

Spontaneous Decomposition of Chloride of Lime, or Bleaching Powder.

Dr. Hoffman gives the following account of an explosion of a bottle of Chloride of Lime in the *Quarterly Journal of the Chemical Society*:—"One morning, I think it was in the summer of 1858, when entering my laboratory, which I had left in perfect order on the previous evening, I was surprised to find the room in the greatest confusion. Broken bottles and fragments of apparatus lay about, several window-panes were smashed, and all the tables and shelves were covered with a dense layer of white dust. The latter was soon found to be chloride of lime, and furnished without difficulty the explanation of this strange appearance.

"At the conclusion of the Great Exhibition of 1851, M. Kuhlmann, of Lillie, had made me a present of a splendid collection of chemical preparations which he had contributed. The beautiful large bottles were for a long time kept as a collection; gradually, however, their contents proved too great a temptation, and in the course of time all the substance had been consumed. Only one large bottle, of about 10 litres capacity, and filled with chloride of lime, had resisted all attacks; the stopper had stuck so fast that nobody could get it out; and after many unsuccessful efforts—no one venturing to indulge in strong measures with the handsome vessel—the bottle had at last found a place on one of the highest shelves of the laboratory, where for years it remained lost in dust and oblivion, until it had forced itself back on our recollection by so an energetic appeal. The explosion had been so violent that the neck of the bottle was projected in the area, where it was found with the stopper still firmly cemented into it.

"I have not been able to learn whether similar cases of the spontaneous decomposition of chloride of lime have been already observed."

Battle's Vermin-Killer

Is found to consist of flour, sugar, strychnia and Prussian blue. Ten grains of the powder furnished upon analysis 23 grains of strychnia, a quantity that represents 23 per cent. of the poison. A frog is sensibly affected by the two thousandth part of a grain of strychnia, a quantity so small as scarcely to be perceptible by the naked eye.

Writing Ink.

I.—M. de Champour and M. F. Malepeyre, in their Manual, say that Ribaucourt's ink is one of the best at present in use. The formula for its preparation, which may interest some of your readers, is as follows:—

Aleppo galls, in coarse powder.....	3 ounces
Logwood chips	4 "
Sulphate of iron	4 "
Powdered gum-arabic.....	3 "
Sulphate of copper.....	1 "
Crystallised sugar	1 "

Boil the galls and logwood together in 12lbs. of water for an hour, or till half the water has been evaporated; strain the decoction through a hair-sieve, and add the other ingredients; stir until the whole, especially the gum, be dissolved; and then leave at rest for 24 hours, when the ink is to be poured off into glass bottles and carefully corked.

II.—Mr. J. Horsley, gives the following receipt:—Triturate in a mortar 36 grains of gallic acid with 3½ ounces of strong decoction of logwood, put it into an 8-ounce bottle, together with 1 ounce of strong ammonia. Next dissolve 1 ounce of sulphate of iron in half-an-ounce

of distilled water by the aid of heat; mix the solutions together by a few minutes' agitation, when a good ink will be formed, perfectly clear, which will keep good any length of time without depositing, thickening, or growing mouldy, which latter quality is a great desideratum, as ink undergoing that change becomes worthless. It will not do to mix with ordinary ink, nor must greasy paper be used for writing on with it.—*Chemical News.*

To Discharge Ink.

All traces of writing ink may be obliterated by washing the paper alternately with a camel hair-brush dipped in a solution of cyanide of potassium and oxalic acid. When the ink is discharged wash the paper with rain water.

Waterproof Glue.

Fine shreds of Indian-rubber, dissolved in warm copal varnish, make a waterproof cement for wood and leather. Take glue, 12 ounces, and water sufficient to dissolve it; then add three ounces of resin, and melt them together, after which add 4 parts of turpentine. This should be done in a water bath or in a carpenter's glue-pot. This also makes a very good waterproof glue.

TO INVENTORS AND PATENTEES IN CANADA

Inventors and Patentees are requested to transmit to the Secretary of the Board short descriptive accounts of their respective inventions, with illustrative wood cuts, for insertion in this Journal. It is essential that the description should be concise and exact. Attention is invited to the continually increasing value which a descriptive public record of all Canadian inventions can scarcely fail to secure: but it must also be borne in mind, that the Editor will exercise his judgment in curtailing descriptions, if too long or not strictly appropriate; and such notices only will be inserted as are likely to be of value to the public.

TO CORRESPONDENTS.

Correspondents sending communications for insertion are particularly requested to write on one side only of half sheets or slips of paper. All communications relating to Industry and Manufactures will receive careful attention and reply, and it is confidently hoped that this department will become one of the most valuable in the Journal.

TO MANUFACTURERS & MECHANICS IN CANADA.

Statistics, hints, facts, and even theories are respectfully solicited. Manufacturers and Mechanics can afford useful coöperation by transmitting descriptive accounts of LOCAL INDUSTRY, and suggestions as to the introduction of new branches, or the improvement and extension of old, in the localities where they reside,

TO PUBLISHERS AND AUTHORS.

Short reviews and notices of books suitable to Mechanics' Institutes will always have a place in the Journal, and the attention of publishers and authors is called to the excellent advertising medium it presents for works suitable to Public Libraries. A copy of a work it is desired should be noticed can be sent to the Secretary of the Board.