heretofore guaranteed this uniform basis of labor cost upon which prices could be fixed, and have stood as a protection to the employing printers against unscrupulous competitors. The proprietors have all along recognized and admitted this valuable aid to a maintenance of fair prices and stability of trade. The Typothetæ are even now seeking to repair this loss by an attempt to agree upon a common scale of wages to be paid to their nonunion employes; but without any fixed degree of competency which the unions establish and without any organization among the workmen themselves it will be impossible to do this, and the outcome will be an anarchical era of price-cutting and wage-reductions ruinous alike to employer and employe.

In conclusion. Interviews have been had this week with the proprietors of all the offices running on the nine-hour basis. They unite in expressing their entire satisfaction with the change, and this in the face of constant pressure brought by the Typothetæ and the competition of ten-hour offices.

Written for THE INLAND PRINTER.

DESIGNERS AND ENGRAVERS OF TYPE.

BY WILLIAM E. LOY.

NO. VI.—JOHN F. CUMMING.

THE close application required by the occupation of the type engraver naturally calls for relaxation, and the most rational, while the most conducive to health, is some outdoor recreation or sport. Thus it comes about that one of the best cutters in the country is known to a much larger community as an all-round athlete and oarsman. Like most engravers of type, he is only known in the rather limited and exclusive trade circle where the product of his genius finds a market.

JOHN F. CUMMING.

John F. Cumming, the subject of this sketch, was born at Harrisville, Pennsylvania, May 20, 1852, his father being of Scotch parentage and a tanner and currier by trade. The family moved to Wisconsin in 1853, and at the age of five, John says, his education began. His *alma mater* was a typical Western log schoolhouse, his teacher a maiden lady of uncertain age, who lived in one corner of the room. Here the young ideas were taught to shoot, while the various household occupations — washing, ironing and cooking — were carried on. Mr. Cumming remembers distinctly that gaunt, angular figure, with book in one hand while the other poked the clothes in the boiler or turned the frying pork in the pan on the stove. In 1861 the family returned to Pennsylvania, where the father enlisted, and after the hardships of army life died early in 1866, soon after being mustered out. The career of the boy from this time was a checkered one and full of experience. After drifting around the West for several years, in the spring of 1874 he went to work for the Haskell Engraving Company, St. Louis. From this place he went to Meyer & Illig, and later, in 1879, to the C. H. Hanson Engraving Company, Chicago.

While in St. Louis, Mr. Cumming had gained a little insight into the type-engraving business through an acquaintance with J. A. St. John, a kindred spirit in the Modoc Rowing Club and its president, and at the same time the active, aggressive manager of the Central Type Foundry; so when he went to Boston in 1881, he sought employment at typecutting and was given a chance at the old Boston Type Foundry. He says his first work was an attempt to reduce a heavy-faced antique to a light-faced one, and it was a complete failure. However, Mr. Rogers encouraged him to try again and the work was accepted. For several years Mr. Cumming was in the employ of the Boston Type Foundry, during which time the rapid appearance of new and popular faces attested his industrious graver. His first original series was the Dresden, made in four sizes. Then followed rapidly Munich, Lubeck, Soudan, Syrian, Albino, Copley, Banner, Record, Bank Note Roman, Bank Note Italic, Weimar, Façade, Century, Morris, London, all from designs furnished by the Boston Type Foundry. Next came Rubens, from a design on a railroad time-card, and from designs furnished by the foundry. This was succeeded by Mural, Magnolia Script, Autograph Script, Clark Script, Skinner Script, and Latin Antique (the larger sizes). During the absence of Mr. Rogers from Boston, Mr. Cumming designed and cut the double great primer size of Kismet. On his return the pattern font was submitted but not approved, and this led to his resignation, though before quitting the Boston he cut Duerer and Gothic Slope. Two years afterward he was called upon to cut four other sizes of Kismet by Mr. Rogers, the productions of other foundries during that period convincing him of a demand for a type of that character.

August, 1884, Mr. Cumming engaged with the Dickinson Type Foundry, and his services have ever since been given to that foundry, now a branch of the American Type Founders' Company. Here he has produced the job faces so well known among printers seeking the artistic and novel in typographic effects, such as Karnac, Mother Hubbard, Artistic Elzevir, Caxton Title, Renaissant, Colonial, French Cursive, Masonic Text, Outing, Quaint, Stenograph, Jagged, Italic Gothic, Algonquin, Skjald, French Old Style, Grady, Algonquin Ornamented, Cushing Old Style, Globe, Virile, Russian Stenograf, Howland, Elandkay, Elzevir Italic, Visible Speech, Cushing, Cushing Italic, Gothic Script, Jenson Old Style, Florentine Old Style, Binner Gothic, Satanic, Jenson Italic, Abbott, Vertical Script. He also cut music type, various borders, ornaments and signs, besides type for the blind, Greek, etc. Mr. Cumming says a good many persons do not know what they want, but he always finds it best to go along smoothly and charge up in the bill for annoyance and injured feelings. He further says most of his work has been seen only in the specimen books, but the books of the type foundries show large quantities manufactured and sold, while the observing printer will remember to have seen all the styles enumerated above and with excellent effect.

Mr. Cumming is not inclined to claim too much for his productions, but with characteristic modesty says he has simply cut such designs as were furnished him. While this is true to a degree, he is entitled to full credit for a very skillful handling of his work, and the thousand and one little delicate features that give his work the stamp of originality. He has left the impress of his genius in every font of type he has cut.

The fondness for boating, fishing and sports in general followed Mr. Cumming from the West, where he developed and grew up, to his Eastern home at Worcester, Massachusetts. While in Boston, he was a member of the Shawmut Rowing Club, and for a number of years was stroke of the famous Bradford crew. In May, 1894, he was appointed Deputy Fish and Game Commissioner of Massachusetts, a position he has held ever since. It is his proud boast that in fulfilling his duty he has made twenty arrests for violation of the fish and game laws, and only failed in one attempt, when he "got licked."

A COMPLIMENT FOR CHICAGO.

J. Angus MacDonald, the well-known advertising man and former advertising manager for Jordan, Marsh & Co., of Boston, in an interview published in *Profitable Advertising*, has this to say in praise of Chicago skill and talent: "What city does the best general advertising, in your estimation?" "Chicago." "Why?" "There are several reasons. The first is, the writer has a more free, unconventional scope to his pen. He is not limited by tradition as he is in most Eastern cities. Then, again, the presswork and printing of the Chicago papers are beautiful, and the illustrations very artistic."

THE INLAND PRINTER

A TECHNICAL JOURNAL, DEVOTED TO THE ART OF PRINTING.

VOL. XXI — No. 4. CHICAGO, JULY, 1898. TERMS { $2 per year, in advance. Single copies, 20 cents.

PROPER FINGERING OF THE LINOTYPE KEYBOARD.

NO. I.— BY CHAS. H. COCHRANE.

COMPOSING machines have but one real object — the increasing of the speed of the compositor, with consequent reduction in the cost of typesetting. The production of 1,000 ems of composition at the least cost is the final and absolute test of every automatic typesetter, by which it must stand or fall. To assist this reduction of cost it is essential that each operator should be able to get out of the machine he manipulates the greatest possible amount of composition with the least effort. If by studying the linotype mechanism and its keyboard an operator can apply his work more intelligently, and effect even a slight gain in speed, he has increased the earning power of the machine, and a gain in his personal wage may follow.

There are few things in the world of mechanics that will not show possible improvement upon intelligent consideration. Just as it is always possible to improve the best machines we have, so it is always possible for the intelligent workman to secure results above the average by studying his machine and making the most of every trifling detail that offers a point of vantage. In the case of the linotype, which has revolutionized composition, the fastest operators are not those who make the quickest motions, but those who waste the least motion, fingering the keys easily and naturally with an apparently instinctive recognition of the fastest method. The phenomenal speeds attained by a few go to show that there are possibilities in keyboard manipulation that do not belong to the many, but which may be approached if the methods and principles of correct fingering are better understood. It is the object of this sketch to assist the linotype operator in obtaining a complete theoretical knowledge of his keyboard, indicating the proper method of fingering. It is obvious that there must be a best way of fingering, and as numerous ways are in common use, a little deductive reasoning may well be employed in the endeavor to determine absolutely what are the principles involved and what is the best method of fingering the keys, involving the least effort for a given result.

In order to solve a problem of this sort, one must get down to the very base or bottom of existing conditions, to appreciate what is being dealt with, that one may not be misled as to conclusions. So far as the writer knows, no one has ever published the result of attempts to solve the problem of correct fingering by deduction and calculation. If any of the manufacturers of composing machines have figured out the problem satisfactorily, they have kept their knowledge to themselves. There has been much matter printed by various manufacturers of typewriters with the design of assisting operators to correct methods of fingering, but their productions are of little value, because the work is not done scientifically — not worked out as a mechanical engineer works out his problems and proves them before he puts them into practice. One of these pamphlets on the fingering of a typewriter keyboard will serve as an example of all the rest. Its method is to divide the keyboard in the center and give half the keys to each hand. As all of the nine most-used characters are on the right, it follows that this method gives two-thirds of the work to the right hand. The system of fingering designed to be taught by the booklet is therefore wrong at the outset, since it should give a part of the work on the right of the keyboard to the left hand, in order to equalize the work. There is given a list of several hundred words to be memorized according to this wrong fingering. The list is made up on the piano principle of assigning certain keys to certain fingers, and always striking with such assigned fingers. In the case of this keyboard, entirely too much work falls upon the third finger of the right hand, which has to cover eight keys, representing more than a sixth of the work on the entire keyboard. This is about double the quantity that should be allowed, considering the strength of the finger. The result is that the instruction is useless or worse than useless to an operator, as he might hope to strike a better system on the hit-or-miss principle, and could hardly have stumbled on one that was worse for the machine under consideration.

The writer has gone into this matter at some length, because the idea prevails somewhat that the ideal method of fingering the keyboard of a linotype should be the piano principle of assigning certain keys to certain