

BOOKS and NOTIONS

— ORGAN OF THE —

THE BOOK, STATIONERY & FANCY GOODS TRADES OF CANADA

VOLUME I }
No. 3 }

TORONTO, OCTOBER, 1884.

{ ANNUAL SUBSCRIPTION
FIFTY CENTS.

THE INVENTION OF LITHOGRAPHY.

It is somewhat of an anomaly that, although it has been taught and sung in all ages that nothing is produced in this world except by hard labour, some of the greatest and most useful inventions and discoveries have been the results of mere accidents or chance. The stories of how Sir Isaac Newton conceived his first idea of the law of gravitation by seeing an apple fall in his garden at Woolsthorpe, how Franklin identified electricity while flying his kite, and of the accidental origin of many inventions, have become popular traditions. Of the chance circumstances attending most inventions, none were more purely accidental than those incident to the discovery of the elegant art of lithography, and but few perhaps are aware that its first conception was due to the impatience of a German washerwoman.

In the year 1793, there resided in the city of Munich with his mother, who was the widow of an actor, Alois Senefelder, a young man aged twenty-two, and of an inventive turn of mind. Young Senefelder had been a law student, but upon his father's death his poverty compelled him to give up this pursuit, and thinking that he had inherited some of his father's talents, who was an excellent actor, he went upon the stage. He there, however, met with such discouragement that he soon abandoned the theatrical profession and took to writing plays. Several of his productions met with so much success that he determined to print them, and with this determination in view, he acquainted himself with every detail of the printer's art. Printing in those days was a very expensive matter, and young Senefelder was soon cramped for means with which to meet his printer's bills. While in this strait he began to look about him for a means of cheapening the cost of his printing, and with this end in view, began experimenting with sealing wax, wood, and other like substances.

As he could not obtain a good impression from wax or wood he endeavoured, by the use of aqua fortis, to engrave upon copper plates. Before applying this incisive liquid, however, he was compelled to cover his copper plate with varnish and write upon it backwards. As he often made mistakes in this process and as one error might spoil his laboriously written page, he prepared a mixture of wax,

soap, lampblack and water, with which he obviated this difficulty by covering his mistakes with this mixture and writing over them the corrections. After a great deal of labour he succeeded in getting a fair impression from his copper plate, but as these plates were beyond the reach of his slender purse he soon had to abandon them and seek some less expensive material with which to continue his experiments. He found, near Munich, a species of limestone which, though soft at first became hard upon exposure to the air, and which is now used by lithographers throughout the world. He carried a slab of this stone to his home and cut some letters upon its surface with such poor success that he abandoned the scheme and sat down to wait until his means should enable him to renew his experiments with the copper plates. In the meantime he occupied himself with covering the limestone slab with his engravers' varnish, and practising writing backward upon the surface thus prepared. One morning when this stone lay before him fresh and clean, ready to receive the varnish, the washerwoman called at the Senefelder home for the weekly wash. As the washing list was not ready, and the widow was busily engaged about her household duties, she asked her son Alois to take it. The young man searched the house in vain for a pen and paper upon which to write. Every scrap of paper he could lay his hands on he had utilized in taking the proofs of his experiments. In the meantime the washerwoman was growing very impatient, saying that she had a sick baby at home and declaring that she would go the next minute without the clothes. Goaded to desperation by the importunity of the washerwoman the young man, in his extremity, seized a lump of this oily material which he had made from the lamp-black, soap, wax and water, and with it dashed upon the smooth stone a list of the soiled garments.

After the washerwoman's departure, when he came to erase the list from the stone it occurred to him that that writing might resist aqua fortis, and in order to determine if this was so he poured a weak dilution of the acid over the stone. After the stone had remained wet for some five minutes, he imagined that the acid had slightly eaten the stone away leaving the letters standing out in slight relief. He then undertook to take a proof of his washing list, and met with indifferent success; still he continued ex-