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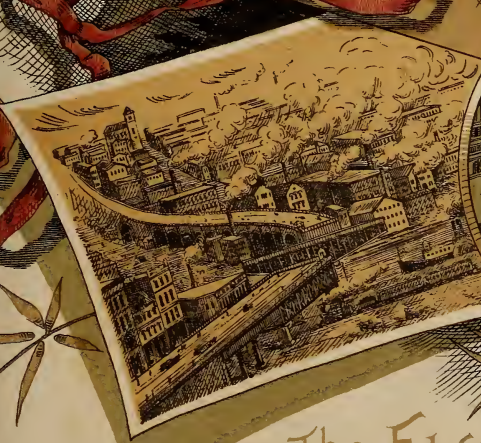
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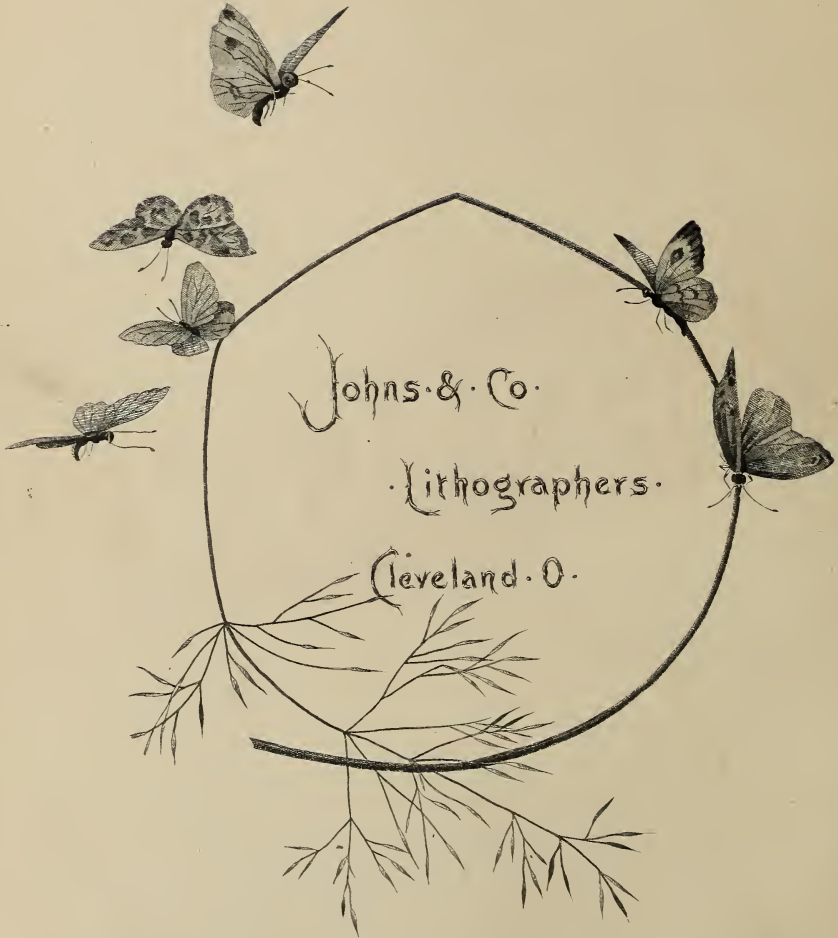
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THE
INDUSTRIES
OF
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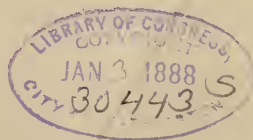
THE
INDUSTRIES OF CLEVELAND.

A RÉSUMÉ OF THE
MERCANTILE AND MANUFACTURING PROGRESS
OF THE
FOREST CITY,

TOGETHER WITH
By J. S. Hart,
comp.
A CONDENSED SUMMARY OF HER MATERIAL
DEVELOPMENT AND HISTORY

AND
A SERIES OF COMPREHENSIVE SKETCHES
OF HER
REPRESENTATIVE BUSINESS HOUSES.

CLEVELAND, O.:
THE ELSTNER PUBLISHING COMPANY,
1888.



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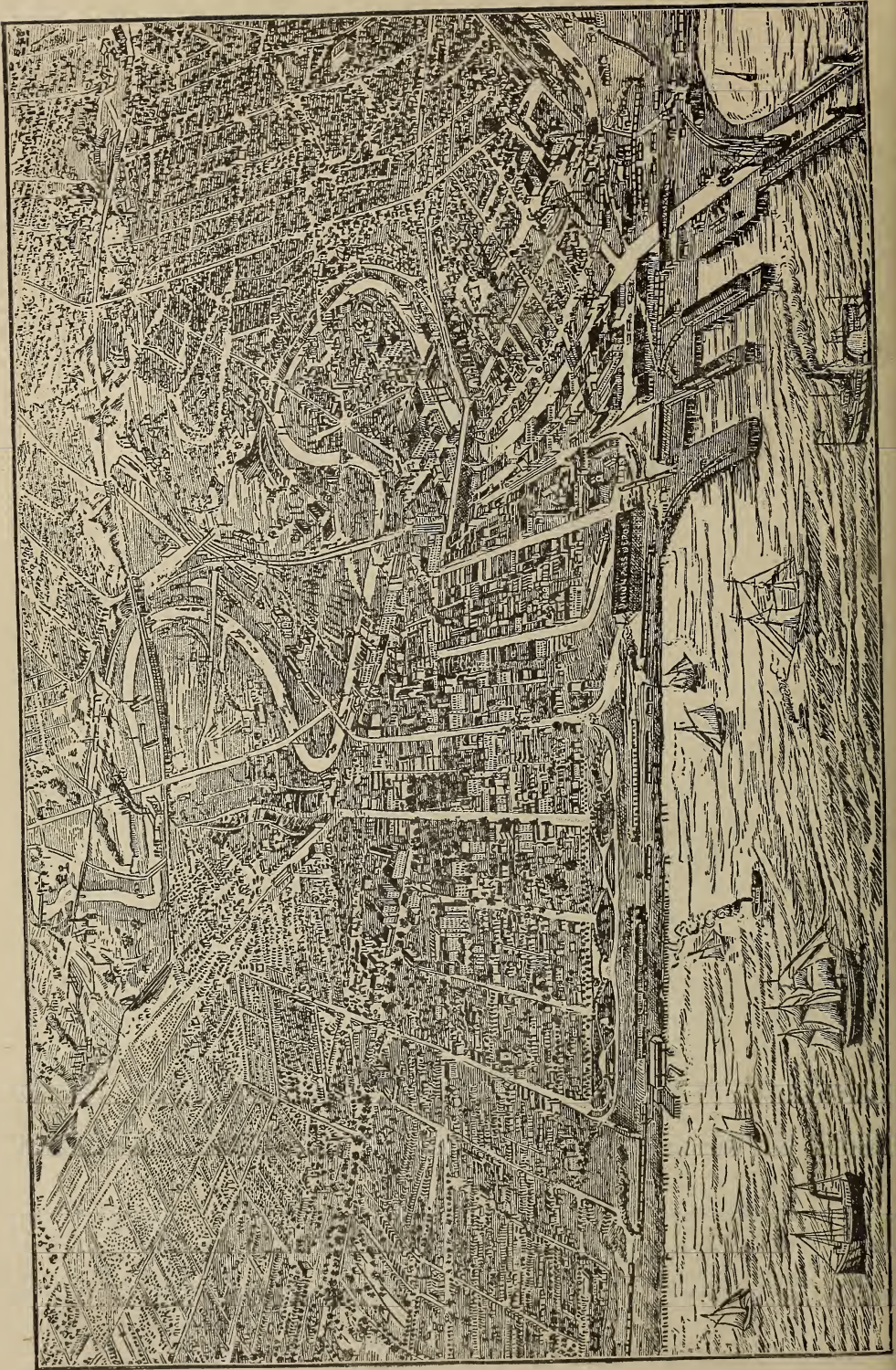
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P R E F A C E.

THE object of this work is two-fold—first, to lay before the reader in concise yet comprehensive form a plain and unadorned narrative of Cleveland's past career, a succinct presentation of her present corporate, commercial and manufacturing magnitude, and a prophetic view of her coming greatness ; second, to employ the same vehicle for conveying to buyers and consumers at a distance, through the appended series of brief sketches of leading business houses, producers and handlers, some adequate idea of the resources of this market, and thereby attract to it a still larger share of trade and a greater share of active, enterprising immigration and productive capital.

In this, as in all similar works, the projectors have had many and serious obstacles to contend with, principally at the hands of those who should have been most earnest and liberal in their encouragement ; consequently the space devoted to some important interests is limited ; but we have at least the satisfaction of feeling that we have conscientiously performed the duty assumed to the best of our ability. We wish in this place to acknowledge our obligations to all who have extended assistance in the matter of data or otherwise, prominent among whom are Librarian Brett of the Public Library ; Messrs. Bowler & Co. ; the Leader Publishing Company ; the *Plain Dealer* ; Mr. A. A. Pomeroy, editor of the *Marine Record* ; the Cleveland Stone Company (who supplied the material used in the construction of the High School and Masonic Temple, illustrated in these pages) ; the Globe Iron Works Company ; the Cleveland Ship-building Company ; Wm. Edwards & Co. ; McIntosh, Huntington & Co. ; Benton, Myers & Co. ; Root & McBride Bros. ; Cleveland Co-operative Stove Co. ; Chisholm Steel Shovel Works. ; Johns & Co., lithographers ; The Williams Publishing Co., and others.

The result of our labors is herewith presented, and if its perusal and effect gives the Cleveland public half as much satisfaction as its preparation has caused us thought and anxiety, we shall feel abundantly repaid.

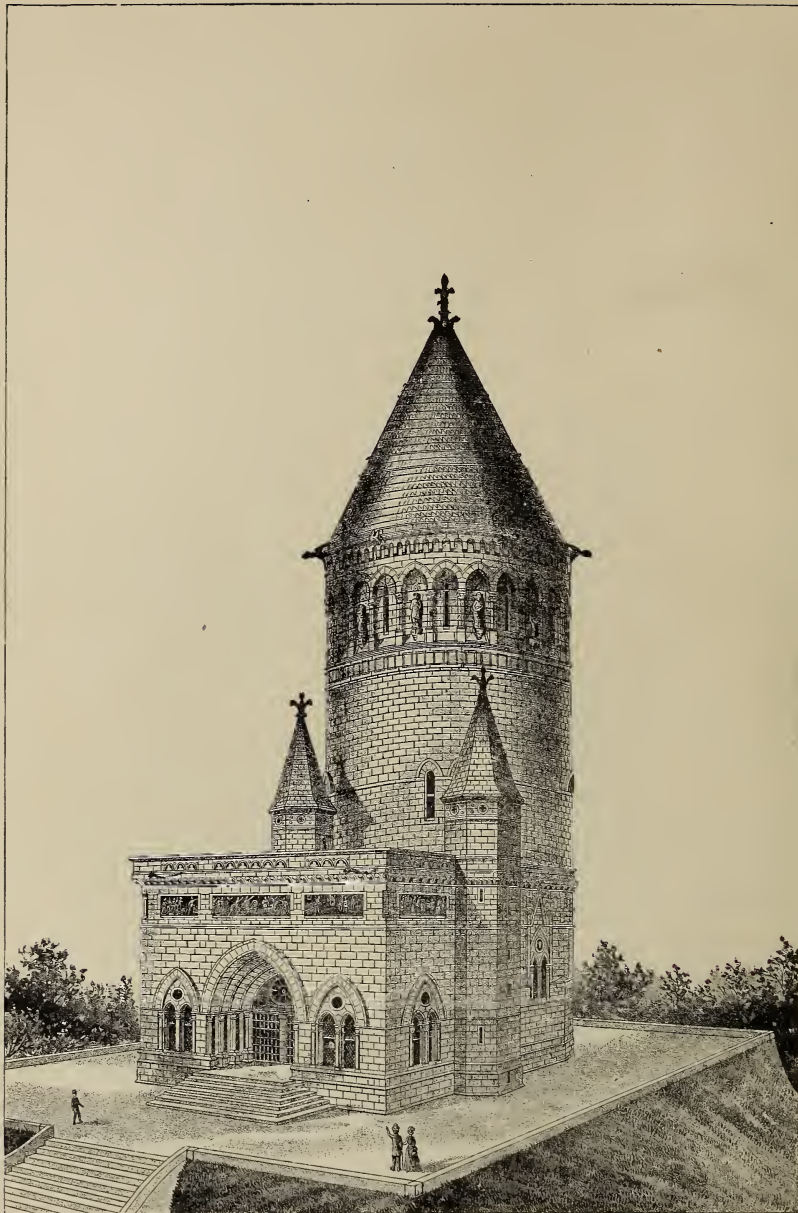


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GARFIELD NATIONAL MONUMENT
ERECTED AT LAKE VIEW CEMETERY
CLEVELAND, OHIO, 1886.
HEIGHT 150 FT.

THE PAST.

ABORIGINAL OCCUPANTS—THE WESTERN RESERVE—NEW CONNECTICUT—
TERRITORIAL GOVERNMENT—CLEAVELAND'S SURVEY—PLATTING OF THE
VILLAGE—GROWTH AND CHARTER OF TOWN AND CITY—UNION WITH
OHIO CITY—RAILROADS AND NAVIGATION—PUBLIC INSTRUCTION AND
IMPROVEMENT—MANUFACTURES AND COMMERCE.

It is not to be expected that in a work of this kind, necessarily compact and brief in character, the author should enter into a detailed and particular account of all historical and legendary events and speculations anterior to the actual settlement of the locality of which he writes ; consequently much that is of itself interesting, though irrelative, will be entirely ignored or lightly touched upon, the seeker for mere literary amusement and accounts of romantic adventure being referred to the former historical publications to be found on the shelves of the Historical Society and the Public Library. Cleveland herself is our subject, and we shall confine ourselves to a plain matter-of-fact account of her origin, vicissitudes and progress to the present time, with casual reference to such individuals and occurrences as have exerted marked influence upon her growth and well-being.

The French missionary, La Roche Daillon, is credited with the first reliable information supplied to Europeans concerning the Indian occupants of the country lying between the Cuyahoga and Niagara rivers. He carried the gospel to the Neuter Nation, on the north shore of Lake Erie, as long ago as 1626, and visited some of their scattered villages west of Buffalo, where he learned that the warlike Eries held the entire south shore from Cataraugus creek to Sandusky. These Indians were related in blood and language to the celebrated Five Nations (Mohawks, Cayugas, Onondagas, Oneidas and Senecas), who in 1650 extirpated their only rivals in Western New York—the Hurons and Kahquahs. Four years later, as the Six Nations (having admitted the Tonawandas to their confederation), they made relentless war upon the Eries, who retired with 1000 warriors to a point near Cleveland, fortified their position, and awaited results. The enemy soon appeared, 1800 strong, coming in canoes, which they used as

shields, assaulted the doomed Eries and exterminated them with the exception of a few children. The victorious Iroquois were now masters of the magnificent hunting grounds and the lake east of the Cuyahoga, while westward to Lake Michigan the Chippewas, Ottawas and Pottawatomies claimed and held the country.

It is claimed that the Cavalier La Salle, in 1669, came to the south shore of Lake Erie, crossed the trackless wilderness to the Ohio, and descended that fine river to the falls. He published, in 1672, a map of Lake Erie, partly drawn from imagination—the first ever made—and six years later built a vessel in the Niagara river, embarked therein and explored the lake in all of its extent and the adjacent country as well. His vessel was lost mysteriously in 1678. La Salle was a daring and adventurous man, and to him more than to any other individual France owed her temporary ascendancy on the lakes and the Upper Mississippi. The Iroquois continued in possession of the country for a long period, until its purchase and settlement by the whites subsequent to the old French war, 1744—1748, at the conclusion of which the American colonists began a movement that culminated, after the surrender of Canada to the English, in placing this region under the domination of the British crown as a part of the province of Quebec, previous to which, however, the French had erected forts at Pittsburgh, Detroit, and on the Cuyahoga several miles from the lake. Later it became a portion of New York, subject to the claims of Virginia and Connecticut, the first named States ceding their rights to the general government in 1780, and Connecticut following their example in 1786, except as to a strip lying between parallels 40° on the south and 42° 1' on the north and 120 miles long from the western boundary of Pennsylvania. This strip comprises the world-renowned Western Reserve—a tract of unsurpassed farming and grazing land, at the extreme northwest corner of which now stands the rich and populous city of which its people are so justly proud—the northern metropolis of the State—the far-famed Forest City—Cleveland.

The mouth of the Cuyahoga was first utilized as a port in 1786, when Lake Erie's mercantile marine consisted of a single small schooner, the *Mackinaw*. The occasion was the shipment of a lot of flour and bacon to Detroit consignees, the goods being brought hither on horseback through the wilderness. It is stated that ninety horses and thirty men were employed in this service, making six round trips from and to Pittsburgh and consuming an entire summer. Those were slow times.

The Northwest Territory, comprising all that vast region lying between the Allegheny mountains on the east, the Mississippi river on the west, the lakes on the north, and the Ohio river on the south, was organized by act of Congress in July, 1787, and the original white settlement of Ohio was made at the mouth of the Muskingum river and called Fort Harmar, the site of the present town of Marietta. In 1789 the country west of the

Cuyahoga was finally ceded by the aborigines to the government, but the next year they began a series of bloody outrages on the frontier that led to war, General Harmar being defeated by the savages that year and General St. Clair meeting a like fate in 1791. The celebrated "Fire Lands," half a million acres at the western extremity of the Reserve, were so named because of their cession by the Connecticut Legislature, in 1792, to parties whose property was destroyed by the British forces in the War of the Revolution. In 1794 General Anthony Wayne, at the head of a strong and well-appointed body of troops, was sent to the frontier to look after the eleven tribes of marauding Indians—a duty which he discharged so well that they were glad to treat for peace on any terms.

Early in 1795 the Connecticut Legislature appointed a 'commission of eight, with authority to sell the Western Reserve lands, or 3,000,000 acres thereof adjoining the Pennsylvania line, at not less than 33½ cents per acre—all to be disposed of before any titles were to be conveyed—a work which was performed to the satisfaction of all concerned, the price obtained being 40 cents per acre. An association of the purchasers was then formed, known as the Connecticut Land Company, of which Jonathan Brace, John Caldwell and John Morgan were made trustees, with power to issue deeds as provided for in an agreement to divide the property, officers of the organization having authority to allot to each member his *pro rata* share. A board of seven directors was also provided for, whose duty it was to sell that portion of the company's lands lying east of the Cuyahoga river. General Moses Cleaveland of Canterbury, Connecticut, was a member of this board, and when, in the spring of 1796, a surveying party was organized to proceed to the Reserve and lay out the lands referred to, he was placed at its head. The expedition, well supplied with whisky and trumpery merchandise, held a pow-wow with the representatives of the Iroquois at the present site of Buffalo, beginning on June 21. On the 22d the chiefs of the noble red men, including Joseph Brandt and Red Jacket, got frightfully drunk, and on the 23d, while still suffering from their debauch, they were induced, by the promise of \$1500 worth of beads, cheap cutlery, etc., to conclude a treaty by which settlers on the Reserve were to live unmolested forever. Embarking in boats, the explorers reached Conneaut July 4, celebrated the day, and pushed on to the Cuyahoga ("Crooked River"), arriving July 26, and immediately establishing headquarters on shore. The first houses ever built by American citizens in Cuyahoga county were soon after erected on the east shore of the river, near the mouth—a small log cabin and warehouse, the first for Job Stiles and wife, and the latter for the surveying party's scanty stores, of which Job was made custodian. The Reserve was at that time popularly called New Connecticut, and, acting upon the authority vested in him by the company he represented, Cleaveland selected a tract of 520 acres fronting on the lake, on the eastern shore and at the mouth of the Cuyahoga, for the capi-

tal, surveying and making a plat of the same in September, 1796, the tract being divided into two-acre lots. He could have hardly anticipated the wonderful subsequent growth of the place, as he made provision for twelve streets and lanes only. The division into town lots was afterward completed, and then came the task of selecting a name for the infant city of the wilderness—a point decided by Cleaveland's associates, who concluded that the name of their leader was sufficiently euphonious and particularly appropriate. It is asserted that the elimination of the "a" from the city's name is due to the ingenuity of a newspaper printer of 1830, whose poverty of materials forced him to leave out a letter of the title in order to crowd the name into the space allotted to it. At any rate, whatever its origin, the innovation became popular, and for many years the present orthography has been universally accepted. Moses Cleaveland was a native of Canterbury, Connecticut; born January 27, 1754; graduated from Yale in 1777; was a captain in the Continental army; a successful lawyer, a member of the Legislature, a brigadier-general of the militia, and Grand Master of the Grand Lodge of Connecticut, F. and A. M. Soon after completing his labors as pioneer civil engineer of Northern Ohio, General Cleaveland gathered his party together and returned to his Connecticut home, where, in 1806, he died, honored and respected by the entire commonwealth.

After his departure the sole remaining white occupants of New Connecticut were Job Stiles, his wife, and one Joseph Landon—the latter soon afterward disappearing. Edward Paine, an Indian trader (subsequently General Paine of Painesville), came a little later, made his home with the Stiles family, and waxed rich. Mrs. Stiles is said to have been the mother of the first white native of Northeastern Ohio, born in that humble cabin by the Cuyahoga, in 1797. During this year James Kingsbury and family, Major Lorenzo Carter and his brother-in-law, Ezekiel Hawley, with their families, arrived here, all coming from New England—the Kingsburys from New Hampshire, the Carters and Hawleys from Vermont. In June David Eldridge, one of the surveying party, who had returned, died, and in July one Clement, a Canadian, was married to Chloe Inches, a servant in Carter's family. In connection with this wedding we first find mention of Rev. Seth Hart. Among the prominent arrivals during the summer of 1799 were David and Gilman Bryant, father and son; Rudolphico Edwards and Nathaniel Doane. Chills and fever were prevalent this summer in the "bottom," and several of the settlers built cabins and removed to the high grounds several miles from the mouth of the river. The same year W. W. Williams and a Major Wyatt erected a grist mill—the first in this section—at the Mill creek falls, to which they added a saw-mill the next season. Miss Sarah Doane, a daughter of Nathaniel, opened a school at Newburg in 1800, which was for a time the only fount of learning in what is now Cuyahoga county, the settlers' children for miles around attending. The same year the title to the Reserve was reconveyed by the general govern-

ment to the State of Connecticut, and on the 10th of July following the Territorial Legislature erected the county of Trumbull, so named for Governor Trumbull of the Nutmeg State. In the fall of the same year Edward Paine was elected to the Legislature, forty-two votes being cast, of which he received thirty-eight. Previous to that time all Eastern Ohio comprised but two counties—Jefferson and Wayne—out of which was carved Trumbull, embracing within its limits the present Cuyahoga and several other counties.

The year 1801 was a prosperous one for the new settlement, notwithstanding the arrival of a lawyer—Samuel Huntington—and the erection of a distillery by David Bryant. Independence day was celebrated this year by a ball, at which were present nearly all the white people of the village and vicinity, some thirty in number. New whisky, maple sugar and dancing were the order of the day and night, and “the rude forefathers of the village” probably had a glorious time—of the kind—and appropriate to the period.

Two years later, in 1803, Ohio was admitted to the Union, and in the reorganization Trumbull county was entitled to a Senator, that honor falling to Samuel Huntington, the lawyers then, as now, coming in for most of the plums. He was chosen to preside over the Senate, and in April appointed to the Supreme bench of the new State. The usual and natural growth and progress of new communities attended Cleveland until, in 1809, Cuyahoga county was organized, bounded almost as at present, the only changes since made being the loss of Willoughby township, ceded to Lake county, and the gain from the same county of Dover and Olmstead townships. The first legally constituted court of record convened June 10, 1810, in a small frame building on Superior street, Judge Ruggles on the bench, John Walworth, clerk, and S. S. Baldwin, sheriff. The first regular court-house, a substantial log structure, was erected on the Public Square in 1812, and the first execution—an Indian, for the murder of two white men—took place the same year. He was a “big brave,” and boasted how fearlessly he could die, but when the time came the sheriff could do nothing with him until Lorenzo Carter (the dread of all the Indians hereabout) came on the scene, gave the criminal a pint of whisky, and persuaded him to meet death under the influence of Dutch courage. Carter was a vigorous and fearless man, and his word was law with the red men as well as with the lower class of whites. He was also an enterprising man, and in 1808 owned the first vessel that ever traded regularly out of this port—the sloop *Zephyr*, the pioneer of Cleveland’s lake commerce—but it was not until 1814 that the port of Cleveland became of any importance, the harbor being extremely shallow and cargoes lightered to and from vessels lying off shore. Despite all disadvantages, however, trade increased, and finally the general government was induced to undertake the work which, extended from time to time, has resulted in the excellent harbor facilities now en-

joyed. The village was chartered by the Legislature in the winter of 1814-15, and the first Monday [of the ensuing June nine of the twelve voters were elected to office, Alfred Kelley heading the list as Mayor. The Commercial Bank of Lake Erie, Leonard Case president, was established in 1816. A year later an Episcopal church congregation was founded—the germ from which grew Trinity church corporation, organized in 1828. The Presbyterian church was established here in 1820, the Methodists in 1830, the Baptists in 1832, the Catholics in 1835, the Israelites in 1839. A sailors' bethel was built in 1835. As a consequence of the construction of the Erie canal from Buffalo to Albany, begun in 1817, the State of Ohio commenced the same year the building of a similar work from Cleveland to Portsmouth. Ten years later, when Cleveland had but 1,000 inhabitants, the canal was completed to Akron, the center of a rich farming country, which sought a market for its produce *via* the new public work, and at the same time offered through the same route a promising field for mercantile enterprise—an opportunity that was not wasted, as statistics of the time show a trade between the points named aggregating \$200,000 in value, while the shipping facilities of the port were proportionately increased. The canal statistics for 1830 show shipments of 500,000 bushels of wheat and 100,000 barrels of flour, besides great quantities of other commodities. The canal was opened its entire length in 1832, and the same year an immense volume of immigration set in from New England.

The *Gazette and Commercial Register*, Cleveland's pioneer newspaper, appeared July 31, 1818, and was followed a year later by the *Herald*, a paper which for sixty years stood at the head of Northern Ohio journalism, finally committing *hari-kari* in a senseless quarrel with a rival. The same fate seems in store for its two morning survivors, both of which devote much space to personal and political vituperation that might be more profitably given to the news of the day.

The *Walk-in-the-Water*, the pioneer lake steamer, bound from Buffalo to Detroit, arrived at Cleveland September 1, 1819, and was appropriately received and saluted.

A private corporation undertook the building of a pier and the improvement of the harbor in 1816, but storms destroyed their work, and nothing more was attempted until 1826, when Congress made an appropriation for the building of piers, the opening of the eastern channel, and the removal of obstructions from the river's mouth—a work which gave a grand impetus to commerce in this port.

The log court-house erected on the Public Square in 1810 had become inadequate as a temple of justice by the year 1828, and in that year a neat frame building was completed for the purpose at the southwest corner of the square, and occupied forthwith. Four years later crime had become so common from the advent of the riff-raff of all nations that a new jail

had become a necessity, and was built on Champlain street, not far from Seneca.

The phenomenal exodus from New England to the West, which began in 1832, continued unabated for several years, Cleveland benefiting greatly from it—so much, indeed, that her population in 1835 had risen to 5,080, while her trade and manufactures had increased out of all proportion to the number of her citizens—a result due no doubt to the industrious, energetic and ingenious character of the sturdy race who from the first and to this day have continued to control her destinies.

Up to this time we have stuck closely to our text—the history of Cleveland—making only such diversions as were necessary to a clear narration thereof. Now, however, it becomes incumbent upon us to refer briefly to her nearest and only pretentious rival, Ohio City, perched upon the slopes and heights west of the river, now known as West Cleveland, or, more popularly, the West Side. A bitter jealousy had long existed between the two towns, each striving for precedence, and when Cleveland received her charter in 1836 the rage of her trans-Cuyahoga neighbors knew no bounds. It is laughable now, but it was a serious matter then, and led to bloodshed in 1837, the circumstances being as follows: A conspicuous and public-spirited citizen of Cleveland, James S. Clark by name, in 1835, at his own expense, constructed a substantial and serviceable drawbridge across the river at Columbus street, dedicating the same to the common use of the public, free of charge. Ohio City's charter was issued in 1837, whereupon began a wrangle between the Councils of the respective cities over precedence and control of the bridge, each claiming prior and exclusive rights, which claims were equally preposterous on the part of either. Nevertheless, violent partisans were not wanting to champion the cause of each; inflammatory appeals were made to the passions of the thoughtless and reckless; epithets, threats and boasts were bandied, and finally came the culmination—the famous and sanguinary battle of the bridge. An armed mob appeared simultaneously at each end of the structure, both equally determined to seize and hold it, and bullets, stones, clubs and miscellaneous missiles were employed with telling effect. Notwithstanding the Clevelanders had a piece of artillery so planted as to command the bridge, the West-siders proved the better soldiers or the most numerous, for they drove their antagonists off, captured and spiked the gun, cut away the draw across the channel, blew up the middle pier, partially destroyed the abutment on their own side of the river, and were preparing to carry the war into Africa, when the mayor of Cleveland, backed by the sheriff of the county, came upon the scene, and with a strong *posse* seized the approaches to the bridge and made numerous arrests. A good many men were more or less seriously injured in the *melee*. The dispute was finally settled by judicial decision, and the cruel war came to an end.

Up to 1836 there were no public schools—a want provided for by Coun-

cil June 22, when an ordinance was passed levying a tax for that purpose. The same body in the succeeding October appointed a board of school managers, consisting of John W. Willey, Daniel Woolley and Anson Hayden. Council followed up the work by enacting a school ordinance in July, 1837, and in 1839, on the recommendation of the school board, the city acquired what was known as the "old academy" property on St. Clair street, and lots on Prospect and Brownell streets, upon which modest frame school-houses were erected. The capacity of the three schools was sufficient for only 600 pupils, and before the first of January, 1840, there were over 1000 applicants for admission, of whom 900 were accommodated by the building of additions and the renting of rooms. A high school for boys was opened in the old Prospect-street church in July, 1846, with an attendance of 34, which increased during the term to 83. A question having arisen as to the legality of the high school establishment, recourse was had to the Legislature, which conferred upon Council the requisite authority, and an ordinance subsequently passed made it a permanent branch of the system of public instruction. The city acquired the ground upon which the Central High School now stands in 1856, upon which a temporary school-house was erected, and in 1858 built the present edifice.

When chartered as a city, in 1836, Cleveland had a population of nearly 4000. At the city election in April of that year Leonard Case and John W. Willey were candidates for mayor, the latter winning by a handsome majority. The first municipal legislature consisted of Richard Hilliard, Nicholas Dockstader and Joshua Mills, aldermen, and Morris Hepburn, John R. St. John, W. V. Craw, S. J. Andrews, H. L. Noble, Edward Baldwin, Aaron Strickland, Horace Canfield, and A. M. T. Smith, councilmen. The vote cast was 580. S. J. Andrews was chosen president of Council, and H. B. Payne clerk and city attorney. The city then comprised three wards, and the fourth was not added until 1850, though in the meantime the population had increased to over 18,000. Three more wards were organized in 1854.

The Legislature in February, 1846, on a special petition, empowered the city by its representatives to subscribe to the capital stock of the Cincinnati, Columbus & Cleveland Railway Company in the sum of \$200,000. Two years later, by the same authority, \$100,000 was subscribed to the Cleveland & Pittsburgh railroad. In 1851 \$200,000 was subscribed to the stock of the Cleveland, Painesville & Ashtabula railroad, the State taking \$100,000 worth of Junction railroad stock—the latter road connecting Cleveland and Toledo. These last named roads, subsequently passing under one management, now form the Ohio section of the magnificent double-track Lake Shore & Michigan Southern, the finest, costliest and most perfectly equipped steel highway in the West. The Cincinnati, Columbus & Cleveland, another, superb and profitable road, also in large part

owes its speedy construction and very existence to the timely aid thus given by the enterprising and public-spirited citizens of Cleveland.

The original Cleveland Water Company was incorporated in 1833, but accomplished nothing. An act passed the Legislature in May of 1854 authorizing Council to submit a proposition to the popular vote to negotiate a loan, to the amount of \$100,000, for the purpose of establishing water-works. The measure carried, the money was quickly raised, and in 1856 the entire city was abundantly supplied with pure Lake Erie water. The mains and service have been extended with the growth of the municipality, and probably no population on earth are better provided in this respect than that of Cleveland.

The Cleveland Gas Light and Coke Company, incorporated February 6, 1846, let its franchise lie idle for two years, when M. G. Younglove took hold of the enterprise and pushed it to a successful issue.

In 1854, previous jealousies having been allayed, the former rivals, Cleveland and Ohio City, with a combined population of over 25,000 and casting a vote of 3160, decided at the polls to consolidate as a single city under a common name, buried the hatchet and united their fortunes—a step that has resulted in unnumbered advantages to all concerned. June 5 the agreement was signed by representatives of the respective cities, the necessary ordinances were adopted by the two Councils, ratification ensued the next day, and Ohio City was merged into Cleveland, as wards 8, 9, 10 and 11.

The population of Cleveland in 1860, as shown by the census, was 43,838. By annexations of new territory August 6, 1867, there were fifteen wards. East Cleveland village was admitted October 24, 1872, as the Sixteenth and Seventeenth wards, and Newburg as the Eighteenth December 18, 1873. Council redivided the city into twenty-five wards February 4, 1884, and again, February 23, 1886, into forty wards, each entitled to one representative in the body creating it.

We summarize: The United States census for 1870 puts the population of Cleveland at 92,825. Ten years later (1880) the figures had expanded to 160,141. Since then the increase has been both steady and rapid—1881, 167,413; 1882, 185,851; 1883, 194,684; 1884, 200,429; 1885, 205,446; 1886, 238,953; and, according to the carefully prepared estimate of the City Directory, the population contained within the corporate limits July 1, 1887, was 239,226—the lowest ratio of gain for many years, due, no doubt, to the general good times that have prevailed everywhere, thus removing the incentive to migration, and to other easily ascertained causes. Tax duplicate for 1887, \$92,000,000. Real estate is on a sound and healthy basis, requiring no undue stimulation to assist the steady appreciation of values. For the five months ending June 1, 1887, real estate to the value of \$5,066,327 was transferred in Cleveland as compared with \$3,159,509 during the corresponding five months of 1886. Building operations are constantly active, the twenty-seven brick yards of Cleveland turning out in

1886 more than 60,000,000 brick, worth in the aggregate nearly \$490,000. There were received at Cleveland, in 1886, 325,000,000 feet of lumber, 50,000,000 shingles and 30,000,000 lath.

Cleveland's first railroad—the Cincinnati, Columbus & Cleveland—was opened to traffic in 1851. In quick succession the Cleveland & Pittsburgh Lake Shore, Cleveland & Mahoning Valley and Junction (to Toledo) followed, and the city enjoyed the distinction of being a great railway center—an honor somewhat dashed, however, by the fact that the two first named, with eastern connections, rather overdid the thing and carried trade to distant points, thus for a while checking business and seriously threatening the lake commerce of the port. Eventually the other lines more than compensated for this drawback by bringing the agricultural and mining regions of the interior within easy reach, thus imparting a fresh impetus to merchandising and manufactures, and incidentally preparing the way for the substantial progress and prosperity which have attended Cleveland for many years. Her advantageous position with reference to the coal fields on the Southeast and the iron mines of the Northwest was perceived at an early day by enterprising men, and the building of railroads and fleets of lake craft supplied the opportunity which they were not slow in utilizing of making this the most important of the Western iron manufacturing centers—an accomplished fact attested no less by her thousand smoke-belching chimneys, her ringing factories and multitude of well-paid toilers than by dry statistics. It would be impossible to name all, and invidious to distinguish by special mention only a few of those who contributed in the past of their time, labor and means to build up and conduct to a successful issue the material interests—the trade, manufactures, commerce and internal improvements of this city and the region round about. Suffice it to say that they were many, determined, capable and industrious, and their monuments are found in the beautiful city of which they were the builders—in its splendid business thoroughfares, its magnificent residence streets and avenues, its institutions of learning and art, its churches, theaters, hotels, public buildings, parks and myriad evidences of broad culture and liberal spirit.

THE PRESENT.

LOCATION — CLIMATE — WATER AND LIGHT — SANITARY CONDITIONS —
STREETS — PARKS — CEMETERIES — PUBLIC BUILDINGS — CHURCHES —
PLACES OF AMUSEMENT — LIBRARIES — CHARITABLE INSTITUTIONS — HOTELS
— STREET RAILWAYS — PUBLIC IMPROVEMENTS — CITY FINANCES — PUBLIC
SCHOOLS.

THE city of Cleveland, county seat of Cuyahoga, and metropolis of Northern Ohio, is situated in north latitude $41^{\circ} 30'$, west longitude $81^{\circ} 27'$, on the southeast shore of Lake Erie, distant by rail 183 miles from Buffalo, 676 miles from New York, 357 miles from Chicago, 245 miles from Cincinnati, 173 miles from Detroit, 150 miles from Pittsburgh, and 138 miles from Columbus, the capital of the State. The climate is for the most part a salubrious one, and were it not for the fierce gales (to which, however, all the lake region is subject) and the light sandy soil upon which the city is built, there would be few pleasanter places of residence on this continent. The signal service reports for 1887—January to October inclusive—present the subjoined record of meteorological conditions :

January— $1\frac{9}{100}$ inches rain, 10 inches snow. Mean temperature for month, $24\frac{0}{100}^{\circ}$; highest, $60\frac{0}{100}^{\circ}$ above, $05\frac{9}{100}^{\circ}$ below zero. Velocity of wind in miles for month, 9,212; greatest velocity in one hour, 37 miles.

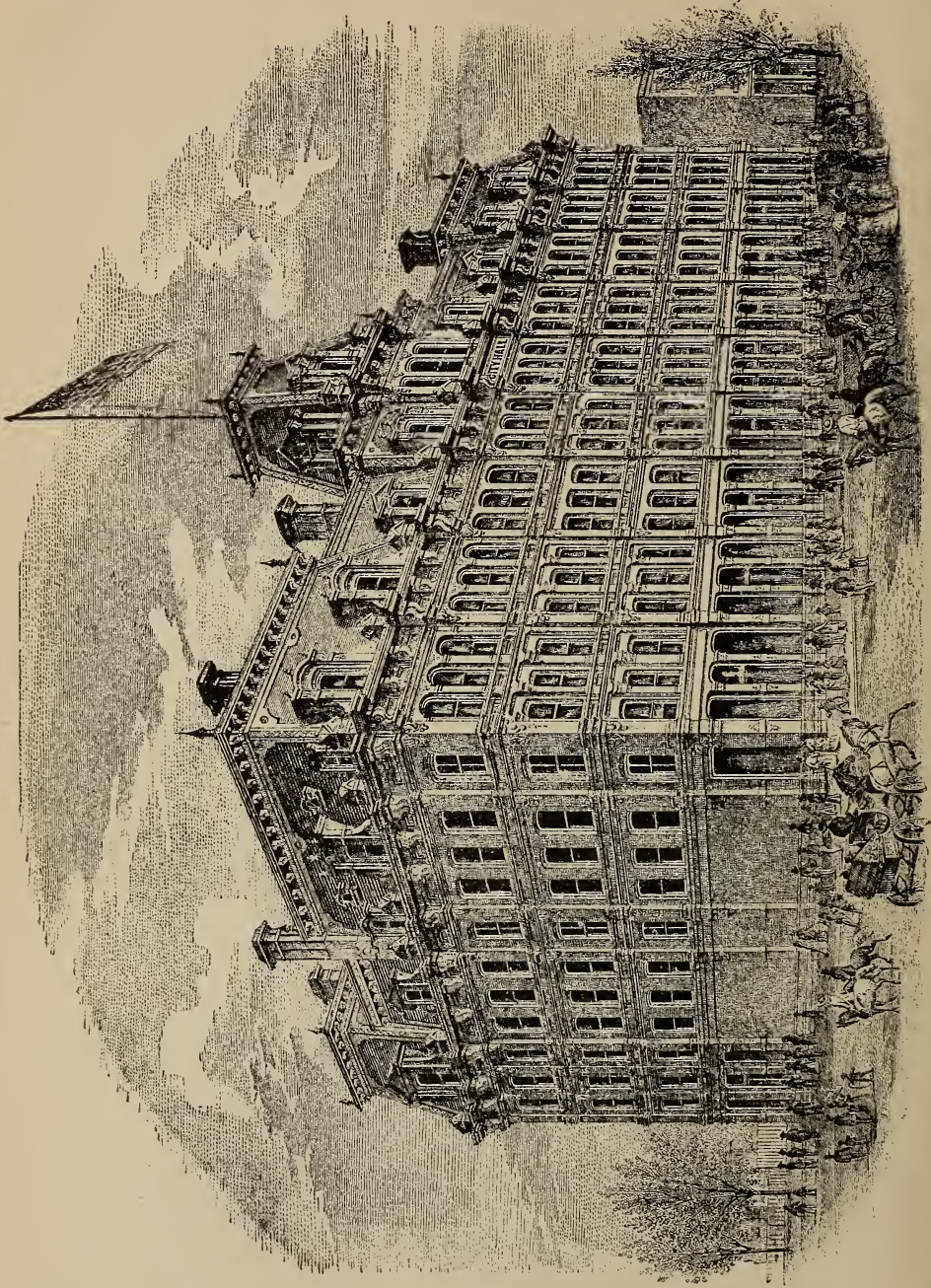
February— $7\frac{7}{100}$ inches rain, $2\frac{1}{4}$ inches snow. Mean temperature, $31\frac{0}{100}^{\circ}$; highest, 61° ; lowest, $9\frac{1}{100}^{\circ}$; variations, $51\frac{8}{100}^{\circ}$. Velocity of wind in miles, 7,446; greatest velocity in one hour, 44 miles.

March—Rainfall, $3\frac{0}{100}$ inches; snowfall, $2\frac{7}{100}$ inches. Mean temperature, $31\frac{0}{100}^{\circ}$; highest, 63° ; lowest, $11\frac{0}{100}^{\circ}$; variation, $51\frac{0}{100}^{\circ}$. Velocity of wind in miles, 7,109; greatest velocity in one hour, 27 miles.

April—Rainfall, $1\frac{8}{100}$ inches; snowfall, 4 inches. Mean temperature, $45\frac{0}{100}^{\circ}$; highest, 76° ; lowest, $19\frac{0}{100}^{\circ}$. Variations, $56\frac{0}{100}^{\circ}$ for month. Velocity of wind in miles, 6,900; greatest velocity during one hour, 31 miles.

May—Rainfall, $3\frac{4}{100}$ inches. Mean temperature, $61\frac{05}{100}^{\circ}$; highest temperature, 84° ; lowest, $41\frac{02}{100}^{\circ}$; variations, $43\frac{03}{100}^{\circ}$. Velocity of wind in miles, 5,103; greatest velocity during one hour, 27 miles.

June—Rainfall, $2\frac{43}{100}$ inches. Mean temperature, $68\frac{05}{100}^{\circ}$; highest, 87° ;



CITY HALL,

lowest, $50\frac{06}{100}^{\circ}$; variations, $36\frac{04}{100}^{\circ}$. Velocity of wind in miles, 5,041; greatest velocity in one hour, 24 miles.

July—Rainfall, $\frac{99}{100}$ of an inch. Mean temperature, $76\frac{03}{100}^{\circ}$; highest, $95\frac{02}{100}^{\circ}$; lowest, $59\frac{06}{100}^{\circ}$; variations, $35\frac{06}{100}^{\circ}$. Velocity of wind in miles, 4,760; greatest velocity during one hour, 24 miles.

August—Rainfall, $3\frac{52}{100}$ inches. Mean temperature, 69° ; highest, 94° ; lowest, $46\frac{37}{100}^{\circ}$; variations, $47\frac{03}{100}^{\circ}$. Velocity of wind in miles, 4,763; greatest velocity during one hour, 24 miles.

September—Rainfall, $3\frac{62}{100}$ inches. Mean temperature, $61\frac{06}{100}^{\circ}$; highest, 93° ; lowest, $36\frac{01}{100}^{\circ}$; variations, $56\frac{08}{100}^{\circ}$. Velocity of wind in miles, 5,318; greatest velocity during one hour, 30 miles.

October—Rainfall, $1\frac{80}{100}$ inches (with a trace of snow). Mean temperature, $50\frac{01}{100}^{\circ}$; highest, $81\frac{03}{100}^{\circ}$; lowest, $24\frac{02}{100}^{\circ}$; variations, $57\frac{01}{100}^{\circ}$. Velocity of wind in miles, 7,773; greatest velocity during one hour, 36 miles.

NOTES FOR 1886.—Greatest rainfall occurred in June; coldest month, January; average temperature for 15 years—January, 26° ; February, $27\frac{08}{100}^{\circ}$; March, $33\frac{02}{100}^{\circ}$; April, 45° ; May, $57\frac{09}{100}^{\circ}$; June, $67\frac{05}{100}^{\circ}$; July, $71\frac{04}{100}^{\circ}$; August, $69\frac{09}{100}^{\circ}$; September, $63\frac{06}{100}^{\circ}$; October, 53° . November, 39° ; December, $31\frac{01}{100}^{\circ}$. Greatest depth of snow for 1886, 10 inches, in January.

The average temperature in summer is 68° , in winter 20° ; average maximum, 92° ; average minimum, 5° ; average mean, about 49° . The evenings and nights are cool and refreshing; there are few mosquitoes, and sound, healthful sleep is the rule. In this connection it may not be amiss to refer to the arrangements for a water supply, upon which is dependent in great degree the health and safety of the city. Surveys for the establishment of the present system, contemplating the avoidance of the impurities carried by the river to the lake, were made in 1868, and work at once begun. The tunnel to the crib is a mile and a quarter in length, five feet by five feet two inches interior diameter, and 90 feet below the surface. The crib itself, 60 feet in height, is pentagonal, built with a view to great strength, sheathed with two inches of solid oak and protected at the water line by a five-foot course of half-inch boiler plates to prevent injury from ice. The pumping capacity is 40,000,000 gallons daily; average consumption about 18,000,000 gallons. Mains and service pipes extend to all parts of the city.

The lighting of the city is very good, the system combining both gas and electricity, the latter being employed in that portion of the business quarter lying between Erie street and the lake and river, in which district are erected several tall hollow steel masts from 180 to 260 feet in height, each bearing at its summit a cluster of Brush arc lights. Euclid avenue is lighted by a number of 2000-candle power electric lamps, and many stores and other private business places are similarly illuminated.

The healthfulness of the city is undisputed, and is improving with its growth, the reports of Dr. Ashmun, health officer, for the past three years

showing deaths from all causes for 1884, 3,732; for 1885, 3,574; for 1886, 3,525—a considerable falling off, notwithstanding the increase of population. Of the deaths for three years 963 were from zymotic, 557 from constitutional, 1,468 from local, and 385 from developmental diseases; by violence, 152; by suicide, 11; average death rate about 16 per 1,000. No doubt much of the disease and death prevalent are due to the filthy condition of the river, consequent upon the numerous uncleanly industries that line its banks, but this state of affairs will be remedied in time by sanitary restrictions and dredging the river bed. Dr. Ashmun and his assistants have already accomplished much toward the abatement of plague-breeding nuisances, and the work will be continued on a more comprehensive scale in future.

Though laid out so irregularly as to be extremely confusing, the principal business and residence streets and avenues, particularly of the east side, are broad and well built, and wonderfully attractive to the stranger, who notes with pleasure and satisfaction the evidences seen on all sides of established and enduring prosperity. Many of the business structures on Lake, St. Clair, Superior, Water, Bank, Seneca, Ontario, Bond, Wood, Erie, Prospect, Huron and other streets, and on Euclid avenue, would reflect credit upon the leading Eastern cities, while the residence thoroughfares are adorned with tasteful grounds and palatial homes unsurpassed by those of any American community. The manufacturing districts also boast a vast number of immense establishments—iron mills, foundries, wood, brass, tin, copper, leather, paper, woolen, cotton, paint, varnish, tobacco and cigar factories. This is headquarters of the illuminating and lubricating oil trade, and besides the big monopoly there are some forty or fifty smaller firms within the city limits engaged in the refining of mineral oils, the manufacture of greases, and the manipulation of petroleum products, naphtha, paraffine, vaseline, etc.

The public breathing places—the parks—are a never-failing source of pride to the citizens, and with good reason. The oldest of these is Monumental park, known also as the Public Square—a lovely spot indeed, an oasis in the desert of paved streets and brick walls. It embraces ten acres of ground, surrounded and intersected by streets, contains many fine forest trees, and during the warm months receives unremitting attention from an accomplished landscape gardener and his assistants, under whose skillful care it is made to “blossom as the rose,” with rare shrubs and blushing, fragrant flowers. This spot was the court-house square of Cleveland’s village days, and if the old oaks could but speak, many a long-forgotten incident of those by-gone times would be recorded in the public journals and the archives of the city. September 10, 1860, the anniversary of Perry’s victory on Lake Erie, the event was commemorated by the unvailing of a handsome monument to its hero, which stands near the southeast corner of the park—the sole work of art there. The inauguration of this monument was

made the occasion of imposing ceremonies. Commodore Perry was born in Rhode Island, and the governors of that State and Ohio were present, as were detachments of militia and Freemasons from both States, and a few of the surviving participants of the battle. The monument is of Italian marble, surmounted by an eight-foot life-like figure of Perry in the naval uniform of his time. Bancroft, the historian, was orator of the day, and 100,000 people were assembled to hear him tell the thrilling story. The intersection of Superior and Ontario streets in the centre of the park is graced on the northeast corner with a naval gun captured in the action referred to ; on the southeast corner with a six-pounder field-piece brought home from Carrick's Ford, Virginia, by the Cleveland Light Artillery in 1861 ; on the southwest corner with a sixty-eight-foot steel flag-staff, erected in 1876, and bearing the inscriptions "The flag of our Union forever," and "United we stand, divided we fall," and on the northwest corner with an immensely tall and graceful steel mast bearing at its summit a cluster of electric lights that shed a brilliant radiance all around. In the northwest quarter of the Square is a fine basin fountain, in the northeast quarter a well-arranged speakers' forum of solid sandstone, and in the southwest quarter a rustic fountain, a mimic water-fall, a bridge, a shrubbery-fringed basin, and next to the Superior street sidewalk a drinking fountain. Benches are placed here and there for the convenience of weary pedestrians, but are monopolized for the most part by disreputable-looking idlers. On the whole Monumental park is the most popular place in the city during the hot months.

Lake View park extends along the lake front from Seneca to Erie streets, and will eventually become a very attractive place. The locality was originally a gully-indented bluff, but has been transformed by good taste and much labor into a lovely resort, terraced, provided with paths and drives, planted with trees and shrubbery, and beautified with flowers in season. The broad, level promenade overlooking the park commands also an unobstructed view of the harbor, Lake Erie, the Union depot and a maze of railway tracks. A pleasanter place for a sunrise or sunset stroll would be difficult to find.

The West Side Circle on Franklin street, the common centre from which radiate several thoroughfares, receives considerable attention from the Park commission, under whose direction it has been laid out with much taste, sodded, planted with trees, shrubbery and flowers, provided with a fine rustic fountain and band pavilion, and otherwise improved and beautified.

Wade park is the pride of all Clevelanders. It lies in the East end, some five miles from the Public square, and is reached by Euclid avenue, Prospect and other streets. It contains sixteen acres of hill, vale, ravine, wooded upland, lake, running stream, inclosed deer preserve, smooth road and path, and in the course of time will be one of the Forest City's greatest attractions. The land was a present from the famous electrician, J. H. Wade, whose name will

be perpetuated much more pleasantly and permanently through this munificent gift than it could ever have been by carved bronze or sculptured marble.

The cemeteries are numerous and well kept, as follows: Erie Street Cemetery, donated by the Connecticut Land Company in 1808, ten and a quarter acres, fronting on Erie and Brownell streets. Here, under the umbrageous shade of trees, many of which were planted by their own hands, lies the dust of the city's pioneers. Few burials have taken place here for some years, and no doubt those who now sleep here will ere long be removed to quieter resting-places in the suburbs, and the cemetery transformed into a park or sold for building lots.

Woodland Cemetery comprises sixty acres on Woodland avenue, between Giddings and Cemetery avenues. It belongs to the city, and was laid out in 1851. Beautiful landscape work, serpentine paths, elegant vaults, a handsome pavilion and numerous imposing tombs and monuments are the principal features.

Riverside Cemetery belongs to a corporation, comprises 102 acres, and is comparatively new. It embraces several miniature lakes, and is provided with waiting rooms, chapel, receiving vault, etc. This cemetery is situated on Scranton avenue, three miles from the Public Square.

The Monroe Street Cemetery is on the West Side, fronting on Monroe, between Green and Jersey streets, spacious, neat and well appointed.

The Catholic Cemetery, large and beautiful, is on Woodland avenue between Giddings avenue and Geneva street. St. Mary's Catholic Cemetery is at Burton street and Clark avenue. Other cemeteries are the North Brooklyn Protestant, Jewish, Hungarian Aid, Polish, etc.

The greatest of all Cleveland's cemeteries, however, is Lake View, six miles from the Public Square, at the terminus of Euclid avenue. It comprises a tract of some 300 acres of hill and valley, much of it covered with original forest, interspersed with lakes and provided with romantic drives and walks. On the loftiest point stands the fine monument to the late President Garfield, illustrated in this work, commanding a view for many miles of city and country and the broad blue bosom of Lake Erie.

The public buildings of Cleveland, while not numerous, are commodious and handsome. The most conspicuous is the City Hall (illustrated), located at Wood and Superior streets; the United States post-office and custom-house, northeast corner of Superior street and Public Square; the county court-house, corner Seneca and Frankfort streets; Case Library building, northwest corner Wood and Superior streets; the Historical Society's building, northeast corner of Public Square; the Public Library, Euclid avenue near Erie street; Music Hall, Vincent street between Bond and Erie, and some others of lesser note.

In point of church facilities few cities make a better showing than Cleveland. Of church buildings there are 169, distributed as follows: Roman Catholic, 24; Methodist, 20; Presbyterian, 12; United Presbyterian, 2; Baptist, 15; Disciples, 4; Congregational, 13; Reformed, 4; Evangelical Associated, 8; Evan-

gical Lutheran, 9; Evangelical Reformed, 7; Evangelical Independent, 1; Evangelical United, 8; Hebrew, 9; Quaker, 1; Unitarian, 1; United Brethren, 2; Swedenborgian, 1; Spiritualistic, 3; unclassified, 11. There are also eight Catholic convents, and several new church buildings are in course of construction. Some of the places of worship enumerated rank with the most imposing examples of ecclesiastical architecture in this country, and all are handsome and attractive.

The dramatic temples of the first class are four in number—the Opera-house, Gus. Hartz, manager, corner of Euclid avenue and Sheriff street; the Park Theater, north side of Monumental square, the veteran John Ellsler, manager; the Cleveland Theater, St. Clair street near Ontario; and the Columbia Theater, Euclid avenue, between Bond and Erie streets.

In connection with the educational advantages of Cleveland the libraries of a public character are not to be overlooked. The most important of these with reference to the people generally is the Cleveland Public Library, occupying, in common with the Board of Education, a commodious building on Euclid avenue near Erie street. It is supported by a percentage of the school tax and municipal fines—a fund which is sufficient to keep up repairs, pay salaries and make constant additions to the list of books, the catalogue showing at this time over 50,000 volumes, ranging from standard fiction through all the intervening fields to the domain of history and the sciences. The *Magazine of Western History* has, in its November number, a review of the rise and growth of this library, established by the Board of Education, under the provisions of an act passed by the Legislature in March, 1867, which authorized the levy of 1-10 of a mill for library purposes. The nucleus of the library was the collection of books forming the library of the schools in the East high school. It was open for two hours of each Saturday afternoon during the school year of forty weeks, but was very little used except by the pupils of the schools, owing to the limited time allowed for drawing, and to the mistaken impression prevailing that it was simply a collection of children's books; but the first report of the librarian describes them as too abstruse and formally didactic to interest the young people, for whom they were intended. The collection was supposed to contain 2,300 volumes, but only about 2,200 volumes were actually transferred to the Public Library. In September, 1868, a room 20 x 80 feet in size, on the third floor of the Northrop & Harrington block on Superior street, was rented, book-cases and other furniture procured, the room fitted up, and a number of new books, variously reported at 3,600 to 4,000, were purchased. It was dedicated to the public on the evening of March 17, 1869. Addresses were by Mr. Edwin R. Perkins, Rev. Anson Smyth, H. S. Stevens, Mayor Buhner and W. H. Price, who had been president of the Board of Education when the statute establishing the library was enacted, and was instrumental in securing its passage. In 1873 the library was removed to the larger rooms in the Clark block on Superior street, and in April, 1879, to its present quarters. The growth of the library has been steady from year to year until it has now over 51,000 volumes.

The circulating department numbers more than 34,000 volumes. It covers a wide range of subjects, and the selections have been made with the intention of fairly representing each department of literature. Possibly biography and history have received somewhat more attention than other classes, and the mechanic arts somewhat less than might be expected in a city so largely engaged in manufacturing as Cleveland. The purchases of books from year to year have reflected the opinions of the various book committees, and with some fluctuations have shown a tendency to draw the line higher up and to buy less of the lighter fiction.

The city is indebted to William and Leonard Case for the superb library and building that bears their names—the latter one of the most extensive, complete and valuable in the West. William Case gave the Young Men's Literary Association, under whose auspices the institution had got its charter in 1848, a perpetual lease of the rooms it occupies, and which he had specially designed for the purpose. In 1870 Leonard Case endowed the association to the extent of \$25,000, and in 1876 presented to it the building at Wood and Superior streets—a truly royal gift. The library, consisting to an unusual degree of the most valuable books of solid instruction, comprises between 18,000 and 19,000 volumes.

The Cleveland Law Library, established 1871, occupies quarters in the court-house, is sustained by the Law Library Association, and is free to the profession. It is one of the most comprehensive and valuable collections of legal authorities extant.

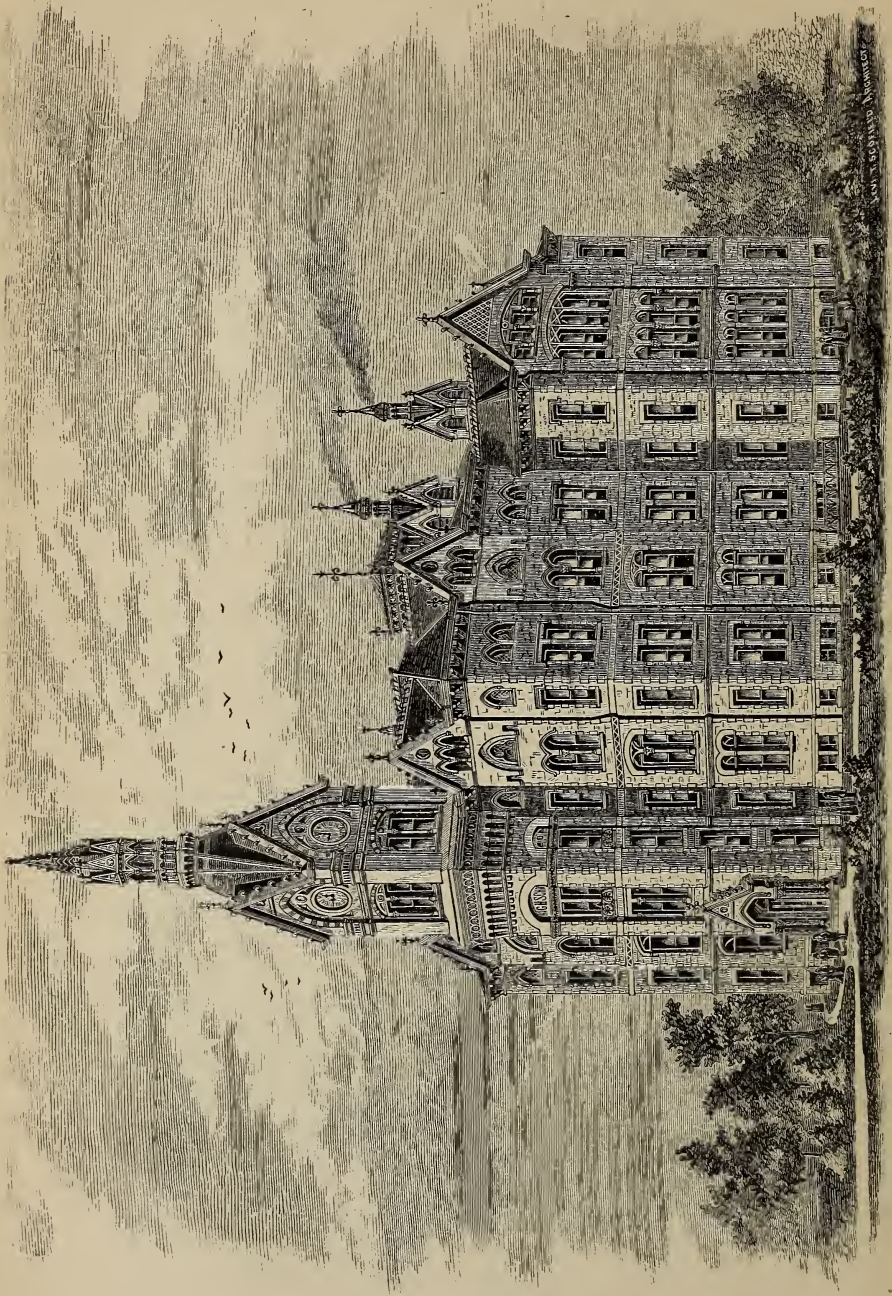
Possessed of an endowment fund of \$10,000 and a handsome and commodious building, the Western Reserve and Northern Ohio Historical Society, founded in 1866, is a useful and flourishing institution. Its museum of historical and aboriginal remains is very large and interesting, in addition to which it offers to the student vast resources of historical books and manuscripts of the rarest and most valuable kind, relating principally to the men and events of the earlier part of this century as affecting the settlement and development of the Western Reserve and adjacent country.

The Kirtland Society of Natural Sciences is collateral and auxiliary to the Cleveland Library Association. Incorporated June 1, 1869, to promote the study of natural science and the establishment of a museum of natural history, it is free to all. A superb library of the character intimated and fine collections of stuffed and mounted specimens comprise the attractions. The society was named for its first president, Dr. J. P. Kirtland.

ELEEMOSYNARY INSTITUTIONS.

Benevolence and charity are among the brightest and most active of this people's virtues, as is attested by the number and extent of the public institutions devoted to the alleviation of distress. The Northern Ohio Hospital for the Insane is the most conspicuous of these, located in the eastern suburbs, provided

with ample accommodations for six hundred or more patients, neatly and comfortably arranged, commodious, quiet, and humanely conducted. The district from which patients are admitted comprises Ashtabula, Carroll, Columbia, Cuyahoga, Geauga, Holmes, Lake, Lorain, Mahoning, Medina, Portage, Stark, Summit, Trumbull, Tuscarawas and Wayne counties, and the hospital is usually pretty well filled. . . . On Perry, between Marion and Garden streets, is the Charity Hospital, conducted by the Catholic Sisters of Charity—an unpretentious but capacious edifice, self-sustaining and open to patients of any creed or nationality. Pay patients are also received and cared for. Weekly clinics for the benefit of Wooster University students are held here and lectures delivered. . . . The Cleveland City Hospital, of stone, three stories in height and of extensive area, surrounded by five acres of beautiful grounds, stands on the bluff at the foot of Erie street, commanding a fine view of the lake. It is in charge of the faculty of the medical department of the Western Reserve University, and is supported by pay patients and free contributions. This institution was formerly the United States Marine Hospital. . . . The City Infirmary, Scranton avenue, south of Holmden, is conducted by a superintendent acting under instructions from the board of directors of the Infirmary Department. This institution is designed for the relief of the very poor. The superintendent's report shows receipts for the year to December 31, 1886, \$91,069.12; expenditures, \$70,955.77; balance to credit of fund, \$20,113.35. During the year 1,686 persons received outdoor relief in groceries, meat, coal, railroad tickets, etc.; 150 paupers were buried and 55 children's coffins supplied, 2,536 families visited, and 2,700 work orders issued. The institution, including insane, hospital and middle departments, is said to be the best conducted of the kind in Ohio. Two new wings were built last year at a cost of \$39,025.79, each 24 x 126 feet, and with combined accommodations for 150 patients. Further enlargement is urgently needed. Inmates January 1, 1887, 455. . . . "The Retreat," located on East St. Clair street, is under the management of the Women's Christian Association. It is a large and conveniently arranged home for fallen women, where, surrounded by redeeming influences, they may have opportunity and encouragement to reform and ultimately become once more worthy members of society. Here are provided a hospital ward, chapel, sitting-room, work-room, bath, library, and most of the comforts of a home: Good example, moral teaching and Christian charity spread over them the mantle of protection while pointing to the star of hope. From forty to fifty applicants per month are admitted, and many provided with good homes. . . . The Homœopathic (Huron street) Hospital, a fine new building, is located on Huron street between Sheriff and Erie, and is largely patronized by pay patients, though large numbers of the helpless poor are cared for. Regular clinics are held here for the instruction of students of the Cleveland Homœopathic College. . . . The remaining hospitals are the Cleveland Hospital for Women and Children; the House of Maternity, Marion street, east of Perry; and St. Alexis Hospital, No. 1507 Broadway, conducted by the Sisters of St. Francis. . . . Many other charita-



HIGH SCHOOL,

W. H. WOOD, ENGRAVER

ble and relief institutions are found in various parts of the city, viz: The Protestant Orphan Asylum, on St. Clair street, near Willson; Jewish Orphan Asylum (a fine new institution) Woodland near Sawtell avenue; Homes for Aged Women and Aged Poor, Perry street; Trinity Church Home and Children's Home of Trinity Church, Scovill avenue; St. Joseph's Orphan Asylum, Woodland avenue; Home of the Good Shepherd, Flower Mission, Bethel Home, Newsboys' and Boot-blacks' Home, and others.

HOTELS.

The hotels of Cleveland are numerous, and several are of the first class. The most extensive and prominent are the Hollenden, corner Superior and Bond streets, not yet completed (of which we present an engraving and description elsewhere), and the Stillman, Euclid avenue above Erie street, also illustrated on another page.

STREET RAILWAYS.

The street railway system is one of the most complete in the United States, and is undergoing constant extensions, thus enabling merchants and their clerks and salesmen, mechanics and others to reside in their own homes (for Cleveland is a city of homes) at considerable distances from their places of business or employment, which are easily reached without loss of time. The *nucleus* of all the lines is on Superior street from Monumental square to Water street, whence they radiate in every direction. These lines at present are nine in number, with several others in course of construction.

PUBLIC IMPROVEMENTS.

Besides the numerous public buildings of which the city boasts, vast sums have been expended upon other works of a public character, the most important of which are the streets, bridges and viaducts. Most of the first on which there is any considerable traffic are well paved with stone and kept in moderate repair, though but little can be said for their cleanliness. Of bridges across the Cuyahoga there are some twenty-one, nine of which, designed for the use of teams and pedestrians, are of the ordinary swing or draw pattern, supplemented by twelve railroad draw-bridges and some forty stationary bridges for all purposes over smaller streams and ravines. The greatest finished work of this character is the viaduct, extending from Superior and River streets on the East Side to the top of the hill on the West Side, a distance of 3,211 feet. The work was begun in October, 1874, opened for traffic December 27, 1878, and is constructed of Berea sandstone and iron at a total cost of \$2,225,000. The width of the viaduct proper is sixty-four feet; of pivot span of draw-bridge, forty-six feet; height above low-water mark, sixty-eight feet. The latter is operated by a 50-horse power engine and opened or closed in one minute. West of the bridge are ten vast arches, and the structure contains 80,500 perches of masonry.

Double roadways and double street railway tracks extend the entire length of the aqueduct. . . . The Kingsbury Run viaduct, 96 feet from the foundation to roadway and 854 $\frac{1}{2}$ feet in length, was completed in 1885. . . . The Central viaduct, which is to extend from Ohio street on the East Side to Jennings avenue on the South Side, and thence to Abbey street on the West Side, will be completed next year and cost \$1,000,000. Total length, 5,360 feet; width, 50 feet; height above river, 100 feet, with double street railway track, double roadway and sidewalks. . . . The Pearl street viaduct over Walworth run, rebuilt last year, is a substantial structure of wrought iron and steel, with a 40-foot roadway and two 8-foot sidewalks.

The subjoined table gives a summary of the cost of work done under supervision of the City Engineer for 1886 :

Items.	Cost.
Streets paved or repaved during the year.....	\$ 162,713 02
Street grading, curbing and graveling.....	26,944 63
Sewers constructed.....	114,196 22
Miscellaneous work.....	546,870 00
Total.....	\$ 850,723 87
Miscellaneous work under contract, showing approximate cost to complete the same.....	\$ 452,001 13

Up to January 1 there were within the city limits 60 7-10 miles of street pavements of all kinds, of which 44 8-10 miles were paved entirely with Medina sandstone; 6 6-10 miles with wood and Medina sandstone; 11 1-10 miles with Abbott's concrete and Medina sandstone combined; 3 2-10 miles with wood entire, and 5 miles with macadam.

CITY FINANCES.

The report of the City Auditor for 1886 shows a most satisfactory condition of the finances. The resources for 1886 were \$3,427,276.71; disbursements, \$3,178,770.98; balance on hand January 1, \$248,504.73. The levy for 1885 was fourteen and seven-twentieths mills on a total valuation of \$88,285,845; yield, \$1,266,901.88; levy for 1886, thirteen and three-twentieths mills on a valuation of \$91,084,406; yield, \$1,197,759.93; total decrease, \$69,141.95. The sinking funds of the city are three in number—that of 1862, from the sale of railroad, water-works and bridge bonds, \$1,011,000; the viaduct of \$636,878.05, cash receipts sinking fund for 1886, \$57,938.83, disbursements \$767.03, and the general sinking fund, cash receipts \$108,065, disbursements \$103,000. In all, the sinking fund of 1862 has discharged liabilities of the city to the amount of \$1,905,155.47, and still has total assets of \$1,090,069.82. Total city debt January 1, 1887, \$8,195,842.51.

THE PUBLIC SCHOOLS.

Probably no community in the world has better cause to congratulate itself upon its school system than that of Cleveland. So perfect is it, indeed, as to have become famous throughout the land—a synonym for what is most desirable and effective in the early training and instruction of those to whose hands must some day be committed the political liberties and material prosperity of the State and the Nation. The Clerk of the Board of Education and Superintendent report as follows:

RECEIPTS.	
Balance on hand September 1, 1886.....	\$ 78,064 87
State tax.....	93,809 45
Irreducible school fund.....	5,201 68
District tax for school purposes.....	537,084 35
Fines, licenses, tuition of non-resident pupils and other miscellaneous sources..	8,397 97
Total receipts.....	<u>\$722,558 32</u>
EXPENDITURES.	
Whole amount paid to teachers (elementary, \$363,663.02; high, \$42,472)....	\$406,135 02
Supervision, exclusive of teaching service.....	12,496 60
Amount paid for sites and buildings.....	53,184 46
Interest or redemption of bonds.....	23,618 93
Fuel and other contingent expenses.....	114,881 16
Total expenses.....	<u>\$610,316 17</u>
Balance on hand September 1, 1887.....	\$112,242 15

There are forty-eight school-houses in the Cleveland school district, with 598 school rooms. There are 653 teachers employed, thirty-five of whom are men and 618 women. The average wages paid to male teachers is \$105 a month and \$59.77 to women. The salary of the Superintendent is \$3,300; the supervisor of the grammar grade, \$2,500; supervisor of the primary grades, \$1,800, and assistant \$1,600; supervisor of the German department, \$1,700.

The following will show the number of scholars in each branch of study: Orthography, reading, writing and arithmetic, 29,520; geography, 13,639; English grammar, 3,186; composition, 29,520; United States history, 9,003; general history, 106; drawing and vocal music, 29,520; physical geography, 610; physics, 443; physiology, 403; algebra, 908; geometry, 735; trigonometry, 238; literature, 67; chemistry, 320; German, 12,733; rhetoric, 67; science of government, 279; Latin, 840; Greek, 61. The number of scholars enrolled during the year was 31,138, of which 29,520 were in the elementary schools and 1,618 in the high schools. The boys in the elementary schools number 15,028, girls 14,402. In the high schools there are 540 boys and 1,078 girls.

The enumeration of youths between the ages of 6 and 21 years was 61,654; per cent. of the enrollment on the enumeration, 41; cost per pupil for the year, expenditures based on the total enrollment, \$13.44; cost of tuition per pupil, based on the average daily attendance, \$17.49; cost of tuition per pupil in average daily attendance in the high schools, \$35.13.

The number of boys withdrawn from the high school during the year was 131; girls, 209. Total, 340; leaving 409 boys; 765 girls. Total, 1,174. The average age of the high school pupils the first year was 15 years. The average age of the graduating class was: boys, 17.3; girls, 18 years.

CITY GOVERNMENT.

THE municipal government of Cleveland, with offices in the City Hall, comprises a Mayor and Common Council, composed of Board of Aldermen and Board of Councilmen. The city is divided into three aldermanic districts and forty wards. The First district has five aldermen, the Second five, and the Third five, and each ward is entitled to one councilman. Hon. Brenton D. Babcock is Mayor—term from April 16, 1887, to April 16, 1889; Sam. Briggs, Mayor's secretary. James Lawrence president, and Chas. P. Salen clerk of Common Council; members *ex-officio*—the Mayor, City Auditor J. L. Athey, City Solicitor Allan T. Brinsmade, City Civil Engineer Walter Rice. James Lawrence is also president and John Fitzer vice-president of the Board of Aldermen; Wm. M. Bayne president and Robert Simpson vice-president of Board of Councilmen. Heads of departments—Executive, Mayor Babcock; law, City Solicitor Allan T. Brinsmade; auditor, J. L. Athey; city clerk, Chas. P. Salen; treasurer, Thomas Axworthy; street commissioner, Frank Buettner. The boards are—improvements, police commissioners, fire commissioners, of each of which the Mayor is president; park commissioners, water-works trustees, directors of house of correction, infirmary board, cemetery trustees, sinking fund commissioners, boards of elections, hospital commissioners, equalization and revision, tax commission, assessors, health, and markets.

POLICE DEPARTMENT.

The Police Department comprises a judge, prosecuting attorney, assistant prosecuting attorney, clerk and two deputies, superintendent and deputy, four captains, fifteen lieutenants, ten sergeants and seven acting sergeants, nine detectives, one hundred and eighty-two patrolmen, two door-men and four janitors. There are nine station-houses, two patrol stations, fifty-one patrol boxes, and two patrol wagons with teams. The department is provided with telephone and telegraphic apparatus and wires, and, on the whole, is in pretty fair shape.

FIRE DEPARTMENT.

The Fire Department, controlled by a board of commissioners, is first-class, the men, machinery, horses and appliances being selected with special reference to efficiency. The chief, James W. Dickinson, is an old, experienced practical

fireman, destitute of nonsense, fuss, feathers and pretense, and his assistants are of the same stamp. The force consists of one chief, four assistants, secretary, superintendent of machinery, 20 captains, 21 lieutenants, 15 engineers, 15 assistant engineers, 93 firemen, four telegraph operators, two linemen, one harness-maker and one veterinary surgeon. The apparatus comprises eighty horses, seventeen fine steamers and hose reels, three chemical engines, five hook and ladder trucks and equipment, two reserve trucks, one large and powerful fire-boat for harbor service, 18,000 feet of hose, a complete electric fire alarm system, and over 200 alarm boxes scattered throughout the city. The cost of the department for 1886 was \$222,706.14; fires, 653; losses, \$105,879.39. Total insurance, \$1,468,585. The best protected district is at present the flats, while a large portion of the manufacturing district is in want of more engines. The underwriters at one time paid for maintaining an insurance patrol, but this service was discontinued more than ten years ago. The following list of fire losses and insurance may be of interest in this connection :

Year.	Losses.	Fires.	Insurance.
1854.....	\$ 302,724 76	46	*.....
1855.....	96,008 68	53	\$ 72,140 00
1856.....	115,342 40	48	4,880 00
1857.....	88,765 55	54	66,250 00
1858.....	29,050 83	38	63,250 00
1859.....	55,903 50	56	86,400 00
1860.....	35,506 80	50	14,626 89
1861.....	102,045 50	62	} *No Record.
1862.....	87,150 28	48	
1863.....	96,008 68	41	
1864.....	115,360 50	72	
1865.....	261,341 48	68	
1866.....	173,990 62	56	193,025 00
1867.....	206,902 83	111	221,250 00
1868.....	300,451 76	144	262,050 00
1869.....	196,985 19	196	366,650 00
1870.....	378,635 61	213	277,071 00
1871.....	300,453 71	199	437,050 00
1872.....	309,725 22	176	535,110 00
1873.....	348,410 64	186	263,950 00
1874.....	641,504 37	285	425,450 00
1875.....	137,122 66	284	915,810 00
1876.....	253,558 75	274	545,800 00
1877.....	25,910 00	320	543,250 00
1878.....	207,836 95	266	336,000 00
1879.....	215,357 96	294	612,887 00
1880.....	268,799 58	305	455,532 00
1881.....	365,400 58	479	700,310 00
1882.....	364,646 08	447	856,599 44
1883.....	502,449 92	442	1,543,469 00
1884.....	1,422,861 84	537	1,383,102 00
1885.....	429,241 73	574	1,990,730 00
1886.....	510,879 39	653	1,657,181 00
			1,468,585 00

TOTAL VALUE OF PROPERTY.

During the year ending May 1, 1887, the fifty-three firms composing the board of underwriters, and representing fire and marine insurance, received by way of premiums about \$900,000, representing values of \$80,000,000. This amount, it is agreed by insurance men, shows less than one-half of the property to be insured, so that a low estimate of all the property that might be insured gives a value of \$160,000,000. Good judges of land say that a valuation of that commodity at \$100,000,000 is moderate and an aggregate of \$275,000,000 would more nearly represent the wealth of Cleveland than the present tax duplicate of a little more than \$90,000,000, especially since the investments in iron manufactures, in the oil and lumber business and the deposits in savings banks together almost reach the sum shown by the duplicate. Of the \$900,000 taken out of the city by way of premiums, about \$225,000 was returned in the form of commissions. The marine insurance was about one-ninth of the total, while Ohio companies received about \$35,000 in premiums, leaving the remainder to foreign companies and corporations.

COUNTY COURT-HOUSE.

This fine building, corner of Frankfort and Seneca streets, is devoted to the county and State courts and to the offices of the county officials, as follows: Clerk of the Court of Common Pleas and his deputies, Master Commissioner, Sheriff and deputies, Probate Judge and deputy, Probate Court clerks, County Treasurer and deputies, County Recorder and deputy, County Clerk, County Auditor, Prosecuting Attorney and assistants, County Surveyor and assistants, Coroner, Commissioner of Insolvents, County Commissioners, Board of County School Examiners, and Board of Equalization.

GOVERNMENT BUILDING.

The handsome and commodious Federal edifice at the northeast corner of Monumental Square and Superior street is occupied by the United States Circuit and District courts, the District Attorney, Assistant United States Attorney, United States Marshal and deputy, United States Commissioners, Register in Bankruptcy, Examiners in Chancery; Treasury Department (Chas. H. Lapp, special agent), Custom-house, Internal Revenue Department and Post-office.

FRATERNAL SOCIETIES.

In nothing is the social and benevolent spirit of the people of Cleveland so well shown as in the number and large membership of its secret and beneficent fraternities. Of these there are in the city, of A. F. and A. M., ten blue lodges, four Royal Arch chapters, one council Royal and Select Masters, three commanderies K. of P., and of the Scottish Rite, one chapter S. P. of Rose Croix de H. R. M., one grand council Princes of Jerusalem, one grand lodge of perfection. Masonic Temple, northeast corner Superior and Bond streets. The

A. F. and A. M. also control the West Side Masonic Hall Association, the Masonic Mutual Life Association, Masonic Relief Association, Masonic Temple Association, and Western Reserve Masonic Mutual Insurance Association. Of Cuneau Masons there are one chapter S. P. of Rose Croix H. D. R. M., one council Knights of Kadash, one grand council Princes of Jerusalem, and one Grand Lodge of Perfection; and of negro Masons, three lodges, two chapters R. A. M., two commanderies K. T. and one chapter Rose Croix de H. D. R. M., Scottish Rite.

Of Odd Fellows there are fourteen lodges, three encampments, three cantons Uniformed Rank, three lodges Rebekah Degree, four councils (colored) G. U. O. O. F., and one lodge Daughters of Ruth.

Of Knights of Pythias there are ten lodges, five cantons of the Uniformed, and three sections of the Endowment rank. This order also supports a general relief committee.

The patriotic organizations are strong, the G. A. R. having an officers' council for the county and nine flourishing posts, to seven of which are attached ladies' relief corps. The Union Veterans' Union is represented by one command, and the national headquarters of the Woman's Veteran Relief Union, an auxiliary organization, is also located here. Headquarters for Ohio and three camps of the Sons of Veterans give promise that their fathers' deeds will not be forgotten.

The Ancient and the Independent Orders of Foresters, with their collateral branches, are quite numerous.

Of the Ancient Order of United Workmen there are eight lodges and one legion Select Knights; eight councils Royal Arcanum; six lodges Knights of Honor; four lodges Knights and Ladies of Honor; three tents Knights of Maccabees; one lodge United Order of Honor; Advisory Board of Cleveland, Sick Benefit League of Ohio, and sixteen councils Chosen Friends; eight branches of the Iron Hall; five unions of Equitable Aid Union; three commanderies Order of the Red Cross; one clan Order of Scottish Clans; two lodges Order of Golden Chain; two lodges of Daughters and five of Sons of St. George; ten tribes, two encampments and one endowment association Independent Order of Red Men; five councils National Union; two lodges and one encampment Ancient Order of Good Fellows; one arch chapter and two groves Druids; eight lodges D. O. Harugari; four lodges Independent Order Sons of Benjamin; four lodges Keshar Shil Barzel; two lodges Independent Order B'nai B'rith; one lodge Order B'nai Abraham; two lodges Independent Free Sons of Israel; one lodge Improved Free Sons of Israel; two lodges Loyal Orangemen; one preceptory Royal Black Knights of Ireland; District Assembly 47 and forty-five subordinate assemblies Knights of Labor; eight divisions Ancient Order of Hibernians; two branches Emerald Beneficial Association; thirteen legions and assemblies Knights of St. John; two councils Catholic Benevolent Legion; Grand Council and nine branches Catholic Mutual Benefit Association; numerous ladies' temperance unions, societies, branches, etc.; four lodges Good Templars, one council Royal Templars; headquarters and two divisions Brotherhood of Locomotive Engineers, and a great variety of other organizations formed for a diversity of purposes, social, beneficent, musical, literary, religious, military, political, professional, mercantile, manufacturing and commercial.

BANKS AND BANKING.

THE Cleveland Clearing-house was established December 28, 1858; Truman P. Handy, president; Louis Smies, secretary and cashier. All transactions take place in their office in the Mercantile Bank building, corner Bank and Superior streets. Clearances, November 1, 1886, to November 1, 1887: November \$13,189,289; December, \$13,878,651; January, \$13,522,355; February, \$12,514,862; March, \$12,890,719; April, \$13,279,366; May, \$13,397,821; June, \$14,466,939; July, \$13,193,742; August, \$13,419,194; September, \$13,730,524; October, \$14,340,059. The increase in valuation of business for present year will aggregate about \$22,000,000 over last year's receipts. This represents solid cash transactions—not paper transactions, as is customary in nearly all clearing-houses.

The subjoined table shows the condition of the nine National banks, August 1, last :

	Capital.	Surplus and profit.	Discounts Aug. 1, '87.	Deposits Aug. 1, '87.	Reserve Aug. 1, '87.	Value of stock.
National Bank of Commerce....	\$1,500,000	\$ 204,414	\$ 3,329,741	\$ 2,674,326	\$ 609,386	113 63
Commercial National bank.....	1,000,000	299,872	3,518,375	3,024,219	755,890	129 99
Mercantile National bank.....	1,000,000	153,090	2,522,828	2,163,055	513,081	115 30
Union National bank.....	1,000,000	103,266	2,136,096	1,562,125	300,042	110 33
First National bank.....	600,000	38,029	1,018,023	780,820	203,685	106 34
Cleveland National bank.....	500,000	47,671	1,042,877	906,722	229,521	109 53
Euclid Avenue National bank..	500,000	30,060	897,286	567,169	115,113	107 21
Ohio National Bank.....	400,000	120,191	1,260,306	1,069,146	217,744	130 05
National City bank.....	200,000	155,806	751,700	765,029	203,557	177 90
Total.....	\$6,700,000	\$1,158,399	\$16,477,238	\$13,506,641	\$3,157,019	.....

PRIVATE BANKS, AND BANKERS AND SAVINGS BANKS.

	Capital.	Surplus.	Undivided surplus.
Broadway Savings and Loan Co.....	\$ 50,000	\$ 3,000	\$.....
Citizens Saving and Loan Association.....	1,000,000	500,000	94,000
East End Savings Bank Co.....	50,000	.....	.....
People's Savings and Loan Association.....	100,000	.....	53,294
Savings and Trust Co.....	450,000	13,973	20,000
Society for Savings*.....	.....	.....	.....
South Cleveland Banking Co.....	50,000	11,000	.....
West Side Banking Co.....	50,000	.....	.....
Woodland Avenue Savings and Loan Co....	50,000	.....	.....
W. J. Hayes & Sons.....	100,000	.....	.....
Lamprecht Bros. & Co.....	15,000	.....	.....
Charles H. Potter & Co.....	50,000	50,000	.....
Henry Wick & Co.*.....	.....	.....	.....

* No statement.

TRADE AND COMMERCE.

THE Cleveland Board of Trade was organized in July, 1848, with John L. Weatherby, president ; W. F. Allen, jr., vice-president ; Charles W. Coe, secretary ; R. T. Lyon, treasurer. By-laws were adopted, rooms secured at the foot of Superior street, and all preparations made, and August 10 of the same year the institution was inaugurated with thirty-six members. The objects of the association, as set forth in Article 1 of the by-laws, are to promote integrity and good faith, establish just and equitable principles of business, to discover and correct abuses, to establish and maintain uniformity in commercial usages, to acquire, preserve and disseminate valuable business statistics and information, to prevent or adjust controversies and misunderstandings which may arise between persons engaged in trade, and generally to foster, protect, and advance the commercial, mercantile and manufacturing interests of the city—objects which have ever been pursued with singleness of purpose and marked success. The extent to which the Board of Trade has contributed to the nurture and development of the city's material interests can only be approximately estimated, but that it has been and continues to be the chief factor in her mercantile, commercial and manufacturing progress is too generally acknowledged to require demonstration. The city's best business talent, public spirit and patriotism are represented in the board, and while its past achievements have been wonderful, its greatest triumphs are to come. The greatest drawback to its usefulness in attracting hither enterprise, capital and skill, is the omission of tabulated annual reports, which, issued in pamphlet form and spread broadcast throughout this and other countries, could not but exert a powerful influence for good. The last of these reports, published in 1884, shows a membership of nearly two hundred, which has since been considerably increased by accessions from all the avenues of active business.

Chartered by the Legislature April 3, 1866, the Cleveland Board of Trade reorganized on the fifth of the same month and became an incorporated body. The presiding officers from 1848 to the present time are named here, with their terms of service : From 1848 to 1863 inclusive, Joseph L. Weatherby ; 1864-65, S. F. Lester ; 1865-66, Philo Chamberlain ; 1866-67, Philo Chamberlain ; 1867-68, W. F. Otis ; 1868-69, George W. Gardner ; 1869-70, R. T. Lyons ; 1870-71, A. J. Beggess ; 1871-72, Thomas Walton ; 1872-73, Charles Hickox ;

1873-74, B. H. York ; 1874-75, F. H. Morse ; 1875-77, H. Pomerene ; 1877-78, B. A. De Wolf ; 1879-86, Daniel Martin. Mr. William Edwards, senior member of the great wholesale grocery house of Wm. Edwards & Co., occupies that responsible position at this time, while Mr. A. J. Begges is secretary and treasurer.

The daily call, under rules, begins at 12:30 P. M., and embraces cash transactions and options in clover and timothy seed, cash lard, pork, tallow, hay, potatoes ; options in potatoes ; cash butter, eggs, and options in the same ; cheese, cash and options ; beans and peas, cash ; apples, cash and options ; cash foreign fruits and nuts, dried fruits, onions, cranberries ; cash and options in miscellaneous articles, and cash and options in wheat, corn, oats, rye and barley.

The exports and imports of Cleveland, 1873 to 1886 inclusive, as taken from the custom-house records, to gether with entries and clearances of vessels at this port for the same period, procured from the same source, are presented below. The footings for 1887 are not complete when we go to press, which will account for the omission of later statistics.

EXPORTS, IMPORTS, ENTRIES AND CLEARANCES AT PORT OF CLEVELAND, 1873 to 1886, INCLUSIVE.

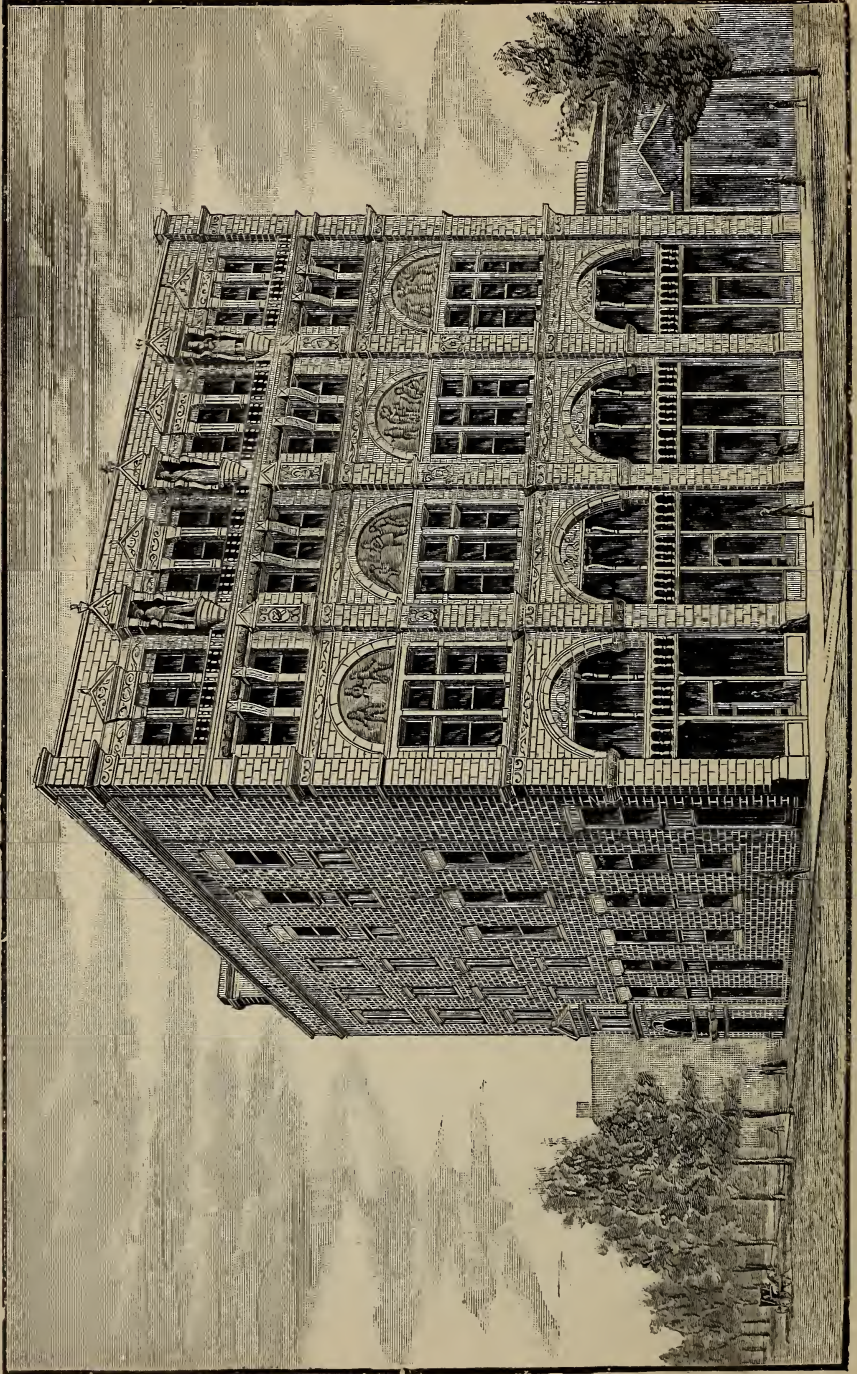
Year	Goods entered valuation.	Goods cleared valuation.	Exports valuation.	Imports valuation.	Vessels entered.				Vessels cleared.			
					American.	Tonnage.	English.	Tonnage.	American.	Tonnage.	English.	Tonnage.
1873	\$21,052,074	\$31,652,016	\$1,486,976	\$1,014,363	330	58,043	625	134,733	325	45,223	630	125,181
1874	22,528,982	25,262,796	856,950	557,934	222	44,356	510	101,806	232	38,317	463	105,155
1875	13,106,592	50,464,402	840,797	781,869	154	31,417	469	104,768	105	19,539	417	97,319
1876	15,023,570	21,125,000	1,227,329	375,000	280	109,632	214	48,883	372	123,809	245	52,897
1877	28,585,440	37,029,147	828,579	454,227	221	58,967	292	72,047	352	109,246	320	58,940
1878	31,765,319	33,528,330	980,371	165,880	..	..	..	..	..	..	..	..
1879	46,465,260	33,090,598	392,722	.....	..	..	..	378	82	324	350	88,194
1880	54,754,467	39,142,898	.....	.....	..	..	..	..	..	..	..	..
1881	61,921,552	37,023,210	552,161	726,738	..	..	280	53,176	..	..	..	279
1882	54,480,006	36,449,853	586,207	440,354	..	..	270	53,294	..	..	..	303
1883	51,548,396	36,923,207	952,633	458,696	..	..	..	..	..	..	..	..
1884	43,815,953	35,416,636	485,783	571,144	..	..	..	..	..	..	..	..
1885	(not stated)	27,318,454	289,490	456,698	..	..	211	43,877	..	..	..	221
1886	47,628,567	36,139,580	156,107	593,220	..	..	244	61,742	..	..	..	244

The blanks in the foregoing table indicate absence of official records. The total imports for the first quarter of 1887 were valued at \$214,205 ; duties paid, \$93,663.84. The proportionate increase during the second and third quarters was very considerable, and for the entire year will exceed those of 1886 by at least fifty per cent. This is the great entrepot for Lake Superior and Canadian iron ores and copper. In 1886 there were received in Cleveland and at lake ports tributary to Cleveland 2,084,717 tons of iron ore, or nearly 60 per cent. of the entire Lake Superior output, the value of which on the docks here was in round figures \$12,500,000. It is the most central meeting point for the rich

iron ores of Lake Superior, the celebrated coke from Connellsville, Pa., and the limestone of Kelley's Island and vicinity, thus affording unusual facilities for iron smelting. Cleveland is the great receiving point for coal from the Mahoning, Shenango, Tuscarawas, Hocking, Connotton and adjacent valleys. In 1886 2,000,000 tons of bituminous coal were received here, 600,000 tons of which were shipped by lake.

BOARD OF INDUSTRY.

January 19, 1887, a meeting of citizens representing the various manufacturing and commercial interests of the city was called at the Board of Trade rooms for the purpose of organizing and furthering the interests of the city as a manufacturing centre. On the twenty-sixth of February another meeting was held, with Lee McBride as chairman, and a permanent organization effected, to be known as the Cleveland Board of Industry and Improvement, with a membership of one hundred business men, carefully selected from the various branches of industry. The object of the organization is for the protection and stimulation of manufacturing industries in every form, to build up and improve the city as a manufacturing and commercial center, and encourage the location here of outside manufacturers. At the meeting of March 1 a committee, consisting of D. A. Dangler, H. R. Goff, T. H. Graham, C. H. Bulkley and William Edwards, was appointed for the purpose of selecting officers and preparing constitution and by-laws. On recommendation of this committee James Barnet was elected president; Thomas Axworthy, vice-president; X. X. Crum, secretary, and C. H. Bulkley, treasurer, and the first Saturday of each month, at 3 P. M., set for regular meetings at the Board of Trade rooms. At subsequent meetings the following executive committee was selected: H. R. Goff, C. B. Lockwood, Fred. Muhlhauser, Hon. Amos Townsend, H. D. Coffinberry, D. Martin, B. D. Babcock, Wm. Edwards, M. A. Hanna, D. A. Dangler, O. M. Stafford, W. J. McKinnie, Lee McBride, W. J. Gordon and Judge E. J. Blandin. Finance committee—Wm. Chisholm, A. Weiner, S. M. Strong, T. H. Graham and Lewis Black. Special committee for location of manufactures and information—W. N. Day, chairman; S. A. Fuller, H. M. Clafien, C. W. Bingham and James Parker. The subject of natural gas for manufacturing purposes has been brought before the board, and a fund for experimental purposes established, but after thorough investigation gas has not been found in sufficient quantities for the purpose intended, and the subject and experiments in this direction were abandoned. Efforts have also been made by the board to increase the area of the shelter harbor for shipping for the port and to increase the dockage facilities. The board is now in a flourishing condition, and, having no other objects in view than the advancement of Cleveland's industrial and commercial interests, cannot but exert a most beneficent and healthful influence upon her future. The character and standing of the gentlemen composing the organization is ample guarantee that under no circumstances will it ever be dragged in the mire of partisan politics or otherwise diverted from the lofty purposes to which its efforts are at present directed.



MASONIC TEMPLE.

TRANSPORTATION.

PROBABLY no inland city enjoys so many advantages in the matter of railway and water facilities as does Cleveland. Her geographical position and manifest natural advantages long ago pointed to the certainty that she must become a great commercial center and attracted the attention of railway and ship builders. Standing midway between the iron and copper mines of Lake Superior and the coal fields of Ohio and Pennsylvania, possessed of a fine harbor (rendered almost perfect by recent government improvements), with unsurpassed facilities for ship-building and the manufacture of railway equipments, her prospects for future ascendancy are of the brightest.

RAILWAYS.

Ten railroads enter here and connect Cleveland with the entire iron highway system of the continent. The most important of these are the Lake Shore & Michigan Southern, controlling $1,340\frac{1}{2}$ miles of track, the main line extending from Chicago to Buffalo, 540 miles; the Cleveland, Columbus, Cincinnati & Indianapolis (Bee Line) from Cleveland to Cincinnati, comprising the Columbus division, Cincinnati division and Indianapolis division, the Cincinnati & Springfield, Mt. Gilead Short Line, and Indianapolis & St. Louis railways, in all $738\frac{1}{2}$ miles; the New York, Pennsylvania & Ohio (Nypano), 573 miles; the New York, Chicago & St. Louis, 523 miles; the Cleveland & Pittsburgh, 224 miles; Cleveland & Mahoning Valley, $137\frac{1}{6}$ miles; the Valley, 82 miles; the Cleveland & Canton (Connotton Valley), $160\frac{1}{2}$ miles; the Cleveland Southern, and the Rocky River—the latter a short line to a neighboring summer resort. Several of these roads—the Mahoning Valley and others—are devoted largely to the transportation of soft coal from the Ohio and Western Pennsylvania mines, vast quantities of which are consumed here and shipped by water to lake ports. Six of these roads took out from Cleveland in 1886, 3,453,726 tons of freight, their Cleveland freight revenues aggregating \$3,042,624.81. The following additional roads have direct running arrangements into Cleveland: Cleveland, Akron & Columbus; Cleveland, Lorain & Wheeling; Pittsburgh, Cleveland & Toledo; Pittsburgh & Lake Erie, and Cleveland & Marietta.

WATER TRANSPORTATION.

As before intimated, the ship-building interests of Cleveland rank above those of any American inland port. There are eight shipyards here, two of which—that of the Globe Iron Works and that of the Cleveland Shipbuilding Company, described and illustrated elsewhere in this work—are of colossal proportions, and give attention exclusively to the construction of steel and iron steamers. The others are devoted to the building and repair of wooden craft of every description, steam and sail, those of William H. Radcliffe and Thomas Quayle's Sons being the largest and most famous.

The steamboat lines belonging to or touching at this port are thirteen in number, as follows: The Cleveland Transportation Co., the Detroit and Cleveland Steam Navigation Co., the Lake Superior Transit Co., the Western Transit Co., the Saginaw Transportation Co., Grunmond's Mackinaw Line, Wilson's Transit Line, the Union Steamboat Co., Ward's Lake Superior Line, the Merchants' Montreal Line, the Lackawanna Green Bay Line, the Merchants' Line, and the Central Vermont Line. The vessels of these lines are engaged in regular trades, carrying freights and passengers to every port of consequence on either shore of the great lakes between Montreal, Buffalo and Duluth, and comprise most of the largest and finest craft on the "unsalted seas." The most magnificent steamer on fresh water is the *City of Cleveland*, built here and put into commission by the Detroit and Cleveland Steam Navigation Company in the season of 1886. This company run one boat each way daily during the season between Cleveland and Detroit and Mackinac and intermediate points. . . . The Lake Superior Transit Line, composed of twelve first-class propellers, carrying both passengers and freight, dispatches five vessels per week. . . . The Saginaw Transportation Company's boats leave twice a week, carrying passengers and freight. . . . The Union Steamboat Company's vessels, running between Chicago and Buffalo, are freighters exclusively, and touch here daily. . . . Propellers of the Merchants' Line depart weekly for Montreal. . . . Grunmond's Mackinaw Line, weekly. . . . Ward's Lake Superior Line, five freight propellers, two of which carry passengers besides. . . . Western Transit Co., Buffalo to Milwaukee and Chicago, propellers touch here daily. . . . Wilson's Transit Line, steam freight barges, to and from Lake Superior ports. . . . A vast number of irregular American and English craft—freighters exclusively, carrying coal and iron ore for the most part—also ply the lakes and touch here to receive and discharge cargoes. These vessels are usually under charter.

VESSELS OWNED IN THE DISTRICT.

Lake shipments of iron from the mines of Lake Superior for the season, to date of November 16, footed up 4,332,183 gross tons. This is 937,382 tons in excess of the shipments last year at the corresponding date. The table given below shows the shipments by ports to the above date this season and for the corresponding period in 1886:

Name of Port.	1887.	1886.
Marquette.....	795,784	833,044
Escanaba.....	2,016,675	1,482,394
St. Ignace.....	90,188	71,020
Ashland, Wis.....	1,040,727	703,947
Two Harbors, Minn.....	388,799	304,396
Total.....	4,332,183	3,394,801

By ranges the shipments have been as follows: Marquette range, 1,736,811 tons; Menominee range, 1,116,832 tons; Gogebic range, 1,089,741 tons; Vermillion range, 388,799 tons.

The total receipts at lake ports for the past five years were :

Port	1883.	1884.	1885.	1886.	1887.
Toledo.....	27,617	2,444	15,000	26,960	61,727
Sandusky.....	58,825	106,540	143,180	157,970	160,600
Huron.....				44,021	21,288
Lorain.....	25,794	30,156	13,180	99,744	134,764
Cleveland.....	723,129	904,850	589,234	1,034,650	1,216,423
Fairport.....	40,334	23,100	31,992	112,000	501,368
Ashtabula.....	670,000	650,000	582,000	672,000	1,103,839
Erie.....	106,787	116,027	122,223	91,200	210,488
Buffalo.....	40,203	8,760	7,160	31,869	28,699
Totals.....	1,692,689	1,841,877	1,503,969	2,270,554	3,439,199

We are indebted to the *Plain Dealer* of July 11 last for the following table of iron, steel and wooden steamers and sailing craft owned in the Cuyahoga (Cleveland) district to that date. The aggregate shows 206 craft of all kinds mentioned, valued at \$6,539,400; total gross tonnage, 123,921.41. Seven of the steamers are of iron and steel, with an aggregate tonnage of 10,719.72 and a total valuation of \$983,000. The number of steam wooden boats is 87, the aggregate value \$3,772,800, and the gross tonnage 60,031.81. The number of sail boats is 112, the aggregate value \$1,783,600 and the gross tonnage 53,169.88. It is more than probable that in no single channel of trade in this country has there been so much improvement within the past two years as in the commerce on the great lakes. Of the several large cities on the lakes Cleveland—and Cleveland capitalists interested in the vessel property in particular—have received the greatest benefit. Cleveland is now far in advance of any other city on the lakes in the aggregate and value of tonnage. Up to a short time ago Buffalo, with her several lines of large freight boats, headed the list of tonnage-owning ports, and the greatest number of boats, made up by small lumber “hookers,” still hail from Chicago; but Cleveland has now more than distanced both of these places in the aggregate of monster carriers, valued at hundreds of thousands of dollars.

LAKE CRAFT OWNED IN THE CUYAHOGA DISTRICT.

IRON STEAMBOATS.				WOODEN STEAMBOATS.				
	Ton.	B'lt.	Val.		Ton.	B'lt.	Val.	
Dexter.....	36	1866	\$ 8000	Paddy Murphy.....	42	1882	\$8000	
Cambria.....	1878	10	1887	Queen of the West.....	818	84	1881	50000
Chas. J. Sheffield.....	1699	59	1887	Rube Richards.....	815	87	1885	48000
J. H. Devereux.....	1618	63	1885	Raleigh.....	1205	93	1871	60000
Spokane.....	1741	90	1886	R. P. Ranney.....	1392	49	1881	95000
Wm. Chisholm.....	1581	08	1884	R. K. Hawley.....	27	24	1873	5000
Onoko.....	2164	42	1885	Robert Wallace.....	1189	56	1882	85000
WOODEN STEAMBOATS.				Red Cloud.....	40	37	1882	9000
A. Everett.....	1083	32	1880	Rob Roy.....	14	76	1886	2000
American Eagle (tug).....	34	48	1886	R. R. Rhodes.....	1576	23	1887	115000
American Eagle.....	161	24	1880	S. S. Stone.....	52	69	1882	9000
Australasia.....	1829	32	1884	Star.....	10	53	1882	12000
Business.....	985	62	1881	S. Cham'l'n (tug).....	33	60	1883	7000
Cormorant.....	1200	00	1873	S. E. Sheldon.....	907	24	1872	45000
Charles Henry.....	22	23	1880	S. Mather.....	1576	23	1887	115000
Constitution.....	96	38	1864	Sparta.....	1017	19	1874	60000
C. P. Morey.....	30	28	1860	Siberia.....	1618	26	1882	95000
Cyclone.....	69	72	1883	Superior.....	854	59	1873	50000
Chas. E. Bolton.....	20	56	1882	Smith Moore.....	1191	42	1880	75000
City of Cleveland.....	1609	92	1882	Sampson.....	181	00	1866	18000
C. Tower, Jr.....	1825	45	1886	Tom Maytham.....	36	80	1880	6500
Dreadnaught.....	31	23	1881	Telephone.....	15	44	1880	1500
D. Leuty.....	646	35	1882	V. Swan.....	955	35	1874	55000
Dragon.....	28	49	1866	V. H. Ketchum.....	1660	49	1874	80000
Egyptian.....	1429	78	1873	Vienna.....	1005	79	1873	60000
E. B. Hale.....	1186	15	1874	Wocoken.....	1400	37	1880	85000
Fred Kelley.....	926	54	1871	W. H. Doan.....	11	58	1881	3500
Florence.....	11	48	1873	Wallula.....	1924	34	1882	110000
Forest City.....	49	37	1875	W. L. Wetmore.....	1216	75	1871	50000
Geo. R. Paige.....	34	34	1882	W. D. Cushing.....	39	74	1868	7000
Geo. M. Brady.....	165	00	1865	W. P. Thew.....	188	14	1884	20000
Geo. Spencer.....	1360	75	1884	WESTERN SAIL VESSELS.				
Geo. T. Hope.....	1558	73	1883	Ahira Cobb.....	780	95	1872	27000
H. A. Tuttle.....	1585	12	1887	Alva Bradley.....	649	18	1870	25000
Helene.....	17	35	1883	Ada E.....	18	44	1887	1000
Handy Boy.....	136	27	1882	Andrew Walton.....	372	88	1869	9000
Havana.....	1041	43	1874	Annabel Wilson.....	490	63	1887	30000
Henry Chisholm.....	1775	37	1880	B. H. Winnie.....	16	16	1871	800
H. B. Tuttle.....	844	94	1871	Bertie Crowell.....	16	48	....	700
Ida Sims.....	13	00	1873	Brunette.....	738	64	1871	26000
Joe Harris.....	64	24	1873	Charles Wall.....	629	31	1866	18000
John Gordon.....	51	36	1884	Colonel Cook.....	266	18	1855	5000
John N. Glidden.....	1322	60	1879	C. L. Hutchinson.....	297	76	1866	7000
J. Amadeus.....	44	67	1874	C. H. Burton.....	514	91	1873	16000
J. J. Worswick.....	11	14	1878	C. G. King.....	457	45	1870	15000
J. S. Fay.....	1220	75	1871	Constitution.....	422	67	1861	12500
J. Pickands.....	1545	90	1886	Camden.....	694	17	1872	25000
J. H. Outhwaite.....	1304	06	1886	Columbian.....	356	18	1864	7000
Jim Sheriffs.....	841	27	1883	Conrad Reed.....	288	70	1881	7000
John Gregory.....	75	25	1878	C. H. Johnson.....	332	47	1870	7000
Kasota.....	1660	84	1884	Delaware.....	547	69	1868	12500
Keystone.....	722	54	1880	David Wallace.....	1088	46	1884	50000
L. A. Smith.....	39	16	1869	D. P. Rhodes.....	937	93	1871	35000
Mag Sanborn.....	21	05	1874	David Wagstaff.....	310	95	1863	7000
Mary Pringle.....	204	66	1867	David Dows.....	1418	53	1881	60000
Mary Virginia.....	32	83	1880	Eliza Gerlach.....	271	43	1867	7000
Markwell.....	11	25	1885	E. C. Hutchinson.....	736	77	1873	27000
M. B. Grover.....	1995	90	1887	Edward Kelley.....	776	43	1874	28000
Missoula.....	1926	88	1877	L. Corning.....	832	43	1867	18000
N. B. Gates.....	28	75	1887	E. R. Williams.....	293	64	1873	8000
N. K. Fairbank.....	980	30	1874	F. L. Jones.....	112	85	1867	2500
O. Townsend.....	1037	91	1883	Frank Perew.....	524	60	1867	15000
O. J. True.....	16	38	1881	Flying Dutchman.....	11	26	1882	500
Pat Henry.....	35	35	1881	Fred A. Morse.....	592	36	1871	18000

LAKE CRAFT OWNED IN THE CUYAHOGA DISTRICT—CONTINUED.

WESTERN SAIL VESSELS.	Ton.	B'lt.	Val.	WESTERN SAIL VESSELS.	Ton.	B'lt.	Val.		
Fayette Brown	553	35	1868	\$18000	Maria Martin	568	45	1866	\$18000
F. O. Barker	304	79	1867	8000	May Richards	511	14	1890	12000
G. H. Wilmington	559	85	1872	24000	N. C. West	145	23	1867	2500
Geo. W. Adams	1443	79	1875	45000	N. Redington	816	66	1872	35000
Genoa	730	73	1873	26000	Niagara	764	75	1873	30000
Golden Fleece	451	96	1862	15000	Negaanee	640	71	1867	24000
G. K. Jackson	400	94	1882	17000	Old Concord	318	54	1855	3000
Gen. Franz Sigel	316	91	1863	6500	Pelican	813	50	1872	28000
Geo. Sherman	323	28	1862	6500	Polynesia	979	97	1885	50000
H. D. Root	116	52	1863	3000	Queen City	675	81	1873	25000
H. J. Webb	431	94	1869	16000	Richard Winslow	885	20	1871	30000
Helena	863	93	1874	30000	Rival	221	24	1857	6000
H. P. Baldwin	495	15	1866	15000	R. Bottsford	499	90	1882	23000
Helvetia	793	15	1873	30000	Red, White, Blue	447	34	1863	14000
H. G. Cleveland	264	42	1867	7000	Reindeer	305	96	1870	7000
I. N. Foster	319	20	1872	8000	Selkirk	311	79	1862	8000
J. L. Quinby	87	28	1863	1200	St. Lawrence	281	16	1863	7500
Ironton	785	56	1873	25000	Sassacus	109	02	1867	2000
J. U. Porter	149	72	1868	2000	Sumatra	845	34	1874	32000
J. B. Kitchen	287	31	1873	7000	Southwest	292	30	1866	7000
Joseph Paige	625	86	1872	24000	S. P. Ely	627	24	1866	18000
J. R. Pelton	125	66	1866	3500	Sena or Blood	230	76	1863	3500
J. G. Masten	620	52	1867	21000	Seaman	241	63	1848	6000
J. S. Austin	300	21	1863	12000	Sophia Minch	635	57	1878	25000
John O'Neil	616	33	1873	22000	Sandusky	837	74	1873	26000
John Tibbitts	149	07	1865	3000	S. H. Kimball	318	95	1864	6000
Julia Willard	214	45	1865	4500	Theodore Voges	168	51	1876	5000
James Couch	843	84	1871	27000	Thos. P. Sheldon	699	46	1871	25000
John Martin	937	75	1873	35000	Two Sisters	9	79	1879	400
J. E. Gilmore	290	89	1867	6000	Transport	208	05	1858	2000
Kate Winslow	736	07	1872	20000	Thomas Quayle	643	77	1872	23000
Kingfisher	517	32	1867	12000	Thomas Gawn	549	96	1872	24000
Leonard Hanna	694	98	1872	25000	Three Brothers	319	85	1873	9000
Li'le Wis'hick'n.	376	53	1869	3500	V. M. Blake	34	26	1868	800
M. P. Barkalow	121	65	1871	3500	Venus	232	83	1872	5000
M. R. Warner	699	95	1873	25000	Verona	728	83	1873	28000
M. F. Tremble	692	74	1874	25000	Venture	20	74	1881	700
M. O. Keys	40	70	1874	700	W. L. Baker	19	47	1883	400
Monticello	316	15	1876	6500	Wadena	1076	56	1887	50000
Mystic	15	53	1868	400	Zack Chandler	726	50	1867	12500

The appended table, prepared by Mr. A. A. Pomeroy, editor of the *Marine Record* and marine editor of the *Leader*, shows the tonnage built and commissioned on the lakes for 1887, but does not include that under contract and unfinished. In 1873, when ship-building was stimulated by good times, 92,400 tons were registered, a record never exceeded, but it is possible that it will be at the end of next year. One of our modern vessels, taken almost at random from the names presented in the table, will equal in tonnage the entire fleet of fifty vessels afloat on the lakes in 1818.

For the table of losses we are indebted to the *Plain Dealer* of December 5. It is complete up to December 1, and shows losses to the amount of 34,700 tons, valued at \$770,700 for 1887, as compared with 23,781 tons, valued at \$549,000 for 1886.

LAKE DISASTERS FOR 1887.

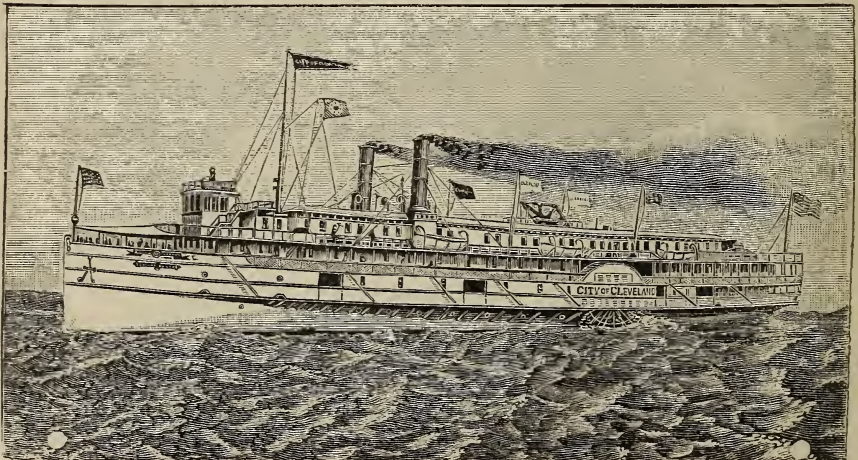
NAME.	Descrip.	Gross Tons.	Value.	Home Port.	Lives Lost.
Louie O'Neil.....	schr	855	\$25,500	Marine City.....	
George P. Heath.....	prop	00	6,000	Sheboygan.....	
Oswego.....	tug		9,000	Detroit.....	
Van Valkenberg.....	schr	575	5,000	Chicago.....	
Champlain.....	prop	400	25,000	Milwaukee.....	7
P. H. Walters.....	prop	350	7,000	Sandusky.....	8
George Worthington.....	schr	350	3,000	Detroit.....	
Theodore Perry.....	schr	400	5,000	East Saginaw.....	5
City of Ashland.....	prop	150	8,000	Ashland.....	1
Clara.....	scow	150	2,000	Milwaukee.....	1
Gessine.....	schr	200	2,000	Chicago.....	
Niagara.....	schr	1,350	35,000	Cleveland.....	7
J. A. Smith.....	schr	300	3,000	Detroit.....	
Anglo Saxon.....	schr	300	2,000	Detroit.....	
Provost.....	schr	160	1,000	Port Huron.....	
A. E. Allen.....	tug		4,000	Amherstburg.....	
Ole Oleson.....	schr	200	1,500	Milwaukee.....	
F. D. Barker.....	schr	500	8,000	Cleveland.....	
City of Green Bay.....	schr	560	9,000	Kenosha.....	6
Havana.....	schr	525	8,000	Kenosha.....	3
C. L. Hutchinson.....	schr	475	10,000	Cleveland.....	
California.....	prop	600	45,000	Montreal.....	9
Orient.....	tug		4,000	Marine City.....	6
Pulaski.....	schr	560	9,000	Toledo.....	
Venus.....	schr	375	7,000	Caseville.....	6
Jesse Scarth.....	schr	725	14,000	Toronto.....	
Albion.....	prop	600	10,000	Port Dalhousie.....	
L. Hanna.....	schr	1,350	25,000	Cleveland.....	
Manzanilla.....	schr	650	12,000	St. Catharines.....	
Riverside.....	schr	510	9,000	Toledo.....	
Clinton.....	prop	600	20,000	St. Catharines.....	
C. O. D.....	schr	540	7,000	Buffalo.....	1
James F. Joy.....	schr	1,000	16,000	Erie.....	
George Sherman.....	schr	600	6,000	Cleveland.....	
Plymouth.....	schr	1,400	22,000	New Baltimore.....	
Lallah Rookh.....	schr	150	1,000	Manistee.....	
Polynesia.....	schr	2,000	45,000	Cleveland.....	
Maine.....	schr	250	1,500	Chicago.....	
Oriental.....	schr	625	10,000	Kingston.....	5
City of Owen Sound.....	prop	750	29,000	Toronto.....	
Dolphin.....	schr	225	1,000	Saginaw.....	7
G. D. Norris.....	schr	350	1,800	Saginaw.....	
Edna.....	schr	100	600	Chicago.....	
Laketon.....	prop	200	4,000	Sheboygan.....	
Vernon.....	prop	300	40,000	Chicago.....	40
Napoleon.....	schr	200	800	Frankfort.....	
Acontias.....	schr	425	4,000	Detroit.....	
Moss.....	schr	450	4,500	Detroit.....	
Bessie Barwick.....	schr	650	6,000	Hamilton.....	
Marie Victoire.....	schr	125	400	Quebec.....	3
Sylvia Morton.....	schr	325	2,800	East Saginaw.....	
Fame.....	schr	525	800	Detroit.....	
Osceola.....	prop	1,200	75,000	Detroit.....	
Harmon.....	schr	450	7,000	Alpena.....	
Hinckley.....	schr	510	5,000	Alpena.....	
Myosotis.....	schr	525	8,000	Kenosha.....	
Consuelo.....	schr	225	1,500	Detroit.....	
Blazing Star.....	schr	450	8,000	Oswego.....	
Arizona.....	prop	1,200	40,000	Erie.....	
City of Green Bay.....	prop	250	16,000	Green Bay.....	
Pacific.....	prop	1,050	22,000	Michigan City.....	
S. H. Johnson.....	prop	210	6,000	Chicago.....	
Richard Morwood.....	schr	600	6,000	St. Catharines.....	
Abbie.....	schr	250	3,500	Ludington.....	
White Star.....	schr	575	8,000	Oswego.....	
Daisy Day.....	prop	225	10,000	Silver Lake.....	
Delaware.....	schr	300	3,500	Lake Ontario.....	
Hannah Butter.....	schr	275	3,000	Cobourg.....	
Alice Craig.....	schr	100	1,800	Bayfield.....	
J. A. Holmes.....	schr	225	700	Sheboygan.....	
I. N. Foster.....	schr	620	8,000	Buffalo.....	
Totals.....		34,400	\$777,700		116

VESSELS BUILT ON THE LAKES, 1887.

Name.	Reg.	Tonnage Net.	Where built.	By whom.	When	Owners.	Port of Hail.	Value.	Class	Remarks.
Cambria.....	St.Mr.	1377	Cleveland	Globe Iron Works	1887	Mut. Trs. Co.	Cleveland.	\$185,000	A1	Steel.
W. H. Gratrix.....	410	1175	W. Bay City.	F. W. Wheeler	1887	Gratrix & Co.	Buffalo.	120,000	A1*	Wood.
M. B. Grover.....	410	1585	Cleveland	Radcliffe	1887	Bradley et al.	Cleveland.	120,000	A1*	Wood.
Louisiana.....	410	1230	Marine City.	Morley	1887	Morley et al.	Maine City.	110,000	A1*	Wood.
Roumania.....	410	1442	W. Bay City.	Davidson	1887	Corrigan et al.	Cleveland	140,000	A1*	Wood.
C. J. Sheffield.....	410	1319	Cleveland	Globe Iron Works	1887	H. Brown et al.	Detroit.	150,000	A1*	Wood.
F. W. Wheeler.....	410	1175	W. Bay City.	F. W. Wheeler	1887	Whitney et al.	Cleveland	120,000	A1*	Wood.
Gettysburg.....	410	1338	Trenton.	Craig & Son	1887	Gill & Smith	Buffalo.	100,000	A1*	Wood.
Alice M. Gill.....	410	208	Grand Haven	Robertson.	1887	St. S. Co.	Northport.	25,000	A1*	Wood.
Kaliyuga.....	410	1581	St. Clair	Langell.	1887	W. Wilson et al.	East China.	115,000	A1*	Wood.
Missoula.....	410	1585	Cleveland	Mills	1887	Mills & Co.	Cleveland.	120,000	A1*	Wood.
Wyoming.....	410	1740	Buffalo	Quayles	1887	W. T. Co.	Buffalo.	150,000	A1*	Wood.
Fayette Brown.....	410	1516	Wyandotte	D. D. & Co.	1887	N. W. T. Co.	Detroit.	170,000	A1*	Comp.
Chicago.....	410	761	Detroit	Oades	1887	Cameron et al.	Detroit.	70,000	A1	S. reel.
Ira H. Owen.....	410	1498	Cleveland	Globe Iron Works	1887	Owen Trans. Co.	Chicago	24,000	A1*	Wood.
Thomas R. Scott.....	410	213	Grand Haven	Robertson	1887	Peterson et al.	Chicago	120,000	A1*	Wood.
Wiley M. Baggan.....	410	1380	Cleveland	Radcliffe	1887	Fitzg'rd et al.	Milwaukee.	115,000	A1*	Wood.
Samuel Marler.....	410	1285	Cleveland	Quayles	1887	Moore et al.	Cleveland	115,000	A1*	Wood.
K. R. Rhodes.....	410	1285	Cleveland	Quayles & Co	1887	Rhodes et al.	Cleveland	115,000	A1*	Wood.
H. A. Tuttle.....	410	1585	Cleveland	Presley & M	1887	Johnson et al.	Cleveland	150,000	A1*	Wood.
Aurora.....	410	1800	Cleveland.	Murphy & M	1887	Corrigan et al.	Cleveland	110,600	A1*	Wood.
R. P. Fitzgerald.....	410	1176	Detroit.	D. D. & Co.	1887	Fitzg'rd et al.	Milwaukee.	110,600	A1*	Wood.
A. D. Hayward.....	410	224	Manitowoc	Berger	1887	Campbell et al.	White Lake	25,000	A1*	Wood.
Sirka.....	410	1227	W. Bay City.	Wheeler	1887	Wilson et al.	Cleveland	110,600	A1*	Wood.
Bulgaria.....	410	1486	W. Bay City	Davidson	1887	Corrigan.	Cleveland	75,000	A1*	Wood.
Elfin-Mere.....	410	796	W. Bay City	Wheeler	1887	Gordon et al.	Bay City.	120,000	A1*	Wood.
I. C. Gilchrist.....	410	1336	Trenton	Craig & Son	1887	J. C. Gilchrist	Cleveland	125,000	A1*	Wood.
M. T. Green.....	410	422	Gherlar	Linn	1887	Chicago Linn. Co	Chicago	60,000	A1*	Wood.
Manhattan.....	410	1165	Detroit.	D. D. & Co.	1887	I. O. T. Co.	Milwaukee	120,000	A1*	Wood.
Leon King.....	410	1223	Detroit.	D. D. & Co.	1887	Vance	Milwaukee	110,000	A1*	Wood.
R. P. Flower.....	410	1165	Milwaukee	M. S. T. Co.	1887	Merrill et al.	Milwaukee	120,000	A1*	Wood.
Omaha.....	410	359	Milwaukee	M. S. T. Co.	1887	Merrill et al.	Milwaukee	75,000	A1*	Wood.
Saugatuck.....	410	360	Saugatuck	M. S. T. Co.	1887	Merrill et al.	Saugatuck	75,000	A1*	Wood.
Lansing.....	410	1248	Trenton	Craig & Son	1887	Wilds	Detroit.	110,000	A1*	Wood.
Frank L. Vance.....	410	1444	Cleveland	Radcliffe	1887	M. S. S. Co.	Milwaukee	120,000	A1*	Wood.
Yakima.....	410	1658	Cleveland	Quayles	1887	Wilson et al.	Cleveland	125,000	A1*	Wood.
W. H. Vol.....	410	1791	Milwaukee	W. & Davidson	1887	W. & P. M. R. Co.	East Saginaw	130,000	A1*	Wood.
F. & P. M. No. 3.....	410	325	Detroit.	D. D. & Co.	1887	Starke et al.	Milwaukee	100,000	A1*	Wood.
Yconica.....	410	430	Milwaukee	M. S. T. Co.	1886	Smith	Cleveland	70,000	A1	Wood.
J. K. Farran.....	410	1319	Cleveland	Roor.	1887	Mills & Co.	Buffalo.	125,000	A1*	Wood.
Gogebic.....	410	1497	W. Bay City.	Wheeler	1887	Mos. Wilson	Cleveland	30,000	A1	Wood.
Anna B. Wilson.....	410	1600	Detroit.	D. Co.	1887	Hos. Nestor	Detroit.	85,000	A1	Wood.
Iron Queen.....	410	1022	Detroit.	Gibson	1887	Hos. Nestor	Marquette	57,000	A1	Wood.
George Nestor.....	410	1022	Cleveland	Quayles Sons	1836	Wilson et al.	Cleveland	50,000	A1	Wood.
Madena.....	St.Mr.	2000	Wyandotte	Detroit D. D. Co.	1887	W. T. Co.	Cleveland	275,000	A1	Steel.
Hudson.....	St.Mr.	2000	Wyandotte	Detroit D. D. Co.	1887	W. T. Co.	Cleveland	275,000	A1	Steel.

THE OHIO CANAL.

The Ohio Canal, from Cleveland on Lake Erie to Portsmouth on the Ohio river, 307 miles, was begun in 1825 and completed in 1832, and cost \$5,000,000. By the filling up of the bar at the mouth of the Scioto the canal became useless at the southern end. The Legislature appropriated at its last session the sum of \$40,000 to cut a new line avoiding the bar, which work was completed and celebrated with public rejoicings at Portsmouth, November 17 last. The fiscal year closed on the eighteenth of the same month. A *Plain Dealer* dispatch of the nineteenth from Akron says: A summing up of accounts shows that the canal has wonderfully improved from a business point of view, during the past twelve months. The statistics show that there were received at this port for the year 15,000,000 pounds of coal, 13,697,000 feet of lumber, 1,333,000 lath, 8,000 bushels of wheat. There were shipped from here 1,600 cords of wood, 45,500 pounds of powder, 50,000 pounds of sundries, 355 barrels of flour, 600 barrels of cement. The cash receipts at this port for the year were \$3,000, a gain of \$500 over last year. The shipments of lumber are trebled over last year and the coal shipments are 2,000,000 pounds more.



PALACE STEAMER CITY OF CLEVELAND.

LEADING MANUFACTURES.

THE iron business of Cleveland, in all its ramifications, amounts to an aggregate equal to one-third of the tax duplicate of the city. The investments in iron manufactures in 1886 were \$26,000,300; the number of employés, 17,950, and the value of product \$31,650,000. There are manufactured in Cleveland, agricultural implements, axles, boilers, bolts and nuts, bridges, car couplers, car wheels, electrical apparatus, fences, hardware, nails, iron pipe, pig, bar, sheet, rods, steel rails, boiler plate, safes and locks, saws, screws, sewing machines, shovels, iron ships, stoves, tacks, tools, wire nails, vapor stoves, etc. Following are the official figures :

1886.	Capital invested.	Men employed.	Products.
Buildings.....	\$12,000,000	6,500	\$13,500,000
Hardware, tools, etc.....	2,500,000	3,000	4,000,000
Sewing machines.....	2,100,000	1,250	2,500,000
Boilers and machinery.....	2,000,000	2,000	2,500,000
Foundries.....	1,000,000	1,500	2,000,000
Nuts, bolts, etc.....	1,000,000	1,200	1,700,000
Electric machinery.....	3,500,000	500	1,600,000
Railway equipment.....	400,000	500	1,250,000
Stoves.....	1,000,000	750	1,000,000
Vapor stoves.....	250,000	250	850,000
Miscellaneous.....	550,000	500	750,000
Total.....	\$26,000,300	17,950	\$31,650,000
Totals, 1885.....	23,700,000	15,441	27,828,000
Increase, 1886.....	\$ 3,300,300	2,509	\$ 3,822,000

PETROLEUM PRODUCTS.

The consumption by manufacture into products of crude petroleum in Cleveland during 1886 averaged 12,000 barrels each day, the value of the year's product being \$12,177,817. The business was carried on by 13 refiners, 20 compounders and 36 dealers. Cleveland is located midway between the great Ohio and Pennsylvania oil fields.

Local manufacturers of woolen goods employ nearly 2,000 people, and with an invested capital of \$3,500,000 do a business aggregating about \$9,000,000 a year.

As heretofore noted, Cleveland is headquarters of the oil trade. It is also the second largest lumber and building material market in the world, and a great boot, shoe and harness manufacturing centre; but reliable statistics are unobtainable owing to the omission of annual reports of the Board of Trade, and we are compelled reluctantly to forego the presentation of exhibits that could not but prove interesting and valuable.

The laxity of the building regulations is responsible for much of the loss by fire, great districts being built almost of pine-shingled frame houses. The brick manufacturing industry, however, is steadily improving, and the returns show a total for 1886 of 26 yards, the longest making 4,000,000, the smallest 250,000 a year—in all 50,000,000.



WALK-IN-THE-WATER—FIRST STEAMBOAT ON LAKE ERIE.

THE PRESS.

HERE can be no fairer index of the moral standing, material progress and general intelligence of a community than is supplied by its newspaper press, which, voicing public sentiment in its various phases, conserving public interests and pointing the way to a larger and better development, is at once the pioneer and the product of advancement. Cleveland people are justly proud of their press, which for ability and enterprise is unsurpassed by that of any city of equal population in the world, and comprises a list of five dailies (three English, two German), three tri-weeklies, two semi-weeklies, thirty-six weeklies, five semi-monthlies, thirty-eight monthlies and several quarterlies. We have space for extended notice of but a few of these, selecting the most prominent and influential.

THE PLAIN DEALER.

The *Plain Dealer* is the direct descendant of the *Cleveland Advertiser* (weekly), established in 1834 by W. Woodward, who soon afterward transferred the concern to Canfield & Spencer. In 1836 those gentlemen made the *Advertiser* a daily, which they continued until 1841, when it was purchased by Gray Brothers, who conferred upon it the name it still bears. Under the editorial direction of J. W. Gray, the *Plain Dealer* almost immediately took rank with the leading newspaperial molders of opinion in the West, and up to the death of that brilliant man, in 1862, it maintained its position as the leading local journal, both in the character of a party organ and a vehicle of news, and took no small part in the struggle of 1860 that rent the Democratic party in twain, made it possible to elect Lincoln, furnished the excuse and opportunity for secession, and led to the civil war. It is almost needless to say that the *Plain Dealer* supported Douglas—he and Mr. Gray being intimate personal friends. It was under Mr. Gray's administration that Charles F. Browne ("Artemus Ward"), then city editor, first attracted attention to himself as a humorous writer and laid the foundation of his future fame. Browne's desk is still in existence—a much-valued relic in the rooms of the Historical Society. For three years subsequent to Mr. Gray's death the paper was continued by the executors of his estate, when Major W. W. Armstrong, publisher of the *Tiffin Advertiser*, and previously Secretary of State of Ohio, purchased the property. The Major, a graceful and powerful writer of enlarged views, thoroughly conversant with

Ohio politics, a competent, industrious business man, warm-hearted, liberal and magnetic, bent all his energies to the advancement of his paper, in which he succeeded in the face of all difficulties, making the *Plain Dealer* a political power, the influence of which has grown with its years. Always conservative, yet earnest and outspoken and ably conducted, the Democracy is under lasting obligations to this great journal, which has for nearly forty-five years consistently and unwaveringly championed that party's cause in every vicissitude—in sunshine and storm, in victory and defeat—and continues with unflagging courage and zeal to wield effectively the weapons of argument and persuasion in advocacy and defense of its principles and policy. In 1867 Hon. F. W. Green, ex-member of Congress and for the previous twelve years clerk of the United States District Court at this point, became associated with Major Armstrong as half owner and editorial writer—a position for which his natural bent and political training eminently fitted him. Nine years later—1876—Major Armstrong resumed the sole ownership and direction of the paper, and it is matter of record that it never was more vigorous than in the Tilden-Hayes campaign and the stirring times immediately succeeding. The Plain Dealer Publishing Company, a joint stock concern, composed of W. W. Armstrong and the old employés, was organized, with Mr. Armstrong as president, editor and manager, and continued until 1884, when the present company became the purchasers, and the *Plain Dealer* of former times ceased to exist—the chrysalis stage was passed, and with new blood, new ideas and new methods in every department, a new era was inaugurated, the domain of metropolitan journalism invaded, modern improvements adopted from cellar to roof, a corps of trained specialists, correspondents, etc., secured, and at last the Democracy of Northern Ohio found themselves possessed of an organ worthy the name. In March, 1885, opportunity presenting, the *Evening Herald* plant—a very complete one—was added, and on the fifteenth of that month the *Plain Dealer* was issued from the old *Herald* office, an eight-page, fifty-six-column morning and evening newspaper of the first class, provided with every desirable facility. At present the paper is issued morning and evening, tri-weekly, weekly and Sunday—the latter edition comprising sixteen pages, illustrated and filled with interesting literary and miscellaneous matter, correspondence, politics and the news of the day. The *Plain Dealer* owns and occupies the commodious four-story and basement building Nos. 225 and 227 Bank street, conveniently arranged and thoroughly equipped for the business to which it is devoted, with mailing and storage-rooms in the basement, counting-room, offices and press-room on first floor, editorial and telegraph rooms on second floor, composing-rooms and job department on third and fourth floors. Special wires connect the establishment with New York, Washington and Columbus, and Associated Press wires are also provided. The great Scott press is capable of printing, pasting and folding 30,000 complete papers per hour. The Plain Dealer Company is a joint stock organization; L. E. Holden, president; George T. Prescott, secretary and general manager. The remaining stockholders are R. R. Holden,

editor-in-chief, Charles H. Bulkley, L. H. Prescott, W. W. Armstrong, postmaster, and John C. Rowland, the latter long identified with the paper.

THE CLEVELAND LEADER.

The *Leader* is the second largest and most influential of the Ohio Republican newspapers. In 1848 two Cleveland newspapers, the *True Democrat and American* and the *Forest City Democrat*, were consolidated under the latter name. In 1875 Edwin Cowles became sole owner, the name having been changed a year previously to *Cleveland Leader*. Up to 1867 Mr. Cowles was sole proprietor, Mr. J. A. Harris being his associate editor from 1856 to 1860, when he resigned. Mr. Cowles has been nominally or actually editor-in-chief since 1867, spending much of his time in foreign travel. The present Cleveland Leader Printing Company, a stock concern, was incorporated in 1869, with Mr. Cowles as principal stockholder, which secures to him direction of affairs, dictation of policy, and undisputed editorial control. The same year was commenced the issue of an afternoon edition—the *Evening News*—which was continued until 1885, when the purchase of the subscription books and good will of the defunct *Herald* enabled the company to consolidate the two as the *News and Herald*, which is in fact the evening edition of the *Leader*. Mr. Cowles is the oldest of local journalists in point of continuous service, a fluent and powerful writer, and unquestionably wields much influence in local, State and national politics, his work being marked by strong individualism and in some respects marred by intense personal feeling. His thorough sincerity is undoubted, however, and many of those who differ radically from his views in other matters are his most earnest personal and political friends and supporters. The *Leader* and *Evening News and Herald* are excellent newspapers, bias aside, and are largely read at home and abroad. The staff consists of J. C. Covert, managing editor; H. A. Griffin, associate; J. B. Morrow, city editor; a complete corps of reporters, and some three hundred correspondents at leading points throughout the country.

THE PRESS.

The first number of *The Press* (then the *Penny Press*) was issued November 2, 1878—E. W. Scripps, managing editor; W. H. Little, city editor; John S. Sweeney, business manager. The size at that time was 18 x 24 inches. April 2, 1879, it was enlarged to 18½ x 28 inches; October 11, 1880, to 20½ x 28 inches, again in 1884, and recently to 23 x 32 inches, thus making it one of the largest penny papers in the country. The word "Penny" was dropped from the title in 1884. *The Press* is a member of the Scripps syndicate of evening papers, which includes the *Detroit News*, *Cincinnati Post* and *St. Louis Chronicle*. The Cleveland member has been remarkably successful, prints five or six editions daily, has a large circulation and liberal advertising patronage, is a bright, interesting little paper, carefully and ably edited, containing all the news of the day in condensed form, presents a constant succession of brilliant *feuilletons*, and is regarded as one of the most influential and valuable of Cleve-

land's daily journals. R. F. Payne, jr., is managing editor; Fred L. Purdy, city editor; John M. Wilcox, associate editor; Charles B. Williams, State editor; Sam. M. Williams, telegraph editor. Fifty men and women are employed in all.

THE CLEVELAND ANZEIGER.

The *Anzeiger* is the leading German newspaper of Northern Ohio, issued daily, weekly and Sunday, and publishing the Associated Press dispatches. It was founded in 1871 by the Anzeiger Company, of which William Kaufman is president; H. Thier, vice-president; C. W. Maedje, secretary. In politics the *Anzeiger* is independent, yet wide-awake, progressive and influential. Mr. H. Thier is editor-in-chief, assisted by a capable and accomplished corps of associates in all departments. In all, eighty men are employed. The daily, circulation 10,000, forty-eight columns; Sunday, circulation 12,000, seventy to ninety columns; weekly, circulation 5,000, fifty-six columns. The *Anzeiger* occupies the commodious four-story building No. 135 St. Clair street.

WACHTER AM ERIE.

This is the only German Democratic daily published in Cleveland, and has a large circulation throughout the State, of which it is one of the oldest German newspapers, having been founded in 1852. It is published every afternoon and Sunday morning by the Wachter am Erie Publishing Company; C. L. Hotze, president; Jacob P. Miller, secretary; Carl Claussen, editor-in-chief; office, No. 77 Michigan street. The daily edition comprises eight six-column pages, the Sunday edition twelve similar pages.

MAGAZINE OF WESTERN HISTORY.

The *Magazine of Western History*, published by a company of the same name, at No. 145 St. Clair street, was established in 1884, its first number being issued in November of that year. It is now in its seventh volume, and the success which has attended it is not only highly encouraging in a financial way, but speaks well of the interest taken in historical matters by the people of the Central and Western States. It goes into all parts of the country, and has a constituency of correspondents and contributors who spare no labor or pains to make it what its name implies—a cyclopedia of facts relating to the discovery, settlement and growth of the West; a history of the great movements and achievements of our land, and a treasury of knowledge that shall be of the rarest interest and value to the historian of the future. It deals not altogether with the dead past, but gleans from the lips and pens of men now living their own personal account of the wonderful things the last half-century has accomplished. It numbers in its list of contributors some of the best-known historians of our country, and also many who are recommended more by their personal knowledge of the themes discussed than by any claim to historical reputation. The magazine is upon a sure foundation, and promises even better work in the future than it has accomplished in the past. It is under the management of Mr. L. A. Williams, while Mr. J. H. Kennedy has editorial control.

THE MARINE RECORD.

At the center of lake ship-building, Cleveland, the *Marine Record* has been published for the last eight years, and it is now the only marine newspaper published west of New York city, having outlived all its contemporaries in the maritime interest. The *Marine Record* was started in the fall of 1879, and has continued to grow in

size and influence from that date until the present time. The edition of November 17 last was enlarged by the addition of eight columns, which is equivalent to two pages—made possible by the extensive advertising patronage it has gained during the last six months and the enormous growth in its subscription list. The present publisher, Mr. A. A. Pomeroy, took charge of the *Record* during the summer of 1883, and has conducted it on business principles, so that to-day it stands at the head of maritime publications in this country. Being an official newspaper of the War Department, it is desirable to all contractors for river and harbor improvements; being the official newspaper for the Lake Carriers' Association, it is desirable for all vessel men; being the only marine newspaper on the lakes, it is desirable for all dealers in marine goods as an advertising medium. The editor, who has been connected with the newspaper business during the last twenty-three years, is a positive and enterprising journalist, and has proved, since he took charge of the *Marine Record*, that "the fittest survive." The office of the *Record* is at No. 144 Superior street.

THE IRON TRADE REVIEW.

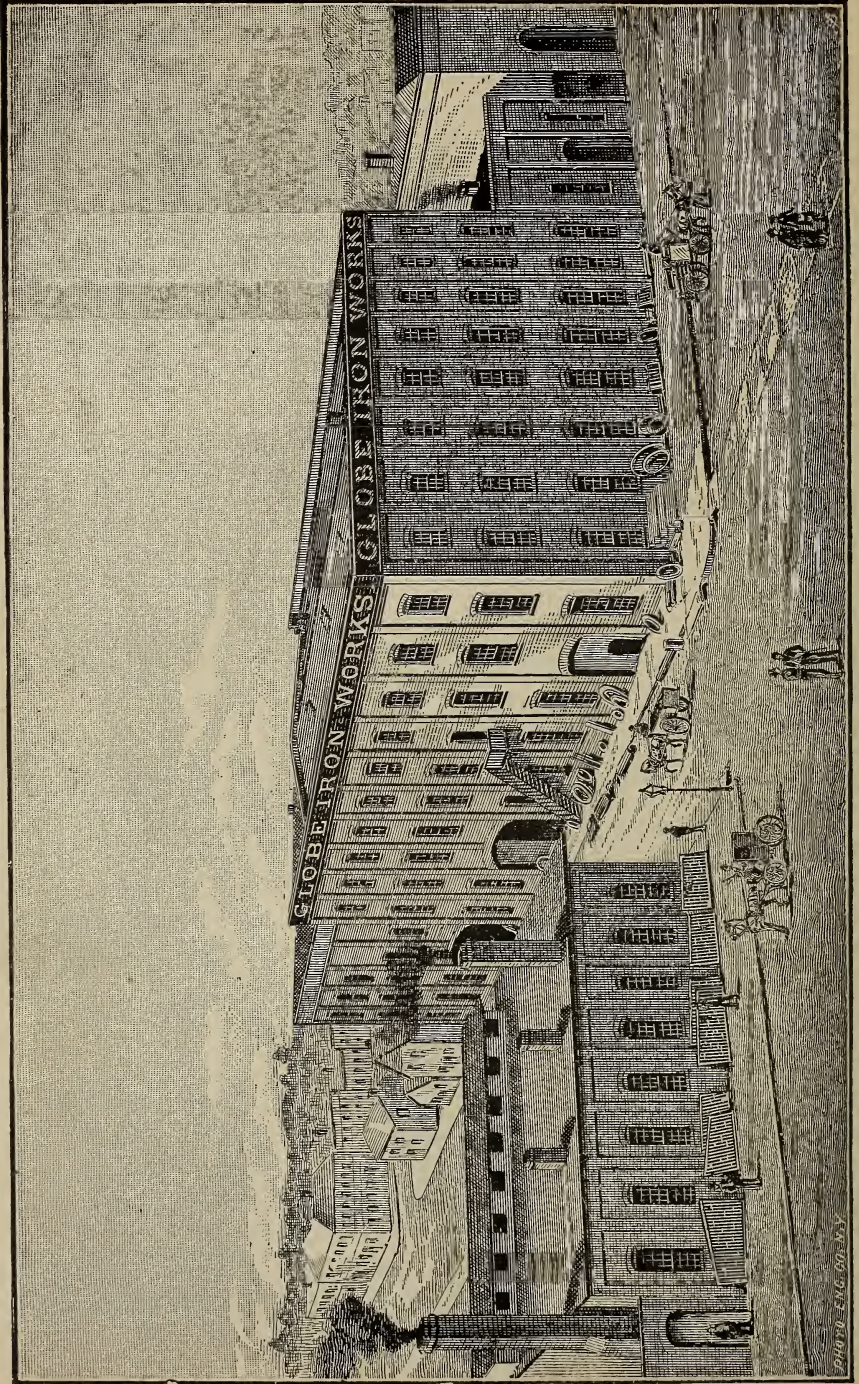
This handsome and well-conducted journal, devoted to the interests of the iron trade and manufacturers of iron, steel and metals, is issued weekly from the office, corner Wood and St. Clair streets, and is an authority in all that pertains to the matters of which it treats. It was established in 1868 by Adams Bros., who sold to W. R. Anderson in 1880, and he, in 1882, to Day & Carter. At present the Cleveland Printing and Publishing Company are the owners—incorporated November 7, 1887; W. M. Day, president and editor-in-chief; F. W. Carter, secretary; T. J. Staral, treasurer; A. Winterberg, superintendent. This company are also publishers of the *Western Machinist*, monthly, devoted to the machinery trade, and of the *Scroll Sawyer*, monthly, devoted to the woodworking interest.

THE SUNDAY WORLD

Originated as the *Sunday Journal* in 1881 by — Henderson and J. J. Smith of the old *Plain Dealer*, and J. J. Greeves of the *Catholic Knight*, and was a Democratic paper. A few years later Henderson and Greeves sold out, and J. J. Smith continued the paper for some time. James S. Cockett, who had been connected with the *Press*, then obtained control, being associated with Jay Comstock and William Rehill. When the paper fell into their hands its politics was changed to independent. In July, 1886, W. Scott Robison, former publisher of the *Sun and Voice*, purchased the stock of Messrs. Comstock and Rehill, and Messrs. Robison and Cockett, its present publishers, changed its name to the *Sunday World*. It is now published at No. 134 St. Clair street, is a strictly independent Sunday newspaper, and enjoys great prosperity.

THE SUN AND VOICE.

This neat and widely circulated Sunday journal, Republican in politics, is issued from No. 135 St. Clair street by the Sun and Voice Publishing Company; O. J. Hodge, president and editor. This paper is the successor, by consolidation, of the *Voice*, established 1871, Cleveland's first Sunday paper; the *Post*, started a few years later and absorbed by the *Voice* in 1876, and the *Sun*, established in 1880 and united to the *Voice* in 1885. A consolidation of three able journals in one, the *Sun and Voice* is a very handsome eight-column eight-page publication, carefully made up for family reading, well edited and quite popular, having, it is claimed, a much larger *bona fide* circulation than any other distinctively Sunday paper in Cleveland.



GLOBE IRON WORKS.—See Next Page

PHOTO. ENG. CO. N.Y.

REPRESENTATIVE HOUSES.

CLEVELAND'S LEADING MERCANTILE, MANUFACTURING AND FINANCIAL CONCERNS.

In the series of descriptive articles that follow we have endeavored to make concise and appropriate mention of every well-established, important and deserving mercantile, manufacturing and commercial house in Cleveland, feeling that so much of recognition is due to those whose industry, energy and capital are enlisted in building up the city's material interests and developing and maintaining her commercial supremacy. Only those establishments whose reputations are above suspicion have been mentioned, and if the list be incomplete it is not because of any bias on the part of the editors or publishers.

With the utmost confidence we commend every business house named in these pages to the good-will and patronage of the entire country, East West and South. Liberal, enterprising, of sterling personal and business character, this is the class of men upon whom the future growth of Cleveland and her influence upon the welfare of the country and the continent depend.

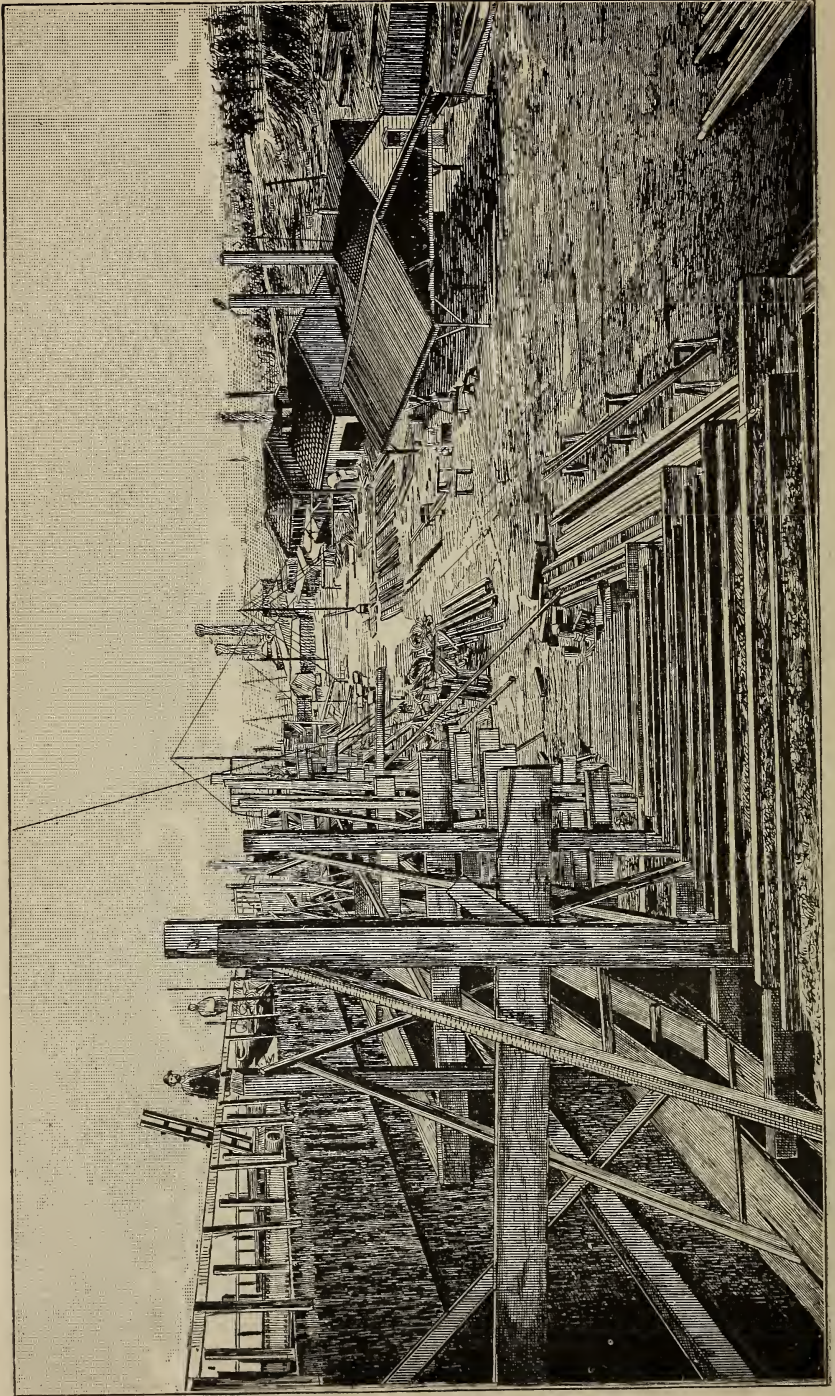
THE GLOBE IRON WORKS COMPANY,

Builders of Iron and Steel Steamships, Marine Machinery, and Engines and Boilers of Every Description—Sheet and Plate Iron Workers, Machinists and Founders—H. M. Hanna, President; J. F. Pankhurst, Vice-President and General Manager; Luther Allen, Secretary and Treasurer—Office and Works, Elm and Spruce Sts., Iron Ship Yard, Old River Bed, Foot of St. Paul St.

The Globe Iron Works, one of Cleveland's most famous industrial establishments, was founded by the Globe Iron Works (a partnership) in 1853. The present Globe Iron Works Company organized with a cash capital of \$500,000, purchased the original plant, and was incorporated and took possession in July, 1886. In all its departments about 700 men are employed, and the value of the annual output, measured by the capacity of the works, will approximate one million dollars. Its business embraces the construction of iron and steel steamships and marine machinery of every description—steam engines and boilers, etc., and the facilities are fully equal to meet any demand likely to be made upon them.

The foundry fronts 100 feet on Elm, at the corner of Spruce street, and is the most complete establishment of its kind in the West. It is provided with the necessary cupolas for melting iron and is capable of turning out the largest and heaviest castings made. Here were cast the frames of the tripple-expansion engine for the steamship *Cambria* and many others.

Opposite the foundry, on the northwest corner of Elm and Spruce streets, stands a three-



VIEW OF THE GLOBE IRON WORKS SHIP-YARD,

story building about 150 feet square devoted to machine shops, and equipped with the best and most modern appliances for the construction of marine and stationary engines, a 100-horse-power engine furnishing the motive power. We noticed here under construction four large marine engines—two of them being of the triple-expansion type 2,000-horse power each, and two of the compound type of about 1,000-horse power each. Huge cranes are used for moving the various parts of heavy machinery from place to place. At the northeast corner is situated the blacksmith shop, running five forges. The second floor is equipped with a full complement of machinery, and is largely devoted to the construction of the new Globe "noiseless" steam-steering engines, duplex hoisting engines, with pumps attached, and steam pumps. The pattern shop is located on this floor. The third floor is used for the storage of patterns, etc.

The boiler works, 75 x 227 feet, are north of the machine shops and extend through from Elm to Center streets. These shops are complete in all departments, and have recently been perfected by the addition of the most modern boiler-making tools and appliances. Among the new tools is a hydraulic riveter with 10½ feet gap, capable of exerting a pressure of 100 tons. This tool is served with a hydraulic crane of 25 tons capacity. There is also a hydraulic flanging machine, served with three furnaces and a hydraulic crane. One of the most unique tools in this department is a boiler shell-drilling machine, which is the largest of its class in this country. It is capable of drilling the shell plates of a boiler 16 feet in diameter. Near this tool is a set of boiler plate bending rolls capable of bending a sheet 1¼ inch thick and is 18 feet long. This tool was built by the Globe Iron Works Company, and is one of the most powerful machines in the country for its purpose.

The ship-yard is located on the old river bed and fronts over 1000 feet on old River street at the foot of St. Paul street. It has a capacity of three large steel steamships at one time, and the shops are equipped with a full complement of tools for the rapid construction of the steamers, the present capacity of the plant being six large steamships complete per year. In addition to the facilities for iron and steel ship construction, those for wooden ship-building are complete.

This company now has contracts for ship-building to the amount of \$2,000,000, and among the work on hand, and especially worthy of note, are six steel vessels of 2,800 tons each, for the St. Paul, Minneapolis & Manitoba railway company.

Partial list of vessels built by these works: Steamship *Onoko*, 3000 tons; steamship *Wm. Chisholm*, 2300 tons; steamship *J. H. Devereaux*, 2300 tons; side-wheel steamer *Darius Cole*; steamship *Spokane*, 2400 tons; steamship *Cambria*, 2700 tons; steamship *Chas. J. Sheffield*, 2550 tons; steamship *Ira H. Owen*, 2600 tons; steamship for Lehigh Valley Transportation Co., 2800 tons; steamship *Corsica* for Mutual Transfer Co., 2800 tons.

CUDELL & RICHARDSON.

Architects—Room 6, No. 204 Superior St.

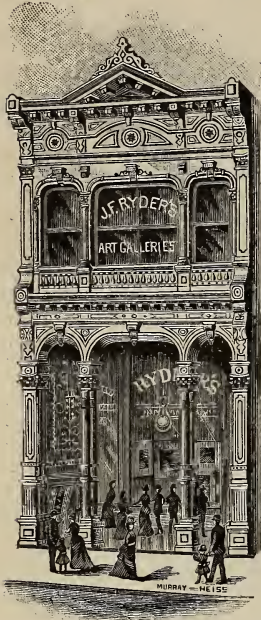
Cleveland gives ample evidence, in the style of her public and private buildings of late years, that the educated and trained architect is here, and has brought with him the skill and talent that have so long distinguished his profession in Europe and the East. In fact, the architect is here in force, there are a good many of him, he has come to stay, and the probability is that the Cleveland of ten years hence will no more resemble the Cleveland of to-day than does the Cleveland of to-day resemble the Cleveland of twenty years ago—that magnificent business blocks will line the streets of the commercial district, and palatial residences adorn all of the present and many as yet unprojected residence avenues.

Prominent among those who have contributed by their architectural knowledge and creative talents to the elevation and beautifying of the city, is the firm of Cudell and Richardson, who formed a co-partnership in 1870, taking an office at No. 214 Superior street, removing in 1874 to the Beckman building, No. 204 Superior street, which, by the way, they designed, and in which they occupy room No. 6. The firm make a specialty of planning the highest classes of mercantile and manufacturing buildings and private residences, and specimens of their conceptions are found all over the city, notable among them the massive block, corner of Bank and Lake streets, owned by Root & McBride Bros. and the Bradley estate; the Worthington block, St. Clair street; the Masonic temple, the Jewish Orphan Asylum, Excelsior club-house, the Germania, the Severance buildings, the Lithograph building, and many other conspicuous structures, notably the Perry-Payne building on Superior street, now in course of erection, which will be the finest and most substantial business building in the city.

Mr. Cudell is a graduate of the Polytechnic Institute, Aix la Chapelle, Germany. Came here in 1866. Mr. Richardson is of Scottish birth, began business life as a contractor and builder in Canada in 1860, came here in 1863, and adopted architecture as a profession in 1866.

JAMES F. RYDER,

Art Gallery, Photographic and Crayon Studio—Dealer in Art Goods and Artists' Materials—Furnisher of Amateur Photographic Outfits—Nos. 239, 241 and 243 Superior Street.



Few arts have kept pace, of late years, with photography as regards improvement of processes and development of resources. There are men now living who distinctly remember the *furor* created by the newspaper reports of Daguerre's early success—the initial steps that in the fullness of time resulted in the production of the photograph and its steady improvement through laborious study and experiment until to-day the photographer has displaced the portrait painter (whose best efforts are mere daubs in comparison), and bids fair ere long to set aside the brush and palette of the landscape artist, leaving to the embryo Michael Angelo of the future no field save that of fancy.

A prominent figure among those who on this side of the Atlantic have devoted their lives and their talents to the perfection of photographic processes is Mr. James F. Ryder, whose magnificent establishment at Nos. 239, 241 and 243 Superior street has no equal in point of extent, completeness and attractiveness, on this continent outside of New York, and even the great metropolis boasts of but one or two that can rival it. The building itself is an ornament to Cleveland's most popular thoroughfare, three stories in height, 30 feet front and 200 feet deep, with a beautiful granite arcade front, presenting a spacious vestibule, guarded by iron gates which are thrown wide open from sunrise to sunset the year round. In the center of this arcade is the capacious show window wherein from time to time are exposed the finest obtainable works of art for the pleasure of the general public. The entrances, two in number, are placed at each side of this grand show window, and lead directly into the

superbly appointed store, in rear of which is unquestionably the largest and most attractive art gallery (free to all) west of New York. The floors above are devoted to reception rooms, operating and finishing rooms, and other purposes connected with the business carried on, Mr. Ryder having at his disposal fifteen thousand square feet of floor space. In the department of art goods and art materials will be found inexhaustible lines of all supplies relating to the painter's and photographer's arts—paints, colors, varnishes, brushes, palettes, frames, canvas, oil paintings, steel engravings, choice photographic specimens, statuary, bronzes, photographers' supplies of every description, and, in short, every article of use or ornament in any way appropriate to a magazine of this class.

The reception rooms are themselves pictures of elegance and luxury, furnished and decorated lavishly yet tastefully, while the photographic operating and finishing rooms, lighted and fitted up in the most perfect manner, are equipped with every convenience and modern improvement in instruments and appliances that can contribute to the best results. This establishment is the resort of the *elite* of Cleveland society and of thousands from all parts of Northern Ohio when in quest of superior photographic work.

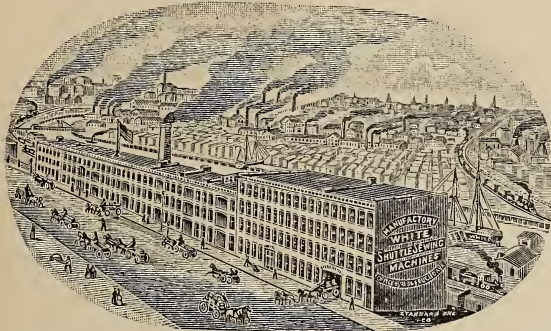
Mr. James F. Ryder, now at the pinnacle of his professional fame, is in the right sense of the word a self-made man. He came to this city from New York State in 1850, and became interested in the gallery of Johnson & Fellows, who subsequently retired. Possessed of untiring industry and energy and a determination to succeed, Mr. Ryder devoted all the powers of his naturally active and ingenious mind to the development of photography and the adaptation of new ideas wherever originated. The late President Garfield thus referred to Mr. Ryder in an address to the students of the Washington Consolidated Business College, Washington, D. C., June 29, 1869: "Only yesterday on my way here I learned a fact which I will give you to show how, by attending to things and putting your mind to the work, you may reach success. A few days ago in the city of Boston there was held an exhibition of photography, and to the great surprise of New England it turned out that Mr. Ryder, a photographer from Cleveland, Ohio, took the prize for the best photography in America. But how did this happen? I will tell you. This Cleveland photographer happened to read in a German paper of a process practiced by the artists of

Bohemia—a process of touching up the negative with the finest instruments, thus removing all chemical imperfections from the negative itself. Reading this, he sent for one of these artists, and at length succeeded in bringing the art of Bohemia into the service of his own profession. The patient German sat down with his lenses, and bringing a strong, clear light upon these negatives, working with the finest instruments, rounding and strengthening the outlines, was able at last to print from the negative a photograph more perfect than any I have seen with an India ink finish. And so Mr. Ryder took the prize. Why not? It was no mystery; it was simply taking time by the forelock, securing the best aid in his business, and bringing to bear the force of an energetic mind to attain the best possible results. That is the only way, young ladies and gentlemen, in which success is gained. These men succeed because they deserve success. Their results are wrought out; they do not come to hand already made. Poets may be born, but success is made."

Mr. Ryder's fame is not confined to this city or State, nor even to this hemisphere. He has taken ten silver medals at as many Ohio State fairs, a bronze medal at the World's Exposition, two gold medals at the National Exhibition, the prize cup of the Braunschweig Exhibition, Germany, and numerous medals, diplomas and prizes of lesser note. At this time he employs twenty-five persons and does a large business.

THE WHITE SEWING MACHINE CO.

Thomas H. White, President; R. C. White, Vice-President; M. L. Goss, Secretary; F. M. Sanderson, Treasurer—Factory, Nos. 10 to 40 Canal St.; Offices, Nos. 57 and 59 Euclid Ave.



No country in the world can compete with the United States in the manufacture of sewing machines, either as regards perfection of mechanism, grade of workmanship, or volume of output. As a matter of fact, American machines are largely exported, a market and steadily increasing demand being found for them throughout Europe, Asia, Africa, Polynesia, Australia, Mexico, Central and South America.

Of the many corporations engaged in this industry we know of none having a more generous patronage or fairer prospects than the White Sewing Machine Company of Cleveland, organized in 1876 by a body of practical sewing machine men, who erected works with a capacity for turning out 200 machines per week. To show how the demand has grown, it may be stated here that the factory now owned and operated by the company is from four to six stories in height, 60 feet deep and 500 feet long, that 1,000 men are steadily employed, and that 2,000 complete machines are shipped every six days to every nook and corner of the civilized world, some 700,000 now being in use. Branch houses in London and Paris supply the European and the Eastern world, while American dealers are provided directly from the Cleveland office and its American branches.

In the matter of improvements, new and convenient devices, the White Sewing Machine leads all of her competitors; a corps of mechanical experts and inventors is constantly experimenting and perfecting ideas of convenience and desirability, and the extent to which the machine is peculiar in itself is shown in this, that the company uses more than 25 patents in the construction of the WHITE, among which are the self-threading shuttle, patent metal case drawers, the best embroidery and arasene attachments ever produced. They were the first company to make an automatic bobbin winder, and also the first producers of hem stitch attachments. These few, together with special adaptability of the White to the successful use of all kinds of attachments, by reason of its mechanical construction, gives the machine a larger range of work than any other in the world. This fact has been repeatedly noticed at the many expositions and fairs at which the White has been exhibited, it having invariably won the highest honors—in honest competition. The general standing of the company, financially, is of the highest order, and the reputation for honorable, straightforward dealing is universal. With a motto of "Perfection, protection and popularity," its history is honest success.

THE GLIDDEN & JOY VARNISH CO.

F. H. Glidden, President; Wm. F. Joy, Vice-President; F. K. Glidden, Secretary and Treasurer—Manufacturers of Fine Varnishes and Japans—N. Y., C. & St. L. and C. & P. Railroads, Near Woodland Ave.

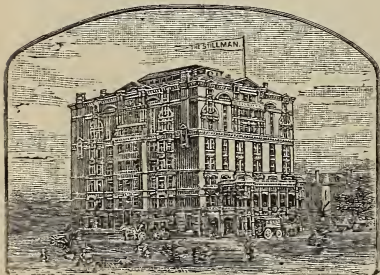
This flourishing industry was established in 1871 by Glidden & Joy, the present company being incorporated in 1883 with a capital stock of \$100,000. The officers, named above, are old residents of Cleveland, enterprising citizens and reputable business men, who by the exercise of skill, liberality and square dealing, have made a marked success of their own venture and added not a little to the fame of the city as a manufacturing and commercial metropolis, their trade extending to all sections of the Union, to Canada, Mexico, the West Indies, Central and South America, while their goods, of the highest grade, are popular and salable wherever introduced. Their specialties are varnishes of the higher class—such as railway, carriage, furniture and fine house finishing material of finest grades.

The premises occupied comprise some four acres of ground eligibly located on the lines of the New York, Chicago & St. Louis and Cleveland & Pittsburg railroads, near Woodland avenue, on which have been erected several commodious one and two-story brick buildings specially designed for the purposes to which they are devoted—the manufacture of full lines of superior varnishes and japans for all the purposes to which this class of goods are applicable.

The Glidden & Joy Varnish Company maintain a separate branch of their business at Kansas City, Mo.,—a complete factory, conducted on an independent basis—which is meeting with great success.

THE STILLMAN.

The Stillman Company, Proprietors—Col. Wm. H. Harris, President; H. P. Eells, Secretary and Treasurer; J. Warren Coleman, Jr., Manager—Euclid Avenue, above Erie St.



The Stillman, erected in 1883, is one of the architectural attractions of the city, seven stories and basement in height, 80 feet front, 150 feet deep, constructed of pressed brick, with tasteful stone trimmings, with spacious halls and offices, conveniently and elegantly arranged, finished, decorated and furnished throughout, with ample and luxurious accommodations for over two hundred guests at one time. The attendance is the best that liberal pay and careful supervision can command. The table is all that could be desired, lavishly supplied at all seasons with the choicest substantials and luxuries a liberal management, backed by ample means, can obtain, prepared in

the most tempting style by an accomplished Parisian *chef de cuisine*. Mr. J. Warren Coleman, Jr., has absolute control and direction of all that concerns the entertainment of the traveling public who patronize the Stillman, and renders uniform satisfaction.

The house, provided with elevators and all modern improvements, is warmed by steam, lighted by electricity, and every room and hall connected by electric bells with the office. The building besides, is absolutely fire-proof; and taken as a whole, the Stillman is a model hotel in all essentials.

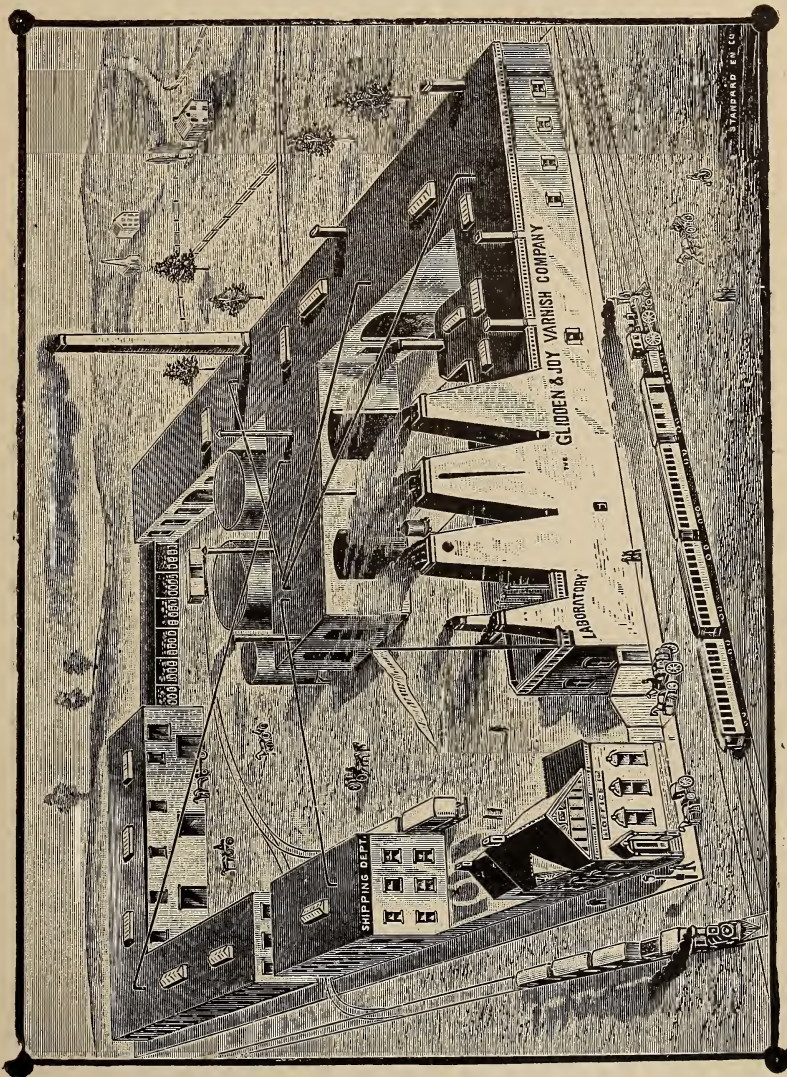
GEORGE NORRIS & CO.

Wholesale and Retail Dealers in Pine Lumber, Lath, Shingles, Cedar Posts, and Odd-Sized Timber of all kinds—Office and Yard, No. 23 Main St.

Having recently bought out the business of the well-known Saginaw Bay Lumber Company, for so many years established in Cleveland, the firm of George Norris will continue the business of the Saginaw Lumber Company at No. 143 Columbus street, as well as their own business at the old stand, No. 23 Main street, doing a wholesale and retail trade at both yards.

The firm of George Norris & Co. was established some ten years ago. During that

GLIDDEN & JOY VARNISH CO.'S WORKS—See Opposite Page.

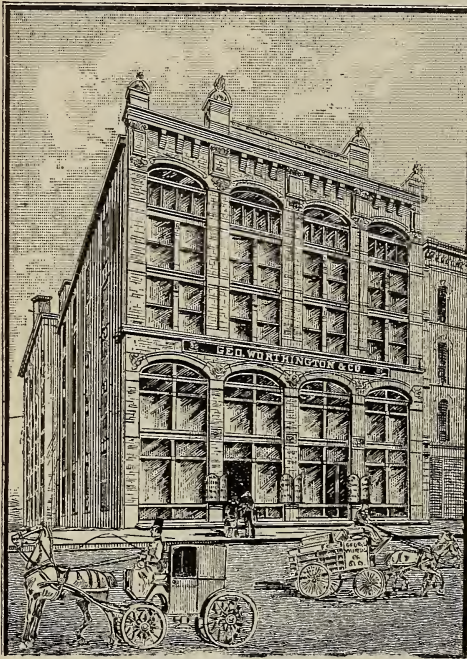


period Mr. George Norris has labored faithfully and effectively to make Cleveland a great lumber market. He is a native of Connecticut, has resided in Cleveland during the past thirty-four years, and enjoys the unbounded confidence and respect of all who know him, and especially of all connected with the building trades and lumber interest.

The Saginaw Lumber Co., George Norris proprietor, own two large lumber yards; one of four acres, situated conveniently with reference to river and railroad transportation, with office at No. 143 Columbus street, doing a wholesale and retail shipping business; the other, of two acres, with office at No. 23 Main street, making a specialty of trade generally. Confining their operations principally to Ohio, the company have ample facilities, and handle about 12,000,000 feet per annum of all grades of Michigan pine lumber, lath, shingles, etc., filling orders at short notice for large and odd sizes of timber for any desired purpose. Their leading specialty, superior white pine lumber, they receive in cargoes from Alpena, Mich.

THE GEO. WORTHINGTON CO.,

Importers and Jobbers of Hardware, Engines, Machinery, Iron, Nails, Carriages and Saddlery Hardware, etc.—Nos. 59 and 61 St. Clair St.

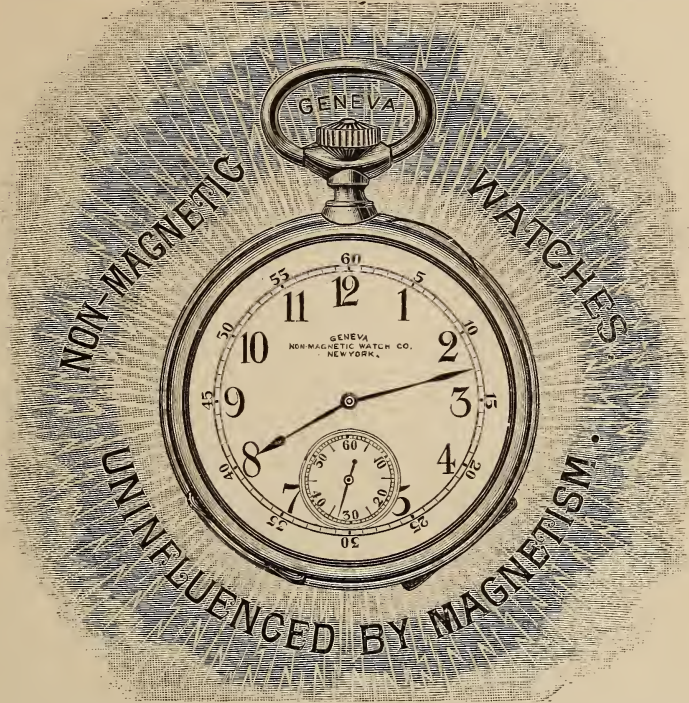


The above-named firm is the great leading Northern Ohio representative house in the hardware trade, and was founded half a century ago—in 1837—by Geo. Worthington & Co. In the early part of the present year the concern was reorganized as a joint stock company with a capital of \$300,000 and officered as follows: President, James Barnett; vice-president, George Deming; secretary, James Storer. The company is incorporated under the laws of Ohio, and one of the soundest and most flourishing institutions in the State, capably managed, influential and thoroughly responsible. The establishment, Nos. 59 and 61 St. Clair street, ranks among the largest in the country, 66 feet front by 240 feet deep, five stories and basement, employs some ninety men in all departments, and enjoys a trade reckoned in millions of dollars annually, extending to all portions of Ohio, Indiana, Michigan and Illinois, as far east as Pennsylvania, south to Tennessee and northwest to Wisconsin. It were a hopeless task to attempt an enumeration of the goods handled by Geo. Worthington & Co., and a passing glance is all we have space for. The first or ground floor is devoted to the offices and counting-room of the company and to the exhibition and sale of steam engines, guns, pistols and sporting goods and a magnificent line of costly specialties. On the second floor is shown an almost inexhaustible stock of harness and saddlery hardware in infinite variety, together with full lines of machinists' tools and kindred goods. Tinners' and tinmen's tools in endless profusion, including all modern improved implements and appliances pertaining to the trade, and a superb stock of horse-blankets, whips, etc., are found on the third floor, while the fourth floor presents a beautiful array of housekeeping goods in iron and tin and brass. The basement is devoted to iron, nails, and metals, of which the assortment is the largest and most complete in the city.

Among the specialties may be named improved pumps for steam boilers and vessels, machinists' lathes, steam engines, portable forges, moving jacks, pulleys and hangers, blowers, fans, rubber and leather belting and hose, butchers' tools and machines, lawn mowers, scales, bird-cages, bells, etc., etc., all from the most celebrated manufacturers.

J. M. CHANDLER & CO.,

Wholesale Jewelers—Watches, Diamonds, etc.—No. 185 Superior St.



Mr. J. M. Chandler founded this flourishing house in 1878, having removed hither from Fredonia, N. Y., where for the previous seven years he was engaged in the same branch of business on a smaller scale. Once located in Cleveland, with the splendid field of business before him of which she is the center and mistress, the task of building up a large trade became to a man of his ability and genius a comparatively easy one, and the result of his efforts is seen in the magnificent establishment and widespread connections which he controls.

The firm of J. M. Chandler & Co. occupy four entire floors at No. 185 Superior street, 25 feet front by 180 feet deep, and carry an immense and varied stock of fine and medium jewelry, watches, diamonds, set and unset, silver ware, bronzes, rare imported clocks, and in short, everything required in the trade, whose patronage it is an object to attract. The house has customers in almost every State in the Union, and still continues to extend its circle of acquaintance into remoter regions while cultivating and retaining the patronage of old friends by means of upright dealing and liberality. As a result sales steadily increase, aggregating about \$300,000 for 1887.

With their accustomed energy and foresight Messrs. Chandler & Co. have added to their stock the celebrated Geneva non-magnetic watches, containing Paillard's patent non-magnetic balance and hair spring, which are uninfluenced by magnetism or electricity. In the present day when electricity is being rapidly impressed into man's service and made to discharge the most varied functions, the old order of things is being effected and changes are being made on every hand. What once sufficed to meet the exigencies of the times—which, a few years ago, were less than now—no longer holds its own, and so has to make way for modern improvements and more perfect work. In this respect there is no more striking change than has taken place in the science of watchmaking. What once was valued as an accurate time-keeper is no longer so when used by electricians, or even when used by the general public, who, in the course of their daily callings, are brought into contact more or less with electrical appliances, which have become an absolute necessity nowadays,

either for the generation of the electric light, the propulsion of cars, or the operation of various kinds of machinery, commercial or domestic. The magnetic influence of the electric dynamo is so powerful that it has been found to seriously affect the running of watches, and this to so serious an extent that they cannot be relied upon as accurate recorders or indicators of the rapid flight of time. This discovery has led to the manufacture of various novelties intended to counteract this influence, and as is usual in the introduction of any new thing, various claims are made which it is not always possible to substantiate; hence it is that the subject of the effects of magnetism upon watches, and of non-magnetic watches, or watches that are impervious to, or proof against all magnetic influences, is exciting so much interest both among scientists and the general public alike. The parts of a watch which have control of the time are the balance and hair spring, and it is these which are so sensibly affected in even slight fields of magnetism, causing a disturbance of their accurate performance and upon which no dependence can be placed. The invention of Mr. Paillard in making the balance and hair spring of non-magnetic material and retain their proportions for adjustments to changes of temperature. These watches have been tested and strongly indorsed by the leading European scientists and by such well known Americans as Thos. A. Edison; Prof. E. Thompson of the Thompson-Houston Electric Co.; Prof. J. L. Morris, of the Sibley College of Mechanic Arts, Cornell University; Mr. N. S. Passons, Supt. Brush Electric Co., Cleveland, and many others. The severe tests which the watches were subjected to proved them to be every thing that is claimed for them, their movements not being affected a particle. This testimony is strengthened by the expressed opinion of hundreds of leading watchmakers, electricians and others who declare them to be perfectly non-magnetic and the coming watch of the future.

Messrs. Chandler & Co. are to be congratulated in placing before their customers a watch proving itself to be a thoroughly reliable timekeeper under all circumstances and amid the influences which hitherto have seriously affected the regular working of the best watches in use

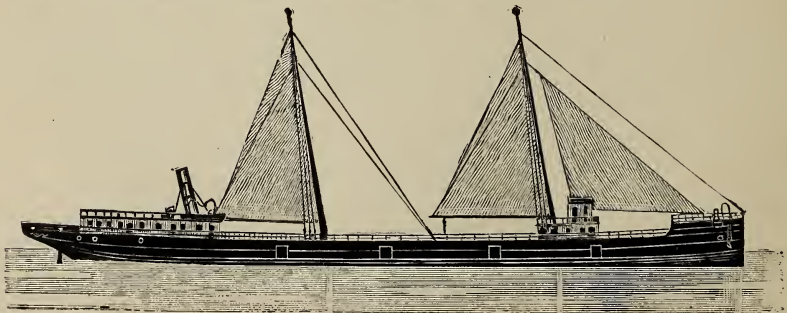
HUSSEY, HOYT & CO.,

Dealers in Iron Mining Stocks and Local Investments—No. 231 Bank St.

This was the second house in the United States to be identified with the new Gogebic iron range in northern Wisconsin and Michigan. The firm is composed of Messrs. W. B. Hale, C. C. Ruthrauff, H. P. Hussey and George Hoyt. It naturally makes a specialty of the recognized Gogebic mines, but offers its services in the negotiation of all legitimate local securities, in which it has met with marked success in the past year and a half. "Wildcat" speculation has now been so effectually eliminated from the new range that capital can invest in its properties as confidently as in the older mines, and with a surer and quicker profit. Expert reports and charts for the use of investors always on hand.

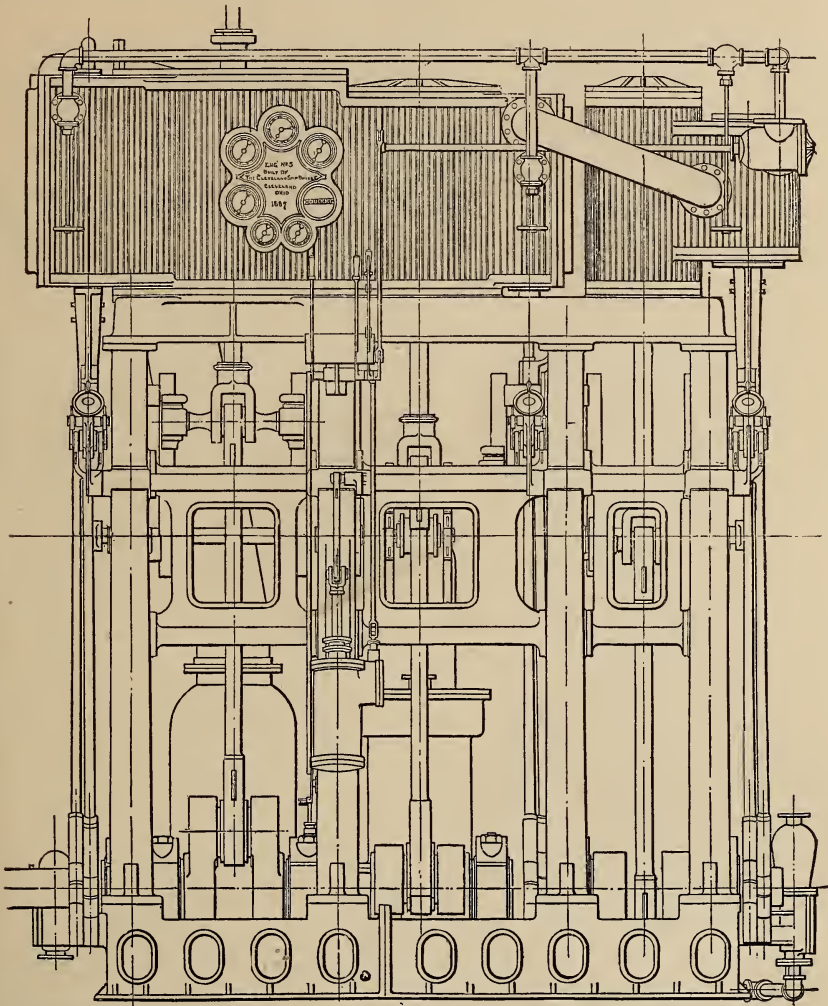
THE CLEVELAND SHIP-BUILDING CO.

H. D. Coffinberry, President; Robert Wallace, Vice-President; Wm. M. Fitch, Secretary—Iron Ships, Marine and Stationary Engines and Boilers, Blowing Engines, Steam Hammers, Mill Gearing and Casting—Detroit and Center Sts.



The Cleveland Ship-building Company are the successors of the Cuyahoga Steam Furnace Company, the pioneer concern of the kind in Ohio, established March 3, 1834. The capital stock of the company is \$500,000, and the premises occupied as office, workshops

and foundry comprise five large buildings at Detroit and Center streets and two fine new brick structures on both sides of the viaduct.

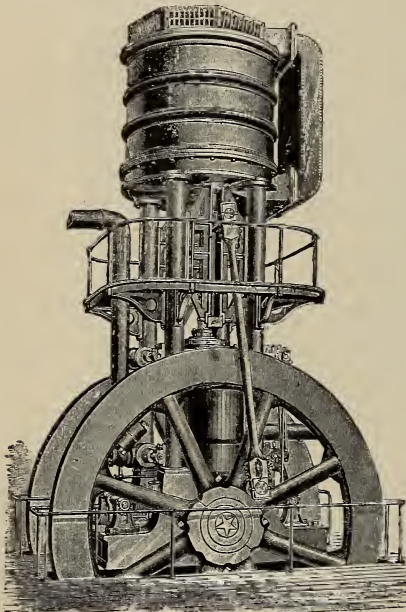


The *Leader* of August 21 contained the following description of these works:

The new yard of the Cleveland Ship-building Company is rapidly being put in shape on the grounds lately occupied by the old Cuyahoga Works, the Powell Tool Company, etc. The buildings occupied by these concerns have not only been largely torn down, but excavations have been made, extensive retaining walls built, roadways and railway tracks laid, piles driven to put the river front in good shape, all to make room for the new enterprise. The following notes are taken of what might be called the four departments in the undertaking—the ship-yard itself and its appliances, the boiler shop, the new furnace and the new machine shop.

The yard room is obtained by excavating and building retaining wall against Detroit-street hill. The latter is eight feet wide at the bottom, four feet wide at top, twenty feet high, and the whole length is 350 feet. The space thus obtained has a river front of 700 feet and an average depth back from the river of 125 feet. On this ground sufficient room

is secured, and arrangements are being made for two berths for vessels. One, 325 feet in length, is already completed, and a second, 350 feet in length, has been commenced. Between these berths and the wall above referred to are other appliances of the ship-yard, much of it already placed, and the remainder rapidly getting into position. Plate and angle furnaces are each of them complete. Adjoining these are a 16½-foot plate planer angle shear, largest size, and an angle punch. Here the company also have three punches and shears built by themselves and weighing twelve tons each, and capable of punching or shearing 1¼ inch steel. Rolls are also soon to be placed into position measuring 16½ feet between housings, and there is also to be a portable punch and shear. In the building above and covering these appliances is the mold loft, a building 40x180 feet, which is provided with a band saw for sawing out the molds for the ship. For the boiler shop thus far the company has a building 90x200 feet nearly complete in every detail, and for the work to be done there they have provided another punch and shear of their own make, same size as in the shipyard, angle punch and bevel shear, plate planer, 100-ton hydraulic flanger, 100-ton hydraulic riveter, 2-ton hydraulic crane for the flanger, a 25-ton hydraulic crane for the riveter, and a plate furnace of size to heat an 8x16 plate all over at once. Connected with the boiler shop are seven large vaults under Detroit street for fuel, etc.



plied with a fifteen-ton overhead traveling crane will have a span of 50 feet, lift 30 feet 6 inches, and a travel of 75 feet. This erecting shop will be connected with the foundry by railway.

The above are some of the preparations for work which apparently cannot be put into working order any too soon for the engagements the company already have on hand. They have under contract the building of five large triple expansion engines, ten large Scotch boilers capable of carrying 150 pounds of steam, and two steel steamers. The latter are for the Lackawanna Transportation Company, of Buffalo, N. Y., and are to be completed during the spring and summer of 1888. Both steamships will be of the same size, as follows: 280 feet over all, 260 feet keel, 38 feet beam, and 25 feet hold.

At the present writing these works have been completed in accordance with the prospectus as given above.

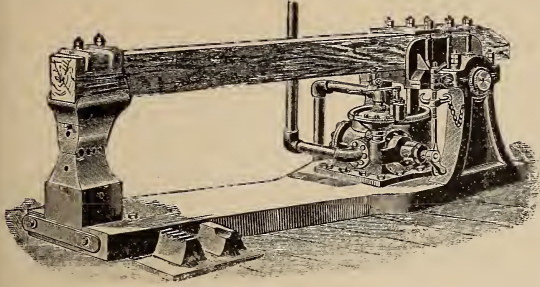
Five hundred mechanics and laborers are employed in all, and \$4000 per week is disbursed in wages. The output will run up to the millions annually, and embraces, besides iron vessels of all classes, every description of marine and stationary engines, boilers,

The new foundry is located on Center street, near the yard and boiler shop. It has a building 60x115 feet, with core rooms and ovens, stock house, boiler and engine rooms attached (boiler 75 horse-power, engine 12x16 inches), the brick stack of the works reaching thirty feet above the viaduct, along which the whole building is located. This structure, while it is light and strong, makes a fine appearance. In putting in the floor of the foundry the company has given special thought to making loam and dry sand castings. Two-thirds of floor has a depth of seven feet of molding sand underlaid with iron beams and holding-down bolts. The appliances for work are three 20-ton steam cranes, two hand cranes of iron, hoist in stock house, etc.

The building for the machine shop adjoining the foundry is 106 feet on Detroit street, 112 feet on the viaduct, is 60 feet wide and five stories high. The first and second floors are to be used as finishing shops, the third floor for patterns and storage, fourth floor for drawing and pattern shop, and the fifth floor, fronting on the viaduct, for offices. The building is being put up by the Brooks Building Company, and will probably be complete within thirty days. A viaduct arch lying between the foundry and machine shop will be occupied as an erecting shop. For this purpose it will be sup-

crane, driven by the machine shop engine. It

blowing engines, steam hammers, mill gearings and castings—blast furnace engines, steam hammers and steam stamps for mining purposes being the leading specialties.



Our first engraving presents a view of the celebrated "Steamship No. 1," the pioneer steel steamer of the Lackawanna Transportation Company, built by the Cleveland Ship Building Company. Dimensions—280 feet long, 38 feet beam, 25 feet hold; provided with 900-horsepower triple expansion engine (shown in second cut). These steamers combine facilities for carrying both coarse freight and merchandise, being equipped

with the necessary hatches, gangways, hoisters, etc., for such work.

Our second engraving illustrates a class of engines for which this firm are fast becoming popular, and is a correct drawing of the "triple expansion" furnished the steamer *Aurora*; cylinders 24, 38 and 61 inches diameter by 42-inch stroke, supplied with steam at 165 pounds initial pressure by two steel boilers 12 feet diameter and 14 feet long. This engine has developed remarkable power and given perfect satisfaction to the owners, Messrs. Corrigan and others of Cleveland. Five new engines of the same description, but of smaller power, are under way at the Cleveland Ship Building Company's works.

This company, as the successors of the Cuyahoga Steam Furnace Company, continue to build the blowing engines [see third cut] which made their predecessors famous, and specimens completed or under construction can always be seen at the works, the object being to keep them in stock that orders may be filled at short notice. They also enjoy a very large trade in steam helve hammers [fourth cut] and having patterns, of three sizes—1,000, 2,000 and 4,000 pounds—can respond promptly to any sudden demand. President Coffinberry, a native of Ohio, and Vice-President Wallace, of Scotch birth, were among the founders of the Globe Iron works, of which prominent industry Mr. Coffinberry was business manager and Mr. Wallace superintendent, and were also president and secretary respectively of the Globe Ship Building Company, retaining those positions until July, 1887, and in those capacities built the *Onoko*, the *William Chisholm*, the *Darius Cole*, the *Spokane*, the *International* and the *Record*. Secretary Fitch, who for nineteen years was secretary of the Winslow line of steamers and sailing vessels, joined Messrs. Coffinberry and Wallace on the first of January last, when the present company was organized.

W. H. CROWL,

Wholesale Pig Iron—No. 121 Superior St.

Mr. Crowl has had much valuable experience in handling pig iron, having established himself in that business at No. 122 Water street, previous to which he had been connected with the iron ore and pig iron trade for many years. He is a native of Troy, N. Y., came to Cleveland in 1844, and has devoted nearly forty years of his life to the development of Cleveland's resources as an iron market. Early in the present year he removed to handsome offices at No. 121 Superior street, where he possesses every facility for doing a larger business than ever before, his transactions for 1886 footing up 70,000 tons and extending to iron manufacturing centers throughout the United States and Canada. His leading specialties are "Neshannock," "Charlotte," "Onondaga" and "Globe" pig, and Rossie iron ore, for which he has the sole agency in this market.

JAY ODELL & SONS,

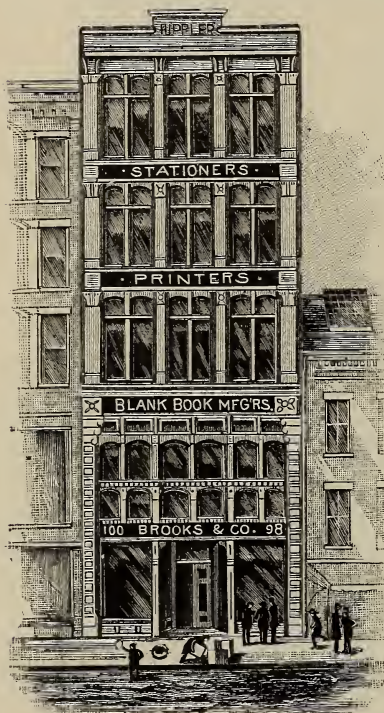
Record Searchers, Abstract Makers, Conveyancers and Notaries Public—Wick Block,
Adjoining Court-house, Under Bank.

In this State the functions of the conveyancer are quite distinct from those of the attorney, and one or more conveyancers' officers are found in each of the principal cities and

towns. Mr. Jay Odell is the oldest representative of this useful class in Cleveland, having devoted himself uninterruptedly to the intricacies of record-searching, abstract making and conveyancing since 1852. In 1876 Mr. Cocad entered into partnership and retired in 1883, when Messrs. Arthur and Allen A. Odell, sons of the senior member, entered the office as his associates, and the style became Jay Odell & Sons. Domiciled in spacious and well-appointed offices but a step from the county court-house, provided with every requisite facility, and with the advantages of long experience and intimate acquaintance with the records, this firm is prepared to perform any service in their line with exactitude, promptly and satisfactorily. Parties desiring abstracts of records of any date since the organization of Cuyahoga county, or any information in reference thereto, will find this firm absolutely reliable. They also execute every description of legal papers relating to the transfer of real estate, and in their capacity of notaries public attend to the making of affidavits, the taking of depositions, etc.

BROOKS & CO.,

Publishers, Printers, Wholesale and Retail Stationers and Blank Book Manufacturers
— Nos. 98 and 100 Superior St.



This establishment, occupying the entire handsome new building herewith illustrated, 28 feet front and extending from Superior to Long street, 150 feet, five stories in height, was first opened for business by Messrs. Brooks & Co., January 19, 1887, and is the most complete establishment of its kind in Cleveland, if not in the State. The structure itself is an architectural ornament to the city, and the firm who make it their business home is one of which all Clevelanders may feel justly proud. The business career of these gentlemen is thus briefly sketched by the *Cleveland Leader* of January 20, 1887: "Messrs. Stephen E. and Arthur S. Brooks first embarked in business together in 1871 as booksellers and stationers at No. 137 Superior street. Success attended them from the start, and two years later, finding that their constantly growing business demanded more room and increased facilities, they moved to No. 247 Superior street, where they associated Mr. E. L. Schinkel with them, under the firm name of Brooks, Schinkel & Co., and rivaled the leading houses in the State in the extent of their business. In 1875 Mr. S. E. Brooks retired from the firm as then composed, and locating himself at No. 137 Superior street, the former quarters of the old firm, laid the foundation of the present business as manufacturing stationers. In 1877 his business had increased to such an extent that more commodious quarters were secured at No. 117 Superior street, and in 1879, on the retirement of Messrs. Brooks, Schinkel & Co., his former partner, Mr. A. S. Brooks, again became associated with him, and the firm name of Brooks & Co. was resumed. The years following 1879 witnessed repeated ex-

tensions in their storeroom and manufacturing departments to accommodate their ever-increasing business, until they occupied over seventeen thousand square feet of floor space, extending from Superior to Frankfort streets, and embracing the upper floors of Nos. 12, 14, 16 and 18 on the latter street. Foreseeing the necessity of securing still more room and more convenient methods of handling stock, the lease of the present magnificent new building was effected."

In every department the equipment is of the best, and the facilities on every floor are arranged with a view to the speedy and satisfactory transaction of business on a large scale. In the basement is the boiler and engine that furnish power for running their

printing presses, ruling machines, paper cutters and other machinery necessary to their business, and elevator, and furnish steam for heating the building. The space not required for this purpose is devoted to the storage of stock, and here may be found immense quantities of twines, writing and copying inks, foreign and domestic, from celebrated makers, etc. The salesrooms and offices are located on the first floor, which is elegantly and appropriately fitted up, beautifully stocked, and one of the most attractive places in the city. The second floor is the wholesale department, and is packed to repletion with endless lines of white and tinted book, writing and ledger papers in every desirable grade, together with a vast assortment of envelopes in all sizes, shapes and colors. The composing room, large, airy and perfectly lighted, is situated on the third floor, the press room on the fourth, and on the fifth the superb bindery, equipped with every modern approved labor-saving machine and improvement, including ruling, embossing and paper-cutting machinery of the latest patterns.

This house has the sole agency of the hektograph and the Edison mimeograph, indispensable to every business office, from which as many *fac simile* copies of letters as may be desired can be produced with small expenditure of time and labor. They make a specialty of letter files and cabinets and cabinet supplies. They carry also a great variety of inks, including all the leading American and imported makes, notably the celebrated Stafford; also all the best domestic and foreign lead pencils, including a very fine quality manufactured for them under their own firm name. The same can be said in regard to steel pens. Besides carrying all of the excellent makes, they are sole agents for Leon, Isaacs & Co. and C. A. Vincent & Co.'s pens. Their stock of blank books, very largely of their own manufacture, is equal in magnitude and variety to any in the country. Messrs. Brooks & Co. have a trade that extends over most of the States and is constantly widening its circle. As successful publishers they are known the country over. The firm are now situated very advantageously for the enlargement of their trade, have an established and enviable reputation in the specialties named and in the manufacture of railroad office and bank supplies, catalogue work, etc., and have reason to look forward confidently to a still greater degree of substantial appreciation in the future.

THE MAGNA CHARTA SILVER MINING AND TUNNEL COMPANY.

James Farmer, President; James A. Anderson, Vice-President; E. J. Farmer, General Manager and Treasurer—Mines at Tomichi, Colorado; Office No. 211 Superior St.

If an accurate history of silver mining in Colorado is ever written, it will prove a narrative of absorbing interest from title-page to "finis." The country itself is a land of mysteries and of wonders, and was opened to settlement by a class of hardy adventurers whose wild life and brave deeds have seldom if ever been equaled. Then came the daring silver hunters and their fabulous discoveries. Eastern men, Eastern enterprise and Eastern capital have wrought a beneficent change, and continue to work new and greater wonders in this wonderland. Great mining shafts and tunnels pierce the auriferous mountains everywhere; the throbbing steam engine and power drills have replaced the plodding miner with his pick and spade.

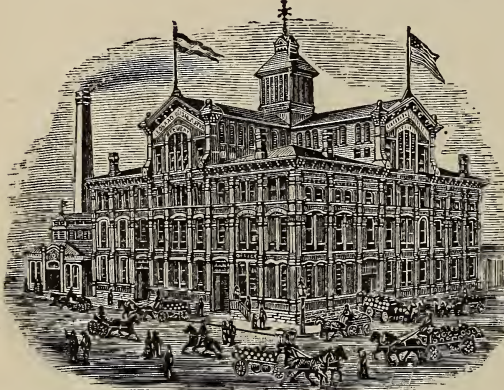
The formation of companies for the development of the still hidden wealth of the Colorado mountains continues. One of the most promising and successful of these that has come under our notice is the Magna Charta Silver Mining and Tunnel Co., whose mining property of 200 acres is located at Tomichi, Gunnison county, Colorado, and principal office at No. 211 Superior street, Cleveland. This company was incorporated under the laws of Colorado in 1883, with a capital stock of \$2,500,000. The property is among the most valuable in the State, and bids fair to prove a bonanza to its owners.

The stock of the company is steadily advancing in price, and we know of no better investment than would be a liberal block of the same. Most of it is held by citizens of Cleveland and adjacent towns. A mining authority says: "It is acknowledged that Colorado is the richest portion of the globe in gold and silver mines, and that Gunnison county is the richest portion of Colorado; while the people there point to Tomichi as the richest portion of that mining region. The Magna Charta Tunnel, therefore, is located at the very heart of the richest mining region of the world, and in a mountain that is claimed by mining men to have no superior in the quality of its mineral veins. Tomichi City, the centre of this mining region, is situated at the head of Tomichi creek, close up against the western slope of the Continental Divide, and is sixty miles south of Leadville in the very heart of the Rocky Mountains, and of the great mineral belt of the State. It is situated between two

railroads, a branch of the Union Pacific passing only four miles to the north, while the Denver & Rio Grande passes only twelve miles to the south. Gunnison City with its smelters is only forty miles to the westward, while the great anthracite and bituminous coal fields of Crested Butte are only sixty miles away. No portion of Colorado is more accessible. It is evident that the men who, in 1880, first raised the cry of 'To the Gunnison,' knew what they were about, for it was then that those who had in vain hunted for gold and silver through other lands first turned their wistful eyes to the Gunnison and were rewarded."

THE L. SCHLATHER BREWING CO.

L. Schlather, President ; M. E. Wagar, Secretary—Manufacturers of Lager Beer—
Cor. York and Carroll Sts.



The splendid brewery herewith illustrated is the outcome of a lifetime's close application and hard labor on the part of Mr. L. Schlather, who emigrated from Germany to Cleveland in 1852, when a youth. For the first five years he labored daily in a brewery, acquiring a thorough knowledge of the business, theoretical and practical, mechanical and commercial, and then embarked in the same pursuit on his own account, gradually increasing his plant and facilities until he now finds himself at the head of the most extensive beer brewing establishment in Northern Ohio, three stories in height, built of brick, 180x220 feet, with engine and boiler-house, keg-

house, cooper-shop, stables, etc., attached. The equipment is first class in every department and embraces all modern improvements in processes, ice machines and apparatus. One hundred men are employed in brewery, office and delivery service, and the output, pronounced equal to any beer ever brewed in America, reaches an annual average of 80,000 barrels. It is a great favorite in the city, handled by nearly every reputable dealer in Cleveland, and is shipped in car-load lots to all points east, west and south within a radius of 100 miles or more.

The L. Schlather Brewing Company was incorporated and the mammoth brewery of which we present a view built in 1884. The plant represents an investment of half a million dollars, and is by long odds the largest and most complete in the State, outside of Cincinnati.

THE CONGER & COLLINGS MANTEL CO.,

Dealers in and Manufacturers of Wood and Slate Mantels, Grates, Fenders and Fire-place Appurtenances—Tiles of every Description—Geo. F. Conger, President ; C. A. Scott, Vice-President ; C. H. Collings, Secretary and Treasurer.

The above firm, though scarcely a year old, is nevertheless one of the best known retail houses in the city. The prestige they derived from succeeding the A. S. Herenden Furniture Co., than which has never been a more widely advertised concern in Ohio, placed them at once in the foremost rank of Cleveland's retail houses. All the gentlemen comprising the company are well-known residents of this city, formerly connected with the A. S. Herenden Furniture Co., and their past experience is of unquestionable value to them in their new departure. During the period they have been engaged for themselves their success has been more than their most sanguine hopes had anticipated, and by careful attention to business and hard work they have achieved for themselves a most enviable reputation.

The elaborate decoration of the fire-place, which fashion dictated and modern artists have designed, not only add materially to making the "home beautiful" and are a vast improvement over the staid, solemn styles of a few years back, but also accomplish much

more effectively their primal object, that of heating and ventilating. The Conger & Collings Mantel Co. is the only house in the city devoted exclusively to the sale of fire-place trimmings; they both manufacture from original designs of their own and keep in stock the products of the best houses in the country, such as J. S. Conover & Co., New York city, and J. G. & J. F. Low, Chelsea, Mass. (celebrated art tiles). Their handsome new ware-rooms in the Cyclorama building, Nos. 217 to 223 Euclid avenue, allow the display of their large and varied line to the best advantage, affording unequaled opportunities to the purchaser in making selections. No stranger should leave the city without making a point of visiting this store. Besides the regular stock of mantels and grates are exquisite novelties in brass and wrought iron to please the most fastidious taste.

CLEVELAND NATIONAL BANK.

S. S. Warner, President; James Parnell, Vice-President; P. M. Spencer, Cashier—
Capital Stock, \$500,000—N. W. Corner Seneca and Superior Sts.



This flourishing institution was chartered May 20, 1883, and for some four years conducted business at No. 179 Superior street, removing last April to its present eligible and advantageous location at the northwest corner of Superior and Seneca streets, convenient to the mercantile and banking center, where it has secured a larger share than ever of the confidence and patronage of the business community. One entire floor, 30 x 100 feet, of the building indicated is occupied, and is fitted up in the most elegant and substantial manner. A magnificent and thoroughly fire and burglar-proof vault, supplemented by a capacious safe of the same character, form a portion of the equipment, and, combined with the elegantly appointed furnishings of banking, president's and directors' rooms, render

this one of the most attractive establishments of the kind in the country. A general banking business in all legitimate branches is transacted, including collections, loans, discounts, the deposits of individuals, firms and corporations, etc. The institution is a thoroughly sound and conservative, yet liberal one, and is performing its full share toward the development and encouragement of industrial and mercantile enterprise. Subjoined is its latest official report to the Comptroiler of the Currency, August 1, 1887:

Resources—Loans and discounts, \$1,042,877.47; overdrafts, \$695.45; U. S. bonds to secure circulation, \$50,000; due from approved reserve agents, \$118,123.71; due from other National banks, \$112,108.16; due from State banks and bankers, \$10,137.19; real estate, furniture and fixtures, \$4,539.32; current expenses and taxes paid, \$6,348.01; premiums paid, \$5,000; checks and other cash items, \$3,354.42; exchanges for clearing-house, \$8,832.50; bills of other banks, \$29,710; fractional paper currency, nickels and cents, \$232.31; specie, \$69,147; legal tender notes, \$40,000; due from U. S. Treasurer other than 5 per cent. redemption fund, \$2,250; total, \$1,503,355.54. Liabilities—Capital

stock paid in, \$500,000; surplus fund, \$40,000; undivided profits, \$18,019.04; National bank notes outstanding, \$44,500; dividends unpaid, \$84; individual deposits subject to check, \$647,725.75; demand certificates of deposit, \$87,659.63; cashier's checks outstanding, \$25,000; due to other National banks, \$75,744.20; due to State banks and bankers, \$64,622.92; total \$1,503,355.54.

The business public of Cleveland is indebted to Mr. P. M. Spencer, the cashier, for this handsome accession to local banking facilities. Mr. Spencer's career is worthy of special note. He is of English descent and his parentage is of honorable mention. He was born at Fort Ann, Washington county, N. Y., March 1, 1844. He was brought up on a farm and received his education in the public schools and an academy. When the war broke out he was only seventeen years old, but his patriotism led him to enter the volunteer service with the 123d New York infantry. He followed his regiment through the sanguinary battles of Antietam, Fredericksburg, Chancellorsville and Gettysburg, till 1863, when he was mustered out of the army on account of protracted sickness. About a year after his return from the war he came to Cleveland and became messenger in the First National Bank. He evinced precisely that kind of ability needed in the banking business, and soon received a position inside. An opportunity was all young Spencer needed. From this small beginning he rose, through the regular order of promotion, to assistant cashier, occupying that position for many years. His capacity for financiering was very fine, and being ambitious to launch a banking enterprise of his own, he set himself to work at organizing the Cleveland National Bank. This he accomplished, and the bank opened its doors in two months, with its originator as cashier. He always took an active interest in politics—an interest growing out of a desire to see the proper laws enacted and enforced. He was elected to the Council from the Fourth ward in 1877, and no better proof that he gave good satisfaction can be cited than that his constituents have returned him as their representative at every subsequent election—'79, '82, '84 and '86. Mr. Spencer has been one of the most valuable members of the local assembly, uniting first-class business skill with honesty, thorough familiarity with municipal matters and spirit in debate. He was vice-president of the Council in 1884 and was reelected. Mr. Spencer has been at various times on the most important committees, including the legislative, finance, judiciary, house of correction, claims and department examination—and is now chairman of the finance committee. On the finance committee he has been of especial service, and many measures, resulting in economy to the city, have been carried through by him. He was for three years chairman of the Republican city central committee, and is now the chairman of the Congressional committee for the Twenty-first district. He is a trustee of the Homeopathic College. It should not be omitted that he possesses, in harmony with other qualities, liberality, affability and philanthropy.

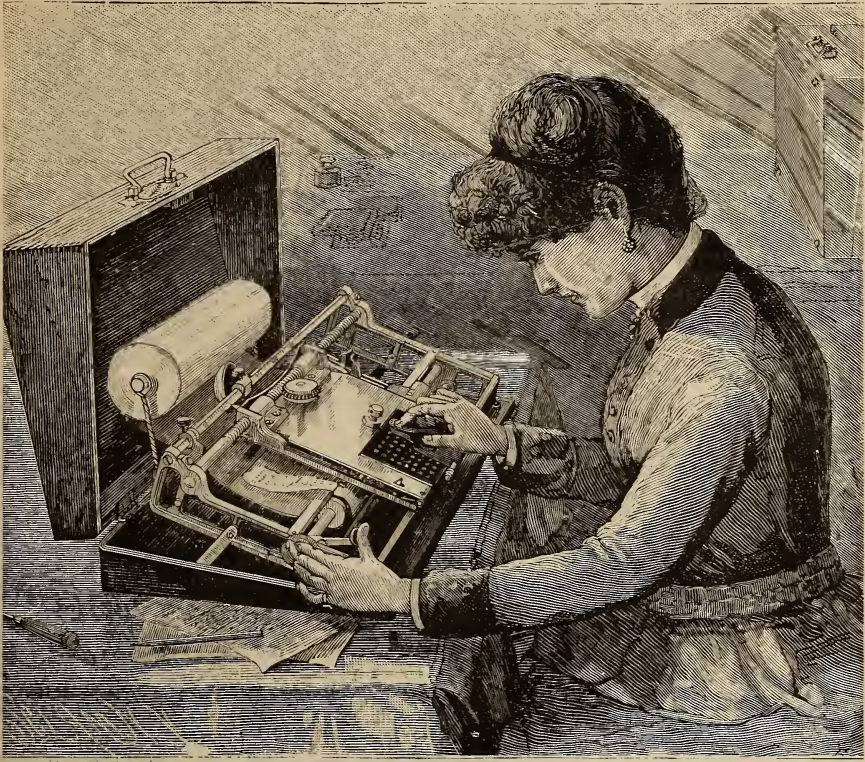
WOODS, JENKS & CO.,

Manufacturers and Dealers in Lumber—No. 5 Carter St.

The leading lumber firm in this leading lumber market is Woods, Jenks & Co., whose office at No. 5 Carter street is the scene of more and heavier transactions in this particular branch of business than are conducted by any two rival houses here. Woods, Perry & Co. were the founders as long ago as 1860, and continued at its head until April of 1886, when the present firm became the owners. As at present composed it is a consolidation of Messrs. Robert Jenks, Guy and Ralph Grey (the remaining representatives of Woods, Perry & Co. after the withdrawal of Mr. L. W. Perry) with the incorporated firm of Pack, Woods & Co. of Oscoda, Mich., of which concern Messrs. John L. Woods, George W. Pack and Charles L. Pack are residents of Cleveland, and Greene Pack and Edwin F. Holmes of Oscoda, at which latter place extensive lumbering and milling operations are conducted and the products shipped to this port for a market. The plant here comprises five acres of yards with docks and switches and a splendid modern planing-mill which manufactures vast quantities of doors, sash, blinds, mouldings, flooring, ceiling, cabinet stuff and every description of finished lumber. The annual capacity of the company (which is usually taxed to the utmost) is 80,000,000 feet, and besides supplying a large part of the local demand the firm ship heavily to buyers and consumers all over Ohio and the States to the eastward as far north as Boston and south to Baltimore. Some faint notion of the magnitude of their business may be drawn from the fact that from two hundred to five hundred men are employed, the weekly pay-roll averaging \$5,000 in summer and \$1,500 in winter.

THE HALL TYPE-WRITER.

Simplest, Cheapest and Best—Payne & Pratt, Managers, No 117 Public Square.



Writing by machinery has been thoroughly tested of late years, with the result of its general acceptance, for most ordinary purposes, as superior to pen work. It is a known fact that most persons who have much original writing to do—authors, editors, ministers, *et id genus omne*—are abominably poor penmen, and to these and their printers, correspondents and others upon whom devolves the task of deciphering their lucubrations, the type-writer is a boon indeed, since, once accustomed to its use, the manipulator works as unconsciously and with less fatiguing labor than attends the employment of the pen, while the work is perfect and involves no loss of writer's time and patience in the reading. The same remarks hold good, in a greater or less degree, as applied to the labor of the copyist, the corresponding clerk, the telegrapher, the stenographic reporter and others to whose relief the type-writer has come. But it should not be forgotten that, like other wonderful inventions, the type-writer has shown itself susceptible of vast improvement over its original form, nor that the machine which the year before last, last year or last spring was supposed to combine in itself all that was desirable or even possible, is to-day in fact a superannuated device, outstripped in speed, accuracy, convenience, beauty of style and workmanship and perfection of operation by a younger rival. This is a fact that is easily demonstrated to the satisfaction of any intelligent man conversant with the subject in question who will take the time and trouble to compare the new model Hall type-writer of 1887, awarded the medal of superiority over the Remington and the Caligraph at the semi-centennial fair of the American Institute, New York, and the John Scott medal by the Franklin Institute, of Philadelphia—the latter a rare honor, conferred only in recognition of positive advance. The work of the old-style keyed machines is blurred and dauby, they use but one style of

type, which can only be changed by a skilled mechanic at great expense of time and trouble, and they are in all respects behind the times and of comparatively little use in competition with the Hall, which is constructed upon an entirely different and novel principle. Actual trial has proved it equal in every respect to any of its predecessors or rivals, and as a whole superior to all of them. It is simple, complete, portable, and is capable of performing a wide range of work in the best manner, including foreign languages, the filling of blanks, and the execution of tabular work equal to that of the skilled printer. It operates equally well on paper of any ordinary width, length or thickness, postal cards, envelopes, etc., ruled or unruled, with any desired space between words or lines, the impression of each letter being perfectly clear, as the inked type comes directly in contact with the paper, thus doing away with the ribbon and preventing the blurred appearance that characterizes the work of all other type-writers. Corrections and alterations are readily made, and the ink used is the best made for copying, either by letter press, hektograph or slate-graph. With a special type plate it does manifolding equal to the other writers.

In the matter of speed it is the equal of any other writer, as is shown both by the mechanism, which is simple and quickly responsive and places the work most completely under the immediate control of the operator, and by the fact that contested trials of speed have been made with it against the other writers in the hands of the best and most expert operators, and in no such case has the Hall been beaten. The styles of type furnished include many distinct faces, from which the purchaser can select to suit himself, the price of each being only a dollar, and he can substitute one for another in a few seconds at option. In addition, type plates are furnished in all languages having an alphabet, including Greek, Sanscrit, Japanese, Armenian, Bohemian, Norwegian, Swedish, French, Spanish, Italian, German, Danish, Russian, Bulgarian, Bohemian, etc., with from two to five styles in each language; also upward of a dozen special plates for special purposes. The price of the writer complete, with any style of type desired, containing 82 characters, is only \$40.

Pamphlet containing full particulars and scores of testimonials from lawyers, editors, ministers, telegraph operators, stenographers and others sent to any address on application to the Cleveland managers, Payne & Pratt, No. 117 Public Square, where a full line of these wonderful machines may be examined by any one in search of a perfect type-writer.

THE MAXWELL BLUE STONE CO.

R. H. Maxwell, President and Manager; E. H. Perdue, Vice-President; R. R. Van Tine, Secretary and Treasurer—Miners and Dealers in Euclid Blue Stone Flagging, Steps, Platforms, Sills, etc.—Mill and Quarries, South Euclid—Office, Room 17 Nottingham Block, No. 89 Euclid Ave.

Among the largest producers of blue stone in the country is the Maxwell Blue Stone Company, doing business in this city. The quarries of the company are located in South Euclid, and are not only extensive, but produce the finest quality of blue stone quarried. In 1877 the quarries were first opened, the firm then consisting of Maxwell & McFarland; in 1884 it became Maxwell & Co., and in 1887 the present company was organized. The quarry proper, covering some fifteen acres, allows of immense quantities being taken out, the shipments averaging ten car-loads daily. All parts of the Union draw on these quarries, and the reputation of the stone for building purposes has become thoroughly established, as it is ornamental, handsome and easily worked. The buildings comprising the works consist of a saw-mill 60x25 feet, with four gangs of saws, boiler and engine rooms, hoisting apparatus, in fact, every improvement known to the business. The constant demands which are being made on the company by builders enables them to give steady employment to upward of forty men, which, with the improved process they have of extracting the rock, and ample facilities for cutting it into the desired patterns, enables them to produce and ship on short notice any orders that may be given them, whether large or small.

Mr. R. H. Maxwell, the president and manager of the company, is a resident of South Euclid, where he has general supervision of the company's works. E. H. Perdue, the vice-president, has general supervision of the sales department, and is a well-known Clevelander. R. R. Van Tine, secretary and treasurer, is a native of this city, well known and generally respected for prompt business methods. The past season's business has been unusually large, and bids fair to continue so, as the stone is becoming more generally adopted in all sections. The company is prompt, thoroughly reliable, and can be depended upon in all contracts.

UNION STEEL SCREW COMPANY.

Fayette Brown, President; J. H. Wade, Vice-President; S. Sickels, Secretary; J. A. Bidwell, Superintendent; S. F. Chisholm, Assistant Superintendent—Manufacturers of Bessemer Steel Wood-Screws, Small Nails and Tacks—Corner Case and Payne Aves.

The substitution of Bessemer steel for iron in the manufacture of screws, nails, brads, tacks, etc., marked an era in the progress of new ideas and emphatically "filled a long-felt want." While the first cost of steel goods may be slightly in advance of iron, there is no room for comparison in quality, and the actual saving far more than equals the difference in price.

The first establishment in this country to make use of steel in this special industry was the Union Steel Screw Company of Cleveland, incorporated in 1871 with a capital stock of \$1,000,000. It was not, however, until 1873 that the company completed its preparations—the erection of an immense factory and the construction of machinery—and commenced actual operations. The works comprise two massive brick buildings at the intersection of Case and Payne avenues, one of six stories, 50 x 200 feet, the other of five floors, 40 x 150 feet. The outfit of improved machinery is complete; three hundred and fifty men, boys and girls are employed, and the capacity of the establishment (which is usually taxed to the utmost) is 12,000 gross of screws of all sizes and about three tons of nails and tacks per diem. The entire output is distributed within the United States, and the trade of the company extends from the Atlantic to the Pacific oceans.

The officers of the company have from the first been conspicuous as citizens and business men, as well as being efficient in their several capacities. The late Stillman Witt, well known for his connection with railroad and manufacturing enterprises, was an active promoter of this enterprise and its first president. His successor was the late Henry Chisholm, who was also president of the Cleveland Rolling Mill Company, and to whose care and attention is due the great prestige attained by the company in the quality of its products.

Mr. Fayette Brown, former vice-president and now president, is extensively connected with iron mining and manufacturing industries in Ohio, Pennsylvania and Michigan.

Vice-President Wade is prominently identified with many railroad, banking and manufacturing enterprises.

Secretary Sickels, a New-Yorker by birth, but identified since 1860 with the business interests of Cleveland, has general management of the details of the business.

Superintendent Bidwell, who came from Providence, R. I., to supervise the construction of machinery and works, is a mechanic of large experience in this line of industry, and whose skill is well attested by the model plant here erected.

Assistant Superintendent Chisholm (also of the Chisholm shovel works) has immediate charge of the details of manufacturing, and having been connected with the company from the very first, has a thorough knowledge of the requirements in his department.

RUNYON, STUBBS & MACK.

Lake Superior Iron Ore—Room 43 Grand Arcade, No. 101 St. Clair St.

The discovery and use of iron in various arts and manufactures dates back to the Roman period. Some authorities claim its use extensively previous to the Bronze age, but as it is a matter of conjecture and hard to determine, no definite data can be obtained. In our own history and day it has entered into nearly every branch of manufactures, and is one of the most important products known to civilization. The various districts and localities from which it is procured are scattered throughout the length and breadth of the land, some celebrated for the uniformity of their product, others of less note and reputation. Since the adoption of the Bessemer method of producing steel, which has become general during the past ten years, certain grades have come into greater demand by reason of their general fitness and superiority, among which are the Lake Superior ores from the various districts in that locality, the Gogebic, Menominee and Marquette ranges contributing largely a superior quality much in demand. The purity and value of Bessemer ore from mines in this district has greatly stimulated the production, and to-day one of the most important industries in the Northwest is the mining and shipping of Lake Superior ores.

Among the prominent and leading houses in this city whose specialty is the handling

and shipping of iron ore, the above firm of Runyon, Stubbs & Mack has gained an extensive reputation. From a small beginning they have, by perseverance and careful attention to business, succeeded in building up a large and prosperous trade. The grade of ores handled exclusively are from these ranges of the highest quality, and enter extensively into the manufacture of Bessemer steel. Their offices, located in the Arcade building, are central, thus securing the prompt transaction of business. The members comprising the firm are W. C. Runyon, J. B. Stubbs and W. E. Mack, and their success is simply a new illustration of the old adage: "Energy and perseverance conquer all things."

THE OMEGA STOVE AND GRATE CO.

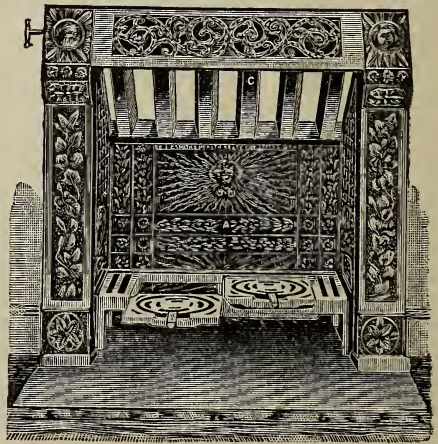
J. L. Smith, President; Jay Burns, Secretary; E. D. Porter, Treasurer—Manufacturers of Dr. J. G. Smith's Fire-Place Furnace and Ventilating Stoves—No. 89 Euclid Ave.



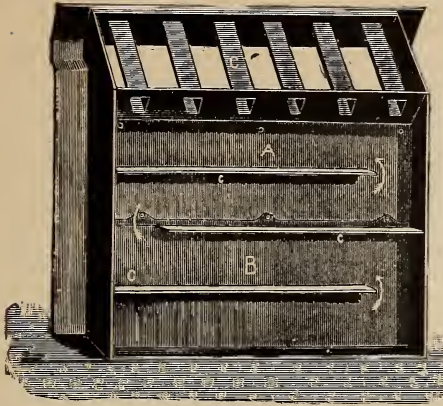
The evil effects of breathing vitiated air are too generally known to require special elaboration here, even if we had the space. We can only briefly quote Prof. R. J. Dunglison, in his treatise on physiology, in which he says: "Air once breathed is unfitted for further respiration, being no longer pure. The amount of oxygen in it is found to be greatly lessened. To insure perfect respiration the air that is breathed must be renewed and not allowed to be contaminated. Let it be remembered that the first and most important object is to give an outlet to the impure air. Amid the comforts of modern homes, danger to health or life may ensue from the very conveniences which surround their inmates. We are so constituted that pure atmospheric air is essential not only to health, but to life. Atmospheric air is composed of two gaseous substances, known to us as nitrogen and oxygen, the latter being the all-important element in respiration."

It is to do away with the dangers referred to that the Omega fire-place furnaces and ventilating stoves (patented by Dr. J. G. Smith) are designed. They are both

The Omega Stove and Grate Company was incorporated as above, with a capital stock of \$150,000, last January, and within a month was in the full tide of successful operation with 100 men at work on their patterns at the foundry of the Myers & Osborne Company, Nos. 213, 215 and 217 West River street, their manufacturing capacity, which is taxed to the utmost, being 500 fire-place furnaces and ventilating stoves daily. The liberality of the company in the use of printers' ink, and in availing itself of all legitimate channels in bringing its splendid goods before the public, has borne generous fruit, as is shown in the great demand for these furnaces and stoves from all parts of the country—a demand that is encouraged and fostered by the trade, who recognize in these improved goods the best that have ever been introduced, notwithstanding their extreme cheapness, all things considered.



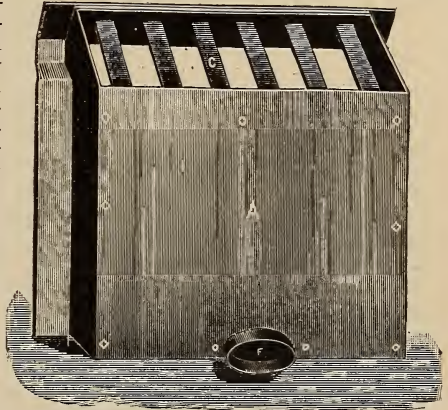
powerful heaters and perfect ventilators.



heated, requiring less than half the amount of heat to the room. The great advantage of this arrangement over other air-chambers in use will thus be readily seen, and its general adoption is therefore confidently recommended as the only method by which cold air taken from without can be properly and thoroughly heated, especially with moderate fires. This arrangement, in connection with its original top air-flues passing directly over the fire, thereby utilizing the great amount of heat otherwise lost by passing with the drafts up the chimney, combined with its artistic beauty, its simplicity, its perfect ventilation, combined with great heating powers, and the readiness with which it may be set into any fire-place in use, constitute its undisputed superiority over all other fire-place and stove arrangements now in use. The same principle governs in the construction of the "Omega" stoves.

The officers of the company, named in our caption, are all citizens of Cleveland, and give their exclusive attention to the manufacture of these goods. Ex-Governor Hubbard, of St. Paul, Minn., is one of the principal stockholders.

This company has the exclusive right to make and use independent horizontal and continuous air-flues formed within an air-chamber at the back and sides of an open stove and fire-place, by which arrangement the cold air, as it enters the air-chamber from the outside at the bottom, is made to pass horizontally four times across the back and sides of the air-chamber before entering the top air-flues to be discharged, intensely heated, into the room. In all other air-chambers in use the cold air rushes up the back before it has time to become heated, passing less than three feet, while by this arrangement the air, traversing to and fro across the back and sides, travels over fourteen feet before entering the top air flues over the fire, the air thereby being retained against or in contact with the heated back and sides in its upward course long enough to become thoroughly heated, requiring less than half the amount of fuel ordinarily used to give the same amount of heat to the room.



E. B. HALE & CO.,

Bankers—No. 233 Bank Street.

Conspicuous among the private banking institutions of Cleveland is that of E. B. Hale & Co., No. 233 Bank street, the oldest and one of the soundest concerns of the kind in Northern Ohio, founded by Mr. E. B. Hale as long ago as 1852. Mr. W. H. Barriss became a partner in 1866, and Mr. W. B. Hale, a son of the senior member, was admitted in 1879. The firm, advantageously located at the north end of the Mercantile Bank building, with elegantly appointed first floor offices, backed by ample capital and experience, and enjoying a high reputation for upright dealing and promptitude, is well-prepared to undertake all legitimate commissions offered in the way of loans, discounts, collections, the purchase and sale of exchange, the handling of investment securities, etc. The firm do a very heavy business in foreign exchange, keep regular accounts in London, Dublin and Paris, and maintain correspondence with six leading New York houses. They also furnish drafts and letters of credit good in any part of the civilized world.

BURROWS & BOSWORTH,

Dealers in Hardware, Stoves, Ranges, Furnaces, Etc.—Nos. 1222 and 1224 Euclid Ave.

Among the extensive hardware dealers located in the eastern portion of the city the above firm not only represent the largest outlay in stock but handle the leading lines of hardware, stoves and ranges, and in consequence control the largest trade. Established in 1874 at No. 1218 Euclid avenue, the firm then consisting of Burrows & Moore, they removed to the present location in March, 1882, on the retirement of Mr. Moore and the admission of N. C. Bosworth. The specialties which they represent are the "Garland" stoves and ranges, and the Richardson & Boynton Co.'s heaters and furnaces, on which they have built up a large trade. In the general line which they carry may be found all staple goods in builders', blacksmiths' and contractors' hardware, in addition to cutlery and smaller specialties. Mr. Burrows, the senior member, a New-Yorker by birth, is well versed in hardware in all its branches, prompt, reliable and a thorough business man. N. C. Bosworth, the junior member, is an Ohioan, who, during his fifteen years' connection with this trade, has gained the confidence and respect of the business community and done much towards the advancement of the firm's interests.

The number of salesmen, workmen and clerks in their employ is twenty, and the large and handsome stores which they occupy are an honor to the city. The business is now confined chiefly to East Cleveland and surrounding towns and villages.

FRANK DOWD, D. D. S.

Artificial Teeth Without Plates—No. 44 Euclid Avenue.

There is nothing so detrimental to health as bad teeth. This fact has been clearly established by the most prominent physicians, and to-day stands undisputed. Not only does health suffer, but the miseries of toothache, the unpleasant odors of decaying teeth, and the disgusting appearance which they present are certainly enough in themselves to commend scientific dentistry in every branch. The process of inserting artificial teeth without plates was first established in Cleveland by Dr. F. Dowd in 1885, since which time it has been thoroughly tested, and received the indorsement of our most prominent citizens. The principal advantages of this system over all others are: 1.—It does away with the extraction of roots. 2.—It supplies all lost teeth without covering the roof of the mouth. 3.—They are as good for mastication as the natural teeth. 4.—There is positively no injury to the mucous membrane or to the remaining teeth. 5.—There is positively no obstruction to the flow of saliva during mastication; thus you have nature to assist digestion. 6.—There is positively no inflammation of the roof of the mouth, as is caused by the use of plates. 7.—There is no danger of swallowing them, as is frequently the case with plates. 8.—There is no dropping down of the plate, because there is *no plate used*, and the teeth are as firm as the natural teeth. 9.—They are as easily kept clean as the natural teeth. These and many other claims have been fully substantiated by the many who are using this class of work, and it is beyond the question of a doubt that this system will in time supersede all others. The doctor also gives his attention to all other branches of dentistry, from the extraction of teeth to the making of plates under the old system, and in all of these branches he has introduced various improvements.

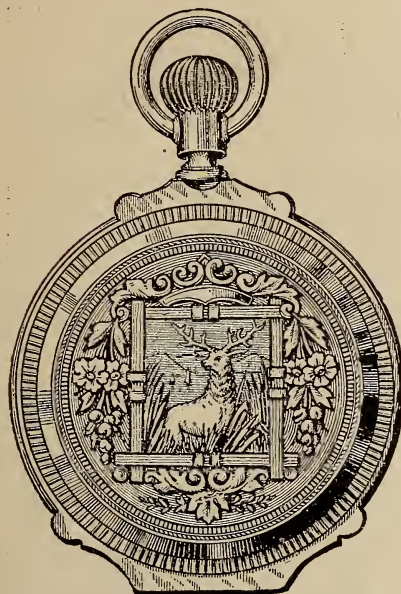
Dentistry at the present day has become a science, and the barbarities which were practiced on patients a few years ago have passed out of existence. Fully alive to the requirements of the times, Dr. Dowd is a constant student of his vocation, adopting every improvement which shall in any way benefit or promote his business or the comfort of his many patrons. It is surprising to learn the distance from which some of his patients come in order to receive the benefits of his experience and scientific manner of treatment, for not only do Ohio and the city of Cleveland contribute their share of patronage, but also Pennsylvania, New York, Michigan and other adjacent States send their customers, which establishes the fact that scientific dentistry is recognized and appreciated. The doctor's offices, located in the Savings and Trust building, No. 44 Euclid avenue, consist of three large rooms, where every convenience and improvement are to be found. The reception room is handsomely furnished and decorated, showing both taste and refinement, while the operating rooms contain every convenience and improvement known to the science. Electric motors are the motive power which propels the delicate machinery in use, and are in themselves a novelty but seldom met with. The doctor's business since his residence here has been rapidly increasing, as patients recognize scientific work with

moderate charges and assist in enlarging his business. The Indiana Dental College, of which the doctor is a graduate, stands high among schools of his kind, and not only was the experience which he gained there the means of his present success, but by thirteen years of constant application and study he has succeeded in originating new methods which others do not employ.

SIPE & SIGLER,

Wholesale and Retail Dealers in Watches, Diamonds and Jewelry, No. 402 Superior St., Masonic Temple.

The above named firm has caused considerable stir in business circles, more especially among the jewelry trade, and deserve more than passing notice. The members are Mr. J. F. Sipe, who came here from Indiana in 1882, and Mr. C. C. Sigler, a native of Warren, Ohio, who has resided and done business here since 1879. These gentlemen associated themselves together in the wholesale and retail jewelry business in 1882, occupying rooms in the Wilshire building, and were successful from the start, removing in 1884 to No. 402 Superior street in order to secure larger and more convenient accommodations for their growing business. Here they occupy one of the most elegant ground floor store-rooms in the city, carrying an immense stock of fine and medium watches, diamonds, jewelry, silver and plated ware, and all goods pertaining to the trade, besides maintaining branch houses at Pittsburgh and Indianapolis. They employ twenty-five clerks, book-keepers, salesmen, etc., and their transactions for the past year foot up \$150,000.



This 14 k. gold case with G. M. Wheeler movement, \$50.20.

The great distinguishing feature of this firm's business, upon which they particularly pride themselves, is the new style of bringing buyer and seller together for mutual advantage.

Sipe & Sigler's contract purchasing system, whereby consumers are supplied with various lines of goods, including groceries, meats, clothing, furniture, stoves, hardware, drugs, hats and caps, boots and shoes, white goods, feathers, jewelry, watches, diamonds, silverware, horse and carriage hire, photographs, dentistry, millinery, fuel, house and sign painting, medical attendance, wall paper, interior decorations, etc., at prices 10 to 33 1/3 per cent. less than are demanded by dealers and professional men unconnected with the plan. The list of houses co-operating under this system is before us, and embraces many of the soundest and most responsible of Cleveland's merchants and business men. Any person living in the city can avail himself or herself of the benefits of this plan of buying on payment of twenty-five cents per month membership fee. Country people and others living at a distance can secure the same advantages for a year on payment of \$2.50.

Write Sipe & Sigler for particulars and catalogue.



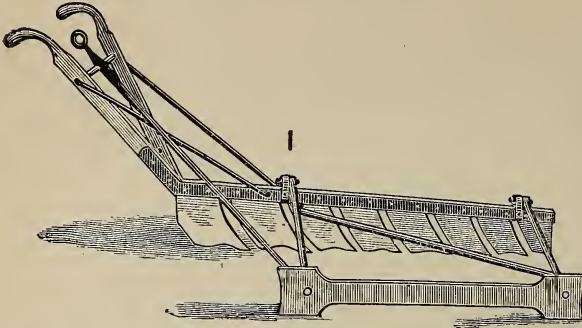
This 14 k. charm, \$11.00.



This 14 k. charm, \$13.50.
K. of P.

PETER GERLACH & CO.,

Manufacturers of Warranted Extra Cast Steel Saws, Tight Barrel Machinery, Files, Emery Wheels and Gummars—Office and Warerooms, No. 28 Columbus St.; Factories, Columbus and Winter Sts.



Peter Gerlach & Co. are the most extensive builders of stave and heading machinery in the world, and fully nine-tenths of all the sawed staves produced are made by their patent devices. They also build improved heading and shingle machinery and brewers' keg-pitching and branding machines, besides manufacturing a full line of ice-harvesting and elevating machinery. This is now one of the most famous saw manufacturing

houses in the world, succeeding in 1870 the old-established firm of William Marrott & Co., founded in 1854, and at once put new life into the business, which for some years had been in a rather languishing condition. At this time the works occupy an extensive three-story brick structure at Columbus and Winter streets, are splendidly equipped with modern improved machinery run by steam, employ forty trained mechanics, and turn out a vast quantity of the best grades of circular, long and cylinder saws, late improved stave, heading and tight barrel machinery, files, emery wheels, gummars, etc., besides doing a great deal of repairing for lumbermen and wood-workers.

The leading specialty of the house, however, to, which more attention is given than to any other, is the "Alligator" chisel-bit saw, patented in the United States and in Canada, the most novel, original, practical, durable and effective device of the kind ever offered the trade. The demonstrated advantages of this plan are many and important. The teeth, set in line with the cutting strain of the saw, the strain is equally distributed upon the whole tooth and leads to the base thereof. Equally supported on both sides by the solid saw plate, only the cutting point is exposed, thus making the tooth as firm and rigid as in a solid saw. The angle at which the teeth are set admits of a better clearance than is possible to obtain in other saws of its class, and causes the saw to cut solid chips and shavings, cutting with less power than any other inserted, and fully one-third less than solid saws under like conditions.

The hinged double jaw bit holder clamps the bit as in a vise, relieves the saw plate from all wear, and protects the saw from damage in case of accident resulting from running into head blocks, spikes, etc.

All other inserted tooth saws have the bit, or cutting tooth, set directly against the saw plate. The result is, the part supporting the bit soon becomes worn and damaged, making the saw practically worthless, unless redressed at about half the original cost, while a few new bits and jaws make our saws as good as new.

The expanding spring slot expands and effectually locks the tooth when in position, and admits of changing bits in less time than required by any other mode of fastening now in use, with no keys, wedges, rivets, studs or screws to strain the saw or become lost.

The bits are forged from the finest silver tool steel, costing double the price of steel usually used for the purpose. They are milled and ground uniform to size, swaged, and to suit the various kinds of timber, therefore hold their cutting edge longer and do not require one-fifth the filing of solid saws, to say nothing of the time and tools wasted in swaging and gumming.

The tongue upon the back of bit fits a corresponding groove in the holder; this, coupled



with lug on face, absolutely prevents the bit from getting loose in its seat, turning sideways, or flying out; and an off-set on seat upon its face makes it impossible to injure the holder in filing, and no special files are required.

The saws have been tested in hard wood on from one to six-inch feed, and in pine from seven to twelve inch feed, doing their work easier and with much less power than required by solid or other inserted tooth saws.

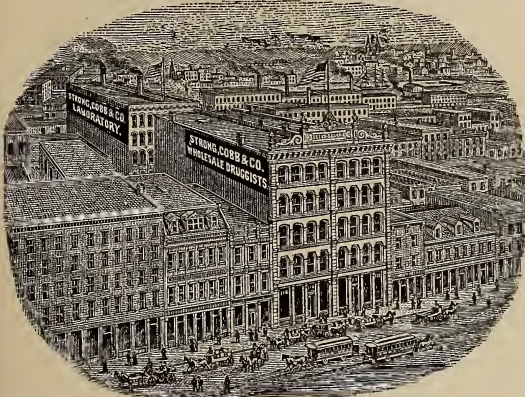
In a run of one year the cost of bits has been found not to exceed five cents for every thousand feet of lumber cut, while the saving effected in time alone was estimated to exceed the original cost over a solid saw.

For gang edgers and bolters these saws have no equal.

Messrs. Gerlach & Co. have a large and rapidly growing trade all over the continent, principally in the West, Northwest, South and Canada, and their house is in a flourishing condition.

STRONG, COBB & CO.,

Wholesale Druggists, Importers and Manufacturers—Specialties, Fluid Extracts and Pharmaceutical Preparations—Nos. 112 and 114 Superior and 116 and 118 Long St.



In the business history of Cleveland there is no more striking instance of success which follows energy, determination and integrity than is furnished by the circumstances attending the foundation and growth of the firm of Strong, Cobb & Co. The building in which the business is now carried on is five stories in height. The laboratory in the rear is 33x110, with sub-basement, basement and five floors, facing on Champlain street and connected with the main building by a private bridge and a tunnel under Long street 10 feet high, 10 feet wide and 50 feet long. On the first floor from the street a fire-proof vault has

been constructed in which are stored valuable chemicals and drugs. The central portion of this floor is devoted to the display of druggists' sundries, fancy goods, fine toilet articles, etc., while in the rear and opening on Long street is the receiving and shipping department. The second floor is devoted to the packing and preparation of orders, and the storage of a miscellaneous stock of various articles. The third, fourth and fifth floors are used for the storing of glassware, brushes, broken packages of various specialties, etc. All of the floors in this building are connected by both steam and dummy elevators.

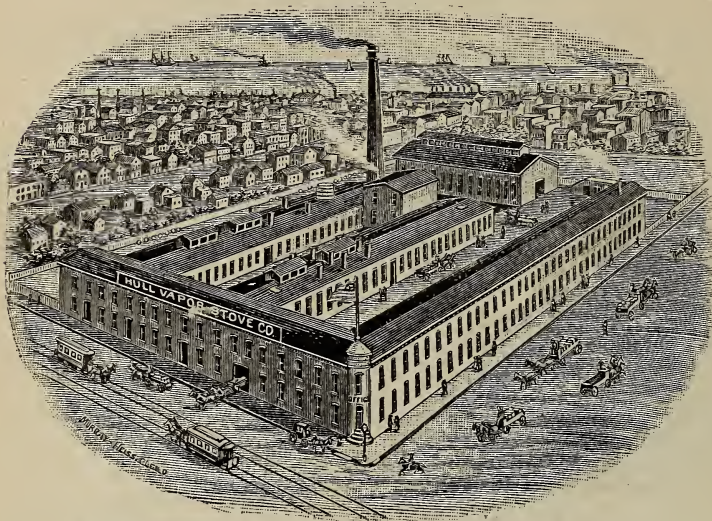
Passing from the main building to the laboratory by the tunnel, we find a sub-cellar; the boiler and engine room are also located here, while the water supply is derived from four tube wells and is forced to the 500-barrel reservoir on the top floor, and from there distributed to all parts of the building. In the basement proper are found several drug mills. The second floor is fitted with counters, tables, drawers, shelving, etc., inclosed by doors and used as cupboards for depositing the products of the laboratory. The third floor is used exclusively for compounding and the preparation of fluid extracts, while partitioned in one section of it is a drying room for the drying of scales of iron and other chemicals prepared by the firm. The fourth and fifth floors are devoted to storage of stock, liquors, etc., in addition to two tanks holding fifty barrels each for the manufacture of pepsin, which is one of their specialties—making, on the whole, one of the most complete establishments of its kind in the country.

In the preparation of pharmaceutical specialties the greatest care is exercised, which has won for them the standard reputation their preparations enjoy. In the liquor department they represent the leading brands of foreign wines and brandies, importing direct, while the celebrated grade of California Port wines from the vineyards of Kohler & Krohling, for which the firm here has been agents for the past twenty years, are without exception the best this country produces. Mr. S. M. Strong, the senior member of the firm, was born

in Amherst, Ohio, in 1833, coming to this city when a young man, and after several years' experience in the drug business he formed a copartnership in 1858, under the name of Strong & Armstrong, at No. 199 Superior street, where they carried on a wholesale and retail business. Mr. Armstrong retired at the end of twelve years, and Mr. A. Cobb assumed his place as a partner, the firm then becoming Strong, Cobb & Co. In 1874 the firm removed to their present quarters. On the death of Mr. Cobb, in 1882, his sons, Lester A. and Ralph L., who had been with the firm some years, assumed his place. The territory covered in the sale of goods embraces Western New York, Pennsylvania, Ohio, Michigan, West Virginia and Indiana.

HULL VAPOR STOVE CO.,

Manufacturers of the Celebrated Hull Vapor Cook Stoves—Office and Manufactory,
Payne Ave., Corner Hoadley St.



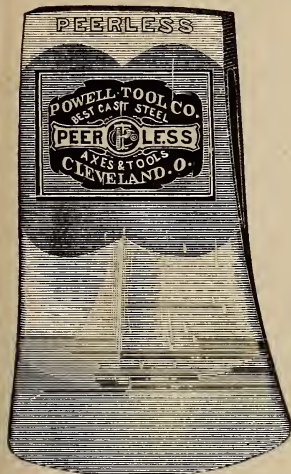
Gasoline, one of the light products of Petroleum, has now become an important factor in nearly every household, and during the heated summer months, when the thermometer standing at 90° and upward, making life in the kitchen a burden, the thrifty housewife welcomes with pleasure the name of

gasoline, knowing full well that it is the fuel which will cook her meals without heat, when used in connection with vapor stoves. In 1870 the Hull vapor stove was first placed on the market by M. L. Hull, the inventor. Simple and plain, without any attempt at ornamentation, it was criticised and endorsed alternately by skeptics and believers in the system, until to-day the business has increased from the manufacture of a few hundred to 50,000 per annum, which is the present capacity of the factory. In 1879, after the success of Mr. Hull had become assured, the present company was organized with a capital stock of \$35,000, Wm. M. Lottridge becoming president, and E. H. Monteith, secretary and treasurer. The works and offices of the company, located on Payne avenue and Hoadley street, are probably the largest of their kind in existence. The main building, 150 feet long by 60 feet wide, embracing two floors, with the annexes and smaller buildings, makes them the largest of their kind in the country, giving employment to upwards of 100 men. The machinery is all specially designed and constructed for the company, making a complete and extensive plant. The variety of styles manufactured, number some twenty distinct patterns, from the cheapest to the most expensive, while the specialties of the company are many and varied.

The members of this company are all Cleveland gentlemen, well known and respected for business integrity, energy and push, and they have gained for themselves the respect of the whole country, for there are but few localities in which the Hull vapor stove is not known and in use. Not only do the products of this branch of industry find their market in this country, but large shipments are made to Central and South America, Europe and the far East, where they are universally indorsed and generally adopted. The company have also in operation on the premises, an extensive brass foundry, where castings of all varieties of the highest grade are turned out.

POWELL TOOL COMPANY.

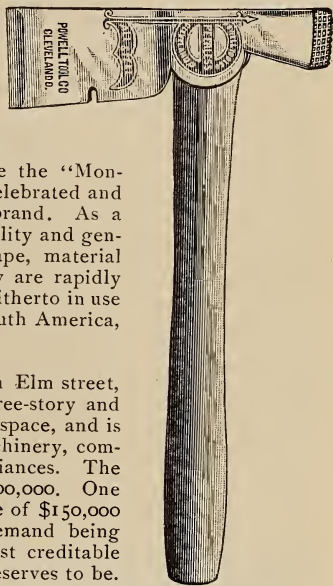
P. M. Hitchcock, President; F. W. Hubby, Secretary and Treasurer—Manufacturers of Peerless Axes and Tools—No. 31 Elm St.



not only in the United States
Australia and New Zealand.

The Powell Tool Company's works are domiciled on Elm street, the office being No. 31. The factory occupies one three-story and two one-story buildings, affording 40,000 square feet of space, and is equipped with a full complement of late improved machinery, comprising trip-hammers, presses, and all requisite appliances. The capital stock of the company, incorporated 1866, is \$100,000. One hundred men are employed, and edge tools to the value of \$150,000 per annum are placed on the market and sold, the demand being fully up to the supply. This is one of Cleveland's most creditable industries, and a successful and profitable one, as it deserves to be.

Nothing is truer than that "a poor tool is dear at any price," for poor tools do poor work, waste time, and worry those who use them, the net result being loss and dissatisfaction all 'round. Nor is there any necessity for the habitual use of poor implements when such establishments as that of the Powell Tool Company of Cleveland is turning out vast quantities of the finest goods in their line ever made, embracing solid "Black Diamond" steel lumbermen's and wood-choppers' axes, broad-axes, house and ship carpenters' adzes, lath hatchets, etc. These goods are all of the very best approved modern patterns, and all (save the "Monarch" adze) bear the celebrated and favorite "Peerless" brand. As a proof of their acceptability and general superiority of shape, material and workmanship, they are rapidly superseding the tools hitherto in use and Canada, but in South America,



J. HERIG & SON,

Dealers in Plain and Artistic Furniture—Warerooms Nos. 165 to 171 Woodland Ave.

Mr. J. Herig established this house nearly fifty years ago, in 1840, and it has gradually grown in importance and volume of transactions, until it now represents an investment of \$1,000,000, with average annual sales to the value of \$60,000 to \$75,000. Mr. W. P. Herig, a son of the founder, was admitted in 1868, the style of J. Herig & Son being thereupon adopted. The premises occupied are quite extensive, comprising a substantial and attractive brick building 90 x 75 feet, three stories in height, packed on every floor with extensive lines of furniture of all grades, from the finest art goods in rare woods and costly carving to the plainest and cheapest. A specialty is made of the furnishing of hotels and private residences throughout, to which end a vast and varied assortment of parlor and chamber suits of latest styles are carried in stock, together with a beautiful and very complete line of side-boards, chiffoniers, gondolas, couches, lounges, extension tables, secretaries, book-cases, desks, chairs, etc.

The trade of the house is principally local, the body of sales being made for cash, though the installment plan is successfully conducted.

JOHNS & CO.,

Lithographers—Office, No. 29 Blackstone Building; Works, Perkins Power Block.

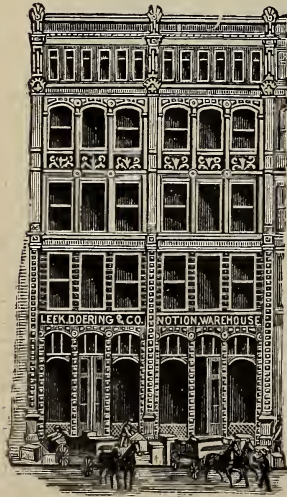
In this city the firms representing this branch of industry have long been celebrated, while, most prominent among them, the house of Johns & Co. has not only extended its reputation and business throughout Ohio, but its name has become universally recognized all over the United States. In the production of cigar box labels and trimmings, chromo cards and fine color printing, their reputation is both established and the character of the work produced equal if not superior to that of any lithographing establishment in the country. Special attention is given to fine stationery work in all branches, in which the firm excel, and for variety, originality of design, smoothness and perfection, they are without superiors. A special feature recently introduced in this department is the reduction of large cuts by a new process, and their *fac simile* reproduction on a smaller scale without the necessity of engraving new stones. This represents a large saving to the customers, as it allows of different sizes from the one engraving.

The firm's business now covers a vast amount of territory, their work being in demand in all sections of the country, and not only have they built up a successful trade, but with it they have established a reputation for fine lithographic work, which is gradually extending even in the face of active competition. In their extensive works in the Perkins Power block on Frankfort street, the most complete and expensive machinery, combining every modern improvement known, is to be found, while their force of skilled artists, pressmen and assistants, in all departments, numbering upwards of sixty, are kept constantly employed with the large orders always on hand.

In order to better facilitate the handling of Eastern business they have established a New York office at Rivington street and the Bowery, which is under the management of one of the firm. The business, originally established by the present members of the firm, has from a small beginning gradually increased in extent, and to-day the amount of capital represented aggregates upwards of \$100,000. Since its first organization no changes have taken place. The firm consisting of D. W. Johns, D. J. Johns and E. W. Johns are gentlemen who, during their long business experience, have won confidence and friends on every hand, and the success which has justly followed their efforts is not transitory but bound to continue, as the foundation, built by honesty, integrity and fair dealing, is solid and sure to stand.

LEEK, DOERING & CO.,

Notion Warehouse—Nos. 112 and 114 St. Clair St.

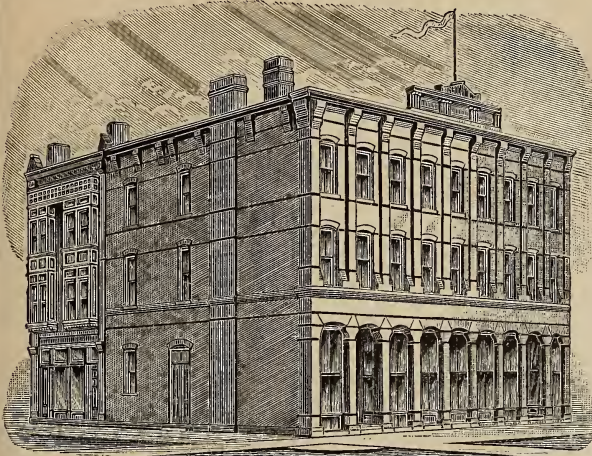


For more than thirty years—since 1856—the above-named firm has occupied a representative position in the Cleveland wholesale and jobbing notion and fancy goods trade—a position it continues to maintain with all its ancient vigor. The founders and original style were Stilson, Leek & Price, all of whom are dead, Mr. T. W. Leek being the last to pass away, March 23, 1887. The present firm is composed of Messrs. J. C. and W. H. Doering, although the heirs of Mr. Leek still retain his interest in the business. The firm of Leek, Doering & Co. dates from 1872.

The premises are very extensive, five stories and basement, 40x110 feet, and among the most desirable in the city. Twenty persons are employed, and the business transacted is very large, reaching every town and village in Northern and Central Ohio, Western Pennsylvania, and adjacent sections of Indiana and Michigan. The specialties include, besides every variety of notions, complete lines of gentlemen's furnishing and outfitting goods, overalls, and numberless items pertaining to the trade. Buyers will find here everything desirable in this department of business, in all grades, from the cheapest to the costliest, and are invited to inspect goods and figures. Promptitude, politeness and square dealing rule.

THE GERMAN BAPTIST PUBLICATION SOCIETY.

H. Schulte, Agent—Publishers of Books and Periodicals—Nos. 957 and 959 Payne Ave.



Among the largest publication societies in Cleveland the German Baptist probably excels both in variety and extent of its work.

Established in 1866 with a small capital, which has been constantly augmented until at the present time it is \$40,000, their publications are now circulated all over the world, and it has been necessary to enlarge their premises by the addition of a brick building 22 x 48 with an L, making the whole building 66 feet wide by 70 feet deep. Devoted entirely to the publication of religious works and periodicals, they are both ex-

tensive and well known among the German Baptists everywhere. The building owned by the society and from which the different publications are issued is large, affording every facility. The company use the entire building, employing eighteen competent printers and pressmen, in addition to office clerks, salesmen and others.

Among the publications are one weekly and four monthlies, in addition to publications specially adapted to Sunday-school work, such as tracts, periodicals and books. Mr. Schulte, manager and agent, is a well-known Clevelander, and has been connected in this capacity for fourteen years. Since the retirement of Philip Bickel as editor in 1878, that position has been occupied by J. C. Haselhuhn. The society is now in a flourishing condition, and bids fair to continue its publications, which are in great demand and favor among the Baptist denomination all over the world. In connection with the publishing establishment is an efficient job printing and book binding department, where first-class work is performed at the most reasonable rates.

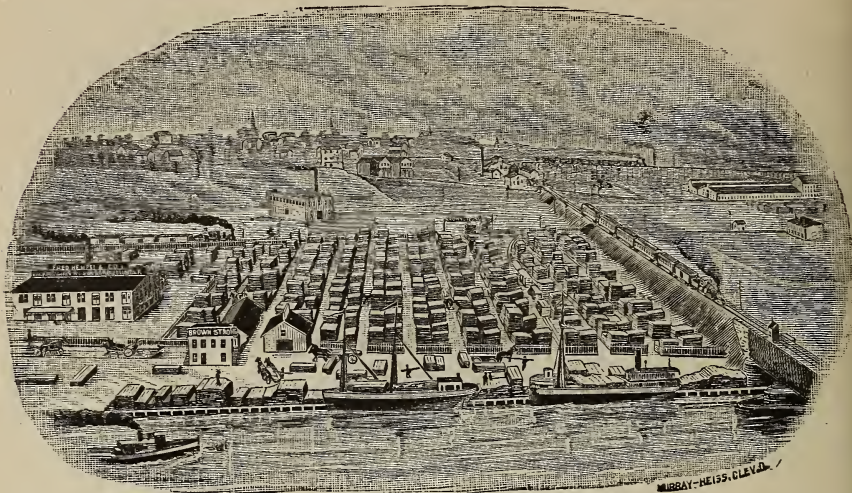
KUHLMAN BROTHERS.

Furniture and House Interiors and Street Car Builders—No. 490 St. Clair St.

In the arrangement of furniture and house interiors special attention must be given to every detail, else the harmony and general effect is broken and the labor useless as a work of art. In 1867 Mr. F. Kuhlman first established the present business, and by careful attention to the wants of the public not only gained the confidence of our best citizens but laid the foundation of a business which has exceeded his expectations. On the admission to the firm in 1882 of C. E. and G. C. Kuhlman, sons of the senior member and founder of the firm, the capital was increased and the business enlarged in proportion. Twenty skilled workmen are now given constant employment at all seasons of the year. The leading specialty is hard wood interiors, which have for some time past been the recognized finishings for first-class residences, hotels and public buildings, and to which many improvements have been added by these gentlemen. Doing an annual business which is of very large proportions, their trade is confined chiefly to this city and their services constantly in demand. By strict attention to business, thorough workmanship and fair dealing the founder of the firm has obtained a reputation that is not excelled in the city, and this reputation has been augmented by the present firm who are unable at times to keep up with the press of business which is constantly flowing in upon them. They are now supplying hardwood finishings to car-builders for the construction of street cars, and have recently embarked upon the enterprise of building street cars throughout, in which they are meeting with gratifying success, having built some cars for the Broadway line which met with great approval and an offer of additional contracts.

M. G. BROWNE & CO.

Dealers in Lumber, Lath and Shingles—No. 1 Nebraska St.



One of Cleveland's prominent lumber firms is named above. It was established by Messrs. Browne & Strong in 1883—Mr. M. G. Browne having been in the lumber business in Cleveland since 1874—Mr. Strong retiring a year later and Mr. L. O'Connor succeeding to the junior partnership. The firm have commodious yards on Nebraska street, a view of which is afforded by the cut printed herewith, and at No. 1 Nebraska street occupy a roomy and convenient office, where one or the other of the partners may always be found during business hours. Their facilities for the receipt, storage and shipment of lumber are first-class, involving the employment of thirty men the year round, and, during the busy season, as high as eighty, the sales aggregating as much as \$400,000 a year on an average. Shipments are made to all principal points in Ohio and Pennsylvania, and, handling the best material, which is delivered promptly and at reasonable prices, the house is rapidly growing in popularity with builders, contractors and dealers. They were burnt out in the great fire of 1884, but are fast recovering from their losses.

CLEVELAND CO-OPERATIVE STOVE CO.

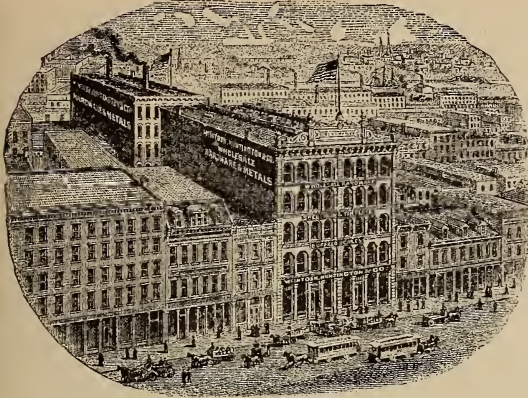
M. B. Clark, President, W. W. Baldwin, Secretary and Treasurer—Manufacturers of Stoves, Hollow-ware, Plumbers' Sinks, Etc.—Office and Salesrooms, Nos. 26 to 36¹/₂ Superior Street, on Viaduct.

The Cleveland Co-operative Stove Company was organized in 1867, with a capital of \$250,000. The warerooms at that time were located at No. 91 Superior street, but the increase of business and the addition of new styles and patterns necessitated their removal to various locations until in 1880 the present large warerooms were opened, which are now hardly adequate to the demands of the trade. The location of the foundries and shops of the company is at Garden street and the Cleveland & Pittsburgh railroad tracks. They are extensive and complete, covering some four acres. The Buckeye stove works, located on the corner of Platt and Carr streets, are now the property of the company, and are used in connection with their other shops. At St. Louis another foundry, the property of the company, is in constant operation. The capacity of the three foundries is 30,000 stoves annually, besides enormous quantities of hollow-ware, plumbers' sinks, etc. The force of workmen employed is 400, besides office assistants and salesmen.

In addition to their Cleveland warerooms, the company have large branch houses at Chicago, St. Louis, Indianapolis and Minneapolis, while their stoves and hollow-ware are sold all over the world. Their line embraces 600 styles and varieties of stoves alone.

McINTOSH, HUNTINGTON & CO.,

Jobbers of Hardware, Machinists' Supplies, Tanners' Stock and Cutlery—Nos. 116 and 118 Superior and 120 and 122 Long Sts.



Cleveland is unquestionably the principal hardware and tool market between New York and Chicago, that trade being represented here by several mammoth houses, one of the largest of which is that of McIntosh, Huntington & Co., whose splendid five-story buildings, 116 Nos. and 118 Superior and 120 and 122 Long streets, 35 x 250 feet, are illustrated above. Ninety men, including salesmen, porters, clerks and bookkeepers, are employed, and the transactions of the firm aggregate more than a million dollars per annum, their trade steadily increasing in volume and covering territorially

half a dozen States—Ohio, Indiana, Illinois, Michigan, Western New York and Pennsylvania.

As before noted, McIntosh, Huntington & Co. are jobbers and wholesale dealers in every description of hardware, machinists' supplies, tanners' stock, cutlery, etc. They also carry complete lines of tools for the use of mechanics in all the trades, for butchers, farmers, dairymen and the kitchen, together with all improved agricultural implements, Buffalo scales, etc., all of which are supplied to the trade at manufacturers' figures and at retail at a very slight advance. A fine assortment of Page oak leather belting and kindred goods, supplemented by an inexhaustible supply of iron, steel and copper wire and a variety of lathes, will attract the notice of machine-shop proprietors and workers in metals.

This concern was founded in 1867 by Dagler & Bowman, and succeeded in 1880 by McIntosh, Good & Co., and in 1887 by McIntosh, Huntington & Co. The present firm is composed of Messrs. George T. McIntosh, W. R. Huntington, F. P. Smith, A. C. Hord and H. H. Bishop, all of whom are Clevelanders save Mr. Bishop, who came hither from Decatur, Ill.

THEODOR KUNDTZ,

Manufacturer of Sewing Machine Cabinet Work, No. 31 Center St.

This splendid factory was erected by the Cleveland Sewing Machine Company in 1875, at a cost of \$100,000, and is one of the largest, most complete and valuable wood-working plants in Ohio. The machinery throughout was specially constructed with a view to turning out the finest grade of sewing machine wood-work, and is ingenious and perfect to a degree.

The present owner, Mr. Theodor Kundtz, succeeded the original proprietors in 1880, and has made of the concern what they could not, a paying success, employing some three hundred men and producing \$300,000 worth of superior sewing machine cabinet work annually, the pay-roll alone footing up over \$10,000 per month.

Nothing but sewing machine furniture is made here, and it speaks well for the style and character of the work produced that the leading manufacturers of sewing machines in Cleveland and vicinity give Mr. Kundtz all of their orders.

Mr. Kundtz is of German birth, has resided in Cleveland during the past fifteen years, and is a thoroughly practical man with a perfect comprehension of his business and its requirements. This industry is one that has done and is doing much to advertise to the world the growing importance and many advantages of Cleveland as a manufacturing center, and one of which the city may justly feel proud.

THE CLEVELAND AND COLORADO CATTLE COMPANY.

Thomas Axworthy, President; H. M. Claffen, Vice-President; C. H. Watkins, Secretary and Treasurer; John Coon, General Counsel; A. M. Pryor, General Manager; William H. Burnett, Superintendent—Office, Room 23 Benedict Block, No. 26 Euclid Ave.

This company was organized under the laws of Colorado in 1884, with a capital of \$2,000,000, for the breeding and sale in Eastern markets of Colorado cattle. Operations were promptly commenced after its organization by the purchase of 600,000 acres of grazing land, which was quickly followed in the summer of 1885 by the purchase of a herd of Colorado cattle numbering one thousand head, including thirty-three horses and valuable ranch improvements. In 1886 the immense herd, the property of Pryor Brothers, well-known cattle men, was purchased, making 8,069 head of thoroughly acclimated Colorado cattle, together with one hundred horses, extensive and ample buildings, corrals and other ranch accessories. All of this latter purchase are well graded with Hereford and short-horn stock, making one of the finest and most complete herds on the plains.

The president, Mr. Thomas Axworthy, is a gentleman prominent in business and political circles, and now holds the important position of city treasurer. Vice-President H. M. Claffen is another well-known Clevelander, prominently connected with various other enterprises. Mr. A. M. Pryor, business manager of the company and formerly of the firm of Pryor Brothers, is one of the best known cattle men in the West, and under his able management the business has prospered in every particular. Mr. Burnett, the able superintendent, has had many years' experience on cattle ranges, and is thoroughly competent to superintend the immense herd. The business of the company is now in a flourishing condition, and bids fair to become the largest cattle industry in the West.

THE IMPORTANCE OF CLEVELAND AS A DRUG MARKET

Writing up the industries of Cleveland certainly would be incomplete without referring to the prominent position of this city as a drug market. Without doubt there is not a city in the United States possessing better facilities for filling orders for all articles in the drug and chemical line. This enviable position was not attained because of natural geographical advantages, but has been fairly won by continued years of aggressive labor and honest dealing. To-day Benton, Myers & Co. enjoy the distinction and honor of being the foremost house in Ohio as importers and jobbers of drugs, chemicals and druggists' sundries. The policy of this firm has ever been a liberal one. While looking sharply after its own success, it has ever been ready to lend a cheerful hand to promote the prosperity of its patrons.

CLEVELAND PRESERVING WORKS.

J. Nussdorfer, Proprietor—Manufacturer of the Celebrated "Home-made" Mince-Meat, Jellies, Jams and Preserves—No. 110 Erie Street.

The consumption of preserved fruits, jellies and mince meat of so-called "factory make" has grown to such large dimensions as to be recognized as one of the leading industries. This enormous growth is attributed to the following facts: First, the standard of this line of goods has been advanced to a degree equal to the best production of the most fastidious housewife. Second, the entirely groundless prejudice against "factory-made" goods is a thing of the past. Third, preserves and jellies being a very welcome and much cheaper substitute for butter, especially in winter, when butter is high.

The Cleveland preserving works of Mr. J. Nussdorfer, No. 110 Erie street, are the most extensive of the kind here, putting up large quantities of delicious preserves, jams and jellies annually. These goods are pronounced by competent judges equal if not superior to those made elsewhere, and are supplied to the trade at reasonable prices. The manufacture of high-grade mince meat is a specialty in which Mr. Nussdorfer has distinguished himself, his renowned "home-made" brand being extremely popular with careful housewives. In addition Mr. Nussdorfer carries on a large bakery, manufactures ice cream and pies for the trade on a large scale, and has a large trade in this branch of his business. Mr. Nussdorfer founded his present enterprise in 1863, at the corner of St. Clair and Erie streets, removing in 1880 to his present location, where he has good facilities, occupying 11,000 square feet of floor space, employing twenty-five people and five delivery wagons.

THE WILLIAMS PUBLISHING CO.

W. W. Williams, President and Treasurer; J. H. Kennedy, Secretary—Book and Mercantile Printers and Publishers.

One of the most complete and flourishing of Cleveland's numerous printing houses is that of the Williams Publishing Company, No. 145 St. Clair street. The house was founded by Mr. W. W. Williams in 1880, and incorporated, with that gentleman as president and treasurer and Mr. J. H. Kennedy as secretary, June 1, 1887. The capital stock, owned principally by the parties named, is \$75,000, and is invested in a first-class outfit comprising Campbell book perfecting and job presses, a fifty horse-power engine and boiler, a superb composing room equipment and well-appointed bindery.

The building at the number designated is a double one, the Williams Publishing Company occupying the east half, 25 feet front, 100 feet deep, four stories and basement. In the latter are the boiler and engine, on the first floor the business office and folding room, on the second floor the large and busy composing rooms, on the third the bindery, and on the fourth the airy and well-lighted press-room, where a varied and valuable complement of late improved and ingenious machinery makes music "from early morn to dewy eve," and often until late in the night. In every department the best and latest improved devices are employed, and, with a force of sixty-five employes, a vast amount of superior work is executed, the specialties being fine book, pamphlet and catalogue printing. This work—THE INDUSTRIES OF CLEVELAND—is a sample of the better class, and, we have no hesitation in saying, as neat a bit of printing of the kind as was ever produced in Cleveland.

The company do a vast deal of first-class printing for publishers of subscription books, and, having at hand all requisite facilities, give uniform satisfaction to their patrons. Among the best of their bound publications, sold by subscription, is the beautifully gotten-up "Presidents of the Republic," copiously illustrated with steel engravings.

This company are printers of the *Magazine of Western History*, handsomely illustrated with steel plates (noticed more at length under the the head of "The Press" in our introductory chapters), and of *Church Life*, a leading Episcopal monthly. A very popular educational publication issued from their press is "Michael's System of Rapid Penmanship," which is achieving great popularity with pupils, teachers and public school boards.

Business men and others desiring really good and artistic pamphlet, catalogue and other printing, in which accuracy, skill and taste are essentials, will find it worth while to call upon the Williams Publishing Company.

CLEVELAND MALLEABLE IRON CO.,

Manufacturers of Refined Malleable Castings to Order—Near Woodland Ave. Crossing of C. & P. R. R.

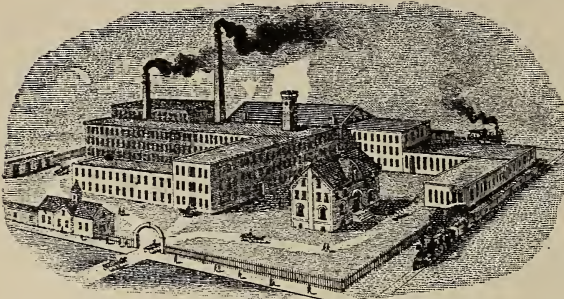
Messrs. L. M. Pitkin, S. C. Warner and Robert Hanna were the founders of this splendid industrial enterprise, established in 1868. At the present date the capital is a quarter million and the officers as follows: President and treasurer, A. A. Pope; vice-president, J. H. Whittemore; secretary, O. K. Brooks; sales agent, L. O. Rawson; superintendents, E. W. Hotchkiss, C. A. Clump.

The company's premises comprise seven acres of land near the intersection of Woodland avenue and the Cleveland & Pittsburgh railroad, conveniently situated with reference to shipping facilities, upon which have been erected ten spacious brick buildings, which include foundry, finishing shops, storage warehouses, packing department, offices, etc. Six hundred people are employed in the various departments, and the product is readily disposed of throughout the Middle, Western and Southern States.

Producing every description of refined malleable iron castings to order in endless variety and quantity, in their manufactures the company has few rivals, theirs being one of the largest and most perfectly ordered establishments of the kind in the United States. As an evidence of their superiority it may be stated that at the National Exposition of Railway Appliances, Chicago, 1883, this company was awarded the bronze medal for the best piece of malleable iron casting—a distinction fairly earned.

THE CLEVELAND RUBBER COMPANY,

Manufacturers of Mechanical Rubber Goods, Clothing, Carriage Drills, Cotton Hose, Clothes Wringers, Etc.—Junction of C. & P. and Nickel-Plate Railways.



This company employs from 250 to 300 people, besides a splendid and costly equipment of appropriate machinery and appliances; turns out vast quantities of the finest goods in all departments, and has a trade extending throughout the United States and into foreign countries. Its present officers are: L. K. McClymonds, president and general manager; M. I. Blanchard, secretary, and R. J. Fuller,

manager sales department. Capital stock, \$250,000. All connected with it are Cleveland men; a fixed and prosperous institution of which this city may well be proud.

Every description of rubber goods, except boots and shoes, for which there is any demand, is manufactured here. Rubber belting, for which they have a most excellent reputation throughout the whole United States—particularly have they been successful in furnishing belting for agricultural machines, saw mills, elevators, etc., that has given such service that the same firms have renewed contracts with them continuously from time to time for the last twelve years.

They manufacture all kinds of hose, garden or hydrant hose, engine hose, fire hose, steam hose, brewers' hose, suction hose, cotton hose, rubber-lined; linen hose, rubber-lined, etc., etc. Also, sheet packing, round and square duck packing, rubber-back packing, gaskets, rings, valves, springs, tubing, cement, wringer rolls, anti-shaft rattlers, and all kinds of moulded and pressed goods to meet the requirements of any patentee or manufacturer.

They also manufacture what is known as the "Leader" clothes-wringer, with hard wood frame, embracing all latest improvements; also the "Cyclone," an iron frame wringer, equally good and similar to the old, widely and favorably known "Eureka." They are also prepared to furnish wringer manufacturers and repairers with wringer rolls, and as they have a large machine shop connected with their works they can supply the iron shafts with the rubber rolls vulcanized immovably thereon complete. Another feature of their manufacture coming rapidly into prominence is rubber floor covering, or matting, a most desirable article, for which a large demand is anticipated.

This company has, within the past few years, also taken up the manufacture of rubber clothing in all its varieties, and is now producing daily several hundred of ladies' garments in the most desirable and fashionable styles of gossamer, electric, transparent, cantons, etc. In vulcanized clothing they are making a large variety of coats, including special coats for firemen, policemen, teamsters, business men,



equestrians and pedestrians, all latest patterns and styles; also horse covers, wagon covers, carriage drills, ice aprons, etc. The feature of this company's clothing is, that while it is waterproof and durable, it is not a loose, baggy, unsightly garment, such as has been the case heretofore, but is made to fit as a tailor-made garment of best style.

From a very modest beginning this company has grown to be one of the largest in the United States. They have twelve acres of land at the junction of the C. & P. and Nickel-Plate railways, a large part of which is covered by their spacious buildings, all of which are three-story brick, built in the most substantial manner. The growth of the company's business necessitates constant additions to and improvements of the works. The offices are spacious and pleasant. Agents, both resident and traveling, handle the Cleveland Rubber Company's goods in all principal cities.

THOMAS H. GEER,

General Insurance Agent—Office, Kelley Block, No. 158 Superior St.



There are few men in Cleveland better or more favorably known to the business community, or more highly respected by all classes for his straightforwardness, manly character and sterling integrity, than Thomas H. Geer, the capable, energetic and successful general fire and life insurance agent, who occupies two well-appointed front offices on the second floor of the Kelley block, No. 158 Superior street. Mr. Geer, a native of Connecticut, has resided in this city for many years. In 1866 he established himself in the insurance business, and it is safe to say that in the twenty-one years that have since elapsed he has been instrumental in conferring upon the people of the city and of the surrounding country millions of wealth in the shape of indemnity that but for his persuasive efforts must have been lost beyond recovery.

Mr. Geer has always aimed to combine conservatism with progressive enterprise—that is, in all his labors to persuade the public to avail themselves of modern methods of insurance, he has never lost sight of that sheet-anchor of security the absolute reliability, and unquestioned solvency of those corporations of which he was and is the agent. As a consequence he now represents seven of the most powerful and responsible companies doing business on this continent, viz: The Commercial Union, Sun and Lion of London, the Rhode Island Underwriters' Association of Providence; the Enterprise Fire and Marine of Cincinnati, the American Fire of New York, and the Mutual Benefit Life of Newark, New Jersey—with combined capital of over \$70,000,000. Those, therefore, who place their insurance with Mr. Geer, have the double satisfaction of dealing with a most courteous and upright gentleman and of a certainty of payment to the last farthing in case of loss of property or life under policy conditions.

OHIO RUBBER AND BELTING COMPANY.

There is nothing connected with modern manufacture that plays a more important part than belting. The leading source of supply in this line of goods in the city of Cleveland is the establishment of the Ohio Rubber and Belting Company, located at Nos. 154 and 156 Superior street. This company are large wholesale and retail dealers in hose, belting, packing and rubber goods and supplies. The list also embraces a full and complete line of rubber clothing, of a very superior quality and most approved styles, a full line of druggists' sundries, gaskets, lace leather, belt hooks, horse covers, wagon aprons, etc., besides a full stock of rubber boots and shoes.

This company has an additional prestige in the trade as selling agents for the Cleveland

Rubber Co., and sole agents for Josiah Gates & Sons' leather belting, and for the Gandy belt. The business, established about two years since, has grown rapidly, until it has assumed a place amongst those of first importance in this city. The company occupy a large double store and basement, and carry a very heavy stock of goods. They have a large and increasing trade throughout the States of Ohio, Indiana, Pennsylvania and Michigan, and are continually extending their popularity as merchants in every manufacturing and mercantile center in the country. Their prices are always as low as the lowest, their goods cannot be excelled, and their business methods are enterprising, liberal and reliable. The manager of this company is Mr. J. D. Connolly, a native of Cleveland, a young man of practical experience in this line of trade, and whose success seems well assured.

IRON ORES.

Menominee Mining Company, Felch Mountain Iron Company, and Chapin Mining Company—Office, National Bank Building—H. P. Lillibridge, Agent.

These companies, of which Mr. Lillibridge is the Cleveland representative, are among the largest miners and shippers of Lake Superior ores.

PEOPLE'S LIVE STOCK INSURANCE ASSOCIATION OF OHIO.

Chas. O. Swope, President; R. G. Rankin, Jr., Vice-President; M. E. Rankin, Secretary and Treasurer; C. H. Middleton, General Manager—Home Office, No. 16 Euclid Ave., Cleveland, Ohio.

Live stock insurance in one form or another is not by any means a new idea, and the right path has at last been found in the People's Mutual Live Stock Insurance Association of Ohio, organized under the insurance laws of the State, whereby square dealing, upright methods, promptitude and absolute indemnity are secured, and at rates so low as to seem almost ridiculous. The officers, named above, are all men of high personal standing and character, capable and experienced in this branch of insurance. The plan of operations of this association is as follows: An entrance fee of three per cent. is charged on the estimated value of the animal proposed for insurance, and fifty cents policy fee. This is for three years on all horses and mules ten years of age or under. If older, insurance can be effected for one year only. Assessments, as a rule, are made quarterly, but no one assessment shall ever exceed one per cent. on the estimated value of the animal insured. The association insures only horses, mules and jacks against death by disease or accident, but takes no risks on car, omnibus, hiring, mining or canal stock, nor upon animals that have heaves, are cribbers, habitual runaways or dummies, or that have ever had blind or mad staggers, or are blind, and consequently cannot be used to speculate upon old, broken-down or diseased animals, or animals exposed to extraordinary hazards. When insured animals are rendered totally unfit for service by accident and killed to prevent suffering, the face value of the certificate is paid. Insurance is transferred with the animal when sold or exchanged, if desired; if not, the seller may place the amount on another animal. All certificates are payable in full without any deduction whatever for any cause. Annual expense dues, payable in advance, are three-fourths of one per cent. on the estimated value of stock insured. Good stock in good hands only is insured, and at a moderate valuation. Since its organization the People's Mutual has issued certificates on over 6,000 head of live stock, valued at over \$1,000,000, has carried its risks during the past year at a rate of 2½ per cent. per annum, and has never yet contested a just claim. These facts speak volumes for the management, and mark this as the cheapest, safest, most reliable and most desirable insurance association of the kind in existence—a conclusion which is thus indorsed by the Ohio Superintendent of Insurance:

“COLUMBUS, OHIO, February 21, 1887.—The best live stock insurance association that we have organized under the laws of the State is the People's Mutual Live Stock Insurance Association at Cleveland, Ohio. Respectfully yours,

“HENRY J. REINMUND, Superintendent.”

Branch offices are maintained in many principal cities, where any desired information will be furnished. The principal eastern office is located at No. 500 Locust street, Philadelphia, Pennsylvania.

WM. EDWARDS & CO.,

Wholesale Grocers—Nos. 137, 139 and 141 Water St., and 318, 320, 322 and 324 Spring St.

This is Cleveland's leading representative grocery house *par excellence*, old, influential, reputable and responsible. It was founded in 1850 by Treat & Edwards, the style changing in 1857 to Edwards, Iddings & Co., in 1864 to Edwards, Townsend & Co., and in 1887 to Wm. Edwards & Co., the present members of the firm being Wm. Edwards, one of the founders, Amos Townsend, J. W. Roof and H. R. Edwards.

Messrs. Wm. Edwards & Co. occupy the immense six-story brick building Nos. 137, 139 and 141 Water street, 66 feet front by 180 feet deep, provided with three capacious freight elevators and all modern conveniences, substantially and elegantly fitted up on every floor. Thirty-eight men—clerks and porters—are employed, and a stock of goods averaging \$250,000 in value is carried at all seasons, the house doing a business that extends territorially throughout Ohio, Pennsylvania, Michigan and Indiana, and aggregating millions of dollars annually. The leading specialties comprise choice teas, tobaccos and cigars, in which they do a vast jobbing trade, acting in the capacity of importers and manufacturers' agents, and handling the best grades of these goods to be found in this market. Promptitude and square dealing have always distinguished every transaction of this great house, the result being that they constantly gain new and seldom lose old customers.

Mr. Wm. Edwards came from Massachusetts to Cleveland in 1852. For the first year of his residence here he was employed as clerk by W. J. Gordon, and then became junior partner in the firm of Treat & Edwards. Few men have worked harder or more effectively for Cleveland's material advancement.

Amos Townsend has resided in Ohio since 1850, and in Cleveland since 1859. Up to 1863 he was in the employ of Gordon, McMillin & Co. as clerk, and in the year last named became a member of the firm of Edwards, Townsend & Co. He is an old and honored citizen, public-spirited and liberal-minded.

J. W. Roof was reared in Cleveland, and from 1858 to 1872 was in the employ of the house of which he is now one of the proprietors.

Harry R. Edwards is a son of the senior member. He graduated with high honors at Harvard in 1883, then became a clerk for Edwards, Townsend & Co., and was promoted to a partnership on the reorganization of the house the present year.

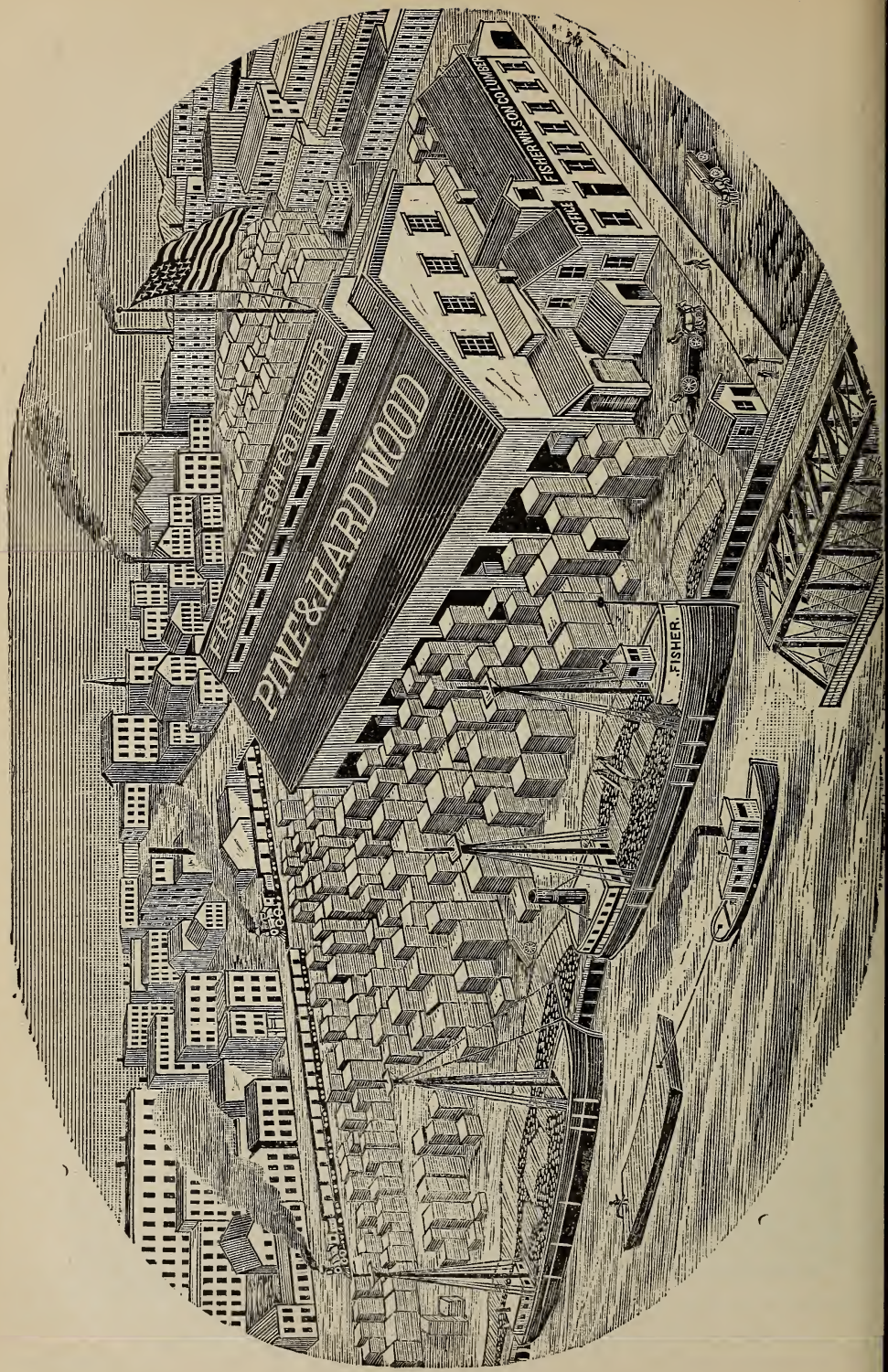
E. E. HAMMETT,

Manufacturing Jeweler—Room 3, No. 204 Superior St.



The production of fine jewelry has become an industry that has greatly developed during the past few years. Formerly the business was almost under the exclusive control of a few firms, but now it is generally divided, and every city of any importance has its manufacturing jewelers. In this city the above named gentleman has become widely known for his many productions in fine jewelry and the setting of diamonds and precious stones. A thorough jeweler in every sense of the word, progressive, reliable and painstaking, he has succeeded in building up a handsome and prosperous trade. In 1877 the business was established at No. 164 Superior, removing to No. 185 Superior street in 1879, and from there to his present location during the past year. Mr. Hammett is a native of Providence, Rhode Island, where he learned his present business, and has been a resident of this city for the past twelve or fourteen years. His present business is confined chiefly to Cleveland and vicinity, and is rapidly increasing in volume. Mr. Hammett is thoroughly reliable, energetic and thorough in all work he undertakes, and patrons may rest confident that whatever work is entrusted to his care will

receive his personal supervision and prompt attention.



THE FISHER & WILSON CO.,

Wholesale Dealers in Pine and Hardwood Lumber—No. 47 Central Way—N. D. Fisher, President and General Manager; E. L. Fisher, Vice-President and Treasurer; A. M. Allyn, Secretary.

Cleveland is quite advantageously situated with reference to the lumber trade, her numerous railroads giving her an outlet to all portions of Eastern and Southern Ohio, Western Pennsylvania, Maryland, Virginia, etc., while the lakes stretch away from her feet to the inexhaustible forests of the Northwest and the British possessions. Among the conspicuous concerns that have built up her trade in this great specialty and are still engaged in extending it to new markets, one of the most prominent is the Fisher & Wilson Company, whose great yard, capable of piling 12,000,000 feet, and storage sheds 140 x 240 feet, are located on Central Way, with office at No. 47. This company, composed of Messrs. N. D. Fisher, E. L. Fisher, A. M. Allyn, George Fisher and C. H. Foote, was incorporated in 1875 with a capital of \$150,000, and has been remarkably successful in all of its ventures. The officers we have already named. A force of some one hundred and twenty-five men are regularly employed, and the annual sales foot up an average of 30,000,000 feet, most of which is shipped to Ohio towns, Pennsylvania, Virginia and New England.

The Fisher & Wilson Company handle every description of rough lumber—hardwood, white and southern yellow pine, poplar, etc., and are at all times prepared to fill orders to any extent, promptly and in the best manner. Their specialty is pine lumber at wholesale, but during the past five years they have added hardwood in response to a growing demand from buyers.

This company is the successor of Fisher, Wilson & Co., founded in 1866, and has a first-class reputation in the trade. The plant is shown on opposite page.

THE CLEVELAND DRY DOCK COMPANY.

J. F. Pankhurst, President; Robt. Wallace, Vice-President; Frank Wright, Secretary; J. B. Cowle, Treasurer—Ship-Building and Repairing—Office and Yard, No. 95 Elm St.

This is one of Cleveland's oldest ship-building plants, founded by Stephens & Presley in 1850, and conducted by them uninterruptedly until 1876, when Mr. Stephens retired, the firm of Presley & Co. succeeding. In 1886 the Cleveland Dry Dock Company became the purchasers, organizing and incorporating with the above-named officers and a paid-up capital of \$150,000, all of the stockholders being Clevelanders. The dock is 300 feet long, 41-foot gates, 12 feet depth on blocks, and one of the most valuable properties of the kind on the lakes, provided with gang-saw mill, planing mill and a complete equipment of steam-hoisting and other machinery suitable for ship-yard use, the entire premises lighted by electricity and every conceivable appliance at hand to expedite the work of building, docking and repairing wooden steam and sail vessels up to the largest tonnage on these waters. A force of seventy-five skilled workmen is employed, and every commission is executed promptly and in the best manner. The dock is in constant requisition by vessels from all of the lake ports requiring overhauling, or for the construction of new ones. At the present time a 2,100-ton steam freighter for Cleveland parties is on the stocks, and will take her place in the ore, coal and grain trade next season.

KINGSLEY PAPER CO.

Manufacturers, Wholesale Dealers in Book, News and Printed Wrapping Paper, Manilas, Paper Bags, Twines, etc.—No. 157 Seneca St.

Messrs. H. F. and Geo. H. Kingsley, natives of New York State, who have resided in Cleveland for twenty years past, established the Kingsley Paper Company in 1884, and within a little more than three years have built up a prosperous trade extending territorially over Ohio, Western New York and Pennsylvania and into West Virginia. Their warehouse space comprises the four-story brick building, 20 x 80 feet, No. 157 Seneca street, and four floors of the adjoining building, thus securing ample room for the storage of stock and such mechanical operations as are required. They carry complete lines of fine, medium and coarse papers, etc., and fill orders to any extent for printed wrapping, plain manilas, paper bags, twines, printer's stock, etc.

M. D. & L. L. LEGGETT,

Counselors at Law in Patent Cases and Solicitors of Patents—Masonic Temple.

Since 1836, it is officially stated, over 400,000 patents have been issued by the United States government. It is unavoidable, therefore, that some of them should conflict with others, and it is also a fact that thousands of them are practically worthless. Up to the past year or two it mattered little in what shape an original patent was issued, if it proved to be valuable all defects could be cured by reissues; hence, the most of the soliciting of patents went to mere solicitors, who were not lawyers, and it would not pay lawyers to do the work. Late decisions of the United States Supreme and Circuit Courts have completely revolutionized the whole practice of obtaining patents. It is now almost impossible to improve a patent by reissue; consequently, if an inventor ever expects a good patent, he must secure it on his original application. The employment of attorneys well acquainted not only with the practice of the Patent Office, but the United States courts in patent cases, is absolutely necessary to any certainty that the patents secured will properly cover the inventions. Often inventors who are not lawyers, simply because they are mechanics, will make their own applications for patents, or get mere solicitors who are not thorough lawyers to apply for them, and generally they might just as well throw their money and their inventions into the fire. The reliable old firm of M. D. & L. L. Leggett, of this city, patent lawyers, have for some time past devoted much attention to soliciting patents, and have achieved wonderful success, partly owing to their industry and strict attention to business, and partly to their long experience, thorough acquaintance with the patent office, and command of extraordinary facilities. Gen. M. D. Leggett, head of the firm, was formerly Commissioner of Patents, and the knowledge then acquired is utilized to the advantage of his clients. Since 1874 he has been at the head of the present house, at first alone, but admitted his sons, W. W. and L. L., in 1875. Mr. W. W. Leggett retired in 1879, and the style of M. D. & L. L. Leggett was adopted in 1882. This firm is in all respects one of the best equipped in the United States, giving exclusive attention to patent business, possesses a complete library relating to patent cases and decisions from 1790 to the present time, and handles 300 to 400 cases annually in the United States courts, besides one application a day in the patent office. Occupying five commodious offices in the Masonic Temple building and employing seven capable assistants, they are amply prepared to give prompt and competent attention to any business intrusted to their hands.

Gen. M. D. Leggett is a native of New York State, served in the Union army, in command of the Third division, Seventeenth army corps, part of the time commanding the corps, and was several times wounded at the front.

CLAFLEN PAVING COMPANY.

H. M. Claffen, President; W. B. Page, Secretary—Paving Contractors—Medina Block Stone Pavement a Specialty—Office, No. 29 Euclid Ave., Quarries at Albion, N. Y.

That Medina block stone pavement has stood the test of years and is the equal, if not the superior of granite, is beyond question. In the early days of Western New York, when the country was yet in an unsettled condition, this stone was first put in use, and may yet be found, solid and substantial after the test of half a century, on some of the streets of her older villages. Generally adopted at the close of the war, it became, and is still recognized, as the leading paving stone in use. The quarries of this company at Albion, cover some thirty acres, with a daily capacity of twenty-five car-loads, and giving employment to upward of three hundred men, are among the most celebrated of their kind in existence, and the largest in that field. The plant necessary for carrying on this large business is very extensive, embracing all modern improvements, with steam power, the Ingersol rock drill, and immense derricks and other apparatus for removing blocks and loading cars. The capital stock of the company, \$50,000, is ample for the needs of the business, and allows of the covering of vast territory and the making of heavy contracts. The company, outside of their quarries, keep constantly employed, both in this city and in various portions of the country where their contracts take them, 125 experienced pavement layers, and no contract is so large but that they can rapidly fulfill the same. All of the gentlemen composing the company are well-known Clevelanders, where they have gained the confidence and respect of all.

SOCIETY FOR SAVINGS.

President, Samuel H. Mather ; Vice-Presidents, Addison Hills, Chas. A. Otis, M. C. Younglove ; Secretary and Treasurer, Myron T. Herrick ; Accountant, Theodore T. M. Warner—Chartered April, 1849—Offices, N. E. Corner Public Square.

One of the grandest bulwarks of public solvency of which any people can boast is found in the savings bank system, which enables even the humblest toiler to deposit at interest the small surplus that by the exercise of economy he manages to retain out of the excess of his earnings over his expenditures. One of the oldest and most substantial savings institutions of this country is the Society for Savings of this city, chartered April, 1849, and now in the thirty-ninth year of its usefulness and prosperity. From the official report of the society, made October 3, 1887, the subjoined figures are taken, from which it will be seen that the institution is in a most flourishing condition:

Resources—Loans on real estate, \$3,957,029.24; loans on United States and State stocks, \$3,300.00; loans on other stocks and bonds, \$1,173,192.00; all other loans, \$15,000.00; United States bond on hand, par, \$2,230,000.00; State bonds on hand, \$500,000.00; other stocks and bonds, \$7,114,504.77; real estate, furniture and fixtures, \$228,800.00; expenses, \$13,766.00; due from banks and bankers, \$889,879.09; specie, \$1,951.25; National bank and United States currency, \$21,622.00. Total, \$16,149,044.35. Liabilities—Individual deposits, \$14,724,255.17; surplus, \$1,000,000.00; undivided profits, \$424,789.18. Total \$16,149,044.35.

The report of the State bank examiners to the Auditor of State, July, 1887, is very full, and comprises points as follows: "The rule of the society is not to loan more than one-half of the market value of land, exclusive of improvements, and we are satisfied that this rule has been uniformly observed. The loans of this kind on June 23, 1887, amounted to \$3,799,941.19, and all are abundantly secured by first mortgages on real estate situated in Cuyahoga county. We examined each and every note and mortgage. It has long been the custom of the society never to press a loan made upon real estate. Such loans may, therefore, run for an indefinite length of time, provided the security does not decrease in value—the mortgagor only being required to promptly pay the interest. The loans upon stocks and bonds, being the second and third items of said statement, on June 23, 1887, amounting to \$1,052,292, and are secured by interest-bearing bonds and dividend-paying stocks. The market value of these securities is, in each case, much greater than the amount advanced upon them. An examination of this class of securities convinced us that they were not only entirely sufficient to cover the amount loaned but having a market value they could readily be converted into cash. Interest on all loans, both real estate and collateral, is payable semi-annually on the second Monday of June and December in each year. The prudence and caution of the Society in making loans is apparent from the fact that out of 1,668 loans outstanding on June 24, 1887, there was only 34 on which interest had not been paid, and since that date 20 delinquents have paid, leaving but 14 on which interest remains unpaid. The United States bonds of the Society consist of \$100,000 in 4½ per cent. registered bonds and \$1,980,000 registered 4 per cents, also \$150,000 4 per cent. coupon bonds. The par value of these bonds is given in the statement, although their market value is much greater. The only State bonds held by the Society are \$500,000 Minnesota State railroad-adjustment bonds. The other bonds consist of county, township, municipal and railroad bonds, as follows:

Ohio county bonds.....	\$1,002,117 63
Ohio municipal, etc., bonds.....	1,453,706 10
Indiana county bonds.....	260,700 00
Indiana municipal, etc., bonds.....	94,600 00
Illinois county bonds.....	478,273 52
Illinois municipal, etc., bonds.....	155,000 00
Iowa county bonds.....	417,600 00
Iowa municipal, etc., bonds.....	311,050 00
Kansas county bonds.....	1,443,500 00
Kansas municipal, etc., bonds.....	560,700 00
Nebraska county bonds.....	344,000 00
Nebraska municipal, etc., bonds.....	62,800 00
Colorado county bonds.....	100,000 00
Colorado, municipal, etc., bonds.....	9,097 15

West Virginia county bonds.....	31,800 00
Michigan county and municipal bonds.....	15,000 00
Railroad bonds.....	85,700 00
Total, June 23, 1887.....	\$6,825,640 40

“The business of the society has steadily increased from its organization up to the present time. The increase during the ten years last past is more especially noticeable by a comparison of the business of the year 1877 with that of 1887.

June 23, 1887, the deposits were.....	\$14,115,413 11
June 22, 1877, the deposits were.....	8,581,473 57

Increase..... \$ 5,523,989 54

June 23, 1887, number of depositors were.....	34,462
June 22, 1877, number of depositors were.....	18,897

Increase..... 15,565

“During the last fiscal year there has been an increase of \$1,429,524.42 in the amount of deposits, and an increase of 2,901 in the number of depositors. The society does not receive deposits from one person to an amount exceeding \$5,000. The average amount on each account on June 23, 1887, was \$415.95, while on June 24, 1886, it was \$401.95, an increase of \$14.00. The earnings and expenses for the year were as follows:

Earnings from interest.....	\$775,703 90
Earnings from rents.....	925 00
	\$776,628 90
Expenses.....	\$47,443 18
Taxes paid.....	18,372 86
	\$ 65,816 04

Total net earnings..... \$710,812 86

“The real estate, furniture and fixtures reported by the society include the property now occupied by it, valued at \$100,000, and also a valuable parcel of land on the north side of the Public Square, upon which it proposes to erect a new building, the present building being inadequate to accommodate the large and rapidly increasing business, (the total daily average of depositors and people transacting business with the society has been estimated from book entries to be about five hundred). For this lot there has been paid the sum of \$128,800. The amount due from banks and bankers was \$851,779.79, deposited in the several National banks of Cleveland. We carefully examined the certificates of the cashiers of the several banks and found that the statement of the society was correct. The amount of currency and specie on hand at the date of the statement we verified by counting the amount on hand at a time during our examination, and comparing this with the receipts and disbursements during the intervals as shown by the cash book. The amount is also certified to be correct by the members of the examining committee of the society, who counted the same on the day the statement was made. The liabilities of the society consist of the sum of \$14,115,413.11 due to depositors; surplus fund \$1,000,000, and \$446,923.63 undivided profits. Total amount of deposits for the year, \$8,765,231.97; total amount of money drawn out, \$7,335,707.55. We found the system of conducting the business of the society complete and practical, with sufficient checks and guards against errors and omissions.”

The list of officers, trustees, finance and examining committees, and corporate members of the society, comprise many of the most substantial and best citizens of Cleveland and Cuyahoga county, whose very names are a guarantee of the probity and soundness of any enterprise with which they may be connected.

ROOT & McBRIDE BROS.,

Wholesale Dry Goods—Nos. 86 to 100 Bank St.

Few, even of the older and better informed residents of the Forest City, are completely posted as to the extent of the dry goods trade conducted here or the vast territory covered by the principal representative establishments in this branch of business. One of the oldest and probably the largest of these is the house of Root & McBride Bros., of which A.

M. Perry & Co. were the founders as long ago as 1849. Morgan & Root succeeded in 1856, the style changing in 1860 to Morgan, Root & Co. Several unimportant changes occurred in the composition of the firm subsequently, and finally the present style was adopted in 1884, the members being Messrs. R. R. Root of the former firm, and L. and J. H. McBride, all experienced and capable dry goods men and polite, energetic and progressive gentlemen, conservative in their methods, yet liberal in all that tends to advance their own and the city's interests, as is evident from the spirit exhibited in the erection of the magnificent business block now occupied by them, six stories and basement, constructed of pressed brick and terra cotta, with massive walls, iron girders, supports and roof, thoroughly ventilated and beautifully lighted, 115 feet front by 150 feet deep, with capacious warehouse in rear of the same height, 33 feet front on Johnson and running through to Lake-street 248 feet—thus giving the concern floor space equal to 63,560 square feet, with every modern facility in the way of elevators, etc., for the rapid and satisfactory handling of an immense trade, the average annual sales aggregating \$5,000,000.

Root & McBride Brothers possess many advantages over most of their competitors here and elsewhere in the West, maintaining skillful buyers in all the leading American markets, controlling the entire product of many leading manufacturers, and importing direct on their own account very largely of silks, velvets and rich dress fabrics of the most famous European weaves; they are therefore always in the lead with late styles and novelties, and prepared to give their customers the benefit of the advantages they themselves enjoy in the matter of early selections and moderate prices. In short, this is a strictly first-class wholesale importing dry goods house in all that the term implies, and the trade will do well to make a note of and profit by the fact. Buyers from all parts of the country—Ohio, Indiana, Illinois, Michigan, West Virginia and Western Pennsylvania.—flock here for their supplies, and it is a good proof of the firm's excellent style of doing business that their circle of customers constantly widens with ever-increasing influence.

EGGERS BROS.,

Manufacturers of Building Brick—Petrie St. and Chard Ave.

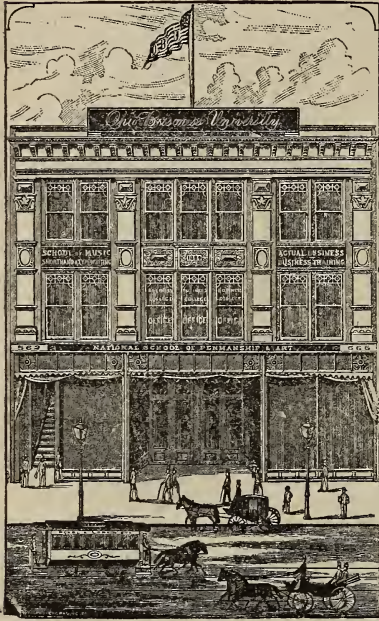
The origin of the brick is lost in the mists of antiquity, and the inventor's name is known no more among men; but that he conferred an inestimable boon upon all the generations that have since played their parts and vanished from the stage of life, none will dispute. Amid all the changes that have occurred since the Tower of Babel arose upon the plain of Palestine—despite the mutations of religious beliefs, the rise and fall of dynasties, devastating wars, the onward march of civilization and the evolution of invention and improvement, the brick has maintained its place as the king of all building materials, and, for all that can now be foreseen, is likely to continue its reign to the end of the chapter.

The most prominent manufacturers of bricks in the vicinity of Cleveland are Messrs. F. H. and William Eggers, whose immense yards cover twenty-five acres of ground, and whose neat office is at the corner of Petrie street and Chard avenue. The brothers reside together at No. 141 Seelye avenue, near Woodland avenue, and are good citizens, honored and respected by those who know them best. Their manufacturing plant embraces, besides the twenty-five acres of valuable land (containing a twenty-six foot seam of superior clay) above referred to, five drying sheds 32 x 200 feet each, two stock brick sheds 32 x 225 feet each, two kiln sheds 72 x 200 feet each, one of Chambers Bros. & Co.'s patent cut-off press brick machines, two of Martin's common brick machines, cable car track and equipment for the bringing of clay to the machines, a sixty horse power engine and one hundred horse power boiler—in all valued at \$26,000. From sixty to seventy men and twenty-four wagons are employed, 9,000,000 bricks, valued at about \$50,000, are made annually and sold in this city exclusively. This firm supplied the bricks for the Huck avenue, Scranton avenue, Woodland hills and Siegel street school-houses, the new Payne block on Superior street, Stoppell's brewery, the Brooklyn Street Railway Company's barn on Woodland avenue, the Jewish Orphan Asylum, the M. A. Hanna block on Woodland avenue, near Willson, and many other prominent architectural ornaments of Cleveland. That the bricks made at these yards give satisfaction to builders, contractors and property-owners is evident from the demand, which steadily increases year by year.

Mr. F. H. Eggers has lived here for twenty-two years and his brother William for twelve years. They established their yards first in 1881, on East Clark avenue, removing to the present location in 1885.

OHIO BUSINESS UNIVERSITY.

562 Pearl St., Cleveland, Ohio.



The prosperity of a thorough school of practical training is surely not a thing calculated to excite wonder or surprise. If such institutions had found their origin in the fancy of some enthusiast, the success which they now enjoy might be looked upon as a sort of miracle, resulting from that distinctively American social disease, known as a *craze*; but being called into existence by actual necessity—being the outcome of our practical age—the unparalleled growth which has attended them can only be regarded as a natural and fit accompaniment of recognized merit.

The history of one business college is usually the history of all. They have a common object—that of preparing young and middle-aged men and ladies for the real duties of business life—and in the proportion which they accomplish this object is their prosperity generally measured.

Among the representative schools of this class must be mentioned the OHIO BUSINESS UNIVERSITY. This institution was originally established and known as the Brooklyn Business College, owned and conducted by Prof. F. D. Gorsline. Its career dates back to October 1, 1884. While started on a modest basis, it steadily increased in size, influence and general prosperity, until, in March, 1886, more commodious quarters were required, a partner was admitted, and the school removed to its present central location on Pearl street, and the title changed to "UNIVERSITY." With enlarged facilities and

improved and constantly improving methods and conveniences, the school has enjoyed a substantial and solid development. The partnership existed for some time, but not proving any advantage to the school, the entire management has again devolved upon Prof. Gorsline, who is deserving of all credit for his conscientious and able efforts to build up a BUSINESS UNIVERSITY which shall do honor to the city in which it is located.

The school is elegantly furnished and supplied with every modern appliance which tends to the comfort and welfare of the student. Occupying the second and third floors of the commodious Pearl block, 562, 564 and 566 Pearl street, there is ample room to accommodate many hundreds of students. The curriculum embraces the following practical branches: Book-keeping, penmanship, commercial law, business arithmetic, spelling, reading, grammar, rapid calculation, correspondence, mechanical drawing, shorthand, type-writing, elocution, music, German and art.

Its faculty is composed of teachers whose capability for the work is undoubted, and who stand high in their respective specialties. The list is as follows: F. D. Gorsline (graduate of Grand River Institute, practical teacher and book-keeper of 13 years' experience), president and proprietor, superintendent of course of instruction, principal of the actual business department and professor of penmanship, single and double entry book-keeping, science of government and political economy.

T. Nelson (formerly teacher in Chicago), principal of theory department and teacher of arithmetic, penmanship and book-keeping

S. E. Bartow (graduate of Oberlin College department of penmanship—one of the world's finest penmen in all branches of the art), principal of the penmanship department, corresponding secretary, engrosser and teacher of business correspondence and social letter-writing.

W. D. Showalter (late of Peirce College of Business, Philadelphia, and editor of *The Pen-Art Herald*), assistant teacher of plain and ornamental penmanship.

Wm. Heil (a graduate of the Ohio Business University of Cleveland, and head book-keeper of the West Side Banking Co.), assistant principal of the banking department.

Mrs. F. D. Gorsline (late of Oberlin Conservatory of Music), teacher of vocal and instrumental music and short-hand.

E. W. Laird, Esq., (of the law firm of Marvin, Laird & Norton,) teacher and lecturer on commercial law.

C. W. Richards (a practical mechanical draftsman of twenty-two years experience, and superintendent of the drafting department of the Nickel-Plate railroad), principal of the department of mechanical and architectural drawing.

Mrs. P. Laur (formerly teacher of German in the Cleveland High School, and graduate of Leipsig Conservatory), instructor in the German language.

Hattie M. Gorsline, stenographer, teacher of electric short-hand and type-writing.

M. A. HANNA & CO.,

Successors to Rhodes & Co.—Coal, Iron Ore and Pig Iron—No. 101 St. Clair St.

Cleveland is one of the most important of American coal and iron markets, and the trade is represented by numerous houses operating on a large scale, one of the most conspicuous of which is named at the head of this article, and is composed of Messrs. M. A. and L. C. Hanna, A. C. Saunders and C. C. Bolton, all Ohio men and residents of this city. The firm in 1885 succeeded the noted old house of Rhodes & Co., and ranks with the heaviest producers and shippers of the West, owning iron mines at Marquette and in the Gogebic district. They employ 2,500 operatives and put upon the market millions of dollars' worth of fuel and iron, both ore and pig, annually, shipping heavily not only to the lake ports, but to manufacturing points all over the country.

The character of the concern may be inferred from the personal and business standing of Mr. M. A. Hanna, its head, who is president of the Union National Bank, president of the Chapin Bolt and Nut Company, director in the Cleveland and Mutual Transportation companies, president of the St. Paul and Pacific Coal and Iron Company of St. Paul, Minn., president and a leading stockholder of the West Side Railway Company, a director of the Globe Iron Works Company, owner of the Cleveland Opera-house, and more or less prominently connected with various other public and private business enterprises. Mr. L. C. Hanna is his brother.

THE MEXICAN MINING AND DEVELOPING COMPANY.

Principal Office, Nottingham Block, No. 89 Euclid Ave., Room 11—Colonel J. S. Morgan, President and General Manager; J. Koehler, Treasurer; F. B. S. Morgan, Secretary.

The location of the mining property controlled by this company, and known as the Beuna Vista mines, is in Sonora, Mexico, long celebrated as one of the greatest gold-producing districts in the world. The company was organized for working and developing this valuable property in October, 1886, under the laws of Arizona, with a capital stock of \$1,250,000—two hundred and fifty thousand shares at five dollars per share, par value—and since its organization has rapidly developed and placed the mine on a solid-paying basis. The ore averages \$23.70 a ton, while the entire mine throughout will average \$18.00 per ton clear. The mountains wherein this mine is located present every indication of containing large deposits which have not yet been reached, and the outlook for all interested is one of prosperity. Colonel J. S. Morgan, the president and founder of the company, is a New York gentleman, having served with distinction during the rebellion in the Nineteenth New York volunteers. At the close of the war he took up his residence on the Pacific coast and in Mexico, where he became identified with mines and mining interests, and his vast experience has been instrumental in the development of the Beuna Vista mines. Mr. Koehler, the treasurer of the company, is an old Cleveland resident, and is also interested in the Cleveland Provision Company. F. B. S. Morgan, a son of the president of the company, and now its secretary, was for many years connected with the New York *Ledger*, and until his acceptance of the present position was captain of Company C, Thirteenth regiment of Brooklyn, where he was generally respected. In view of the careful management and development of the company's interests and the large deposits in view, which only require thorough working, we can but prophesy a flattering success for the company and all interested.

STERLING & CO.

Carpets, Floor Oil Cloths, Curtains and Upholstery Goods—No. 10 Euclid Ave.



Nothing could give a better or more satisfactory indication of the advancement of Cleveland, social and material, than the growth of the trade in the above-named goods since Mr. F. A. Sterling first engaged in it as clerk with Wick & Beckwith, on Superior street, thirty-seven years ago, at which time twenty pieces of carpet was considered a good stock for this market. From so small a beginning has been built up the carpet trade of Ohio, aggregating many millions of dollars annually. Mr. Beckwith died in 1876, when the famous old house was succeeded by Sterling & Co., Mr. Sterling having for twenty years been the junior partner of Mr. Beckwith. The present firm is composed of Messrs. F. A. Sterling, George P. Welch, W. R. Havens and George W. Keim, and the concern is one of the largest and most reputable in the country, employing about 100 persons and doing a business of nearly a million dollars a year. The splendid carpet warehouse at No. 10 Euclid avenue is the largest of the kind in America, 90 feet wide by 400 feet in length. Two large three-story buildings adjoining and fronting on Hickox street are devoted to storage purposes and to the wholesale department, whence constant heavy shipments are made to dealers in all portions of Ohio, Indiana, Michigan and Western Pennsylvania. The retail department is local headquarters for these goods, and no lady in Cleveland thinks of buying until she has inspected the styles here exhibited—an amiable weakness shared by her town and country sisters in all the region round about.

The stock embraces every description of imported and American carpets, floor cloths, curtains and upholstery goods, from the rarest products of Persian and Turkish looms to the cheapest domestic weaves, the mere enumeration of which would occupy more space than we have to spare. Both wholesale and retail buyers will find here just the goods and figures they want.

EUCLID AVENUE OPERA HOUSE.

Gus Hartz, Manager—No. 78 Euclid Ave.



The Euclid Avenue Opera House is Cleveland's leading and most fashionable place of amusement, and, on the whole, is one of the most beautiful, attractive and convenient in the United States, tastefully and elegantly designed, and finished and artistically decorated without and within.

This fine edifice was erected in 1873 by a stock company, under the management and personal supervision of the noted empressario, Mr. J. A. Ellsler. Mr. M. A. Hanna became the owner by purchase in 1875, and the house was conducted under the business management of Mr. L. G. Hanna until 1884, when

the present manager, Mr. Gus. Hartz, leased and took charge of it, since which time it has grown in popularity and patronage until it is now regarded, and justly, as one of the best paying and most desirable properties in Cleveland. This opera house, since coming under the management of Mr. Hartz, is the best stocked in the country, the properties, scenery, etc., being very fine, and the curtain seldom rises without generous bursts of applause in admiration of the magnificent stage settings disclosed to view. Massive, fire-proof and an architectural ornament to the city, Clevelanders have reason to speak of it with pride. The best attractions of the highest class on the road play regular engagements here every season.



THE EBERHARD MANUFACTURING CO.,

Manufacturers of Carriage, Wagon and Saddlery Hardware—Refined Malleable Castings to Order—C. & P. R. R., near Woodland Ave.

The works of the above-named company, covering with their appurtenances thirteen acres of valuable land, provided with railway switches and all conveniences, comprise the largest plant of the kind in the United States, probably in the world. The buildings, including foundry, machine and finishing shops, packing department, storage warehouses, boiler and engine-houses, offices, etc., are twenty-seven in number, all of brick, solid, substantial, handsome, and arranged in the most convenient manner for carrying on the various operations incident to the business. In all six hundred persons are employed, and the output, which is very large, is sold in every North and South American, European and Australian market.

The specialties of the company embrace all conceivable devices in malleable iron, carriage, wagon and saddlery hardware, to which novelties are constantly being added, all of which are popular with the trade. They also make to order any desired style of malleable castings in quantities to suit, guaranteeing superior material and workmanship.

Mr. A. A. Pope is president and Mr. P. Champney secretary. The capital is \$400,000. The company was incorporated in October, 1879, and proved a success from its inception.

THE ALBION STONE COMPANY.

H. M. Claffen, President and Treasurer; W. B. Page, Secretary; L. D. Leonard, General Manager.—Paving Stone, Curbing, Flagging, Platforms, Sills, Caps, etc.—Office, No. 29 Euclid Ave.; Quarries at Albion, Orleans Co., N. Y.

Medina stone has long been celebrated for building and paving purposes. Hard, without the brittleness characteristic of other varieties, it is much sought after, and the celebrated Medina and Albion quarries have for the past half century shipped their products all over the United States, even Canada receiving her share of this favored variety, as no stone has yet been found that will take its place for the purposes for which it is used. The organization of this company in 1886, with a capital of \$50,000, has been the direct means of largely increasing the business in Medina stone throughout Ohio and the West. With a capacity of twenty-five car loads a day, and giving employment to 300 quarrymen and helpers, it ranks as the largest of its kind in that locality. H. M. Claffen, president and treasurer of the company, is an old resident of this city, where he is prominently connected with many leading organizations. W. B. Page, secretary, is also a Clevelander, and a thorough business man in every particular. The superintendence and management of the quarries are under the able direction of L. D. Leonard, who has added many improvements in the production of the rough stone.

During the past season business has been exceedingly prosperous, with indications of a continuance in this direction, as the company's reputation and the quality of stone handled well merit the support which has been given them.

JOSEPH STAFFORD & SON,

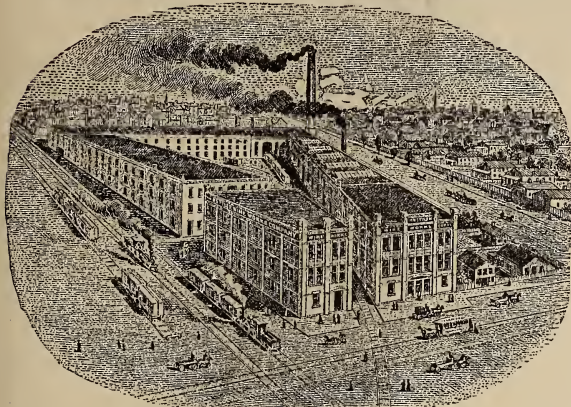
Manufacturers of Choice Family and Chemical Soap—Dealers in Tallow—Nos. 400 and 402 Canal St.

It is forty-one years since Messrs. Wilson Lee and Joseph Stafford established themselves in Cleveland as dealers in tallow and manufacturers of soap. Nine years later Mr. Stafford became by purchase sole proprietor, Mr. Lee retiring, and subsequently Mr. Joseph R. Stafford was admitted, the style changing to Joseph Stafford & Son, as at present. The elder Mr. Stafford came to Cleveland from England in 1842, and has ever since been engaged in the same business. The son was born and reared here, and trained to his present vocation from boyhood. The original investment of capital in these works did not exceed \$25,000, and the output was about three thousand pounds of soap per week. Now the plant requires for its accommodation a roomy two-story brick building 100 x 200 feet square, filled with improved machinery and appliances, employs ten men, and puts upon the market from 100,000 to 200,000 pounds of superior goods every seven days, dependent upon the season and the demand.

The leading specialty of the house is the famous "Champion" soap, popular wherever introduced, and handled largely by the trade in Ohio, Michigan, Kentucky, West Virginia and Pennsylvania.

THE W. S. TYLER WIRE WORKS CO.

W. S. Tyler, President; E. H. Allen, Secretary and Treasurer—Successors to W. S. Tyler—Manufacturers of Wire Cloth and Wire Goods, Fourdrinier and Cylinder Wires, etc.—Office and Works, Nos. 754, 756 and 758 St. Clair and 89, 91 and 93 Wason Sts.—St. Clair St. and C. & P. R. R.



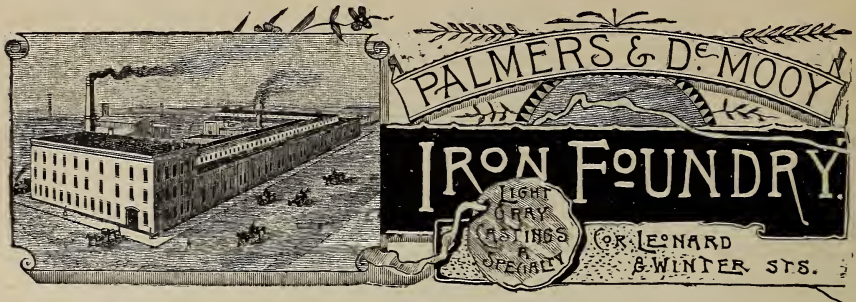
The great wire works here with illustrated present one of the best examples extant of what industry, energy and upright business methods, faithfully persisted in, may accomplish. Mr. W. S. Tyler, now president of the W. S. Tyler Wire Works Co., began the manufacture of wire goods on a small scale in 1872. He toiled early and late, gradually increasing his facilities, until two or three years ago he found himself at the head of the largest and most prosperous establishment of the kind in Ohio, doing an immense business and with trade connections

throughout the States, Canada, Mexico, etc. The labor of managing the factory and its commercial relations made it a measure of expediency to form a company, which was organized and incorporated in 1885, with a cash capital of \$175,000. The premises occupied by the works comprise nearly two acres, eligibly situated with reference to railroad transportation. The buildings, of brick, are eight in number, the two principal structures three stories in height, all provided with steam power and a vast accumulation of improved machinery adapted to this class of manufactures. One hundred and seventy-five skilled operatives are employed, and the output is correspondingly large and comprehensive, embracing complete lines of painted wire cloth, locomotive wire cloth, smut and mill screens, paper mill wires, steel and brass riddles, coal, ore and mining screens, etc., office railings, and, in short, every description of wire goods, iron, brass and steel, together with architectural brass, iron and wire work, castings, elevator protection railings, etc. Material, design and workmanship are first-class and equal to any produced in this country.

THE WEST SIDE FURNITURE COMPANY,

Manufacturers of All Kinds of Furniture, Scrolled and Turned Wooden Ware and Wooden Mantels, Desks for Offices, Banks, etc.—Specialty, Clark's Surgical and Gynecological Table—Nos. 40 and 42 Orchard St.

The West Side Furniture Company is one of the most promising of Cleveland's industrial ventures, established in 1872 by the present proprietors, Messrs. Fred. Dress, A. Claus and Ernest Joergens. In 1876 Mr. Dress withdrew from the firm, leaving the membership as at present. The factory occupies the two-story frame building, 44 x 60 feet, Nos. 40 and 42 Orchard street, which, however, is already inadequate to the demands of the trade, and is to be enlarged in preparation for next season's business. The works now employ a force of fifteen men and a fine and complete equipment of machinery, lathes, etc., operated by steam. The productive capacity will be greatly increased when the plant is enlarged. The output for the past year was valued at \$20,000, and embraced every description of, fine and medium furniture, scrolled and turned wooden ware. A leading specialty is made of Clark's celebrated surgical and gynecological table, the most perfect and convenient thing of the kind ever devised, and which is already in use by the most prominent surgeons throughout the country. It is five feet ten inches long in surgical, and four feet in speculum position, two feet wide, 30 inches high, constructed of black walnut and antique oak, covered with best leather, with malleable nickel-plated irons, ornamental and elegant in design and appearance.



Conspicuous among the large industrial establishments of Cleveland, devoted to the manufacture of specialties, is the Palmers & De Mooy iron foundry, occupying the premises bounded by Leonard, Winter and German streets, the great foundry building alone being 240 x 250 feet in area and three stories in height, and the plant representing a cash investment of \$50,000. The works were first started in 1882, at Merwin and Leonard streets, removing to their present location four years later. The equipment of machinery and appliances is all that could be desired, and the firm give employment to 175 men in all departments, the annual output averaging \$300,000 in value, orders being filled for manufacturers of light machinery, etc., all over this and adjoining States. Eighteen to twenty tons of pig iron are used daily.

The specialties to which most attention is given comprise a great variety of castings for the use of sewing machine and electrical apparatus manufacturers—light, strong and graceful work that involves great skill and care in its production. Among the firm's regular and most extensive customers are the Brush and other electric light companies and most of the leading makers of sewing machines at home and abroad.

The firm is composed of Messrs. V. T. Palmer, Geo. H. Palmer and Wm. De Mooy. Mr. Geo. H. Palmer is a native of Wisconsin, came to Cleveland in May, 1860, and is a practical mechanic. He has charge of the office work. Mr. De Mooy was born in Holland and emigrated to Cleveland in childhood. He is shop superintendent. Mr. V. T. Palmer is an Ohioan by birth, came to Cleveland when a small boy, and has been with this firm since its inception.

FOREST CITY PACKING CO.

Works, Junction of C. & P. and N. Y., C. & St. L. Railroads—Office, South Water St.



This company are the sole owners and manufacturers of the Patent Combination and Heston Cone packing. This company was established but a few years ago, yet its growth has been wonderful, the merits of its goods being known the country over. These packings are constructed upon the right principle, and their durability and other advantages over other packings are seen and admitted by all practical engineers. The trade of the company extends all over the country, and it is supplying the largest establishments in the Union with its goods.

These packings were awarded the grand medal of the American Institute for superior excellence, and are made in variety suitable for locomotives, steamboats, pumps, steam hammers, ice machines and all kinds of stationary engines.

H. E. LEVEAUX,

Railroad and Mining Supplies—Room 15 Mercantile Bank Building.

Mr. Leveaux, who is of English birth, has resided in the United States for twelve years past, engaged for the greater portion of that time in vocations connected with railroading, thus gaining a practical knowledge of the wants and requirements of that interest—a knowledge that in his present calling has proved of immense advantage to him. Establishing himself here in 1886 as a dealer in and manufacturers' agent for railroad and mining supplies, machinery, tools and appurtenances, he has been very successful, building up a trade of between \$50,000 and \$75,000 the first year on a capital of \$25,000. His best field is in the Western railway centers, though his trade extends all over the country, most of his purchases being made at Pittsburgh and Youngstown and shipped to order of buyers. His facilities are first-class.

UNION CARRIAGE AND TOY CO.

Joe Iglauer, B. Forchheimer—Importers of Willow-ware and Toys—Manufacturers' Agents of Children's Toy Vehicles, etc.—No. 78 St. Clair St.

As the world grows older it grows wiser, at least in those things which most nearly concern domestic happiness, and as a consequence the children come in for a greater share of consideration now than at any previous period in the history of the human race, as is evidenced by the multiplication of means for their amusement and instruction. To such an extent is this feeling cultivated that the once despised and obscure business of making toys for the rising generation has grown into a great industry with many branches, involving the employment of thousands of skilled operatives and millions of capital, and the demand for standard goods and novelties continues to augment from season to season.

The most conspicuous house in Cleveland dealing in this class of goods is the Union Carriage and Toy Company, of which Messrs. Joe Iglauer and B. Forchheimer are proprietors, occupying the commodious three-story building No. 78 St. Clair street, 30 x 110 feet, and carrying a vast and varied stock. The firm are importers of all the finer grades of willow-ware and toys, and manufacturers' agents for the sale of all the novelties in children's carriages, express wagons, doll carriages, rocking horses, shoo-flys, velocipedes, carts, wheelbarrows, sleighs, base balls, bats, croquet sets, hammocks, and a thousand other items which we have not space to enumerate, but which the trade and the "men and women of smaller growth" will readily appreciate. All of the neatest, most attractive kinds are supplied to dealers at rock bottom figures.

Both members of the firm are of German birth, Mr. Iglauer coming to Cleveland in 1868 and Mr. Forchheimer in 1880. Both are pleasant, obliging, yet prompt and energetic business men. The house was established in 1882, and already enjoys a large and prosperous trade throughout Ohio and adjoining States.

THOMAS QUAYLE'S SONS,

Ship Builders—Office and Works, Central Way.

Thomas Quayle's Sons have been building lake vessels at their present location since 1847, and have also built for themselves a staunch and seaworthy reputation second to that of no similar house in this country. Craft of every description from their yards fly the stars and stripes in every port and on every navigable sheet of water between Duluth and the Gulf of St. Lawrence, and the first complaint as to materials, workmanship and model is yet to be filed. The yards of the firm occupy six acres of ground and are provided with every desirable convenience, including two thoroughly equipped mills for the sawing and preparation of timber. From 200 to 250 skilled workmen and laborers are employed, and a vast amount of building and repairing is done annually. A specialty is made of the construction of large vessels, steam and sail, for the grain and ore trades, five of which were completed during the past season, and they are now building three more for Buffalo parties, averaging 2,000 tons carrying capacity. Particular attention is given to the building of wooden steamers. The firm is composed of three brothers, Thomas E., George L. and William H. Quayle, native Clevelanders, who have devoted their entire lives to this pursuit. Their skill as shipbuilders and standing as business men has never been challenged.

ECLIPSE ELECTROTYPE AND ENGRAVING COMPANY.

Andrews & Aust, Proprietors—Lithograph Building, Corner St. Clair and Wood Sts.



Although established so late as the fall of 1882, this house is recognized as a representative institution, taking rank with its oldest competitors in the industry in which it is engaged. The business was originally commenced by C. W. Dean, who conducted its affairs until the early part of 1866, when he was succeeded by Messrs. Edgar L. Andrews and Henry L. Aust, who operate the concern under the name of the Eclipse Electrotype and Engraving Company. Their foundry, in the Lithograph building, is among the largest and finest in the country, and is magnificently lighted by twenty-

two large windows. The works are supplied with all the best machinery and appliances that can be advantageously employed. Their equipment is such that they are enabled to produce the very finest work, the rapidly increasing demand clearly indicating the hold they have secured upon the popular favor. Electrotyping and engraving is done in all its branches, the most perfect processes being used, the most accomplished operatives engaged, and great pains taken to obtain the best effects and results of which the art is capable. Messrs. Andrews & Aust supervise the completion of every order, and maintain the highest standard of production in each line. The services of the firm may be secured with every confidence that their work is equal to that of any rival establishment and their prices uniformly lower. Their liberal and honorable methods have already commended them to the support of an extended list of patrons, embracing publishers, printers, manufacturers and others. They guarantee satisfaction in every instance, and make a speciality of fine job and cut work. All orders and inquiries by mail or telephone (No. 1916) receive prompt and careful attention, and correspondence is earnestly solicited.

J. R. TIMMINS & CO.,

Proprietors of Cleveland Oil Works—Refiners of Fine Lubricating and Illuminating Oils—Office, Nos. 7 and 9 Superior St.

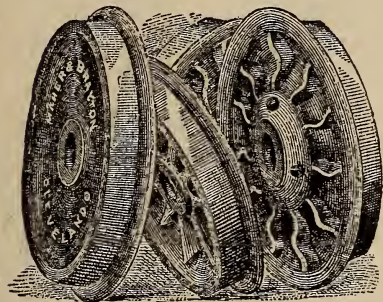
The above firm, composed of Messrs. J. R. and A. R. Timmins, was established twenty-one years ago, on the South Side, removing in 1877 to the Hardy block, Euclid avenue; thence in 1880 to the Atwater building, and finally, in 1881, to its present location, Nos. 7 and 9 Superior street, where it controls ample office and warehouse facilities and is doing a flourishing business, principally with the lake ports and the maritime interest.

The firm make specialties of the higher grades of lubricating and illuminating oils, of which immense quantities are put upon the market and meet with great favor at the hands of the trade and of consumers, who thus evince their appreciation of an industry which, without being in any sense a monopoly, supplies its customers with the best possible goods at reasonable prices. The works are located at North Clarendon, Pa., in the heart of the oil region, and are among the most extensive and best equipped in existence.

The Timmins brothers are Canadians, who settled here in 1863.

CLEVELAND WHEEL AND FOUNDRY WORKS.

Maher & Brayton, Proprietors—Manufacturers of Car, Engine, Truck and Tender Wheels, Railroad Machinery and Rolling Mill Castings, Street Railway Wheels and Turnouts, and Their Own Patent Chilled Face Railroad Frogs—Office No. 20 Carter St.



The Cleveland wheel and foundry works, established by Bowler & Maher in 1860, are among the most extensive and famous industrial concerns of the kind in the United States, the premises covering, including buildings and yards, three acres of ground. The present firm, composed of Thomas Maher and C. A. Brayton, succeeded Bowler, Maher & Brayton in 1880, Mr. Brayton having been admitted in 1870. The working plant is a very complete one, comprising within itself every conceivable facility for the quick and accurate production of castings of all kinds, and gives regular employment to 250 men. The specialties embrace a full line of car, engine, truck and tender

wheels, of the best possible material and workmanship, constructed with the latest improvements, and popular with locomotive and car-builders and railroad companies, as is shown by their extensive use on nearly every American road. The firm also make to order every description of heavy machinery and rolling-mill castings, for which there is a steady and increasing demand on the part of mill men and others East, West and South.

No foundry could well be more complete than this, and few have greater capacity. The average day's work is 70 tons of castings, which includes 150 wheels. Particular attention is given to making large and heavy castings, and the greatest care exercised to render satisfaction.

BOUQUET SOAP COMPANY.

J. J. Vautier, Manager—Manufacturers of Fine Laundry Soap—No. 48 Merwin St.

Occupying the ground floor at the above location, the Bouquet Soap Company is steadily building up a large business on merit alone. The trade as yet is principally with dealers in the city and surrounding towns, but is gradually extending and must eventually reach every point in Ohio and adjacent States, and possibly in the Union. Mr. J. J. Vautier, the manager, an experienced soap maker, established these works on a very modest scale in 1885, and has reason to feel proud of the success so far achieved, principally through his personal efforts.

The specialties of the Bouquet Soap Company comprise an unequaled line of fine laundry soaps, of which the leading brands—"Bouquet" and "Dry"—are wonderfully popular with laundrymen and private consumers. "Bouquet" is a cold soap—that is, it is not boiled, but mixed and pressed cold—is absolutely free from adulterations, pure white in color, pleasant and attractive. The dry soap is a fine white soap powder, packed in paper boxes, neat, convenient, and a favorite soap.

D. W. LOUD,

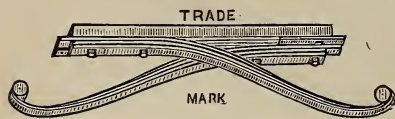
Jobber and Wholesale Liquor Dealer—Cased Liquors and Wines of all Descriptions—No. 169 Ontario St.

Mr. Loud has been located here in the wholesale liquor trade since 1858, and is one of the oldest as well as most prominent, reputable and extensive wholesale dealers and jobbers in the city or State. Mr. L. owns the building No. 169 Ontario street, two stories, 22 x 100 feet, and utilizes the ground floor and cellar for salesroom and storage purposes, carrying a large, varied and valuable stock of imported wines, liquors, cordials, etc, and making a specialty of cased goods of every description appropriate to his trade, which is general in the city and surrounding towns in Ohio. Some of his wines are very fine and worthy of the special attention of *connoisseurs*.

Mr. L. is a native of Massachusetts, and has resided in Cleveland for nearly thirty years.

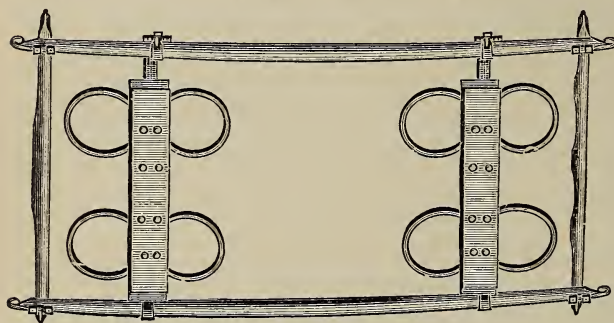
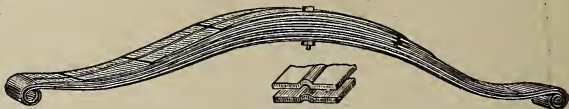
FOREST CITY SPRING WORKS.

Geo. Cooper & Co., Proprietors—Manufacturers of Carriage, Wagon and Seat Springs.
—Works, Corner Main and Center Sts.—Office, No. 88 Superior St.



The Forest City Spring Works were established about 1869 by Mr. George Cooper, the carriage and saddlery hardware dealer at No. 88 Superior street. These works have contributed largely to Cleveland's fame abroad, and rank with the important industries of the city, employing sixty men and covering an area of 200 x 250 feet, fitted up in the best manner and equipped with all necessary machinery, and turning out vast quantities of vehicle springs of all kinds annually, which are supplied to the trade all over the continent, and meet with great favor everywhere.

These works are the only licensed Ohio manufacturers of the patent ribbed spring for trucks, omnibuses and heavy express wagons—the best and most durable ever devised. They also make to order for the trade a variety of other



first-class springs, among them the Brewster patent side-bar, the celebrated Timken (illustrated herewith), the Howe patent side-bar, Groot's patent cross, the Crusader, English crucible steel springs, the patent head seat spring, elliptic, Concord, platform and half-scroll springs, buck wagon springs, sulky springs, seat springs, side-bar wagon springs, phaeton and coach C

springs and many others, together with loose and solid scroll shackles, platform, Concord, loop and barrel shackles, etc.

Manufacturers of vehicles and dealers in carriage and wagon hardware will find it profitable to communicate with the Forest City Spring Works, who manufacture the Timker, Brewster, Howe, Groot and patent ribbed springs under licenses of patentees and owners for the trade. Illustrated catalogue sent on application. Address Geo. Cooper & Co., No. 88 Superior street.



THE SUMMIT BANK COAL CO.,

Miners and Shippers to the Trade of Massillon and Summit County Coal—Office, No. 121 Superior St.—D. W. Cross, President; Isaac Newton, Secretary, Treasurer and Manager.

This prosperous company, which supplies fuel to the trade only, was established in 1885, and owns valuable mines near Cottage Grove lake, Summit county, employing from seventy-five to eighty men and handling 250 to 300 tons per day of as good soft coal as comes to this market, and which is in growing demand for heating and steam generating purposes, being in great favor in Cleveland, Akron, and all points along the Valley railroad.

The company is in good shape financially, having a cash capital of \$10,000, upon which liberal dividends are realized. The officers are Mr. D. W. Cross, president—a Connecticut man—and Mr. Isaac Newton, secretary, treasurer and manager.

WILLIAM SCHAKE,

Book Binder and Blank-Book Manufacturer—Ruling, Gilt-Edging and Embossing—
Lithograph Building, Corner Wood and St. Clair Sts.



In these days of much book-making the calling of the binder has developed into a branch of the fine arts and is no longer a mere mechanical trade, as any one may see by the magnificently bound volumes that grace the shelves of every book-store and library in the land. There are, of course, gradations in this as in all arts combining the useful with the ornamental, some binders possessed of originality and taste having reached a higher plane of perfection than their less gifted brothers, and it is to one of this fortunately skillful class that we would in this place direct attention, viz: Mr. William Schake, who some months ago removed his large and very complete establishment from No. 145 St. Clair street (where he had been located since 1882) to the Lithograph building, corner of Wood and St. Clair

streets, where he occupies two fine floors, 40 x 60 feet each, employs fourteen hands and a complete equipment of improved modern ruling, embossing, trimming and other machinery, and is prepared with every desirable appliance and facility to execute in superior style and at short notice all orders for plain and ornamental book-binding, blank-book manufacturing, ruling, gilt-edging, embossing, etc. We have inspected samples of the work done here, and can intelligently commend the same, both for the artistic taste displayed and the excellence of workmanship and finish.

Mr. Schake is a native of Cleveland, acquired his trade here, and has had the advantage of large experience as a journeyman in some of the most famous of the local binderies. He is an industrious, enterprising and unassuming gentleman who deserves the success he has already achieved and a still greater measure of recognition and prosperity in the future.

J. T. AINSWORTH & CO.,

Dealers in Diamonds, Watches, Clocks, Jewelry and Silver-Ware—No. 117 Public Square.

This is the largest exclusively retail house of the kind in Northern Ohio, and though established less than eighteen months has already built up a trade of over \$100,000 a year—the result, no doubt, of doing business on the most approved modern plan of liberal terms, good goods and low prices. A feature of the concern is the selling of first-class goods at regular prices on the installment plan, the purchaser taking the goods and the house making weekly collections. This plan, as conducted by Messrs. Ainsworth & Co., has proved successful and popular, giving satisfaction to both buyer and seller, and does not interfere with regular cash sales, which are very large, customers coming from town and country throughout this and adjoining counties.

The firm occupy two large store-rooms, fitted up with safes, show-cases, shelving, counters, and all conveniences, and exhibit inexhaustible lines of fine goods in all departments—diamonds, watches, clocks, rich jewelry, silverware, etc.—a specialty being made of diamonds mounted in heavy gold settings, of which they carry a vast assortment. A force of forty-one men is employed, three of whom are bookkeepers, five collectors and thirty-three salesmen, and the sales are increasing at a rate that will soon force the house to seek more commodious quarters.

Mr. Ainsworth, the head of the concern, is a native of Vermont, and has resided in Cleveland since 1840. He is a prominent citizen and a popular business man.

Forest City Business College

H. T. Tanner & Co., Proprietors—No. 9 Public Square.

The increased facilities for success that a business education offers to our young men and women should be the means of stimulating and urging them to grasp its benefits while the opportunity remains. Actual business life is only found in our stores, warehouses, manufactories and mercantile establishments, but the nearest *fac simile* to it is to be found at thoroughly live and active business colleges, where the thoroughness of their system is second only to the original itself. In every locality there is a class of people who by circumstances are compelled to labor from early childhood, and whom our public institutions of learning but slightly benefit, and as night schools under the public charge have not been established, it falls to the lot of our business colleges to take in hand, improve and better their condition, and fit them for mercantile life. In this particular not only have schools of this character been successful, but they have also instructed and better fitted for actual business the sons and daughters of our leading citizens. Occupying important and responsible positions may be found hundreds of graduates from these schools, not only in Cleveland, but throughout the whole country, and the well-merited success which has been enjoyed by them speaks volumes for the thorough, painstaking system of instruction adopted.

One of the leading institutions of this kind in Cleveland, and one enjoying a large patronage, is the Forest City Business College, No. 9 Public Square, established by the present proprietors in 1875. Every branch of business is here taught—penmanship, book-keeping, type-writing, phonography (or short-hand), commercial law and letter-writing—and the instructors in the several departments are all well known teachers of high reputation. Night school is held Monday, Wednesday and Friday evenings, and is largely attended by both male and female pupils. Mr. H. T. Tanner, the founder, is a New Yorker by birth, and was for several years principal of the Oberlin, Ohio, business college—a school of wide reputation—and during the period he has been in charge of this college has not only increased his former reputation as an instructor, but has built up one of the best known colleges of its kind in the State. The school rooms connected with the institution are large, convenient, and embrace every department necessary for the purposes intended, and the thoroughness and practicality of the course of instruction adopted cannot be better attested than by the large number of graduates and the prominent and important positions which many of them hold.

LLOYD & KEYS,

Manufacturers of XX, XXX, Pale, Kennett and Cream Ales, Porter and Brown Stout
—St. Clair St. Hill, Between River and Water Sts.

This is Cleveland's pioneer brewery, and the most extensive manufactory of fine ales, porter and brown stout in Northern Ohio, if not in the State. The establishment was founded in 1859, and passed into the hands of the present proprietors, Messrs. William Lloyd and Dan. H. Keys, in 1860. The brewery building is a spacious one, four stories in height, 100 x 200 feet, and of great capacity, producing about 6,000 barrels per annum. The plant is very complete in all departments, provided with a fine equipment of machinery and appurtenances, and gives steady employment to some fifteen men. The firm is a prosperous one, doing a large business throughout Ohio, Indiana, Michigan and other States. It is hardly necessary to speak in praise of the goods made here, since everybody within the region tributary to Cleveland is well acquainted with the high reputation of Lloyd & Keys' sound XX, XXX, pale, Kennett and cream ales, porter and brown stout, which have no superiors as light, healthful and exhilarating beverages. A specialty is made of fine old stock ale and porter.

Mr. Lloyd is a native of Cleveland. Mr. Keys was born in Western New York, came here in 1848, clerked for twelve years in the old Ives brewery, and then joined Mr. Lloyd in the Cleveland City Brewery.

STRONG, CARLISLE & TURNEY,

Dealers in Supplies and Tools for Manufacturers, Railroads and Mines—Nos. 82 and 84 Water St.

The above-named firm, composed of E. E. Strong, R. H. Carlisle and W. J. Turney, was organized and began business at Nos. 82 and 84 Water street early in the present year. It is seldom indeed that a new house so soon and completely demonstrates its usefulness and capacity, and its members are to be congratulated upon the hit they have made in mercantile life. Occupying a capacious four-story building 43 x 120 feet, employing nine or ten men—salesmen, clerks, etc.—they are shipping heavily to other points as well as doing a large and rapidly increasing business with the largest and best consumers of supplies in their line, of which they carry a very complete stock, including all grades of leather and rubber belting and hose, all kinds of packing and lace leather, malleable and cast fittings, all sizes gas, steam and water pipe, machine and elevator bolts, screws, steel and brass, set and cap screws, nuts and washers, coach screws, machine screws, Morse twist drills and reamers, Brown & Sharp's goods, Stubb's steel wire, files and plyers, machinists' and blacksmiths' vises, hammers, hatchets and saws, auger bits, sledges and ship mauls, full line of Forest City files, pipe cutters, stocks and dies, globe valves and gate valves, brass, copper, iron and steel wire, sheet brass, brass tubing and rods, asbestos in all shapes, drill presses and lathe dogs, differential and tackle blocks, Dixon's crucibles and pencils, chain, wire and manilla rope, governors and jack screws, oilers, lubricators and injectors, etc.

The gentlemen composing this firm are well-known and popular Cleveland business men. Mr. Strong came hither from Connecticut in 1865, and, with Mr. Turney, was for a long time connected with the firm of Wm. Bingham & Co. Messrs. Carlisle and Turney are natives of Cuyahoga county, and Mr. Carlisle was formerly senior member of Carlisle & Tyler.

THE SILVER METAL MANUFACTURING CO.

J. G. Hower, President; Caleb E. Gowen, Vice-President; J. R. Chadwick, Secretary; E. N. Morgan, Treasurer and General Manager—Manufacturers of Spoons, Forks and Knives, Silver Metal in Sheets and Pigs for Casting—Office and Factory, Hamilton and Kirtland Sts.

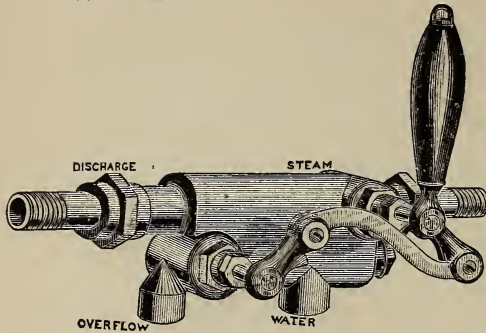
The above-named company was organized and its works established in 1884, and the enterprise has proved a wonderful success, the new metal and the goods made of it meeting a long-felt want and giving entire satisfaction wherever introduced, which means in every city, town and hamlet in the United States. The silver metal spoons, forks, etc., combine merits possessed by no other flatware aside from solid silver goods, and are recommended to those desiring a first-class article for their own use. For hotels and restaurants they are unexcelled. They are not plated, but made of one metal, and are solid throughout. The great objection to cheap plated goods has at last been solved with the appearance of this line of flatware, which combines with low price durability, strength, fine finish and whiteness, second to solid silver only. Silver metal, like all other metals, will tarnish and stain if used in acids or placed in contact with sulphur, as in yolk of eggs, etc. But the use of Putz pomade will at once restore it to its original white color. Silver metal ware requires the same care as solid silver goods, viz.: to be washed after each meal in hot water, and to be cleaned once each week or two with Putz pomade, or other polishing substance, applied with a chamois skin or soft cloth; when thus treated they wear down to a shade or two of solid silver, and will last a lifetime.

The works as they now stand are entirely new and include a perfect jewel of a little rolling mill with foundry and shops fitted up with steam power and a complete line of requisite machinery, drop forges, dies, and other appliances. The manufacturing capacity is equal to forty gross of forks, spoons and knives in stylish patterns, besides large quantities of silver metal in sheets and in pigs for castings. It is used in the manufacture of some kinds of watch cases, for harness mountings, and for various other purposes, and is an acceptable and excellent substitute for genuine silver, which it closely resembles.

President Hower is a prominent dry goods merchant; Vice-President Gowen, manager of the Kelley's Island Lime and Transport Company. Mr. E. N. Morgan is treasurer and general manager.

FOREST CITY BRASS WORKS.

J. V. Kennedy, Proprietor—Manufacturer of Brass Goods—Specialties: The Kennedy Injector, the Cleveland Ball Cock, and the Buckeye Flue Cleaner—Nos. 40 to 44 Leonard St.



The above-named specialties have a very high reputation throughout the United States and have made the Forest City Brass Works one of the most famous industrial institutions in this part of the country. Established by Mr. J. V. Kennedy in 1880 on a modest scale, the concern has been successful from the start, the plant at this time representing an investment of \$20,000, occupying a two-story brick building 40 x 60 feet, employing thirty-five men, and turning out goods to the value of \$50,000 last year, with flattering prospects for a large increase in 1887. As an indication of the capacity

of the foundry it may be stated here that the heaviest piece of solid brass casting ever done in Cleveland, weighing 1,200 pounds, and now in successful use on board the city fire-boat, was made here. The foundry and machine shop are complete in all departments and appliances, and every description of brass work is produced to order in the best style and at short notice.

The leading specialties are the Kennedy injector, the Cleveland ball cock, and the Buckeye flue cleaner. Among the principal advantages claimed for the injector are: It is warranted to lift water twenty-five feet; no adjustment is required for varying steam pressure; it is independent of the engine; dispenses with heaters; heats the water when engine is stationary; no friction; saving of power and fuel; is not in the way; lifts as well as a pump; has no open overflow; can not freeze; can be managed by an unskilled boy; will lift with a hot suction pipe; all valves are positive closing; is thoroughly tested before shipping and guaranteed to do all that is claimed for it. The reasons why the Kennedy injector is the best boiler feeder in the market are stated as follows: It will work under a wider range of steam pressure than any other; it is easier cleaned and repaired than any other; it is simpler in construction and operation than any other; it has only one handle, and a simple movement starts or stops its operation instantly; it is sold at the lowest price consistent with the best of quality and construction; it is warranted in every case to be as represented in printed matter describing it; it is so constructed that all working parts can be removed when repairs are necessary, but owing to its simplicity and superior construction, repairs are needed less frequently than with any other injector. The Cleveland ball cock and Buckeye flue cleaner are also unusually convenient and effective devices.

HENRY KOEBEL,

Merchant Tailor—No. 216 Bank St.

“Rich be thy raiment as thy purse can buy” is a most excellent maxim, since every self-respecting man owes it to his associates, the community and himself to dress well and thus reflect credit upon his own good taste as well as upon the circle in which he moves. It is preposterous, however, to expect anything but disappointment in any attempt to dress well unless the services of a skillful artist tailor are secured, for the wearer of cheap garments, whether hand-me-downs or Schneider-made, is certain to “give himself away” on all occasions. A good fit is the prime requisite, fine goods and superior workmanship being the immediate accessories and accompaniments that render the picture effective, please the eye of the beholder, and gladden the heart of the wearer.

Among Cleveland’s numerous artistic tailors one of the most prominent is Mr. Henry Koebel, whose elegant establishment at No. 216 Bank street, Weddell House building, is the favorite resort of many of the local leaders of fashion, Mr. Koebel’s specialties being perfect fit, elegant trimmings and finish, and thoroughly good work in every instance. He employs twenty-five of the best journeymen that good wages and kind treatment can

secure, is himself one of the best and most experienced cutters in the country, executes all orders promptly and carefully, and is prepared to guarantee satisfaction to his customers.

Mr. Koebel imports much of his material, including fine lines of French and English suitings, overcoatings and trimmings, carries a large, varied and valuable stock of the best foreign weaves, and offers unusual inducements to gentlemen in search of elegant raiment. He is of German birth, resided in England for six years, and came to Cleveland in 1870.

ELWELL & DOTY,

Contractors for and Manufacturers of Mineral Jet, Bronze and Porcelain Door Knobs
—No. 41 Viaduct and Corner Elm and Washington Sts.



None save those connected or familiar with the hardware or building trades have any conception of the proportions to which the knob manufacturing industry has grown of late years. The factory of Elwell & Doty, for instance, No. 41 Viaduct, Cleveland, puts upon the market annually from \$60,000 to \$80,000 worth of these convenient and indispensable adjuncts to the doors of the American public.

The firm was organized in 1886, and is already recognized as one of the most successful business combinations of the Forest City, occupying with its works and warerooms one entire floor of the great six-story brick building Nos. 41, 43 and 45 Viaduct, in addition to commodious quarters at the corner of Elm and Washington streets. They have an excellent equipment of special machinery and appliances, and employ forty operatives, their wage-roll averaging \$450 per week, and their products reach all parts of the Union. The goods are handled chiefly in Chicago. While every description of knobs for furniture, etc., receive attention, the leading specialties of the house consist of an almost endless line of novel and original designs in mineral jet, bronze and porcelain door-knobs, in which they excel.

Both partners are Connecticut men. Mr. Elwell, who has supervision of the works, was for many years engaged in business in New York, a portion of the time in the house of Craighead & Elwell, Barclay street. He has resided in Cleveland during the past four or five years. Mr. Doty has been in the knob manufacturing business since boyhood.

E. C. POPE,

Successor of Masters & Co.—Pig Iron, Iron Ore and Metals—Rooms 11 and 12 Wade Building.



A vast quantity of iron ore and pig iron are handled here, much of it for consumption in local mills, but by far the larger portion for shipment to furnaces in Eastern Ohio and Pennsylvania, no inconsiderable part of the best iron made at Pittsburgh and elsewhere being obtained from the splendid Lake Superior ores. One of the most conspicuous handlers of these favorite ores, and pig iron made therefrom, in this market, is Mr. E. C. Pope, who on the first of January last succeeded to the well-known firm of Masters & Co., with whom he has been connected since 1880; was also a member of the late firm of Tuttle, Masters & Co. His offices in the Wade building—rooms 11 and 12—are elegantly appointed and fitted up with a view to convenience in the transaction of a large and growing business. In addition to his heavy trade in ores and iron, Mr. Pope deals extensively in ingot copper, tin, lead, spelter and other metals, supplying the trade in quantities to

suit at lowest market quotation.

Mr. Pope is a conspicuous citizen and business man of Cleveland, having resided here since 1857. He is a native of Maine.

E. R. EDSON,

Wholesale Fresh, Salt and Frozen Fish—Also Proprietor of The Richmond Fishing Co., Painesville, O.—Headquarters, Corner of Center and West River Sts., Cleveland, O.

The great lakes are not only worthy of being classed among nature's wonders and the mightiest of all inland commercial highways; they are a vast storehouse of easily-procured food, the finest fresh water fish in the world flourishing in their crystal depths and to be had in inexhaustible quantities for the taking. One of the most prosperous and extensive fisheries on the lakes is that of the Richmond Fishing Company at Painesville, of which Mr. E. R. Edson is proprietor and manager, with office and warehouse at the corner of Center and Detroit streets, Cleveland. The plant at Painesville comprises two two-story warehouses, one 30 x 80 the other 20 x 50 feet, with ice-house 30 x 60 feet, and a steam-tug at Fairport, where the fishing grounds are located. Twenty men are employed there and seven at the Cleveland warehouse. At Painesville a monster refrigerator of 120 tons capacity is devoted to the freezing of fish. A private telephone line connects the office here with that at Painesville, and orders are shipped in the best possible shape and with dispatch, the sales aggregating \$120,000 a year in value, and going to all interior Ohio points, Pennsylvania, West Virginia, Kentucky and Indiana.

Hart, Pincus & Co. established this enterprise in 1876, and were succeeded by the Richmond Fishing Company the present year. The catching capacity is 800 tons per annum, but 3,000 tons can be conveniently handled if procurable.

LATIMER & MOORE,

Contractors and Builders—Office and Mill, Rear of No. 1617 Willson Ave.

Messrs. Latimer & Moore are among the Forest City's best known and most extensively patronized builders and contractors, the firm having been organized in 1872. Their office and mill occupy a spacious frame building, two stories in height, 60 x 140 feet, in rear of No. 1617 Willson avenue, fitted up with a complete equipment of modern improved wood-working machinery, steam power, and all conveniences for the prompt and satisfactory execution of all work awarded them. The firm employ from forty to sixty men, according to the season, and during the past season completed a number of very fine jobs, among them the interior fittings of the Euclid Avenue Congregational Church and the Anshe Chased Synagogue, both of which are beautiful and attractive examples of fine joiner work. In all, their contracts for the year foot up about \$60,000, and it is safe to say that no similar house in Cleveland as rendered better or more uniform satisfaction.

Both members of the firm are natives of the north of Ireland, and both are skillful mechanics and good business men, straightforward and upright in all their dealings.

WM. H. RADCLIFFE,

Ship-Builder—Old River Bed, Foot of Taylor St.

The ship-yards now controlled by Mr. Radcliffe were established in 1867 by Capt. Drake, and are famous for the construction of lake craft, some of the largest and finest wooden steamers and sailing vessels on our great inland seas having been built therein. Possessed of some 900 feet of river front and all necessary appliances, including a thoroughly equipped steam mill, and employing from 50 to 175 skilled mechanics, Mr. Radcliffe's facilities for the construction and repair of wooden vessels of all classes are all that could be desired, and unsurpassed by any similar concern in this port. The work done in these yards during 1886, amounted in value to nearly a quarter million dollars and included the construction of several large vessels complete. At this time, there are on the stocks two steamers—one for P. G. Minch, the other for M. A. Bradley, both of Cleveland—each of about two thousand tons burthen.

Mr. Radcliffe is a native of Douglas, Isle of Man, and has resided in Cleveland most of the time since 1848. His skill as a marine architect is established, and he is a much respected old citizen.

GEO. A. FORD,

General Machinist—Manufacturer of Steel Tackle Blocks, Wood and Metal Patterns, Experimental Machinery, etc.—No. 15½ Frankfort St.

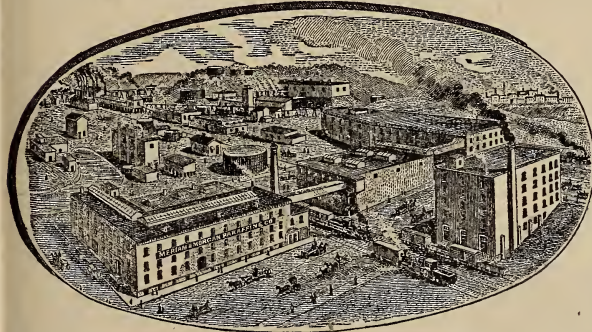
Mr. Ford, previous to 1886, was for some sixteen years employed by the Internal Revenue Department, from which he retired to establish himself in his present occupation of general machinist, machine blacksmith and patternmaker. Himself an accomplished mechanic, occupying commodious quarters—four floors 80 x 149 feet at No. 15½ Frankfort street—well equipped with all requisite machinery and appliances, and a thirty horse-power engine, and employing some twelve or fifteen skilled artisans, Mr. Ford is well prepared to meet satisfactorily any demand that may be made upon his resources, whether in the line of light machinery, blacksmithing, forging, wood and metal patterns, or the repairing of bicycles, lawn-mowers, elevators, etc.

Mr. Ford's establishment is headquarters for the manufacture of the new improved steel tackle block, a device which, lighter and twice as strong as the old-style wooden block, is rapidly replacing the latter on sea and land. It is simplicity and perfection combined, and meets with universal approbation wherever introduced. The sides are of wrought steel, made by a single operation of the machinery perfected in Mr. Ford's works. It is Mr. Ford's intention to devote exclusive attention to this specialty after this season.



MERIAM & MORGAN PARAFFINE CO.

E. P. Morgan, President; Wm. Morgan, Superintendent; J. B. Meriam, Vice-President and Treasurer—Manufacturers of Cold-Pressed Paraffine Oil, Refined Paraffine Wax, Paragon Axle Grease, Machinery, Spindle and Cylinder Oils, Car Grease, Paraffine Wax Candles, Paragon Spindle and Curriers' Finishing Oil—Office, Central Way, Corner Ohio St.; Branch Offices, Boston, New York and Chicago.



Messrs. C. L. Morehouse and J. B. Meriam founded this important industry in 1863, the works being established on River street, where they continued until 1869, operated at first by Morehouse & Meriam, and later by Morehouse, Meriam & Co. In the year last named Messrs. Meriam & Morgan became proprietors and removed to the present location, Central Way corner of Ohio street, and subsequently the Meriam

& Morgan Paraffine Co. was incorporated in 1874, with a paid up capital of \$300,000 and offered as above.

The factory premises are very large—four adjacent corner lots at Central Way and Canal street, with 220 feet frontage on one railroad and 280 feet on another, besides six acres on which is located their refinery, with ample railroad frontage. The main buildings are four in number, three and five stories in height and of corresponding area, each occupying one of the lots referred to. One hundred operatives are employed, and the product, going to all parts of the United States, of the highest quality, is valued at \$600,000 annually, embracing the entire list at the head of this article, the specialties being cold-pressed paraffine oil, refined paraffine wax, paraffine wax candles, and "Paragon" axle grease.

In a recent circular the company say: "The appreciation of the merits of our manufactures has been most gratifying, and our relations with the trade in general and our customers in particular have been to us exceedingly pleasant. In the preparation of our paraffine products, cold-pressed paraffine oil, curriers' finishing oil, refined paraffine wax and candles and the Paragon axle grease, we have given the best ability and skill we possessed or could obtain, using always the most approved methods and apparatus."

WORSWICK MANUFACTURING CO.

J. R. Worswick, President; E. Lewis, Vice-President; Jno. A. Prindle, Secretary and Treasurer—Manufacturers of Malleable and Cast Iron Fittings and Brass Goods—Jobbers of Plumbers', Gas and Steam Fitters' Tools and Supplies—Agents for Iron Pipe and Boiler Tubes—Corner Water and St. Clair Sts.

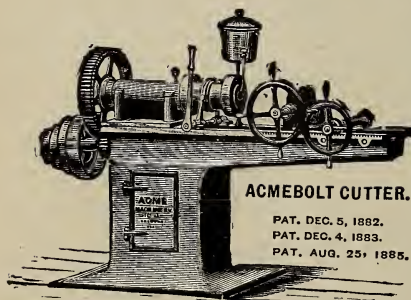
The trade in the above-named goods has of late years reached vast proportions in all of the Eastern, Middle, Western and Southern States, and continues to grow with astonishing rapidity, the result of improved gas and water systems adopted by all progressive cities and towns. As a consequence, manufacturers are in a prosperous condition, and more especially is this true of those who have gained a reputation for keeping abreast of the times—such concerns, for instance, as the Worswick Manufacturing Company of Cleveland, which from the time of its inception in 1863 to the present has occupied a conspicuous position in the front rank, more particularly of those leading establishments devoted to the production of malleable and cast iron fittings and brass goods adapted to the use of plumbers, gas and steam fitters.

This company occupies two spacious five-story buildings, one 55 x 115, the other 15 x 100 feet—the first at Water and St. Clair streets, the latter at No. 119 Water street—both fitted up in the best manner with improved machinery and appliances, and employing together a force of seventy-five men—book-keepers, clerks, skilled mechanics and laborers. Of their own specialties, just named, it is unnecessary to speak at length, since they are already familiar to and unboundedly popular with their trade everywhere throughout Pennsylvania, Ohio, Indiana, Michigan, the Canadas and elsewhere. In addition to these goods, however, the company stands in the front rank of jobbers of plumbers', gas and steam fitters' tools and supplies, carrying a superb and varied stock from the most celebrated makers. They are also general agents for the sale of superior iron pipe and boiler tubes, and fill all orders on the most favorable terms.

President Worswick is an Englishman by birth, resident in Cleveland since early manhood. Vice-President Lewis is also of English birth. Secretary and Treasurer Prindle is a Vermonter. The house has passed through many changes of *personnel*.

ACME MACHINERY COMPANY.

F. W. Bruch, M. D. Luehrs, C. Greve—Manufacturers of Bolt and Nut Machinery—Cor. Belden and Hamilton Sts.



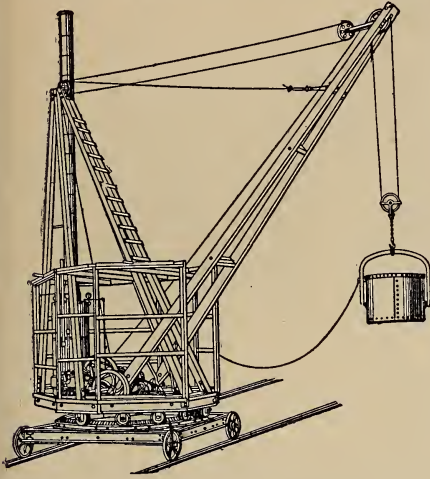
The Acme Machinery Company, unincorporated, was established by the gentlemen named above in 1884, and has already achieved remarkable success in the construction of special machinery which has attracted much attention both in this country and abroad, as is shown by their order book. Their leading specialty is the Acme bolt cutter, illustrated herewith, which possesses many advantages over any similar machine ever devised—is stronger, more durable and convenient, runs with greater ease and precision, and will thread more bolts and do it better in a given time. Of the other machinery made here it is unnecessary to say more than that it is on the

same plane of excellence as the Acme bolt cutter.

The works are eligibly located at Hamilton and Belden streets, are reached by the St. Clair street horse-cars, and on the line of the L. S. & M. S. railway, switches from which and from the C. & P. railway furnish ample shipping facilities. Their premises consist of a lot 120 x 140 feet, on which they have erected a fine two-story brick machine-shop, 40 x 120 feet, and boiler and engine-house 40 x 40 feet. The works are splendidly equipped with modern machinery and appliances, and, with the office, are kept in a neat, orderly and attractive condition. Fifty-five men are employed, and the output is very large.

McMYLER MANUFACTURING COMPANY,

Sole Manufacturers of McMyler's Patent Portable Steam Derrick, Iron and Wood Dump Cars, Coal and Ore Buckets—The Seaton Header—No. 180 Columbus St.



The works of the McMyler Manufacturing Company, while not doing so large a volume of business as some other industrial concerns, are performing a noble part in spreading abroad the fame of the city as a manufacturing center and attracting hither buyers of machinery and all other iron and steel goods of the more weighty, ingenious and costly character. They were established in 1882 by Mr. John McMyler, an accomplished inventor, who admitted Mr. E. F. Atherton to a partnership in 1886. The latter is a skillful and experienced mechanic and practical business man, and between the two they have built up a large and steadily increasing trade, footing up \$150,000 for the past year, their products going to various parts of the country, principally to the lake ports. Their specialties embrace a superior line of hoisting machinery, dump cars, Seaton bolt and rivet headers, etc., the construction of McMyler's patent portable steam derrick (illustrated above) taking first place. This

derrick, confessedly the most effective and substantial machine of the kind in existence, is Mr. McMyler's own device, and is indorsed by practical shippers and freight handlers everywhere. The company's iron and wood dump cars, coal and ore buckets, etc., are also in universal demand where known, being economical, strong, simple, and the best labor-savers ever offered to miners.

Another great specialty is the manufacture of the Seaton header, a wonderful machine for forging heads on bolts of all kinds—a machine that does at a single movement an hour's work of a skilled mechanic, and does it better and more uniformly. Its advantages are thus summed up: It will cut, head and eject flat counter sunk heads with the same ease as oval, cone, square or hexagon heads, which no other machine in the market will do. No trouble with cutters. One cutter will cut from ten to one hundred tons of iron. No change of adjustment; ejector always ready on all lengths of bolts or rivets. Stock gauge, most perfect ever invented, can be adjusted while machine is in motion to 100th of an inch if necessary. Can use long or square dies. When closed are perfectly solid. No friction on cam. Adjustment convenient, accurate and positive. No skilled labor required to feed it. Machine extra heavy and strong compared to other makes; built to run every day in the year. Susceptible of very high speed, 60 to 200 revolutions per minute.

This machine is made in three sizes—No. 1, for track bolts, two to five tons per day; No. 2, $\frac{1}{2}$ to 1 $\frac{1}{2}$ -inch iron, one to four tons a day; No. 3, $\frac{5}{8}$ to 2-inch iron.

PITTSBURGH & WHEELING COAL CO.

R. L. Chamberlain, President, Cleveland; C. L. Cutter, Secretary and Treasurer, Cleveland; A. J. Baggs, Manager, Bridgeport, O.; James Patterson, Sales Agent, Cleveland—Miners and Shippers of Bituminous Coal and Coke—Mines, Wheeling Creek and Pittsburgh; Office, Room 29 Mercantile Bank Building, Cleveland.

The Pittsburgh and Wheeling Coal Company, officered as above, was established in November, 1879, and is a power in the fuel trade, owning and operating mines in the Wheeling Creek and Pittsburgh districts, on the line of the Cleveland, Lorain & Wheeling Railroad, with a capacity of two thousand tons daily, besides handling about one thousand tons per diem from other mines. The company employ 1300 men, and ship more steam coal than any of their rivals in this market, their customers being for the most part the railways, steamboat lines and manufacturers who draw their fuel supplies from this and other Ohio ports, lake shipments being made from Lorain. The company are also extensive manufacturers and shippers of coke.

McCARTHY & LUCK,

Book Publishers—No. 209 Superior St., Wilshire Building.



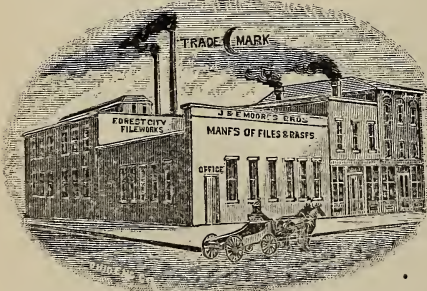
Educated and thriving communities are the paradise of the subscription book publisher, who puts within reach of the reading public a class of substantial works on solid subjects not easily obtainable, thus conferring benefits upon people who must otherwise forego much that is most profitable in literature.

One of the most popular publishing houses of this kind of which we have any personal knowledge is the firm of McCarthy & Luck, rooms 57 to 60 Wilshire buildings No. 209 Superior street, established in 1883. They carry an immense stock of late and attractive books sold by subscription only, keep a large number of salesmen on the road, and employ several assistants in the office, their business being confined for the most part to the towns, villages and country along the lake shore as far west as Toledo and east to Erie. They handle subscription books of the better and higher-priced class exclusively, embracing histories, encyclopedias, and kindred publications.

Mr. W. H. McCarthy and Mr. A. T. Luck are natives of Ohio. Both were formerly with William Edwards & Co., and are energetic gentlemen of high personal and business standing.

FOREST CITY FILE WORKS.

J. and E. Moores Bros.—File and Rasp Manufacturers—Office, No. 26 South Water ; Works, Nos. 18 to 24 Center St.



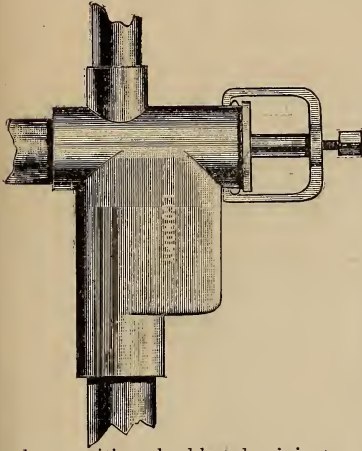
Mr. A. H. Moores founded this noted industry in 1867, the works at first being located at Nos. 19 and 21 Columbus street. Increase of business necessitated a removal later, upon the accession of Messrs. J. and E. Moores, to the present eligible site, where the firm have a commodious one-and-two-story brick building, the ground floor 60 feet square, the second floor 25x 60 feet. The capital invested in this plant is placed at \$30,000. The works are provided with a costly equipment of the latest improved machinery known to the trade, and forty operatives in all are steadily employed, the product going to all parts of the United

States and meeting with universal favor, being regarded by consumers as equal if not superior to the best imported goods. Everything made here bears the "Forest City" brand, and is fully guaranteed.

The Messrs. Moores are natives of Warrington, England. Mr. John Moores is general business manager, Mr. E. Moores superintendent of the factory, and Mr. John Galvin foreman.

J. M. MARTY,

Inventor and Manufacturer of the "Ideal" Injector and Ejector—Dealer in Second-Hand Injectors—No. 46 South Water St.



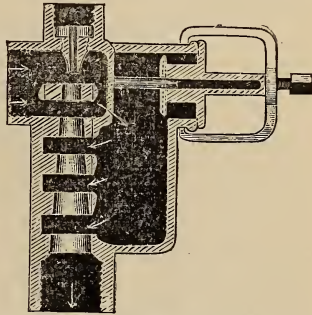
Mr. Marty began a course of independent experiments on the injector in 1871, at LaCrosse, Wisconsin, finally establishing himself in Cleveland in 1884. His works, fitted up with all requisite machinery and employing five first-class mechanics, occupy two floors, 45 x 30 feet, at No. 46 South Water street, and present daily a busy scene, the transactions averaging \$5,000 a month in value, and extending from ocean to ocean and from Labrador to the Gulf of Mexico.

Mr. Marty's specialty is the construction of the "Ideal" injector and the "Economy" ejector, described below. The injector presents numerous points of superiority over all others, of which the most notable are:

It is positive in its action; it requires only one movement to start it; it has fewer parts than any

other positive double-tube injector ever made; it has no wearing parts in movable tubes, round valve-seats or complicated handle system; it is the easiest and most accessible to take apart and clean; its connections are very heavy and will stand any ordinary strain.

The principal uses of the "Economy" ejector are in the forcing of water from sunken or water-logged hulls over the sides and for raising water to any desired elevation. It is operated by direct steam pressure on the syphon system, a small pipe conveying the steam to the bottom, where it connects with a larger pipe perforated to receive the water. Upon the admission of steam the fluid contents of the larger pipe are forced upward; the vacuum immediately refills, is again forced upward, and the process continues as long as the supplies of water and steam last. This ejector is in use everywhere—may be seen in operation on board the city fire-boat and nearly all the tugs in the harbor—and gives universal satisfaction.



RIVERSIDE FOUNDRY WORKS.

Thomas Maher, C. A. Brayton and Joseph A. Stone, Proprietors; Joseph A. Stone, Manager—Manufacturers of Machinery and Rolling Mill Castings—Office, No. 26 Carter St.

The manufacturing resources of Cleveland are practically unlimited, embracing almost every description of machinery and machinery products. A flourishing establishment exercising great influence upon the material interests of the city is the great Riverside Foundry Works, office No. 26 Carter street. Messrs. Thomas Maher, C. A. Brayton and J. A. Stone, car-wheel and machinery founders, are the proprietors, and Mr. J. A. Stone general manager and superintendent. The works were established in 1881, and in less than seven years have made a reputation as wide as the continent for excellence of their products, which comprise splendid lines of rolling-mill machinery, chilled, semi-steel and soft rolls, chilled guides, light and heavy machinery castings, ingot molds, annealing pots, etc., a specialty being made of steel rolls and wire-drawing machinery. One hundred and fifty men are employed, the equipment of the plant in every department is complete, and sixty tons of finished work is the average day's output. Large and increasing orders are constantly being filled for railroads and iron manufacturers all over the country, more particularly in Ohio, Pennsylvania, New York and Missouri.

JOHN J. FLICK,

Butcher and Wholesale Dealer in Beef, Pork, Mutton, Veal, etc.—Importer of English Sheep Casings, All Kinds of Sausage Casings, Rennets, etc.—Renderer of Tallow, a Large Supply of Which is Always Kept on Hand—Manufacturer of Fertilizers for Farming Purposes—Nickel-Plate Stock Yards; Office, No. 1378 Forest St.; Residence, No. 229 Beach St.



The Nickel-Plate stock yards were established in 1878 by Messrs. John J. Flick and H. Rice, jr., and have done a prosperous business from the first. They occupy four acres of ground, on which are slaughter-houses and fertilizing works 80 x 200 feet. Twenty-five men are employed, and 16,000 beeves, 20,000 calves and sheep and a vast number of hogs are killed annually and the meat sold in Cleveland and vicinity. The yards have ample accommodations for fifty carloads of live stock, which can be conveniently kept and fed until required

for market. Mr. Flick has an enviable reputation for the superior quality of his meats, which are always fresh, fat, clean, healthy and attractive.

The fertilizer works attached are very complete, and the output, made exclusively of blood and bones and therefore of the highest and most valuable grade, is eagerly sought by scientific farmers, who appreciate and are willing to pay a fair price for a superior plant food. Orders sent to this firm are certain of receiving prompt attention, and will be filled in a manner to ensure perfect satisfaction.

ROBINSON BROS. & CO.,

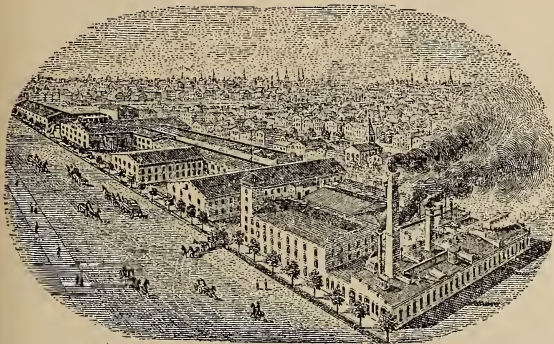
Manufacturers of "Forest City" Crackers, Biscuits, Fine Cakes and Prepared Flours—Office, No. 233 Pearl St.; Factory, Nos. 52, 54 and 56 Vermont St.

This is one of Cleveland's old established industrial concerns, founded by Pollock & Co., who were succeeded by the Forest City Cracker Company, Messrs. Robinson Bros. & Co. assuming control about two years ago, since which time and the introduction of new methods and processes there has been a marked revival of prosperity. About thirty-five men are employed in office and factory, and a vast amount of profitable work is done. A specialty is made of fine crackers, in the manufacture of which the firm enjoy decided advantages, and their goods of this kind are deservedly popular, as, indeed, are their biscuits and fine cakes, while their prepared flours, ready for immediate use on the griddle or in the oven, are quietly finding their way into every household in Northern Ohio where time is an object and delicious hot cakes and biscuits appreciated.

Messrs. Thomas G. and Frank L. Robinson are Pittsburghers—Thomas G. formerly with Joseph Horne & Co., and Frank L. with James McCleery & Co.

F. MUHLHAUSER & CO.,

Manufacturers of Fine Wool Shoddies, Garneted Rings, Botany Yarns—Colors to Order—Direct Importations—Boston, Paris, Huddersfield, Frankfort-on-Main, Strasburg—Pleasant St.



Shoddy is more generally used in the manufacture of woolen goods of certain grades than is popularly supposed, and its production is a great and fast developing industry, involving vast capital and colossal commercial operations akin to, yet differing from those that characterize the trade in wool and cotton.

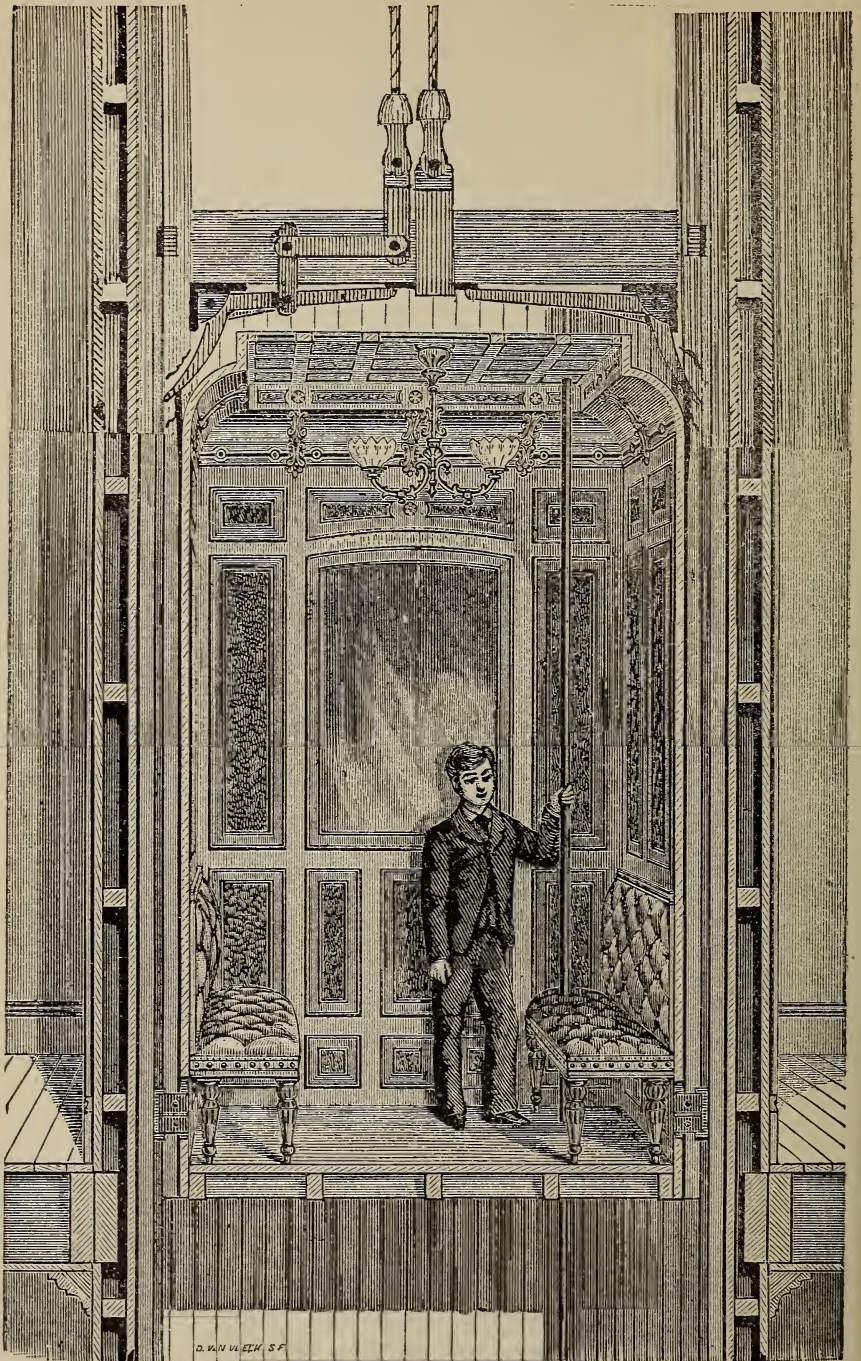
One of the most extensive shoddy manufacturing establishments in the world is that of F. Muhlhauser & Co., a view of which is printed herewith. The premises, 140 x 700 feet, are

covered with numerous brick buildings of various heights and dimensions, utilized for sorting, picking and carding purposes; the equipment of improved machinery is of the most complete and valuable description, embracing many ingenious devices constructed specially for this firm, and the plant as it stands represents an outlay of \$300,000. Three hundred skilled and unskilled operatives are employed, and the product is valued at \$700,000 per annum. A specialty is made of high-grade shoddies, and branch houses are maintained for the handling of these materials at leading American and European woolen manufacturing centers, the imports comprising superior lines of fine garneted rings, Botany yarns, etc. Colors are made to order. The capacity is 3,000,000 pounds per annum.

This firm is composed of Messrs. F. Muhlhauser, a German by birth, who emigrated to this country with his parents when five years old, and M. B. Schwab, of American birth. They cater for the woolen goods industry in all its branches—manufacturers of cloth, underwear, knit goods, hosiery, yarns, etc.

THE GLOBE ELECTRIC COMPANY.

This is a comparatively young company, established at No. 46 South Water street. It was organized by T. M. Irvine and W. E. Irish, about twelve months ago, for the purpose of manufacturing, importing and dealing in all electrical apparatus and supplying European electrical specialties, for which they are agents. They are doing a very active business, and have all desirable facilities and well-selected skilled mechanics for turning out a great deal of fine and ingenious work of the very best quality. We mention a few as samples of the specialties owned or manufactured by this enterprising company: Every description of testing apparatus for electric light, telegraph and telephone companies; telegraph instruments, railway block instruments, switches, switchboards; semi-incandescent and arc electric lamps, electro-motors, marine electric sounding apparatus, police and fire brigade telegraphs, electric stop motion for looms and other machines, temperature-indicating and alarm apparatus, shot-firing or blasting apparatus, military field telegraph and naval torpedo equipments, automatic fire alarms and extinguishers, and a large variety of others which space will not permit us to mention. The shops are well fitted up, with an eye to effectiveness rather than display, and contain a variety of improved machinery adapted to the special work to which it is the intention of the company to continue rigorously to devote its energy and resources. Many of the specialties manufactured by this company possess great merit and are a sure guarantee of its continued success, which has hitherto far exceeded the most sanguine expectations of the promoters. W. E. Irish, the genial manager, also general manager of the Irish Electric Railway Co., is an Englishman who has devoted all of his life since boyhood to the study and practical application of electricity, and in his chosen calling has few equals.



O'DONNELL & BARRETT'S ELEVATOR.
(See Opposite Page.)

O'DONNELL & BARRETT,

Builders of Elevators and Dumb Waiters—No. 53 Center St.

Of all modern devices for the saving of time and labor we know of none which has a higher claim upon the consideration of architects, builders, property-owners, tenants of tall buildings and city people generally, than the elevator. From its first introduction in the rude form of a hoist for the transfer of goods from basement to attic and back again, it has grown in favor and perfection until now no building of three or four stories is considered desirable for office, business or residence purposes unless provided with an elevator suited to the uses to which it is liable to be put.

Among the noted elevator builders who make Cleveland the base of their operations may be mentioned Messrs. O'Donnell & Barrett, whose well equipped factory occupies the first and second floors of the three-story brick building No. 53 Center street, the iron work being done below and the wood and other work above. This firm was established in 1866, by Barrett & Son, and has been quite successful, having originated many improvements in this class of machinery. The safety device invented by this firm and illustrated on the opposite page is worthy of special mention. It is positive in its action, safety dogs being operated from the counterpoise weight, no springs or catches being used. Each machine is tested by them by cutting cables when elevator platform is loaded at top of building, or at any other point. They invite special attention to the strength and security of their top "sheave timbers;" in all cases they use the very best quality seasoned oak. This is a very important point about any elevator.

In 1886 they built twenty-six steam, hydraulic and hand elevators, besides doing a large amount of jobbing and repairs. Mr. O'Donnell is a Baltimorean, a practical elevator builder, and came into the firm last November. Messrs. Barrett, father and son, are skillful machinists, and Mr. George Barrett has charge of all iron work done here, Mr. O'Donnell superintending the wood-working department. The firm invite correspondence and investigation, and have a promising future before them.

JOHN T. MARTIN.

WM. H. BARRISS.

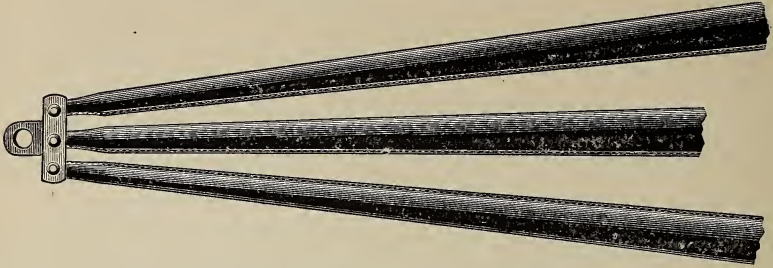


Dealers of Mahogany, Rosewood and Native Hardwood Lumber—No. 130 Central Way.

Messrs. John T. Martin and Wm. H. Barriss formed their present co-partnership in the spring of 1882, and, being enterprising and industrious gentlemen, have succeeded in building up a large and steadily increasing trade, extending all over Ohio, the Eastern, Western and Southern States, obtaining their supplies of mahogany, rosewood, etc., from Mexico, Central and South America, and of walnut, cherry, ash, oak, poplar and maple from various portions of our own country. They employ some fifteen men, and their yards, heavily stocked with selected hardwood lumber, and located on Central Way, cover ground 200 x 275 feet, adjoining the principal railway tracks, and with fine dock facilities on the river. Their office is at No. 130 Central Way, and buyers will find one or other of the firm ready to wait upon them at any time during business hours.

THE I. N. TOPLIFF MANUFACTURING CO.

I. N. Topliff, President ; W. P. Todd, Manager—Carriage Hardware Specialties—E. Prospect St. and C. & P. R. R.



The bow-socket is that part of the hardware of a carriage which holds securely the ends of the bows, and the bows are the frame-work which, covered with varnished leather or oil-cloth, is called the "top" of a buggy or similar vehicle. Few persons not connected with the trade have any accurate idea of the enormous number of these bow-sockets consumed annually by the carriage-makers of this and other countries, but some notion of the subject may be drawn from the well-substantiated fact that one Cleveland house—the I. N. Topliff Manufacturing Company—turns out 1,000 sets every working day, the annual output aggregating \$300,000 in value.

Mr. I. N. Topliff is the inventor of the steel bow-socket and of the machinery by which it is made. He established himself in the business on a small scale in 1879, making then from 75 to 100 sets per day. His orders increased rapidly, however, and, adding to his facilities from time to time, he is now at the head of the largest, best equipped, and most famous manufacturing establishment of the kind in the world, comprising a great two-story brick factory building, 106 x 175 feet, provided with forges, dies, steam hammers, etc., a smaller building devoted to the production of fuel gas from crude oil, and another for japanning and drying. From 125 to 200 men are employed, and a busier place it would be hard to find. The bow-sockets made here are the best in the market, from the best steel, beautifully finished, and greedily taken by the trade everywhere. We have not space for a full description of the works and the processes employed, which we regret.

The present style was adopted last March, with Mr. Topliff as president and Mr. W. P. Todd manager.

CONRAD MIZER,

Tailor—Savings and Trust Co.'s Building, No. 42 Euclid Ave.

Few men are indifferent to the attractions of good clothes, of fine texture, neat fit and first-class workmanship. But on the other hand few men are competent to select what best becomes them, for an all-wise Providence has seen proper to construct the race upon the plan of infinite variety as regards stature, breadth, avoirdupois, complexion and facial contour, so that the garment which in style sets off one's form to the queen's taste may make another ridiculous. And it is just here that the services of the experienced artist tailor are of most value. Such a tailor is Mr. Conrad Mizer, whose elegant establishment under the Savings and Trust Company's bank, No. 42 Euclid avenue, is the habitual resort of many of Cleveland's most critical and fashionable gentlemen. Mr. Mizer's facilities are of the best—doing all his own cutting—and include some twenty superior journeymen. He carries a very large and choice stock of suitings, etc., to select from, including the finest imported weaves—Scotch tweeds, West of England cloth, Thibets, undressed worsteds, Meltons, kerseys, Martine's diagonals, etc., received through leading Eastern houses. The fashions presented to his customers are all of the choicest and exclusively American style. All garments made here are silk-lined and guaranteed unexcelled in this market as to fit, style, workmanship and finish.

Mr. Mizer has had an extensive and valuable experience in his business, of which his patrons derive the benefit, whereby those who frequent his store are known as the best dressed gentlemen in the city of Cleveland. He established himself at No. 140 Superior street in 1883, and removed to Euclid avenue in 1886.

VOUWIE BROS.,

Manufacturers of Forest City Baking Powder and Flavoring Extracts—Nos. 63 Water St., Cleveland, and 54 Michigan Ave., Chicago.



There are few things that more nearly affect the health and happiness of the people than the baking powder used in their biscuits, bread and pastry, and the flavoring extracts employed to impart zest and palatability to the various made dishes of every-day consumption upon the tables of all classes who live even moderately well. Purity—the avoidance of all deleterious substances—in the compounding and manufacture of these essential articles is of the first importance, cheapness is a secondary consideration; but when both purity and cheapness are combined it would seem useless to look further. This is what Messrs. Vouwie Brothers, proprietors and manufacturers of the celebrated Forest City Baking Powder and flavoring extracts, claim to have accomplished, and if a rapidly growing demand for their goods is any criterion of excellence, the claim is amply sustained.

Messrs. John H. and Henry J. Vouwie are natives of Cleveland, and embarked in the manufacture of the specialties named in 1876, at the corner of Woodland avenue and Mayflower street. With the lapse of time their business increased to such an extent that it became necessary to seek larger accommodations, and in 1884 they removed to No. 68 Water street, where they occupy six floors and basement, 30 feet front by 120 feet deep, fitted up in the best manner with improved mills and all other requisite machinery. Sixty persons are employed, thirty of whom are salesmen—eighteen on the road and twelve stationed in various cities. They also maintain a big branch establishment at No. 54 Michigan avenue, Chicago, and have a splendid trade all over the United States.

CLEVELAND PAPER BOX FACTORY.

John M. Sterling, Manager—Nos. 111 and 113 Water St.

It were a bootless task to even compile a list of the uses to which paper boxes are found applicable in every branch of mercantile and some manufacturing pursuits, for the neat and convenient packing of a thousand varieties of goods hitherto clumsily done up with paper and string. Suffice it to say, few merchants can afford to entirely dispense with paper boxes, and they are constantly being put to new uses. As a consequence the manufacture of these handy receptacles has grown into a great industry, which yet appears in its infancy, so infinite seems the field for its development.

A prominent local representative house in this branch of enterprise is the Cleveland Paper Box Factory, Nos. 111 and 113 Water street, of which Mr. John M. Sterling is manager, established on a small scale in 1872 by Atwater & Co., and now occupying two floors (cellar and second story), 50 x 125 feet, at the above location. A valuable equipment of latest improved machinery and some twenty-five hands are employed, and the output reaches some thirty thousand dollars annually, most of which is made to order for the local trade. The concern has no particular specialty, but turns out a complete line of paper boxes of every style, size and shape required, all work being first-class in all essentials.

Mr. Sterling is 50 years of age, a native of Ohio, and was for ten years a city police commissioner.

BOWLER & CO.,

Manufacturers of Chilled Car, Engine, Truck and Mining Wheels, Steel-Tyred Wheels, Axles, Machinery and Building Castings, etc.—Wheel Foundry, Bessemer St. : Machinery Foundry and Office, No. 14 Winter St.

Besides the two large manufacturing establishments hitherto conducted by them—one, the Cleveland frog and crossing works, located on Fall street, Mr. Geo. C. Lucas, superintendent, where a specialty is made of the Lucas patent steel filling for frogs, crossings, etc. ; the other, the works on Winter street, quite extensive and devoted principally to the production of heavy machinery and architectural castings—Messrs. Bowler & Co. have recently erected a new foundry on Bessemer avenue, expressly for the casting of car wheels, one of the completest establishments of the kind in the world, constructed from original designs, equipped upon the most liberal scale in every department, and provided with all practical modern improvements and facilities. The building is 140 x 200 feet in dimensions, one end facing Bessemer avenue and the other the New York, Pennsylvania & Ohio Railway.

The sidings are a special feature which deserve mention. The track running to one end of the building is raised to a charging platform forty-eight feet in width and twenty feet above the level of the molding floor. Here the raw material of every kind is received, and delivered directly to the pile from which it is to be used in charging the cupolas, two in number. It has storage capacity for 500 tons of the various grades of charcoal iron used, and several car-loads of coke. Upon this platform is a thousand-pound hammer, with a drop of fifteen feet, for breaking old wheels. Its capacity is at least thirty wheels an hour—a vast improvement over the old-time sledge-hammer. Another spur runs on a lower level to the other end of the building to receive the finished product. The floor plan is entirely novel. Beginning at the south end (underneath the platform mentioned above), the middle portion is occupied by two cupolas, one 5 feet in diameter, with a capacity of 125 wheels per day, and the other 6½ feet in diameter, with a daily capacity of 300 wheels. A large Roots blower furnishes blast, and by an ingenious application of mercury in a U-shaped tube, the blast can be exactly determined.

In the engine room, adjoining the cupolas, is a 100 h. p. Lord, Bowler & Co. engine, which drives the blower and shafting that propels the cranes. In the room adjoining is the department for turning up axles, boring wheels, and putting them on axles. To the left of the cupolas is the sand bin, and next adjoining this are the core ovens. There are three ovens, 10 feet square, each holding 100 cores.

In the middle portion of the shop, of course, are the molding floors. A central shaft, running the entire length of the building, conveys the power by belts and gears to sixteen cranes, each surrounded by a molding floor, the total capacity being about 320 wheels per day. On either side of the room are overhead tramways, by which the wheels are run to the cooling or annealing pits at the further end. Over these pits is a traveling crane running across the shop and propelled by means of a cable and drum. After remaining in the pits three or four days, for the purpose of securing slow and even contraction, the wheels are removed and cleaned up ready for shipment. The chill is, of course, secured on the original castings by contact of the molten metal with a cold iron-ring.

N. P. Bowler established this house in 1863. A year later Wm. Bowler and Thomas Maher were admitted, and in 1870 Mr. C. A. Brayton became a partner, the firm adopting the style of Bowler, Maher & Brayton. The two last named retired in 1880, whereupon Mr. W. W. Balkwill was admitted, and the style changed to Bowler & Co. The wheels, railroad frogs, crossings, turnouts, etc., of the firm are celebrated for their excellence of material and workmanship, and are in use all over this continent, the demand increasing steadily from year to year.

GEORGE FAULHABER,

Manufacturer of Church Furniture, No. 555 Scranton Ave.

Mr. Faulhaber has had long and valuable experience in the manufacture of church furniture of all kinds, having established his factory here in 1879, which is fully equal to any demands made upon it from the business which Mr. Faulhaber has succeeded in building up. His machinery outfit for wood-working is complete, embracing all late improvements, and a competent force of skilled workmen is constantly employed, the work turned out including every description of pulpits, rails, seats, etc., a specialty being made of Mr. Faulhaber's own three-curve circular pews, which are protected by letters patent, are of his own invention, and are the most elegant, graceful and comfortable ever designed.

Mr. F. is an old resident of Cleveland, and has an extensive trade, his work being artistic, beautiful and attractive.

THE LAKE VIEW GRANITE WORKS.

Carabelli & Brogгинi, Proprietors—Sculptors and Builders of Granite Monuments of the Highest Order—Opposite Lake View Cemetery.



One of the encouraging signs of the growth of good taste and a love of art in this country is the improved character of the mortuary sculpture that of late years has superseded the rude efforts of former times, and which contributes so much to the appropriate adornment of our "cities of the dead." Among the most successful monumental sculptors in this country are Messrs. Carabelli and Brogгинi, who established themselves at the east end of Euclid avenue, opposite the entrance to Lake View cemetery, in 1880. At that time these talented and skillful men had little else in the world save their well-trained hands, stout hearts and industry with which to engage in the struggle for success in a strange land and in the face of powerful competition. That they *have* succeeded is proven by their books, which show the execution of orders to the value of \$50,000 for the past year, including some of the finest work in Lake View and other local cemeteries, besides soldiers' monuments at New Philadelphia and Elyria, Ohio, the latter costing \$8,000.

Messrs. Carabelli and Brogгинi are natives of Northern Italy, where they acquired the theoretical and practical knowledge of sculpture that has proven so valuable to them in the land of their adoption. They occupy extensive works, provided with a polishing mill run by a twenty-five horse power engine, and employ thirty-four skilled workmen, most of whom are their fellow-countrymen, trained in the best school of the art as practical sculptors. The work done here is of the best class as regards design and finish, and commands the attention and admiration of all who are capable of appreciating the beautiful in art.

The firm do much valuable work for private parties in the way of carvings and statuary, and give careful attention to the setting up of monuments in any part of the country, whether of their own production or imported.

ECLIPSE IRON WORKS.

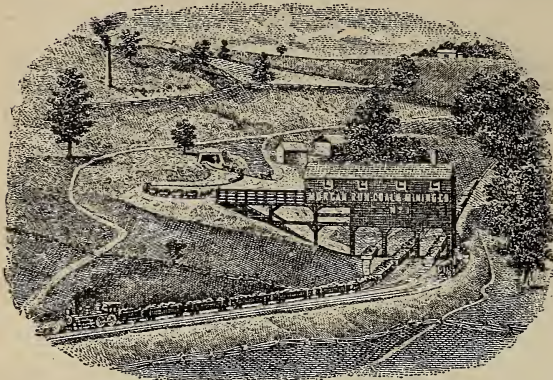
John and Thomas Macbeth, Proprietors—Manufacturers of Architectural Iron Work—Corner Center and Winslow Sts.

The employment of iron for building purposes—as supports, braces, girders, fronts, etc.—is rapidly growing in favor and is a sure indication of a spirit among builders that must eventually result in structural changes that will render American houses of all classes the most substantial and enduring in the world, while at the same time preserving the graceful lines and light appearance so dear to the artistic eye. Among those who have contributed largely to this result the firm of John and Thomas Macbeth, proprietors of the Eclipse Iron Works, of Cleveland, stands conspicuous. These works were established in 1870, and have always occupied a leading position in the trade, their specialties embracing an infinite variety in designs for store fronts, columns, lintels, gratings, stairs, railings, etc., besides every description of beams, girders, oven, furnace, rolling mill and sewer work, machine castings of all kinds—in short, anything and everything required in the way of iron work for building and kindred purposes.

The works, located at the corner of Center and Winslow streets, near the viaduct, were established in the year named by Messrs. John Macbeth and Robert Chambers, Mr. Thomas Macbeth succeeding Mr. Chambers in 1886. The capital invested is about \$30,000, the premises comprising an immense brick building with office attached. Forty men are regularly employed at good wages, and the output, valued at \$50,000 for the past year and constantly increasing, is shipped to all interior Ohio towns or made to the order of local builders.

THE MORGAN RUN COAL AND MINING CO.

F. C. Goff, President; H. D. Dennis, Secretary and Treasurer—Mines in Coshocton County; Office, 12 Bratenahl Block.



Of the numerous coal companies who make Cleveland their headquarters, we know of none that has accomplished more or is in better shape financially and otherwise than the Morgan Run Coal Company, office, 12 Bratenahl block. This company was organized and incorporated with a capital of \$200,000 in 1871. Mr. F. C. Goff is president and Mr. H. D. Dennis, secretary—both prominent and successful business men. The company owns 2000 acres of superior coal lands in Coshocton county, where they operate one of the finest drift mines in the State, and produce

150 tons of the best quality of fuel per day—a grade of coal that is pronounced unequalled for domestic heating purposes and especially for grates. The company also own and operate a line of railway three miles in length, running from the mines to Morgan Run station, on the Cleveland & Canton railroad, and when that road is thoroughly equipped for transportation purposes the output will be increased to 600 tons a day.

This company's fuel is in growing demand, both for domestic purposes and the generation of steam, and is eagerly sought by consumers here and all along the lakes.

UNION MUTUAL LIFE INSURANCE COMPANY OF PORTLAND, MAINE.

W. P. Abel, Agent—Room 28 Wilshire Building.

The plain endowment policy of the Union Mutual Life Insurance Company of Portland, Me., offers advantages well worthy of grave note. Whether these policies mature as death losses or by the expiration of their terms, whether regarded as insurance protection simply or as protection during a term of years and investment at the end of the term, they are profitable and remunerative, and present advantages which cannot be secured by any other form of insurance.

The company issues endowment policies which mature in ten, fifteen, twenty, twenty-five, thirty, thirty-five, forty, forty-five, and fifty years, and at the age of eighty-five. For the purposes of illustration, an average policy at the average age at which persons generally insure will be taken—a twenty-five year endowment issued at the age of thirty-five; *but it is to be borne in mind that proportional advantages will result from any other term and any other age of issue.* Looking at the policy in question, as a matter of insurance protection, in the first place:

The annual premium to be paid in each year, for age 35, during the twenty-five years, is \$39.68.

The plain life premium at the same age is \$26.38.

The difference, \$13.30, is the cost of the additional agreement by the company to pay the sum insured, \$1,000, at the end of the endowment period of twenty-five years. Under the life-policy the amount insured would be payable only in case of death, no matter how much the life of the party insured might be prolonged. \$13.30 per year, therefore, during the twenty-five years, or \$332.50, represents the cost of the certainty of receiving \$1,000 at the age of 60, over and above the possibility of not receiving it until the insured reached the age of 80, 85, 90, or even later. If the insured should live to the age of 72, he would then have paid, in additional life premiums, the difference between the life and endowment premiums during the twenty-five years, and still have a more than

fair chance of living to pay a still further large sum. *The additional cost of the twenty-five year endowment, therefore, is very slight, compared with the greater advantages resulting from the increased payment.* But suppose the insured should die during the term, having kept his policy in force by the regular and consecutive payment of the premiums: if he should die after having made few or many of his payments, his family would receive \$1,000, with additions, or if he has used his dividends to reduce premiums while the policy was in force, which would greatly reduce the cost of his endowment, then, of course, the amount paid him would be \$1,000.

The Union Mutual is also writing a policy termed the Maine Convertible, giving general satisfaction, and embracing the features of an endowment at life rates.

The company fixes a cash value to this policy, making it an absolute guarantee and a part of the policy contract, thereby doing away with estimates given by so many companies, thus giving to the insured a contract on which he can rely that it will be carried out to the letter, and a consolation that he is insured in a good, reliable company, and should his death occur while his policy is in force, his widow and orphans would be provided for.

The Union Mutual was organized in 1849 as a stock company, but the next year reimbursed the stockholders and reorganized on the mutual basis. It operates under the very conservative insurance laws of Maine, and is one of the markedly successful mutual life insurance corporations. Mr. W. P. Abel, of room 28 Wilshire block, is the agent here, and will cheerfully furnish all desired information.

KLEIN, MARKS & CO.,

Manufacturers and Jobbers of Men's Furnishing Goods—Nos. 137 and 139 Bank St.

This house, founded by Hays Brothers, passed into the hands of Klein & Lehman in 1885, and on the first of February last the present firm, composed of Messrs. Henry F. Klein and Martin A. Marks, succeeded. Mr. Klein was born and reared in Cleveland and was connected with the firm of Hays Brothers. Mr. Marks came here from Madison, Indiana, on the formation and establishment of the present firm. Both are good business men of large experience and great energy, and have made such a pronounced success of their venture that a removal to more commodious quarters was needful, and they accordingly left their old location at No. 129 Bank street to occupy their present handsome four-story double block, where they have excellent facilities for conducting a very large business in men's furnishing goods, of which they handle vast quantities both as manufacturers and jobbers, buying the uncut materials in large lots and having them manufactured to order under their own supervision, their specialties embracing everything known to the trade in fine and medium grades of the latest styles and best workmanship. They are already headquarters in this city for Ohio, Indiana, Kentucky and Western Pennsylvania buyers, and expect to still further enlarge their field of operations as the inducements they offer become more widely known.

G. F. VATTELER,

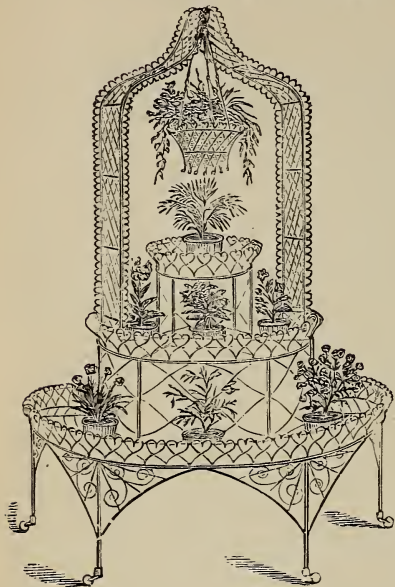
Manufacturer of Church Organs—No. 11 Jennings Ave.

Mr. Vatteler is a famous organ builder, instruments of his construction being found in many of the finest churches in this country, where they are regarded as equal in all respects to those of any other manufacturer in existence. His work covers the entire range of church organs, from the simple single key-board with ten stops to the grand instrument of three key-boards and forty-two stops. The most accurate skill and greatest care are exercised to render these organs perfect in style, workmanship, material and tone, and none but accomplished workmen, faithful and conscientious, are employed, all of whom are under the immediate personal supervision of Mr. Vatteler himself. Everything save the mere rough preparation of the lumber and castings is done by hand, thus insuring exact accuracy in each part and the best possible results as a whole. As an evidence of the high standing accorded Mr. V.'s organs it may be stated that about twenty of the best instruments in the churches of Cleveland are from his establishment, founded in 1857.

Mr. Vatteler's factory, 25 x 50 feet, three stories, with annex, is located at No. 11 Jennings avenue, and is complete in all departments. He builds organs of any desired grade, valued at from \$800 to \$5,000.

FOREST CITY WIRE AND IRON WORKS.

Geo. W. Merrell and Geo. B. Merrell, Proprietors—Manufacturers of Steel and Brass Wire Cloth and Wire and Iron Work—No. 111 Franklin Ave.



Wire goods and ornamental and architectural iron work are coming into more general use year by year, and machinery for their production barely keeps pace with the demand. A prominent concern in this industry is the Forest City Wire and Iron Works, No 111 Franklin avenue, Cleveland, of which Messrs. Geo. W. and Geo. B. Merrell, successors to the Forest City Wire Cloth Company, are proprietors. The works occupy a substantial two-story building 60x140 feet, and are well fitted up with boilers, engine, gas engine, twenty-two wire looms, punches, drills, lathes and a variety of other suitable machinery, employ thirty men and women, and do a very large business in the aggregate, the specialties including every description of wire cloth and ornamental and architectural wire and iron work and fine brass work, office and bank railings, door and window guards, elevator enclosures, door and window screens, roof cresting, sidewalk grating, fire escapes, sand, lime and coal screens, foundry riddles and sieves, wire forms and stands, flower baskets and stands, spark guards, twist wire netting, bar fixtures, wire and iron fencing, etc.

PAIGE CAR WHEEL COMPANY.

Julius E. French, President ; W. H. Silverthorn, Secretary ; W. S. Dodge, Treasurer ; Ross Kells, Superintendent—Manufacturers of Page's Patent Steel Tyred Wheels—Factory, Mason St. ; Office, No. 211 Superior St.

The Paige patent car-wheel, in plan of construction, is suggestive at once of strength and durability and perfect adaptation to passenger, sleeping and drawing-room cars, locomotive and tender trucks. These wheels are made with wrought steel tyres, four inches thick through tread, and best quality steel side-plates, securely bolted and so combined as to render them absolutely safe, durable and noiseless. These wheels were first introduced in 1876, and their continued and constantly increasing use—nearly seventy railroads having adopted them—has fully demonstrated their superior merits and established their reputation and success.

The tyre (of wrought steel) is four inches deep through the tread. It is not heated, but secured in place by means of steel side-plates half an inch thick, forced into the tyre and into the hub at the same time by hydraulic pressure; and to make them doubly secure, the plates are bolted together. A hollow space is left between the plates and between the hub and tyre, which renders the wheel less liable to retain heat from brake service than any other, and causes all contraction and expansion to affect all parts of the wheel alike. This company has the official record of mileage of a large number of wheels furnished to railroads, showing 200,000 miles run before a first turning. One important advantage of this form of tyre section is due to the manner of rolling, which renders the tyre more homogeneous where it comes in contact with the rail.

The shops of the company, on the lake shore at the foot of Mason street, cover an acre of ground, are equipped with a full complement of new and improved special machinery and tools, employ a large number of skilled workmen, and are under the personal supervision of Mr. Ross Kells. The establishment is producing some seventy-five wheels daily, perfect in every particular. The office is at No. 211 Superior street.

THE HILL MANUFACTURING CO. (Limited).

J. B. Perkins, President; Jos. W. Smith, Secretary and Treasurer; A. J. Hill, Manager—Manufacturers of the Hill Incubators, Brooders, and all Kinds of Poultry-Raising Appliances—Lithograph Building, Nos. 76 to 100 Wood St.



The artificial hatching and rearing of chickens and other poultry, whereby the services of the mother hen are dispensed with from the time she lays the eggs, has received much attention of late years, and improvements in methods and appliances are made from time to time, each contributing to the simplification of processes and the certainty of results. The most progressive and successful inventor in this department of investigation and experiment is Mr. A. J. Hill, formerly of Beloit, Wisconsin, now of Cleveland, whose apparatus is conceded the palm for perfection of design and operation, in competition with all others. His devices cover the entire ground and include a complete line of incubators, brooders and poultry-raising appliances of ingenious design and construction which recommend them-

selves on sight to intelligent students of this industry and in practical operation have no rivals. They are now employed in many of the principal poultry-raising centers of the United States, Canada and Europe, and give universal satisfaction wherever introduced.

The Hill Manufacturing Co., limited, controls this unequaled line of poultry-breeding apparatus. Mr. J. B. Perkins, the president, is a very prominent citizen and business man, owner of the splendid and costly Wilshire, Blackstone and Perkins Power buildings, and president of the Walker Manufacturing Co. Secretary and Treasurer Joseph W. Smith came to Cleveland from Urbana in 1886. Mr. A. J. Hill is a Bostonian by birth. The warerooms of the company at present occupy 100 x 100 feet on the ground floor of the beautiful Lithograph building, corner Wood and St. Clair streets, where, equipped with steam power and an ample equipment of wood and metal-working machinery, and employing a good force of skillful mechanics under the personal direction of Mr. Hill, they for the time being keep up with their orders, though it is evident that ere long their facilities must be increased to meet the growing demand, the sales for this first year reaching \$50,000 in value.

UNION ROLLING MILL CO.

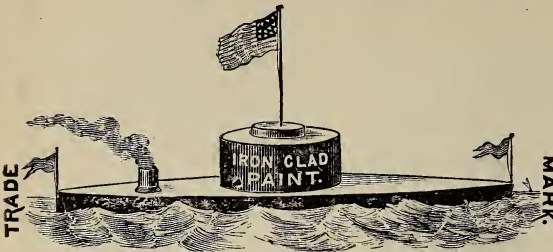
S. W. Sessions, President; A. S. Upson, Vice-President; A. R. Treadway, Secretary; S. A. Fuller, Treasurer and General Manager—Manufacturers of Bar Iron, Angle Splices, Light T and Street Rails and Pig Iron—Mills at Newburgh, Ohio; Office, No. 122 Water St., Cleveland.

The mills of the Union Rolling Mill Company were originally erected by the Ætna Iron Company at Newburgh, Ohio, some twenty years ago, coming into possession of the present corporation in 1880. Great improvements have since been made in the plant, which now comprises an immense iron-covered frame mill 200 x 400 feet, and a large blast furnace of 40,000 tons capacity annually. The capital stock invested is \$300,000; 500 men are employed; the pay-roll averages \$1,000 a day, and the yearly product is valued at \$1,500,000, the leading specialty being high-grade merchant bar iron, though immense quantities of angle splices, light T and street rails are made to order, and a great deal of superior pig iron put upon the market, buyers being easily found for all their products in all parts of Ohio and the West.

The officers of the company are named above. All are prominent business men of recognized character and standing. Mr. S. A. Fuller, the treasurer and general manager, who may be found at all reasonable hours in the company's Cleveland office, No. 122 Water street, is a native of Ohio, an enterprising, courteous and liberal-minded gentleman.

IRON CLAD PAINT CO.

A. Everett, President; James Wade, Secretary, Treasurer and Manager—Factory, Nos. 75 and 77 Central Way; Office, 3 Case Building.



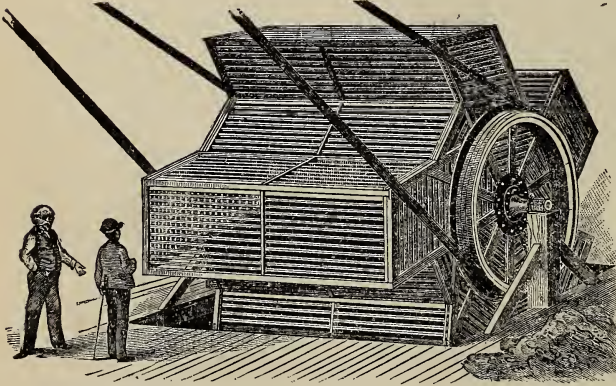
Trade Mark Patented Paint Patented.

and containing much ingenious and valuable machinery. The office is in room 3 Case building, where Secretary and Manager James Wade may be found at all reasonable hours, prepared to answer inquiries and fill orders for the "Iron-clad" paint. The output ranges from 800 to 1000 tons annually, which is shipped all over the United States, Canada, Mexico, and to some extent to Europe.

"Iron-clad" paint derives its chief excellence from the fact that it is made from the best iron ore combined by a special process with pure oil, thus acquiring the much sought property of great resistance to atmospheric and climatic changes. It is produced in four colors—rossie red, two shades of brown, and brown purple—the red containing, by analysis, 42.23 per cent. metallic iron, the light brown 54.11, the brown 63, and the brown-purple 65.60 per cent. These paints are largely used for painting all wood and metal surfaces exposed to the weather, and are pronounced unapproachable for excellence, convenience and cheapness.

FULLER'S STEAM CARPET CLEANING WORKS.

Dreman & Melcher, Proprietors—Nos. 291 and 293 Quincy St., Opposite Woodland Cemetery.



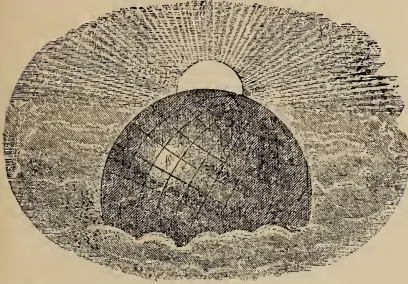
done in the best possible manner and the carpets thoroughly renovated. Carpets are taken up, cleaned and relaid or packed for shipment or storage at short notice, and satisfaction guaranteed, at moderate charges.

The works occupy a two-story building, 35 x 100 feet, and are provided with a boiler and a 15-horse power engine. On the first floor is a moth-proof storage room, and on the second a great vat containing two improved mangles, the only carpet mangles in existence, invented by one of the firm.

Messrs. J. H. Dreman and J. H. Melcher last year became proprietors of these works, established in 1871 by John N. Fuller, and have greatly improved them, enlarging their capacity and in other ways adding to their effectiveness. Five men and a variety of modern machinery are employed, including two tumblers and a Hunsche's patent cleaning machine, and the capacity is now 3000 yards per day, the whipping and washing being

THE GLOBE OIL COMPANY.

C. H. Gardner, President and Treasurer ; O. E. Kelsey, Vice-President ; E. M. Smith, Secretary—Manufacturers of Diamond Black Leather Oil, French Valve Cylinder, Extra Globe and Eureka Engine Oils—Offices 66, 67 and 69 Grand Arcade Building, No. 101 St. Clair St.



Messrs. Wales, Gardner & Co. established the Globe oil works in 1880, the present company succeeding in February, 1884, incorporating under the laws of Ohio. The officers are named above. The plant occupies ten acres of land on the C. & P. railroad, between Bessemer and Kinsman streets, the works alone requiring three acres of floor space, the principal building being 74 x 164 feet, with several smaller structures near at hand. A force of ten men is employed, and the outfit for manufacturing their oils is both complete and expensive. Careful attention is given to

the production of the very best leather oils and lubricants, and their well-known brands are now in constant demand where once they have been used. Their "Diamond Black" leather oil has achieved an extraordinary success, and is now standing at the head as an oil for all kinds of leather. Their trade extends throughout all the States. The officers of the company are all Clevelanders and directly interested in the progress and prosperity of the city, and are young men of push.

ROSEWATER BROS.,

Proprietors of the Rosenwasser Laboratory—Manufacturers of Druggists' and Grocers' Specialties—Nos. 111 and 113 Water St.

This well-known and enterprising firm has, within a very short time, achieved a national reputation. Beginning in a very small way a few years ago, they have succeeded in placing their goods in almost every home within the territory of the United States, making the name of their justly celebrated "O K" preparations a household word everywhere. The unparalleled success of the now famous



preparations is due mainly to the high and uniform standard of quality maintained in their composition, as well as to the ingenious methods in which they have been advertised.

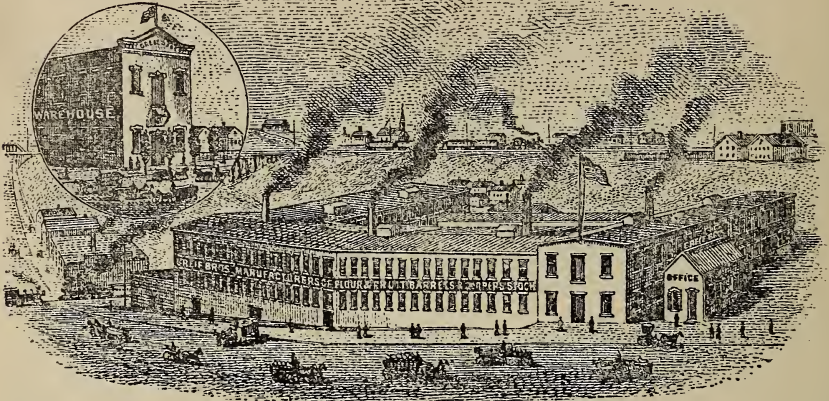
The extensive laboratory in which the goods are manufactured is under the immediate and direct supervision of Mr. Nathan Rosewater, formerly in charge of one of the largest laboratories in the country, also head chemist of the New York hospital. Mr. Rosewater is a chemist whose rank in the profession is among the first, and whose experience in the specialties to which he here devotes his time places him second to none in this country or elsewhere. Strongly original, he is eminently practical, developing through these qualities the foundation for the extensive growth of the institution.

In connection with the laboratory they have a fully equipped printing office, run by steam power, in which all their beautiful colored labels and show cards are printed. This department, as also that of advertising, is in charge of Mr. Frank Rosewater, a practical printer and a newspaper man well versed in advertising methods. The general management of the business is under the direction of Mr. Joseph Rosewater, a man of long and successful business experience.

Among the numerous preparations they make we find the O K baking powder, so widely known ; O K flavoring extracts, a full line ; O K writing ink, all colors ; O K grip, a mucilage, cement and glue ; O K white rose perfume ; O K sewing machine oil ; O K insect powder ; O K sarsaparilla ; O K condition powders ; I Cure U liver and kidney cure ; Deville's bitters ; O K bluing ; O K cough syrup, and O K glycerine.

GREIF BROS.,

Manufacturers of Barrels and Coopers' Stock—Factory, Willey St.; Warehouse, Monroe St.; Office, No. 254 Willey St.



This monster cooperage house was established in 1877 by Vanderwyst & Greif, and proved a most successful business venture. In 1882 Mr. Vanderwyst retired, the firm then becoming Greif Bros.—William and Charles O. Greif. The works are the largest of the kind east of St. Louis and west of New York, equipped with a large and valuable complement of improved machinery, and have a capacity of 3000 slack barrels per day. The work turned out is of the best quality, and is in constantly increasing demand among millers, fruit packers and others, and besides a large local trade the firm ship extensively to Northern Ohio, Western New York and Pennsylvania points. Their source of timber supply and mills are near Chatham, Ontario. The factory on Willey street, two stories in height, covers ground 425 feet square, and employs a large force. The warehouse on Monroe street is 32 x 40 x 120 feet, and of great storage capacity, the firm dealing largely in coopers' stock of all kinds.

Some idea of the business transacted by the firm may be drawn from the fact that their sales average \$25,000 per month in value and that they require here in Cleveland eight buildings for shops and storage.

HOWE & WAGNER,

Produce Commission Merchants—No. 17 Huron St.



The firm of Howe & Wagner, established April 15 last, already gives unquestionable evidences of capacity, tact and assured success. With a cash capital of \$8,000 and possession of an eligibly located three-story brick business house, 22 x 80 feet, their material advantages are unsurpassed, while the experience and industry of both members promise most excellent results.

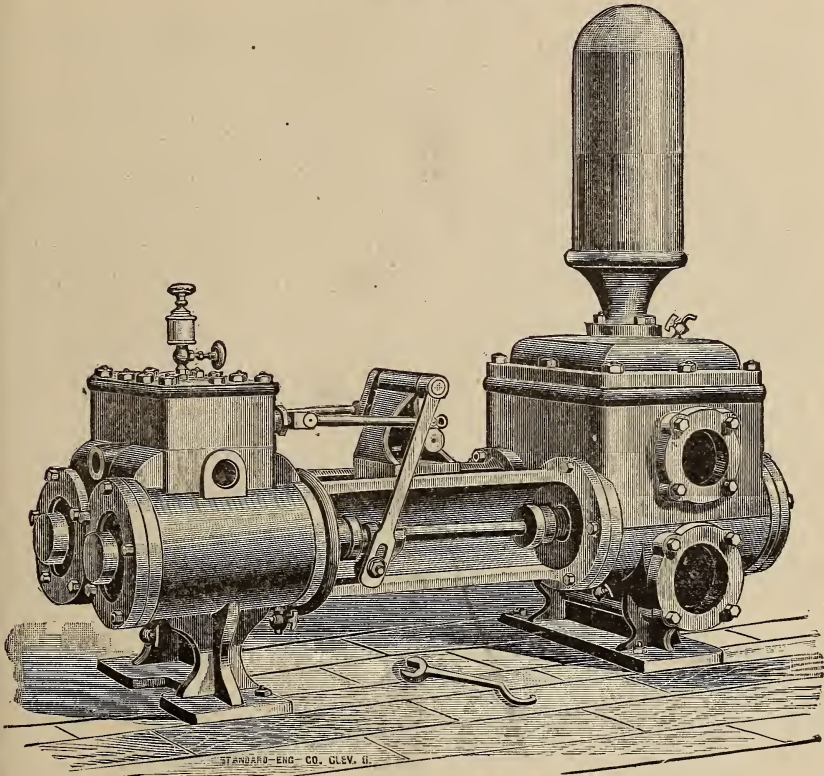
The firm handle every description of country produce on commission, drawing on the vast productive territory comprising the States of Ohio, Indiana, Illinois and Michigan for supplies, and shipping to all principal markets as far as New York. Making liberal advances to consignees, and with quick returns at best market prices, they are making themselves popular with producers and shippers as well as with the trade.

In addition to the commission business in domestic produce the firm are extensive wholesale dealers in foreign and domestic fruits in season—oranges, lemons, bananas, apples, peaches, etc.

Both members of the firm are Americans by birth. Mr. Howe has been connected with the commission business for nearly twenty years. Mr. Wagner was, previous to his present venture, with Gabel & Frisby, coffee and spice dealers, for a year and a half.

HUGHES BROS.,

Builders of Hughes Bros.' Improved Steam Pump, Ice Machines and Hydraulic Presses
—Nos. 41, 43 and 45 Viaduct.



Messrs. Robert and W. H. Hughes are energetic and skillful business men and practical mechanics, who came to Cleveland from London, Canada, in 1880, and established themselves in business as general machinists at No. 10 Columbus street, removing later to the imposing six-story manufacturing building Nos. 41 to 45 Viaduct, where they occupy one floor 75 x 200 feet, fitted up with special reference to their requirements, and containing a superb equipment of powerful and ingenious machinery, adapted to the construction of their own specialties—Hughes' improved patent steam pump, ice machines, hydraulic presses, etc. Fifty operatives, including skilled workmen, laborers and apprentices, are employed, and the output for 1886 was valued at \$200,000, those figures being vastly exceeded the present year, the demand for their machinery augmenting at a rapid rate throughout this country, while heavy shipments are constantly made to the oil fields of Russia, where the Hughes pump (illustrated above) is regarded with great favor because of its simplicity, strength and wonderful effectiveness.

Mr. R. Hughes, the senior member, is a thorough mechanic and engineer, ingenious and practical, whose life from boyhood up has been passed in the machine shop. The firm is a successful and flourishing one, and will be heard of in the front rank of American manufacturers.

R. T. HOLDEN,

Dealer in Paints, Oils, Colors, Varnishes, Brushes, etc.—No. 53 Frankfort St.



Cleveland is the center of an immense trade in paints and painters' supplies, and several of the most extensive manufacturing and wholesale jobbing houses in the country are located here. Prominent among the latter class is the well-known concern of Mr. R. T. Holden, No. 53 Frankfort street, which carries at all seasons an immense stock of paints, oils, colors, varnishes, brushes, putty, materials and painters' supplies of every description, making a specialty of John W. Measures & Sons' celebrated colors, unrivaled for brilliancy, permanency and other desirable qualities.

Mr. Holden, a native of Cleveland, was formerly engaged on an extensive scale in the manufacture of sewing machine woodwork, but disposed of his plant and goodwill to Mr. Theodor Kundtz (elsewhere referred to in these pages). Mr. Holden occupies the ground floor and basement at the above location, 20 x 100 feet, and does a considerable retail business locally, besides a vast wholesale trade extending to all parts of this and adjoining States. He is a prominent and popular citizen and a pleasant gentleman, and served in Co. "A," 8th U. S. infantry, from 1861 until 1867, serving in the Army of the Potomac during the rebellion, and has represented the Sixteenth and Twentieth wards in the Common Council.

E. V. JEWELL,

Merchandise Broker—Rooms 8 and 9, No. 130 Water St.

Mr. E. V. Jewell stands deservedly high among Cleveland business men as a clear-headed, alert and progressive merchant and citizen, and his rooms present a busy scene during business hours all the year round, presenting a vast array of samples of all goods usually handled by merchandise brokers of the first class.

Mr. Jewell came hither from New York in 1873 and established himself, first in the Atwater building, removing in 1876 to No. 222 Bank street and in 1881 to his present location, where he possesses every conceivable facility for the prompt and satisfactory transaction of business on a large scale, his annual sales averaging about \$4,000,000, and his connections permeating every corner of this and all other commercial countries representing numerous heavy importers of teas, coffees, etc., and having correspondents in all leading American and foreign markets. He is ably assisted by his nephew and partner, Mr. E. M. Jewell, also a New Yorker, who joined the house here in 1877.

CLEVELAND NITROUS OXIDE WORKS.

G. W. Downer, G. Clarke, Proprietors—Manufacturers of Nitrous Oxide Liquid Gas—No. 106 Canal St.

All dentists and most of their patrons are acquainted with the properties of nitrous oxide gas, the wonderful anæsthetic that has contributed so much of late years to relieve suffering and assist the profession in the performance of difficult and delicate operations while avoiding the danger that attends the employment of chloroform and ether. There are in the United States but three establishments devoted to the manufacture of this gas, and but one in the West—that of Messrs. Downer & Clarke, known as the Cleveland nitrous oxide works, occupying the first floor at No. 106 Canal street, and established in April, 1884. The machinery equipment, specially designed and constructed for the purpose, embraces all late improvements and is unsurpassed for efficiency and completeness, the stills, retorts, pressure machines, etc., being of the latest and most perfect description. The annual output averages 500,000 gallons, and the gas is of the best and most reliable quality, in demand by the dental profession all over the United States. It is prepared in liquid form, put up in iron cylinders under pressure, and shipped in quantities of 100 to 500 gallons

ISAAC LEISY,

Brewer and Bottler of Strictly Pure Premium Lager Beer—Nos. 289 and 312 Vega Ave.



BREWERY

This brewery was originally built and operated by Fred Haltnorth, Messrs. Isaac Leisy and brothers purchasing in 1873, and Mr. Isaac Leisy becoming sole proprietor in 1880. Many and valuable improvements have been made—the entire plant reconstructed in fact—and at present it ranks among the finest and most complete in the country, the principal buildings being of brick, 165 x 200 feet, and comprising brew-house, malt-house, store-house, boiler and engine-house and house for ice machine. The equipment is first-class; 70 to 75 men are employed, and the capacity is 52,000 barrels, of an average value of \$300,000 per annum. The leading specialty is a strictly pure premium Budweiser beer—a great favorite at home and abroad, largely sold by the local trade and throughout Northern Ohio, as well as at Pittsburgh, Salem, Alliance, Conneaut, Ashtabula, Painesville, etc., at each of which points wholesale agencies are maintained. Forty-two horses and eighteen wagons are required by the city trade alone, and for their accommodation extensive barns and stables are provided. All work connected with the brewery is done on the premises, and blacksmith and cooper-shops form a portion of the plant.

Mr. Leisy is of German birth, and came here away back in the fifties.

HART & CO.,

Jobbers in Millinery—Nos. 95 and 97 Bank St.

The millinery jobbing trade has no more reputable and few more extensive representatives than the great house of Hart & Co., Nos. 95 and 97 Bank street, established in 1881 to take the place of Morgan, Root & Co.'s millinery department, and developed by the present firm into magnificent proportions.

Messrs. Hart & Co. occupy four commodious floors, 44 x 120 feet, and exhibit superb lines of millinery goods in all grades, from the richest Parisian novelties and importations from Berlin, Vienna and London, to the most unpretentious American productions, to all of which the attention of the trade is invited with the assurance that the best possible terms are offered to buyers in large or small lots.

The members of the firm are Messrs. E. L. and F. W. Hart and A. Van Tuyl, all of whom were with Morgan, Root & Co. for various periods—the first twenty-one, the second eleven, and the third fifteen years. Their New York office is at No. 96 Spring street.

RUBBER PAINT COMPANY.

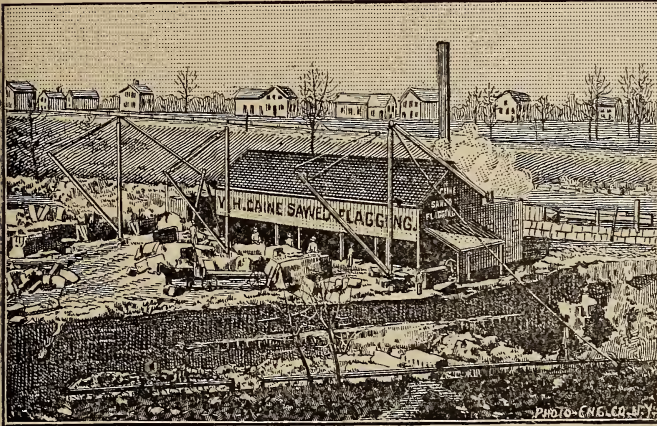
E. B. Wight, President; N. C. Brewer, Secretary and General Manager—Manufacturers of Rubber Paint—Nos. 57 to 61 James St.



It is claimed that the paints of the above-named company are the "Best in the World," and excellent proofs of that claim are presented in the form of testimonials from experienced practical painters, as well as from property owners, who have used these paints for the past eighteen years, many buildings being in good condition which were painted from seven to ten years ago. The incorporation of India rubber with the various pigments appears to be the secret of the fine gloss, elasticity, and great durability of these paints which are furnished to order in colors and quantities to suit, and are guaranteed to give satisfaction in all essentials, such as durability, brilliancy, ease of manipulation and comparative cheapness. The Rubber Paint Company was organized in 1873, with a capital of \$500,000, and now has factories in four leading cities, as follows: Chicago, six stories, 42 x 112 feet; New York, six stories, 60x85 feet; Cleveland, four stories, 60 x 120 feet; St. Louis, a large concern, dimensions not stated. All are fitted up with special machinery and appliances, and one hundred and fifty men are employed in all. The trade of the house extends all over the world, and is very heavy in South America and Australia, as well as in all the States, Canada, Mexico and the West Indies. It is the Pioneer Rubber Paint Company, and in point of reputation and patronage has no rival. The advantages of a strictly pure rubber paint are so many and obvious as to require no enumeration, but may be summed up in one sentence: "Best in the World," especially for work that is exposed to the elements. Any one contemplating painting or building should send for their book, which contains colored plates of house elevations and other valuable information.

W. H. CAINE,

Proprietor Ohio Blue Stone Quarries—Manufacturer of and Dealer in Sawed Flagging, Door Sills, Steps and Landings, Window Caps and Sills, Water Tables, Ashlar, Curb and Cross Walks—Block Stone, Footing and Perch Stone—No. 2836 Broadway.



A marked point of superiority possessed by the Ohio blue stone from Mr. Caine's quarries is that it does not spot or scale on exposure as do other grades of similar stone. Mr. C. has been quarrying and working this splendid stone for the past twenty-two years, and has yet to hear the first complaint on this score. He opened his first quarry—about half a mile from his present works—in 1865. The old quarry is still worked to some

extent, but for reasons of economy and convenience the new quarry on Broadway, opened in 1883, is made the principal scene of operations. Both together comprise about five acres, and, because of the quality of product and accessibility, are among the most valuable of the kind in the State. The works are fitted up with a steam boiler and engine and six gangs of saws, all under shelter of a substantial wooden building, and a force of some thirty men are employed in the various operations of quarrying and preparing stone for use. The annual output averages about 100,000 feet of finished work and 3000 perches of building stone, valued in all at over \$20,000. The specialties embrace the best grades of Ohio blue stone flagging and building stone, window and door sills and caps, steps, landings, water tables, ashlar, curb and cross walks, etc.

TRAVELERS' INFORMATION BUREAU.

A. J. Jackson & Co.—Railroad and Steamship Ticket Agency—Drafts, Money Orders, Letters of Credit, etc., on All Parts of the World—No. 224 Bank St.

In a country like ours, which is more than any other a highway of nations, and particularly at great railroad and navigation centers like Cleveland, there is a constant demand on the part of travelers and tourists for reliable information concerning transportation routes, tickets, exchange, etc., which few ordinary ticket agents are prepared to furnish. It was with the object of meeting this growing want that Messrs. T. F. Newman, A. J. Jackson and J. Folkman established at No. 224 Bank street the Travelers' Information Bureau, where the stranger from any portion of Europe or America may obtain such instructions on the best and cheapest means of reaching his destination and other assistance as he may require, promptly, intelligently, and without risk of being victimized. The firm also furnish railway and lake and ocean steamship tickets at lowest legitimate rates to any portion of this country or Europe, issue drafts, money orders and letters of credit on European monetary centers, and, in short, make themselves generally useful on reasonable terms to the classes mentioned. Theirs is also the city office for the sale of passage tickets via the Detroit and Cleveland Steam Navigation Company's palatial steamers, a fact which tourists and others will do well to bear in mind.

Messrs. Newman, Jackson and Folkman have resided in this city for a number of years, have had long experience, and are polite and obliging gentlemen.

A. TEACHOUT & CO.,

Dealers in Sash, Doors, Blinds, Window Glass, etc.—Nos. 42, 44 and 46 Michigan St.



42 44 & 46 MICHIGAN ST. CLEVELAND, O.

use, 50 x 110 feet which will be occupied in time for the business of the ensuing season, the outlook for which is very flattering and indicative of a vast increase of sales. As will be perceived from the dimensions of the new building, this will more than double their facilities for the transaction of their business.

Messrs. Teachout & Co. carry an immense stock of the materials named, of the best make and styles, and have a heavy regular patronage from dealers at home and all over Eastern and Northern Ohio and Western Pennsylvania, and extending, by means of their branch house at Columbus, Ohio, into and throughout Kentucky and West Virginia. This branch house is also known under the firm name of A. Teachout & Co., and is composed of Messrs. A. and A. R. Teachout.

A special feature of this business is the glazing department, where window sash are primed and glazed and packed ready for shipment to any part of the country. In this department a large force of employés are constantly engaged. To supply this branch of their business requires large quantities of glass, and this renders them one of the largest buyers of window glass in the city. This branch of their business is growing proportionately to their other transactions.

Successful in making it a point to always render satisfaction by the superior quality of their goods, and always giving their customers the benefit of the lowest market prices, the circle of the trade of this firm is constantly increasing, and A. Teachout & Co. have deservedly acquired the reputation of being one of the most liberal and prosperous houses in the city. The present style of the firm was adopted in 1877, all the members of which are residents of Cleveland.



27 & 29 WEST SPRING ST.
COLUMBUS, O.

EXCELSIOR CRACKER WORKS,

Nos. 861 and 863 Willson Ave.

The manufacture of bread in all its varieties is a wide-spread industry, scattered throughout every section of the country. In this city the Excelsior Cracker Works stand prominent both for the extent and completeness of their business. The specialties manufactured are crackers, cake, and bread of a superior quality. The buildings occupied in the cracker department are 60 x 120 feet, occupying three floors. The bread and cake bakery occupies a building 70 x 50 feet. All the necessary and improved machinery consistent with thorough and rapid work is here employed. The number of bakers, second hands, and other help employed is sixty, who are given steady employment. The principal trade is located in the city, where the demand for their goods is sufficient to the full capacity of the works.

Mr. G. C. Julier, the proprietor, is a gentleman of large experience, a practical and thorough baker, who has given years of attention to this particular branch of trade, and not only has he succeeded in securing a leading trade position in this city, but he has also built up a business which is bound to prosper, as customers recognize the superior quality of his goods, and realize the promptness and fair dealing which is his chief characteristic.

The "Excelsior" has just opened an elegantly-appointed, attractive, and magnificently stocked retail department in the Cyclorama building, Erie street and Euclid avenue, where full lines of their goods will be kept at all times.

PROSPECT HOUSE.

Col. R. A. Gillette, Proprietor—Corner Ontario and Prospect Sts.

The Prospect is one of the most comfortable, snug and tidy hotels in Ohio, located conveniently to the business center, offering neat, clean and rest-inviting rooms and a luxurious table, and all the attractions of a first-class hotel with none of the fuss, ceremony and extortion so often features of those pretentious caravansaries. Col. R. A. Gillette, the proprietor, formerly occupied the same relation to the famous old Weddell House, and is one of the best-known and most popular hosts in the country. The building itself is a handsome one of four stories, the ground floor being occupied by stores. There are ample accommodations for 150 guests, with the best of service, and those who once stop at the Prospect will do so again.

Col. Gillette has conducted the house during the past six years. He is a typical landlord and an entertaining companion. For many years he was a prominent commission merchant in produce, taking up hotel-keeping later. He was born in Trumbull county, and lived in Portage, Ohio, of which place he was postmaster for twelve years, having previously served in the State Senate, and has twice held commissions with the rank of colonel.

HUTSON COAL COMPANY.

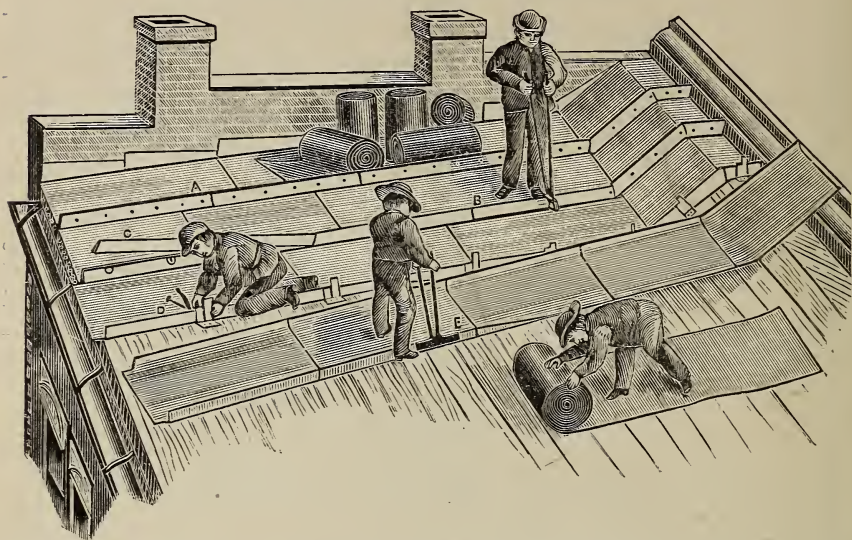
H. D. Hutson, President; E. C. Burke, Vice-President; H. D. Marble; Secretary and Treasurer—Miners and Shippers of Palmyra Coal—Office, Room 67 Wilshire Building.

A favorite fuel in this market, and claimed to be the best in Ohio for general purposes, is the celebrated "Palmyra" coal, mined near the town of that name in Portage county. The Hutson Coal Company is a conspicuous and prosperous operator in this superior grade of coal, with principal office at room 67 Wilshire building, Nos. 209 and 211 Superior street. This company, the officers of which are named above, was incorporated in 1884 with paid-up capital stock to the amount of \$25,000, owns a large body of valuable coal land, employs a fine equipment of improved machinery and sixty men, and puts on the market about 25,000 tons of choice fuel per annum, nearly all of which is disposed of readily in Northern Ohio towns, giving entire satisfaction to consumers.

President Hutson is an old and much respected resident of Deerfield, Portage county. Vice-President Burke was born, reared, and still resides in Cleveland. Secretary and Treasurer Marble, who is also general manager, is a native of Cleveland, and was formerly connected with the Union Rolling Mill Company and with the South Cleveland Provision Company. He is a thorough business man, wide-awake and liberal.

GARRY IRON ROOFING CO.,

Manufacturers of Iron Roofing, Siding, Ceiling, Shingles, Ridge Caps, Doors, Shutters, Roofing Cement and Paint, etc.—No. 152 Merwin St.



Of all the materials necessity or convenience has ever suggested for roofing purposes, and more especially for large and otherwise unprotected business houses, ware-houses, factories, mills, etc., none have ever given the same satisfaction in point of utility, simplicity, durability and convenience that is justly claimed for sheet iron as prepared by modern improved processes. The greatest iron roofing works in the world are those of the Garry Iron Roofing Company, office No. 152 Merwin street, this city, who have made and shipped to consumers scattered from the Atlantic to the Pacific, and from the lakes to the gulf, over 15,000,000 squares (1,500,000,000 square feet) of their superb roofing in the past sixteen years, and the demand continues to increase at such a rate as to compel the multiplication of facilities to meet it. The industry was originally founded in 1871, by Needham & Garry, afterward changed to Needham, Garry & Powers, then to Powers & Needham, and finally to the present style, which firm has a cash capital of \$50,000. The factory, formerly on Columbus street, was removed in 1881 to the premises now occupied—an immense two-story brick building, 90 x 180 feet square. A fine complement of machinery and fifteen men are employed, and the output for the past year was valued at \$100,000.

Our illustration shows the manner of applying the roofing. "A" presents the seam complete; "B," riveting on the cap; "C," cap partly on; "D," putting down cleat or anchor; "E," forming up the sides with roofing tongs.

Besides roofing, the company manufacture full lines of plain and corrugated siding, ceiling, metal shingles, ridge-caps, doors, shutters, roofers' tools, roofing cement, roofing paint, etc. Persons interested should write for illustrated circular.

W. L. HURLBUT,

Dealer in Anthracite and Bituminous Coal—Room 1 National Bank Building.

Mr. W. L. Hurlbut is an old and popular Clevelander, and previous to embarking in his present venture, in 1886, was a well-known and successful lumber merchant.

Mr. H. deals in all grades of hard and soft coal, for manufacturing and domestic purposes. He is a pleasant, affable and liberal gentleman, upright and honorable in his dealings, and worthy of the prosperity that has attended him in his new field.

THE OHIO SEWER PIPE CO.

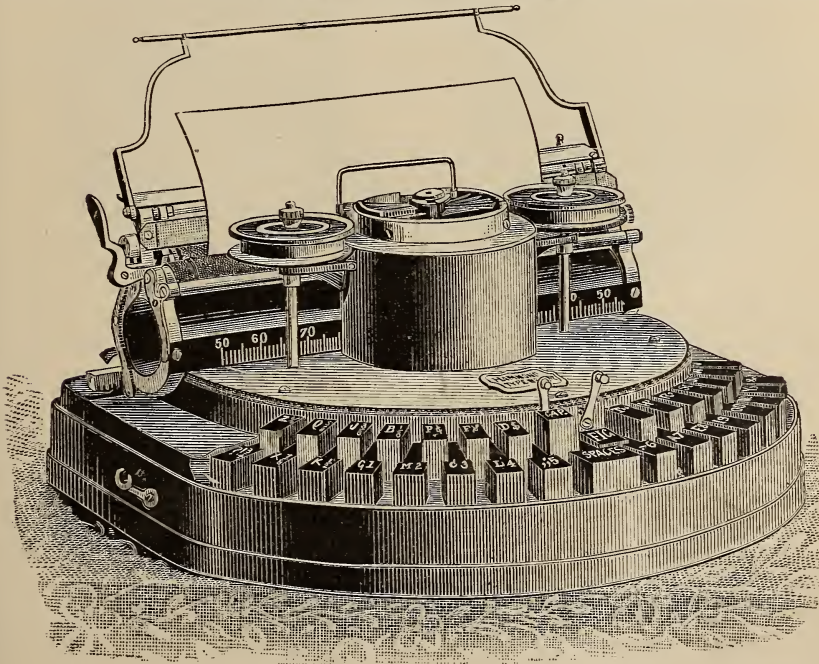
F. H. Colman, President; Percy C. Hamilton, Secretary and Treasurer—Manufacturers of Vitrified Salt-Glazed Sewer and Water Pipe—Office, Wilshire Building, Nos. 209 and 211 Superior St.

Owing to its indestructibility from the action of acids and dampness, and its comparative cheapness, vitrified salt-glazed sewer pipe made of high-grade Ohio fire clay is rapidly superseding iron for all drainage and fluid-conducting purposes, underground, save where a high pressure is maintained, as in the case of water-works pipes. As a consequence, the manufacture of this kind of pipe has grown into a great industry, the demand multiplying every year and taxing the facilities of producers to the utmost.

One of the most complete plants of the kind in the State is that of the Ohio Sewer Pipe Company, located on the line of the P., M. & C. and N. Y., P. & O. railroads, in Columbiana county, at a point where is found an inexhaustible supply of the best obtainable fire clay. The company was incorporated the present year and commenced operations with a capital stock of \$96,000. The officers are F. H. Colman, president; Percy C. Hamilton, secretary and treasurer; general office, Wilshire building, Nos. 209 and 211 Superior street, Cleveland, where all required information, price lists, etc., may be obtained. A working force of seventy-five men is employed; the facilities are all that could be desired, and the capacity is 2,500 car loads per annum of Ohio standard pipe, which is shipped to all parts of this continent.

WILLIAM E. GATES,

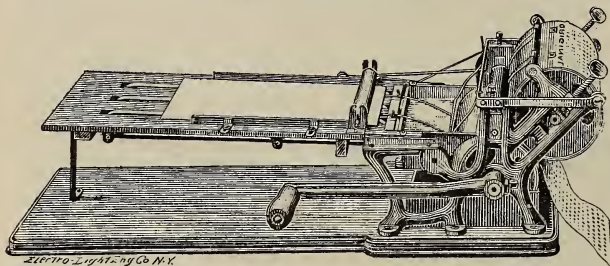
General Agent of the Hammond Type-Writer Co.—Dealer in Copying and Duplicating Machines—No. 158 Public Square.



Mr. Gates, a native of Georgia, came to Cleveland last March, and established himself as general agent for the introduction into Northern Ohio of the wonderful Hammond Type-Writer, illustrated in the above cut. This machine on the score of merit alone received the only gold medal awarded this class of exhibits at the New Orleans Cotton

Centennial Exposition, has received other special medals, and is enthusiastically indorsed by leading railway and insurance companies, stenographers, manufacturers, newspapers and the professional and business public generally, wherever introduced.

The usefulness of a type-writer in all branches of business was demonstrated long ago, but the Hammond has taken for itself the position of *the* type-writer, of that one which always gives perfect work, both as to alignment and impression, whose range of work, ease of operation and durability are greater than those of any other type-writer. The Hammond is peculiar in that it is so largely mechanical in its action, a quality that can hardly be too marked, and which affects the speed of the instrument directly. Many of its operators take dictation directly upon the machine, and without the use of shorthand. We have not the space for such a description of the Hammond as it might receive, but those interested will be furnished with the desired information at the office, 158 Public Square.



Mr. Gates further makes a specialty of machines for copying and duplicating, in the lead among which is the Thomson rapid copying and duplicating machine, which is designed to, and does, reproduce type-writing and manuscript with a clearness and rapidity surpassing all other devices. An original is made without any of the paraphernalia of other devices, by the type-writer, or by writing with a lead pencil; by placing it on the top roller, face downward, turning the crank and feeding in the sheets, the results are seen in thirty to seventy-five duplicates, and by the preparation of other originals at the same time, in from 150 to 200 copies. The invention is simplicity itself, and requires no special training to produce these results. The only supplies needed are tissue paper for originals, a duplicating ribbon, and carbon manifold sheets. The use of the ribbon alone gives fifteen copies on tissue paper.

NEW JOHNSON HOUSE.

S. E. West, Proprietor; H. B. West, Manager—Nos. 131 and 133 Superior St.

The famous Johnson House has for many years been a prominent feature of Cleveland, having been first opened by the Mr. Johnson from whom its name was derived as long ago as 1850, thirty-seven years. The building is four and a half stories in height, 75 feet front, 170 feet deep, contains—besides parlors, sitting and dining rooms, halls, office, kitchen, etc.—seventy-five clean, comfortable and pleasant guest chambers, and can accommodate 300 people per day at its well-kept and abundantly supplied tables. Everything is the best the market affords, the cookery and service unexceptionable, while the rates are remarkable for moderation—\$1.50 to \$2.00 per day, dependent upon location of room.

Mr. S. E. West, the genial proprietor, is a noted boniface. Twenty-one years ago he kept the Put-in-Bay summer resort; in 1874 he was mine host of the Lake House, and in 1876 of the West House, both at Sandusky, the Lake House proving too small for his growing patronage. In 1881 he came to Cleveland, soon thereafter taking charge of the Johnson. In 1885 the house was renovated, repaired, repainted and repapered, remodeled, refitted and refurnished throughout, and under the amplified appellation of the New Johnson House is enjoying a degree of popularity and prosperity never hitherto known in its history.

Mr. West is a native of Cuyahoga county and widely and favorably known in city and country. He gives his entire attention to the comfort and pleasure of his guests, employs none but polite and attentive servants, and, in short, "knows how to keep a hotel," and does it.

CLEVELAND MANTEL AND GRATE CO.

W. O. Williams, Proprietor—Manufacturers of Mantels, Dressers, Table Tops, Wainscoting, Grates, etc.—Cor. Superior St. and Sterling Ave.



One of the most attractive of interior decorations for parlor or sitting-room is an artistic fireplace and mantel, and this class of work has of late years received much attention from those whose business it is to adorn and beautify our homes. Every available material—marble, cast-iron, wood, *papier-mache*, slate, etc.—has been tried in turn, and it has been found that no other gives as good general satisfaction in point of durability, beauty and economy as the last named—slate—which can be worked in any desired shape or design with less trouble and at less expense than marble, is more tractable and desirable than iron, and gives results in ornamentation equal to either. As compared with wood and other materials the advantages are all with slate.

The Cleveland Mantel and Grate Company is the only house in Ohio that manufactures slate mantels, milling it upon the premises, taking the slate direct from the quarries, and is doing a flourishing business, though established but little more than two years. The works at Superior street and Sterling avenue are 30 x 150 feet, employ ten men and a fine complement of sawing and finishing machinery, and do a great deal of first-class work to order for shipment to various points in Ohio, Michigan and New York. Besides mantels—of which a stock in standard designs is kept on hand—the company also make from the same material a great variety of table and washstand tops, plumbers' slabs, etc., which are coming into general demand as being for most purposes better than marble. The slate used here is received in blocks from the Vermont and Pennsylvania quarries, sawed, sculptured and finished to order on the premises.

The grates handled by the company in connection with their mantel trade are made

expressly for them of iron and brass, are in beautiful and novel designs, and sell rapidly.

Mr. W. O. Williams, the proprietor, was bred in the slate regions, has had large and varied experience, and is a master of his vocation. He is now building, and will have ready for occupancy early the coming year, a commodious wareroom adjoining the works, where a full line of choice samples will be placed on exhibition.

THE CLEVELAND VARNISH CO.

W. F. Roeder, President; E. Van Camp, Vice-President; W. H. Hostetter, Secretary; C. H. Tylee, Treasurer—Manufacturers of Fine Cabinet, Coach and Railway Varnishes—No. 14 Rockland Ave.



Consumers of varnish are thoroughly well aware that the market is, and for years has been, glutted with adulterated and degenerated goods, and that the only protection available is found in an expert knowledge of every trick of the trade on the one hand, or in buying only those varnishes having an established reputation, based upon the personal and business character of the manufacturers, and verified by practical experience. Comparatively few men can accurately judge of the merits of any particular varnish upon cursory inspection, and consequently the great body of buyers are compelled to depend upon brand and price until experience has ripened their judgment, by which time they have usually paid a good price for their schooling.

A conspicuous and famous house in this important branch of manufacturing is the Cleveland Varnish Company, established in 1880—a house that, commencing operations with ample capital, was enabled from the first to enlist the very highest skill

and ingenuity, technical and practical, and to offer the trade superior grades of choice goods at prices as low as any square-dealing concern can afford. The office of the company is at No. 14 Rockland avenue. The works cover an acre of ground, and consist of several large brick buildings equipped in the best manner for the purpose to which they are devoted. Eighteen men are employed, the latest improved processes are in use, and the output, valued at several hundred thousand dollars annually, is eagerly taken by the trade East, West and South. The specialties—fine cabinet, coach and railroad varnishes—are universal favorites wherever known, and the demand increases very fast, business for the past twelve months showing unprecedented growth, while the outlook for 1888 is all that could be desired, as their facilities will probably be taxed to their utmost capacity. The company has storage room for considerably more than 200,000 gallons, and is prepared to supply uniformly well matured varnishes.

J. J. PITTS & CO.,

Produce Commission Merchants and Jobbers in Foreign and Domestic Fruits—No. 62 Prospect St.

This prosperous house, composed of Messrs. J. J. Pitts and Victor A. Rehark, was organized in 1885 as the successor to Connor & Pitts, the latter firm founded in 1876 as Connor, May & Pitts, and changed to Connor & Pitts in 1878. Mr. Pitts is one of Cleveland's old and reputable commission merchants, well known and popular wherever the influence of the city has penetrated. He was born in Prussia in 1842, came to Lorain county, Ohio, four years later, and to Cleveland in 1858, going subsequently to California. After seeing a good deal of the world, he returned in 1867, and obtained employment with A. J. Wenhams & Son, wholesale grocers, as traveling salesman, remaining with them nine years, when he embarked in the commission business, which he has pursued ever since. Mr. Victor A. Rehark first saw the light here in Cleveland, November 6, 1854, was educated in the public schools, and in 1872 became bookkeeper for S. M. Ellinwood & Co., wholesale produce commission merchants, where he remained four years, when that firm retired and was succeeded by Shannon & Rehark. The latter firm was dissolved in 1878, when Mr. Rehark became bookkeeper for Connor & Pitts, becoming Mr. Pitts' partner in 1885, on the establishment of the present house, which occupies a spacious two-story brick building, with basement, at No. 62 Prospect street, and does a flourishing commission business in produce and fruits—potatoes, onions, eggs, butter, poultry, apples, berries and domestic and foreign fruits generally—their annual sales averaging \$200,000, and their trade covering Ohio, Indiana, Michigan and various Western and Southern states. The house is a reliable, responsible and liberal one.

LOWMAN & CO.,

Manufacturers of Fine Family Carriages—Corner South Water and Long Sts.

Jacob Lowman was the founder of this house, as far back as 1832, when he established himself in a small way on Frankfort street. In 1860 a Mr. Warden became a partner. In 1872 the style was changed to Jacob Lowman & Son, and in 1884 to Lowman & Co., as at present. The works occupy two buildings—one of four stories, 40 x 80 feet, the other of five stories, 35 x 80 feet. Thirty men are employed in the various departments—wood-working, blacksmithing, finishing, painting, etc., and a capacity of \$50,000 worth of vehicles per annum are built and sold in Cleveland and throughout Northern Ohio. The great specialty is first-class fine work, nothing being permitted to leave the factory that does not come up to the highest standard as regards materials, design, workmanship and finish. Many fine coaches are also made to order for customers at Detroit, Marquette, Chicago and other distant points, where the reputation of the house is almost as well-known and appreciated as at home. The products of this firm embrace all popular styles of hand-made coaches, landaus, coupés, phaetons, side-bar and other varieties of buggies and road wagons, sleighs and cutters.

The firm is composed of Messrs. C. E. Lowman and C. F. Beutle, both practical carriage-makers. Mr. Lowman is a son of the founder. Mr. Beutle, who came into the firm in 1884, had for a long time previously been employed as foreman.

GARDNER & CLARK,

Commission Merchants and Proprietors of Union Elevator—Office, No. 197 Merwin St.

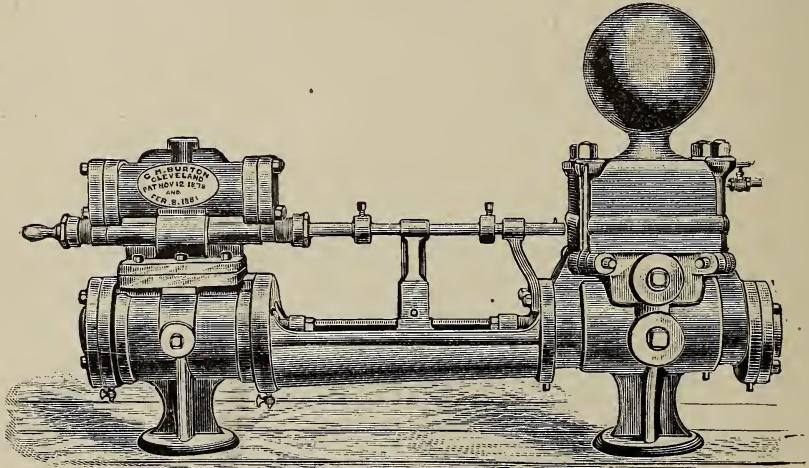
This firm, originally Gardner, Clark & Co., founded in 1850, is the oldest in point of continuous existence among the commission houses of Cleveland. The first change was made in 1861, when the style became Gardner & Clark, Mr. John D. Rockefeller, now president of the Standard Oil Co., being then a partner. In 1862 the Union elevator was built, and the firm, having in the meantime admitted Mr. J. W. Gibbons, removed from River street and took possession. It goes without saying that the move was a wise and profitable one, which they have never had cause to regret. The Union, the only grain elevator of consequence on the Cayahoga, occupies with its appurtenances two acres of ground, fronting on both river and railroad. The elevator proper is 100 x 150 feet square by 150 feet in height, and has a storage capacity of 250,000 bushels. In the adjacent yards are three powerful steam derricks for the transfer of building materials and other bulky and heavy objects from boat to cars and *vice versa*, and switches connect the premises with the various

railroads. The elevator building itself is strongly constructed throughout of stone and timber. A fine locomotive boiler and compact 50-horse-power engine, separated by a brick wall to prevent the spread of possible fire, furnish the power for operating all the machinery. Twenty-five men are employed, and the transactions average about \$5,000,000 a year, grain from the West and from Canada being handled in large quantities, besides much other merchandise, and a steady stream of shipments made to all points East and South.

The gentlemen composing the firm are all prominent citizens. Mr. George W. Gardner came here from Massachusetts when a child. He was mayor of Cleveland from 1885 to 1887, and is connected with the National mills. Mr. M. B. Clark is of English birth, came to Cleveland in 1840, is president of the Coöperative Stove Co. and interested in the National mills. Mr. J. W. Gibbons is a native of Cleveland, served with distinction in the Union army, and is now lieutenant-colonel of the Fifth O. V. I.

C. H. BURTON,

Manufacturer of Burton's Patent Steam Pumps—Corner Main and Center Sts.



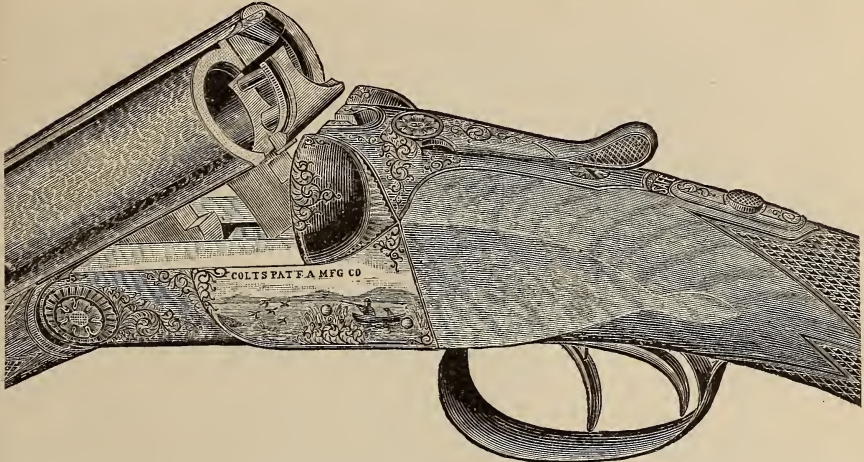
There are a vast number of steam pumps before the public, some good, some bad, some indifferent, and those whose business requires the employment of a device of this kind are just as likely to meet with disappointment on practical trial as not, unless they are capable of judging of the machine's merits for themselves or have the guarantee of a competent manufacturer. Mr. C. H. Burton, of Center and Main streets, Cleveland, is such an one—a thorough mechanic of long experience, who takes pride in his calling and the perfection to which he has brought the specialty to which he has devoted many years of study and experiment. Mr. B. was formerly for seven years a lake engineer, employed upon some of the largest and finest steamers that navigated the "unsalted seas" of the North. Later he retired therefrom and established himself in the Forest City as a manufacturer of steam pumps—a vocation in which he has achieved fame and moderate pecuniary reward. Beginning without capital and with only his own skill, industry and genius to depend upon, he has since 1870 built up a large and flourishing trade extending to all portions of Ohio and the lake ports. At this time he has a capital of \$20,000 invested in his business, occupies a well-equipped foundry and machine-shop 60 x 60 feet, employs twelve skillful workmen, and turns out pumps to the value of \$20,000 per annum.

His great specialty, Burton's patent steam pump, of which our engraving gives an accurate idea, possesses many points of superiority which cannot but attract the notice of those in search of this class of machinery—simplicity, effectiveness, strength, durability, excellent workmanship throughout, and comparative cheapness.

Mr. B. is a native Clevelander, an unpretending, energetic and pleasant gentleman—one who deserves to and does succeed.

CLEVELAND GUN STORE.

Thos. Larter, Proprietor; J. J. Corlett, Manager—Importers and Dealers in Breech and Muzzle-Loading Guns, Rifles, Revolvers, Pocket Cutlery and Fishing Tackle of Every Description—No. 102 Superior St.



This is Cleveland's principal depot for guns, ammunition, fishing-tackle and sporting goods generally, and was established by the present proprietor in 1872. The store itself is a very handsome one, occupying the ground floor, 21 x 150 feet, of the beautiful five-story building No. 102 Superior street. The stock embraces a magnificent line of English, German and American breech and muzzle-loading single and double guns, improved breech-loading military, target and sporting rifles, revolvers, powder, shot, fixed ammunition shells, fishing tackle, fine pocket cutlery and kindred goods, which are sold at reasonable prices under guarantee. The trade of the house is large and of the best character.

Mr. Larter is of English birth, and proprietor of the adjoining restaurant. Mr. Corlett is a Clevelander.

THE EAGLE CONSOLIDATED REFINING CO.

C. D. Chamberlin, President; J. L. Apple, Vice-President; W. A. Smith, Secretary and Treasurer—Refiners of Petroleum and Its Products—Works at Cleveland and Lima, Ohio; Office, Benedict Building, Euclid Ave., Cleveland.

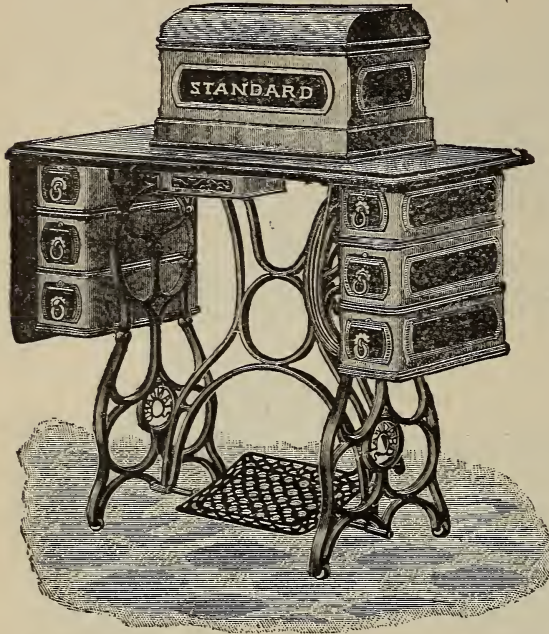
The above named company is a new candidate for public favor and patronage, organized December 6, 1886, with a capital stock of \$50,000, all paid in, and is already doing a large and flourishing business, owning a complete plant of refining apparatus, receiving tanks, bleaching-house, water-boxes, cooper-shop, barrel-house, etc., occupying in all some thirteen acres of land on the line of the Pittsburgh, Fort Wayne & Chicago railroad, one and a half miles west of Lima. They also own and operate extensive works in this city, and in connection with their refining business a pipe line running some twenty-two miles through the Ohio oil field, with pumping stations and storage tanks complete, and a line of tank cars for supplying fuel oil or liquid fuel to manufacturers in all parts of the country at regular market prices.

The company's specialties embrace a full line of petroleum products, illuminating, lubricating and fuel oils, naptha, paraffine, etc., all of the highest grades, and supplied to the trade and consumers at the lowest figures.

The Eagle Consolidated is an outgrowth of the Eagle Refining Company, which had existed for some years previously. It is thoroughly independent and deserves generous encouragement at the hands of the public at large. The principal office is in the Benedict building, Euclid avenue, with branches as follows: Sikes & Wands, San Francisco; Tennessee Oil Co., Chattanooga, Tenn.; N. D. Clutter, Effingham, Ill.; Southern Railway Supply Co., Richmond, Va.; John C. Harris, Houghton, Mich.

THE STANDARD SEWING MACHINE CO.

Frank Mack, President; D. B. Chambers, Vice-President; D. E. Cole, Secretary; E. H. Harvey, Secretary; W. A. Mack, Superintendent—General Office, No. 66 Euclid Ave.; Factory, Nos. 1241 to 1249 Cedar Ave.



The Standard Sewing Machine Company was organized and incorporated in March, 1885, with a cash capital of \$200,000, and is one of Cleveland's leading business concerns, employing a force of 280 workmen and turning out during the past year 25,000 complete machines, which have been introduced and favorably received in every State and considerable town in the Union. The office, No. 66 Euclid avenue, is elegantly appointed, commodious, airy and well lighted, and a most attractive resort for ladies out shopping and sight-seeing. The great brick factory, four stories in height, 200 feet long and 44 feet deep, with ample yards and appurtenances, is located at the intersection of the Pennsylvania railroad and Cedar avenue, and is one of the most perfectly equipped establishments of the kind in the world, provided in every department with a superb complement of

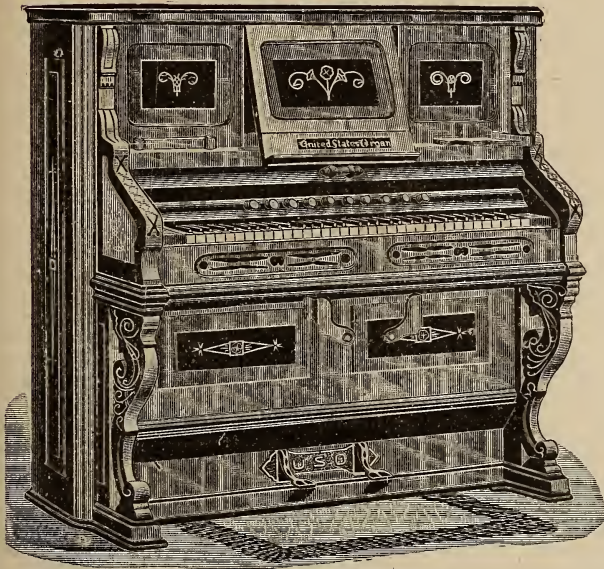
new and latest improved, wood, iron and steel-working machinery, much of it specially designed for and constructed under patents held by this company. Mr. W. A. Mack, the inventor of the Standard sewing machine, is superintendent of the works, and has every detail under his personal direction. He and his brother Frank, president of the company, have made the sewing machine business the single pursuit of their lives, and are confident in their claim that the Standard has no peer in point of excellence.

The machine is illustrated above. As will be seen, it is of an entirely new, beautiful and graceful design, light and artistic, yet strong. The cabinet work (genuine improved bent wood), is manufactured exclusively for this company by the inventor, Mr. E. F. French. The "Standard" is built upon a different principle from that used in ordinary lock stitch machines. Its shuttle is wheel shaped, and revolves upon its own centre. It does not cease its motion while the machine is in operation. The old style shuttles start and stop twice at every stitch. This causes great friction, strain, noise and unsteadiness when rapidly run. The "Standard" runs as easy, smooth and quiet at 1500 stitches per minute as most others do at 700.

The following are a few of the noteworthy points of excellence: The "Standard" is self-threading throughout, except the needle. The needle is the shortest used in lock-stitch machines. Finer needles with the same sized thread or silk can be used than in any old style shuttle machine. The needle is self-setting. The thread is released from the tension by a slight pressure upon a button. This is a great convenience. If the machine starts backward no harm is done. The thread remains unbroken. Winding the bobbin is very simple; merely push the belt back of the winder pulley and put the bobbin on the spindle. The winding device is stationary, therefore always in position. The bobbin can be wound in half the time usually required on other machines. The bobbin holds one-third more thread than that of most other machines.

WHITNEY, RAYMOND & CO.,

Manufacturers of the Celebrated United States Organs for Parlor, Church, Chapel and Lodges—No. 131 Windsor Ave.



The organ steadily grows in favor, the consequence of continuous efforts on the part of manufacturers to develop its possibilities and bring it to perfection. In some respects the organ is superior to the piano, and is preferred to all other musical instruments, and must continue to increase in popularity in exact ratio to its improvement.

Of the numerous varieties of organ now before the public it is doubtful if there are any that combine in themselves so many points of excellence as those built by Whitney, Raymond & Co., of this city—certainly none are superior. In a recent circular to the trade the firm says: "The manufacturers of the United States organs desire to reiterate their determination to make nothing

but a first-class organ in every respect. We never have made, we never will make, a cheap, shoddy organ. No pains or expense is spared in the manufacture of our instruments, believing that the best is the cheapest. We employ none but the most skilled mechanics, use the best material that can be obtained, and the most approved machinery known in organ manufacture. This (together with over thirty years' experience as manufacturers) is why the United States Organ stands to-day without a rival. It is not our purpose to enter into detail of the many superior qualities which this organ possesses over any and all others, nor should it be, nor is it necessary, for the name, United States Organ, manufactured by Whitney, Raymond & Co., of Cleveland, O., is of itself a sufficient guarantee that the instrument is a model of perfection. The manufacturers invite the closest and most critical examination, feeling confident, the closer the scrutiny the more highly will their organs be appreciated. Thousands of testimonials from prominent dealers and artists can be given, all speaking in the highest terms of this organ. We cordially invite both dealers and purchasers to visit our factory and convince themselves that all work and material used in the construction of our organs is of the best quality."

These instruments, which are constructed in various styles and sizes—"Piano," "Excelsior," "Nonpareil," "Business," "Success," "Chapel," etc., are noted for their elegance of design, beauty of style and finish, purity and equality of tone, elasticity of touch—giving quicker execution than the piano—and general excellence of construction, embracing the following special points: Stop action, simple and noiseless, by means of anti-friction rollers; adjustable by means of set screws, easily detached and replaced, by means of two sliding latches. Extension music desk—holds the book open and in place without the use of improvised strings and weights; inclines at the proper angle. Combined sliding lockboard and mouse-proof pedal cover—never binds or catches, is absolutely dust and mouse-proof. Equalized pedals, giving a natural walking motion to the feet. The new (patent applied for) piano pedal is verily the acme of perfection; must be seen and tried to be appreciated. Terzo-mano, or third hand coupler—the latest and greatest improvement in reed organs—adds extra power and brilliancy, and produces a tone which thrills and

captivates all who hear it. The new fan-shaped lamp holder—a device which, when closed, forms an ornamental moulding, is spacious and strong, and recommends itself at a glance.

Mr. O. C. Whitney began the manufacture of these organs on a small scale at Conneautville, Pa., in 1856. In 1865 he removed to Meadville, Pa., and in 1870 to Cleveland, where the firm of Whitney & Slayton was formed. Later Mr. F. L. Raymond acquired Mr. Slayton's interest, and subsequently Mr. A. H. Steadman was admitted. The capital invested is \$110,000; eighty to one hundred men are employed; vast numbers of instruments are produced, and are shipped to all parts of the civilized world.

COMMONWEALTH IRON CO.

Alex. Nimick, President; H. A. Tuttle, Vice-President; Wm. H. Harvey, Secretary and Treasurer; John F. Whitelaw, Assistant Treasurer—Miners of Iron Ore—Mines at Commonwealth, Wis., on the Menominee Range; Offices, Rooms 60 and 61 Wade Building.

This flourishing company was organized and incorporated with a capital stock (paid up) of half a million dollars, in 1877. The officers are named above. President Nimick is a resident of Pittsburgh; the others are Clevelanders.

The company own 3,700 acres of iron mining lands at Commonwealth, Wis., where they conduct operations on a large scale, employing 150 men and shipping 75,000 tons of high grade hematite ore to the principal manufacturing centers of Ohio and Pennsylvania, some of it being consumed by the rolling mills of Cleveland, while a steady and eager market is found in Ohio and Pennsylvania.

The Commonwealth Iron Company is a strong and responsible one, steadily growing in importance with the development of the ore resources of the Northwest, and has added a large share to the weight of Cleveland as an iron market and shipping point.

CONDIT, FULLER & CO.,

Bar, Band, Sheet and Pig Iron, Nails and Spikes—Office, No. 122 Water St., Room 23; Warehouse, Nos. 81 to 95 River St.

This great house was founded in 1869 by Condit, Wick & Co., and was reorganized in 1881 as Condit, Fuller & Co. Mr. Condit died in February, 1886, and the firm now consists of Messrs. S. A. Fuller, J. D. Clary, B. F. Bourne and H. A. Fuller. Mr. S. A. Fuller is also treasurer and manager of the Union Rolling Mill Co. of this city. Mr. Clary, of Irish birth, has been connected with the firm since its original formation, and is fully acquainted with the business in all its branches. Mr. Bourne has long been identified with the iron and steel business, and is well and favorably known by the trade generally. Mr. H. A. Fuller is a son of the senior member, and gives his time mostly to the office business.

Condit, Fuller & Co. is one of Cleveland's heaviest iron houses, handling vast quantities of bar, band, sheet and pig iron, steel, nails, spikes, etc., all manufactured goods being from the most reliable and celebrated American and English mills. The following list of manufacturers whom Condit, Fuller & Co. represent will convey a fair notion of the varied line of choice goods they carry: Youngstown Rolling Mill Co., hoop and band iron; La Belle Iron Works, steel nails; Brown, Bonnell & Co., refined black sheet iron; Apollo Iron and Steel Co., black and galvanized sheet iron and steel; McDaniel & Harvey Co., patent cleaned charcoal sheet iron; Syracuse Tube Co., boiler tubes; American Tube and Iron Co., gas pipe and boiler tubes; A. M. Byers & Co., gas and water pipe; Burden Iron Co., boiler rivets, swaged horse and mule shoes; Rhode Island Horse Shoe Co., horse, mule and snow shoes; Francis Hobson & Son, English "Choice" and "F. H. Best" cast steel; Brown & Co., American "U. S." cast steel; Hussey, Howe & Co. (Limited), cast tool steel; Dilworth, Porter & Co., boat and railroad spikes.

The firm have an elegant office at room 23, No. 122 Water street, and conduct a colossal three-story warehouse extending along River street from No. 81 to No. 95, where a strong force of clerks, laborers, etc., is employed. Heavy shipments are constantly being made to the trade and consumers, their principal market being in the States of Ohio, Indiana, Illinois, Michigan and Wisconsin, sales averaging \$1,000,000 per annum.

THE CLEVELAND PAPER CO.

N. W. Taylor, President; Edward Mill, Vice-President; C. T. Bicknell, Secretary and Treasurer—Manufacturers of all Grades Paper, Paper Bags, Flour Sacks, etc.—Office and Warehouse, Nos. 124, 126 and 128 St. Clair St.



This is the most extensive concern of the kind in the West, and was founded by President Taylor in 1860, becoming an incorporated company, with a capital stock of \$300,000, the same year. The company own and operate four paper mills and one pulp mill, as follows: Mill No. 1, Broadway—devoted to fine book papers, covers with appurtenances ten acres of ground and employs 500 hands. This is a colossal establishment, superbly equipped, and its products are of the very highest grades, in great request by the trade everywhere. No. 2, Forest street—twelve acres—manufactures superior news and poster papers, and employs 100 hands. No. 3, the "Valley" mill—Independence street—employs 150 operatives and turns out large quantities of news and the better grades of manila papers. No. 4, Monroe Falls, Ohio—makes wrapping and cheap carpet lining papers. Pulp mill, near the "Valley" mill, employs 50 men and produces 6000 pounds of wood

pulp in all grades daily, of the best grades, for the company's own use.

The company's great five-story warehouse, Nos. 124, 126 and 128 St. Clair street, is 66½ feet front by 165 feet deep; the second, third and fourth floors devoted to storage of stock, the fifth floor to the manufacture of paper bags—fifteen machines being in operation daily; the first floor to the office, salesroom and printing department, and the basement utilized as a press-room, where three large and five small cylinder presses are run the year round printing paper bags and flour sacks for the trade. Ten first-class printers and pressmen are steadily employed, an average of 500,000 paper bags being turned out *per diem*. The capacity of the company is twenty-five tons of paper in all grades daily, most of which goes to the trade within a radius of 300 miles, though much is shipped to consumers all over the land. A leading specialty is made of paper bags, flour sacks and Japanese napkins—goods in which the house excels. In all 1000 people are employed.

W. L. COTTRELL,

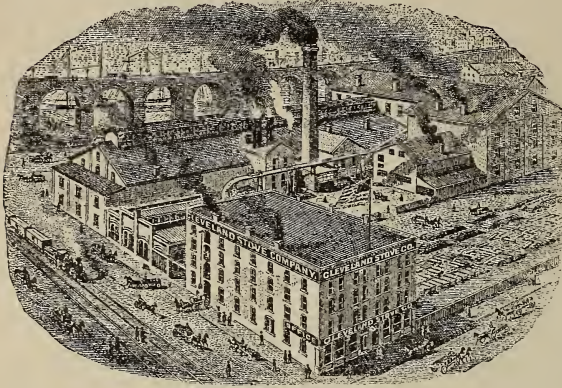
Pattern-Maker—No. 53 Center St.

No inconsiderable share of the credit attaching to the building of engines, machinery, furnaces, etc., belongs of right to the ingenious and skillful pattern-maker, whose taste, experience and practical knowledge are often taxed to the utmost in preparing for the moulder and machinist the guides and patterns for new and intricate castings, much depending upon the beauty thereof—the combined lightness and strength of the design. Prominent among those who have contributed to perfecting this art and placing it upon its proper plane of dignity is Mr. W. L. Cottrell, whose extensive and well-equipped shops occupy a part of the second and all of the third floor of the capacious three-story brick building No. 53 Center street. Mr. Cottrell employs five skilled draughtsmen and mechanics and does a large and increasing business with the foundrymen and machinists not only of Cleveland but of neighboring manufacturing centers, his orders for the past year aggregating \$15,000 in value. Every variety of patterns for metal castings are here designed and executed in the best manner, at short notice and on reasonable terms.

Mr. Cottrell came to Cleveland from Utica, N. Y., in 1835, learned his trade in the famous old Globe iron works, and in 1862 became a member of the firm of Cottrell Bros. Subsequently, for fifteen years, the firm was Cottrell & Bolton, then Cottrell & Jull, Mr. Jull retiring two or three years ago. Mr. Cottrell is a much respected and popular citizen, enterprising and liberal, and a prominent Free Mason.

CLEVELAND STOVE CO.,

Manufacturers of Cooking and Heating Stoves, Ranges, etc.—Corner Main and Sycamore Sts.



The Cleveland Stove Co. is the successor of the Akron Stove Co., founded in 1851. The name was changed when the industry was removed to this city some twenty years ago. The officers are: President, Geo. H. Wilson; secretary and treasurer, N. A. Wilson; capital stock, \$240,000. The premises at Main and Sycamore streets are spacious and convenient, the main building a four-story brick structure 60 x 60 feet, with moulding room 30 x 70 feet attached. Seventy men are employed, \$700 a week paid in wages, and \$150,000

worth of finished goods placed on the market annually and sold in all the States. The specialties include the "Linden" cooking range, one of the best, cheapest and most satisfactory devices of the kind in existence, and the new Lyman vapor stove, a complete, convenient and economical cooker, embracing all late and valuable improvements, exceedingly popular wherever introduced.

Mr. J. H. Chapman, superintendent of the works, is a skillful, capable and conscientious mechanic, who has been in his present position for the past ten years.

C. BURNSIDE,

Manufacturer of and Dealer in Harness and Belt Leather, Calf Skins and Hides—No. 161 Canal St.

The tannery now owned and operated by Mr. Burnside was first established by Theodore Brock in 1842. Mr. Brock sold out to Theodore Baker in 1860, and in 1866 Mr. Burnside became the owner by purchase, and has always done a large, prosperous and growing business, his annual sales of recent years ranging from \$100,000 to \$120,000 in value. The plant is worth about \$75,000, comprising the main building, a three-story brick 40 x 110 feet, with two two-story wings, one 26 x 38, the other 30 x 40, and a third, one story in height, 20 x 80 feet. All requisite machinery, vats, tools, etc., are provided, and sixteen to eighteen experienced and skillful tanners and curriers are steadily employed. Mr. Burnside's leading specialty, upon which his trade reputation rests, is his superior "Union Cropp" sole leather, which for soundness, uniformity and all desirable qualities is unsurpassed. He is also an extensive producer of harness leather, calf-skins, etc., and a heavy dealer in hides, his market extending from Michigan to Massachusetts.

Mr. Burnside is a native of New Hampshire and a practical tanner, having served his apprenticeship in Vermont. He worked as a journeyman ten years for one man at Concord, N. H., and then for two years and a half for himself at the same place. He then removed to Cattaraugus county, N. Y., where for ten years he was in the lumber trade, coming to Cleveland and taking possession of the tannery he now owns in 1866. Mr. Burnside was one of the charter members of the Cleveland National Bank, and has been a director thereof since its organization. He has served nearly eight years in the City Council, of which he is a member at the present time, and was a member of the Board of Improvements for two years, and is now in his second year as a member of the Fire Board. Mr. Burnside was also chairman of the County Central Committee for two years, and is now chairman of the City Central Committee, hence it is easy to perceive that his political services have been valuable and onerous. He is also connected with other public affairs, and is a well-known and popular citizen.

WEST SIDE BANKING COMPANY.

Lee McBride, President ; Chas. Fries, Vice-President ; T. M. Irvine, Secretary and Treasurer—No. 600 Pearl St.



city or across the river are paid through the clearing-house. Excellent facilities exist for collecting drafts or notes on any part of the country. In its exchange department this bank issues its sight drafts on New York, or any country in Europe or the world. The bank is also prepared to loan money on approved real estate, secured by first mortgage, and to discount business paper or loans on good collateral at ruling rates of interest.

Hours of business are from 9 A. M. to 4 P. M., except Saturday, when they are open from 9 A. M. to 9 P. M.

President McBride is of the great dry goods firm of Root & McBride Bros., a director of the Union National Bank, and a city alderman. Vice-President Fries is of the dry goods house of Fries & Schuele. Secretary and Treasurer Irvine, as before intimated, is a practical banker, is also one of the best-known and most popular men in Cleveland, and was for fifteen years with the Commercial National Bank. The board of directors is composed of Lee McBride, Chas. Fries, John Meckes, O. C. Lawrence, F. Muhlhauser, T. M. Irvine, Martin Snider, J. S. Hartzell, H. P. McIntosh, A. J. Marvin, Chas. Herrman, C. E. Gehring, Jr., O. M. Stafford, H. Grombacher, and H. M. Townsend.

With an authorized capital of \$100,000, of which \$50,000 is paid up, a fine banking house, splendidly equipped in all respects, a list of officers and directors of the highest character, and the confidence and good will of the public, the West Side Banking Company cannot but thrive.

WEIDEMAN & CO.,

Wholesale Grocers—Nos. 53, 55, 57 and 59 Water St.

Messrs. J. C. Weideman and H. Tiedemann were the founders of this great representative wholesale grocery house, as long ago as 1863, at No. 70 Merwin street, whence they removed in 1868 to Nos. 30 and 32 same street, and in 1873 to their own splendid four-

story-and-basement building, 77 x 125 feet, Nos. 53 to 59 Water street, which they continue to occupy. Meantime several changes of style occurred, viz: In 1867 to Weideman, Tiedemann & Kent; in 1870 again to Weideman & Tiedemann; in 1871 to Weideman, Kent & Co., and finally, in 1886, to Weideman & Co., composed of Messrs. John C. Wiedeman, Ernest J. Siller, Christian Norten and Henry W. Weideman.

The building occupied, and which we have already described, is one of the largest, most commodious and perfectly arranged for the purpose in Cleveland, provided with elevators and every improvement that will facilitate the transaction of business. A vast stock of the finest goods in the market, comprising full lines of staple and fancy groceries, teas, coffees, spices, canned goods, tobacco, cigars, etc., load every floor to repletion, while in the matter of fine liquors—of which the house makes a specialty—it is sufficient to say that all the most celebrated brands of bourbon and rye whiskies and imported brandies and wines are constantly carried for the convenience of the trade, who always find here the purest and best goods of every description.

The concern is first-class in all respects, with a well-earned and lofty reputation, and buyers will consult their own interests by inspecting the goods and inducements offered by Weideman & Co.

THE CLEVELAND BAKING COMPANY.

S. S. Marvin, President; C. N. Harrington, Vice-President and Manager; C. E. Rumsey, Secretary and Treasurer—Manufacturers of Crackers and Bread—Bread Works, Ohio St. and Woodland Ave; Cracker Works, Rear of No. 134 Ontario St.; Retail Department, No. 134 Ontario St.

The Cleveland Baking Company, organized in 1880, is the result of a consolidation of S. S. Marvin & Co.'s selling agency, one of the most successful business enterprises of the kind ever undertaken here, with the cracker manufacturing firms of Anthony & Moser and Tower Bros., both noted and prosperous houses—thus bringing together under one management ample capital, the highest business talent and large practical experience and skill.

The company occupy two large buildings—the bread works at Ohio street and Woodland avenue, two stories in height, 50 x 106 feet, and the cracker works, in rear of No. 134 Ontario street, four stories, 43 x 125 feet. In the front of this latter building is the retail department, an elegantly-appointed and attractive store 20 x 180 feet. The capital invested is \$20,000; ninety persons in all are employed, together with a full complement of late improved machinery, and the annual sales amount to \$200,000, the great bulk of the goods being shipped in the form of cakes, crackers, biscuits, etc., to the trade all over Ohio and Indiana, and to various parts of Pennsylvania, New York and Michigan.

There can be no question as to the excellence and popularity of the Cleveland Baking Company's goods at home and abroad. Made from the highest grades of flour and in the most skillful and cleanly manner, packed attractively and thus made inviting to both eye and palate, they are always salable and sought for by the best class of trade. This company is a success, and one of which Cleveland has a right to be proud.

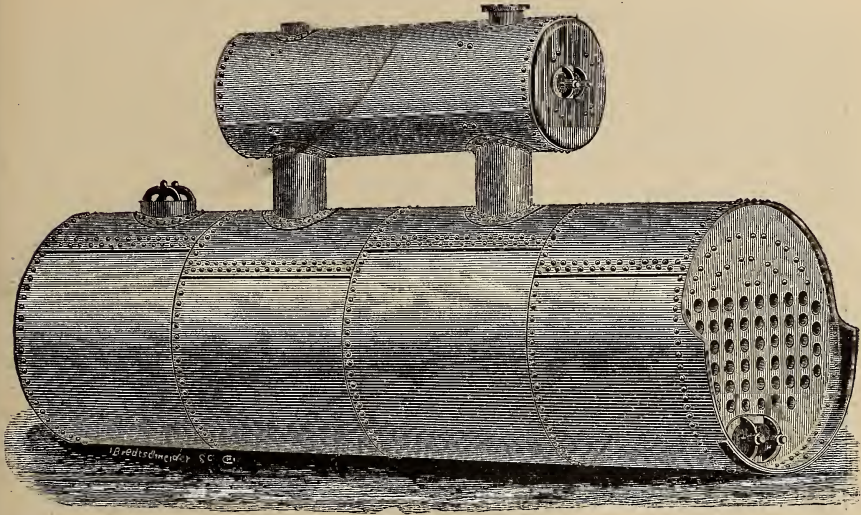
W. B. COBB,

Manufacturer of the Eclipse Speed Lathe—Drill Presses and All Kinds of Special Machinery—Gear Cutting—No. 279 West River St.

Mr. Cobb is the successor of Harris & Cobb, who established themselves at the same place in 1884. He is a Bostonian of great natural aptitude and experience, and a master of the machinist's art, theoretical and practical. His establishment, fitted up in the most substantial manner with all necessary appliances and devices, occupies one floor 40 x 60 feet and employs five skilled workmen. Most of his work is performed in the city, fitting up old or constructing new devices for machinists, his great specialty being the famous "Eclipse" speed lathe, to which he has devoted much time and labor, and which is concededly the equal if not the superior of any similar machine ever brought out. He also constructs drill presses, upright drills and special machinery of all kinds to order, and is fast achieving success and distinction in his calling. Strict attention is given to all work committed to his care, including gear-cutting and repairing, and satisfaction guaranteed. Mr. Cobb expects to triple his working force next season. During the past year he built to order thirty Eclipse lathes and much other special machinery.

THE VARIETY IRON WORKS COMPANY,

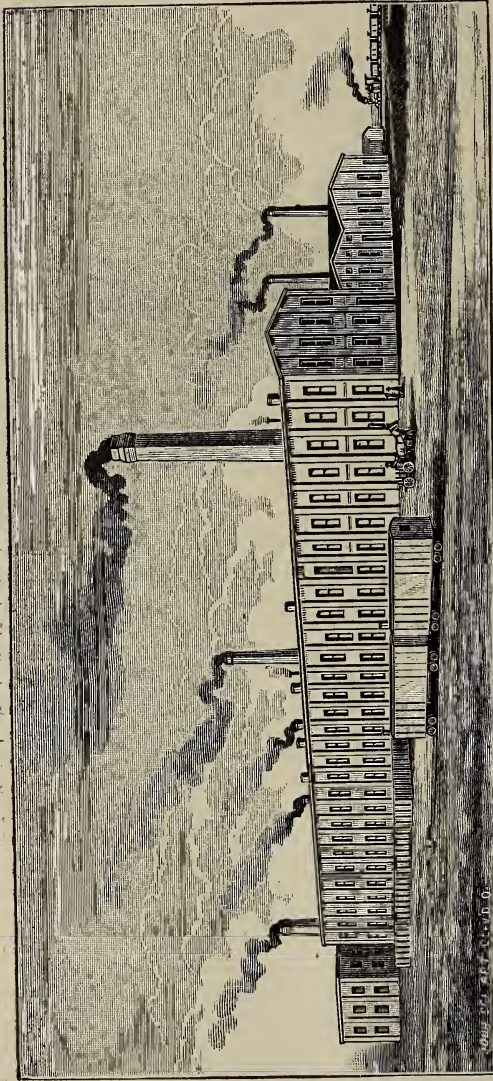
Boiler Makers, Machinists, Founders and General Iron Workers—Cor. Carter St. and Scranton Ave.



The above-named company, of which Mr. L. M. Pitkin is president and Mr. F. L. Chamberlin secretary, was incorporated in 1866, with a capital stock of \$60,000, increased in 1886 on account of its growth and prosperity to \$200,000, and has enjoyed a career of uninterrupted success save in the burning of its works in the great fire of 1884. Yet even that was not an unmixed misfortune, since it enabled the company to rebuild on a much more extended scale and to introduce many improvements in plant and processes, thereby rendering this one of the largest, completest and most comprehensive boiler works, machine shops and foundries in the country. The establishment is eligibly located at Scranton avenue and Carter street, fronting 500 feet on the first and 375 feet on the last-named thoroughfare, the entire space being covered with substantial buildings, equipped in the best style with new machinery and appliances. A working force of 220 men is employed, \$10,000 a month is paid in wages, and the annual value of the output is estimated at \$250,000. The great specialty is the manufacture of steam boilers of all kinds, marine locomotive, stationary and portable, for all purposes—a specialty in which the works have achieved deserved fame; but a general line of plate, sheet, wrought and cast iron work is produced, including tanks, stills, smoke-stacks, breeching, forgings, machinery, shafts, pulleys, hangers, light and heavy castings, shaking grates, Butman fire fronts and automatic doors, railroad crossings, frogs, switches, switch stands, track supplies, tie-bars, etc. The company is also proprietor of the Cleveland facing mills, and prepared to fill orders at short notice and in a satisfactory manner for seacoal, charcoal, XX mineral and stove plate facings, foundry supplies, crucibles, shovels, steel and brass riddles, molders' tools, fire brick, clay, etc. The company has recently purchased the Buckeye Bridge and Boiler works, at Hamilton street near Case avenue, and are already engaged extensively in building bridges. President Pitkin has personal supervision of the works.

THE NATIONAL CARBON CO.

W. H. Lawrence, President; W. C. Hayes, Treasurer—Manufacturers of Electric Light Carbons, Points and Battery Supplies—No. 40 Willson Ave.



Probably no other place in the United States—certainly none in the West—can boast of as many or as extensive industries connected with electric lighting as are located here in Cleveland, embracing the entire collection of appliances from the mammoth dynamo to the most insignificant item of equipment. One of the largest and most important of these establishments is the National Carbon Company's works at No. 40 Willson avenue, crossing of the L. S. & M. S. railway. The company was incorporated in 1886 with a capital of \$250,000, to succeed the Bolton Carbon Company. The specialty is a superior grade of arc light carbons, in general use all over the United States, and received with much favor by all electric light companies and their patrons.

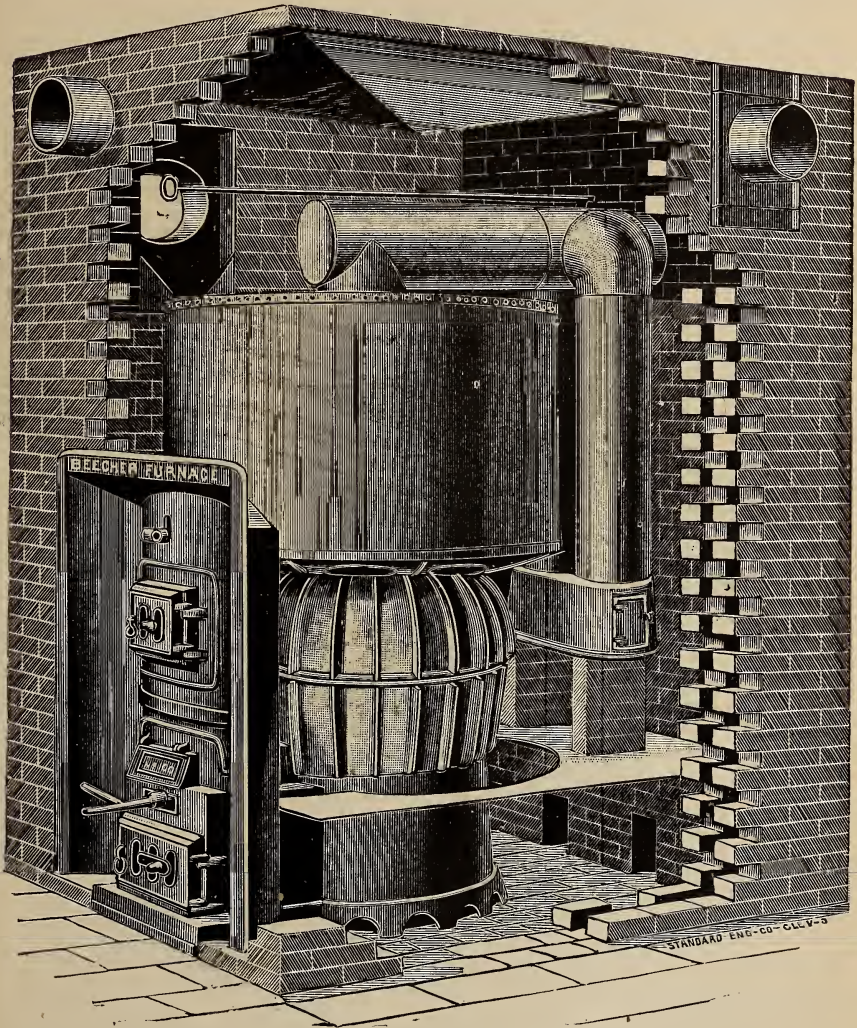
The works comprise several substantial buildings, as follows: The factory proper, a two-story brick structure, 50 x 250 feet in extent; engine-house, 26 x 71 feet; furnace-house, 46 x 150 feet; barn, 32 x 32 feet, and gas-house, 16 x 19 feet, the company making all the gas consumed on the premises from coal. Crude oil is used for fuel at a saving of 40 per cent., and the latest improved appliances and processes are utilized in every department. An Ide engine, of 150-horse power, runs all the machinery, which is both abundant and complex. One hundred men are employed, and the capacity is

1,500,000 carbons per month, the demand being for 1,000,000 at present.

The entire plant is neatly fenced in, and a switch connecting with the Lake Shore, and Cleveland & Pittsburgh railroad tracks furnishes ample shipping facilities.

BEECHER FURNACE CO.,

Manufacturers of Beecher's Air-Warming Furnace—Office and Foundry, Corner Elm and Winslow Sts.—W. F. Beecher and Thos. H. Cahoon, Proprietors.

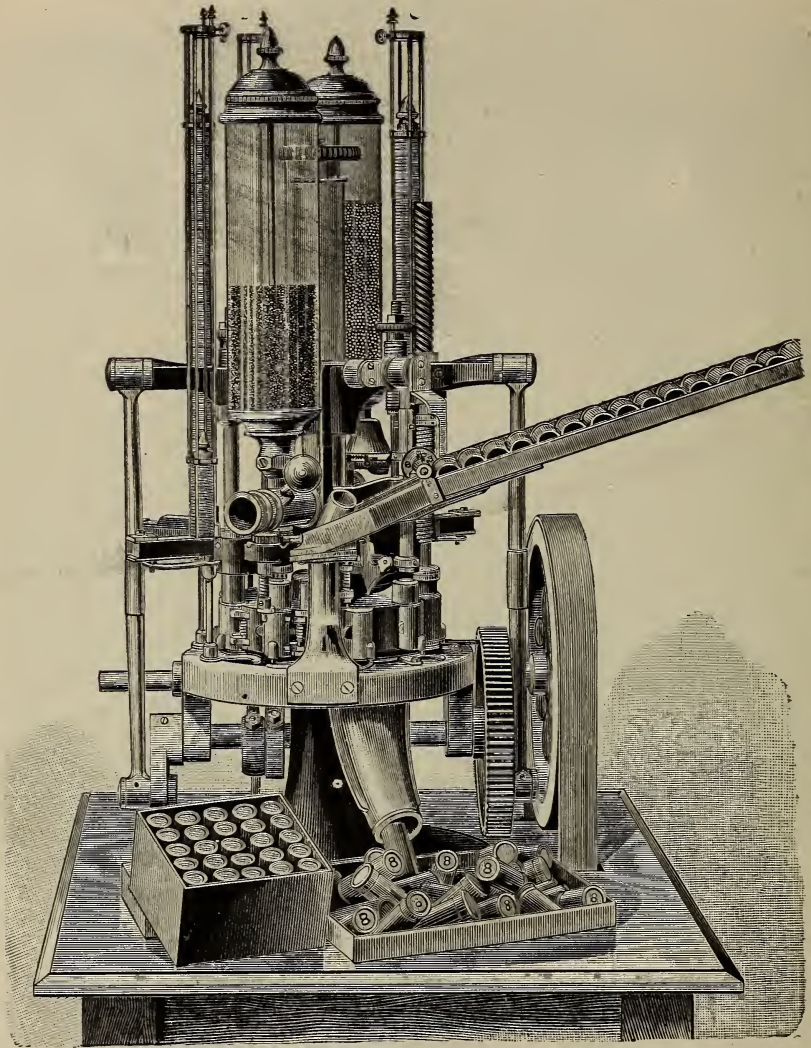


The above cut explains the principle of the famous Beecher Air-warming furnace. It is one of those devices which in a climate like ours is indispensable to health and comfort, and has won its way to the front rank upon merit alone.

Another of the company's leading specialties is a superior line of soft coal stoves, which, with the Beecher furnace, are regarded with much favor, more particularly in the West and South. Thirty to forty men are employed, and goods valued at \$50,000 to \$75,000 are produced annually.

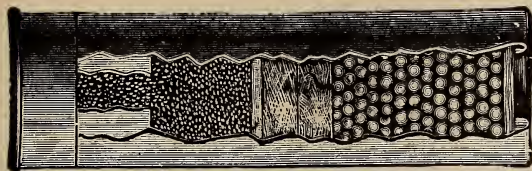
THE CHAMBERLIN CARTRIDGE CO.

J. Palmer O'Neil, President; F. L. Chamberlin, Secretary and Treasurer; Edward L. Day, Manager—Manufacturers of Fixed Ammunition for Breech-Loading Shot Guns—No. 76 Superior St.



Sportsmen owe a debt of gratitude to Mr. F. L. Chamberlin, the inventor of the automatic shell-loading machine, perfected in 1884, which has relieved them of the most tedious and disagreeable of their trials—the loading of shells, after a hard and wearisome day's tramp over field and marsh, mountain and stream, in preparation for the ensuing day's sport. Shotgun cartridges of a quality superior to any that can be loaded by hand are now supplied by the Chamberlin Cartridge Co., put up in convenient pack-

ages and every cartridge *guaranteed*. The paper shells used by the Chamberlin Cartridge Co., are those manufactured by the "Union Metallic Cartridge Co.," and "United States Cartridge Co." Each of these manufacturers are now turning out water-proof shells, obviating any necessity for brass shells.



The Chamberlin automatic cartridge machine is a wonderful example of what may be accomplished by ingenuity combined with a thorough practical knowledge of mechanics. It is the only automatic shot-gun cartridge machine run by steam power, and is capable of producing

absolutely perfect cartridges of any desirable caliber or for any kind of shooting.

The following remarkable scores were made in the Chamberlin Cartridge Company's second annual tournament, at Cleveland, September 14, 1886. Each contestant shot at 100 inanimate flying targets: 98, 92, 93, 90, 92, 90, 91; total, 646. The average of these scores is 92.27 per cent., and it is admitted by the shooters that no such record could have been made with hand-loaded ammunition.

The Chamberlin Cartridge Company was incorporated in 1884 with a paid up capital of \$1,000,000, and is already a pronounced and remarkable success as a business venture, its cartridges being in steadily growing demand not only in this country but all over the world. Twenty men and a number of machines are now employed, and the facilities are being constantly augmented at the factory, located on Independence street. The ware-house and offices occupy two floors, 20 x 180 feet, and employ five men. In addition, branch houses are maintained as follows: For the Atlantic States, the Atlantic Ammunition Co., 291 Broadway, New York; for the Northwest, the Western Arms and Cartridge Co., 108 Madison street, Chicago; for the Pacific coast, the Selby Smelting and Lead Co., San Francisco.

President J. Palmer O'Neil is a native of New York. Secretary and Treasurer Chamberlin, the inventor, was born and reared in Cleveland, and is also secretary of the Variety Iron Works Company. Manager Edward L. Day, a native of New York, has resided in Cleveland for thirty-six years, and was for twenty-five years prominently identified with the window glass industry.

GEO. V. MUTH, BREWER,

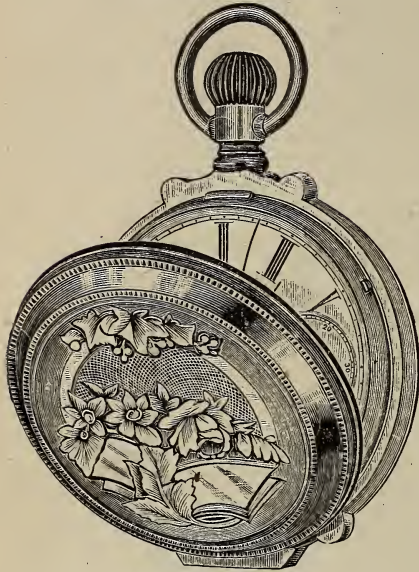
Nos. 8 and 10 Buckley St.

Muth's brewery is one of the noted features of Cleveland, and, while not so large or pretentious as some of its competitors, long ago made for itself a very high reputation, and Muth's beer is recognized by the trade and consumers as a standard beverage of the highest excellence as regards flavor, body and purity. This brewery was erected in 1868 by the father of the present proprietor, and has been much improved by the latter. It is of brick, 60 x 100 feet, three stories in height, arranged with a view to economy of time, labor and space, equipped in the completest manner with all requisite appliances, employs fourteen men, ten horses and three wagons, and has an annual capacity of 25,000 barrels, yearly sales now being about ten thousand barrels, of an average total value of \$80,000. Mr. Muth's trade is principally local, and of the best character, and is steadily increasing. From present indications it looks probable that the establishment will have to be enlarged ere long.

McBRIDE & MARCELLUS,

Manufacturers of and Dealers in Jewelry and Silverware—Wilshire Building, No. 209 Superior St.

McBRIDE & MARCELLUS'



\$35 Solid Gold Watch,

This house was established in 1884, and has been very successful in building up a large and growing trade. They have an elegant office in the Wilshire building, and a store-room in which can be found everything fine in the jewelry line. The house carries a stock of watches, diamonds, jewelry and silverware valued at many thousands of dollars, and makes a study of fine goods at low prices. Their expenses, upon the second floor, are necessarily lower than those of first-floor dealers, and their aim is to give their customers the benefit. A specialty is made of manufacturing to order any novelty in precious metal that fancy may desire, and their success and rapid growth must be accepted as evidence of the satisfaction they are giving. The members of this firm are both young men, and give to the business the close attention and energy that brings to them the sure success that they deserve.

FOREST CITY STONE COMPANY,

Quarrymen and Producers of Euclid Blue Stone, Kilbuck Brown Stone, Columbia and Millersburg Sandstone—Office, Room 7 Benedict Building, Euclid Ave.

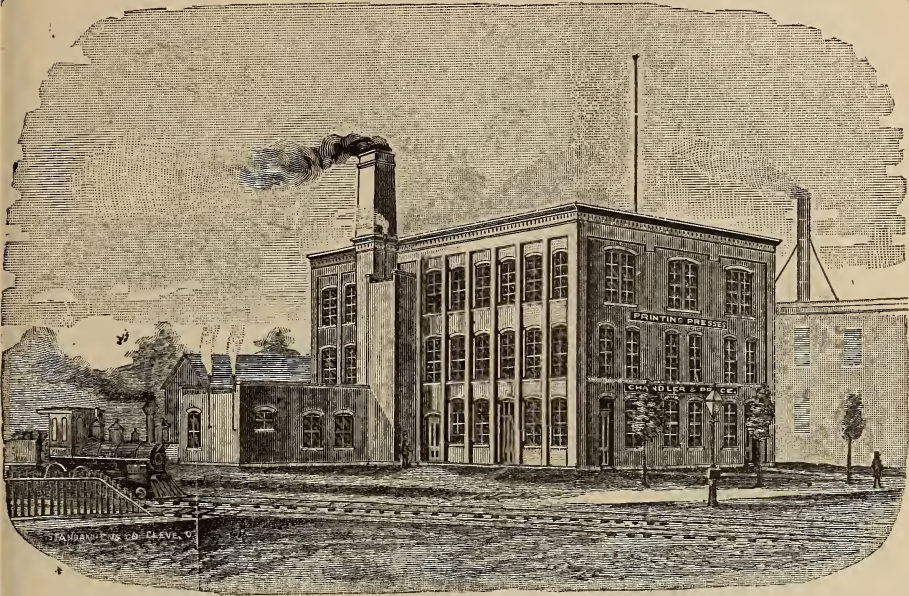
The beautiful building stones of Ohio long since attracted attention, but it was not until the development of a railway system penetrating all sections of the State and the Union that it was found possible to utilize them at a distance from the quarries. At present, however, the "Euclid" bluestone, "Ohio" brownstone, "Columbia," "Millersburg" and other sandstones are favorably known and rapidly coming into use all over the Eastern and Middle States, the demand augmenting in volume and the trade growing in importance and value of output year by year.

Among the more conspicuous and successful operators in this class of material may be named the Forest City Stone Company of this city, proprietors and operators of vast quarries at various points, whose mills, distributing yards and docks are situated on West River street, with office in room 7 Benedict building, Euclid avenue. The company organized in 1870, during which year they took out but 18,000 feet of stone, whereas, at present, the capital invested exceeds \$100,000. As an indication of the phenomenal growth of the business it need only be stated that the sales for the past year have exceeded 200,000 feet from the Euclid quarries alone. The quarries of the company, among the most valuable in the State, are located at Euclid, Columbia, Millersburg and Kilbuck.

The *personnel* of the company is of the highest character, comprising Messrs. W. H. and W. C. Stewart, natives of Vermont, who have resided in and been identified with Cleveland for forty years, and Mr. John Holland, born in Ireland, and a citizen of Cleveland about as long as the Stewarts. All are A 1 business men, public-spirited, liberal and enterprising. Messrs. John Holland and W. C. Stewart give their undivided attention to the interests of the firm, while Mr. W. H. Stewart is division freight agent of the Pennsylvania Company of Cleveland.

CHANDLER & PRICE,

Manufacturers of Printing Presses, Printing Machinery and Printers' Appliances—
Office and Works, East Prospect St. and C. & P. R. R. Crossing.



For all practical purposes the old-style Gordon press, as improved by Messrs. Chandler & Price, has no superior and few equals. It runs lightly, is very fast, does its work to perfection, is provided with patent throw-off, patent chase-hook, hardened steel cam-rollers, and other valuable improvements, and is in all respects useful, accurate, swift and substantial. All necessary appurtenances are supplied, and it is remarkably cheap as compared with inferior machines.

This firm are also manufacturers of the celebrated "6½ x 10" lever press, price \$35, a very handy machine, as well made as the higher priced ones, easily operated, and handy for small card and other jobs, saving time in getting ready. Chandler & Price's proof-press is very handy in book, job and newspaper offices. They also manufacture a superior line of plain and nickel-plated screw and Yankee composing sticks, together with an endless variety of printing office conveniences and appliances, which are supplied to the trade at moderate prices.

The firm, composed of Messrs. H. T. Chandler and W. H. Price, jr., was established in July, 1886, and has already achieved success, occupying a three-story brick building 40 x 80 feet, fitted up with steam power, employing thirty hands, and turning out five hundred to six hundred presses and large quantities of other machinery, etc., per annum.

The shop is equipped with the best machines and appliances that can be purchased, including many special tools of their own manufacture. Every article of their make is guaranteed to be the equal (and in most cases the superior), of any thing of its class in the market, and of the best material and workmanship. The hardened cast steel cam-rollers and the shafts are ground perfectly true on a Brown & Sharpe Universal grinding machine (of which they have two), and in fact their aim is to attain the perfection of workmanship which has heretofore been found only in the best machine tool builders, and which has never before been attempted by manufacturers of this class of printing presses. This firm has opened up a rapidly increasing Australian business, where the superiority of their goods is acknowledged by all.

OHIO ENGRAVING COMPANY.

C. E. Wyman, Proprietor—Artistic Engraving on Wood, Photo and Map Engraving, Electrotyping, etc.—Room 47 City Hall.



Everything that comes from the press nowadays is or should be illustrated. Books, magazines, newspapers, catalogues, hand-bills, advertising dodgers—everything to which it is desirable to attract attention is a proper subject for the exercise of the artist's and the engraver's art, and the possibilities of illustration are as yet undeveloped.

The engraver is to a certain extent the accurate historian of his time, for he produces, with the aid of the artist, the means of picturing indefinitely as to numbers of copies the men and things of his time, thus transmitting to succeeding generations impressions of current events and the actors therein such as could be conveyed by no amount of descriptive writing. It is in the utilitarian arts, however, that the engraver's skill finds its best and most remunerative field—the production of engravings of machinery, buildings, etc., relating to trade and manufactures, and the prospects of his constantly increasing employment herein seem infinite.

Among the comparatively few artistic engravers of whom Cleveland can boast, Mr. C. E. Wyman, proprietor of the Ohio Engraving Company, ranks deservedly high. Having been in the engraving business nearly twenty years has gained for him the confidence of his many patrons. Mr. Wyman occupies room 47 City Hall building, employs six accomplished engravers and artists, and does much of the finest and most intricate work of that kind produced in Cleveland, his specialties embracing every description of portrait and object engraving on wood, photo and map engraving in all styles, engraving on metal, etc., together with electrotyping. He has every requisite facility for the execution of first-class work, and fills orders at short notice and in the best manner for customers in all parts of the United States and Canada.

Mr. Wyman, himself an artist and engraver of high repute, employs only the best talent, and invariably renders satisfaction to his patrons. Mr. Wyman has been a resident of Cleveland since 1868, and is deserving of the popularity he has gained in this branch of business.

CITIZENS' SAVINGS AND LOAN ASSOCIATION.

J. H. Wade, President; H. B. Payne, H. W. Leutkemeyer, Vice-Presidents; W. S. Jones, Secretary and Treasurer—No. 108 Superior St., Wade Building.

This prosperous and useful institution was chartered in 1868, with a capital stock of \$1,000,000, and has been remarkably successful throughout its career, conferring immense benefits upon depositors, the community and its stockholders alike. At this time the undivided surplus held for investment and to the order of stockholders exceeds half a million, supplying an ample fund for all legitimate operations. At first located in the Atwater building, the bank removed in 1877 to No. 123 Superior street, and in 1887 to its present quarters, No. 108 Superior street, Wade building, where it occupies the elegantly appointed and handsomely furnished first floor—one of the finest banking houses in the United States. The vault, situated in the basement, is a very large and costly one, constructed of chrome steel plates put together from the inside, the whole four inches in thickness and furnishing absolute security from fire and burglars.

This bank is prepared to receive deposits of large or small sums from any part of the country and to make loans on real estate first mortgages to a liberal amount. The utmost care is exercised in all transactions, and every safeguard provided against loss to depositors, whose moneys to the extent of \$5,000,000 are here held in trust.

The character of the officers is a sufficient guarantee of the bank's good management. President J. H. Wade is also president of the Valley Railway Company and of the National Bank of Commerce, and is a director of the Cleveland Rolling Mill Company. Vice-President H. B. Payne is United States Senator from Ohio, is one of Cleveland's foremost, most noted and wealthiest citizens, and is at present erecting on Superior street a block of business buildings which when completed will be the most magnificent in the State. Vice-President Leutkemeyer is a prominent manufacturer and hardware dealer. Secretary and Treasurer Jones, who came into the bank in 1875, is also secretary and treasurer of the Cincinnati, Wabash & Michigan, Kalamazoo & Allegan and Grand Rapids Railroads.

WEIL, JOSEPH & CO.,

Manufacturers of Ladies', Misses' and Children's Cloaks—Nos. 69 and 71 St. Clair St.

Though established less than three years this house has already made for itself a first-class reputation and secured a liberal share of orders from the trade throughout the country, requiring the services of about 150 persons in all departments, manufacturing, sales and shipping. The fine five-story-and-basement brick structure Nos. 69 and 71 St. Clair street, 40 x 120 feet, is none too large for their use, and it is evident that greater facilities and increased accommodations will ere long be required in order to meet the demands of their growing trade.

The house was founded in January, 1885, at Nos. 63 and 65 St. Clair street, removing last fall to the present location. The firm itself is composed of Mr. M. Weil and the firm of Koch, Goldsmith, Joseph & Co., the operations being under the personal management and supervision of Messrs. M. Weil and Isaac Joseph, experienced cloak manufacturers and astute business men, who devote their entire time and best energies to the best interests of the concern. Mr. Weil is a native of Cleveland, for twenty-one years an active member of the firm of M. Halle & Co., while Mr. Joseph came here from New York in 1871.

Messrs. Weil, Joseph & Co. are exclusively wholesale manufacturers of ladies', misses' and children's cloaks in latest styles and all grades, and offer to the trade such inducements as few houses west of New York can afford. We have no hesitation in recommending them to buyers as in all respects reliable, responsible and upright.

S. ALLEN'S SONS,

Miners and Shippers of Coal—Office, Room 11 Bratenahl Block.

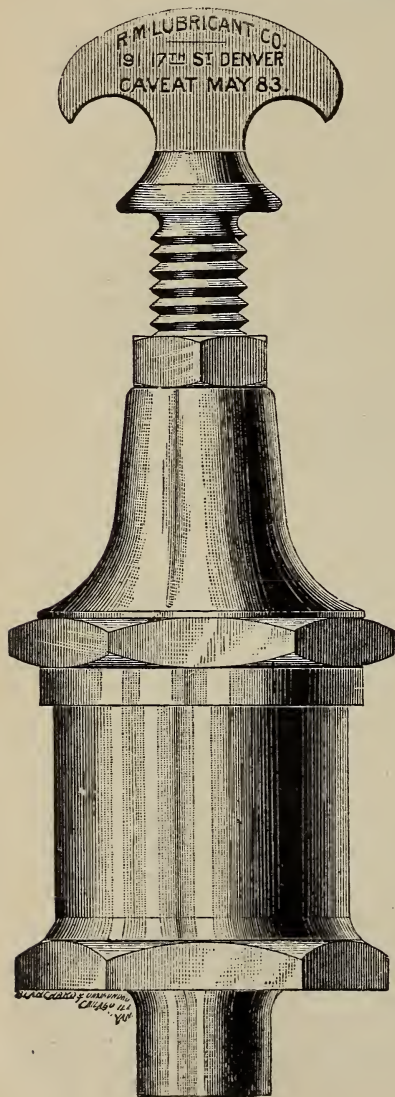
This old and reliable coal firm is now represented by Mr. J. C. Allen since the death of his brother and partner, Mr. Frank Allen. The house was established in 1880 by S. Allen & Son, the senior member retiring and the present style being adopted in 1885. The firm own 200 acres of excellent coal lands in Carroll county, Ohio, employ 125 men, and last year put on the market 101,000 tons of high grade steam and domestic coal, which for the

most part was sold and consumed in Cleveland, this fuel meeting satisfactorily the requirements of both manufacturers and householders, who signified their approval thereof by liberal purchases. It is emphatically a steam coal of the best quality, and is especially recommended for that purpose. The vein from which it is obtained is in a mountain-side, four and a half to five feet deep, and good for a number of years to come.

The Allens came to Cleveland from Carroll county, where the sons were born.

THE WESTERN SUPPLY AGENCY.

J. E. Williams, Manager—Manufacturers' Agent for Lard Oils, Lubricating Oils, etc.—No. 129 River St.

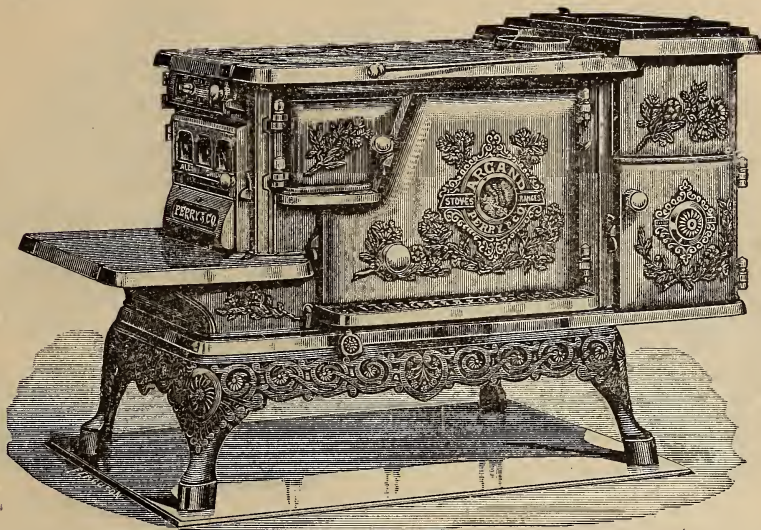


Railroad companies, mill-owners, machinists and other large consumers of the commodities handled by the Western Supply Agency will be interested in this brief outline sketch of its origin, history and facilities.

Mr. J. E. Williams, the manager, an experienced dealer in oils, etc, seeing the necessity that existed in this market for a general agency of the kind, opened the concern in February, 1886, and at once entered upon a successful business career. At the present time two entire floors, 22 x 80 feet, No. 129 River street, are required for storage, salesroom and office purposes, and the venture steadily grows in popularity and volume of transactions. The specialties include full lines of high grade lard and lubricating oils, pure natural West Virginia oils, cotton waste, etc., together with the celebrated "Rocky Mountain" grease cups and reliable crank pin grease. Just now Mr. Williams is introducing to his trade an entirely new variety of journal lubricator—the "C. H. Moore" grease, manufactured at Cincinnati, a combination of mineral and animal oils which meets with great favor at the hands of consumers.

WHITBECK & WALLACE,

Successors to Geo. Klooz—Dealers in Fine Cutlery, Mechanics' Tools, Carriage and Builders' Hardware, Agricultural Implements, Whips and Brushes—No. 263 Pearl St.



Messrs. W. P. Whitbeck and R. H. Wallace became proprietors of this establishment in February last, coming from Berea for that purpose. The house was founded by Geo. Klooz twenty years ago, Mr. K. being succeeded by the firm of Klooz, Wolf & Matthews. The premises comprise a substantial brick building, 40 x 70 feet, No. 263 being occupied as a hardware store, while No. 265, adjoining, is a complete stove store and plumbing establishment. The firm carry a large stock in both branches, comprising fine cutlery, mechanics' tools, carriage and builders' hardware, agricultural implements, whips, brushes, steel plate ranges, heating and cooking stoves, lamps and lamp trimmings, plumbers' and gas-fitters' supplies, furnaces, tinware, ship and house-furnishing goods, etc. They also conduct a well-equipped tin, copper and sheet iron shop, where work is promptly done to order, and a plumbing and gas-fitting department.

These gentlemen are enterprising, energetic citizens and capable business men, and deserve the popularity and large patronage they enjoy.

A. J. WENHAM'S SONS,

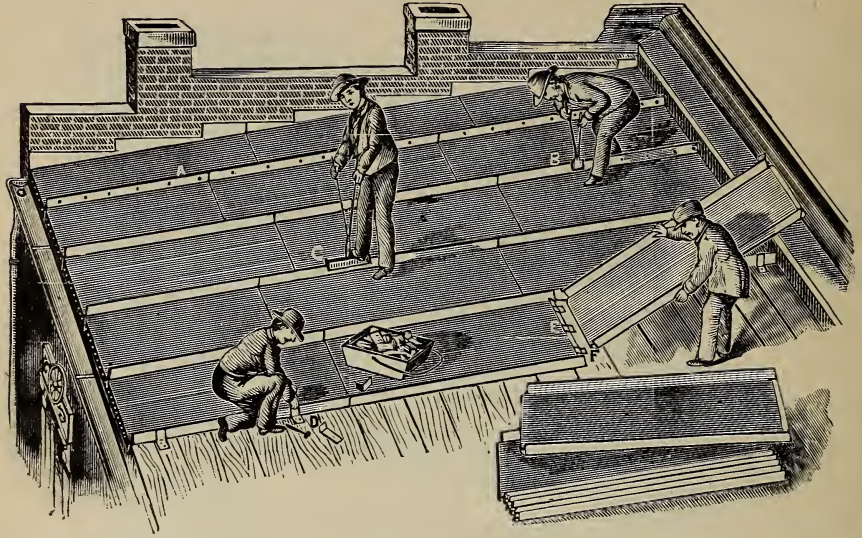
Jobbers in Teas, Syrups, Canned and Fancy Groceries—Nos. 138 and 140 Water St.,
Corner Frankfort.

The founder of this conspicuous mercantile house was Mr. A. J. Wenham, who came hither from England and established himself in the grocery trade in 1850, living to see his house take rank with the largest on the lakes, and dying in 1885 full of years and business honors. The present firm is composed of Messrs. A. A. and F. L. Wenham, worthy sons of a worthy sire, and Mr. C. D. Fortlage, admitted during 1887. All were reared in Cleveland and are personally interested in the city's good name and prosperity.

The buildings occupied are of the most capacious and eligible for the purpose in Cleveland, located at the corner of Water and Frankfort streets, 50 x 120 feet, four stories and basement. Thirty men—clerks, salesmen, etc.—are employed, and the sales (which are steadily increasing) aggregated about \$1,000,000 for 1886, the house doing a wholesale business exclusively in teas, syrups, canned and fancy groceries, of which they are jobbers, and shipping to Northern and Eastern Ohio and Pennsylvania principally.

THOMPSON MANUFACTURING CO.,

Manufacturers of Iron Roofing, etc.—Office and Works on L. S. & M. S. Ry., Between Gordon and Waverly Aves.



As the representative of one of the most important branches of the building trades of the country the Thompson Manufacturing Company stand at the head in the manufacture of iron roofing, siding, etc. Established in 1871 by Thatcher & Thompson, changed to Moser & Thompson in 1880, and to the Thompson Manufacturing Co. in 1884, during the entire time the business has been pushed with energy and enterprise, and a trade has been established that extends to every portion of the United States, and with a continual increase in the annual sales. Commencing in 1871 with two hand machines with a capacity of only twenty squares per day, the company has now a plant consisting of a spacious one-story iron-sheathed frame building, 80 x 152 feet, and equipped with the best of machinery of their own invention, which is operated by steam power and capable of turning out 1,300 squares per day. Commencing with the manufacture of one kind of iron-roofing, they now manufacture five sizes of corrugated iron for roofing, siding, ceiling and partitions, either straight or curved, crimped and double-cap iron for roofing, beaded iron for siding, ceiling and partitions, fire-proof doors and shutters, galvanized iron gutters, etc. They also furnish designs and estimates and erect iron frame buildings and iron truss roofs covered with corrugated iron.

Combining a thorough knowledge of the requirements of the trade with unsurpassed facilities for promptly filling orders, and a liberal business policy, the Thompson Manufacturing Co. is in a position to afford builders, contractors and property-owners advantages in the supply of their line of work difficult to procure elsewhere.

CLEVELAND PETROLATUM CO.

H. M. Brown, Manager—Manufacturers of Densoline Petrolatum U. S. P., and All Refined Heavy Products of Petroleum, Filtered Cylinder Stocks, Gelatine, Castor and All Lubricating Oils—Nos. 767 to 773 Pearl St.

The Cleveland Petrolatum Company was organized in 1882 with a cash capital of \$60,000, and at once began a career of usefulness and enterprise that has made it famous all over the world. The works, Nos. 767 to 773 Pearl street, are the largest of the kind in the United States, built of brick, two stories in height, 80 x 80 feet, with wings 20 x 60 and 16 x 80 feet respectively. A superb equipment of apparatus and special machinery of ingenious construction completes the plant. All processes being secret in their nature,

a description of them is of course unobtainable and must be omitted. A working force of fifteen trusty and well-paid men is employed, and the output is enormous, both in quantity and value, this being the only competitor of the Chesebrough monopoly, and putting on the market a line of preparations of far superior merit.

The Cleveland Petrolatum Company are the originators and sole manufacturers of the wonderful Densoline, the purest and most highly improved concentrated petroleum jelly, officially designated by the United States Dispensatory as "Petrolatum U. S. P.," and employed as an ointment by the leading physicians and surgeons of the world. It is manufactured directly from natural petroleum without the use of chemicals, and is endorsed by the profession and by eminent pharmacists everywhere. It is prepared as a universal basis for all salves and ointments, and in several additional forms for various purposes, as plain for external use, as a pomade for the hair, as a cold cream, carbolated, camphorated, arnicated, as a bland, soothing oil, as a cosmetic, for veterinary use, as a hoof ointment, and as a harness oil—incomparably the best ever offered. It is supplied to the trade, put up in neat and attractive styles, at prices as low as honest goods can be sold for. The company also produce full lines of the finest and purest lubricating oils for all classes of machinery, cylinders, etc.

Mr. H. M. Brown, the manager, is a native of Cleveland and eminently qualified by nature and training for the position he fills so acceptably. Under his able management these goods have made for themselves a market in all quarters of the civilized earth, maintaining general agencies at London, Liverpool, Melbourne, Hamburg, Rio Janeiro and other principal commercial centers.

P. L. SWORD & SON,

Manufacturers of Brick Machinery, Clay Crushers and Carriers—Office, Room 5, No. 5
Euclid Ave.; Works, Bessemer Ave.

The enormous quantity of brick used daily in the construction of all classes of buildings, together with the improvements constantly added in machinery for rapid manufacture, make this a business of the first importance, giving employment to thousands of individuals. The superiority of machinery over the old process of manufacture by hand has completely revolutionized the business and allows of immense quantities being made in a single day where it formerly took weeks and months to accomplish the same. In the Southern States, where wood formerly entered exclusively into the construction of buildings, the general adoption of brick during the past five years, both on account of its stability and cheapness, has been the means of influencing an increased demand on brick machine manufacturers' resources and encouraging an industry new to some portions of these States. Among the celebrated manufacturers of this class of goods none have gained a wider reputation than P. L. Sword & Son, and throughout all sections of the country may be found in daily operation machines of their manufacture. The double automatic brick machine manufactured exclusively by this firm has a daily capacity, according to size, of from 15,000 to 35,000, producing the same at one-third the cost, without variation in the least particular. Another feature which distinguishes this machine above all others is that it will make a perfect brick to repress, a fine stock brick, a brick with a perfect grain. This feature commends itself to intending purchasers.

The other specialties manufactured and handled by these gentlemen are the Sword improved patent brick machine, with a capacity of 30,000 daily, the portable hake and truck, the Raymond perfection brick press, the Avery seamless steel buckets for clay, ore, or any damp substance, combined with a clay crusher and carrier, besides other specialties. The business was first established by P. L. Sword in 1868, and in 1877 C. D. Sword, son of the founder, was admitted. The present capacity is seventy-five plants annually, netting \$200,000. At present the trade is confined chiefly to the Southern States, but the East and West also draw largely on their resources. In connection with the business they have in operation a large brick yard, where 50,000 brick are made daily. They are also agents of the Boston Terra Cotta Company's celebrated goods.

All of the gentlemen comprising the firm are natives of Adrian, Michigan, and during their residence in this city have not only made friends and established a prosperous business, but are respected by all with whom they come in contact.

STANDARD BOOK BINDERY AND BLANK-BOOK MANUFACTORY.

Chas. Haker, Proprietor—Blank-Books, Law Books, Magazines, Ruling, Perforating and Numbering—No. 197 Superior St.



Books, like men and women, depend largely upon appearances for success—that is to say, they commend or disparage themselves by the dress they wear, and are often chosen or rejected because pleasing or unpleasing to the eye. It is, therefore, of the first importance to the bookseller, the publisher and the author that works intended for popular dissemination should receive attention at the hands of a skillful and tasteful bookbinder before being placed on sale—such a bookbinder, for instance, as Mr. Chas. Haker, proprietor of the Standard bookbindery and blank-book manufactory, No. 197 Superior street.

Mr. Haker, a native of Cleveland, is a practical bookbinder who has made a study of the art since boyhood, and has achieved success both as a mechanic and a business man. He established the Standard bookbindery and blank-book manufactory in 1881, on the viaduct, soon afterward removing to his present eligible location, where he has one of the most complete concerns of the kind in the West, equipped in every department with the latest improved labor-saving machinery, and employing a competent force of trained hands. He does a large and growing business, principally with Cleveland printers, publishers, merchants, manufacturers, railroad and navigation companies, and gives prompt personal attention to all orders.

THE WILLIAMS MANUFACTURING COMPANY.

M. M. Mower, Manager—Proprietors of Dr. Frazier's Root Bitters, Dr. Williams' Indian Pile Ointment, etc.—No. 122 Water St.

Notwithstanding the hue and cry against patent medicines, it cannot be successfully disputed that many instances can be adduced to prove that even desperate cases of disease have been relieved and cured by them after experienced physicians had abandoned hope and the patients together. We did not, however, start out to write a labored disquisition upon medicines, patent or otherwise, but to call attention to the Williams Manufacturing Company of Cleveland, and the remedies to the compounding of which it devotes its attention, viz: Dr. Williams' Indian pile ointment, Dr. Frazier's throat and lung balsam, Dr. Flag's family ointment, Dr. Frazier's root bitters, Dr. Frazier's magic ointment, Mrs. Dr. Walton's periodical tea, Dr. Benton's hair grower, Dr. Benton's pine troches, Dr. Benton's nerve tonic, all of which are renowned curatives of the diseases for which they are recommended, and quite popular with that large and increasing class who regard with suspicion the faculty's loud and universal execration of everything not regularly prescribed by a regularly parchmented M. D. (who may or may not know the difference between a purgative and an astringent) and who pin their faith rather to what they see in the form of results than to what they are told as a matter of theory.

The Williams Manufacturing Company was established in the City Hall building in 1885, but for want of room was forced to move to its present quarters in the large building No. 122 Water street, in 1885, where two elegant offices are occupied. The laboratory and factory are located elsewhere, and the correspondence and general business of the company are transacted here, where Manager M. M. Mower has everything under his personal supervision. Mr. Mower, who is a native Ohioan, educated in Cleveland, has been connected with the manufacture of this class of goods since 1881, and is an active, enterprising and reliable gentleman, who devotes his best energies to his calling, with the result that the remedies of his company are becoming better known and more highly appreciated day by day, and are found in every well-regulated drug store in the United States.

J. J. SHEPARD,

Manufacturer and Shipper of West Virginia Fire Brick, Fine Fire Clay and Tile—
Manufacturers' Agent for Best Brands of New York, Pennsylvania and Ohio Fire
Brick—Nos. 35, 37 and 39 River St.



Fire brick, fire clay and tile are having a boom, and the dealer who keeps abreast of the times with the best goods at comparatively the lowest prices is certain of generous patronage and consequent prosperity. Such a dealer is Mr. J. J. Shepard, whose great three-story office and warehouse building, 100 x 150 feet, at Nos. 35, 37 and 39 River street, is at all times heavily stocked with superb lines of these materials. Mr. Shepard, whose works are on the Ohio river, is an extensive manufacturer and shipper of high grade West Virginia fire brick, fine fire clay and tile, and also manufacturers' agent for best brands New Jersey, New York, Pennsylvania and Ohio fire brick of all conceivable shapes and sizes, filling orders at short notice and in a manner satisfactory to buyers. He makes a specialty of odd shapes, and parties requiring such will do well to communicate with him by mail or telegraph. Mr. Shepard was formerly manager for G. H. Barstow, to whom he succeeded in 1885.

W. H. GARLOCK & CO.,

Steam Laundry and Shirt Factory—Sheriff St., Between Euclid Ave. and Prospect St.

Viewed in the light of everyday development, the conclusion is inevitable that ere many years "wash-day" with its miseries will have forsaken the American household forever. Already the tidy housewife is beginning to patronize the great public steam laundry, sending thither much of her finer work rather than turn her home over periodically to the dominion of Bridget and a consequent chaos of steam, soap-suds, bad temper, cold dinners and discomfort. Her lord, her father, brothers and sons long ago learned that the only chance to obtain clean linen, stylishly laundried and fit to face a cold and critical world, was to send their garments to the same beneficent modern institution.

Among those who have contributed to this result Messrs. W. H. Garlock & Co., of Sheriff street, between Euclid avenue and Prospect street, are worthy of special mention, their great steam laundry occupying the front rank in this branch of industrial enterprise. Mr. Garlock began in a small way in July, 1883, but soon built up a trade in both laundry work and shirt manufacturing that demanded additional capital and supervision, so in 1885 he took a partner in the person of Mr. James M. Stewart, an energetic and capable gentleman, and from that time to the present the concern has had a constant boom, as will be seen by the fact that during 1886 200,000 shirts and 1,750,000 collars and cuffs were laundried at this establishment, and the patronage still grows rapidly and steadily. The laundry occupies two floors, 65 x 80 and 33 x 80 feet respectively, of the four-story brick building above indicated, but will soon require more room. Eighty-two men and girls and a fine complement of machinery are employed, and the pay-roll foots up \$525 per week. Work is done for people all over the city and a great deal sent in from the adjacent towns. Collars and cuffs are a specialty in which this firm excels. The business amounts to \$75,000 per annum.

Mr. Garlock (who also conducts a large shirt-making establishment in connection with the laundry) is something of an inventor, having devised one machine that starches 240 shirts an hour and another that irons ladies' collars without injury to the fabric. He is a native of Rochester, N. Y.

C. F. FENTON,

Manufacturer of Fenton's Family Medicines—Dealer in Drugs and Patent Medicines.
—No. 88 Bank St., Corner of St. Clair.



There are fossilized specimens of humanity in every community who cry down everything that is not "regular" in medicine, and would rather see their families and neighbors perish of disease under the care of an old-time practitioner than permit their lives to be saved by any of the well-indorsed proprietary medicines that have during the past quarter century performed thousands of wonderful cures and made for themselves world-wide reputations. We do not write for the bigoted class referred to, but for those who have sufficient penetration and common sense to recognize a good thing when they see it, and avail themselves of its benefits.

Among those remedies which have proved their value and acquired rank as standard and family medicines, those prepared by the Fenton's Manufacturing Company of Cleveland stand pre-eminent. In a notice of this kind we have space only to refer to them by name simply, as follows: C.F. Fenton's Concentrated Extract of Sarsaparilla, or Matchless Liver, Blood and Kidney Syrup, the best blood purifier ever discovered; Ohio Dyspepsia Cure; Universal Y. C. Salve; Pain Expeller; Lung Balsam; Fever Expeller (root biters); Sovereign Pile Sanative; Grandmother's Cordial, for teething children; Cholera Preventive; Worm Expelling Lozenges; Matchless Star Brand Sarsaparilla; the Sd. Syp. Specific, guaranteed to be the best in the world. All of these medicines have made their fame, which rests upon a foundation of solid merit.

Dr. C. F. Fenton, the originator and compounder of these unrivaled curatives, is a native of Pennsylvania, reared in Ohio. He established himself in Cleveland (at No. 158-River street) in 1859, removing a few years ago to his present location, No. 88 Bank street, northeast corner of St. Clair, where he occupies with drug store and laboratory the first and second floors, 30 x 50 feet. Here he has every facility for manufacturing on a large scale, and supplies the wholesale trade of the world with the medicaments named from headquarters.

E. R. HULL & CO.

Ready-Made Clothing, Hats, Caps and Furnishing Goods—No. 127 and 129 Ontario St.; 584 to 588 Pearl St.; Newburgh, and Akron.

While no reasonable being objects to the possessor of ample funds going to a fashionable tailor for his garments, it is nevertheless a fact that of late years such strides have been made by the trade that the enterprising and conscientious manufacturer and dealer in ready-made clothing can fit out his patrons in apparel as stylish, as fine, as well made and as perfect in fit, finish, and all other essentials, at prices twenty-five to sixty per cent. less than the same grade of goods can be supplied by the custom tailor.

Among those who have been prominent in the movement to this end, the firm of E. R. Hull & Co., Nos. 127 and 129 Ontario street, Cleveland, are conspicuous. Originally established in 1872 by the late famous C. R. Mabley and E. R. Hull, the house has always stood in the front rank of the trade. Mr. Mabley died in 1883, and the present firm, composed of Messrs. E. R. Hull, S. E. Graves and J. C. McWatters, was soon afterward organized. All are capable business men, alert and obliging, and their success in the face of determined competition has been phenomenal.

The firm carry an immense and carefully selected stock of superior clothing, hats, caps, furnishing goods, etc., of their own and the best Eastern manufacture, and offer as good bargains as can be found in any similar house East or West. Their store is a very fine one, 40 x 120 feet in area, four stories in height, and a constant scene of bustling activity from Monday morning to Saturday night, their annual sales at this place alone footing up half a million dollars. As an indication of their expenditures it may be stated that their pay roll for clerk hire averages \$600 a week.

The firm maintain several branches—one on Pearl street west of the river, one in Newburgh, and a third in Akron. The members are liberal, public-spirited gentlemen, respected and liked by all classes.

THE OHIO BAKING COMPANY.

S. C. Morris, President and Manager—Manufacturers of Superior Vienna and Domestic Bread, Rolls, Cakes, Pastries, etc.—No. 633 Superior St.—Capacity, 20,000 Loaves per Day.



The Ohio Baking Company was organized and established in 1885, and is already a pronounced success, enjoying the public confidence to a remarkable degree and a trade at this time second to none of the oldest of its competitors, and is growing steadily and rapidly. The reasons for this great prosperity are not far to seek, and are found in the high quality of products placed upon the market—the light, snowy, crisp and appetizing, yet healthful Vienna and domestic breads which comprise the leading specialties, and the delicious rolls, cakes and pastries for which the establishment is almost equally noted. An immense business is done. A force of thirty to forty men is employed, together with a steam engine, revolving ovens, and all appropriate machinery, and the works are capable of turning out 20,000 loaves daily, with a proportionate quantity of other goods. Trade is mostly local in character, but an increasing volume of shipments are made to neighboring cities and towns, and the transactions easily reach \$100,000 a year.

Mr. S. C. Morris, president and manager, was born in Cuyahoga county, and has resided in Cleveland for the past twelve years.

T. A. KELLEY,

Broker in Grain, Provisions, Stocks and Petroleum—No. 130 Water St.

In these days of speculation, legitimate and otherwise, the stock, grain, provision and petroleum broker is a necessity to all business centers, and occupies a position of trust and responsibility hardly second to that of the board of trade official. Chief among the indispensable requirements of the broker who would succeed and retain the respect and confidence of his patrons and the public, are unswerving honesty, quick perception, a thorough knowledge of the markets, suavity and nerve. In all of these essentials we have seldom, if ever, met any who were the superiors and few who were the equals of Mr. T. A. Kelley, the well-known and popular grain, stock, provision and petroleum broker, who occupies two elegant offices at No. 130 Water street. Mr. Kelley has been engaged in his present calling for the past three years, and has made a host of friends by his promptitude, upright dealing and gentlemanly bearing. He does a strictly legitimate business in actual commodities, and his rooms are always well filled with the best class of investors, every transaction being on the square and for delivery. No margins are handled, and bucket shop tactics are ignored. The facilities are first-class, including special wires to Chicago and New York and ready messenger service. Such a house as this is a credit to the city and a great convenience to a very respectable group of business men.

W. E. KELLY,

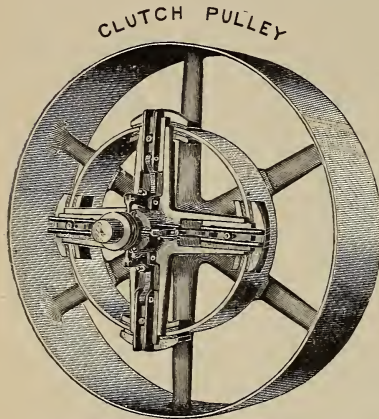
Machinist and Constructor of Electrical and Mechanical Specialties—No. 26 South Water St.

Mr. Kelly, a Pennsylvanian by birth and an accomplished artisan, has resided in Cleveland for the past ten years and made for himself quite a reputation for ingenuity, rare skill and thorough mastery of the laws and principles of mechanics as applied to electrical and other delicate and intricate devices and machinery. June 13 last he embarked in business on his own account, having thoroughly equipped a neat workshop at No. 26 South Water street with all requisite machinery for the work he has in view.

Among Mr. Kelly's late achievements may be mentioned the improved bell punch used by the conductors of the East Cleveland Street Railway Company and a new quadruplex telegraphic apparatus, constructed upon entirely novel principles, for the handling simultaneously of four messages on a single wire. He gives special personal attention to fine work of all kinds in machinery and to the repair of electrical apparatus, and those who leave their orders with him may be assured of the best possible service.

HILL CLUTCH WORKS.

H. W. Hill, Manager and Proprietor—Manufacturer of Friction Clutches, Shafting, Hangers, Pulleys, Couplings, etc.—Office and Works, Foot of Waverly Ave. and L. S. & M. S. Railway.



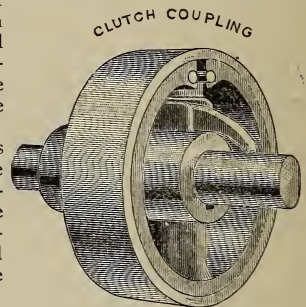
HILL CLUTCH (A)

Friction clutches have long since been demonstrated a valuable invention and a real necessity in power and transmission, both for the sake of economy and convenience. Mr. H. W. Hill, the patentee and manufacturer of the clutch herewith illustrated, is a successful inventor and mechanical engineer who established himself as a manufacturer at Chicago in 1884, removing to this city, where he found a more attractive field of operations, in 1886. The "A" clutch is made with either two or four arms, according to the amount of power to be transmitted. The "A" clutch pulley, as shown in the illustration, has a clutch ring cast (not bolted) into the arms of the pulley. The ring is turned and finished absolutely true, and is grasped on the outer and inner sides by the eight clutch members, which are shod with thoroughly seasoned maple. The radial motion of the jaws or clutch members is produced by the sliding collar being pushed toward the clutch, operating the link and two angle levers with which it is connected to the clutch jaws in such a manner as to force the outer jaws inward and the inner jaws outward until they grip firmly both sides of the ring, and also so that the sliding collar cannot be kicked out. The clutch is operated very easily without jar or start to the machinery, and is key-seated securely to the shaft. The pulley, of course, runs loose on the shaft. It is nicely finished and accurately balanced, fitted with an automatic grease cup and sleeve or bushing, which is babbitted with the best babbit metal. The slight wear on the wood jaws may be taken up by the set screws, and when worn can be removed. All parts of these clutches are made strictly to gauge, and duplicates of any part may be ordered by number to take the place of those worn out or broken by accident, and the new parts will fit in their places as perfectly as the old.

The interchangeability of all like parts of these clutches is an entirely new feature in this class of devices. The new clutch "B," which is also illustrated, is a new feature which is being generally adopted in all sections of the country. The advantages which these clutches, clutch-pulleys, and couplings possess are obvious to every skilled mechanic, and their general adoption throughout the world, wherever machinery is in use, is only a question of a few years. The process of manufacture is on an entirely new principle, perfected by Mr. Hill, and the materials used are of the best grade to be obtained.

The company's works, at Waverly avenue and the L. S. & M. S. railway, are fitted with specially designed machinery of the largest and costliest description. Fifty skilled mechanics are constantly employed, and the first year's output will exceed \$150,000. In addition to the leading specialties above mentioned, everything in the shape of pulleys, shafting, couplings, hangers, etc., is manufactured to order. The designing and arrangement of electric light plants, flouring and saw-mills and other extensive work of this character, is another feature of which Mr. Hill makes a specialty. With the increase of business and the large demands for their specialties, the company will, during the coming year, make many additions to their already extensive works, and at the rate with which their business has multiplied they will, in the course of a few years, be the largest manufacturers of their class in the world.

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HILL CLUTCH (B)

BOWMAN BROTHERS,

Importers and Jobbers of Earthen Ware, Glass and Plated Ware—No. 188 Superior St.



There is probably no finer or more extensive establishment of the kind west of New York than the mammoth earthenware, glass and plated ware house of Bowman Brothers, No. 188 Superior street, occupying four immense floors, each 21 x 150 feet and stocked in every department with select lines of all goods pertaining to the trade, ranging through all grades from the plainest and cheapest to the rarest china, cut glass and triple-plated wares from the most noted foreign and American manufacturers. No description that we could pen of this glittering bazar could possibly do it even partial justice, and we forbear the attempt, simply advising the trade and buyers in lots to visit and see the limitless array of tempting goods displayed. Ten clerks and salesmen are employed in the house, besides several well-known and popular travelers, and the transactions of the firm multiply in number and volume year by year, extending all over the Central North.

Messrs. I. T. and H. C. Bowman are Pennsylvanians by birth. The senior member came hither in 1859, the junior member in 1865, when the house was established under the style of Bowman Bros. & Levan. Mr. Levan retired in 1882, whereupon the present style was adopted. The utmost care is exercised in the selection of all goods offered to the trade by Bowman Brothers, and the buyer can do no better either in merchandise or prices than here.

BOURNE & KNOWLES M'F'G CO.

E. H. Bourne, President ; S. Bourne, Secretary ; W. M. Crowell, Treasurer—Manufacturers of Nuts, Washers, etc.—Corner Main and Elm Sts.

Persons unacquainted with the trade would be astonished if placed in possession of the statistics concerning the manufacture of nuts, washers, rivets, etc., which are employed to a greater extent and for a greater variety of purposes daily, their range of usefulness covering the entire field of the industrial arts from the building of great bridges and steamships to the construction of musical instruments, sewing machines, electrical apparatus and other delicate devices requiring the utmost nicety of adjustment.

In 1866 Messrs. Bourne, Damon & Knowles established at Main and Elm streets the first nut and washer works in Northern Ohio. In 1871 the firm became Bourne & Knowles, and ten years later the Bourne & Knowles Manufacturing Company was incorporated with a paid-up capital of \$75,000. The plant comprises a commodious brick building 45 x 100 feet and two stories in height, besides five or six frame shops of various kinds, fitted up in the best and completest manner with improved machinery, and employing 55 to 60 men. The annual output is valued at about \$125,000, and is disposed of to the trade and consumers all over the Union, principally in the Western States and territories.

President E. H. Bourne was born at Wareham, Mass., Oct. 22, 1840. Previous to his removal to this city, October, 1866, he was for some years assistant treasurer of the Old Colony Railroad Co. At this time he is cashier of the Union National Bank and president of the Cleveland Spring Company. Secretary S. Bourne, also a native of Wareham, Mass., succeeded his brother as assistant treasurer of the Old Colony railroad, removing to Cleveland nine years ago. Mr. W. Crowell, 37 years of age, is also from Massachusetts, and has lived here for nearly twenty years, for the past six of which he has been treasurer of the Bourne & Knowles Manufacturing Company.

DAVIDSON & HOUSE,

Manufacturers of and Dealers in Lumber, Doors, Sash, Blinds and Mouldings, Packing and Trunk Boxes—No. 91 Scranton Ave.

Cleveland's lumber trade ranks with her most important interests, the capital invested in it aggregating some \$4,000,000. The facilities that exist here for the handling of products of the forest are unexcelled by those of any port in the United States, and very few exceed her annual transactions therein. A prominent and flourishing house engaged in the purchase and sale of rough and dressed lumber of every description, and the manufacture of building materials, etc., is that of Davidson & House, whose office is at No. 91 Scranton avenue, with large planing mill and yards attached. The mill is a substantial structure, 100 x 200 feet, and the yards 200 x 300 feet. The plant represents an investment of \$35,000; one hundred men are employed, and the value of manufactures averages \$8,000 per month—outside the large sales of raw material—embracing manufactured goods of every description, doors, sash, blinds, mouldings, etc., a leading specialty being the manufacture of packing and trunk boxes for the use of manufacturers, dry goods merchants, grocers, and the trade generally. The location is a most advantageous one, the mill equipment first-class, the proprietors enterprising and popular gentlemen, and the conditions, all in all, are favorable for building up a trade, local and shipping, second to that of no similar concern here or elsewhere.

W. J. WHITE,

Chewing Gum Manufacturer—Nos. 24 to 32 South Water St.

Mr. W. J. White came here from Canada at the age of seven, and in 1873 found himself in Detroit, Mich., with a cash capital of seventy cents, with which he purchased two pecks of popcorn and two pounds of sugar, and at once converted his materials into a stock of popcorn cakes, which were disposed of to the retail trade at seventy cents per hundred and the profits reinvested in the same manner. This plan was faithfully adhered to for some few months, when Mr. White came to this city and opened a small shop on Pearl street. In 1876 he removed to Lorain street and began manufacturing for the wholesale trade. Prosperity attended him, and after various changes he occupies three great floors at Nos. 24 to 32 South Water street, 50 x 75 feet, two of which are devoted to the manufacture of chewing gum and one to the making of paper boxes and packing cases. Nine men and eighty girls are employed. Mr. White's trade reaches every corner of the continent, and his sales for last year aggregated \$100,000. Of "Chicle" (Red Robin brand) gum alone 200,000 boxes were sold. His machinery is so perfect that when required he can turn out 5,000 pounds in ten hours. A specialty is made of pure Yucatan gum, and in this connection it is worthy of note that never since he commenced operations has Mr. White used a single ounce of adulterants of any kind.

GEORGE G. ROSS,

Mattress Manufacturer—Office and Factory, East Prospect St., near C. & P. R. R.

The greatest and most perfect of life's comforts is sound, refreshing sleep—such repose as can be found only on a good bed. Consequently the manufacturer of the better grades of this class of goods is a public benefactor and deserves well at the hands of his harassed and rest-seeking fellow-mortals. Such is Mr. George G. Ross, the well-known mattress and bedding manufacturer and jobber of spring beds, No. 11 East Prospect street, near the C. & P. railroad crossing. These works were established in 1870 by Lane, Kendall & Co., succeeded in 1873 by the Lane Mattress Co., and in 1882 by Mr. Ross, who occupies a large three-story frame building, the ground floor 30 x 170, the upper floors 30 x 75 feet. Fifteen men and a valuable complement of appliances and machinery are employed, and a superb line of goods turned out, including every description of husk, African fibre, excelsior, wool, cotton and other mattresses and bedding, a leading specialty being made of fine hair mattresses of the best quality and most approved styles. Mr. Ross is also a jobber on a large scale of improved spring beds, his specialty in that department being the "Durable." His trade, which averages \$50,000 a year, extends territorially throughout Ohio, Indiana, Michigan, Western New York, Western Pennsylvania and West Virginia.

Mr. Ross is a native of New York City, a pleasant, enterprising and upright gentleman.

CARLING & COMPANY.

Brewers of Amber Ale, Pale Ale, and XXX Porter—No. 393 West River St.

The name of Carling is almost as well known to the malt liquor trade, and to the full as popular and as sure a guarantee of excellence, as that of Bass or Guinness. John Carling began the brewing of fine ales and porter at London, Canada, in the year 1800, and his descendants continue the business there on a large scale. In 1880 the present John Carling, head of the house of Carling & Co., decided to establish a branch in Cleveland, and Messrs. John S. McBeth as manager and Hugh Spencer as brewer came here for that purpose, securing a location at Seneca and Canal streets. The venture prospered—so much so that it became necessary to seek more commodious quarters, which were found at the foot of the hill on West River street, where a perennial spring of the purest water (an indispensable essential to good ale and porter) gushes forth from the earth, and here was erected a fine three-story brewery, 120 x 140 feet, provided with ample cellars and all other necessary conveniences. On the first floor are the handsome 22-horse-power boiler and 18-horse-power engine, together with much valuable machinery and appliances. On the second floor are several eighty-barrel kettles, an immense mash-tub, and four large settling vats. On the third floor are the big cooler, the fermenting tubs and other apparatus. The cellars, four in number, are devoted to the storage of ale and porter in bulk previous to bottling, which latter process is also carried on in the establishment.

CITY FOUNDRY COMPANY.

Manufacturers of Light and Heavy Castings—Hammer Dies and Wire Mill Guides. a Specialty—Hamilton St., Opposite Hoadley.

The growth of the iron manufacturing industry in all its branches has brought about a corresponding demand for new and improved devices for facilitating the mechanical operations pertaining thereto. The City foundry on Hamilton street is playing a conspicuous part in this branch of enterprise, producing a great deal of the most effective and latest improved machinery, light and heavy castings, special tools, etc., employed in modern rolling mill and machine shop work, and giving close and skillful attention to the construction of hammer dies of every description and wire mill guides, their work in this line meeting the approval of the trade everywhere, more particularly in Cleveland and Pittsburgh, where it has been adopted in all of the leading mills. The castings made here are also held in high estimation where introduced, and the company is already doing a large and flourishing business, though organized as late as 1886. The only changes so far have been the retirement of Mr. F. Hill and the admission of Mr. Joseph Knorr, the firm now consisting of Messrs. Charles Patterson, James Lonergan and Joseph Knorr. The works are 50 x 120 feet, adequately equipped with boiler, engine and all requisite machinery, and employ twenty-five to thirty skilled workmen.

WM. HARRISON,

Manufacturer of Pressed and Stock Brick—Yard, Corner Petrie and Clay Sts.; Residence, No. 1484 Broadway.

Mr. Harrison is one of the oldest, best known and most reliable of those who have contributed to the material upbuilding of Cleveland, having been engaged in brick-making since 1852, starting for himself in 1865—twenty-two years ago—during which time he has furnished to builders and contractors a vast total of superior bricks, keeping abreast of all improvements and maintaining the high grade of his products under all circumstances. His plant at Petrie and Clay streets is valued at about \$5,000, including three acres of fine clay land, Martin brick machinery, sheds 60 x 200 feet, wagons, horses, etc. Fifteen men are employed, and an average of 2,000,000 bricks, valued at \$110,000, are turned out per annum. Mr. Harrison makes both pressed and common bricks, and his facilities are equal to all demands. He carries a large stock of common brick, and is prepared to respond to any reasonable call upon his resources.

Mr. Harrison came to Cleveland from the North of Ireland in 1851, and is a valuable and popular citizen. He supplied the brick for the Cyclorama building, corner of Euclid avenue and Erie street, the common brick for the Wilshire building on Superior street and the Blackstone building on Seneca street.

CLEVELAND MACHINE CO.

D. P. Eells, President; F. L. Ford, Manager, Secretary and Treasurer; W. P. Hatch, Superintendent—Manufacturers of Paper Box Machinery, Drop Forgings, etc.—Corner Columbus and Leonard Sts.

The past few years have witnessed great improvement in the character of paper box machinery, drop forgings, etc., and the Cleveland Machine Company is justly entitled to much of the credit attaching thereto. The works now operated by this company were established by Messrs. Stillman Witt and H. B. Payne in 1874, passing into the hands of the present company at a later date. The capital invested is about \$50,000, the works occupying a substantial three-story brick structure 110 x 130 feet square. One hundred men are employed, and the output averages \$125,000 a year in value, comprising a varied line of the devices already named, together with every description of forged steel shears and scissors, Shipherd's anti-rattling fifth wheels, shaft shackles and quick shifters, "Acme" shafting rails, side-bar spring shackles, etc., all of the best material and design and of superior workmanship. The fame of the Cleveland Machine Company's productions has extended far beyond our own country, and a considerable demand has arisen for them (and especially for the paper box machinery) in England and Australia, where they are popular because of their simplicity, accuracy and rapidity of operation.

Mr. Eells, president of the company, is also president of the Commercial National Bank of Cleveland, a well-known and much respected citizen. The other officers are all capable and industrious gentlemen, far-seeing and enterprising.

E. H. JONES & CO.,

Engineers and Dealers in Engines, Boilers, Pumps, Wood and Iron Working Machinery, etc.—Nos. 221, 223 and 225 River St.

This house was established in 1876 by E. H. Jones & Co., the style changing, a year later, to Jones & Van Wie, and in 1884, on the withdrawal of Mr. Van Wie, to Jones & Co., the "Co." being a matter of form, since Mr. E. H. Jones is sole proprietor and manager. Mr. Jones is a native of Michigan and graduated from the civil engineering department of the Ann Arbor University in 1871, since which time he has devoted himself to perfecting a novel and original system of steam plant construction which is regarded with much favor by manufacturers and others interested, bringing both fame and business success to the inventor, and economy of space, power and fuel to his patrons. We have not space for a detailed description of the plan here, but all particulars and explanations are furnished by Mr. Jones to parties interested.

The warehouse at Nos. 221, 223 and 225 River street, foot of Superior, is a very large one, 75 x 115 feet, and exhibits a splendid array of improved engines, machinery and appliances—"Payne," "Straight-line," "Atlas," "Corliss," and other popular steam engines, steel and iron boilers of the latest styles, Worthington and other improved steam pumps, wood and iron-working machinery of every description, etc., which are supplied at manufacturers' prices and set up in the best and most effective manner to order.

Mr. Jones' great specialty lies in mechanical engineering, the designing and construction of first-class steam plants on contract, a line of work in which he is unexcelled.

THOMAS CONNOR & CO.,

Produce Commission Merchants—Nos. 68 and 70 Prospect St.

Messrs. L. A. Thompson & Co. were the founders of this house, away back in 1874. Connor, May & Pitts succeeded in 1876, Connor & Pitts in 1878, Connor & Ingraham in 1885, and the present firm of Thomas Connor & Co. in 1886. Notwithstanding the various changes of style, the house has always stood high in public confidence and done a large and prosperous business. At present occupying an eligibly located and commodious two-story building with ample basement, they have every facility for handling on a large scale every description of country produce, dairy products, apples and small fruits, berries, etc., their transactions averaging \$100,000 per annum. The leading specialties include fruits, potatoes, poultry, butter and eggs, and, extending every accommodation to consignees, the firm is exceedingly popular.

Mr. Connor is a native of Belfast, Ireland, has resided in Cleveland since 1848, was for sixteen years with A. J. Wenham as salesman, and has been in the commission business ever since. The firm refer to Weideman & Co., A. J. Wenham's Sons, and the Cleveland National Bank.

The Hollenden

NEW FIRST-CLASS HOTEL

American & European Plan.
CLEVELAND, OHIO.

C. D. Collins, Manager—American Plan, \$3 to \$5 Per Day; European Plan, Rooms \$1 to \$2.50 Per Day.

HISTORY AND DESCRIPTION.



The Hollenden was projected by Mr. L. E. Holden and begun in the summer of 1883. It is built on the corner of Bond and Superior streets. The site is well known to the citizens of Cleveland as the Philo Chamberlain and Sterling property. The lot is 260 feet front on Bond street, 134 feet on Superior street and 134 feet on Vincent street, thus giving three fronts on prominent streets for the hotel, and when completed it will cover the entire ground. In the summer of 1885 the first section of the hotel was completed, being 140 feet on Bond street from Vincent street toward Superior street, consisting of 135 rooms. During the year nearly all of the rooms were occupied, and so great was the encouragement that the proprietor was obliged to make ar-

rangements to enlarge the building. During the year 1886 a stock company was organized for the purpose of building the Hollenden Hotel, consisting of Messrs J. H. Wade, William J. Gordon, C. H. Bulkeley, Stevenson Burke and L. E. Holden, and in the spring of 1887 contracts were let for the completion of the structure, which, when completed, will be one of the best arranged and most thoroughly equipped hotel buildings on this continent. It will contain 420 rooms, all with outside light and ventilation, and it will have one hundred bath-rooms. The work department alone is the most perfect ever built. It is a building by itself, fifty feet square, seven stories high, and in it are located the appointments for the work and service of the hotel. There is no connection with the main house except across an area by a covered gallery from the kitchen to the serving room, and from the laundry to one floor in the main house; thus all noises and unpleasant smells are separated entirely from the main house. There is not a spot in the kitchen or laundry, and it may be said in the entire structure, where a bug or mouse could live. Nothing has been spared to make this the safest and most complete hotel work department in the world. It is fitted up with electric lights, with a hydraulic elevator, and with steam power to be used wherever it is possible for power to be used.

The Hollenden is built of pressed brick, with Amherst stone trimmings. The entire hotel is divided into three principal divisions. The first contains the office, dining-room, parlors, billiard and toilet rooms and most of the rooms for transient guests. The second contains rooms largely used by permanent guests of the hotel. The third contains all the departments relating to the service of the house. The larger and most important section

of the building is built on the corner of Bond and Superior streets, and is fire-proof throughout. Each street front is divided up into five sections, three of which are built on the street line, the two alternate sections being recessed back from the street line two feet. This gives a large amount of light for the basement and an additional two feet thrown into the street. The exterior of the building is exceedingly plain, thus preventing the excessive accumulation of soot and dirt. The only purely architectural feature about the exterior of the building is the Doric caps and bases on the pilasters in the first story supporting the superstructure. With this exception the exterior of the building is entirely plain, being the outgrowth of plain common sense construction rather than architectural design. The corner of the building, however, is carried to a considerable height, serving as a landmark which will be conspicuous for years to come. It forms a tower surmounted by a steep-pitched roof, covered with black slate, against which four massive gables are shown in relief in a very severe but artistic manner. Projecting at various points on the exterior of the building are octagonal and circular bays, thus giving a fine outlook from a large number of rooms, adding greatly to their value and the appearance of the exterior of the building. All this plainness which has been so conscientiously studied and arrived at on the exterior of the building entirely disappears on entering, although the plan has been carried out in as simple a manner as possible. The main entrance on Superior street is located directly in the center of the Superior street front of the building, and is formed of massive and richly moulded stone pilasters and lintels, and the vestibule and hall, which are finished with marble floors and wainscoting, and walls and ceiling in solid relief ornament. This entrance leads into what is probably the most elegant hotel office, with one exception, in the country. In addition to the main entrance on Superior street there are also two entrances on Bond street, one of which will be in the center of the main portion of the building and the other will be used as an additional ladies' entrance, and opens into the portions of the hotel largely occupied by permanent guests. There will be passenger elevators at or near all of these entrances, and there are five hydraulic elevators in all in the building. On Bond street there will be a restaurant or cafe, which is finished in mahogany, with tile floor and of ample size.

OFFICE.

The ceiling of the office is about thirty feet above the floor, and the size of the office proper is about 40 x 80 feet, with large additional lobbies connecting. Directly opposite is located the office desk, whence a view of all persons entering or leaving can be obtained. At the right of the main entrance are the two passenger elevators and ladies' reception room, and on the left are the main stairs, of white marble, with marble wainscoting at the sides formed of variously colored American marbles, and to the second floor, above which point they will be finished in mahogany, with large railing on the sides and landings. Under the main stairs will be located the stairs leading to the basement above referred to, which will also be finished in marble in the same manner. The passenger elevators will be furnished with every modern appliance for safety and speed, with wrought iron or frame doors, and all baggage will be carried to the several floors by means of a separate specially adapted freight elevator, and the facilities for easily and rapidly handling baggage will be superior to any at present adopted. The pilasters, which form the principal feature of the office, will be finished for a height of fourteen feet with marble and bevel plate glass mirrors, above which will be decorated plaster work. Between the pilasters at the ceiling will be sprung Roman arches, which will be finished in mahogany, and the entire ceiling of the office will be finished with mahogany beams, the spaces between which, being filled with richly ornamented glass, will light the entire office brilliantly. The spaces between the pilasters and the arches will be filled with light mahogany partitions and glass, thus giving light to all rooms adjoining and opening from the office. At night the lighting will be accomplished by means of several powerful arc lights suspended above the glass ceiling of the office, but under the skylight above the ceiling. This will give a very uniform and soft light, more nearly approaching daylight than any other method of illumination.

READING ROOM.

The reading room, news stand, barber shop, cigar store and physician's office are on the Bond-street side of the office. On the left of the office are the entrances to the billiard rooms and basement and a large spacious club room for meetings; also wash rooms, gentlemen's toilet rooms, etc. On the Superior street front are located what probably will be used as a drug store, ladies' reception room, Western Union telegraph and two fine stores. All the frontage on both streets in the basement will be occupied as shops and

offices. The walls and ceilings of the reading room will be finished in mahogany, and portions of it will be richly carved. One of the principal features of the reading room will be a massive mantel, richly decorated, in keeping with the style and finish of the room.

TURKISH BATH.

In the basement will be located the most complete and extensive Turkish bath in this section of the country. The entrances to the basement above described are by means of marble staircases, and the billiard room, although located in the basement, will be 40 by 80 feet, without any posts or obstructions. The ceilings will be finished in glass, the floor will be marble tiled, and all spaces in the walls not occupied by piers will be filled with clear glass. The usual accessories to the billiard room will accompany it. The dining, reading and serving rooms are located on the second floor.

ORDINARY.

The ordinary will be 30 x 40 and 14 feet high, and fronts on Superior street.

DINING ROOM.

The dining room will be about 40 by 80 and 25 feet high, and there will be a number of private dining rooms and an elegant banquet hall. The general style and design of the office will be carried out in the dining room, although there will be considerable more woodwork in place of the marble and glass, and the ceiling will be finished in mahogany surrounding large panels richly decorated by solid relief ornaments. In various places in this ornament there will be located incandescent lights. This will be the finest dining-room in any hotel in the United States.

SERVING ROOM.

The serving room will be very extensive, will contain all the most approved and latest inventions in the way of serving room appliances, and will be connected by means of the covered gallery directly with the kitchen.

KITCHEN.

The kitchen is located in the third section, and the entire building in which it is located is absolutely fire-proof throughout. The kitchen has a floor formed of one huge monolith of artificial stone. The walls are lined with white porcelain enameled brick, and the entire room is brilliantly lighted by windows on three sides. Below it is the bakery, fitted with revolving bake oven, and adjoining it is the hotel store, where all goods for the house are received.

BOILER AND DYNAMO ROOMS.

Below the bakery and hotel store are the boiler and dynamo rooms, which have been fitted up in the most complete and perfect manner possible.

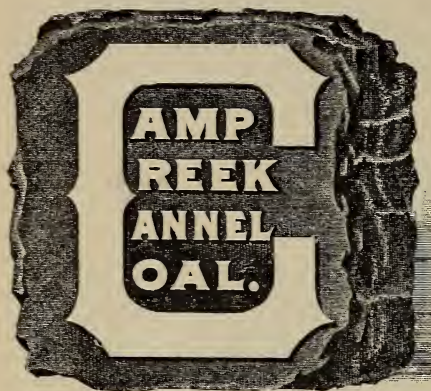
LAUNDRY.

Above the kitchen is located the laundry, ironing and drying rooms, which are fitted with the most recent inventions. The upper stories of the building above the laundry are devoted entirely to the help of the house for dining rooms and servants' bed rooms. All the main portion of the hotel above the second floor is devoted to the guests' parlors and sleeping rooms. A large number of them are arranged in suites with private bath rooms between, and the plumbing will be put in in compliance with the most approved and latest sanitary laws. The rooms are all fitted up with electric lights, and every floor of the building is constructed with terra cotta ceilings, and the partitions between the numerous heavy brick walls will be wire-lathed and packed solidly with mineral wool. About three hundred tons of this material will be used. While this building will be constructed as nearly fire-proof as any building can be, there will be the customary electric alarms and calls, and always an easy and sure escape in case of incipient fires by means of the wide halls, opening as they do into the separate and semi-detached portions of numerous fire escapes accessible from a number of the interior rooms. Each room is virtually as safe as a fire-proof vault. The finish of the halls and stairways will be Spanish mahogany, and the furniture will be especially designed for this house, thus making the most magnificently furnished hotel in the United States.

The main portion of this building was designed by Mr. George F. Hammond, architect, of the city of Cleveland, and erected under his supervision.

THE O. YOUNG COAL CO.

Otis E. Young, Secretary, Treasurer and Manager—Miners and Shippers of Camp Creek, Massillon, and Camp Creek Cannel Coals—Room 37, Grand Arcade, No. 101 St. Clair St.



The O. Young Coal Co. was organized in 1879, and has performed its full share in developing the Cleveland fuel market. The capital stock of the company amounts to \$60,000, all paid in, and the mines are located in Sugar Creek township, Stark county, Ohio—the celebrated Camp Creek and Massillon coal region—the vein being sixty inches in thickness and practically inexhaustible. One hundred men are employed, and the output averages 50,000 tons per annum—the leading specialty being Camp Creek cannel coal, this company having exclusive control of that superior fuel in this market. The company removed from Elyria to Cleveland on the first of April last, and has two fine offices—No. 37 Grand Arcade Building, No. 101 St. Clair street.

Mr. Oliver Young, the developer of this gigantic interest, was born in Vermont, and to his commercial ability and geographical knowledge the inception and successful carrying on of this vast industry is due. Mr. Young, after a life-long and arduous attention to this business, demised in July, 1886, and was succeeded by his son.

Mr. O. E. Young, secretary, treasurer and manager, is an Ohioan by birth, and came to Cleveland when a boy. He is a first-class business man of great executive ability and experience, having previously filled the position of secretary and treasurer of several other coal companies.

H. W. HUBBARD,

Merchant Tailor—Nos. 226 and 228 Bank St., Weddell House Block.

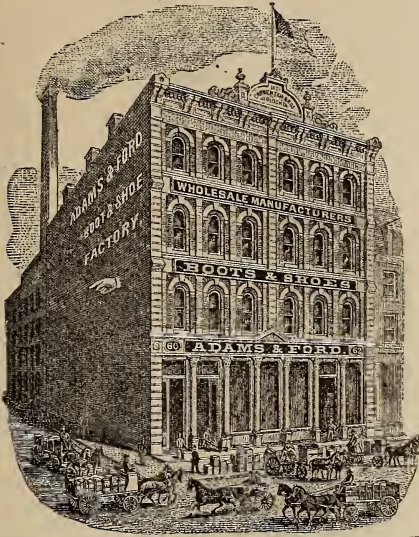
There are three essentials to creditable dress, without which it is unattainable by honest means, viz: Good taste, a good bank account, and a good tailor. The first may be dispensed with on the part of the aspirant, provided the last—the tailor—is abundantly endowed with it; but for the second there is no known substitute, since the knights of the shears have at last tumbled to and enforced a maxim that all successful men in other callings have long venerated as the touchstone of all real prosperity—a maxim of but two magic words which contain in condensed form the whole gospel of business—“*No Credit.*” But there is no discoverable plan by which good clothes—good in material, cut, style, make-up and fit—can be secured without the instrumentality of a good tailor. All the experience of all the past goes to establish this fact, and he who tries to evade it is a proper subject for both ridicule and sympathy.

And this brings us to the point, which is that many of Cleveland's best-dressed and wealthiest men are in the habit of going to Hubbard, Nos. 226 and 228 Bank street, Weddell House block, for their apparel—an excellent habit, by the way, and worthy of extended imitation. Mr. Hubbard has been located here since 1876, and has earned for himself a reputation for artistic cutting and elegant workmanship that is not confined to the city or its vicinity, but extends to distant points in this and adjoining States, whence come some of his best customers. It is only necessary in this connection to say that Mr. Hubbard studies to please, and seldom if ever fails of doing so.

His establishment is in all respects first-class, occupying two commodious stores fronting on Bank street with private entrance direct to the Weddell House in rear. His stock of fine suitings, pants goods, overcoatings, vestings, trimmings, etc., is always full, and embraces the choicest weaves of celebrated French and English looms. He employs a force of thirty-five workmen, among them several of the best cutters in the country, and can guarantee satisfaction, even to the most fastidious. All work is done expressly to order, and no “hand-me-down” department is maintained.

ADAMS & FORD,

Manufacturers of Custom-Made Boots and Shoes, and General Distributing Agents for the Celebrated "Candee" Rubber Goods—Nos. 111, 113 and 115 Bank St.



The average American citizen, whether male or female, likes a neat, well-fitting and comfortable boot or shoe, and if the means are obtainable is more than liable to have it—or a pair of 'em. There can be no question that there is a vast quantity of "snide" foot-gear on the market, made to sell without reference to real value, but buyers of this class of goods have no right to complain when they find themselves "meandering on their uppers" after a brief martyrdom from corns, bunions, chafed heels and squeezed insteps, for they "saved money" in buying, and verily they have their reward. In the matter of boots and shoes, as in all other things, it is possible to overdo economy, and the wise man seldom, if ever, invests in "cheap" foot-leather. He examines the goods offered him with an eye to material, style, workmanship and fit, and when suited in these essentials never permits a few cents to stand in the way of a purchase, for he knows he will more than *recoup* in service and comfort the difference in price.

All of which brings us to what we started out to say, viz: that one of the most reliable and reputable boot and shoe manufacturing houses extant is located here in Cleveland—that of Adams & Ford, Nos. 111, 113 and 115 Bank street, where they occupy a fine four-story building, 50 x 125 feet, as sales department, with a five-story factory, 50 x 55 feet, in rear. Their store is one of the most elegant and commodious in the city, stocked at all seasons with full lines of superior goods of their own manufacture, embracing men's and boys' best quality hand and machine-made kip and calf boots, shoes and gaiters, ladies', misses' and children's fine shoes, etc. The factory equipment embraces all the late improvements in shoe machinery, including the new improved shoe-sole stitchee, which far excels the McKay. Over one hundred skilled operatives are employed here, while some twenty-five men do the work in the salesrooms and office. The wage-roll alone amounts to \$1,500 per week, and the annual sales foot up more than \$700,000, the goods being very popular with trade and consumers throughout Ohio, Indiana, Illinois and Michigan, and even as far East as Pennsylvania, and West as Kansas. The specialties of the house are best quality hand-made kip boots and women's fine sewed work.

The firm was established in 1864 by Messrs. A. E. Adams and S. C. Ford, the latter an Ohioan. Mr. Adams died October 2, 1886, and Mr. Ford, still full of energy and enterprise, continues the business under the original name and style.

VIADUCT BOILER WORKS.

A. Angstedt, Practical Boiler Maker and Dealer in Second-Hand Boilers—No. 30 West Center St.

Nothing is of greater importance to employers of steam for power or heating than the character of the boilers wherein is generated that most excellent of servants and most dangerous of masters. In the construction of steam boilers, more, perhaps, than in any other vocation, a combination of the highest mechanical skill and strict honesty are required in the manufacturer, since a lack of either may at any time result in disaster to life and property.

Mr. A. Angstedt, proprietor of the famous Viaduct boiler works, No. 30 West Center street, answers fully to these requirements, and buyers of his work need have no fear of

weak joints or faulty plates. Mr. Angstedt has resided in Cleveland for twenty-two years, and leased the above works last fall. They were established by Mr. J. Chatterton in 1880, and occupy a brick building 40x80 feet. Thirty workmen are employed, and the equipment of machinery—steam punches, shears, etc.—is first-class. The output hitherto has ranged from \$12,000 to \$14,000 per annum in value, but will doubtless largely exceed that in the future under the new proprietor's energetic management.

The specialties of the Viaduct boiler works comprise every description of stationary boilers, large and small, and repairs of all kinds. The trade extends all over Ohio.

THE COLWELL & COLLINS NORWAY BOLT CO.,

Manufacturers of Carriage and Tire Bolts and All Kinds of Spring Bolts, Forged Nuts, etc.

This company was organized April 1, 1876, with ample capital for the manufacture of a full line of Norway iron carriage and tire bolts, shaft, step, perch, cone-head, steeple-head and whiffletree bolts, and also all the various styles of spring bolts, from both Norway and choice grades of refined iron.

The manufacturing facilities are unsurpassed, and the plant is a large one, their buildings affording a floorage area of about 250,000 square feet, and are occupied by machinery of the most approved character for the rapid and economical manufacture of the company's products. In addition to the line of Norway iron carriage bolts mentioned above, the demand for a bolt which should be less expensive induced this company to add their brand of "P. P." carriage bolts to their other manufactures some two years ago. This brand has met with unqualified success in the market, and deservedly so, as only the best of material made expressly to their order for this brand is used, and the bolts have the same finish as is given to those made from Norway iron.

Their trade extends throughout the United States, from Maine to California, and also to Canada and more distant countries, and is steadily increasing in volume. The daily product is about 75,000 bolts, and employment is given to about 100 workmen. Only bolts of the finest grades are manufactured, and all are fully guaranteed. The officers of the company are: A. G. Colwell, president; C. E. Collins, secretary and treasurer, and A. L. Colwell, superintendent, and the establishment ranks among the leading enterprises of Cleveland. The works are located on Girard street, near the C., C., C. & I. Railroad.

CLEVELAND SPRING CO.,

Manufacturers of Finest Quality Steel Carriage, Wagon, Seat and Car Springs—Corner West River and Winslow Sts.—E. H. Bourne, President; S. Bourne, Secretary; J. E. Norris, Treasurer; Wm. K. Corlett, Superintendent.

Prominent among the old-established and leading industrial institutions of Cleveland is the Cleveland Spring Company, founded in 1868. The capital stock is \$75,000, and the plant is well housed in the big one and two-story brick structure, 80 x 350 feet, at the corner of West River and Winslow streets. One hundred skilled workmen are employed, and the output for some years has averaged \$150,000 in value, going to the trade all over North America, besides large exports to Australia—in which latter country, by the way, American manufactured goods are rapidly growing in popularity because of superior neatness and excellence of material and workmanship.

The specialties of this company embrace every variety of improved carriage, wagon, car and seat springs of the finest quality of steel, carefully and scientifically constructed, and designed both for ornament and use. One of the best proofs of the success of the company in meeting the views of vehicle builders and buyers is found in the fact that the demand grows steadily in the face of determined competition, and that the venture becomes more and more prosperous as its products become better known.

The company is composed of well-known and respected business men. President E. H. Bourne is also president of the Bourne & Knowles Manufacturing Co., and cashier of the Union National Bank. Secretary S. Bourne fills the same position with the Bourne & Knowles Manufacturing Co. Treasurer Norris is from Massachusetts and has resided here since 1868. Superintendent Corlett was born in the Isle of Man, is 60 years old, and a stockholder in the company.

THE CLEVELAND STAINED GLASS WORKS.

George Drake, Proprietor—Doan Block, No. 250 Erie St.

Among the finer arts brought to great perfection in the middle ages that of staining glass was one of the most important, the old cathedrals of Southern Europe bearing witness to this day of the wonderful taste, skill, patience and labor expended upon their windows in the delineation of sacred and devotional subjects. The art was almost completely lost during the revolutionary period and the time of the so-called Reformation, when stern and unreasoning zeal set itself to stamp out all that was beautiful and attractive in the forms and belongings of religion, and has been revived only within the past half century, by slow and painful degrees, but with unexpected success, as is attested by the results now attained as compared with the best efforts of the last generation.

Of those who have devoted their time and talents to the advancement of glass staining as applied to architecture, we know of no one who has achieved more or greater triumphs than has Mr. George Drake, proprietor of the Cleveland Stained Glass Works, which occupy two floors, 18 x 90 feet each, of the fine Doan block, No. 250 Erie street. Mr. Drake began in a small way and in the face of many difficulties in the year 1881, and by the exercise of rare artistic taste and judgment, industry and business capacity, has made his establishment one of the most noted and largely patronized of the kind in the United States, doing a very large amount of work and employing twelve to fifteen first-class artists and operatives. Most of the best work of this kind now done in and around the city, both ecclesiastic and domestic, is from these works, whose popularity is steadily on the increase. The *Cleveland Iron Trade Review* of Nov. 13, 1886, after referring to the work done in numerous churches and houses, says of a contract then just completed:

“Among the many public institutions adorned by this company we could not select a more fitting instance than that of the newly erected Masonic institution, of this city, as the stained glass windows are perfect masterpieces of the art, and are not to be surpassed by anything of their kind in the country. Unanimous expressions of praise were accorded by the thousands of Masons and their friends who came to see and criticise. The circular transom over the doorway (one of the largest pieces of stained glass work in the country) comprises designs emblematic of the several degrees in lodge and chapter, having as a central figure a Knight Templar clad in full armor, nearly of life size, while the window facing the entrance door of the building has a design of surpassing beauty, illustrative of the first degree in Masonry. The former is an original design by Mr. Geo. Drake, assisted by his son, Mr. Edwin Drake (who, by the way, is an adept in every branch of the business), and the latter from a suggestion furnished by a well-known citizen and leading member of the craft. A similar remark is applicable to domestic work, with just this addition, that the number of patrons would appear to be legion.”

To the business of Mr. Drake has recently been added that of Messrs. Geo. R. Lindsay & Co., which has given it additional strength and impetus. Mr. Lindsay's high qualifications as an artist have received the most generous acknowledgment from architects and artistic patrons throughout the States, and assisted, as he now is in his new sphere of artistic manager by two other artists and a staff of first-class workmen, the future progress and prosperity of the Cleveland Stained Glass Works may be looked for with the most absolute assurance.

A. MITERMILER,

Architect—Room 7, No. 52 Public Square.

Mr. Mitermiler has successfully pursued his profession in Cleveland for more than fifteen years, having established himself at No. 180 Ontario street in 1872. Here he executed plans for much of the most attractive and costly business property in Cleveland, gradually but surely earning for himself a substantial and well-deserved reputation as a skillful, talented, conscientious, and painstaking architect, equal to any demand upon his resources, capable and industrious. Among the more noted of his achievements may be mentioned the designs for Schlatter's, Gehring's and Leisy's breweries, Kundt's factory building, and numerous other handsome piles. Mr. Mitermiler gives equal attention to all classes of buildings, and is equally successful in each, as many fine residences and mercantile blocks attest.

Mr. Mitermiler removed to Room 7, No. 52 Public Square, in 1886, and is busier than ever. He is a Bohemian by birth, coming to America in 1866.

STANDARD ENGRAVING CO.

No. 82 Superior St.



Engel and C. C. Wyman in 1883, Mr. Wyman retiring in 1886. Mr. W. Engel is now in full charge.

HERRICK, HARRIS & CO.,

Successors to Thompson & Herrick—Manufacturers of Pure Bone Meal and Best Quality of Phosphates—Office and Warehouse, Corner Seneca and Canal Sts.; Factory, Linndale, O.

This flourishing firm, which two years ago succeeded the famous old house of Thompson & Herrick, is composed of Messrs. Earl Herrick, W. Harris and L. A. Thompson, occupying a roomy and substantial two-story and basement brick building, 60 x 60 feet, at Seneca and Canal streets, as office and warehouse, and operating an extensive and well-equipped factory at the village of Linndale, Ohio. The annual sales of the house, almost exclusively in northern Ohio, average about twelve thousand tons, and are steadily increasing.

The manufacture of commercial fertilizers is a growing industry, and one of recognized value to the agricultural interest. It is conceded that without proper manures the soil soon becomes exhausted from steady cropping, while on the other hand the judicious application of improved fertilizers (at the head of which stand the higher grades of bone meal and phosphates) not only maintains but increases the fertility of all soils, even restoring and making more valuable than ever those worn-out fields formerly so plentiful all over the older States.

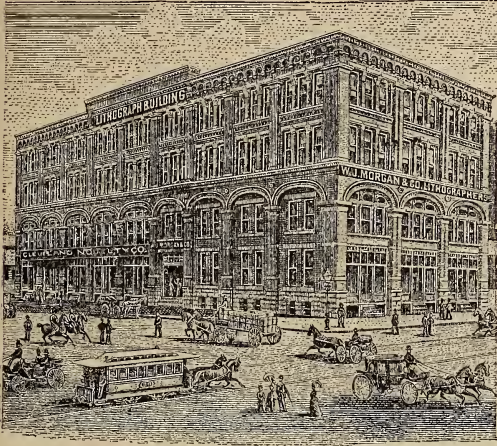
The pure bone meal and phosphates prepared by Messrs. Herrick, Harris & Co. have an established reputation and are in steady and rapidly-augmenting demand throughout Northern Ohio especially, where their merits are best known. The trade is promptly supplied on application at lowest figures, quality of goods considered.

Of all the finer arts not one is capable of rendering as much or as generally diffused pleasure to the eye as that of the engraver. It is an art that, like printing, only more graphically and accurately in many respects, preserves and perpetuates all other arts, giving at a glance a more perfect idea of contemporaneous men and objects than could be conveyed by volumes of descriptive writing.

Conspicuous among the progressive engraving houses of this day is the Standard Engraving Company of this city, whose well-equipped establishment in the Atwater building, No. 82 Superior street, is one of the most complete in the country. A competent force of skilled engravers is regularly employed, and a vast amount of superior work is done, including wood, metal and photo engraving in all their branches. This company was organized by Messrs. W.

CLEVELAND NOVELTY CO.

E. A. Giffhorn, Manager—Manufacturers of Hand-made Worsted Goods, Lace Goods, Novelties, etc.—Nos. 85 and 87 Wood St.



It is unnecessary to speak of the popularity of modern worsted and lace goods; their universal presence in our homes and in the attire of our wives, daughters and sweethearts is sufficient evidence of the fact, while the establishment of factories for their production at most leading commercial centers indicates the faith of the projectors in the growth and permanence of the demand. One of the latest and most promising ventures in this field is that of the Cleveland Novelty Company, managed by Mr. E. A. Giffhorn, inaugurated January 1, 1887, and occupying 40x60 feet of the beautiful Lithograph building, Nos. 85 and 87 Wood street. This company are manufacturers on a large scale of every description of hand-made worsted goods, laces and lace goods, and knitted and worsted novelties, and a fair estimate places its sales at

a large amount. That they will increase from year to year there can be no reasonable doubt. Already over one hundred operatives are employed.

Mr. E. A. Giffhorn, the manager, is a native of Germany, aged forty, and a resident of Cleveland for the past twenty years. Up to 1879 he traveled for Morgan, Root & Co., and was subsequently for six or seven years a member of Giffhorn, Pothman & Co., corner Bank and Lake streets. He travels a part of the time in the interest of his present concern.

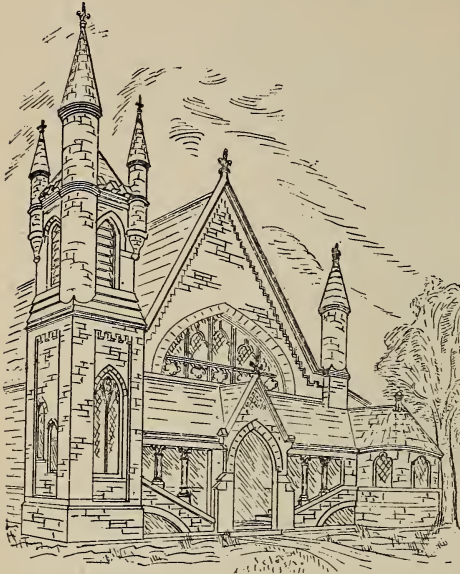
CLEVELAND LINSEED OIL CO.

G. E. Herrick, President; H. C. Welch, Secretary and Treasurer; J. P. Mansfield, Manager; J. W. Evans, Superintendent—Manufacturers of Linseed Oil—British, French, Winter and Fall Sts.

The Cleveland Linseed Oil Company was organized and incorporated in 1883, with a paid-up capital of \$300,000, to succeed the Cleveland Linseed Oil Works, the latter having succeeded Griswold & Dunham, who founded the industry in 1868. At this time the works and appurtenances occupy all of the ground lying between British, French, Winter and Fall streets, an irregular block equal in dimensions to 210x390 feet. The old mill at French and Winter streets is devoted to the production of oil from the seed by the old hydraulic pressure process. This portion of the works is three stories in height, 60x60 feet, with basement. The new mill, fronting on British street, also three stories and basement, 35x45 feet, is provided with a superb equipment of machinery designed for the Evans process. The warehouses are three in number—No. 1, 60x60 feet, three stories and basement, for the storage of seed and oil cake; No. 2, 65x85 feet, built on the elevator style, for the storage of seed exclusively; meal warehouse on British street for the storage of linseed meal. The treating-house, also on British street, is two stories in height, 30x48 feet. A railroad switch passes through the center of the works, and the office fronts on that track at the corner of Fall street. All in all, it is one of the largest and completest establishments of the kind in the United States, with a capacity for the consumption of 2,250 bushels of seed per diem, or 600,000 bushels a year. Seventy-five operatives are employed, and the product is distributed throughout the Central, Eastern and Northern States, where it is handled by the heavy dealers and manufacturers of paints, etc., in all the principal cities, one Philadelphia firm alone taking 3,000 barrels annually. The tank capacity of the works is 10,000 barrels. In addition to the buildings here the company maintains nine big warehouses and two elevators in Iowa and Dakota, whence the supplies of seed are obtained.

S. R. BADGLEY,

Church and General Architect—Room 35 Benedict Block, Euclid Ave.



Mr. Badgley located here in June last, coming from St. Catherines, Canada, where for twelve years previously he had been actively engaged in his profession. He decided that the States offered a better field for a thoroughly trained church architect, and therefore determined to cast his lot with us. Mr. Badgley has long made a special study of ecclesiastical architecture, is an experienced practical builder, and confidently offers his services to those who have in charge the erection or remodeling of church edifices, and who desire the best results at the most reasonable cost. It is conceded on all hands by those who have any knowledge of the subject that church architecture is a distinct branch of the art, requiring special study and training on the part of those who would succeed, and that time and money may be saved and much better results obtained by employing an architect who has given special attention to this important branch of the profession. Extra pains are taken in preparing working plans and specifications for use at a distance so that every detail of the work can be easily understood, and Mr. Badgley invites correspondence and consultation in reference to this and all other classes of building where the advice and assistance of a skilled architect may be of value. His office is eligibly located in room 35 Benedict block; he has at hand every requisite facility pertaining to his profession, and will exert himself to the utmost to render satisfaction to every client. He comes highly recommended by the county commissioners and leading railway corporations and churches of his native country.

THE UNITED STATES FIRE CLAY CO.,

Manufacturers of Vitrified Salt-Glazed Sewer and Water Pipe, Fire Brick and Fire Clay Products—F. H. Colman, President; Percy C. Hamilton, Secretary and Treasurer—General Office, Wilshire Building, Nos. 209 and 211 Superior St.

With the development of the industries of the country and the sewer systems of the cities, the manufacture of fire brick and sewer pipe has become a great industry involving vast capital, much ingenuity and skill, and the employment of large numbers of men and much machinery. Ohio is especially rich in fire clay deposits, which are found distributed in many localities throughout the State, those in the Eastern counties being of the highest grade and their products much sought after wherever known. One of the latest movements to utilize this superior clay is that of the United States Fire Clay Company, the owners of a fine bed of clay in Columbiana county on the N. Y., P. & O. and P., M. & C. railroads. The company was organized in 1884 and incorporated with a paid-up capital stock of \$160,000, the officers being: F. H. Colman, president, and Percy C. Hamilton, secretary and treasurer. The general offices are in the Wilshire building, Nos. 209 and 211 Superior street, this city, where a full line of samples may be seen and prices and all information obtained.

The capacity of the works, which are located on the company's property, is about 3,000 car-loads of best quality fire-brick and vitrified salt-glazed sewer-pipe of all sizes and shapes per annum. Goods are now being shipped to every portion of the United States and Canada, and give universal satisfaction.

President Colman and Secretary and Treasurer Hamilton are from Dunkirk, N. Y., and hold the same positions respectively in the Ohio Sewer Pipe Company.

CLARK-BRITTON PRINTING CO.,

Nos. 837 and 839 Sheriff St.—Wood Engravers, Blank-Book Manufacturers, Electrotypers and Printers.

Three years ago this concern was started by Messrs. C. R. Clark and C. S. Britton on a small scale, occupying at first but one-half of the third floor of the same building where three immense floors, each 30 x 80 feet, now scarcely provide elbow-room for this great and growing business. Faith is the mainspring of many a great success. Mr. Clark is a practical and extraordinarily skillful printer, familiar with all branches of his calling, which to him is not a mere trade, but an art worthy of the most elaborate study and ardent pursuit; Mr. Britton is a born business man and practical financier. Combining their capital and talents, and conscientiously devoting their energies to the same end, they have fully demonstrated what they at first only believed—that real excellence is the true key to success, and that all the miserable Jim Crow travesties on the trade in America could not strangle or starve a single first-class printing house, conducted by first-class men, employing first-class printers, and turning out uniformly first-class work. In short, they determined to win or lose on merit alone, and the result is a triumph achieved in three short years such as few have attained in a life-time, and to-day the Clark-Britton Printing Company has on its books orders from all portions of the United States for fine artistic printing, and has shipped considerably to customers in Europe, Australia, and other foreign lands.

The capital stock of the company is \$18,000. Twenty to twenty-five superior workmen are employed, and the value of last year's output aggregated \$60,000—a figure which will be greatly exceeded in 1888. Specialties are made of fine rule and color printing, catalogues, and other work demanding skill and accuracy in composition and press-work. The firm are also wood engravers, electrotypers and blank-book manufacturers, and guarantee satisfaction on all orders.

Mr. Britton has charge of the outdoor and office business, while Mr. Clark has supervision of the engraving, electrotyping and printing rooms. Both are pleasant, courteous and obliging gentlemen.

FARASEY & MARRON,

Agents for Ward's Lake Superior, Lackawanna, Green Bay, Merchants' Montreal, and Saginaw Steamboat Lines—Office and Dock, Nos. 107 and 109 River St.

The firm of Farasey & Marron, though only established during the present year, has many advantages in its favor, and cannot but succeed in the transportation agency business. Mr. W. J. Farasey is a native of Cleveland, and from 1879 to 1886 was employed as bookkeeper in some of the principal steamboat offices, thus acquiring a thorough knowledge of the inside details. Mr. Marron, of Irish birth, has resided here for twenty years, and for a long time was in the employ, in various capacities, of the different transportation companies.

The firm's premises on River street are quite commodious, 250 x 400 feet, with every necessary facility for the convenient and rapid handling of freight, which is promptly forwarded by the leading lines of lake steamers—Ward's Lake Superior, the Lackawanna, Green Bay, Merchants' Montreal, and the Saginaw lines.

S. FIX'S SONS,

Steam Flue-Welding Works—Corner Leonard, Winter and German Sts.

This industry was established in Cleveland in 1885 by Mr. S. Fix, who came from Reading, Pa., for that purpose, having removed hither about 1860. By the withdrawal of the father, Messrs. Oram and John Fix became the sole proprietors, and since their accession have added largely to the business and prestige of the house.

About \$15,000 is invested in the plant, which occupies a new three-story brick building fronting on Leonard, Winter and German streets, 60 x 100 feet. Besides a valuable equipment of appliances—notable among which are several of the celebrated Hartz & Fix flue-welding machines—five competent workmen are employed, and some \$10,000 worth of work is done annually, principally for the local trade. Both partners are natives of Reading, Pa., and both practical and experienced mechanics, Oram, the elder, superintending the works.

THE GIBB LIVERY.

E. W. Gibb, Manager—Livery and Boarding Stable—No. 408 Superior St.



Strangers and residents of Cleveland desirous of visiting the environs on business or pleasure will find the Gibb livery at all times prepared to furnish them with fine saddle and harness horses and elegant vehicles of all kinds, at reasonable prices, with or without drivers. Mr. E. W. Gibb, the manager, has had some years' experience in this business, and takes great pride in rendering satisfaction to his patrons. With a brother he first established himself at Newburgh—the firm being Gibb Bros.—in 1882, removing to No. 363 Superior street in 1885, and to the present location, No. 408 Superior street, in 1887.

The stable is a large one, 50 x 350 feet, eligibly situated, comfortably arranged, and conducted in a business-like and creditable manner. A stock of seventy-five handsome vehicles, embracing a variety of buggies, coupes, carriages, etc., and sixty-five fine horses are kept on hand for the accommodation of the public, and the facilities are of the best. One department is set aside for the convenience of horse-owners, who may have their animals boarded regularly, or fed occasionally, as they require.

Mr. Gibb is a well-known and popular citizen, formerly a contractor and builder.

EXCELSIOR MACHINE WORKS.

Leighton & Bruch, Proprietors—Hamilton St., near Case Ave.

An industrial concern that is contributing very considerably to the fame of Cleveland as a manufacturing center is the Excelsior Machine Works, established by Messrs. Leighton & Bruch in 1880. These works comprise two buildings—one of wood, 50 x 160 feet, and one of brick, 50 x 80, the latter provided with a self-supporting truss-roof that does away with the necessity for columns, well lighted and handsomely finished. The equipment of machinery, special tools, etc., is complete, embracing, besides every description of lathes, planers, steam hammers, etc., a powerful boiler and engine and three large cranes for the hoisting and handling of heavy castings and other materials. The working force is twenty-five in number, and the value of the past twelve months' products aggregated \$45,000, most of which was for shipment to points at a distance, their facilities as yet being insufficient to fully meet local demands, for which reason many applicants are turned away. The specialties include the construction of fine and heavy machinery, and they have recently completed an immense rotary planer—one of the largest in existence—for Pittsburgh parties, to be used in the fitting and finishing of bridge parts. They are also manufacturers of the Blakesley patent bolt-header, in general use for making bolts and rivets.

Both members of the firm are natives of Cleveland, widely and favorably known in manufacturing and business circles.

CLAPP & KUSHMAN,

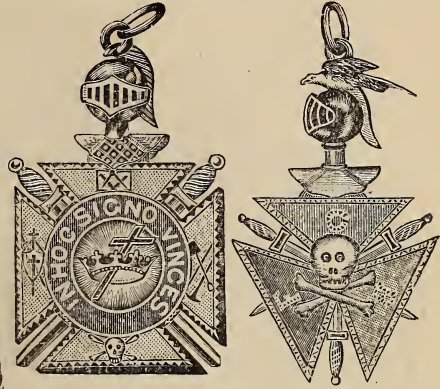
Fresco Artists and Dealers in Wall Paper—No. 376 Bond St., Under the Hollenden.

This energetic and capable firm was organized in May last, and already gives indications of a successful career. Mr. Clapp was for a number of years in charge of the Kemmer & Kushman Decorating Company's wall paper department, and is possessed of a most valuable practical knowledge of the trade, having had upward of twenty years' experience in this and other cities. Mr. Kushman, late of the Kemmer & Kushman Decorating Company, is a practical fresco artist of twenty-five years' standing, whose reputation in his calling is of the highest. He has personally designed and executed or superintended the frescoing of many of the finest churches, public and private buildings in Cleveland and vicinity, and, having rendered uniform satisfaction, it is safe to say has no superior in this country in his specialty.

The new firm occupy elegant quarters at No. 376 Bond street—under the Hollenden—which they have fitted up in superb style, and where *connoisseurs* in such matters will find as fine and extensive a line of fine wall papers and kindred goods as can be shown by any house west of New York. From eight to ten skillful workmen are employed, and all orders are promptly and carefully attended to.

SIGLER BROTHERS,

Manufacturing and Wholesale Jewelers—Factory, Perkins' Power Block; Office and Salesroom, No. 211 Superior St., Wilshire Building.



Mr. L. M. Sigler established this house in 1873, Mr. U. R. Sigler being admitted in 1880. The venture has been a successful one from the start, and the firm have extended their operations by degrees until at this time they number their regular patrons by hundreds, embracing most of the leading jewelers throughout the West. They do a heavy trade in fine gold jewelry and diamonds, of which they are importers and jobbers, besides manufacturing largely on their own account.

They also do a general jobbing business, and are prepared to fill orders to any extent, promptly and at reasonable figures.

Sigler Brothers' factory occupies an entire floor of Perkins' Power block, Frankfort street. They manufacture all kinds of Masonic, Odd Fellows' and other society badges and charms, diamond mountings, rings, etc. Their office and salesroom, on the second floor of the Wilshire block, No. 211 Superior street, is a most attractive place, 20 x 160 feet. They carry a large stock of watches, diamonds, jewelry, clocks, opera glasses, French clocks, watchmakers' tools and material.

Both brothers are from Trumbull county and are practical jewelers.

WOLTMAN & KORELL,

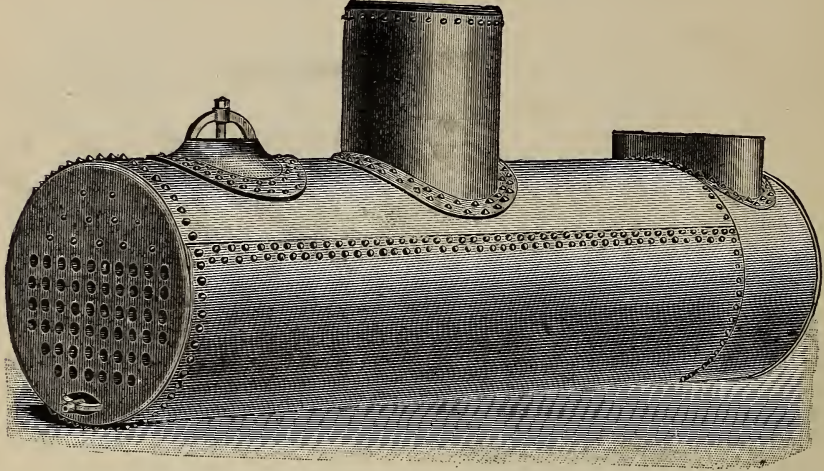
Manufacturers of All Styles of Carriages and Wagons—Nos. 444, 446 and 448 Woodland Ave., and 1 and 3 Jackson St.

The reputation of Cleveland as a carriage and wagon-making centre was made long ago, but is constantly being augmented by such houses as the one named above—careful, conscientious and skillful practical mechanics who exercise constant personal supervision of their works. This factory was established by Mr. William Woltman in 1874, and represents an investment of \$30,000 in their work. Mr. George V. Korell became associated with Mr. Woltman in 1883, bringing with him ripe experience and great skill. The establishment comprises two handsome two-story frame structures, the factory and ware-room proper, 50 x 100 feet, and adjoining paint shops and warerooms, 46 x 75 feet. From twenty-five to thirty men—woodworkers, blacksmiths, painters and finishers—are employed, and a large number of high-grade hand-made vehicles of all classes are built annually, ranging from the lightest buggy or phaeton through all varieties of road and delivery wagons to the heaviest truck. They also give special attention to repairing, repainting and remodeling vehicles of all descriptions, and to construction from novel and original designs.

Both members of the firm are old citizens, residents of Cleveland for the past thirty years.

SMITH & TEACHOUT,

Manufacturers of Land and Marine Steam Boilers, Tanks and Stills of Every Description—Nos. 644 and 645 Broadway.



It would seem superfluous to urge upon employers of steam power the importance, even the vital necessity, of securing only the very best material and workmanship when selecting a boiler and steam-pipes; yet it is a lamentable and indisputable fact that hundreds of lives and much valuable property are yearly sacrificed to obstinacy and false economy in this regard. In the selection of a boiler the next best thing to a thorough, practical knowledge of this class of work is to secure the services of an experienced boiler-maker whose interest is identical with that of the buyer, and whose reputation depends upon upright dealing and the faithful execution of his commissions. Such are the firm of Smith & Teachout, Nos. 644 and 646 Broadway, established in 1857, and who in a career of thirty years have never failed to render satisfaction to their patrons. Their boilers, stationary and marine, employed in the generation of steam for every conceivable purpose, are found all over the Union—large numbers of them in the oil regions of Pennsylvania, West Virginia and Ohio—and are held in the highest repute everywhere.

This firm are also extensive manufacturers of tanks and stills of all kinds for oil refiners, lard oil manufacturers, storage purposes, etc., and their work in this department is of the same general excellence as that which distinguishes their boilers. Their shops are among the largest and best equipped in the country, employ 80 men, and turn out an average of \$150,000 worth of work per annum, including repairs, to which they give special and prompt attention, plate and sheet-iron work. They carry a complete stock of new flues, and take out, re-piece and reset old flues to order.

During the past year Smith & Teachout have constructed seventy large boilers, besides numberless oil tanks, stills, bleachers, etc., and are crowded with orders at all times. They have a large trade with the oil men, and do none but first-class work.

GEORGE H. & S. P. ELY,

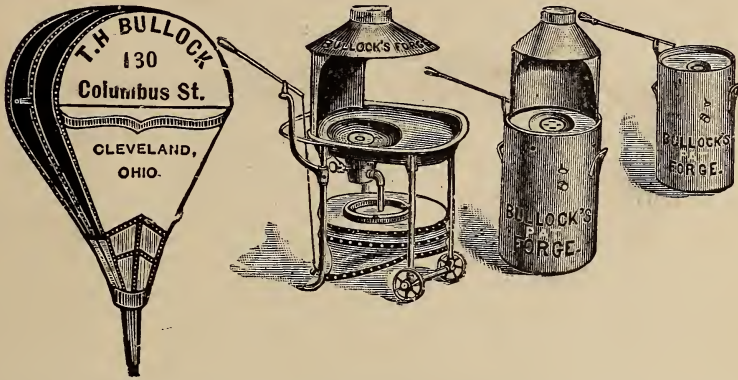
Exclusive Dealers in the Ores of the Minnesota Iron Company—Nos. 15 and 16 Mercantile Bank Building.

The ores of the Minnesota Iron Company, obtained from the Vermillion range in St. Louis county, have a high reputation for density, purity, richness and other desirable qualities, and are in general demand by iron manufacturers, the entire output being taken by Pittsburgh, Cleveland and Chicago mills.

The above firm of George H. & S. P. Ely are largely interested in the mines referred to, which employ some 1,200 men and place upon the market about 400,000 tons per annum.

THE T. H. BULLOCK BELLOWS AND FORGE CO.

W. E. Rogers, President; John Barnes, Vice-President; T. H. Bullock, Secretary and Treasurer and General Manager—Manufacturers of Bullock Bellows, Forges and Tuyers—Nos. 130 and 132 Columbus St.



The T. H. Bullock bellows, forges, blacksmiths' tools, etc., are so well and favorably known to the trade as to need no commendation, and this brief notice is prepared more with a view to reminding those whom it may concern that the same house is still in successful operation, producing the same superior goods upon which its fame is based, that with any idea of adding to that well-earned reputation. The works were established more than twenty-three years ago, by Mr. T. H. Bullock, who is still general manager, and occupy the commodious two-story brick building No. 130 and 132 Columbus street, 100 x 120 feet. The outfit of machinery and appliances is complete, and fifteen competent workmen are steadily employed, turning out about 11,000 bellows of all classes and vast numbers of forges and tuyers, besides large quantities of blacksmiths' tools and kindred articles. These bellows are of the best quality, and embrace all sizes and for all purposes—miners', molders', and hand as well as blacksmiths'—as are the portable, stationary and riveting forges, tuyers and blacksmiths' tools.

The T. H. Bullock Bellows and Forge Company is a representative concern, one of the most extensive and prominent of the kind in America, and has an established trade in all the States, Canada, the West Indies, Mexico, Central America and Europe. The officers, named above, are all Cleveland men, honored at home and abroad.

MENTOR MILK CO.

M. Hammond, Proprietor—Dealer in Milk, Cream, Butter, Cheese and General Groceries—No. 48 Prospect St.

It is doubtful if any community in the world is better supplied with dairy products than the people of Cleveland. The rich Western Reserve, with its sleek "cattle upon a thousand hills," is just at her door, half a dozen railways furnishing quick and cheap transportation, and the rosy-cheeked dairy-maid literally hands to her city cousin the richest of milk, the sweetest of butter and the daintiest of cheese every morning and evening.

One of the most prominent and popular of the local dealers in these luxuries is Mr. M. Hammond, who occupies two floors and a cellar at No. 48 Prospect street and supplies his customers at all hours with an abundance of the freshest and purest milk, cream and butter. Every department of his establishment is as neat and clean as care, soap, water and labor can make it, and the consumer of those articles from Mr. H.'s depot need have no qualms of doubt.

Mr. Hammond is an experienced dairyman, having formerly been in the same trade. In 1885 he purchased the grocery house where he now is and also became proprietor of the Mentor Milk Company, including the dairy and butter and cheese factory at Mentor and the city depot. In all he receives about 3000 gallons of milk and cream *per diem*, and what is not required by his city customers is converted into butter and cheese and sold to them in these forms.

W. H. H. PECK & CO.

Wholesale and Retail Rubber Goods—Manufacturers of and Dealers in Leather and Rubber Belting—No. 176 Superior St.

This is the third oldest rubber goods house in Ohio, founded in 1867 by Hayes & Peck. The style has undergone several changes, as follows: In 1868 to Peck & Mills; in 1873 to W. H. H. Peck; in 1878 to Peck & Bemis, and in 1884 to W. H. H. Peck & Co., upon the admission of Mr. D. B. Peck, a brother of the senior partner. At first the house was located at No. 104 Public Square, removing to No. 141 Superior street in 1868, to No. 149 Water street in 1873, and to No. 176 Superior street in 1875, where it remains, occupying the first and second floors, 20 x 150 feet each, the lower for a retail and the upper for a wholesale department, and four floors in rear for storage of stock. The belting factory, two floors 20 x 50 feet, is on Long street, in rear of stores and warerooms. Eighteen men are employed in all—ten in the stores, four traveling salesmen, and four belt-makers—and the sales average \$250,000 per annum.

The specialties embrace every description of rubber goods for wear, including full lines of the New Jersey Rubber Co.'s boots and shoes, the Mystic Rubber Co.'s gossamers and clothing, New York Rubber shoes, rubber steam packing, rubber water, steam and oil hose, rubber belting, New York Belting and Packing Co.'s rubber and cable cotton fire hose, Hoyt's leather belting, Eastman's leather fire hose, etc. They also manufacture to order in their own factory any ordinary width or length of leather belting. Another specialty that attracts much attention is the "Merino" felt boot, originally designed for the use of loggers and wood-choppers. Absolutely water-proof, with lumbermen's overshoes yet more comfortable than rubber, these boots are coming into general use among farmers and others much exposed to rain, snow and mud.

W. H. VAN TINE, JR.,

Real Estate Agent and Broker—No. 144 Superior St.

Cleveland is a prosperous and growing city. A drive through the business center and the suburbs will impress this fact upon any one who will take the trouble to look around him. Everywhere is manifest the spirit of improvement and enterprise, and it is easy to predict that ere many years this must become the richest and most populous, as it is already the most beautiful and attractive city in Ohio. The real estate agent has done and is doing vastly more toward the accomplishment of this end than is generally supposed. In furtherance of his own and patrons' interests it is a part of his business to advertise the attractions of the city as a place of residence, and magnify its advantages as a manufacturing and commercial center, and he is most liberal and public-spirited in the performance of this duty and all others that devolve upon him in the pursuance of his calling. In a word, the thoroughgoing and enterprising real estate agent is invariably far-sighted, and acts in the present with a clear perception of the future and its probabilities. Such a man is Mr. W. H. Van Tine, jr., a native of Cleveland, deeply interested in her welfare, both from patriotic and pecuniary motives—a wide-awake, tireless and successful young man who permits no opportunity to pass unimproved to advance the interests of his clients and the city of his birth. Mr. Van Tine has been handling real estate here since 1874, and though he has disposed of vast bodies of city lots and farming lands, aggregating many millions of dollars in value, he has never yet failed to render satisfaction to both buyer and seller, every transaction being marked by perfect probity and open methods. As a result he has made for himself a most enviable reputation and built up a colossal business, his sales ranging from \$300,000 to \$500,000 per annum. Having the confidence of all parties, and an established reputation both for square dealing and tact, and possessed of every requisite facility for bringing together buyers and sellers, he naturally attracts both classes, and, it is intimated, has for several years past been the medium of a larger volume of real estate transactions than any other two agents in Cleveland. Among his most recent heavy sales were those of the Scott & Van Tine allotments and Ranney & Herrick allotment in the East end, and several similar allotments in Brooklyn, aggregating many hundred thousand dollars in value. Mr. Van Tine makes a specialty of this class of operations on commission, and always has a line of fine bargains ready for investors. A visit to his commodious and handsome office, No. 144 Superior street, will repay all interested in real estate.

ATLANTIC REFINING CO.,

Manufacturers of "Semper Fidelis" Cylinder and Other Lubricating Oils—Geo. C. Hascall, Manager—Office, 11 Case Block, Wood and Superior Sts.

Though a comparatively new competitor for trade, the Atlantic Refining Company has already established a high reputation among dealers in and consumers of lubricants, and has flattering prospects for the future. This company the past year succeeded the Atlantic Oil Company, founded in 1884, and with ample capital, the experienced management of Mr. George C. Hascall, complete manufacturing facilities and every requisite advantage, there can be room for little doubt as to its prosperous future, the sales for the first year, as indicated by the business of the first half, being certain to aggregate \$200,000. The works are located on the Cleveland & Pittsburgh railroad near Atlantic street, Fourteenth ward, and the office in room 11 Case block, where Mr. Hascall, who came here from Detroit in 1884, will be found ready, at all times to entertain callers on business.

The company's specialties include "Semper Fidelis" cylinder oil of 600 and 550 degrees fire test. The first, by reason of its heavy body and high fire test, is considered a most perfect cylinder oil, containing neither acids nor other injurious properties; the second is nearly if not quite as good. Their other productions embrace Mineral Castor, especially recommended for wagons, carriages and agricultural machinery; "Garland" engine oil; "Castor" machine oil; "Genoa" engine oil, free from acids, will not gum or corrode, for engines and fast-running machinery; Polar engine oil, for winter use; Atlantic engine oil; Lardoline, possesses great cooling properties and is guaranteed superior to the best lard oil as a lubricant; Empire cylinder oil; White Mineral castor oil; Alaska machine oil, for winter use; Extra Golden oil; No. 1 Golden machine; No. 2 Golden machine; Angola engine oil; Sterling wool oil, stainless; Wool oil No. 1; Farmer's Harvester oil; Natural West Virginia oil; Zero West Virginia oil; 15 Cold Test West Virginia; No. 1 West Virginia; No. 2 West Virginia; Jumbo harness oil; screw-cutting oil; Phoenix boiler compound; Atlantic coach oil; cup grease, Nos. 1, 2 and 3; Jumbo axle grease; Pin grease; Petrolatum; Carbon oils, Gasoline, etc.

L. M. EIRICK & CO.,

Shippers and Inspectors of Provisions—Dealers in Lard and Lard Oils—Room 4 Atwater Building.

The leading house here engaged in the shipment and inspection of provisions is that of L. M. Eirick & Co., founded in January last, with office in room 4 Atwater building, and which, it is confidently anticipated, will be able to exhibit transactions to the amount of \$600,000 for the first year. The business of the house is confined exclusively to inspection and forwarding by rail, and the handling of lard and lard oils (this, in their judgment, being the best point in the country for shipments to the eastern markets), of which they carry large stocks, and are prepared to fill orders promptly and in good shape. Mr. L. M. Eirick is senior member of the firm, and Mr. Charles Eirick is associated with him. The elder Mr. Eirick came here from Chicago for the purpose of establishing himself in this business, and his brother came from New York city to join him, and, as above indicated, they have made a success of it, shipping heavily to Eastern points by the various railroads.

G. A. BUDD & CO.,

Dealers in Hides, Pelts, Tallow and Furs—Nos. 62 and 64 River St.

An immense trade in the above-named commodities centers in Cleveland, and is represented by several large and influential houses, one of the most conspicuous of which is that of G. A. Budd & Co., Nos. 62 and 64 River street, established in 1876 by the present senior partner, the junior partner, Mr. J. B. Stuart, having acquired an interest in 1879. Mr. Budd came here from Elyria, Ohio, and the original style of the house was Budd, Hill & Co., changing in 1877 to Budd & Burnside, and in 1879 to the present form, G. A. Budd & Co. Mr. Stuart, of Scottish birth, resides at Toledo, Ohio. The concern, formerly at Nos. 81 to 87 River street, removed to its present location the past year, having secured a much more capacious warehouse—44 x 200 feet, three floors—and generally improved facilities.

The firm employ nine men, including clerks, salesmen, helpers, etc., and do a very extensive business, buying all over Ohio, Indiana and Michigan, and shipping for the most part to manufacturers in Boston.

THE MERCANTILE AGENCY.

R. G. Dun & Co., Proprietors—Established 1841—Principal Office, New York; Cleveland Office, Rooms 73 to 80 Wilshire Building—P. P. Catrall, Manager.

After the commercial revulsion of 1873 it was found necessary to adopt some plan by which wholesale dealers could promptly and correctly post themselves regarding the standing of the retail dealer, and to Judge Lewis Tappan of New York City we are indebted for the admirable system now carried on by R. G. Dun & Co. Commenced by him in 1841 in the city of New York, it has been carried on uninterruptedly by his successors under the styles of Lewis Tappan & Co., Tappan & Douglas, B. Douglas & Co., Dun, Boyd & Co., Dun, Barlow & Co., and R. G. Dun & Co., and in Canada as Dun, Wiman & Co., the changes in style being necessitated simply by the retirement at successive periods of members of the firm. It is conceded by those who have investigated that The Mercantile Agency of R. G. Dun & Co. is the receptacle and dispenser of vast stores of reliable and valuable information, constantly drawn upon by from 50,000 to 60,000 American and Canadian subscribers, and that the credits of the commercial world are in great part regulated by these reports, the work involving an annual expenditure of more than \$3,000,000, including the maintenance of 111 branch offices. R. G. Dun & Co.'s Reference Book is issued quarterly, in January, March, July and September, and contains classified lists of merchants, manufacturers, traders, banks, bankers, etc., in every town, city, village and post hamlet in the United States and British America, with appended ratings which show their approximate net worth, general credit and standing. Full and accurate shipping directions are given, and recently added new features include exhaustive classification of the trades and late and complete maps of all the States and of the Dominion. Special attention is given to the collection of overdue accounts in any part of the country. The Cleveland branch, rooms, 73 to 80 Wilshire building, was established in 1858. Mr. Catrall, the present manager, took charge in 1861. He is thoroughly capable and reliable, careful and accurate, and popular with all who have relations with the agency.

CLEVELAND IRON MINING COMPANY.

Samuel L. Mather, President and Treasurer; Wm. G. Mather, Vice-President; Fred. A. Morse, Secretary—Dealers in Lake Superior Iron Ore From Their Iron Mountains, Near Marquette, Lake Superior—Offices, 3, 4 and 5 Mercantile Bank Building.

The Cleveland Iron Mining Company was originally incorporated under the laws of Michigan in 1853, the charter expiring thirty years later—1883—when it was renewed. The capital stock, all paid in, is \$2,500,000, held by Cleveland and New York capitalists, the principal offices being located in rooms 3, 4 and 5 Mercantile Bank building, where the above-named officers may be found during business hours. The company owns and operates five valuable mines in the iron mountains near Marquette, Mich., employs 600 men, and puts on the market an average of 225,000 tons best Lake Superior ore per annum, shipping mostly to Cleveland, Chicago and other Lake Michigan ports, also to Pittsburgh and the furnaces in the Mahoning and Shenango valleys, where there is a steady demand at all times for this high-grade ore.

THE WADE COAL CO.

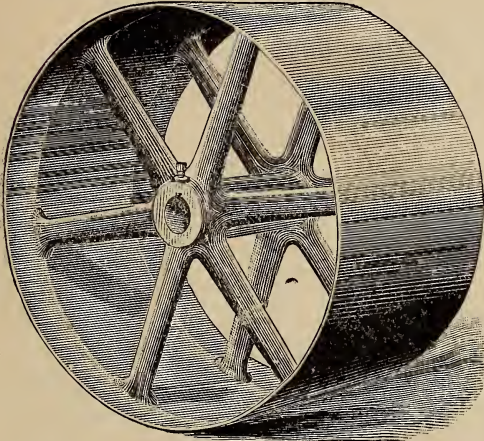
H. D. Dennis, President; John C. Allen, Secretary and Treasurer—Miners and Shippers of Coal—Office, Room 11 Bratenahl Block.

The Wade Coal Company was incorporated March 1, 1887, the projectors being experienced and capable coal men. Mr. Dennis, the president, is a heavy stockholder in the Morgan Run Coal Company, and Secretary Allen is of the Allen's Sons Coal Company. The Wade Coal Co., with capital stock of \$25,000, is just developing its mines in Stark county, Ohio, near North Industry, where it owns 150 acres of fine coal lands. At present the capacity is about 50,000 tons per annum, only seventy-five men being employed, but it is the intention to increase the output as the demand augments—an event that is confidently expected, as the fuel is of the best quality and is delivered promptly and in excellent shape.

Manufacturers and others requiring a superior grade of steam and heating fuel should not fail to give the Wade coal a trial.

THE WALKER MANUFACTURING CO.

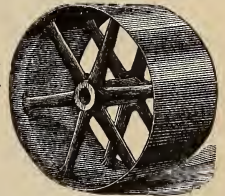
J. B. Perkins, President; Z. M. Hubbell, Secretary and Treasurer; John Walker, Manager—Founders and Machinists—Manufacturers of Shafting, Couplings, Hangers, Machine Molded Gears, Walker's Patent Cranes, etc.—Waverly Ave. and Breakwater St.



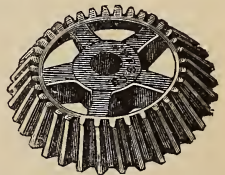
It is doubtful if any more uniformly successful manufacturing concern was ever organized than the Walker Manufacturing Company, which, incorporated in 1883 with a capital stock of \$125,000, at once established its works and entered upon a career of marked and increasing prosperity, such as few of its competitors, even of long standing, have ever enjoyed. In order to meet the rapidly growing demands upon their resources, the company in 1886 purchased the entire plant of the Whipple Manufacturing Company, adjoining their original works, and rebuilt, repaired and refitted the shops, thus nearly doubling their manufacturing capacity, which is now equal to 20 tons of finished work daily, while their monster outfit enables them to

turn out the largest castings with ease. As an example, on September 16 they made a perfect spur gear that required eighteen tons of metal. Two hundred and thirty men are employed in all departments, and their work goes to all parts of the States and Canada. They have just completed a plant for the Metropolitan Street Cable Railway Company of Kansas City, Mo., comprising all the machinery for operating a cable line six miles in length.

While manufacturing full lines of power transmitting machinery, the company make specialties of shafting, pulleys, hangers, machine molded gearing and traveling cranes—the latter invented and patented by Mr. John Walker, manager of the works, an accomplished mechanic, formerly with Poole & Hunt, Baltimore, Md. It is to Mr. Walker's skill, in fact, that much of the success of this concern is due. He is also the inventor of the Walker gear-molding machinery in use here, which produces all classes of light and heavy gearing of improved design and accuracy of pitch in large quantities and much more rapidly than by any other process. Catalogues and price lists are mailed on application.



The company is first-class in its *personnel*. President J. B. Perkins is a prominent capitalist, largely interested in manufactures, owner of the Wilshire, Power and Blackstone blocks, and among the foremost in all movements for the benefit of the city. Secretary and Treasurer Hubbell is a native of New York and a prominent member of the Board of Education. Of Manager Walker we have already spoken.



Of Manager Walker we have already spoken.

WM. MOLL,

Manufacturer of Light Machinery and Metal Patterns—No. 57 Center St.

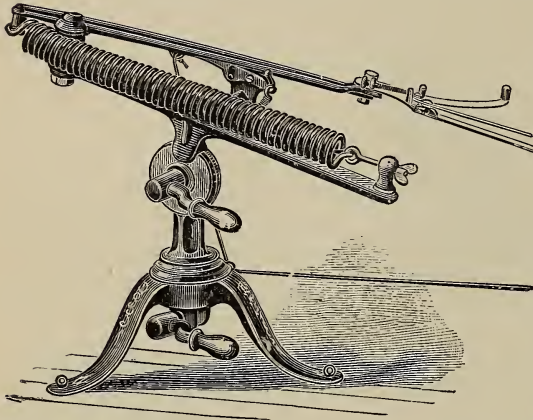
There is always a demand for light machinery and appliances for the trades and professions, and the ingenious and skillful mechanic who is properly equipped for the work cannot fail of patronage and appreciation. Among the best and most successful of this class of artisans stands Mr. Wm. Moll, who occupies the top floor, 20 x 50 feet, of the three-story brick building No. 57 Center street, where he is prepared with careful work-

men and special conveniences to do all work in this line at short notice and in the best style. Mr. Moll also makes a specialty of metal patterns of all kinds for foundrymen, machinists, shoe manufacturers, etc., and has a growing city trade.

This enterprise was started in 1881 by Sherer & Moll, Mr. Sherer retiring a year later. Mr. Moll is a pleasant and courteous gentleman, a master of his calling, and is certain to prosper. He is comparatively young, aspiring, and worthy of confidence.

THE CLEVELAND TARGET CO.

J. M. Taylor, President; C. J. Sheffield, Vice-President; Edward L. Day, Secretary and Treasurer—Manufacturers of Blue Rock Pigeons and Traps—Office, No. 76 Superior St.



The difficulty of procuring, and the expense attendant upon using live birds for shooting tournaments, to say nothing of the cruelty inflicted, long ago made the construction of a reliable inanimate target that would closely imitate the flight of the living bird a much-sought desideratum. The "Bussey gyro" was the first device of this kind to attract attention, and really possessed some merit, but failed of popularity because of its expense and inconvenience and the labor and delay requisite in working the cumbersome and complicated trap. The glass ball came next, but was abandoned for obvious reasons—its flight described a curve totally unlike that of a

bird, and broken glass on lawn and field was objectionable. * A composition ball of pitch and plaster failed because of its poor and unnatural flight. The Ligowski clay pigeon met the same fate for the same reason and for the further one that the tongue attached for regulation of its course usually fell off in damp weather. The "blackbird" was objectionable because of its color and liability to breakage in transit and by the trap. The "blue rock," patented and manufactured by the Cleveland Target Company, is the latest and unquestionably the most perfect of all attempts to solve this difficult problem. Of this device the *American Field*, an authority in sporting matters, has this to say in its issue of January, 1887: "Closing the line of successive steps in inanimate target manufacture and introduction, we may speak briefly of the Blue Rock Pigeon, as embodying all the thought and teachings of twenty years of experience. This bird has a yellow crown, adapting it to all backgrounds; is manufactured under a patent process by which the material is compressed into shape, making the bird very dense and at once the least liable to break by transportation and handling, and at the same time to shatter completely to pieces when hit by shot. The trap made expressly for the Blue Rock is so constructed that it imparts to the bird a high rotary motion, at the same time delivering it with little or no friction. The flight is steady and is not perceptibly affected by the wind. In short, the future can scarcely hold in store for trap shooting anything more perfect than the Blue Rock pigeon and trap.

Herewith is presented a view of the "Blue Rock" trap, so constructed as to impart to the bird a high rotary motion, which overcomes the effect of the wind, the bird always going the desired direction and distance and at a uniform rate of speed, alighting upon the ground as gently and gracefully as its namesake. Most trap shooters are familiar with the fact that heretofore, in order to obtain distance, the first part of the flight of the bird was at a high rate of speed, and when the force of trap was exhausted the bird stopped its flight and dropped perpendicularly to the ground, often breaking by the fall.

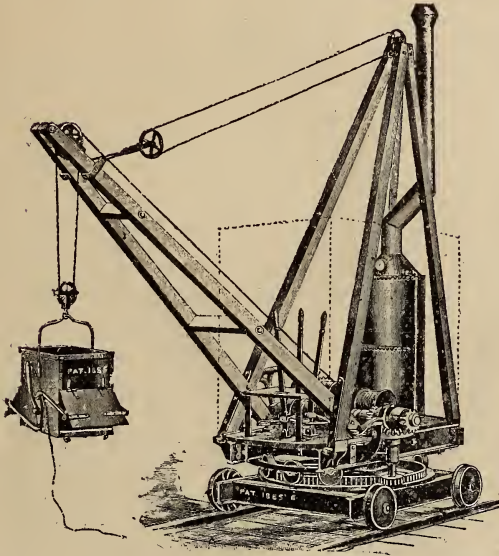
The birds and traps herein referred to have given unvarying satisfaction whenever and wherever tested, and have been adopted by the Illinois, California, Iowa and New York State Sportsmen's Associations and by the Ohio Central Shooting Association. They are

also used at the annual shooting tournaments of the Chamberlin Cartridge Co., held in this city in September of each year.

The blue rock pigeon factory of the Cleveland Target Co., located on Willey street, is two stories in height, 20 x 180 feet—the largest in the world—and turns out half a million artificial birds per month. The company was incorporated in 1886 with a cash capital of \$40,000, and is a success. President Taylor is a Kentuckian; Vice-President Sheffield a Clevelander. Secretary Day is connected with the Chamberlin Cartridge Co.

THE SIMMERLY DERRICK COMPANY.

Builders of Derricks, Conveyors and Cars—No. 116 Elm St.



Mr. A. N. Simmerly was the founder of this industry. The firm occupy a one-story frame building, 40 x 100 feet, at No. 116 Elm street, employ a number of skilled workmen, and do a great deal of first-class work in their line, making specialties of steam derricks for handling iron ore and coal, and of steam pumps. The firm are making to order a patent revolving derrick, constructed on a new principle, the invention of Mr. A. N. Simmerly, with which they challenge the world to competition. It is constructed of steel and iron, in the most substantial manner, and will prove adequate to any strain put upon it. Engine and hoisting machinery are firmly bolted to a solid iron bed-plate, which prevents racking or getting out of line, and, being independent of the carriage, overcomes unevenness or settling of dock. The derrick is equipped with either single or double 9 x 12 engine, of approved pattern, pump, boiler, etc., complete. All

movements are regulated by the same lever—hence its simplicity of operation. It is absolutely safe, easy to manage, and, having 216 square inches of friction surface, with patent combined clutch and break-band, a boy can work it. The "Standard" will handle 600 to 1000 tons of coal every ten hours, depending upon the engineer.

Mr. A. N. Simmerly is superintendent—a place for which he is peculiarly fitted by training and experience, he having had charge of some of the leading railroad and marine shops in the country.

The firm is doing a large, lucrative and constantly increasing business—so large, indeed, that they will be compelled in a short time to largely augment their manufacturing facilities.

J. W. GROVER & SON.

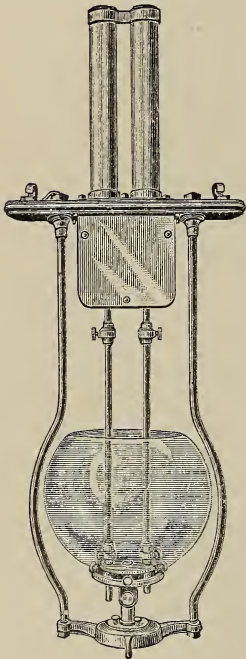
Ship Chandlers, Sail Makers and Riggers—Importers and Wholesale Dealers in Wire Rope, Manilla and Tarred Cordage, Canvas, Blocks, Oakum, Tar, Pitch, Oars, Anchors, Chains, etc.—Nos. 117 and 119 River St. and 134 and 135 Dock.

Cleveland's maritime interests are very extensive, the port ranking second only in importance on the lakes in point of ship-building and tonnage ownership. Many of the finest and most commodious sail and steam vessels on our inland seas were constructed and fitted and are owned here. Consequently the business of sail-making, rigging and supplying lake craft is a prominent industry, and increases in volume year by year. The most conspicuous house in this branch of enterprise here is that of J. W. Grover & Son,

established in 1869 and now located at Nos. 117 and 119 River street and 134 and 135 Dock. Mr. J. W. Grover died in 1880, his son, Mr. Criss E. Grover, continuing the business under the old style. Mr. G. was trained to his vocation from boyhood, is complete master of all its details, thoroughly identified with lake navigation, and an enterprising, public-spirited man and citizen. His warehouse and sail loft occupy a substantial three-story brick structure, 50 feet front by 100 feet deep, is fitted up in the best manner, carries an immense stock of canvas, cordage and ship supplies generally, employs twenty-five skilled sail-makers, riggers, clerks, salesmen, etc., and transacts a business of \$250,000 per annum. Complete lines of wire, manilla and tarred rope, canvas, blocks, oakum, tar, pitch, oars, anchors, chains, etc., are carried at all times, and a specialty is made of outfitting vessels of all classes. Much good work is also done for local builders and others, and those who require anything in his line will do well to call upon Mr. Grover.

THE BRUSH ELECTRIC CO.

G. W. Stockly, President; J. J. Tracy, Vice-President; Wm. F. Swift, Secretary; J. Potter, Treasurer; N. S. Possons, Superintendent; W. J. Possons, Assistant Superintendent.



The Brush Electric Company has given Cleveland a world-wide reputation. The remarkable inventions of Charles F. Brush have been made available and remunerative by the Brush Electric Company, so ably and successfully managed by George W. Stockly and an able and efficient board of directors. This combination of inventive genius and business sagacity has within the last decade done much to revolutionize the artificial illumination of the world, and built up a business in whose various branches millions of dollars are now invested.

The Telegraph Supply Company of Cleveland, O., was organized in October, 1875, to do a general electrical manufacturing business. The corporate name was changed to the Brush Electric Company in July, 1880. The original offices and shops were on the corner of St. Clair and Ontario streets. These were burned in May, 1880. The business of the company was then carried on in a factory on the C. & P. R. R., near Euclid Station, during the erection of the present large and complete works on Mason street. Mr. Brush's laboratory and the general offices of the company are opposite the works on Belden street. The general offices are conveniently arranged and well adapted for their purpose. Excellent taste has been displayed in the furnishing and adornment of the rooms.

The entire area occupied by the buildings is about seven acres. The main machine shop is one story high and 265 x 122 feet in its dimensions. The "cathedral," so called on account of its peculiar shape, is two and a half stories high, and measures on the ground plan 200 x 100 feet. The power building is 120 x 110 feet; the carbon-house, 600 x 62 feet; the pattern-room and carpenter-shop, 120 x 70 feet; the lumber-room, 80 x 50 feet; the coke-house, two stories high, 160 x 60 feet; besides the oil-room, tin-shop, blacksmith-shop, stables, etc. There

are five tall chimneys, about 125 feet high, besides several smaller ones. There is an exhibition hall for showing all the styles of lamps, dynamos, electro-plating apparatus, electric motors and other machines constructed here. An incandescence machine in the factory supplies whatever light may be needed, and there is an auxiliary storage battery in the basement, the current for charging which comes from a machine in the factory. This same machine also charges the batteries for several offices in the factory, the general offices, the engine room, and armature and magnet department, and the stables. These works are the largest works of a similar kind in the world. The machines made in them have illuminated nearly every city on this continent, and have been largely used in other lands than our own. The business of the company is growing from day to day. Shipments are made to all parts of the world. The great shops have been crowded to their utmost capacity for months, and no doubt will have to be greatly enlarged at no distant day.

CLEVELAND ROLLING MILL CO.

William Chisholm, President; W. B. Chisholm, Vice-President; Ed. S. Page, Secretary—Manufacturers of Steel and Iron, Wire, etc.

The Cleveland Rolling Mill Company controls one of Ohio's largest and most important industrial plants, the works being located at Newburgh and covering, with all appurtenances, about 100 acres of land. The mills themselves are complete in all departments, equipped with all requisite machinery, employing 4,000 men, and turning out annually \$5,000,000 worth of finished product of the highest excellence, embracing all shapes, weights and kinds of merchant bar and other irons, steel, steel wire, etc., in endless variety. There is a steady and constantly growing demand for all of these goods in all leading American markets, the brand of the Cleveland Rolling Mill Company being recognized as a guarantee of excellence, and consequently the plant and facilities are steadily augmented from year to year to meet the requirements of buyers.

A. G. HARBAUGH & CO.,

Lard Refiners—Manufacturers of Lard Oil and Candles—No. 34 River St.

Notwithstanding the popularity and abundance of petroleum and its products, there continues and probably always will be a liberal demand for the higher grades of animal oils, particularly fine lard oils, for which no adequate substitute has yet been discovered. The same holds good with reference to candles, which still hold their own, for some purposes and in some sections, against both gas and coal oil.

Among the most extensive manufacturers of these goods in the West is Mr. A. G. Harbaugh (operating under the firm name of A. G. Harbaugh & Co.), No. 34 River street, this city. Mr. H. has been engaged in the same business at the same location since 1868, and has steadily increased his sales in the face of all opposition, producing the best goods and finding a ready market at all times with the trade throughout Ohio, Michigan, New York, Pennsylvania, Connecticut and some other States, his transactions averaging \$100,000 per annum.

WILLIAMS BROS.,

Fruit Preservers and Manufacturers of Grocers' Sundries, Comprising the Specialties of Vinegar, Pickles, Jellies, Fruit Butters, Mince Meat, etc.—No. 96 Duane St.

The above-named house is a branch of the renowned Williams Bros. & Charbonneau, established at Detroit thirty years ago. Mr. R. F. Williams came to Cleveland and opened this branch five years ago, and it has proved a remarkably successful venture, doing a steadily increasing business that for the past year aggregated \$50,000 of sales. The premises occupied are of brick, three stories, 50 x 50 feet, and ten persons are employed in all departments, the trade being largely local, though considerable shipments are made to various Ohio points.

The goods of the firm are so well and favorably known as to require no praise at our hands; a trial is sufficient recommendation. They are as follows: Pickles, vinegar, jellies, preserves, apple butter, French mustard, bottled pickles, tomato catsup, table sauce, mixed pickles, chow chow, sweet pickles, pickled onions, mince meat in season, pickled pigs' feet, pickled tripe, sauer kraut and horse radish.

J. B. SMITH,

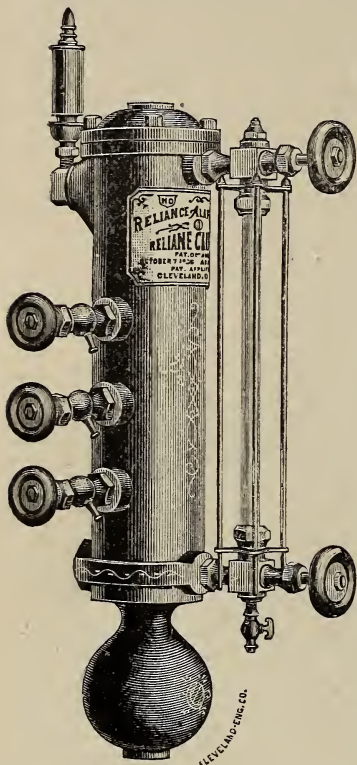
Maltster and Dealer in Barley Malt, Barley and Hops—Office, Nos. 40 and 42 River St.

Forty-seven years ago Mr. Smith, who is a native of Vermont, came hither from New York State and established himself as a maltster, on a modest scale, at No. 176 Spring street, employing but one assistant and toiling daily with his own hands. The usual reward of industry and square dealing came in time, and gradually he enlarged his field of operations, and increased his facilities from time to time until at present he owns the two largest malt-houses in Northern Ohio—one on Spring street, 100 x 200 feet, four stories, the other at No. 42 River street, three stories, 90 x 200 feet—with a joint capacity of 500,000 bushels annually and employing twenty-five men. The product has a high reputation with the trade, and is nearly all taken by local brewers—an indisputable evidence of its excellence.

Mr. Smith is also an extensive importer of Canada barley and dealer in New York, Western and foreign hops, which he supplies to the trade at lowest market prices.

RELIANCE GAUGE COMPANY.

A. J. Wright, J. W. Jones—Sole Manufacturers of the Reliance Alarm Gauges, Reliance Safety Water Columns, Solderless Copper Floats, Reliance Sight-Feed Lubricators, High and Low Bottom and Globe Automatic Oil Cups, etc.—Works, Canal St.; Office, Room 2, No. 89 Euclid Ave., Nottingham Block.



The above engraving shows the parts before being joined together. These parts are united by special machinery, and, when completed, make a float of wonderful strength, and as close jointed as if of one piece and jointless. They are made of any required size, will easily stand 200 pounds pressure, and can be made to stand any desired pressure.

The above ingenious devices are manufactured exclusively by the Reliance Gauge Company, who are the sole owners of the patents. They have passed the experimental stage and established their merits, as many testimonials based on actual experience attest, but every agent and dealer is authorized to sell them to responsible parties on thirty days' trial, fully warranted. As these gauges take the place of the ordinary water-column combination, their cost, beyond what necessity requires, is very low and entirely out of proportion to the security and saving of fuel which they afford.

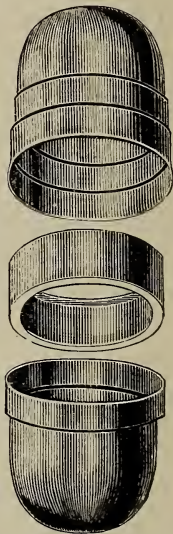
This company also manufacture a superior line of steam boiler and engine appliances, including, besides the above, a variety of lubricating devices—the Reliance sight-feed lubricator, high and low bottom and globe automatic oil-cups, etc. Illustrated circulars and price-lists are sent on application. Their goods are in use all over the world, and as a natural result of merit, resulting in general satisfaction, their business is growing at a wonderful rate, having more than quadrupled during the past year.

The Reliance Safety Water Column, shown complete in the accompanying cut, is claimed to be the simplest, most complete, and cheapest automatic water gauge in the world, combining low or high and low water alarms and the approved water-gauge and gauge-cocks, and taking the place of the ordinary water-column. Several sizes of these safeguards are made, covering the requirements of all kinds of boilers, from the ordinary house-heating boiler to the largest stationary and marine boilers.

The company will take pleasure in forwarding a handsome illustrated price list, showing all details of the construction and giving considerable pertinent and valuable information, to any one interested.

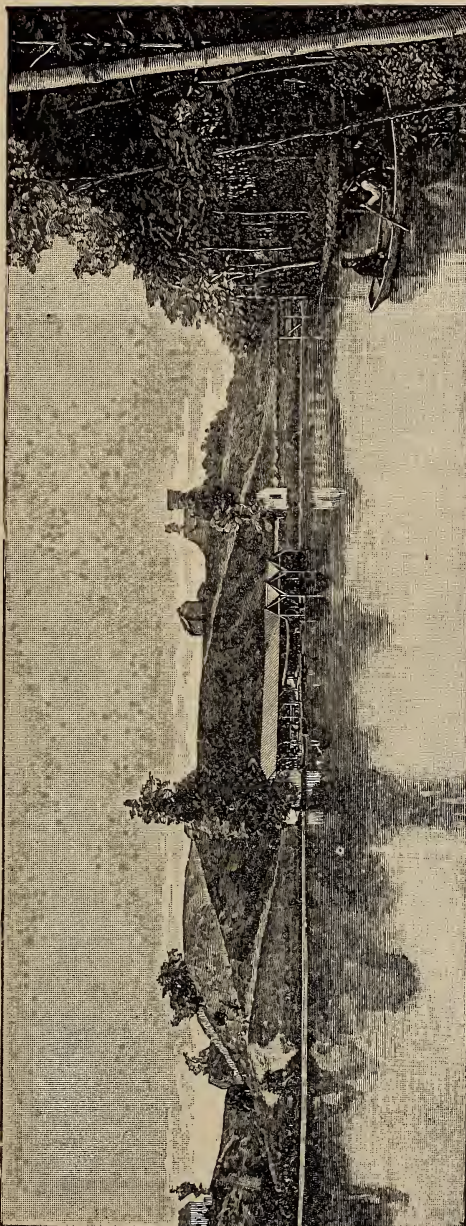
These safeguards make attendants doubly watchful and reduce the danger of damage from either too much or too little water to a minimum, and offer many advantages which will be at once apparent to any thoughtful reader. They are an additional and much needed safeguard, and are being adopted by many of the larger institutions who do not "economize" at the expense of safety.

The Reliance float, used in these gauges, the invention of Mr. A. J. Wright, is a vast improvement, and essential to the durability of any such appliance. They differ materially from the old-style soldered or brazed floats, and never collapse or fill with water. The principle is very simple. They are made of two spherical overlapping parts, joined together over an inner band provided with internal flanges, to give strength and furnish shoulders for the joint.



BEYERLE'S PARK.

G. William Beyerle, Proprietor—Twenty-fourth Ward, Three Miles from Public Square—Cleveland's Summer Resort Par Excellence—Office, Room 3, No. 13 Public Square.



Beyerle's park is certain to become in the future the people's park of Cleveland, possessing all the natural and artificial attractions of a great public health resort, without any of the hampering restrictions that render a visit to the various so-called public parks more a perfunctory duty, undertaken for the gratification of curiosity and to have it to say, "I've seen it," than for any real pleasure to be extracted therefrom. For at Beyerle's one may actually infringe upon the natural turf, lounge about under the forest trees, or lie at full length upon the soft sward and rest, recuperating body and mind after a week's toil, without being stared out of countenance by glaring injunctions to "keep off the grass," or dragged to a station-house and fined. The park embraces forty-two acres of land, of great natural beauty, which during the past two years has been vastly improved by the erection of buildings and bridges, the laying out of flower and shrubbery beds and paths, the planting of young trees, the leveling of inequalities and the filling of gullies. Seven acres of lake give variety to the scene and in the season is covered with small craft, among them a neat little steamer that skims the water like a thing of life. Every provision is made and making to render this park the most popular place of the kind in Northern Ohio—a spot to which all classes may retire any day in the week for relaxation and recreation of an innocent and healthful kind, and from which they may return reinvigorated and re-inspired for the ordinary duties of life. Among the many attractions is a rare and valuable collection of animals, to which additions will be made from time to time—the nucleus of what it is the intention to make eventually one of the most complete zoological gardens in America.

The cuts herewith show some of the main attractions. The park is reached by the Brooklyn street cars and the Broadway and Newburgh street railroads.

VIEWS IN BEYERLE'S PARK.



THE PAVILION.



THE PATH FROM THE PAVILION.

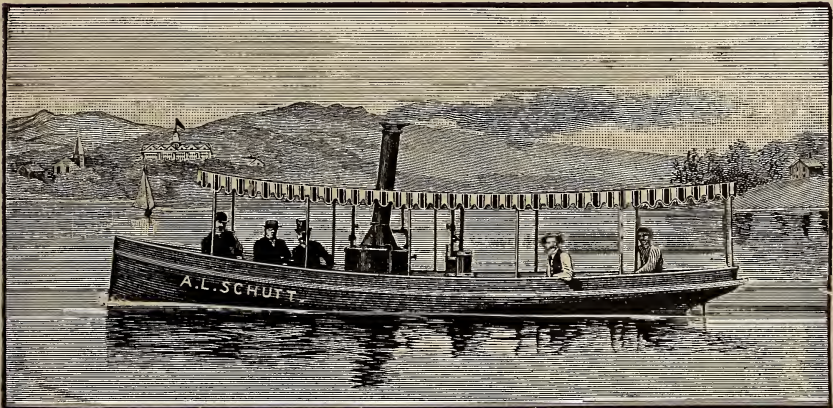


THE HIGH BRIDGE.

VIEWS IN BEYERLE'S PARK.



THE LOWER BRIDGE.



THE PLEASURE STEAMER.

W. A. FISHER & SON,

Merchandise Brokers—No. 130 Water St.

Of the merchandise brokers of Cleveland we know of none who enjoy a higher reputation or do a larger business than Messrs. W. A. Fisher & Son, who occupy elegant offices at No. 130 Water street, handling vast quantities of manufactured goods and raw materials of every description, their transactions averaging \$2,000,000 a year, and their field of operations extending all over the United States, East, West and South. Probably no concern of the kind in this country enjoys a greater share of the confidence of buyers and sellers; certainly none are more deserving of it.

The senior member of the firm, Mr. W. A. Fisher, came from Lowell, Mass., in 1852, and for five years was a conductor on the C. C. & I. railroad. From 1852 to 1857 he was engaged in the wholesale grocery trade at St. Clair and Water streets, and then established his present house with his son, a native of Cleveland, as partner.



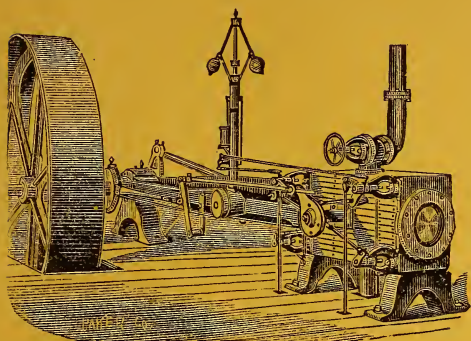
Thos. D. West, George H. Boyd, Samuel Lansdowne and Charles Neracher—Manufacturers of Light and Heavy Castings, Wood and Metal Patterns, etc.—Wason St., Bet. St. Clair and Superior.

Cleveland must have been very much in need of a first-class establishment devoted to the class of work above indicated, since the Thos. D. West Foundry Co., organized last spring and its shops opened on the first of March, is already crowded beyond its capacity and finds it impossible to keep up with orders—a fault, however, that will be remedied ere long, when the company expect to meet promptly all demands upon their resources. At present their premises comprise commodious buildings, with a capacity for fifty tons per day, on Wason street, between St. Clair and Superior, well appointed in every department. Their trade, which was at first of a local character, has been greatly extended by their exertions throughout the country at large. So much has their business augmented since its establishment that the works are now enlarged to three times their original capacity.

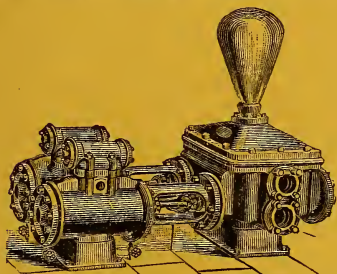
The specialties of the establishment comprise a great variety of light and heavy castings in loam, green or dry sand, together with machinery and architectural wood and metal patterns for outside use. The utmost care and skill are expended upon these patterns, which are strong and durable, mould to the greatest advantage, and give unvarying satisfaction.

Messrs. West, Boyd, Lansdowne and Neracher are all Cleveland men, ingenious, capable, industrious and widely and favorably known. Mr. Thos. D. West is widely known to the public as an author on the various work pertaining to the foundry business, some of his books having reached their seventh editions, and he is conceded to be the highest authority on such subjects. Naturally his comprehensive experience is utilized in his business relations, and this accounts largely for the wide-spread reputation of the house and the unvarying excellence of its work. That they will build up a great and flourishing business scarcely admits of a doubt.

Machinery Manufacturers' Association,



COOPER-CORLISS ENGINES.



HALL STEAM PUMPS.



BERRYMAN FEED WATER HEATER
AND PURIFIER.

FOR SUPPLYING
Foundries,
Machine Shops,
Planing Mills,
Rolling Mills,
Car Shops,
Railways,
Paper Mills,

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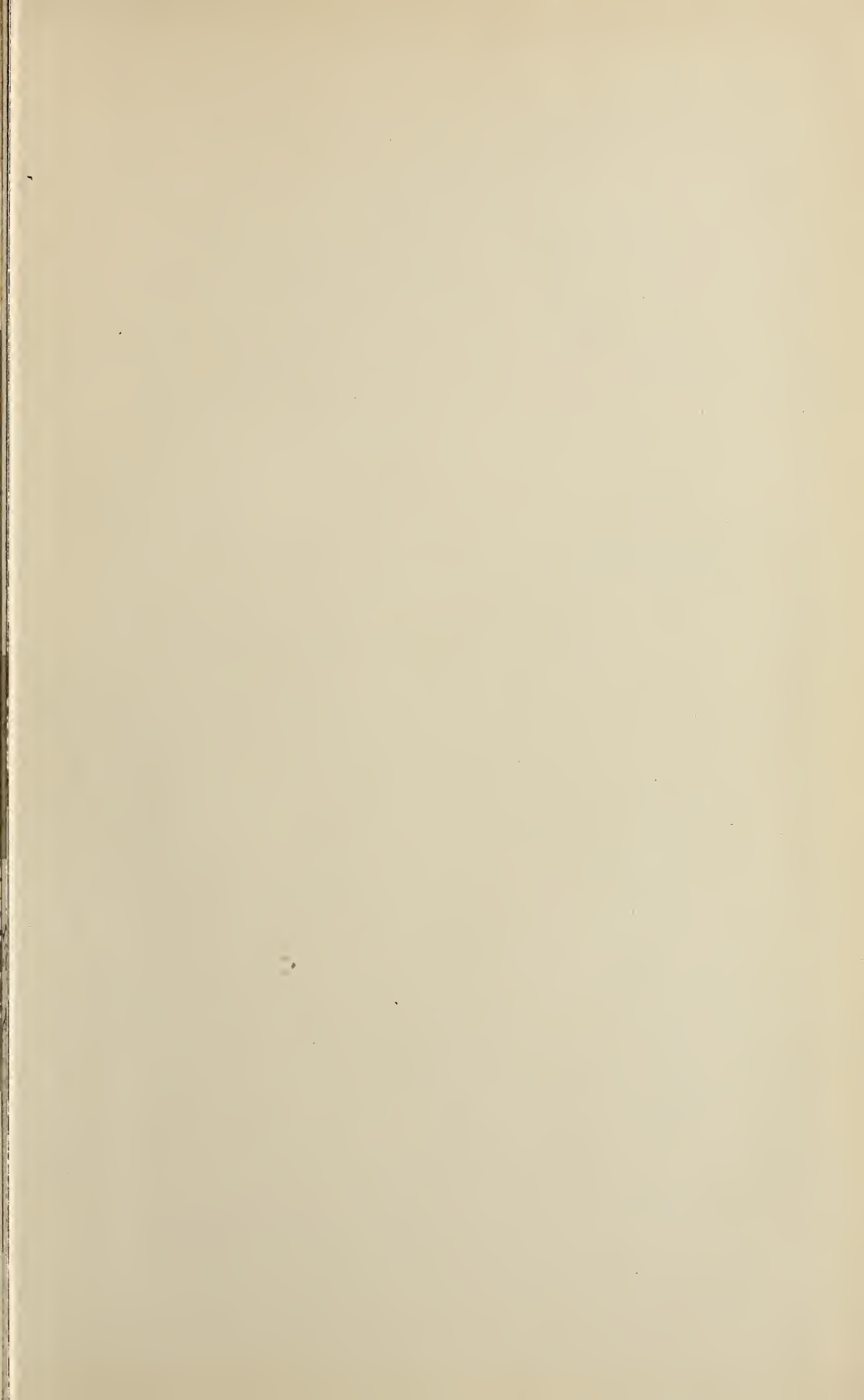


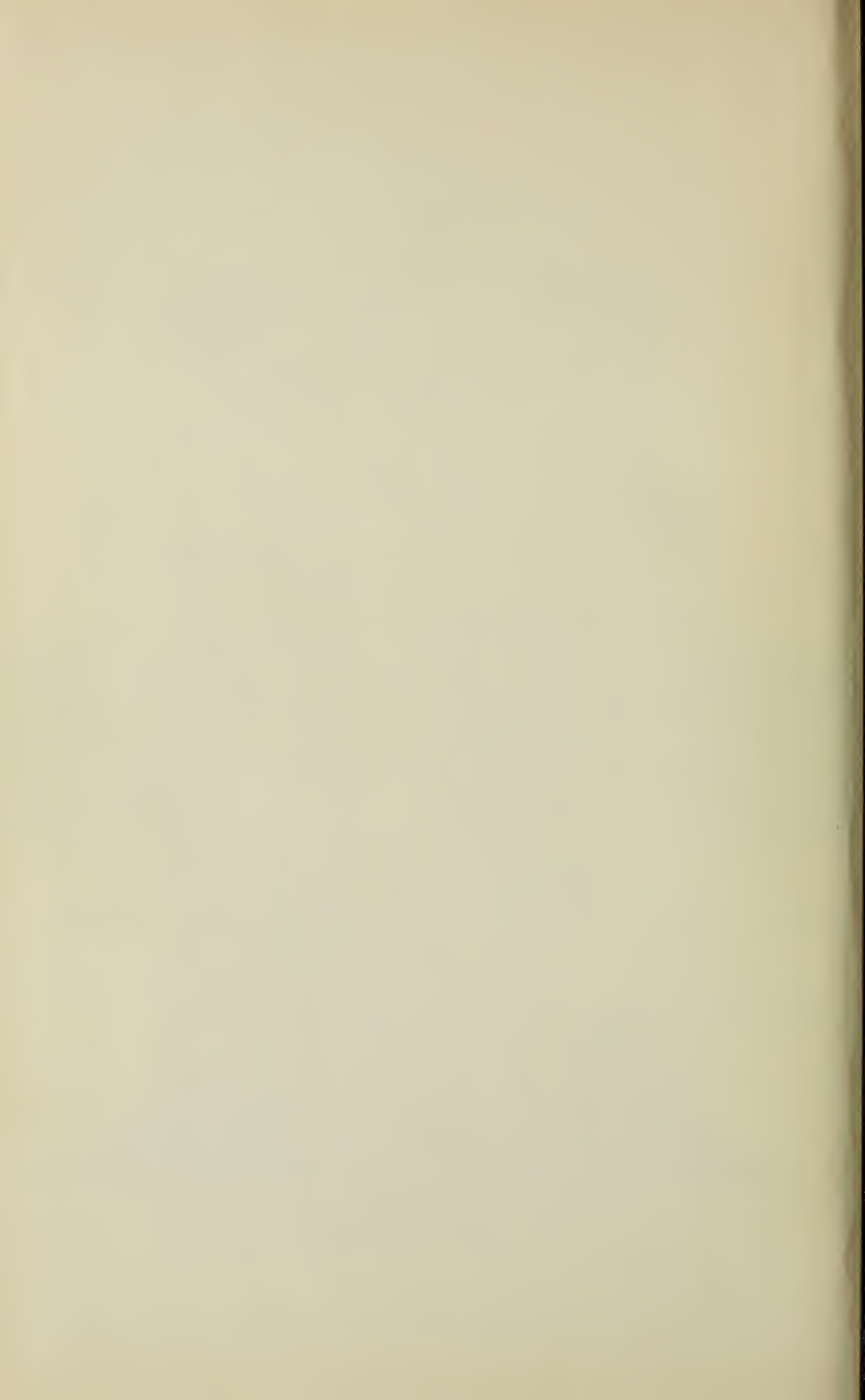
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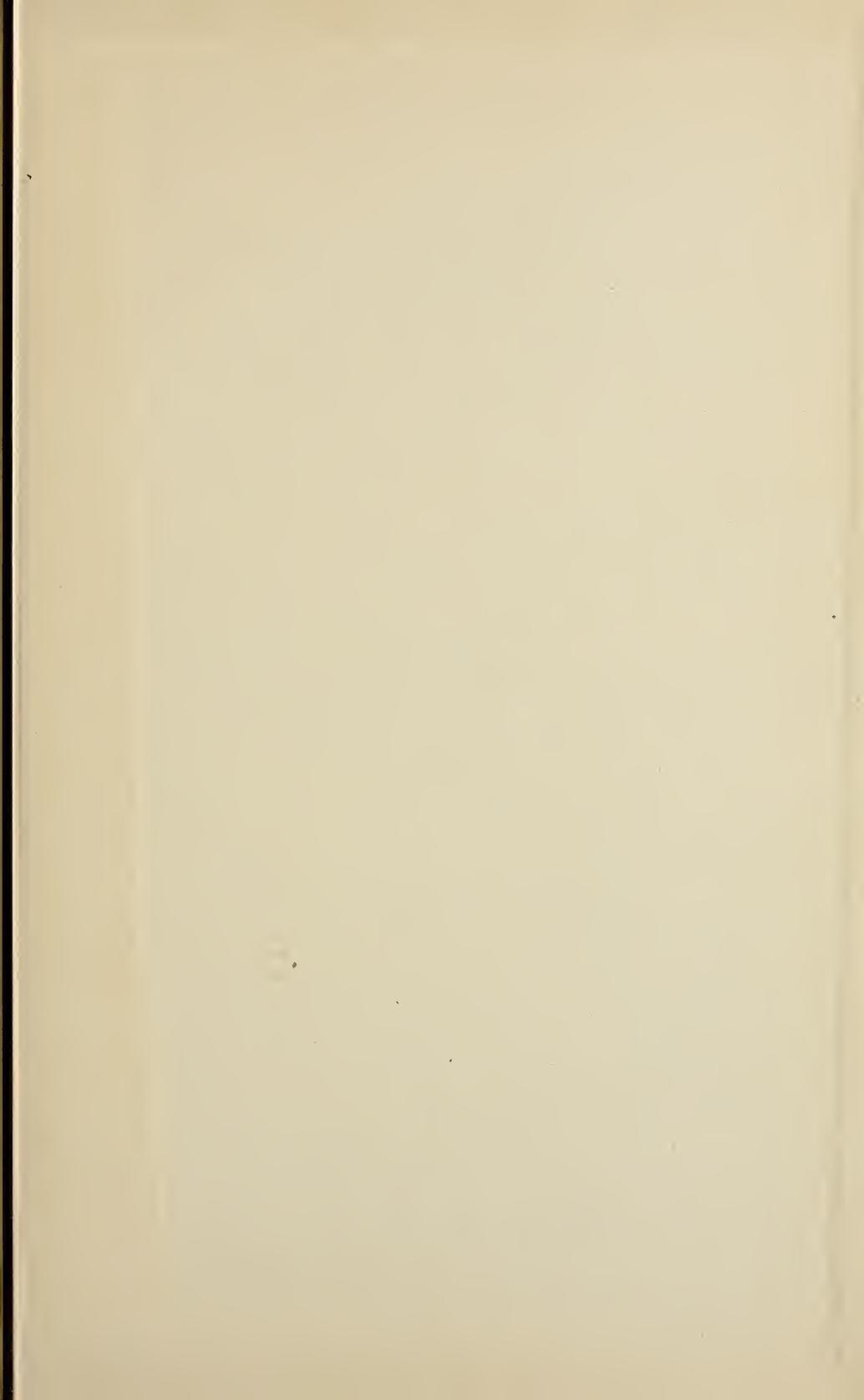
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