lamp-posts	20,000
River tunnels	6,000
Telegraphic, wires etc.	50,000
73 miles of sidewalks	940,000
Total loss of public buildings, bridges, streets	$6,298,750

NEWSPAPER BUILDINGS AND STOCK

Tribune	$325,000
Times	100,000
Journal	100,000
Republican	247,000
Staats Zeiting and Post	160,000
Mail and Union	12,000
Volks-Zeitung	5,000
Total, nine daily newspapers	$888,000

PUBLIC SCHOOLS

Jones	$13,170
Kinzie and branches	21,390
Franklin and branches	77,195
Ogden	39.675
Pearson Street	16,750
Elm	16,950
LaSalle	32,650
North Branch	32,000
Total, including furniture and equipment	$249,000

CHURCH PROPERTY

Congregational	
New England	$70,000
Lincoln Park	5,000
Episcopal	
Ascension	20,000
St. Ansgarius	17,500
St. James	200,000
Trinity	100,000
Total	$337,500
Methodist Episcopal	
First	$130,000
Grace	85,000
Van Buren Street	10,000
Clybourne Avenue	10,000
First Scandinavian	10,000
Bethel (colored)	10,000
Quinn's (colored)	10,000
Garrett Biblical Institute	85,000
Total	$355,000
Roman Catholic Churches and Schools	
Holy Name	$250,000
St. Mary's	40,000
Immaculate Conception	30,000
St. Michael's	200,000
St. Joseph's	120,000
St. Louis's	25,000
St. Paul's	25,000
Sisters of Mercy	100,000
Good Shepherd	90,000
St. Joseph's Orphan Asylum	40,000
Christian Bros.	80,000
Alexian Bros.	60,000
Bishop's residence	40,000
Other	250,000
Total	$1,350,000

RAILROAD DEPOTS	
Central	$775,000
Rock Island and Lake Shore	450,000
Galena	525,000
West-side Union	10,000
Total without contents	$1,760,000

THEATERS, HALLS ETC.	
Opera-house	$250,000
McVicker's	75,000
Farewell Hall	150,000
Hooley's	35,000
Dearborn	50,000
Museum	100,000
Metropolitan	100,000
Turner Hall	25,000
Academy of Design	30,000
Olympic	50,000
Total public Halls, exclusive of furniture	$65,000[41]

In addition to the great physical destruction that befell Chicago, the number of jobs lost was impossible to estimate. Thousands of citizens joined the ranks of the unemployed because the industrial base of the city had been seriously damaged. In the immediate aftermath of the fire, the population faced overwhelming human and economic emergencies. Articles about the fire appeared in every major newspaper of the world. The New York Tribune, however, was particularly accurate in its assessment of the situation, "Since yesterday Chicago has gained another title to prominence. Unequalled before in enterprise and good fortune, she is now unapproachable in calamity." [42]

Thus the city scene was set for what would later be termed the "Great Rebuilding." Most great cities of the world focus on a specific founding date in time as the beginning of their history, Chicago, on the other hand, tends to measure its past from the date of the Great Fire. "Modern Chicago was born the day after the fire when the idea that the calamity was an opportunity to build a better Chicago took hold." According to Ross Miller "The fire reinforced Chicago's inclination to define itself though its ability to triumph over adversity. This inclination, tempered with selective memory or transformation of the city's grittier elements, lies at the center of the myth of Chicago."[43]

The Chicago Public Schools lost an estimated $250,000. worth of school facilities, furnishings and materials in the fire. From a total of forty-five school facilities, fifteen-roughly one third of all school housing-was destroyed in the fire. In the aftermath of the fire, significant changes would occur in the organization of the city itself and the public school system. Up to this point, no single event in Chicago history had as much impact on the long term development of the city or the public school system.

CHAPTER TWO NOTES

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5. Elias Colbert and Everett Chamberlain Chicago and the Great Conflagration (New York: Viking Press, 1871), 167.

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7. Edith Abbott, The Tenements of Chicago: 1908 - 1935 (Chicago: University of Chicago Press, 1937), 42.

8. James Sheahan, The Great Conflagration (Chicago: Union Publishing Co., 1871), 49.

9. Abbott, Tenements of Chicago, 29.

10. Ibid., 9.

11. Sheahan, The Great Conflagration, 49.

12.Ibid., 38.

13.Ibid., 63.

14. Chicago Tribune, 8 October 1871.

15. Ross Miller, "The Great Fire and the Myth of Chicago." Chicago History, vol. XIX (Spring and Summer 1990), 6.

16. Colbert, Chicago and The Great Conflagration, 205.

17. Interpretations are offered in numerous documented studies. See: The Great Conflagration by James Sheahan and Chicago: The History of Its Reputation by Lit Lewis.

18. Lewis, Chicago: Its Reputation, 122.

19. Sheahan, The Great Conflagration, appendix, 419.

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22. Ibid.

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24. Lewis, Chicago: Its Reputation, 124.

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26. Lewis, Chicago: Its Reputation, 130.

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28. Sheahan, The Great Conflagration, 127.

29. Ibid.

30. Dorsha Hayes, Chicago: Crossroads of American Enterprise (New York: Julian Messner Inc., 1941), 148.

31. Ibid.

32. Sheahan, The Great Conflagration, 121.

33. Ibid. 121, 122.

34. Ibid., 126.

35. Ibid., 119.

36. Ibid., 132.

37. Colbert, Chicago and the Great Conflagration, 285.

38. Ibid., 287.

39. Bessie Pierce, A History of Chicago, vol III (New York: Alfred A. Knopf, 1937-1957), 9.

40. Ross Miller, "The Great Fire and The Myth of Chicago", Chicago History: The Magazine of The Chicago Historical Society, (Chicago: Spring and Summer, 1990) 5.

41. Colbert, 286. Additional sources are available in the Chicago newspapers, principally, Chicago Tribune for 17 October 1871.

42. Miller, " The Great Fire Myth," p.4.

43. Ibid., 4 and 5.

CHAPTER THREE

THE FIRE: A CATALYST FOR CHANGE

Amid the shock and confusion in the first few days after the great fire, relief poured into the city from all parts of the country. Eventually, even England and other European countries would extend generous offers of assistance and support.[1] Although everyone was in agreement that the city had to get back on its feet and quickly, few had any idea or plan of attack on how to do it or, if indeed, it could be done. The immediacy of the situation did not allow for any slowness or lingering indecision.

Relief efforts were developed and coordinated by the Relief and Aid Society which quickly established sets of short and long terms goals. Feeding and sheltering the homeless was the number one priority. The neediest, orphans, women who headed households, the old and infirm, were cared for immediately.[2] As one of its long term goals, the Society promoted a plan to help create and reestablish the traditional household. The Society provided destitute families with the materials to erect one-room wooden shanties of their own. This program was expected to relieve the urgent problem of adequate shelter and keep idleness to a minimum. Approximately 30,000 people received materials and financial

assistance in the immediate aftermath of the fire. According to records maintained by the Society, approximately 85 per cent of those who lost their homes were in the working class wards in the North Division.[3] These were the wards with high concentrations of German, Irish and Scandinavian immigrants.[4] In spite of hundreds of articles and stories about the "indomitable spirit of Chicago" that appeared in newspapers and national publications all over the world, there was a lingering suspicion that the working-class was a "recalcitrant, shiftless group."[5] Once "life and limb were secured," however, the Society sought to force the unworthy off the dole.

By the end of the week, some of Chicago's leading citizens began to perceive of the fire as an opportunity to remake the city better than it had been. What then occurred was an out-pouring of proposals from various quarters to change the way the city had been designed to new ways in which the city would be rebuilt. Significant among the competing proposals were:

> One great central railroad passenger depot on public land to unify the scattered facilities of the many railroad lines entering the city.
>
> Stricter and regularly enforced municipal codes.
>
> Improvements in the water system.
>
> Relocation of the central business district.
>
> Redeveloping the street system and elimination of wooden sidewalks.
>
> Relocating, viaducting and grading all railroad tracks.

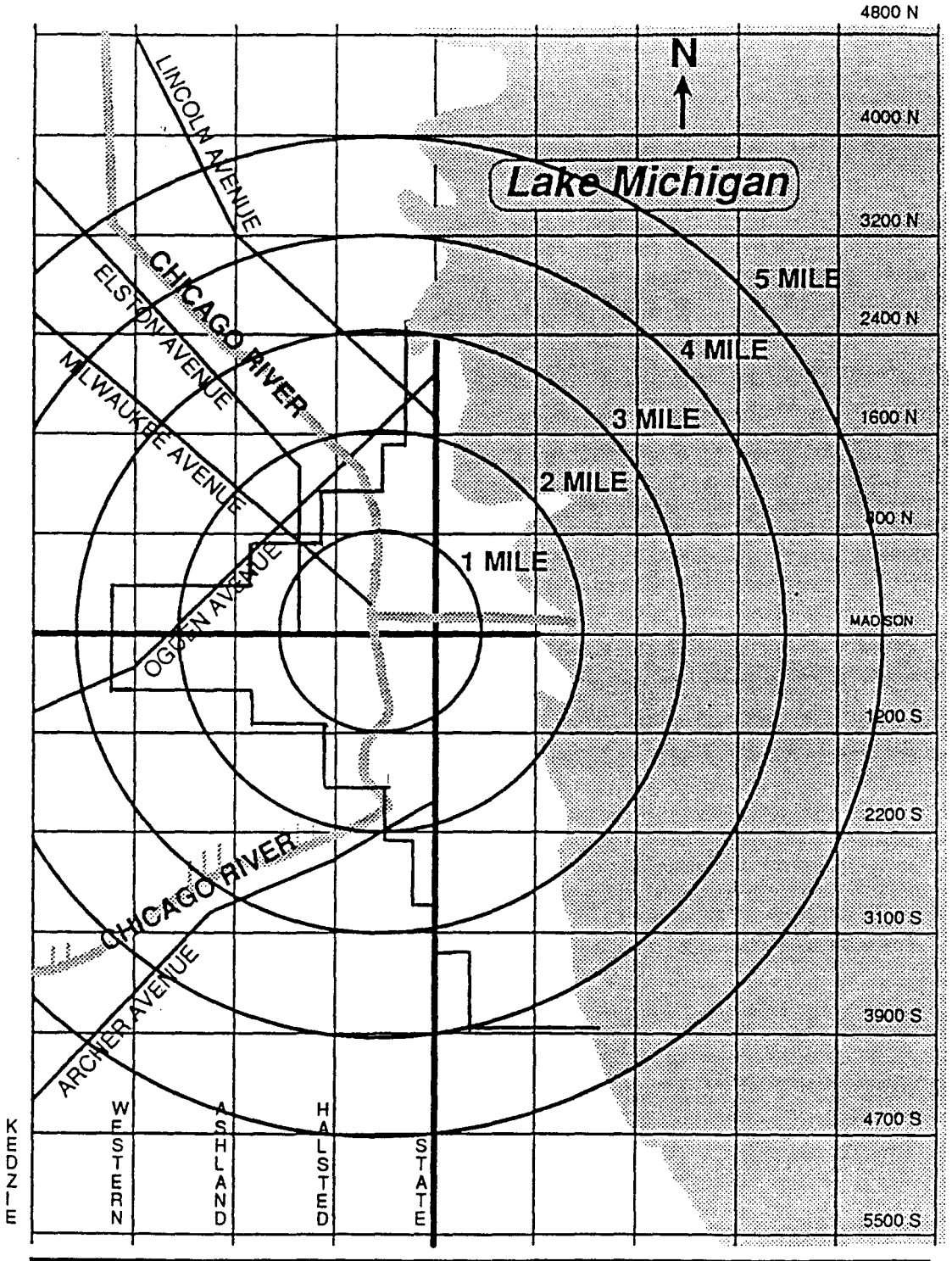
Expelling all lumber yards and planing mills from the central section of the city.

Rebuilding the city on a grander scale.[6]

In general, people were anxious for structural improvements in the city after the fire. Their arguments usually took the form of demands for bigger buildings, more substantial buildings and buildings more adaptable and suitable to there needs. Public opinion was especially anxious for buildings that would not be vulnerable to another fire.

Less than six days after the fire, the Chicago Tribune championed the call for measures to make the city safe from future conflagrations.[7] Insisting that Chicago "must rise again and not only must she rise, but rise to stand as long as the world revolves," the Tribune challenged the common council to enforce fire ordinances outlawing frame construction in any section of the city likely to become central.[8] In response, the aldermen passed an ordinance extending the fire limits to include a good portion in the West Division. See figure 3, following page. The hesitancy with which the council acted on this issue is somewhat indicative of the web of political barriers that hampered and at times slowed a true redevelopment of the center of the city from wooden buildings to ones of brick and stone.[9]

The issues came to a head in the municipal elections for aldermen in mid-November. A fusion party was organized and took the name "Fire Proof Party." The party ran one slate of



LEGEND

NEW FIRE LIMITS

Figure 3. City of Chicago map showing the new fire limits. Map created by author.

candidates in an effort to side step the usual "contentious political race" and avoid a power struggle with the regular Republican and Democratic parties.[10] Although the Fire Proof Party candidates won the election and their candidate for mayor, Joseph Medill won the mayoral race, side issues quickly splintered the new party. The old political forces came back into play whitch resulted in a slowing of the pace for the reform movement. A struggle over legislation ensued that would continue to divide the city into two enclaves. An inner district would prohibit all wood construction while a larger outer district would outlaw wood buildings with more than two stories. Since nothing was specifically stated about one-story buildings, it was assumed that one-story wooden buildings would be permitted. Advocates of a total ban on wooden construction responded with legislation outlawing frame building everywhere in the city. These groups also wanted the banning of all planing mills, oil refineries, varnish manufacturing and other hazardous trades from the city.[11]

In the course of the heated political debates as to which plan should be adopted, and the impulse to move forward with the reconstruction of the city, respective supporters of the comprehensive ban on wood construction and the limited ordinance continued to clash along economic and social lines.[12] The business interests, the middle class mercantile interests and the old establishment opposed the limited ordinance because they feared it would lead to substandard

buildings all over the city. For these groups, rebuilding the city with a comprehensive and substantial plan was key to attracting new business and foreign investment in the city, all of which was necessary if Chicago was to reassert its position as the leading economic center in the Midwest. Also, there was a general concern among the "old guard" that investments and property be protected.[13]

On the other hand, the supporters of the limited ordinance saw the comprehensive ban as an evil plot. They suspected the middle class and other elements of the establishment planned to exploit the situation to the disadvantage of the working class and poor.[14] A partnership was forged between the city's working class residents and the so-called "cheap lot speculators."[15] It was an established practice in Chicago for workers to own their own wooden houses and rent land space from local land speculators. Owning one's home in Chicago was possible because of the cheap land outside of the central business district. These workers moved their houses whenever their landlords pushed them off the land by raising the rents or refusing to renew land leases. Under this arrangement, the land renter was able to protect his capital investment by relocating to a new plot of land. Moving wooden shanties was certainly cheaper and easier than moving brick buildings.[16]

A crucial point of the confrontation between the supporters of the limited ordinance and those favoring the

comprehensive ban occurred during an evening march on City Hall (temporarily quartered in the public high school). The crowd swelled well beyond everyone's expectation and was joined by agitators from various other groups, including the temperance movement. Demonstrators rushed into the Aldermanic chamber, scaring the few remaining Aldermen into flight. When the janitor turned off all the lights and 300 policemen appeared at the front of the building, the crowd dispersed. The press reacted by calling the demonstrators "Mongrel Firebugs" and charged "A Thousand Lunatics Stormed City Hall."[17] The debate between the groups continued for several weeks with the Chicago Tribune being the lone holdout of the media against any compromise on the fire ordinance.

Aldermen quickly accumulated large numbers of amendments on both sides of the proposed legislation. In the end, the Aldermen ultimately compromised and passed an ordinance that gave the North side wards just about everything they had been demanding. The new law allowed wooden structures in all but a small section of the North Division. The new ordinance allowed, with few exceptions, the relocation, repair and improvement of all existing frame structures within the protected inner fire zone. Inasmuch as there was little policing, inspection or supervision of construction in the city immediately after the fire, a significant number of wood buildings would remain within the fire limits. On the positive side, the ordinance enlarged the fire limits,

prohibited the establishment of new hazardous manufacturing, such as planing mills and blind factories. The ordinance also banned all manufacturing of explosive materials.

> "The manufacture of set ammunition, fire-works the distillation or manufacture of naphtha, coal, or other inflammable oils; the manufacture or storage of excelsior, except in bales, and all other extra-hazardous avocations, are hereby prohibited within the above described fire limits.[18]

One of the interesting ironies of this period is the continuous struggle over a ban on wood construction. In all of its various formulations, a ban on wood construction, as applied in various parts of the city, allowed or permitted flammable felt and tar roofs, wood sheds and outhouses, wooden sidewalks, wood cornices, window frames and various exterior work. Unsafe building practices were so widely employed in the city, that any significant improvement in construction would require drastic and fundamental changes. According to Ross Miller in "Chicago and the Great Myth of the Fire" this was more of a reflection of the technological limitations of the time rather than a conceptual shortcoming.[19]

An even greater irony in this process, was the fact that only five months after the fire, a large section of the city was basically rebuilt in wood.[20] It was rebuilt in the sense that people who had lost their homes in the fire were provided for, in the most part, in a new wooden house, either in the same location or in a new part of the city. It should be noted that Chicago in 1871 did not have the extensive police powers or administrative powers of a modern urban center. In

general, cities of the 19th century seldom benefitted from a comprehensive or visionary plan of development. Because no one wanted to be in the difficult position of being an advocate prohibiting desperately needed new housing, particularly in a city just devastated by fire, a quiet acquiescence prevailed.[21] As distinct neighborhood communities emerged, more and more wood construction became the determining factor. As a result, everywhere outside the central business section, a wooden city quickly replaced the burned city.[22]

The inability of the common council to pass and enforce a comprehensive fire limits law in the immediate aftermath of the disastrous fire resulted in two distinct inheritances for the city. First, there was a city of dwellings that were generally owned by middle and working class families. These were for the most part, very small and cramped wooden structures with little or no amenities beyond the basic building. Laborers and workmen generally worked long hours and received reasonably good wages in the period of reconstruction after the fire. An employed worker quickly accumulated the resources to build his own wooden home. The rebuilding of the city fueled a working class housing boom that spread throughout all three divisions of the city.[23]

A second inheritance of this period that left a distinctive character to Chicago was the subdividing of land for rental purposes. A landowner and speculator leased land

to a renter who in turn leased the unused portion of the lot to yet another renter. Thus, many parcels of land, a 25X125 space had two and sometimes three wood structures on the same piece of land. This practice became known as "shoestring lots." The period of the 1870s witnessed an ever increasing number of multiple dwellings on what had originally been intended as a single residence. This was particularly true in those areas settled by immigrant groups or where one immigrant group replaced another group.[24] This practice had a significant impact on educational facilities and the capacity of the local school to service the expanding pupil population. Multiple dwellings on a single piece of land are still in existence in older sections of the city.

The fire and reconstruction period provided a significant chance to develop and expand the business center. Prior to the fire most business and commercial interests were located along Water Street, Lake Street and Washington Street because of easy access to shipping facilities along the Chicago River. After the fire, business interests began moving to State Street and Wabash Avenue in ever increasing numbers. Marshall Field led the way by the establishing his new store on State Street. The new construction in the relocated business district was subsequently improved over pre-1871 construction. This new construction was much more substantial with a significant increase in the use of stone and brick construction. Development of this new commercial center

depended heavily upon cooperation and a kind of "follow-the-leader" imitation by other wholesalers. The process of relocation and concentration of the commercial center in a more central location in the South Division had several long-term effects on the redevelopment of the business center and residential areas as well.[25]

The extension of the fire limits contributed to the expansion of the city's supply of commercial structures in two ways. First, the revision of the existing law stretched the prohibition against wooden construction into the Western Division and to the southern edge of the burnt district at Harrison Street. This was important because it came early in the reconstruction process, before this area could be rebuilt in wood. Secondly, because the area was restricted, former residents were forced to move farther south and west where they were able to build the customary small wooden shack. This vacated area would become essential to the new location of the central business district. The interrelatedness of these two factors had a profound impact on the reconstruction of Chicago and will be discussed later in detail.

It is important to note that the structural redevelopment of the business center was marked by significant improvements in the quality of Chicago's buildings as well as the organization and use of land.[26] Two factors contributed to this rearrangement. First, there was a notable increase in the number of buildings built and made available for

commercial use. These were buildings designed and constructed for use as commercial investments. Second, significant improvements were employed in the architectural design and inclusion of amenities. These new buildings were designed and developed as commercial real estate, not made over warehouses and stables. Structures were larger horizontally as well as vertically. Most utilized new and improved methods of steam heating and many incorporated passenger and freight elevators, thus allowing more intensive use of space.

Many of the new buildings incorporated advances over most of their supposedly first class predecessors. Even though they still contained dangerous amounts of wood and other combustible materials, many of these buildings benefitted from more substantial foundations, thicker walls, more careful laying of brick and mortar. Some began the practice of encasing main steel beams within a layer of glazed tile. According to Joseph Kendall in his book, History Of The Development Of Building Construction In Chicago,

> . . . a suggested method of fire-proofing with clay tile that is still used; this procedure was adopted in the construction of the Kendall building (1873-1940), which was considered the first fireproof structure in Chicago. In this building, hollow tile floor arches were used for the first time. The first flat tile arches were used in the Montauk building (1882-1902).[27]

The theory behind construction was that the tile protected the load bearing beam against early melting in case of fire and thus preventing the early collapse of a building's upper structure. This is what supposedly happened to many of

the "fire proof buildings" in the great Chicago fire. Overall, these new buildings were more attractive and spacious than most of those the fire had destroyed.[28]

Other crucial issues need to be addressed before moving on to the effect of the fire on the public school system. The Chicago fire caused the citizens of Chicago to insist on improvements in nearly all of the city's services, but especially in the water system and fire prevention. Both systems had failed the city at the most crucial moment. Among the newspapers, the Chicago Tribune was most vociferous in raising the issue of a system-wide redevelopment of the water service.[29] The paper supported a proposal that insisted on a plan to establish a system of reservoirs and additional mains to be used to fight fires. This would be in addition to the regular water system. In turn, this plan was endorsed and supported by the Fire Department. Additionally, the Fire Department promoted the need for modern fire hydrants at street intersections and a fleet of fire engines to be used on the Chicago River.[30]

The need to revamp things was obvious, considering the failure of the system during a crisis and now the expanded demand for more services in the post fire period. The old system consisted of a network of mechanical pumps that forced water from Lake Michigan into a standing pipe that rose 136' high. Through gravitation, the water was pushed throughout the city's water mains to its distribution points. For the

most part, this old system did provide minimum water for the city's residents. It did not, however, provide water to the second story of most buildings outside the central part of the city nor the needed water pressure to fight a large fire. A number of proposals to use more advanced technology fell on deaf ears.[31]

Eventually, the Board of Public Works settled on a policy of restoring the pipes, fire hydrants and extending the water system into the expanding suburban developments. A system of mechanical pumps replaced the standing water pipe to improve water pressure. The customary answer, "a shortage of funds" was given to quiet critics.[32] The failure of the Board of Public Works, the agency responsible for constructing all of the city's public buildings, was a great barrier to the improvement of the city's infrastructure. According to Christine Rosen in Limits of Power:

> "City law prevented members of the Fire Department and its parent agency, the Board of Police. . . from implementing any changes. The law evenprevented the Fire Department from undertaking small-scale projects of purely departmental interest, like the construction of new hydrants."[33]

Apparently, the Board of Public Works was obsessed with the extension of service to the developing suburban communities instead of improving the overall system.

Rosen goes on to suggest that the preoccupation of the citizens with the problems of reconstruction prevented any serious questioning or delving into the actions of the Board of Public Works. Perhaps also, the perception on the part of

most citizens was to concentrate on rebuilding and replacing instead of inventing and developing. Among the ordinary citizens, there were few visionaries who saw the replacement of the burned section of the city as an opportunity to significantly improve it as well.

In spite of the failure of the city leaders to act with foresight, the great fire had a profound impact on both the water system and the Fire Department. An extended period of suburbanization occurred parallel to the reconstruction after the fire. This growth in suburban type communities caused an extension of services to the newly populated areas which in turn resulted in sixty-four miles of additional mains and distribution pipes being added to the existing system. All of these areas would be annexed to the city within the next twenty years or so. The Fire Department, which was administratively part of the Police Department, was eventually separated and made an independent department.

Under normal circumstances, a dramatic change in the use of land and buildings takes a long time to accomplish. Chicago was not much different on this point. The changes that occurred in Chicago were probably due as much to "catch-up responses to pint-up spacial needs," as they were to the urgent need to replace.[34] But this process was complicated as land developers fell into various categories of prime movers, passive followers or reluctant and even resistant participants to an evolving pattern of reorganization. A significant

number of the changes took place in the relocation of businesses between 1871 and 1874. The most obvious change was the simultaneous movement of certain commercial enterprises westward and southward within the central district. Although there was a general scattering of commercial activity over a much greater area, categories of enterprises clustered in specific locations. The banking industry for example moved west from Dearborn toward LaSalle. Dry goods, wholesalers and retailers, generally moved west and south, while retailers and purveyors of fancy goods moved east and south toward State and Madison. It should be noted that in the mad scramble to re establish business activity, the burnt out firms seized any available and usable building or space. As a result, a doctor, lawyer and shoe store might occupy the same premises along with a railroad office or a livery line. This kind of arrangement was not satisfactory even on a temporary basis.[35]

Several leading businessmen set about changing the physical arrangements of their respective commercial enterprises to be more suited to the anticipated growth which was expected. Marshall Field and Levi Lieter began the process for the retail trade. Their first step was to quietly buy up large sections of the burned-out slums in the south and west sections of the old commercial district. This area became the new location for warehousing facilities and specialized activities important to retail trade. Smaller, less resourceful retailers were forced to follow suit in order

to exploit the economic advantage of proximity to the retailing giants. As a result, the retailing portion of the business community was transferred to State and Madison and parallel streets were incorporated into the new business area. The warehousing, specialties and light manufacturing developed in the former slum area of the southwest section of the old South Division.[36]

This movement of commercial enterprises had immediate impact upon the public schools and the process of replacing school facilities. As industries relocated to different sections of the city, workers and their families followed to be within a reasonable walking distance of their work location. This was a significant consideration to the entire working class. Public transportation was still not widespread beyond the central business district, and therefore, of little help for the average person. As large industries combined and expanded, the need for new workers increased accordingly.

As noted earlier, fifteen school facilities were destroyed in the fire zone. Of these original fifteen sites, only four were replaced in the early period of reconstruction after the fire. The surviving schools were designated by the school board to receive pupils from the destroyed attendance area schools. Considering the general overcrowding that was characteristic of the public schools at this time, the increased pupil load burdened the operating schools

tremendously. In as much as records on pupil attendance were sketchy at best, few accurate records exist to determine whether this policy was a success or not. The disruption to families, work locations, communities and the general order of society by the fire probably resulted in little documentation or coordination for the regular assignment of children to a specific school. If the child appeared at the school house door, he or she would be taken in. However, there appears to be no way to document this with any measure of reasonable certainty. According to Mary Herrick, "The high school building housed the courts for a year, and classes were not reopened until 1874."[37] No concrete evidence has been identified that indicates where the high school children attended school during the whole of 1873.

With the exception of the Newberry and Lincoln schools, all of the school buildings were destroyed in the North Division. In the South Division, all of the school buildings were destroyed as far south as 12th Street (Roosevelt Road). The Newberry and Lincoln needed repairs before they could resume operation and take in children from the burned out schools. Most of the schools operating after the fire were forced to utilize half day sessions to accommodate the pupil load.[38] When Newberry and Lincoln did reopen, they too were quickly enrolled well beyond their capacity. Horse drawn wagons picked up children on a routine basis and transported them to one of the outlying schools where seats might be more

plentiful. Schools and school owned property in the central business section were never seriously considered for replacement. The Jones School, which was just south of the central business area was the only school to be rebuilt in the area.

Proposals for new schools appeared in the newspapers in mid spring of 1872. The Department of Public Works called for the erection of new buildings on the old school sites. The Franklin, Ogden, Kinzie and Pearson Street schools were built at a cost of $33,000 apiece.[39] The same general pattern of construction was used for all four buildings, three story brick buildings providing eleven to twelve classrooms each. Each school provided between 500 and 600 seats each for students.

There seems to be no truly accurate assessment of the quality and value of the buildings lost by the board in the fire. Estimates of the condition of the structures varies from author to author, and one can endorse a positive or negative view depending on personal preference. As one compares descriptions of the destruction of school property, one begins to wonder if the same subject is under review. For example, E. F. Runyon, President of the Board of Education from 1871 to 1872 in his annual report in 1872 stated:

> Pearson Street Primary, Elm Street Primary and Ogden school buildings had reared their heads upon our prairie, and were each day filled with youth from the surrounding residences. These were models of their kind, the rooms being light, airy and of

> such size as to be convenient and comfortable for teacher and pupil.[40]

In discussing the same issue, John Howatt in Notes On The First Hundred Years of Chicago School History states:

> A good many of the buildings lost in the fire were of such flimsy construction that it would be unfair to consider their burning a total loss to the city.[41]

In the same year, according to the Annual Report of the Board of Public Works, four new schools were completed outside the original fire zone. Three of the four buildings were three story brick buildings built upon a stone base. A stone base building was considered more sturdy and fire resistant than a building of pure brick construction. The ground floor or semi-basement was used to house the heating plant and indoor washroom facilities. The fourth building was the Washington School located on Morgan Street at Fourth Avenue in the West Division. Washington School was a four story building with the customary stone base to house mechanical and washroom facilities. The floor plan differed from the other three buildings in that it had six classrooms per floor instead of the customary four. Designs for all of these buildings had been arranged for long before the fire and thus did not include any additional features in response to the call for better designed, fire proof buildings. Scientific approaches to designing better buildings and fire proof buildings was still to come.

Superintendent of schools, Josiah Pickard's Annual Report for the year ending June, 1872 has a number of issues pertinent to this study. In addition to noting the level of destruction to school property, loss of facilities, dislocation of school children and school staff, he made specific reference to two issues. These two issues involved the per pupil expenditure in public schools and the spreading resistance, in some quarters, to the common school system.[42] The first issue of per pupil expenditure is pertinent at this point. The second issue of "limited free school privileges" will be addressed later in the paper.

The statistics below which compare the per pupil cost between 1872-73 through 1877-78 reflect the reluctance of the common council to provide a sound financial basis for the public school system.

PER PUPIL COSTS 1872 to 1878

School Year	1872-73	73-74	74-75	75-76	76-77	77-78
Per Pupil Expenditure	$4.88	4.78	5.22	5.22	3.98	4.30[43]

In the early 1870s, Chicago's citizens were miserly in their support of the public schools.[44] The reasons, though easily understood given the time and circumstances, are never the less difficult to accept in the long historical perspective. It is true that the majority of working class

people in the 1870s regarded education as a needed practical experience, rather than intellectual development or fulfillment of an individual goal. As a result, a student was expected to finish school within a specific time frame. All too few looked upon education as an end in itself or as an avenue to a new and different way of life.

In the race to rebuild the city after the fire, the schools lost out.[45] Priorities for city spending went for other services. The common council authorized $4,581,000 to rebuild the city water system, $2,637,000 for new sewers and $2,000,000 for the police and fire department. Approximately $1,171,500 of bond issues were floated for reconstruction and operation of schools. Inasmuch as the school board relied upon property taxes for operating funds, the unwillingness of the common council to make a stronger case for the schools resulted in cyclical cash shortages. This was particularly true after 1874. Property taxes were difficult, if not impossible, to collect in the aftermath of the fire.[46] The general shortage of uncommitted funds and the slowness of insurance companies in settling claims helps to account for the general lack of financial liquidity. The result was that the schools received several financial setbacks from which they would not recover in the decade of the 1870s.[47]

There were a great number of changes in the schools remaining in operation after the fire. Many children in the more populated areas continued to be restricted to half day

attendance. Efforts to improve attendance and check on truants were given scant attention. Teachers displaced as a result of the fire were hired in other schools on the following priority basis:

> First, those who had lost everything in the fire
> Second, those who had others dependent upon them for support
> Third, those entirely dependent upon themselves
> Forth, those who could call upon friends and relatives for support.[48]

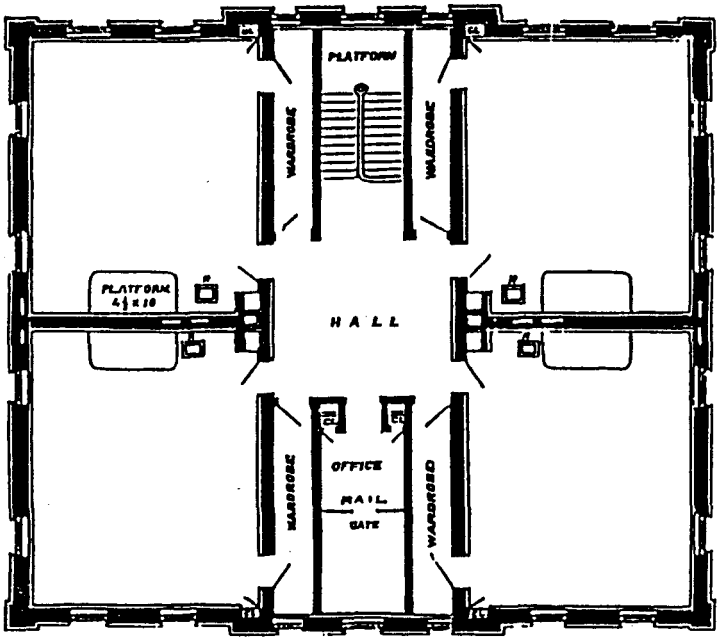
Hardly a classroom in any one of the city's operating public schools presented the same appearance during the re-opening after the fire as during the month or so before the fire. Approximately one-fourth of the teachers were new to their teaching assignment. Every classroom was crowded to capacity. Lots of new faces appeared in the ranks of each classroom, many without books, records or supplies. Crowding became even more difficult in an already overcrowded system.

The influx of new workers to help rebuild Chicago in 1872 and 1873 gave an added impetus for growth to the city, impacting on an already severely strained school system. As the city population increased from 298,000 in 1871 to over 400,000 in 1873, the number of seats needed for school children could not keep pace with the expanding demand. Just before the beginning of the great economic depression of 1873, the school system embarked on one of the largest building programs in its history. Slightly more than $300,000 was appropriated for building purposes.[49] Although this level of budgeting was recommended, the actual level of expenditure was

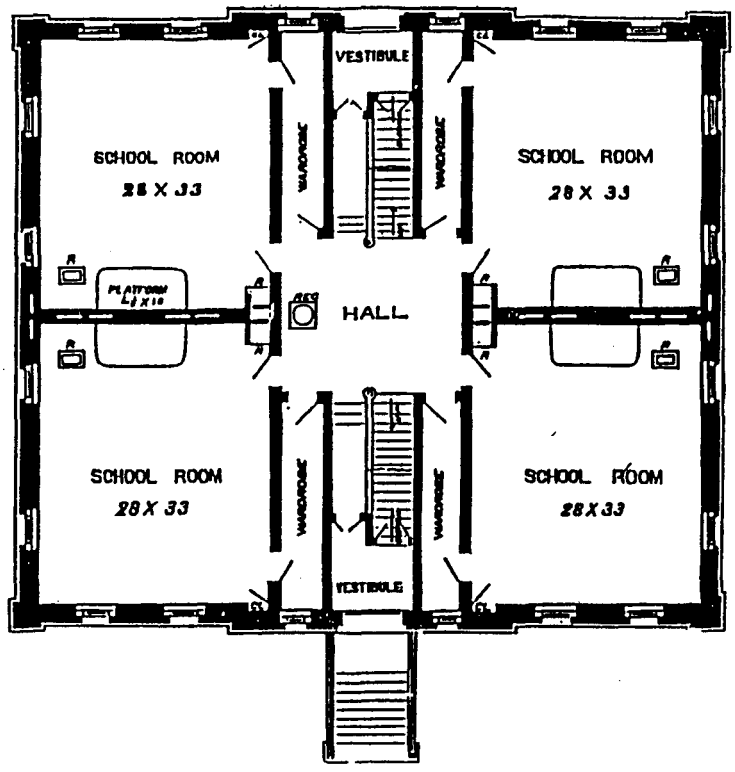
closer to $197,000.

In an effort to gain as much school seating per dollar as possible, the board of education settled on a standardized 750 seat three story brick, four rooms per floor design with the heating and washroom facilities in the basement. These were known as "Bauer type" buildings.[50] The name comes from the designer who incorporated the concept of furnaces as well as stove type of heating. Although this type of multiple construction of a single design was originally thought of as a "temporary measure" it would become the pattern followed in the future by the Chicago Board of Education's Bureau of Architecture. The Bureau of Architecture was officially formed in February, 1882 under Fred Baumann.[51]

The Building and Grounds Committee of the Chicago Board of Education in its Annual Report addressed the issue of expanding population and the need for increased revenue.[52] The floor plan of the King School became the basic pattern followed by the board of education for its new schools for the next six years. See figure 4, following page. These schools were built in all three of the rapidly changing divisions of the city. Reconstruction which had generally spurred the expanding economy of Chicago and consequently brought about other changes in the city. As manufacturing and light industries relocated to less expensive land on the edge of the city, the workers and their families also relocated. The ward maps on the following page show that a number of significant



THIRD FLOOR



KING SCHOOL

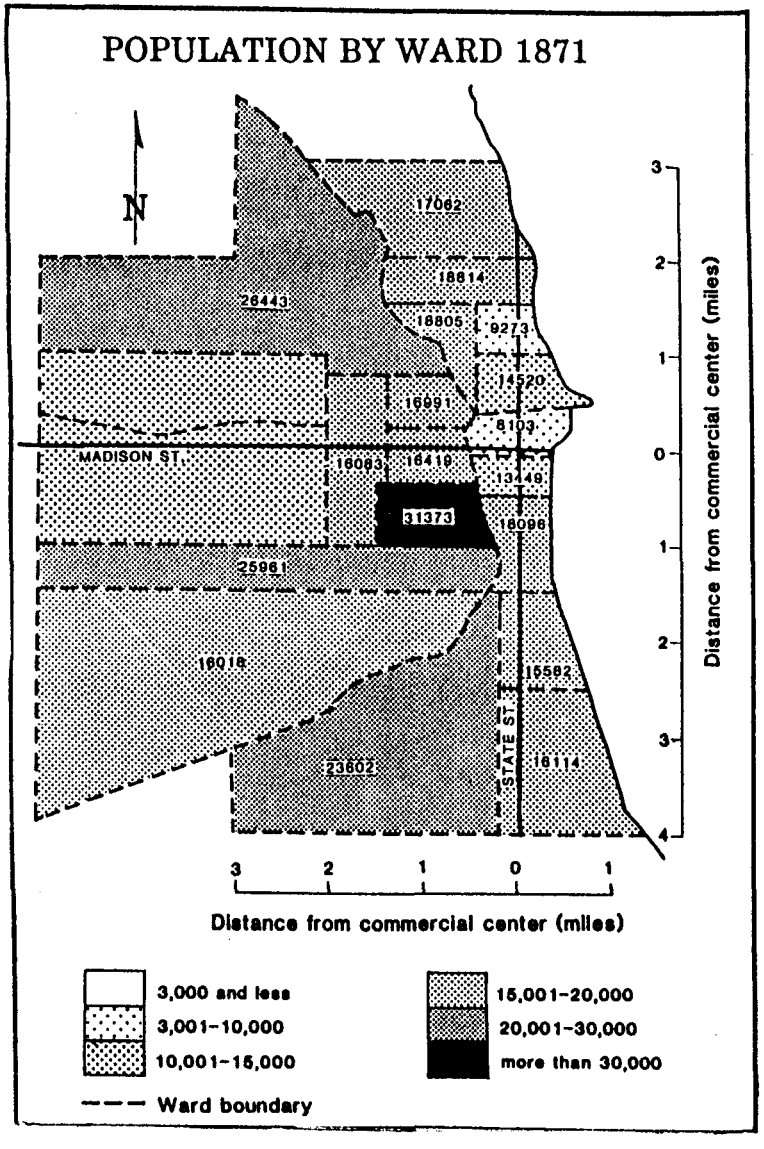
FIRST FLOOR.

Figure 4. King School floor plan. Used with permission of the Bureau of Architecture, Chicago Public Schools.

shifts in population took place in the two years immediately after the fire.[53] See figure 5. Some fundamental changes that took place, however, do not appear on the maps.

Wealthy families left the burnt-out enclaves of the Near North Division, the lake front of the South Division and the Union Park area of the West Division. The wealthy began moving to the growing suburbs along the lake shore such as Evanston and Hyde Park or the new fashionable area along Prairie Avenue. The working class and poor expanded westward on to the open prairie or filled in the areas just south and north of the new business center. In general, Chicago neighborhoods formed and became segregated for the first time along social and economic lines. There was no longer the element of close proximity between the wealthy and the working classes. These changes were the product of both the fire as well as the expanding commercial base of the city.[54]

A number of factors determined the course of events that helped to shape the development in the new arrangement of the city. Most significant was the growth and expansion of new industries along the North and South Branches of the Chicago River. Large industries such as the McCormick Reaper Works, the world's largest manufacturer of farm implements in 1873, employed over 800 men on twenty-three acres of land.[55] As a means of attracting a good labor pool, the owners of the McCormick Works and some other manufacturers resorted to buying land and building homes for their prospective workers.


POPULATION BY WARD 1871
N
17062
18614
26443
18805
9273
14520
16991
8103
MADISON ST.
16083
16419
13449
31373
18098
25961
16018
15582
STATE ST.
23602
16114
3 2 1 0 1
Distance from commercial center (miles)
3 2 1 0 1 2 3 4
Distance from commercial center (miles)
3,000 and less
3,001-10,000
10,001-15,000
15,001-20,000
20,001-30,000
more than 30,000
Ward boundary

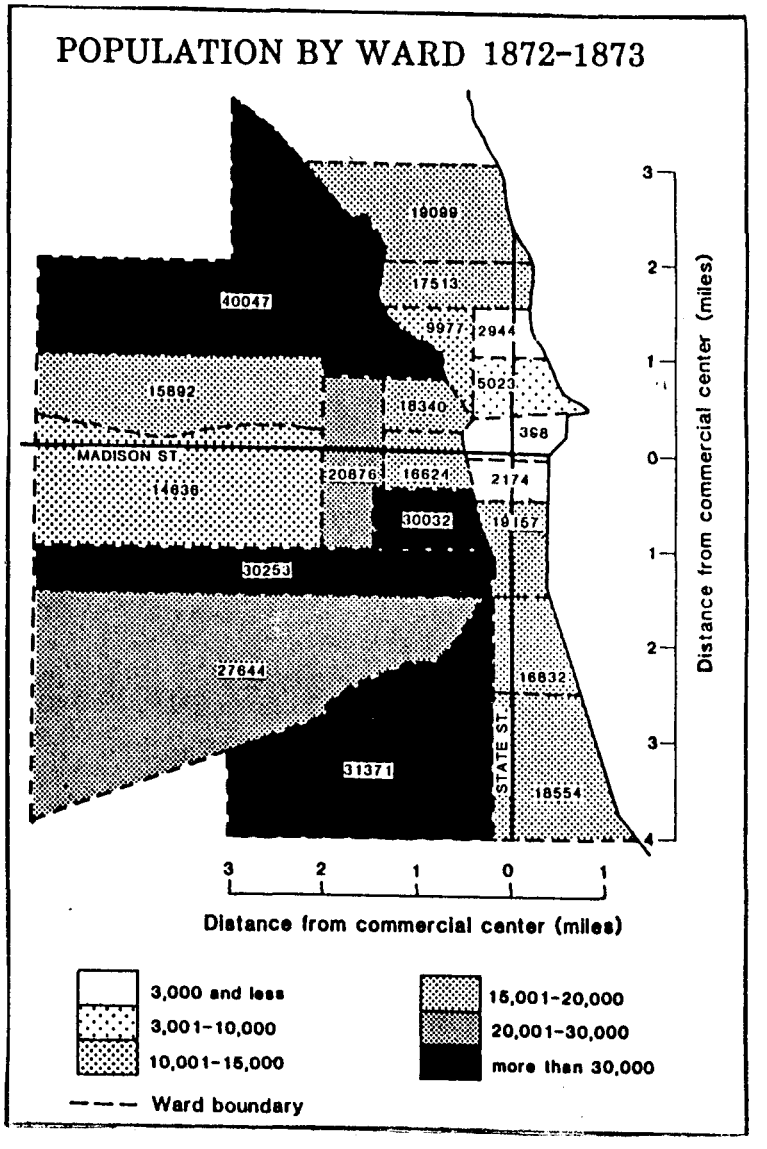

POPULATION BY WARD 1872-1873
19088
17513
40047
9977
2944
5023
15892
16340
368
MADISON ST.
14638
20876
16621
2174
30032
19157
30253
27644
16832
STATE ST.
31371
18554
3 2 1 0 1
Distance from commercial center (miles)
3 2 1 0 1 2 3 4
Distance from commercial center (miles)
3,000 and less
3,001-10,000
10,001-15,000
15,001-20,000
20,001-30,000
more than 30,000
Ward boundary

Figure 5. City of Chicago Ward Maps for 1871-1873.
Used with permission of the Board of Elections.

All of this resulted in an increased school population in the new industrialized areas of the city. As the school population increased, the financial resources the board could commit to new schools decreased almost proportionately. In each year from 1872 to 1876, an average of five new schools were added to the system of public schools. The general economic depression that had begun in 1873 caught up with the school building program in 1876. In 1876, not one single new school was added to the public school system.[56]

Although an average of five schools were added to the system each year, this would never have been sufficient for the growing population if the parochial school system had not begun to expand at the same time. Irish Catholics and some Protestant groups seriously concerned about the issues of "values and proper religious education" expanded the practice of building a church school with each new church to serve their members. For example, almost every Catholic parish in 1878 had an adjacent school facility of approximately 300 parish children.[57] See figure 6 on the following page.

The map shows the number of parishes and schools for the period between 1834 and 1885. If the parochial system had not developed, the public schools would have needed to increase their accommodations by nearly one-third. The argument between those who supported the common school and those who favored private education raged on for a number of years. Even during the severe depression years of 1874 to 1877, the

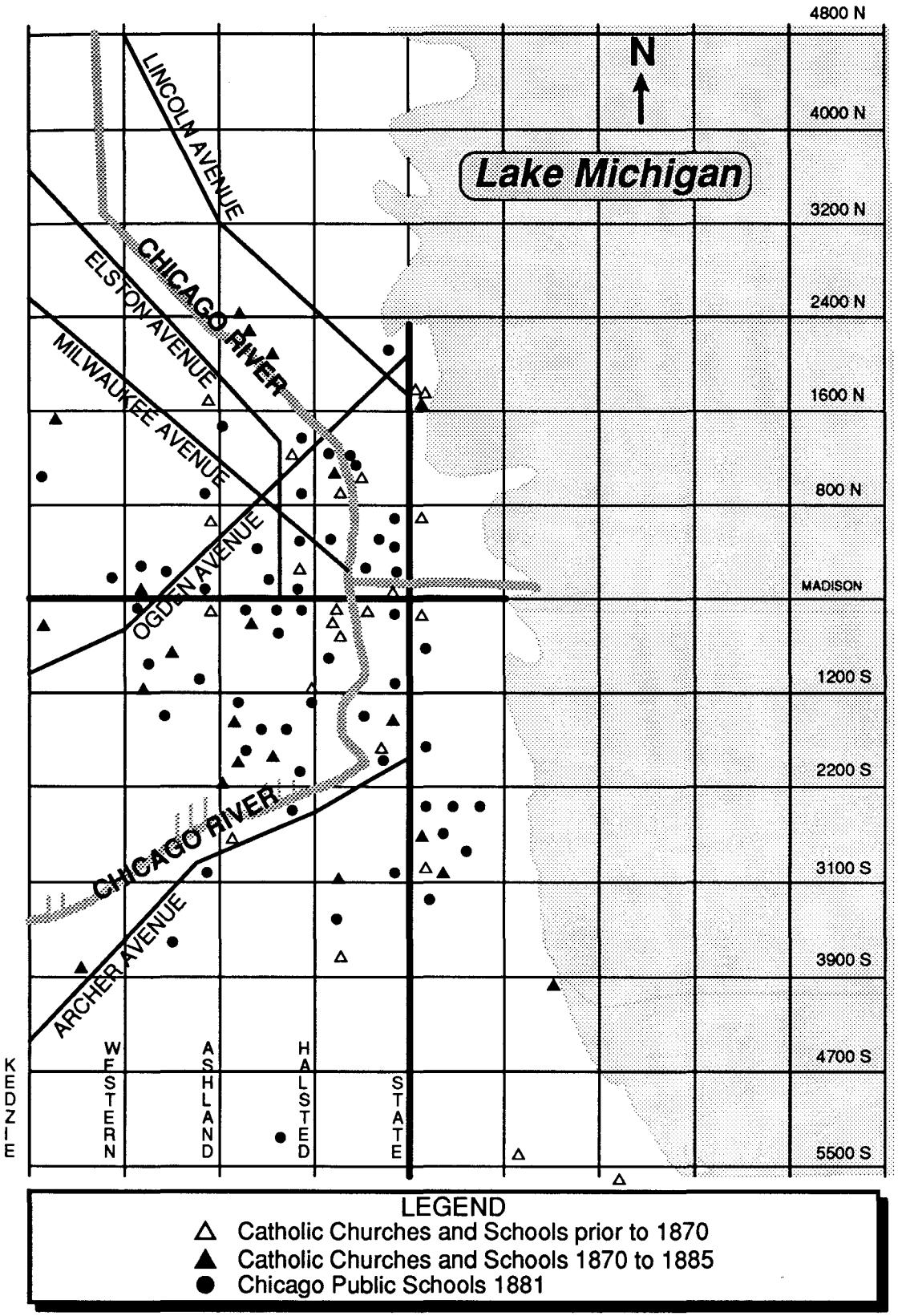

4800 N
N
4000 N
Lake Michigan
3200 N
LINCOLN AVENUE
CHICAGO RIVER
ELSTON AVENUE
2400 N
MILWAUKEE AVENUE
1600 N
800 N
OGDEN AVENUE
MADISON
1200 S
2200 S
CHICAGO RIVER
3100 S
ARCHER AVENUE
3900 S
4700 S
KEDZIE
WESTERN
ASHLAND
HALSTED
STATE
5500 S
LEGEND
Catholic Churches and Schools prior to 1870
Catholic Churches and Schools 1870 to 1885
Chicago Public Schools 1881

Figure 6. City map showing location of Catholic churches and schools. Map created by author.

parochial system of education continued to expand, among most ethnic groups. It is interesting to note that no new parish was opened or established during the year 1876. This is the same year when no public school was opened as well.

It can be seen then, that as a consequence of the Great Fire, the destruction of fifteen school facilities resulted in a significant number of changes. As the city struggled to recover from the great calamity of the fire, the reconstruction provided unexpected opportunities for new directions and changes. What actually took place in the city was an expansion and reorganization of the central business center, emergence of two industrial corridors along the north and south branches of the Chicago River and the redefining of residential districts as they expanded outward towards the growing suburbs. To keep pace with these changes, new schools had to be constructed to accommodate the growing population. Only slowly, in the years after the great fire, were new and different safety innovations introduced into the design and construction of school facilities. These were changes that made the schools safer and more comfortable for the population they were designed to serve. As progress was made in the architectural design for general buildings, so too were improvements made in the design and intended use of new schools between 1872 and 1881.

Some of the needed changes in school house design and construction might seem obvious to us today. These changes,

however, were not so obvious to the people who made decisions between 1872 and 1882. Adaptations and changes in school houses did occur, but at a slower pace than might be expected.

A number of external factors determined the manner and means of adopting a different and improved school house design. A detailed review of the changes in architecture and design for the school building program in the period under study will help to understand some of the obstacles to improving the safety features of schools as well as the impediments to creating a better educational climate for children.

CHAPTER THREE NOTES

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29. Chicago Tribune, 15 October 1872.

30. Report of Police and Fire Department, City of Chicago Year ending March 31, 1872, 21.

31. Rosen, Limits of Power, 122.

32. Board of Public Works, Annual Report for the Year Ending 31 March 1872, p 63 and 79.

33. Rosen, Limits of Power, 123.

34. Ibid., 141.

35. Ibid., 145.

36. Ibid., 146.

37. Mary J. Herrick, Chicago Public Schools: A Social and Political History (Beverly Hills, Sage Publications, 1971), 54.

38. Eighteenth Annual Report of the Board of Education for the Year Ending June, 1872. (Chicago: Board of Education, 1872), 129.

39. Horwatt, Notes of First One Hundred, 19.

40. Eighteen Annual Report, 17.

41. Horwatt, Notes On First One Hundred, 21.

42. Eighteenth Annual Report, 178.

43. See Annual Reports for years 1872 - 1878.

44. Ibid.

45. Herrick, Chicago Schools, 54.

46. Ibid.

47. Ibid.

48. Eighteenth Annual Report, 126.

49. Nineteenth Annual Report to the Board of Education for the Year Ending 1873. (Chicago: Board of Education, 1872), 138.

50. A special untitled report of the Bureau of Architecture in 1882 makes reference to this type of building and discusses other school buildings designed by private architects. Eventually, buildings became classified by the Bureau of Architecture based upon a common element to the buildings, such as design or a specific feature that separated the building from previous types.

51. Horwatt, Notes On First One Hundred, 21.

52. Nineteenth Annual Report, 17.

53. A dramatic change in population density is reflected in the city as the population shifted away from the business center towards the growing industrial belts and the suburbs.

54. Rosen, Limits of Power, 139.

55. Ibid., 35.

56. Herrick, Chicago Schools, 56.

57. Peter Wilding, Book For Chicago Catholic Churches, (Chicago: Chicago Archdiocese Press, 1959), 20.

CHAPTER FOUR

THE RECONSTRUCTION

Between 1871 and 1881, despite sincere efforts by the Chicago Board of Education to provide sufficient facilities for school children, the task of providing needed school buildings remained behind schedule. This was due to the continued growth of the population of the city. Superintendent Pickard mentioned the sorry state of affairs in his Annual Report for 1875:

> This subject is the most pressing present day issue, as it has been in the past years. In spite of all the efforts made within the past nine years to provide sufficient accommodations for school children, we are further behind the demand than at any time for the past twelve years. In other words, the growth of the city has far exceeded the supply of accommodations. We can now furnish seating for about 34 percent of our school population.[1]

The Chicago School Census for 1875 reported that of the 102,555 children between the ages of six and twenty-one, 36,411 children were enrolled in public schools, 16,645 were enrolled in private schools and 15,947 were working; a significant number of children between six and twenty-one, 33,547 were neither in school nor working.[2] Most of the working children were employed in the expanding factory system, stock yards, or railroad yards. Compulsory attendance laws, which would become a very controversial issue, were

still a decade away.

A significant change in the home rule powers of the city of Chicago and the board of education occurred in 1872. The mayor was given the power to appoint members to the Chicago Board of Education with the consent of the common council. This new process replaced the old system of popular election by wards. The powers of the board were increased to include the independent powers of issuing bonds, renting facilities, purchasing property, erecting buildings and organizing the administrative structure of the school system. "The only area in which the board still needed approval of the city council was in monetary issues."[3]

About the same time that Chicago was launching its efforts to repair the damage to the school system causes by the fire of 1871, a number of important studies appeared across the country putting forth strong recommendations for improving the physical climate and learning process in public schools. These studies were primarily focused on the specific needs of children. This was the beginning of the child-labor movement, the compulsory school attendance movement, and the surge to create more complex high school programs to meet the needs of a growing and diverse body of students. Society as a whole was undergoing a series of dramatic changes.[4] As occasionally happens when unrelated movements cross paths, the issues and the causation became confused. Some of the recommendations for changes and improvements as well as the

results were associated with unrelated issues. Thus, the improvement of school facilities became associated with the efforts to improve education generally. By way of example, William T. Harris, one of the early urban superintendents, introduced a number of school reforms in St Louis that had long lasting effects in other places as well. In 1873, he took the major step of introducing the first kindergarten class in St. Louis and the United States. According to Gutek, "The work of Harris and other early urban school superintendents gave American public school an organizational design and administrative structure that would shape it in the early twentieth century."[5]

Several studies were conducted by both private individuals and public institutions on the characteristics of American education. One of the most interesting studies appearing at this time was an essay by D. F. Lincoln, M.D. for the American Public Health Association entitled "The Sanitary Conditions and Necessities of School-houses and School Life." The essay was a personal evaluation of issues, ranging over a lengthy list of related topics such as safe and sanitary environments for children in public schools.

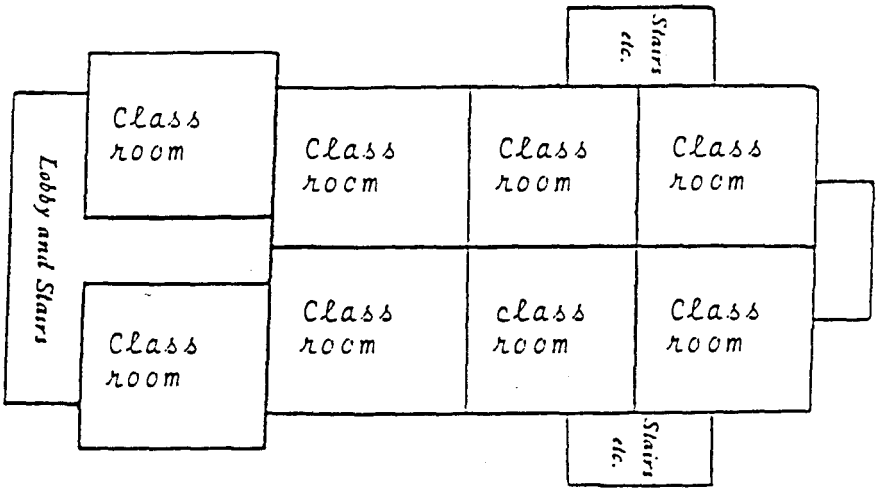
According to D.F. Lincoln:

> there were two reformations in school architecture, one dating from the publication of Henry Barnard's work, in 1839, while the other is now taking place (1876). The progress made within a few years past has been as great as at any other period, and type of edifices, which were unchallenged models of excellence fifteen years ago, are now superseded."[6]

Lincoln and other educational critics attacked the gloomy atmosphere characteristic of so many facilities used for public schools and other educational purposes. One of the most frequently criticized floor plans for classrooms was the excessively compact style of building illustrated on the following page. See figure 7. This arrangement was used extensively in the Philadelphia city schools. Glass sliding panels were used to allow light between the rooms and increase the sense of space. According to Lincoln, "light thus transmitted is nearly horizontal in direction, and has very little effect in brightening the page of a book lying on a desk."[7]

Lincoln also commented extensively about staircases and the merits of spiral verses straight staircases. He raised serious objections to the use of spiral stairs, which apparently were in vogue at the time stating, "the tread is very narrow on the side next to the wall, and a careless person easily gets a severe fall. The tread should never be wedge shaped."[8] He suggested that flights of stairs should always be broken up by a landing half-way, with a full turn. The step should be of a precise height and pitch to allow for the youngest to the oldest to ascend without difficulty.

Lincoln concluded his essay on plans and arrangements for school-houses by noting a competition in New York for the best design for a school-house. In the opinion of the judges, "a public school building to be erected in a large and densely


Stairs etc.
Class room
Class room
Class room
Class room
Lobby and Stairs
Class room
Class room
class room
Class room
Stairs etc.

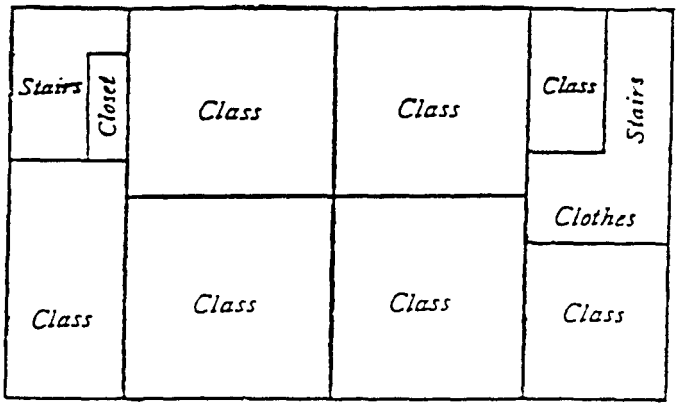

Stairs
Closet
Class
Class
Class
Stairs
Clothes
Class
Class
Class
Class

Figure 7. Floor plan for six or more connected classrooms. Used with permission of the Bureau of Architecture, Chicago Public Schools.

populated city, should possess the following qualifications:"[9]

I. At least two adjoining sides of the building should be freely exposed to light and air, for which purpose they should not be less than sixty feet distant from any opposite building.

II. Not more than three of the floors should be occupied for classrooms.

III. In each class-room not less than fifteen square feet of floor area should be allotted to each pupil.

IV. In each class-room the window space should not be less than one fourth of the floor space, and the distance of the desk most remote from the window should not be more than one and one half times the height of the top of the window from the floor.

V. The height of a class-room should never exceed fourteen feet.

VI. The provision for ventilation should be such as to provide for each person in a class-room not less than thirty cubic feet of fresh air per minute, which amount must be introduced and thoroughly distributed without creating unpleasant draughts, or causing any two parts of the room to differ in temperature more than 2 F. This means that for a class-room to contain fifty-six pupils, twenty-eight cubic feet of air per second should be continuously furnished, distributed, and removed during school hours.

VII. The heating of fresh air should be effected either by hot water or very low pressure steam.

VIII. The fresh air should be introduced near the windows; the foul air should be removed by flues in the opposite wall.

IX. Water-closet accommodations for pupils should be provided on each floor.

X. The building should not occupy more than half the lot.[10]

In general, the recommendations were excellent if not always practical. In Item VI for example, it seems hardly possible to have only a two degree variation in temperature if the whole room is to be included. Since many schools were still using large stoves to heat individual classrooms, controlling the temperature would be difficult to say the least. Further, the method of introducing fresh air in VIII is not the only desirable method available. In all other respects the recommendations seem quite reasonable.

During the decade after the fire, the board erected a total of thirty buildings to meet the expanding demands of the city.[11] Three of those thirty buildings were still standing in 1992. And until 1980, all three were in continuous use as schools. The James P. Ward, 2701 South Shields (changed from Garibaldi) opened in 1874, the William Headley School, 2109 North Magnolia (changed from Lewis) opened in 1875 and the Jacob Beidler, 3151 West Walnut opened in 1880. The James P. Ward School, still used as a school, is believed to be the oldest, continuously used school house in the state of Illinois.

For the purposes of framing the changes that took place in the city public schools during the decade after the Great Chicago Fire, a careful review of these three aforementioned schools will be undertaken. Specific attention will be given to structural and design improvement in these school buildings that promoted better and safer schools conditions for

children. Additionally, as appropriate, certain policies and procedures which were introduced as a means of improving and promoting a safer environment will also be reviewed.

The Ward School was started less than one year after the fire and was one of the first schools built by the board of education under its new and expanded home rule powers. Although the school was an independent design, (public school buildings were no longer designed and built by the Chicago Bureau of Public Works) it still followed the prevailing Chicago school design. The King School floor plan of four corner classrooms was used. This design, although lacking in imagination and innovation, had proven particularly popular for the public school system. It was a very functional arrangement of classrooms in that large groups of children were efficiently served while at the same time minimizing their interaction and interference with one another.

In choosing the site for a school building, a number of things have to be taken into account that might be overlooked or ignored in the case of an ordinary building. Dampness and areas associated with high levels of disease come to mind immediately. Selecting sites too close to railroad tracks, stock pens of the Chicago Stock Yard complex, foundries and other industrial complexes along the South Branch of the Chicago River were a genuine concern. There appears to have been a substantial reason for concern. There were newspaper reports of cattle and other animals breaking out of holding

pens or stampeding while being driven from the rail depot to the stockyards.[12] It seems it was not an unusual occurrence for these animals to appear on and around school buildings in the mid 1870s. Unfortunately, these environmental factors were not always given as much thoughtfulness as they should have been when considering suitable school sites. Such factors as excessive noise from factories, lumber mills, railways and railway stations were not sufficient reasons to seek an alternative school site. In growing urban centers such as Chicago, it was nearly impossible to secure the ideal location, size and immediate surroundings for a school site. It seems that compromises were always worked out which did not in the end serve the primary consideration, the needs of children.

In terms of environmental factors, however, one of the most essential things in a public school is sufficient light. By far, the best design for natural light for a school building was provided by the "four square plan."[13] In Chicago, this was known as the King School floor plan, often used in Bauer type buildings. This type of building contained, on each floor, four rooms and a corridor: the corridor usually ran from front to rear, and the rooms were located in pairs to the right and left. Ideally, there should have been a stair case in the front and rear. Each room in the building was lighted naturally from two walls of windows. Windows should also be placed at both ends of the corridor to

provide sufficient natural light to illuminate the stairwells. Stairwells needed to be enclosed from top to bottom and separated from the classrooms by noncombustible building material. It was important to build stairways as nearly fire-proof as possible. They could be enclosed in brick walls, so that fire from the main building would have a difficult time in reaching the stairwell. Additional windows on each landing between floors provided good natural light as well as a source of fresh air and an escape for trapped smoke and fumes in the event of a fire. Some cities in the east went one step further, and placed the stairwells outside, or partly outside of the building for more complete isolation.[14]

The James P. Ward School building was a three story brick building with four classrooms and wardrobes per floor. Each classroom was approximately 30X35 or 1050 square feet exclusive of the wardrobe area. The Ward School used the accepted practice of one central entrance on the front facade of the building. Children entered the building at ground level through this front entrance. No other entrance or exit was used on a regular basis. Fire escapes, as an emergency exit were provided from the front two classrooms on all three floors as shown in figure 8.

The first floor plan allowed for a reasonable assembly and dispersal area for the children. This was a limited area, however, and could accommodate no more than two classrooms of children at any given time. The Bauer type

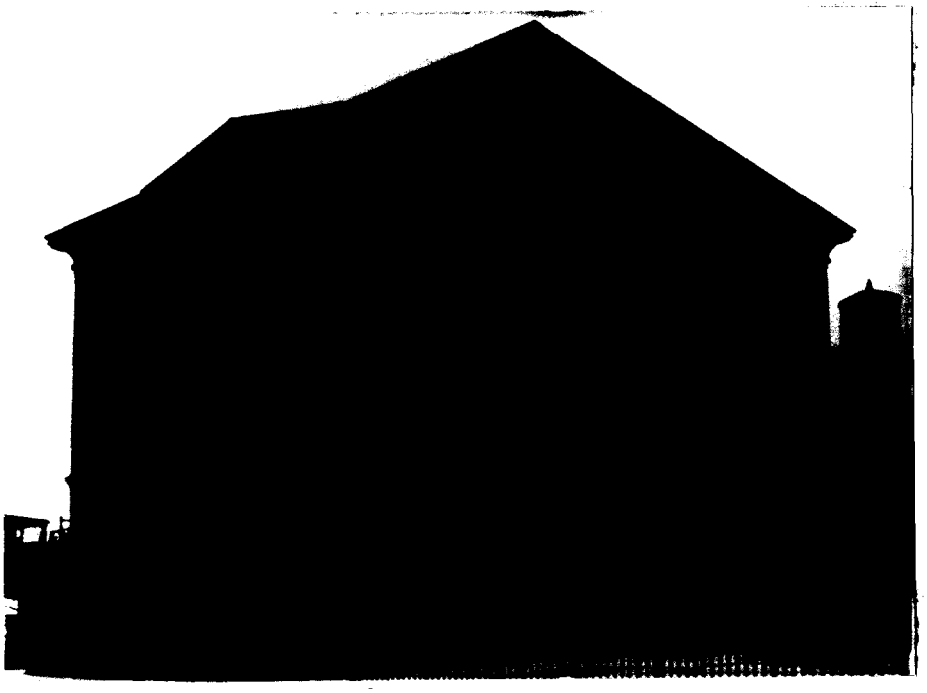


Figure 8. James P. Ward School, original building plus the 1894 addition.

William Headly School. Used with permission of the Bureau of Architecture, Chicago Public Schools.

building, though very functional in design, lacked flexibility. It designers did not view it as another genuine resource within the community such as a church, meeting hall or a suitable building for recreation. It had one purpose and was intended to be used for that purpose only. Two classrooms of children in 1874 could range from 100 to 130 children. This number of children gathered at one spot was not a truly safe arrangement. Doubling this same number of children on all three floors during an emergency situation could lead to calamitous results. Fortunately, the official records indicate almost no fires involving Bauer type of buildings in this early period.[15]

Each classroom was designed to have the standard fourteen foot ceilings and the usual eight foot windows on two outside walls. Large windows allowed for a maximum of natural light and sense of space while at the same time minimizing the need to burn gas lights during the regular school day. Normal classroom procedures called for the seating to be arranged so that the natural source of light came from the back and side of the classroom. Students desks were arranged to face away from the light towards an inner wall that was usually equipped with a blackboard or other writing surface.[16] Taking all this into account, the Ward School left much to be desired in the way of safety improvements, considering the recent fire. Except for the exterior walls of brick, much of the interior construction was wood. All of the stairwells were constructed

entirely of wood, from the risers to the step pads to the hand rails. There was no masonry or fireproof wall separating the stairwell from the rest of the building. Floors throughout the entire building used wood as the base material. In the walls, wood lathe and plaster was standard construction along with wooden flues in the interior construction of the building.[17] As was the custom at the time, wood was used for all wainscoting in the classrooms and in the hallways. Wood and other combustible material was used extensively in all areas, from such basics as doors to elaborate ornamental features on the inside of the building. Unfortunately, wood was still the most accessible and cheapest building material available. Designers, architects and engineers continued to use it freely as a means of keeping the basic cost of construction low. The concept of safety and the vulnerability of children had not yet taken a firm hold with those responsible for designing and building public school buildings. Functionalism as an expression of economic necessity seemed to be the guiding principle in school house construction.

Heating and air circulation in public schools built during most of the late nineteenth century was a constant source of troubles.[18] Experiments ranged from individual pot bellied stoves to steam heat and forced air heat. Forced air heat was developed through an elaborate heat exchange system and evolved into an unusually high level of efficiency in

Chicago public schools. Over a twenty year period, the Chicago Public Schools moved through a somewhat systematic experiment between the value of furnace-heated forced air and steam heat.[19] The economy and safety of each system played an important part in the decision of architects and engineers in supporting one over the other. Given the technical limitations of the time, the general order of preference was for (1) fresh air, drawn from outside the building, heated and frequently exchanged, (2) steam heat through a convection system, augmented by a fresh air exchange and (3) individual classroom stoves with a fresh air system.[20] These heating systems posed serious concerns in terms of health conditions in the schools. Epidemics and other serious health problems related to highly contagious disease was a constant worry. The relatively sparse level of day-to-day health care, the large number of poorly educated parents and the general lack of available professional practitioners tended to take a heavy toll on the general health of school children. The presence of these conditions are born out in the low average daily attendance for each school year.

As noted earlier, Ward School had one entrance at the center of the building which fronted on Shields Street. This was a ground level entrance that gave access to both the basement rooms and, by a broad flight of stairs, to the first floor corridor. As result of this architectural design, all of the children had to enter the school building through the

single front entrance. The single fire escape on either side of the school served all three floors above the basement and provided the only other emergency exit from the building. A second stair case began at the rear of the first floor and provided access to the second and third floors. This rear staircase was intended to serve the rear classrooms on each floor. As a result of this design, the children descended the back staircase and crossed along the first floor corridor to the one main entrance at the front of the building. This design, of course, would pose serious problems of congestion at the front entrance unless careful precautions were taken to regulate the flow of traffic at the entrance. In the event of a fire or some other emergency, many of the children would converge at the one entrance at the same time. A fire escape on either side of the building, serving only the front part of the building, provided only limited individual passage from the building.

The Ward School was initially designed to be heated by stoves in each of the eleven classrooms. One classroom space was used for the general office and the principal's smaller private office. Openings in the outer walls of each classroom for the exhaust pipe of the coal burning stove can still be viewed today. The opening through an outside wall, in all likelihood, was probably surrounded with iron fittings as it passed through the wood and lathe of the walls. The iron fittings were generally surrounded with a form of glazed tile

to act as insulation against combustion.[21] This was a generally accepted practice in buildings built prior to the fire and the introduction of furnace type of heating systems. When an addition was built to the original Ward School, the heating system was converted to steam heat and a system of force air exchange was incorporated. The first of two additions to the James P. ard School was constructed in 1894. The original section of the Ward School is a clear example of the type of school house built just prior to and immediately after the fire. It should be noted that by the time of the first addition, steel lathe and plaster, stone floors and steel staircases were in common use in school buildings. Chicago public schools in this period were generally characterized by high pitched roofs and roofs that capped Romanesque type buildings.[22] They were, as a rule, standard functional buildings. In fact, Superintendent Pickard made note of this fact in his Annual Report to the board for 1875:

> The most important lessons that can be learned in our schools are those of simplicity and economy. No other city in the United States has expended so little as Chicago upon the outer adornments of school-houses. It may seem to some that the school houses of the city are plain to a fault. It is certainly better to err in this than in the opposite direction. . . But in the interior arrangements, designed with reference to the health and comfort of pupils, the city holds an enviable position.[23]

The William Headly School was built in 1875, one year after the Ward School. With some variations, the same four square floor plan was used for the Headly. The two buildings are almost exact duplicates of each other, except that one was

built in the South Division and one was built in the North Division. The distinguishing change or adaptation at Headly was a single rectangular shaped addition across the back of the building at ground level. This one single addition allowed important safety improvements to be incorporated into the design of the Headly building. Additional entrances on either side of the building gave more access to and from the building and most of the areas within the school. This change underscores the developing concern of the board and the professional staff for the need to improve safety conditions in public schools. The board was beginning to take note of the need for improved physical design and a concern for the overall environment in schools. See figure 6 for a visual comparison of the two buildings, plus the addition to Headly.

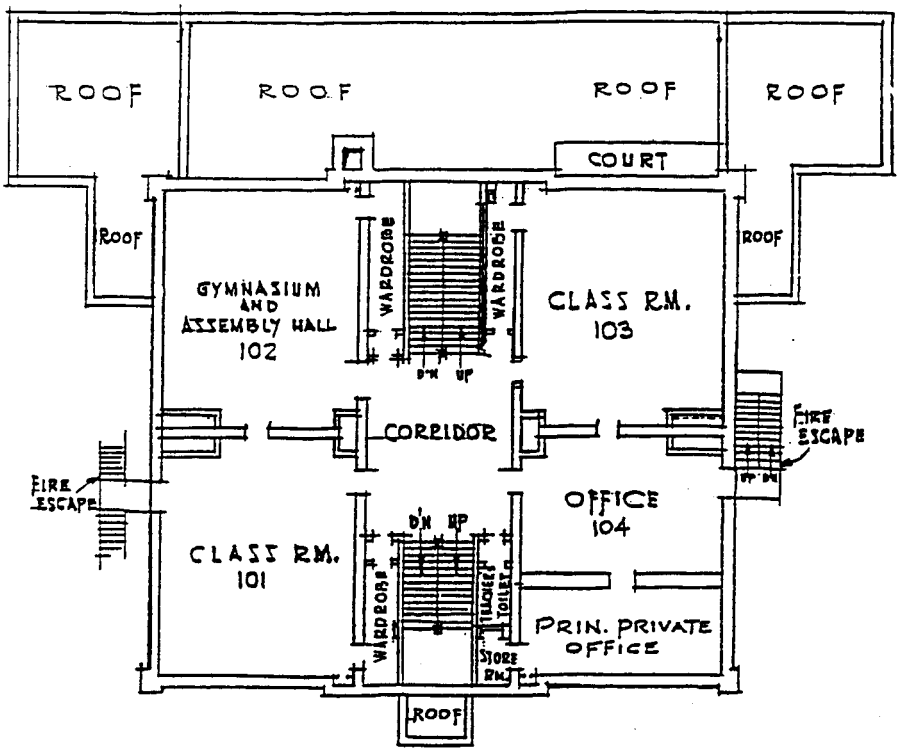
In addition to the single front entrance typical of Bauer type buildings, the architects of Headly added two side entrances while still maintaining the fire escapes on either side of the building. The two side entrances at ground level allowed children to enter from either the north or south side of the building from a fenced play lot. A boys washroom and a girls washroom were located on opposite sides of the basement near the new entrances. From a purely practical prospective, this permitted children to enter the building, use the washroom facilities and leave without moving into the building proper. The basement was further subdivided to provide a boy's and a girl's play room to be used during

inclement weather. All of this was accomplished by a one story addition to the back of the building which provided space for the washrooms and a separate designated area for the boiler room, cool room and tank room. In all probability, part of this innovation was prompted in part by a change in the city code of inspection. A new city code stipulated the complete separation of mechanical equipment from areas of public access.[24]

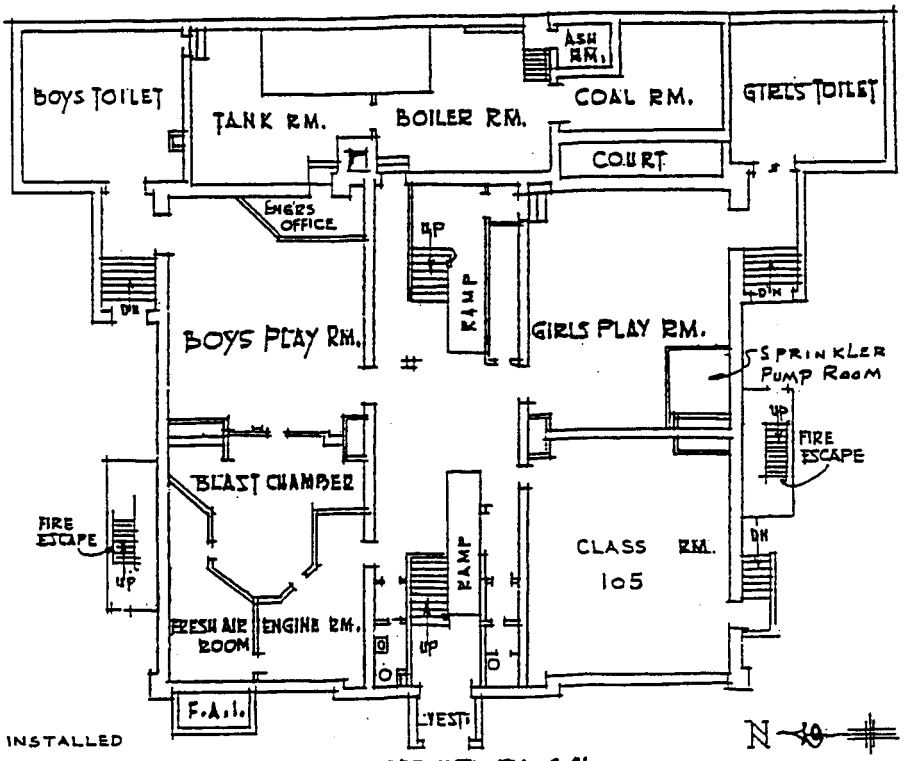
The Headly was heated by a new design for steam heat. Steam heated in the boiler, was transferred to the cool room where it was used to heat large coils which in turn heated air forced over them and up into each classroom through a series of air shafts in the interior walls of the building. Cold air was gathered from the floor level of each classroom and then pulled through a second series of shafts to the roof of the building and exhausted through openings in the roof. Air exchange in each classroom was expected to occur at a stipulated rate each quarter of an hour.[25] D.L. Lincoln, in his award winning essay on School Health and Hygiene, offered no less than five different proposals to improve the then current practices for the exchange of air in school houses and other public buildings. A significant safety feature included in the Headly School was a second doorway to and from each classroom. Sometimes the second exit was made through the wardrobe room. Students could enter through the wardrobe room and then exit directly into the classroom instead of having to

return to the corridor in order to enter the classroom. This was a simple, but important improvement in public school design. The floor plan for the Headly also indicates a doorway between the front and rear classrooms on each floor. See figure 9 on following page for details. Conjecture would seem to indicate a two-fold purpose for this doorway. Educationally, a teacher could supervise two classrooms, if the need should arise, by placing herself at the doorway between the two classrooms. This practical consideration is not without foundation. In terms of safety, the additional doorway between the front and rear classroom provided another door through which children from the rear classroom could reach the fire escape exit in the front classroom. This was an important improvement over the design of the Ward School, which did not have these added safety features.

In a simple but far reaching step, the Chicago architects of the Headly School began the process of bringing together the needs of design and function as they related to one another in building educational facilities. The philosophy behind the design of educational facilities was beginning to include some consideration for the structure's purpose and the needs of the clientele to be served. Acknowledged educational principles were finally gaining status vis-a-vis their relation to the mechanical and technical limitations of the time.[26]



FIRST FLOOR PLAN.
SCALE: 1/16" = 1'-0"



SPRINKLER INSTALLED

BASEMENT PLAN.
SCALE: 1/16" = 1'-0"

HEADLEY ELEMENTARY
2109 N. MAGNOLIA

CLASS: SCHOOL
CONSTRUCTION: ORDINARY
STORIES: 3 AND BASEMENT
HEIGHT: 52'-0" APPROX.

Figure 9. William Headly floor plan. Used with permission of the Bureau of Architecture, Chicago Public Schools.

In 1875, Superintendent of Schools Josiah Pickard toured four of the most important urban school districts in the nation. In his annual report to the board and the public, he made several references to the differences between Chicago schools and the schools of Boston, Brooklyn, New York City and Worcester, Massachusetts.

> During the year I have visited the schools of New York, Boston, Brooklyn and Worcester. The result of my visit are presented in the following statements arranged under several headings for the purposes of comparison with the schools of Chicago. . . . Supervision, Administration, Course of study,teachers, ground and school buildings, promotion, attendance etc. . . .New York makes a large Assembly Hall upon each floor a prominent idea, and the classrooms of secondary importance, thus giving to pupils for a larger part of the day ill-lighted and unventilated apartments, seated generally for the primary pupils with long benches; books and other clothing being placed under the seats. Single desks are rarely seen. The buildings covering in front and rear the entire lots--only middle areas, shaded by high walls, are left for the admission of light and air. Many rooms have but a single window each for admission of light, and even that opening upon a shaded and dark area, so that upon cloudy days, gas must be lighted. Playrooms and water closets are in the basement. I do not recall a single building, with the exception of the colleges, which stands upon a corner, and since there are no alleys in the city, tolerable free light can be admitted only from the front . . .Boston furnishes much better buildings and out side grounds with water closets and well paved yards. Three story buildings are common in all the cities, though two stories are preferred. For light, airy, comfortable school rooms, Chicago stands equal to the best.[27]

By 1876 the residual effects of the depression following the financial collapse of 1873 was felt very strongly by all elements of government, but especially, municipal taxing

bodies. Business had been so poor for three straight years that all government bodies were required to cut expenditures. The school board did not let any contracts for new buildings during this period and instead, resorted to the cheaper practice of renting space. Often the rented facilities were well below standards in terms of safety and educational requirements. Additional economies included reducing the evening school program, placing one-third of the school children on half-day shifts and reducing salaries across the board by twenty-five per cent. A continuing lack of funds in 1877 caused the closing of the evenings schools and the Normal School because they were graduating too many teachers and no jobs were available.

The annual reports of the President and the Superintendent were monotonous in that they always called for more buildings to accommodate the increasing pupil population. Annual increases in the school population always kept ahead of the board's building program. During poor economic periods, funds were so limited, building had to be halted until conditions improved and tax collection increased. When things got better, the board tried to accelerate its building program to make up for lost ground. Unfortunately, much of the board's building program is a history of spurts and halts. Conditions are not much different nearly a hundred and twenty years later.

A number of regulations were introduced during this period to improve the safety standards in the schools. The Building and Grounds Committee recommended the board institute the practice of changing all outside doors of buildings to open outward as a security against fire and other emergencies. The city instituted the practice of inspecting boilers by the Bureau of Public Works. Steam as a means of heat and power had become so widespread in the city that measures and standards to regulate and control were now necessary. The first fire box, as a standard procedure, was installed directly in front of the Haven School in the South Division. Over a period of three years, fire boxes were placed outside of each public school as a standard safety procedure. Fire hydrants, commonly placed at corner intersections, were added as necessary to insure an available hydrant for each building or structure housing a public school.

In 1880, the Jacob Beidler School, 3151 West Walnut in the West Division, opened to serve the growing population on the edge of the then current city limits. The Beidler School was named for Joseph Beidler, an early philanthropist of the city. The Beidler School is significant because its one of the early examples of a departure from the four square Bauer type buildings so typical of post fire school houses. Instead of the standard three story, twelve room school house, the Beidler was a three story, fifteen room school house. The

increase in classrooms was made possible by an interesting elongation of the rear of the basic building design so that the corridor ran from side to side or horizontally instead of the usual from the front to the rear of the building or perpendicular. See figure 10 on the following page. A fifth classroom per floor was added between the two rear classrooms. Thus for the first time, one classroom had only one row of windows for natural illumination. This was a significant turning point in Chicago school architecture.[28]

There would appear to be several reasons for such a pointed departure in the design of school house buildings. Some reasons for the this change are obvious, while one other is, very simply, conjecture on the part of this author. First and most apparent was that the board of education was continuously pressured by the city government to restrict its budgets, and in particular, its building of school facilities. The common council was traditionally in favor of the lowest level of expenditure for the public school system. In fact, in 1876 the Council attempted to restrict the cost of each school building to the extremely unrealistic cost of $12,000. per building. Even in the depressed economic circumstances of the 1870s, such a low figure per building would allow nothing beyond the skeleton of a building. Public opinion was influenced by the press which attempted to paint the school board as irresponsible. The Chicago Times in particular was unrelenting in its attacks on the school board. Quoting the

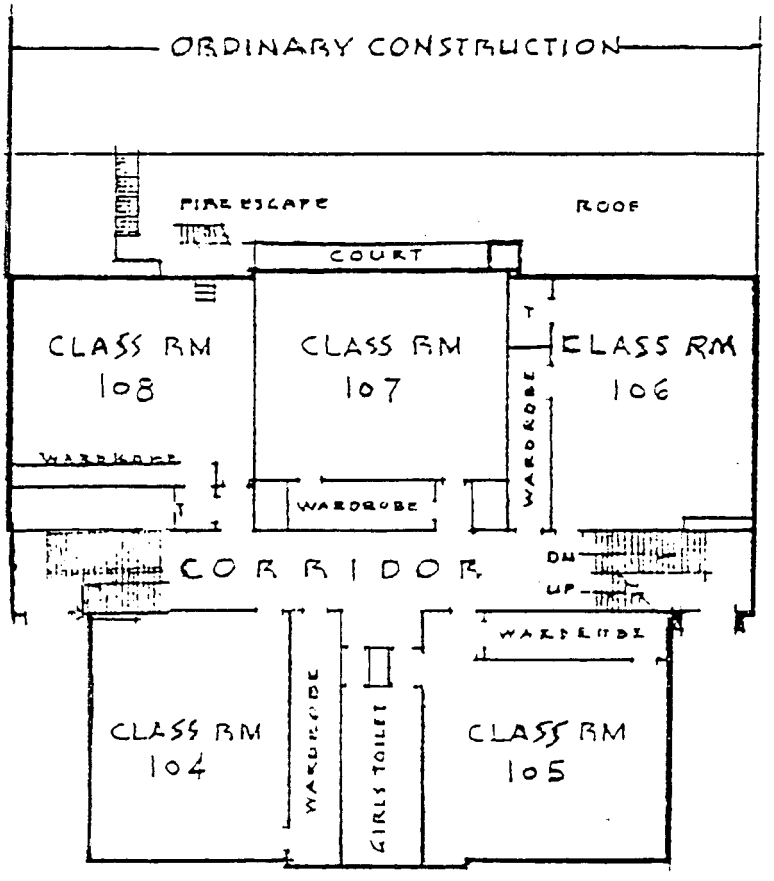

ORDINARY CONSTRUCTION
FIRE ESCAPE
ROOF
COURT
CLASS RM 108
CLASS RM 107
CLASS RM 106
WARDROBE
WARDROBE
WARDROBE
CORRIDOR
DN
UP
WARDROBE
CLASS RM 104
WARDROBE
GIRLS TOILET
CLASS RM 105

Figure 10. Jacob Beidler School with the 1904 addition. Jacob Beidler floor plan. Used with permission of the Bureau of Architecture, Chicago Public Schools.

total budget of the public schools for last eight years at $6,624,487, the Times went on to say, "Can any man in good sense pretend that out of this enormous sum of money enough primary school buildings could not be built to accommodate all of the children of the city, if the money had been constitutionally used?"[29] The Chicago Times was specifically opposed to the creating of high schools in the city instead of more primary schools. As a result of such pressure, and other problems related to real estate and the collection of taxes, the board of education embarked on a building program that was first, very cost efficient and second, aesthetically pleasing. In the eyes of the board and the establishment, school buildings had to be more efficient and at the same time less costly to build.

A parallel concern for the board of education was the increasing demand from various communities to provide adequate seating for the increasing school age population in their areas. What was beginning to emerge was a consciousness of a community as an entity in itself and an awareness of the level of services needed within the community. Depending upon the nature of the particular community, the focus of efforts to improve the physical conditions of their immediate world translated into better living conditions and improved education for their children.

In the mid 1870s, a Peoples Party was organized and strongly supported by immigrant groups who were opposed to the

Fire Proof Party headed by Mayor Joseph Medill. A platform of various grievances on labor conditions and social issues swept the party into office in 1876. The Peoples Party, however, was not able to hold its constituency together on broader issues affecting all classes and groups within the city and eventually its members began to splinter again into the traditional political parties.

For an appointed board of education in 1878-81, this could mean dealing with several interesting but difficult choices. On the one hand, it had to deal with the needs of the established political structure and on the other hand, the emerging demands of the growing emigrant and migrant population. The board usually attempted to steer a narrow course between these alternatives, trying not to appear to support or appease either side. As a result of the new appointment process, few board members ever really had to stand on their individual records.

The board settled on a plan to generally enlarge attendance areas served by each existing school as well as any new school added to the system. As a net result, each school increased in population and those schools in a stage of development found themselves overcrowded when they opened their doors. The board, through its buildings and grounds committee, decided on larger, more cost efficient buildings as a means of addressing the constant increase in population, as well as appeasing their growing critics on the overall quality

of education in the public schools. As a result of this plan, the average school building in the 1880s served 900 to 1000 children instead of the traditional 750 children. As often happened in overcrowded schools, areas that were never intended for student use, were adapted, adjusted or altered to accommodate the overflow of students. Areas in the Beidler type building originally designed to provide play areas during inclement weather were converted to temporary classrooms.[30]

The Beidler was a well constructed, three story building on a corner lot at Walnut and Kedzie avenues. In addition to the front entrance at ground level, there were two entrances at either end of the building on the horizontal axis of the building's corridor. These entrances and the stairwells they served were separated from the floors and classrooms of the building by means of recesses or set backs to the design of the building. This is an example of one of the early efforts to separate and truly fire proof a school stairwell in a Chicago public school. The stairwell was constructed completely of steel and iron, including hand rails and guide bars. The risers and foot pads used cement encased within steel frameworks. The width of the stairwell was widened to allow six children abreast to use the staircase. Eight or nine rows of children per class could now exit the building faster and more safely. Floors throughout the building used a form of terra cotta instead of the traditional wood base. A good deal of the interior structure of the building used

steel and other fire resistant metals whenever possible. Steel lathe and plaster, for example, were beginning to replace the traditional wood lathe and plaster in public buildings.[31]

As a result of adding the fifth room per floor, a fire escape was placed on the rear of the building serving the center classroom. This was the classroom with only one set of windows situated between the two corner classrooms. As a result of the design features of the Beidler type building, each corner classroom had easy and ready access to the stairwell immediately outside the classroom door. Beidler type buildings were believed to be safer from the dangers of fire than any previous design used by the Bureau of Public Works or the board of education. By simply eliminating the need for children to cross from one part of the building to another in order to exit at ground level, a significant advancement in school safety was achieved.

Even though the outward appearance and design of the Beidler School does not seem to be much different from the standard Bauer type building, significant internal changes occurred to make it a much improved building in terms of safety and the overall environment. The introduction of iron and steel stairwells in the interior structure of the building signaled a new direction for school house construction. Changes in the design and function of the school house would enter a new phase in the coming decade and a real renaissance

in school design would emerge at the turn of the century when a number of visionary architects would come to work for the Chicago board of education.

In the ten years from the Great Chicago Fire of 1871 to building of the Beidler School and what became known as Beidler type buildings, Chicago school houses underwent important changes. The Bauer type building, so long the mainstay of Chicago public schools gave way to the larger and more efficient Beidler type building. The introduction of a more functional building with improved safety features was the beginning of a long and continuing process, that would provide better school buildings in Chicago.

In the rebuilding process, economic and political forces moved Chicago forward with great efficiency to change the physical organization and aesthetic appearance of the city. The "Great Rebuilding" for the city as a whole was a success from the very start. This, however, was not the case for the public schools. For numerous reasons, the public schools lagged well behind other institutions in the city. The next step is to review the forces and events that influenced the manner in which the school system failed to develop policies and programs to rebuild the schools quickly enough that were lost in the fire and deal with the problems of inadequate schools.

CHAPTER FOUR NOTES

1. Twenty-First Annual Report of the Board of Education for the Year Ending June 30, 1875 (Chicago: Board of Education, 1875), 38.

2. Ibid., 37.

3. Mary McFarland McPherson, A Socio-Historical Analysis of Public Education In Chicago As Seen In The Naming Of Schools, (Chicago: Loyola University, 1990), 49.

4. The growth of cities and the industrial base, the increase in urban workers, class conflicts and unsettled social conditions tended to converge on the cities.

5. Gutek, Gerald L., Education in the United States: An Historical Prospective, (Englewood Cliffs, N.J.: Prentice Hall, 1986), 191.

6. Lincoln, D. F., M.D., "Sanitary Conditions and Necessities of School-House and School Life", American Public Health Association, (Boston: Republican Press Association, 1876), 7.

7. Ibid., 8.

8. Ibid., 9.

9. Ibid., 10.

10. Ibid., 10-11.

11. Annual Reports for the years 1872 - 1881 list new schools.

12. Chicago Evening News, 3 March 1877.

13. Twentieth Annual Report of the Board of Education for the Year Ending June 30 1875, (Chicago: Board of Education, March 1875), 21.

14. Lincoln, "Sanitary Conditions," 19.

15. Research of the ten year period, 1871 to 1881 reveals that ony the William Jones School was involved in a fire in 1873. This was a general fire in the community and not attributed to anything in the design of the Jones builindg. All other fires were in rented and/or temporary structures.

16. Lincoln, Sanitary Conditions, 18.

17. Twenty-Second Annual Report of the Board of Education for the Year Endning June 30, 1876 (Chicago: Board of Education, 1876), 37.

18. Lincoln, "Sanitary Conditions," 19.

19. Twenty-second Annual Report, School Grounds Committee, 39.

20. Ibid., 43.

21. Frank Randall, History of the Development of Building Construction in Chicago, (New York: Arno Press, 1972), 56.

22. Donna Nelson R., School Architecture in Chicago During the Progressive Era: The Career o9f Dwight H. Perkins, (chicago: Loyola University, 1988), 20.

23. Twenty-Second Annual Report, 57.

24. Proceedings of the City Council.

25. Lincoln, "Sanitary Conditions," 12.

26. Carl Condit, American Building: Materials and Techniques From the First Colonial Settlements to the Present, (Chicago, University of Chicago Press, 1968), 68.

27. Twenty-Second Annual Report, 75.

28. A review of new school plans from 1880 to 1885 indicates a complete abandonment of the Baure type design.

29. Editorial "Communism and the Schools" Chicago Times, 31 March 1878.

30. Substandard quarters were converted to classrooms in many buildings. Inadequate lightening, heating and ventilation were the usual limitations of buildings in the 1870s to 1890s.

31. Condit, American Building, 47.

CHAPTER FIVE

THE LEGACY OF THE FIRE

Support for public education in Chicago was not always popular or widespread in these early years. Most of the student body was made up of children of immigrant and migrant families who came to Chicago looking for better economic opportunities. Education was not as high a priority as a good job. A job that could last for a while might make the difference and help the family stay together. Frequently, children went to work at an early age to help the family unit. Under these kinds of conditions, political groups and politicians saw no urgency or need to improve education of the working classes. A kind of paternal indifference prevailed.

Funding for public schools was provided by the sale of school lands created by the Northwest Territory Ordinance of 1785. An additional $2.00 per quarter in the form of tuition helped to keep the schools, now grown to five, in operation through much of 1837. A nation wide depression in late 1837 forced severe cut-backs and left 325 pupils without any schooling. These were mostly the children of the Irish and German immigrants who had come to Chicago to work on the Illinois Michigan Canal and later the railroads. With the end of the depression, land speculators revived the sale of land,

with a special interest in school lands. All but a few choice lots in the central section of the city were sold at public auctions for extremely low prices. If the school lands had been administered better, perhaps the financial basis for public schools would have been markedly improved. This, however, was not the case. Funding for schools and the financing of education in Chicago embarked on what was to become a seemingly permanent characteristic of Chicago Public Schools--a continuous problem of under-funding of public education in the city.[1]

The boom times between 1837 and 1847 resulted in large population increases each year in the city and schools, but with little corresponding help or assistance for the schools. Most of the rented facilities were inappropriate for the purpose of education and housing a school. By any standard, these quarters would have to be judged substandard. According to Mary Herrick in The Chicago Schools: "From the beginning, in the Chicago Public School System there were never enough seats for the children who came, and there were many who never came at all."[2] By 1849 only 2000 of the estimated 13,500 school age children actually attended school. The twenty-eight to thirty teachers were overwhelmed with the problems of maintaining discipline while dealing with students aged six to twenty-one. It seemed things in the city were improving for everything but education.

Chicago public schools from 1837 to 1847, with few

exceptions, were essentially rented buildings or spaces within buildings which had been converted to serve the needs of school age children. These were generally large bare rooms with long benches and tables to serve sixty to eighty pupils of various ages. There were few comforts beyond a stove in the winter and open windows the rest of the year. Lessons were done by rote practice with little opportunity for individualization. Maintaining order and discipline was the number one priority for a cadre of minimally trained teachers. The school board, through its committee system, concentrated its interest and efforts on securing positions for favored patrons, visiting schools and paying only scant attention to problem of serious overcrowding in every school. Improvement in the instructional program was viewed more and more as the responsibility of the classroom teacher. It was not until the appointment of a general superintendent in 1854 that responsibility for improving the instructional program was transferred to the newly created position.[3]

In 1848 the first structure designed and built as a school opened its doors at Dearborn and Madison streets. Known as "Miltimore's Folly" it quickly became overcrowded. Mayor Garrett recommended that the building be used to house the insane rather than wasted on educating children. In spite of this attitude, in 1856 a three story brick high school was opened to serve the entire city. In the Annual Report for 1859, Superintendent Wells stated that Chicago had the dubious

distinction of having, "the smallest amount of room and the smallest number of teachers in proportion to the number of pupils of any city in the Union, simply because the population of our city has increased faster than any other."[4]

All through the Civil War and the post war period, Chicago continued cyclical swings related to economic activity, population growth and physical expansion of the city. The improvements initiated by Superintendent Dore were expanded under Superintendent Wells and were continued by Superintendent Josiah Pickard. Improvements occurred in spite of decreased revenues from the state and city. In 1869, the school population of 39,000 was housed in inadequate buildings and even the authorization to build ten new buildings would still result in most pupils being on double shifts.

Chicago and its schools had barely recovered from the post war depressions when the single greatest calamity in its history took place on two successive nights in October, 1871. The great Chicago fire began the evening of 8 October 1871. According to Christine Rosen, "The great Chicago fire was one of the worst urban conflagrations in history."[5]

Fires were common events in American cities and towns throughout most of the nineteenth century. Often the destruction of significant portions of a community prompted redevelopment and regrowth on a modest scale. Fires on the magnitude of the fire that struck Chicago were comparatively rare. Fires were, however, common enough to constitute a

natural renewal process for many urban centers. As changes in the physical composition of Chicago took place, other institutions important to the growth and operation of the city were affected. This was particularly true of the system of public education in the city.

The Chicago conflagration that began on 8 October 1871 continued until nearly four square miles of densely built up land in the city were destroyed. Since the fire had been fed by thousands of wooden buildings, the disaster stimulated a wave of public demand to the common council for changes in the city's building code and water system. Political and economic interests quickly took sides in a fierce battle to determine which new municipal restrictions on building regulations and municipal codes would be enacted. This battle was almost a side issue to the more impressive struggle over the city's fire limits.[6] The fire limits controversy was concerned with the banning of all wood structures within the central section of the city. The council never actually passed the comprehensive ordinance about which it had been debating for nearly three months. Instead, councilmen added a number of amendments to satisfy the most vocal groups and interests. As a result, Chicagoans paid an enormous price for their failure to regulate new building codes and strictly enforce extensive improvements in the water system. A corollary to this problem was the increasing number of railroads entering the city. The inconveniences and dangers of the railroads continued to

increase as the city expanded outward onto the prairie. Scattered, unconnected passenger stations and freight depots created frustrating and costly inconveniences that required passengers and freight to be transferred from one railroad depot to another to make the proper connections. "In 1871, Chicago was the hub of a railroad system embracing 10,250 miles of line with aggregate annual revenues of $82,000,000. The carriers operated 75 passenger trains per day to and from the city's terminals."[7]

The Great Fire's temporary destruction precipitated a wide range of changes in Chicago's physical and spatial land use pattern. It led not only to the expansion and internal reorganization of the central business district, but it led to the reorganization and expansion of residential districts, and the growth of Chicago's suburbs as well. It also led to the creation of a largely brick district in the center of the city and the erection of new railroad depots to serve the expanding economy.

Most people were pleased with the extension of the fire limits and the quality of the new structures in the business center. Although some decried the proliferation of wood shanties outside the fire limits, and a few criticized the "questionable taste" of some of the buildings in the commercial district, they lauded the architecture and style of the new banks, stores and warehouses. Workers and a portion of the middle class, meanwhile, appreciated having the

right to continue constructing their wooden homes legally.[8] They had, however, not eliminated their crowded slum areas or solved their polluted water problems, street congestion, fire fighting and railroad problems. These persisted, as a painful reminder of the strength and endurance of the physical constraints inherent in the economic and technological obstacles impeding the forces of growth.

In her book Limits of Power, Christine Rosen states : "A great many factors obstructed the improvement of structures in all of America's great cities in one way or another."[9] Despite all these barriers to new construction and rejuvenation, Chicago was continually evolving and changing during the latter half of the nineteenth century. For most of the post Civil War period, however, the city was confronted with architectural and engineering problems that severely limited what could be developed and\or replaced. This was no less true of the decade under study, 1871 to 1881. These kinds of technological problems created additional frictions in the process of building, frictions which prevented even the most far sighted and visionary people from producing the kinds of buildings that could physically satisfy the needs of an increasingly congested city.

Accordingly, technological barriers limited many aspects of the reconstruction process, including the simplest of changes. An example was the very basic matter of making buildings more spacious. The technological limitation here

was to keep tall and horizontally large structures from collapsing from their own weight. Traditional wood and stone masonry walls did not have enough internal strength to withstand the immense load and wind stress created by buildings four and five stories high. Only limited reenforcement was possible with additional interior-bearing walls and columns. Foundation walls three and four feet thick, however, were not only expensive but were also wasteful of scarce space and building resources. In wide buildings requiring interior supports, immovable and often inconveniently placed load-bearing walls and columns frequently took up valuable interior room and made the reorganization of interior areas difficult, if not impossible. In part, this helps to explain the narrow thinking that prevailed in terms of school building designs and functions in the latter part of nineteenth century America. A school was a school, it was not an assembly area, a leisure time facility or a community resource for addressing local community needs.

In some respects a new city grew out of the piles of bricks and ashes left by the Great Chicago Fire. Within a short time the central business district was even more impressive than it had been before the fire. "In one sense, the Chicago Fire can be thought of as a massive unintended urban renewal project."[10] Reconstruction and replacement projects offered excellent opportunities to a group of architects who were attracted by the new challenges. Leaders

among this group were William LeBaron Jenney, Paul Van Osdel and Louis Sullivan. From this group emerged the Chicago School of Architecture.[11] With the exception of Van Osdel, there is no evidence that any of these renowned gentlemen was responsible for the design or improvement of a public school in the post fire period. One cannot help but wonder though if their influence was not present. Chicago in 1875 was a relatively closely knit city and most likely architects had their own close circle of associates.

The rebuilding of the schools destroyed in the fire and the construction of new schools to serve the needs of the ever increasing population fell far short of the mark. Throughout the decade the annual reports of the board of education are replete with the need and call to increase the number of schools. The report of the Committee on Building and Grounds for June 1880 stated:

> When your present Committee on Building and Grounds assumed their duties they did so with the expressed determination to recommend to your Board the purchase of sites and erection of a sufficient number of buildings to accommodate all the pupils that might present themselves for enrollment. They have signally failed in their endeavors. Their failure, however, was not due to any lack of promptness on the part of the Board in adopting their recommendations, but to the almost limitless demand for increased school accommodations by our rapidly growing city. . . .Although. . . the fact that a larger number of buildings are under contract, or have been completed during the school year 1879-1880, than during any previous year of the history of the city, we are making but little progress toward displacing rented buildings, or dispensing with double divisions in our schools.[12]

Most reports indicate that schools customarily operated

on half-day shifts as a standard course of action. At no point in the ten years under review did the author encounter any record indicating a surplus of seats in the public schools. The board of education was constantly involved in a process of catching up!

Decisions on school issues and particularly the acquisition of sites and erection of school houses was done through the common council and the Bureau of Public Works. Accusations of personal interest and profit were motives attributed to members of the council and members of the school board.[13] These same charges continue under the appointive system legislated in 1872.

In the end, many people participated in the process of improving and influencing board policies regarding school houses, teacher preparation and training, curriculum and the issue of private versus public education.[14] Moreover, as political and social action groups emerged, they occasionally formed coalitions for the same cause. Sometimes their collective approaches were at cross-purposes in their struggles to make changes or improvements in the operations of the schools.[15]

Throughout much of the period from 1871 to 1881, the board's process of governance did not encompass long range planning and goal setting. Instead, the board's general practice was for the committee process to gather information and opinions and then make a recommendation to the full

board. Action was usually based on pressure exerted by groups and/or personal assessments. These boards tended to be reactive rather than proactive. The decade following the fire were difficult years for the public schools in a number of ways. The 1870 state constitutional convention stipulated that the general assembly shall provide the children of the state with a thorough and efficient system of free public schools. The state, however, failed to provide any additional funding or means of funding the program. Chicago superintendents had no clear cut decision-making authority to act in any situation, unless approved by the board. If they attempted to exercise any authority, they would most likely collide with the vested interests within the schools, within the board of education or with the political forces outside the system.

All too often the forward looking visions of Superintendent Pickard, were interrupted, first by the effects of the Civil War, then by the post war depression cycle and finally by the great fire. These events, coupled with boards of education who were all too often inexperienced and naive in meeting and dealing with the problems of the schools, must have been most frustrating for the superintendent. In sum, the board members' time and energies were oftentimes focused on minor issues or a personal interest rather than the goals of public education.

Time after time, successive boards failed to

appreciate the expanding character of the city and the needs of the equally expanding school system. Through a combination of ignorance and apathy on the part of the working class, the real estate developers, transportation and utility companies and industrial leaders were able to influence the political process which, in turn, frequently determined the educational system's actions and programs.

Periods of silence on the part of the public on school issues allowed for the evolution of the school system under a paternal but indifferent political system. As a result of this process, the Chicago Public Schools suffered from a series of false starts and stops, always subject to the influence and pressures of the Establishment. The Establishment did not always display concern about conditions and problems of the public schools. Perhaps, the increasing separation of the socio-economic groups within the city removed or lessened the pressure on the middle class to be concerned about the lack of adequate facilities. Another likely factor was the point that most of their children attended parochial or private schools, and therefore, were not touched by the problems of crowded or an insufficient number of schools.

The public forum for the establishment became the daily press, business organizations and professional groups who took an active stand on public issues. They tended to view many issues and problems from the prospective of whether it

supported the expansion and growth of industry or restricted individual initiative. They were suspicious of foreign ethnic groups and tended to regard activism as a danger to the social order. R. Freeman Butts in his study of education in the United States summed it up thus:

> ...the period should be viewed as the recurring and various attempts of public groups and educators to cope with the forces of modernization on one side and the forces of pluralism on the other[16]

Added to this atmosphere was the general qualifications of the people appointed to the board. Few of the board members were professional educators or had extensive involvement in education prior to becoming a board member. As might be expected, a significant number of appointments to the board were individuals successful in their own enterprises and thus, tended to be reflective of the economic interests of the business community.

One of the pressure valves for relieving overcrowded and inadequate public education in Chicago during this period was the expanding parochial system of the Lutherans and Catholics. The growth of the Catholic school system during the 1870s was nothing short of remarkable. "Between 1870 and 1880 the number of Catholic schools grew from 15 to 29 and the number of students from 10,612 to 16,713, representing increases of 93 percent and 57 percent respectively."[17]

In 1881, the editors of the Chicago Tribune took note of the progress being made in Catholic education in the city by making the following observation:

> to know that the Catholic Church has been making an immense effort to carry out a policy of placing every Catholic child in a Catholic school, and that progress in this direction is greater than is generally supposed. . .In this country the institutions of learning are numerous and liberally patronized. . .The discipline of these schools is of a character that commends them to Roman Catholic parents and always secured for them a liberal attendance of non-Catholic children. It has been claimed and asserted that the successful execution of this policy is a menace to the American system of common schools. . .Just at this time there are not schools enough--public, sectarian and private--to accommodate the children who would like to attend them. The children of this city could not, if they would, find room in the public schools. There is, therefore, no immediate danger in a forever increasing country like this of one class of schools depopulating the other. There will always be room for both.[18]

From a different view point, though, this was a negative set of circumstances. If the parochial system had not been in place and expanded as the population increased, what would have happened? Would the additional pressure on the school board and the common council been such that they would have had to be more responsive? Would more public schools have been built? Would the pressure to improve public education been more focused? All are very interesting possibilities to explore.

During most of the decade, 1871 to 1881, the educational system operated in an atmosphere of mounting social and political conflict. The conflict was not in the schools themselves, but rather in the communities served by the schools. The labor movement, spearheaded by the railway workers union, supported and fought for better wages and

healthier working conditions. Included in this platform were efforts to restrict child labor exploitation and establish minimum working conditions.[19] As a parallel, teacher groups and social reformers were calling for expansion of training programs and increases in taxes to support these initiatives. The business community was opposed to such ideas as they were cost conscious, and instead supported programs and efforts that tended to limit the size and funding of the public schools.[20] The most vocal of the daily newspapers carried on a campaign against night schools and high schools in general and specifically the vocational training being introduced in the high schools at the time. The Chicago Times was unrelenting in its attacks on the school system's "illegal and unconstitutional" use of funds to provide a continuation of education up through high school.[21]

Of all the ethnic groups that were active and involved in the labor movement during the 1870s, the Bohemians in the near southwest section of the city were the most prominent because they tended to be the most vocal. The Bohemians were often labeled "socialists and freethinkers" and as such established their own schools and political education groups.[22] They were one of the first ethnic groups to clash with the establishment on labor issues and unionizing. The Bohemians were associated with the "Battle of the Viaduct." In July 1877, according to news reports, the Bohemian lumber shovers joined the railroad strikers against the Michigan Central Railroad. When the

police arrived to take control of the situation, Bohemian women in the Pilsen Community filled their aprons with stones and came to the aid of their husbands and sons. The police retreated, but not before thirty people were killed and over two hundred were injured.[23] Many more struggles in the labor movement took place in Chicago before conditions changed and peace was eventually restored.

Between 1871 and 1881 a total of thirty new schools were erected under the supervision of the Bureau of Public Works and the Committee of Buildings and Grounds of the Chicago Board of Education. (See Appendix B for a list of the schools). Of the three schools examined in this study, the James P. Ward is still in use as a regular elementary school. All of the classrooms in the original 1874 structure are still used as regular classrooms. When the building opened, it served a predominantly Irish and German community. Subsequent changes in the community's ethnic composition included Bohemian and Italian immigrants. Today, the student body is predominantly Chinese from the Chinatown District at 22nd and Wentworth Avenue.

The Headly building, now situated in a regentrified community, was sold in 1982 and converted by a real estate developer into six condominiums and two town-homes.

As in the case of the Ward School, the Beidler School had two additions to the original structure. The first addition was constructed in 1904 and the second addition was added in

1955. The original section of the Beidler School was closed in 1980 as a means of reducing maintenance costs because repairs had become too costly. The Chicago Public Schools were financially bankrupt in late 1979 and 1980 and closing buildings and sections of buildings such as the Beidler was one of several cost cutting measures adopted by the board.[24]

It is fairly reasonable for students of history and other analysts to examine the problems associated with an institution like the public schools in terms of a misuse of power or to blame the political process which allows for the abuse of power in the democratic process. The probability that this or a similar process will continue is not unduly pessimistic. The continued growth of the public schools after the great fire was a complicated process. As this study has hopefully shown, the public schools were plagued with a host of political, social, economic and technical problems that had no easy resolution.

It is difficult to understand the actions and purposes of school boards without first trying to understand the circumstances that affected the schools both within and from without the political system. In the end, the political process became involved with the schools and exerted a direct influence over the school system. At some point, the administration of the schools became separated from the political process influencing the schools. The administration broadened its influence over the issues of curriculum, methods

of instruction and educational priorities. The political system, on the other hand, continued to increase its dominance over the financial operations of the schools. This is not to say or imply that gains were not made or that school boards did not try to influence in a positive way the educational climate in the schools. For example, significant advances were made in the design and construction of school buildings from the very date of the fire.

Many safety features were added and included in school building design and construction as the technological barriers were overcome. Improved building materials allowed for larger buildings, safer buildings and more functional buildings. As educational programs were added and improved, the functional design of buildings began to show slow signs of improvement. Between 1880 and 1884, for example, the design of school houses changed significantly. In 1884, the new North Side High School opened. In addition to wide open stairways, landings and general open space, the building had additional features worth noting. This was a large three story building at Wendell and Wells. The two main stairways were off set from one another to minimize the traffic and congestion as pupils ascended and descended the stairs. Each floor had an unusually large assembly area in the center of the building. All of the classrooms opened off of this central open area. Large groups of students could be seated or gathered in one of these areas for assemblies or some form of formal

tation. The same area on the third floor was used as a ium. All of the classrooms were large and could odate each student with an individual desk and chair. he classrooms were much larger than previously designed ooms, they were more flexible. They could, with little ulty, be converted from one use to another.

the next decade, however, school house designs and uction would enter a whole new era of expansion, ment and improvement. In a short time, two new high opened, one serving the South Division and one serving t Division. In 1882 the board established a Bureau of cture and appointed the first board of education ct, Fred Baumann.[25] He was a former associate of Paul del at a time when both were involved in designing buildings for the Bureau of Public Works. The most architect to hold this position and design some of the system's finest schools was Dwight Perkins. But this another generation away.

1. The Chicago Public Schools have not had adequate funding. A reliance on local real estate taxes and a state formula for education that has not met the legal obligations of the law left the system short of operating funds.

2. Mary J. Herrick, Chicago Public Schools: A Social and Political History (Beverly Hills, Sage Publications, 1971), 28.

3. Lucente, Administrative Organization, 42.

4. Fifth Annual Report to the Board of Education for the Year Ending June, 1859, (Chicago: Board of Education, 19).

5. Christine Meisner Rosen, Limits of Power (Cambridge: Cambridge University Press, 1986), 29.

6. Chicago Tribune, 15 February 1872.

7. Carl Condit, The Chicago School of Architecture (Chicago: University of Chicago Press, 1964), 28.

8. Chicago Tribune, 28 April 1872.

9. Rosen, Limits of Power, 12.

10. Dominic Pacyga, Chicago: City of Neighborhoods, (Chicago: Loyola University Press, 1975), 7.

11. Condit, Chicago School, 45.

12. Twenty-sixth Annual Report to the Board of Education for the Year Ending June, 1880. (Chicago: Board of Education, 47.

13. Herrick, Chicago Schools, 122.

14. Ibid, 123.

15. Timothy Walch, "Catholic Education in Chicago: The Formative Years 1840 -1890, Chicago History: The Magazine of the Chicago Historical Society (Chicago: Summer 1978, Volume VII, No. 2) 94-95.

16. R. Freeman, Public Education in the United States: From the Revolution to Reform (New York: Holt Rinehard and Winston, 1978), 163-164.

17. Rosen, Limits of Power, 128.

18. Chicago Tribune. 14 May 1881.

19. Chicago Tribune, 15 March 1878.

20. Rosen, Limits of Power, 128.

21. Chicago Times, 12 April 1878.

22. Pacyga, Chicago: City of Neighborhoods, 29.

23. Ibid.

24. Approximately, 10 school buildings were closed and the children were transferred to adjacent schools. Subsequently, some of the most desirable buildings were sold to public and private groups.

25. Howatt, Notes On First One Hundred, 97.

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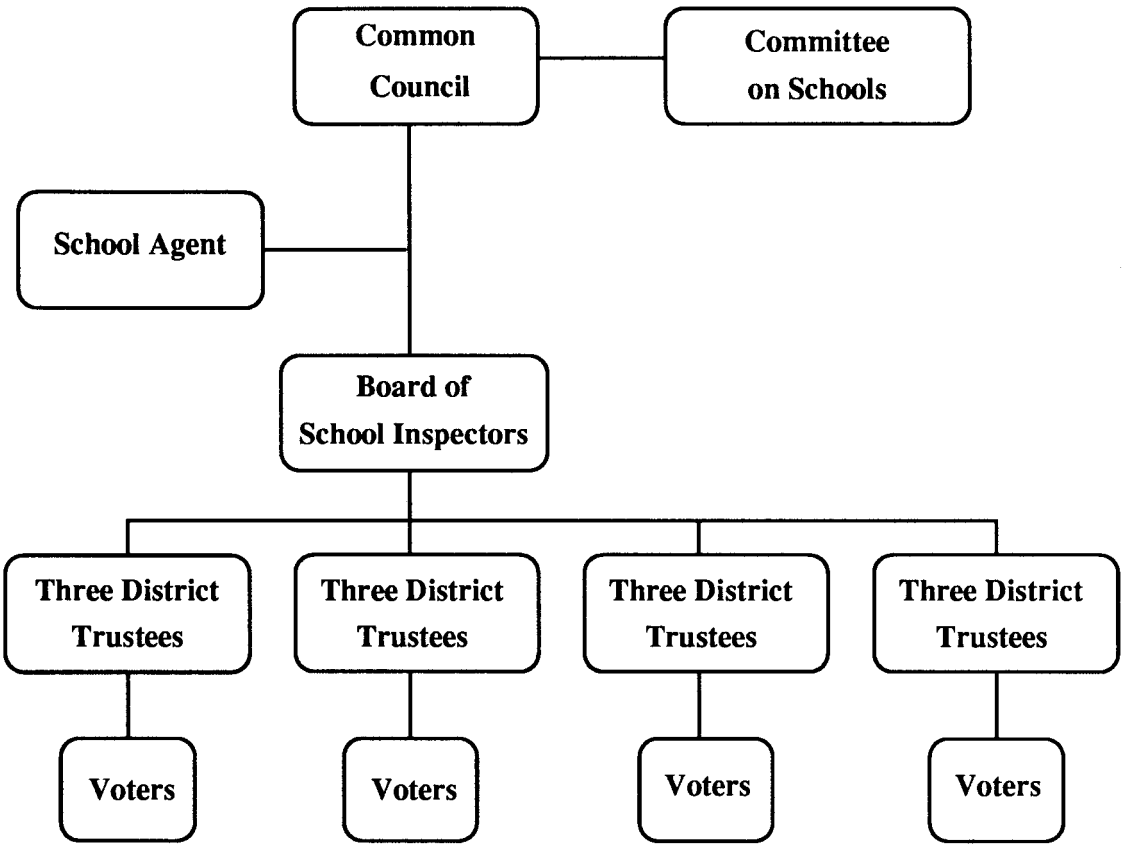
APPENDIX A

Organizational Structure of the Chicago Public Schools 1845



APPENDIX B

Public Schools Erected Between 1871 and 1881

West Division High School	Monroe and Halsted Streets
Archer Avenue	Archer and Fuller Streets
Armour Street	Armour and Bickerdike Streets
Beidler	Walnut and Kedzie Avenue
Brighton	Lincoln and Winchester Streets
Calhoun	Adams and California
Central Park	Walnut and Kedzie Avenue
Division and Cleaver Street	Division and Cleaver Streets
Doolittle	Calumet and 35th Street
Huron Street	Huron and Franklin Streets
Marguette	Wood and Conress Streets
McClellan	Ashland and 13th Street
Headly	Garfield and Lewis Streets
Oakley	Oakley and Ohio Streets
Oak Street	Oak and Milton Avenue
Pickard	Hinman and Oakley Avenue
Raymond	Wabash and Eda Street
Sheldon	State and Elm Streets
Sheridan	Twenty-seventh and Wallace
Skinner	Jackson and Aberdeen
Third Avenue	Third and 12th Street
Throop	Throop and 18th Street
Vedder Street	Vedder and Halsted Streets
Ward	Shields and 27th Street

Warren Avenue	Warren and I.C.&C. R. R.
Wells	Ashland and Cornelia Street
Wentworth Avenue	Wentworth and 20th Street
West Fourteenth Street	Fourteen and Union Streets
West Thirteenth Street	Thirteenth and Throop Streets
Wicker Park	Evergreen and Hoyne Avenue
Wicker Park Branch	Courtland and Leavitt Avenue

APPENDIX C

Catholic Churches and Schools
Established Prior to 1870

Old St. Mary, 21 East VanBuran (French/Irish)	1833
St. Peter, 110 Madison (German)	1847
St. Joseph, Hill and Orleans (German)	1846
St. Patrick, 700 West Adams (Irish)	1846
Holy Name, 730 North Wabash (Irish)	1849
St. Francis of Assisi, 812 Roosevelt (German)	1853
St. Bridget, 2900 Archer (Irish)	1850
St. Michael, 1633 North Cleveland (German)	1852
St. James, 2942 South Wabash (Irish)	1858
Holy Family, 1019 South May (Irish)	1857
Old St. John, 18th and Clark (German)	1859
St. Columbkille, Grand & Polina (Irish)	1862
Immaculate Conception, 1431 North Park (Irish)	1859
St. Wenceslaus, DeKoven & DesPlaines (Bohemian)	1863
St. Boniface, 921 North Noble (German)	1864
Annunciation, Wabansia & Polina (Irish)	1866
St. Paul, Lexington & Clinton (Irish)	1869
St. Stanislaus Kostka, 1351 Evergreen (Polish)	1867
Nativity of Our Lord, 653 West 37th (Irish)	1868
St. Anne, Garfield & Wentworth (Irish)	1869
St. Jarloth, 1713 West Jackson (Irish)	1869
Old St. Stephen's, 917 West Ohio (Irish)	1869
St. Thomas the Apostle, 57th & Kimbark (Irish)	1869

Catholic Churches and Schools
Established between 1870 and 1885

Our Lady of Sorrows, 3121 West Jackson (Italian)	1874
St. John Nepomucene 30th & Lowe (Bohemian)	1870
Sacred Heart, 19th and Peoria (Irish)	1872
St. Pius V, 19th & Ashland (Irish)	1874
All Saints, 25th & Wallace (Irish)	1875
St. Anthony of Padua 28th & Wallace (German)	1873
St. Procopius, 1641 Allport (Czeck)	1875
Holy Trinity, 1118 North Noble (Polish)	1873
St. Adalbert, 1650 West 17th (Polish)	1874
St. Agnes, 39th & Washtenau (English)	1878
St. Vincent DePaul, Webster & Sheffield (English)	1875
St. Paul, 22nd & Hoyne (German)	1877
St. Mels, Adams & Kostner (Irish)	1878
St. George, 39th & Wentworth (German)	1884
Immaculate Conception, (German)	1883
St. Malachy, Washington & Oakley (Irish)	1881
St. Charles, Roosevelt & Hoyne (English)	1885
St. Alphonsus, Wellington & Southport (German)	1882
St. Aloysius, LeMoyne & Claremont (German)	1884
St. Sylvester, Humboldt & Palmer (English)	1884
Holy Trinity, Taylor & Walcott (German)	1885
St. Josaphat, Beldon & Southport (German)	1884
St. Jean Baptiste, 330 South Wood (French)	1882
St. Joseph, Hill & Orleans (Irish)	1879

APPROVAL SHEET

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The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

April 15, 1992
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