

purposes, be removed at convenience. The lines being of exact equal length, a simple transferring of the spaces that may be at the end of a line is all that is required to completely justify it.

This is a rough, and, perhaps, not very comprehensive sketch of what, in some sense of the word, is one of the most remarkable inventions of the time.

The following is an epitome of not only what the machine will do, but what is so easy of demonstration that the completest tests are invited: It adds enormously to the capacity of the compositor. It brings into requisition the types now in use, rendering unnecessary the casting of special fonts. No new material is called for—no old material rendered useless. It is simple, compact and inexpensive. It neither breaks nor injures the type. It greatly reduces the amount of space now required. It relieves the strain upon the compositor's eyes. It leaves, in the event of accident to the machine, the same facilities at the immediate disposal of the typesetter that he now enjoys. It does not require a practice of months to become a skilled operator. It does not require a machinist to keep it in repair. Its field of operation is unlimited. The newspaper, the book, and, in very many cases, the job office, find it equally serviceable, and without lowering their standard of typographical excellence. It is the first advance in the art of typesetting that meets with the unqualified approval of the compositor as well as that of the employing printer.

A very critical expert who examined the machine in New York, June 29, 1894, writes for *PRINTER AND PUBLISHER*: "It is a very ingenious device requiring very little power, will increase the speed of a compositor very considerably, but requires motive power to drive it, and the type is subject to considerable friction and wear, mainly on its sides; it may have a place in country offices. Some of the movements are extremely ingenious."

PRINTING HALF-TONE BLOCKS ON ROTARY MACHINES.

IN printing half-tone pictures in its regular Sunday issue, the Boston Journal has taken an important step forward in the art of newspaper making. The Journal's revolution comes in printing half-tone pictures from stereotype plates on a cylinder press run at a speed of 30,000 to 50,000 papers an hour. Numerous periodicals, says the Fourth Estate, have given to their readers half-tone pictures; but in every such case the pictures have been printed from electrotypes on a slow-running press, making these illustrations practicable only when the edition was very small, or when the printing could begin days ahead of actual publication, as in the case of the magazines. No American daily has attempted before to illustrate its stories in the way the Journal does to-day. Not only has the quality of the pictures been placed at a high standard, but also the great desideratum of maximum speed has been proven feasible. Recently the press was run up to a speed that would turn out 32,000 to 40,000 papers an hour, a remarkable achievement in itself, when one recollects that the magazines, to print their half-tones, do not venture to run over 1,000 impressions an hour. This week, in order to test the enterprise to its utmost, the lever of the great press was thrown full back, the big iron cylinder swung around at tremendous speed, and over its surface rushed the long stream of white paper, pouring forth printed copies (by actual timing) at the rate of 50,000 an

hour! This is the maximum speed of the Hoe quadruple press, one of the latest and best in Boston, and could not be exceeded. The photographic "half-tones" at this speed printed as clearly and sharply as ever, showing that the improvements perfected during the week had put the Journal even further ahead. It is very easy to lay a half-tone in the form, but quite another thing to so tinker it before hand in the various departments as to have it print with clearness, color and accuracy from the stereotype plates on a quadruple cylinder press. Before the Journal accomplished the feat no paper in America had done it.

AS GOOD AS SUPER-CALENDERED.

An article which has been most eagerly sought after by the printers and lithographers is a paper with a high surface, for bringing out in bold relief all cuts and half-tones. There have been many different grades placed on the market under enticing names, all of which had more or less faults.

Buntin, Reid & Co. have now come to the front with an article which will completely fill the wants of the printers, and the advantage they claim for their paper is that the ink will dry just as quickly as on ordinary super-calendered paper. This is owing to their using no foreign substances in the paper in order to get the desired surface. The paper goes through a treatment of their own, which enables it to take on the highest possible finish, making an attractive paper for catalogue and fine work. The price being low, they look forward to large orders. This firm also signify their intention of shortly placing on the market a line to take the place of coated papers for fine catalogue and book work. Owing, however, to pressure of orders in their mills, they are unable just at present to place their samples on the market, but expect to have the line ready for the trade by September.

GRAND TRUNK ADVERTISING.

RAILWAY advertising is usually extensive and of a high order. The Grand Trunk has been keeping up its end by issuing "Pen and Sunlight" sketches, a book descriptive of the scenery reached by the Grand Trunk and its connections, including Niagara Falls, Thousand Islands, Rapids of the St. Lawrence, Montreal, Quebec, and the Mountains of New England. The book is well illustrated and contains one hundred large pages of matter. It is an excellent advertisement for Canada.

The printing and binding was done by Warwick Bros. & Rutter, who have also issued "Tourist Fares and Routes," a fairly thick pamphlet, very clearly printed and neat in appearance.

The first mentioned piece of work is done in this country for the first time. Cause—removal of duty on plates.

There are 3,985 paper mills in the world, and they produce annually 930,000 tons of paper. About half this quantity, or 465,000 tons, is used for printing purposes, nearly 300,000 tons of it going for newspapers and periodicals alone. The Government offices of the world consume 100,000 tons, the schools 60,000 tons, commerce 12,000 tons, and trades about 90,000 tons, while private letters, etc., make up 52,000 tons. These paper mills employ 270,000 hands, two-thirds of whom are women.