

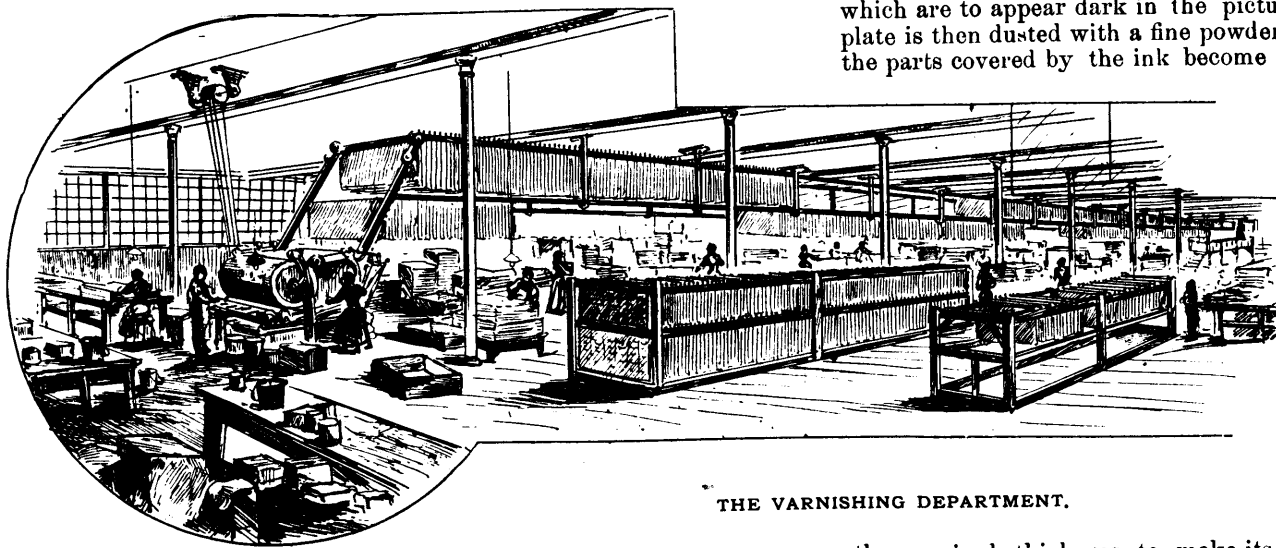
sheet gets back to the hands of the two girls who stand ready to take them down, it is perfectly dry and ready to go to the cutting machine and the shipper. For show cards, or "hangers," there is a trimming machine, by which each card is fastened within the tin top by which it is to be suspended.

To revert for a moment to the stones, when the printing is done, if there is no probability of a repeat order from the same design, they are sent to the polishing department, where, with a combination of sand, pumice stone and "elbow grease," they are once more made ready for the engraver, and for the impress of a fresh design.

With regard to the steam presses, to which reference has also been made, the reader will note in one of the illustrations that there are six of these. Each has a capacity of 10,000 impressions per day. They are of the latest improved pattern, and were manufactured by the Campbell Printing Press Co. of New York, who have established the reputation of making the best lithographic presses in the world. It has been stated that there must be an impression made by the press for each colour in a design. To illustrate this, it may be further stated, as an example, that 30,000 completed copies of one of the supplements accompanying this number, being printed from fourteen stones, would require 420,000 single impressions. From this the reader will gain some idea of the labour necessary to reproduce this class of work.

THE ARTISTS' DEPARTMENT.

The artists' department is a very important one, and there are here employed a staff of thirty-one persons. Of the four branches, we have already spoken of the designers, whose duty it is to prepare suitable designs for the different classes of lithographic work that may be required. The second branch includes the engravers, whose duty it is to engrave on stone, from the designs given them, all classes of commercial work, such as business cards, letter heads, bill heads, drafts, bonds, coupons, checks and maps. The third is the pen department, where lithographic work—such as birds'-eye views, labels and posters—is put upon the stone



THE VARNISHING DEPARTMENT.

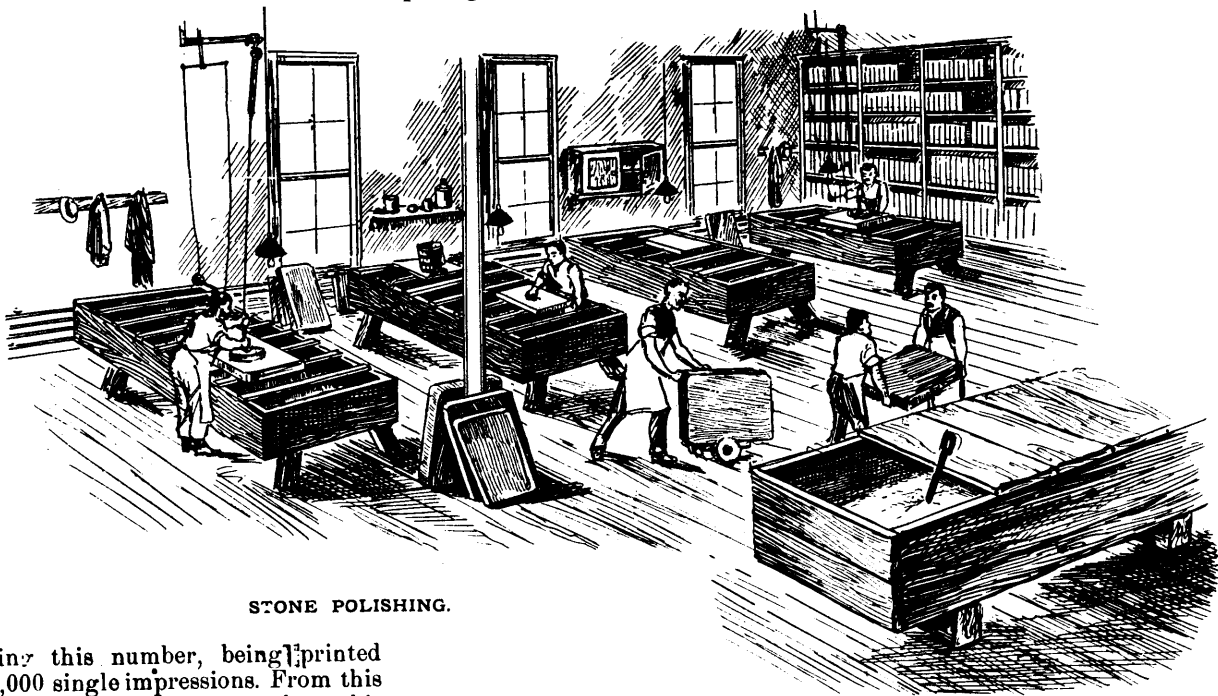
with pen and ink. The fourth is the chromo-lithographic department, where expert artists reproduce oil paintings or water colours, as the case may be, from the works of the best painters, such as, for example, the supplement "A Type of Canadian Beauty."

In addition to these is the artist staff of the *Dominion Illustrated*, whose duty it is to make sketches as illustrations for this journal, either in connection with the stories, or as ornamental drawings, comic sketches or whatever may be required in that line. Sometimes wash drawings are made, sometimes pen and ink sketches. From the former what are called half-tone engravings are made, from the latter what are termed line cuts.

All the artists in the establishment are talented and skilful, and among them are found natives of Canada, England, Scotland, Germany and other countries. As it is the constant aim of the publishers to produce the very highest class of work, they are naturally guided by this desire in the selection of those by whom the work is to be done. A visit to the artists' department, when the different branches are in full operation, is a source of valuable instruction to the novice, as well as of interest and pleasure.

PHOTOGRAVURE ENGRAVING.

Photogravure work may be best described in connection with the *Dominion Illustrated*, all the illustrations which appear in the weekly issues of this journal, as well as those which embellish this number, being photogravure engravings. Let us assume that the editor of this journal

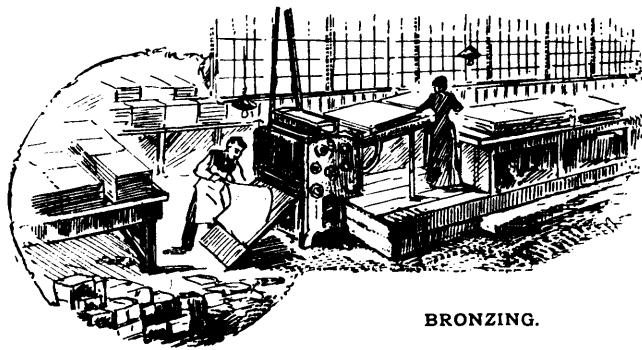


STONE POLISHING.

desires to reproduce a view of a building or a bit of landscape, or a portrait or group of persons, such as appear in each weekly issue. An ordinary photograph is first secured, and these are constantly reaching the office from photographers or other persons in all parts of the country. This photograph is handed over to one of the photographers of the establishment who re-photographs it, producing a negative on glass. It then passes to the zinc etcher, who first fixes the impression in a kind of film produced by chemical action, which film is then soaked off and placed reversed upon another glass. The next step is to take a plate of highly polished zinc and cover it with a solution which is sensitive to the action of light. The glass is then laid upon this, with the film pressed against the zinc, and on exposure to the action of light the negative is re-produced upon the zinc. But though present it is not yet visible. The zinc is covered with a coating of ink, carefully rolled on, and is then developed in water, with the result that the photograph is exactly re-produced, those portions which are to appear dark in the picture being covered with ink. The plate is then dusted with a fine powder and heated, with the result that the parts covered by the ink become impervious to the action of acid.

The next step is to immerse the plate in an acid bath, the acid eating away those portions of the plate not covered with ink and powder and bringing the latter into relief, in the same way that the artist on stone brings into relief the design traced with his crayon. It may be necessary, however, to repeat the dusting and acid bath process several times—according to the required depth of the engraving. When the process is finished the artist does a little skilful re-touching here and there, to heighten the effect, and the plate is then ready to be mounted on a wooden block of

the required thickness to make its surface level with the type when placed on the steam press to be printed. When mounted it goes to the composing room, where the printers place the type around it and it is ready for the press. This process that we have briefly described is called half-tone engraving, and is used in the reproduction of photographs



BRONZING.