presenting to our readers nearly every month products of Mr. Cole's graver, any one of which gives dignity and uniqueness to the number that contains it. The ordinary impressions of these cuts (barring occasional accidents due to printing in untoward weather) are so near the excellence of the 'artist's proofs' that they are often mistaken for them. The time is likely to come, indeed, when old numbers of this magazine will be sought and treasured for these pictures alone."

PATENTS.

Rudolf Widmann, of Munich, Germany, has taken out two patents on etching processes. No. 682,580 describes a process which consists in applying to the plate to be etched an acid-resisting powder, and causing the particles of the same to adhere to the plate, then executing a design or inscription thereon with an acid-resisting substance, and then etching the plate.

No. 682,581 covers a process which consists in coating a sheet of paper or the like with a mixture of albumen and isinglass, then painting thereon a design in fatty paint, then transferring such design upon a plate provided with a resingrain, and finally etching the plate and removing the resingrain and fatty paint.

TYPE COVER CONTEST.

The National Printer-Journalist Company, Chicago, offers \$30 in prizes for the best designs submitted for a cover-design. The three prizes are divided as follows: First prize, \$15; second prize, \$10; third prize, \$5, and two consolation prizes of \$2 each of one year's subscription to that journal. The judges



in this competition are to be the winners in the first cover contest, namely, Will Crombie, Brattleboro, Vermont; Henry A. Anger, Denver, Colorado; and Will J. Whittard, Toronto, Canada. The publication has issued a circular giving complete rules of contest, etc., which they will be glad to send to any printers interested. We present herewith a miniature of the certificate of excellence issued to Mr. Crombie in last year's contest.

INDEXING TRADE NOTES.

An index of trade notes is of sufficient value to justify the time expended in arranging it. The time saved by an index far exceeds the time required to make it. Facts and formulas may be kept on cards, newspaper clippings may be kept by the scrapbook system, catalogues may be filed in various ways, but if the jobber wishes to find a fact in a hurry he should have an index. A definite, comprehensive and complete plan for the index has its basis in the card system. The name of the catalogue and the manufacturer or jobber should be written on the cards. On other cards complete references regarding the contents of the filing case should be given. The card system admits of unending expansion, making it possible to include all business allusions which will be in any degree beneficial.—

American Stationer.

TYPEFOUNDERS AND TYPEFOUNDING IN AMERICA.

BY WILLIAM E. LOY.

NO. XV .- HENRY BARTH.

THE subject of this sketch was born in Leipsic, November 27, 1823, where he attended school until the age of fourteen. He was apprenticed to a mathematical instrument maker, and after thoroughly mastering that trade he worked at different places in his native city, among others at the establishment of Stoerer, at that time one of the most noted electricians. It was prior to 1840 that the first Bruce typecasting machine found its way to Germany, and Mr.

Barth was engaged by Brockhaus (a publisher who had his own printing-office, bindery and typefoundry), who now added a machine shop to his establishment to build and introduce this new American machine. Mr. Barth worked for a number of years in this shop, making machines, molds and other tools for typefounding. After leaving the establishment of Brockhaus, Mr. Barth served two years as engineer in the German navy, during the war with Denmark.



HENRY BARTH.

In 1849, Mr. Barth came to America, and went at once to Cincinnati, where he worked a short time at his trade of mathematical instrument maker. He was soon engaged at the Cincinnati typefoundry, and his first employment was in building a machine to cast type by direct steam pressure, without a pump. The machine was a success, but for various reasons did not come into use. He next constructed a job press 14 by 18 inches in size, well and favorably known forty years ago as the Wells jobber. At that time he was foreman, draughtsman and constructor combined, and consequently his time was fully employed. In 1855 the first cylinder press was built in Cincinnati, 31 by 46 inches in size, and Mr. Barth points with pride to the fact that one of the first three machines constructed is still running and doing satisfactory service in Lawrenceburg, Indiana. During this time he did not neglect the work of the typefoundry. The hand typecasting machines were replaced by steamers, and in 1853 the first kerning machine was built. About this time the first shaved leads were made under Mr. Barth's directions, the first being made on a hand machine, but this was soon superseded by a steam shaving machine.

On the day that Fort Sumter was taken, Mr. Barth became a stockholder in the Cincinnati Typefoundry, taking some of the stock held by L. T. Wells, the former manager, who retired from the business on that day. From that time until the death of Charles Wells the business was managed by him and Mr. Barth conjointly, and they were kept busy. Most of the assets in the seceded States were lost, and sales dwindled down to nothing. While the type trade was nearly gone, they were not idle. They secured the contract for casting the bullets for the State of Indiana, an output of three thousand pounds per day. It was during the war period that Mr. Barth undertook the building of a number of guns for Dr. Gatling, and the rapid execution of the Gatling guns used by General Butler in his New Orleans campaign, and by other division commanders,

are well known historical facts. There was a demand by the army in the field for a small press, which could be easily transported from place to place, for printing general orders and other official printing, and to supply that demand Mr. Barth designed and built the army press, since used largely by publishers of small country weekly papers in remote districts, particularly in the Northwest.

Perhaps the greatest single achievement of Mr. Barth is the automatic typecasting machine, now in general use by nearly all branches of the American Type Founders Company. There had been a number of attempts to produce a machine for the purpose which would be simple in construction, easily handled, and absolutely reliable in operation. The best machine to be had was imported by the Cincinnati Type Foundry from Germany, but when it was put in operation Mr. Barth saw that it was not suited for the purpose, and was practically a failure. He set about improving it, but soon abandoned the attempt, and planned his own machine, which has been in continuous use for the past twelve years or more, and is considered as nearly perfect as a machine can be. His first automatic machine was built in 1886, and patented in 1888.

Besides the machines enumerated, Mr. Barth has designed and constructed various machines for printers' use, among them several used in printing playing cards from the roll, box-making machines, etc. The last produced is a flag-printing machine, printing flags in two colors at a single operation, on linen from the roll.

At the close of the war the foundry and the corporation of the Cincinnati Type Foundry Company were in better financial condition and equipment than ever before, and the business came. Occasional dull periods were improved by increasing their facilities for business during busy periods. At present the foundry is the most complete in America; all machines are run by electric motors, and ninety-five per cent of their product is cast on complete or automatic machines. Mr. Barth is a believer in the best machinery and the best men to operate them. Many of the foundry employes have been connected with the establishment for twenty-five years, and it is the proud boast of the management that there has never been a strike nor any sort of trouble with the force.

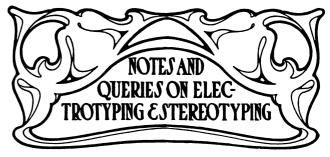
Mr. Barth is a believer in the recent modern style of printing and typefounding. A return to the plainness of the first printers, adhering closely to the old models of the fifteenth and sixteenth centuries, is not only a boon to the printer in equipping his office, but it is a blessing to the reader. He has long been of this opinion, but, like other typefounders, was obliged to cater to the demands of the public. Since the sale of the Cincinnati Typefoundry to the American Typefounders Company in 1893, he has been the manager of the branch, now known as Foundry D, and he is also one of the directors of the company.

CUT WAS TOO LOW.

Not long since the proprietor of a "paper"—oh, not a very big one, but then it's a "paper"—had a cut to run with an "ad." The cut was low, too low to print, so this clever knight of the anvil concluded he would leave the cut out. A few days after the advertiser met the proprietor of the "paper," and in unmistakably forcible language said: "Say, why in thunder didn't you run my cut last week?" "It vas too low down!" replied the "paper" man. "Well, what of that," stingingly replied the advertiser. "Vel, vat did you vant me to do—file my types down?"—Hartford Times.

A VALUABLE BOOK.

I purchased "Earhart's Color Printer" at the time of my renewal, one year ago, with some doubt as to its being practical in the country, but found, to my satisfaction, that it contains enough that is practical, wherever colors are used, to make it well worth the price.— E. D. Greathead, McConnellsburg, Pa.



CONDUCTED BY C. S. PARTRIDGE.

Correspondence relating to this department is respectfully invited from electrotypers, stereotypers and others. Individual experiences in any way pertaining to the trade are solicited. Inquiries will receive prompt attention. Differences of opinion regarding answers given by the editor will receive respectful consideration.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

ELECTROTYPING.— By C. S. Partridge. Its chapters include: Historical Review—The Battery—The Dynamo—The Bath—Steel, Brass and Nickel Baths—Management of Baths—Agitation of Baths—Measuring Instruments—Preparation of Work—Molding—Building—Metalizing—The Conductors—Depositing—Casting—Finishing—Trimming and Routing—Revising—Blocking—The Invention of Electrotyping. Full cloth; 150 pages. \$1.50.

Routing — Revising — Blocking —The Invention of Electrotyping. Full cloth; 150 pages. \$1.50.

Stereotyping. — By C. S. Partridge. This is the only book devoted exclusively to papier-maché stereotyping which has ever been published and in an exhaustive treatise of the subject, containing detailed descriptions of all the best methods of work in present use, including Cold Process, instructions for operating the Rolling Machine, Paste Recipes, Metal Formulæ, Hints for the Protection of Type, Suggestions for the Operating and Care of Machinery, Instructions for Grinding Tools, and a complete list of unexpired patents pertaining to Stereotyping Methods and Machinery, including number of patent, date of issue and name of inventor. 140 pages, 6 by 8½ inches; 50 illustrations. \$1.50.

Honeycombed Plates.— M. G. writes: "Will you kindly inform me what I shall do to overcome honeycombed metal?" Answer.—Your metal is too hard. Add pure lead, a little at a time, until a strip, when cool, will bend slightly without breaking. If your plates are flat, paste a sheet of paper on the cover of your casting-box. The paper is a non-conductor of heat, and will prevent your metal from chilling, which is the cause of blow-holes.

SAVING HALF-TONES.—A Bridgeport subscriber writes: "Being an old subscriber to The Inland Printer I would like to have the following published: Your stereotyping department has had many questions asking how to insert original half-tones into curved stereotype plates, and they have always been answered properly. Now I would like to ask you which is the best way to get them out again so as to save them for future use. I have tried melting them out in the metal pot, but I have trouble in getting the metal off them." Answer.—If your originals are cast into your plates the only way to get them out is to melt them out. More or less metal will adhere to them, enough to make it impracticable to use them a second time. If any of our readers have succeeded in saving them we would be pleased to hear from them.

TO MAKE A DEEP MATRIX.— C. E., New York, writes: "About one week ago I bought one of your books on stereotyping, with the expectation of finding out a few things that have bothered me for some time, but the desired information was not to be found in the book. So I thought it best to write you and see if you can give me the points I want to know. I am working for a house that prints entirely on burlap and flour sacks (cloth), and so far have not been able to make a matrix that was deep enough. Perhaps you could tell me what kind of paste and paper to use, as the receipt published in your book does not answer the purpose. Also, what is the proper kind of filling for a matrix of this kind." Answer .-Use a little more flour and glue in your paste. The following will be found a good mixture: 6 pounds Oswego starch, 4 pounds flour and I ounce powdered alum. Mix in 5 gallons water, then add 11/2 pounds glue, previously dissolved or softened in I gallon water. Cook until thick. When cold add 6 ounces of whiting to each pound of paste. Try Myers' half-



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THE "LACK-O'-SYSTEM" PRINTER.

BY JOHN R. BERTSCH.



every hand he can be discovered, but it is in the smaller towns and cities that the "Lack-o'-System" printer is most frequently seen. There he always thrives. He is the man who, though his floor is swept regularly, the towel washed occasionally and other things generally kept quite neat, does not seem to appreciate the benefit of system, i. e.,

he is a "Lack-o'-System" printer. Instead of having samples of the kinds of stock he carries in properly labeled drawers or pigeonholes, he, when a customer wishes to see and select the stock for a certain job, rushes off to the stock room and tears a corner out of a sheet of each of several kinds, thus destroying several whole sheets of stock and yet not giving the customer enough stock to rightly judge by, and when a customer selects a certain kind of stock our "Lacko'-System" printer puts the corner of the sheet of stock with the copy, perhaps designating it as a sample of the stock to be used, but as likely as not doing nothing of the kind. How much better would it be to take a full sheet, or several sheets of various kinds of stock, from the properly labeled drawer, and, when the customer has selected the kind of stock he wishes used, enter on the order blank and job ticket the kind of stock by either number or name. And, if our "Lacko'-System" printer is asked to give an estimate on a job, he jots his data down on any piece of paper that is at hand, instead of having estimate blanks bound in permanent form and properly indexed so that every estimate that he ever made can be referred to on short notice and any disputed point quickly settled.

If our "Lack-o'-System" printer uses a job ticket at all it is so meager in details that it is nearly valueless as a guide for the work as it passes through its various stages, and utterly useless as a conveyor of data for future reference, and he does not appreciate the advantage of a properly ruled and headed job record and a job ticket which provides for the proper keeping of the record of all the details of the job in such a manner that when the work is finished it can be told at a glance whether there was profit or loss on the job, and how much of either. Neither does he see the need of making out a ticket for each job, but bunches several jobs of various kinds on one ticket, simply because they happen to be for the same customer.

In the mechanical department the same "Lacko'-System" prevails as in the counting-room. Racks, stones, etc., are not placed with a view to saving time by having those parts of the equipment which are used in conjunction in close proximity, but slugs may be in one part of the room, leads in another, while the rule case may be remote from either; type may be arranged by sizes or series, but oftener a series is in several racks without regard to associating it with other faces of the same body. There are no labels on the cases or drawers, and only the "oldest hand" knows where to find things, and he needs to hunt long for those things least used, while a "new hand" spends half his time trying to find things and then appeals to the "old hand," who uses one-fourth his time to showing the "new hand" where to find things; which loss of time might be prevented and a better class of work produced if the equipment was arranged to conform to system and each case was labeled with the name, size of body and a line of the type, showing style of face and number of letters in a line of a given measure.

Wood furniture and reglets are thrown into drawers or boxes, without regard to length or size, instead of being assorted into sizes and each size kept in receptacles properly labeled, arranged under the stone or stones on which forms are imposed; in taking proofs, each compositor goes to the stock room and helps himself to a sheet of paper, tears off what he thinks he will need and throws the rest away, instead of having white French folio cut to several uniform