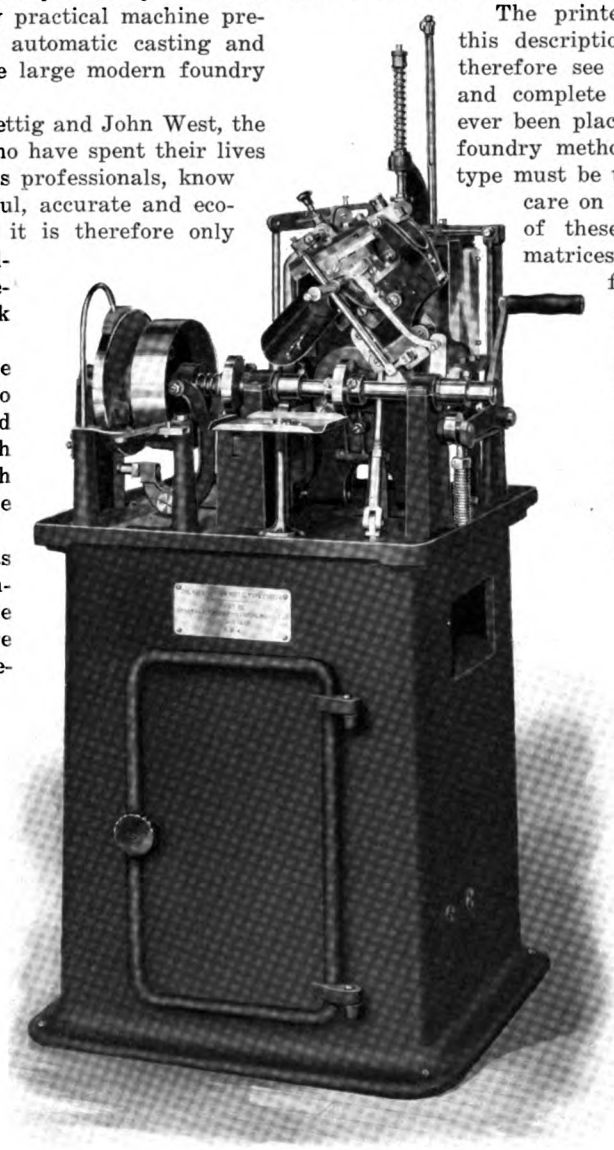
THE NUERNBERGER-RETTIG TYPECASTING MACHINE.

The Nuernberger-Rettig typecasting machine, built by the Universal Automatic Typecasting Machine Company, at 32 South Jefferson street, Chicago, shown in the accompanying figure, is an improved hand or power casting machine, largely on the model of the regular typefoundry casting machine, which is in use to-day in many foundries and for many years was the only practical machine previous to the introduction of the automatic casting and dressing machines with which the large modern foundry is now fitted.

Phillip Nuernberger, George Rettig and John West, the operative partners, are all men who have spent their lives in the typefoundries and hence, as professionals, know what is required for the successful, accurate and economical production of type, and it is therefore only natural that they should have followed the lines laid down by experience in a lifetime of active work in type manufacture.

The illustration shows the machine, which occupies about two feet square of floor space, is fitted with a gas melting pot and with regular molds and matrices, such as have made the majority of type in this country.

The old casting machine was largely a development and it contained many things which, while not absolutely necessary, were adopted as economical conveniences in a typefoundry which was operating with molds of varying sizes and machines made anywhere from ten to fifteen years apart. These have all been discarded in the production of the present machine and strict attention has been given to producing a machine that will make solid type from six point to three-line pica with absolutely interchangeable molds and matrices of standard line and standard set. In doing this the mold block has been done away with and the mold is mounted directly on the vibrating plate, being held in position by two hollow steady pins, threaded on their interiors to receive the screws which hold the mold in position. It is the regular typefounder's mold, with the exception of a movable jet-piece, which is withdrawn by spring pressure as the mold leaves the pump and carries with it the jet, so that the type requires no breaking and no dressing to make it "type-high."



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The nick is in the foot of the mold, as in ordinary foundry type, and the jet is broken from the upper portion of the curve, so that the feet are perfectly formed by the mold, and when the jet is broken away by the expansion of the spring the type drops out perfectly formed.

Matrices may be rented at $1 a day, and in such cases the time is computed from the time of delivery by the express company to the printing-office until the matrices have been delivered at the express office for return to the general office, a dated receipt being taken from the express company and showing in each instance how long the matrices have been held. Thus the printer is not charged with the matrices from the time they leave the general office, but only for the time during which they remain in his possession. Matrices may also be purchased and arrangements may be had to use matrices of other companies by making suitable holders to fit on the machine.

The printer who has followed closely this description of the arrangements will therefore see that this is the most direct and complete method of casting that has ever been placed within his reach, as exact foundry methods are followed and perfect type must be the result, with any ordinary care on his part. Indeed, with a few of these machines and a stock of matrices he would own his own typefoundry, as there is no rubbing, breaking or dressing to be done, the type falling complete from the machine ready for use as soon as it is cool.

The matrices will be sold for $25 per set of seventy-two, or they may be rented, as previously stated. The average product from the machine per hour is:

BODY.	WEIGHT.
6 point.....	4 pounds.
8 point.....	6 pounds.
10 point.....	8 pounds.
12 point.....	10 pounds.
18 point.....	12 pounds.
24 point.....	12 pounds.
30 point.....	14 pounds.
36 point.....	14 pounds.

A much greater output than this has been secured in the shops of the company, but we do not give the extreme output, as the test was conducted by skilled experts, while the machine is designed for printers who have yet to become skilled in the casting business.

The operation is quite simple. The metal will be properly heated about three-quarters of an hour after lighting the gas. A thermometer in the pot shows when the metal has reached a casting temperature. With the mold set, the matrix in its proper place and the power turned on, the machine will then automatically turn out good type.

Molds have been changed — that is, a six-point mold taken off, matrix taken off and thirty-six point mold put on, and the thirty-six point matrix inserted and the first casting made — in one minute and thirty seconds, no adjusting of the pump or any part of the machine being necessary. This, of course, is expert work; but any printer, after becoming reasonably familiar with the machine, should be able to change from one size of type to another in three minutes.

Another important feature is that in each instance the

metal is forced straight from the pump into the matrix, thus insuring sound faces. This is the foundry method and it is needless to say it is the only correct one.

As the jets are on the molds, each size of type is therefore fitted with a jet which will insure a full and free discharge of metal into the mold in a manner sufficiently rapid to get it in and put pressure on it before it chills. This is another point which has an important bearing on the production of solid type, for if the metal can not be forced into the mold rapidly enough to prevent chilling, the production of sound type that will stand wear becomes difficult, if not impossible. It will thus be seen that with all the important points looked after in this manner, we have a machine which the ordinary printer may be able to run with less trouble (and certainly with less experience necessary) than if he were attempting to learn press-work, or even to lock up forms, as a man is sent with the machine to instruct the purchaser in its use.

The temperature of his metal is shown him by the thermometer. The pump needs no adjusting for the various sizes. The molds are standard and must be positively closed and locked before casting may go on and can not open until the mold has left the pump, so that there is no chance for casting wrong sizes. With properly aligned matrices squarely fitted, it therefore becomes merely a question of melting his metal, holding it at the proper temperature according to the thermometer, and operating the machine until he has a sufficient quantity of type to suit his purpose.

Looked at in this way, the production of his own type is robbed of its terrors and becomes a very attractive and economical proposition for the printer, be he one thousand miles or ten squares from the typefoundry.

A MARTYRDOM OF ENGLISH.

A question that has puzzled editors for many years is answered, at least in part, in "A Report on the Examinations in English for Admission to Harvard College," now published by three gentlemen who are instructors in English at Harvard.

Most of the young men who apply to newspapers for employment as reporters are recent graduates of colleges or universities, and desperate editors have long torn their scanty hair and wondered where and how these gentlemanly youths have learned to maltreat the poor old English language so diabolically. Now the secret is out. "Prep." school is the place.

This, at least, is the conclusion that *Harper's Weekly* draws from reading the awful verbal tangles perpetrated by carefully tutored boys seeking admission at Harvard. Ample official warning is published that "no candidate will be accepted in English whose work is seriously faulty in spelling, grammar, punctuation, or division into paragraphs." Yet the martyrdom of the language goes on. Some of the tortures inflicted upon it are more ingenious than any invented by the Grand Inquisition.

Of course, it is a trifle exacting to expect high standing in English from busy young gentlemen whose energies are chiefly employed in running, jumping, swimming, rowing, field and track games, baseball and football; yet one wonders how even they can contrive to invent such brainstorm effects as these:

"Imagine how severe a blow feels when your only amiability is abducted in a manner as Jessica was taken."

"I like Shakespeare very well, and have read most of his Waverley Novels."

"Addison passed his early life in the place in which he was born. It was situated a little way from Harvard College on what was then called Tory's Row. He was educated by a private tutor, and, at the age of sixteen, entered Harvard College. He had no rooms at the college, but lived at his own home. The beauty of the country around his place afforded him many topics for his books."

"The 'Autocrat' was full of fresh ideas, and, in the main, little stunts of pleasant nonsense."

"His younger brother was kind of jealous of Godfrey's life."

GENERAL LAWSHE WILL ENFORCE LAW AS HE FINDS IT.

A. L. Lawshe, who has succeeded Edwin C. Madden as Third Assistant Postmaster-General, is another example of a country publisher working his way up in the political world. Born in Somerset, Indiana, in 1860, he went to Converse in 1883 and began the publication of the *Journal*, which he managed for thirteen years, serving meanwhile in various public offices, including that of postmaster.

In 1897 he was appointed Deputy Auditor of the Post-office Department, and has been in the Government service ever since. His work in auditing the postal accounts in Cuba resulted in the exposure and conviction of E. G. Rathbone and C. W. F. Neely.

For seven years Mr. Lawshe audited Government accounts in the Philippines, a task at once laborious and delicate, for during the time when it was performed the establishment of a civil government was going on and a close supervision had to be kept over vast expenditures.

Mr. Lawshe was chairman of the board having charge of the Philippine exhibit at the St. Louis Fair in 1904. In accepting Mr. Lawshe's resignation as auditor for the Philippine Government, Secretary Taft spoke in high praise of his services.

Asked about his policy in relation to second-class mail, the new Third Assistant Postmaster-General said:

"I can hardly say that my policy has been formed, as yet. I will first have to go through the records and see what has been done before I can say what ought to be done in the future. But, broadly speaking, I can say that such policy as I shall have will consist in administering the law as I find it.

"There has to be the application of common sense in the interpretation of any law, and I believe when the publishers of the country find that no legitimate publication has anything to fear from this department they will not be uneasy. A lawbreaker always has ground for apprehension, but not those who do not violate the law.

"It is too early to go into details as to what I propose to do, although I find there is a wide impression throughout the country that I am to create a radical change of policy. Many letters from publishers indicate that.

"I can not say what will be done, as I have not yet had time to inform myself. This much is true, however. I have been a newspaper publisher in a small way myself, and can, I think, look at these questions from the standpoint of the publisher."

Mr. Lawshe is tall and broad-shouldered, athletic in build and frank in manner. His home is in Wabash, Indiana.— *Fourth Estate.*

THE STRAGGLER.

There's the man behind the gun
Who thus his country serves,
The man behind the throttle
Keen-eyed with iron nerves;
But the man who's most behind
The one who never climbs,
Is he who will not advertise
The man "Behind the Times."

— *G. H. Kerr, in Printers' Ink.*