500th Anniversary Of Movable Type

An anniversary is worthy of observance, not so much for the event it commemorates as for the consequences of that original impetus and the extent of its achievement. The year 1940 will be observed, by common consent, as the 500th Anniversary of the Invention of Printing from Movable Type because the printed word has contributed more than anything else to the spread of knowledge and the progress of civilization.

Two other miletones in typographical history will also be commemorated at the same time. Printing was introduced into the New World at Mexico City in 1539, and the first book produced in what is now the United States was the "Bay Psalm Book" from Staephen Daye Press at Cambridge in 1640.

All these events are rich in mechanical, utilitarian, and historical connotations, but they also represent the major factor in human progress. The two American moments were relatively local and their observance is influenced, in a sense, by pride and sentiment; the original emergence of a new medium of communication was universal in concept and application.

The invention of printing from movable type five hundred years ago was a triumph of mechanical ingenuity but that was the least of its merits. It is the printed word, in circulation and use, that has motivated and developed throughout the past five centuries. No other material function has affected so many activities or radiated so widely to influence humanity. It has replaced ignorance with knowledge, superstitution with intelligence, mental myopia with cosmic vision.

The products of printing have made history and recorded it, learning has erected a wall of proven data fact by cumulative fact, intelligence has woven a pattern of truth and imagination, emotions have been stimulated and brought into poise, taste cultivated and directed—all by the agency of type and press. The word of mankind today, the complex fabric of mental reality and physical being, exists by virtue of the printed word.

Therefore the fundamental theme of this five hundredth anniversary is "THE RELATION OF PRINTING TO LIFE".

500 Years of Printing . . . 1-4-4-0 — 1-9-4-0

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was arrested at sight of a blind youth in beggar's garments, who at the crunch of approaching footsteps stretched out his hands in mute appeal for the passing stranger's pity. Valentine Hauy was a man with a heart of gold, as he could never resist the supplications of the destitute, he led the lad home with him to give him food and shelter for the night. For this act of kindness, Francois Lesueur showed so much gratitude that he was given permanent employment in Hauy's household. One day while sorting papers of his benefactor's desk, he came across a printed card that had been too heavily indented by the type. He showed his master that he could decipher several letter from it by touch, and when Hauy traced other letters on paper with the handle of his pen the boy read them also, and the result was raised printing. In 1834 Louis Braille simplified this method to such an extent that a blind person may now keep memoranda, write music or carry on correspondence. Among recent improvements in printing for the blind is the Braille typewriter, the invention of Frank H. Hall.

For nearly 350 years after Gutenberg the progress of the printing press was so imperceptible that it might be likened to the progress of a slow moving worm. But like the worm it was, in the natural course of its evolution, to emerge as the butterfly—rapid of movement and resplendent in many colors.

In 1790 William Nicholson released the long awaited idea necessary to give the printing press its wings. As an author, he had irked under the slowness with which his pages were impressed, and had suggested to printers the simple expedient of rolling a cylinder over the type to produce quicker results. Twenty-nine years later, in 1819, Frederick Konig successfully applied Nicholson's idea and produced the first practical cylinder press, whereby impressions were made upon sheets passed between the flat bed of type and a heavy revolving roller. The London Times installed the machine, and in 1841, driven by steam power, Konig's cylinder press yielded 1100 impression an hour—a record-breaking performance.

About 1830 Rowland Hill, who was later to become famous as the author of the penny postal system, suggested the possibilities of printing two sides of a newspaper at once, from a continuous roll of paper, and a few years afterward William Bullock, of Philadelphia, perfected this idea by employing a double set of cylinders—thus producing the first web press. In 1845 Robert Hoe and Company of New York, again multiplied the power of Hill's idea with a press in which four separate rolls of paper were printed upon simultaneously by four sets of cylinders; and later paralleled this with another press, built for the London Times, having ten feeding rolls and attaining a speed of 20,000 impression an Lloyd's Magazine, a press, which by hour. In 1908 the Hoes built for er, produced 50,000 complete 32 page magalines an hour—with the folding inserting, cutting, pasting and covering all done with the same machine. In 1927 the Walter Scott Company has produced a system combining several presses as units of one machine, and such a press, functioning as two sextuples, one octuple and a quadruple, has already attained the unprecedented speed of 192,000 twelve page sheets of 2,304,000 pages in one hour.

The earliest application of chemistry to printing seems to have been made by Tomasco Finiguerra, an artist of Florence, during the lifetime of Gutenberg. Finiguerra, the father of etching, employed the first chemical process for making engravings. Etching is still employed by illustrators as an artistic medium, but its commercial value has long ago been nullified by the invention of more rapid processes.

In 1794, chemistry was again utilized by Alois Senefelder in the invention of lithography. Senefelder, an impoverished playright of Munich, learned to do his own printing and one day, while engaged in polishing a stone slab on which he ground inks, his mother entered the shop and desired him to write her a bill for the laundress. No paper being at hand, the bill was computed on the stone. Some time afterward, when about to wipe the writing from the stone, the idea occurred to Senefelder to try the effect of aqua fortis on the ink. The result was that at the end of five minutes he found the writing so much elevated that from it he was able to take a satisfactory impression. Thus, alchemy again triumphed. And though, to be sure, it was not the long sought philosopher's stone that Senefelder had found, he had brought to light one equally as valuable, for upon his discovery, he had brought to light one equally as vauable, for upon his discovery has been built the modern lithographing industry—filling the world with brightly colored pictures and giving employment to many thousands of workers.

In 1815 F. C. Accum initiated some experiments in the distillation of coal tar, then a waste product of India rubber manufacture; and these experiments, tho apparently far afield from printing, were nevertheless to lay the foundation for the later invention of color photography and color printing. Forty one years afterward Sr. W. H. Perkins discovered in coal the first of the aniline dyes . . . Perserving chemists later succeeded in coaxing from the ebony mineral a veritable rainbow of brilliant hues—thereby making possible the profuse variety of chemical colors today employed in printing and the manufacture of orthochromatic plates.

Mungo Ponton later discovered that certain substances could be rendered insoluable by exposure to light, and by this discovery he is entitled to be called the father of photographic engraving. The halftone process, thru which it became possible to develop a photograph on a metal plate, originated in Munich about 1845, where Meisenbach first brought it to commercial notice; but modern inventors, notably Max Levy and F. E. Ives, by the introduction of light filters, are responsible for its present day perfection.

Among the other processes of chemical engraving that followed Pon's discovery, only photogravure, or the etching of photographs, has ranked in importance with the halftone. In its crude state, this process seems to have been originated by Rcusallon, who kept it a secret until later improved and popularized by Goupil, Sr. Joseph Swan, and others. In 1895, Kal Klietach, of Vienna, so greatly improved photogravure, that he may be credited with having invented an entirely new process—now called rotogravure. The rotogravure process, which has thus far found its best expression in the photographic section of Sunday newspapers, reproduced the finest graduations of tone value with a fidelity surpassing that even the camera itself.

On July 3, 1886, Ottmar Mergenthaler, after persevering thru a long succession of disheartening failures, successfully installed in the office of the New York Tribune, the machine now known as the Linotype, a mechanical printer that not only sets type, but sets with far more rapidity than has ever been achieved by the most skilled human hand.

In 1838 Samuel Morse and Alfred Vail discovered a principle from which has since emerged the greatest marvel of typographic history-long distance printing. . . . It was the American wizard Edison who first applied telegraphy to printing by inventing the "stock ticker," making it possible instantaneously to print on tapes in distant broker's offices the fluctuations of the stock market. Then the telautograph, or "writing telegraph," patented by Professor Elisha Gray in 1893. In this invention, the writing made by a pencil at one end of the line is reproduced at the other by a second pencil, electrically synchronized. Recenty there has come into use in newspaper offices a combination of telegraph and typewriter known as the teletype, in which typewriters are operated from a keyboard hundreds of miles away at the news centers.

But the latest, as well as most marvelous, development of long distance printing is the photo radio, by which photographs or drawing are being conveyed by radio between points as far distance as San Francisco and London. In the very year of the telegraph's birth, K. A. Steinheil, of Munich, advocated wireless communication; in 1897 Marconi developed Steinheil's theories as wireless telegraphy—later making possible wireless telephony or radio; and on July 6, 1924 the first photo radio picture was transmitted across the Atlantic, being a photograph of Secretary Hughes.

In 1848 the stereotype process, which had in crude form been used in Edinburgh as early as 1739, and which Jedediah Howe had introduced into the United States in 1817, was perfected in France. Inconspicuous at the time of its origin, the stereotype has in the 20th century become one of the most useful vehicles of printing—especially in the field of newspaper illustration. . . . From the original idea has developed the paper matrix, by which practically all syndicated features are now distributed to newspapers, and which is nothing more than a piece of cardboard impresed with words or pictures while in a wet state, and afterwards dried.

Marvelous new inventions are inevitably lurking just around the corner. Here are a few of them:

Television . . . the recording telegraph . . . the book reading machine. Books will one day be published in audible, as well as in visual, form. For an evening's reading, the tired business man of the future will have simply to turn on his favorite book or newspaper by means of phonographic, radio, or perfrated paper control; turn down his light and settle back with his eyes closed.

Microscopic and microphonic books. The bookworm of the future may carry an entire library in his pocket, as books will be issued in minute form; reproducible by sight or sound magnification similar to the present day sound magnification of the radio amplfier. The cheapest editions of books, not to mention newspapers and magazines, will be filled with a wealth of pictures in natural colors.

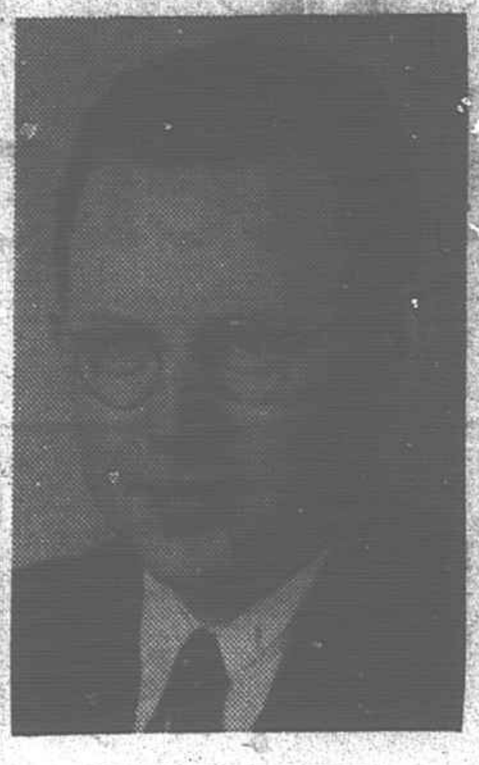
The recording dictaphone. By this invention, words spoken into the dictaphone will automatically be translated into printed manuscript. Such mechanism will also be controlled at a distance by radio, so that when the man of the future wishes to write a letter to his wife he will merely dictate it to the dictaphone and it will do the rest—provided it is tuned in with his recording instrument at home. But this will in time be considered slow motion, when by pocket radio persons can converse at any distance, as well as transmit photographic images or moving pictures. It is conceivable that even the post office department—now considered the paragon of permanence may in time be dispensed with.

In time, typesetting will probably go the way of Gutenberg's hand press, but in the meanwhile we may expect to see typesetting machines manipulated from a distance on the same principle by which typewriters are already operated. Looking even farther ahead, it may not be impossible to transmit thought material directly to the printing press itself (eliminating both the typewriting and typesetting processes); and it is very probable that radio will soon supplant the telegraph as the controlling media. By such a method, the words of an afterdinner speaker in New York, including illustrations of the banquet at which he presided, would instantaneously go to press in San Francisco or Hong Kong, and the forms be off and the papers in the hands of newsboys by the time he had finished his speech and put on his overcoat!

But before the extinction of our friend the type, they will doubtless have many of his printing processes simplified by science. The [illegible] of paper, for instance, that was formerly done by hand, and is now accomplished by a power driven blade, may be done by electrical [illegible], directed by the perforated paper control, already trained, among other accomplishments, to play the piano, or violin, knit hose, cast type and signal trains. And it is not difficult to imagine the recently invented televox, which controls distant electrical machinery by musical sound waves, as having a hand in running the printing office of the future.

With the development of an international language, we may look forward to the day when it will not only be possible to travel thousands of miles and use but one dialect; but when thought transmitting machiney will also be standardized in this universal language.

Truly the mechanics of duplication have progressed a long way since Gutenberg; but it is not unreasonable to think that they will continue to multiply with increasing momentum, and tha there will be more splendid possibilities realized in the next fifty years than there were realized during the fifty centuries preceding them.



WILLIAM H. DUKE

Mortician at the Farmville Funeral Home, received his training in the New Fork School of Embalmers and the McAllister School of Embalming.

ED. NASH WARREN

President Farmville Rotary Club.

JNO. T. THORNE

A member of the stock company which founded "The Enterprise"; a Director of the North Carolina Cotton Growers Cooperative Association and owner of Pecan Grove Dairy.

J. H. MOORE

Superintendent Farmville Graded School.

W. S. ROYSTER

President of The Farmville Tobacco Board of Trade.

Regardless of what growth the census shows for Farmville the loyal boosters will be able to show you a few thousand additional inhabitants.

DYNAMITE IN FIREWOOD

Webster City, Iowa.—When a large chunk of wood would not go through the furnace door, Dr. L. F. Biddleman pulled it out and, to his surprise found a fuse attacked to a dynamite cap in a knothole. The doctor thought it had been placed there to split the log, perhaps.

Mussolini is the world's most prominent blackmailer but if his friend Hitler loses the war the Italian dictator may find out that it doesn't pay.

Here we have the weather and the the political campaign both getting hotter at the same time.