## EDUCATIONAL REVIEW

## HOW THE REVIEW IS PRINTED. GERALDINE COSTER

Few people realize what marvellous and intricate machinery and what hours of painstaking, accurate work are necessary in printing even a comparatively small publication. A visit to a modern printing office is a revelation of what machinery can do. Through the courtesy of Messrs. Barnes & Co., I had the pleasure of seeing a recent number of the REVIEW being printed, and I was so much impressed by what I saw, that I have attempted to describe it to other readers of the REVIEW.

When we entered the printing rooms, we were taken first to see a machine that looked at first sight like a large typewriter. At this a young girl was sitting apparently typing a manuscript. But a closer inspection revealed a much more complex mechanism than that of the typewriter. Instead of a sheet of paper, a good sized roll of paper about five inches wide was fixed in the machine. This roll was slowly unwinding, and each key that was struck made a small perforation in the paper. The perforated paper looked something like the roll that one puts into a mechanical piano-player or a musical box. Our guide told us that each little hole in the paper represented a letter or figure from the manuscript.

We next went into a small room shut off from the rest, as we suppose on account of the deafening noise of the machine working there. This, unlike the "typewriter," was worked by an electric motor. Into it was fitted one of the perforated rolls. This machine unwound its roll, and as each perforation caught in the tooth to which it belonged, mechanisms were set in motion which dipped out a little molten lead from a small trough, and forced it into a mould. from which it emerged a perfectly formed tiny piece of type stamped with the required letter. This letter slid along a slot into its place beside the previous letter. When a line was completed, it slid out automatically and took its place close above the previous line of type in a long strip, just the width and about twice as long as a column of the REVIEW. Our guide told us that if by some mistake a line was too long or too short, the whole great machine stopped of itself, and thus called the operator's attention to the error!

The columns of type are next taken to a proofing press. Here they are automatically smeared with printer's ink, and by means of a large revolving roller, a piece of paper is pressed down on the wet type, making an impression which is given to the proof-reader, who corrects it much as a teacher corrects an exercise, placing certain marks in the margin to show a spelling mistake or faulty punctuation. These corrected sheets go to a type-setter, along with the columns of type from which they were printed. The type-setter follows along the corrected proof, and picking out the wrong letters or signs in the type, puts in the correct ones which he various little boxes beside from picks him. The columns of type are then passed on to a "make-up" man, who arranges it into pages the form and size of the REVIEW. Then another impression is taken, and sent to the author for final corrections. When these final corrections are made the pages are placed on an iron table called a "stone," and locked solidly in a steel frame called a "chase." This "form," as it is called after being fastened in the chase, is then taken to the press, when the actual printing is done. Usually eight or sixteen pages are printed at one impression.

When the whole magazine is finished and mailed, what becomes of all that beautiful new type that the machine made? It is unceremoniously dumped into the melting pot, poured off into miniature "pigs" of about two by three inches, and then used again for the next issue.

I have not spoken of the advertisements, which because of the many different kinds and sizes of type required, are set up by hand, nor yet of the folding, binding, trimming, and other small but important processes in the making of a magazine. Space forbids a detailed description of these, but they are all interesting to watch, and to have seen them is to feel a new interest and pleasure in all the magazines and books of which our modern life is so full.

178

The REVIEW has received many compliments upon its improved appearance. One subscriber in Nova Scotia writes, "I liked the new dress in which the REVIEW appeared in January. I know the Partridge Berry well, and the day the paper arrived I had been out in the woods and gathered a large bunch of the berries and vines."