

ed to illustrate the paper. The assistant city editor and the managing editor's secretary go ahead and arrange for these as if nothing else were to happen, and when the artists arrive at 2 P. M. they set about making them, though most of them may be crowded out at 10 P. M., when better pictures may be in sight. Each day sees probably twice as much matter prepared as is needed.

The city editor arrives at 4 P. M. and the managing editor a little later. These men read the morning papers before they went to bed. When they got up the 3 o'clock editions of the evening papers were on their breakfast tables, and even before breakfast they had telephoned the office to learn the news of the day and consult with the assistants, thus actually beginning work as soon as they are out of bed.

On the managing editor's arrival at the office he finds on his desk a summary of the day's news prepared by his secretary, while the day report of the Associated Press is at hand for reference, and as a pile of wheat from which grains missed by the afternoon papers may be winnowed and ideas may be gleaned for stories of importance. The city editor having the local news of the day at his fingers' ends comes in to consult with the managing editor. In the meantime the editorial writers and other department men have turned in their copy.

At 6 P. M. the advertising manager tells the managing editor how many columns of advertisements he has for the next day. The night editor arrives a few moments later and then the probable size of the paper is determined—whether twelve, fourteen or sixteen pages, in accordance with the aggregate number of columns of advertising and reading matter.

At 6:30 the telegraph editor and his assistants have arrived. The city editor and the telegraph editor then prepare separate schedules of their news, the amount of space in each being expressed in decimals. These first schedules are tentative, to be succeeded by revised figures a few hours later which must be adhered to except for important reasons.

The routine copy has, in the meantime, been given to the night foreman of the composing-room, who cuts it into "takes" for the linotype operators, who begin work at 7 P. M. The separate takes into which each story is divided are numbered, and they are also given letter or class numbers, that all matter of a general character may be assembled together on the galleys. As the matter is set, proofs are taken and sent to the proofreaders for correction of typographical and other obvious errors. After correction they go to the make-up table ready to be put in the forms.

Meantime, upon a large sheet of paper, the night editor has copied the schedules of the city editor and telegraph editor and, having added the totals, he summarizes these in another column.

The copy readers in the telegraph and local room are working in accordance with the schedules. Each piece of news is made to fit the space assigned to it. Any new story means the omission of another or the trimming of several, for only 112 columns can get in sixteen pages—no more, no less.

When the managing editor arrives from his dinner at 9:30 o'clock, the city and night editors come into his office. He goes over the schedules and asks about each piece of news. His judgment is that nothing in particular has happened; fourteen pages are enough. "We are printing too many long-winded stories, anyhow," he says; "kill some of this 'cheese' and have a bright, snappy paper."

The night editor makes out a schedule for each page after the managing editor has determined what stories shall go on the first page.

The last form for the first edition goes to press at 12:30. By 1:10 A. M. it has been stereotyped, the plates are on the press and the mailing-room is getting the first papers.

The mailing-room has been preparing for this moment. Twenty wagons are waiting to carry the papers to the early morning mail trains. The papers are wrapped in bundles for dealers and routed so as to simplify the work of the mail clerks. The wagons dash to the stations, and soon papers are on their way to the country.

Then comes the work of getting out the city edition. The mail edition is made for country readers. It contains all the general news covered in much better shape than the dailies in the small cities could, but it also has agricultural news and accounts of events happening in the Northwest of no importance to the people of the city. Politics has been given a more prominent consideration than is necessary in the city edition. When the night editor gets copies of the first edition he goes over the paper and "kills" news of no interest to city readers and trims other items that are worth a smaller mention in the second edition. The whole paper is revised with the city reader in view. The telegraph and city editors report their new stories and news in the paper is cut or trimmed accordingly. Stories of purely local interest are given more prominence and some crowded out of the mail edition are restored.

The city edition goes to press at 2:30 A. M. and is being printed by 3:15. The wagons that carried the papers to the railway stations now receive bundles for delivery to newsdealers and carriers and the morning paper is ready for the reader.

Practically two separate newspapers have been issued—one for country and one for city readers, each prepared with regard to the varying tastes of rural and urban readers. In the process enough matter to make two or three newspapers has been sifted and winnowed, and everything has been done on a clock-work schedule as regular as that of the railroad which bears the mail edition to thousands of readers in the smaller towns of the Northwest.

A MORNING WITH THEODORE L. DE VINNE.

Mr. Theodore L. De Vinne spends the greater part of the day in his library, surrounded by his noted collection of books on the printing art. Certainly there are few printers in the world to-day who are better qualified to talk both of the history of their craft and its practical side as well, for he has seen the birth and growth of modern printing, and is still its best chronicler. The question which first occurred to the interlocutor was, "Who invented printing?" We receive a conservative answer, which should make us all cautious on snap judgments on the origin of inventions.

"Movable types were known before Gutenberg made type, but they were cut singly. I think he was the inventor of the adjustable mold. To make a mold, on which you can clamp any matrix of any letter, was the key to the invention. There is no proof that Gutenberg made the first movable type. Koster, a Hollander, of Haarlem, is credited with making wood type. There is no certainty that he did; there is certainty that he never printed a book. The vitality of typography depends upon types cheaply made and easily combined.

"The Psalter of 1457, made by Füst and Schoeffer at Mentz, was recently sold for \$27,000, although it is a thin single volume. Of the Mazarin Bible there are about fifteen known copies. How long it took to print it is pure speculation. Gutenberg began making experiments as early as 1439-40, and the earliest date that has been assigned to his Bible of forty-two lines is 1450. There is another Bible of thirty-six lines, which some think antedates the Mazarin Bible. If you examine each single letter, anyone would say we cut letters more carefully now, but the general effect of this Bible of 42 lines is admirable, and this superiority is largely due to great care in its presswork. In modern printing when you put a dry sheet of paper on a cylinder, it is swiftly carried over the face of the type. It just kisses the ink on the type, and is then swept off. The old hand pressman was told to rest on the bar for two or three seconds after impression, so as to let the ink saturate the paper. The merit of Morris's presswork is largely due to damp paper and the dwelling on the impression.

"I began my experience as a printer in 1843-44 in an office which was not as big as one floor of a small dwelling house. It had only one old-fashioned Washington hand press and no steam press. The newspapers even did not have steam presses. In 1835 I went with my father, who was an old friend of James Harper, to the latter's printing office. It was the first time I was in one. This printing house was in Cliff Street (just where they are now). It had a dozen hand presses, but no power press. One or two newspapers only had them. The New York Sun, established by Benjamin H. Day, was printed on a hand press. He was a job printer, and as he did not get enough work to do, he conceived the idea of making up a paper and selling it for a cent. The circulation ran up so rapidly he could not print enough. He engaged three pressmen, and each one worked about twenty minutes and pulled like a horse at the hand press until he was played out, and then another took his place. They got out 400 or 500 copies an hour. The Sun was afterward sold to Moses Y. Beach, who put in a cylinder press.

"There was not much objection made to the introduction of the power press here. It began in a very slow and timid way. The first attempt to improve the quality of printing was made, I think, by Daniel Fanshew, who had an office at Ann and Nassau Streets. He put in a Tuft's press, and to furnish the power a donkey was brought every morning, and bands were passed under him by which he was hoisted to the top floor, where he trod a treadmill and furnished the power. That was about 1836 or 1837. After the Tuft press came another, the name of which I cannot recall. Then came the Adams, and this is in use to-day. A Boston book house even now does three-quarters of its work on the Adams platen press.

"I read somewhere that the papers abroad have larger circulations than our papers have; one London paper prints daily 857,000 copies. The Petit Journal, Paris, goes still higher than that, but they are papers of smaller size.

"So far as mechanical finish is concerned, type was never made so well as now. The tendency of the time seems to be, not only on the part of the publishers, but on that of the authors, to have a book set in distinctive type, something out of the ordinary run, which I think is a great mistake. Type is made to convey the thought of the author, but any publisher or any printer who attempts to make the manner superior to the matter puts the cart before the horse. I do not object to individuality or to decoration. The old masters made their decoration with engraved initial letters. The reader ought not to be led to think more of the mannerisms of printer or engraver than he does of the information conveyed by the author. For purposes of display I think the Cheltenham type is excellent. It is a slender type, yet extremely readable. You can crowd a great deal of matter in a very little space. The Cheltenham type favors one of my theories; it has very long ascenders and descenders. Take the lower case *g* and *f*; one drops down and the other stands up, and thus produces the white lane between lines of letters that helps reading.

"There is now great admiration for Caslon type, but some of it is unthinkingly bestowed. The 12-point Caslon type is a beautiful letter, but Caslon types of smaller face are very mean. The Renner type is named after the man who first made it. Publishers claim that 10-point, or long primer, is the best size of type for ordinary book work.

"Hand type setting will never entirely go out of fashion. When the linotype was introduced, I rated it as an attempt on the part of the inventor to set type without proofreaders. I have had to change that rash judgment. When a compositor found that his situation depended upon his accuracy, he became more careful. We now have men who can work on the linotype and set a whole paragraph without a single error, something that was rarely ever done in hand work. There is still a field for the machines that use foundry type. Machine type setting has come to stay. The average reader could never be supplied with the amount of reading material he receives were it not for the linotype machine. At first the compositors of this country were furious at machines that did this work, but when they found it gave them better pay, they were reconciled to the change.

"In 1872-73, book illustrations were from relief plates and were engraved on wood. Wood engraving is now practically a lost art. In about ten or fifteen years the art or craft of wood engraving will be as obsolete as that of the alchemist. Photo-engraving has taken its place, and it has undoubtedly been of immense service in a great many branches. It has many limitations. The first is that you cannot print a photo-engraving properly unless you use highly-surfaced paper, and the surfaced paper that is preferred is the so-called "coated" paper, which is nothing more than paper-fabric whitewashed. In nearly all periodicals the type work is entirely subordinated, and notwithstanding all our claims for improvement and superiority the printing of type on the average is not as well done as it was fifty years ago. For advertising purposes, for the pretty little pamphlets which are so common, photo-engraving has been a great blessing. They save the cost of engraving, and enable a man to show things that never would have been shown at all if it had not been for that art. As a rule the type work about the illustration is indistinctly printed. In the old times, when a man made a design he had to draw it of the exact size; but now he draws it on a sheet that is anywhere from four to ten times the size of the illustration. When it is reduced by a photo-engraver the middle tints, the obscure grays and the pale grays, are run together and the illustration is foggy or muddy. It has no clearness or brightness. Designers and photo-engravers, though they have been helpful to printers in some directions, have been injurious in others. In order to show the middle tints of a photo-engraved illustration, the pressman has to carry little ink and do a deal of rolling. To give engravers a fair show, publishers too often select the lightest faces of type, and the consequence is that the type looks weak and mean. There is none of the clearness and boldness that there used to be. Photo-engravers have damaged printing by compelling the too free use of coated and highly-surfaced paper. The old method of wetting paper is the true method for producing readable presswork. Mr. Morris was the first person who tried to restore printing to its primitive simplicity. I am speaking of his method of presswork. He used type with strong black faces, and he did his printing on damp paper with an elastic impression, so as to show an indentation which he would not allow to be pressed out. In my boyhood days, pressmen printed on damp paper against a woolen blanket. They dampened three or four sheets, or sometimes a quire at a time, depending upon the thickness of the paper. After it was printed it was dried on poles and taken down and put in a press, and the marks of indentation taken out. Printing is now done on dry paper, and these troublesome processes have been discarded."