it running very smoothly, the only trouble being with the gasoline burner. Last week I set one hundred and fifty-six thousand in six days' work, of an average of seven hours daily, besides taking out some time for repairing the machine. Isn't that pretty good, considering the time I have been at it?"

LOSS IN REMELTING METAL.— Figures kept by the Henry O. Shepard Company, Chicago, of the percentage of loss sustained in the remelting of Monotype and Linotype metal, show that nearly two per cent is lost at each remelting, although the dross skimmed from the remelting furnace is further reduced and only the residue disposed of. From a lot of three thousand pounds of Linotype metal recently remelted, 160 pounds of dross were removed, which was further diminished to 47½ pounds by reducing

G. S. BRYDIA.

PAUL SUST.

GRADUATES MACHINE COMPOSITION BRANCH, INLAND PRINTER TECHNICAL SCHOOL.

methods. This residue is sold for 4 cents per pound. As in many plants the dross as first skimmed from the metal-pot is sold, it will be seen that the loss sustained in such cases is about six per cent each time the metal is remelted. Even when further reduced, the loss is nearly two per cent, although one-third of this loss is regained in selling the residue. As approximately one hundred tons of metal is remelted annually in this establishment, representing an investment of $24,000, it shows an annual net depreciation of $320. Whether this percentage of loss is more or less than the average can only be determined when other establishments compile data for comparison. If an accurate record were kept by some one so situated that a typical case could be observed, it would result in great benefit to all machine-users. For instance, given a one-machine plant using daily a certain amount of metal in work such as a newspaper, where the entire output is daily returned to the metal-pot, and only enough metal for this purpose is put into use, if a record were kept of the amount of metal added to the bulk from time to time to enable the type to be set, and an accurate account taken of the skimmings or dross removed, whether further reduced or not, the amount received from sales of such skimmings, an actual figure could be obtained which would represent the percentage of depreciation *each time the metal is remelted*, and this is the only figure which is of any value. Obviously, if metal is stored, it will not depreciate, so figures which do not contemplate the loss per time of remelting do not represent the true loss. If a two per cent loss is sustained under the above conditions, it will be seen that before the end of two months, there would be none of the original metal on hand. As the percentage of loss is roughly stated by various persons as ten per cent per annum, without calculating the amount of metal it would be necessary to carry to uphold this figure, the need of some accurate knowledge on this important point is apparent.

COST OF MACHINE COMPOSITION.— Edgar F. Howe, publisher of the Imperial *Daily Standard*, Imperial, California, writes: "To satisfy myself and to be able to answer intelligently many questions asked of me I have been figuring closely on the cost of composition by three machines I have had experience with in some of the smaller towns of Southern California, and possibly these figures may be of interest to your readers. In all cases the figures are based on newspaper work. It will be noticed that I do not take into consideration the wear of type by the Simplex nor the loss of metal by the casting-machines nor breakage. I am inclined to think that one cent per thousand would amply cover these items. I find that the capacity of my son, who is an operator on both the Linotype and the Monotype keyboard, on straight reading matter, runs a little over an average of five thousand an hour on either machine, which is about the capacity of the Monotype caster on eight-point type. It is very evident that the same degree of skill is not required on the several machines. The Simplex calls for the least skill, the Monotype divides the skill between two persons, thus reducing the cost of the individual's labor. The Linotype machinist-operator must be of the greatest skill. I find, also, that the man in charge of the Monotype casting-machine can at the same time give fully half of his time to operating a job press or doing similar work, and not more than half of his wages is to be charged to casting the type. In handling the type after composition it is my judgment that the Simplex has something of a disadvantage. The Monotype product tends to adhere and is consequently more readily handled. Of course, the product of the Linotype gives the least trouble, though I believe this advantage is offset by the superior advantage of the Monotype in making corrections. It was with some misgivings that I ordered a Monotype about a year ago, primarily for newspaper use. I had been led to believe that it lacked the ability to adjust itself to unfavorable conditions, but under the most trying service I have found it requires no nearer approach to ideal conditions than any other machine, but with the slap-dash process of getting out a small daily paper I find it responds admirably to the demands made upon it. Taking up the cost of composition by the several machines as I have found it in my experience, I believe the following is accurate: Simplex — Wages for one operator, per week, $9; interest, wear and insurance, figured at seventeen per cent a year, $5; power, $1; product, one hundred and twenty thousand; cost per thousand, 12.5 cents. Linotype — Wages per week, $24; interest, wear and insurance, $11.45; power, $2; product, two hundred and forty thousand; cost per thousand, 15.6 cents. Monotype — Wages of keyboard operator, $18; half the wages of boy operating caster, $7.50 interest, wear and insurance, $11.85; power, $3; product, two hundred and forty thousand; cost per thousand, 16.8 cents. Where one considers simply the question of cost of composition, within the limitations of the Simplex, I am convinced that there is no other machine that will compete with it. In the smaller offices of the country, where it will meet most of the requirements, it performs a most valuable function. The Linotype, however, has a wider scope, and in the office where the cost of composition is not the main subject to be considered, and particularly in offices where the fine touch of quality can be subordinated to speed and where the principal work is on long runs of the same character the Linotype fills a position that no other machine can touch. But when this is said, there remains the fact that in offices where the service required

varies greatly and where the best quality of work is desired with a given degree of pains, the Monotype performs functions which the others can not attain. It will produce newspaper and book composition as satisfactorily as any machine made, with the one exception, possibly, of composition for the large daily paper, where the slight difference in cost of composition might be considered, while its ability to cast type and its use of hard metal and consequent clear faces give it a field of its own, and this field should find a place for it in almost every printing-office in the country of sufficient size to make use of its output."

RECENT PATENTS ON TYPESETTING MACHINERY.

Type Casting and Setting Machine.— L. Schmidt, Nuremberg, Germany, assignor to Elektrizitats-Aktiengesellschaft, formerly Schuckert & Company, Nuremberg, Germany. Filed April 3, 1906. Issued February 5, 1907. No. 843,304.

Individual Type Justifier.— C. S. Wright, New Haven, Connecticut, assignor to the Mergenthaler Linotype Company, New York. Filed June 17, 1905. Issued February 26, 1907. No. 845,287.

Type-Mold and Matrix.— F. H. Brown, J. E. Hanrahan and G. A. Boyden. Filed May 19, 1905. Issued February 26, 1907. No. 845,686.

Linotype Mold.— J. R. Rogers, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York. Filed August 17, 1906. Issued March 5, 1907. No. 846,053.

Matrix Escapement.— J. R. Rogers, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York. Filed September 24, 1906. Issued March 5, 1907. No. 846,054.

Distributor-box Lift.— J. R. Rogers, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York. Filed October 27, 1906. Issued March 5, 1907. No. 846,055.

Junior Linotype Attachment.— John Allan, New York city, assignor to Mergenthaler Linotype Company, New York. Filed December 3, 1906. Issued March 12, 1907. No. 846,972.

Monoline Machine.— James McNamara, Montreal, Quebec, assignor to Mergenthaler Linotype Company, New York. Filed July 14, 1905. Issued March 12, 1907. No. 847,021.

Multiple-Magazine Linotype.— D. S. Kennedy, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed August 17, 1906. Issued March 26, 1907. No. 848,308.

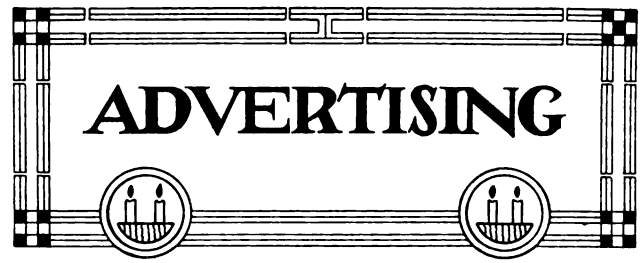
Distributor Bar.— D. S. Kennedy, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed August 17, 1906. Issued March 26, 1907. No. 848,309.

Multiple-Magazine Linotype.— D. S. Kennedy, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed September 5, 1906. Issued March 26, 1907. No. 848,310.

Logotype Machine.— D. Petri-Palmedo, Hoboken, New Jersey, assignor to Mergenthaler Linotype Company, New York city. Filed January 11, 1907. Issued March 26, 1907. No. 848,318.

Ejector Slide.— R. M. Bedell, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed November 1, 1906. Issued March 26, 1907. No. 848,338.

Multiple Magazine Linotype.— R. G. Clark, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed September 7, 1906. Issued March 26, 1907. No. 848,349.



The following papers read before the New York Advertising League reflect the practical experience of practical men along specific lines of advertising:

ADVERTISING A CORRESPONDENCE SCHOOL.

BY J. H. FOSTER,
Advertising Manager International Correspondence School, Scranton, Pennsylvania.

Large successful enterprises usually owe their success to their ability to supply a great need, and to make that ability known.

The International Correspondence Schools have been successful, and justly so, for they have supplied one of the great educational needs developed by modern industry. They have not hesitated to make known their ability to meet this need by well-recognized methods of modern advertising.

Twenty years ago in Pennsylvania any one could become a mine inspector, mine foreman, or mine fire boss without the present formality of an examination. In consequence, mine disasters were frequent, entailing great loss of life and property. This was due to ignorance of treacherous fire-damp and of the scientific principles of mining operations. In 1890 the State Legislature was practically compelled to enact a law requiring miners to pass an examination before they could hold positions so responsible. Few of the miners were qualified to pass such an examination, for they were lacking in certain necessary scientific knowledge.

In the endeavor to furnish this knowledge in a simple, comprehensible home-study course for miners the International Correspondence Schools found their origin.

Both the idea and the method of teaching the principles of mining by correspondence met with popular favor from the very beginning.

The Schools do not claim the ability to teach a carpenter to drive a nail without splitting the wood, or a plumber to wipe a joint, but they do teach the carpenter and the plumber the theory and science necessary in planning a building or in scientifically designing its plumbing, heating, and ventilation.

Beginning with a course in simple mining, the curriculum now includes more than two hundred subjects covering an extremely wide range in applied science.

The International Correspondence School is necessarily a commercial enterprise. Although the idea in its beginning was an experiment, the original plan was to expand and develop the work along broad lines involving the employment of large capital. Some idea of the capital required to conduct the business may be obtained from the fact that at the present time the schools have a paid-up capital of $6,000,000 invested. The original cost of preparing the text-books of their more than two hundred courses amounted to a million and a half dollars; the buildings, printing plant, and furniture represent an outlay of a million dollars; and there is invested in stock and paper alone over a half million.

Since the schools were established, some fifteen and a half years ago, one hundred thousand International Correspondence School students have been awarded diplomas