

papers and box, give rise to emanations which sooner or later find their way through the purer inner wrappings and attack the plates.

Another developer, for the suggestion of which we are also indebted to MM. Lumière and Seyewetz, of Lyons, is the following, which is very valuable for copying of line subjects, such as black and white drawings, engravings, etc. For ordinary landscape work it is almost too clean in its action, giving negatives so full of contrast that one cannot obtain

circumstances of ordinary contact. By the use of his combination solution for fixing and toning, and which, in addition, completes the photograph with greater effect, a considerable degree of economy is assured, and what is of immense importance in general photographic manipulation consists in the fact that the employment of the dangerously poisonous sulphocyanide of ammonium becomes unnecessary by the application of his combination solution. The great active principle of the solution—as composed of appropriate proportions, varying for

and then allowing it to cool, the above-named ingredients are incorporated with the fluid thus treated in requisite proportions. The mixture is now agitated, and, after allowing it to subside or clear, the insoluble sediment is filtered off, and the solution is now complete for its intended functions. The prints treated with it are absolutely permanent, whereas those treated with other existing solutions will fade in probably less than two years. Another of its great properties is that the whole of the solution, once prepared, can be entirely used up without adding



Scene Near Toronto.

good prints from them. The chemical action that goes on here is practically the same as with acetone :

Hydroquinone.....	1.5 g.
Sodium sulphite.....	1.5 g.
Formaldehyde (commercial 40 per cent. sol.).....	2 C.c.
Distilled water.....	100 C.c.

A NOVEL TONING AND FIXING PROCESS is due to A. E. Wade, who claims that it both improves the appearance or finish of photographic prints and their resisting capacity to time, in being exposed to vitiating atmospheric conditions in storage, etc., and under various other

specific purposes, of chloride of gold, nitrate of lead, nitrate of potash, hyposulphite of soda, flowers of sulphur, and quicklime respectively—is secured by the employment of ordinary water treated by the following special process, viz, the water while in a boiling condition is saturated, or acted upon till saturated, with smoke obtained by the burning of ordinary bituminous coal, or the smoke may be obtained from anthracite or other carbonaceous fuel. After passing the smoke through the boiling water until it becomes thoroughly saturated with it,

to its strength, and at the same time the solution thus prepared will remain fit for use at any time during a number of years. Finally, one of its valuable qualities consists in the fact that no previous washing of the prints is required in using it, and besides, it absorbs silver from the paper, which, where previous washing is necessary, would produce a waste, whereas in this process it will help to enrich the solution and to considerably improve the tone of the picture treated with it. — *British Journal of Photography*.