

to drive it; this can be most satisfactorily supplied by an electric motor. It is important that the metal for the melting pot be of good quality, and maintained in excellence. Its temperature should not exceed 550° Fahrenheit. This metal, in the latest machines, is heated by electricity.

Since Mergenthaler's day his linotype has been adapted to composing books of the most exacting kind, mathematical treatises and the like. The book in the reader's hands was composed on a Number One model. Both for the composition of books and newspapers new facilities are constantly being created by the Mergenthaler Linotype Company, whose staff of inventors is directed by Mr. John R. Rogers. In the latest model four magazines of matrices are at an operator's command. As each of these magazines gives him a choice of either of two letters for every one of his 90 keys, he has no fewer than 720 different characters at his fingers' ends. Mr. Rogers has devised a simple mode of casting slugs with deep recesses, into which brass rules may be readily inserted for tabular work such as reports of banks, boards of trade, and the like. A device equally ingenious casts letters twice as long as ordinary type: these serve to print an initial word in an advertising or other announcement. To-day letters are cast in many languages, and in sizes large enough for newspaper headings. Manual composition in newspaper and job offices has, therefore, a narrower field than ever, with a prospect of total supersedure at no distant day. In its earlier models, the linotype offered but one font for a single task. To-day a No. 9 machine permits the union, in one line, of eight or more diverse alphabets. Metal for slugs may now be hard enough to print 100,000 impressions before showing perceptible wear. It may be recalled that Mergenthaler, at the outset of his project for single matrices, estimated their cost at two dollars each. To-day a matrix bearing a single letter costs but three cents.