The INLAND PRINTER

THE LEADING TRADE JOURNAL OF THE WORLD IN THE PRINTING AND ALLIED INDUSTRIES.

VOL. XXXIX. No. 6. **SEPTEMBER, 1907.** TERMS { $3.00 per year, in advance. Foreign, $3.85 per year. Canada, $3.60 per year.

DISCURSIONS OF A RETIRED PRINTER.

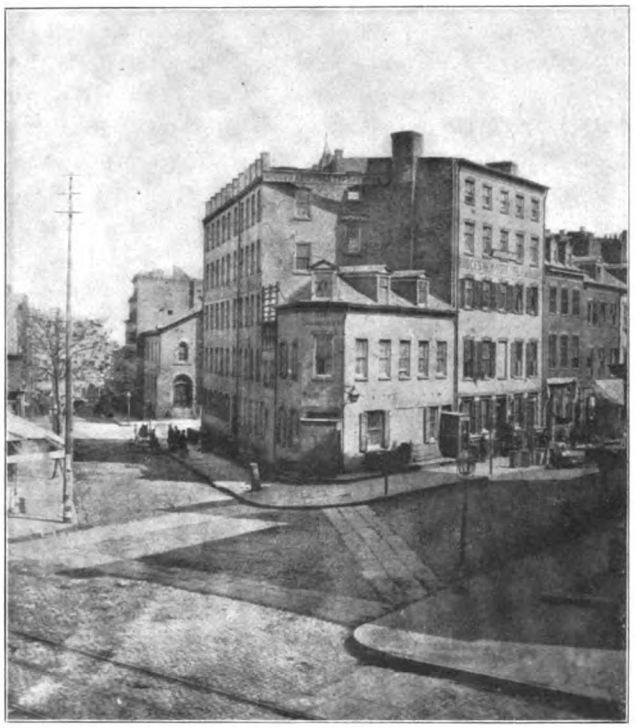
NO. XIV.— BY QUADRAT.

GLEANINGS FROM AN OLD SCRAPBOOK.— APPRECIATION OF IDEAS WHICH FAILED.— MEMENTOES OF SIXTY YEARS OF TYPOGRAPHICAL PROGRESS.

THE first cylinder press used in the United States was imported from England in 1825. It was a Napier, purchased by the *National Intelligencer* of Washington. At that time Major Noah, publisher of the *Sunday Times and Messenger,* was collector at the port of New York, and he, being curious to see what such a machine looked like, invited Richard March Hoe, then working for his father, the first Robert Hoe, to erect it in the customs-house. The Hoes duplicated the Napier, and in two years' time were selling cylinder presses. Their success in this new enterprise induced them to send Mr. Newton to England to investigate the status of various printing-machines, and his observations, combined with the remarkable inventive ability of Richard M. Hoe, resulted in developments which twenty years later made R. Hoe & Co. the leading pressbuilders of the world. Many years passed, however, before the cylinder press was considered to be good enough for the execution of fine printing. The first power printing-press invented and built in America was the product of Daniel Treadwell, of Boston, in 1826. It was a platen press, with a horizontal reciprocating bed, operated by a horse circusing around in a track thirty feet in diameter, attached to an overhead wooden beam operating crude gearing, an apparatus similar to the whim used for hoisting in the early days of gold mining in California. The press was located inside the horse track. The platen was double royal, the largest ever made up to that time, and the mechanism was so crude that at the point of impression the horse was almost jerked off his feet, and it was found necessary to use two animals, each working half a day. A day, however, in good old Boston was regulated by daylight to a large extent, and in summer was sometimes seventeen hours long. Down to 1837 the two principal printing-offices in New York city, Harper's and Fanshaw's, used horses or mules to operate their machines. It is not so very long ago that certain firms ostentatiously advertised themselves as "steam printers." To-day a "steam" printer is a back number. This first Treadwell Press (happily named) was bought by Nathan Hale, the leading Boston printer of that time, and the father of the distinguished and venerated Rev. Dr. Edward Everett Hale, now chaplain of the United States Senate. Eight Treadwell presses were built and operated in Boston, although the speed was less than six hundred impressions per hour, and two men and two horses were required to work each press, but in 1829 along came Isaac Adams with a better platen machine and stopped the circusing. For fifty years the Adams press was deemed the best for fine printing. When I first visited Boston in 1882 more Adams presses were in use than any other. Ten years ago several of them were in use in the plant of Harper & Brothers in New York. In 1858 Adams sold out to R. Hoe & Co., who continued the Adams business at East Boston, and Adams retired to his native town, Sandwich, New Hampshire, where he died in 1883, worth $3,000,000. The cylinder

press to do fine work is a comparatively recent machine.

The Rev. Mr. Hale was born in 1822, eighty-five years ago, and was seven years old when the first cylinder press was built in this country. It is very probable that he saw the first power presses in operation in his father's shop. Reflect on what has been achieved within the span of one ordinary lifetime! Consider what effort, what thought, what successes and what failures have combined to make present conditions as they are. What will happen during the next eighty years? It is not improbable that in 1987 the present great



Bruce's New York Type Foundry, as it stood from 1818 to 1907, with entrances at No. 13 Chambers street and No. 13 City Hall place. Recently demolished.

typographical machines, our rotary presses, the Linotype and Monotype, even types themselves, may be regarded with as vague an interest as we now bestow on the veritable "one-hoss" Treadwell machine.

These reflections result from the examination of a big scrapbook which recently came into my possession, relating consecutively to typography from 1837 to 1897, kept systematically by three generations of one family eminent among American printers. It contains hundreds of original documents and thousands of judicious clippings from contemporaneous publications, the whole forming an interesting chronicle of those times. Here, for instance, are the cards of invitation or admission, the menus, and the reports of nearly all the celebrations and dinners held by printers in New York city, commencing with a dinner of the New York Typographical Society at Niblo's, January 17, 1853. Next day the newspapers had verbatim reports. In those early days these celebrations were managed by the employees' society, and the leading men in the trade and in public office assisted. This society had a library of three thousand books in its rooms on Broadway, between Reade and Duane streets. It was the predecessor of No. 6 Typographical Union. On this occasion, George Bruce, the typefounder, presided, and tells us that when he landed in Philadelphia in 1805, that city was blessed with five daily newspapers, one of which was embarrassed with a circulation of two thousand copies a day. To expedite delivery a double team of operators was employed on a hand press, each team consisting of a pressman, an inker (using hand balls), and a sheet flyer or taker-off, relieving each other every fifteen minutes, and attaining the speed (scarcely credible to one who has worked on hand presses) of five hundred impressions an hour. In the early part of last century the *London Times* surpassed all papers in circulation, and although flat-bed cylinder presses were used, it was necessary to set the last forms of each issue in duplicate to enable the presses to meet the demand. At this 1853 celebration over six hundred ladies and gentlemen attended, and the very first toast was to "The Ladies." I have attended several printers' banquets in latter days which would have been improved by the presence of the ladies. It was the fashion then to have numerous toasts, twenty to thirty, at banquets, and in responding to the tenth toast the speaker advanced the sentiment: "*Quod enim munus Reipublicae afferre majus meliusve possumus quam si docemus atque erudimus juventutum!*" which was most vociferously applauded, as it well deserved to be. These "before-the-war" celebrations, and those following, which were generally managed by Mr. T. L. De Vinne for the master printers, were distinguished by jollity, good sense, good speaking, and fully merited the ample space accorded to the reports by the printer-publishers of the daily press.

The contents of our scrapbook tell of more failures than successes in the struggle for improvement, but also prove that the few successes were aided and encouraged by and built upon the failures. To those whose projects failed let us do honor in proportion as they persevered and experimented and blazed the path for the fortunate successful. Take the type-revolving printing-press of Richard March Hoe, which in 1846 put American printing machinery in the front rank throughout the world, and made its inventor forever famous. The type forms were imposed in turtles and fastened on a central cylinder, against which as many impression cylinders, from two to

ten, as were required, revolved. The progress of that idea is followed in our scrapbook, which takes us back to 1831, when John Bruce invented and patented a biscuit- (cracker) making machine in which the design and name of the maker were imprinted by types and blocks fastened on a central cylinder. This machine was exhibited for several years at the American Institute fairs, and interested many printers. Major Wilkinson and Azor Hoyt attempted to apply the idea to printing-presses, but without success, and Hoe solved the problem. John Bruce met with financial misfortunes and went to California, where he died in 1874, fully aware, as a letter in our scrapbook proves, that he had unconsciously done a great service to printers. The first perfecting press was made by a Mr. Pratt for the Brooklyn *Daily Advertiser* in 1853, and only cost $500, producing one thousand five hundred perfected sheets per hour. William Bullock originated the automatic or web rotary perfecting press in the early sixties. He was killed in erecting one of his presses in 1867. It became the task of R. Hoe & Co. to bring the rotary perfecting press to its highest point of excellence, but as late as 1869 our scrapbook has a clipping from the New York *Tribune* of an article furnished by R. Hoe & Co., which says: "The inherent difficulties in the way of making a distinct impression upon both sides of a moistened sheet at once are so great that R. Hoe & Co. do not believe 'perfection printing' can ever be made to wholly supersede the present style."

It was the introduction of curved stereotype plates that made the perfecting presses possible. These plates were first used, on the London *Times*, in 1855, one hundred and twenty-six years after the first invention of stereotyping by William Ged of Edinburgh. I have a copy of the first book printed from stereotyped plates, published in 1736. After Ged died the art was remembered but not used, in Scotland, until, at the beginning of the nineteenth century, Earl Stanhope paid £800 for instruction in making plates, and proceeded to improve the method. It was from Wilson, a London printer who worked for Stanhope, that David Bruce, who journeyed from New York to London in 1812 for the purpose, received instruction in stereotyping, so that he first introduced the process in this country in 1813. In 1816 Applegath took out a patent for curving flat stereotype plates after they were cast. In 1855 the Dellagana brothers, born in Switzerland, arrived in England with the papier-maché process, and contracted with the *Times* to cast its forms. In our scrapbook we find a report from Thomas N. Rooker, printer of the *Tribune*, to Horace Greeley, dated August 4, 1856, containing two letters from Dellagana Brothers, the first dated in the *Times* office, the second at the Stereotype Foundery, 61 Red Lion street, Clerkenwell, London, where a business in platemaking was commenced in 1856, which continues to the present time. The columns of the *Times* were stereotyped singly "as it would be impossible to wait until a whole page is composed." How very often that word impossible is used and disproved. They offered to sell a stereotyping plant to the *Tribune* for £400, and to send one brother for one year at £12 per week to superintend and instruct American operators in their secret. The *Times* paid them £12 per week to superintend, and they retained their secret. They also offered to stereotype the *Tribune* under contract for 2s. 6d. (60 cents) per column, and furnish material, and pay wages, the plant and rent to be paid for by the *Tribune*. Mr. Rooker prefers the last proposition, and figures the weekly cost at $270, or $14,040 per year. Mr. Rooker's recommendation was not adopted, and in 1859 we find a letter containing a proposition from Francis F. Ripley, endorsed by Mr. Rooker, offering to stereotype the *Tribune* for $168.48 per week, after rebating for metal. It was not until 1861 that the *Tribune* was stereotyped. Mr. Charles Craske, still in business as an electrotyper in New York, contracted with all the New York dailies in that year to make curved plates for them. In 1856 the aggregate weekly circulation of the *Tribune*, daily, weekly and semi-weekly, was two hundred and sixty-two thousand copies. The London *Times* had a morning circulation of sixty-five thousand.

When our scrapbook was begun all type was cast in hand molds, and here we trace the progress of typemaking and typesetting machines with samples of the actual results. In 1861 there is a clipping about an invention for making types from glass, and this report has been revived periodically since that time within the memory of all readers of our trade journals. In 1865 an Ohioan tried to introduce a type-case in which all the boxes were made singly and of glass, so that any box might be handled and cleaned separately. In the eighties another Ohioan tried to introduce a type-case made of wood pulp. In 1852 the New York *Sun*, under a heading, "The Type Industry Threatened," says: "The invention we are about to describe does away with movable types. A steel punch can be made which will reproduce a raised letter on a flat surface of copper, or other soft metal, as well as one which leaves the letters sunken. A sheet of copper one-eighth inch thick and as wide and long as a column, is introduced into a machine in which the steel punches are controlled by a series of keys representing the alphabet, arranged like a piano. A more full description can not be given until the foreign patents are secured. If the invention operates as well as the inventor assures us it will, we shall immediately

introduce it into the New York *Sun* establishment. The imagination can scarce conceive the importance of such an invention as this." From that time on the type industry has been "threatened" annually, and yet, despite the introduction of so many machines which have gone far beyond the threatening point, there are more types made in the world to-day than at any previous period. Mortal men are not successful as prophets. In 1867 M. Nelson's Stereotype Printing Machine excited the typefounding interests. His punches indented into clay, "forming a matrix from which stereotypes could be taken." If a wrong punch was used, you just plugged the indentation with clay and made a new matrix. This invention went through many phases, one of which was exhibited at the Centennial Exhibition of 1876. The specimens in our scrapbook are so poor that one hesitates to believe the project got financial backing, but there is probably no line of invention in which so many millions of money have been sunk as in machines to abolish the typefounder. In 1872 a citizen of Chicago, Mr. Julius Silversmith, M. A., invented types "which will last eight or ten times as long as ordinary metal types, although equally as cheap." The Chicago *Tribune says*: "We learn that Professor Silversmith will at once erect a number of his machines and establish a factory in this city for the manufacture of copper type. We can not at this moment estimate the immense results that may accrue to the printing fraternity from this important invention, which to our mind appears practical and feasible." This was a machine which rolled out copper strips to the size of the body and width desired, cut off pieces from the strip about the height of a type, and stamped the character on one end with a drop weight. "No skilled labor is required, and each machine only requires one horse-power to drive it." The Chicago *Tribune* did not place an order for this type. I think that Nelson's plan of making indented clay matrices had something to do with the inception of the Linotype, in so far as James O. Clephane was concerned in it. In 1876 he engaged Ottmar Mergenthaler to work on a machine designed by a Western inventor. Mergenthaler's first machine indented by punches into a continuous strip of matrix paper, cut into lengths the width of a column from which the page could be cast. That was a long way off from the actual Linotype. It took four years to learn that the indented matrix was not practicable, and in 1880 Mergenthaler hit on the plan of composing matrices. This machine was first practically used in 1888 on the New York *Tribune*. If Mr. Nelson had not invented a matrix-composing machine which was a ridiculous failure, it is very probable that neither Mergenthaler nor his Linotype would ever have been heard of in the printing world. Who shall say that failures are not useful?

Early in the history of printing, plans for setting logotypes instead of single types were published. In America logography attracted several inventors, whose plans are preserved in our scrapbook. In 1861 John H. Tobitt published a pamphlet advocating combination type, and his combination lower-case, a diagram of which is shown. It will be seen that there are fourteen combinations. In 1877 Bailey's Combination Type Sys-

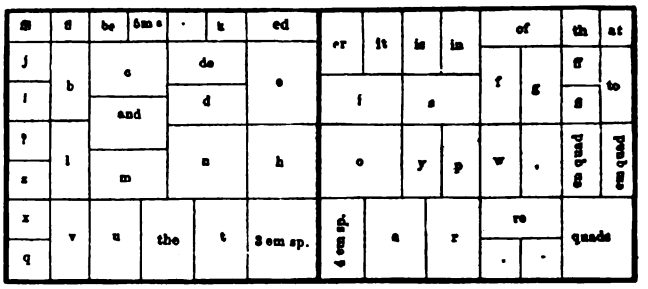


Diagram of Tobitt's Combination Type-case, showing his system of logotypes.

tem was published, and was so highly endorsed that many thought it would supersede single types. The prospectus for a company to undertake the manufacture of the types and cases has such phrases as "Splendid Triumph!" "A fast compositor by the old method, in a short practice with the combinations doubles his speed and becomes the champion compositor of the world." There is an affidavit that Andrew M. Rubel, a compositor on the Boston *Transcript* whose ordinary gait was 1,200 ems an hour, after six weeks' practice set 2,250 ems an hour, and "it is confidently expected that he will attain a speed of 3,000 ems an hour," and that too "without *special exertion.*" Oh, what a fine world this would be if all the promises of all the prospectuses had been realized! A diagram of Bailey's case showing his elaborate system of combinations is reproduced. I think Mr. Albon H. Bailey eventually became one of the proprietors of the old New England Type Foundry. Cut from the Boston *Daily Advertiser* of October 20, 1869, is an advertisement of the Metallic Compression Casting Company, at the foot of which we read "The plate from which this is printed was copied from type made by the Boston Type Foundry, No. 55 Water street, James A. St. John, agent, and cast in brass." This plate, 9 by 12 inches, is set in plain and ornamental types and borders, from nonpareil up, and prints as sharply and evenly as new types. It seems incredible that such a plate could have been cast in brass. There is also in our scrapbook an advertisement of L. Prang & Co., set in solid pearl, on which it is stated that it is printed from a brass "stereotype." It is explained that fine potter's clay is used for the mold and the metal is injected at the

bottom under great pressure by a piston moving in a cylinder. I can not help thinking that there was misrepresentation in this matter, as, if the examples were genuine, there is every reason why such an art should be in lucrative employment at the present time.

Here is a copy of the first New York *Herald*, May 6, 1835, form pages, each 8¾ by 13 inches. The advertising rate was 50 cents for sixteen lines of agate per issue, or $30 per year. The rate for sixteen lines in the *Herald* of to-day is $4.80 for one issue. Horace Greeley advertises that he started the *New Yorker*, a literary weekly, "in March last." It was not successful. In 1841 he started the *Tribune*, and George Bruce supplied the plant without any cash being paid. So long as Greeley lived no types other than Bruce's were used on his paper. I am told that in the beginning of the *Ladies' Home Journal*, its proprietor became heavily indebted to several merchants who were lenient, and as a reward these merchants have a monopoly of certain profitable orders for supplies. The type for the first *Herald* was supplied by E. White & W. Hagar, and was machine cast, as their advertisement states. A short time later Hagar separated from White, and in his advertisement guarantees that none of his types are cast by machine.

Many old printing, typemaking and printing-material firms are recorded in our scrapbook. My old friend Geer, of Hartford, would be interested to see a bill of lading for five packages of type shipped by Hartford boat to his father, M. E. Geer, in 1842. In 1847 Francis Hart, then at No. 4 Thames street, advertises his printing-office for sale for $7,000, and prints an inventory, in which he says: "The subscriber wishes to engage in some active health-promoting business, in order that before he dies he may enjoy the pleasure of eating and drinking in moderation without suffering the pangs of dyspepsia and that he may know what it is to have elastic spirits and a clear head, if indeed it be not too late." His was one of the leading job offices of that day, making a specialty of railroad and steamboat work. I am reminded that in the first New York *Herald* the editor boasts of the preëminence of the State of New York, in having one hundred miles of railroad and 560 miles of canals. Mr. Hart had 218 cuts relating to railroads in his inventory, and many more relating to steamboats. He had one 23 by 28½ Hoe cylinder, three hand presses, one card press, and a Ruggles plow-knife cutting machine. He had six hundred and fifty pounds of long primer, and an average of four hundred pounds of brevier, bourgeois, small pica and nonpareil. Mr. Hart did not sell. As I turn to our scrapbook I find three copies of *The Printer's Miscellany*, printed by Francis Hart & Co., 63 Cortlandt street, in 1859. It was in that year Theodore L. De Vinne

A. H. BAILEY'S COMBINATION TYPE SYSTEM .... Boston.
(PATENTED)

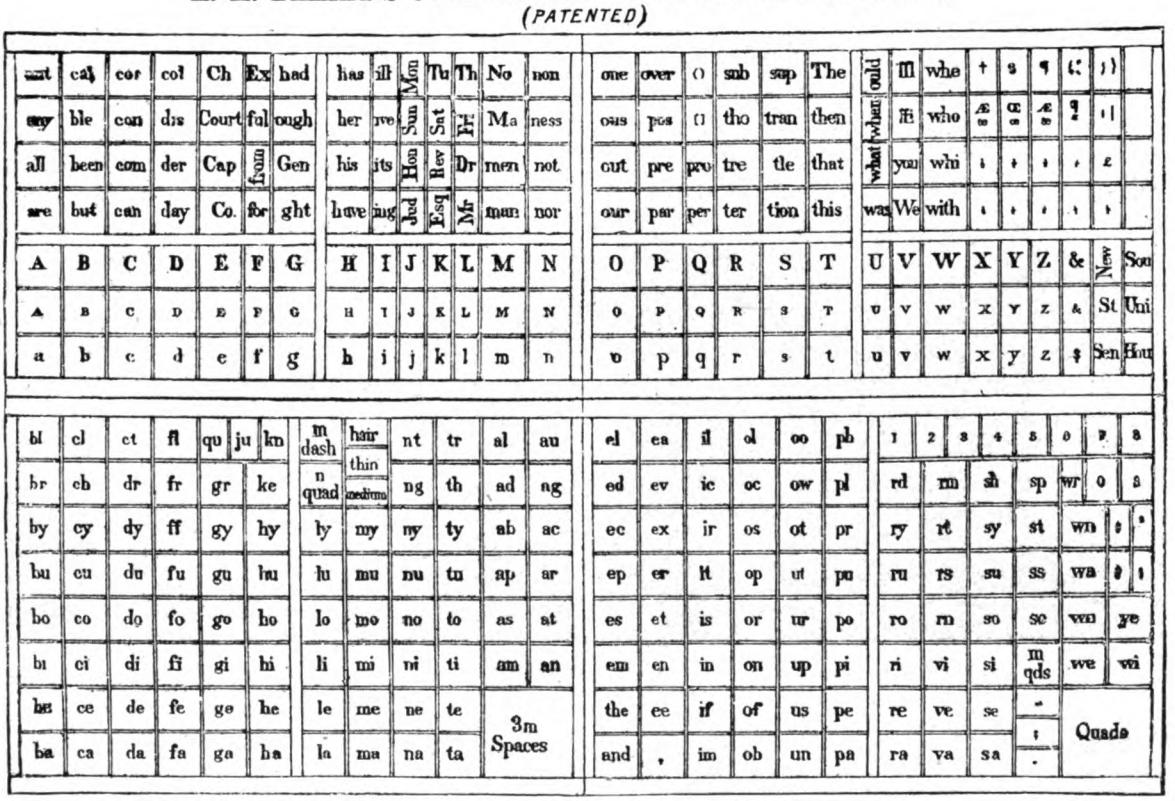
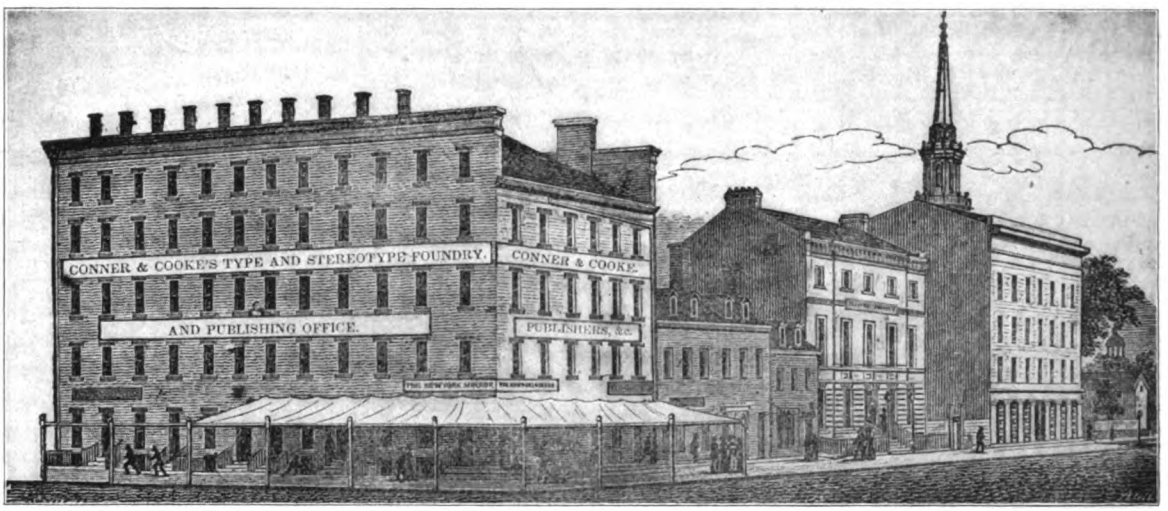


Diagram of Bailey's Combination Type-case, showing his system of logotypes.

was promoted from a foremanship to a partnership, and it is most probable that he edited this early printers' paper. It is excellent reading even at this time. I turn the pages again and find a notice in 1877 clipped from the *Tribune* of the death of Francis Hart, and although he had not sold his business during these thirty years, it is good to read that " he lived to enjoy the ease and leisure that follow well-directed industry and acknowledged ability." He entered a printing-office at the age of twelve, was born in 1815 at New Bedford, Massachusetts, and began business for himself in New York in 1838. In 1880 our scrapbook has a copy of an advertisement showing that Theodore L. De Vinne, as executor for Francis Hart, 63 and 65 Murray street, is selling, under a judgment, types belonging to a delinquent mercantile agency, the first item of which is thirty-five thousand pounds of agate. The value of the material sold, at old-metal prices, was $4,335.65 as stated in a memorandum in Mr. De Vinne's handwriting, and it was bought in by Francis Hart & Co. for $3,115. Afterward another move was made to Lafayette place, where the old firm still exists, second to none in fine printing, as Theodore L. De Vinne & Co. Mr. De Vinne's name occurs scores of times in our scrapbook, and always in a commendable, public-spirited manner.

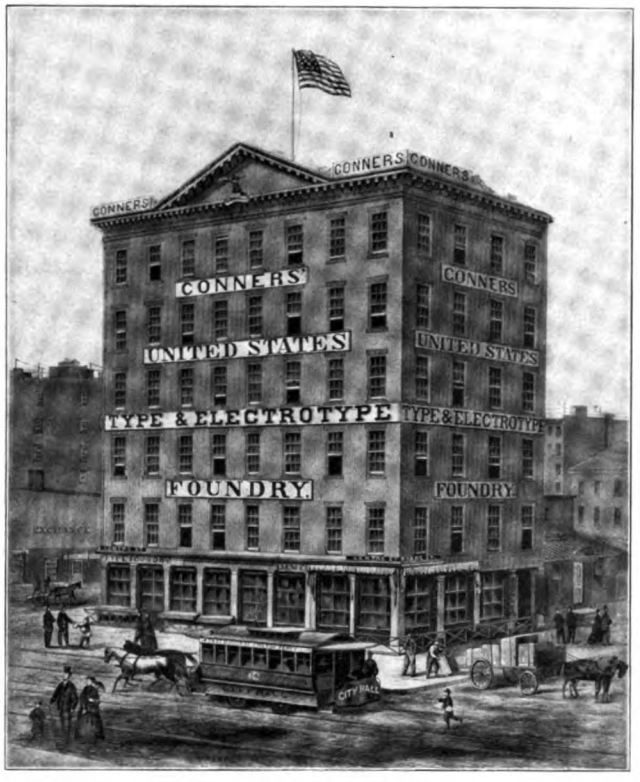


The typefoundry of James Conner, erected in 1832, as it appeared in 1838. The building is still standing. Reproduced from an old bill-head.

As I write, the city of New York is demolishing two honorable old typefoundries for the purpose of improving and enlarging the entrance to Brooklyn bridge. Here is a picture, which we will reproduce, of the famous Bruce typefoundry, 13 Chambers street, taken in 1864. It is an exact picture of the premises as they stood one week ago in the place which will know them no more. This building was erected in 1818 by David and George Bruce. In it George Bruce amassed a large fortune, by a successful type business, and by shrewd investments in real estate. This typefoundry was erected on city property and Bruce paid $150 a year for the lease. In 1864, as appears from a poster preserved in our scrapbook, the city sold this and other real estate at auction. The land on which Bruce's typefoundry stood was supposed to be worth about $6,000, and Mr. Bruce thought it hard that he was compelled to bid $14,000 for it at this sale. The property was sold in 1896 for $175,000, and the present owner now asks the city of New York $750,875 for it, and will probably receive not less than $500,000. When Lawrence Johnson bought the Ronaldson Type Foundry, in 1833, he operated it in a building he owned, which originally cost him less than $3,000. That property was sold for its real estate value only this year to the proprietor of the *Ladies' Home Journal* for $175,000 paid in cash to the Johnson heirs. Typefounding was a much more profitable business fifty years ago than it is to-day. The prices of types were higher, and rentals, wages, metals and other materials much lower, while the demand was an ever-increasing one. Thomas MacKellar entered the employ of Lawrence Johnson as foreman of his composing-room at a wage of $13 per week, with a promise of an advance of $1 per week per year for three years. He ultimately became the principal owner and died wealthy. Alexander McLeester worked for Johnson as moldmaker for $12 a week, and an advance of $1 per week per year. He afterward was joint owner of a typefoundry and died wealthy. Wages before the Civil War in typefoundries were just about one-third what they are to-day, and twelve hours was a day's work. But, to come back to our subject, in the next block to that in which the Bruce foundry stood, the old Conner Type Foundry is being demolished. James Conner and his

sons were interesting personalities, and deservedly popular in their days. The sons of James Madison Conner, Charles S. and Benjamin Franklin, are still in the business, the first as manager of the Baltimore branch of the American Type Founders Company, and the latter as senior in the firm of Conner, Fendler & Co., of New York. In an obituary notice of James Conner, in our scrapbook taken from the New York *Herald* of June 1, 1864, it is stated that he had made his arrangements to start in business in Baltimore in 1827, but a fortunate accident induced him to open in New York. His first location was on Frankfort street, near Pearl street; his second at No. 1 Murray street, corner of Broadway; his third was in a building he erected for himself on Spruce street, near Gold street; his fourth was in the building still standing at the northwest corner of Nassau and Ann streets, which he erected, paying $7,500 for the land, the building costing $12,500. It was designed for a typefoundry — the Franklin Type Foundry — and also for a residence for his family. This shows good progress in less than ten years on the part of one who commenced business in 1827 with a capital of $3,000. In 1838 the firm was Conner & Cooke, and we reproduce from a bill-head dated March 26, 1838, preserved in our scrapbook, a woodcut of the Conner building last mentioned, a picture also notable as having been engraved by the celebrated Alexander Anderson, the father of wood engraving in America. James Conner met with business reverses, but soon reëstablished his typefoundry at 29 Beekman street, and shortly before his death, in 1861, removed into the building at the corners of Centre, Reade and Duane streets, which he and his sons erected and owned, known as the United States Type Foundry, a picture of which, reproduced from an old print, is shown herewith. The elder Conners, while very liberal in their expenditures, all became wealthy.

There is not space enough here to do more than inadequately summarize the remarkable contents of this well-kept scrapbook. The sale inventories of the typefoundries of Peter C. Cortelyou, William Hagar & Son, and Hobart & Robbins' New England Type Foundry, with the prices paid and the names of the various purchasers; the inventory of the business of E. R. Webb, which was purchased by Vanderburgh & Wells as one lot for $9,250 on September 15, 1864; the various announcements and cards of the first merchants in types and printing materials in San Francisco, Charleston, Richmond, St. Louis, Milwaukee and Chicago; copies of first issues of well-known newspapers; the newspaper bibliographies of California, Kansas, Louisiana, and other States, compiled prior to the Civil War; a specimen of the work of the very first typewriting machine, done in 1873, on the Sholes & Glidden machine, for which James Densmore of 4 Hanover street, New York, was the agent, and which is now known as the Remington; the simplified spelling advocated by Samuel N. Dickinson, the typefounder, which required an alphabet of thirty-four characters; the price-lists of printers and typefounders; the tariff controversies; the failures; the successes; the needless alarms; the unheeded warnings; the veritable day-by-day history of our art and craft; invaluable mementoes of those who sowed in all the States of the Union that seed the harvest from which we are reaping so abundantly and in most instances with so little realization of what we owe to the pioneers.



The typefoundry of James Conner's Sons, as it stood from 1861 to 1907. Recently demolished. Reproduced from a woodcut of 1865.

(To be continued.)

WHEN THE PAPERS STOPPED.

In this morning's paper I was attracted by a heading, "No papers — No Business." It referred to the suspension of all daily papers in Butte and Anaconda, Montana, because of a strike in the printing trades. "The business of merchants has dropped from twenty-five to fifty per cent," the article goes on to say; "some of the large department stores which carried page advertisements in the papers claim their business has fallen off sixty per cent; and some other lines of business, like dentists, jewelers, etc., have almost entirely been wiped out."

You see, advertising has a *news* value. The situation in Butte proves the point. The article might well have been headed "No Advertising — No Business." —*A. W. Shaw, in System.*