

Development of the Printing Art; Gutenberg's Original Attempt.

From the Simple Designs of the Early Days to the Complicated Mechanical Contrivances of the Present Age — A Sharp Contrast.

The history of printing has been closely allied with the advances in civilization and the invention of the printing press marked the beginning of the fight for freedom of the common people. From that time to the present, the improvements in society have kept pace with the improvements of the printing press. Gutenberg, in 1450 printed his first book from movable type. His apparatus was of the rudest type and each impression had to be handled carefully in order to keep the ink from blotting. As soon as an impression was made, the sheets had to be hung up to dry and the process of making even small pages of printed matter was attended by much greater labor than today turns out a full sized newspaper.

GUTENBERG'S IDEA.



THE EARLIEST FORM OF THE PRINTING PRESS.

worked with a screw by means of a movable bar, contained in use for about one hundred and fifty years, or until the early part of the seventeenth century without material change. The forms of type were placed on wood or stone beds, and moved in and out by hand and each impression was made by screwing the platen down with a bar.

William Jensen Blaw, a printer of Amsterdam, introduced improvements to this press about 1620. He passed the spindle of the screw through a square wooden block, which was set in a frame, and from this block the platen was suspended by wires or cords. The block or box prevented any twist in the platen and secured a more equal motion to the screw. He also placed on the press a device for rolling in and out the bed and added a new form of iron hand lever for turning the screw. Blaw's press was introduced into England and was extensively used on the continent.

Earl Stanhope was the next person to make improvements to the printing press. He had the frame cast in one piece of iron in order to have greater power for impressions. He added a series of levers to the screw to give the workmen better advantage and less labor.

Other printers added the improved levers to their wooden presses but only succeeded in spoiling their apparatus.

George Clymer, of Philadelphia was the next to add improvements. He made a press without the screw feature at all, but devised a series of levers to raise and lower the frame. This was in 1816. Soon after this there were iron hand presses of various designs built in England. Peter Smith, an American added improvements and this machine was manufactured in large numbers and is used at present for taking fine proofs.

The cylinder press has now taken the place of these for all commercial printing.

Daniel Treadwell has been given credit for having the first power press. The press was operated by a steam engine and was first used in Boston in 1822. With the adoption of printing from a flat form by means of a roller passing over it commenced a new era in the history of the printing press.

The credit for producing a press with type on a cylindrical form has been given to Frederick Koenig, who visited England in 1806 and with the assistance of Thomas Barby, a printer of London, devised a machine and printed several books. Koenig introduced the use of two rollers and printed on both sides of the paper at once.

Other improvements were made in England about this time by different printers and in 1832, Berono Newton was sent from New York by Robert Hoe, who was a press manufacturer, to investigate the different machines in use there.

The result of this visit was the production of single small cylinder presses. Machines of this type are still in use, with several new attachments to facilitate the handling of the printed pages.

The single cylinder press was used for book work chiefly, and is still employed in some shops for that work, but the most popular machine for books at present is the stop cylinder and is used for the finest kinds of work. This machine was devised and patented by a Frenchman, named Dutacq, in 1852.

The newspaper press has a history practically all its own. The single

small cylinder and the double small cylinder were first used for printing newspapers and the output often reached 2000 impressions an hour. The growing demand for papers made it necessary for a faster machine to be introduced.

In 1845, Richard M. Hoe constructed a press upon which the type was made fast to a roller and the paper was passed over it. The first of these was placed in the Ledger office, Philadelphia. In this press each sheet had to be fed by hand into the machine. The inking was accomplished by rollers placed between each of the impression cylinders. The first machine had four rollers and four persons were necessary to feed it. It would turn out about 8000 sheets an hour.

A revolution in newspaper work took place with the introduction of these presses. Papers, which up to this time were limited in their circulation by the production of the presses increased their output and more papers were started. La Patrie, in Paris was the first European paper to adopt the new machine and it was soon followed by the other papers of Europe.

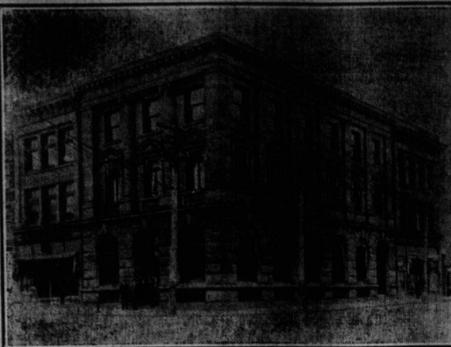
After it was seen that the cylindrical form for type was feasible, the improvements for presses came in quick succession until today the output of a single machine such as that which the St. John Standard is printed is 20,000 eight page papers an hour, with two outside pages printed in colors.

Presses in some of the big newspaper offices has a capacity of 50,000 sixteen page papers per hour, with two colors on the outside.

Were Gutenberg called upon today to print a bible, he would find practically the same style of type as he used that made by him in 1450, but he would be bewildered in the maze of printing machinery contained in any well equipped printing office.

The simple wooden form of press,

THE ROYAL BANK OF CANADA.



ONE OF AMHERST'S FINEST BUILDINGS.

BANKING SITUATION HAS BEEN RATHER TRYING—MONEY TIGHT

"Tight money may have been the cause of temporary embarrassment for a few people but," said a prominent banker in the city when asked how business conditions had been during the year, "general legitimate business has been good and no big failures have been recorded in the province during the last twelve months."

This was the opinion generally expressed by those connected with the banking institutions. No large losses have been recorded against any of the banks and the general tend of collections has been good. It is understood that many

with the sale of the farm produce many of those accounts were wiped out altogether. All farm produce was higher in price and the farmers were enabled to meet their obligations and the retailers were also given a chance to settle their accounts and secure new goods.

The action of the banks in withholding from some merchants the privilege of discounting their paper altogether or making reductions in the lines previously allowed, seemed good business in some ways, but it hit the wholesalers quite hard.

The embarrassment caused by tight money is now about over, and with business here on a sounder basis than ever before, there should be a greater and better year ahead for wholesale and retail dry goods men.

buildings for which plans were prepared were not completed but the building operations in St. John, at least, have been carried on to a greater extent than ever before.

Two of the large banks have moved into better quarters and two new bank buildings have been constructed. While the tendency in banking circles has been to move with caution in the case of loans merchants, whose business was on a good footing had very little trouble in securing enough money for their needs. Real estate business has been slower than other but lumbermen have been hard but lumbermen at times have been hard pressed on account of the millmen's strike and other conditions.

The volume of new business in the banks, was said not to have been great as usual, still the regular customers were helped whenever necessary and business was conducted only on safe lines. Taking all things into consideration, the bankers of the city seemed well pleased with the business of the year and were enthusiastic about the prospects for the coming year and its new conditions.

"Nothing can keep St. John back," said one bank manager, "the city is bound to enlarge and the volume of business here each year will be greatly increased. This is the natural tendency and nothing can stop it. St. John needs more steamship and dock facilities to handle the business that is coming here."

KING COLE TEA

The Christmas number of The Standard seems an opportune place to remark on the splendid growth in the sales of "King Cole" Tea during recent months. The repeat orders of late have been very pleasing to us, for they prove that we were not mistaken in our claim that all good judges of tea would quickly detect and appreciate "King Cole's" unusually rich flavor. . . .

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