THE PRACTICE OF PRESSWORK

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The practice of presswork by Craig R. Spicher

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CRAIG R. SPICHER

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The Practice of Presswork

By

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Carnegie Institute of Technology

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PREFACE

THE object of this book is to give the shortest, best and most practical methods of Presswork, with the interest of the Pressman in view, and to burden his mind as little as possible with unnecessary technicalities, and with those details which do not bear directly upon every-day occurance.

Inasmuch as the subject matter is to a large extent made up of hard facts, the task of remembering a string of these confronts the pressman, as soon as he has mastered the very rudiments of this intricate, mechanical process, and aspires to become more proficient.

The pressman must not only be a mechanic, but an artist as well, and rise to the highest places in his calling. It is hoped this book will be of service to all who are interested or engaged in the printing trades, as well as to the pressmen, for whom this is especially written.

The want of such a book has long been felt. The mechanical details and mysterious methods of make-ready can not be readily acquired unless the pressman has had actual experience in many establishments under men who are proficient in their various specialties, due to the specialization of particular kinds of work.

As head of the press department of a laboratory of printing, where no expense is spared to secure results, and with the preparation of sixteen years practise of his trade in representative printing plants, the writer feels that he occupies a position of great practical advantage, in that the working out of new ideas and the perfecting of processes can proceed without the hindrance incidental to such work in actual practice in a productive and a busy pressroom.

So far as he is aware, no treatise on presswork has yet appeared which explains, in clear, understandable language, the relation existing between the printing technical aspects of the craft and the demands of pressroom practice.

This the author attempts to do in the following pages. Particular attention has been given to the important subject of make-ready, the terminology of presswork and the various materials with which the pressman has to deal.

In the preparation of this work, the writer acknowledges his indebtedness to the following gentlemen for much practical advice and assistance, in what would otherwise have proved a very arduous task.

To Clifford B. Connelley, A.M., Sc.D., Dean of the School of Applied Industries, Carnegie Institute of Technology, for encouragement in the preparation of this book.

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INTRODUCTION

GREAT inventions are necessary to keep the world up to the requirements which the ever-growing demands set. Demands always precede inventions.

In no other relation was this more true than in printing. In the middle of the fifteenth century, about 1450, arose a great demand for more and cheaper books.

The monks had been laboriously writing and copying manuscripts, but their work was necessarily slow, and the finished product was available to only a privileged few. It was this demand for more books that led to the invention of typography.

There are different theories as to the first inventor of printing. It is generally considered that John Gutenberg (Gansfleisch) was the pioneer.

The impression from the single carved block had long been used, and it was only a step to the idea of many characters cut separately so they could be put together in any combinations which the language required.

Gutenberg used a simple bed and platen hand press which was made of wood. Two upright timbers were stayed together at the top and bottom with cross-timbers. A third cross-timber supported the bed on which the type was placed Through a fourth timber a wooden screw worked. The lower end of the screw was connected with the center of a projecting lever; the screw was used to push the platen down to impression, and to raise it after impression.

After first inking the form with a ball of leather stuffed with wool, the pressman (printer) spread the sheet of paper, previously dampened, over it, laid a piece of blanket upon the paper to make the impression both easier on the press and more legible, and finally grasped the lever and turned the screw until the platen squeezed the paper down on the form. By pushing the lever in the opposite direction the screw slowly raised the platen from the form, when the printed sheet was removed and the form inked again for another impression.

The ordinary hours that a printer worked daily were from thirteen to fourteen. In Lyons a pressman must turn off 5350 impressions a day. In Paris the number was 2650.

There are many kinds of modern presses, but they can be classified under three respective heads; namely, platen, on which the form and paper are both on flat surfaces; cylinder presses, characterized by a flat bed for the form, which reciprocates under a cylinder that carries the packing for pressure in the printing; and rotary presses, which are presses where the paper travels at different angles through the machine, over angle bars; the forms are curved stereotype or electrotyped plates, mounted on cylinders.

It is true that typography makes the message both legible and beautiful, but it is the Printing Press that gives general circulation to the message.

The best pressmen are of the artisan type, part mechanic, part artist, and owing to the exigencies of the modern pressroom they must be men swift to think and act in sphere of work.

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PLATEN PRESSES

THERE are two different kinds of presses, by which it is possible to obtain impressions from type-forms, namely, cylinder presses and the platen presses. The latter style only is the one in which we are interested at present.

It is the writer's belief that one should thoroughly master the platen press before he aspires to become a cylinder pressman. It is the logical stepping-stone to the more complex cylinder press. I believe it assists one greatly to have this experience.

Definition. A platen press is one in which the form is locked up against a bed and the impression is delivered against a smooth, level plate called a platen.

There are two distinct types, one known as the "clamshell" type, in which the platen rocks up against the form; the other, known as the sliding platen. or universal type, is one in which the platen is first placed parallel with the bed and then drawn up against it. Examples of the rocker type are the Chandler & Price, and the Golding press; while the John Thompson Colt's Armory press is representative of the other type.

Placing Press. In placing a platen press, it is best located where the light can strike it from the left side. It should be level crosswise, in direction of the shafts; but it may be inclined either forward or back, as it will work under these conditions without detriment. The press should be placed upon and firmly bolted to a solid foundation.

Bed. The bed of a printing press is the part on or