NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

764

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registrations Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

Historic name The Linograph Company Building

Other Names/Site Number Englehart Manufacturing Company Building

2. Location

Street & Number 420 West River Drive N/A ☐ not for publication

City or Town Davenport N/A ☐ vicinity

State Iowa Code IA County Scott Code 163 Zip code 52801

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this X nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets ☐ does not meet the National Register criteria. I recommend that this property be considered significant ☐ nationally ☐ statewide X locally. ☐ See continuation sheet for additional comments.)

Barbara A Mitchell DSHPO August 4 2009
Signature of certifying official/Title Date

STATE HISTORICAL SOCIETY OF IOWA
State of Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. (☐ See continuation sheet for additional comments.)

Signature of commenting official/Title Date

State or Federal agency and bureau

4, National Park Service Certification

I hereby certify that the property is: Signature of the Keeper Date of Action

☒ Entered in the National Register. See continuation sheet. 9/23/09

☐ Determined eligible for the National Register See continuation sheet.

☐ Determined not eligible for the National Register

☐ Other, (explain) _____

5. Classification

Ownership of Property
(Check as many boxes as apply)

X private
☐ public-local
☐ public-State
☐ public-Federal

Category of Property
(Check only one box)

X building(s)
☐ district
☐ site
☐ structure
☐ object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
___ 1 ____	_____	buildings
_____	_____	sites
_____	_____	structures
_____	_____	objects
___ 1 ____	_____	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

__ N/A _____

Number of contributing resources previously listed in the National Register

_____ N/A _____

6. Function or Use

Historic Functions
(Enter categories from instructions)

__ INDUSTRY: manufacturing facility _____

Current Functions
(Enter categories from instructions)

DOMESTIC: multiple dwelling; apartment building

7. Description

Architectural Classification
(Enter categories from instructions)

LATE 19TH & EARLY 20TH CENTURY AMERICAN MOVEMENTS

__ OTHER: Industrial _____

Materials
(Enter categories from instructions)

foundation ___ CONCRETE _____

walls ___ STUCCO _____

roof ___ CONCRETE _____

other _____

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

X A Property is associated with events that have made a significant contribution to the broad patterns of our history.

☐ B Property is associated with the lives of persons significant to our past.

☐ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

☐ D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

☐ A Owned by a religious institution or used for religious purposes.

☐ B Removed from its original location.

☐ C A birthplace or grave.

☐ D A cemetery

☐ E A reconstructed building, object, or structure.

☐ F A commemorative property.

☐ G Less that 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

___ INDUSTRY _____

Period of Significance

__ 1920-1952 _____

Significant Dates

__ 1920 _____
__ 1949 _____

Significant Person
(Complete if Criterion B is marked above)

___N/A _____

Cultural Affiliation

Architect/Builder

__ Clausen & Kruse _____
__ Ebeling, Arthur _____

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

(Cite books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

☐ preliminary determination of individual listing (36 CFR 67) has been requested
☐ previously listed in the National Register
☐ previously determined eligible by the National Register
☐ designated a National Historic Landmark
☐ recorded by Historic American Buildings Survey # _____
☐ recorded by Historic American Engineering Record # _____

Primary location of additional data:

x State Historic Preservation Office
☐ Other State agency
☐ Federal agency
☐ Local government
☐ University
☐ Other

Name of repository:

_____

10. Geographical Data

Acreage of Property __ Less than one acre _____

UTM References
(Place additional UTM references on a continuation sheet.)

1	15	701988	4600010	2	___	_____	_____
	Zone	Easting	Northing		Zone	Easting	Northing
3	___	_____	_____	4	___	_____	_____
	Zone	Easting	Northing		Zone	Easting	Northing

☐ See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title _____Alexa McDowell, Architectural Historian _____

organization _____AKAY Consulting_____ date __June 15, 2009____

street & number ____1226-6th Street_____ telephone ___515-491-5432_____

city or town ____Boone_____ state __Iowa_____ zip code __50036___

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps
A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs
Representative black and white photographs of the property.

Additional Items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)
name _____ Randall Schold/MDI Limited Partnership #56-MetroPlains Partners, LLC _____

street & number __ 1600 University Avenue, Suite 212 _____ telephone ___ 651/523-1244 _____

city or town ___ St. Paul _____ state ____ MN _____ zip code __ 55104_____

NARRATIVE DESCRIPTION

Site Description

The Linograph Company Building, located at 420 West River Drive, is situated on Lots 1, 2, 3 and 4, Block 6 of the Original Town of Davenport. The building is sited on a sloping lot at the northeast corner of the intersection of Scott Street and West River Drive. An east-west alley bisects the block at the rear (north) of the building. A public sidewalk runs the perimeter of the block and flush to the Linograph Company Building on both the south and the west, providing access to the building's entrances on the south.

The Linograph Company Building is sited at the southwest edge of Davenport's historic commercial core and two blocks north of the Mississippi River. The immediate area was historically comprised of a cross-section of commercial, industrial and railroad support buildings; the domination of those property types has changed over time, with several buildings, particularly former railroad buildings, converted to other uses such as housing and retail.

Building Description

The Linograph Company Building is comprised of the original, five-story 1920 building and a two-story (dropping to one-story on the north) 1949 addition on the east. Typical of industrial constructions, the building's exterior design was simple in form and detail. As constructed, the interiors of the original building and its addition consisted of primarily open space, with a minimum of interior sub-division. Alterations of the building's exterior – including retrofitting of the windows and reorientation or removal of entrances – took place in the mid-1950s, but the open interior spaces remained relatively intact. The 2008 rehabilitation of the Linograph Company Building for adaptive re-use as housing resulted in the removal of the non-historic windows and replacement with units historically sympathetic in materials, scale and configuration. The building's new function required the sub-division of interior spaces and the reorientation of the primary entrance to the east elevation of the addition. Despite the various alterations over time, the Linograph Company Building clearly reads as a manufacturing facility.

The original portion of the Linograph Building, which was designed by the well-known, local architectural firm of Clausen & Kruse, is a 60-foot by 160-foot, reinforced concrete, industrial construction built on a raised, poured concrete foundation. As constructed, this portion of the Linograph Company Building was designed with primary access on the raised first level, with three floors above and a basement level below. Today, due to the 1950s infill of the primary historic entrances, the 1920 building reads as a five-story building with no sense of the historic primacy of the raised first floor. The exterior of the 1920 building has a modern parged, stucco finish that has been painted.

Arthur Ebeling, a Davenport architect of some local repute, designed the 1949 addition to the Linograph Company Building. Ebeling is perhaps best known for his 1920 design of the 10-story Kahl Building (NRHP 1983) and the 1950s era Scott County Courthouse, both in Davenport.[1] The addition to the Linograph Company building, which measures a total of 65-feet by 106-feet, is two stories on the south (65-foot x 64-foot), with the rear section (65-foot x 42-foot) being one story. The addition is a concrete block construction on a concrete foundation, with the front section faced in brick. The brick and block exterior of the 1949 addition has been painted.

[1] Wesley I. Shank, *Iowa's Historic Architects: A Biographical Dictionary* [Iowa City, IA: University of Iowa Press, 1999], 36-37.

Common to industrial buildings, both sections of the Linograph Company Building are simple rectangles in shape, with flat roofs and lack of ornamentation. Together these elements define the industrial nature of the building's historic function. The four upper stories of the 1920 section of the building rise from a solid ground floor, currently devoid of openings save one window and one pedestrian entrance, both located at grade on the south elevation. Each elevation is broken into a grid expressing the concrete structure that creates it. The whole of the west elevation is broken into seven equal bays. The south elevation has three bays, with the east bay sub-divided in half – an indication of an interior spatial function.

Like the original section of the building, the south elevation of the 1949 addition expresses its gridded structure. Following the recent removal of a non-historic garage that was attached to the addition's east wall, the historic overhead openings of that elevation are now visible. The 1950s introduction of modern materials (i.e. glass block, metal sheeting) significantly altered the appearance of the building's fenestration, particularly at the third and fourth floors of the original building where the bays had been in-filled to accommodate undersized, double-hung windows and which resulted in a visual departure from the historic, gridded structure. During the 2008 rehabilitation of the building, the incompatible window materials were removed and replaced by windows sympathetic in material, size, and configuration to the originals. The ground floor windows of both sections of the building have been closed.

Interior Description

Designed as a manufacturing plant, the interior spaces of both sections of the Linograph Building were defined by their individual structural systems, with limited sub-division of spaces. Through time, a limited compartmentalization of the interior occurred. The 2008 rehabilitation required the sub-division of the interior to accommodate the building's new function.

As designed and constructed, the reinforced concrete structure of the Linograph Building dominated the interior spaces of the 1920 building. As the original design plans indicate and historic images validate, the structural system is comprised of four sets of eight vertical support members at each floor running the length of the building. The vertical supports are set at approximately 20-feet on-center. Along the outer walls, these reinforced concrete support members are 2-foot square piers set against the wall plane, with two interior rows of round columns. All columns feature mushroom capitals, but are otherwise non-descript. The use of mushroom capitals is an indication of the great mass and weight of the floor that they support. As designed and constructed, oversized, steel-frame windows with operable, awning openings provided natural light and ventilation to the building's interior spaces. Those original windows were replaced over time with fixed panels of glass block, but in 2008 were refitted with windows of historically sympathetic configuration and materials. Stairwells are located in the northeast and southeast corners of the building and a freight elevator (now converted for passenger transport) is sited on the east wall, near the building's south end.

The historic building plans for the 1920 structure indicate that building's first floor was designed to house the company's general office space, the drafting room, a "demonstration printing room", separate ladies' and men's restroom facilities, the shipping department, and a large, open workspace. The enclosed spaces on this floor were set among the larger structural system, with hallways and rooms located within the grid created by the reinforced concrete columns. Historic images document the implementation of these design plans. A staircase on the west elevation (specific to this floor only) provided customer access from Scott Street. As the primary public space, the first floor featured the most refined of the building's interior finishes - plastered walls.[2]

[2] Historic Architects' Drawings. SGGM Architects & Designers, Rock Island, IL.

The remaining floors of the 1920 building were designed as open spaces with the structural system and steel frame windows the primary interior feature. Design plans for each of the upper floors called for a reinforced concrete floor slab with wood flooring, numerous electrical outlets, radiator heat, and a "toilet room" divided for ladies and men. Like the first floor plans, the architect's design for the building's upper stories was implemented as drawn.

Like the original building, the 1949 addition appears to have been designed with a generally unencumbered interior plan, though without the architect's design plans, less is known about the specifics of the addition's historic interior. The primary purpose of the addition was to free up space in the original building. The addition's interior was arranged to accommodate an extension of the machine shop with offices on the second floor.[3] The shipping and receiving department was located on the north end of the first floor. The transfer of these departments from the 1920 building freed up space for manufacture on the main level of the original building and the intervening firewall then separated manufacturing from office and shipping functions, creating a quieter and cleaner environment.[4]

As indicated, original plans for both the 1920 building and its 1949 addition focused on accommodating the manufacturing function of the business, which resulted in the development of generally open interior spaces. The exception to this rule was the first floor of the original building, which was, in large part, configured to service the public, and the first floor of the 1949 addition, which, upon its construction, assumed that public service function. The 2008 rehabilitation of the Linograph Company Building required the sub-division of the interior spaces of both sections of the building; apartment units have been inserted into the existing interior space. However, the rehabilitation design plans carefully incorporated the significant components of the historic buildings into the adapted spaces, resulting in the retention of the exposed interior structural system, which was so intimately connected to the historic function.

[3] "Englehart Co. Awards Contract For $125,000 Plant Addition to Soller Construction Co.," *Davenport Democrat and Leader*, February 25, 1949. "Sanborn Fire Insurance Map", 1910 Revised 1950. However, Fred Ebeling, son of the building's architect, recalls the offices on the main level at the front of the building (Fred Ebeling, telephone interview by author, October 10, 2008.)
[4] Ebeling,

STATEMENT OF INTEGRITY

Integrity Considerations

The Linograph Company Building retains a high level of historic integrity. Although somewhat compromised in the areas of design, materials, and workmanship, the building retains a high level of integrity as it relates to the remaining aspects of integrity, those of location, setting, association and feeling, which are of particular importance as a resource considered eligible for Register listing under Criterion A.

Because the Linograph Company Building remains on its original site, the level of integrity as it relates to location is excellent.

The integrity of the Linograph Building's setting is high. At the intersection of Scott Street and West River Drive, the building remains at the fringe of the city's commercial core, in an area still relegated to primarily non-retail/service functions. The building's connection to historic transportation sources remains represented by its proximity to the river and the retention of railroad support structures, such as the 1917 Milwaukee Road's freight depot sited immediately south across West River Road.

The building also retains a high level of integrity as it relates to association. Visitors from its period of significance would recognize the building and its surroundings today.

As related to the integrity aspects of design, workmanship, and materials, the building retains a good level of integrity. The architects' design of the 1920 Linograph Company Building clearly indicated its industrial function: the simple form, a lack of applied ornament, and the exterior expression of the structure – the integrity of that over-arching design element remains intact. The same can be said of the 1949 addition.

The loss of historic entrances compromises the historic integrity as it relates to design and materials. The Linograph Company's primary pedestrian entrance to the 1920 building was located on the west elevation (the company's historic address was 107 Scott Street.) As the architect's plans, historic images and the remaining "ghost markings" reveal, the oversized entrance was centered in the fifth bay of that elevation and had a transom window above. Two historic entrances on the south have also been removed. The larger of these two functioned as a loading dock with ramped access from ground level where materials arrived on the rail line that ran along West River Drive. A pedestrian entrance was located east of the loading dock and accessed by a set of narrow stairs rising from street level. The 2008 rehabilitation of the Linograph Building involves placement of the primary entrance on the east side of the building, allowing for access from the adjacent parking area.

The loss of the original, industrial steel windows further compromises the building's historic integrity of design and materials. Prior to the 2008 rehabilitation of the Linograph Company Building, the introduction of modern materials (i.e. glass block, metal sheeting) significantly diminished the building's integrity, particularly at the third and fourth floors where the bays had been in-filled to accommodate undersized, double-hung windows and which resulted in a visual departure from the historic, gridded structure. Under the guidance of the Iowa State Historic Preservation Office and following the Secretary of the Interior's Standards and Guidelines for Rehabilitation, the incompatible window materials

have been removed and replaced by windows sympathetic in material, size, and configuration to the originals. The rehabilitation goes a long way toward mitigating the loss of historic integrity as it relates to materials. The retention of the building's original form and roof composition further counters any loss of historic integrity as it relates to design.

In addition, the outstanding integrity of the building's workmanship relating to its structural system, particularly the gridded exterior and mushroom columns of the interior, is the core of the building's construction and the foundation of its spatial design and substantiates the overall level of historic integrity. The 2008 rehabilitation recognizes the significance of the structural system and integrates its members into the design of the modified interior spaces.

Finally, when considering the aspects of location, setting, association, design, materials and workmanship together, the Linograph Company Building retains a high level of feeling. The building was and is an industrial construction and remains a significant contributor to our understanding of the history of industry in Davenport.

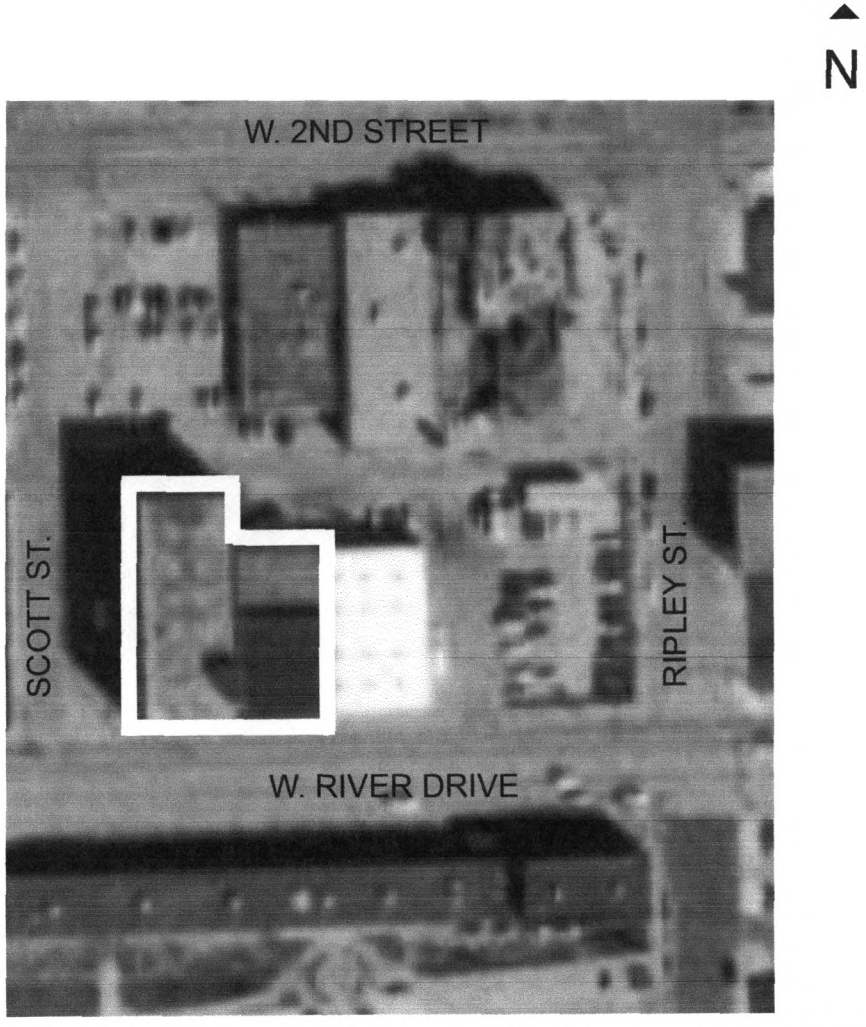
USGS 7.5 MINUTE TOPOGRAPHIC MAP– DAVENPORT EAST QUAD (1993)

N

The location of The Linograph Company Building is indicated by an arrow (near map's center.)

(SOURCE: Topozone.com)

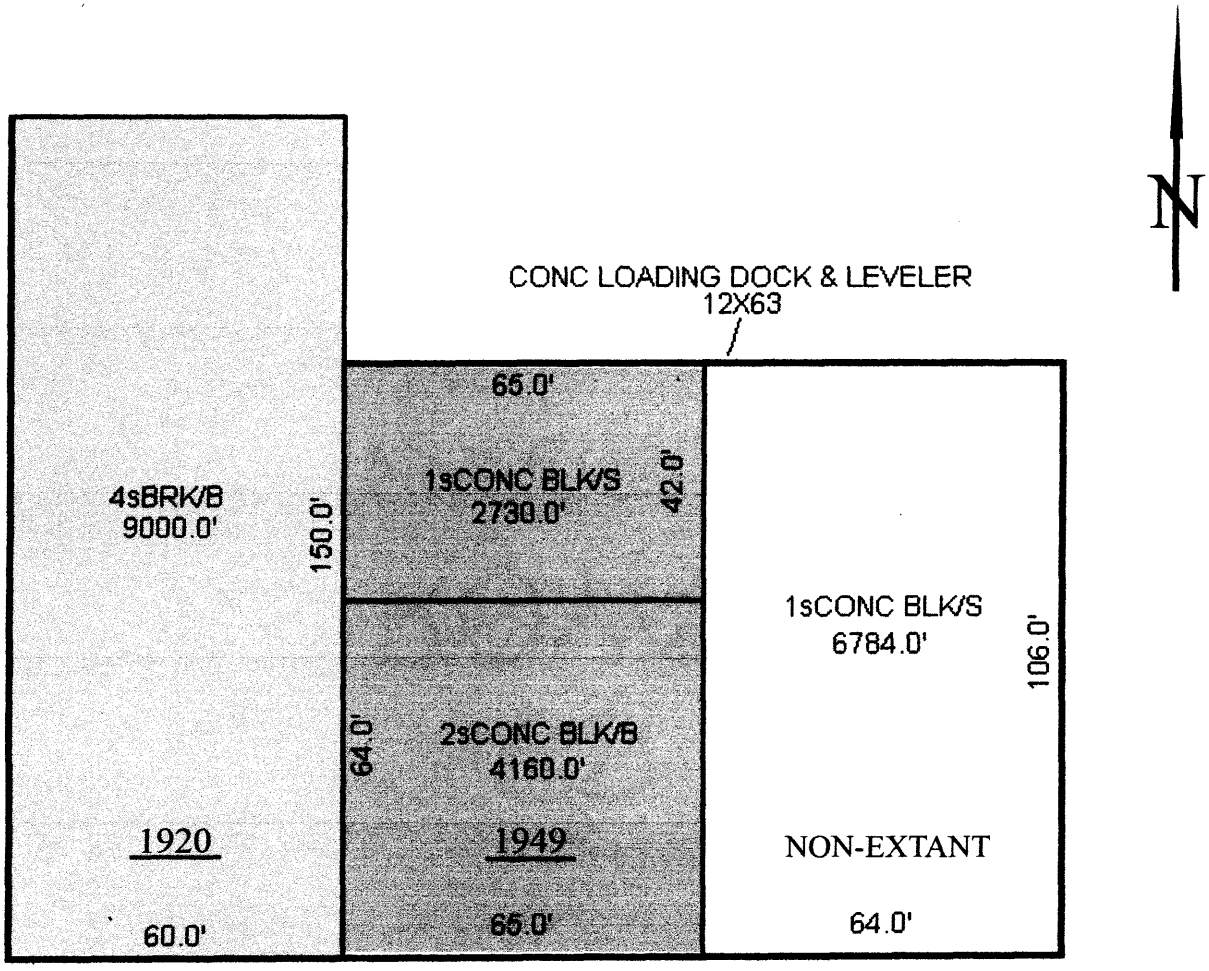
SITE MAP (2000)



The location of The Linograph Company Building is indicated in white outline. The white structure seen here east of the Linograph Building was a non-historic storage addition that was demolished in 2008.

(SOURCE: www.terraserver.com)

SITE PLAN

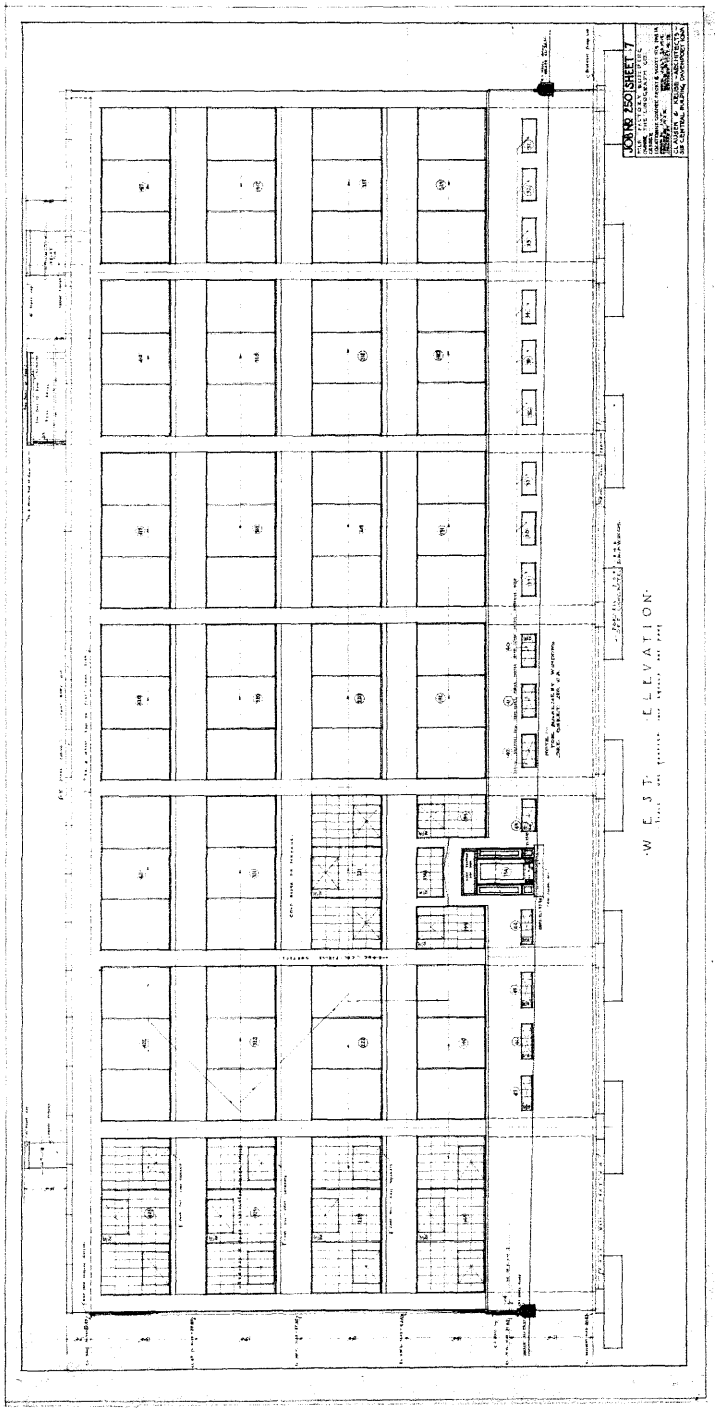


(SOURCE: Scott County Assessor - 2008)

This ca.1965 image illustrates the building's physical impact on its site and setting. Although the rail line is no longer active, the retention of railroad support buildings like the Milwaukee Road's freight depot continues the Linograph Building's historic association to the former transportation corridor.

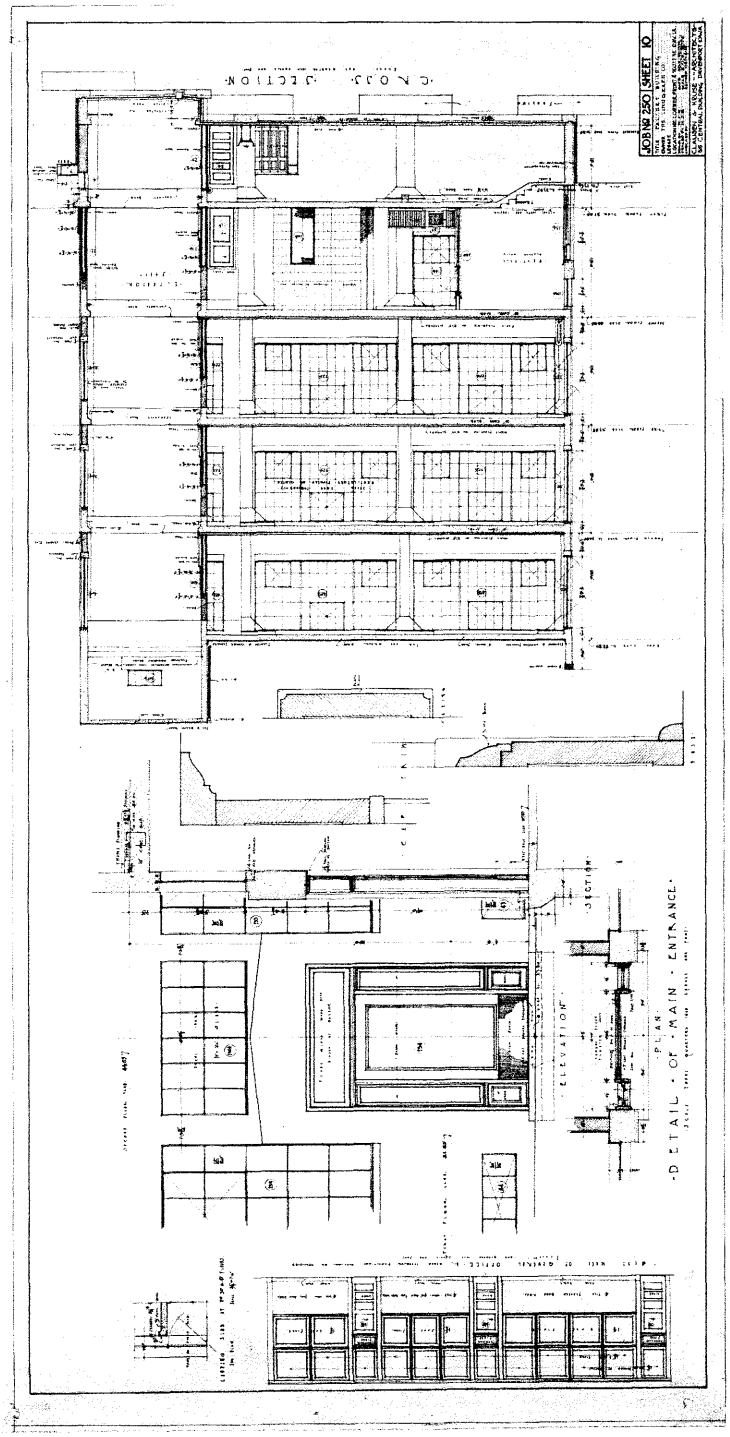
(Image [05264] courtesy of the Davenport Public Library, Richardson-Sloane Special Collection)

HISTORIC PLANS – WEST ELEVATION – October 4, 1919



(All Historic Plans Courtesy of SGGM Architects & Interior Designers, Rock Island, IL.
Digital and print copies on file at the Iowa State Historic Preservation Office.)

HISTORIC PLAN - DETAIL, MAIN ENTRANCE – October 4, 1919



HISTORIC PLANS – FIRST FLOOR – October 4, 1919

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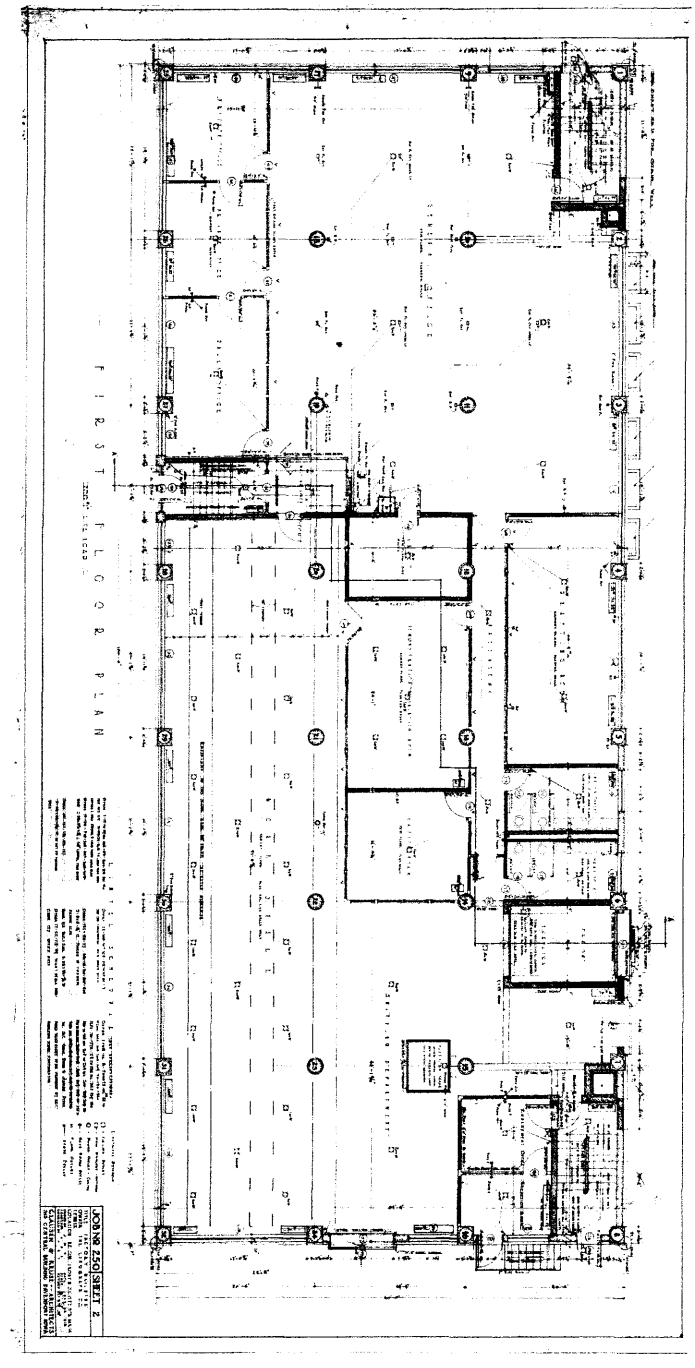

Original design plans placed offices, a demonstration printing room, a workspace, restrooms, and the shipping department on the first floor. Like the whole of the building, the concrete structural system defined the interior spaces.

HISTORIC PLANS – SECOND FLOOR – October 4, 1919

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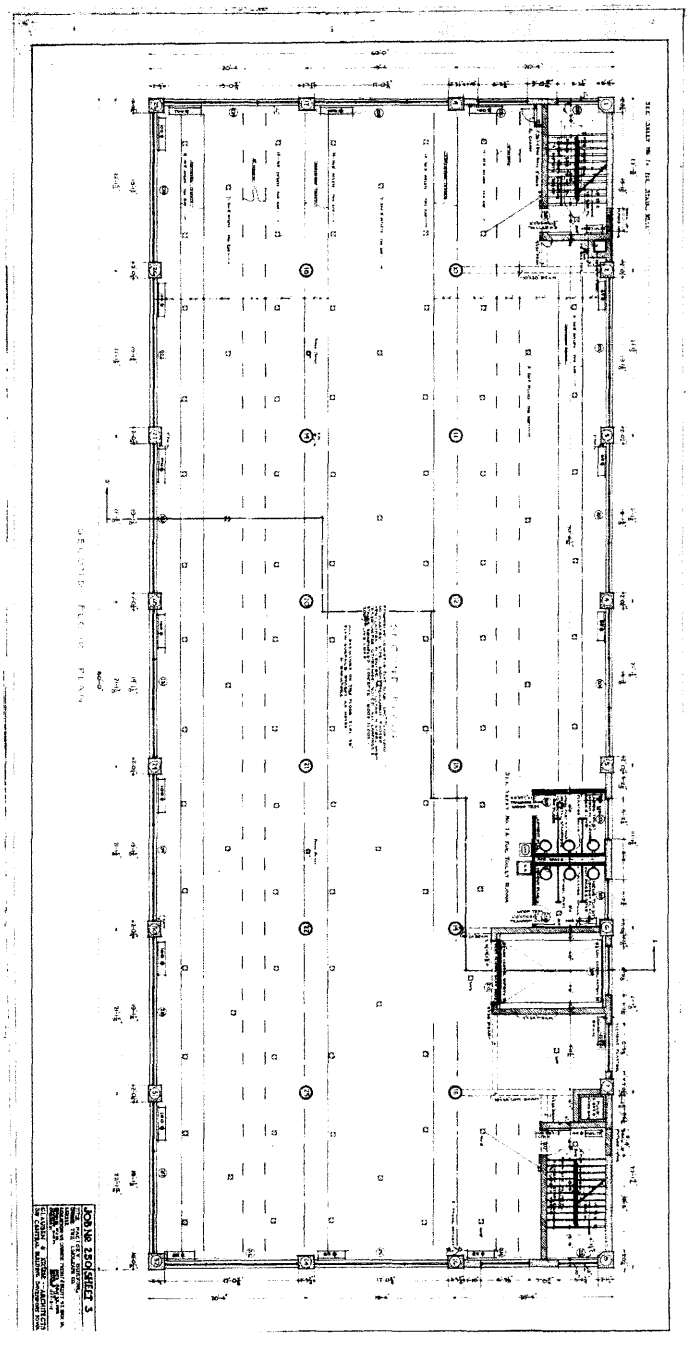

This plan for the second floor is typical of the upper floors, each of which were open spaces defined by the support structure and which included men's and women's restrooms, stair access in the southeast and northeast corners, and freight elevator access on the east wall.

STATEMENT OF SIGNIFICANCE

The Linograph Company Building, constructed in 1920 with an addition made in 1949, is locally eligible for listing on the National Register of Historic Places under Criterion A. The resource is considered significant in its association with the history of industry in Davenport, Iowa, most pointedly to the invention and manufacture of the Linograph, a type-casting machine that contributed significantly to the advancement of the typesetting process and which was distributed both nationally and internationally. The case for significance extends to the building's occupation by the Englehart Manufacturing Company, which continued the production of the linograph machine before transitioning to the manufacture of machine parts primarily for the Caterpillar Tractor Company.

Prior to the American Revolutionary War, the printing process had remained unchanged for centuries; the development of typesetting machines in the late 19th century was the first significant technological advancement in the printing arena and it created a means of producing printed materials, specifically newspapers, at a speed and volume being demanded by a growing readership. The Linograph machine was invented, refined, and manufactured by Hans Petersen and the Linograph Company (and its successor, the Englehart Manufacturing Co.) between 1912 and 1944. The Linograph provided an affordable and efficient alternative to the longer-lived Linotype and Intertype machines, making it often preferable to smaller newspapers and printing houses across the county and abroad. The Linograph Company Building was constructed as a direct result of the early success of the Linograph Company, which quickly grew under the financial support of the Greater Davenport Committee that recruited it to Davenport.

The Linograph Company occupied the building from 1920 through 1944. During that period, Richard Englehart, a member of the Greater Davenport Committee, served as the company president. Englehart bought the business in 1940 and continued manufacturing linograph machines. In 1944 the typesetting business was sold to long-time competitor the Intertype Corporation and Englehart Manufacturing Co., under the direction of Richard Englehart, began the manufacture of machine parts, with their principal contract held with the Caterpillar Tractor Co., the world leader in the manufacture of earth moving equipment. In its capacity as a manufacturer of machine parts for Caterpillar, Engelhart Manufacturing Co. occupied the building through 1952. Richard Englehart is responsible for construction of the 1949 addition.

The Period of Significance for the Linograph Company Building is 1920 to 1952, marking the building's occupation by the Linograph Company and its subsequent occupation by the Englehart Manufacturing Company. Significant dates include 1920, the year the original building was placed in service and 1949, the year the addition was placed in service. The property contains one resource, the Linograph Company Building itself, which is counted as contributing and classified as a building.

The Linograph Company Building was certified by the Iowa State Historic Preservation Office as eligible for listing on the National Register of Historic Places in November of 2006.

HISTORIC BACKGROUND

THE LINOGRAPH AND THE LINOGRAPH COMPANY

The Linograph was born in the mind of a young Danish printer, who brought his invention to Davenport through the recruitment by a local development group that was actively pursuing manufacturing interests for their community. The Linograph was patented by its inventor, Hans Pedersen,[5] and competed head-to-head with other typesetting machines of the era. The Linograph Company Building was constructed in 1920 to accommodate the rapidly expanding production of the Linograph. The company grew into a profitable business that marketed its product across the United States and in numerous other countries. It functioned in the building on West River Drive, as the Linograph Company from 1920-1944 and then as Englehart Manufacturing from 1944 to 1952.

Hans Petersen and the Invention of the Linograph

Hans Petersen was born in Denmark on March 4, 1872 and came to the United States at the age of ten years where he settled with his parents in Fergus Falls, Minnesota. As a young boy he worked in the office of a local Norwegian newspaper where he learned to set type by hand. By the age of twelve he had left school to become a full-time "compositor". After traveling the state, Petersen eventually settled in Minneapolis where he went to work for the *Penny Press*. The *Press* was one of the first newspapers in the northwest to have its own Linotype machine and Petersen immediately set to mastering its operation.

Prior to the American Revolutionary War, the printing process had remained unchanged for centuries. It was the increasing demand for newspaper coverage and a growing number in readership that drove the development of a printing process that was faster and allowed for greater volume in production. The greatest challenge to meet was the creation of a means of setting type that would be quicker than hand-setting, which, due to the laborious process, limited even large newspapers to under eight pages in length. The need for such technology grew through the early 19th century and by 1880 more than forty patents for "type composing and distributing machines" had been granted.[6] However, it was the 1870 development of the Unitype machine, patented by the Wood Nathan Company of New York, that made the first significant strides toward a technology that solved the problem of distributing type. The Unitype could do the work of about four hand type-compositors.[7]

In 1886 the [Ottmar] Mergenthaler Corporation introduced the Linotype, the typecasting machine that became both the standard and the model for the future of all others. Mergenthaler built on the technology of the Unitype, with the significant development of an alternate method of composing type. Instead of the cylindrical type distributor employed in the Unitype, the "Mergenthaler of 1886" cast type in circulating brass matrices, which were assembled in a line by the machine operator to cast a slug from which the paper was printed. Matrices were then automatically returned to the magazine for reuse, significantly increasing the speed of typesetting. By 1888 sixty machines were in use at the *New York*

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[5] Hans changed the spelling of his surname, though his brothers retained the original use of the letter "d". After this initial use of the original spelling, the text will adopt the later variation adopted by Hans.

[6] Albert A. Sutton, *Design and Makeup of the Newspaper* [New York: Prentice-Hall, 1948], 179.

[7] Ibid., 182.

Tribune.[8] Within a few short years, numerous refinements (evidenced by the dozens of patents granted to Mergenthaler) resulted in the widespread use of the Linotype, with 10,000 machines in use worldwide by 1904.[9]

In 1897 Hans Petersen organized a Scandinavian trade composition plant using two Linotype machines. In his years working with the Linotype, he sought out solutions to the machine's various shortcomings. He was particularly interested in developing a machine based on the basic principles of the Linotype, but that was simpler, more efficient, and easier to operate. After much study and numerous conceptual sketches, Petersen had developed the machine he called the Linograph.[10] As described by the archivists at the International Printing Museum in Carson, California, the Linograph utilized the same printing principles as the Linotype and the Intertype; it was the construction that differed. Hans Petersen designed his machine with a vertical magazine and a single elevator, so that when a jam occurred its removal was more simply accomplished.[11] This ease of use was a hallmark of the Linograph, along with its affordability, smaller size, and overall higher efficiency.

The Linograph machine was introduced into the market in competition with the Linotype and the Intertype, which was developed by International Typesetting Machine Company and first placed on the market in 1912.

A Company is Born

In 1910 Hans Petersen, having filed his first patent for the Linograph in June of 1909, enlisted his brothers, Peder Ole Pedersen and Jens Christian Pedersen, in the organization of a company for the purpose of developing his ideas and manufacturing the Linograph; the enterprise took the name, The Linograph Manufacturing Company. That first patent was granted on May 23, 1911.[12]

For two years the brothers, by investing their family's personal financial capital, worked to create a functioning model. Two patents involving improvements to individual components of the Linograph (the matrix and the trimming mechanism) were filed during this period; both were granted in the summer of 1912.[13] Once the Linograph model was completed, advertisements for demonstration were run resulting in a thousand responses from around the world. The need for additional capital led the brothers to a correspondence with the Greater Davenport Committee, which was in search of manufacturing interests to bring to their community.

The Greater Davenport Committee was established as an affiliate of the Davenport Commercial Club. Such organizations, created to bring business and industry to the city and to promote a variety of civic events to its citizens, had been in place in Davenport beginning with the Davenport Advance Club, which was formed in 1886. In 1888 the Advance Club was replaced by the Businessmen's Association, which became the Commercial Club in 1905. The Greater Davenport Committee was formed in 1911 in association with the Commercial Club. It appears that the Committee was created to focus on manufacturing recruitment specifically. In 1920 the Commercial Club and the Greater Davenport Committee merged to become the Davenport Chamber of Commerce. Through the course of this evolution, these groups were variously responsible for such important advancements as bringing railroad service to Davenport, securing

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[8] Sutton, 184.

[9] Linotype website, Timeline, http://www.linotype.com [accesses June 14, 2009].

[10] P.O. Pedersen, *The Story of the Linograph* [Davenport, IA: The Linograph Company, ca.1920], 3.

[11] The International Printing Museum, "The Linograph Company," http://www.printmuseum.org/pages/collection.html [accessed November 2008].

[12] Google, Patent Search, www.google.com/patents?q=Linograph&btnG=Search+Patents [accessed November 2008].

[13] Ibid.

manufacturing interests, establishing a paid fire department, developing an electric street car service, supporting early street paving, promotion of a river carnival, and the development of the city park system.[14] The tactics, specifically the subscription investment taken by the Greater Davenport Committee to recruit the Linograph Company, appears both aggressive and typical. Other known recruitments via stock subscription include the Innes Shocker Company, which was enticed to Davenport by the Committee in 1920.[15]

A meeting between the Petersen brothers and the Greater Davenport Committee was conducted in Davenport in February of 1912. The subsequent reorganization of the company resulted in the modification of the name to The Linograph Company (organized under the laws of the State of Maine in April of 1912), an undertaking supported by a $100,000 subscription by Davenport investors. Several of those investors remained directly involved with the business operations for many years and were, without a doubt, integral to its longtime success. The members included: R[ichard] R. Englehart (who later served as company president and under whose direction the Linograph Company eventually became the Englehart Manufacturing Co.), J.W. Bettendorf, Chas. Shuler, J.W. Bollinger, Ray Nyemaster, H.C. Kahl and H[ans] Petersen.[16] Under the arrangement, Hans Petersen and his brothers received 3,000 shares of the corporation for their previous work and existing patents. They then became essentially contractors to the new firm, which meant that all future inventions and patents became the property of The Linograph Company. Through the course of the company's existence, at least ten additional patents were granted for Hans Petersen's inventions related to improvements to the Linograph machine and its components.[17]

As the Petersen brothers were developing the linograph and entering into arrangements to move operations to Davenport, Iowa, other typeset operators were likewise working to improve Mergenthaler's linotype. One such man, newspaperman Hermann Riddler, organized the International Typesetting Machine Co. in New York in 1911. Like the linograph, the intertype (as it became known), strove to simplify the workings of the linotype, making it simpler to operate and less expensive to manufacture. The first intertype machine was purchased by the *New York Journal of Commerce* in 1912; the machine sold for $2150.

The earliest production of the linograph under the auspices of the new arrangement was done in a space on the fourth floor of the Sickels and Preston Building in Davenport, beginning in July of 1912. Sickels and Preston, for which Richard Englehart served as company treasurer, was a hardware wholesale business. The building still stands at 503-513 Pershing in the warehouse district east of the city's downtown; Crescent Electric Supply Company currently occupies it. By the time the Linograph Company settled into its space in the building, the necessary equipment had been purchased and a workforce of six machinists and one foreman hired. Promotional materials readily acknowledge that the linograph typesetting machine was not a new invention, rather a vast improvement on existing machines, specifically the linotype. The linographs being produced in 1913, known as the Model 1, simplified the earlier linotype by reducing the number of parts by more than 1,000 pieces (see image page 31). The simplification of design also allowed for greater speed, "limited only by the ability of the operator."[18] The Model 1 remained in production for the next eight years.

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[14] "Story of 60 Good Years Told at Annual Chamber Meeting," *The Davenport Democrat and Leader,* January 12, 1926.

[15] *The Davenport Democrat and Leader,* April 16, 1926.

[16] *Rock Island Arsenal: War's Greatest Workshop* [Rock Island, IL: Arsenal Publishing Co., 1922], 202.

[17] Google Patent Search.

[18] "A New Iowa Company," *Iowa Factories* 2 [1913]: 20.

The first Model 1 linograph machine was manufactured and delivered to the *The Democrat* in Osceola, Iowa in 1913. Following that first sale, additional capital of $72,000 was raised through stockholder subscription and production increased to five or six machines per month. In that year, with Intertype machines selling for $2150 and a Linotype Model 8 selling for $3500, the Linograph sold for $1500.[19] The low price tag made the new Linograph very popular among "country printers," resulting in a demand greater than could at first be met.[20] A 1916 promotional pamphlet relates that the company was striving to meet the demand for a "simple and efficient line-casting machine, which could be easily operated and cared for by almost anyone". The market of particular interest was small-scale printers and publishers – those with limited budgets.

A third stockholder subscription in 1917 pushed the fledgling company past its start-up challenges and the Linograph Company settled into a period of steady and consistent growth. The payout to stalwart investors came by 1919 with company assets reported at over $500,000 and stockholder dividends of $75,000. Based on this significant success, plans for the enlargement of manufacturing facilities were made and the site for a new factory was purchased through additional subscription.[21]

The Linograph Company Building was constructed in 1920 after a design by the firm of Clausen & Kruse.[22] Frederick Clausen, a German immigrant who came to Davenport in 1869, founded the architectural firm, then known as F.G. Clausen, in 1871. Clausen's son, Rudolph joined him in the practice in 1904. Beginning with Frederick Clausen's retirement in 1914 and continuing through 1925, the firm was known as Clausen (Rudolph) and Kruse (Walter). During the firm's one hundred thirty-four year history, it has been responsible for some of Davenport's landmark buildings including the Democrat Building (NRHP), the Scott County Savings Bank, the Davenport Municipal Stadium (aka John O'Donnell Stadium), and the Petersen Memorial Music Pavilion. Today it is known as Scholtz-Gowey-Gere-Marolf (SGGM) Architects & Interior Designers, and is one of the oldest architectural firms in Iowa.[23]

In 1920 the officers and management personnel at the Linograph Company included Richard Englehart, president; Hans Petersen, Vice-President and General Manager; Ray Nyemaster, Treasurer; J.C. Pedersen, Secretary and P.O. Pedersen, Sales Manager.[24] In the first six months of 1920, business totals at the plant in the Sickels and Preston building came to $336,620 with 175 employees utilizing only 1100 square feet of space. The new plant quadrupled the manufacturing space with the production goal set at two linograph machines per day for an annual production projected at $2,500,000.[25]

At this time the Linograph Company's actual value stood at $2-million, having manufactured 700 Linographs, which were delivered to customers in thirty-seven states and twenty-one countries, including Belgium, Switzerland, Denmark, Sweden, France, and England. Negotiations for the development of a manufacturing facility in Austria were underway in that year. The concerted effort to market to European countries is explained in the ca.1920 publication written by P.O. Pedersen where he relates that "in all European countries more than 75 per cent of the type composition has been done by hand up to the present time ... that the market for typesetting machines, especially in European countries, is limited only

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[19] Metal Type, British information source for collectors, http://www.metaltype.co.uk [accessed November 2008 and June 15, 2009].

[20] Papers of the Linograph Corporation. Special Collections. University of Iowa Library, Iowa City, IA.

[21] Pedersen, 4-7.

[22] Historic Architects' Drawings. SGGM Architects & Designers.

[23] Alexa McDowell, "Architectural and Historical Survey, Davenport Central Business District" [Intensive Level Survey and Evaluation, City of Davenport, IA, 2005].

[24] *Rock Island Arsenal: War's Greatest Workshop*, 202.

[25] Pedersen, 7.

by their ability to purchase and our ability to produce." Pedersen further indicated that Russia was one of the most "fertile fields for education in the near future" pointing at the pending need for printed materials of all kinds and thus a potential, untapped market.[26]

In 1921 the Model 3 was introduced (see image page 32). The new machine built on the simplicity of the original, while providing the added benefit of carrying three magazines simultaneously. That improvement resulted in greater efficiency, speed and ease of operation.

In 1922 a subscription campaign was undertaken by the Linograph Finance Co. to provide funding for production expansion. Richard Englehart served as the director of the finance company. Newly organized, the Linograph Finance Co. replaced the earlier Linograph Securities Company that had been established for a similar purpose. Subscriptions were taken by Richard Englehart and by Harry Englehart for $50,000 each, by Ray Nyemaster for $6,000 and by C.A. Englehart for $5,000, among others.

Hans Petersen continued to develop more sophisticated equipment and in 1923 developed a Linograph of significantly greater capacity, function, and compatibility when compared with other typesetting equipment such as the Linotype.[27] Known as the Model 12 (see image page 33) the machine accommodated twelve magazines, each with ninety channels and a range of point sizes. It was the first typesetting machine of any kind designed to accept magazines of all sizes, most pointedly those used by Linograph Company's greatest competition, Linotype and Intertype machines.[28]

Evidence of the company's growing success can be measured by its expansion to the west coast. The January 1923 issue of the in-house magazine *The Slug* announced the opening of the Linograph Company's "western coast agency." The new offices, under the management of William H. Bell, were located on Sacramento Street in San Francisco, California. The expansion was possible due to the increased production coming out of the new, larger plant in Davenport, which in 1923 was manufacturing the recently released Model 12.[29] Local news accounts indicate that the Model 12 (so named because of its magazine capacity) was "going like wild fire in the east" with four machines sold to the *Fairchild Press* in New York City and three machines sold to the *Jersey City Journal.* Interestingly, the cover of that issue of *The Slug* featured a delivery truck in front of the Davenport plant, loaded with linograph machines destined for West Virginia. A sign on the side of the truck boasts, "Railroad Embargo does not prevent The Linograph Company, Davenport, Iowa from delivering to West Virginia 3 Linograph Typesetting Machines" (see image page 30).

The Pedersen brothers continued in business after Hans Petersen's death in 1924. Richard Englehart, a member of the Greater Davenport Committee that recruited the Linograph Company and who acted as the company president from 1915-ca.1944, remained a key figure. Although the death of Hans Petersen may have blunted the technology's trajectory, the Linograph Company continued to refine its machinery to compete in the market; four patents were granted to the company between 1938 and 1940 for inventions by Clay Murray, General Manager.

In 1937 the Model 5 came on the market (see image page 34). Company marketing materials describe the new machine as one developed to counter the prevailing market tendency toward larger, more complex typesetting equipment, which had resulted in oversized machines and rising costs. As a result, the Model 5 was compact and simple with

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[26] Pedersen, 7.

[27] Metal Type website.

[28] Ibid.

[29] "Announcing the Opening of the Linograph Western Coast Agency," *The Slug*, January, 1923, Papers of the Linograph Company.

improved performance. This refined simplicity meant a significant reduction in the number of parts and related maintenance. To more broadly market the new model, the company started a personal demonstration program, bringing the Model 5 directly to perspective clients using a "magnificent trailer demonstration unit" (see image page 35).

In 1938, the "Model 50" was introduced to much acclaim at the meeting of the American Newspaper Association (see page 36). The company's marketing brochures held the Model 50 up for comparison to its competitors, touting it as "the only machine built to carry five main magazines" which could be purchased incrementally, as needs warranted; each magazine sold for $125 compared to the competition's at $400 or more. Further, the Model 50 was the only 90-channel machine that could carry the standard 24-point typeface and many 30-point and 36-point typefaces. True to its 26-year history of business, the Linograph Company of 1938 marketed its new model as machinery built for efficiency, durability, ease of use, and economy of price. The Model 50 remained in demand through the early 1940s. In 1941 the trade publication "Printing Equipment Engineer" touted the linograph as "the best buy today."[30]

Richard R. and R.D. Englehart purchased the Linograph Company in 1940. As noted, Richard Englehart had maintained a central role in the company beginning with its recruitment to Davenport. In addition to a financial investment in the Linograph Company, Englehart served as the company president for many years.

The final linograph model, the Model 52, was introduced in the early years of the 1940s, shortly after the Engleharts assumed ownership. The Model 52 was identical to the earlier Model 50 except that it held only two magazines, rather than five, although quick conversion to a five magazine capacity could be easily accomplished. The new model sold for less than its predecessor and was marketed to daily newspapers that required "straight-matter work."[31]

Following the United States entrance into World War II, manufacturing at the plant shifted to production of wartime materials, including the manufacture of machine guns.[32] In 1944 the Linograph Company was sold to longtime competitor, the Intertype Corporation (originally the International Typesetting Machine Co.)[33] The motivation for the sale is undetermined, but by this period the Linotype Co. was dominating the field with 100,000 machines in use worldwide by 1954; it is reasonable to assume that the market for the linograph was simply no longer economically viable, with a merger being the best option available.[34]

At the time of the sale of the Linograph Company to the Intertype Corporation, Englehart Manufacturing began business in the Linograph Company Building. Englehart Manufacturing advertised itself as a "Complete Manufacturing Facility Serving Other Manufacturers."[35] The company manufactured machine parts with its principal contract held with the Caterpillar Tractor Company in Peoria, Illinois.

The history of the Caterpillar Tractor Company dates to 1925 with the merger of two companies owned by Benjamin Holt (Stockton Wheel Company, which became Holt Manufacturing in 1892) and Daniel Best (inventor of the Link Belt Combined Harvester.) One of the most significant of their inventions, developed by Holt Manufacturing, was the "caterpillar"-style tractor. The use of tracks instead of wheels allowed heavy equipment to traverse difficult terrain,

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[30] "Printing Equipment Engineer." p. 14.

[31] Marketing piece for the Model 52, no date.

[32] Ebeling interview.

[33] Print Museum website.

[34] Linotype website.

[35] *Davenport City Directory*, [Davenport, IA: S.L. Polk & Co., 1945].

particularly areas subject to becoming boggy when wet. The tracks allowed the utilization of agricultural land previously considered useless.

Holt Manufacturing bought out Daniel Best's company in 1908. Two years later, Daniel Best's son, C.W. Best formed his own company and went on to develop numerous of his own innovations to tractor technology. In 1909 Holt Manufacturing, which was based in California, purchased the plant of a former tractor company in Peoria, Illinois. That move marks a new era of experimentation and invention. Heavy bodied tractors with adjustable blades came out of that era and were soon in use to grade roads. The company's track technology was adopted by British troops in World War I and is credited with winning major field battles. Holt tractors served the military in other significant capacities as well. The international exposure during the war years benefited the company and its track vehicle.

In 1925 Holt Manufacturing and C.W. Best's companies merged, forming the Caterpillar Tractor Company, which relocated its headquarters from California to Peoria in 1928. The company's contributions to the Second World War were also significant, including the conversion of gasoline powered airplane engines into diesel and the use of the company's new radial diesel engine in the M-4 tank. In addition, the company produced other engines and artillery shells for the war effort. Caterpillar tractors, with their heavy construction and tracks, were utilized in battle zones to build and repair roads. The company experienced tremendous growth in the post-war reconstruction period in Europe and Japan. Through the remaining years of that decade Caterpillar grew to become the "world's largest manufacturer of earthmoving machinery.[36]

The success of the Caterpillar Tractor Company clearly impacted that of Englehart Manufacturing and by the end of the 1940s the Engleharts were making preparations for an addition to the 1920 Linograph Company Building. Plans for the two-plus story addition were designed by Davenport architect Arthur Ebeling. The addition was to be constructed of brick, reinforced concrete, and steel, with the intention of maintaining uniformity with the original structure. Local news accounts indicate that the first floor of the addition would serve as an extension of machine shop space, with the second floor given over to offices. Construction cost was projected at $125,00, though later permit records indicate it came in at closer to $100,000.[37]

The building architect, Arthur Ebeling, is best known for his design of the Kahl Building (NRHP); a seven-story Art Deco office building that also houses the Capitol Theatre. The Kahl Building still stands just one block northeast of the Linograph Building. The addition project's contractor was Soller Construction Co.

Building plans of the original, 1920 Linograph Company Building indicate that the structure was designed with support "ledges" on the east elevation - a clear indication that Hans Petersen and his brothers anticipated expansion.[38] Although the addition would not serve the Linograph Company as intended, Ebeling's design plans called for the 1949 addition to utilize existing openings in the 1920 structure to serve as connecting points between the two sections.[39]

The Englehart Manufacturing Company continued in business at this location until 1952. Through this time and following their move to the former Independent Baking Company building, Englehart was re-fabricating parts for the Caterpillar Tractor.[40] The Caterpillar Tractor Company acquired Englehart Manufacturing in 1956 and the company

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[36] Encyclopedia of American Economics

[37] "Englehart Co. Awards Contract For $125,000 Plant Addition to Soller Construction Co.," *Democrat and Leader*, February 25, 1949.

[38] Historic Architects' Drawings.

[39] Ibid.

[40] Ibid.

became a permanent part of the Caterpillar legacy. After the departure of the Englehart Company, the Linograph Company Building briefly housed the Tri-City Appliance Company, Thrift Food Cub Food Freezers, and the Thrift Sew Mart before becoming vacant. In 1954 the Salvation Army began its longtime occupation of the building. In 2007 the Linograph Company Building was purchased for rehabilitation to low-income housing.

Richard Englehhart

Richard R. Englehart was born in Grand View, Iowa on January 1, 1871. He and his wife (Katherine Roberts) came to Davenport in about 1892. He worked for local lumber companies for five years before beginning his long tenure at the Sieg Co. where he spent 36 years, moving up the ranks to vice-president, general manager and a principal stockholder.[41]

Englehart was a member of the Greater Davenport Committee in 1911 when the group began negotiations with Hans Petersen to bring the Linograph Company to Davenport. He continued his association with the Committee and its successor, the Davenport Chamber of Commerce for some twenty years. The Linograph Company began production in the Sickels and Preston Building on Pershing Street; Englehart was the company's treasurer. From 1915 to ca.1944 Englehart served as the president of the Linograph Company. Richard Englehart was the president and, with his brother Harry, the owner of Englehart Manufacturing Company, the firm that absorbed the Linograph Company while continuing to carry on the business of the former company.[42]

DAVENPORT & ITS INDUSTRY

The rise of Davenport, Iowa came on the back of commercial and industrial growth, represented by various interests, but dominated over the long run by agricultural related manufacturing, wholesale distribution, and commercial retail interests. Its location on the Mississippi River, the arrival of the railroad, and the early construction of the bridge linking Davenport with Rock Island all set Davenport in a position for success. The later development of an extensive road system ensured that success.

The town's first industries, including a mill and a brickyard, opened in 1837. These fledgling enterprises soon gave way to the growth of the mid-1800s, brought about by the influx of population, the arrival of the railroad, and the construction of the river bridge. These factors combined to create a workforce, access to needed materials, and a market for manufactured goods. The result was a major shift – Davenport became a regional center for commerce and industry.

In the last years of the nineteenth century the lumber industry played a significant role in Davenport's economic growth. Numerous enterprises, from mills to lumber yards, had grown up along the river front, their material needs supplied by the forested areas of the states to the north. The industry grew to be at the forefront of the city's commercial sector. The industry's0 significant contributions would end with the depletion of Minnesota's timber; the final log rafts were sent down river in November of 1905.

The last years of the nineteenth century were truly "a coming of age" for the city of Davenport. Much of the uncertainty of its early settlement was behind it; industry was established, the railroad was providing a new outlet for goods, commerce had grown to be competitive with Rock Island and other area markets, and the population had increased by

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[41] *Who's Who in Davenport 1929,* [Louisville, KY: Robert M. Baldwin Corp., 1929], 35.

[42] William J. Petersen, *The Story of Iowa: The Progress of an American State* [New York: Lewis Historical Publishing Co., 1952], 240.

nearly ninety-five hundred in a single decade. So, as Davenport headed toward turn of the new century, it was prepared to mature in leaps and bounds.

Davenport's manufacturing base was a strong presence throughout the city's history, changing and adapting as economics, technology, and consumer demands required. Along with the lumber industry, cigar manufacturing, flour mills (cracker manufacturing), breweries, and numerous other enterprises contributed to the growing economy. However, the commercial sector, including retail and wholesale businesses continued to dominate as business leaders focused on promoting the city as a commercial center.

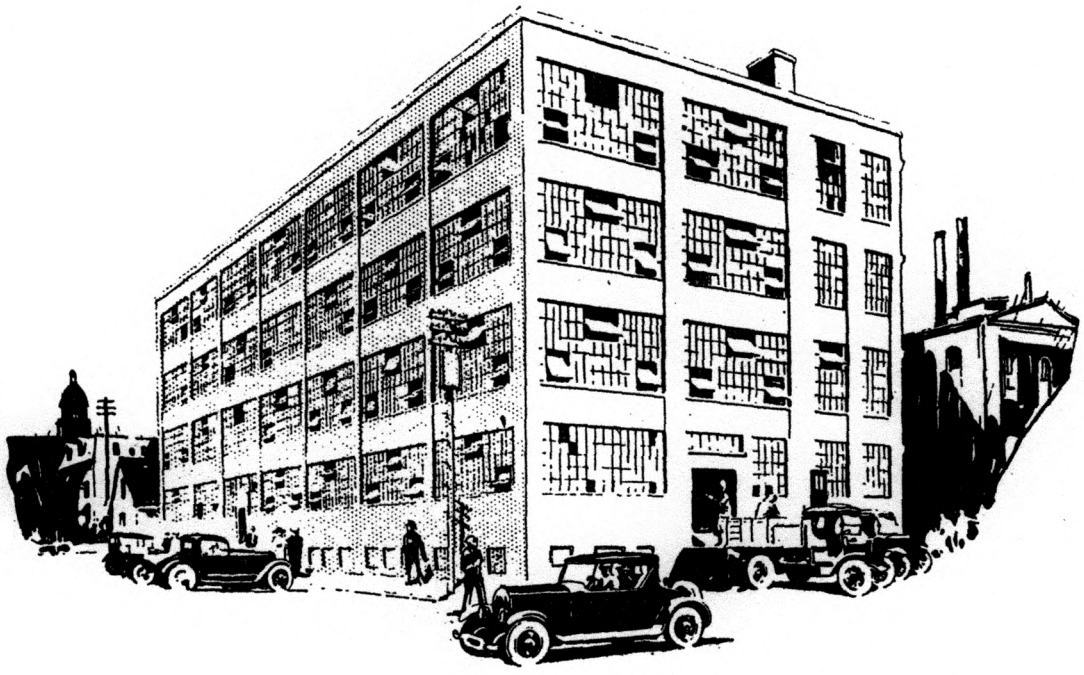
The years following the turn of the century and through the onset of the Depression, were defined by a continued shift away from an autonomous identity and toward one more dictated by national trends. The development of a paved system of roadways and the 1939 construction of the four-lane Rock Island Centennial Bridge opened the city to a greater influence from the surrounding areas and signaled a significant increase in heavy truck traffic; an indication of the health of city's manufacturing base. By 1929 Davenport emerged as Iowa's third largest city, ranking fifth in the production of manufactured goods.[43]

Like communities all across the country, the Depression and subsequent war years strained the Davenport economy. At the center of financial concerns was the city's banking system, which experienced failures, mergers, and reorganizations. By the eve of the Bank Holiday, only five remained, and then, in 1933, only two. The military presence at Arsenal Island did much to diminish the adverse effect of the war years, as its demand for goods and services bolstered the Davenport economy, much as it had during the Civil War years.

The Post-War years in Davenport and the Quad-Cities were characterized by an increase in large-scale manufacturing interests including John Deere, International Harvester, and the Rock Island Arsenal. According the 1940 Federal Census, Iowa manufacturing had an output valued at $709,458,428 for the year 1939. With its growing manufacturing base and a workforce drawn from its population of 66,039, the city of Davenport contributed significantly to that production, accounting for a significant rise in both employment and impact on a regional market. The city's other concerns, particularly educational, recreational, and cultural, all stayed on par with the growth attributed to the rise in manufacturing.

[43] McDowell.

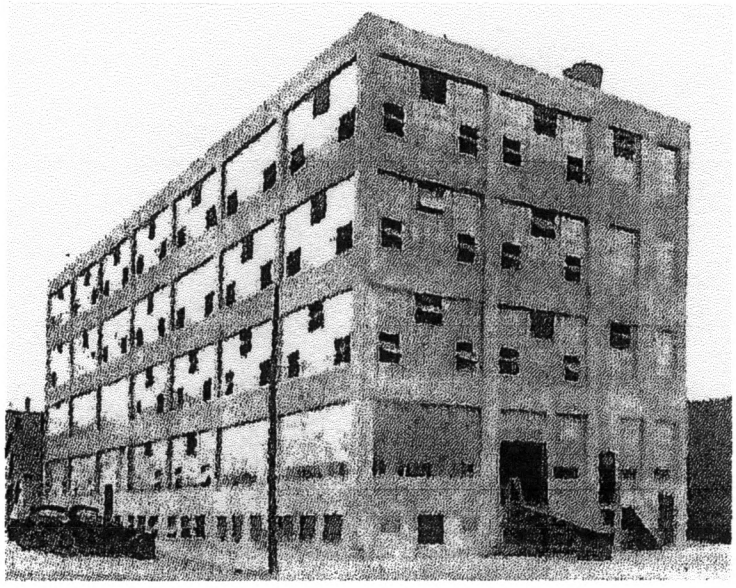
LINOGRAPH BUILDING HISTORIC RENDERING – ca. 1920



This historic sketch, depicting The Linograph Company Building, appeared in the "Price List: Linograph Parts and Supplies Models 1 and 3". The sketch likely dates to shortly after the building's construction and opening in 1920.

(The Linograph Corporation Papers: University of Iowa Special Collections.)

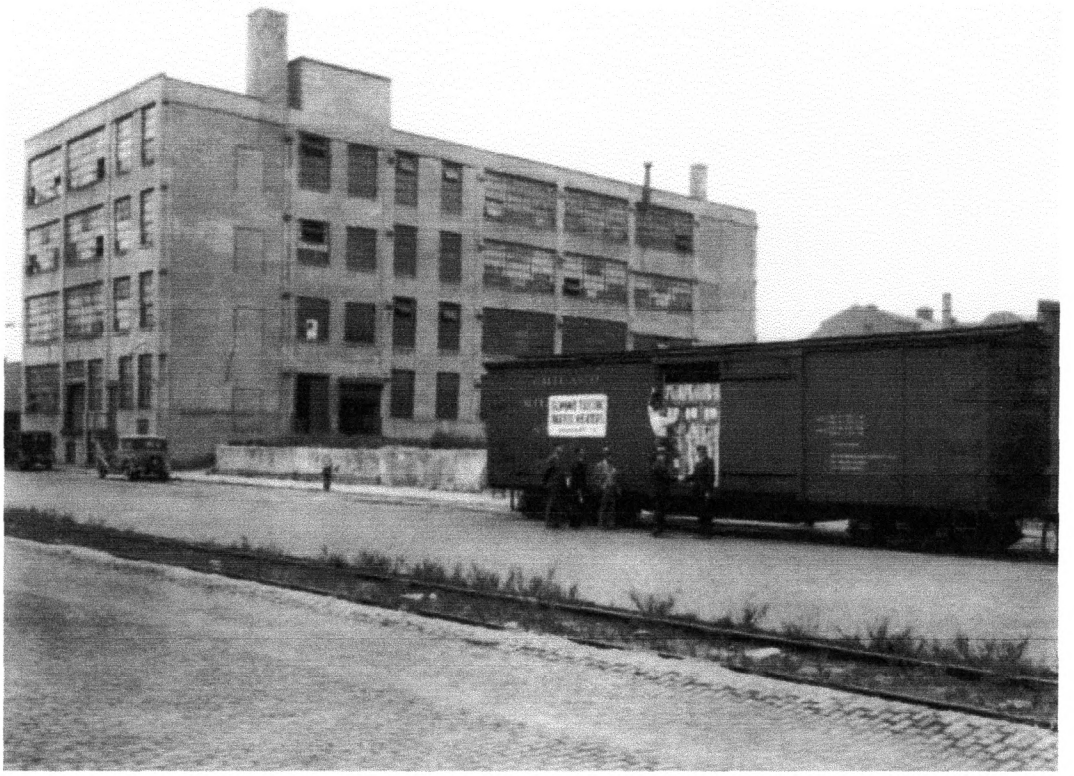
LINOGRAPH BUILDING HISTORIC PHOTOGRAPH - 1922



This early photograph appeared in a local (1922) publication. Note the pedestrian entrance on the west elevation (left). This door led into the company's office space. The dock on the south provided easy transfer of product to the nearby rail line. As the image documents, a pedestrian entrance (accessed by staircase) was also found on the south elevation. The image offers an excellent understanding of the architect's introduction of awning windows to provide interior ventilation and large spans of glass to enhance ambient lighting. These design elements were coming into widespread use in industrial and manufacturing plants throughout the country during the era of construction (1920).

(*Rock Island Arsenal: War's Greatest Workshop*, 202.)

LINOGRAPH COMPANY BUILDING HISTORIC PHOTOGRAPH – ca.1933



Judging from the cars in front of the building, this image of The Linograph Company Building dates to ca. 1933, which is several years prior to the 1949 construction of the addition. From this perspective, the large overhead door that provided access to the freight elevator is apparent. The image also documents the railroad line that ran along West River Drive (historically known as Front Street.)

(Image courtesy of the Davenport Public Library, Richardson-Sloane Special Collections.)

SANBORN FIRE INSURANCE MAP – 1950 REVISION OF THE 1910 MAP

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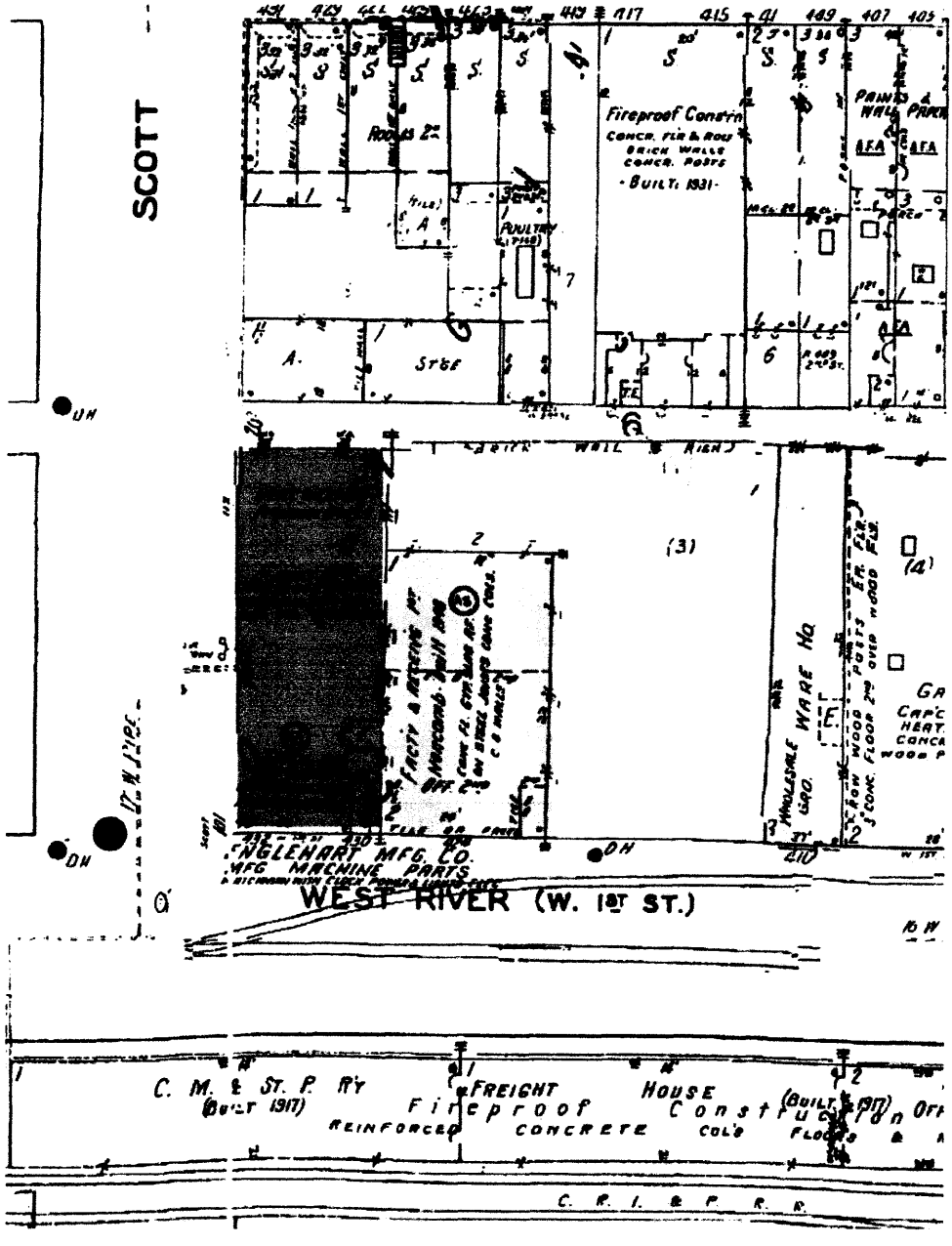
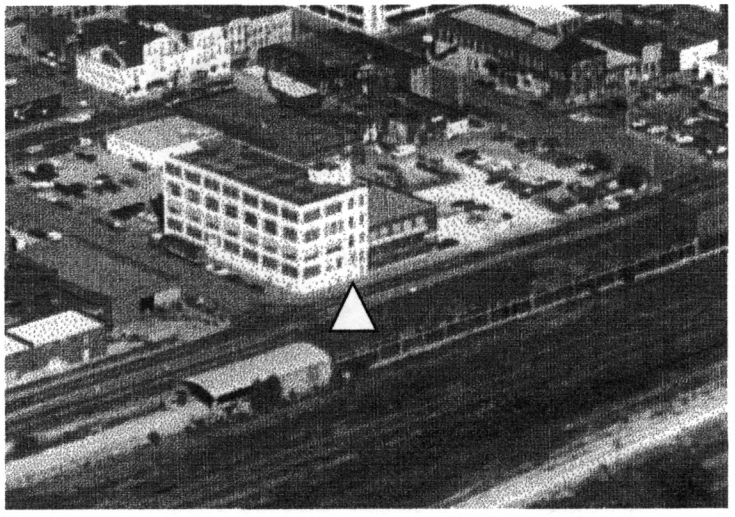


The 1950 revision of the 1910 Sanborn Fire Insurance Map documents the 1949 addition (light gray highlighting.)

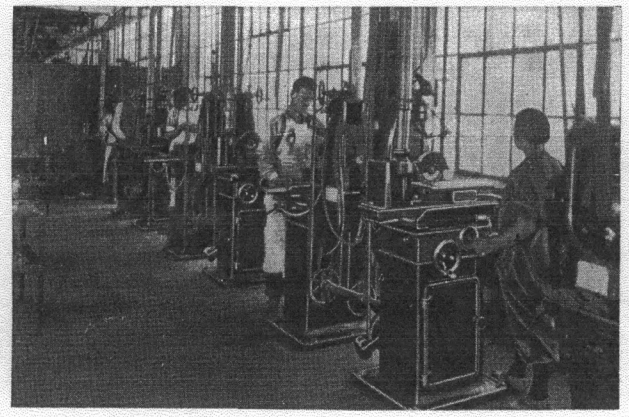
DAVENPORT HISTORIC AERIAL PHOTOGRAPH – ca.1970-1980

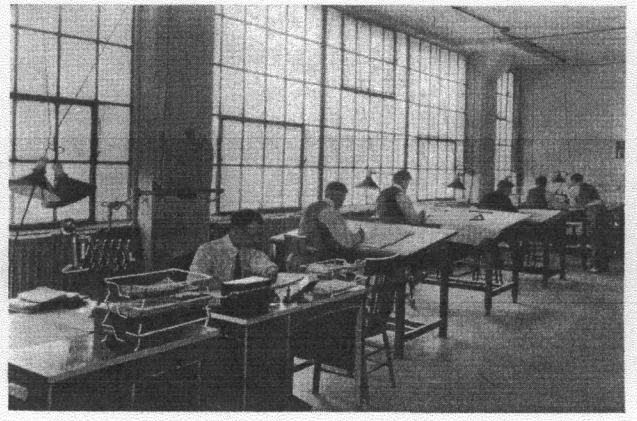
This undated, post-1968 aerial photograph of Davenport provides a view of the Linograph Building (located directly above, or northeast, of the stadium). The enlargement below (cut from the image above) gives a good idea of the appearance of both sections of the building during this period. Note that the historic entrances on the original building were absent by this time.

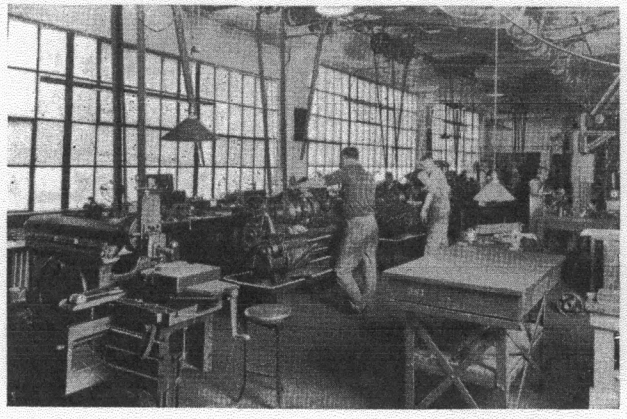


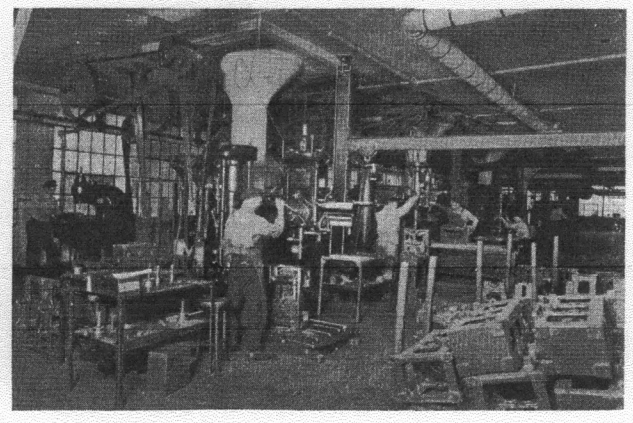
(Images courtesy of the Davenport Public Library, Richardson-Sloane Special Collections.)

LINOGRAPH COMPANY BUILDING INTERIOR PHOTOGRAPH – ca.1940









A ca.1940 pamphlet promoting The Linograph "52" includes these wonderful images of the building's interior. In them we gain a good understanding of not only the generally open nature of all spaces, but of the structural system, the impact of the oversized expanses of glass, the work and lighting fixtures, and the spatial configuration.

(The Linograph Corporation Papers: University of Iowa Special Collections.)

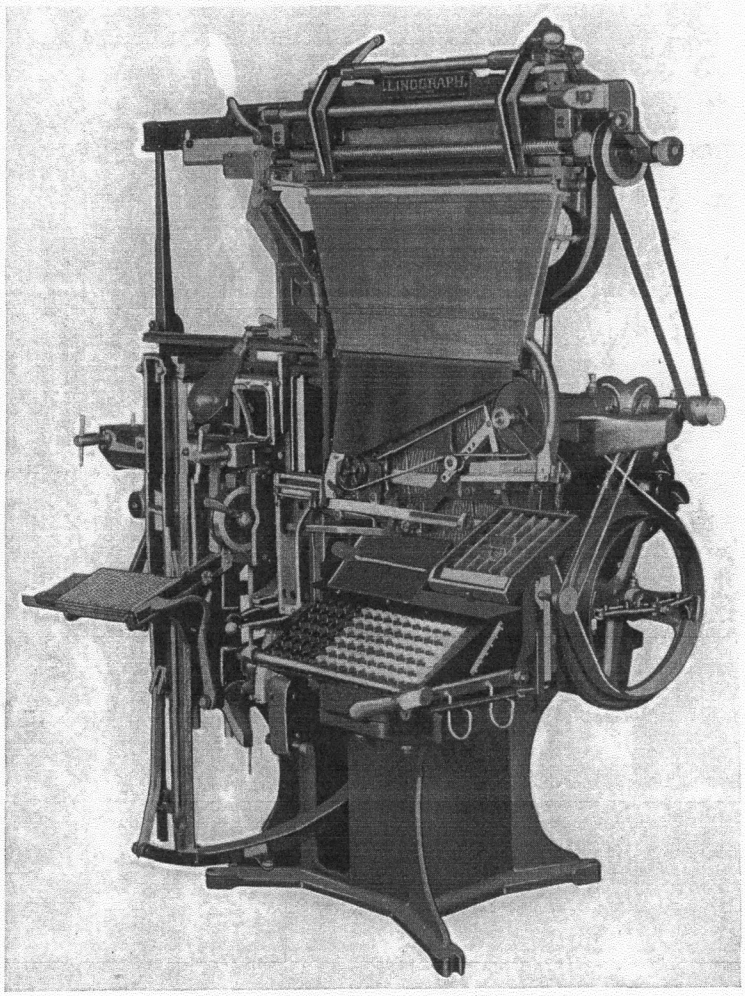
HISTORIC IMAGE - 1923

One Example of Linograph Service

The cover of the January of 1923 issue of *The Slug,* the company's house organ, not only documents the company's special delivery truck (called in because of a railroad embargo) and its cargo, but provides a glimpse of the building's exterior.

(The Linograph Corporation Papers: University of Iowa Special Collections.)

IMAGE OF MODEL 1 – 1912

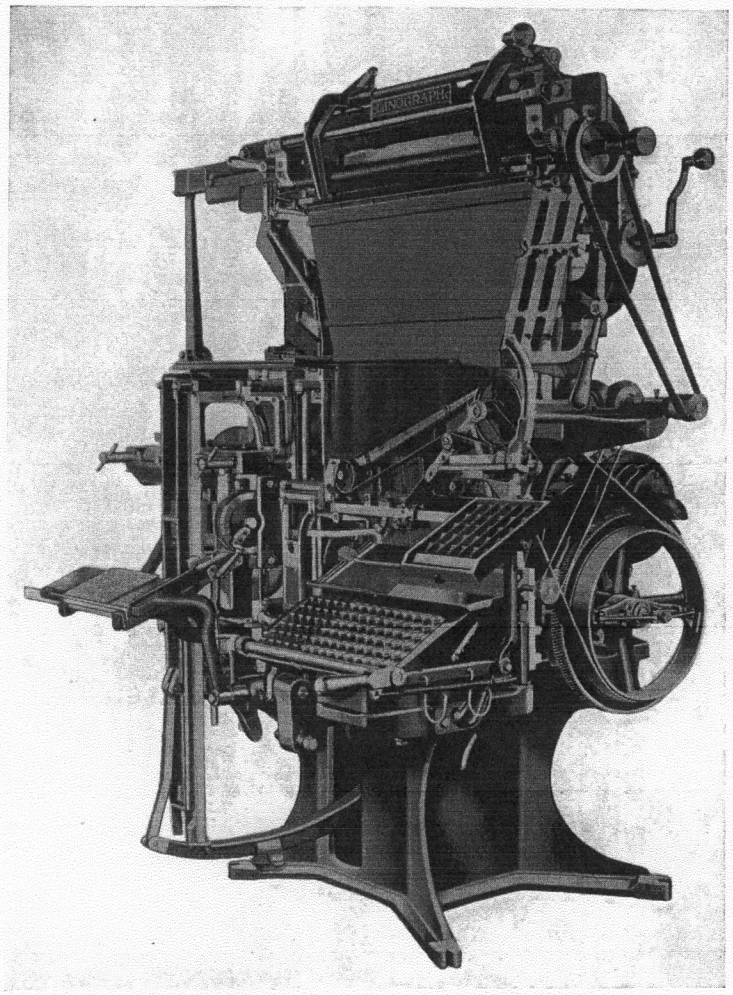


MODEL 1 LINOGRAPH

Carrying one magazine at a time, the Model 1 LINOGRAPH is notable for its extreme simplicity and relative freedom from adjustment. Extra magazines may be stored on a convenient wall rack which we furnish. The changing of magazines is a very simple, promptly executed procedure.

(University of Iowa Special Collections. The Papers of the Linograph Corporation.)

IMAGE OF MODEL 3 – 1921

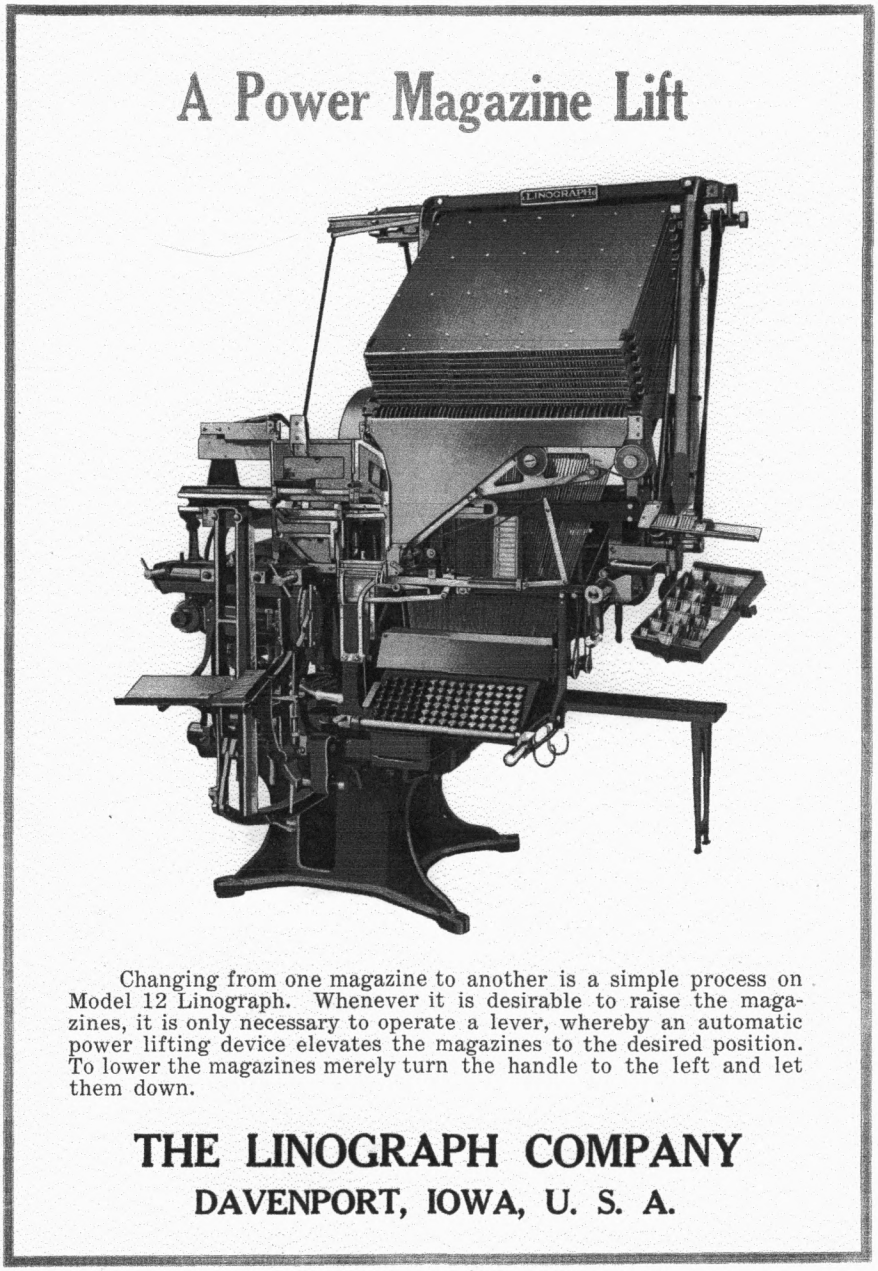


MODEL 3 LINOGRAPH

The Model 3 LINOGRAPH carries three magazines, each of which is capable of being quickly shifted into operating position. Additional magazines may be stored conveniently on wall racks for ready replacement of the magazines on the machine. A general favorite where quick changes are essential.

(University of Iowa Special Collections. The Papers of the Linograph Corporation.)

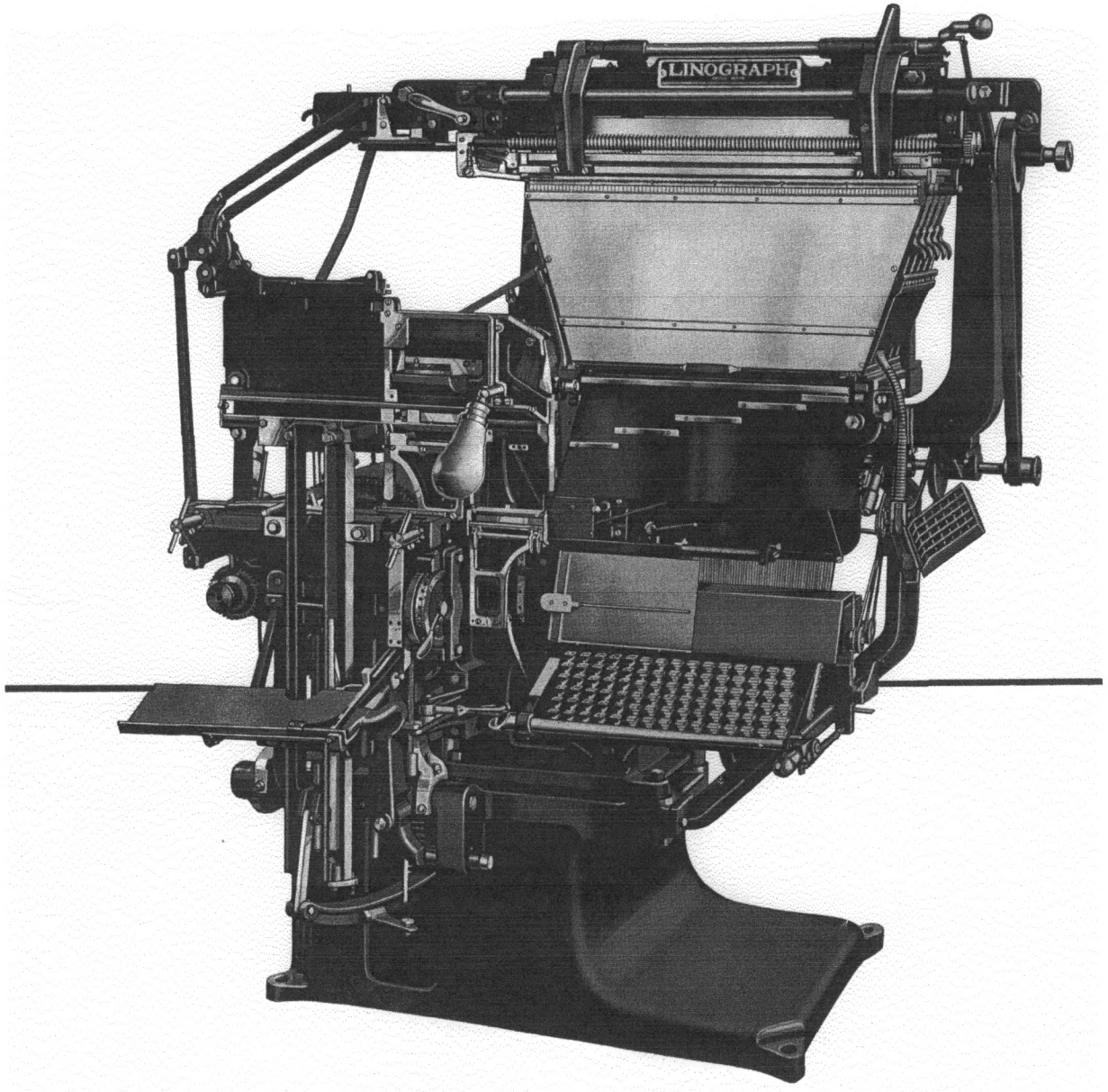
IMAGE OF MODEL 12 - 1923



The Model 12 Linograph was a vast improvement on the previous Model 1 and Model 3. The new machine not only carried twelve magazines, which increased production efficiency, but the machine accepted the magazines of its main competition, namely those of Intertype and Linotype.

(University of Iowa Special Collections. The Papers of the Linograph Corporation.)

IMAGE OF THE MODEL 5 – 1937



The Model 5 was introduced in 1937. The new machine, which carried five magazines, was promoted for its compact size, simplified design and affordability.

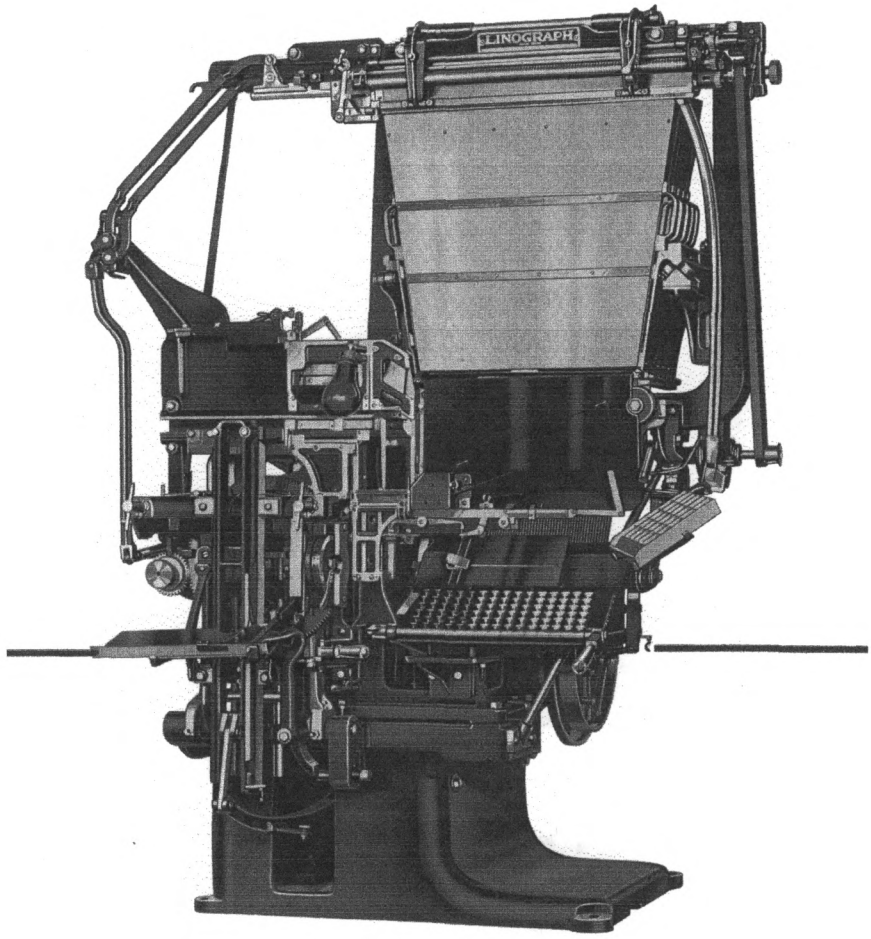
(The Papers of the Linograph Corporation. University of Iowa Special Collections.)

HISTORIC IMAGE - 1937

The Linograph Company took its Model 5 on the road in 1937, providing demonstrations to potential customers.

(The Papers of the Linograph Corporation. University of Iowa Special Collections.)

IMAGE OF THE MODEL 50 - 1938



THE LINOGRAPH "50"

STANDARD MATRICES • WIDER RANGE OF FACES WITH STANDARD KEYBOARD LAYOUT • SHORTER AND FASTER MATRIX TRAVEL • HIGH SPEED • SIMPLE ADJUSTMENTS • STRICTLY MODERN • TOP RANK QUALITY • TWO-LETTER DISPLAY MATS

The Linograph "50" was introduced in 1938. The new machine was touted as "the only machine built to carry five main magazines" which could be purchased incrementally, as needs warranted. Each magazine sold for $125 compared to the competition's at $400 or more – an apparent appeal to the small newspapers that formed the core of its market.

(The Papers of the Linograph Corporation. University of Iowa Special Collections.)

HISTORIC IMAGE – Hans Petersen - Not Dated

Hans Petersen (1872-1924) was the inventor of the Linograph. He and his brothers founded the company that, with the financial support of Davenport investors, became The Linograph Company.

(The Papers of the Linograph Corporation. University of Iowa Special Collections.)

HISTORIC IMAGE – Richard Englehart - 1952

Richard Englehart was one of the early stockholders of The Linograph Company and served as company president. He orchestrated the organization of the Englehart Manufacturing Company in 1944.

(Petersen. *The Story of Iowa*, 240.)

RELEVANT CULTURAL RESOURCE DOCUMENTS

The 2004-2005 "Architectural and Historical Survey, Davenport Central Business District" conducted by AKAY Consulting provides the most relevant, recent broadstroke cultural resource document. The survey evaluated the resources of the Central Business District for the purpose of identifying individual and/or district historic resources that bear the potential for listing on the National Register of Historic Places. The Linograph Company Building was identified during that project as potentially eligible for Register listing.

The historic rehabilitation of the Linograph Company Building is underway utilizing the Federal Historic Tax Credit program. The Part I of the application for credits was completed in 2006 with a "Certification of Eligibility" issued by the State Historic Preservation Office on November 13, 2006.

POTENTIAL FOR HISTORIC ARCHAEOLOGY

The potential for historical archaeology was not assessed as part of the present National Register nomination. However, given the high level of ground disturbance resulting from the construction of both buildings and the adjacent roadways, the possibility of the retention of such archaeological resources is unlikely.

RESEARCH METHODOLOGY

This National Register nomination utilizes a wide array of reference resources in an attempt to create a full picture of the historic significance of the resource. Of particular importance were the "Papers of the Linograph Corporation" located at the University of Iowa Special Collections. This collection includes numerous promotional pamphlets that illustrate the individual models of the Linograph and their individual capabilities. The work completed in 2004-2005 as part of that survey and evaluation provided a basis for understanding the history of Davenport and its commercial sector.

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International Printing Museum. Website: www.printmuseum.org.

Metal Type (a website of printers and typesetters). www.metaltype.co.uk

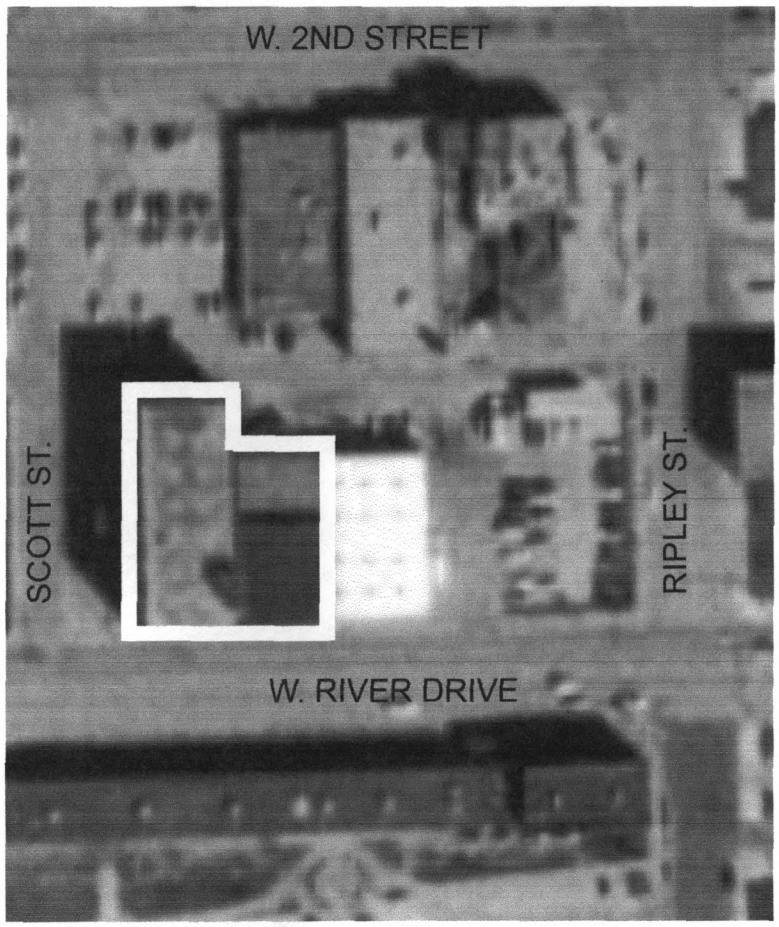
NewspaperARCHIVE.com

Democrat and Leader. Davenport, Iowa. February 25, 1949 "Englehart Co. Awards Contract For $125,000 Plant Addition to Soller Construction Co."

GEOGRAPHICAL DATA

Verbal Boundary Description

The Linograph Company Building, located at 420 West River Drive, is situated on Lots 1, 2, 3 and 4, Block 6 of the Original Town of Davenport. The boundary encompasses the 1920, five-story building and the 1949 addition to its east.



Boundary Justification

The boundary includes the 1920 Linograph Building and the 1949 addition to the east, both of which fall within the Period of Significance and represent the historic association for which the resource is considered eligible for listing on the National Register of Historic Places. A post-1970s addition on the east (seen here in white) has been demolished.

1. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Exterior: view of primary and east elevations, looking northwest across West River Drive
IA_ScottCounty_LinographCompanyBuilding_0001.tif
Epson Picture Mate Ink & Paper

2. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Exterior: view of primary and west elevations, looking northeast across the intersection of Scott and West River
IA_ScottCounty_LinographCompanyBuilding_0002.tif
Epson Picture Mate Ink & Paper

3. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Exterior: view of rear (north) and west elevations, looking southeast across Scott Street
IA_ScottCounty_LinographCompanyBuilding_0003.tif
Epson Picture Mate Ink & Paper

4. The Linograph Company Building
Scott County, Iowa
Photographer: MetroPlains, Inc., St. Paul, MN
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Exterior: view of east elevation, looking west
IA_ScottCounty_LinographCompanyBuilding_0004.tif
Epson Picture Mate Ink & Paper

5. The Linograph Company Building
Scott County, Iowa
Photographer: MetroPlains, Inc., St. Paul, MN
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Exterior: view of the 1949 addition – primary (south) elevation, looking northwest across West River Drive
IA_ScottCounty_LinographCompanyBuilding_0005.tif
Epson Picture Mate Ink & Paper

6. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Exterior: view of the 1920 building – primary and west elevations, looking northeast across West River Drive
IA_ScottCounty_LinographCompanyBuilding_0006.tif
Epson Picture Mate Ink & Paper

7. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Interior: view of the 1920 building – typical hallway
IA_ScottCounty_LinographCompanyBuilding_0007.tif
Epson Picture Mate Ink & Paper

8. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Interior: view of the 1920 building – bedroom showing integration of structural system into new floor plan
IA_ScottCounty_LinographCompanyBuilding_0008.tif
Epson Picture Mate Ink & Paper

9. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Interior: view of the 1920 building – typical apartment main living area (living room-kitchen)
IA_ScottCounty_LinographCompanyBuilding_0009.tif
Epson Picture Mate Ink & Paper

10. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Interior: view of the 1920 building – 5th floor looking to the southwest, prior to completion of interior walls
IA_ScottCounty_LinographCompanyBuilding_0010.tif
Epson Picture Mate Ink & Paper

11. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Interior: view of the 1949 addition – typical apartment
IA_ScottCounty_LinographCompanyBuilding_0011.tif
Epson Picture Mate Ink & Paper

12. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Interior: view of the 1949 addition – typical apartment
IA_ScottCounty_LinographCompanyBuilding_0012.tif
Epson Picture Mate Ink & Paper

13. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Interior: view of the 1920 building – basement level
IA_ScottCounty_LinographCompanyBuilding_0013.tif
Epson Picture Mate Ink & Paper

14. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Interior: view of the 1949 addition – basement level
IA_ScottCounty_LinographCompanyBuilding_0014.tif
Epson Picture Mate Ink & Paper

15. The Linograph Company Building
Scott County, Iowa
Photographer: Alexa McDowell, AKAY Consulting, Boone, IA
November 24, 2008
CD-ROM on file with MetroPlains, Inc. and the Iowa State Historic Preservation Office.

Exterior: view of new entrance on east elevation of 1949 addition
IA_ScottCounty_LinographCompanyBuilding_0015.tif
Epson Picture Mate Ink & Paper